PEDROLLO®
the spring of life

# General Catalogue
# 2025

## 60 Hz



**PEDROLLO S.p.A.**
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Share capital € 150,000,000.00

**Year of foundation 1974**

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**Pump Selector – The spring of data**
The Pedrollo pump selector

https://springofdata.pedrollo.com/selector

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# CONTENTS


**PK** 12
**PQ** 18
**PKS** 22

Pump with peripheral impeller

**CKR** 26

Liquid ring self-priming pumps

**PQ-Bs** 28
**PQ81-PPS** 32

Peripheral pumps for industrial use

**PQA** 34

Peripheral pumps for industrial use

**PV** 38

Peripheral pumps for industrial use

**PQ 3000** 42

Peripheral pumps for industrial use

**AL-RED -4** 44
**AL-RED -6**

Stainless steel centrifugal pumps

**CP** 52

Centrifugal pumps

**2CP** 62

Twin impeller centrifugal pumps

**2-4CP - I** 68

Multi-impeller centrifugal pumps

**2-5CR** 72

Multi-impeller centrifugal pumps

**FCR** 78

Multi-impeller centrifugal pumps

**MK** 88

Multi-impeller centrifugal pumps

**HT** 92
**HT-PRO** 102

Multi-impeller centrifugal pumps

**FUTURE JET** 112
**JSW3** 116

JET self-priming pumps

**FUTURE JET-ST** 120

JET self-priming pumps

**SPRINKLER** 124

Self-priming centrifugal pumps

**MAGNIFICA** 128

Self-priming swimming pool pumps

**PLURIJET** 132

Multi-impeller self-priming pumps

**NGA** 144
**NGA-PRO** 148

Centrifugal pumps with open impeller

**HF** Medium flow rates 152
**HF** High flow rates 156

Centrifugal pumps

**F** 160
**F-I** 178
**F4** 180

Standardised centrifugal pumps EN733

**FG** 198

Standardised centrifugal pumps EN733

**WR** 214

Close-coupled centrifugal pumps

**3SR** 218

3" submersible pumps

**4-BLOCK** 224

4" Close-coupled electric submersible pumps

**4SR** 230

4" and 6" submersible pumps

**DAVIS** 244

4" peripheral submersible pump

**FLUID SOLAR** 246

4" Solar submersible pumps

**6SR** 250
**6ST** 258

6" submersible pumps

**4HR** 262
**6HR** 266

4" and 6" submersible pumps

**4PD** 270
**6PD** 272

4" and 6" submersible motors

**TOP MULTI** 274

Multi-impeller submersible pumps

**UP** 290
**NK** 294

Multi-impeller submersible pumps

**TOP** 298

Submersible drainage pumps

**TEX** 310



VORTEX submersible pumps

**TOP MULTI-AD** 314



Submersible pump for AdBlue®

**PLUG & DRAIN** 316



Anti-flooding kit

**RX** 318
**RX-VORTEX** 324



Submersible drainage pumps

**VX-ST** 330
**BC-ST** 334



Stainless steel submersible pumps

**VX-MF** 340
**BC-MF** 344



Micro-cast stainless steel submersible pumps

**D** 350



Submersible pumps for drainage

**ZXm2** 354
**ZXm2-GM** 356



Submersible pump

**ZXm1** 358



Submersible pumps

**FAMILY** 360



Submersible pump

**VX** 362
**BC** 366



Submersible pumps

**VXC** 370
**MC** 374



Submersible pumps

**DC** 376



Submersible pumps

**TRITUS-TX** 380



Submersible pumps with grinder

**TRITUS-INOX** 382



Submersible pumps with grinder

**TRITUS** 386



Submersible pumps with grinder

**VXC** 398
**MC** 402



Submersible pumps

**VXC-F** 406
**MC-F** 410



Flanged submersible pumps

**VX40-50-65** 416
**BC35** 420



Submersible pumps

**VX4** 426
**BC4** 430



Submersible pumps - 4 POLES

**VXC4** Medium flow rates 436
**MC4** Medium capacities 440
**VXC4** High flow rates 446
**MC4** High flow rates 450



Submersible pumps - 4 POLES

**SAR** 456



Accumulation and lifting stations

**EASYPUMP** 464



Pumps with pressure regulator

**HYDROFRESH** 465



Automatic pressure units

**DG-BLU** 466



Pressurisation system with inverter

**EASYSMALL** 472
**EASYPRESS** 473



Automatic control devices

**PRESFLO VARIO** 474
**PRESFLO MULTI** 475
**PRESET** 476



Automatic control devices

**EP** 477



Electronic protection device

**STEADYPRES** 478
480



Inverter with water passage

**DG-FIT** 482
**PRO-DG** 484



Wall-mounted inverter

**VSP** 486



Pumps with inverters

**E1 - E2** 502



Multifunctional electronic boards

**CONTROL PANELS** 504



**ACCESSORIES** 507

**BEARINGS** 518

**CAPACITORS** 521

## OUR GROUP

The Pedrollo Group brings together a range of companies specialising in water, energy, and technology. We are committed to meeting the varied needs of our diverse client base, providing tailored solutions across these essential sectors.

| | | | |
|---|---|---|---|
| PEDROLLO the spring of life<br>**Pumps for domestic, agricultural and industrial use** | saci pumps<br>**Swimming pool pumps** | City pumps<br>**Pumps in stainless steel for special purposes** | LINZ ELECTRIC<br>**Alternators and rotating machines** |
| PEDROLLO GROUP<br>**BRANCHES France, Hungary, Romania, United Arab Emirates, Mexico, Colombia, Guatemala, USA, Thailand, Germany, Poland, Linz Electric Inc.** | PANELLI<br>**Pumps and submersible motors** | SUPERIOR PUMP BUILT TO LAST<br>**Residential and commercial pumps** | gread elettronica<br>**Software and electronic equipment** |

**WATER** **ENERGY** **TECNOLOGY**

**WHERE WE ARE**

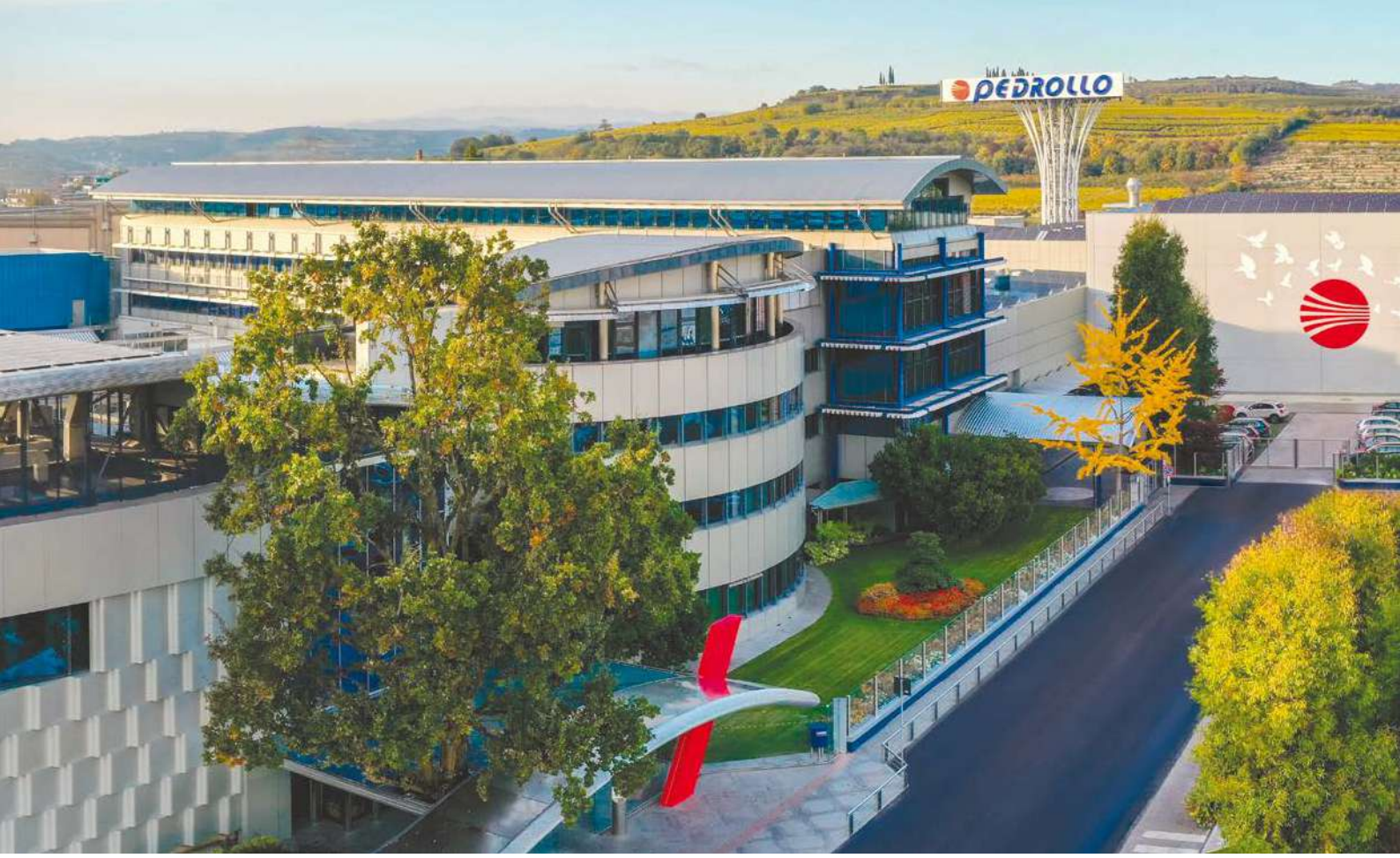
**Italy:** Pedrollo - Linz Electric - Panelli - City Pumps - Gread Elettronica
**Spain:** Saci Pumps
**USA:** Superior Pump

## WHAT WE DO

### Water, energy, technology

The **Pedrollo Group** is a leader in water management, energy, and technology solutions. We are committed to tackling the world›s most pressing daily challenges. We focus on driving economic growth, enhancing human well-being, and safeguarding our environment. Given the urgency of these critical missions, our dedication is more crucial than ever.






## OUR NUMBERS

**3 million pumps sold annually in**
**160** Countries around the world
**12** Branches
**5** Continents

**The Pedrollo Industrial District**
**240,000 m²** of industrial space in San Bonifacio
**130,000 m²** houses all Pedrollo departments, divisions, and offices

## DESIGN, CREATIVITY AND QUALITY
## INNOVATION MADE IN ITALY














## CIRCULAR ECONOMY

Annually, our commitment to sustainability enables us to reclaim and recycle significant materials from our production processes, including over:

**15** tonnes of plastic
**485** tonnes of steel
**58** tonnes of aluminium



## PHOTOVOLTAIC SYSTEM

**Installed power:** over **3.5** MW
**Energy output:** over **3,000,000** kWh/year
**$CO_2$ saved:** over **1,200** tonnes/year




## CORPORATE GREEN AREAS

Our commitment to green spaces at our headquarters is vital for optimising the microclimate in our offices and operational zones.

**So far, we have:**

- Planted **556** trees from **36 species**.
- Incorporated **25,000** bushes and shrubs.
- Developed **40,000 m²** of beautifully landscaped space

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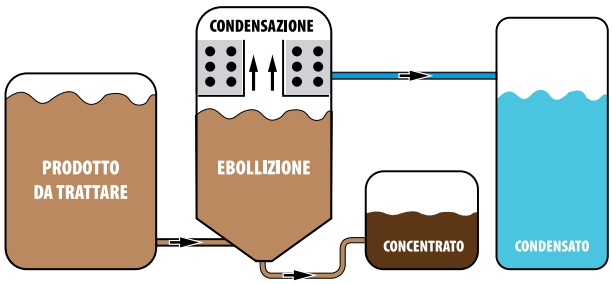



## RAINWATER SYSTEMS

By the first half of 2023, we had saved over **2.5 million litres of rainwater**, repurposing it for industrial and agricultural needs**.**

## WATER MANAGEMENT

We reclaim **90%** of the water used in our production processes through vacuum evaporation, totalling more than **1 million litres annually**.





UNIVERSITY OF PADUA

## POSITIVE IMPACT

The **ETIFOR Report** carried out by the **University of Padua** measured the positive impact of our green areas on the environment and the business ecosystem.

$CO_2$ consumption:
**22 TONNES/YEAR**

Oxygen produced:
**16 TONNES/YEAR**

Reduction of water dispersion:
**48,000 LITRES/YEAR**

Removal of various pollutants:
**CO - $NO_2$- $O_3$ - PM10 - PM2.5 -$SO_2$**



## PEDROLLO FOR CULTURE

Pedrollo has established close partnerships with several universities and training institutions to foster cultural and talent development. Among these partnerships, the "**Arrigo Pedrollo" Conservatory in Vicenza** holds a special place. Named after the Pedrollo family and maintaining a close connection to their cultural origins, it collaborates with over 100 dedicated teachers and annually educates over 700 young musicians worldwide. This partnership exemplifies Pedrollo's unwavering commitment to preserving and nurturing their community's cultural and artistic heritage.



PEDROLLO
the spring of life



## LOOKING FORWARD TO THE FUTURE

A unique corporate environment, fully sustainable and technologically advanced



## EXCELLENCE IN CREATIVITY AND INNOVATION

- **Leonardo da Vinci Award 2022**
  Paris
- **Italian Quality Award 2015**
  Quirinale Palace, Rome



PEDROLLO 4People

## WATER, HEALTH, CULTURE, COMMUNITY

Our dedication to global solidarity and sustainable development has empowered us to construct over 1,300 wells, ensuring clean water for more than 2 million people. This initiative facilitates the availability of fresh drinking water and promotes more hygienic and sanitary living conditions. By improving hygiene and health, we contribute to creating better environments for families to nurture their children, reinforcing our commitment to enhancing the quality of life and fostering thriving communities worldwide.

## STANDARD VERSIONS

**VOLTAGES**

- Single-phase: **220 V - 60 Hz** with built-in circuit breaker (motor protection).
- Three-phase: **220/380 V - 60 Hz** or **220/440 V - 60 Hz**
- Three-phase 5.5 kW: **220/440 V - 60 Hz**.

**CAPACITORS**

- Capacitors in accordance with EN 60252-1/A1

**YIELDS AND ENERGY EFFICIENCY**

- **Three-phase surface pumps are equipped with high-efficiency motors in class IE3 (IEC 60034-30-1)**

## USES

- Install in enclosed and well-ventilated areas or locations that offer adequate protection from adverse weather conditions
- The 10 m power cable is mandatory for outdoor use according to EN 60335-2-41

## EXECUTION AND SAFETY STANDARDS

- **EN 60335-1**
- **IEC 60335-1**
- **CEI 61-150**
- **EN 60034-1**
- **IEC 60034-1**
- **CEI 2-3**

## SPECIAL DESIGN

- Pumps with special mechanical seals, suitable for the different liquids to be conveyed.
- Surface pumps with IP X5 protection.
- Submersible pumps without float.

## CERTIFICATIONS AND MARKS

## WARRANTY

- Our products have a comprehensive 2-year warranty, subject to the terms and conditions outlined in our general agreement

# PKm 60®

## Peripheral impeller pump

Clean water

Domestic use

※ **The PKm 60® a cornerstone since 1974, an integral part of our future.**



※ **50 years of success since 1974**
※ **Produced over 23 million units**
※ **Made from premium materials and components**
※ **Our most economical and versatile product**
※ **Noise level reduced by20 %**
※ **Exclusively produced with renewable energy sources**

### PERFORMANCE RANGE

- Flow rate up to **40 l/min** (2.4 m³/h)
- Head up to **40 m**

### INSTALLATION AND USE

Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.
Reliable, easy to operate, and cost-effective. It is ideal for domestic applications, specifically for gardens and orchards, in combination with small autoclave tanks.

### APPLICATION LIMITS

- Manometric suction head up to **8 m**
- Liquid temperature between **-10 °C** and **+60 °C**
- Ambient temperature up to **+50 °C**
- Maximum working pressure **6 bar**

### PATENTS - TRADE MARKS - MODELS

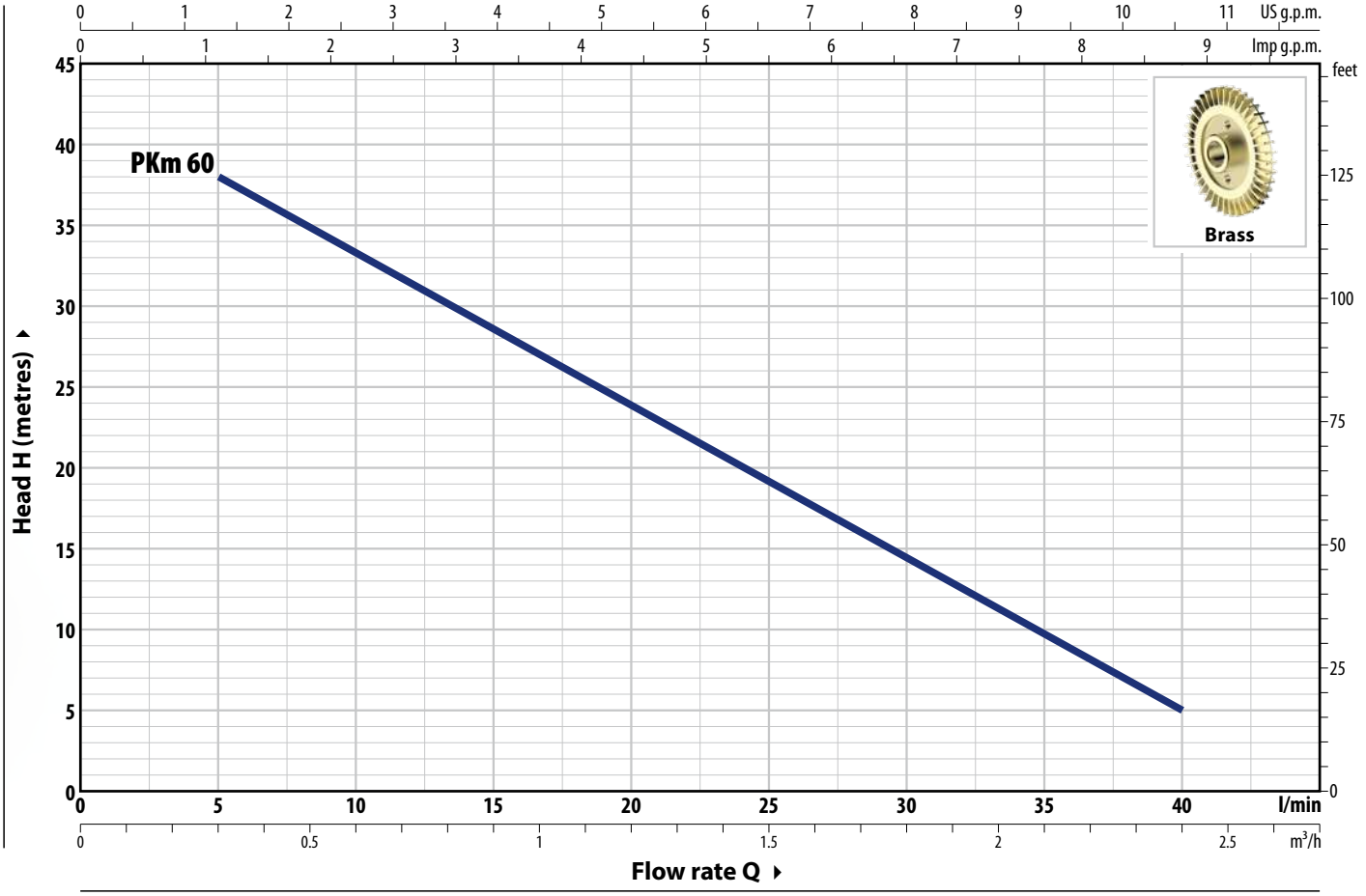
- Motor bracket: Patent No. IT1243605
- Pump body: Patent No. 0000275946
- Registered community model No. 018625876
- International registered model No. DM/220613
- PKm 60® Registered Trade mark No. 009875394

### AVAILABLE UPON REQUEST

※ Different voltage or frequency

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 0.3 | 0.6 | 0.9 | 1.2 | 1.5 | 1.8 | 2.1 | 2.4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | kW | HP | 3~ | | l/min | **0** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** |
| **PKm 60** | **PK 60** | 0.37 | 0.50 | **IE2** | **H** | m | 40 | 38 | 33.5 | 29 | 24 | 19.5 | 15 | 10 | 5 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

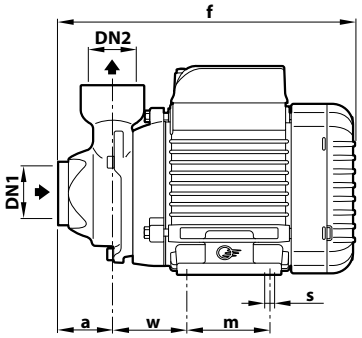
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

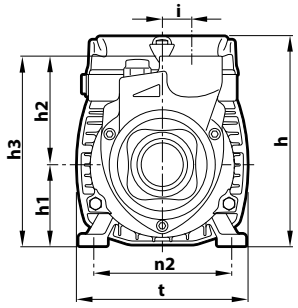
## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-ph. | 220 V | 110 V |
| **PKm 60®** | 2.6 A | 5.5 A |

| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| Three-ph. | 220 V - Δ | 380 V - Y | 220 V - Δ | 440 V - Y |
| **PK 60®** | 2.0 A | 1.15 A | 2.1 A | 1.2 A |

## DIMENSIONS AND WEIGHT




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN1 | DN2 | a | f | h | h1 | h2 | h3 | i | m | t | n2 | w | s | 1~ | 3~ |
| **PKm 60®** | **PK 60®** | **1"** | **1"** | 38 | 208 | 145 | 56 | 75 | 131 | 20 | 55 | 118 | 94-100 | 53 | 7 | 5.0 | 5.0 |

**PALLET CAPACITY**

| GROUPAGE | CONTAINER |
|---|---|
| n. pumps | n. pumps |
| 240 | 330 |

# PK Peripheral impeller pumps

Clean water

Domestic use

※ **New version featuring a 20% reduction in noise levels.**



## PERFORMANCE RANGE

- Flow rate up to **90 l/min** (5.4 m³/h)
- Head up to **100 m**

## INSTALLATION AND USE

Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.
Reliable, easy to operate, and cost-effective. They are ideal for domestic applications, specifically for gardens and orchards, in combination with small autoclave tanks.

## APPLICATION LIMITS

- Manometric suction head up to **8 m**
- Liquid temperature between **-10 °C** and **+60 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure:
  - **6 bar** for PK 65
  - **7 bar** for PK 80
  - **10 bar** for PK 90, PK 100, PK 200, PK 300

## AVAILABLE UPON REQUEST

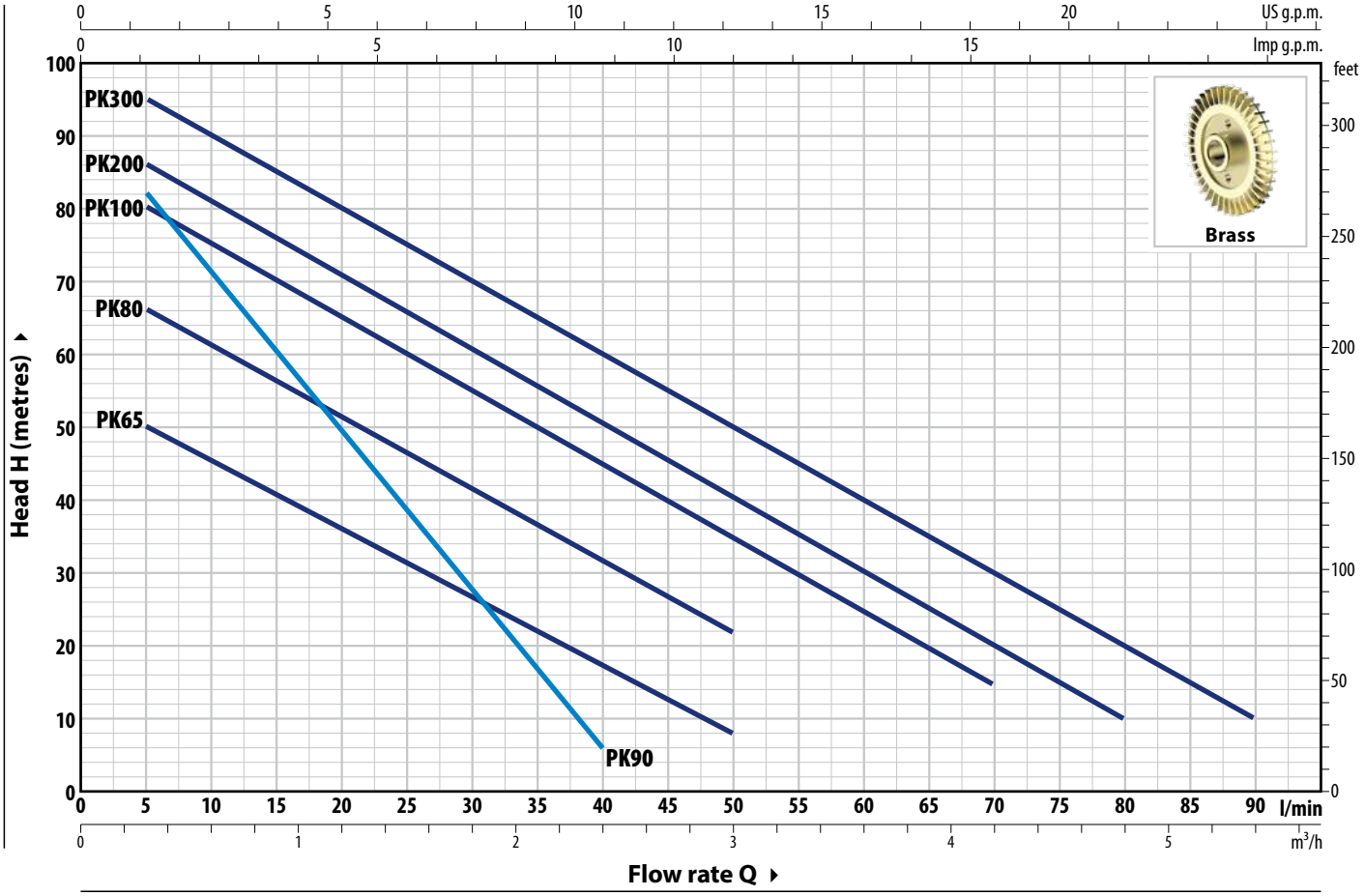
※ Mechanical seal options available
※ Protection rating IPX5 for PK 80-90-100-200-300
※ Different voltage or frequency

## PATENTS - TRADE MARKS - MODELS

- Motor bracket: Patent No. IT1243605
- Pump body: Patent No. 0000275946 (PK65)

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 0.3 | 0.6 | 0.9 | 1.2 | 1.5 | 1.8 | 2.1 | 2.4 | 3.0 | 3.6 | 4.2 | 4.8 | 5.4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | **3~** | | l/min | **0** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **50** | **60** | **70** | **80** | **90** |
| **PKm 65** | **PK 65** | 0.55 | 0.75 | **IE2** | **H** | m | 55 | 50 | 45.5 | 40.5 | 36 | 31 | 27 | 22 | 17 | 8 | | | | |
| **PKm 80** | **PK 80** | 0.75 | 1 | | | | 70 | 66 | 61 | 56 | 51 | 46 | 41 | 36.5 | 31 | 22 | | | | |
| **PKm 90** | **PK 90** | 0.75 | 1 | | | | 90 | 82 | 71 | 60 | 49 | 38 | 27 | 17 | 5 | | | | | |
| **PKm 100** | **PK 100** | 1.1 | 1.5 | **IE3** | | | 85 | 80 | 75 | 70 | 65 | 60 | 55 | 50 | 45 | 35 | 24.5 | 15 | | |
| **PKm 200** | **PK 200** | 1.5 | 2 | | | | 90 | 86 | 81 | 76 | 71 | 65.5 | 60 | 55 | 50 | 40 | 30 | 20 | 10 | |
| **PKm 300** | **PK 300** | 2.2 | 3 | | | | 100 | 95 | 90 | 85 | 80 | 75 | 70 | 65 | 60 | 50 | 40 | 30 | 20 | 10 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

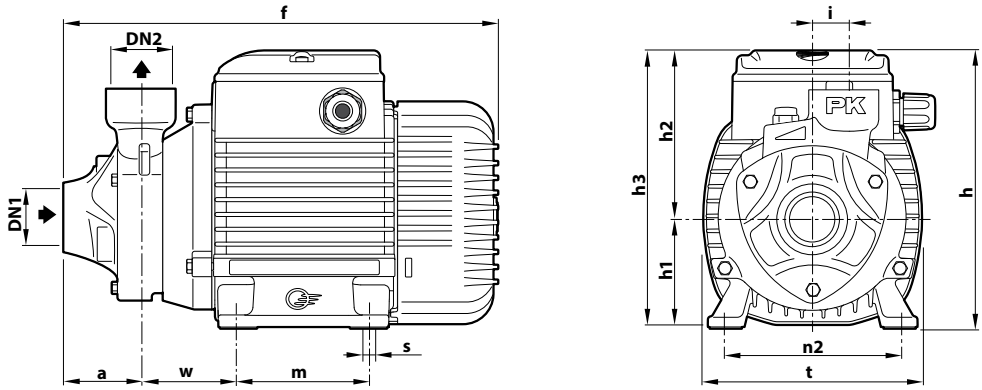
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-ph. | 220 V | 110 V |
| PKm 65 | 5.8 A | 11.5 A |
| PKm 80 | 6.5 A | 13.0 A |
| PKm 90 | 6.0 A | 12.0 A |
| PKm 100 | 9.0 A | – |
| PKm 200 | 12.0 A | – |
| PKm 300 | 12.5 A | – |

| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| Three-ph. | 220 V - Δ | 380 V - Y | 220 V - Δ | 440 V - Y |
| PK 65 | 3.2 A | 1.85 A | 3.5 A | 2.0 A |
| PK 80 | 3.8 A | 2.2 A | 4.3 A | 2.4 A |
| PK 90 | 4.2 A | 2.4 A | 4.2 A | 2.4 A |
| PK 100 | 6.2 A | 3.6 A | 6.2 A | 3.15 A |
| PK 200 | 9.5 A | 5.6 A | 7.0 A | 4.2 A |
| PK 300 | 10.0 A | 5.8 A | 8.2 A | 4.8 A |

## DIMENSIONS AND WEIGHT




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN1 | DN2 | a | f | h | h1 | h2 | h3 | i | m | t | n2 | w | s | 1~ | 3~ |
| PKm 65 | PK 65 | 1" | 1" | 38 | 237 | 153 | 63 | 75 | 138 | 20 | 80 | 120 | 100 | 53 | 7 | 6.9 | 6.3 |
| PKm 80 | PK 80 | | | 55 | 285 | 179(*) | 71 | 85 | 156 | | 90 | 140 | 112 | 62 | | 10.3 | 10.3 |
| PKm 90 | PK 90 | ¾" | ¾" | 46 | 278 | | | 84 | 155 | 19 | | | | | | 10.3 | 10.3 |
| PKm 100 | PK 100 | 1" | 1" | 62 | 356 | 212 | 80 | 88 | 168 | 19 | 100 | 152 | 125 | 95 | 9 | 15.1 | 15.1 |
| PKm 200 | PK 200 | | | | | | | | | | | | | | | 16.3 | 16.3 |
| PKm 300 | PK 300 | | | | 376 | | | | | | | | | | | 18.9 | 18.8 |

(*) **h=199 mm** for single-phase 110 V versions

## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-ph. | Three-ph. | n. pumps | n. pumps |
| PKm 65 | PK 65 | 189 | 243 |
| PKm 80 | PK 80 | 102 | 170 |
| PKm 90 | PK 90 | 102 | 170 |
| PKm 100 | PK 100 | 72 | 96 |
| PKm 200 | PK 200 | 72 | 96 |
| PKm 300 | PK 300 | 72 | 96 |

## CONSTRUCTION FEATURES

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with ISO 228/1 threaded ports |
| 2 | **Motor bracket** | Aluminum with brass cover and front scraping anti-locking function (patented) |
| 3 | **Impeller** | Brass, radial peripheral vane type |

**4 Mechanical seal**

| Pump | Seal | Shaft | Materials |
|---|---|---|---|
| PK 60-65-80 | **AR-12** | Ø 12 mm | Ceramic / Graphite / NBR |
| PK 90 | **ST1-12** | Ø 12 mm | Silicon carbide / Graphite / NBR |
| PK 100-200-300 | **FN-14** | Ø 14 mm | Graphite / Ceramic / NBR |

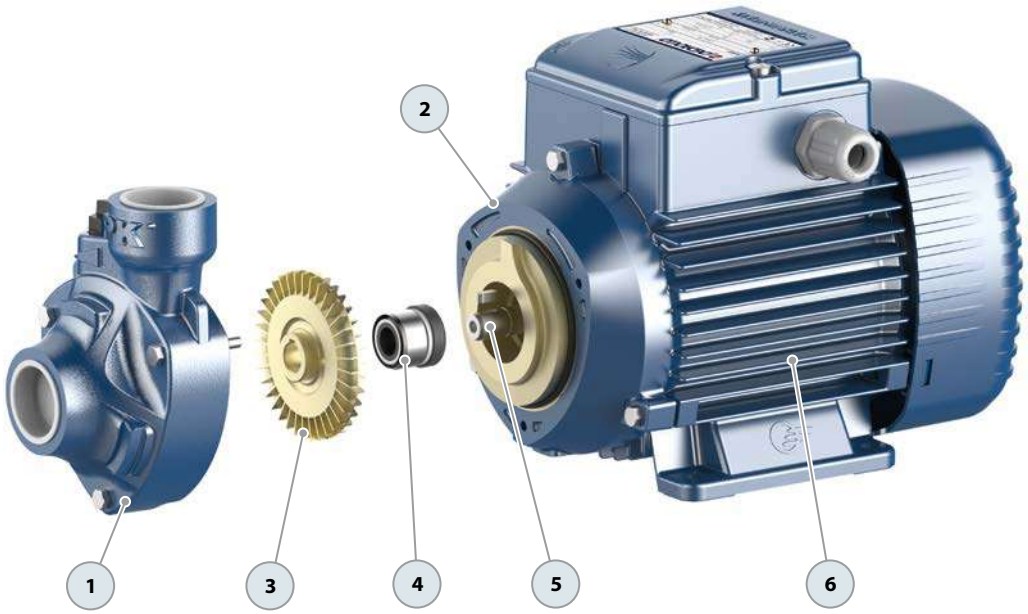
**5 Motor shaft**

Stainless steel **AISI 431**
(EN 10088-3 - 1.4104 for PK 60, PK 65)

**6 Electric motor**

**PKm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection.
**PK**: three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz

- The three-phase pumps are fitted with high performance motors up to P2=0.55 kW in class **IE2** and from P2=0.75 kW in class **IE3** (IEC 60034-30-1)
- Continuous running duty **S1**
- Insulation: class F
- Protection rating: IPX4



Clean water

Domestic use

※ **New version featuring a 20% reduction in noise levels.**



## PERFORMANCE RANGE

- Flow rate up to **90 l/min** (5.4 m³/h)
- Head up to **100 m**

## INSTALLATION AND USE

**Peripheral pump with radial suction.**

Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.

Its compact design and efficient hydraulic performance make it ideal for **domestic applications**.

## APPLICATION LIMITS

- Manometric suction head up to **8 m**
- Liquid temperature between **-10 °C** and **+60 °C**
- Ambient temperature up to **+40 °C** (**+50 °C** for PQ 60 and PQ 61)
- Maximum working pressure:
  - **6 bar** for PQ 60, PQ 61, PQ 65
  - **7 bar** for PQ 80
  - **10 bar** for PQ 90, PQ 100, PQ 200, PQ 300

## AVAILABLE UPON REQUEST

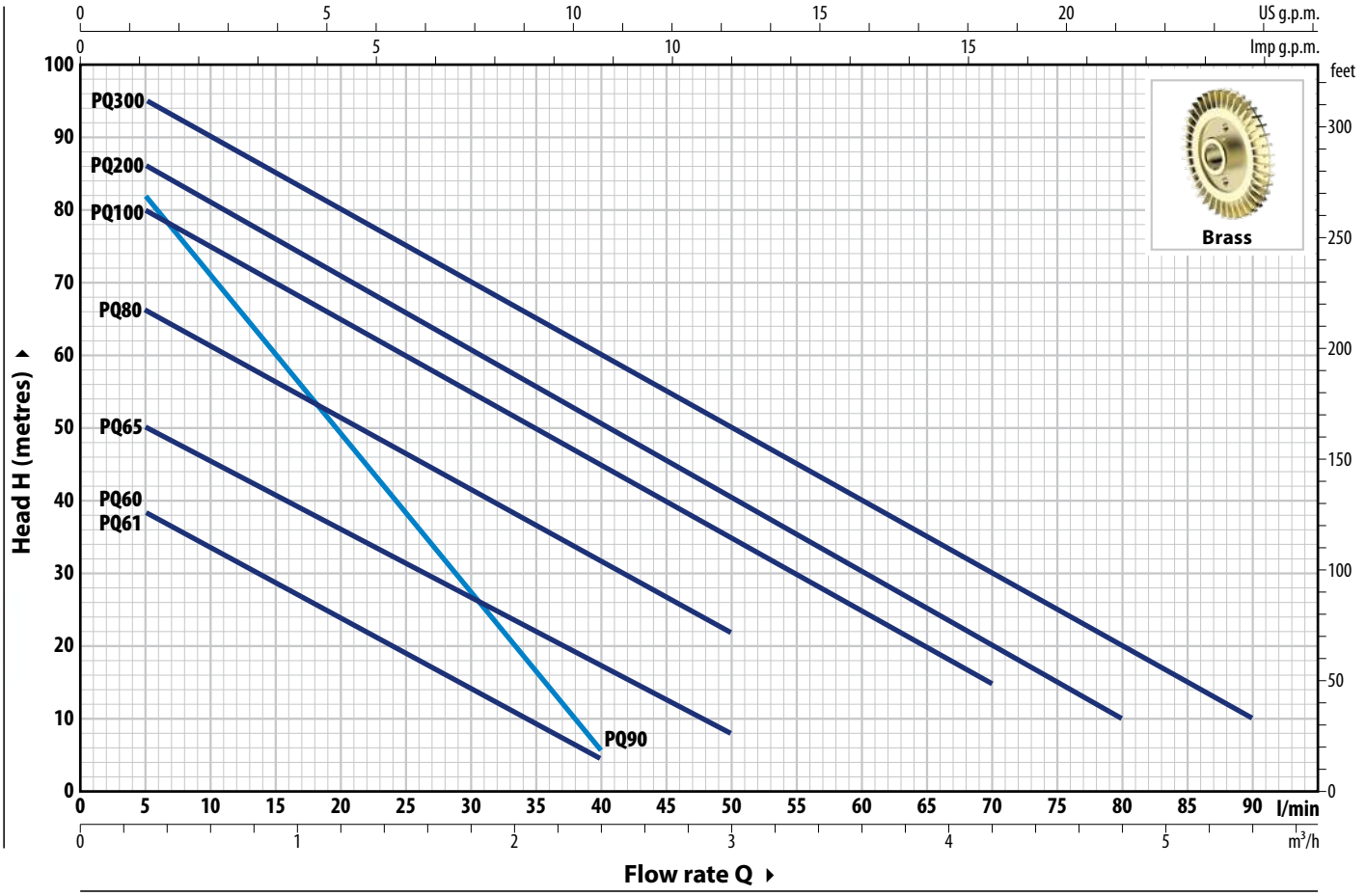
※ Pumps for industrial use
※ Mechanical seal options available
※ Protection rating IPX5 for PQ 80-90-100-200-300
※ Different voltage or frequency

## PATENTS - TRADE MARKS - MODELS

- Motor bracket: Patent No. IT1243605
- Registered community model No. 002146548
- PQm 60® Registered trademark No. 0001520591

## CURVES AND PERFORMANCE DATA – HS=0 m

## 60 Hz




| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 0.3 | 0.6 | 0.9 | 1.2 | 1.5 | 1.8 | 2.1 | 2.4 | 3.0 | 3.6 | 4.2 | 4.8 | 5.4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | **3~** | | l/min | **0** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **50** | **60** | **70** | **80** | **90** |
| **PQm 60** | **PQ 60** | 0.37 | 0.50 | | | | 40 | 38 | 33.5 | 29 | 24 | 19.5 | 15 | 10 | 5 | | | | | |
| **PQm 61** | **PQ 61** | 0.37 | 0.50 | **IE2** | | | 40 | 38 | 33.5 | 29 | 24 | 19.5 | 15 | 10 | 5 | | | | | |
| **PQm 65** | **PQ 65** | 0.55 | 0.75 | | | | 55 | 50 | 45.5 | 40.5 | 36 | 31 | 27 | 22 | 17 | 8 | | | | |
| **PQm 80** | **PQ 80** | 0.75 | 1 | | | | 70 | 66 | 61 | 56 | 51 | 46 | 41 | 36.5 | 31 | 22 | | | | |
| **PQm 90** | **PQ 90** | 0.75 | 1 | | **H** | m | 90 | 82 | 71 | 60 | 49 | 38 | 27 | 17 | 5 | | | | | |
| **PQm 100** | **PQ 100** | 1.1 | 1.5 | **IE3** | | | 85 | 80 | 75 | 70 | 65 | 60 | 55 | 50 | 45 | 35 | 25 | 15 | | |
| **PQm 200** | **PQ 200** | 1.5 | 2 | | | | 90 | 86 | 81 | 76 | 71 | 65.5 | 60 | 55 | 50 | 40 | 30 | 20 | 10 | |
| **PQm 300** | **PQ 300** | 2.2 | 3 | | | | 100 | 95 | 90 | 85 | 80 | 75 | 70 | 65 | 60 | 50 | 40 | 30 | 20 | 10 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

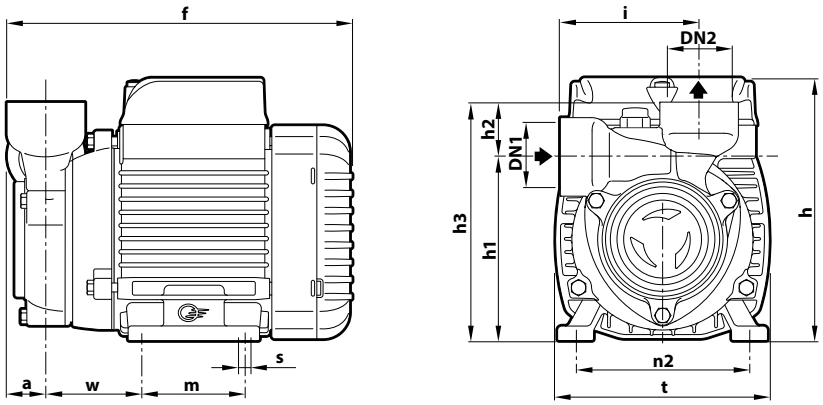
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-ph. | 220 V | 110 V |
| PQm 60 | 2.6 A | 5.6 A |
| PQm 61 | 2.6 A | 5.6 A |
| PQm 65 | 5.8 A | 10.6 A |
| PQm 80 | 6.3 A | 13.0 A |
| PQm 90 | 5.6 A | 11.5 A |
| PQm 100 | 10.2 A | – |
| PQm 200 | 12.0 A | – |
| PQm 300 | 12.5 A | – |

| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| Three-ph. | 220 V - Δ | 380 V - Y | 220 V - Δ | 440 V - Y |
| PQ 60 | 2.0 A | 1.15 A | 2.1 A | 1.2 A |
| PQ 61 | 2.0 A | 1.15 A | 2.1 A | 1.2 A |
| PQ 65 | 3.2 A | 1.85 A | 2.7 A | 1.5 A |
| PQ 80 | 3.8 A | 2.2 A | 3.8 A | 2.2 A |
| PQ 90 | 4.2 A | 2.4 A | 4.2 A | 2.4 A |
| PQ 100 | 8.3 A | 4.8 A | 6.5 A | 3.6 A |
| PQ 200 | 9.2 A | 5.3 A | 7.0 A | 4.2 A |
| PQ 300 | 10.0 A | 5.8 A | 8.2 A | 4.8 A |

## DIMENSIONS AND WEIGHT




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN1 | DN2 | a | f | h | h1 | h2 | h3 | i | m | t | n2 | w | s | 1~ | 3~ |
| PQm 60 | PQ 60 | 1" | 1" | 22 | 192 | 145 | 101 | 30 | 131 | 76 | 55 | 118 | 94-100 | 53 | 7 | 4.9 | 4.9 |
| PQm 61 | PQ 61 | ½" | ½" | | | | | 32.5 | 133.5 | | | | | | | 4.9 | 4.9 |
| PQm 65 | PQ 65 | 1" | 1" | 22 | 220 | 152 | 113 | 30 | 143 | 78 | 80 | 120 | 100 | | | 6.8 | 6.2 |
| PQm 80 | PQ 80 | | | | 256 | 152(*) | 121 | | 151 | 83 | 90 | 142 | 112 | 62.5 | | 9.9 | 9.9 |
| PQm 90 | PQ 90 | ¾" | ¾" | | | | 126 | 27 | 153 | 84 | | | | | | 10.1 | 10.1 |
| PQm 100 | PQ 100 | 1" | 1" | 29 | 322.5 | 211 | 140 | 28 | 168 | 88 | 100 | 164 | 125 | 95 | 9 | 14.3 | 14.3 |
| PQm 200 | PQ 200 | | | | | | | | | | | | | | | 15.4 | 15.4 |
| PQm 300 | PQ 300 | | | | 342.5 | | | | | | | | | | | 18.2 | 18.2 |

(*) **h=199 mm** for single-phase 110 V versions

## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-ph. | Three-ph. | n. pumps | n. pumps |
| PQm 60 | PQ 60 | 240 | 330 |
| PQm 61 | PQ 61 | 240 | 330 |
| PQm 65 | PQ 65 | 210 | 270 |
| PQm 80 | PQ 80 | 102 | 170 |
| PQm 90 | PQ 90 | 102 | 170 |
| PQm 100 | PQ 100 | 72 | 96 |
| PQm 200 | PQ 200 | 72 | 96 |
| PQm 300 | PQ 300 | 72 | 96 |

## CONSTRUCTION FEATURES

**1 Pump body**

Cast iron with ISO 228/1 threaded ports
For PQ 61: cast iron with anti-locking treatment with ISO 228/1 threaded ports

**2 Motor bracket**

Aluminum with brass cover and front scraping anti-locking function (patented)

**3 Impeller**

Brass, radial peripheral vane type

**4 Mechanical seal**

| Pump | Seal | Shaft | Materials |
|---|---|---|---|
| PQ 60-61-65-80 | **AR-12** | Ø 12 mm | Ceramic / Graphite / NBR |
| PQ 90 | **ST1-12** | Ø 12 mm | Silicon carbide / Graphite / NBR |
| PQ 100-200-300 | **FN-14** | Ø 14 mm | Graphite / Ceramic / NBR |

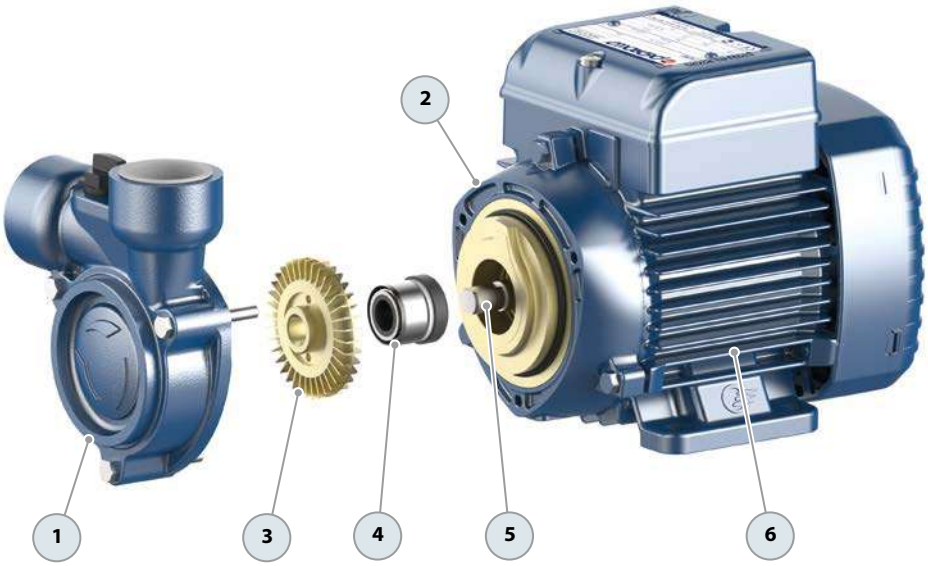
**5 Motor shaft**

Stainless steel **AISI 431** (EN 10088-3 - 1.4104 for PQ 60, PQ 61, PQ 65)

**6 Electric motor**

**PQm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection.
**PQ**: three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz

- The three-phase pumps are fitted with high performance motors up to P2=0.55 kW in class **IE2** and from P2=0.75 kW in class **IE3** (IEC 60034-30-1)
- Continuous running duty **S1**
- Insulation: class F
- Protection rating: IPX4



# PKS Self-priming pumps with peripheral impeller

Clean water

Domestic use

※ **New version featuring an with anti-locking system.**
※ **Noise levels reduced by 20%.**



## PERFORMANCE RANGE

- Flow rate up to **50 l/min** (3.0 m³/h)
- Head up to **70 m**

## INSTALLATION AND USE

Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.

Compact, reliable, and cost-effective, they are ideal for domestic applications when paired with small autoclave tanks, and for irrigating gardens and orchards. They are also effective in drawing water from tanks and pumping liquids that contain air or gas. The pumps come equipped with a non-return check valve for suction.

## APPLICATION LIMITS

- Manometric suction head up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+60 °C**
- Ambient temperature up to **+40 °C** (**+50 °C** for PKS 60)
- Maximum working pressure:
  – **6 bar** for PKS 60, PKS 65
  – **7 bar** for PKS 80

## AVAILABLE UPON REQUEST

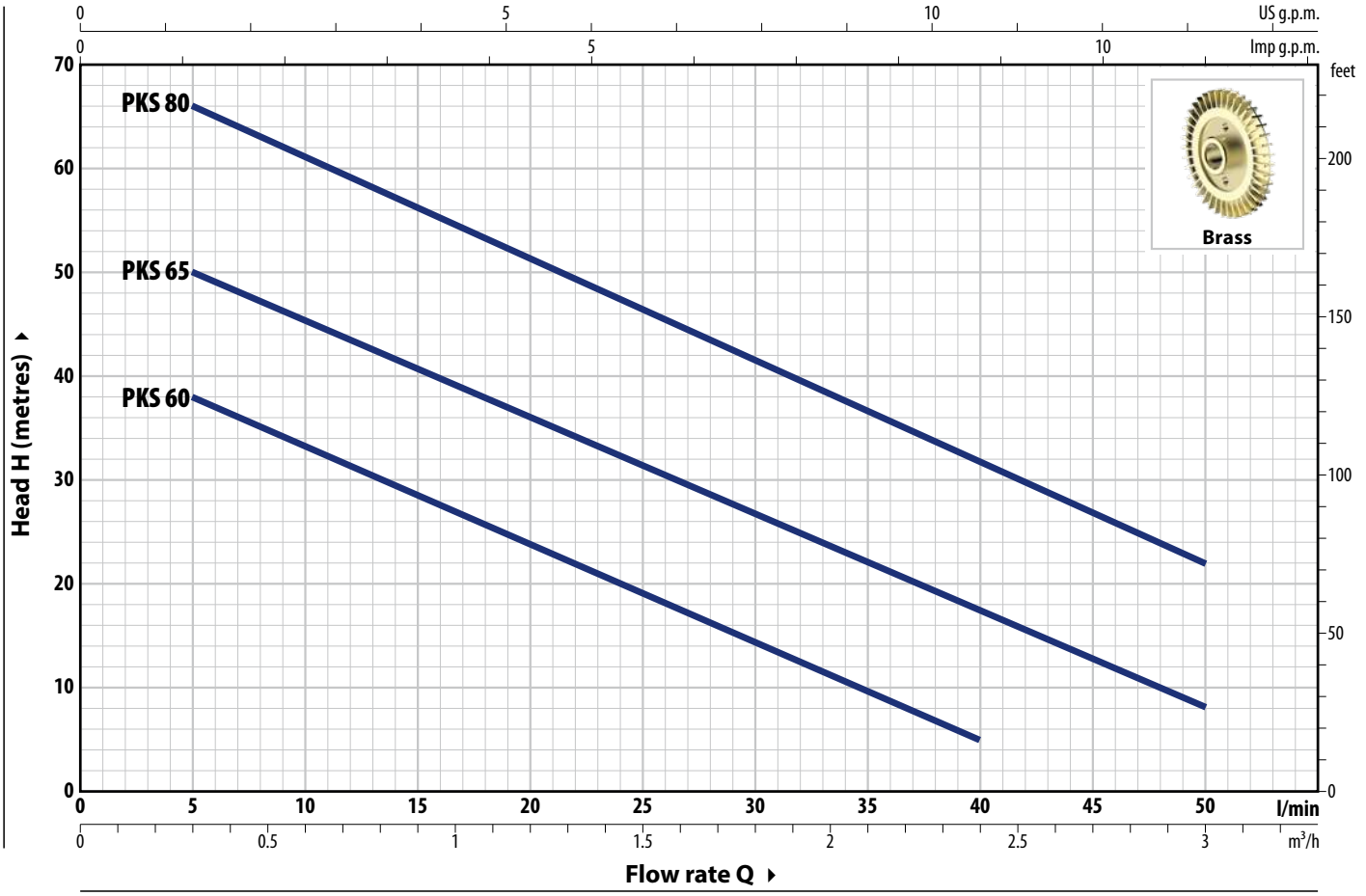
※ Mechanical seal options available
※ Different voltage or frequency

## PATENTS - TRADE MARKS - MODELS

- Motor bracket: Patent No. IT1243605

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**

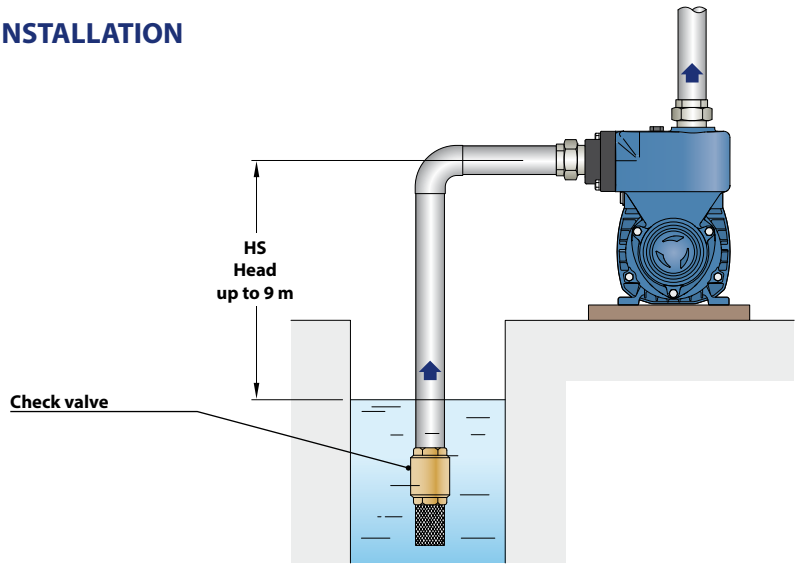



| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 0.3 | 0.6 | 0.9 | 1.2 | 1.5 | 1.8 | 2.1 | 2.4 | 2.7 | 3.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | **3~** | | l/min | **0** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** | **50** |
| **PKSm 60** | **PKS 60** | 0.37 | 0.50 | **IE2** | **H** | m | 40 | 38 | 33.5 | 29 | 24 | 19.5 | 15 | 10 | 5 | | |
| **PKSm 65** | **PKS 65** | 0.55 | 0.75 | | | | 55 | 50 | 45.5 | 40.5 | 36 | 31 | 27 | 22 | 17 | 12.5 | 8 |
| **PKSm 80** | **PKS 80** | 0.75 | 1 | **IE3** | | | 70 | 66 | 61 | 56 | 51 | 46 | 41 | 36.5 | 31 | 27 | 22 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## EXAMPLE OF INSTALLATION



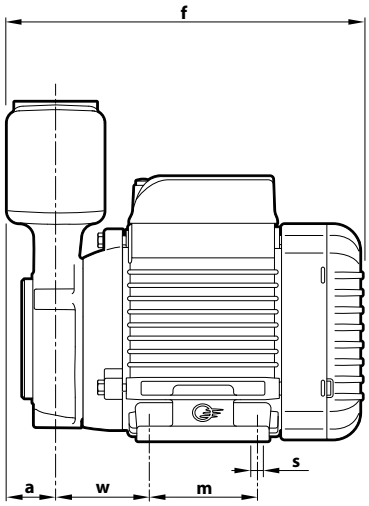
# PKS

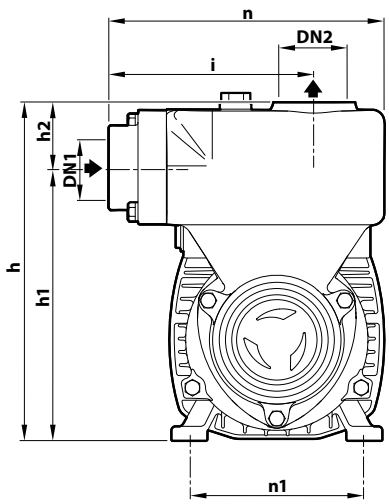
## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-phase | 220 V | 110 V |
| PKSm 60 | 2.6 A | 5.5 A |
| PKSm 65 | 5.8 A | 11.5 A |
| PKSm 80 | 6.5 A | 13.0 A |

| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| Three-ph. | 220 V - Δ | 380 V - Y | 220 V - Δ | 440 V - Y |
| PKS 60 | 2.0 A | 1.15 A | 2.1 A | 1.2 A |
| PKS 65 | 3.2 A | 1.9 A | 3.5 A | 2.0 A |
| PKS 80 | 3.8 A | 2.2 A | 4.3 A | 2.4 A |

## DIMENSIONS AND WEIGHT



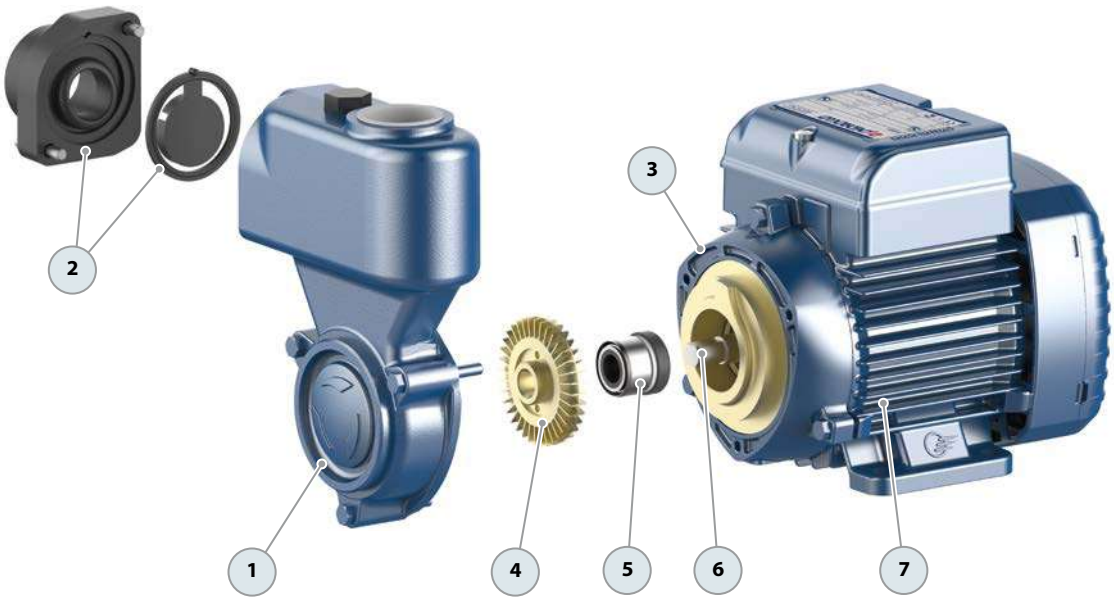

| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN1 | DN2 | a | f | h | h1 | h2 | i | m | n | n1 | w | s | 1~ | 3~ |
| PKSm 60 | PKS 60 | 1" | 1" | 28 | 196 | 183 | 149 | 34 | 110 | 55 | 148 | 93-100 | 53 | 7 | 5.6 | 5.6 |
| PKSm 65 | PKS 65 | | | | 227 | 190 | 156 | | | 80 | | 100 | | | 7.6 | 6.9 |
| PKSm 80 | PKS 80 | | | | 263 | 198 | 164 | | | 90 | 160 | 112 | 62 | | 10.6 | 10.6 |

## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-ph. | Three-ph. | n. pumps | n. pumps |
| PKSm 60 | PKS 60 | 224 | 288 |
| PKSm 65 | PKS 65 | 168 | 216 |
| PKSm 80 | PKS 80 | 96 | 144 |

## CONSTRUCTION FEATURES

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with ISO 228/1 threaded ports |
| 2 | **Check valve** | Built-in check valve in the inlet port |
| 3 | **Motor bracket** | Aluminum with brass cover and front scraping anti-locking function (patented) |
| 4 | **Impeller** | Brass, radial peripheral vane type |
| 5 | **Mechanical seal** | Seal: **AR-12** — Shaft: Ø 12 mm — Materials: Ceramic / Graphite / NBR |
| 6 | **Motor shaft** | Stainless steel **AISI 431** (EN 10088-3 - 1.4104 for PKS 60, PKS 65) |
| 7 | **Electric motor** | **PKSm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection.<br>**PKS**: three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz<br>– The three-phase pumps are fitted with high performance motors up to P2=0.55 kW in class **IE2** and from P2=0.75 kW in class **IE3** (IEC 60034-30-1)<br>– Continuous running duty **S1**<br>– Insulation: class F<br>– Protection rating: IPX4 |



# CKR Self-priming liquid ring electric pumps

Clean water | Domestic use | Industrial use | Agricultural use



※ With double anti-lock front scraping

## PERFORMANCE RANGE

- Flow rate up to **50 l/min** (3 m³/h)
- Head up to **63 m**

## INSTALLATION AND USE

Designed for pumping diesel/naphtha and clean water free from abrasive particles and non-corrosive liquids that do not harm the pump's components.

Their specific operating mechanism makes them an excellent solution when a compact self-priming pump is required or when the flow of the liquid is irregular or mixed with air.

## APPLICATION LIMITS

- Suction head up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure **6 bar**

## AVAILABLE UPON REQUEST

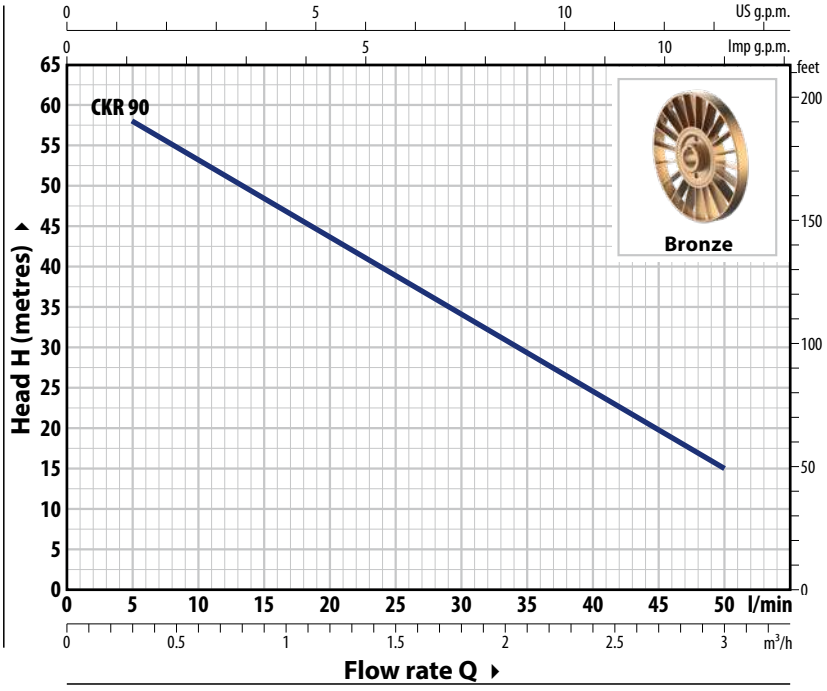
※ Mechanical seal options available
※ Specific voltages
※ Protection rating: IP 55

## PATENTS - TRADE MARKS - MODELS

- Motor bracket: Patent No. IT1243605

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




## ABSORPTION

| TYPE Single-ph. | VOLTAGE 220 V |
|---|---|
| CKRm 90 | 5.8 A |

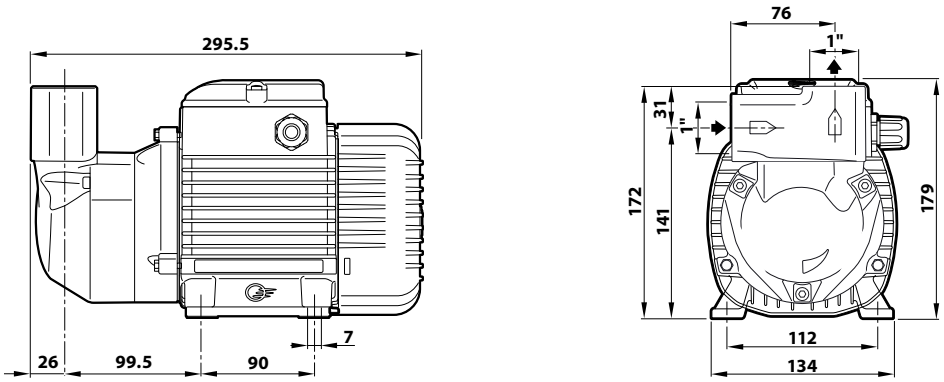
| TYPE Three-ph. | VOLTAGE 220 V - Δ | 380 V - ⅄ |
|---|---|---|
| CKR 90 | 4.0 A | 2.3 A |

| TYPE Single-ph. | TYPE Three-ph. | POWER (P2) kW | POWER (P2) HP | 3~ | Q | m³/h | 0 | 0,3 | 0,6 | 0,9 | 1,2 | 1,5 | 1,8 | 2,1 | 2,4 | 2,7 | 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | l/min | **0** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** | **50** |
| **CKRm 90** | **CKR 90** | 0.75 | 1 | **IE3** | **H** | m | 63 | 58 | 53.2 | 48.4 | 43.7 | 38.9 | 34.1 | 29.3 | 24.6 | 19.8 | 15 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

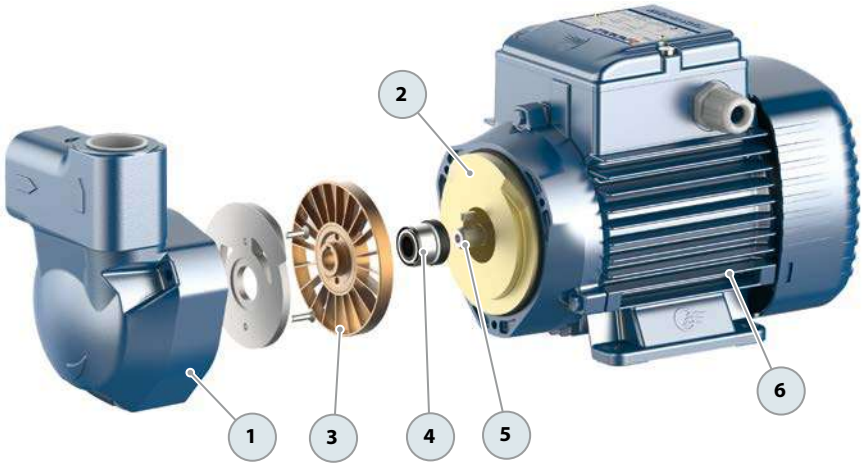
## DIMENSIONS (mm)




| TYPE | | PORTS | | WEIGHT (kg) | | PALLET CAPACITY | |
|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN1 | DN2 | 1~ | 3~ | GROUPAGE | CONTAINER |
| **CKRm 90** | **CKR 90** | **1"** | **1"** | 12.0 | 12.0 | 102 | 136 |

## CONSTRUCTION FEATURES

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron, with **stainless-steel** front shaving surface to prevent the impeller from locking due to oxidation. The pump body is equipped with ISO 228/1 threaded ports |
| 2 | **Motor bracket** | Aluminium with brass cover with front anti-locking shim function (patented) |
| 3 | **Impeller** | Bronze, star-type with open radial vanes |
| 4 | **Mechanical seal** | Type: **AR-12V** — Materials: Ceramic / Graphite / Viton |
| 5 | **Shaft** | Stainless steel **AISI 431** |
| 6 | **Electric motor** | **CKRm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection<br>**CKR**: three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz<br>– The three-phase pumps are fitted with high performance motors in class **IE3** (IEC 60034-30-1)<br>– Continuous running duty **S1**<br>– Insulation: class F<br>– Protection rating: IPX4 |



# PQ-Bs Peripheral pumps with brass pump body

Clean water

Industrial use

※ **Electric pumps for industrial use**




## PERFORMANCE RANGE

- Flow rate up to **50 l/min** (3.0 m³/h)
- Head up to **100 m**

## INSTALLATION AND USE

Designed for pumping diesel/naphtha and **clean water** free from abrasive particles and non-corrosive liquids that do not harm the pump's components.

Their hydraulic characteristics, compactness, and small size make them ideal for industrial applications such as chillers, air conditioners, coolers, and boiler feed systems.

## PUMP BODY

The **pump body** is made of **CW617N brass**, which guarantees protection against rust and oxidation.

## APPLICATION LIMITS

- Manometric suction head up to **8 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Maximum working pressure **10 bar**

## AVAILABLE UPON REQUEST

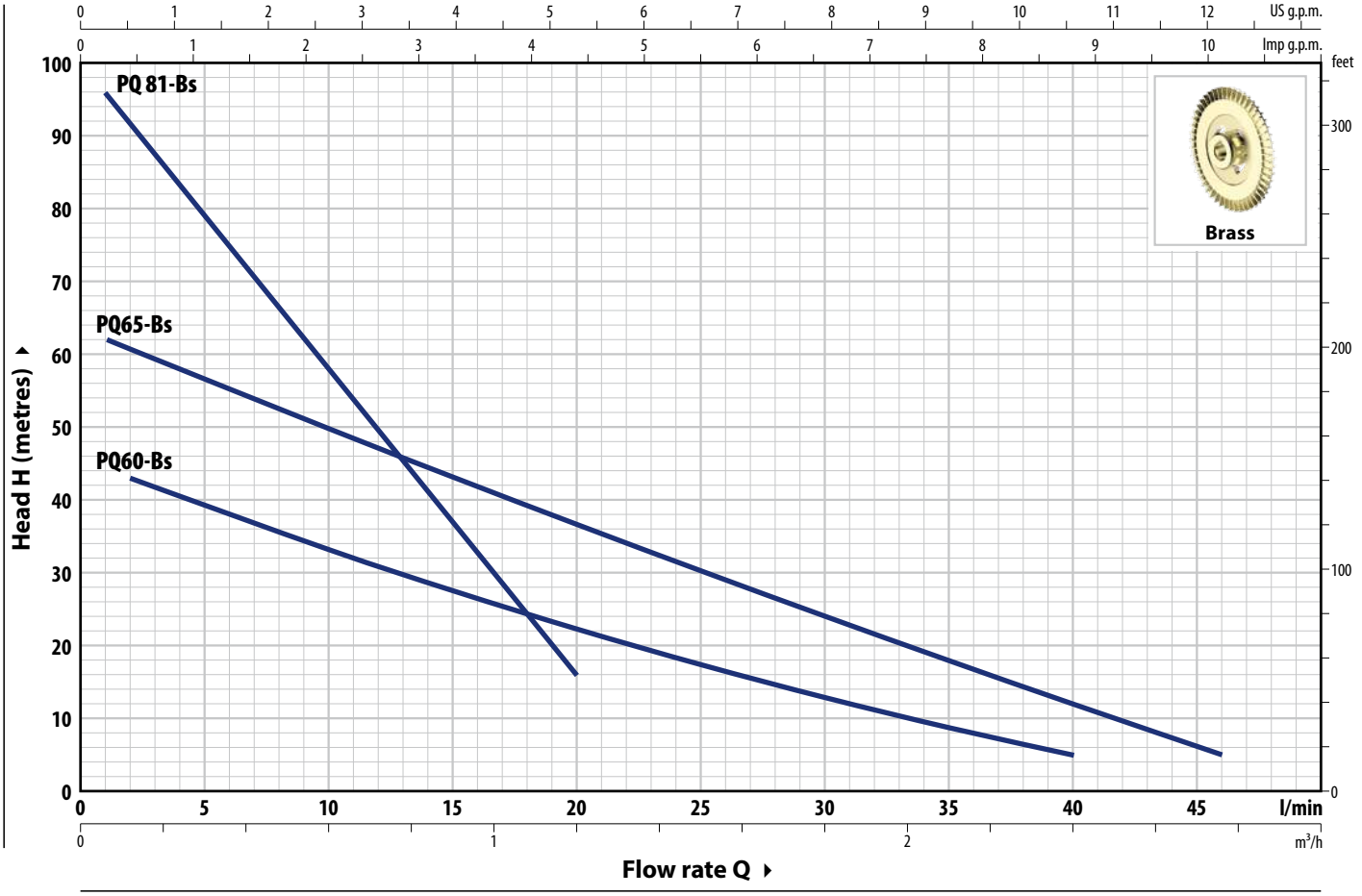
※ Mechanical seal options available
※ Protection rating IP 55 (only for PQ81-Bs and PQ65-Bs)
※ Different voltage or frequency

## PATENTS - TRADE MARKS - MODELS

- Motor bracket: Patent No. IT1243605
- Community Model No. 009068877-0001

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 0.06 | 0.12 | 0.3 | 0.6 | 0.9 | 1.2 | 1.5 | 1.8 | 2.1 | 2.4 | 2.76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | **3~** | | l/min | **0** | **1** | **2** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **46** |
| **PQm 60-Bs** | **PQ 60-Bs** | 0.37 | 0.50 | | | | 45.5 | – | 43 | 39 | 33 | 27.5 | 22.3 | 17.4 | 12.9 | 8.8 | 5 | |
| **PQm 65-Bs** | **PQ 65-Bs** | 0.55 | 0.75 | **IE3** | **H** | m | 63 | 62 | 60.5 | 56.5 | 49.5 | 43 | 36.5 | 30 | 24 | 18 | 12 | 5 |
| **PQm 81-Bs** | **PQ 81-Bs** | 0.55 | 0.75 | | | | 100 | 96 | 92 | 79 | 58 | 37 | 16 | | | | | |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

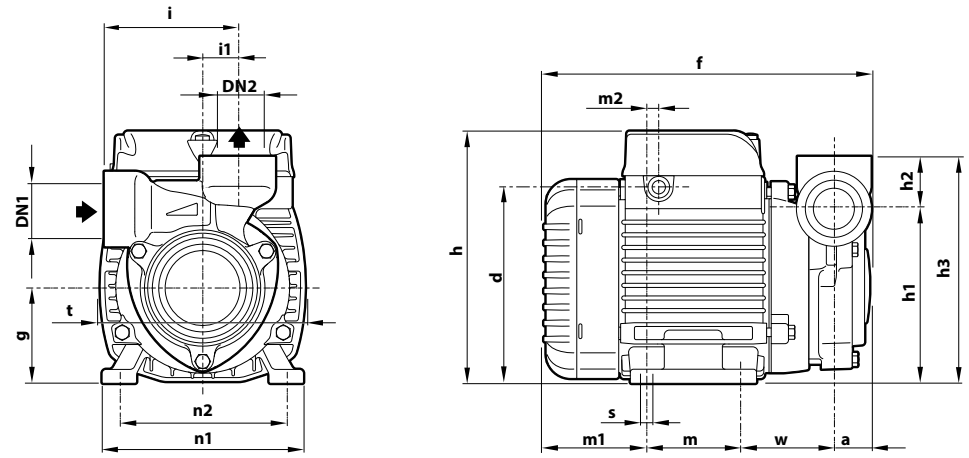
## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| **Single-phase** | **220 V** | **110 V** |
| **PQm 60-Bs** | 2.8 A | 5.6 A |
| **PQm 65-Bs** | 5.0 A | 10.0 A |
| **PQm 81-Bs** | 4.3 A | 8.6 A |

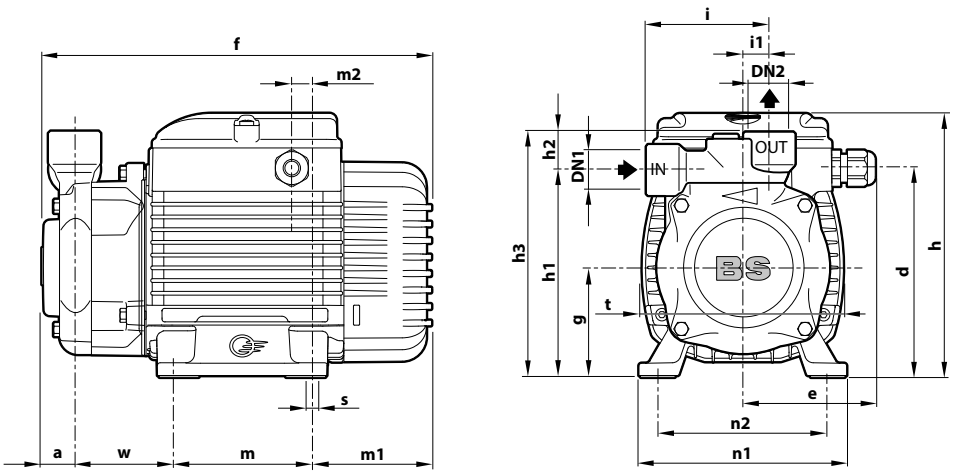
| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| **Three-ph.** | **220 V - Δ** | **380 V - Y** | **220 V - Δ** | **440 V - Y** |
| **PQ 60-Bs** | 2.0 A | 1.15 A | 2.1 A | 1.2 A |
| **PQ 65-Bs** | 3.1 A | 1.8 A | 2.7 A | 1.6 A |
| **PQ 81-Bs** | 2.8 A | 1.6 A | 2.6 A | 1.5 A |

## DIMENSIONS AND WEIGHT

**PQ 60-Bs**




**PQ 65-Bs – PQ 81-Bs**



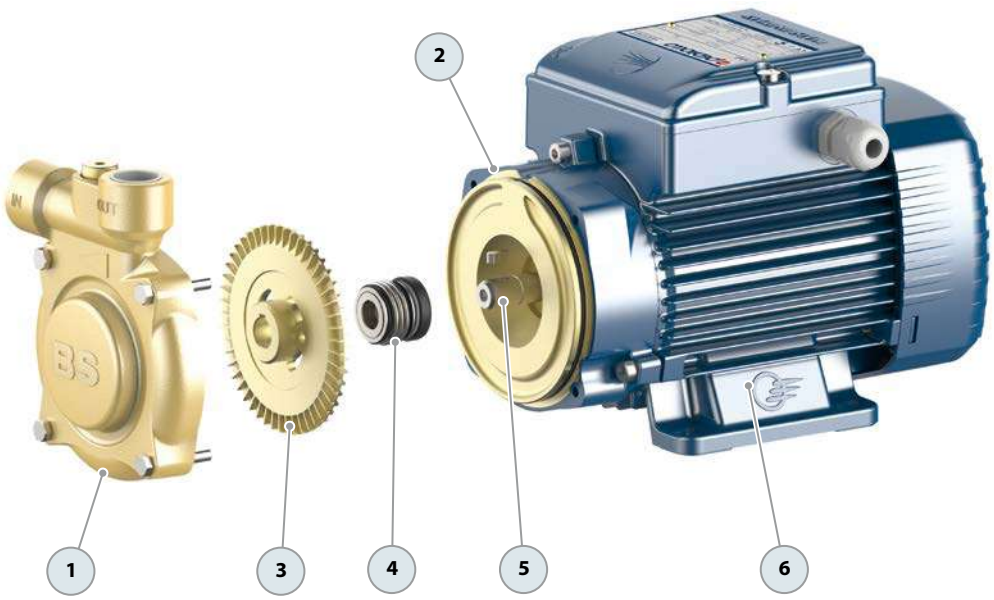

| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN1 | DN2 | a | d | e | f | g | h | h1 | h2 | h3 | i | i1 | m | m1 | m2 | n1 | n2 | t | w | s | 1~ | 3~ |
| PQm 60-Bs | PQ 60-Bs | ¾" | ¾" | 21.5 | 112 | – | 192 | 56 | 145.5 | 101 | 30 | 131 | 76 | 20 | 55 | 62 | 8 | 116 | 100 | 118 | 53.5 | 7 | 5.0 | 5.0 |
| PQm 65-Bs | PQ 65-Bs | | | 24 | 119.5 | 76.5 | 226 | 63 | 153 | 108 | | 138 | | | 80 | 69 | 8.5 | 120 | | 117 | | | 7.0 | 6.4 |
| PQm 81-Bs | PQ 81-Bs | ½" | ½" | 18 | | | 223 | | | 119 | 22 | 141 | 71 | 15 | | | | | | | 55 | | 6.9 | 6.9 |

## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-ph. | Three-ph. | n. pumps | n. pumps |
| PQm 60-Bs | PQ 60-Bs | 238 | 306 |
| PQm 65-Bs | PQ 65-Bs | 216 | 270 |
| PQm 81-Bs | PQ 81-Bs | 160 | 200 |

## CONSTRUCTION FEATURES

| | | |
|---|---|---|
| 1 | **Pump body** | Brass with ISO 228/1 threaded ports |
| 2 | **Motor bracket** | Aluminium with brass cover with anti-lock front shim function (patented) |
| 3 | **Impeller** | Brass, radial peripheral vane type |
| 4 | **Mechanical seal** | Type: **ST1-12** — Materials: Silicon carbide / Graphite / NBR |
| 5 | **Motor shaft** | Stainless steel **AISI 431** |
| 6 | **Electric motor** | **PQm-Bs**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection<br>**PQ-Bs**: three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz<br>– The three-phase pumps are fitted with high performance motors in class **IE3** (IEC 60034-30-1)<br>– Continuous running duty **S1**<br>– Insulation: class F<br>– Protection rating: IPX4 |



# PQ 81-PPS

## Peripheral pump with PPS pump body

Clean water

**Industrial use**



※ **Pump for industrial use**

### PERFORMANCE RANGE

- Flow rate up to **22 l/min** (1.32 m³/h)
- Head up to **90 m**

### INSTALLATION AND USE

Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.
Its hydraulic characteristics and compactness make it suitable for **industrial applications**.

### PUMP BODY

The material used for the **pump body** is a **PPS-based** technopolymer reinforced with glass fibre, which gives it excellent mechanical properties.

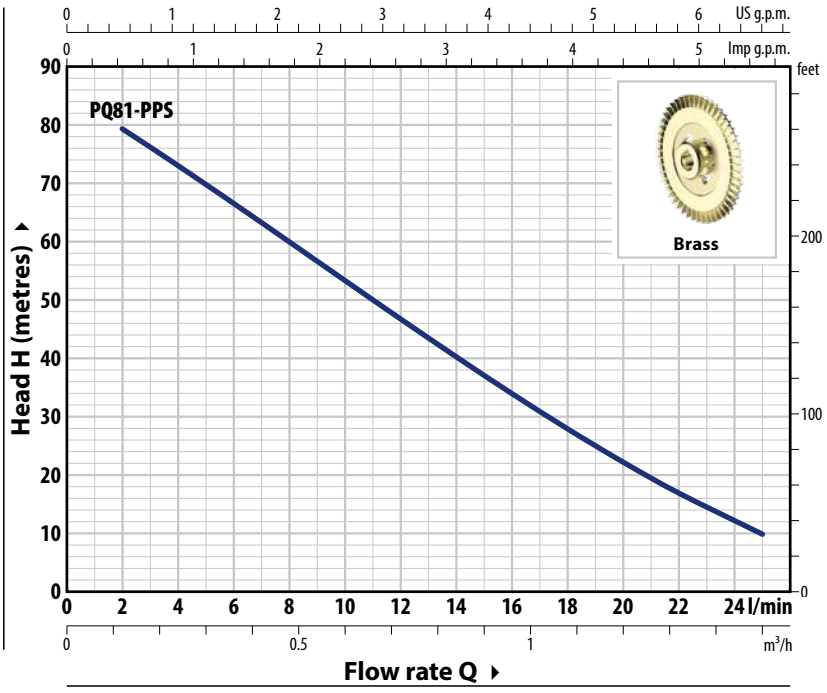
### APPLICATION LIMITS

- Manometric suction head up to **8 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Maximum working pressure **10 bar**

### AVAILABLE UPON REQUEST

※ Mechanical seal options available
※ IP 55 protection rating
※ Different voltage or frequency

## CURVES AND PERFORMANCE DATA – HS=0 m **60 Hz**




### ABSORPTION

| TYPE | VOLTAGE |
|---|---|
| **Single-phase** | **220 V** |
| **PQm 81-PPS** | 4.0A |

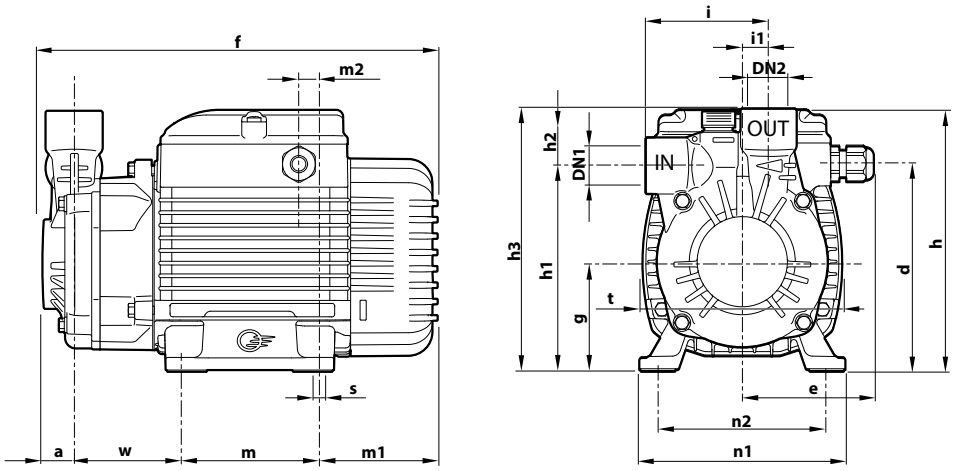
| TYPE | VOLTAGE | |
|---|---|---|
| **Three-phase** | **220 V - Δ** | **380 V - Y** |
| **PQ 81-PPS** | 2.9 A | 1.7 A |

| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 0.12 | 0.24 | 0.36 | 0.48 | 0.6 | 0.72 | 0.84 | 0.96 | 18 | 1.2 | 1.32 | 1.5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | **3~** | | l/min | **0** | **2** | **4** | **6** | **8** | **10** | **12** | **14** | **16** | **18** | **20** | **22** | **25** |
| **PQm 81-PPS** | **PQ 81-PPS** | 0.55 | 0.75 | **IE3** | **H** | m | 85 | 79 | 72.5 | 66.5 | 60 | 53.2 | 46.6 | 40.2 | 33.9 | 27.9 | 22.3 | 17 | 10 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

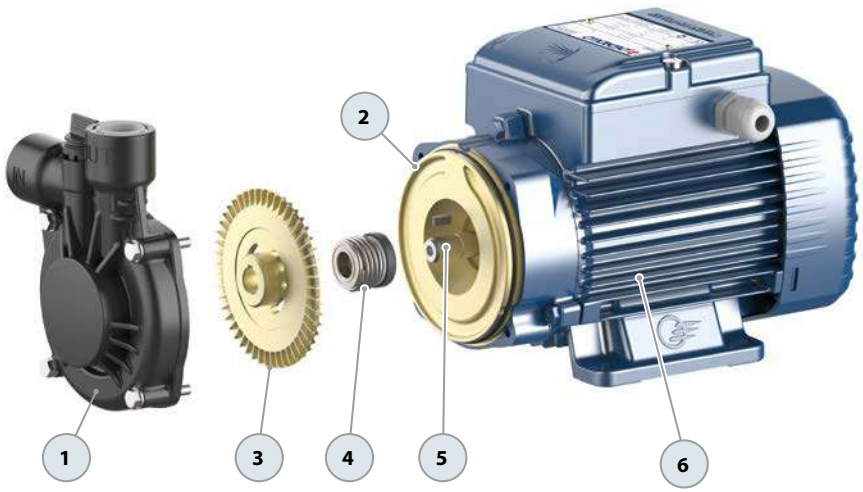
## DIMENSIONS (mm)




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN1 | DN2 | a | d | e | f | g | h | h1 | h2 | h3 | i | i1 | m | m1 | m2 | n1 | n2 | t | w | s | 1~ | 3~ |
| PQm 81-PPS | PQ 81-PPS | ½" | ½" | 18.5 | 119.5 | 76.5 | 223 | 63 | 163 | 119 | 33 | 152 | 71 | 15 | 80 | 69 | 8.5 | 120 | 100 | 117 | 61 | 7 | 6.5 | 6.5 |

## CONSTRUCTION FEATURES

| | | |
|---|---|---|
| 1 | **Pump body** | **PPS**, with ISO 228/1 threaded brass inserted in ports |
| 2 | **Motor bracket** | Aluminium with brass cover with front anti-locking shim function |
| 3 | **Impeller** | Brass |
| 4 | **Mechanical seal** | Type: **ST1-12** — Materials: Silicon carbide / Graphite / NBR |
| 5 | **Shaft** | Stainless steel **AISI 431** |
| 6 | **Electric motor** | **PQm-PPS**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection.<br>**PQ-PPS**: three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz<br>– The pump is fitted with a high performance motor in class **IE3** (IEC 60034-30-1)<br>– Continuous running duty **S1**<br>– Insulation: class F<br>– Protection rating: IPX4 |



# PQA Peripheral impeller pumps with a PPS pump body

Clean water

**Industrial use**



## PERFORMANCE RANGE

- Flow rate up to **45 l/min** (2.7 m³/h)
- Head up to **92 m**

## INSTALLATION AND USE

The **PQA** electric pumps are designed to transfer clean water free from abrasive particles and non-corrosive liquids that do not harm the pump's components. Made from PPS with a brass impeller front cover, ensuring protection against rust and oxidation, they are suited for various industrial applications, such as cooling, air conditioning, and ironing systems.

## APPLICATION LIMITS

- Manometric suction head up to **8 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C** (**+50 °C** for PQA 60)
- Maximum working pressure **10 bar**

## AVAILABLE UPON REQUEST

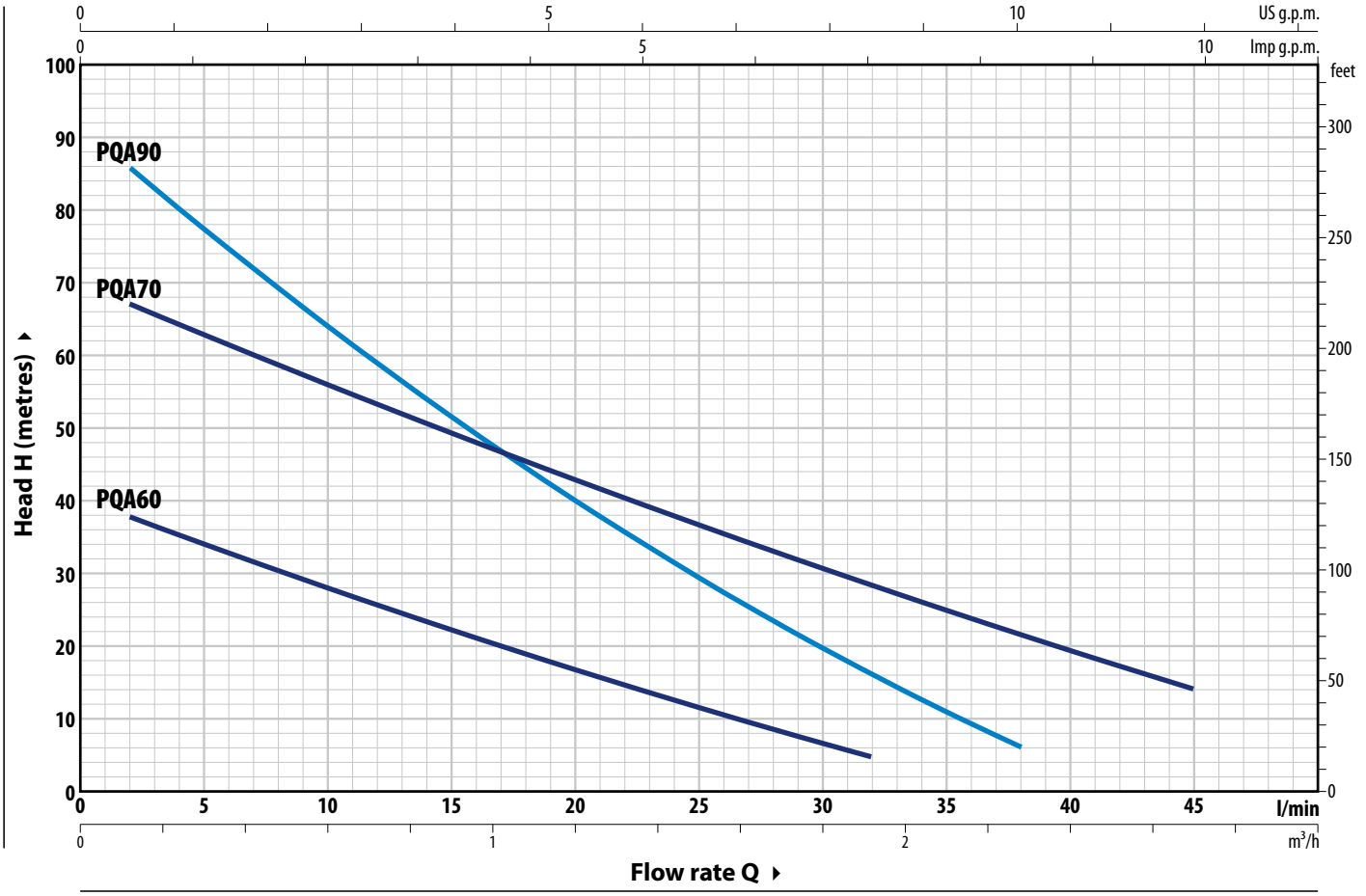
※ Mechanical seal options available
※ Shaft in AISI 316 stainless steel - EN 10088-3 - 1.4401
※ Protection rating IPX5 for PQA 70-90
※ Different voltage or frequency

## PATENTS - TRADE MARKS - MODELS

- Motor bracket: Patent No. IT1243605
- Shaft: Patent No. 0000275945 (PQA 50)

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 0.12 | 0.3 | 0.6 | 0.9 | 1.2 | 1.5 | 1.68 | 1.8 | 1.92 | 2.28 | 2.46 | 2.7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | **3~** | | l/min | **0** | **2** | **5** | **10** | **15** | **20** | **25** | **28** | **30** | **32** | **38** | **41** | **45** |
| **PQAm 60** | **PQA 60** | 0.37 | 0.55 | | | | 40.5 | 38 | 34 | 28 | 22.5 | 17 | 11.8 | 8.8 | 6.9 | 5 | | | |
| **PQAm 70** | **PQA 70** | 0.55 | 0.75 | **IE3** | **H** | m | 70 | 67 | 63 | 56 | 49 | 43 | 36.5 | 33 | 30.5 | 28.5 | 21.5 | 18.2 | 14 |
| **PQAm 90** | **PQA 90** | 0.75 | 1 | | | | 92 | 86 | 78 | 64 | 51.5 | 40 | 29.5 | 23.4 | 19.6 | 16 | 6 | | |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

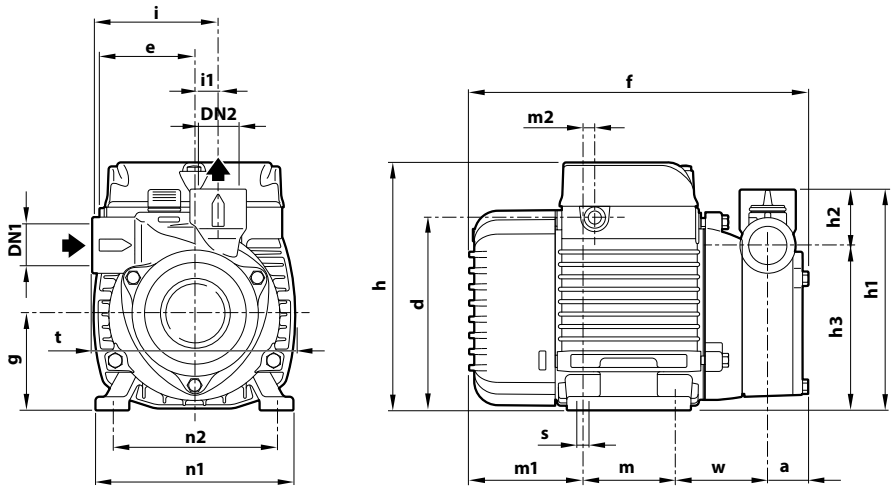
## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| **Single-ph.** | **220 V** | **110 V** |
| **PQAm 60** | 2.6 A | 6.0 A |
| **PQAm 70** | 6.5 A | 13.0 A |
| **PQAm 90** | 5.6 A | 11.2 A |

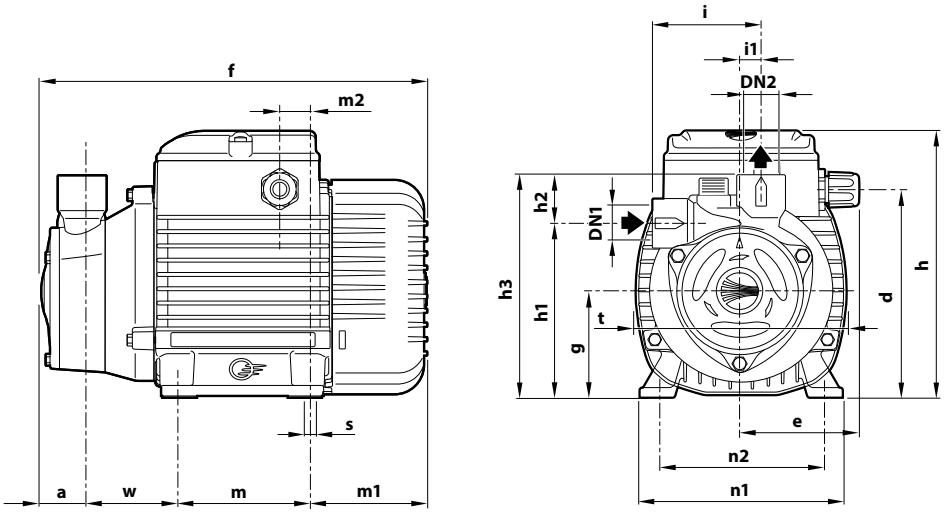
| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| **Three-ph.** | **220 V - Δ** | **380 V - Y** | **220 V - Δ** | **440 V - Y** |
| **PQA 60** | 2.0 A | 1.15 A | 2.0 A | 1.1 A |
| **PQA 70** | 3.4 A | 1.95 A | 3.5 A | 2.0 A |
| **PQA 90** | 4.2 A | 2.4 A | 3.7 A | 2.2 A |

## DIMENSIONS AND WEIGHT

### PQA 60




### PQA 70, PQA 90



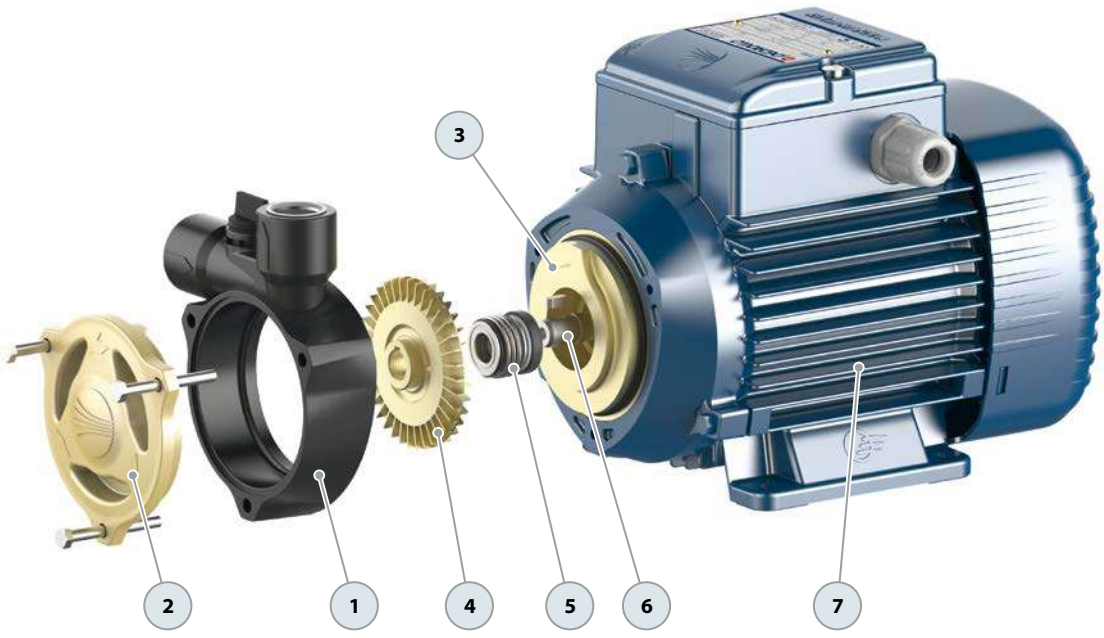

| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN1 | DN2 | a | d | e | f | g | h | h1 | h2 | h3 | i | i1 | m | m1 | m2 | n1 | n2 | t | w | s | 1~ | 3~ |
| PQAm 60 | PQA 60 | ½" | ½" | 23 | 112 | 55.5 | 196 | 56 | 145 | 96 | 33 | 129 | 72.5 | 13.5 | 55 | 65 | 8 | 116 | 97 | 117 | 53 | 7 | 4.6 | 4.6 |
| PQAm 70 | PQA 70 | | | 28 | 139 | 79 | 261 | 71 | 179 | 116.5 | 32.5 | 149 | | | 90 | 80.5 | 22 | 134 | 112 | 142 | 62.5 | | 9.6 | 9.6 |
| PQAm 90 | PQA 90 | | | 26.5 | | | 260 | | | 121 | 35 | 156 | 76 | 16 | | | | | | | 62 | | 9.7 | 9.7 |

## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-ph. | Three-ph. | n. pumps | n. pumps |
| PQAm 60 | PQA 60 | 238 | 306 |
| PQAm 70 | PQA 70 | 102 | 170 |
| PQAm 90 | PQA 90 | 102 | 170 |

## CONSTRUCTION FEATURES

| | | |
|---|---|---|
| 1 | **Pump body** | **PPS**, with ISO 228/1 threaded metal inserted in ports |
| 2 | **Cover** | Brass |
| 3 | **Motor bracket** | Aluminium with brass cover with front anti-locking shim function (patented) |
| 4 | **Impeller** | Brass, radial peripheral vane type |
| 5 | **Mechanical seal** | Type: **ST1-12** — Materials: Silicon carbide / Graphite / NBR |
| 6 | **Motor shaft** | Stainless steel **AISI 431** |
| 7 | **Electric motor** | **PQAm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection.<br>**PQA**: three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz<br>– The three-phase pumps are fitted with high performance motors in class **IE3** (IEC 60034-30-1)<br>– Continuous running duty **S1**<br>– Insulation: class F<br>– Protection rating: IPX4 |



# PV Peripheral pumps with brass pump body

Clean water

**Industrial use**



## PERFORMANCE RANGE

- Flow rate up to **45 l/min** (2.7 m³/h)
- Head up to **105 m**

## INSTALLATION AND USE

Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.

The construction features of these compact brass pumps ensure protection against rust and oxidation and are suited for various industrial applications, such as **cooling and air conditioning**.

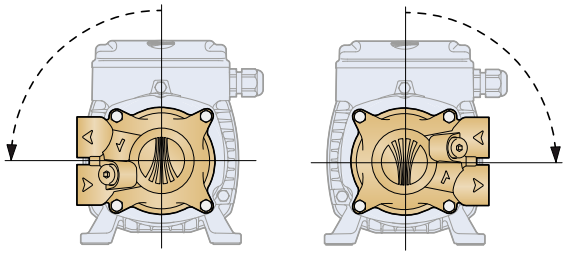
## APPLICATION LIMITS

- Manometric suction head up to **8 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+50 °C**
- Maximum working pressure **10 bar**

## AVAILABLE UPON REQUEST

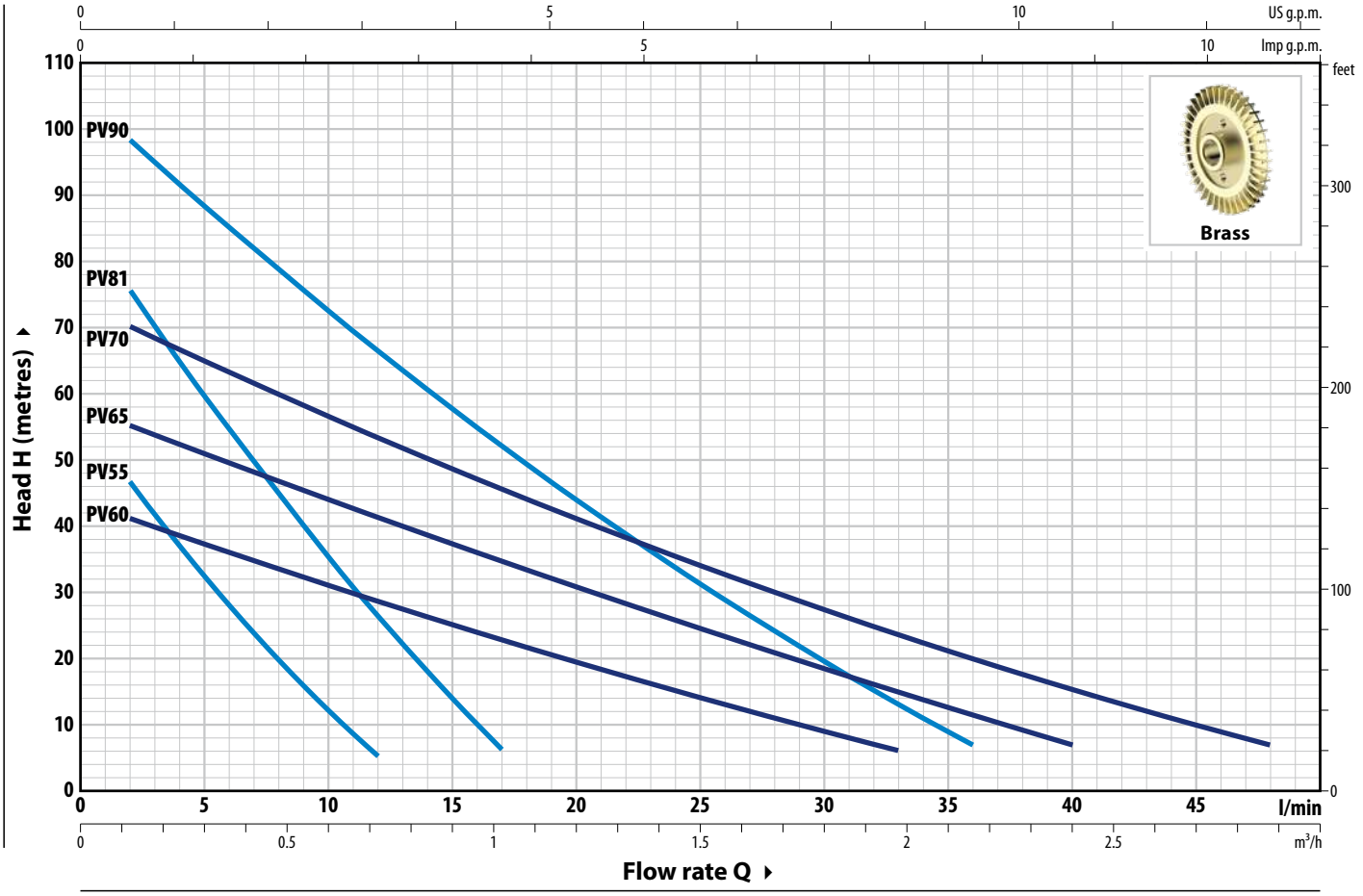
※ Mechanical seal options available
※ Protection rating IPX5 for PV70-90
※ Different voltage or frequency

※ **The pump body can be rotated**



## CURVES AND PERFORMANCE DATA – HS=0 m

## 60 Hz




| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 0.12 | 0.18 | 0.24 | 0.3 | 0.36 | 0.42 | 0.48 | 0.54 | 0.6 | 0.66 | 0.72 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | kW | HP | 3~ | | l/min | **0** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** |
| **PVm 55** | **PV 55** | 0.18 | 0.25 | **IE3** | **H** | m **60 Hz** | 56 | 46 | 41 | 36.5 | 32 | 27.5 | 23.4 | 19.4 | 15.5 | 11.9 | 8.3 | 5 |
| | | | | | | **50 Hz** | 43 | 35 | 31 | 27 | 23.2 | 19.4 | 15.7 | 12 | 8.5 | 5 | | |

※ **The PVm55 and PV55 pump is designed to operate at 50 and 60 Hz**

| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 0.12 | 0.3 | 0.6 | 0.9 | 1.02 | 1.2 | 1.5 | 1.8 | 1.98 | 2.16 | 2.4 | 2.88 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | kW | HP | 3~ | | l/min | **0** | **2** | **5** | **10** | **15** | **17** | **20** | **25** | **30** | **33** | **36** | **40** | **48** |
| **PVm 60** | **PV 60** | 0.37 | 0.50 | | | | 44 | 41 | 37 | 31 | 25 | 22.7 | 19.4 | 14 | 8.9 | 6 | | | |
| **PVm 81** | **PV 81** | 0.37 | 0.50 | | | | 86 | 75 | 59 | 35 | 13.7 | 6 | | | | | | | |
| **PVm 65** | **PV 65** | 0.60 | 0.85 | **IE3** | **H** | m | 58 | 55 | 51 | 44 | 37 | 34.5 | 31 | 24.5 | 18.5 | 14.9 | 11.5 | 7 | |
| **PVm 70** | **PV 70** | 0.90 | 1.20 | | | | 74 | 70 | 64.5 | 56 | 47.5 | 44.5 | 39.5 | 32 | 25.3 | 21.3 | 17.5 | 12.7 | 7 |
| **PVm 90** | **PV 90** | 0.90 | 1.20 | | | | 105 | 98 | 88 | 72.5 | 57.5 | 52 | 44 | 31 | 19.6 | 13.1 | 7 | | |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

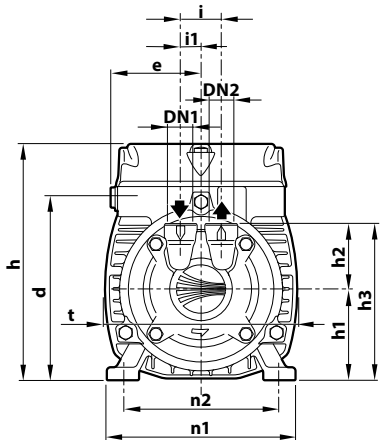
## ABSORPTION

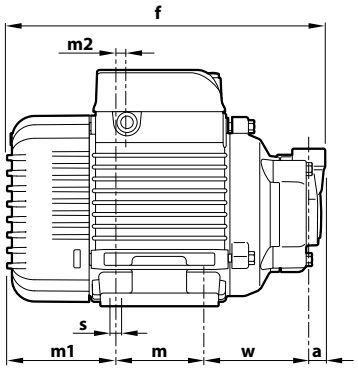
| TYPE | VOLTAGE | |
|---|---|---|
| Single-phase | 220 V | 110 V |
| PVm 55 (60 Hz) | 2.0A | 4.0 A |
| PVm 55 (50 Hz) | 1.6 A | 3.2 A |
| PVm 60 | 3.3 A | 6.6 A |
| PVm 81 | 3.3 A | 6.6 A |
| PVm 65 | 4.5 A | 9.0 A |
| PVm 70 | 7.0 A | – |
| PVm 90 | 6.5 A | – |

| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| Three-ph. | 220 V - Δ | 380 V - Y | 220 V - Δ | 440 V - Y |
| PV 55 (50 Hz) | 1.7 A | 1.0 A | 1.7 A | 1.1 A |
| PV 55 (60 Hz) | 1.7 A | 1.0 A | 1.7 A | 1.1 A |
| PV 60 | 2.6 A | 1.5 A | 2.3 A | 1.3 A |
| PV 81 | 2.3 A | 1.3 A | 2.1 A | 1.1 A |
| PV 65 | 3.1 A | 1.8 A | 2.7 A | 1.5 A |
| PV 70 | 5.0 A | 2.9 A | 3.9 A | 2.3 A |
| PV 90 | 4.8 A | 2.8 A | 3.7 A | 2.1 A |

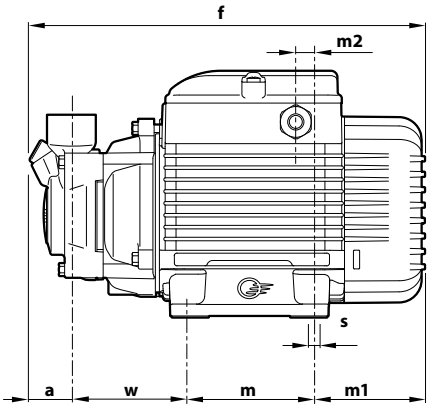
## DIMENSIONS AND WEIGHT

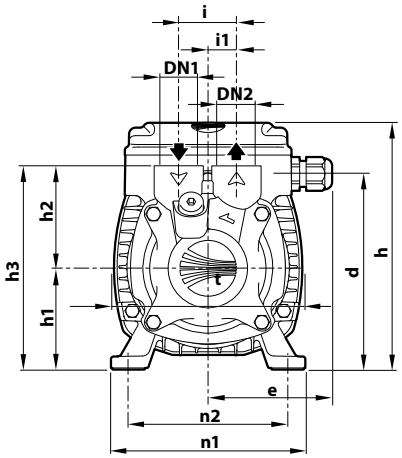
### PV 55




### PV 60-81-65-70-90



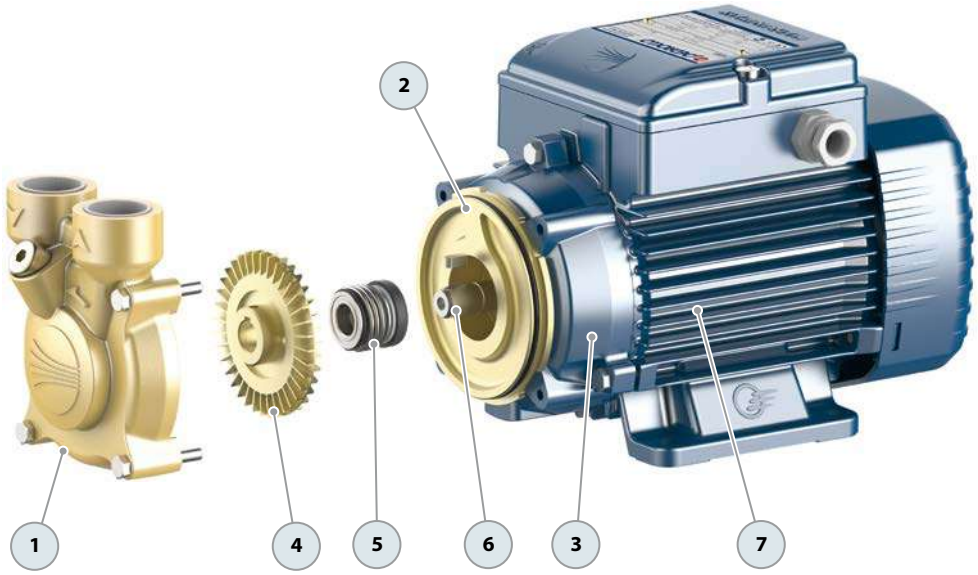




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN1 | DN2 | a | d | e | f | h | h1 | h2 | h3 | i | i1 | m | m1 | m2 | n1 | n2 | t | w | s | 1~ | 3~ |
| PVm 55 | PV 55 | ¼" | ¼" | 10.5 | 112 | 55.5 | 194 | 145 | 56 | 40 | 96 | 25 | 12.5 | 55 | 65.5 | 8 | 116 | 94/100 | 116 | 63 | 7 | 4.4 | 4.3 |
| PVm 60 | PV 60 | ½" | ½" | 26 | 120.5 | 76 | 243.5 | 152 | 63 | 62 | 125 | 35 | 17.5 | 80 | 69.5 | 11.5 | 120 | 98/102 | 116 | 68 | | 5.5 | 5.4 |
| PVm 81 | PV 81 | | | 26.5 | | | 241 | | | 65 | 128 | | | | | | | | | 65 | | 6.9 | 6.9 |
| PVm 65 | PV 65 | ¾" | ¾" | 27 | | | 243.5 | | | 66 | 129 | 45 | 22.5 | | | | | | | 67 | 7 | 6.7 | 6.7 |
| PVm 70 | PV 70 | | | 26.5 | 139 | 79 | 276 | 180 | 71 | 66 | 137 | 45 | | 90 | 80.5 | 22 | 134 | 110/114 | 141 | 79 | | 10.2 | 9.7 |
| PVm 90 | PV 90 | | | 28 | | | 275 | | | | | | | | | | | | | 76.5 | | 10.0 | 9.4 |

**(*) h=196 mm** for single-phase 110 V versions

## CONSTRUCTION FEATURES

| | | |
|---|---|---|
| 1 | **Pump body** | Brass, equipped with ISO 228/1 threaded ports |
| 2 | **Seal cover** | Brass |
| 3 | **Motor bracket** | Aluminum |
| 4 | **Impeller** | Brass, radial peripheral vane type |
| 5 | **Mechanical seal** | Type: **ST1-12** — Shaft: Ø 12 mm — Materials: Silicon carbide / Graphite / NBR |
| 6 | **Motor shaft** | Stainless steel **AISI 431** |
| 7 | **Electric motor** | **PVm**: single-phase 220 V - 60 Hz (50/60 Hz for PVm55) with winding integrated thermal motor protection.<br>**PV**: three-phase 220/380 V - 60 Hz (50/60 Hz for PV55).<br>– The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)<br>– Continuous running duty **S1** |



# PQ 3000 Peripheral impeller pumps

Clean water **Industrial use**




## PERFORMANCE RANGE

- Flow rate up to **50 l/min** (3 m³/h)
- Head up to **180 m**

## INSTALLATION AND USE

- Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.
- Its hydraulic characteristics make it suitable for **industrial applications**.
- **PQ3000** pump's body is available in cast iron (cost-effective) or micro-cast stainless steel.

## APPLICATION LIMITS

- Manometric suction head up to **8 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+50 °C**
- Maximum working pressure **18 bar**

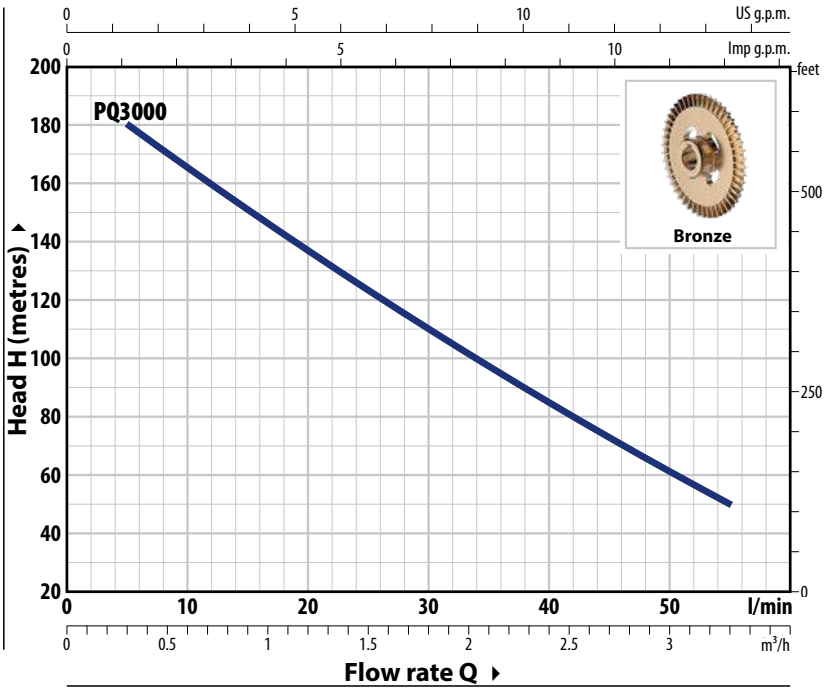
## AVAILABLE UPON REQUEST

※ Mechanical seal options available
※ Shaft in stainless steel AISI 316 EN 10088-3 - 1.4401
※ Different voltage or frequency

## PATENTS - TRADE MARKS - MODELS

- Registered community model
  No. 002714469 for PQ 3000-MF

## CURVES AND PERFORMANCE DATA – HS=0 m **60 Hz**




## ABSORPTION

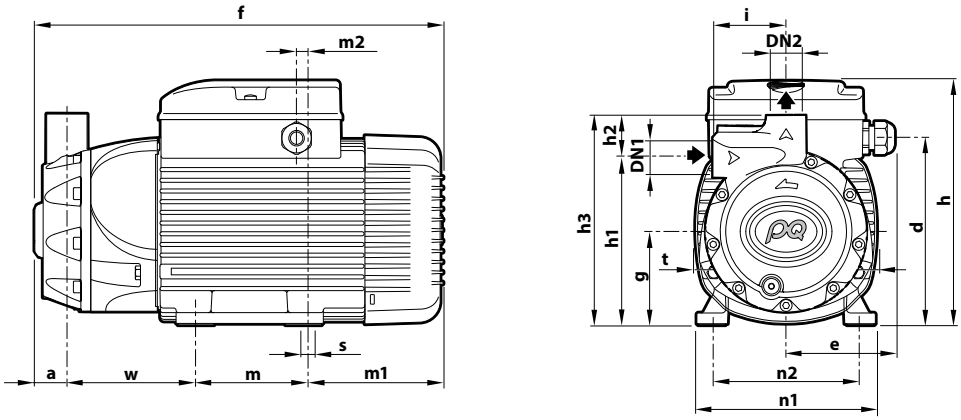
| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 220 V - Δ | 380 V - ⅄ |
| PQ 3000 | 14.2 A | 8.2 A |
| PQ 3000-MF | 14.2 A | 8.2 A |

| TYPE | POWER (P2) | | | Q | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | m³/h | 0.3 | 0.6 | 0.9 | 1.2 | 1.5 | 1.8 | 2.1 | 2.4 | 2.7 | 3 | 3.3 |
| | | | | | l/min | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** | **50** | **55** |
| **PQ 3000** | 2.2 | 3 | **IE3** | **H** | m | 180 | 165 | 151 | 137 | 123 | 110 | 97 | 85 | 73 | 61 | 50 |
| **PQ 3000-MF** | 2.2 | 3 | | | | 180 | 165 | 151 | 137 | 123 | 110 | 97 | 85 | 73 | 61 | 50 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## DIMENSIONS AND WEIGHT



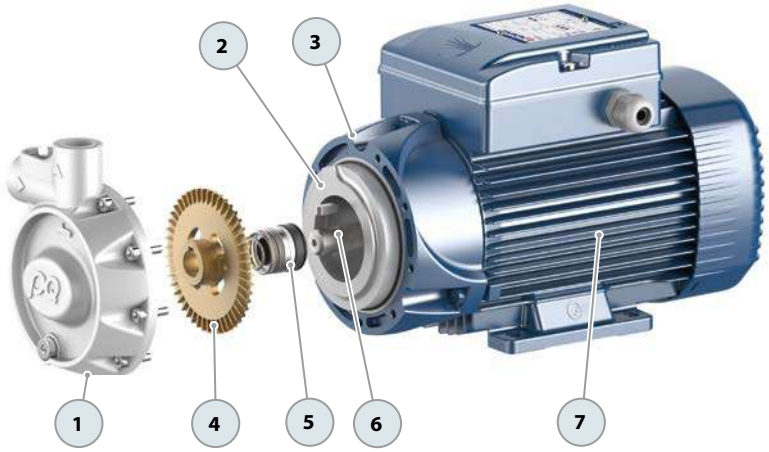

| TYPE | PORTS | | DIMENSIONS mm | | | | | | | | | | | | | | | | | | kg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | DN1 | DN2 | a | d | e | f | g | h | h1 | h2 | h3 | i | m | m1 | m2 | n1 | n2 | t | w | s | 3~ |
| PQ 3000 | ¾" | ¾" | 37 | 157.5 | 92 | 356 | 80 | 211 | 142 | 36 | 178 | 62 | 100 | 114 | 11 | 151 | 125 | 155 | 105 | 9 | 19.9 |
| PQ 3000-MF | | | 28 | | | 347 | | | | | | | | | | | | | | | 19.1 |

**PALLET CAPACITY**

| GROUPAGE | CONTAINER |
|---|---|
| n. pumps | n. pumps |
| 72 | 96 |
| 72 | 96 |

## CONSTRUCTION FEATURES

| | | |
|---|---|---|
| 1 | **Pump body** | ※ PQ 3000: **cast iron** with anti-blocking treatment with ISO 228/1 threaded ports<br>※ PQ 3000-MF: **stainless steel AISI 316** with ISO 228/1 threaded ports |
| 2 | **Cover seal** | Stainless steel **AISI 316** |
| 3 | **Motor bracket** | Aluminum |
| 4 | **Impeller** | **Bronze**, radial peripheral vane type |
| 5 | **Mechanical seal** | Type: **FN-18 NU** — Materials: Graphite/ Ceramic/ NBR |
| 6 | **Motor shaft** | Stainless steel **AISI 431** |
| 7 | **Electric motor** | – Three-phase 220/380 V - 60 Hz<br>– The pumps are fitted with high performance motors in class **IE3** (IEC 60034-30-1)<br>– Continuous running duty **S1**<br>– Insulation: class F<br>– Protection rating: IPX5 |



# AL-RED Stainless steel centrifugal pumps

Clean water
Domestic use
Agricultural use
Industrial use

**※ Centrifugal pumps made entirely of Stainless Steel**




## AL-RED -4

※ Pump body: **AISI 304 stainless steel**
※ Rotor: **AISI 304 stainless steel**
※ Shaft: **AISI 431 stainless steel**

## AL-RED -6

※ Pump body: **AISI 316L stainless steel**
※ Rotor: **AISI 316L stainless steel**
※ Shaft: **AISI 316L stainless steel**

### PERFORMANCE RANGE

- Flow rate up to **280 l/min** (16.8 m³/h)
- Head up to **60 m**

### INSTALLATION AND USE

Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.

Thanks to their construction features, these centrifugal pumps are suited for domestic, agricultural, and industrial applications.

All components in contact with the pumped liquid are made of AISI 304 or AISI 316L stainless steel, ensuring total hygiene and maximum corrosion resistance.

### APPLICATION LIMITS

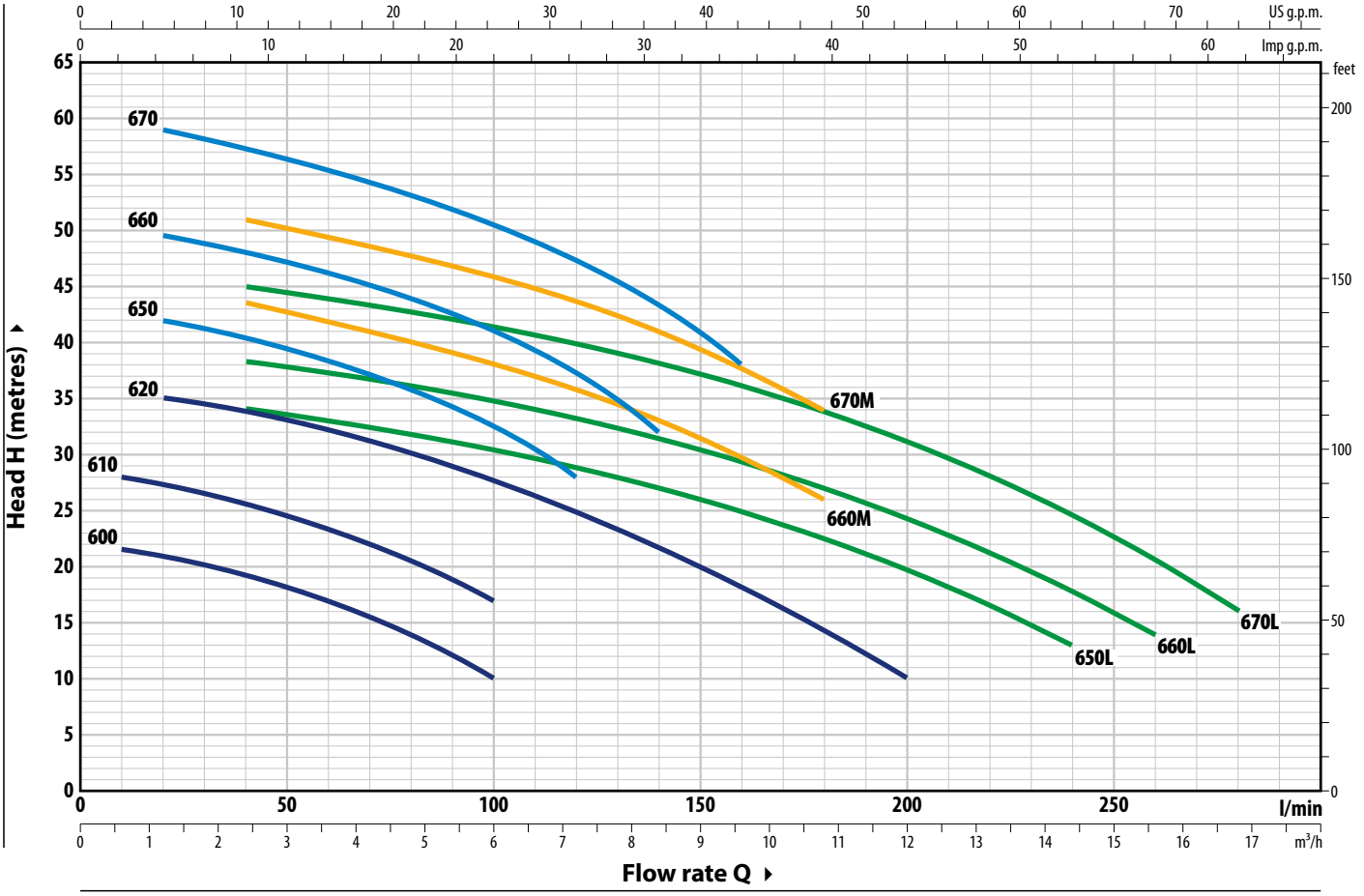
- Manometric suction head up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure:
  – **6 bar** for AL-RED 600-610-620
  – **8 bar** for AL-RED 650-660-670-650M-660M-670M
  AL-RED 650L-660L-670L

### AVAILABLE UPON REQUEST

※ Mechanical seal options available
※ Protection rating IPX5 for
AL-RED 650-660-670-650M-660M-670M
AL-RED 650L-660L-670L
※ Different voltage or frequency
※ Certified pumps WRAS APPROVED PRODUCT

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 0.6 | 1.2 | 2.4 | 3.6 | 4.8 | 6 | 7.2 | 8.4 | 9.6 | 10.8 | 12 | 14.4 | 15.6 | 16.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | **3~** | | l/min | **0** | **10** | **20** | **40** | **60** | **80** | **100** | **120** | **140** | **160** | **180** | **200** | **240** | **260** | **280** |
| **AL–REDm 600 -4**<br>**AL–REDm 600 -6** | **AL-RED 600 -4**<br>**AL-RED 600 -6** | 0.37 | 0.50 | | | | 22 | 21.5 | 21 | 19.5 | 17 | 14 | 10 | | | | | | | | |
| **AL–REDm 610 -4**<br>**AL–REDm 610 -6** | **AL-RED 610 -4**<br>**AL-RED 610 -6** | 0.60 | 0.85 | | | | 28.5 | 28 | 27.5 | 25.5 | 23.5 | 20.5 | 17 | | | | | | | | |
| **AL–REDm 620 -4**<br>**AL–REDm 620 -6** | **AL-RED 620 -4**<br>**AL-RED 620 -6** | 0.75 | 1 | | | | 36 | – | 35 | 33.5 | 32 | 30 | 27.5 | 24.5 | 21.5 | 18 | 14 | 10 | | | |
| **AL–REDm 650 -4**<br>**AL–REDm 650 -6** | **AL-RED 650 -4**<br>**AL-RED 650 -6** | 1.1 | 1.5 | | | | 43.5 | – | 42 | 40.5 | 38.5 | 36 | 32.5 | 28 | | | | | | | |
| **AL–REDm 660 -4**<br>**AL–REDm 660 -6** | **AL-RED 660 -4**<br>**AL-RED 660 -6** | 1.5 | 2 | | | | 51 | – | 49.5 | 48 | 46 | 44 | 41 | 37 | 32 | | | | | | |
| **AL–REDm 670 -4**<br>**AL–REDm 670 -6** | **AL-RED 670 -4**<br>**AL-RED 670 -6** | 2.2 | 3 | **IE3** | **H** | m | 60 | – | 59 | 57 | 55 | 53 | 50.5 | 47 | 43 | 38 | | | | | |
| **AL–REDm 660M-4**<br>**AL–REDm 660M-6** | **AL-RED 660M-4**<br>**AL-RED 660M-6** | 1.5 | 2 | | | | 46 | – | – | 43.5 | 42 | 40 | 38 | 36 | 33 | 30 | 26 | | | | |
| **AL–REDm 670M-4**<br>**AL–REDm 670M-6** | **AL-RED 670M-4**<br>**AL-RED 670M-6** | 2.2 | 3 | | | | 53 | – | – | 51 | 49.5 | 48 | 46 | 43.5 | 41 | 37.5 | 34 | | | | |
| **AL–REDm 650L -4**<br>**AL–REDm 650L -6** | **AL-RED 650L -4**<br>**AL-RED 650L -6** | 1.1 | 1.5 | | | | 36 | – | – | 34 | 33 | 31.5 | 30.5 | 29 | 27 | 25 | 22.5 | 19.5 | 13 | | |
| **AL–REDm 660L -4**<br>**AL–REDm 660L -6** | **AL-RED 660L -4**<br>**AL-RED 660L -6** | 1.5 | 2 | | | | 40 | – | – | 38.5 | 37.5 | 36 | 35 | 33 | 31.5 | 29.5 | 27 | 24.5 | 18 | 14 | |
| **AL–REDm 670L -4**<br>**AL–REDm 670L -6** | **AL-RED 670L -4**<br>**AL-RED 670L -6** | 2.2 | 3 | | | | 47 | – | – | 45 | 44 | 42.5 | 41.5 | 40 | 38 | 36 | 34 | 31 | 24.5 | 20.5 | 16 |

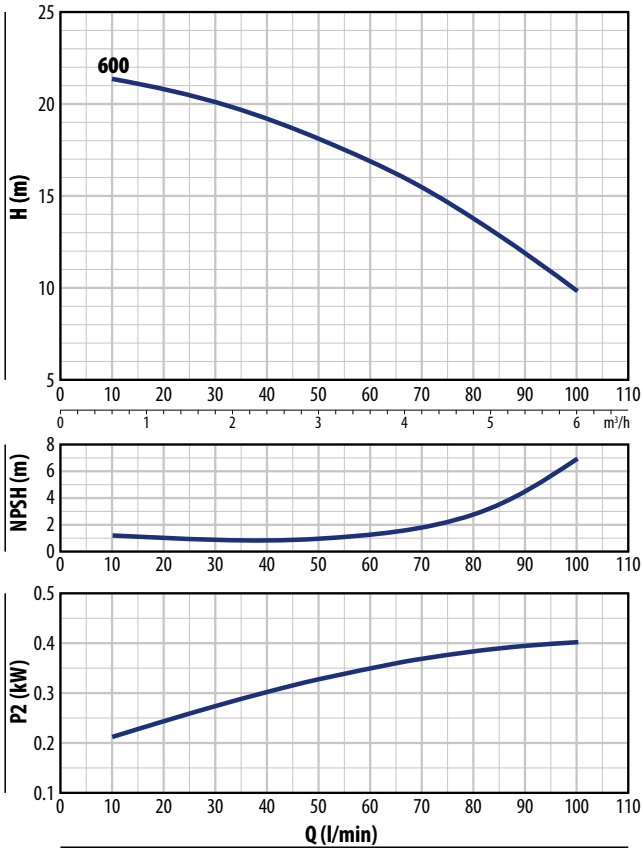
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

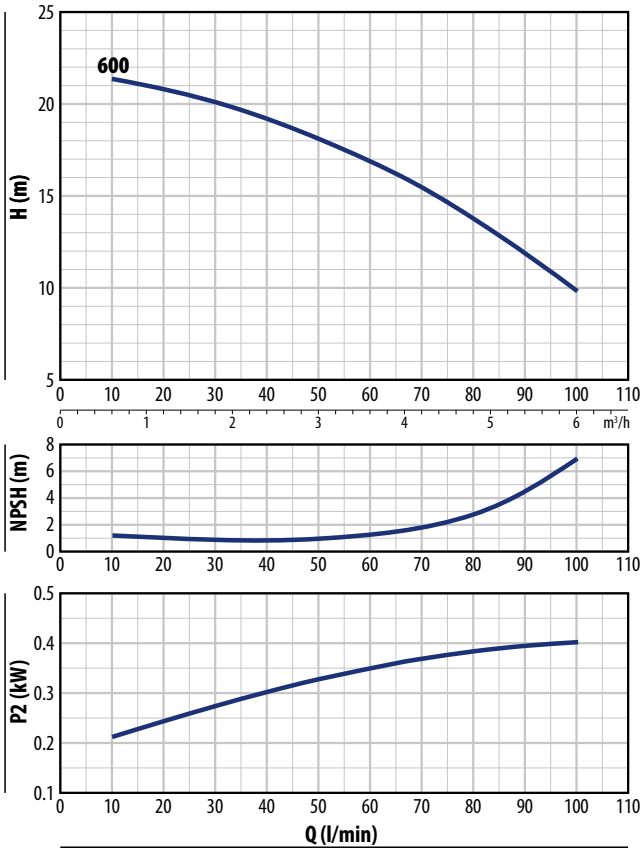
## PERFORMANCE CURVES - HS=0 m

60 Hz

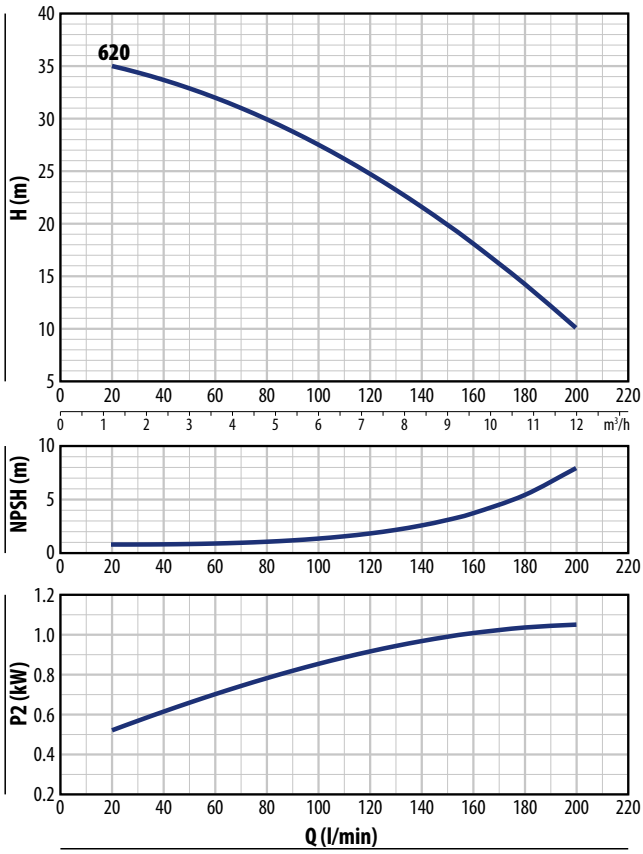
### AL RED 600




### AL RED 610



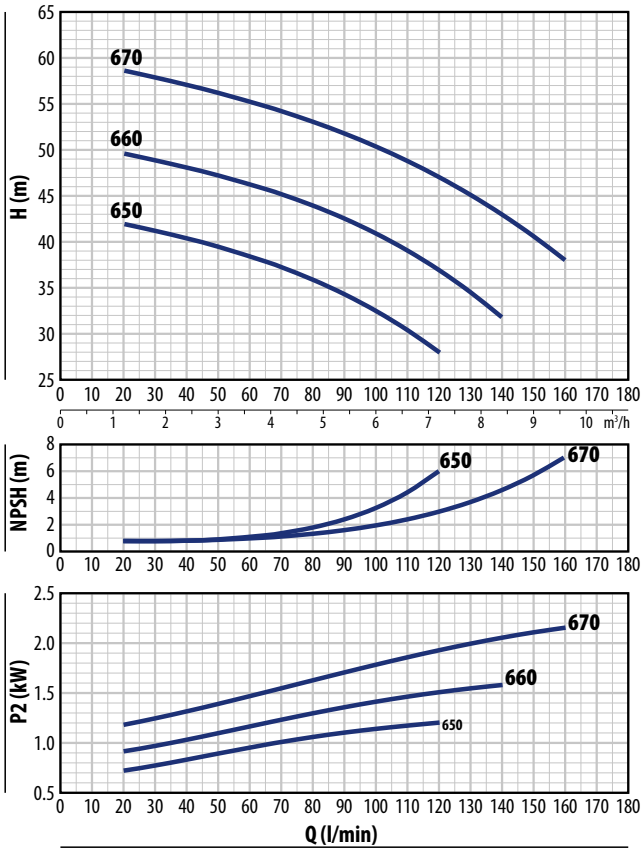

### AL RED 620



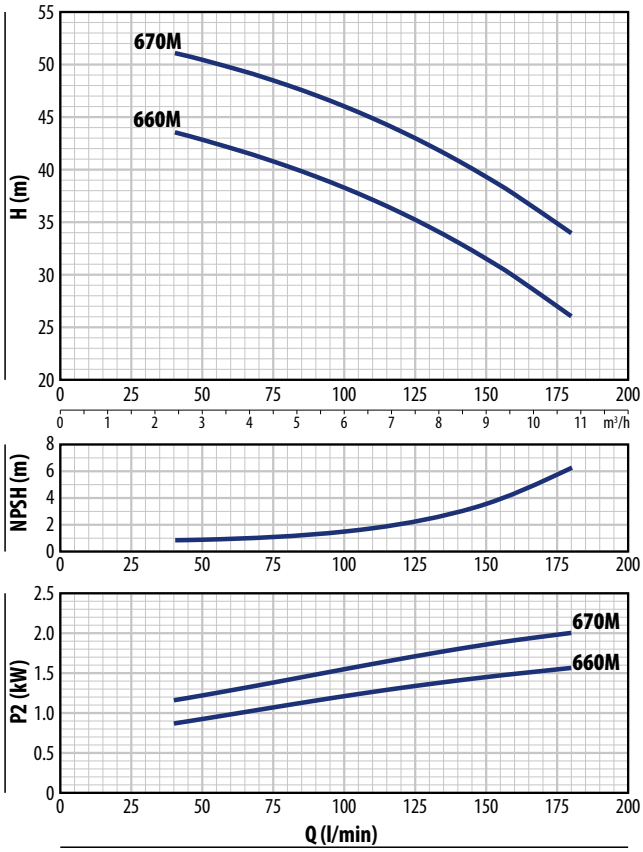
## PERFORMANCE CURVES - HS=0 m

60 Hz

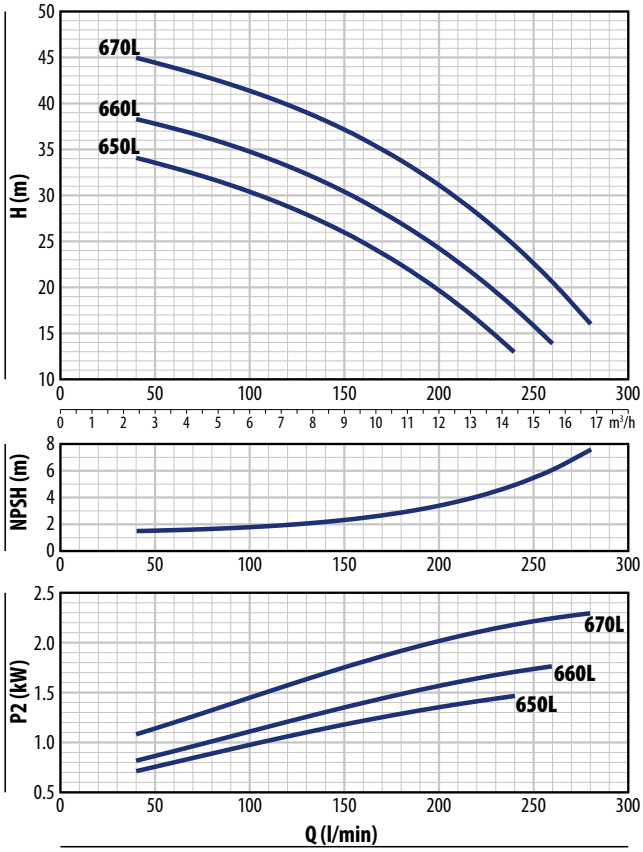
## AL RED 650–660–670




## AL RED 660M–670M




## AL RED 650L–660L–670L



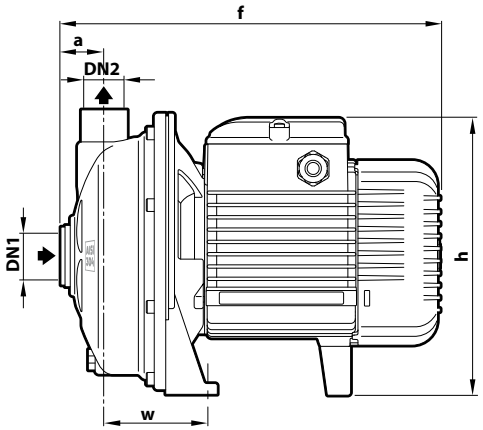
# AL-RED -4

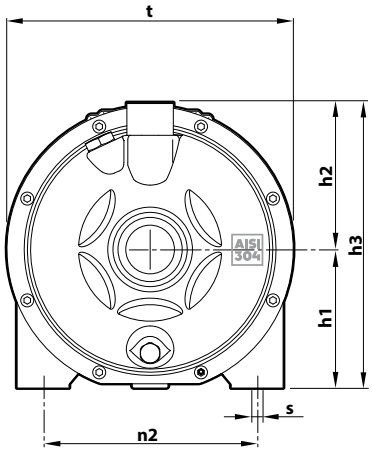
## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-phase | 220 V | 110 V |
| AL-REDm 600 -4 | 2.7 A | 5.4 A |
| AL-REDm 610 -4 | 4.2 A | 8.5 A |
| AL-REDm 620 -4 | 6.4 A | 12.8 A |
| AL-REDm 650 -4 | 7.8 A | – |
| AL-REDm 660 -4 | 9.4 A | – |
| AL-REDm 670 -4 | 12.8 A | – |
| AL-REDm 660M -4 | 9.8 A | – |
| AL-REDm 670M -4 | 12.2 A | – |
| AL-REDm 650L -4 | 9.0 A | – |
| AL-REDm 660L -4 | 10.5 A | – |
| AL-REDm 670L -4 | 13.5 A | – |

| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| Three-ph. | 220 V - Δ | 380 V - Y | 220 V - Δ | 440 V - Y |
| AL-RED 600 -4 | 2.4 A | 1.4 A | 2.0 A | 1.2 A |
| AL-RED 610 -4 | 2.8 A | 1.6 A | 2.3 A | 1.3 A |
| AL-RED 620 -4 | 5.0 A | 2.9 A | 4.2 A | 2.5 A |
| AL-RED 650 -4 | 6.6 A | 3.8 A | 5.5 A | 3.2 A |
| AL-RED 660 -4 | 7.5 A | 4.3 A | 6.0 A | 3.5 A |
| AL-RED 670 -4 | 8.8 A | 5.1 A | 7.0 A | 4.0 A |
| AL-RED 660M -4 | 7.8 A | 4.5 A | 6.1 A | 3.5 A |
| AL-RED 670M -4 | 8.3 A | 4.8 A | 8.1 A | 4.2 A |
| AL-RED 650L -4 | 5.1 A | 2.9 A | 4.0 A | 2.2 A |
| AL-RED 660L -4 | 6.0 A | 3.5 A | 4.5 A | 2.6 A |
| AL-RED 670L -4 | 9.0 A | 5.2 A | 8.1 A | 4.6 A |

## DIMENSIONS AND WEIGHT




| MODEL | | PORTS | | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN1 | DN2 | a | f | h | h1 | h2 | h3 | n2 | t | w | s | 1~ | 3~ |
| AL-REDm 600 -4 | AL-RED 600 -4 | 1¼" | 1" | 31.5 | 266 | 181 | 92 | 93.5 | 185.5 | 120 | 181 | 68.5 | 9 | 5.7 | 6.6 |
| AL-REDm 610 -4 | AL-RED 610 -4 | | | | | | | | | | | | | 7.2 | 7.2 |
| AL-REDm 620 -4 | AL-RED 620 -4 | | | 33.5 | 296 | 219 * | 107 | 112 | 219 | 165 | 221 | 80.5 | 9.5 | 11.5 | 11.5 |
| AL-REDm 650 -4 | AL-RED 650 -4 | | | | 370 | 251 | 120 | 117.5 | 237.5 | 180 | 244 | 86.5 | 11 | 14.6 | 14.6 |
| AL-REDm 660 -4 | AL-RED 660 -4 | | | | | | | | | | | | | 15.8 | 15.8 |
| AL-REDm 670 -4 | AL-RED 670 -4 | | | | 370/390 | | | | | | | | | 17.6 | 19.6 |
| AL-REDm 660M -4 | AL-RED 660M -4 | | | | | | | | | | | | | 15.7 | 15.7 |
| AL-REDm 670M -4 | AL-RED 670M -4 | | | | 370/390 | | | | | | | | | 17.5 | 19.4 |
| AL-REDm 650L -4 | AL-RED 650L -4 | | | | 370 | | | | | | | | | 15.7 | 15.7 |
| AL-REDm 660L -4 | AL-RED 660L -4 | | | | | | | | | | | | | 15.7 | 15.7 |
| AL-REDm 670L -4 | AL-RED 670L -4 | | | | 370/390 | | | | | | | | | 17.5 | 19.5 |

(*) h=233 mm for single-phase 110 V versions

## PALLET CAPACITY

| MODEL | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-phase | Three-phase | n. pumps | n. pumps |
| AL-REDm 600-4 | AL-RED 600-4 | 96 | 144 |
| AL-REDm 610-4 | AL-RED 610-4 | 96 | 144 |
| AL-REDm 620-4 | AL-RED 620-4 | 50 | 80 |
| AL-REDm 650-4, 650L-4 | AL-RED 650-4, 650L-4 | 45 | 63 |
| AL-REDm 660-4, 660M-4, 660L-4 | AL-RED 660-4, 660M-4, 660L-4 | 45 | 63 |
| AL-REDm 670-4, 670M-4, 670L-4 | AL-RED 670-4, 670M-4, 670L-4 | 45 | 63 |

## CONSTRUCTION FEATURES

| | | |
|---|---|---|
| 1 | **Pump body** | Stainless steel **AISI 304** |
| 2 | **Cover** | Stainless steel **AISI 304** |
| 3 | **Impeller** | Stainless steel **AISI 304** |

**4 Mechanical seal**

| Pump | Seal | Shaft | Materials |
|---|---|---|---|
| **AL-RED 600**<br>**AL-RED 610** | **AR-12** | Ø 12 mm | Ceramic / Graphite / NBR / AISI 304 |
| **AL-RED 620** | **AR-14** | Ø 14 mm | Ceramic / Graphite / NBR / AISI 304 |
| **AL-RED 650**<br>**AL-RED 660**<br>**AL-RED 670** | **FN-18** | Ø 18 mm | Graphite / Ceramic / NBR / AISI 316 |

| | | |
|---|---|---|
| 5 | **Motor shaft** | Stainless steel **AISI 431** |

**6 Electric motor**

**AL-REDm -4**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection.
**AL-RED -4**: three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz

- The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)
- Continuous running duty **S1**
- Insulation: class F
- Protection rating: IPX5



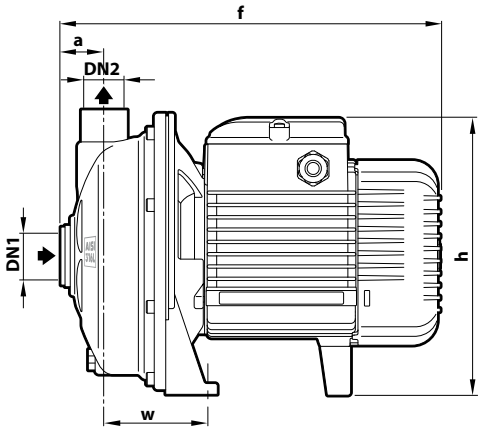
# AL-RED -6

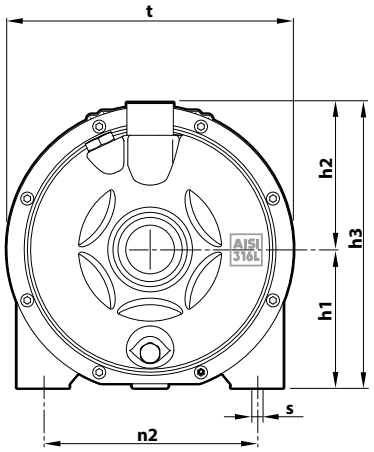
## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-phase | 220 V | 110 V |
| AL-REDm 600 -6 | 2.7 A | 5.4 A |
| AL-REDm 610 -6 | 4.2 A | 8.5 A |
| AL-REDm 620 -6 | 6.4 A | 12.8 A |
| AL-REDm 650 -6 | 7.8 A | – |
| AL-REDm 660 -6 | 9.4 A | – |
| AL-REDm 670 -6 | 12.8 A | – |
| AL-REDm 660M -6 | 9.8 A | – |
| AL-REDm 670M -6 | 12.2 A | – |
| AL-REDm 650L -6 | 9.0 A | – |
| AL-REDm 660L -6 | 10.5 A | – |
| AL-REDm 670L -6 | 13.5 A | – |

| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| Three-ph. | 220 V - Δ | 380 V - Y | 220 V - Δ | 440 V - Y |
| AL-RED 600 -6 | 2.4 A | 1.4 A | 2.0 A | 1.2 A |
| AL-RED 610 -6 | 2.8 A | 1.6 A | 2.3 A | 1.3 A |
| AL-RED 620 -6 | 5.0 A | 2.9 A | 4.2 A | 2.5 A |
| AL-RED 650 -6 | 6.6 A | 3.8 A | 5.5 A | 3.2 A |
| AL-RED 660 -6 | 7.5 A | 4.3 A | 6.0 A | 3.5 A |
| AL-RED 670 -6 | 8.8 A | 5.1 A | 7.0 A | 4.0 A |
| AL-RED 660M -6 | 7.8 A | 4.5 A | 6.1 A | 3.5 A |
| AL-RED 670M -6 | 8.3 A | 4.8 A | 8.1 A | 4.2 A |
| AL-RED 650L -6 | 5.1 A | 2.9 A | 4.0 A | 2.2 A |
| AL-RED 660L -6 | 6.0 A | 3.5 A | 4.5 A | 2.6 A |
| AL-RED 670L -6 | 9.0 A | 5.2 A | 8.1 A | 4.6 A |

## DIMENSIONS AND WEIGHT




| MODEL | | PORTS | | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN1 | DN2 | a | f | h | h1 | h2 | h3 | n2 | t | w | s | 1~ | 3~ |
| AL-REDm 600 -6 | AL-RED 600 -6 | 1¼" | 1" | 31.5 | 266 | 181 | 92 | 93.5 | 185.5 | 120 | 181 | 68.5 | 9 | 5.7 | 6.6 |
| AL-REDm 610 -6 | AL-RED 610 -6 | | | | | | | | | | | | | 7.2 | 7.2 |
| AL-REDm 620 -6 | AL-RED 620 -6 | | | 33.5 | 296 | 219 * | 107 | 112 | 219 | 165 | 221 | 80.5 | 9.5 | 11.5 | 11.5 |
| AL-REDm 650 -6 | AL-RED 650 -6 | | | | 370 | 251 | 120 | 117.5 | 237.5 | 180 | 244 | 86.5 | 11 | 14.6 | 14.6 |
| AL-REDm 660 -6 | AL-RED 660 -6 | | | | | | | | | | | | | 15.8 | 15.8 |
| AL-REDm 670 -6 | AL-RED 670 -6 | | | | 370/390 | | | | | | | | | 17.6 | 19.6 |
| AL-REDm 660M -6 | AL-RED 660M -6 | | | | | | | | | | | | | 15.7 | 15.7 |
| AL-REDm 670M -6 | AL-RED 670M -6 | | | | 370/390 | | | | | | | | | 17.5 | 19.4 |
| AL-REDm 650L -6 | AL-RED 650L -6 | | | | 370 | | | | | | | | | 15.7 | 15.7 |
| AL-REDm 660L -6 | AL-RED 660L -6 | | | | | | | | | | | | | 15.7 | 15.7 |
| AL-REDm 670L -6 | AL-RED 670L -6 | | | | 370/390 | | | | | | | | | 17.5 | 19.5 |

(*) h=233 mm for single-phase 110 V versions

## PALLET CAPACITY

| MODEL | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-phase | Three-phase | n. pumps | n. pumps |
| AL-REDm 600-6 | AL-RED 600-6 | 96 | 144 |
| AL-REDm 610-6 | AL-RED 610-6 | 96 | 144 |
| AL-REDm 620-6 | AL-RED 620-6 | 50 | 80 |
| AL-REDm 650-6, 650L-6 | AL-RED 650-6, 650L-6 | 45 | 63 |
| AL-REDm 660-6, 660M-6, 660L-6 | AL-RED 660-6, 660M-6, 660L-6 | 45 | 63 |
| AL-REDm 670-6, 670M-6, 670L-6 | AL-RED 670-6, 670M-6, 670L-6 | 45 | 63 |

## CONSTRUCTION FEATURES

| | | |
|---|---|---|
| 1 | **Pump body** | Stainless steel **AISI 316L** |
| 2 | **Cover** | Stainless steel **AISI 316L** |
| 3 | **Impeller** | Stainless steel **AISI 316L** |

**4 Mechanical seal**

| Pump | Seal | Shaft | Materials |
|---|---|---|---|
| **AL-RED 600**<br>**AL-RED 610** | **AR-12ST6** | Ø 12 mm | Ceramic / Graphite / NBR / AISI 316 |
| **AL-RED 620** | **AR-14ST6** | Ø 14 mm | Ceramic / Graphite / NBR / AISI 316 |
| **AL-RED 650**<br>**AL-RED 660**<br>**AL-RED 670** | **FN-18ST6** | Ø 18 mm | Graphite / Ceramic / NBR / AISI 316 |

| | | |
|---|---|---|
| 5 | **Motor shaft** | Stainless steel **AISI 316L** |

**6 Electric motor**

**AL-REDm -6**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection.
**AL-RED -6**: three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz

- The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)
- Continuous running duty **S1**
- Insulation: class F
- Protection rating: IPX5



Clean water

Domestic use

Civil use



## PERFORMANCE RANGE

- Flow rate up to **160 l/min** (9.6 m³/h)
- Head up to **56 m**

## INSTALLATION AND USE

Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.

Reliable and easy to operate, these pumps have extensive application in domestic and civil settings, particularly for distributing water with small to medium-sized pressure tanks, transferring fluids, and watering orchards and gardens.

※ **The AISI 304 stainless steel impeller comes with a ten-year guarantee**

## APPLICATION LIMITS

- Manometric suction head up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure:
  - **6 bar** for CP 600-610-620
  - **10 bar** for CP 650-660-670

## AVAILABLE UPON REQUEST

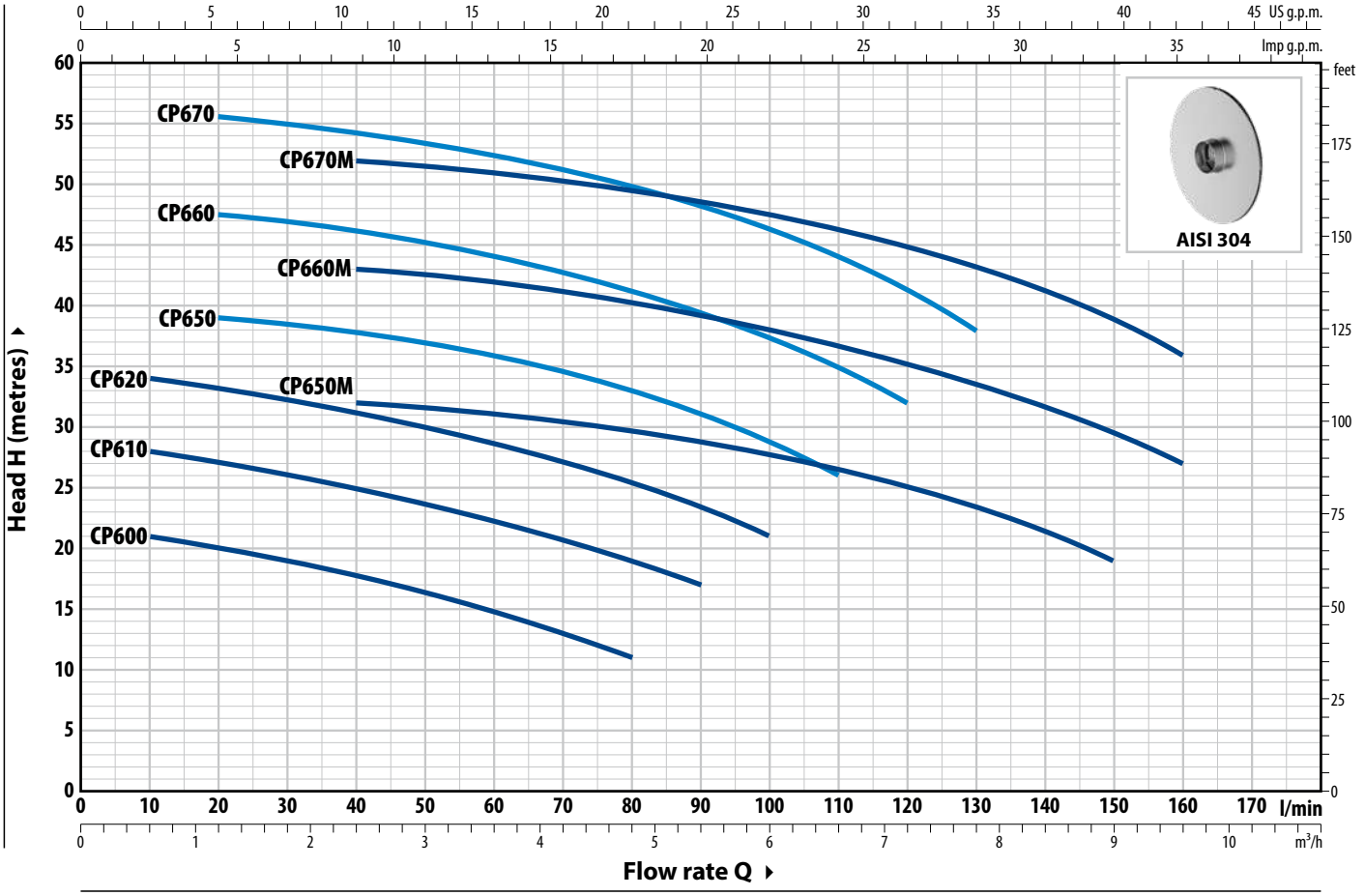
※ Mechanical seal options available
※ Protection rating IPX5 for CP 650-660-670
※ Different voltage or frequency

## PATENTS - TRADE MARKS - MODELS

- CPm158 registered trademark no. 0001516350
- Registered community model no. 002098434

## CURVES AND PERFORMANCE DATA – HS=0 m

## 60 Hz




| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 0.6 | 1.2 | 2.4 | 3.6 | 4.8 | 5.4 | 6.0 | 6.6 | 7.2 | 7.8 | 9.0 | 9.6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | kW | HP | 3~ | | l/min | **0** | **10** | **20** | **40** | **60** | **80** | **90** | **100** | **110** | **120** | **130** | **150** | **160** |
| **CPm 600** | **CP 600** | 0.37 | 0.50 | IE2 | | | 22 | 21 | 20 | 18 | 15 | 11 | | | | | | | |
| **CPm 610** | **CP 610** | 0.60 | 0.85 | | | | 28.5 | 28 | 27 | 25 | 22 | 19 | 17 | | | | | | |
| **CPm 620** | **CP 620** | 0.75 | 1 | IE3 | | | 35 | 34 | 33 | 31 | 28.5 | 25.5 | 23.5 | 21 | | | | | |
| **CPm 650** | **CP 650** | 1.1 | 1.5 | | | | 40 | – | 39 | 38 | 36 | 33.1 | 31.2 | 28.8 | 26 | | | | |
| **CPm 660** | **CP 660** | 1.5 | 2 | | **H** | m | 48 | – | 47.5 | 46 | 44 | 41 | 39.5 | 37.5 | 35 | 32 | | | |
| **CPm 670** | **CP 670** | 2.2 | 3 | | | | 56 | – | 55.5 | 54.5 | 52.5 | 50 | 48.5 | 46.5 | 44 | 41.5 | 38 | | |
| **CPm 650M** | **CP 650M** | 1.1 | 1.5 | | | | 33 | – | – | 32 | 31 | 30 | 29 | 28 | 26.5 | 25 | 23 | 19 | |
| **CPm 660M** | **CP 660M** | 1.5 | 2 | | | | 44 | – | – | 43 | 42 | 40 | 39 | 38 | 37 | 35.5 | 34 | 29.5 | 27 |
| **CPm 670M** | **CP 670M** | 2.2 | 3 | | | | 53 | – | – | 52 | 51 | 49.5 | 48.5 | 47.5 | 46.5 | 45 | 43.5 | 39 | 36 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

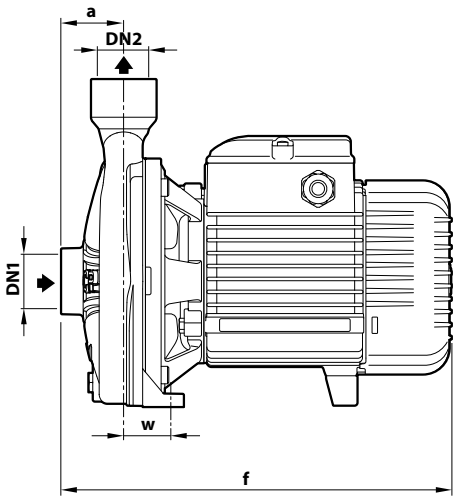
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

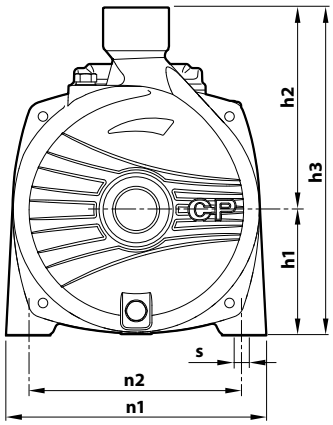
## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-ph. | 220 V | 110 V |
| CPm 600 | 2.7 A | 5.5 A |
| CPm 610 | 4.0 A | 8.0 A |
| CPm 620 | 6.0 A | 12.0 A |
| CPm 650 | 8.8 A | – |
| CPm 650M | 8.8 A | – |
| CPm 660 | 9.7 A | – |
| CPm 660M | 9.7 A | – |
| CPm 670 | 13.2 A | – |
| CPm 670M | 12.0 A | – |

| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| Three-ph. | 220 V - Δ | 380 V - Y | 220 V - Δ | 440 V - Y |
| CP 600 | 1.8 A | 1.0 A | 2.0 A | 1.2 A |
| CP 610 | 2.8 A | 1.6 A | 2.6 A | 1.5 A |
| CP 620 | 4.2 A | 2.4 A | 4.2 A | 2.4 A |
| CP 650 | 7.5 A | 4.3 A | 5.8 A | 3.2 A |
| CP 650M | 7.5 A | 4.3 A | 5.8 A | 3.2 A |
| CP 660 | 7.6 A | 4.4 A | 5.9 A | 3.2 A |
| CP 660M | 7.6 A | 4.4 A | 6.4 A | 4.1 A |
| CP 670 | 10.4 A | 6.0 A | 8.8 A | 5.0 A |
| CP 670M | 8.6 A | 5.0 A | 7.8 A | 4.5 A |

## DIMENSIONS AND WEIGHT




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN1 | DN2 | a | f | h3 | h1 | h2 | n1 | n2 | w | s | 1~ | 3~ |
| CPm 600 | CP 600 | 1" | 1" | 42 | 257 | 205 | 82 | 123 | 165 | 135 | 38 | 11 | 7.0 | 7.7 |
| CPm 610 | CP 610 | | | | | | | | | | | | 8.5 | 7.8 |
| CPm 620 | CP 620 | | | | 286 | 240 | 92 | 148 | 190 | 160 | 37 | | 11.0 | 10.9 |
| CPm 650 - 650M | CP 650 - 650M | 1¼" | 1" | 51 | 367 | 260 | 110 | 150 | 206 | 165 | 44.5 | 11 | 17.8 | 17.6 |
| CPm 660 - 660M | CP 660 - 660M | | | | | | | | | | | | 18.9 | 17.9 |
| CPm 670 - 670M | CP 670 - 670M | | | | 367/387 | | | | | | | | 20.9 | 22.5 |

## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-phase | Three-phase | n. pumps | n. pumps |
| CPm 600 | CP 600 | 96 | 144 |
| CPm 610 | CP 610 | 96 | 144 |
| CPm 620 | CP 620 | 70 | 112 |
| CPm 650 - 650M | CP 650 - 650M | 50 | 70 |
| CPm 660 - 660M | CP 660 - 660M | 50 | 70 |
| CPm 670 - 670 M | – | 50 | 70 |
| – | CP 670 - 670 M | 35 | 49 |

## CONSTRUCTION FEATURES

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment with ISO 228/1 threaded ports |
| 2 | **Cover** | **AISI 304** stainless steel (cast iron for models CP 170-170M-190-200) |
| 3 | **Impeller** | Stainless steel **AISI 304** |

**4 Mechanical seal**

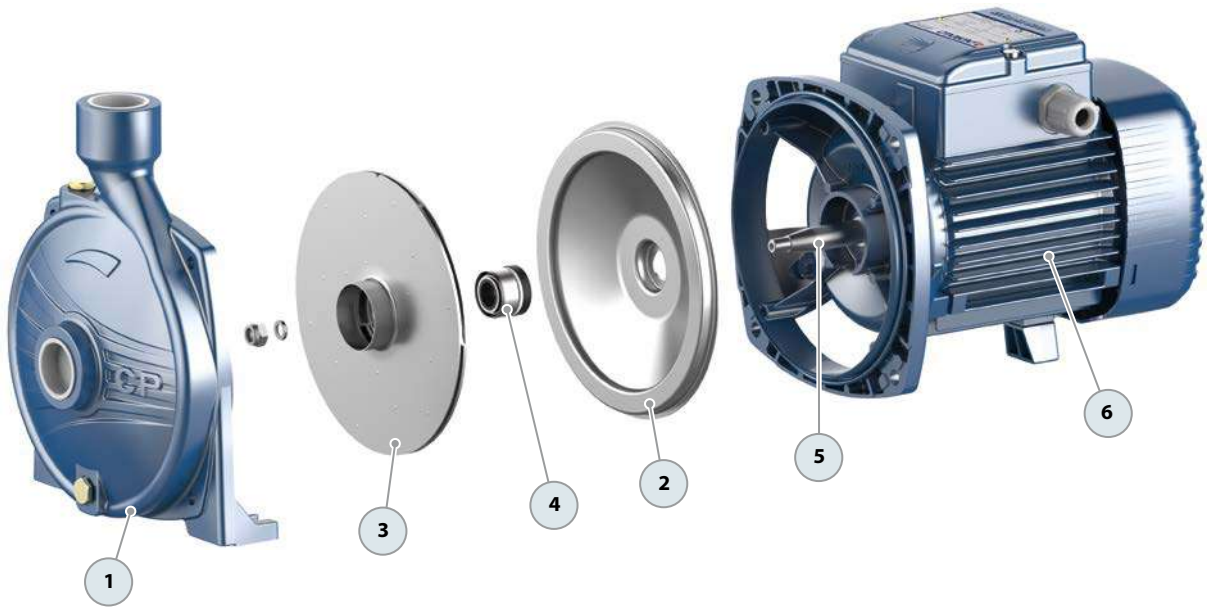
| Pump | Seal | Shaft | Materials |
|---|---|---|---|
| CP 600-610 | **AR-12** | Ø 12 mm | Ceramic / Graphite / NBR |
| CP 620 | **AR-14** | Ø 14 mm | Ceramic / Graphite / NBR |
| CP 650-660-670<br>CP 650M-660M-670M | **FN-18** | Ø 18 mm | Graphite / Ceramic / NBR |

| | | |
|---|---|---|
| 5 | **Motor shaft** | Stainless steel **AISI 431** |

**6 Electric motor**

**CPm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection.
**CP**: three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz

- The three-phase pumps are fitted with high performance motors up to P2=0.60 kW in class **IE2** and from P2=0.75 kW in class **IE3** (IEC 60034-30-1)
- Continuous running duty **S1**
- Insulation: class F
- Protection rating: IPX5



Clean water
Civil use
Agricultural use
Industrial use



## PERFORMANCE RANGE

- Flow rate up to **900 l/min** (54 m³/h)
- Head up to **107 m**

## INSTALLATION AND USE

Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.

Reliable and easy to operate, these pumps are widely used in civil, agricultural, and industrial settings for water supply, air conditioning and cooling systems, and irrigation purposes.

## APPLICATION LIMITS

- Manometric suction head up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Maximum working pressure **10 bar**

## AVAILABLE UPON REQUEST

※ Mechanical seal options available
※ Pump shaft in stainless steel AISI 316 - EN 10088-3 - 1.4401 for CP 220, CP 230, CP 250
※ Protection rating IPX5 for CP 160 and CP 210
※ Different voltage or frequency

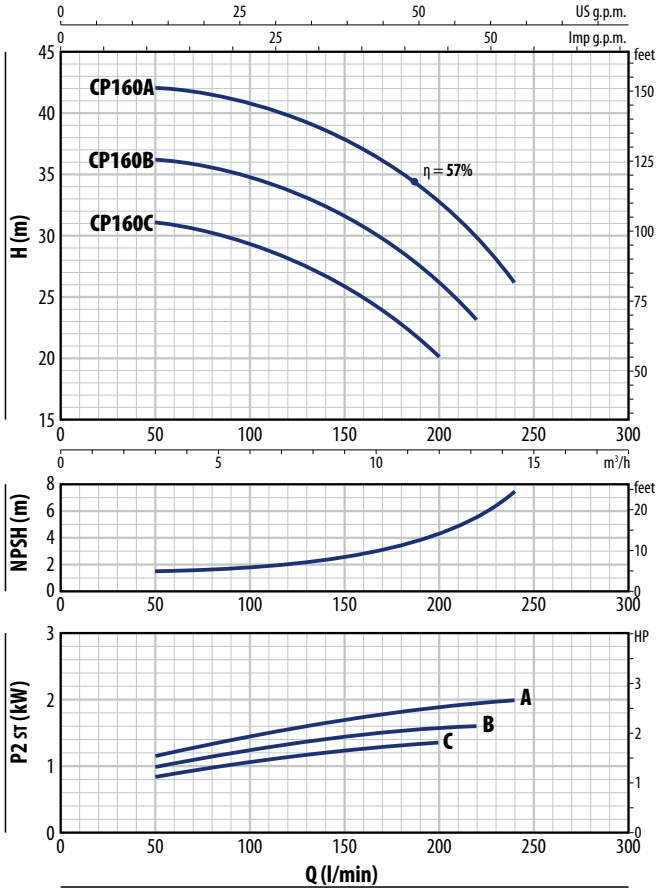
## PATENTS - TRADE MARKS - MODELS

- Registered community model No. 002098434 for CP 160, CP 210, CP 250
- Italian registered model no. 72753 for CP 220, CP 230

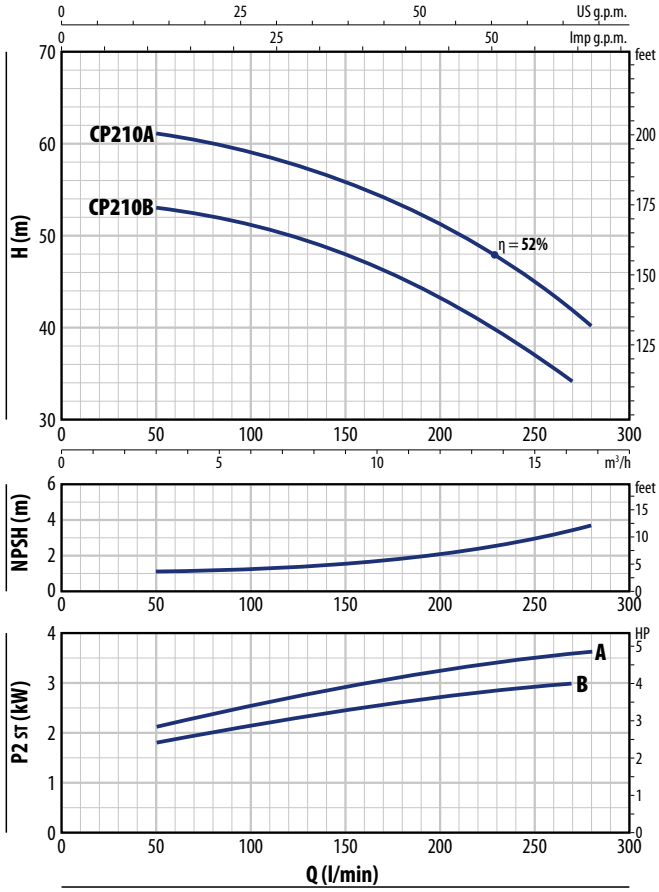
## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**

## CP 160




## CP 210




## CP 160

| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 3 | 4.5 | 6 | 7.5 | 9 | 10.5 | 12 | 13.2 | 14.4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | **3~** | | l/min | **0** | **50** | **75** | **100** | **125** | **150** | **175** | **200** | **220** | **240** |
| **CPm 160C** | **CP 160C** | 1.1 | 1.5 | **IE3** | **H** metres | | 32 | 31 | 30.5 | 29.5 | 28 | 26 | 23 | 20 | | |
| **CPm 160B** | **CP 160B** | 1.5 | 2 | | | | 37 | 36 | 35.5 | 34.5 | 33.5 | 31.5 | 29 | 26.5 | 23 | |
| **CPm 160A** | **CP 160A** | 2.2 | 3 | | | | 43 | 42 | 41.5 | 40.5 | 39.5 | 38 | 35.5 | 33 | 30 | 26 |

## CP 210

| TYPE | POWER (P2) | | | Q | m³/h | 0 | 3 | 4.5 | 6 | 7.5 | 9 | 10.5 | 12 | 13.2 | 14.4 | 15 | 16.2 | 16.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Three-ph.** | **kW** | **HP** | **3~** | | l/min | **0** | **50** | **75** | **100** | **125** | **150** | **175** | **200** | **220** | **240** | **250** | **270** | **280** |
| **CP 210B** | 3 | 4 | **IE3** | **H** metres | | 54 | 53 | 52 | 51 | 49.5 | 48 | 45.5 | 43 | 40 | 38.5 | 37 | 34 | |
| **CP 210A** | 4 | 5.5 | | | | 61 | 61 | 60 | 59 | 57.5 | 56 | 53.5 | 51 | 49 | 46.5 | 45 | 42 | 40 |

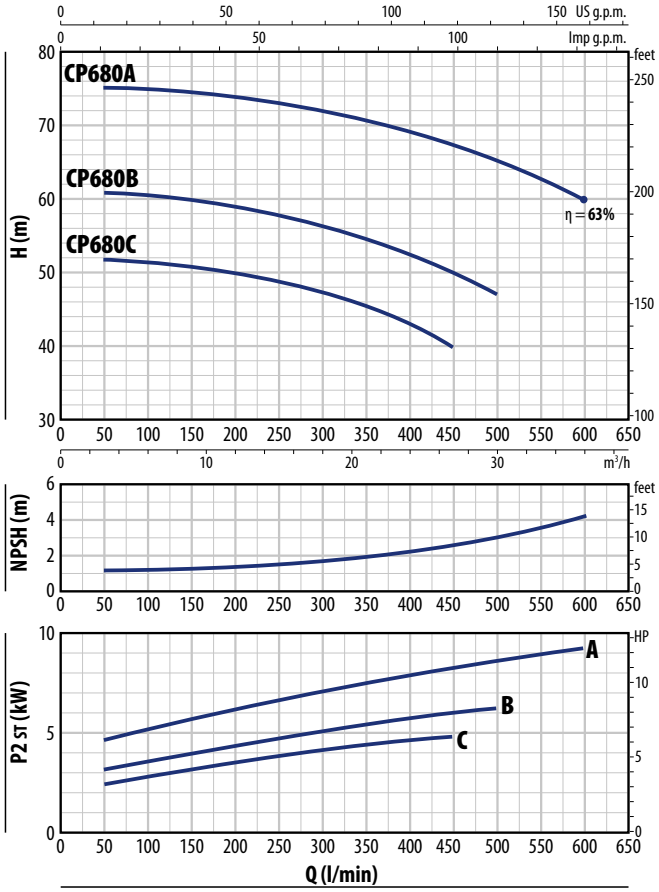
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

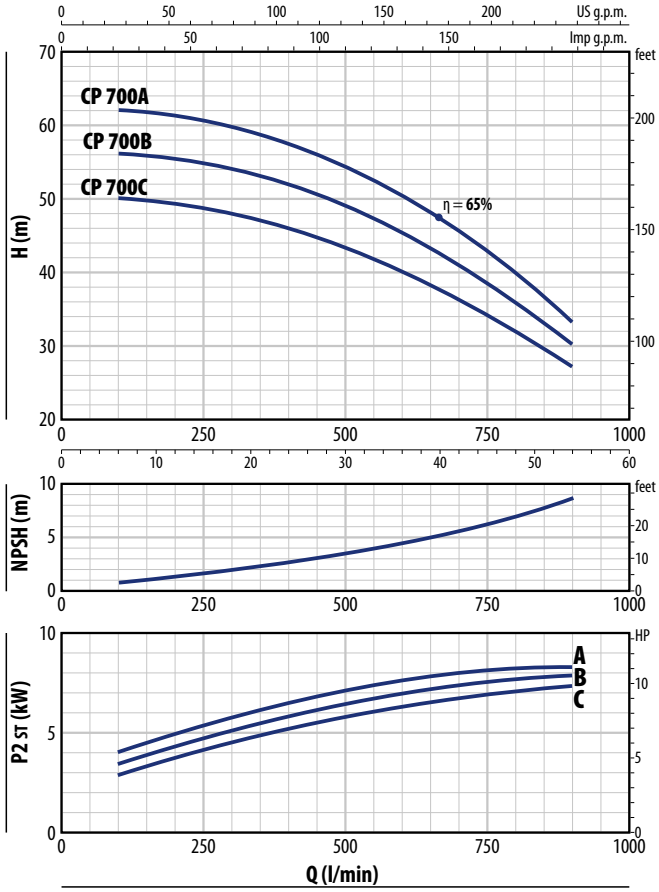
## CURVES AND PERFORMANCE DATA – HS=0 m

60 Hz

## CP 680




## CP 700




## CP 680

| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | 3~ | | l/min | **0** | **50** | **100** | **150** | **200** | **250** | **300** | **350** | **400** | **450** | **500** | **550** | **600** |
| CPm 680C | CP 680C | 4 | 5.5 | IE3 | H | metres | 52 | 51.5 | 51 | 50.5 | 50 | 49 | 47.5 | 45.5 | 43 | 40 | | | |
| – | CP 680B | 5.5 | 7.5 | | | | 61 | 60.5 | 60 | 59.5 | 59 | 58 | 56.5 | 54.5 | 52.5 | 50 | 47 | | |
| – | CP 680A | 7.5 | 10 | | | | 75 | 75 | 75 | 74.5 | 74 | 73 | 72 | 71 | 68.5 | 67.5 | 65 | 63 | 60 |

## CP 700

| TYPE | POWER (P2) | | | Q | m³/h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | 0 | **100** | **200** | **300** | **400** | **500** | **600** | **700** | **800** | **900** |
| CP 700C | 5.5 | 7.5 | IE3 | H | metres | 51 | 50 | 49.5 | 48 | 46 | 43.5 | 40 | 36.5 | 32 | 27 |
| CP 700B | 7.5 | 10 | | | | 56 | 56 | 55.5 | 54 | 52 | 49 | 45.5 | 41 | 36 | 30 |
| CP 700A | 9 | 12.5 | | | | 62 | 62 | 61.5 | 60 | 57.5 | 54.5 | 50.5 | 45.5 | 39.5 | 33 |

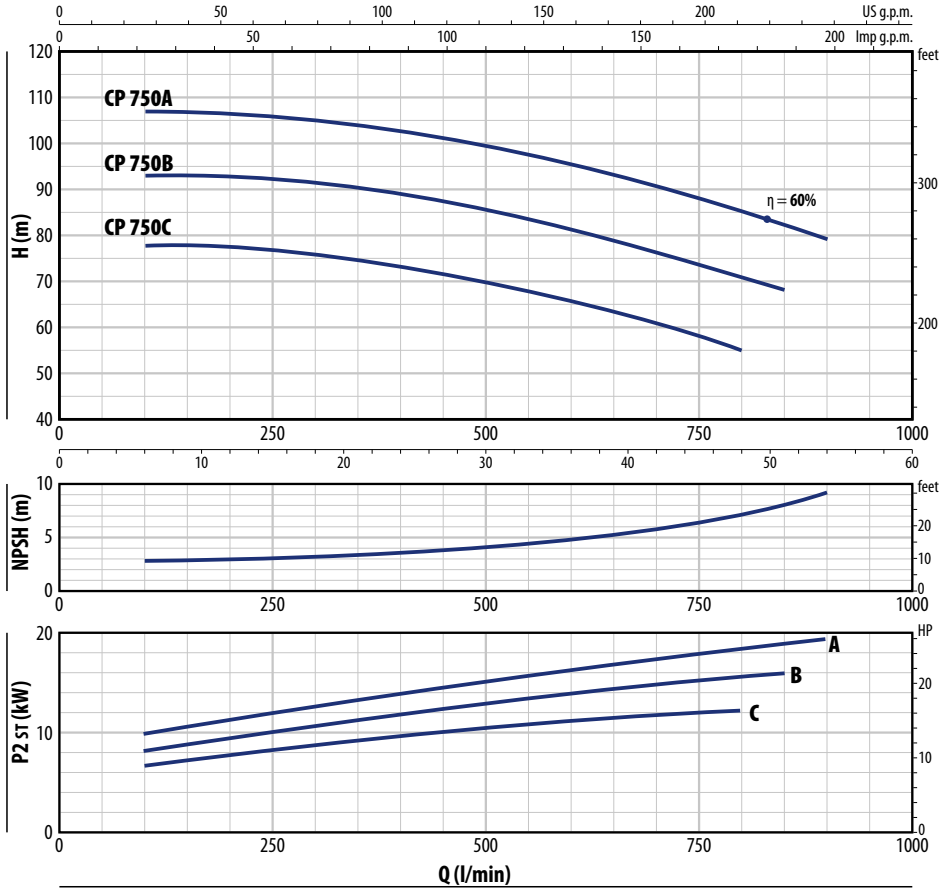
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## CURVES AND PERFORMANCE DATA – HS=0 m

60 Hz

# CP 750




# CP 750

| TYPE | POWER (P2) | | | Q | m³/h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 51 | 54 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | 0 | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 850 | 900 |
| CP 750C | 11 | 15 | IE3 | H | metres | 78 | 78 | 77 | 75 | 72.5 | 69 | 65 | 60.5 | 55 | | |
| CP 750B | 15 | 20 | | | | 93 | 93 | 92 | 90.5 | 88 | 85 | 81 | 76.5 | 71 | 68 | |
| CP 750A | 18.5 | 25 | | | | 107 | 107 | 106 | 105 | 102 | 99 | 95 | 90.5 | 85 | 82 | 79 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

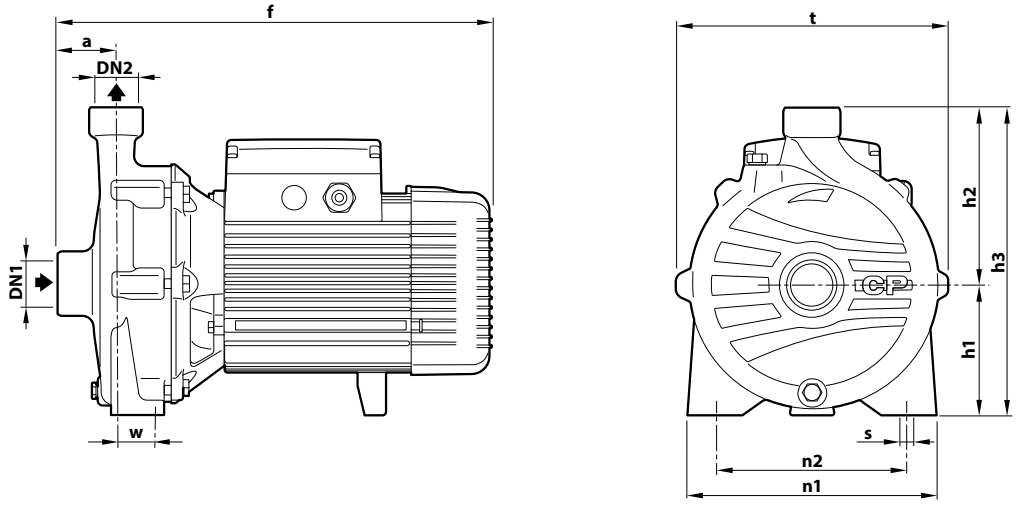
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## ABSORPTION

| TYPE | VOLTAGE |
|---|---|
| Single-phase | 220 V |
| CPm 160C | 9.0 A |
| CPm 160B | 11.0 A |
| CPm 160A | 13.5 A |
| CPm 680C | 28.0 A |

| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| Three-ph. | 220 V - Δ | 380 V - Y | 220 V - Δ | 440 V - Y |
| CP 160C | 6.7 A | 3.9 A | 7.2 A | 3.6 A |
| CP 160B | 7.4 A | 4.3 A | 6.4 A | 3.7 A |
| CP 160A | 8.8 A | 5.1 A | 8.3 A | 4.6 A |
| CP 210B | 14.3 A | 8.3 A | 11.5 A | 6.7 A |
| CP 210A | 18.2 A | 10.5 A | 16.0 A | 10.3 A |
| CP 680C | 20.5 A | 12.0 A | 18.3 A | 10.6 A |
| CP 680B | 25.1 A | 14.5 A | 21.8 A | 12.6 A |
| CP 680A | 34.6 A | 20.0 A | 32.0 A | 18.5 A |
| CP 700C | 27.7 A | 16.0 A | 23.5 A | 13.6 A |
| CP 700B | 33.8 A | 19.5 A | 28.2 A | 16.7 A |
| CP 700A | 34.7 A | 20.0 A | 29.8 A | 17.5 A |
| CP 750C | 41.2 A | 23.8 A | 44.0 A | 23.0 A |
| CP 750B | 58.0 A | 34.0 A | 52.0 A | 27.0 A |
| CP 750A | 62.6 A | 36.2 A | 65.0 A | 34.0 A |

## DIMENSIONS AND WEIGHT




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN1 | DN2 | a | f | h1 | h2 | h3 | t | n1 | n2 | w | s | 1~ | 3~ |
| **CPm 160C** | **CP 160C** | **1½"** | **1"** | 54 | 370 | 110 | 150 | 260 | – | 206 | 165 | 44.5 | 11 | **18.7** | **18.8** |
| **CPm 160B** | **CP 160B** | | | | | | | | | | | | | **20.0** | **20.0** |
| **CPm 160A** | **CP 160A** | | | | 390 | | | | | | | | | **22.7** | **22.9** |
| – | **CP 210B** | | | 60 | 454 | 132 | 180 | 312 | | 274 | 205 | 35 | | – | **33.8** |
| – | **CP 210A** | | | | | | | | | | | | | – | **37.2** |
| **CPm 680C** | **CP 680C** | **2" NPT** | **2" NPT** | 70 | 505/460 | 136 | 192 | 328 | 273 | 250 | 190 | 40 | 14 | **47.0** | **42.0** |
| – | **CP 680B** | | | | 505 | | | | | | | | | – | **47.0** |
| – | **CP 680A** | | | | | | | | | | | | | – | **53.0** |
| – | **CP 700C** | | | | | | | | | | | | | – | **47.0** |
| – | **CP 700B** | | | | | | | | | | | | | – | **53.0** |
| – | **CP 700A** | | | | | | | | | | | | | – | **53.5** |
| – | **CP 750C** | | | 65 | 570 | 160 | 232 | 392 | 317 | 294 | 230 | 45 | 14 | – | **93.5** |
| – | **CP 750B** | | | | 666 | | | | | | | | | – | **112.0** |
| – | **CP 750A** | | | | | | | | | | | | | – | **120.0** |

## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-ph. | Three-ph. | n. pumps | n. pumps |
| **CPm 160C** | **CP 160C** | 50 | 70 |
| **CPm 160B** | **CP 160B** | 50 | 70 |
| **CPm 160A** | **CP 160A** | 35 | 49 |
| – | **CP 210B** | 18 | 30 |
| – | **CP 210A** | 18 | 30 |

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-ph. | Three-ph. | n. pumps | n. pumps |
| **CPm 680C** | **CP 680C** | 18 | 24 |
| – | **CP 680B** | 18 | 24 |
| – | **CP 680A** | 12 | 16 |
| – | **CP 700C** | 12 | 16 |
| – | **CP 700B** | 12 | 16 |
| – | **CP 700A** | 12 | 16 |
| – | **CP 750C** | 6 | 9 |
| – | **CP 750B** | 6 | 9 |
| – | **CP 750A** | 6 | 9 |

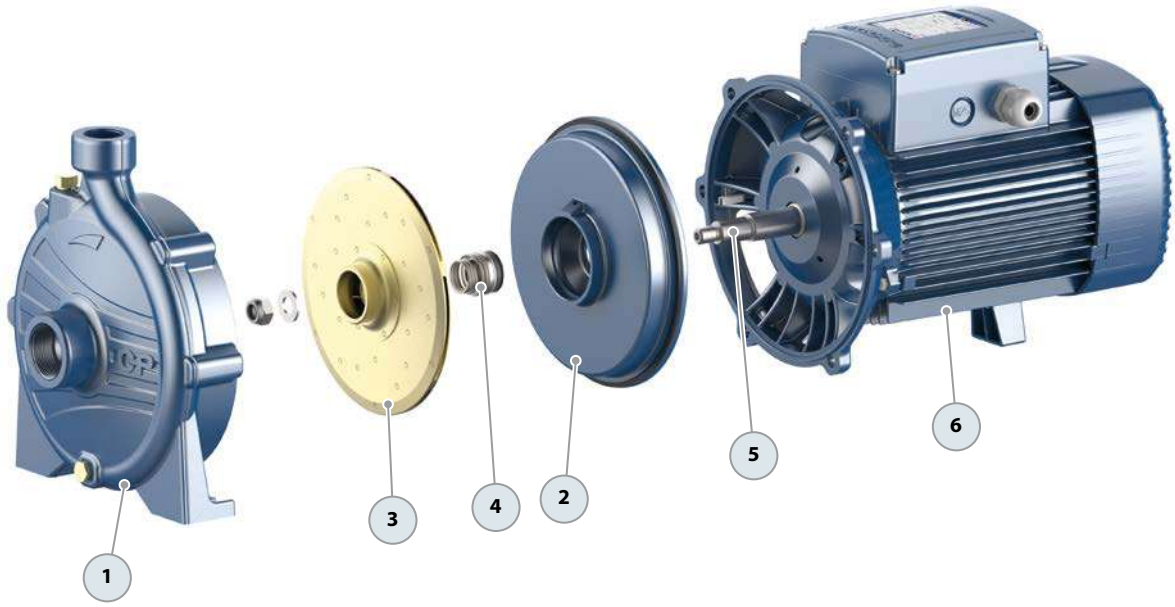
## CONSTRUCTION FEATURES

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with ISO 228/1 threaded ports |
| 2 | **Cover** | Cast iron |
| 3 | **Impeller** | Stainless steel for CP160<br>Brass for CP 210, CP 680, CP 700<br>Cast iron for CP 750 |

**4 Mechanical seal**

| Pump | Seal | Shaft | Materials |
|---|---|---|---|
| CP 160 | **FN-18** | Ø 18 mm | Graphite / Ceramic / NBR |
| CP 210 , CP 680, CP 700 | **FN-24** | Ø 24 mm | Graphite / Ceramic / NBR |
| CP 750 | **FN-32 NU** | Ø 32 mm | Graphite / Ceramic / NBR |

| | | |
|---|---|---|
| 5 | **Motor shaft** | Stainless steel **AISI 431** |
| 6 | **Electric motor** | **CPm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection.<br>**CP**: three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz<br>– The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)<br>– Continuous running duty **S1**<br>– Insulation: class F<br>– Protection rating: IPX4 for models CP160 and CP210<br>IPX5 protection for models CP680, CP700, and CP750 |



# 2CP Twin impeller centrifugal pumps

Clean water
Domestic use
Civil use
Industrial use



## PERFORMANCE RANGE

- Flow rate up to **450 l/min** (27 m³/h)
- Head up to **112 m**

## APPLICATION LIMITS

- Manometric suction head up to **7 m**
- Liquid temperature between from **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Maximum working pressure **10 bar**

## INSTALLATION AND USE

They are recommended for pumping clean water and liquids that are chemically non-aggressive for the pump materials.

Its high efficiency and adaptability to a wide variety of applications make it an ideal choice in the domestic, civil and industrial sectors, particularly for water distribution in conjunction with autoclave tanks, for increasing network pressure, and for fire-fighting units.

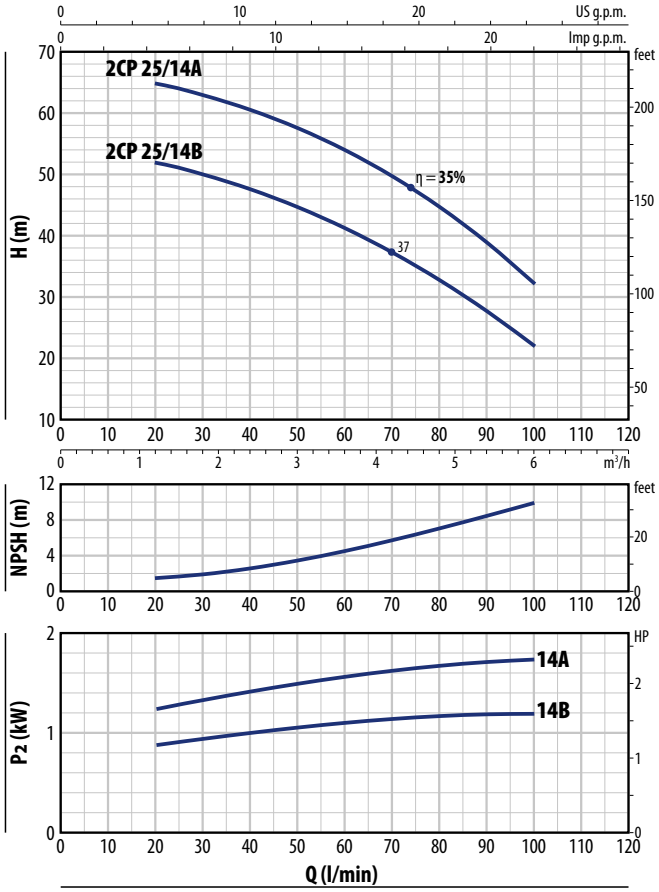
## AVAILABLE UPON REQUEST

※ Mechanical seal options available
※ Different voltage or frequency
※ IPX5 protection for:
  – 2CP32/200 – 2CP40/180
  – 2CP32/210 – 2CP40/200

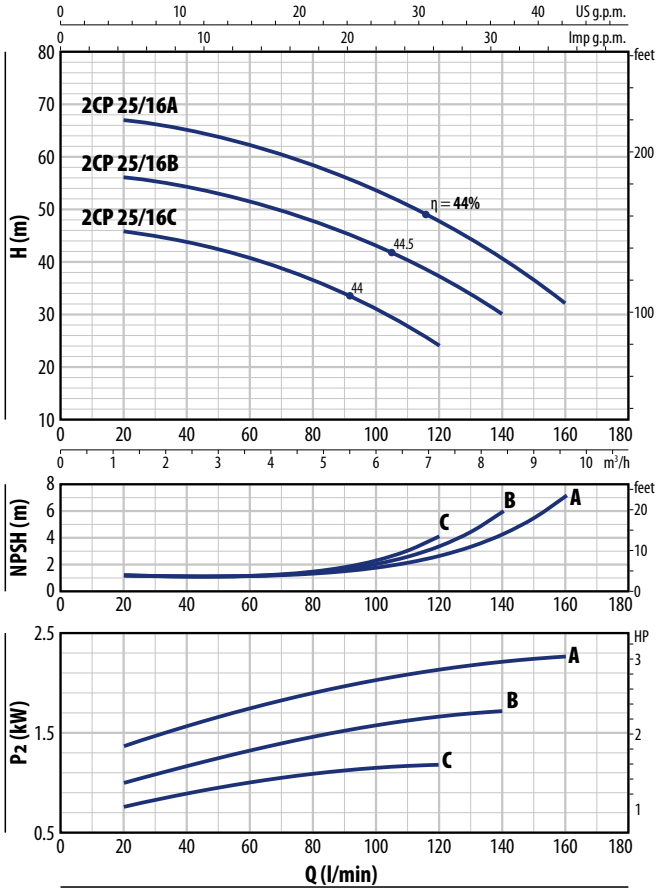
## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**

## 2CP 25/14




## 2CP 25/16




## 2CP 25/14

| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 1.2 | 1.8 | 2.4 | 3 | 3.6 | 4.2 | 4.8 | 5.4 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | 3~ | | l/min | 0 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| 2CPm 25/14B | 2CP 25/14B | 1.1 | 1.5 | IE3 | H | m | 54 | 52 | 50 | 47.5 | 44.5 | 41 | 37 | 32.5 | 27.5 | 22 |
| 2CPm 25/14A | 2CP 25/14A | 1.5 | 2 | | | | 67 | 65 | 63 | 60.5 | 57.5 | 54 | 49.5 | 44.5 | 39 | 32 |

## 2CP 25/16

| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 1.2 | 2.4 | 3.6 | 4.8 | 6 | 7.2 | 8.4 | 9.6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | 3~ | | l/min | 0 | 20 | 40 | 60 | 80 | 100 | 120 | 140 | 160 |
| 2CPm 25/16C | 2CP 25/16C | 1.1 | 1.5 | IE3 | H | m | 47 | 46 | 44 | 40.5 | 36 | 30.5 | 24 | | |
| 2CPm 25/16B | 2CP 25/16B | 1.5 | 2 | | | | 58 | 56 | 54 | 51 | 47.5 | 43 | 37 | 30 | |
| 2CPm 25/16A | 2CP 25/16A | 2.2 | 3 | | | | 68 | 67 | 65 | 62 | 58.5 | 54 | 48 | 40.5 | 32 |

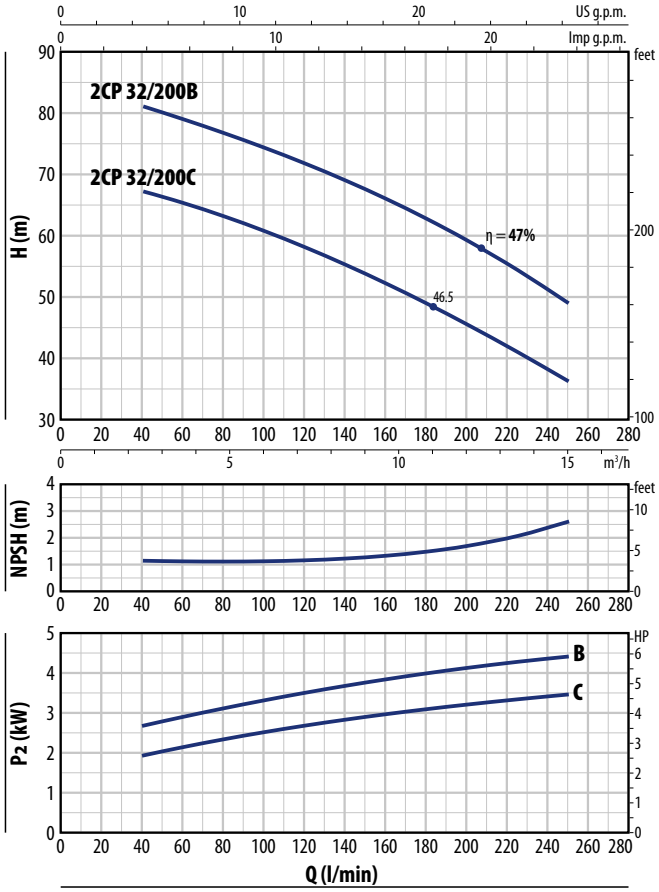
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

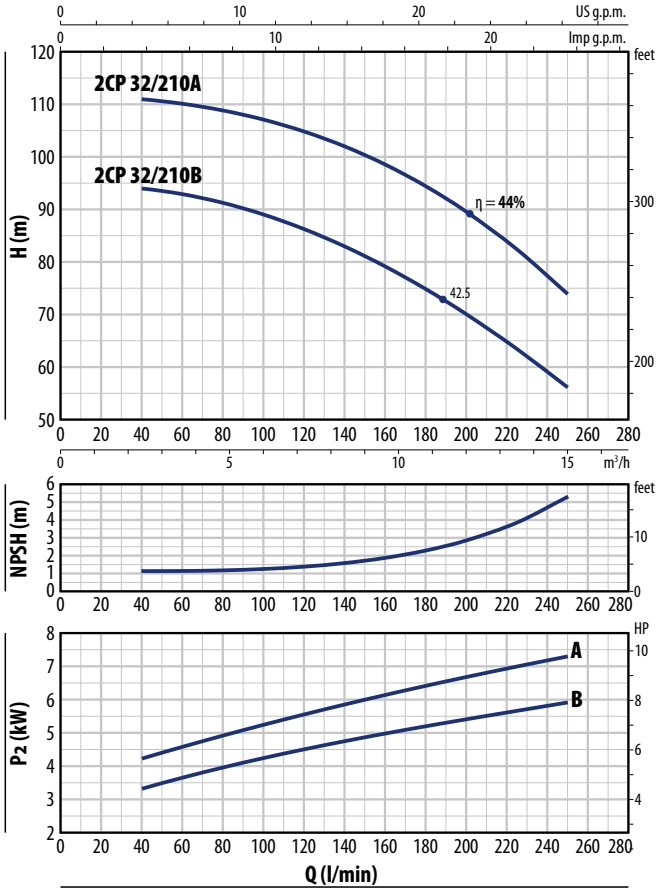
## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**

## 2CP 32/200




## 2CP 32/210




## 2CP 32/200

| TYPE | POWER (P2) | | | Q | m³/h | 0 | 2.4 | 3.6 | 4.8 | 6 | 7.2 | 8.4 | 9.6 | 10.8 | 12 | 13.5 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **0** | **40** | **60** | **80** | **100** | **120** | **140** | **160** | **180** | **200** | **225** | **250** |
| **2CP 32/200C** | 3 | 4 | **IE3** | **H** | m | 70 | 67 | 65 | 63 | 60.5 | 58 | 55 | 52 | 48.5 | 45.5 | 41 | 36 |
| **2CP 32/200B** | 4 | 5.5 | | | | 85 | 81 | 79 | 77 | 74.5 | 71.5 | 69 | 66 | 62.5 | 59 | 54.5 | 49 |

## 2CP 32/210

| TYPE | POWER (P2) | | | Q | m³/h | 0 | 2.4 | 3.6 | 4.8 | 6 | 7.2 | 8.4 | 9.6 | 10.8 | 12 | 13.5 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **0** | **40** | **60** | **80** | **100** | **120** | **140** | **160** | **180** | **200** | **225** | **250** |
| **2CP 32/210B** | 5.5 | 7.5 | **IE3** | **H** | m | 94 | 94 | 93 | 91 | 89 | 86 | 83 | 79 | 75 | 70 | 63.5 | 56 |
| **2CP 32/210A** | 7.5 | 10 | | | | 112 | 111 | 110 | 109 | 107 | 105 | 102 | 99 | 95 | 90 | 82.5 | 74 |

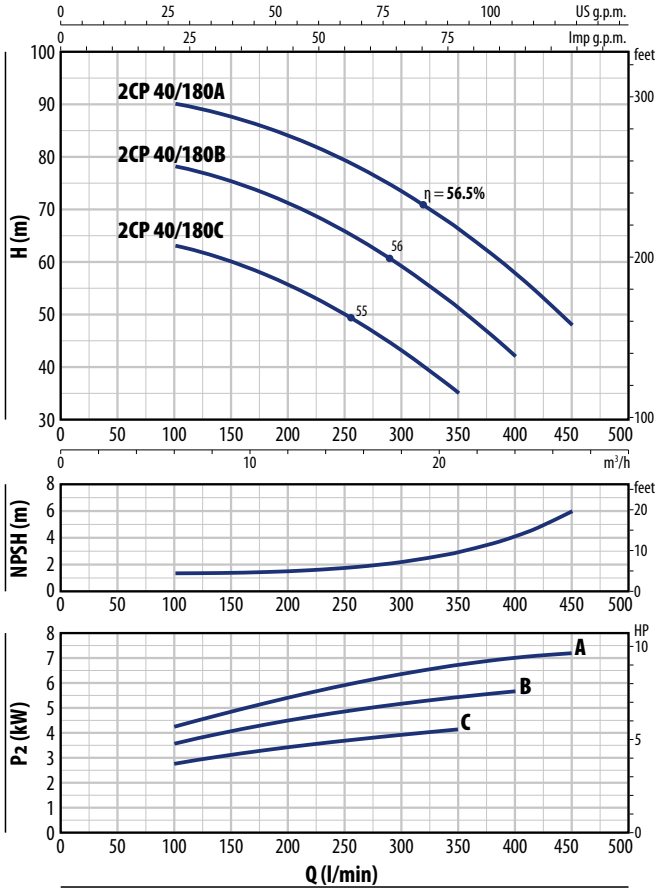
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

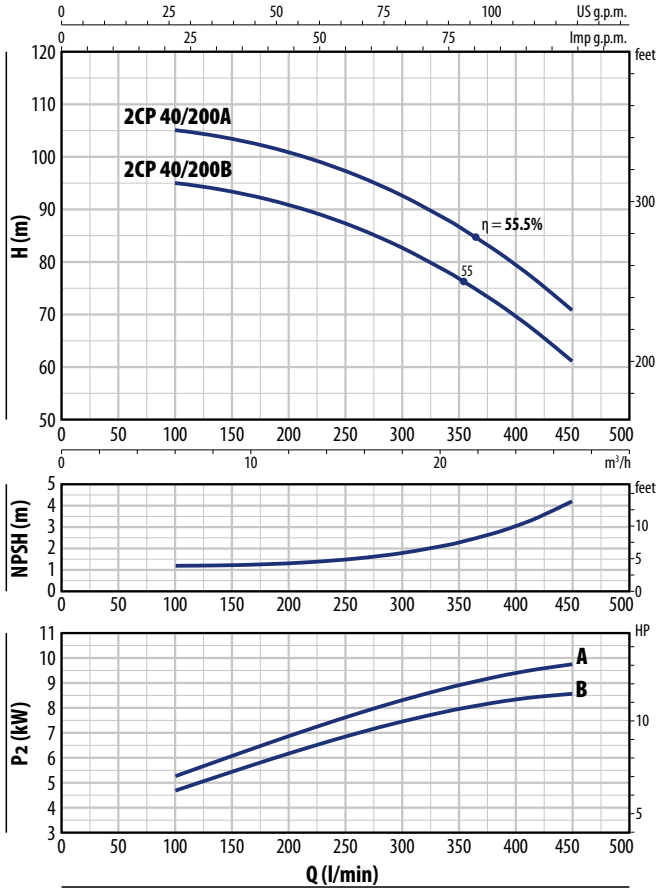
## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**

## 2CP 40/180




## 2CP 40/200




## 2CP 40/180

| TYPE | POWER (P2) | | | Q | m³/h | 0 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **0** | **100** | **150** | **200** | **250** | **300** | **350** | **400** | **450** |
| **2CP 40/180C** | 4 | 5.5 | | | | 65 | 63 | 60 | 55.5 | 50 | 43 | 35 | | |
| **2CP 40/180B** | 5.5 | 7.5 | **IE3** | **H** | m | 80 | 78 | 75 | 71 | 65.5 | 59 | 51 | 42 | |
| **2CP 40/180A** | 7.5 | 10 | | | | 92 | 90 | 87.5 | 84 | 79 | 73.5 | 66 | 58 | 48 |

## 2CP 40/200

| TYPE | POWER (P2) | | | Q | m³/h | 0 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **0** | **100** | **150** | **200** | **250** | **300** | **350** | **400** | **450** |
| **2CP 40/200B** | 9.2 | 12.5 | | | | 96 | 95 | 93 | 91 | 87 | 83 | 77 | 69.5 | 61 |
| **2CP 40/200A** | 11 | 15 | **IE3** | **H** | m | 106 | 105 | 103 | 101 | 97 | 93 | 87 | 79.5 | 71 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

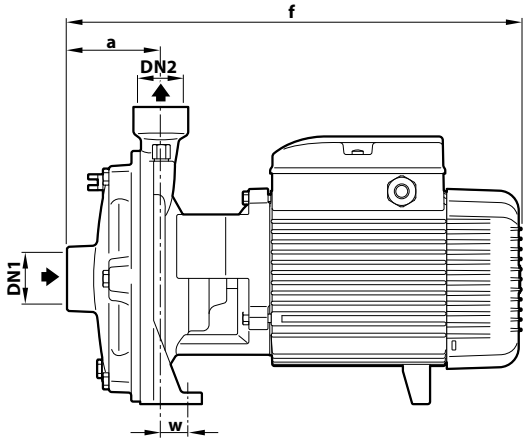
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

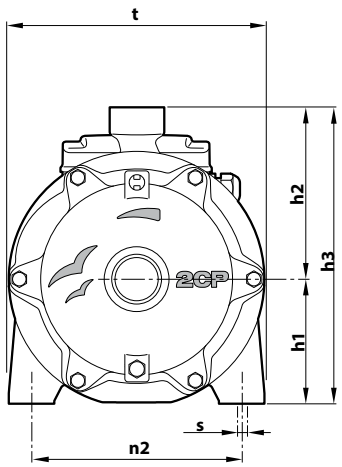
## ABSORPTION

| TYPE | VOLTAGE |
|---|---|
| Single-phase | 220 V |
| 2CPm 25/14B | 8.0 A |
| 2CPm 25/14A | 11.0 A |
| 2CPm 25/16C | 7.7 A |
| 2CPm 25/16B | 11.0 A |
| 2CPm 25/16A | 14.5 A |

| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| Three-phase | 220 V - Δ | 380 V - Y | 220 V - Δ | 440 V - Y |
| 2CP 25/14B | 5.4 A | 3.1 A | 4.3 A | 2.5 A |
| 2CP 25/14A | 6.9 A | 4.0 A | 6.9 A | 3.7 A |
| 2CP 25/16C | 6.9 A | 4.0 A | 4.2 A | 2.5 A |
| 2CP 25/16B | 8.3 A | 4.8 A | 6.9 A | 3.9 A |
| 2CP 25/16A | 9.3 A | 5.4 A | 8.6 A | 4.7 A |
| 2CP 32/200C | 14.4 A | 8.3 A | 14.4 A | 9.0 A |
| 2CP 32/200B | 21.7 A | 12.5 A | 19.9 A | 12.6 A |
| 2CP 32/210B | 25.0 A | 14.5 A | 23.0 A | 13.8 A |
| 2CP 32/210A | 33.8 A | 19.5 A | 32.0 A | 19.5 A |
| 2CP 40/180C | 19.9 A | 11.5 A | 19.0 A | 12.9 A |
| 2CP 40/180B | 25.0 A | 14.5 A | 23.0 A | 13.8 A |
| 2CP 40/180A | 31.2 A | 18.0 A | 31.0 A | 19.0 A |
| 2CP 40/200B | 35.0 A | 20.0 A | 36.0 A | 20.0 A |
| 2CP 40/200A | 40.0 A | 23.0 A | 40.0 A | 22.0 A |

## DIMENSIONS AND WEIGHT




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN1 | DN2 | a | f | h1 | h2 | h3 | t | n2 | w | s | 1~ | 3~ |
| 2CPm 25/14B | 2CP 25/14B | 1¼" | 1" | 82 | 404 | 93 | 130 | 223 | 200 | 162 | 17 | 10 | 20.8 | 20.8 |
| 2CPm 25/14A | 2CP 25/14A | | | | | 110 | 151 | 261 | 225 | 185 | 26 | 11 | 24.7 | 24.6 |
| 2CPm 25/16C | 2CP 25/16C | | | | | 93 | 130 | 223 | 200 | 162 | 17 | 10 | 21.3 | 20.6 |
| 2CPm 25/16B | 2CP 25/16B | | | | | 110 | 151 | 261 | 226 | 185 | 26 | 11 | 24.5 | 24.4 |
| 2CPm 25/16A | 2CP 25/16A | | | | 424 | | | | | | | | 27.1 | 27.3 |
| – | 2CP 32/200C | 1½" | 1¼" | 95 | 464 | 132 | 172 | 304 | 266 | 206 | 19 | 14 | – | 38.9 |
| – | 2CP 32/200B | | | | | | | | | | | | – | 42.0 |
| – | 2CP 32/210B | 2" | | 108 | 541 | 139 | 195 | 334 | 292 | 232 | 21 | | – | 54.9 |
| – | 2CP 32/210A | | | | | | | | | | | | – | 60.0 |
| – | 2CP 40/180C | | 1½" | | 496 | | | | | | | | – | 48.7 |
| – | 2CP 40/180B | | | | 542 | | | | | | | | – | 53.0 |
| – | 2CP 40/180A | | | | | | | | | | | | – | 59.0 |
| – | 2CP 40/200B | | | 110 | 620 | 160 | 195 | 355 | 298 | | | | – | 93.0 |
| – | 2CP 40/200A | | | | | | | | | | | | – | 92.0 |

## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-phase | Three-phase | n. pumps | n. pumps |
| 2CPm 25/14B | 2CP 25/14B | 50 | 70 |
| 2CPm 25/14A | 2CP 25/14A | 50 | 70 |
| 2CPm 25/16C | 2CP 25/16C | 50 | 70 |
| 2CPm 25/16B | 2CP 25/16B | 50 | 70 |
| 2CPm 25/16A | 2CP 25/16A | 35 | 40 |

| TYPE | GROUPAGE | CONTAINER |
|---|---|---|
| Three-phase | n. pumps | n. pumps |
| 2CP 32/200C | 18 | 24 |
| 2CP 32/200B | 18 | 24 |
| 2CP 32/210B | 12 | 16 |
| 2CP 32/210A | 12 | 16 |
| 2CP 40/180C | 12 | 16 |
| 2CP 40/180B | 12 | 16 |
| 2CP 40/180A | 12 | 16 |
| 2CP 40/200B | 6 | 9 |
| 2CP 40/200A | 6 | 9 |

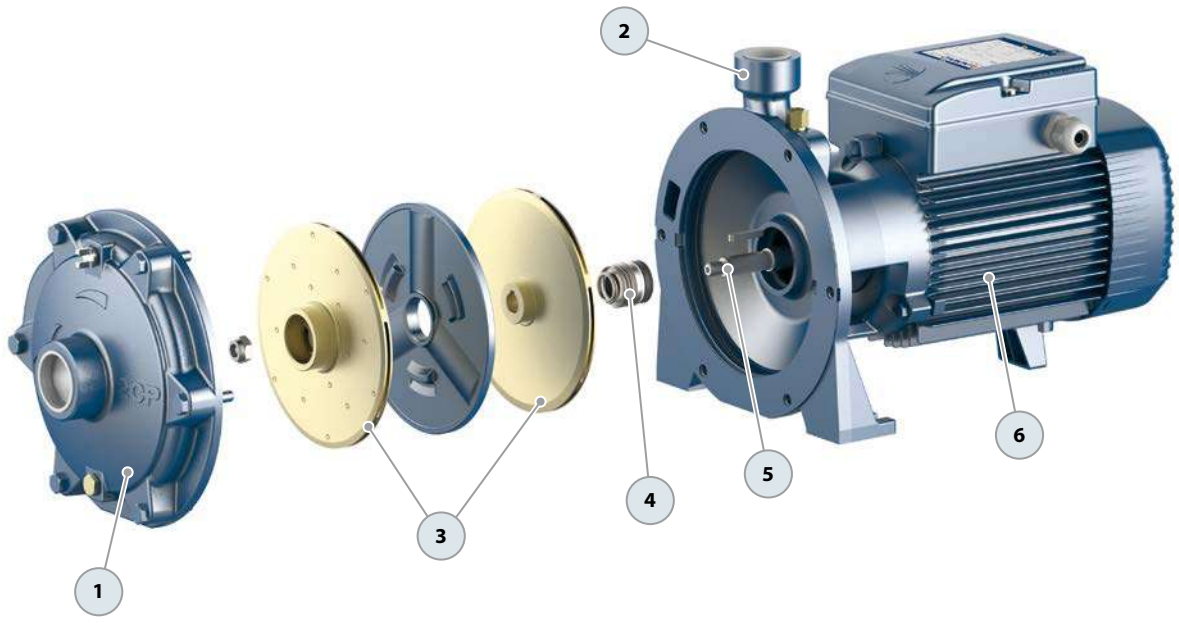
## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| **1** | **Suction body** | Cast iron with ISO 228/1 threaded suction port |
| **2** | **Delivery port** | Cast iron with ISO 228/1 threaded delivery port |
| **3** | **Impellers** | Brass |

**4** **Mechanical seal**

| Water pump | Seal | Shaft | Materials |
|---|---|---|---|
| 2CP 25/14<br>2CP 25/16 | **FN-18** | Ø 18 mm | Graphite / Ceramic / NBR |
| 2CP 32/200 | **FN-20** | Ø 20 mm | Graphite / Ceramic / NBR |
| 2CP 32/210<br>2CP 40/180 | **FN-24** | Ø 24 mm | Graphite / Ceramic / NBR |
| 2CP 40/200 | **FN-32 NU** | Ø 32 mm | Graphite / Ceramic / NBR |

| | | |
|---|---|---|
| **5** | **Motor shaft** | Stainless steel **AISI 431** |
| **6** | **Electric motor** | **2CPm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection<br>**2CP**: three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz<br>– The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)<br>– Continuous running duty **S1** |



# 2-5CP - I Multi-stage centrifugal pumps

Clean water

Domestic use



## ※ Particularly quiet, energy-efficient multi-stage pumps equipped with stainless steel impeller

### PERFORMANCE RANGE

- Flow rate up to **130 l/min** (7.8 m³/h)
- Head up to **67 m**

### INSTALLATION AND USE

They are recommended for pumping clean water and chemically non-aggressive liquids for the pump materials.

Due to their reliability and quietness, they are widely used in the domestic sector and especially for water distribution coupled with small or medium-sized autoclave tanks, for irrigating vegetable gardens or orchards, etc.

### APPLICATION LIMITS

- Manometric suction head up to **7 m**
- Liquid temperature between **-10 °C** and **+60 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure **6 bar**

### PATENTS - TRADE MARKS - MODELS

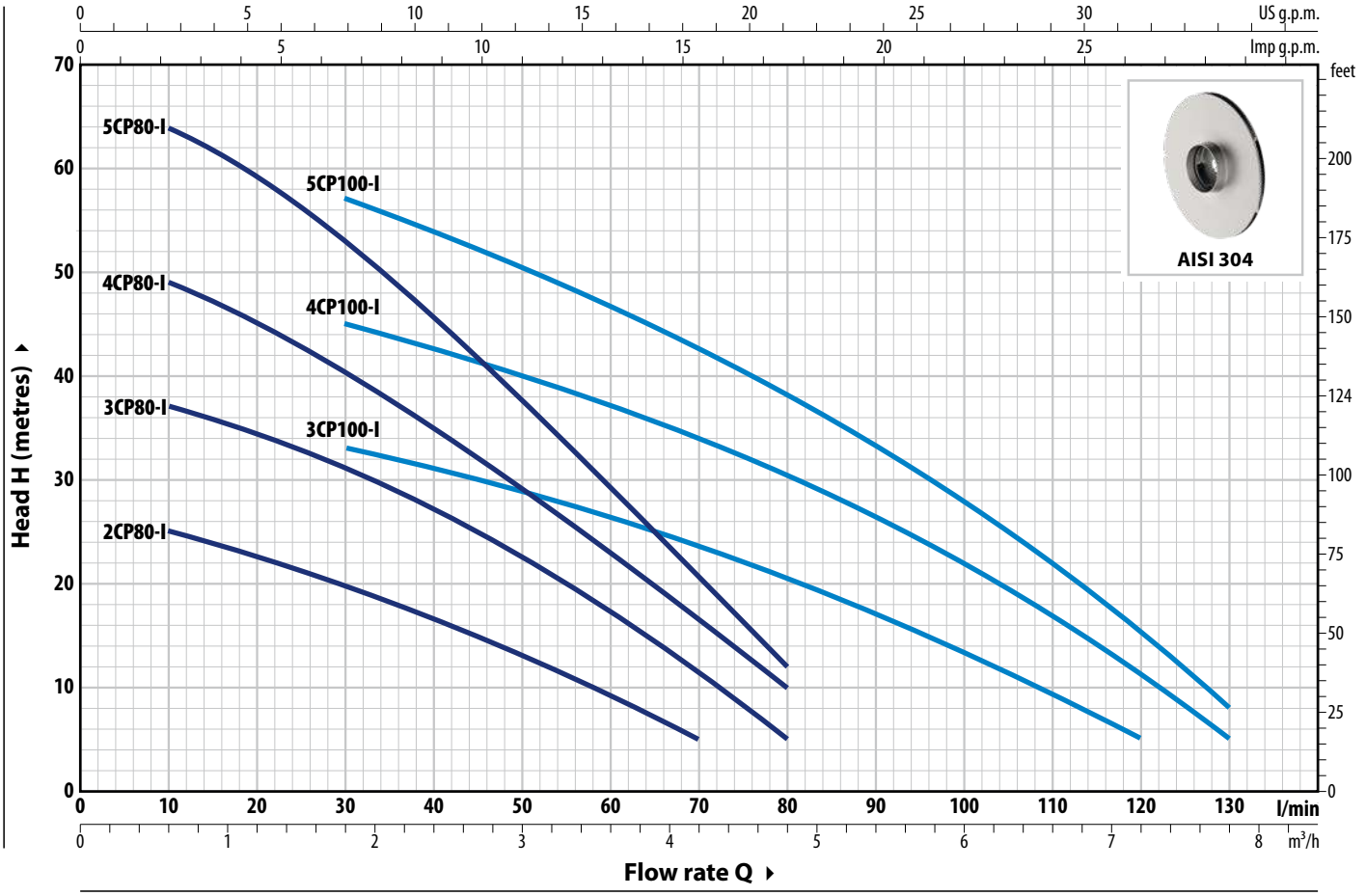
- Registered Community Model No. 002073635-0001

### AVAILABLE UPON REQUEST

※ Technopolymer impeller (cost-effective version)
※ Different voltage or frequency

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 0.3 | 0.6 | 1.2 | 1.8 | 2.4 | 3.0 | 3.6 | 4.2 | 4.8 | 5.4 | 6.0 | 6.6 | 7.2 | 7.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | **3~** | | l/min | **0** | **5** | **10** | **20** | **30** | **40** | **50** | **60** | **70** | **80** | **90** | **100** | **110** | **120** | **130** |
| **2CPm 80-I** | **2CP 80-I** | 0.37 | 0.50 | | | | 27 | 26 | 25 | 22.5 | 20 | 16.5 | 13 | 9 | 5 | | | | | | |
| **3CPm 80-I** | **3CP 80-I** | 0.45 | 0.60 | **IE2** | | | 40 | 38 | 37 | 34.5 | 31 | 27 | 22.5 | 17 | 11 | 5 | | | | | |
| **4CPm 80-I** | **4CP 80-I** | 0.55 | 0.75 | | | | 52 | 50 | 49 | 44.5 | 40 | 34 | 28.5 | 22.5 | 16 | 10 | | | | | |
| **5CPm 80-I** | **5CP 80-I** | 0.75 | 1 | | **H** | m | 67 | 66 | 64 | 59 | 53 | 45.5 | 37.5 | 29.5 | 20.5 | 12 | | | | | |
| **3CPm 100-I** | **3CP 100-I** | 0.55 | 0.75 | | | | 38 | 37 | 36 | 34.5 | 33 | 31 | 28 | 26 | 23 | 20 | 17 | 13.5 | 10 | 5 | |
| **4CPm 100-I** | **4CP 100-I** | 0.75 | 1 | **IE3** | | | 50 | 50 | 49 | 47 | 45 | 42 | 39.5 | 37 | 34 | 30.5 | 26.5 | 22 | 17 | 11 | 5 |
| **5CPm 100-I** | **5CP 100-I** | 1.1 | 1.5 | | | | 63 | 62 | 61.5 | 59.5 | 57 | 53.5 | 50.5 | 46.5 | 42.5 | 38 | 33 | 28 | 22 | 15 | 8 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

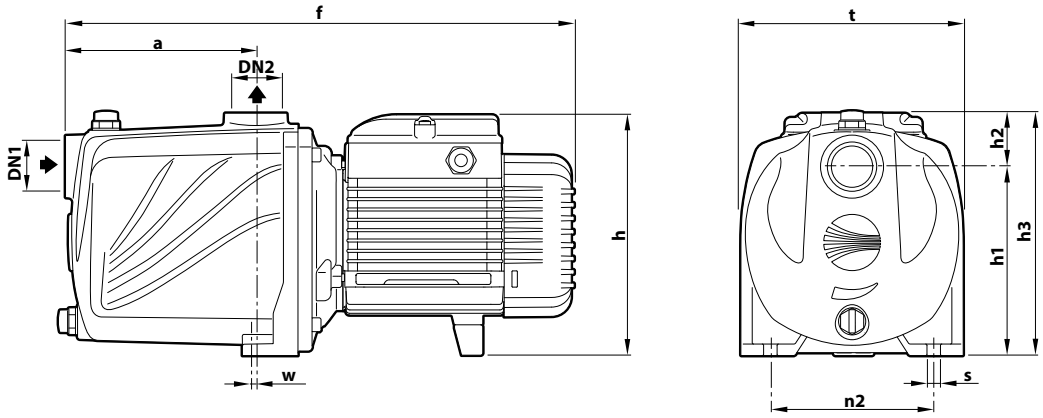
# 2-5CP - I

## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-phase | 220 V | 110 V |
| 2CPm 80-I | 2.5 A | 5.0 A |
| 3CPm 80-I | 3.4 A | 6.9 A |
| 4CPm 80-I | 4.5 A | 9.0 A |
| 5CPm 80-I | 6.0 A | 12.0 A |
| 3CPm 100-I | 5.0 A | 10.0 A |
| 4CPm 100-I | 6.2 A | 12.0 A |
| 5CPm 100-I | 6.8 A | – |

| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 220 V - Δ | 380 V - Y |
| 2CP 80-I | 1.7 A | 1.0 A |
| 3CP 80-I | 2.4 A | 1.4 A |
| 4CP 80-I | 2.8 A | 1.6 A |
| 5CP 80-I | 4.3 A | 2.5 A |
| 3CP 100-I | 2.8 A | 1.6 A |
| 4CP 100-I | 4.5 A | 2.6 A |
| 5CP 100-I | 4.8 A | 2.8 A |

## DIMENSIONS AND WEIGHT




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN1 | DN2 | a | f | h | h1 | h2 | h3 | t | n2 | w | s | 1~ | 3~ |
| 2CPm 80-I | 2CP 80-I | 1" | 1" | 110 | 338 | 172 | 134 | 38 | 172 | 158 | 118 | 1 | 10 | 9.7 | 9.7 |
| 3CPm 80-I | 3CP 80-I | | | | | | | | | | | | | 10.7 | 10.7 |
| 4CPm 80-I | 4CP 80-I | | | 135 | 363 | | | | | | | | | 12.2 | 11.5 |
| 5CPm 80-I | 5CP 80-I | | | | 382 | 192 * | | | | | | | | 15.1 | 15.1 |
| 3CPm 100-I | 3CP 100-I | | | 110 | 338 | 172 | | | | | | | | 11.4 | 10.7 |
| 4CPm 100-I | 4CP 100-I | | | 135 | 382 | 192 * | | | | | | | | 14.9 | 15.5 |
| 5CPm 100-I | 5CP 100-I | | | | | | | | | | | | | 14.9 | 15.7 |

(*) h=221 mm for single-phase 110 V versions

## PALLET CAPACITY

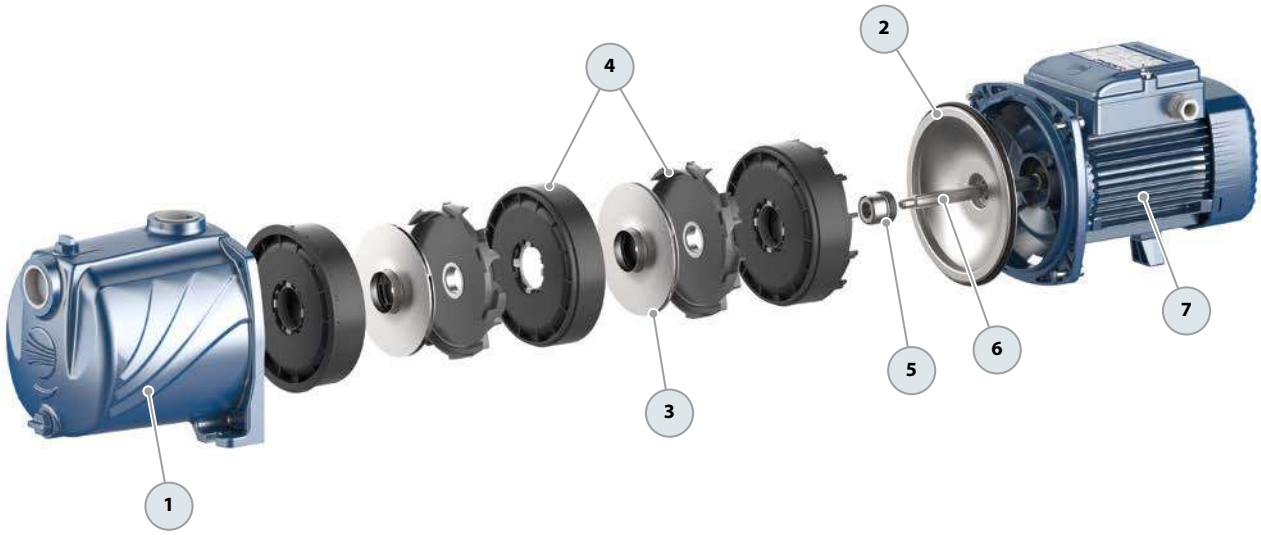
| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-phase | Three-phase | n. pumps | n. pumps |
| 2CPm 80-I | 2CP 80-I | 84 | 120 |
| 3CPm 80-I | 3CP 80-I | 84 | 120 |
| 4CPm 80-I | 4CP 80-I | 84 | 120 |
| 5CPm 80-I | 5CP 80-I | 72 | 108 |
| 3CPm 100-I | 3CP 100-I | 84 | 120 |
| 4CPm 100-I | 4CP 100-I | 72 | 108 |
| 5CPm 100-I | 5CP 100-I | 72 | 108 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment with ISO 228/1 threaded ports |
| 2 | **Cover** | Stainless steel **AISI 304** |
| 3 | **Impellers** | Stainless steel **AISI 304** |
| 4 | **Diffusers** | Noryl™ complete with wear rings |
| 5 | **Mechanical seal** | |

| Seal | Shaft | Materials |
|---|---|---|
| **AR-13** | Ø 13 mm | Ceramic / Graphite / NBR |

| | | |
|---|---|---|
| 6 | **Motor shaft** | Stainless steel **AISI 431** |
| 7 | **Electric motor** | **2-5CPm -I**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection<br>**2-5CP -I**: three-phase 220/380 V - 60 Hz<br>– The three-phase pumps are fitted with high performance motors up to P2=0.55 kW in class IE2 and from P2=0.75 kW in class IE3 (IEC 60034-30-1)<br>– Continuous running duty **S1** |



# 2-5CR Multi-stage centrifugal pumps

Clean water

Domestic use

Civil use




## ※ Quiet, energy-efficient stainless steel multi-stage pumps

※ Pump body: **Stainless steel AISI 304**
※ Cover: **Stainless steel AISI 304**
※ Impellers: **Stainless steel AISI 304**
※ Shaft: **Stainless steel AISI 431**

### PERFORMANCE RANGE

- Flow rate up to **130 l/min** (7.8 m³/h)
- Head up to **67 m**

### APPLICATION LIMITS

- Manometric suction head up to **7 m**
- Liquid temperature between **-10 °C** and **+60 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure **7 bar**

### INSTALLATION AND USE

Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components. Highly reliable and quiet, they are suitable for domestic applications.

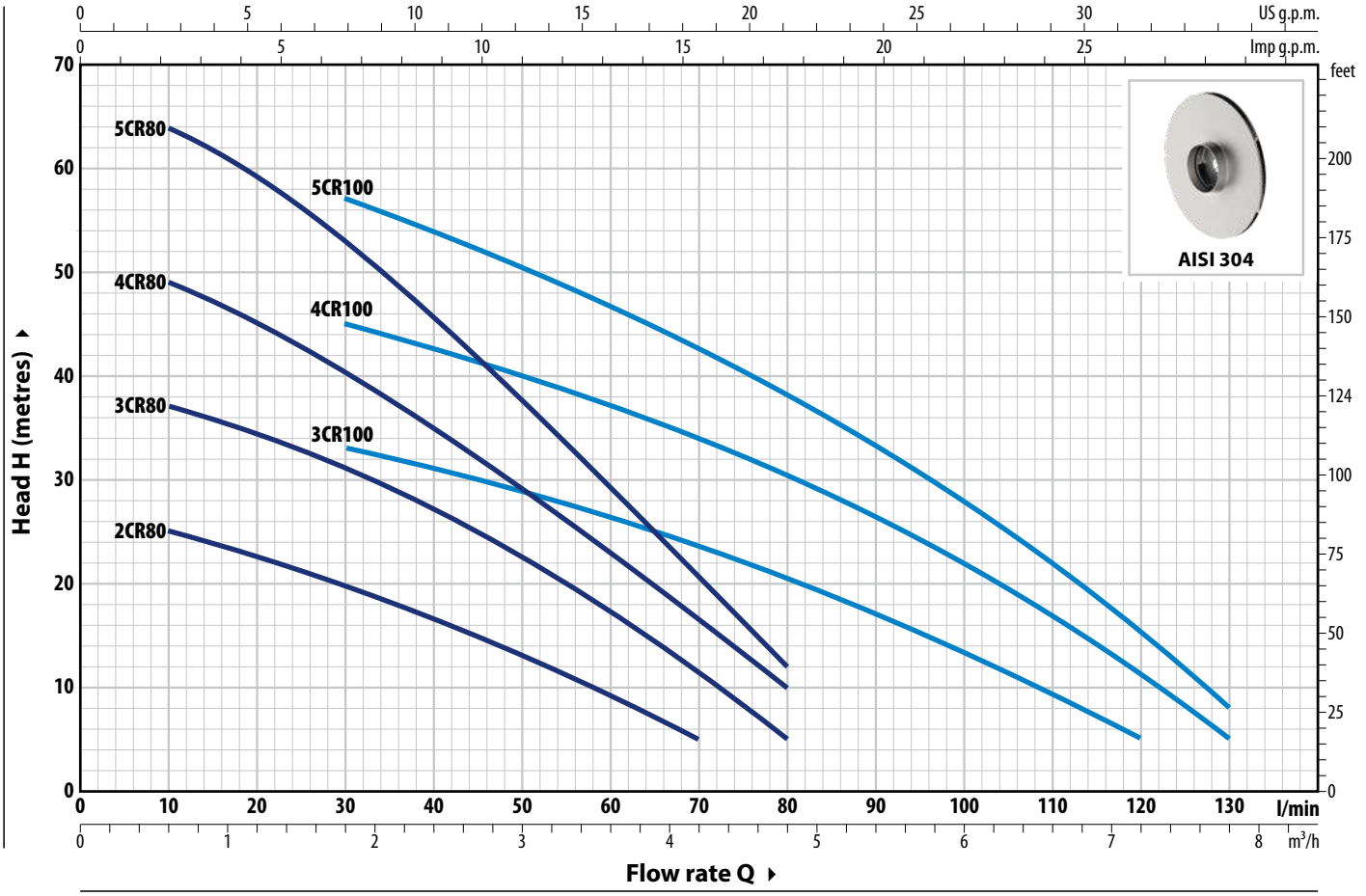
They work seamlessly with pressure tanks, offering an ideal setup for all irrigation requirements.

### AVAILABLE UPON REQUEST

※ Technopolymer impeller (cost-effective version)
※ Mechanical seal options available
※ Different voltage or frequency
※ Certified pumps WRAS APPROVED PRODUCT

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 0.3 | 0.6 | 1.2 | 1.8 | 2.4 | 3.0 | 3.6 | 4.2 | 4.8 | 5.4 | 6.0 | 6.6 | 7.2 | 7.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | **3~** | | l/min | **0** | **5** | **10** | **20** | **30** | **40** | **50** | **60** | **70** | **80** | **90** | **100** | **110** | **120** | **130** |
| **2CRm 80** | **2CR 80** | 0.37 | 0.50 | | | | 27 | 26 | 25 | 22.5 | 20 | 16.5 | 13 | 9 | 5 | | | | | | |
| **3CRm 80** | **3CR 80** | 0.45 | 0.60 | **IE2** | | | 40 | 38 | 37 | 34.5 | 31 | 27 | 22.5 | 17 | 11 | 5 | | | | | |
| **4CRm 80** | **4CR 80** | 0.55 | 0.75 | | | | 52 | 50 | 49 | 44.5 | 40 | 34 | 28.5 | 22.5 | 16 | 10 | | | | | |
| **5CRm 80** | **5CR 80** | 0.75 | 1 | **IE3** | **H** | m | 67 | 66 | 64 | 59 | 53 | 45.5 | 37.5 | 29.5 | 20.5 | 12 | | | | | |
| **3CRm 100** | **3CR 100** | 0.55 | 0.75 | **IE2** | | | 38 | 37 | 36 | 34.5 | 33 | 31 | 28 | 26 | 23 | 20 | 17 | 13.5 | 10 | 5 | |
| **4CRm 100** | **4CR 100** | 0.75 | 1 | | | | 50 | 50 | 49 | 47 | 45 | 42 | 39.5 | 37 | 34 | 30.5 | 26.5 | 22 | 17 | 11 | 5 |
| **5CRm 100** | **5CR 100** | 1.1 | 1.5 | **IE3** | | | 63 | 62 | 61.5 | 59.5 | 57 | 53.5 | 50.5 | 46.5 | 42.5 | 38 | 33 | 28 | 22 | 15 | 8 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

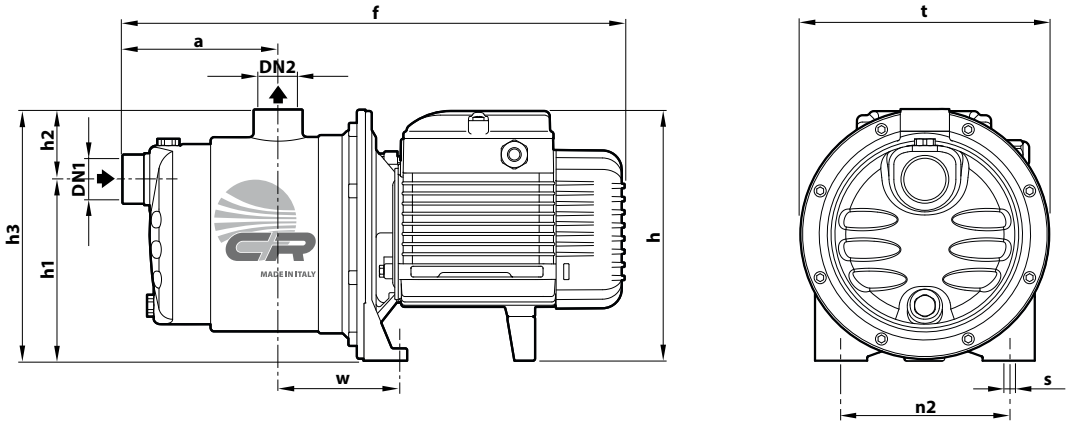
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-phase | 220 V | 110 V |
| 2CRm 80 | 2.4 A | 5.0 A |
| 3CRm 80 | 3.4 A | 6.9 A |
| 4CRm 80 | 4.5 A | 9.0 A |
| 5CRm 80 | 5.3 A | 12.0 A |
| 3CRm 100 | 5.0 A | 10.0 A |
| 4CRm 100 | 6.2 A | 12.0 A |
| 5CRm 100 | 6.6 A | – |

| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 220 V - Δ | 380 V - Y |
| 2CR 80 | 1.7 A | 1.0 A |
| 3CR 80 | 2.4 A | 1.4 A |
| 4CR 80 | 2.8 A | 1.6 A |
| 5CR 80 | 4.3 A | 2.5 A |
| 3CR 100 | 2.8 A | 1.6 A |
| 4CR 100 | 4.5 A | 2.6 A |
| 5CR 100 | 4.8 A | 2.8 A |

## DIMENSIONS AND WEIGHT




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN1 | DN2 | a | f | h | h1 | h2 | h3 | t | n2 | w | s | 1~ | 3~ |
| 2CRm 80 | 2CR 80 | 1" | 1" | 113 | 367 | 182 | 132 | 51 | 183 | 182 | 120 | 87 | 9 | 6.9 | 6.9 |
| 3CRm 80 | 3CR 80 | | | | | | | | | | | | | 7.9 | 7.9 |
| 4CRm 80 | 4CR 80 | | | 138 | 392 | | | | | | | | | 9.1 | 8.4 |
| 5CRm 80 | 5CR 80 | | | | 410 | 202 * | | | | | | | 10 | 11.8 | 11.8 |
| 3CRm 100 | 3CR 100 | | | 113 | 367 | 182 | | | | | | | 9 | 8.6 | 7.9 |
| 4CRm 100 | 4CR 100 | | | 138 | 410 | 202 * | | | | | | | 10 | 11.6 | 11.6 |
| 5CRm 100 | 5CR 100 | | | | | | | | | | | | | 12.4 | 11.7 |

(*) h=221 mm for single-phase 110V versions

## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-phase | Three-phase | n. pumps | n. pumps |
| 2CRm 80 | 2CR 80 | 84 | 120 |
| 3CRm 80 | 3CR 80 | 84 | 120 |
| 4CRm 80 | 4CR 80 | 84 | 120 |
| 5CRm 80 | 5CR 80 | 72 | 108 |
| 3CRm 100 | 3CR 100 | 84 | 120 |
| 4CRm 100 | 4CR 100 | 72 | 108 |
| 5CRm 100 | 5CR 100 | 72 | 108 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Stainless steel **AISI 304**,provided with ISO 228/1 threaded ports |
| 2 | **Cover** | Stainless steel **AISI 304** |
| 3 | **Impellers** | Stainless steel **AISI 304** |
| 4 | **Diffusers** | Noryl™ complete with wear rings |

**5 Mechanical seal**

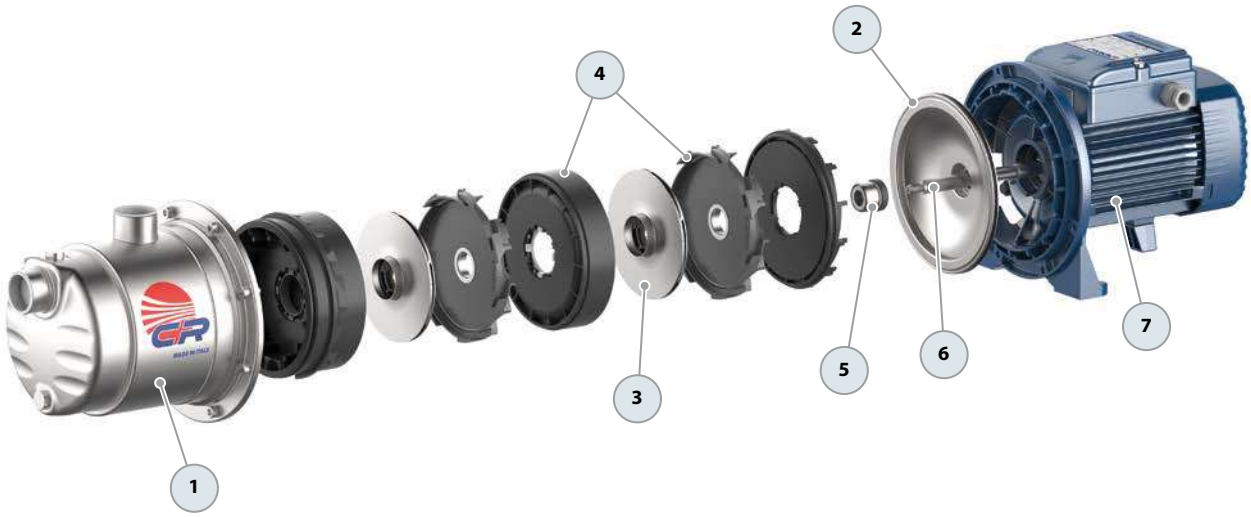
| Seal | Shaft | Materials |
|---|---|---|
| **AR-13** | Ø 13 mm | Ceramic / Graphite / NBR |

| | | |
|---|---|---|
| 6 | **Motor shaft** | Stainless steel **AISI 431** |

**7 Electric motor**

**2-5CRm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection
**2-5CR**: three-phase 220/380 V - 60 Hz

- The three-phase pumps are fitted with high performance motors up to P2=0.55 kW in class IE2 and from P2=0.75 kW in class IE3 (IEC 60034-30-1)
- Continuous running duty **S1**



# FCR Stainless steel multi-stage centrifugal pumps

Clean water

Domestic use

Civil use




## ※ Quiet, energy-efficient stainless steel multi-stage pumps

※ Pump body: **Stainless steel AISI 304**
※ Cover: **Stainless steel AISI 304**
※ Impellers: **Stainless steel AISI 304**
※ Shaft: **Stainless steel AISI 431**

### PERFORMANCE RANGE

- Flow rate up to **130 l/min** (7.8 m³/h)
- Head up to **67 m**

### INSTALLATION AND USE

Quiet performance and efficient energy use make them perfect for water supply and pressurization tasks. They integrate with pressure tanks for optimal water distribution, making them suitable for a wide range of uses from industrial applications to irrigation systems.

### KEY FEATURES

※ Stainless steel components extend service life and enhance efficiency.
※ Multi-stage design results in exceptionally quiet operation.

### APPLICATION LIMITS

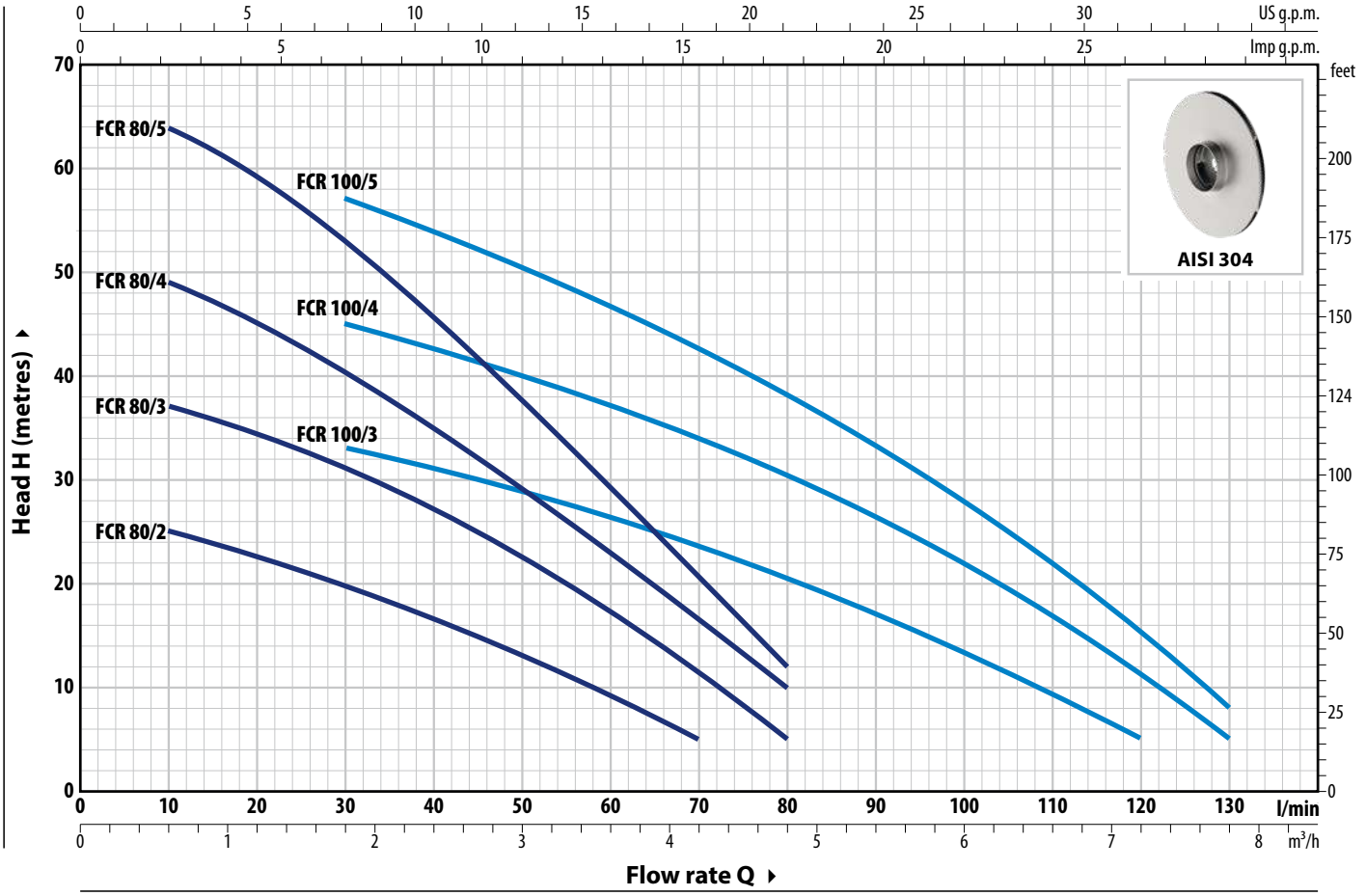
- Manometric suction head up to **7 m**
- Liquid temperature between **-10 °C** and **+60 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure **7 bar**

### AVAILABLE UPON REQUEST

※ Mechanical seal options available
※ Different voltage or frequency
※ Certified pumps WRAS APPROVED PRODUCT

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 0.3 | 0.6 | 1.2 | 1.8 | 2.4 | 3.0 | 3.6 | 4.2 | 4.8 | 5.4 | 6.0 | 6.6 | 7.2 | 7.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | **3~** | | l/min | **0** | **5** | **10** | **20** | **30** | **40** | **50** | **60** | **70** | **80** | **90** | **100** | **110** | **120** | **130** |
| **FCRm 80/2** | **FCR 80/2** | 0.37 | 0.50 | | | | 27 | 26 | 25 | 22.5 | 20 | 16.5 | 13 | 9 | 5 | | | | | | |
| **FCRm 80/3** | **FCR 80/3** | 0.45 | 0.60 | **IE2** | | | 40 | 38 | 37 | 34.5 | 31 | 27 | 22.5 | 17 | 11 | 5 | | | | | |
| **FCRm 80/4** | **FCR 80/4** | 0.55 | 0.75 | | | | 52 | 50 | 49 | 44.5 | 40 | 34 | 28.5 | 22.5 | 16 | 10 | | | | | |
| **FCRm 80/5** | **FCR 80/5** | 0.75 | 1 | **IE3** | **H** | m | 67 | 66 | 64 | 59 | 53 | 45.5 | 37.5 | 29.5 | 20.5 | 12 | | | | | |
| **FCRm 100/3** | **FCR 100/3** | 0.55 | 0.75 | **IE2** | | | 38 | 37 | 36 | 34.5 | 33 | 31 | 28 | 26 | 23 | 20 | 17 | 13.5 | 10 | 5 | |
| **FCRm 100/4** | **FCR 100/4** | 0.75 | 1 | | | | 50 | 50 | 49 | 47 | 45 | 42 | 39.5 | 37 | 34 | 30.5 | 26.5 | 22 | 17 | 11 | 5 |
| **FCRm 100/5** | **FCR 100/5** | 1.1 | 1.5 | **IE3** | | | 63 | 62 | 61.5 | 59.5 | 57 | 53.5 | 50.5 | 46.5 | 42.5 | 38 | 33 | 28 | 22 | 15 | 8 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

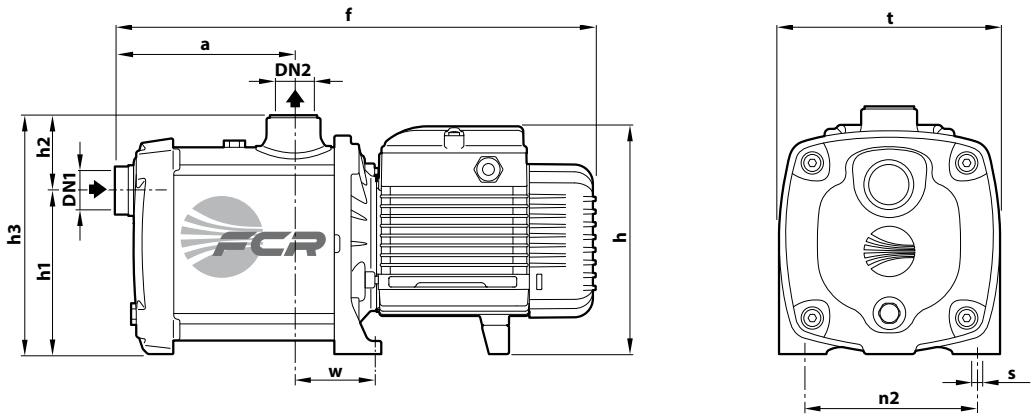
## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-phase | 220 V | 110 V |
| FCRm 80/2 | 2.5 A | 5.0 A |
| FCRm 80/3 | 3.4 A | 6.9 A |
| FCRm 80/4 | 4.5 A | 9.0 A |
| FCRm 80/5 | 6.0 A | 12.0 A |
| FCRm 100/3 | 5.0 A | 10.0 A |
| FCRm 100/4 | 6.2 A | 12.0 A |
| FCRm 100/5 | 6.6 A | – |

| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 220 V - Δ | 380 V - Y |
| FCR 80/2 | 1.7 A | 1.0 A |
| FCR 80/3 | 2.3 A | 1.3 A |
| FCR 80/4 | 3.0 A | 1.7 A |
| FCR 80/5 | 5.0 A | 2.9 A |
| FCR 100/3 | 3.0 A | 1.7 A |
| FCR 100/4 | 4.5 A | 2.6 A |
| FCR 100/5 | 4.8 A | 2.8 A |

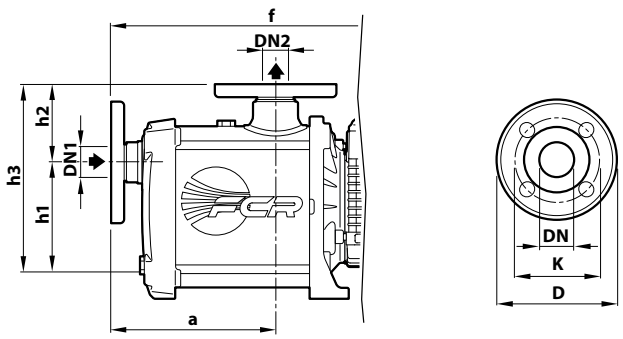
## DIMENSIONS AND WEIGHT

WITH THREADED PORTS




| MODEL | | PORTS | | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN1 | DN2 | a | f | h | h1 | h2 | h3 | t | n2 | w | s | 1~ | 3~ |
| FCRm 80/2 | FCR 80/2 | 1" | 1" | 107 | 333 | 171 | 122 | 56 | 178 | 160 | 125 | 56.5 | 9 | 6.9 | 6.9 |
| FCRm 80/3 | FCR 80/3 | | | | | | | | | | | | | 7.9 | 7.9 |
| FCRm 80/4 | FCR 80/4 | | | 132 | 358 | | | | | | | | | 9.3 | 9.1 |
| FCRm 80/5 | FCR 80/5 | | | | 377 | 189 | | | | | | | | 11.8 | 11.8 |
| FCRm 100/3 | FCR 100/3 | | | 107 | 333 | 171 | | | | | | | | 8.8 | 8.1 |
| FCRm 100/4 | FCR 100/4 | | | 132 | 377 | 189 | | | | | | | | 11.6 | 11.6 |
| FCRm 100/5 | FCR 100/5 | | | | | | | | | | | | | 12.4 | 12.1 |

WITH FLANGED PORTS

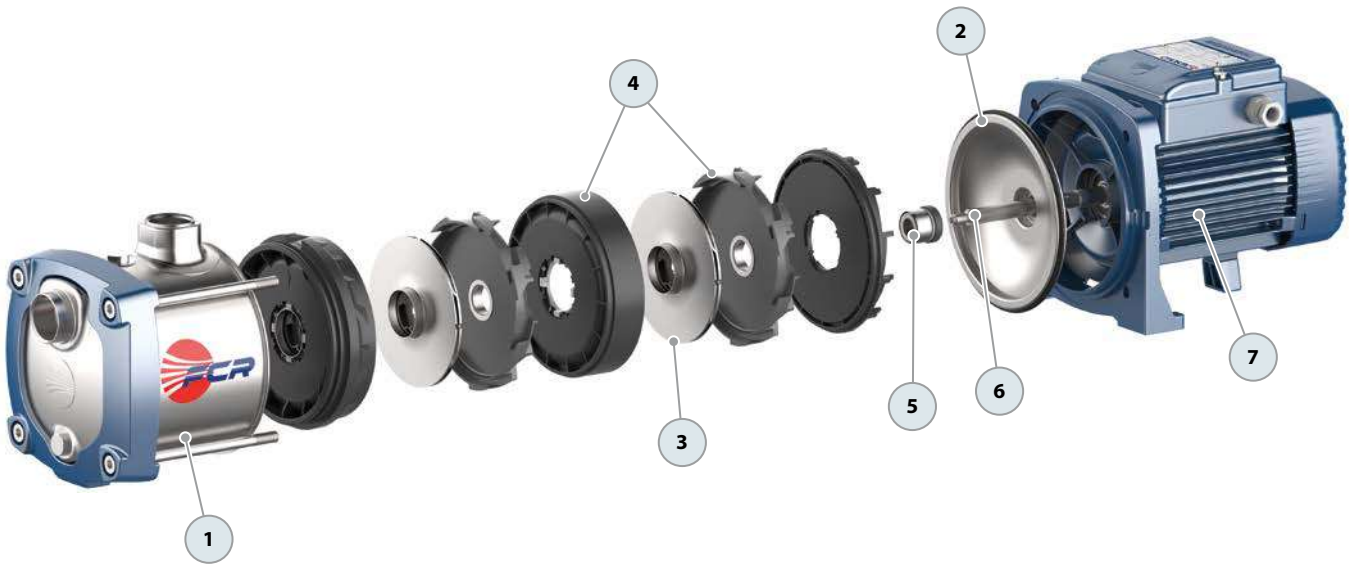



| TYPE | PORTS | | DIMENSIONS mm | | | | |
|---|---|---|---|---|---|---|---|
| | DN1 | DN2 | a | f | h1 | h2 | h3 |
| FCR 80/2 | 25 | 25 | 129 | 355 | 122 | 78 | 200 |
| FCR 80/3 | | | | | | | |
| FCR 80/4 | | | 154 | 380 | | | |
| FCR 80/5 | | | | 399 | | | |
| FCR 100/3 | | | 129 | 355 | | | |
| FCR 100/4 | | | 154 | 399 | | | |
| FCR 100/5 | | | | | | | |

| FLANGE | D | K | HOLES | |
|---|---|---|---|---|
| DN | mm | mm | N° | Ø (mm) |
| 25 | 85 | 115 | 4 | 14 |
| 25 | 85 | 115 | 4 | 14 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Stainless steel **AISI 304**,provided with ISO 228/1 threaded ports |
| 2 | **Cover** | Stainless steel **AISI 304** |
| 3 | **Impellers** | Stainless steel **AISI 304** |
| 4 | **Diffusers** | Noryl™ complete with wear rings |
| 5 | **Mechanical seal** | Seal: **AR-13** / Shaft: Ø 13 mm / Materials: Ceramic / Graphite / NBR |
| 6 | **Motor shaft** | Stainless steel **AISI 431** |
| 7 | **Electric motor** | **FCRm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection<br>**FCR**: three-phase 220/380 V - 60 Hz<br>– The three-phase pumps are fitted with high performance motors up to P2=0.55 kW in class IE2 and from P2=0.75 kW in class IE3 (IEC 60034-30-1)<br>– Continuous running duty **S1** |



# FCR Stainless steel multi-stage centrifugal pumps

Clean water

Domestic use

Civil use




## ※ Quiet, energy-efficient stainless steel multi-stage pumps

※ Pump body: **Stainless steel AISI 304**
※ Cover: **Stainless steel AISI 304**
※ Diffusers: **Stainless steel AISI 304**
※ Impellers: **Stainless steel AISI 304**
※ Shaft: **Stainless steel AISI 431**

### PERFORMANCE RANGE

- Flow rate up to **250 l/min** (15 m³/h)
- Head up to **113 m**

### INSTALLATION AND USE

Designed to transfer clean water free from abrasive particles and safe liquids that will not damage any of the pump's components. Highly reliable and quiet, they are suitable for domestic applications.

They work seamlessly with small to medium-sized pressure tanks, offering an ideal setup for all irrigation requirements.

### KEY FEATURES

※ Stainless steel components extend service life and enhance efficiency.
※ Multi-stage design results in exceptionally quiet operation.

### APPLICATION LIMITS

- Manometric suction head up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure **11 bar**

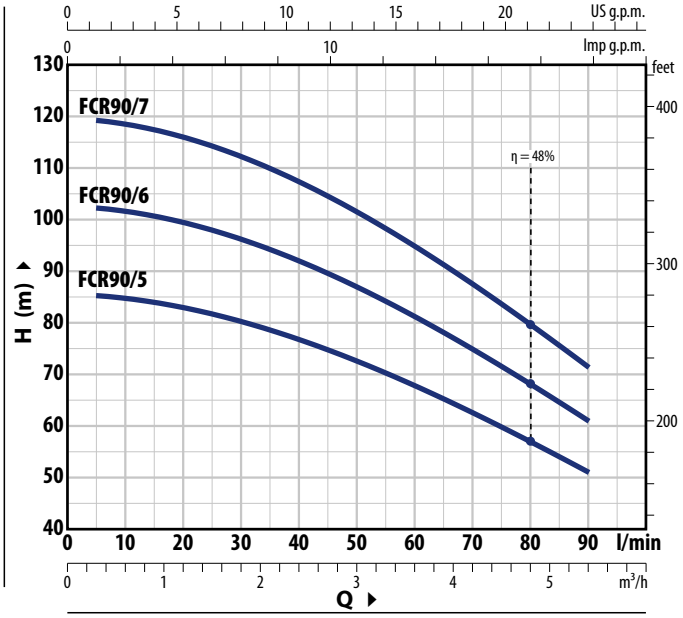
### AVAILABLE UPON REQUEST

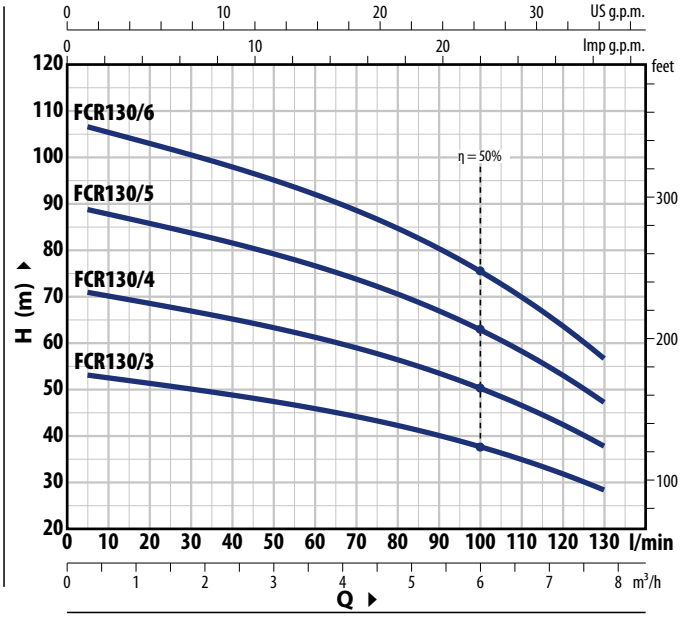
※ Technopolymer impeller (cost-effective version)
※ Mechanical seal options available
※ Different voltage or frequency
※ IPX5 protection
※ Certified pumps WRAS APPROVED PRODUCT
※ ISO 228/1 standard flanges for suction and discharge openings, made of AISI 304 stainless steel



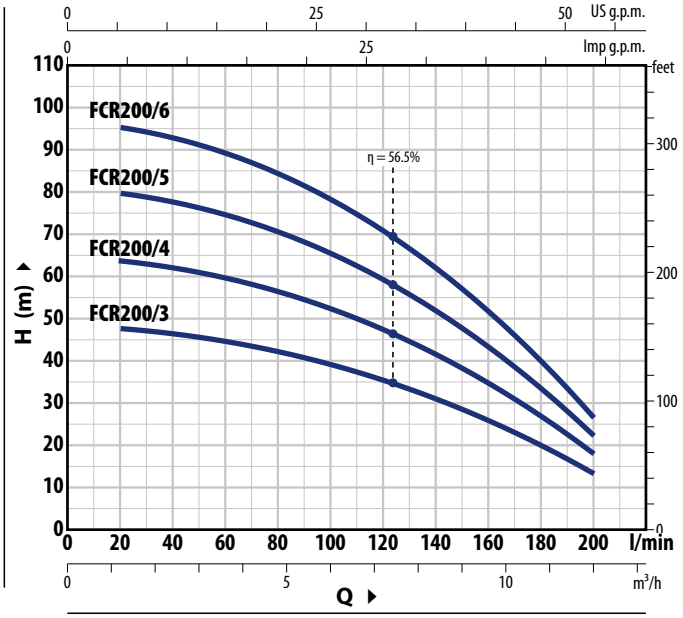
## CURVES AND PERFORMANCE DATA – HS=0 m

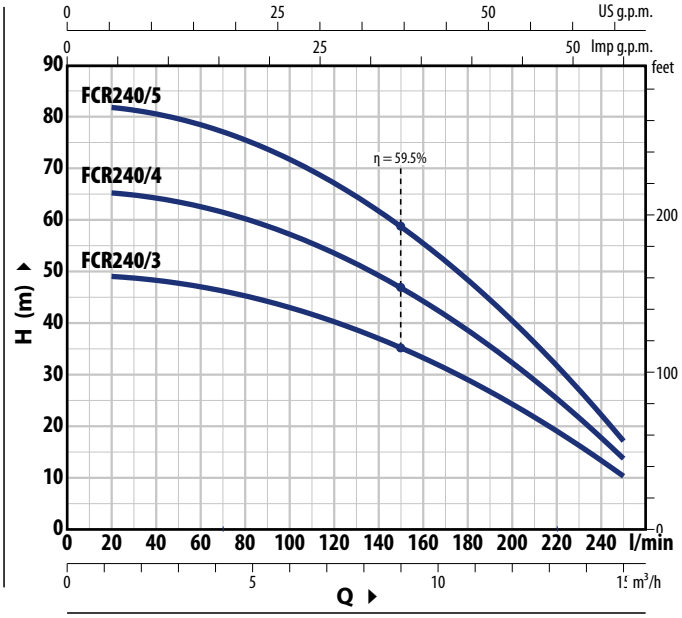
**60 Hz**




| TYPE | | POWER (P2) | | | Q m³/h | 0 | 0.3 | 0.6 | 1.2 | 2.4 | 3.6 | 4.8 | 5.4 | 6.0 | 7.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | **3~** | l/min | **0** | **5** | **10** | **20** | **40** | **60** | **80** | **90** | **100** | **130** |
| **FCRm 90/5** | **FCR 90/5** | 1.1 | 1.5 | | | 81 | 80 | 79 | 77 | 71 | 62.5 | 51 | 44 | | |
| **FCRm 90/6** | **FCR 90/6** | 1.5 | 2 | **IE3** | **H** m | 97 | 96 | 95 | 93 | 86 | 75 | 61 | 52 | | |
| **FCRm 90/7** | **FCR 90/7** | 1.8 | 2.5 | | | 113 | 112 | 111 | 108 | 100 | 88 | 71 | 61 | | |
| **FCRm 130/3** | **FCR 130/3** | 1.1 | 1.5 | | | 51.5 | 51.5 | 51 | 50.5 | 49 | 46.5 | 43 | 41 | 39 | 31 |
| **FCRm 130/4** | **FCR 130/4** | 1.5 | 2 | **IE3** | **H** m | 68.5 | 68.5 | 68 | 67 | 65 | 62 | 57.5 | 55 | 52 | 41 |
| **FCRm 130/5** | **FCR 130/5** | 1.8 | 2.5 | | | 86 | 85 | 85 | 84 | 81 | 77 | 72 | 68.5 | 65 | 51.5 |
| **FCRm 130/6** | **FCR 130/6** | 2.2 | 3 | | | 103 | 103 | 102 | 101 | 98 | 93 | 86 | 82 | 78 | 62 |




| TYPE | | POWER (P2) | | | Q m³/h | 0 | 1.2 | 2.4 | 3.6 | 4.8 | 6.0 | 7.2 | 8.4 | 9.6 | 10.8 | 12.0 | 13.2 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | **3~** | l/min | **0** | **20** | **40** | **60** | **80** | **100** | **120** | **140** | **160** | **180** | **200** | **220** | **250** |
| **FCRm 200/3** | **FCR 200/3** | 1.1 | 1.5 | | | 47 | 46.5 | 45.5 | 44 | 42 | 39.5 | 36.5 | 32.5 | 28 | 23.1 | 17 | | |
| **FCRm 200/4** | **FCR 200/4** | 1.5 | 2 | **IE3** | **H** m | 62.5 | 62 | 60.5 | 58.5 | 56 | 53 | 48.5 | 43.5 | 37.5 | 31 | 23 | | |
| **FCRm 200/5** | **FCR 200/5** | 1.8 | 2.5 | | | 78 | 77.5 | 76 | 73 | 70 | 66 | 61 | 54.5 | 47 | 38.5 | 28.5 | | |
| **FCRm 200/6** | **FCR 200/6** | 2.2 | 3 | | | 94 | 93 | 91 | 88 | 84 | 79 | 73 | 65.5 | 56.5 | 46 | 34.5 | | |
| **FCRm 240/3** | **FCR 240/3** | 1.5 | 2 | | | 49.5 | 49 | 48.5 | 47 | 45.5 | 43 | 40.5 | 37 | 33.5 | 29 | 24.4 | 19.2 | 10.5 |
| **FCRm 240/4** | **FCR 240/4** | 1.8 | 2.5 | **IE3** | **H** m | 66 | 65.5 | 64.5 | 63 | 60.5 | 57.5 | 54 | 49.5 | 44.5 | 39 | 32.5 | 25.5 | 14 |
| **FCRm 240/5** | **FCR 240/5** | 2.2 | 3 | | | 82 | 82 | 81 | 79 | 76 | 72 | 67.5 | 62 | 55.5 | 48.5 | 40.5 | 32 | 17.5 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

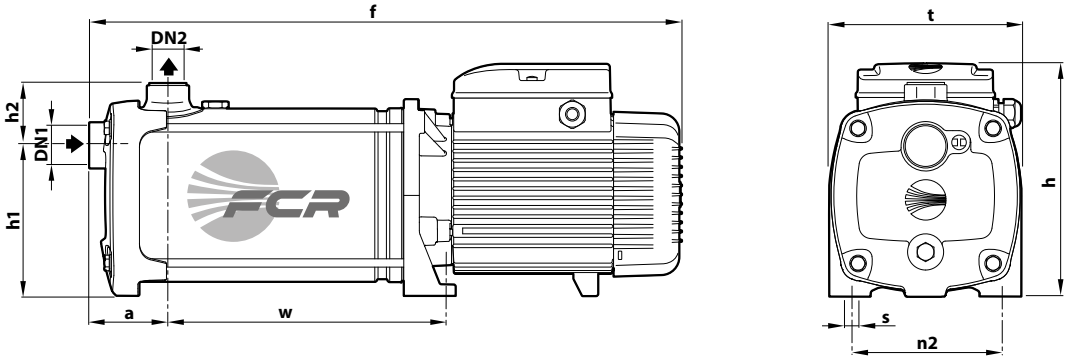
## ABSORPTION

| TYPE | VOLTAGE |
|---|---|
| Single-phase | 220 V |
| FCRm 90/5 | 9.0 A |
| FCRm 90/6 | 10.5 A |
| FCRm 90/7 | 12.5 A |
| FCRm 130/3 | 8.0 A |
| FCRm 130/4 | 11.0 A |
| FCRm 130/5 | 11.8 A |
| FCRm 130/6 | 14.2 A |
| FCRm 200/3 | 8.0 A |
| FCRm 200/4 | 11.0 A |
| FCRm 200/5 | 13.0 A |
| FCRm 200/6 | 15.2 A |
| FCRm 240/3 | 8.0 A |
| FCRm 240/4 | 11.0 A |
| FCRm 240/5 | 13.0 A |

| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| Three-phase | 220 V - Δ | 380 V - Y | 220 V - Δ | 440 V - Y |
| FCR 90/5 | 6.9 A | 4.0 A | 6.0 A | 3.5 A |
| FCR 90/6 | 7.6 A | 4.4 A | 6.6 A | 3.8 A |
| FCR 90/7 | 9.2 A | 5.3 A | 7.9 A | 4.6 A |
| FCR 130/3 | 6.6 A | 3.8 A | 5.7 A | 3.3 A |
| FCR 130/4 | 7.4 A | 4.3 A | 6.4 A | 3.7 A |
| FCR 130/5 | 9.2 A | 5.3 A | 7.9 A | 4.6 A |
| FCR 130/6 | 10.0 A | 5.8 A | 8.7 A | 5.0 A |
| FCR 200/3 | 6.6 A | 3.8 A | 5.7 A | 3.3 A |
| FCR 200/4 | 7.8 A | 4.5 A | 6.7 A | 3.9 A |
| FCR 200/5 | 9.5 A | 5.5 A | 8.2 A | 4.8 A |
| FCR 200/6 | 10.4 A | 6.0 A | 9.0 A | 5.2 A |
| FCR 240/3 | 6.6 A | 3.8 A | 5.7 A | 3.3 A |
| FCR 240/4 | 7.8 A | 4.5 A | 6.7 A | 3.9 A |
| FCR 240/5 | 9.5 A | 5.5 A | 8.2 A | 4.8 A |

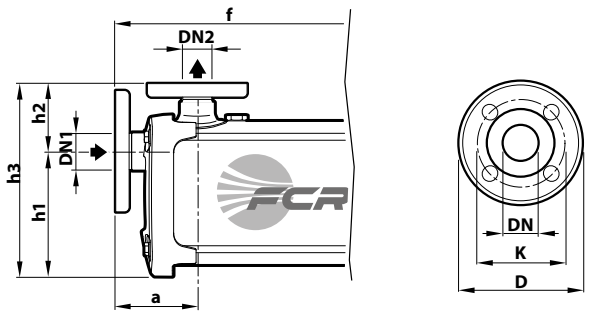
## DIMENSIONS AND WEIGHT

※ WITH THREADED PORTS




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN1 | DN2 | a | f | h | h1 | h2 | t | n2 | w | s | 1~ | 3~ |
| FCRm 90/5 | FCR 90/5 | 1¼" | 1" | 75 | 492 | 228 | 145 | 59 | 185 | 145 | 191 | 11 | 20.0 | 20.0 |
| FCRm 90/6 | FCR 90/6 | | | | 518 | | | | | | 217 | | 22.0 | 22.0 |
| FCRm 90/7 | FCR 90/7 | | | | 564 | | | | | | 243 | | 25.7 | 25.7 |
| FCRm 130/3 | FCR 130/3 | | | | 440 | | | | | | 139 | | 18.0 | 18.0 |
| FCRm 130/4 | FCR 130/4 | | | | 466 | | | | | | 165 | | 20.2 | 20.2 |
| FCRm 130/5 | FCR 130/5 | | | | 512 | | | | | | 191 | | 23.7 | 23.7 |
| FCRm 130/6 | FCR 130/6 | | | | 538 | | | | | | 217 | | 24.7 | 24.7 |
| FCRm 200/3 | FCR 200/3 | | | | 440 | | | | | | 139 | | 18.0 | 18.0 |
| FCRm 200/4 | FCR 200/4 | | | | 466 | | | | | | 165 | | 20.2 | 20.2 |
| FCRm 200/5 | FCR 200/5 | | | | 512 | | | | | | 191 | | 23.7 | 23.7 |
| FCRm 200/6 | FCR 200/6 | | | | 538 | | | | | | 217 | | 24.7 | 24.7 |
| FCRm 240/3 | FCR 240/3 | | | | 440 | | | | | | 139 | | 19.2 | 19.2 |
| FCRm 240/4 | FCR 240/4 | | | | 486 | | | | | | 165 | | 22.7 | 22.7 |
| FCRm 240/5 | FCR 240/5 | | | | 512 | | | | | | 191 | | 23.7 | 23.7 |

※ WITH FLANGED PORTS

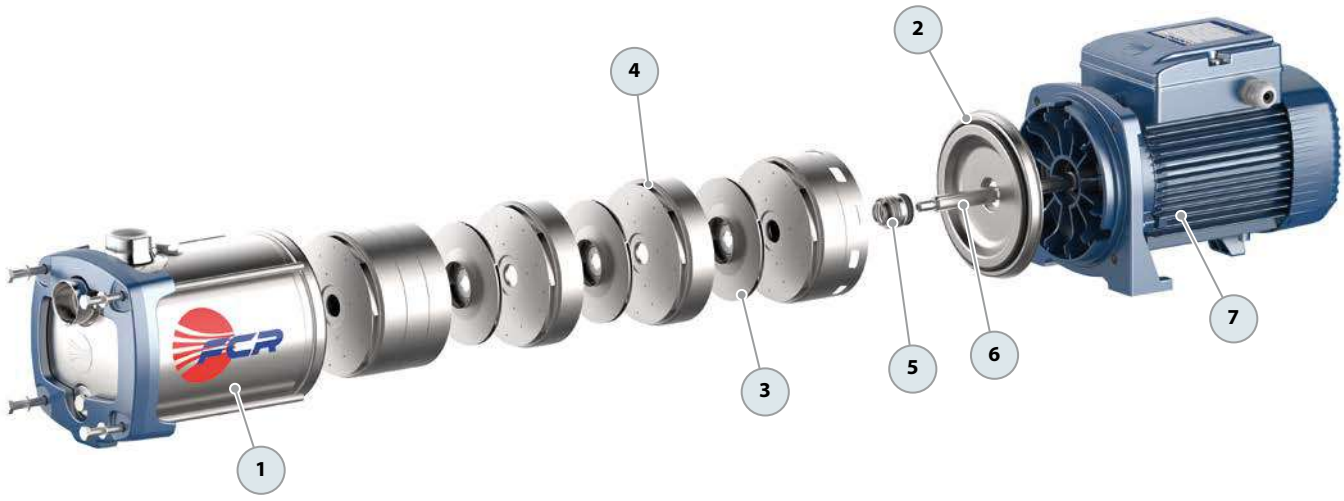



| TYPE | PORTS | | DIMENSIONS mm | | | | |
|---|---|---|---|---|---|---|---|
| | DN1 | DN2 | a | f | h1 | h2 | h3 |
| FCR 90/5 | 25 | 32 | 97.5 | 515 | 145 | 82 | 227 |
| FCR 90/6 | | | | 541 | | | |
| FCR 90/7 | | | | 587 | | | |
| FCR 130/3 | | | | 463 | | | |
| FCR 130/4 | | | | 489 | | | |
| FCR 130/5 | | | | 535 | | | |
| FCR 130/6 | | | | 561 | | | |
| FCR 200/3 | | | | 463 | | | |
| FCR 200/4 | | | | 489 | | | |
| FCR 200/5 | | | | 535 | | | |
| FCR 200/6 | | | | 561 | | | |
| FCR 240/3 | | | | 463 | | | |
| FCR 240/4 | | | | 509 | | | |
| FCR 240/5 | | | | 535 | | | |

| FLANGES DN | D (mm) | K (mm) | N° HOLES | Ø (mm) |
|---|---|---|---|---|
| 25 | 85 | 115 | 4 | 14 |
| 32 | 100 | 140 | 4 | 18 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Stainless steel **AISI 304** with ISO 228/1 threaded ports |
| 2 | **Cover** | Stainless steel **AISI 304** |
| 3 | **Impellers** | Stainless steel **AISI 304** |
| 4 | **Diffusers** | Stainless steel **AISI 304** |
| 5 | **Mechanical seal** | Seal: **FN-18** · Shaft: Ø 18 mm · Materials: Graphite / Ceramic / NBR |
| 6 | **Motor shaft** | Stainless steel **AISI 431** |
| 7 | **Electric motor** | **FCRm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection<br>**FCR**: three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz<br>– The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)<br>– Continuous running duty **S1** |



# FCR Stainless steel multi-stage centrifugal pumps

Clean water
Civil use
Industrial use




## ※ Low noise, low energy stainless steel multi-stage pumps

※ Pump body: **Stainless steel AISI 304**
※ Cover: **Stainless steel AISI 304**
※ Diffusers: **Stainless steel AISI304**
※ Impellers: **Stainless steel AISI 304**
※ Shaft: **Stainless steel AISI 431**

### PERFORMANCE RANGE

- Flow rate up to **900 l/min** (54 m³/h)
- Head up to **104 m**

### INSTALLATION AND USE

Due to their silent operation and energy efficiency, these pumps are ideal for water supply and pressurization, water distribution in conjunction with autoclaves, industrial uses, and irrigation systems.

### KEY FEATURES

※ Stainless steel components extend service life and enhance efficiency.
※ Multi-stage design results in exceptionally quiet operation.

### APPLICATION LIMITS

- Manometric suction head up to **7 m**
- Liquid temperature between **-15 °C** and **+90 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure **12 bar**

### AVAILABLE UPON REQUEST

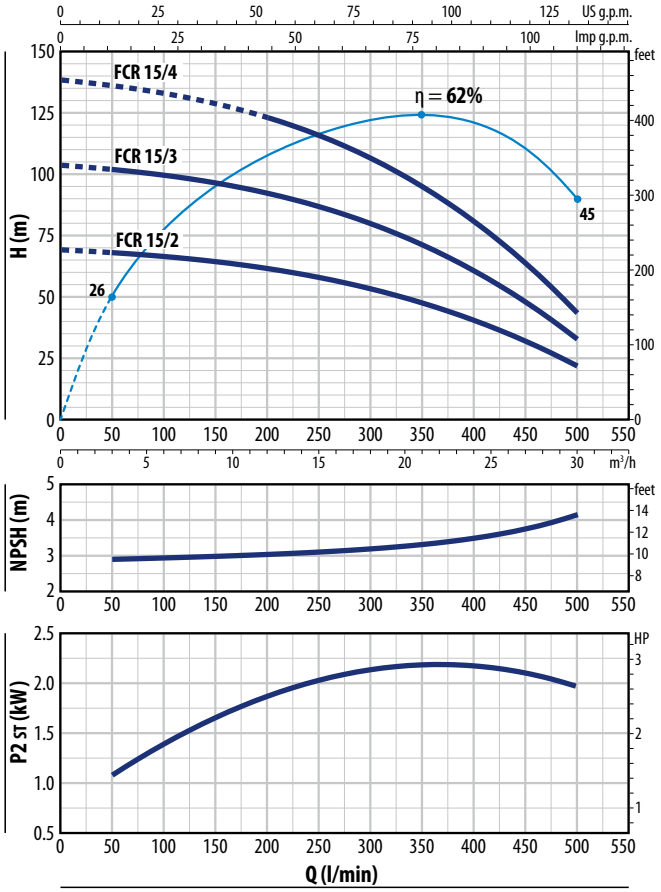
※ AISI 316 stainless steel pump.
※ Handling of liquids with higher or lower temperatures.
※ Different voltage or frequency
※ **WRAS-certified** pumps
※ ISO 228/1 standard flanges for suction and discharge openings, made of AISI 304 stainless steel.



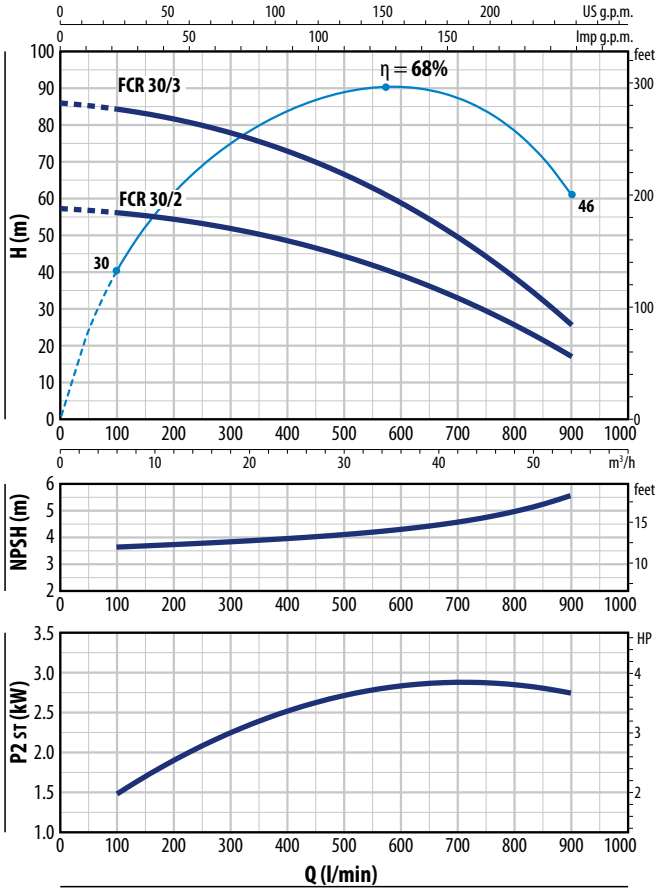
## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**

# FCR 15




# FCR 30




# FCR 15

| MODEL | POWER (P2) | | | Q | m³/h | 0 | 3 | 6 | 12 | 18 | 24 | 30 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **0** | **50** | **100** | **200** | **300** | **400** | **500** |
| **FCR 15/2** | 5.5 | 7.5 | | | | 69 | 68 | 66.5 | 61.5 | 53 | 40.5 | 21.5 |
| **FCR 15/3** | 7.5 | 10 | **IE3** | **H** | m | 104 | 102 | 100 | 92 | 80 | 60.5 | 32.5 |
| **FCR 15/4** | 9.2 | 12.5 | | | | – | – | – | 123 | 106 | 81 | 43.5 |

# FCR 30

| MODEL | POWER (P2) | | | Q | m³/h | 0 | 6 | 12 | 21 | 30 | 39 | 48 | 54 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **0** | **100** | **200** | **350** | **500** | **650** | **800** | **900** |
| **FCR 30/2** | 7.5 | 10 | | | | 57.5 | 56.5 | 54.5 | 50.5 | 44.5 | 36 | 25.6 | 17 |
| **FCR 30/3** | 9.2 | 12.5 | **IE3** | **H** | m | 86 | 84 | 82 | 76 | 66.5 | 54.5 | 38.5 | 25.5 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

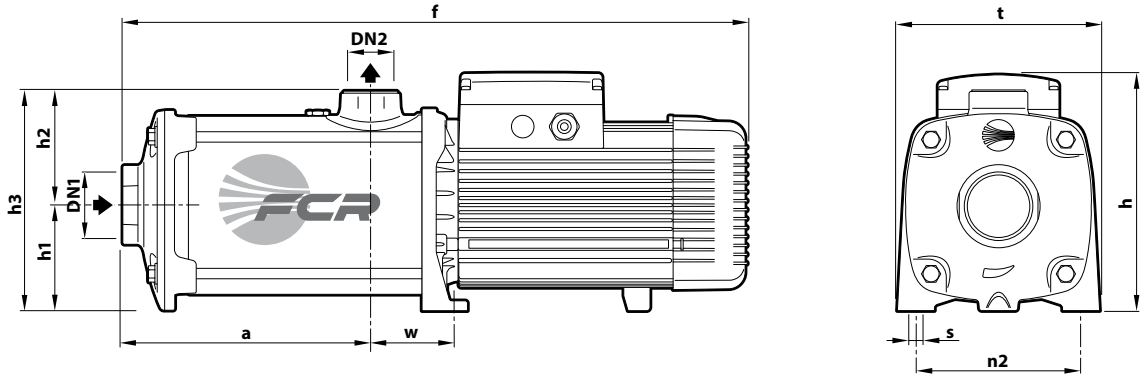
## ABSORPTION

| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| Three-ph. | 220 V - Δ | 380 V - Y | 220 V - Δ | 440 V - Y |
| FCR 15/2 | 19.0 A | 11.0 A | 16.8 A | 10.5 A |
| FCR 15/3 | 24.2 A | 14.0 A | 21.3 A | 13.3 A |
| FCR 15/4 | 31.2 A | 18.0 A | 27.7 A | 17.3 A |

| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| Three-ph. | 220 V - Δ | 380 V - Y | 220 V - Δ | 440 V - Y |
| FCR 30/2 | 23.7 A | 13.7 A | 20.9 A | 13.0 A |
| FCR 30/3 | 31.5 A | 18.2 A | 27.7 A | 17.3 A |

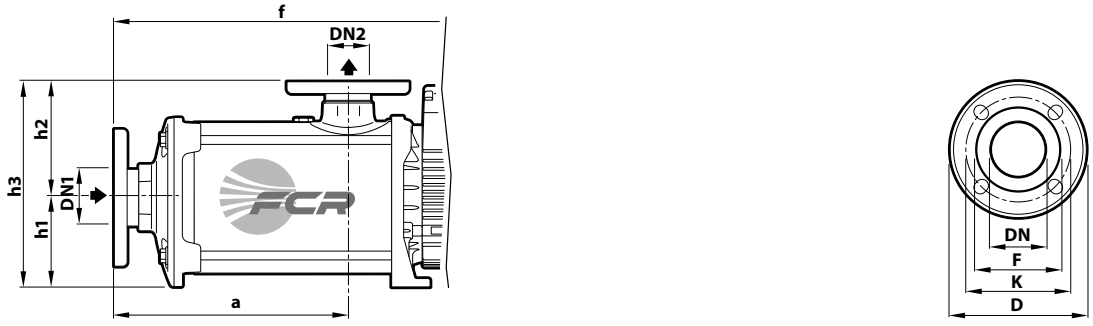
## DIMENSIONS AND WEIGHT

※ WITH THREADED PORTS




| TYPE | PORTS | | N° | DIMENSIONS mm | | | | | | | | | kg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | DN1 | DN2 | STAGES | a | f | h | h1 | h2 | h3 | t | n2 | w | s | 3~ |
| FCR 15/2 | 2½" | 2" | 2 | 155 | 533 | 271 | 120 | 132 | 252 | 234 | 190 | 96 | 12 | 33.9 |
| FCR 15/3 | | | 3 | 199 | 627 | | | | | | | | | 39.5 |
| FCR 15/4 | | | 4 | 243 | 671 | | | | | | | | | 49.4 |
| FCR 30/2 | | | 2 | 155 | 583 | 271 | 120 | 132 | 252 | 234 | 190 | 96 | 12 | 36.9 |
| FCR 30/3 | | | 3 | 199 | 627 | | | | | | | | | 44.3 |

※ WITH FLANGED PORTS

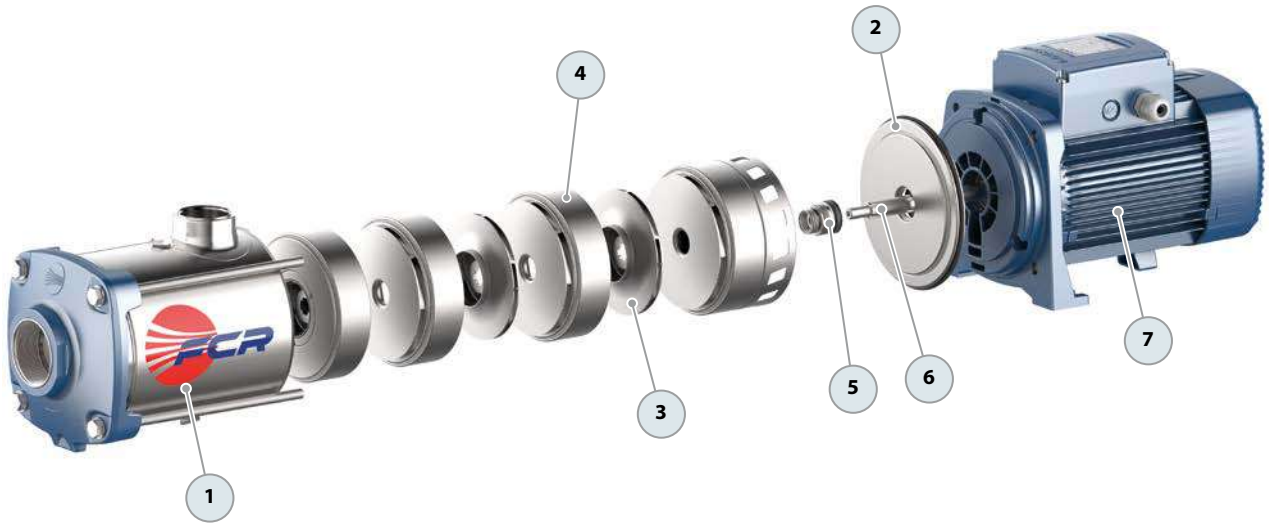



| TYPE | PORTS | | DIMENSIONS mm | | | | |
|---|---|---|---|---|---|---|---|
| Three-phase | DN1 | DN2 | a | f | h1 | h2 | h3 |
| FCR 15/2 | 65 | 50 | 189 | 566 | 120 | 162 | 285 |
| FCR 15/3 | | | 233 | 660 | | | |
| FCR 15/4 | | | 277 | 704 | | | |
| FCR 30/2 | | | 189 | 616 | 120 | 162 | 285 |
| FCR 30/3 | | | 233 | 660 | | | |

| FLANGE | D | K | F | HOLES | |
|---|---|---|---|---|---|
| DN | mm | mm | mm | N° | Ø (mm) |
| 50 | 165 | 125 | 99 | 4 | 18 |
| 65 | 185 | 145 | 118 | 4 | 18 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Stainless steel **AISI 304**,provided with ISO 228/1 threaded ports |
| 2 | **Cover** | Stainless steel **AISI 304** |
| 3 | **Impellers** | Stainless steel **AISI 304** |
| 4 | **Diffusers** | Stainless steel **AISI 304** |
| 5 | **Mechanical seal** | Seal: **FN-KU-24** ISO 3069 EN 12756 / Shaft: Ø 24 mm / Materials: Graphite / Ceramic / NBR |
| 6 | **Pump shaft** | Stainless steel **AISI 316L** |
| 7 | **Electric motor** | – Three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz<br>– The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)<br>– Continuous running duty **S1** |



# MK Vertical multi-stage centrifugal pumps

Clean water
Domestic use
Civil use
Agricultural use



## PERFORMANCE RANGE

- Flow rate up to **180 l/min** (10.8 m³/h)
- Head up to **105 m**

## APPLICATION LIMITS

- Manometric suction head up to **7 m**
- Liquid temperature between **-10 °C** and **+60 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure **11 bar**

## INSTALLATION AND USE

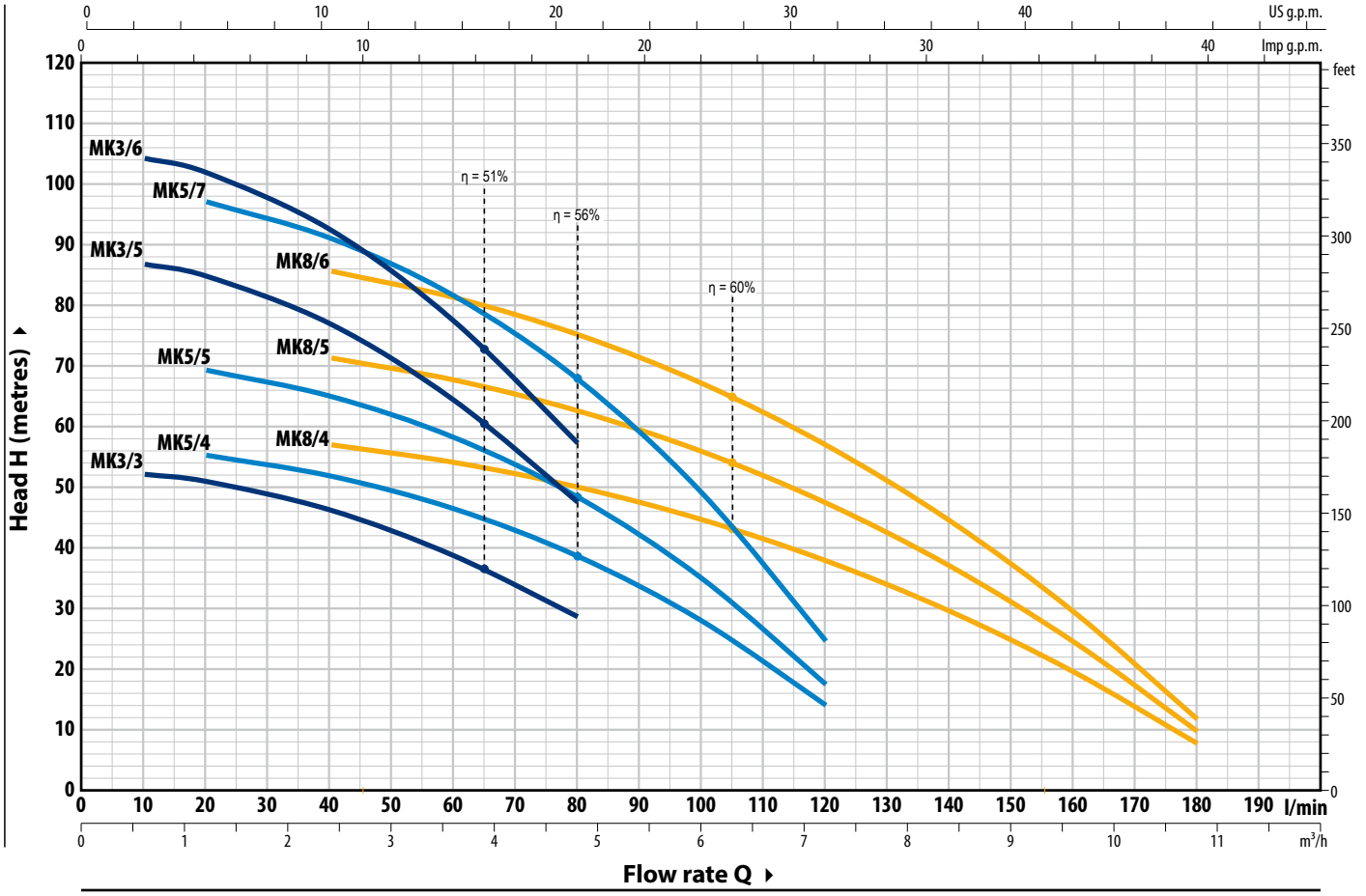
Compact and cost-effective vertical multistage centrifugal pumps suitable for water supply, clean liquids, and pressurization in domestic, civil, and agricultural systems, as well as irrigation.

## AVAILABLE UPON REQUEST

※ Different voltage or frequency

## CURVES AND PERFORMANCE DATA – HS=0 m

## 60 Hz




| MODEL | | POWER (P2) | | | Q m³/h | 0 | 0.6 | 1.2 | 2.4 | 3.6 | 4.8 | 6 | 7.2 | 8.4 | 9.6 | 10.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | ▲ | l/min | **0** | **10** | **20** | **40** | **60** | **80** | **100** | **120** | **140** | **160** | **180** |
| **MKm 3/3** | **MK 3/3** | 0.75 | 1 | | | 52.5 | 52 | 51 | 46.5 | 38.5 | 28.5 | | | | | |
| **MKm 3/5** | **MK 3/5** | 1.1 | 1.5 | **IE3** | | 88 | 87 | 85 | 77 | 64.5 | 47.5 | | | | | |
| **MKm 3/6** | **MK 3/6** | 1.5 | 2 | | | 105 | 104 | 102 | 93 | 77 | 57.5 | | | | | |
| **MKm 5/4** | **MK 5/4** | 0.75 | 1 | | | 57.5 | – | 55.5 | 52 | 46.5 | 38.5 | 28 | 14 | | | |
| **MKm 5/5** | **MK 5/5** | 1.1 | 1.5 | **IE3** | **H** m | 72 | – | 69.5 | 65 | 58 | 48.5 | 35 | 17.5 | | | |
| **MKm 5/7** | **MK 5/7** | 1.5 | 2 | | | 100 | – | 97 | 91 | 81 | 67.5 | 49 | 24.5 | | | |
| **MKm 8/4** | **MK 8/4** | 1.1 | 1.5 | | | 60 | – | – | 57 | 54 | 50 | 44.5 | 38 | 29.5 | 19.6 | 8 |
| **MKm 8/5** | **MK 8/5** | 1.5 | 2 | **IE3** | | 75 | – | – | 71 | 67.5 | 62.5 | 56 | 47.5 | 37 | 24.5 | 10 |
| **MKm 8/6** | **MK 8/6** | 2.2 | 3 | | | 90 | – | – | 86 | 81 | 75 | 67 | 57 | 44.5 | 29.5 | 11.5 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

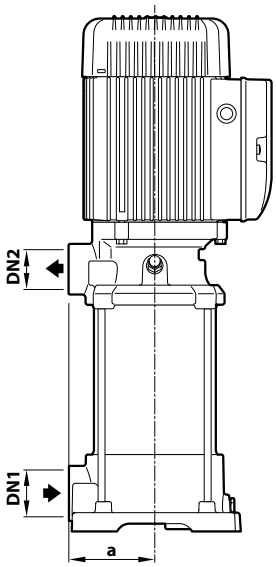
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

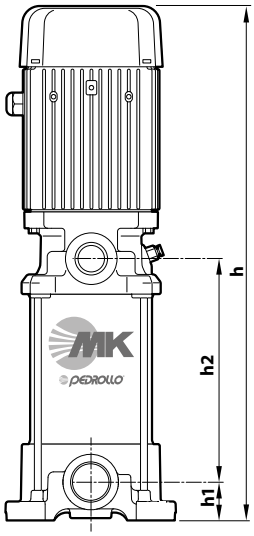
## ABSORPTION

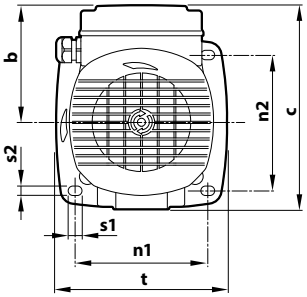
| TYPE | VOLTAGE |
|---|---|
| Single-ph. | 220 V |
| MKm 3/3 | 5.1 A |
| MKm 3/5 | 7.8 A |
| MKm 3/6 | 9.2 A |
| MKm 5/4 | 5.9 A |
| MKm 5/5 | 7.8 A |
| MKm 5/7 | 9.7 A |
| MKm 8/4 | 7.8 A |
| MKm 8/5 | 9.9 A |
| MKm 8/6 | 11.2 A |

| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| Three-ph. | 220 V - Δ | 380 V - Y | 220 V - Δ | 440 V - Y |
| MK 3/3 | 5.5 A | 3.2 A | 4.8 A | 2.8 A |
| MK 3/5 | 4.7 A | 2.7 A | 4.0 A | 2.3 A |
| MK 3/6 | 6.0 A | 3.5 A | 6.7 A | 4.0 A |
| MK 5/4 | 5.7 A | 3.3 A | 5.0 A | 2.9 A |
| MK 5/5 | 4.7 A | 2.7 A | 4.0 A | 2.3 A |
| MK 5/7 | 6.5 A | 3.8 A | 5.7 A | 3.3 A |
| MK 8/4 | 6.2 A | 3.6 A | 5.4 A | 3.1 A |
| MK 8/5 | 6.5 A | 3.8 A | 5.7 A | 3.3 A |
| MK 8/6 | 7.8 A | 4.5 A | 6.6 A | 3.8 A |

## DIMENSIONS AND WEIGHT




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN1 | DN2 | a | h | h1 | h2 | n1 | n2 | t | b | c | s1 | s2 | 1~ | 3~ |
| MKm 3/3 | MK 3/3 | 1¼" | 1" | 93 | 447 | 41.5 | 132.5 | 143 | 146 | 185 | 127 | 220 | 14.5 | 10 | 21.3 | 20.0 |
| MKm 3/5 | MK 3/5 | | | | 501 | | 186.5 | | | | | | | | 22.2 | 22.2 |
| MKm 3/6 | MK 3/6 | | | | 528 | | 213.5 | | | | | | | | 24.0 | 24.0 |
| MKm 5/4 | MK 5/4 | | | | 474 | | 159.5 | | | | | | | | 21.8 | 20.5 |
| MKm 5/5 | MK 5/5 | | | | 501 | | 186.5 | | | | | | | | 21.9 | 22.0 |
| MKm 5/7 | MK 5/7 | | | | 555 | | 240.5 | | | | | | | | 24.6 | 24.2 |
| MKm 8/4 | MK 8/4 | | | | 474 | | 159.5 | | | | | | | | 22.7 | 22.7 |
| MKm 8/5 | MK 8/5 | | | | 501 | | 186.5 | | | | | | | | 23.4 | 23.0 |
| MKm 8/6 | MK 8/6 | | | | 548 | | 213.5 | | | | | | | | 27.1 | 26.1 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Suction body** | Cast iron with cataphoresis treatment, provided with ISO 228/1 threaded suction port |
| 2 | **External sleeve** | Stainless steel **AISI 304** |
| 3 | **Delivery port** | Cast iron with cataphoresis treatment, provided with ISO 228/1 threaded delivery port |
| 4 | **Impellers and diffusers** | Noryl™ |
| 5 | **Diaphragms.** | **AISI 304** stainless steel complete with wear rings |

**6 Mechanical seal**

| Seal | Shaft | Materials |
|---|---|---|
| **FN-18** | Ø 18 mm | Graphite / Ceramic / NBR |

| | | |
|---|---|---|
| 7 | **Motor shaft** | Stainless steel **AISI 431** |

**8 Electric motor**

**MKm**: single-phase 220 V - 60 Hz with capacitor and winding integrated thermal motor protection

**MK**: three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz

– The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)

– Continuous running duty **S1**



# HT Vertical multi-stage centrifugal pumps

Clean water
Civil use
Agricultural use
Industrial use




**※ HT pumps are designed for high hydraulic performance featuring a robust, compact, and reliable mechanical construction..**

※ Jacket **Stainless steel AISI 304**
※ Impellers: **Stainless steel AISI 304**
※ Diffusers: **Stainless steel AISI 304**
※ Shaft **Stainless steel AISI 431**

## PERFORMANCE RANGE

- Flow rate up to **800 l/min** (48 m³/h)
- Head up to **160 m**

## INSTALLATION AND USE

Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components. Their high efficiency and adaptability to a wide variety of applications make them an ideal choice in the domestic, civil, agricultural, and industrial sectors, particularly for water distribution along pressure tanks to increase overall network pressure. Suggested uses include fire-fighting systems, heavy-duty cleaning applications, industrial power washers, and irrigation.

## KEY FEATURES

※ **Stainless steel components** extend service life and enhance efficiency.
※ Multi-stage design results in exceptionally quiet operation

## APPLICATION LIMITS

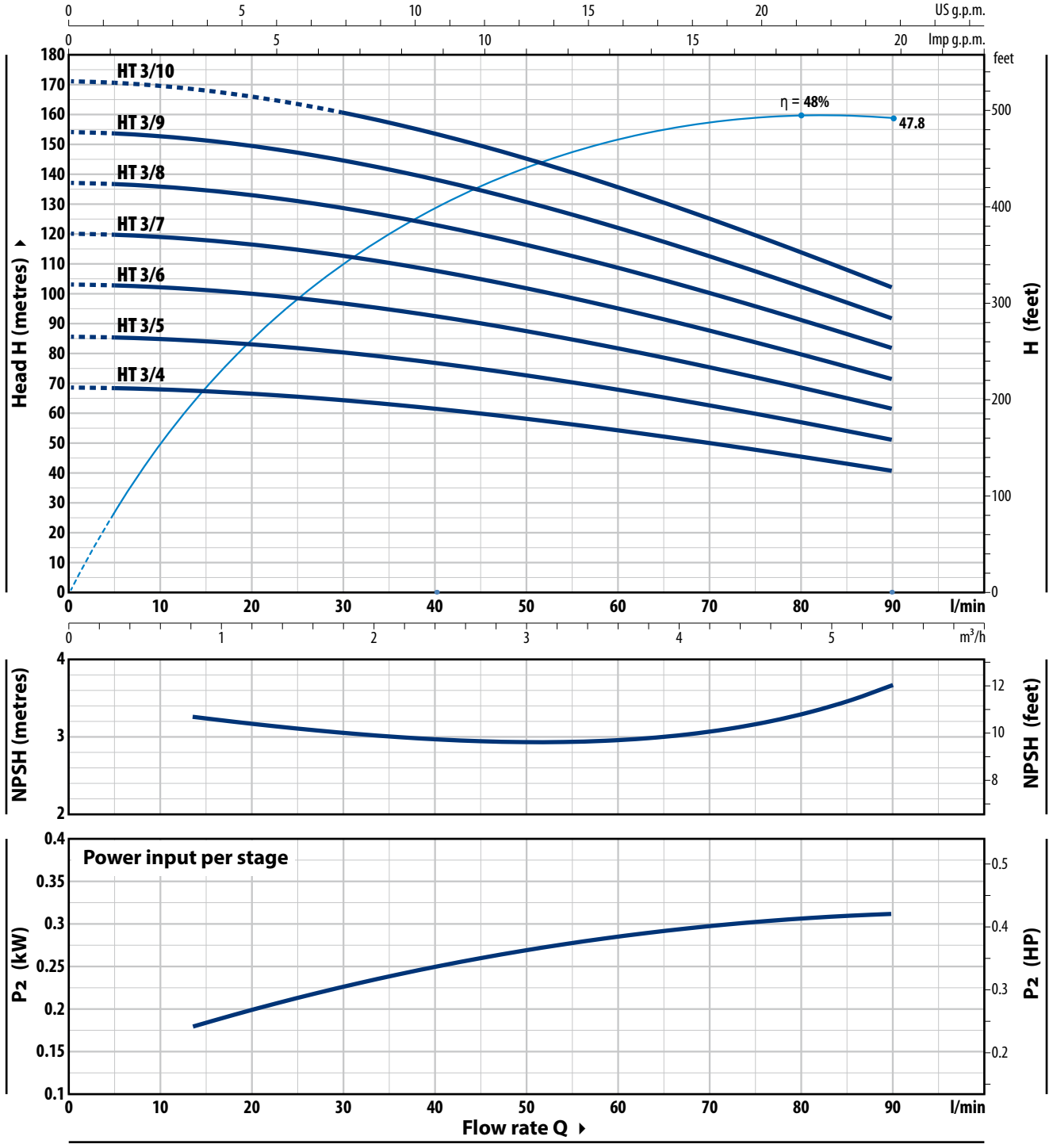
- Manometric suction head up to **7 m**
- Liquid temperature between **-15 °C** and **+90 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure **16 bar**

## AVAILABLE UPON REQUEST

※ Handling of liquids with higher or lower temperatures.
※ Pump body with NPT threaded ports ANSI B 1.20.1
※ COUNTER-FLANGE
※ Pump protection kit to prevent dry running
※ O-rings in EPDM or VITON (standard version in NBR)
※ Different voltage or frequency

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**



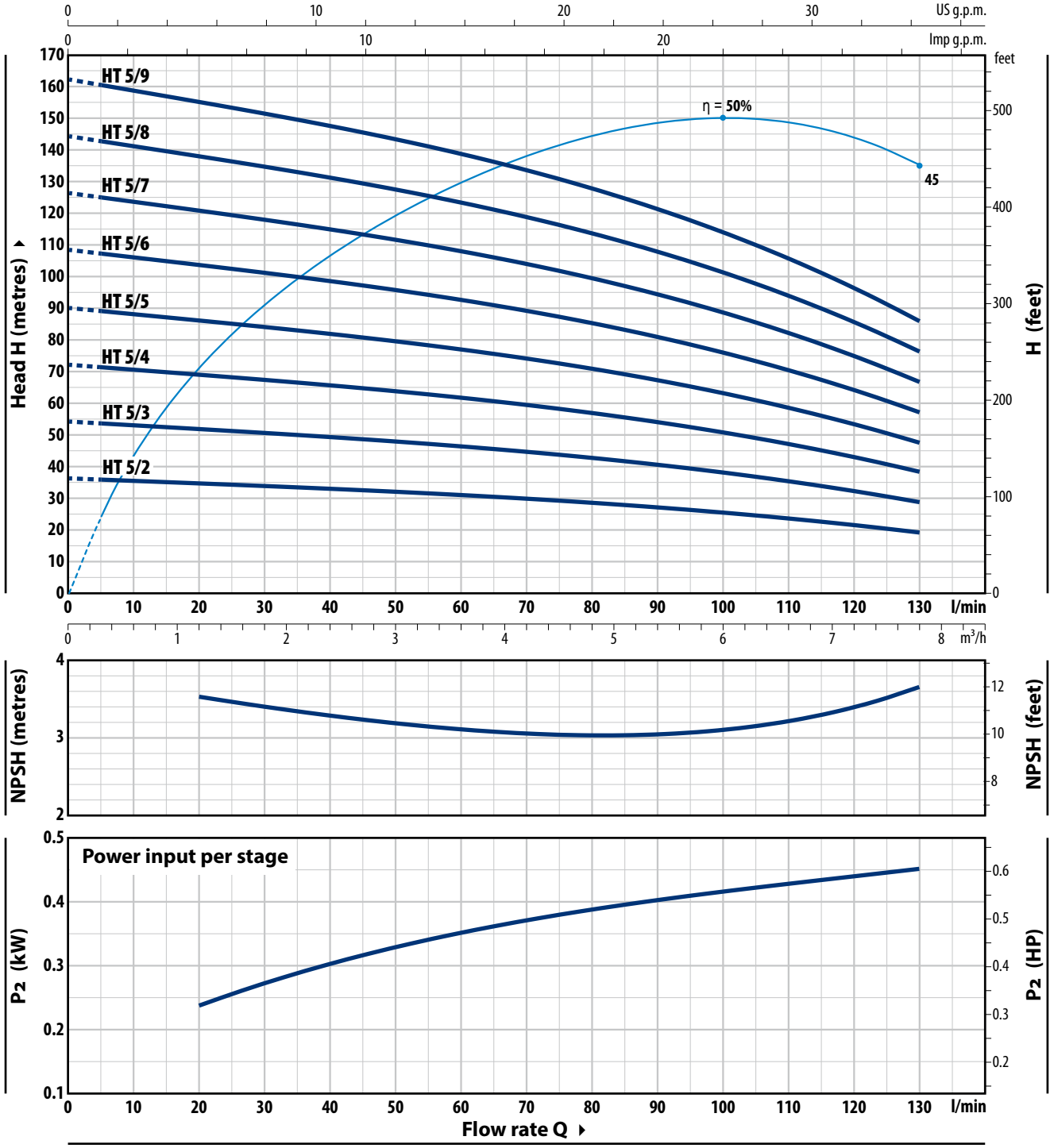

| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 0.3 | 0.6 | 1.2 | 1.8 | 2.4 | 3.6 | 5.4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | **3~** | | l/min | **0** | **5** | **10** | **20** | **30** | **40** | **60** | **90** |
| **HTm 3/4** | **HT 3/4** | 0.75 | 1 | | | | 68.5 | 68.5 | 68 | 66.5 | 65 | 61.5 | 54.5 | 41 |
| **HTm 3/5** | **HT 3/5** | 1.1 | 1.5 | | | | 86 | 86 | 85 | 83 | 80 | 77 | 68 | 51 |
| **HTm 3/6** | **HT 3/6** | 1.5 | 2 | | | | 103 | 103 | 102 | 100 | 96 | 92 | 82 | 61.5 |
| **HTm 3/7** | **HT 3/7** | 1.8 | 2.5 | **IE3** | **H** | m | 120 | 120 | 119 | 116 | 112 | 108 | 95 | 72 |
| **HTm 3/8** | **HT 3/8** | 2.2 | 3 | | | | 137 | 137 | 136 | 133 | 128 | 123 | 109 | 82 |
| **HTm 3/9** | **HT 3/9** | 3 | 4 | | | | 154 | 154 | 153 | 150 | 145 | 138 | 122 | 92 |
| **HTm 3/10** | **HT 3/10** | 3 | 4 | | | | – | – | – | – | 160 | 154 | 136 | 102 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**



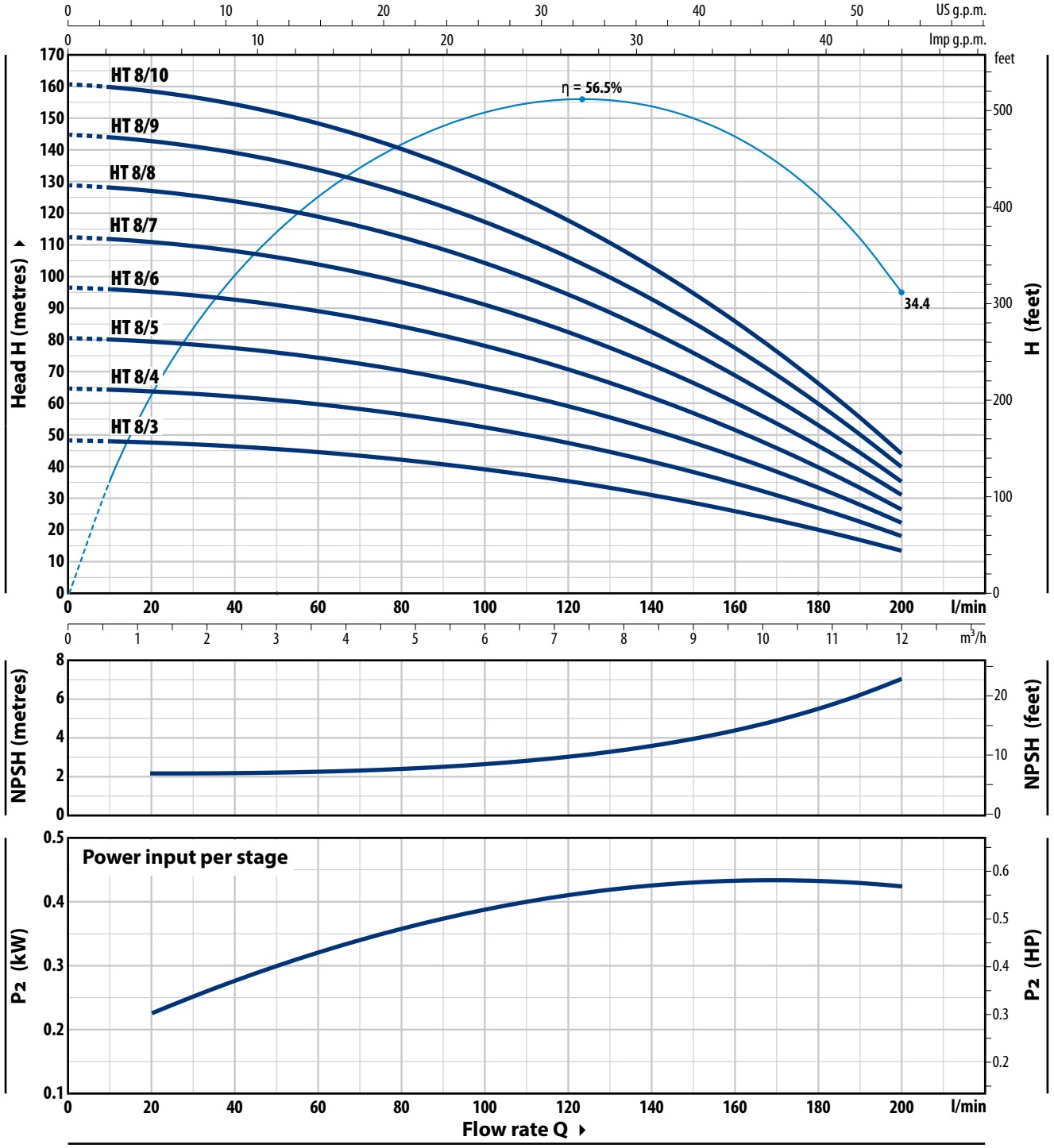

| TYPE | | POWER (P2) | | | Q m³/h | 0 | 0.3 | 0.6 | 1.2 | 2.4 | 3.6 | 4.8 | 5.4 | 6 | 7.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | 3~ | Q l/min | **0** | **5** | **10** | **20** | **40** | **60** | **80** | **90** | **100** | **130** |
| **HTm 5/2** | **HT 5/2** | 0.75 | 1 | | | 36 | 35.5 | 35.5 | 34.5 | 33 | 31 | 28.5 | 27 | 25.3 | 19 |
| **HTm 5/3** | **HT 5/3** | 1.1 | 1.5 | | | 54 | 53.5 | 53 | 51.5 | 49 | 46.5 | 42.5 | 40.5 | 38 | 28.5 |
| **HTm 5/4** | **HT 5/4** | 1.5 | 2 | | | 72 | 71 | 71 | 69 | 65.5 | 61.5 | 57 | 54 | 50.5 | 38 |
| **HTm 5/5** | **HT 5/5** | 1.8 | 2.5 | **IE3** | **H** m | 90 | 89 | 88 | 86 | 82 | 77 | 71 | 67.5 | 63.5 | 47.5 |
| **HTm 5/6** | **HT 5/6** | 2.2 | 3 | | | 108 | 107 | 106 | 103 | 98 | 93 | 85 | 81 | 76 | 57 |
| **HTm 5/7** | **HT 5/7** | 3 | 4 | | | 126 | 125 | 124 | 121 | 115 | 108 | 99 | 94 | 89 | 66.5 |
| **HTm 5/8** | **HT 5/8** | 3 | 4 | | | 144 | 143 | 141 | 138 | 131 | 123 | 114 | 108 | 101 | 76 |
| **HTm 5/9** | **HT 5/9** | 4 | 5.5 | | | 162 | 161 | 159 | 155 | 148 | 139 | 128 | 121 | 114 | 86 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | | POWER (P2) | | | Q m³/h | 0 | 1.2 | 2.4 | 3.6 | 6.0 | 8.4 | 10.8 | 12.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | **3~** | Q l/min | **0** | **20** | **40** | **60** | **100** | **140** | **180** | **200** |
| **HTm 8/3** | **HT 8/3** | 1.1 | 1.5 | | | 48.5 | 48 | 46.5 | 45 | 39.5 | 31 | 20.1 | 13.5 |
| **HTm 8/4** | **HT 8/4** | 1.5 | 2 | | | 64.5 | 64 | 62 | 59.5 | 52.5 | 41.5 | 26.8 | 18 |
| **HTm 8/5** | **HT 8/5** | 1.8 | 2.5 | | | 81 | 80 | 78 | 75 | 65.5 | 52 | 33.5 | 22.5 |
| **HTm 8/6** | **HT 8/6** | 2.2 | 3 | | | 97 | 95 | 93 | 89 | 78 | 62 | 40 | 27 |
| **HTm 8/7** | **HT 8/7** | 3 | 4 | **IE3** | **H** m | 113 | 111 | 108 | 104 | 91 | 72 | 47 | 31.5 |
| **HTm 8/8** | **HT 8/8** | 4 | 5.5 | | | 129 | 127 | 124 | 119 | 104 | 83 | 53.5 | 35.5 |
| **HTm 8/9** | **HT 8/9** | 4 | 5.5 | | | 145 | 143 | 139 | 134 | 117 | 93 | 60 | 40 |
| – | **HT 8/10** | 5.5 | 7.5 | | | 161 | 159 | 155 | 149 | 131 | 103 | 67 | 44.5 |

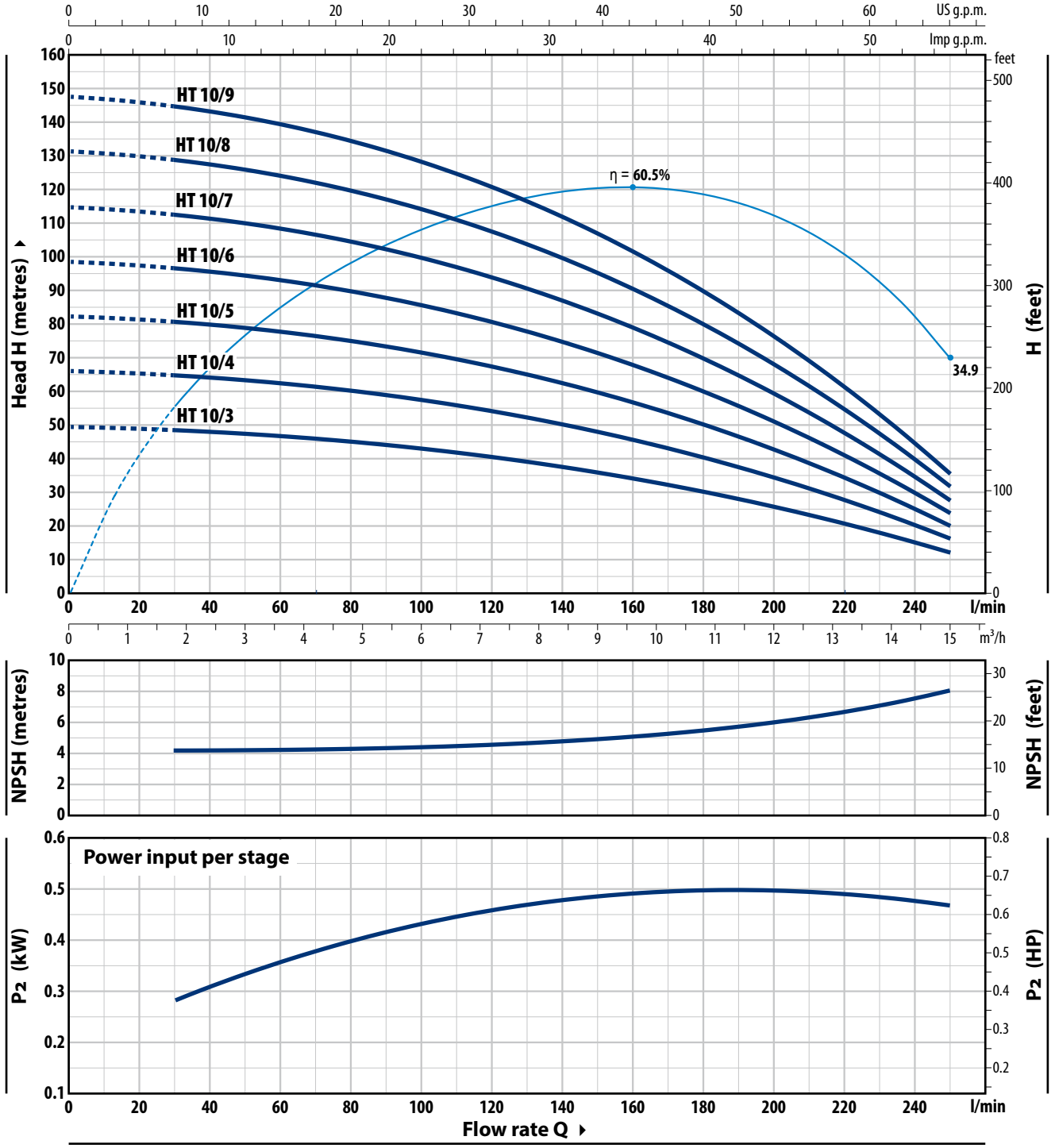
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

# HT 10

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**



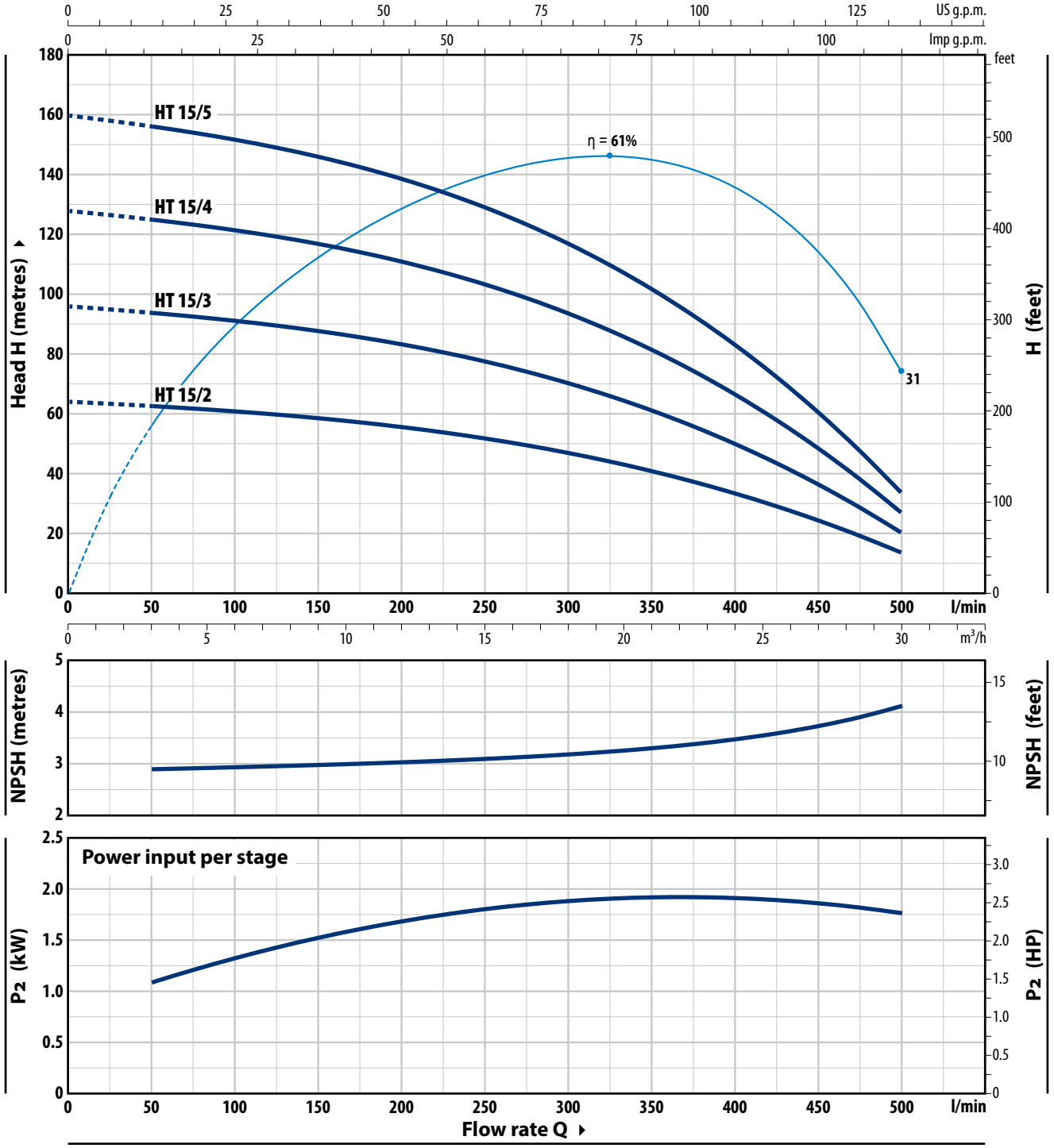

| TYPE | | POWER (P2) | | | Q | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | m³/h | 0 | 1.8 | 3 | 4.2 | 5.4 | 6.6 | 7.8 | 9 | 10.8 | 13.2 | 15 |
| Single-phase | Three-phase | kW | HP | 3~ | l/min | **0** | **30** | **50** | **70** | **90** | **110** | **130** | **150** | **180** | **220** | **250** |
| **HTm 10/3** | **HT 10/3** | 1.5 | 2 | | | 49.5 | 48.5 | 47.5 | 46 | 44 | 42 | 39 | 36 | 30 | 20.6 | 12 |
| **HTm 10/4** | **HT 10/4** | 1.8 | 2.5 | | | 66 | 64.5 | 63 | 61.5 | 59 | 55.5 | 52 | 48 | 40 | 27.5 | 16 |
| **HTm 10/5** | **HT 10/5** | 2.2 | 3 | | | 82 | 81 | 79 | 77 | 73 | 69.5 | 65 | 59.5 | 50 | 34.5 | 20 |
| **HTm 10/6** | **HT 10/6** | 3 | 4 | **IE3** | **H** m | 99 | 97 | 94 | 92 | 88 | 83 | 78 | 71 | 60 | 41 | 24 |
| **HTm 10/7** | **HT 10/7** | 3 | 4 | | | 115 | 113 | 110 | 107 | 102 | 97 | 91 | 83 | 70 | 48 | 28 |
| **HTm 10/8** | **HT 10/8** | 4 | 5.5 | | | 131 | 129 | 126 | 122 | 117 | 111 | 104 | 95 | 80 | 54.5 | 32 |
| **HTm 10/9** | **HT 10/9** | 4 | 5.5 | | | 148 | 145 | 142 | 137 | 132 | 125 | 117 | 107 | 90 | 61.5 | 36 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | POWER (P2) | | | Q m³/h | 0 | 3 | 6 | 12 | 18 | 24 | 30 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | l/min | **0** | **50** | **100** | **200** | **300** | **400** | **500** |
| **HT 15/2** | 4 | 5.5 | | | 64 | 62.5 | 60.5 | 55.5 | 47 | 33 | 13.5 |
| **HT 15/3** | 5.5 | 7.5 | | | 96 | 94 | 91 | 83 | 70 | 50 | 20 |
| **HT 15/4** | 7.5 | 10 | **IE3** | **H** m | 128 | 125 | 121 | 111 | 94 | 66.5 | 27 |
| **HT 15/5** | 9.2 | 12.5 | | | 160 | 156 | 152 | 139 | 117 | 83 | 33.5 |

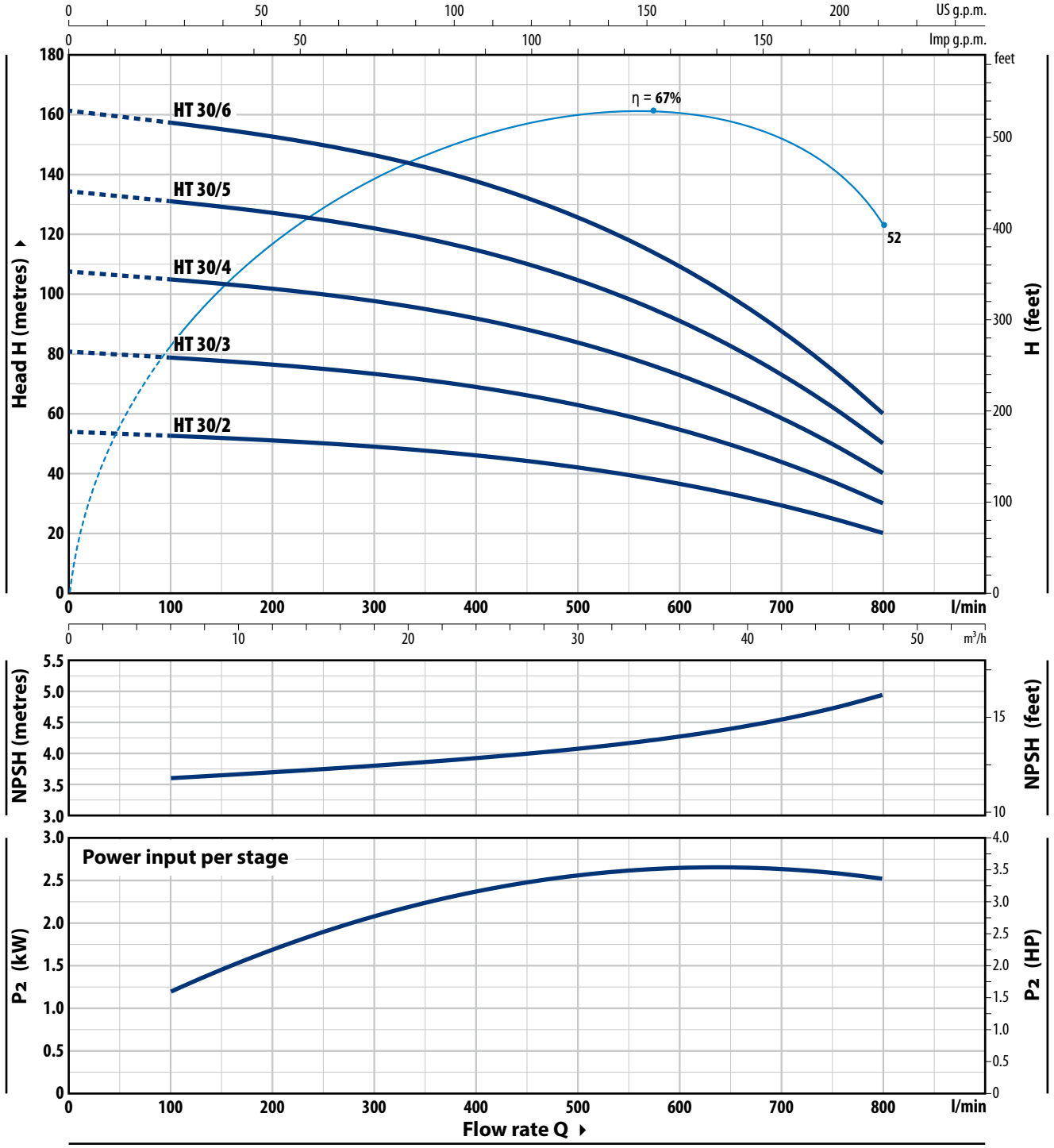
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

# HT 30

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | POWER (P2) | | | Q m³/h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 48 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | l/min | **0** | **100** | **200** | **300** | **400** | **500** | **600** | **800** |
| **HT 30/2** | 5.5 | 7.5 | | | 54 | 52.5 | 51 | 49 | 46 | 42 | 36.5 | 20 |
| **HT 30/3** | 7.5 | 10 | | | 81 | 79 | 76 | 73 | 69 | 63 | 54.5 | 30 |
| **HT 30/4** | 11 | 15 | **IE3** | **H** m | 108 | 105 | 102 | 98 | 92 | 84 | 73 | 40 |
| **HT 30/5** | 15 | 20 | | | 134 | 131 | 127 | 122 | 115 | 105 | 91 | 50 |
| **HT 30/6** | 15 | 20 | | | 161 | 157 | 153 | 146 | 138 | 126 | 109 | 60 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## ABSORPTION

| TYPE | VOLTAGE |
|---|---|
| Single-ph. | 220 V |
| HTm 3/4 | 7.5 A |
| HTm 3/5 | 9.5 A |
| HTm 3/6 | 10.5 A |
| HTm 3/7 | 13.0 A |
| HTm 3/8 | 19.0 A |
| HTm 3/9 | 20.0 A |
| HTm 3/10 | 21.0 A |
| HTm 5/2 | 5.5 A |
| HTm 5/3 | 7.5 A |
| HTm 5/4 | 10.0 A |
| HTm 5/5 | 11.8 A |
| HTm 5/6 | 13.5 A |
| HTm 5/7 | 20.0 A |
| HTm 5/8 | 21.0 A |
| HTm 5/9 | 24.0 A |
| HTm 8/3 | 8.0 A |
| HTm 8/4 | 10.5 A |
| HTm 8/5 | 12.5 A |
| HTm 8/6 | 15.2 A |
| HTm 8/7 | 21.0 A |
| HTm 8/8 | 23.5 A |
| HTm 8/9 | 25.0 A |
| HTm 10/3 | 10.5 A |
| HTm 10/4 | 12.5 A |
| HTm 10/5 | 15.2 A |
| HTm 10/6 | 20.0 A |
| HTm 10/7 | 21.0 A |
| HTm 10/8 | 23.5 A |
| HTm 10/9 | 25.0 A |

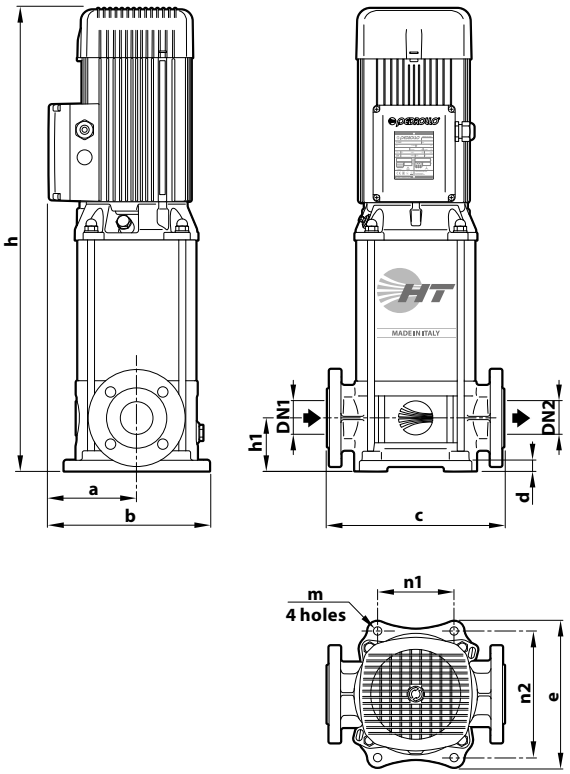
| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| Three-phase | 220 V - Δ | 380 V - Y | 220 V - Δ | 440 V - Y |
| HT 3/4 | 6.1 A | 3.5 A | 5.2 A | 3.0 A |
| HT 3/5 | 6.9 A | 4.0 A | 6.0 A | 3.5 A |
| HT 3/6 | 7.6 A | 4.4 A | 6.6 A | 3.8 A |
| HT 3/7 | 9.0 A | 5.2 A | 7.9 A | 4.6 A |
| HT 3/8 | 11.9 A | 6.9 A | 12.0 A | 7.2 A |
| HT 3/9 | 12.7 A | 7.4 A | 12.2 A | 7.6 A |
| HT 3/10 | 13.4 A | 7.7 A | 12.4 A | 7.8 A |
| HT 5/2 | 5.7 A | 3.3 A | 4.9 A | 2.9 A |
| HT 5/3 | 6.6 A | 3.8 A | 5.7 A | 3.3 A |
| HT 5/4 | 6.9 A | 4.0 A | 6.4 A | 3.7 A |
| HT 5/5 | 9.2 A | 5.3 A | 7.9 A | 4.6 A |
| HT 5/6 | 10.0 A | 5.8 A | 8.7 A | 5.0 A |
| HT 5/7 | 12.7 A | 7.4 A | 12.2 A | 7.6 A |
| HT 5/8 | 14.0 A | 8.1 A | 13.0 A | 8.2 A |
| HT 5/9 | 17.3 A | 10.0 A | 15.5 A | 10.6 A |
| HT 8/3 | 6.6 A | 3.8 A | 5.7 A | 3.3 A |
| HT 8/4 | 7.8 A | 4.5 A | 6.7 A | 3.9 A |
| HT 8/5 | 9.0 A | 5.2 A | 8.2 A | 4.8 A |
| HT 8/6 | 9.5 A | 5.5 A | 9.0 A | 5.2 A |
| HT 8/7 | 14.0 A | 8.1 A | 13.0 A | 8.2 A |
| HT 8/8 | 14.7 A | 8.5 A | 15.0 A | 10.5 A |
| HT 8/9 | 16.0 A | 9.3 A | 16.0 A | 11.0 A |
| HT 8/10 | 18.6 A | 10.8 A | 17.0 A | 11.5 A |
| HT 10/3 | 7.8 A | 4.5 A | 6.7 A | 3.9 A |
| HT 10/4 | 9.0 A | 5.2 A | 8.2 A | 4.8 A |
| HT 10/5 | 9.5 A | 5.5 A | 9.0 A | 5.2 A |
| HT 10/6 | 13.4 A | 7.7 A | 12.4 A | 7.8 A |
| HT 10/7 | 14.0 A | 8.1 A | 13.0 A | 8.2 A |
| HT 10/8 | 16.6 A | 9.6 A | 15.0 A | 10.5 A |
| HT 10/9 | 17.6 A | 10.2 A | 16.0 A | 11.0 A |
| HT 15/2 | 19.0 A | 11.0 A | 16.0 A | 10.5 A |
| HT 15/3 | 24.2 A | 14.0 A | 21.0 A | 13.2 A |
| HT 15/4 | 31.0 A | 18.0 A | 28.0 A | 17.5 A |
| HT 15/5 | 34.5 A | 20.0 A | 34.0 A | 20.0 A |
| HT 30/2 | 23.7 A | 13.7 A | 20.9 A | 13.0 A |
| HT 30/3 | 31.5 A | 18.2 A | 29.0 A | 18.5 A |
| HT 30/4 | 37.2 A | 21.5 A | 32.8 A | 20.5 A |
| HT 30/5 | 45.5 A | 26.3 A | 42.5 A | 23.5 A |
| HT 30/6 | 52.2 A | 30.2 A | 46.0 A | 28.8 A |

## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-phase | Three-phase | n. pumps | n. pumps |
| HTm 3/4 | HT 3/4 | 12 | 18 |
| HTm 3/5 | HT 3/5 | 12 | 18 |
| HTm 3/6 | HT 3/6 | 12 | 18 |
| HTm 3/7 | HT 3/7 | 12 | 18 |
| HTm 3/8 | HT 3/8 | 6 | 9 |
| HTm 3/9 | HT 3/9 | 6 | 9 |
| HTm 3/10 | HT 3/10 | 6 | 9 |
| HTm 5/2 | HT 5/2 | 12 | 18 |
| HTm 5/3 | HT 5/3 | 12 | 18 |
| HTm 5/4 | HT 5/4 | 12 | 18 |
| HTm 5/5 | HT 5/5 | 12 | 18 |
| HTm 5/6 | HT 5/6 | 12 | 18 |
| HTm 5/7 | HT 5/7 | 6 | 9 |
| HTm 5/8 | HT 5/8 | 6 | 9 |
| HTm 5/9 | HT 5/9 | 6 | 9 |
| HTm 8/3 | HT 8/3 | 12 | 18 |
| HTm 8/4 | HT 8/4 | 12 | 18 |
| HTm 8/5 | HT 8/5 | 12 | 18 |
| HTm 8/6 | HT 8/6 | 12 | 18 |
| HTm 8/7 | HT 8/7 | 6 | 9 |
| HTm 8/8 | HT 8/8 | 6 | 9 |
| HTm 8/9 | HT 8/9 | 6 | 9 |
| – | HT 8/10 | 6 | 9 |

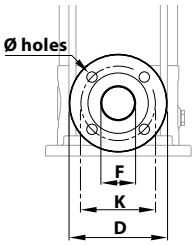
| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-phase | Three-phase | n. pumps | n. pumps |
| HTm 10/3 | HT 10/3 | 12 | 18 |
| HTm 10/4 | HT 10/4 | 12 | 18 |
| HTm 10/5 | HT 10/5 | 12 | 18 |
| HTm 10/6 | HT 10/6 | 12 | 18 |
| HTm 10/7 | HT 10/7 | 6 | 9 |
| HTm 10/8 | HT 10/8 | 6 | 9 |
| HTm 10/9 | HT 10/9 | 6 | 9 |
| – | HT 15/2 | 6 | 9 |
| | HT 15/3 | 6 | 9 |
| – | HT 15/4 | 6 | 9 |
| – | HT 15/5 | 6 | 9 |
| – | HT 30/2 | 6 | 9 |
| – | HT 30/3 | 6 | 9 |
| – | HT 30/4 | 6 | 9 |
| – | HT 30/5 | 2 | 2 |
| – | HT 30/6 | 2 | 2 |

## DIMENSIONS AND WEIGHT



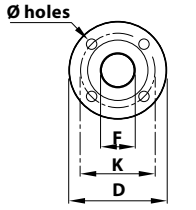

## FLANGE

| TYPE | DN | F | D | K | HOLES | |
|---|---|---|---|---|---|---|
| | mm | mm | mm | mm | N° | Ø mm |
| **HT 3** | **25** | 1" | 115 | 85 | 4 | 14 |
| **HT 5** | **32** | 1¼" | 140 | 100 | | 18 |
| **HT 8** | **40** | 1½" | 150 | 110 | | |
| **HT 10** | **40** | 1½" | 150 | 110 | | |
| **HT 15** | **50** | 2" | 165 | 125 | | |
| **HT 30** | **65** | 2½" | 185 | 145 | 8 | |




## COUNTER-FLANGE

| TYPE | DN | F | D | K | HOLES | |
|---|---|---|---|---|---|---|
| | mm | mm | mm | mm | N° | Ø mm |
| **HT 3** | **25** | 1" | 115 | 85 | 4 | 14 |
| **HT 5** | **32** | 1¼" | 140 | 100 | | 18 |
| **HT 8** | **40** | 1½" | 150 | 110 | | |
| **HT 10** | **40** | 1½" | 150 | 110 | | |
| **HT 15** | **50** | 2" | 165 | 125 | | |
| **HT 30** | **65** | 2½" | 185 | 145 | 8 | |




| TYPE | | PORTS | | N° | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN1 | DN2 | STAGES | a | b | c | d | e | h | h1 | n1 | n2 | m | 1~ | 3~ |
| **HTm 3/4** | **HT 3/4** | | | 4 | | | | | | 509 | | | | | 33.5 | 33.5 |
| **HTm 3/5** | **HT 3/5** | | | 5 | 126 | 231 | | | | 535 | | | | | 33.7 | 33.7 |
| **HTm 3/6** | **HT 3/6** | | | 6 | | | | | | 561 | | | | | 35.0 | 35.0 |
| **HTm 3/7** | **HT 3/7** | **1"** | **1"** | 7 | | | | | | 607 | | | | | 39.9 | 39.9 |
| **HTm 3/8** | **HT 3/8** | | | 8 | | | | | | 685 | | | | | 47.5 | 47.2 |
| **HTm 3/9** | **HT 3/9** | | | 9 | 151 | 257 | | | | 711 | | | | | 48.5 | 48.2 |
| **HTm 3/10** | **HT 3/10** | | | 10 | | | | | | 737 | | | | | 49.4 | 49.1 |
| **HTm 5/2** | **HT 5/2** | | | 2 | | | 250 | | | 457 | 75 | | | | 33.0 | 33.0 |
| **HTm 5/3** | **HT 5/3** | | | 3 | | | | | | 483 | | | | | 33.2 | 33.2 |
| **HTm 5/4** | **HT 5/4** | | | 4 | 126 | 231 | | | | 509 | | | | | 35.2 | 35.2 |
| **HTm 5/5** | **HT 5/5** | **1¼"** | **1¼"** | 5 | | | | | | 555 | | | | | 37.5 | 37.5 |
| **HTm 5/6** | **HT 5/6** | | | 6 | | | | | | 581 | | | | | 38.5 | 38.5 |
| **HTm 5/7** | **HT 5/7** | | | 7 | | | | | | 659 | | | | | 47.6 | 47.3 |
| **HTm 5/8** | **HT 5/8** | | | 8 | 151 | 257 | | | | 685 | | | | | 48.6 | 48.3 |
| **HTm 5/9** | **HT 5/9** | | | 9 | | | | | | 711 | | | | | 52.8 | 52.5 |
| **HTm 8/3** | **HT 8/3** | | | 3 | | | | 15 | 210 | 488 | | 100 | 180 | Ø 13 | 34.6 | 34.6 |
| **HTm 8/4** | **HT 8/4** | | | 4 | 126 | 231 | | | | 514 | | | | | 36.6 | 36.6 |
| **HTm 8/5** | **HT 8/5** | | | 5 | | | | | | 560 | | | | | 40.1 | 40.1 |
| **HTm 8/6** | **HT 8/6** | **1½"** | **1½"** | 6 | | | | | | 586 | | | | | 40.9 | 40.9 |
| **HTm 8/7** | **HT 8/7** | | | 7 | | | | | | 664 | | | | | 48.9 | 48.6 |
| **HTm 8/8** | **HT 8/8** | | | 8 | 151 | 257 | | | | 690 | | | | | 53.0 | 52.7 |
| **HTm 8/9** | **HT 8/9** | | | 9 | | | | | | 716 | | | | | 54.0 | 53.7 |
| – | **HT 8/10** | | | 10 | | | 280 | | | 742 | 80 | | | | – | 58.7 |
| **HTm 10/3** | **HT 10/3** | | | 3 | | | | | | 488 | | | | | 34.7 | 34.7 |
| **HTm 10/4** | **HT 10/4** | | | 4 | 126 | 231 | | | | 534 | | | | | 36.7 | 36.7 |
| **HTm 10/5** | **HT 10/5** | | | 5 | | | | | | 560 | | | | | 40.2 | 40.2 |
| **HTm 10/6** | **HT 10/6** | **1½"** | **1½"** | 6 | | | | | | 638 | | | | | 48.8 | 48.5 |
| **HTm 10/7** | **HT 10/7** | | | 7 | 151 | 257 | | | | 664 | | | | | 49.0 | 48.7 |
| **HTm 10/8** | **HT 10/8** | | | 8 | | | | | | 690 | | | | | 53.1 | 52.8 |
| **HTm 10/9** | **HT 10/9** | | | 9 | | | | | | 716 | | | | | 54.1 | 53.8 |
| – | **HT 15/2** | | | 2 | | | | | | 589 | | | | | – | 52.3 |
| – | **HT 15/3** | **2"** | **2"** | 3 | 151 | 275 | 300 | | | 633 | 90 | | | | – | 69.8 |
| – | **HT 15/4** | | | 4 | | | | | | 727 | | | | | – | 78.0 |
| – | **HT 15/5** | | | 5 | 181 | 305 | | | | 856 | | | | | – | 116.0 |
| – | **HT 30/2** | | | 2 | 151 | 275 | | 18 | 247 | 604 | | 130 | 215 | Ø 14 | – | 61.5 |
| – | **HT 30/3** | | | 3 | | | | | | 698 | | | | | – | 69.5 |
| – | **HT 30/4** | **2½"** | **2½"** | 4 | | | 320 | | | 827 | 105 | | | | – | 124.5 |
| – | **HT 30/5** | | | 5 | 181 | 305 | | | | 871 | | | | | – | 125.0 |
| – | **HT 30/6** | | | 6 | | | | | | 915 | | | | | – | 137.5 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| **1** | **Pump body** | Cast iron JL250 with cataphoresis treatment, fitted with flanged and threaded ISO 228/1 ports |
| **2** | **Cover** | Cast iron JL250 with cataphoresis treatment |
| **3** | **External sleeve** | Stainless steel **AISI 304** |
| **4** | **Impellers** | Stainless steel **AISI 304** |
| **5** | **Diffusers** | Stainless steel **AISI 304** |

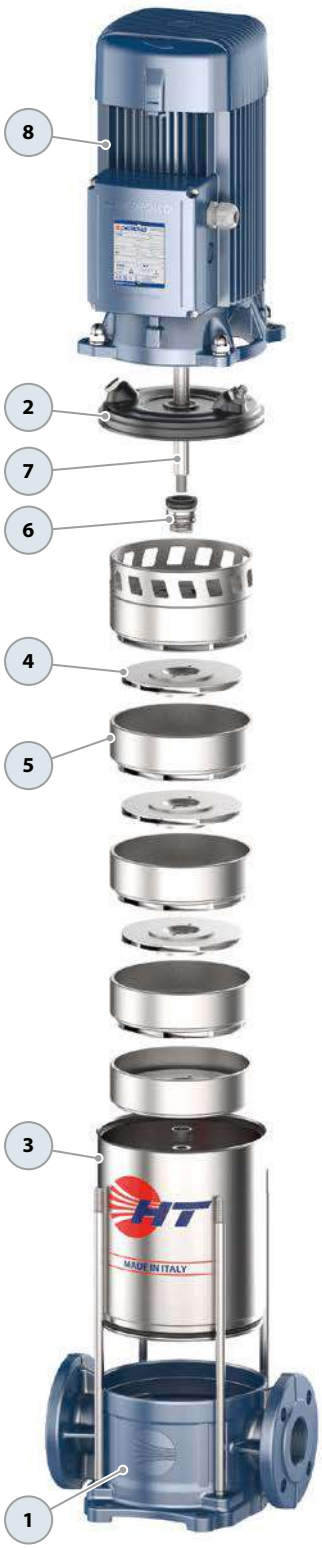
**6 Mechanical seal**

| Water pump | Seal | Shaft | Materials |
|---|---|---|---|
| HT 3 - 5 - 8 - 10 | **FN-18** | Ø 18 mm | Graphite / Ceramic / NBR |
| HT 15 - 30 | **FN-KU-24**<br>ISO 3069<br>EN 12756 | Ø 24 mm | Graphite / Ceramic / NBR |

| | | |
|---|---|---|
| **7** | **Shaft** | Stainless steel **AISI 431** |

**8 Electric motor**

- **HTm**: single-phase 220 V - 60 Hz with capacitor and winding integrated thermal motor protection
- **HT**: three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz
- The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)
- Continuous running duty **S1**



# HT-PRO Stainless steel vertical multi-stage centrifugal pumps

Clean water
Civil use
Agricultural use
Industrial use

※ **Pump entirely made of stainless steel**




※ **HT-PRO pumps are designed for high hydraulic performance combined with a robust, compact and reliable mechanical construction.**

※ Pump body: **Stainless steel AISI 304**
※ Cover: **Stainless steel AISI 304**
※ Jacket **Stainless steel AISI 304**
※ Impellers: **Stainless steel AISI 304**
※ Diffusers: **Stainless steel AISI 304**
※ Shaft **Stainless steel AISI 431**

## PERFORMANCE RANGE

- Flow rate up to **800 l/min** (48 m³/h)
- Head up to **160 m**

## INSTALLATION AND USE

Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.

Their high efficiency and adaptability to a wide variety of applications make them an ideal choice in the domestic, civil, agricultural, and industrial sectors, particularly for water distribution along pressure tanks to increase overall network pressure. Suggested uses include fire-fighting systems, heavy-duty cleaning applications, industrial power washers, and irrigation.

## KEY FEATURES

※ The multi-stage stainless steel construction guarantees a long service life and a very low noise threshold during operation.
※ Stainless steel components extend service life and enhance efficiency.
※ Multi-stage design results in exceptionally quiet operation

## APPLICATION LIMITS

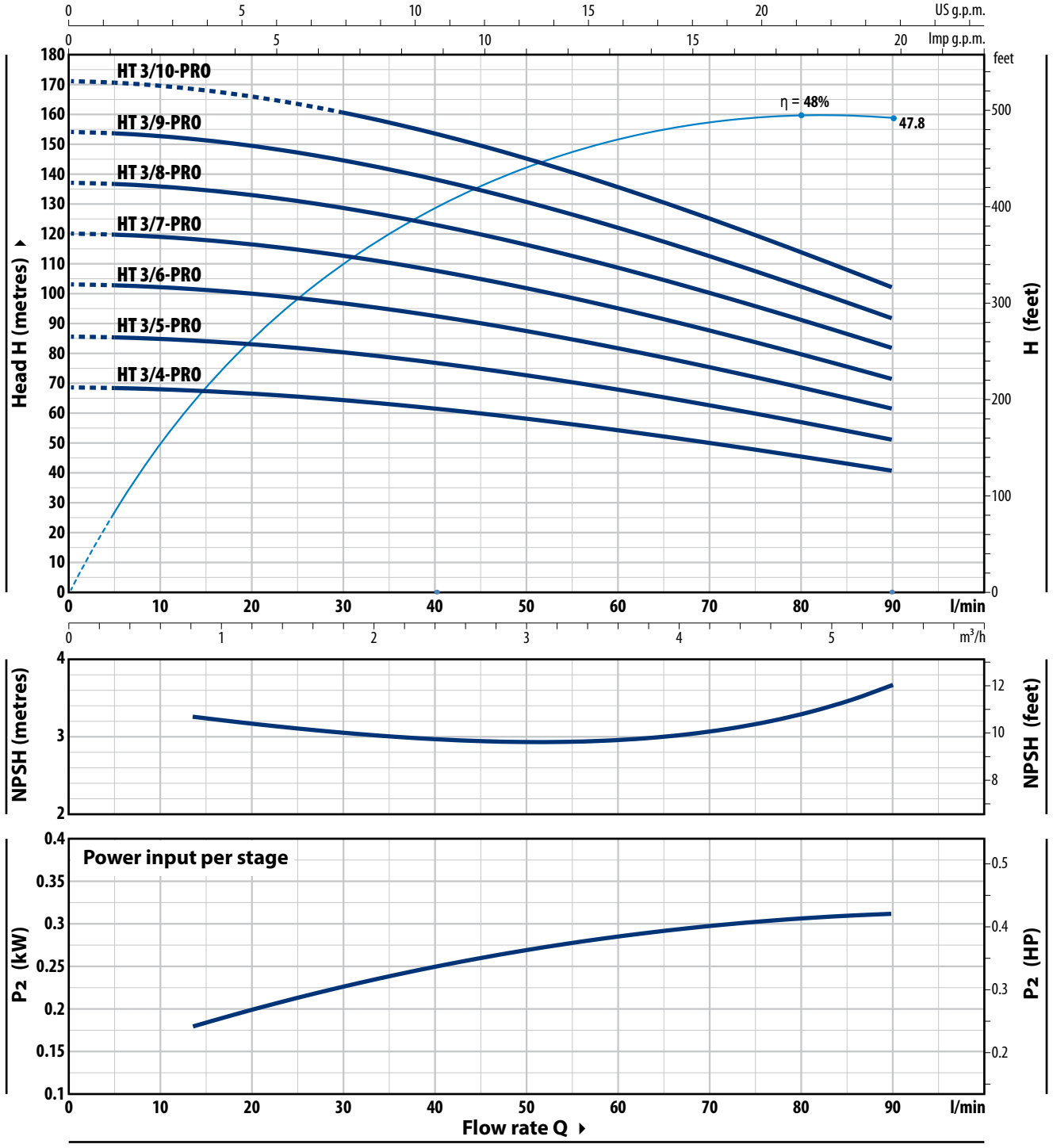
- Manometric suction head up to **7 m**
- Liquid temperature between **-15 °C** and **+90 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure **16 bar**

## AVAILABLE UPON REQUEST

※ AISI 316 stainless steel pump
※ Handling of liquids with higher or lower temperatures.
※ Pump body with NPT threaded ports ANSI B 1.20.1
※ Pump protection kit to prevent dry running
※ O-rings in EPDM or VITON (standard version in NBR)
※ Different voltage or frequency

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | | POWER (P2) | | | Q m³/h | 0 | 0.3 | 0.6 | 1.2 | 1.8 | 2.4 | 3.6 | 5.4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | 3~ | Q l/min | **0** | **5** | **10** | **20** | **30** | **40** | **60** | **90** |
| HTm 3/4 - PRO | HT 3/4 - PRO | 0.75 | 1 | | | 68.5 | 68.5 | 68 | 66.5 | 65 | 61.5 | 54.5 | 41 |
| HTm 3/5 - PRO | HT 3/5 - PRO | 1.1 | 1.5 | | | 86 | 86 | 85 | 83 | 80 | 77 | 68 | 51 |
| HTm 3/6 - PRO | HT 3/6 - PRO | 1.5 | 2 | | | 103 | 103 | 102 | 100 | 96 | 92 | 82 | 61.5 |
| HTm 3/7 - PRO | HT 3/7 - PRO | 1.8 | 2.5 | IE3 | H m | 120 | 120 | 119 | 116 | 112 | 108 | 95 | 72 |
| HTm 3/8 - PRO | HT 3/8 - PRO | 2.2 | 3 | | | 137 | 137 | 136 | 133 | 128 | 123 | 109 | 82 |
| HTm 3/9 - PRO | HT 3/9 - PRO | 3 | 4 | | | 154 | 154 | 153 | 150 | 145 | 138 | 122 | 92 |
| HTm 3/10 - PRO | HT 3/10 - PRO | 3 | 4 | | | – | – | – | – | 160 | 154 | 136 | 102 |

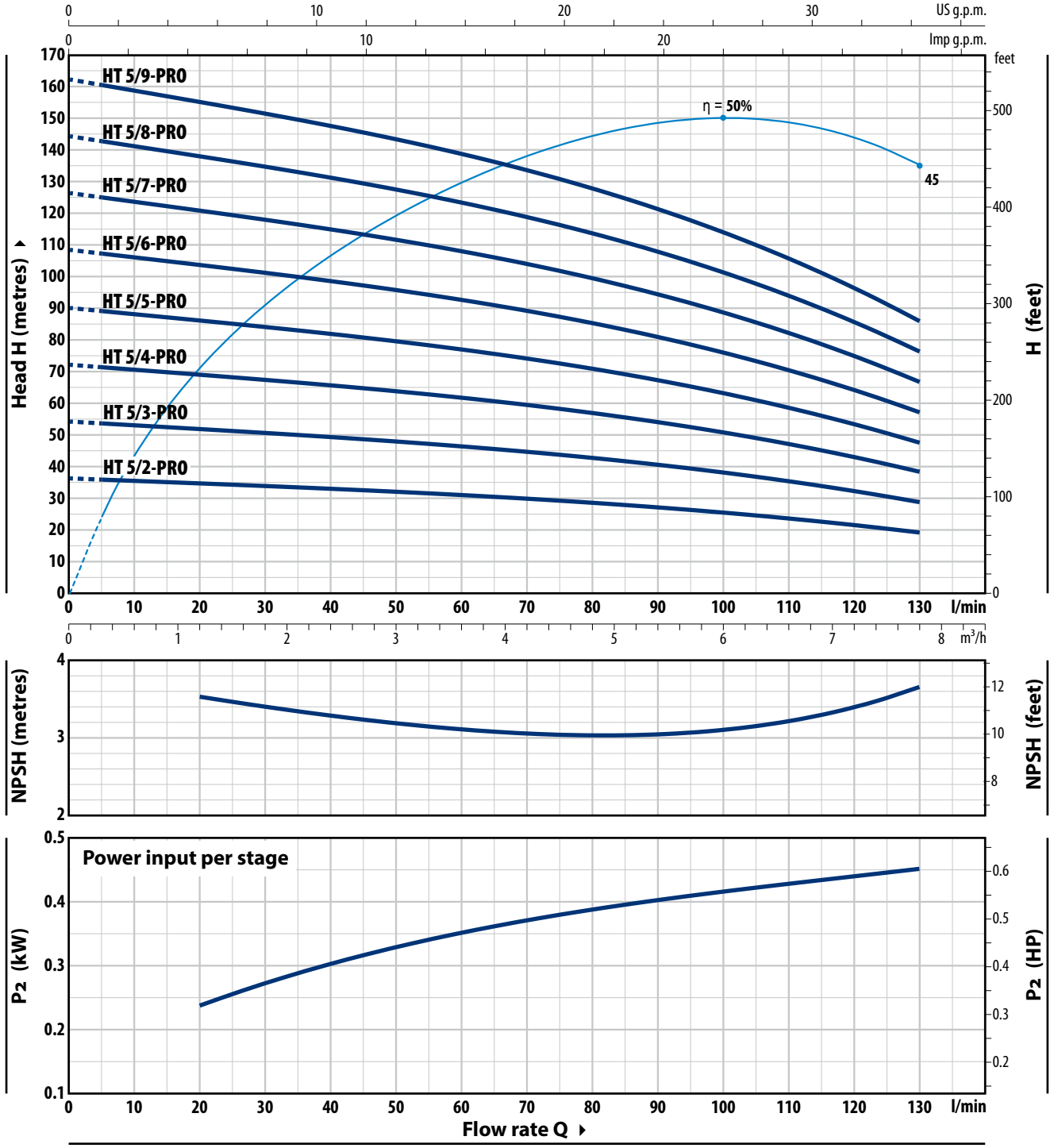
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

# HT 5 - PRO

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**



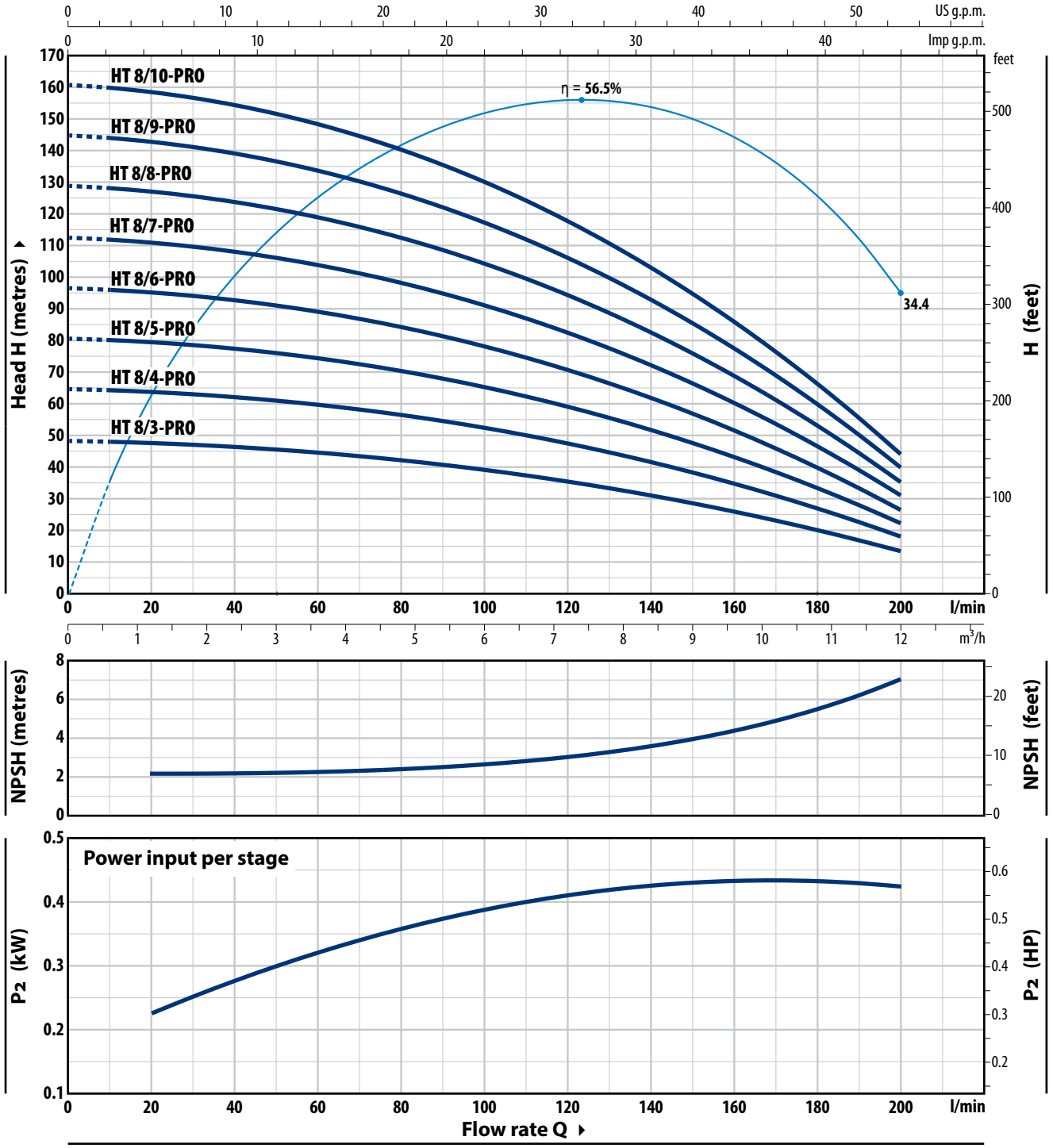

| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 0.3 | 0.6 | 1.2 | 2.4 | 3.6 | 4.8 | 5.4 | 6 | 7.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | 3~ | | l/min | **0** | **5** | **10** | **20** | **40** | **60** | **80** | **90** | **100** | **130** |
| HTm 5/2 - PRO | HT 5/2 - PRO | 0.75 | 1 | IE3 | H | m | 36 | 35.5 | 35.5 | 34.5 | 33 | 31 | 28.5 | 27 | 25.3 | 19 |
| HTm 5/3 - PRO | HT 5/3 - PRO | 1.1 | 1.5 | | | | 54 | 53.5 | 53 | 51.5 | 49 | 46.5 | 42.5 | 40.5 | 38 | 28.5 |
| HTm 5/4 - PRO | HT 5/4 - PRO | 1.5 | 2 | | | | 72 | 71 | 71 | 69 | 65.5 | 61.5 | 57 | 54 | 50.5 | 38 |
| HTm 5/5 - PRO | HT 5/5 - PRO | 1.8 | 2.5 | | | | 90 | 89 | 88 | 86 | 82 | 77 | 71 | 67.5 | 63.5 | 47.5 |
| HTm 5/6 - PRO | HT 5/6 - PRO | 2.2 | 3 | | | | 108 | 107 | 106 | 103 | 98 | 93 | 85 | 81 | 76 | 57 |
| HTm 5/7 - PRO | HT 5/7 - PRO | 3 | 4 | | | | 126 | 125 | 124 | 121 | 115 | 108 | 99 | 94 | 89 | 66.5 |
| HTm 5/8 - PRO | HT 5/8 - PRO | 3 | 4 | | | | 144 | 143 | 141 | 138 | 131 | 123 | 114 | 108 | 101 | 76 |
| HTm 5/9 - PRO | HT 5/9 - PRO | 4 | 5.5 | | | | 162 | 161 | 159 | 155 | 148 | 139 | 128 | 121 | 114 | 86 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | | POWER (P2) | | | Q m³/h | 0 | 1.2 | 2.4 | 3.6 | 6.0 | 8.4 | 10.8 | 12.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | 3~ | Q l/min | **0** | **20** | **40** | **60** | **100** | **140** | **180** | **200** |
| **HTm 8/3 - PRO** | **HT 8/3 - PRO** | 1.1 | 1.5 | | | 48.5 | 48 | 46.5 | 45 | 39.5 | 31 | 20.1 | 13.5 |
| **HTm 8/4 - PRO** | **HT 8/4 - PRO** | 1.5 | 2 | | | 64.5 | 64 | 62 | 59.5 | 52.5 | 41.5 | 26.8 | 18 |
| **HTm 8/5 - PRO** | **HT 8/5 - PRO** | 1.8 | 2.5 | | | 81 | 80 | 78 | 75 | 65.5 | 52 | 33.5 | 22.5 |
| **HTm 8/6 - PRO** | **HT 8/6 - PRO** | 2.2 | 3 | | | 97 | 95 | 93 | 89 | 78 | 62 | 40 | 27 |
| **HTm 8/7 - PRO** | **HT 8/7 - PRO** | 3 | 4 | **IE3** | **H** m | 113 | 111 | 108 | 104 | 91 | 72 | 47 | 31.5 |
| **HTm 8/8 - PRO** | **HT 8/8 - PRO** | 4 | 5.5 | | | 129 | 127 | 124 | 119 | 104 | 83 | 53.5 | 35.5 |
| **HTm 8/9 - PRO** | **HT 8/9 - PRO** | 4 | 5.5 | | | 145 | 143 | 139 | 134 | 117 | 93 | 60 | 40 |
| – | **HT 8/10 - PRO** | 5.5 | 7.5 | | | 161 | 159 | 155 | 149 | 131 | 103 | 67 | 44.5 |

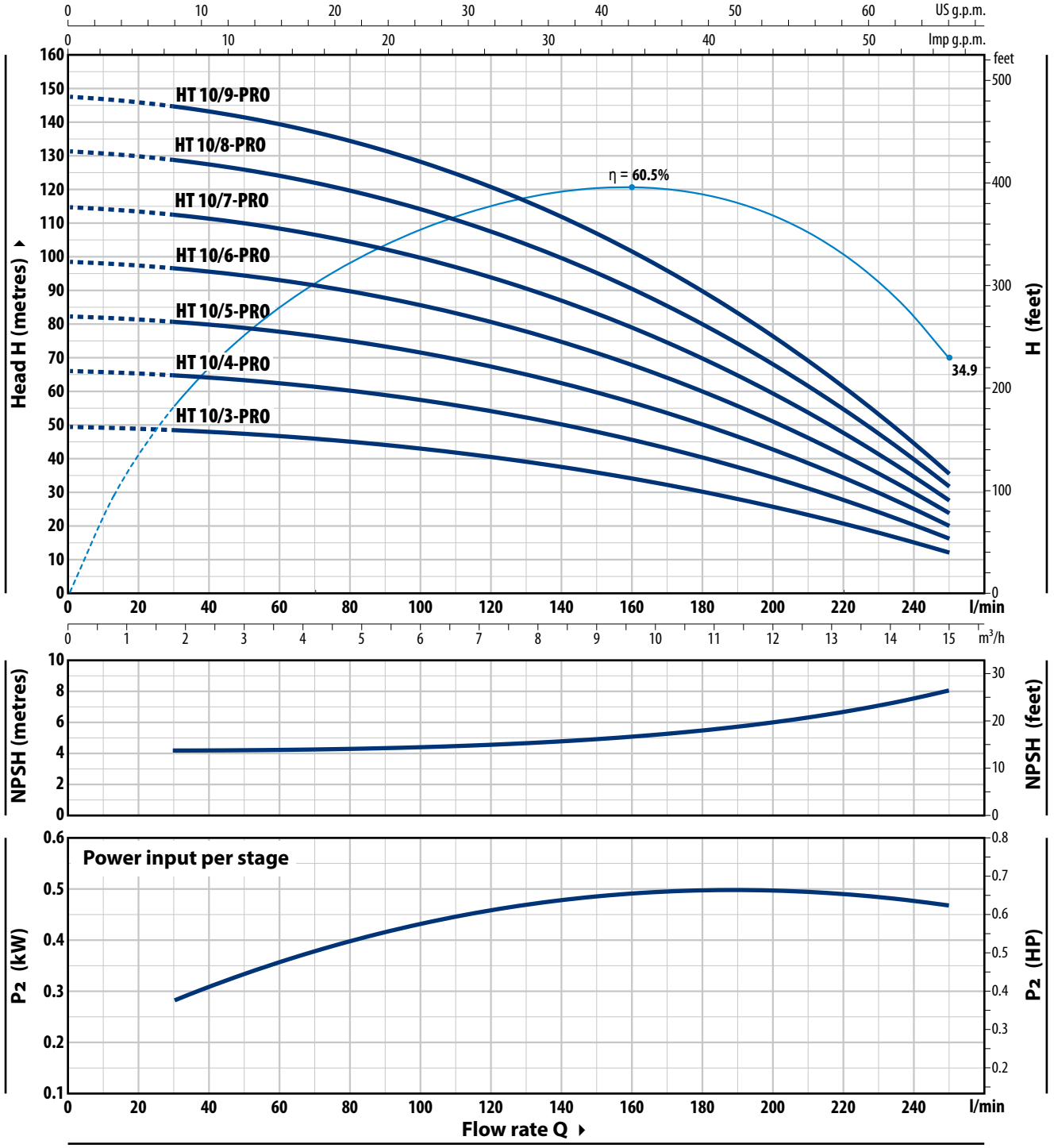
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

# HT 10 - PRO

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**



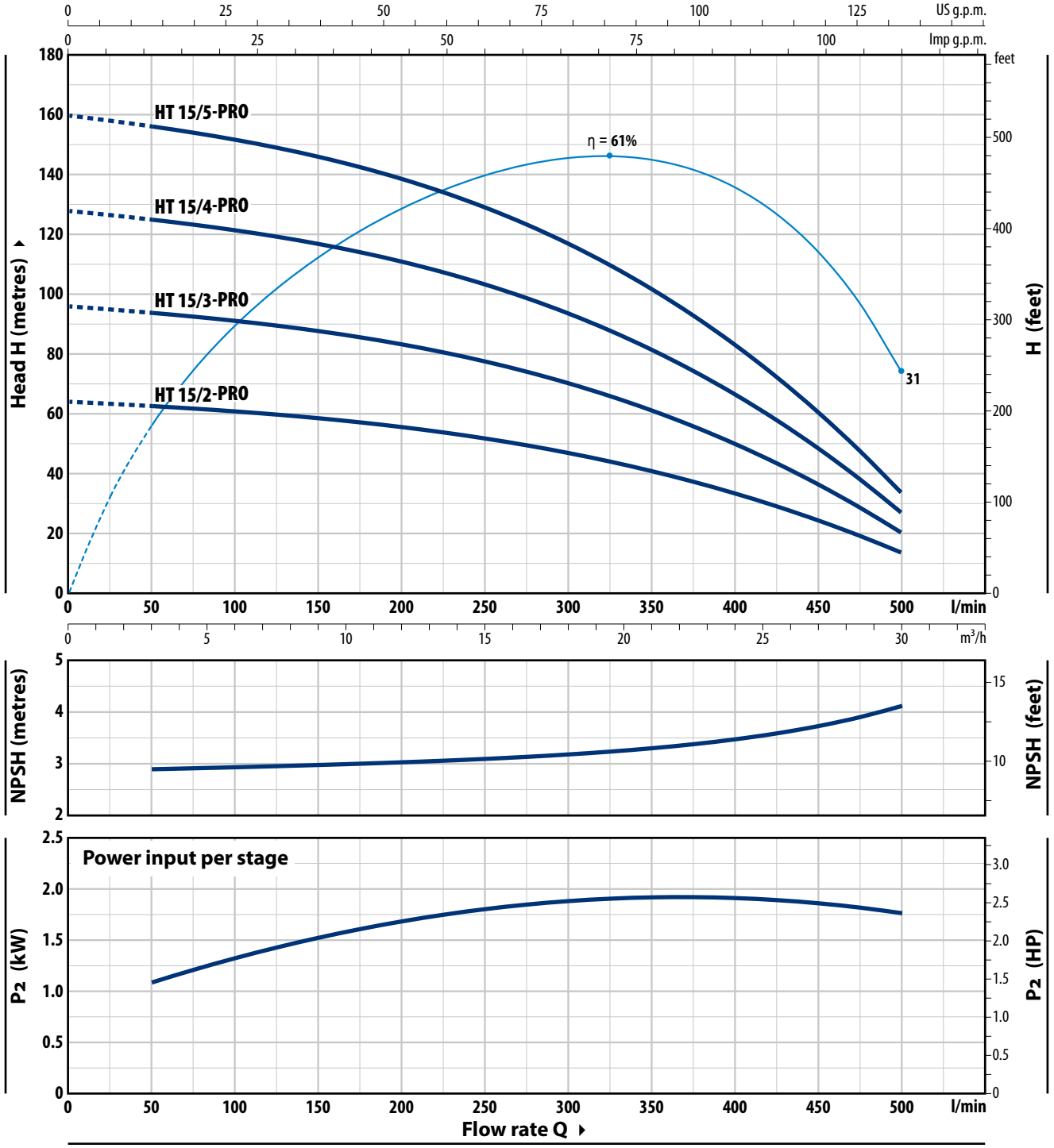

| TYPE | | POWER (P2) | | | Q m³/h | 0 | 1.8 | 3 | 4.2 | 5.4 | 6.6 | 7.8 | 9 | 10.8 | 13.2 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | **3~** | l/min | **0** | **30** | **50** | **70** | **90** | **110** | **130** | **150** | **180** | **220** | **250** |
| **HTm 10/3 - PRO** | **HT 10/3 - PRO** | 1.5 | 2 | | | 49.5 | 48.5 | 47.5 | 46 | 44 | 42 | 39 | 36 | 30 | 20.6 | 12 |
| **HTm 10/4 - PRO** | **HT 10/4 - PRO** | 1.8 | 2.5 | | | 66 | 64.5 | 63 | 61.5 | 59 | 55.5 | 52 | 48 | 40 | 27.5 | 16 |
| **HTm 10/5 - PRO** | **HT 10/5 - PRO** | 2.2 | 3 | | | 82 | 81 | 79 | 77 | 73 | 69.5 | 65 | 59.5 | 50 | 34.5 | 20 |
| **HTm 10/6 - PRO** | **HT 10/6 - PRO** | 3 | 4 | **IE3** | **H** m | 99 | 97 | 94 | 92 | 88 | 83 | 78 | 71 | 60 | 41 | 24 |
| **HTm 10/7 - PRO** | **HT 10/7 - PRO** | 3 | 4 | | | 115 | 113 | 110 | 107 | 102 | 97 | 91 | 83 | 70 | 48 | 28 |
| **HTm 10/8 - PRO** | **HT 10/8 - PRO** | 4 | 5.5 | | | 131 | 129 | 126 | 122 | 117 | 111 | 104 | 95 | 80 | 54.5 | 32 |
| **HTm 10/9 - PRO** | **HT 10/9 - PRO** | 4 | 5.5 | | | 148 | 145 | 142 | 137 | 132 | 125 | 117 | 107 | 90 | 61.5 | 36 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | POWER (P2) | | | Q m³/h | 0 | 3 | 6 | 12 | 18 | 24 | 30 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | l/min | **0** | **50** | **100** | **200** | **300** | **400** | **500** |
| **HT 15/2 - PRO** | 4 | 5.5 | | | 64 | 62.5 | 60.5 | 55.5 | 47 | 33 | 13.5 |
| **HT 15/3 - PRO** | 5.5 | 7.5 | | | 96 | 94 | 91 | 83 | 70 | 50 | 20 |
| **HT 15/4 - PRO** | 7.5 | 10 | **IE3** | **H** m | 128 | 125 | 121 | 111 | 94 | 66.5 | 27 |
| **HT 15/5 - PRO** | 9.2 | 12.5 | | | 160 | 156 | 152 | 139 | 117 | 83 | 33.5 |

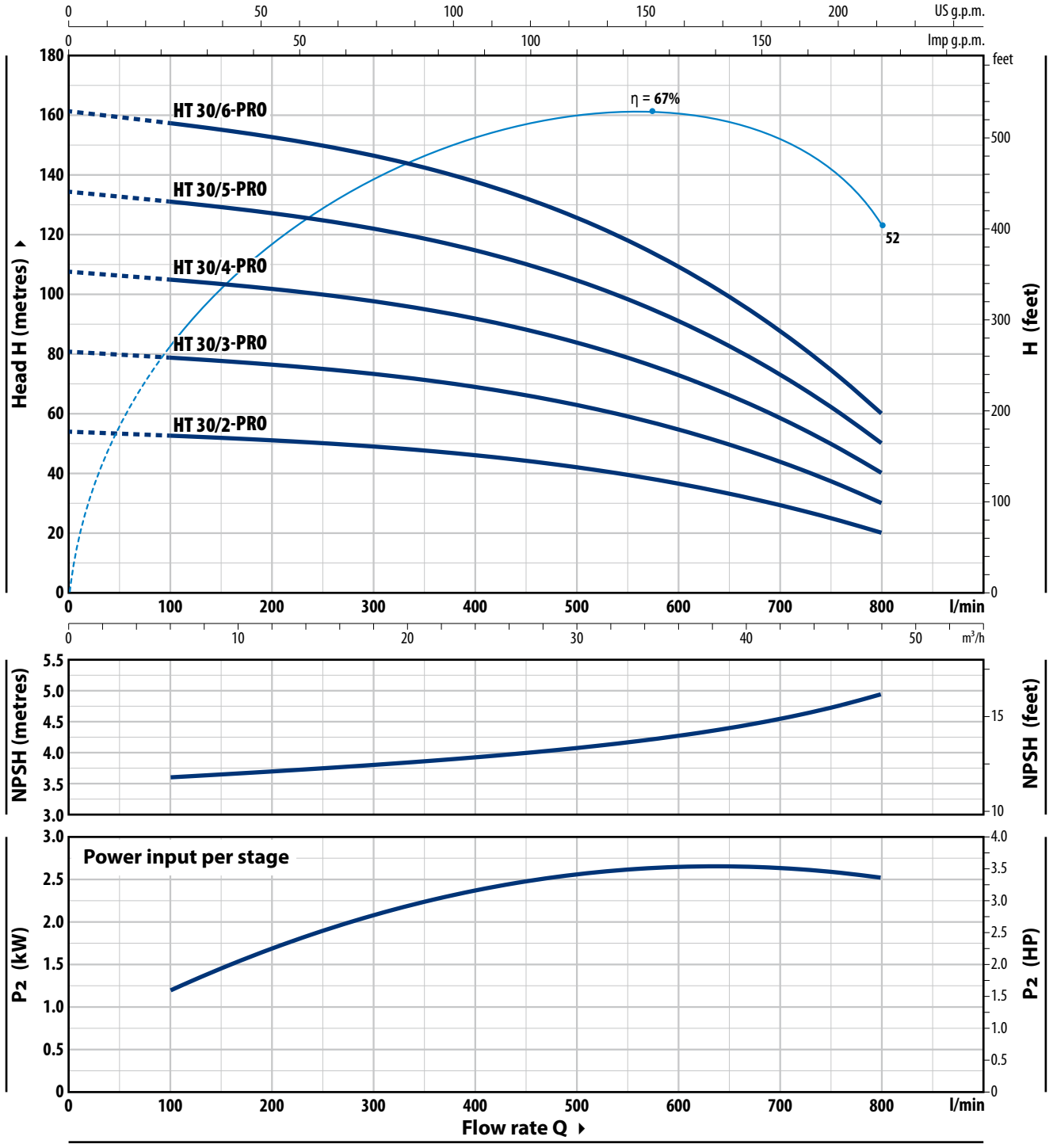
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

# HT 30 - PRO

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | POWER (P2) | | | Q m³/h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 48 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | l/min | **0** | **100** | **200** | **300** | **400** | **500** | **600** | **800** |
| **HT 30/2 - PRO** | 5.5 | 7.5 | | | 54 | 52.5 | 51 | 49 | 46 | 42 | 36.5 | 20 |
| **HT 30/3 - PRO** | 7.5 | 10 | | | 81 | 79 | 76 | 73 | 69 | 63 | 54.5 | 30 |
| **HT 30/4 - PRO** | 11 | 15 | **IE3** | **H** m | 108 | 105 | 102 | 98 | 92 | 84 | 73 | 40 |
| **HT 30/5 - PRO** | 15 | 20 | | | 134 | 131 | 127 | 122 | 115 | 105 | 91 | 50 |
| **HT 30/6 - PRO** | 15 | 20 | | | 161 | 157 | 153 | 146 | 138 | 126 | 109 | 60 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

| TYPE | VOLTAGE |
|---|---|
| Single-phase | 220 V |
| HTm 3/4 - PRO | 7.5 A |
| HTm 3/5 - PRO | 9.5 A |
| HTm 3/6 - PRO | 10.5 A |
| HTm 3/7 - PRO | 13.0 A |
| HTm 3/8 - PRO | 19.0 A |
| HTm 3/9 - PRO | 20.0 A |
| HTm 3/10 - PRO | 21.0 A |
| HTm 5/2 - PRO | 5.5 A |
| HTm 5/3 - PRO | 7.5 A |
| HTm 5/4 - PRO | 10.0 A |
| HTm 5/5 - PRO | 11.8 A |
| HTm 5/6 - PRO | 13.5 A |
| HTm 5/7 - PRO | 20.0 A |
| HTm 5/8 - PRO | 21.0 A |
| HTm 5/9 - PRO | 24.0 A |
| HTm 8/3 - PRO | 8.0 A |
| HTm 8/4 - PRO | 10.5 A |
| HTm 8/5 - PRO | 12.5 A |
| HTm 8/6 - PRO | 15.2 A |
| HTm 8/7 - PRO | 21.0 A |
| HTm 8/8 - PRO | 23.5 A |
| HTm 8/9 - PRO | 25.0 A |
| HTm 10/3 - PRO | 10.5 A |
| HTm 10/4 - PRO | 12.5 A |
| HTm 10/5 - PRO | 15.2 A |
| HTm 10/6 - PRO | 20.0 A |
| HTm 10/7 - PRO | 21.0 A |
| HTm 10/8 - PRO | 23.5 A |
| HTm 10/9 - PRO | 25.0 A |

| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| Three-phase | 220 V - Δ | 380 V - Y | 220 V - Δ | 440 V - Y |
| HT 3/4 - PRO | 6.1 A | 3.5 A | 5.2 A | 3.0 A |
| HT 3/5 - PRO | 6.9 A | 4.0 A | 6.0 A | 3.5 A |
| HT 3/6 - PRO | 7.6 A | 4.4 A | 6.6 A | 3.8 A |
| HT 3/7 - PRO | 9.0 A | 5.2 A | 7.9 A | 4.6 A |
| HT 3/8 - PRO | 11.9 A | 6.9 A | 12.0 A | 7.2 A |
| HT 3/9 - PRO | 12.7 A | 7.4 A | 12.2 A | 7.6 A |
| HT 3/10 - PRO | 13.4 A | 7.7 A | 12.4 A | 7.8 A |
| HT 5/2 - PRO | 5.7 A | 3.3 A | 4.9 A | 2.9 A |
| HT 5/3 - PRO | 6.6 A | 3.8 A | 5.7 A | 3.3 A |
| HT 5/4 - PRO | 6.9 A | 4.0 A | 6.4 A | 3.7 A |
| HT 5/5 - PRO | 9.2 A | 5.3 A | 7.9 A | 4.6 A |
| HT 5/6 - PRO | 10.0 A | 5.8 A | 8.7 A | 5.0 A |
| HT 5/7 - PRO | 12.7 A | 7.4 A | 12.2 A | 7.6 A |
| HT 5/8 - PRO | 14.0 A | 8.1 A | 13.0 A | 8.2 A |
| HT 5/9 - PRO | 17.3 A | 10.0 A | 15.5 A | 10.6 A |
| HT 8/3 - PRO | 6.6 A | 3.8 A | 5.7 A | 3.3 A |
| HT 8/4 - PRO | 7.8 A | 4.5 A | 6.7 A | 3.9 A |
| HT 8/5 - PRO | 9.0 A | 5.2 A | 8.2 A | 4.8 A |
| HT 8/6 - PRO | 9.5 A | 5.5 A | 9.0 A | 5.2 A |
| HT 8/7 - PRO | 14.0 A | 8.1 A | 13.0 A | 8.2 A |
| HT 8/8 - PRO | 14.7 A | 8.5 A | 15.0 A | 10.5 A |
| HT 8/9 - PRO | 16.0 A | 9.3 A | 16.0 A | 11.0 A |
| HT 8/10 - PRO | 18.6 A | 10.8 A | 17.0 A | 11.5 A |
| HT 10/3 - PRO | 7.8 A | 4.5 A | 6.7 A | 3.9 A |
| HT 10/4 - PRO | 9.0 A | 5.2 A | 8.2 A | 4.8 A |
| HT 10/5 - PRO | 9.5 A | 5.5 A | 9.0 A | 5.2 A |
| HT 10/6 - PRO | 13.4 A | 7.7 A | 12.4 A | 7.8 A |
| HT 10/7 - PRO | 14.0 A | 8.1 A | 13.0 A | 8.2 A |
| HT 10/8 - PRO | 16.6 A | 9.6 A | 15.0 A | 10.5 A |
| HT 10/9 - PRO | 17.6 A | 10.2 A | 16.0 A | 11.0 A |
| HT 15/2 - PRO | 19.0 A | 11.0 A | 16.0 A | 10.5 A |
| HT 15/3 - PRO | 24.2 A | 14.0 A | 21.0 A | 13.2 A |
| HT 15/4 - PRO | 31.0 A | 18.0 A | 28.0 A | 17.5 A |
| HT 15/5 - PRO | 34.5 A | 20.0 A | 34.0 A | 20.0 A |
| HT 30/2 - PRO | 23.7 A | 13.7 A | 20.9 A | 13.0 A |
| HT 30/3 - PRO | 31.5 A | 18.2 A | 29.0 A | 18.5 A |
| HT 30/4 - PRO | 37.2 A | 21.5 A | 32.8 A | 20.5 A |
| HT 30/5 - PRO | 45.5 A | 26.3 A | 42.5 A | 23.5 A |
| HT 30/6 - PRO | 52.2 A | 30.2 A | 46.0 A | 28.8 A |

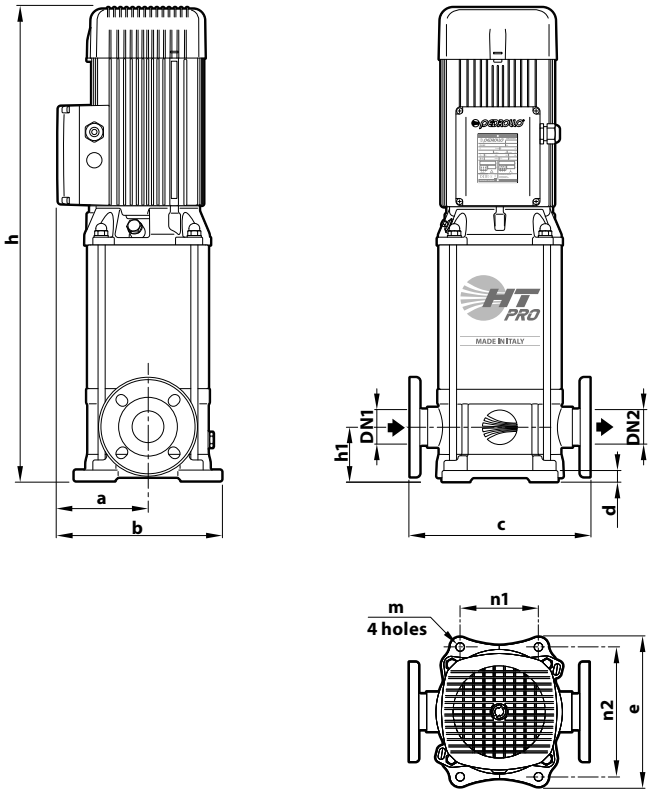
## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-phase | Three-phase | n. pumps | n. pumps |
| HTm 3/4 - PRO | HT 3/4 - PRO | 12 | 18 |
| HTm 3/5 - PRO | HT 3/5 - PRO | 12 | 18 |
| HTm 3/6 - PRO | HT 3/6 - PRO | 12 | 18 |
| HTm 3/7 - PRO | HT 3/7 - PRO | 12 | 18 |
| HTm 3/8 - PRO | HT 3/8 - PRO | 6 | 9 |
| HTm 3/9 - PRO | HT 3/9 - PRO | 6 | 9 |
| HTm 3/10 - PRO | HT 3/10 - PRO | 6 | 9 |
| HTm 5/2 - PRO | HT 5/2 - PRO | 12 | 18 |
| HTm 5/3 - PRO | HT 5/3 - PRO | 12 | 18 |
| HTm 5/4 - PRO | HT 5/4 - PRO | 12 | 18 |
| HTm 5/5 - PRO | HT 5/5 - PRO | 12 | 18 |
| HTm 5/6 - PRO | HT 5/6 - PRO | 12 | 18 |
| HTm 5/7 - PRO | HT 5/7 - PRO | 6 | 9 |
| HTm 5/8 - PRO | HT 5/8 - PRO | 6 | 9 |
| HTm 5/9 - PRO | HT 5/9 - PRO | 6 | 9 |
| HTm 8/3 - PRO | HT 8/3 - PRO | 12 | 18 |
| HTm 8/4 - PRO | HT 8/4 - PRO | 12 | 18 |
| HTm 8/5 - PRO | HT 8/5 - PRO | 12 | 18 |
| HTm 8/6 - PRO | HT 8/6 - PRO | 12 | 18 |
| HTm 8/7 - PRO | HT 8/7 - PRO | 6 | 9 |
| HTm 8/8 - PRO | HT 8/8 - PRO | 6 | 9 |
| HTm 8/9 - PRO | HT 8/9 - PRO | 6 | 9 |
| – | HT 8/10 - PRO | 6 | 9 |

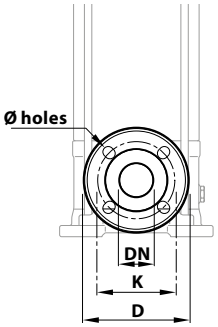
| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-phase | Three-phase | n. pumps | n. pumps |
| HTm 10/3 - PRO | HT 10/3 - PRO | 12 | 18 |
| HTm 10/4 - PRO | HT 10/4 - PRO | 12 | 18 |
| HTm 10/5 - PRO | HT 10/5 - PRO | 12 | 18 |
| HTm 10/6 - PRO | HT 10/6 - PRO | 12 | 18 |
| HTm 10/7 - PRO | HT 10/7 - PRO | 6 | 9 |
| HTm 10/8 - PRO | HT 10/8 - PRO | 6 | 9 |
| HTm 10/9 - PRO | HT 10/9 - PRO | 6 | 9 |
| – | HT 15/2 - PRO | 6 | 9 |
| | HT 15/3 - PRO | 6 | 9 |
| – | HT 15/4 - PRO | 6 | 9 |
| – | HT 15/5 - PRO | 6 | 9 |
| – | HT 30/2 - PRO | 6 | 9 |
| – | HT 30/3 - PRO | 6 | 9 |
| – | HT 30/4 - PRO | 6 | 9 |
| – | HT 30/5 - PRO | 2 | 2 |
| – | HT 30/6 - PRO | 2 | 2 |

# HT - PRO

## DIMENSIONS AND WEIGHT




## FLANGE




| TYPE | DN | D | K | HOLES | |
|---|---|---|---|---|---|
| | mm | mm | mm | N° | Ø mm |
| **HT 3 - PRO** | **25** | 115 | 85 | 4 | 14 |
| **HT 5 - PRO** | **32** | 140 | 100 | | 18 |
| **HT 8 - PRO** | **40** | 150 | 110 | | |
| **HT 10 - PRO** | **40** | 150 | 110 | | |
| **HT 15 - PRO** | **50** | 165 | 125 | | |
| **HT 30 - PRO** | **65** | 185 | 145 | | |

| TYPE | | PORTS | | N° | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN1 | DN2 | STAGES | a | b | c | d | e | h | h1 | n1 | n2 | m | 1~ | 3~ |
| **HTm 3/4 - PRO** | **HT 3/4 - PRO** | | | 4 | | | | | | 509 | | | | | 31.5 | 31.5 |
| **HTm 3/5 - PRO** | **HT 3/5 - PRO** | | | 5 | 126 | 231 | | | | 535 | | | | | 31.7 | 31.7 |
| **HTm 3/6 - PRO** | **HT 3/6 - PRO** | | | 6 | | | | | | 561 | | | | | 33.0 | 33.0 |
| **HTm 3/7 - PRO** | **HT 3/7 - PRO** | **1"** | **1"** | 7 | | | | | | 607 | | | | | 37.9 | 37.9 |
| **HTm 3/8 - PRO** | **HT 3/8 - PRO** | | | 8 | | | | | | 685 | | | | | 45.5 | 45.2 |
| **HTm 3/9 - PRO** | **HT 3/9 - PRO** | | | 9 | 151 | 257 | | | | 711 | | | | | 46.5 | 46.2 |
| **HTm 3/10 - PRO** | **HT 3/10 - PRO** | | | 10 | | | | | | 737 | | | | | 47.4 | 47.1 |
| **HTm 5/2 - PRO** | **HT 5/2 - PRO** | | | 2 | | | 250 | | | 457 | 75 | | | | 29.9 | 29.9 |
| **HTm 5/3 - PRO** | **HT 5/3 - PRO** | | | 3 | | | | | | 483 | | | | | 30.1 | 30.1 |
| **HTm 5/4 - PRO** | **HT 5/4 - PRO** | | | 4 | 126 | 231 | | | | 509 | | | | | 32.1 | 32.1 |
| **HTm 5/5 - PRO** | **HT 5/5 - PRO** | | | 5 | | | | | | 555 | | | | | 34.5 | 34.5 |
| **HTm 5/6 - PRO** | **HT 5/6 - PRO** | **1¼"** | **1¼"** | 6 | | | | | | 581 | | | | | 35.5 | 35.5 |
| **HTm 5/7 - PRO** | **HT 5/7 - PRO** | | | 7 | | | | | | 659 | | | | | 44.6 | 44.3 |
| **HTm 5/8 - PRO** | **HT 5/8 - PRO** | | | 8 | 151 | 257 | | | | 685 | | | | | 45.6 | 45.3 |
| **HTm 5/9 - PRO** | **HT 5/9 - PRO** | | | 9 | | | | | | 711 | | | | | 49.8 | 49.5 |
| **HTm 8/3 - PRO** | **HT 8/3 - PRO** | | | 3 | | | | 15 | 210 | 488 | | 100 | 180 | Ø 13 | 30.6 | 30.6 |
| **HTm 8/4 - PRO** | **HT 8/4 - PRO** | | | 4 | 126 | 231 | | | | 514 | | | | | 32.6 | 32.6 |
| **HTm 8/5 - PRO** | **HT 8/5 - PRO** | | | 5 | | | | | | 560 | | | | | 36.1 | 36.1 |
| **HTm 8/6 - PRO** | **HT 8/6 - PRO** | | | 6 | | | | | | 586 | | | | | 36.9 | 36.9 |
| **HTm 8/7 - PRO** | **HT 8/7 - PRO** | **1½"** | **1½"** | 7 | | | | | | 664 | | | | | 44.9 | 44.6 |
| **HTm 8/8 - PRO** | **HT 8/8 - PRO** | | | 8 | 151 | 257 | | | | 690 | | | | | 49.0 | 48.7 |
| **HTm 8/9 - PRO** | **HT 8/9 - PRO** | | | 9 | | | | | | 716 | | | | | 50.0 | 49.7 |
| – | **HT 8/10 - PRO** | | | 10 | | | 280 | | | 742 | 80 | | | | – | 54.7 |
| **HTm 10/3 - PRO** | **HT 10/3 - PRO** | | | 3 | | | | | | 488 | | | | | 30.7 | 30.7 |
| **HTm 10/4 - PRO** | **HT 10/4 - PRO** | | | 4 | 126 | 231 | | | | 534 | | | | | 32.7 | 32.7 |
| **HTm 10/5 - PRO** | **HT 10/5 - PRO** | | | 5 | | | | | | 560 | | | | | 36.2 | 36.2 |
| **HTm 10/6 - PRO** | **HT 10/6 - PRO** | **1½"** | **1½"** | 6 | | | | | | 638 | | | | | 44.8 | 44.5 |
| **HTm 10/7 - PRO** | **HT 10/7 - PRO** | | | 7 | 151 | 257 | | | | 664 | | | | | 45.0 | 44.7 |
| **HTm 10/8 - PRO** | **HT 10/8 - PRO** | | | 8 | | | | | | 690 | | | | | 49.1 | 48.8 |
| **HTm 10/9 - PRO** | **HT 10/9 - PRO** | | | 9 | | | | | | 716 | | | | | 50.1 | 49.8 |
| – | **HT 15/2R - PRO** | | | 2 | | | | | | 589 | | | | | – | 52.0 |
| – | **HT 15/3R - PRO** | | | 3 | | | | | | 633 | | | | | – | 52.5 |
| – | **HT 15/3 - PRO** | | | 3 | 151 | 275 | | | | 633 | | | | | – | 57.0 |
| – | **HT 15/4 - PRO** | **2"** | **2"** | 4 | | | 300 | | | 677 | 90 | | | | – | 63.0 |
| – | **HT 15/5 - PRO** | | | 5 | | | | | | 771 | | | | | – | 71.0 |
| – | **HT 15/6 - PRO** | | | 6 | 181 | 305 | | | | 900 | | | | | – | 115.5 |
| – | **HT 15/7 - PRO** | | | 7 | | | | | | 944 | | | | | – | 116.0 |
| – | **HT 30/2R - PRO** | | | 2 | | | | 18 | 247 | 604 | | 130 | 215 | Ø 14 | – | 53.5 |
| – | **HT 30/2 - PRO** | | | 2 | 151 | 275 | | | | 604 | | | | | – | 56.5 |
| – | **HT 30/3 - PRO** | | | 3 | | | | | | 648 | | | | | – | 61.5 |
| – | **HT 30/4 - PRO** | **2½"** | **2½"** | 4 | | | 320 | | | 742 | 105 | | | | – | 70.0 |
| – | **HT 30/5 - PRO** | | | 5 | 181 | 305 | | | | 871 | | | | | – | 123.5 |
| – | **HT 30/6 - PRO** | | | 6 | | | | | | 915 | | | | | – | 124.0 |
| – | **HT 30/7 - PRO** | | | 7 | | | | | | 959 | | | | | – | 136.5 |
| – | **HT 30/8 - PRO** | | | 8 | | | | | | 1003 | | | | | – | 137.0 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Stainless steel **AISI 304**,provided with ISO 228/1 threaded ports |
| 2 | **Cover** | Stainless steel **AISI 304** |
| 3 | **External sleeve** | Stainless steel **AISI 304** |
| 4 | **Impellers** | Stainless steel **AISI 304** |
| 5 | **Diffusers** | Stainless steel **AISI 304** |

**6 Mechanical seal**

| Water pump | Seal | Shaft | Materials |
|---|---|---|---|
| HT 3 - 5 - 8 - 10 PRO | **FN-18** | Ø 18 mm | Graphite / Ceramic / NBR |
| HT 15 - 30 PRO | **FN-KU-24**<br>ISO 3069<br>EN 12756 | Ø 24 mm | Graphite / Ceramic / NBR |

| | | |
|---|---|---|
| 7 | **Shaft** | Stainless steel **AISI 431** |

**8 Electric motor**

- **HTm - PRO**: single-phase 220 V - 60 Hz with capacitor and winding integrated thermal motor protection
- **HT - PRO**: three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz
- The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)
- Continuous running duty **S1**



# FUTURE JET®

## *The self-priming pump of the future!*

Clean water

Domestic use

Civil use

**※ Reduction of energy consumption by up to 50%**




## From an evolution of the classic JET concept, a SUPER JET was born.

**※ High hydraulic efficiency**
**※ Better consumption/performance ratio**
**※ Reducing turbulence**
**※ Noise reduction**

### PERFORMANCE RANGE

- Flow rate up to **120 l/min** (7.2 m³/h)
- Head up to **59 m**

### FUTURE JET

Developed by our innovative research and development team, this pump revolutionizes the classic self-priming design.
With an international registered patent, the **FUTURE JET** not only matches the pressure of a traditional JET pump, it surpasses it. Moreover, it doubles the flow rate while reducing energy consumption by up to 50%.

### INSTALLATION AND USE

**FUTURE JET** self-priming pumps are designed to draw water and liquids that contain air.

They are reliable and easy to operate. They are a favorite for domestic use, particularly effective for water distribution with small to medium-sized pressure tanks and suitable for irrigation.

### APPLICATION LIMITS

- Manometric suction head up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+40 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure:
  – **6 bar** for FUTURE JET 1
  – **7 bar** for FUTURE JET 2

### AVAILABLE UPON REQUEST

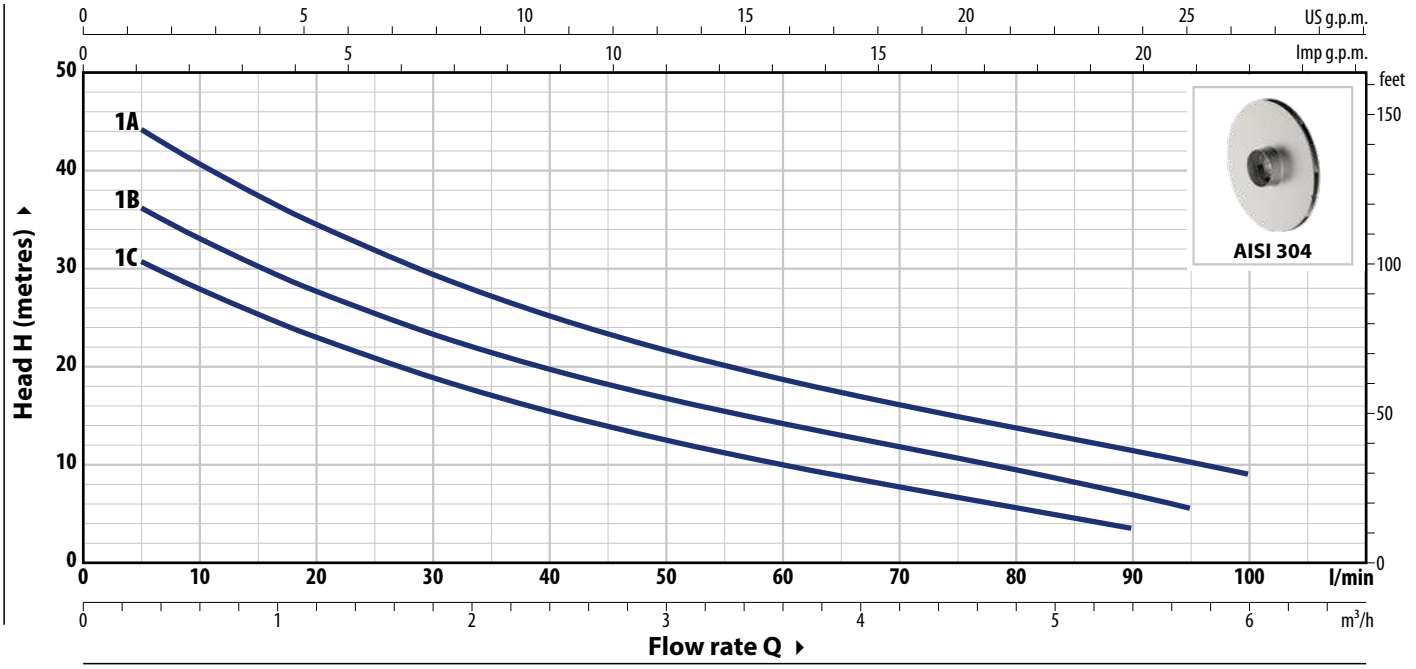
※ Technopolymer impeller (cost-effective version)
※ Different voltage or frequency

### PATENTS - TRADE MARKS - MODELS

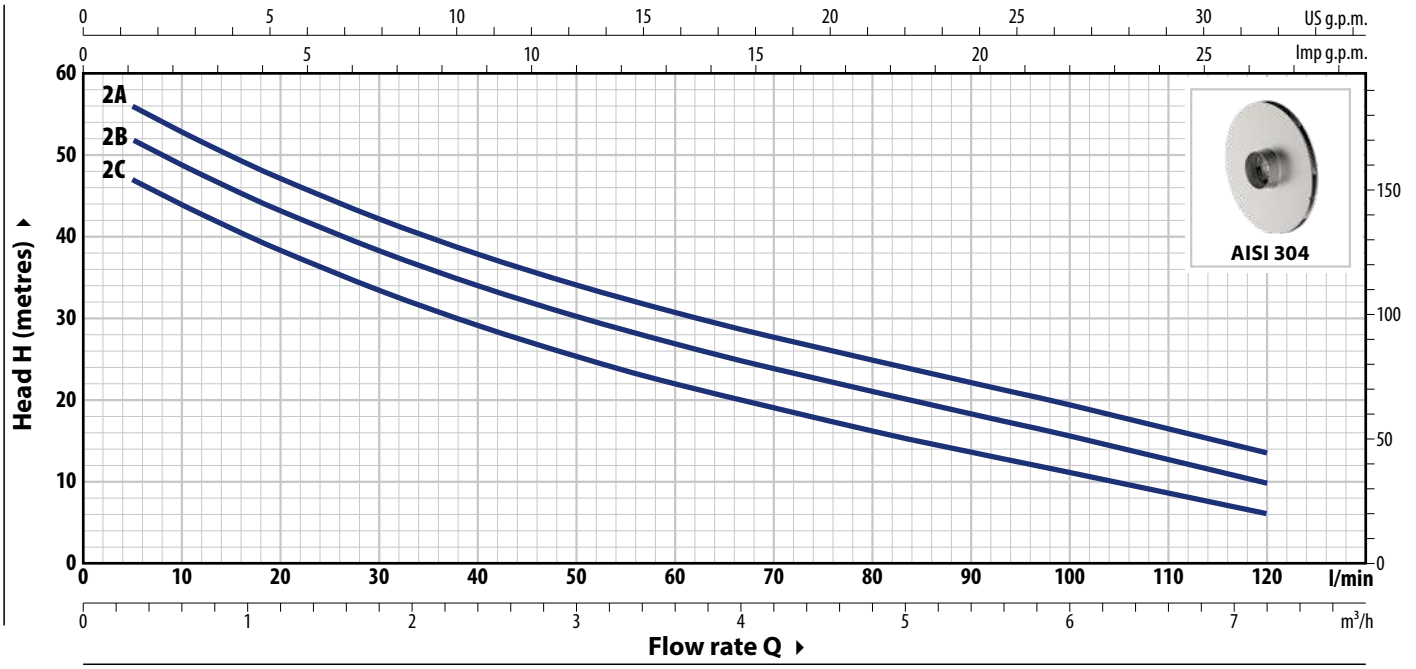
- FUTURE JET® Registered Trade mark No. 018198453
- Registered Community Model No. 002218610
- European Patent No. 1 510 696
- Patent No. PCT/IT2019/050168

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 0.3 | 0.6 | 1.2 | 2.4 | 3.6 | 4.8 | 5.4 | 5.7 | 6.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | **3~** | | l/min | **0** | **5** | **10** | **20** | **40** | **60** | **80** | **90** | **95** | **100** |
| **FUTURE JETm 1C** | **FUTURE JET 1C** | 0.37 | 0.50 | **IE2** | **H** | m | 33.5 | 30.5 | 28 | 23 | 15.4 | 10 | 6 | 3.5 | | |
| **FUTURE JETm 1B** | **FUTURE JET 1B** | 0.48 | 0.65 | | | | 40 | 36 | 33 | 27.6 | 19.7 | 14.2 | 9.5 | 7 | 5.5 | |
| **FUTURE JETm 1A** | **FUTURE JET 1A** | 0.55 | 0.75 | **IE3** | | | 48 | 44 | 40.6 | 34.5 | 25.2 | 18.7 | 13.7 | 11.4 | 10.2 | 9 |




| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 0.3 | 0.6 | 1.2 | 2.4 | 3.6 | 4.8 | 5.4 | 6.0 | 7.2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | **3~** | | l/min | **0** | **5** | **10** | **20** | **40** | **60** | **80** | **90** | **100** | **120** |
| **FUTURE JETm 2C** | **FUTURE JET 2C** | 0.75 | 1 | **IE3** | **H** | m | 50 | 47 | 43.8 | 38.3 | 29 | 22 | 16.2 | 13.5 | 11 | 6 |
| **FUTURE JETm 2B** | **FUTURE JET 2B** | 0.90 | 1.25 | | | | 55 | 52 | 49 | 43 | 34 | 27 | 20.5 | 18.3 | 15.5 | 10 |
| **FUTURE JETm 2A** | **FUTURE JET 2A** | 1.1 | 1.5 | | | | 59 | 56 | 53 | 47 | 38 | 32 | 25 | 22.3 | 19.5 | 13.7 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

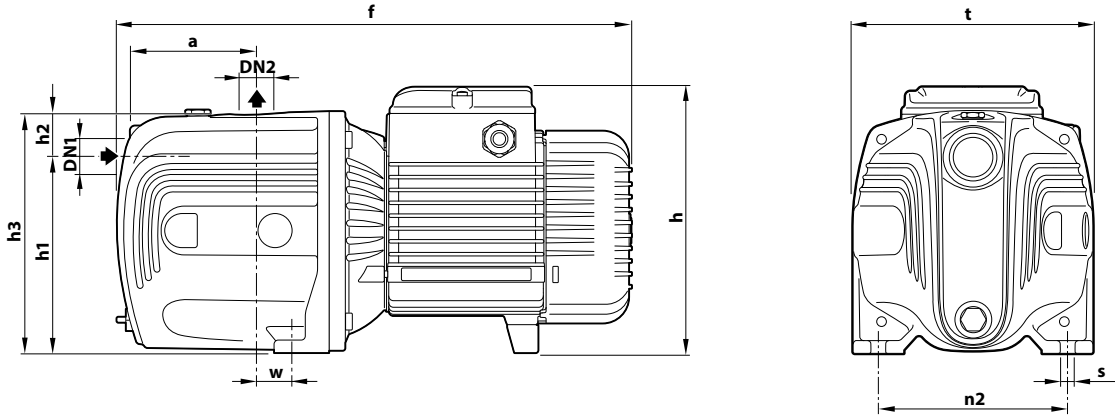
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-phase | 220 V | 110 V |
| FUTURE JETm 1C | 3.0 A | 7.0 A |
| FUTURE JETm 1B | 3.5 A | 6.0 A |
| FUTURE JETm 1A | 4.0 A | 8.0 A |
| FUTURE JETm 2C | 5.0 A | 10.0 A |
| FUTURE JETm 2B | 6.3 A | – |
| FUTURE JETm 2A | 7.0 A | – |

| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 220 V - Δ | 380 V - Y |
| FUTURE JET 1C | 2.0 A | 1.15 A |
| FUTURE JET 1B | 2.3 A | 1.3 A |
| FUTURE JET 1A | 3.1 A | 1.8 A |
| FUTURE JET 2C | 3.6 A | 2.1 A |
| FUTURE JET 2B | 5.6 A | 2.7 A |
| FUTURE JET 2A | 5.2 A | 3.0 A |

## DIMENSIONS AND WEIGHT




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN1 | DN2 | a | f | h | h1 | h2 | h3 | t | n2 | w | s | 1~ | 3~ |
| FUTURE JETm 1C | FUTURE JET 1C | 1" | 1" | 94 | 357 | 173 | 127 | 35 | 162 | 158 | 124 | 24 | 10 | 9.7 | 9.7 |
| FUTURE JETm 1B | FUTURE JET 1B | | | | | | | | | | | | | 9.8 | 9.8 |
| FUTURE JETm 1A | FUTURE JET 1A | | | | | | | | | | | | | 10.7 | 10.0 |
| FUTURE JETm 2C | FUTURE JET 2C | | | 96 | 391 | 201* | 147 | 33 | 180 | 180 | 142 | 22 | 10 | 13.4 | 13.4 |
| FUTURE JETm 2B | FUTURE JET 2B | | | | | | | | | | | | | 14.5 | 14.5 |
| FUTURE JETm 2A | FUTURE JET 2A | | | | | | | | | | | | | 15.5 | 14.5 |

(*) h=220 mm for single-phase 110 V versions

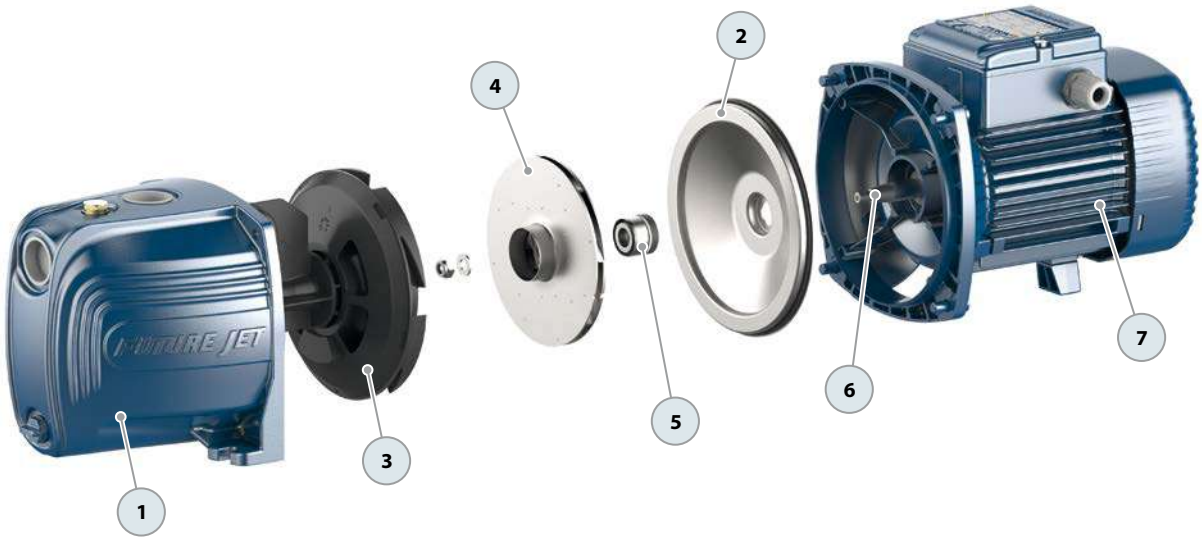
## PALLET CAPACITY

| TYPE | | CONTAINER | GROUPAGE |
|---|---|---|---|
| Single-phase | Three-phase | n. pumps | n. pumps |
| FUTURE JETm 1C | FUTURE JET 1C | 98 | 140 |
| FUTURE JETm 1B | FUTURE JET 1B | 98 | 140 |
| FUTURE JETm 1A | FUTURE JET 1A | 98 | 140 |
| FUTURE JETm 2C | FUTURE JET 2C | 72 | 96 |
| FUTURE JETm 2B | FUTURE JET 2B | 72 | 96 |
| FUTURE JETm 2A | FUTURE JET 2A | 72 | 96 |

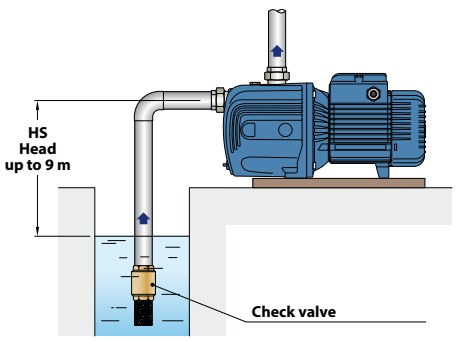
## MATERIALS AND COMPONENTS

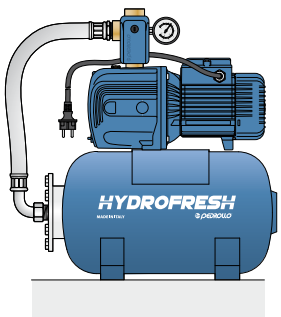
| | | |
|---|---|---|
| 1 | **Pump body** | FUTURE JET 1: cast iron with cataphoretic treatment, provided with ISO 228/1 threaded ports<br>FUTURE JET 2: cast iron with ISO 228/1 threaded ports |
| 2 | **Cover** | Stainless steel **AISI 304** |
| 3 | **Ejector unit** | Noryl™ |
| 4 | **Impeller** | Stainless steel **AISI 431** |
| 5 | **Mechanical seal** | |
| 6 | **Motor shaft** | Stainless steel **AISI 431** |
| 7 | **Electric motor** | **FUTURE JETm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection<br>**FUTURE JET**: three-phase 220/380 V - 60 Hz<br>– The three-phase pumps are fitted with high performance motors up to P2=0.48 kW in class IE2 and from P2=0.55 kW in class IE3 (IEC 60034-30-1)<br>– Continuous running duty **S1**<br>– Insulation: CLASS F<br>– Protection rating: IP X4 |

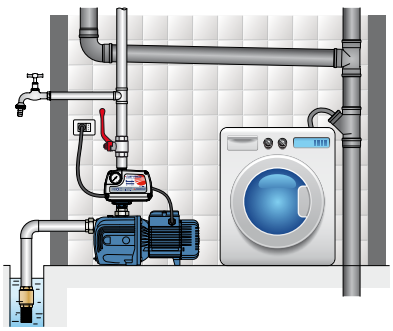
| Water pump | Seal | Shaft | Materials |
|---|---|---|---|
| FUTURE JET 1 | **AR-12** | Ø 12 mm | Ceramic / Graphite / NBR |
| FUTURE JET 2 | **AR-14** | Ø 14 mm | Ceramic / Graphite / NBR |




## EXAMPLES OF INSTALLATION



Clean water
Domestic use
Civil use
Industrial use



## PERFORMANCE RANGE

- Flow rate up to **160 l/min** (9.6 m³/h)
- Head up to **97 m**

## INSTALLATION AND USE

**JSW** self-priming pumps are designed to draw water and liquids that contain air.

They are reliable and easy to operate. They are a favorite for domestic use, particularly effective for water distribution with small to medium-sized pressure tanks and suitable for irrigation.

## APPLICATION LIMITS

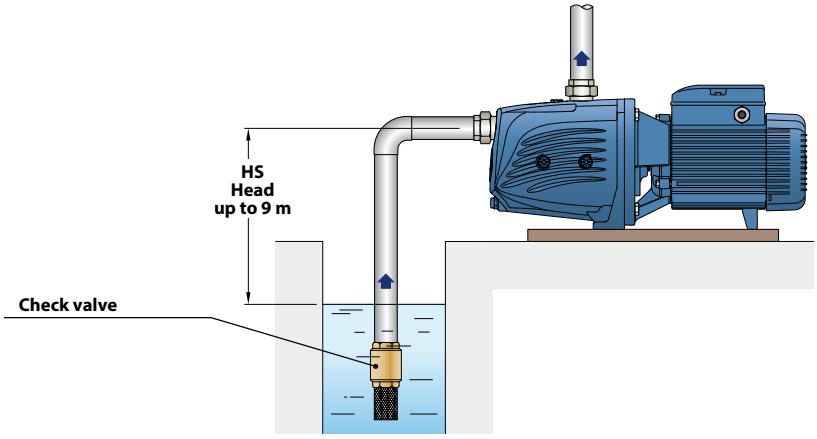
- Manometric suction head up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+40 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure **10 bar**

## AVAILABLE UPON REQUEST

※ IPX5 protection
※ Different voltage or frequency

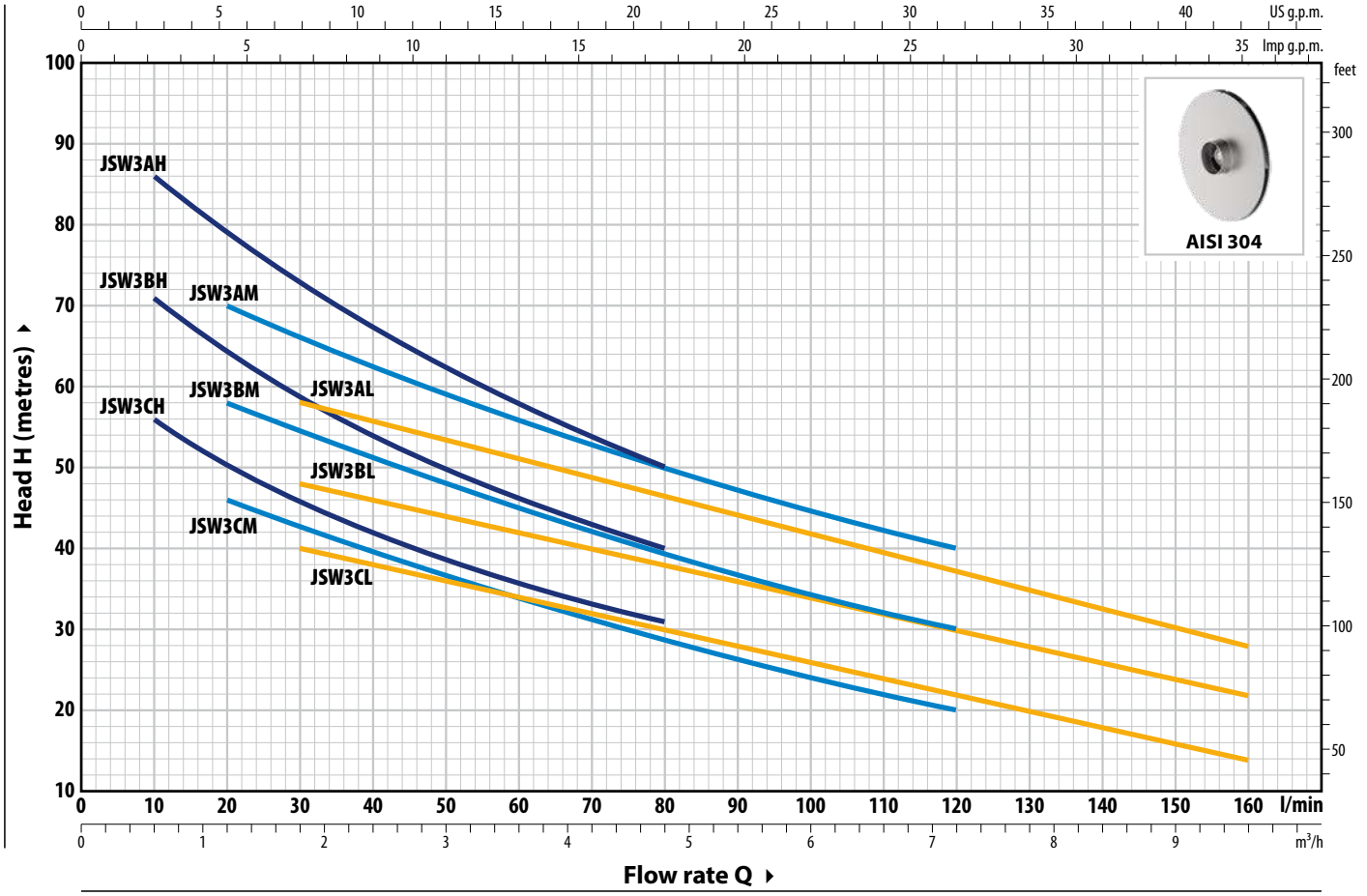
## PATENTS - TRADE MARKS - MODELS

- JSW®Registered trademark No. 013073135
- Registered Community Model No. 002218610



## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 0.6 | 1.2 | 1.8 | 2.4 | 3.0 | 3.6 | 4.2 | 4.8 | 6.0 | 7.2 | 8.4 | 9.6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | **3~** | | l/min | **0** | **10** | **20** | **30** | **40** | **50** | **60** | **70** | **80** | **100** | **120** | **140** | **160** |
| **JSWm 3CH** | **JSW 3CH** | 1.1 | 1.5 | | | | 64 | 56 | 50.5 | 46 | 42 | 38.5 | 36 | 33 | 31 | | | | |
| **JSWm 3BH** | **JSW 3BH** | 1.5 | 2 | | | | 79 | 71 | 64 | 59 | 54 | 50 | 46 | 43 | 40 | | | | |
| **JSWm 3AH** | **JSW 3AH** | 2.2 | 3 | | | | 95 | 86 | 79 | 73 | 66.5 | 62.5 | 58 | 54 | 50 | | | | |
| **JSWm 3CM** | **JSW 3CM** | 1.1 | 1.5 | | | | 54 | – | 46 | 43 | 39.5 | 36.5 | 34 | 31 | 28.5 | 24 | 20 | | |
| **JSWm 3BM** | **JSW 3BM** | 1.5 | 2 | **IE3** | **H** | m | 66 | – | 58 | 54,5 | 51 | 48 | 45 | 42 | 39 | 34 | 30 | | |
| **JSWm 3AM** | **JSW 3AM** | 2.2 | 3 | | | | 78 | – | 70 | 66 | 62 | 59 | 56 | 53 | 50 | 45 | 40 | | |
| **JSWm 3CL** | **JSW 3CL** | 1.1 | 1.5 | | | | 47 | – | – | 40 | 38 | 36 | 34 | 32 | 30 | 26 | 22 | 18 | 14 |
| **JSWm 3BL** | **JSW 3BL** | 1.5 | 2 | | | | 55 | – | – | 48 | 46 | 44 | 42 | 40 | 38 | 34 | 30 | 26 | 22 |
| **JSWm 3AL** | **JSW 3AL** | 2.2 | 3 | | | | 65 | – | – | 58 | 56 | 53.5 | 51 | 48.5 | 46.5 | 42 | 37 | 32.5 | 28 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

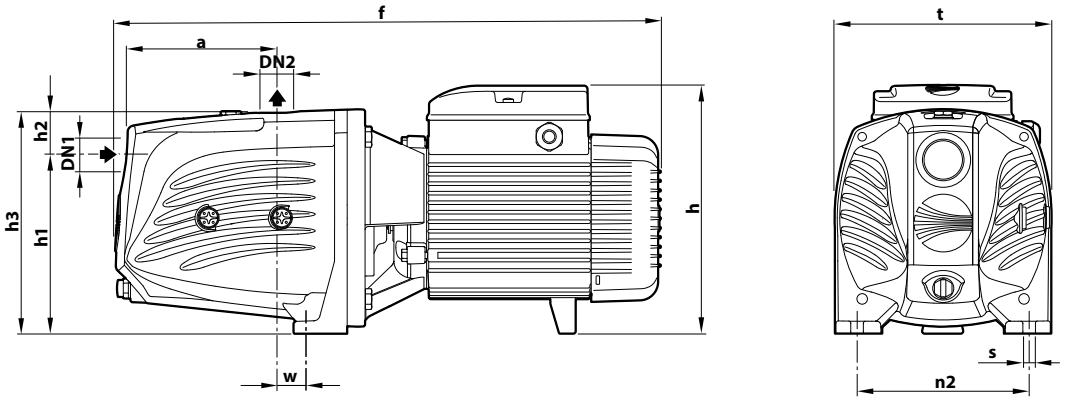
# JSW3

## ABSORPTION

| TYPE | VOLTAGE |
|---|---|
| Single-phase | 220 V |
| JSWm 3CH | 8.2 A |
| JSWm 3BH | 10.4 A |
| JSWm 3AH | 12.8 A |
| JSWm 3CM | 8.2 A |
| JSWm 3BM | 10.4 A |
| JSWm 3AM | 12.8 A |
| JSWm 3CL | 8.2 A |
| JSWm 3BL | 10.4 A |
| JSWm 3AL | 12.8 A |

| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 220 V - Δ | 380 V - Y |
| JSW 3CH | 6.5 A | 3.8 A |
| JSW 3BH | 6.9 A | 4.0 A |
| JSW 3AH | 8.8 A | 5.1 A |
| JSW 3CM | 6.5 A | 3.8 A |
| JSW 3BM | 7.1 A | 4.1 A |
| JSW 3AM | 8.8 A | 5.1 A |
| JSW 3CL | 6.5 A | 3.8 A |
| JSW 3BL | 7.1 A | 4.1 A |
| JSW 3AL | 8.8 A | 5.1 A |

## DIMENSIONS AND WEIGHT



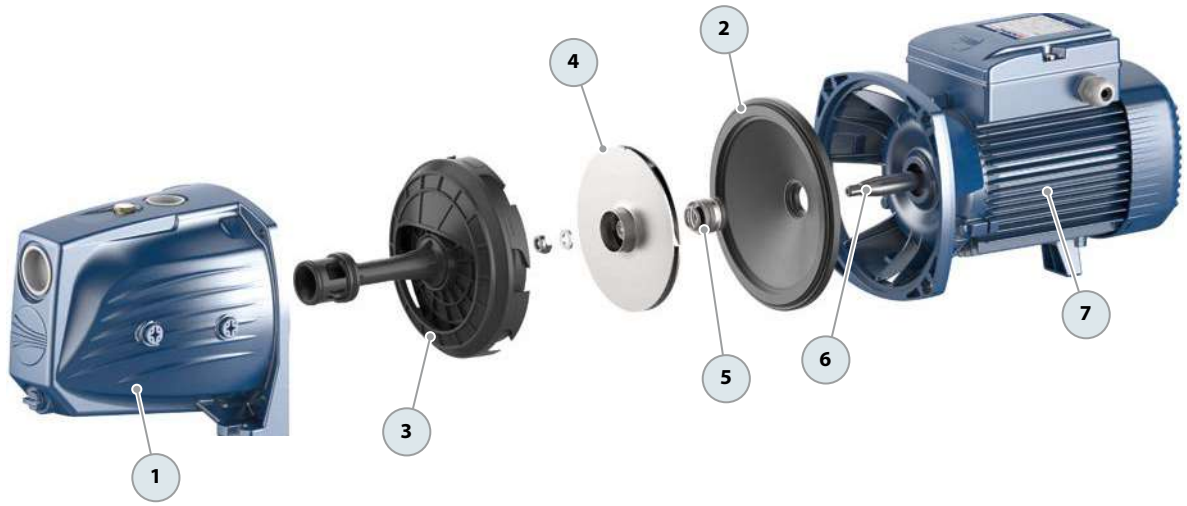

| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN1 | DN2 | a | f | h | h1 | h2 | h3 | t | n2 | w | s | 1~ | 3~ |
| JSWm 3CH | JSW 3CH | 1¼" | 1" | 143 | 522 | 240 | 165 | 39 | 204 | 206 | 164 | 30 | 11 | 24.5 | 24.4 |
| JSWm 3BH | JSW 3BH | | | | | | | | | | | | | 25.6 | 25.7 |
| JSWm 3AH | JSW 3AH | | | | 542 | | | | | | | | | 28.4 | 28.4 |
| JSWm 3CM | JSW 3CM | | | | 522 | | | | | | | | | 24.6 | 24.4 |
| JSWm 3BM | JSW 3BM | | | | | | | | | | | | | 25.7 | 25.7 |
| JSWm 3AM | JSW 3AM | | | | 542 | | | | | | | | | 28.4 | 28.4 |
| JSWm 3CL | JSW 3CL | | | | 522 | | | | | | | | | 24.5 | 24.4 |
| JSWm 3BL | JSW 3BL | | | | | | | | | | | | | 25.8 | 25.7 |
| JSWm 3AL | JSW 3AL | | | | 542 | | | | | | | | | 28.4 | 28.4 |

## PALLET CAPACITY

| TYPE | | CONTAINER | GROUPAGE |
|---|---|---|---|
| Single-phase | Three-phase | n. pumps | n. pumps |
| JSWm 3CH | JSW 3CH | 35 | 49 |
| JSWm 3BH | JSW 3BH | 35 | 49 |
| JSWm 3AH | JSW 3AH | 35 | 49 |
| JSWm 3CM | JSW 3CM | 35 | 49 |
| JSWm 3BM | JSW 3BM | 35 | 49 |
| JSWm 3AM | JSW 3AM | 35 | 49 |
| JSWm 3CL | JSW 3CL | 35 | 49 |
| JSWm 3BL | JSW 3BL | 35 | 49 |
| JSWm 3AL | JSW 3AL | 35 | 49 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment, provided with ISO 228/1 threaded ports |
| 2 | **Cover** | Cast iron with cataphoresis treatment |
| 3 | **Ejector unit** | Noryl™ |
| 4 | **Impeller** | Stainless steel **AISI 304** |
| 5 | **Mechanical seal** | Seal: **FN-18** — Shaft: Ø 18 mm — Materials: Graphite / Ceramic / NBR |
| 6 | **Motor shaft** | Stainless steel **AISI 431** |
| 7 | **Electric motor** | **JSWm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection<br>**JSW**: three-phase 220/380 V - 60 Hz<br>– The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)<br>– Continuous running duty **S1**<br>– Insulation: CLASS F<br>– Protection rating: IP X4 |



# FUTURE JET·ST®

## *The self-priming pump of the future!*

Clean water

Domestic use

Civil use

※ **Reduction of energy consumption by up to 50%**




## From an evolution of the classic JET pump concept, a SUPER JET was born.

※ **Stainless steel pump body and impeller**

※ **Better consumption/performance ratio**

※ **High hydraulic efficiency**

※ **Noise reduction**

### PERFORMANCE RANGE

- Flow rate up to **120 l/min** (7.2 m³/h)
- Head up to **59 m**

### FUTURE JET-ST

Developed by our innovative research and development team, this pump revolutionizes the classic self-priming design.
With an international registered patent, the **FUTURE JET-ST** not only matches the pressure of a traditional JET pump, it surpasses it. Moreover, it doubles the flow rate while reducing energy consumption by up to 50%.

### INSTALLATION AND USE

**FUTURE JET-ST** self-priming pumps are designed to draw water and liquids that contain air.

They are reliable and easy to operate. They are a favorite for domestic use, particularly effective for water distribution with small to medium-sized pressure tanks and suitable for irrigation.

### APPLICATION LIMITS

- Manometric suction head up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+40 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure **6 bar**

### AVAILABLE UPON REQUEST

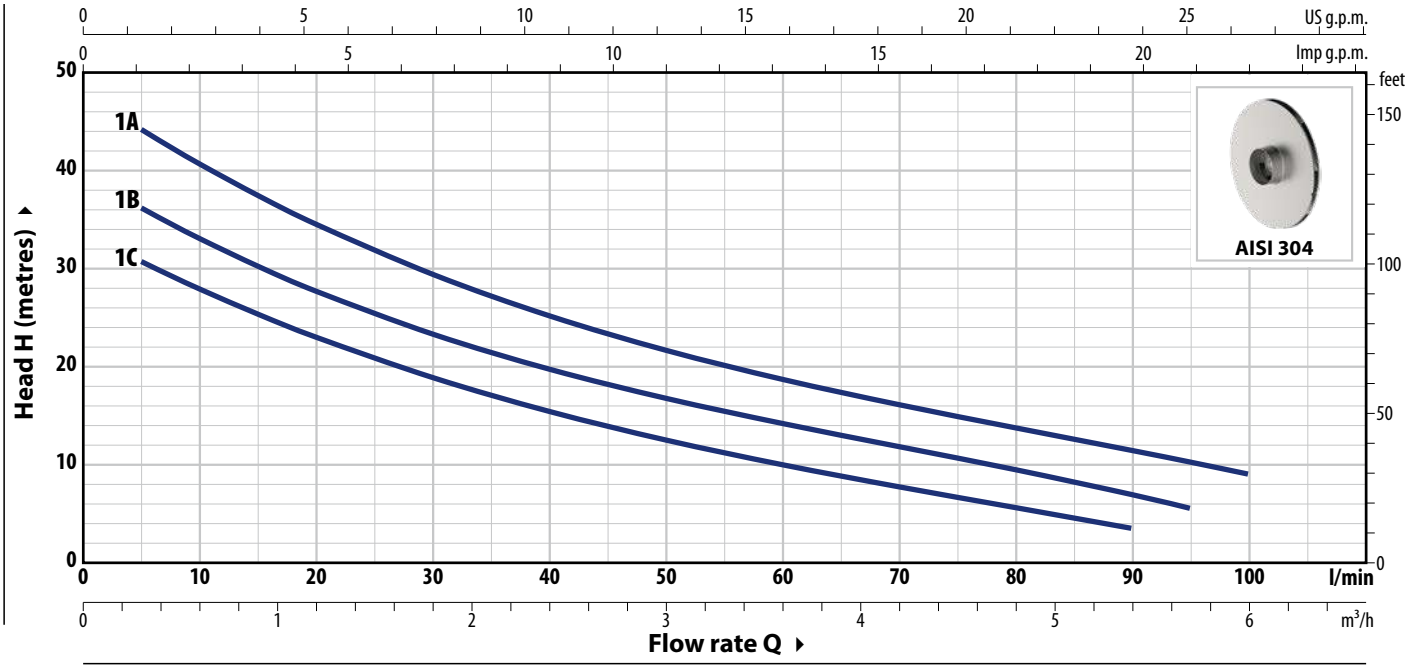
※ Technopolymer impeller (cost-effective version)
※ Different voltage or frequency

### PATENTS - TRADE MARKS - MODELS

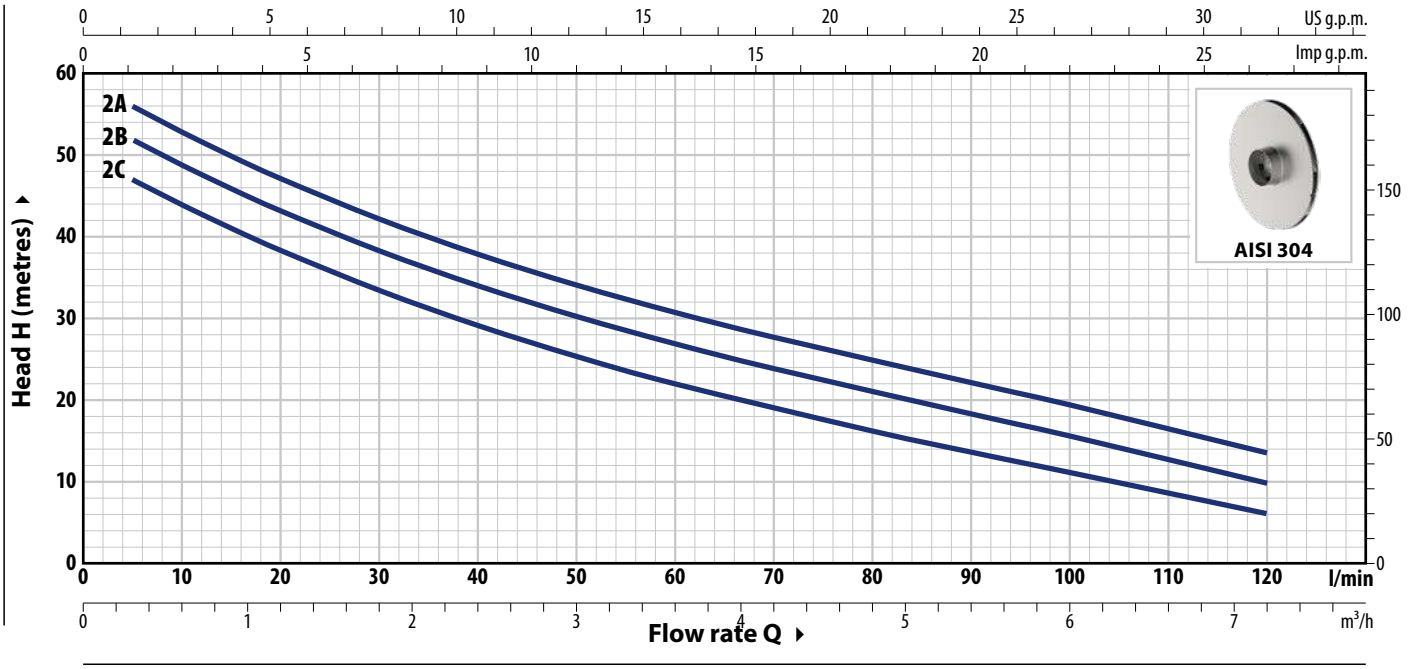
- FUTURE JET® Registered Trade mark No. 018198453
- European Patent No. 1 510 696
- Patent No. PCT/IT2019/050168

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 0.3 | 0.6 | 1.2 | 2.4 | 3.6 | 4.8 | 5.4 | 5.7 | 6.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | 3~ | | l/min | **0** | **5** | **10** | **20** | **40** | **60** | **80** | **90** | **95** | **100** |
| FUTURE JETm 1C-ST | FUTURE JET 1C-ST | 0.37 | 0.50 | IE2 | H | m | 33.5 | 30.5 | 28 | 23 | 15.4 | 10 | 6 | 3.5 | | |
| FUTURE JETm 1B-ST | FUTURE JET 1B-ST | 0.48 | 0.65 | | | | 40 | 36 | 33 | 27.6 | 19.7 | 14.2 | 9.5 | 7 | 5.5 | |
| FUTURE JETm 1A-ST | FUTURE JET 1A-ST | 0.55 | 0.75 | IE3 | | | 48 | 44 | 40.6 | 34.5 | 25.2 | 18.7 | 13.7 | 11.4 | 10.2 | 9 |




| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 0.3 | 0.6 | 1.2 | 2.4 | 3.6 | 4.8 | 5.4 | 6.0 | 7.2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | 3~ | | l/min | **0** | **5** | **10** | **20** | **40** | **60** | **80** | **90** | **100** | **120** |
| FUTURE JETm 2C-ST | FUTURE JET 2C-ST | 0.75 | 1 | IE3 | H | m | 50 | 47 | 43.8 | 38.3 | 29 | 22 | 16.2 | 13.5 | 11 | 6 |
| FUTURE JETm 2B-ST | FUTURE JET 2B-ST | 0.90 | 1.25 | | | | 55 | 52 | 49 | 43 | 34 | 27 | 20.5 | 18.3 | 15.5 | 10 |
| FUTURE JETm 2A-ST | FUTURE JET 2A-ST | 1.1 | 1.5 | | | | 59 | 56 | 53 | 47 | 38 | 32 | 25 | 22.3 | 19.5 | 13.7 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

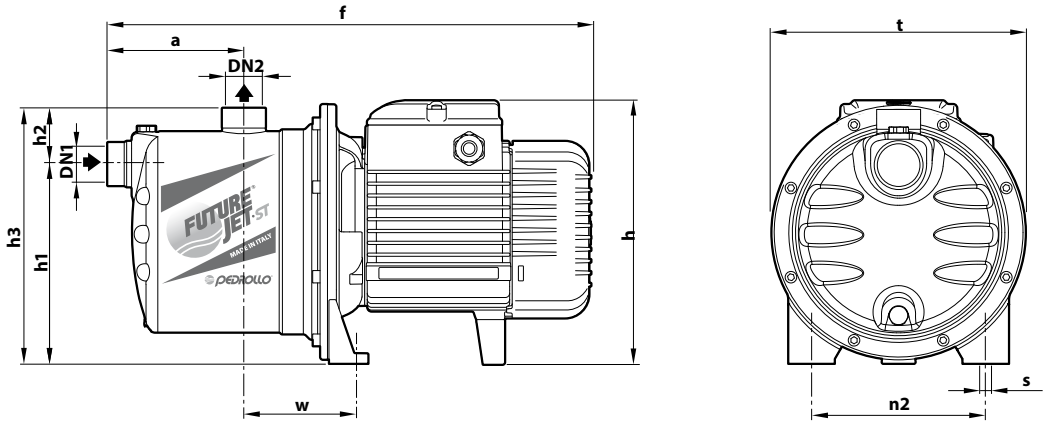
# FUTURE JET-ST

## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-phase | 220 V | 110 V |
| FUTURE JETm 1C-ST | 3.0 A | 7.0 A |
| FUTURE JETm 1B-ST | 3.5 A | 6.0 A |
| FUTURE JETm 1A-ST | 4.0 A | 8.0 A |
| FUTURE JETm 2C-ST | 5.0 A | 10.0 A |
| FUTURE JETm 2B-ST | 6.3 A | – |
| FUTURE JETm 2A-ST | 7.0 A | – |

| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 220 V - Δ | 380 V - Y |
| FUTURE JET 1C-ST | 2.0 A | 1.15 A |
| FUTURE JET 1B-ST | 2.3 A | 1.3 A |
| FUTURE JET 1A-ST | 3.1 A | 1.8 A |
| FUTURE JET 2C-ST | 3.6 A | 2.1 A |
| FUTURE JET 2B-ST | 5.6 A | 2.7 A |
| FUTURE JET 2A-ST | 5.2 A | 3.0 A |

## DIMENSIONS AND WEIGHT




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN1 | DN2 | a | f | h | h1 | h2 | h3 | t | n2 | w | s | 1~ | 3~ |
| FUTURE JETm 1C-ST | FUTURE JET 1C-ST | 1" | 1" | 113 | 367 | 183 | 132 | 51 | 183 | 182 | 120 | 87 | 9 | 7.1 | 7.1 |
| FUTURE JETm 1B-ST | FUTURE JET 1B-ST | | | | | | | | | | | | | 7.1 | 7.1 |
| FUTURE JETm 1A-ST | FUTURE JET 1A-ST | | | | | | | | | | | | | 7.8 | 7.1 |
| FUTURE JETm 2C-ST | FUTURE JET 2C-ST | 1" | 1" | 111 | 393 | 217* | 162 | 46 | 208 | 208 | 142 | 91 | 10 | 10.5 | 10.5 |
| FUTURE JETm 2B-ST | FUTURE JET 2B-ST | | | | | | | | | | | | | 11.2 | 11.2 |
| FUTURE JETm 2A-ST | FUTURE JET 2A-ST | | | | | | | | | | | | | 12.0 | 11.2 |

(*) h=236 mm for single-phase 110 V versions

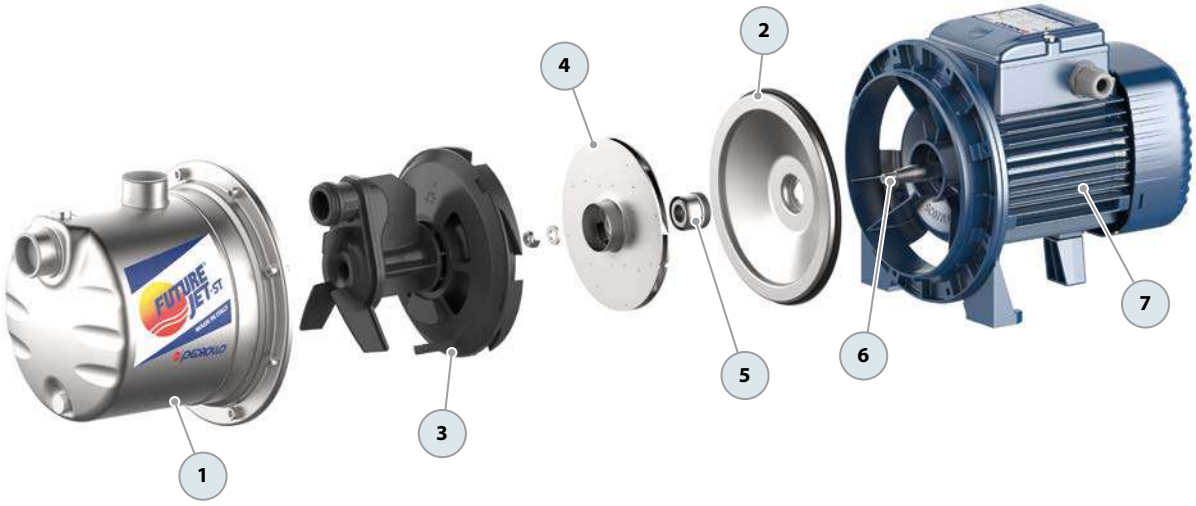
## PALLET CAPACITY

| TYPE | | CONTAINER | GROUPAGE |
|---|---|---|---|
| Single-phase | Three-phase | n. pumps | n. pumps |
| FUTURE JETm 1C-ST | FUTURE JET 1C-ST | 84 | 108 |
| FUTURE JETm 1B-ST | FUTURE JET 1B-ST | 84 | 108 |
| FUTURE JETm 1A-ST | FUTURE JET 1A-ST | 84 | 108 |
| FUTURE JETm 2C-ST | FUTURE JET 2C-ST | 60 | 80 |
| FUTURE JETm 2B-ST | FUTURE JET 2B-ST | 60 | 80 |
| FUTURE JETm 2A-ST | FUTURE JET 2A-ST | 60 | 80 |

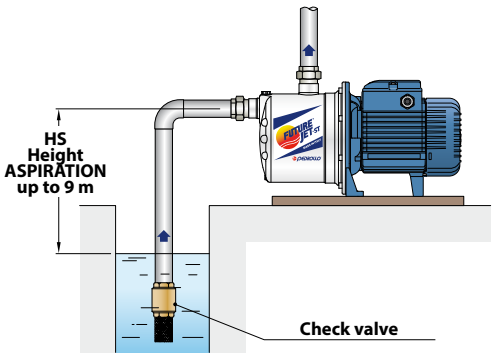
## MATERIALS AND COMPONENTS

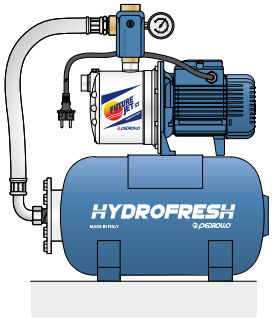
| | | |
|---|---|---|
| 1 | **Pump body** | Stainless steel **AISI 304**,provided with ISO 228/1 threaded ports |
| 2 | **Cover** | Stainless steel **AISI 304** |
| 3 | **Ejector unit** | Noryl™ |
| 4 | **Impeller** | Stainless steel **AISI 304** |
| 5 | **Mechanical seal** | |
| 6 | **Motor shaft** | Stainless steel **AISI 431** |
| 7 | **Electric motor** | **FUTURE JETm-ST**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection<br>**FUTURE JET-ST**: three-phase 220/380 V - 60 Hz<br>– The three-phase pumps are fitted with high performance motors up to P2=0.48 kW in class IE2 and from P2=0.55 kW in class IE3 (IEC 60034-30-1)<br>– Continuous running duty **S1**<br>– Insulation: CLASS F<br>– Protection rating: IP X4 |

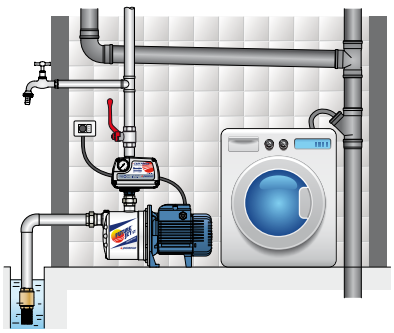
| Water pump | Seal | Shaft | Materials |
|---|---|---|---|
| FUTURE JET 1-ST | **AR-12** | Ø 12 mm | Ceramic / Graphite / NBR |
| FUTURE JET 2-ST | **AR-14** | Ø 14 mm | Ceramic / Graphite / NBR |




## EXAMPLES OF INSTALLATION



# SPRINKLER

## Self-priming centrifugal pumps

Clean water

Domestic use

Civil use

Agricultural use



### PERFORMANCE RANGE

- Flow rate up to **400 l/min** (24.0 m³/h)
- Head up to **36 m**

### APPLICATION LIMITS

- Manometric suction head up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+40 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure **10 bar**

### INSTALLATION AND USE

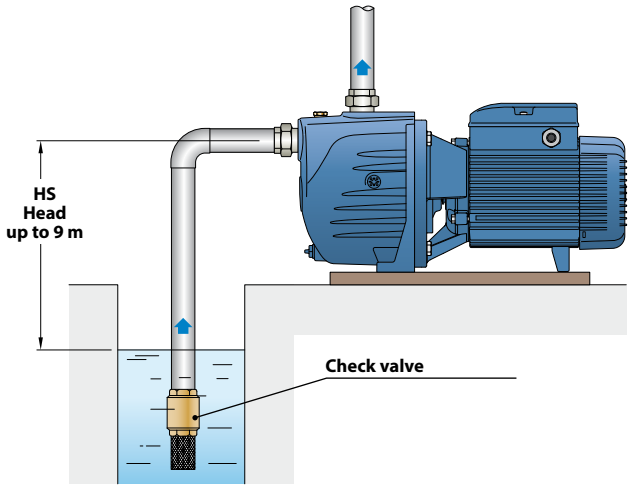
**SPRINKLER**, a versatile self-priming pump designed to effortlessly draw water, even when air is present in the liquid.

With its reliable performance and user-friendly operation, **SPRINKLER** is ideal for various applications, including domestic, civil, and irrigation.

### AVAILABLE UPON REQUEST

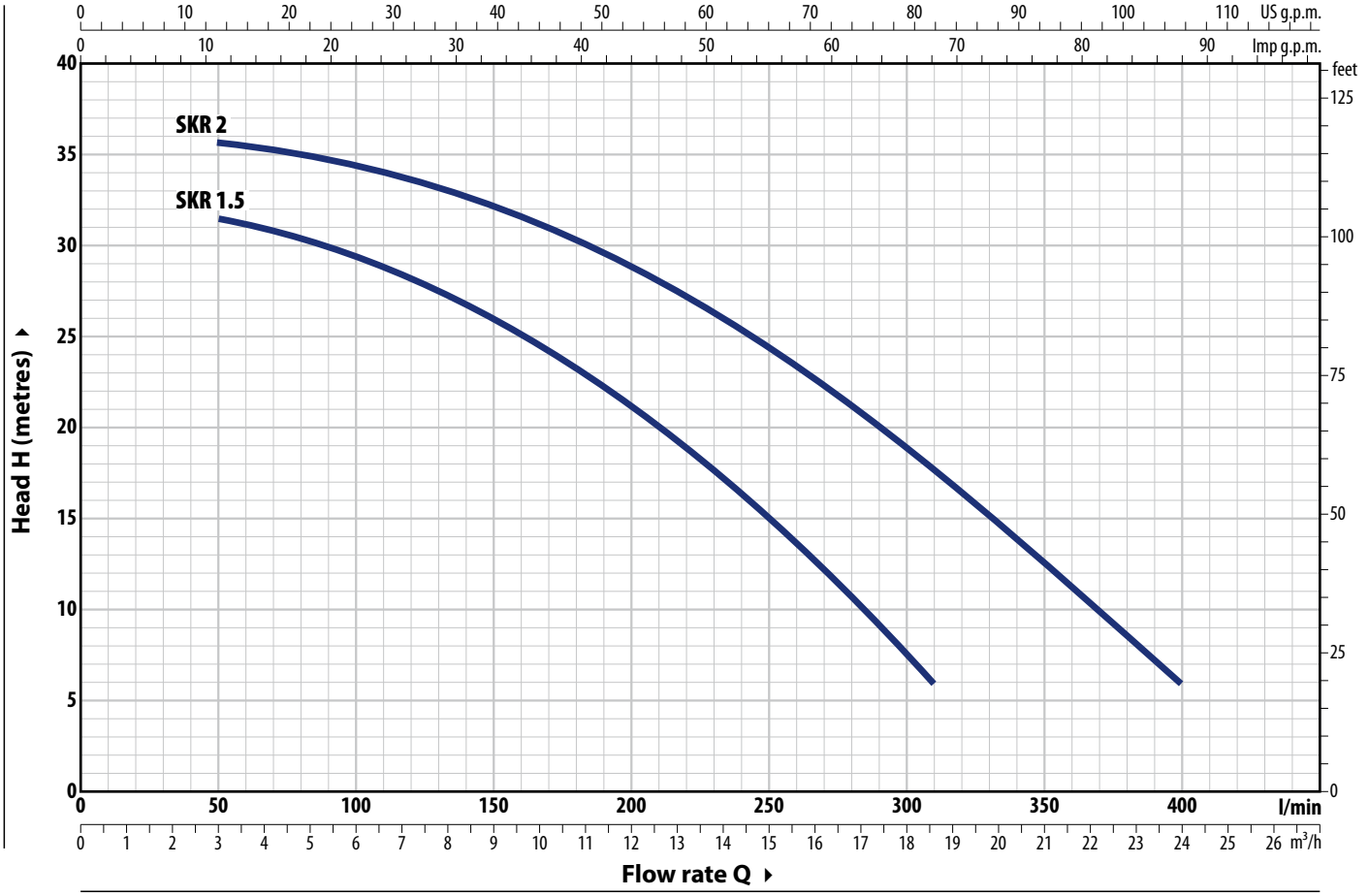
※ IPX5 protection

※ Different voltage or frequency



## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 3.0 | 6.0 | 9.0 | 12.0 | 15.0 | 18.0 | 18.6 | 21.0 | 24.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | **3~** | | l/min | **0** | **50** | **100** | **150** | **200** | **250** | **300** | **310** | **350** | **400** |
| **SKRm 1.5** | **SKR 1.5** | 1.1 | 1.5 | **IE3** | **H** | m | 32 | 31.5 | 29.5 | 25.8 | 21 | 15 | 7.5 | 6 | | |
| **SKRm 2** | **SKR 2** | 1.5 | 2 | | | | 36 | 35.5 | 34.5 | 32 | 29 | 24.5 | 19 | 17.8 | 12.5 | 6 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

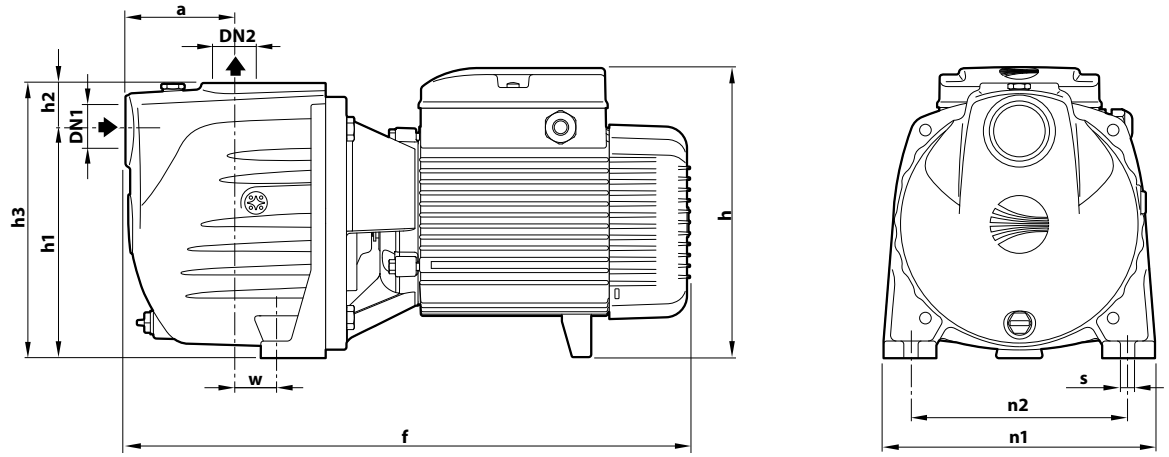
# SPRINKLER

## ABSORPTION

| TYPE<br>Single-ph. | VOLTAGE<br>220 V |
|---|---|
| **SKRm 1.1** | 8.7 A |
| **SKRm 1.5** | 11.0 A |

| TYPE<br>Three-phase | VOLTAGE<br>220 V - Δ | <br>380 V - Y |
|---|---|---|
| **SKR 1.1** | 6.5 A | 3.8 A |
| **SKR 1.5** | 7.1 A | 4.1 A |

## DIMENSIONS AND WEIGHT



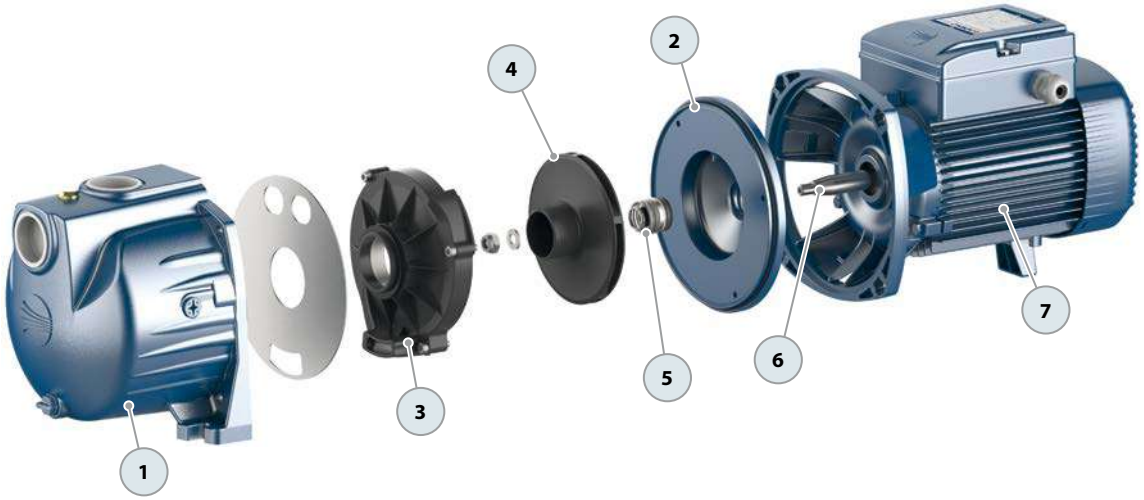

| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN1 | DN2 | a | f | h | h1 | h2 | h3 | n1 | n2 | w | s | 1~ | 3~ |
| **SKRm 1.5** | **SKR 1.5** | **1½" NPT** | **1½" NPT** | 91 | 465 | 241 | 186 | 39 | 225 | 223 | 178 | 37.5 | 11 | 24.5 | 24.5 |
| **SKRm 2** | **SKR 2** | | | | | | | | | | | | | 25.8 | 25.8 |

## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-ph. | Three-ph. | n. pumps | n. pumps |
| **SKRm 1.5** | **SKR 1.5** | 35 | 49 |
| **SKRm 2** | **SKR 2** | 35 | 49 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment, provided with ISO 228/1 threaded ports |
| 2 | **Cover** | Cast iron with cataphoresis treatment |
| 3 | **Diffuser** | Noryl™ |
| 4 | **Impeller** | Noryl™ |
| 5 | **Mechanical seal** | Seal: **FN-18** — Shaft: Ø 18 mm — Materials: Graphite / Ceramic / NBR |
| 6 | **Motor shaft** | Stainless steel **AISI 431** |
| 7 | **Electric motor** | **SKRm**:single-phase 220 V - 60 Hz with winding integrated thermal motor protection<br>**SKR**: three-phase 220/380 V - 60 Hz<br>– The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)<br>– Continuous running duty S1<br>– Insulation: class F<br>– Protection rating: IP X4 |



# MAGNIFICA

## Self-priming swimming pool pumps

Swimming pools residential

Swimming pools Department

**※ For pools up to 180 m³**




- **※ Robust electric pumps constructed with high-quality components and thick materials for extended durability and quiet operation.**
- **※ High water flow rate paired with low energy consumption.**
- **※ Double insulation between the pump and electric motor ensures maximum safety, with the pump/motor shaft always insulated from water.**
- **※ Pre-filter equipped with a transparent cover for easy visual inspection, featuring an extra-large filter basket to reduce cleaning frequency.**
- **※ High resistance to heat, chemicals, and salt corrosion.**
- **※ Supplied with 2" GAS threaded ISO 228/1 and inner diameter Ø 63 mm straight fittings. AISI 316 screws.**

### PERFORMANCE RANGE

- Flow rate up to **700 l/min** (42 m³/h)
- Head up to **28 m**

### INSTALLATION AND USE

Self-priming pump with a built-in filter, designed for water circulation in residential swimming pools up to 180 m³.

### APPLICATION LIMITS

- Swimming pool water (pH 6.5 8.4).
- Manometric suction head up to **4 m** (HS)
- Liquid temperature up to **+45 °C**
- Ambient temperature up to **+50 °C**
- Maximum working pressure **2.5 bar**

### AVAILABLE UPON REQUEST

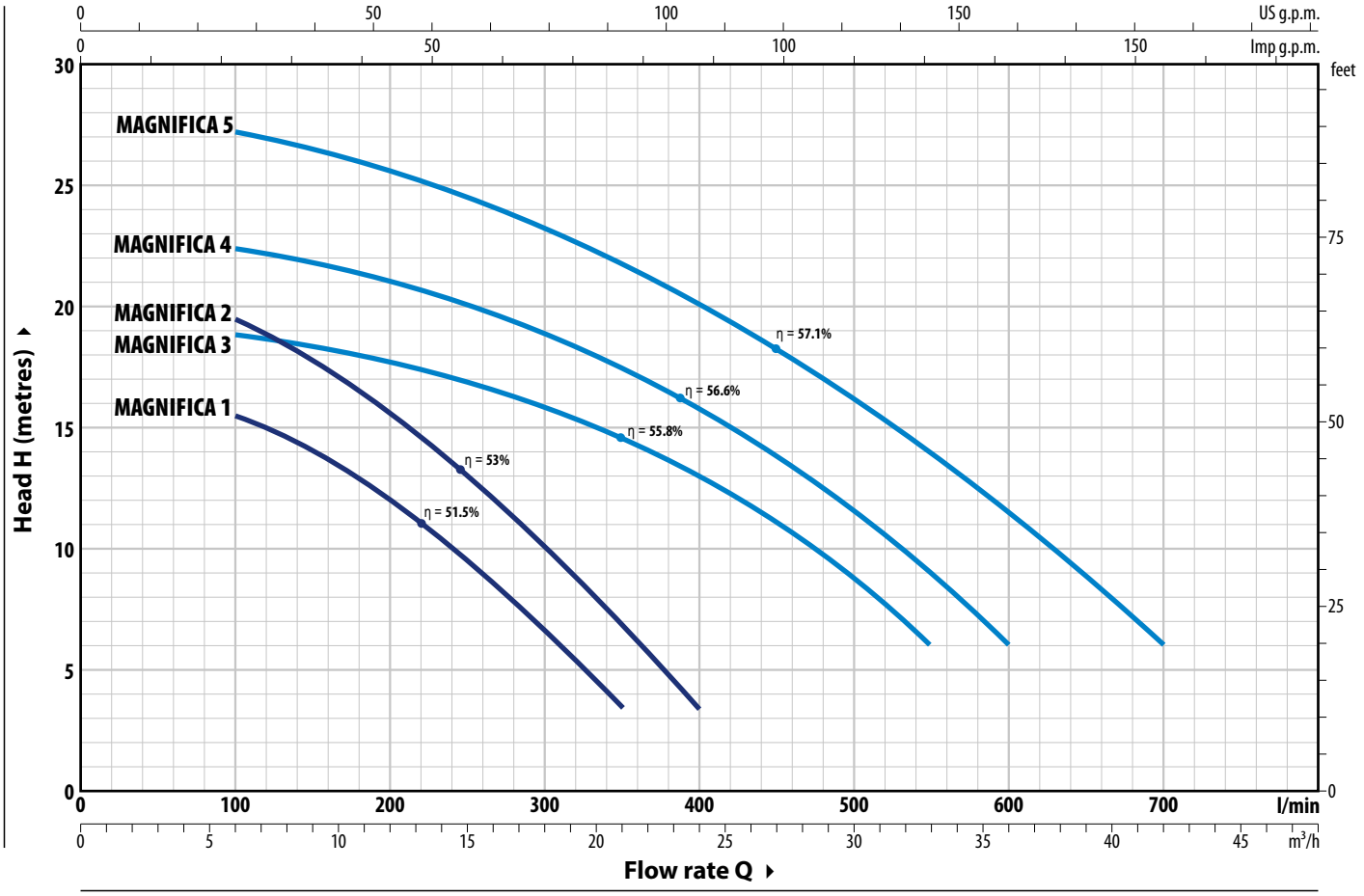
※ Different voltage or frequency
※ Straight connection fitting **2" BS**
※ Threaded connection fitting **2" NPT**

### PATENTS - TRADE MARKS - MODELS

- **MAGNIFICA®** Registered trademark no. 018159079
- Registered Community Model No. 007671839

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 33 | 36 | 42 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | 3~ | | l/min | **0** | **100** | **150** | **200** | **250** | **300** | **350** | **400** | **550** | **600** | **700** |
| **MAGNIFICA 1m** | **MAGNIFICA 1** | 0.55 | 0.75 | | | | 16.5 | 15.5 | 14 | 12 | 9.5 | 6.6 | 3.5 | | | | |
| **MAGNIFICA 2m** | **MAGNIFICA 2** | 0.75 | 1 | | | | 21 | 19.5 | 17.9 | 15.7 | 13.1 | 10.1 | 6.9 | 3.5 | | | |
| **MAGNIFICA 3m** | **MAGNIFICA 3** | 1.1 | 1.5 | **IE3** | **H** | m | 19.3 | 18.6 | 18.1 | 17.5 | 16.8 | 15.8 | 14.5 | 13 | 6 | | |
| **MAGNIFICA 4m** | **MAGNIFICA 4** | 1.5 | 2 | | | | 23 | 22.3 | 21.8 | 21.1 | 20.1 | 19 | 17.6 | 15.9 | 9 | 6 | |
| **MAGNIFICA 5m** | **MAGNIFICA 5** | 2.2 | 3 | | | | 28 | 27.1 | 26.4 | 25.5 | 24.4 | 23.2 | 21.7 | 20.1 | 14 | 11.5 | 6 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

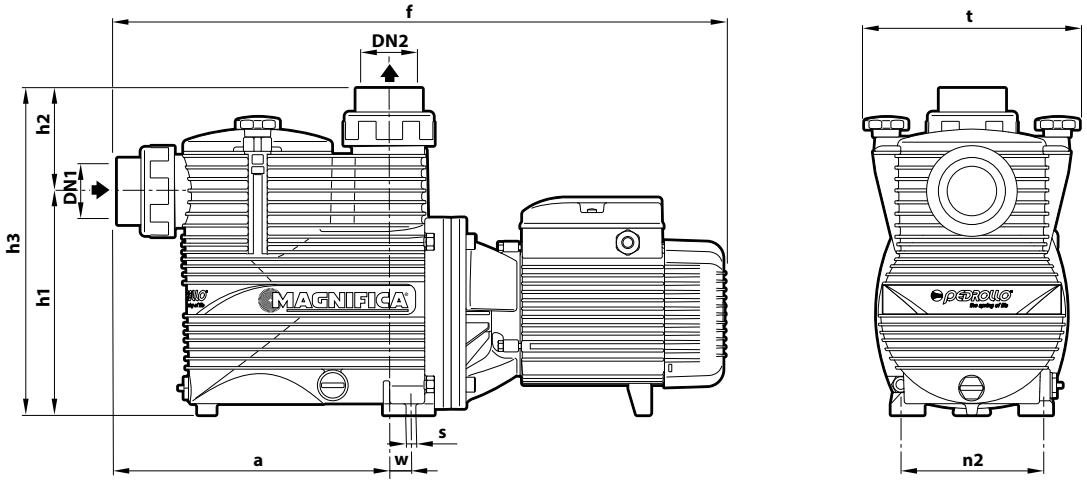
# MAGNIFICA

## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| **Single-phase** | **220 V** | **110 V** |
| **MAGNIFICA 1m** | 5.0 A | 10.0 A |
| **MAGNIFICA 2m** | 6.3 A | 13.0 A |
| **MAGNIFICA 3m** | 9.6 A | – |
| **MAGNIFICA 4m** | 11.3 A | – |
| **MAGNIFICA 5m** | 14.0 A | – |

| TYPE | VOLTAGE | |
|---|---|---|
| **Three-phase** | **220 V - Δ** | **380 V - Y** |
| **MAGNIFICA 1** | 3.8 A | 2.2 A |
| **MAGNIFICA 2** | 4.7 A | 2.7 A |
| **MAGNIFICA 3** | 7.3 A | 4.2 A |
| **MAGNIFICA 4** | 8.0 A | 4.6 A |
| **MAGNIFICA 5** | 9.0 A | 5.2 A |

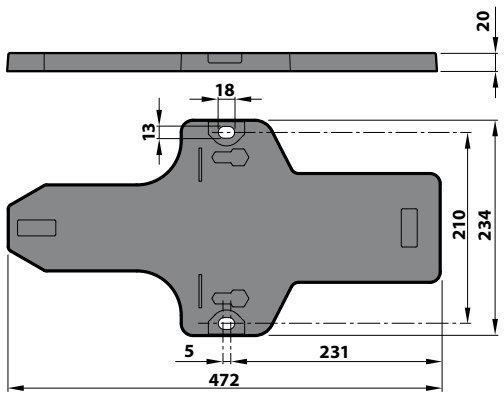
## DIMENSIONS AND WEIGHT



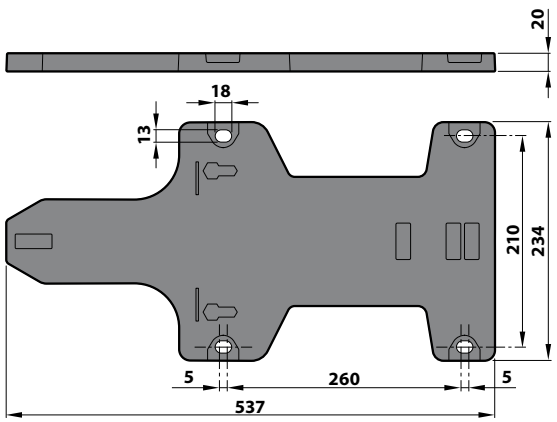

| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **DN1** | **DN2** | a | f | h1 | h2 | h3 | n1 | w | s | t | 1~ | 3~ |
| **MAGNIFICA 1m** | **MAGNIFICA 1** | **2"** | **2"** | 294 | 583 | 240 | 113 | 353 | 155 | 4.3 | 10.5 | 235 | 14.1 | 14.1 |
| **MAGNIFICA 2m** | **MAGNIFICA 2** | | | | | | | | | | | | 15.0 | 15.0 |
| **MAGNIFICA 3m** | **MAGNIFICA 3** | | | 294 | 657 | 240 | 113 | 353 | 155 | 15.8 | 10.5 | 235 | 19.4 | 19.4 |
| **MAGNIFICA 4m** | **MAGNIFICA 4** | | | | | | | | | | | | 20.6 | 20.6 |
| **MAGNIFICA 5m** | **MAGNIFICA 5** | | | | 677 | | | | | | | | 23.3 | 23.3 |

## BASEMENT (mm)

**Stand for MAGNIFICA 1-2**




**Stand for MAGNIFICA 3-4-5**



## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Glass-fibre reinforced polypropylene with ISO 228/1 threaded ports |
| 2 | **Seal insert** | Glass-fibre reinforced polypropylene |
| 3 | **Diffuser** | Noryl™ |
| 4 | **Impeller** | Noryl™ |
| 5 | **Mechanical seal** | |

| Water pump | Seal | Shaft | Materials |
|---|---|---|---|
| MAGNIFICA 1-2 | **AR-17** | Ø 17 | Ceramic / Graphite / NBR |
| MAGNIFICA 3-4-5 | **AR-20R** | Ø 20 | Ceramic / Graphite / NBR |

| | | |
|---|---|---|
| 6 | **Motor shaft** | Stainless steel **AISI 431** |
| 7 | **Electric motor** | **MAGNIFICA m**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection<br>**MAGNIFICA**: three-phase 220/380 V - 60 Hz<br>– The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)<br>– Continuous running duty **S1** |
| 8 | **O-Ring (OR)** | NBR |
| 9 | **Cover** | Polycarbonate |
| 10 | **Pre-filter** | Polypropylene |
| 11 | **Closing knob** | Nylon |
| 12 | **Fittings** | PVC-U |
| 13 | **Base** | Polypropylene |



# PLURIJET Multi-stage self-priming pumps

Clean water

Domestic use

Civil use




## ※ VERSATILE
PLURIJET pumps are designed to handle any domestic water task with ease. With exceptional suction capacity, they can prime up to 9 metres deep, making them perfect for any household water requirement.

## ※ EFFICIENT
Get the job done efficiently with PLURIJET pumps. Their high hydraulic efficiency means they consume significantly less electricity compared to self-priming JET pumps, ensuring you have all the water you need without draining your power supply.

## ※ RELIABLE
Stainless steel components that you can count on for reliability and durability.

## ※ SILENT
Featuring multi-cellular hydraulics for maximum pressure with minimal power consumption, these pumps are significantly quieter, with noise levels between 48 and 54 dBA.

### PERFORMANCE RANGE
- Flow rate up to **130 l/min** (7.8 m³/h)
- Head up to **52 m**

### INSTALLATION AND USE
**PLURIJET** self-priming pumps are designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components. They are suitable for both domestic and civil applications, particularly for water distribution along pressure tanks to increase overall network pressure, rainwater recovery, and irrigation.

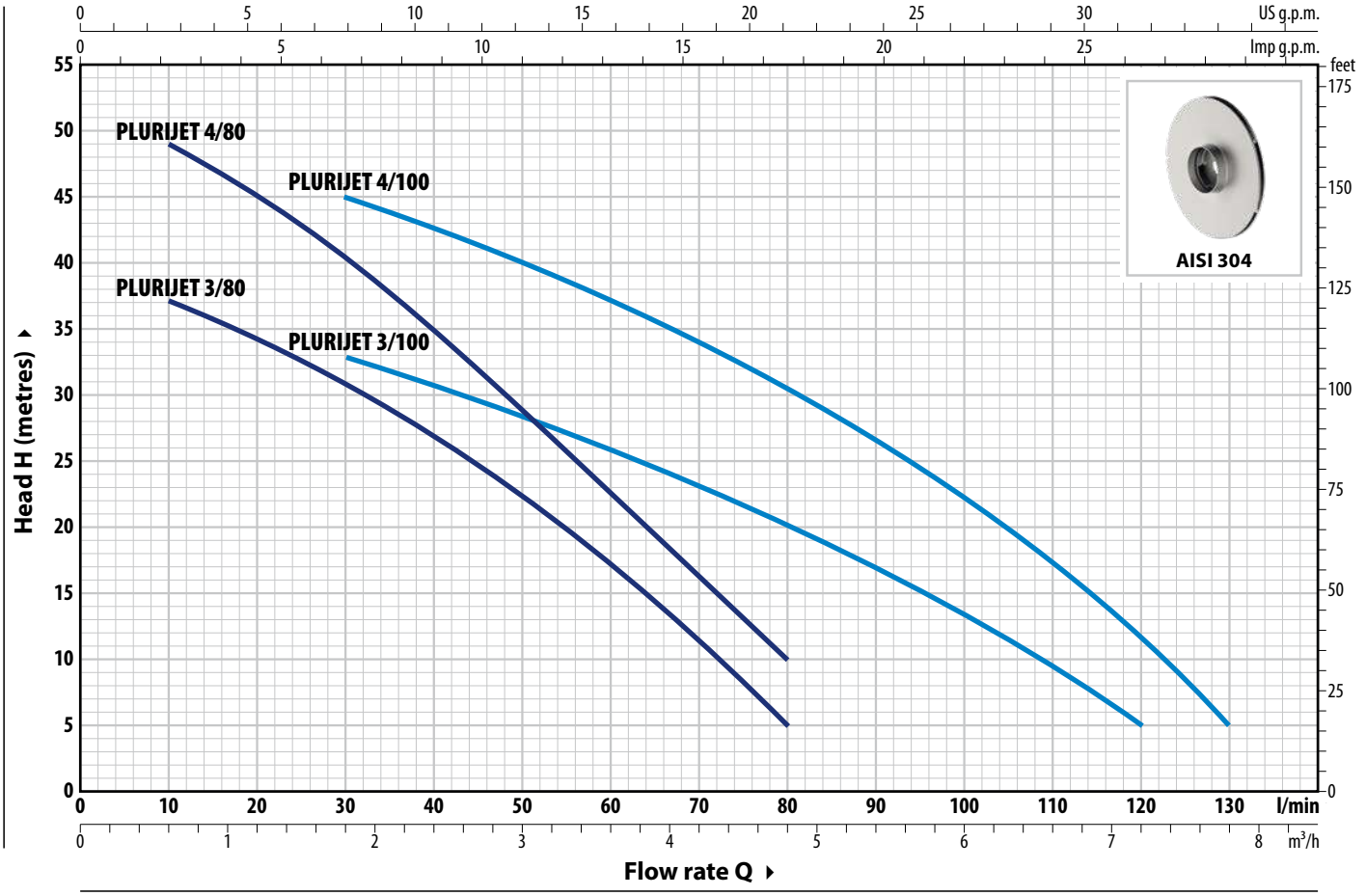
### APPLICATION LIMITS
- Manometric suction head up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+60 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure **6 bar**

### AVAILABLE UPON REQUEST
※ Technopolymer impeller (cost-effective version)
※ Different voltage or frequency

### PATENTS - TRADE MARKS - MODELS
- PLURIJET® Registered trademark No. 3974301
- Patent Pending No. 102023000019836

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**

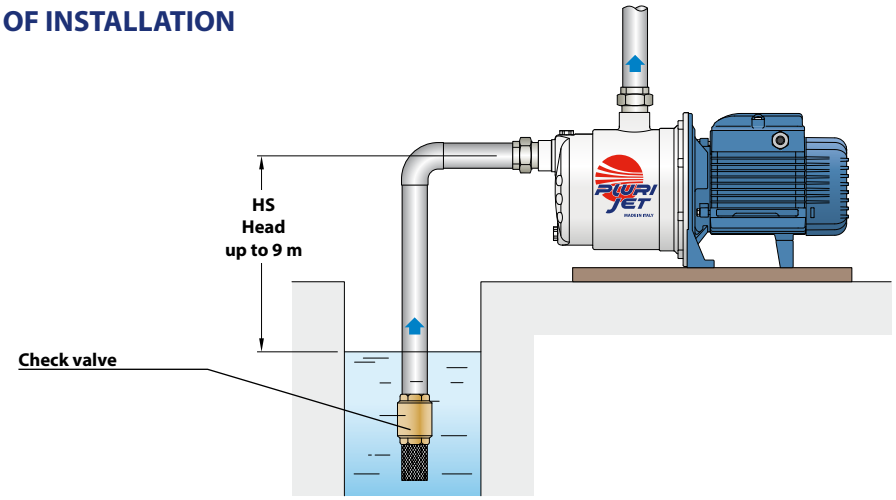



| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 0.3 | 0.6 | 1.2 | 1.8 | 2.4 | 3.0 | 3.6 | 4.2 | 4.8 | 5.4 | 6.0 | 6.6 | 7.2 | 7.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | **3~** | | l/min | **0** | **5** | **10** | **20** | **30** | **40** | **50** | **60** | **70** | **80** | **90** | **100** | **110** | **120** | **130** |
| **PLURIJETm 3/80** | **PLURIJET 3/80** | 0.48 | 0.65 | | | | | | | | | | | | | | | | | | |
| **PLURIJETm 4/80** | **PLURIJET 4/80** | 0.55 | 0.75 | **IE2** | **H** | m | 52 | 50 | 49 | 44.5 | 40 | 34 | 28.5 | 22.5 | 16 | 10 | | | | | |
| **PLURIJETm 3/100** | **PLURIJET 3/100** | 0.55 | 0.75 | | | | 38 | 37 | 36 | 34.5 | 33 | 31 | 28 | 26 | 23 | 20 | 17 | 13.5 | 10 | 5 | |
| **PLURIJETm 4/100** | **PLURIJET 4/100** | 0.75 | 1 | **IE3** | | | 50 | 50 | 49 | 47 | 45 | 42 | 39.5 | 37 | 34 | 30.5 | 26.5 | 22 | 17 | 11 | 5 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## EXAMPLE OF INSTALLATION



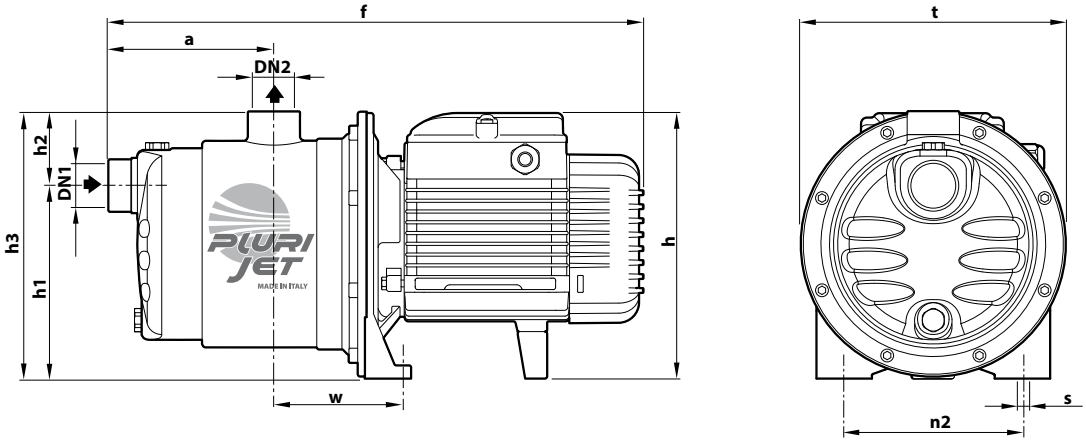
# PLURIJET

## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-phase | 220 V | 110 V |
| PLURIJETm 3/80 | 3.4 A | 6.9 A |
| PLURIJETm 4/80 | 4.5 A | 9.0 A |
| PLURIJETm 3/100 | 5.0 A | 10.0 A |
| PLURIJETm 4/100 | 6.2 A | 12.0 A |

| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 220 V - Δ | 380 V - Y |
| PLURIJET 3/80 | 2.3 A | 1.3 A |
| PLURIJET 4/80 | 3.0 A | 1.7 A |
| PLURIJET 3/100 | 3.0 A | 1.7 A |
| PLURIJET 4/100 | 4.5 A | 2.6 A |

## DIMENSIONS AND WEIGHT




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN1 | DN2 | a | f | h | h1 | h2 | h3 | t | n2 | w | s | 1~ | 3~ |
| PLURIJETm 3/80 | PLURIJET 3/80 | 1" | 1" | 113 | 367 | 182 | 132 | 51 | 183 | 182 | 120 | 87 | 9 | 7.8 | 7.8 |
| PLURIJETm 4/80 | PLURIJET 4/80 | | | 138 | 392 | | | | | | | | | 9.1 | 8.4 |
| PLURIJETm 3/100 | PLURIJET 3/100 | | | 113 | 367 | | | | | | | | | 8.6 | 7.9 |
| PLURIJETm 4/100 | PLURIJET 4/100 | | | 138 | 410 | 202 * | | | | | | | 10 | 11.6 | 11.6 |

(*) h=221 mm for single-phase 110 V versions

## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-phase | Three-phase | n. pumps | n. pumps |
| PLURIJETm 3/80 | PLURIJET 3/80 | 84 | 108 |
| PLURIJETm 4/80 | PLURIJET 4/80 | 72 | 108 |
| PLURIJETm 3/100 | PLURIJET 3/100 | 84 | 108 |
| PLURIJETm 4/100 | PLURIJET 4/100 | 72 | 108 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Stainless steel **AISI 304**,provided with ISO 228/1 threaded ports |
| 2 | **Cover** | Stainless steel **AISI 304** |
| 3 | **Impellers** | Stainless steel **AISI 304** |
| 4 | **Diffusers** | Noryl™ complete with wear rings |

**5 Mechanical seal**

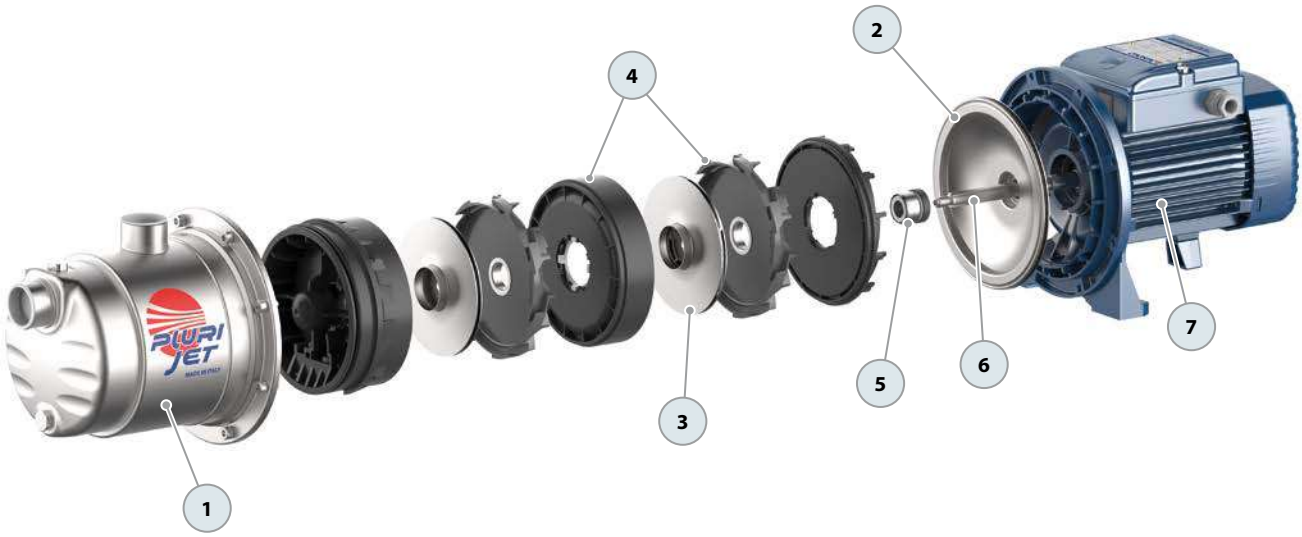
| Seal | Shaft | Materials |
|---|---|---|
| **AR-13** | Ø 13 mm | Ceramic / Graphite / NBR |

| | | |
|---|---|---|
| 6 | **Motor shaft** | Stainless steel **AISI 431** |

**7 Electric motor**

**PLURIJETm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection
**PLURIJET**: three-phase 220/380 V - 60 Hz

– The three-phase pumps are fitted with high performance motors up to P2=0.55 kW in class IE2 and from P2=0.75 kW in class IE3 (IEC 60034-30-1)
– Continuous running duty **S1**



# PLURIJET Multi-stage self-priming pumps

Clean water

Domestic use

Civil use




**※ PLURIJET high-efficiency pumps with stainless steel impellers are as essential as water. Thanks to their reliability, quiet operation, and cost-effectiveness, they provide the best and most effective solution for your domestic needs.**

## ※ VERSATILE

PLURIJET pumps are designed to handle any domestic water task with ease. With exceptional suction capacity, they can prime up to 9 metres deep, making them perfect for any household water requirement.

## ※ EFFICIENT

Get the job done efficiently with PLURIJET pumps. Their high hydraulic efficiency means they consume significantly less electricity compared to self-priming JET pumps, ensuring you have all the water you need without draining your power supply.

## ※ SILENT

Featuring multi-cellular hydraulics for maximum pressure with minimal power consumption, these pumps operate with significantly reduced noise levels, ensuring a quiet performance.

## PERFORMANCE RANGE

- Flow rate up to **130 l/min** (7.8 m³/h)
- Head up to **52 m**

## INSTALLATION AND USE

Designed to transfer clean water free from abrasive particles and safe liquids that will not damage any of the pump's components. Highly reliable and quiet, they are suitable for domestic applications.
They work seamlessly with small to medium-sized pressure tanks, offering an ideal setup for all irrigation requirements.

## APPLICATION LIMITS

- Manometric suction head up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+60 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure **6 bar**

## AVAILABLE UPON REQUEST

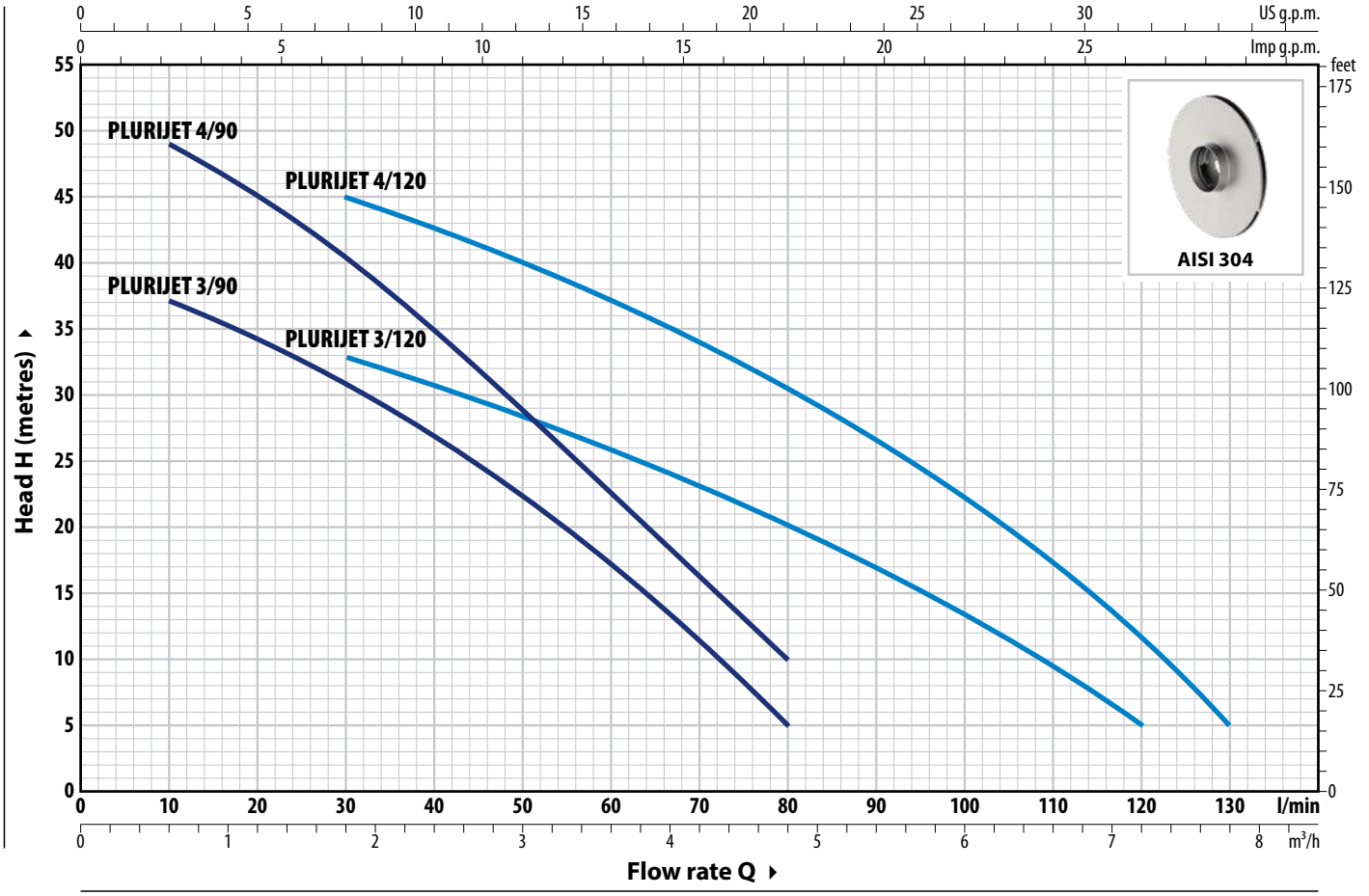
※ Mechanical seal options available
※ Different voltage or frequency

## PATENTS - TRADE MARKS - MODELS

- **PLURIJET**®Registered trademark No. 3974301
- Patent Pending No. 102023000019836

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**

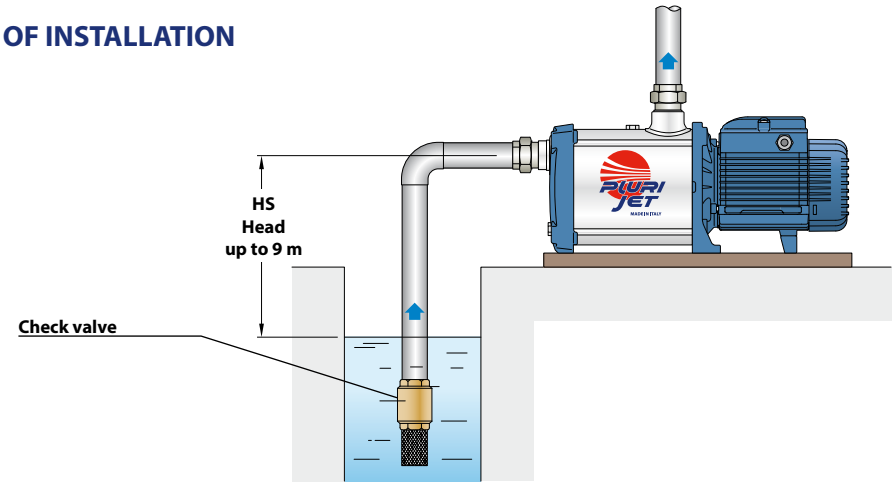



| TYPE | | POWER (P2) | | | Q m³/h | 0 | 0.3 | 0.6 | 1.2 | 1.8 | 2.4 | 3.0 | 3.6 | 4.2 | 4.8 | 5.4 | 6.0 | 6.6 | 7.2 | 7.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | **3~** | l/min | **0** | **5** | **10** | **20** | **30** | **40** | **50** | **60** | **70** | **80** | **90** | **100** | **110** | **120** | **130** |
| **PLURIJETm 3/90** | **PLURIJET 3/90** | 0.48 | 0.65 | | | 40 | 38 | 37 | 34.5 | 31 | 27 | 22.5 | 17 | 11 | 5 | | | | | |
| **PLURIJETm 4/90** | **PLURIJET 4/90** | 0.55 | 0.75 | **IE2** | | 52 | 50 | 49 | 44.5 | 40 | 34 | 28.5 | 22.5 | 16 | 10 | | | | | |
| **PLURIJETm 3/120** | **PLURIJET 3/120** | 0.55 | 0.75 | | **H** m | 38 | 37 | 36 | 34.5 | 33 | 31 | 28 | 26 | 23 | 20 | 17 | 13.5 | 10 | 5 | |
| **PLURIJETm 4/120** | **PLURIJET 4/120** | 0.75 | 1 | **IE3** | | 50 | 50 | 49 | 47 | 45 | 42 | 39.5 | 37 | 34 | 30.5 | 26.5 | 22 | 17 | 11 | 5 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## EXAMPLE OF INSTALLATION



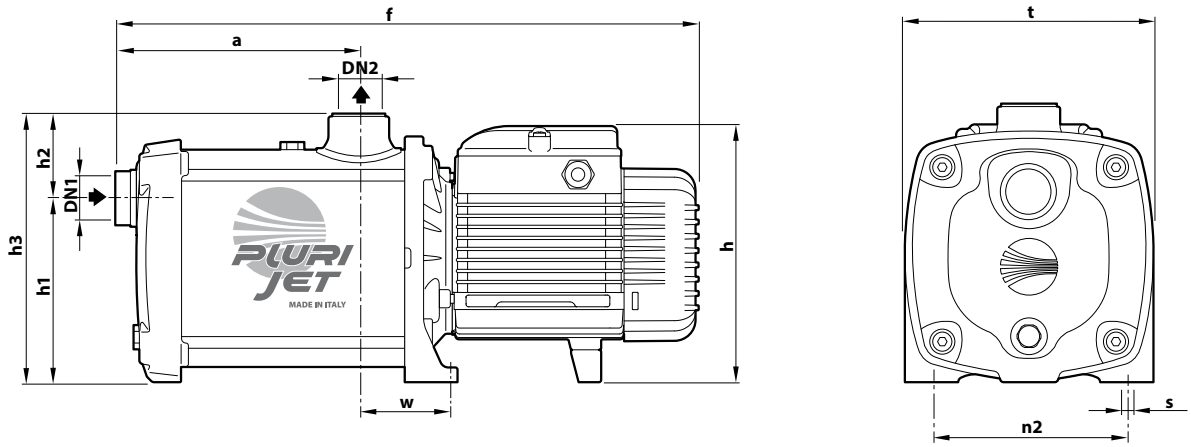
# PLURIJET

## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| **Single-phase** | **220 V** | **110 V** |
| **PLURIJETm 3/90** | 3.4 A | 6.9 A |
| **PLURIJETm 4/90** | 4.5 A | 9.0 A |
| **PLURIJETm 3/120** | 5.0 A | 10.0 A |
| **PLURIJETm 4/120** | 6.2 A | 12.0 A |

| TYPE | VOLTAGE | |
|---|---|---|
| **Three-phase** | **220 V - Δ** | **380 V - Y** |
| **PLURIJET 3/90** | 2.3 A | 1.3 A |
| **PLURIJET 4/90** | 2.8 A | 1.6 A |
| **PLURIJET 3/120** | 3.2 A | 1.8 A |
| **PLURIJET 4/120** | 4.5 A | 2.6 A |

## DIMENSIONS AND WEIGHT




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **DN1** | **DN2** | a | f | h | h1 | h2 | h3 | t | n2 | w | s | 1~ | 3~ |
| **PLURIJETm 3/90** | **PLURIJET 3/90** | **1"** | **1"** | 132 | 358 | 171 | 122 | 56 | 178 | 160 | 125 | 56.5 | 9 | 8.4 | 8.4 |
| **PLURIJETm 4/90** | **PLURIJET 4/90** | | | 157 | 383 | | | | | | | | | 9.7 | 9.0 |
| **PLURIJETm 3/120** | **PLURIJET 3/120** | | | 132 | 358 | | | | | | | | | 9.2 | 8.5 |
| **PLURIJETm 4/120** | **PLURIJET 4/120** | | | 157 | 402 | 189 | | | | | | | | 12.2 | 12.2 |

(*) h=221 mm for single-phase 110 V versions

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Stainless steel **AISI 304**,provided with ISO 228/1 threaded ports |
| 2 | **Cover** | Stainless steel **AISI 304** |
| 3 | **Impellers** | Stainless steel **AISI 304** |
| 4 | **Diffusers** | Noryl™ complete with wear rings |

**5 Mechanical seal**

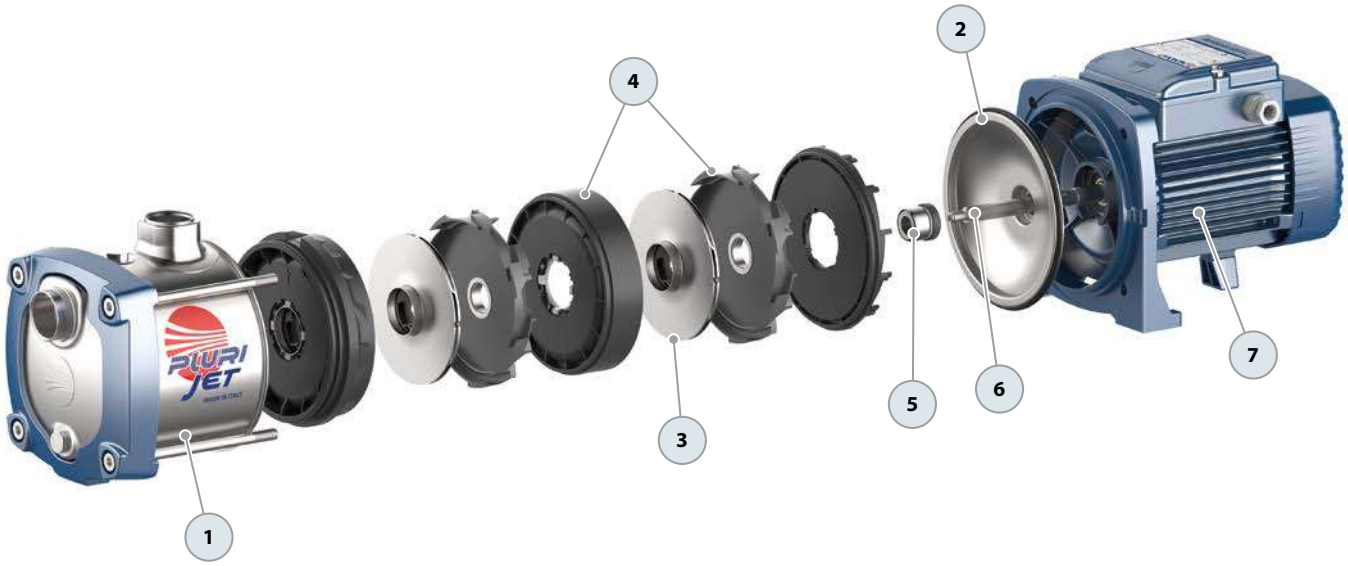
| Seal | Shaft | Materials |
|---|---|---|
| **AR-13** | Ø 13 mm | Ceramic / Graphite / NBR |

| | | |
|---|---|---|
| 6 | **Motor shaft** | Stainless steel **AISI 431** |

**7 Electric motor**

**PLURIJETm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection
**PLURIJET**: three-phase 220/380 V - 60 Hz

– The three-phase pumps are fitted with high performance motors up to P2=0.55 kW in class IE2 and from P2=0.75 kW in class IE3 (IEC 60034-30-1)
– Continuous running duty **S1**



# PLURIJET Multi-stage self-priming pumps

Clean water

Domestic use

Civil use




**※ PLURIJET high-efficiency pumps with stainless steel impellers are as essential as water. Thanks to their reliability, quiet operation, and cost-effectiveness, they provide the best and most effective solution for your domestic needs.**

## PERFORMANCE RANGE

- Flow rate up to **200 l/min** (12 m³/h)
- Head up to **97 m**

## INSTALLATION AND USE

**PLURIJET** self-priming pumps are designed to draw water and liquids that contain air, and clean water and liquids that will not damage the pump's components. Reliable and energy-efficient, they are suitable for both domestic and civil applications, particularly for water distribution along pressure tanks to increase overall network pressure, rainwater recovery, and irrigation.

## APPLICATION LIMITS

- Manometric suction head up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+60 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure **10 bar**

## AVAILABLE UPON REQUEST

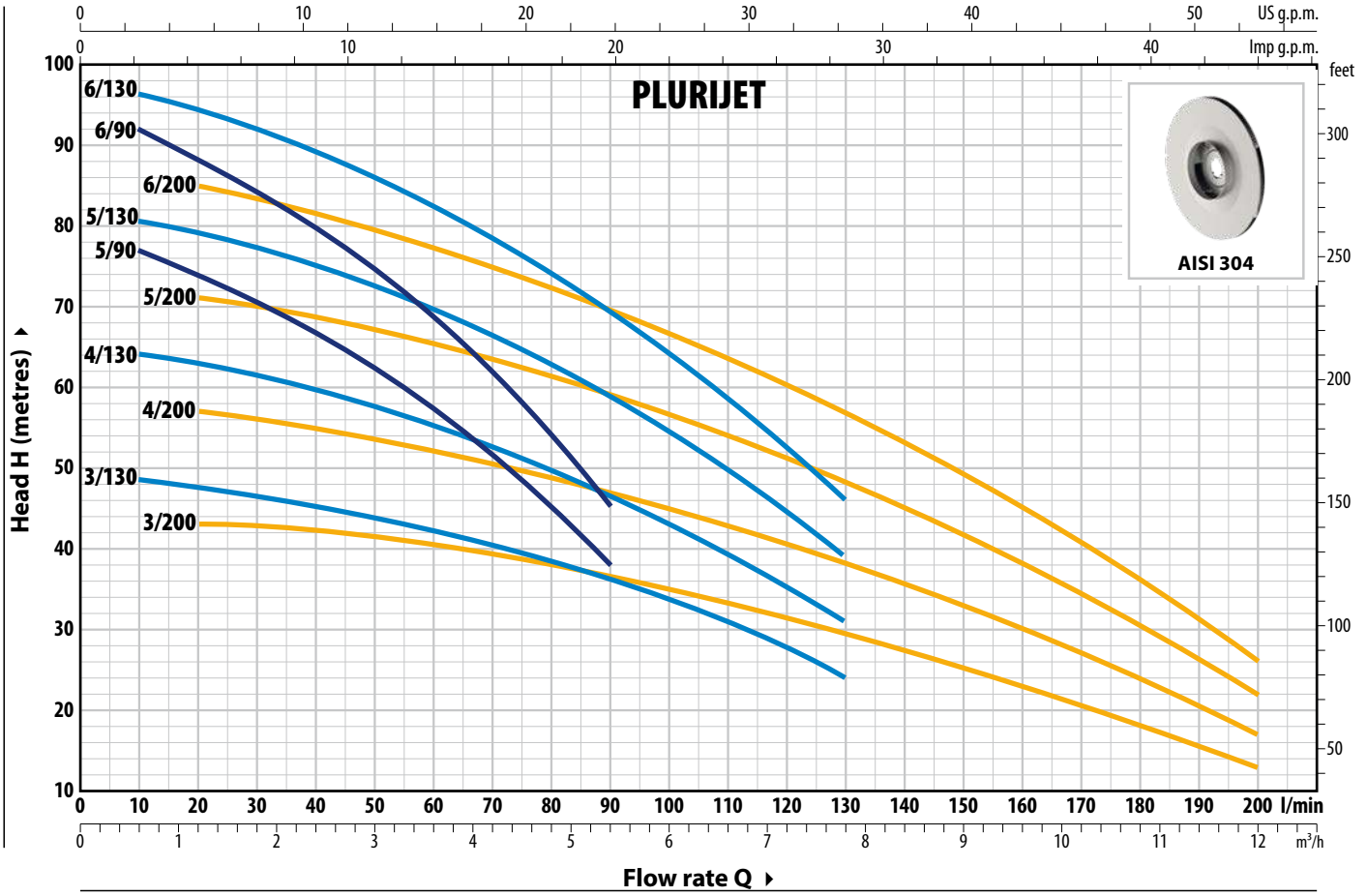
※ Technopolymer impeller (cost-effective version)
※ Different voltage or frequency
※ IPX5 protection
※ Certified pumps WRAS APPROVED PRODUCT

## PATENTS - TRADE MARKS - MODELS

- PLURIJET® Registered trademark No. 3974301
- Patent Pending No. 102023000019836

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**

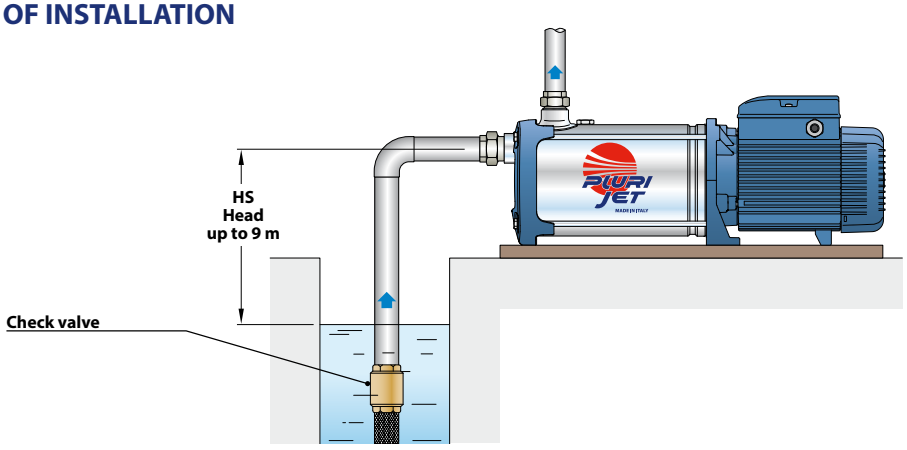



| MODEL | | POWER (P2) | | | Q m³/h | 0 | 0.3 | 0.6 | 1.2 | 2.4 | 3.6 | 5.4 | 6.0 | 7.8 | 8.4 | 9.6 | 10.8 | 12.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | 3~ | l/min | **0** | **5** | **10** | **20** | **40** | **60** | **90** | **100** | **130** | **140** | **160** | **180** | **200** |
| PLURIJETm 5/90 | PLURIJET 5/90 | 1.1 | 1.5 | IE3 | H m | 80 | 78 | 77 | 74 | 67 | 57 | 38 | | | | | | |
| PLURIJETm 6/90 | PLURIJET 6/90 | 1.5 | 2 | | | 96 | 94 | 92 | 88 | 80 | 69 | 45 | | | | | | |
| PLURIJETm 3/130 | PLURIJET 3/130 | 1.1 | 1.5 | | | 49 | 49 | 48.5 | 47.5 | 45 | 42.5 | 36 | 33.5 | 24 | | | | |
| PLURIJETm 4/130 | PLURIJET 4/130 | 1.5 | 2 | | | 65 | 65 | 64 | 63 | 60 | 56 | 46 | 43 | 31 | | | | |
| PLURIJETm 5/130 | PLURIJET 5/130 | 1.8 | 2.5 | | | 81 | 81 | 80.5 | 79 | 75 | 70 | 59 | 54 | 39 | | | | |
| – | PLURIJET 6/130 | 2.2 | 3 | | | 97 | 97 | 96.5 | 94.5 | 90 | 83 | 69 | 64 | 46 | | | | |
| PLURIJETm 3/200 | PLURIJET 3/200 | 1.1 | 1.5 | | | 44 | 43.5 | 43.5 | 43 | 42 | 40.5 | 37 | 35 | 29 | 27.5 | 23 | 18 | 13 |
| PLURIJETm 4/200 | PLURIJET 4/200 | 1.5 | 2 | | | 58 | 57.5 | 57.5 | 57 | 55 | 52.5 | 47 | 45 | 38 | 35.5 | 30 | 24 | 17 |
| PLURIJETm 5/200 | PLURIJET 5/200 | 1.8 | 2.5 | | | 73 | 72 | 71.5 | 71 | 69 | 65.5 | 59 | 56.5 | 48 | 44.5 | 38 | 30 | 22 |
| – | PLURIJET 6/200 | 2.2 | 3 | | | 87 | 86 | 85.5 | 85 | 82 | 78 | 69 | 67 | 57 | 53 | 45 | 36 | 26 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## EXAMPLE OF INSTALLATION



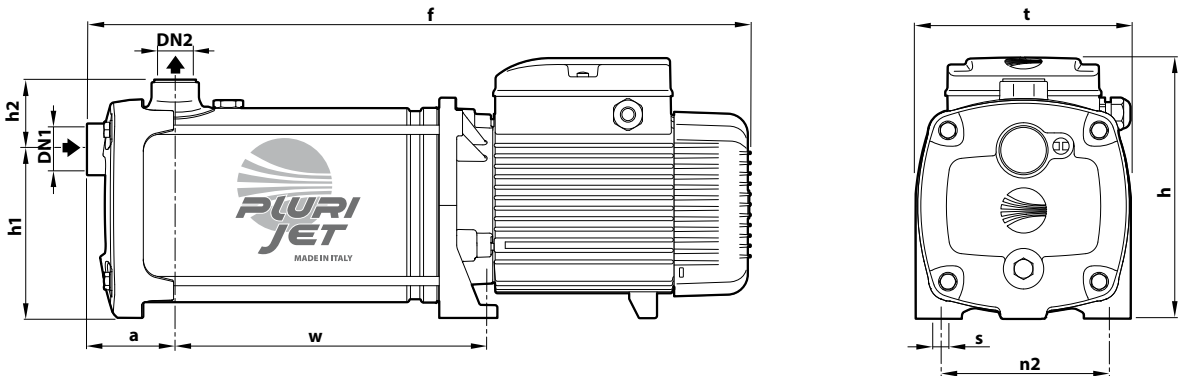
# PLURIJET 90-130-200

## ABSORPTION

| TYPE | VOLTAGE |
|---|---|
| Single-phase | 220 V |
| PLURIJETm 5/90 | 9.3 A |
| PLURIJETm 6/90 | 11.0 A |
| PLURIJETm 3/130 | 8.5 A |
| PLURIJETm 4/130 | 11.0 A |
| PLURIJETm 5/130 | 13.0 A |
| PLURIJETm 3/200 | 8.6 A |
| PLURIJETm 4/200 | 11.0 A |
| PLURIJETm 5/200 | 13.0 A |

| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 220 V - Δ | 380 V - Y |
| PLURIJET 5/90 | 7.0 A | 4.0 A |
| PLURIJET 6/90 | 7.5 A | 4.3 A |
| PLURIJET 3/130 | 6.0 A | 3.4 A |
| PLURIJET 4/130 | 7.0 A | 4.0 A |
| PLURIJET 5/130 | 9.0 A | 5.2 A |
| PLURIJET 6/130 | 10.0 A | 5.8 A |
| PLURIJET 3/200 | 7.0 A | 4.0 A |
| PLURIJET 4/200 | 7.5 A | 4.3 A |
| PLURIJET 5/200 | 9.0 A | 5.2 A |
| PLURIJET 6/200 | 10.0 A | 5.8 A |

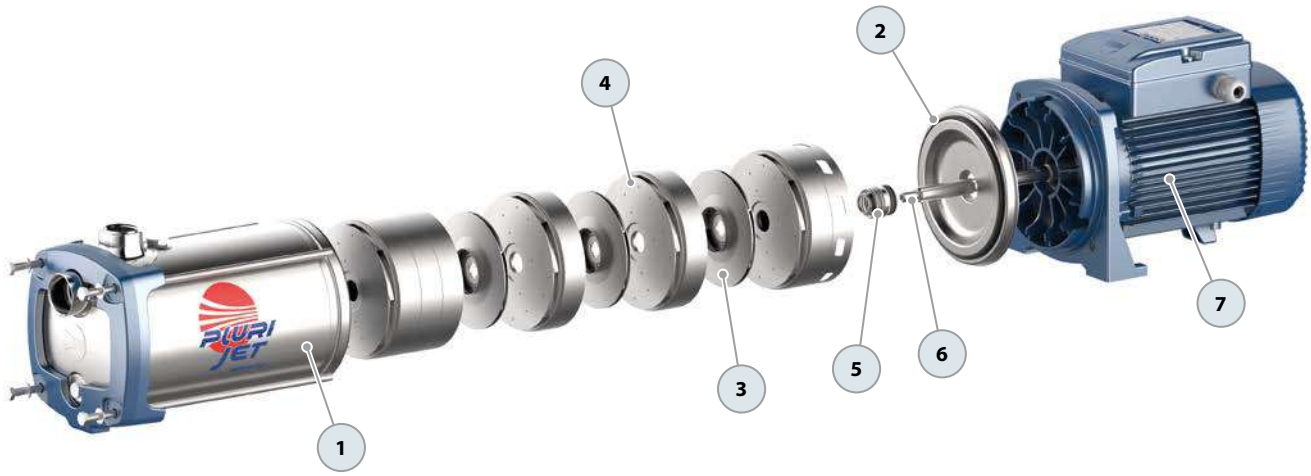
## DIMENSIONS AND WEIGHT




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN1 | DN2 | a | f | h | h1 | h2 | t | n2 | w | s | 1~ | 3~ |
| PLURIJETm 5/90 | PLURIJET 5/90 | 1¼" | 1" | 75 | 549 | 228 | 145 | 59 | 185 | 145 | 243 | 11 | 20.8 | 20.8 |
| PLURIJETm 6/90 | PLURIJET 6/90 | | | | 573 | | | | | | 269 | | 22.8 | 22.8 |
| PLURIJETm 3/130 | PLURIJET 3/130 | | | | 497 | | | | | | 191 | | 18.8 | 18.8 |
| PLURIJETm 4/130 | PLURIJET 4/130 | | | | 523 | | | | | | 217 | | 20.8 | 20.8 |
| PLURIJETm 5/130 | PLURIJET 5/130 | | | | 569 | | | | | | 243 | | 24.2 | 24.2 |
| – | PLURIJET 6/130 | | | | 595 | | | | | | 269 | | – | 25.2 |
| PLURIJETm 3/200 | PLURIJET 3/200 | | | | 497 | | | | | | 191 | | 18.8 | 18.8 |
| PLURIJETm 4/200 | PLURIJET 4/200 | | | | 523 | | | | | | 217 | | 20.7 | 20.7 |
| PLURIJETm 5/200 | PLURIJET 5/200 | | | | 569 | | | | | | 243 | | 24.2 | 24.2 |
| – | PLURIJET 6/200 | | | | 595 | | | | | | 269 | | – | 25.2 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Stainless steel **AISI 304**,provided with ISO 228/1 threaded ports |
| 2 | **Cover** | Stainless steel **AISI 304** |
| 3 | **Impellers** | Stainless steel **AISI 304** |
| 4 | **Diffusers** | Stainless steel **AISI 304** |
| 5 | **Mechanical seal** | Seal: **FN-18** · Shaft: Ø 18 mm · Materials: Graphite / Ceramic / NBR |
| 6 | **Motor shaft** | Stainless steel **AISI 431** |
| 7 | **Electric motor** | **PLURIJETm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection<br>**PLURIJET**: three-phase 220/380 V - 60 Hz<br>– The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)<br>– Continuous running duty **S1** |



# NGA Cast-iron centrifugal pumps with open impeller

Domestic use

Agricultural use

Industrial use



## PERFORMANCE RANGE

- Flow rate up to **850 l/min** (51 m³/h)
- Head up to **20.5 m**

## INSTALLATION AND USE

Designed to transfer liquids that will not damage the pump's components, NGAS pumps feature an open impeller design.

This allows them to efficiently handle impurity-laden fluids without clogging, making them ideal for various applications including transfers from channels, rivers, tanks, basins, and more.

NGAs pumps are particularly suitable for pumping non-entirely clean liquids, facilitating the movement of solid particles up to **20 mm** in size.

## APPLICATION LIMITS

- Manometric suction head up to **7 m**
- Liquid temperature between **-10 °C** up and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Maximum working pressure:
  - **6 bar** for NGA1 and NGA2
  - **10 bar** for NGA3
- Passing solid in suspension up to:
  - **Ø 12 mm** for NGA1 and NGA2
  - **Ø 20 mm** for NGA3

## AVAILABLE UPON REQUEST

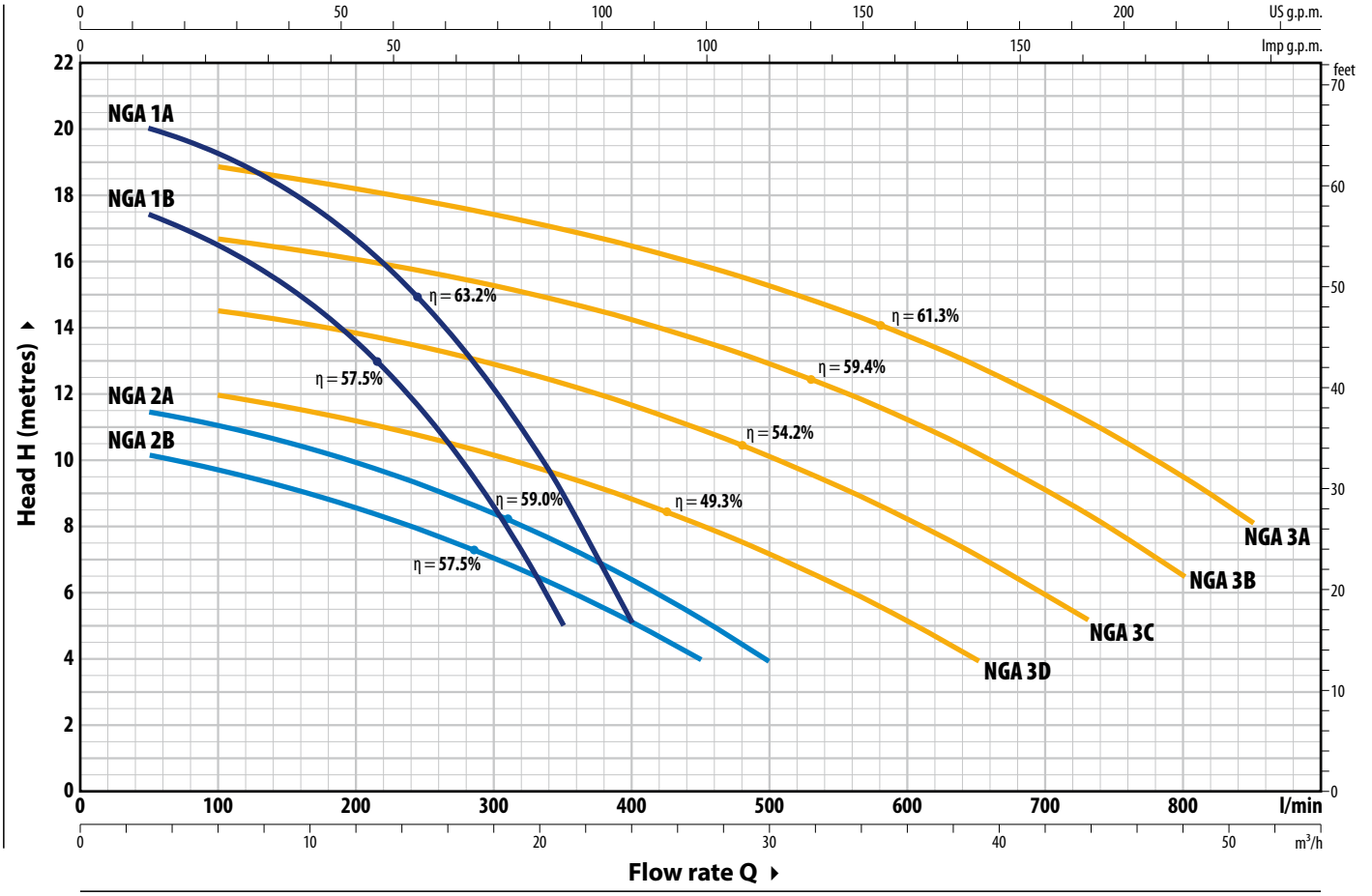
※ Mechanical seal options available
※ Pump body with NPT threaded ports ANSI B 1.20.1
※ On request up to **110 °C**
※ **IP X5** protection for **NGA 3**
※ Different voltage or frequency

※ Supply of ISO 228/1 flanges for suction and delivery ports in AISI 304 stainless steel



## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | 3~ | | l/min | **0** | **50** | **100** | **150** | **200** | **250** | **300** | **350** | **400** |
| **NGAm 1B** | **NGA 1B** | 0.55 | 0.75 | **IE3** | **H** | m | 18 | 17.4 | 16.4 | 15.2 | 13.5 | 11.3 | 8.7 | 5 | |
| **NGAm 1A** | **NGA 1A** | 0.75 | 1 | | | | 20.5 | 20 | 19.3 | 18.1 | 16.6 | 14.7 | 12.1 | 9 | 5 |

| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 3 | 6 | 12 | 18 | 24 | 27 | 30 | 39 | 43,8 | 48 | 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | 3~ | | l/min | **0** | **50** | **100** | **200** | **300** | **400** | **450** | **500** | **650** | **730** | **800** | **850** |
| **NGAm 2B** | **NGA 2B** | 0.55 | 0.75 | **IE3** | **H** | m | 10.5 | 10.1 | 9.6 | 8.5 | 7 | 5.1 | 4 | | | | | |
| **NGAm 2A** | **NGA 2A** | 0.75 | 1 | | | | 11.8 | 11.4 | 11 | 9.9 | 8.4 | 6.4 | 5.2 | 4 | | | | |
| **NGAm 3D** | **NGA 3D** | 1.1 | 1.5 | | | | 12.5 | - | 12 | 11.2 | 10.1 | 8.8 | 8 | 7.1 | 4 | | | |
| **NGAm 3C** | **NGA 3C** | 1.5 | 2 | | | | 15 | - | 14.5 | 13.8 | 12.8 | 11.6 | 10.9 | 10.1 | 7.1 | 5.2 | | |
| **NGAm 3B** | **NGA 3B** | 1.8 | 2.5 | | | | 17.2 | - | 16.7 | 16 | 15.2 | 14.2 | 13.6 | 12.9 | 10.2 | 8.4 | 6.5 | |
| **NGAm 3A** | **NGA 3A** | 2.2 | 3 | | | | 19.5 | - | 18.8 | 18.1 | 17.4 | 16.4 | 15.8 | 15.2 | 12.8 | 11.1 | 9.4 | 8 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

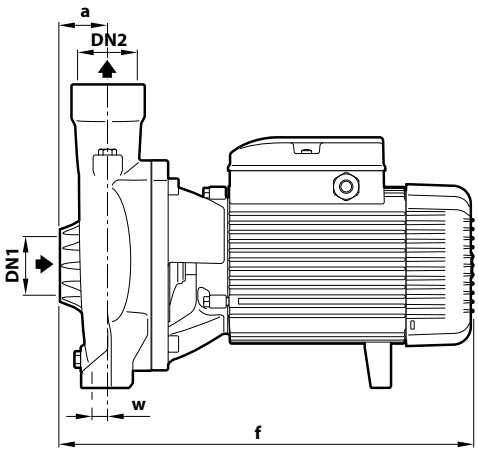
# NGA

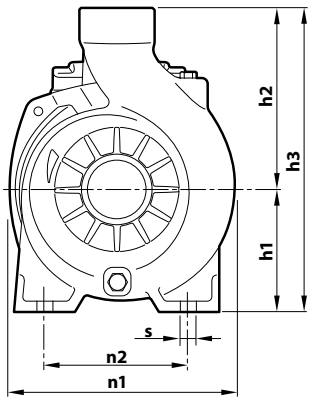
## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-phase | 220 V | 110 V |
| NGAm 1B | 5.3 A | 10.6 A |
| NGAm 1A | 6.2 A | 12.4 A |
| NGAm 2B | 4.3 A | 8.6 A |
| NGAm 2A | 4.7 A | 9.4 A |
| NGAm 3D | 7.0 A | – |
| NGAm 3C | 9.5 A | – |
| NGAm 3B | 11.0 A | – |
| NGAm 3A | 13.0 A | – |

| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 220 V - Δ | 380 V - Y |
| NGA 1B | 3.4 A | 2.0 A |
| NGA 1A | 3.9 A | 2.3 A |
| NGA 2B | 2.7 A | 1.6 A |
| NGA 2A | 3.0 A | 1.7 A |
| NGA 3D | 4.8 A | 2.8 A |
| NGA 3C | 6.0 A | 3.5 A |
| NGA 3B | 7.2 A | 4.2 A |
| NGA 3A | 8.4 A | 4.9 A |

## DIMENSIONS AND WEIGHT



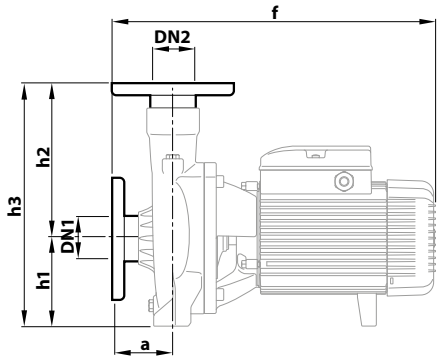




WITH THREADED PORTS

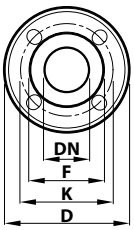
| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN1 | DN2 | a | f | h1 | h2 | h3 | n1 | n2 | w | s | 1~ | 3~ |
| NGAm 1B | NGA 1B | 1½" | 1½" | 40 | 299 | 92 | 135 | 227 | 190 | 160 | 6 | 11 | 12.6 | 12.6 |
| NGAm 1A | NGA 1A | | | | | | | | | | | | 12.7 | 12.6 |
| NGAm 2B | NGA 2B | | | 32 | | | | | | | | | 12.7 | 12.6 |
| NGAm 2A | NGA 2A | | | | | | | | | | | | 12.7 | 12.6 |
| NGAm 3D | NGA 3D | 2" | 2" | 48 | 387 | 120 | 178 | 298 | 217 | 140 | 18 | 11.5 | 22.0 | 21.2 |
| NGAm 3C | NGA 3C | | | | | | | | | | | | 22.9 | 22.9 |
| NGAm 3B | NGA 3B | | | | 407 | | | | | | | | 25.4 | 25.5 |
| NGAm 3A | NGA 3A | | | | | | | | | | | | 25.5 | 25.5 |

WITH FLANGED PORTS

| TYPE | | PORTS | | DIMENSIONS mm | | | | |
|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN1 | DN2 | a | f | h1 | h2 | h3 |
| NGAm 1B | NGA 1B | 40 | 40 | 60 | 334 | 92 | 156 | 248 |
| NGAm 1A | NGA 1A | | | | | | | |
| NGAm 2B | NGA 2B | | | 52 | 342 | | | |
| NGAm 2A | NGA 2A | | | | | | | |
| NGAm 3D | NGA 3D | 50 | 50 | 70 | 408 | 120 | 200 | 320 |
| NGAm 3C | NGA 3C | | | | | | | |
| NGAm 3B | NGA 3B | | | | 428 | | | |
| NGAm 3A | NGA 3A | | | | | | | |




| FLANGE | D | K | F | HOLES | |
|---|---|---|---|---|---|
| DN | mm | mm | mm | N° | Ø (mm) |
| 40 | 150 | 110 | 78 | 4 | 18 |
| 50 | 165 | 125 | 99 | 4 | 18 |



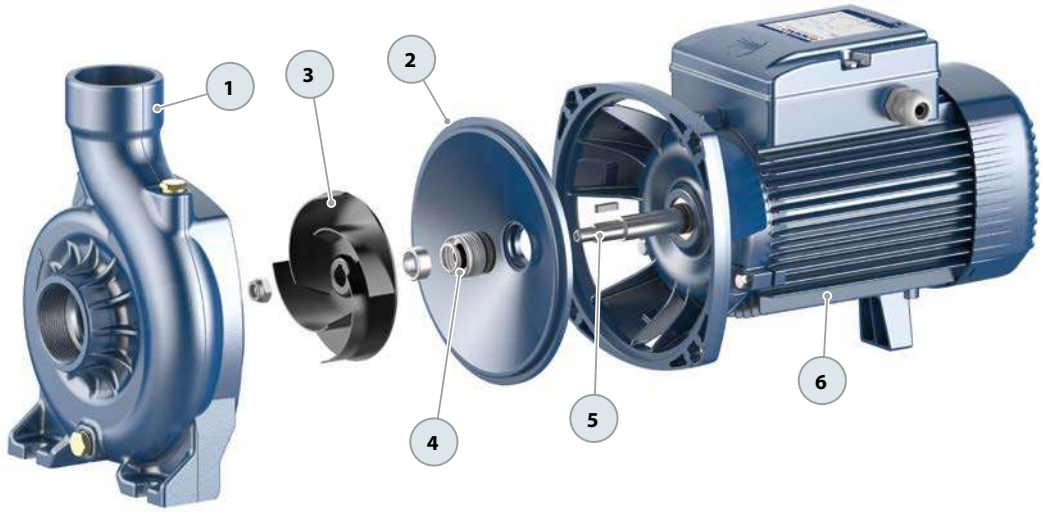
## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron JL 250 with cataphoresis treatment with ISO 228/1 threaded ports |
| 2 | **Cover** | Cast iron JL 200 for NGA3<br>**AISI 304** stainless steel for NGA1 and NGA2 |
| 3 | **Impeller** | Open impeller cast iron |

**4 Mechanical seal**

| Water pump | Seal | Shaft | Materials |
|---|---|---|---|
| NGA1<br>NGA2 | **AR-14** | Ø 14 mm | Ceramic / Graphite / NBR |
| NGA3 | **FN-18** | Ø 18 mm | Graphite / Ceramic / NBR |

| | | |
|---|---|---|
| 5 | **Motor shaft** | Stainless steel **AISI 431** |
| 6 | **Electric motor** | **NGAm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection<br>**NGA**: three-phase 220/380 V - 60 Hz<br>– The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)<br>– Continuous running duty **S1** |



# NGA-PRO Stainless steel pumps with open impeller

Civil use

Agricultural use

Industrial use

※ **Pump entirely made of AISI316 stainless steel**



## PERFORMANCE RANGE

- Flow rate up to **850 l/min** (51 m³/h)
- Head up to **20.5 m**

## INSTALLATION AND USE

Designed to transfer liquids that will not damage the pump's components, NGA-PRO pumps feature an open impeller design. This allows them to efficiently handle impurity-laden fluids without clogging, making them ideal for various applications including transfers from channels, rivers, tanks, basins, and more.

All components in contact with pumped liquids are constructed from **AISI 316** stainless steel.

NGA-PRO pumps are particularly suitable for pumping non-entirely clean liquids, facilitating the movement of solid particles up to **20 mm** in size.

## APPLICATION LIMITS

- Manometric suction head up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Maximum working pressure:
  - **6 bar** for NGA1-PRO and NGA2-PRO
  - **10 bar** for NGA3-PRO
- Passing solid in suspension up to:
  - **Ø 12 mm** for NGA1-PRO and NGA2-PRO
  - **Ø 20 mm** for NGA3-PRO

## AVAILABLE UPON REQUEST

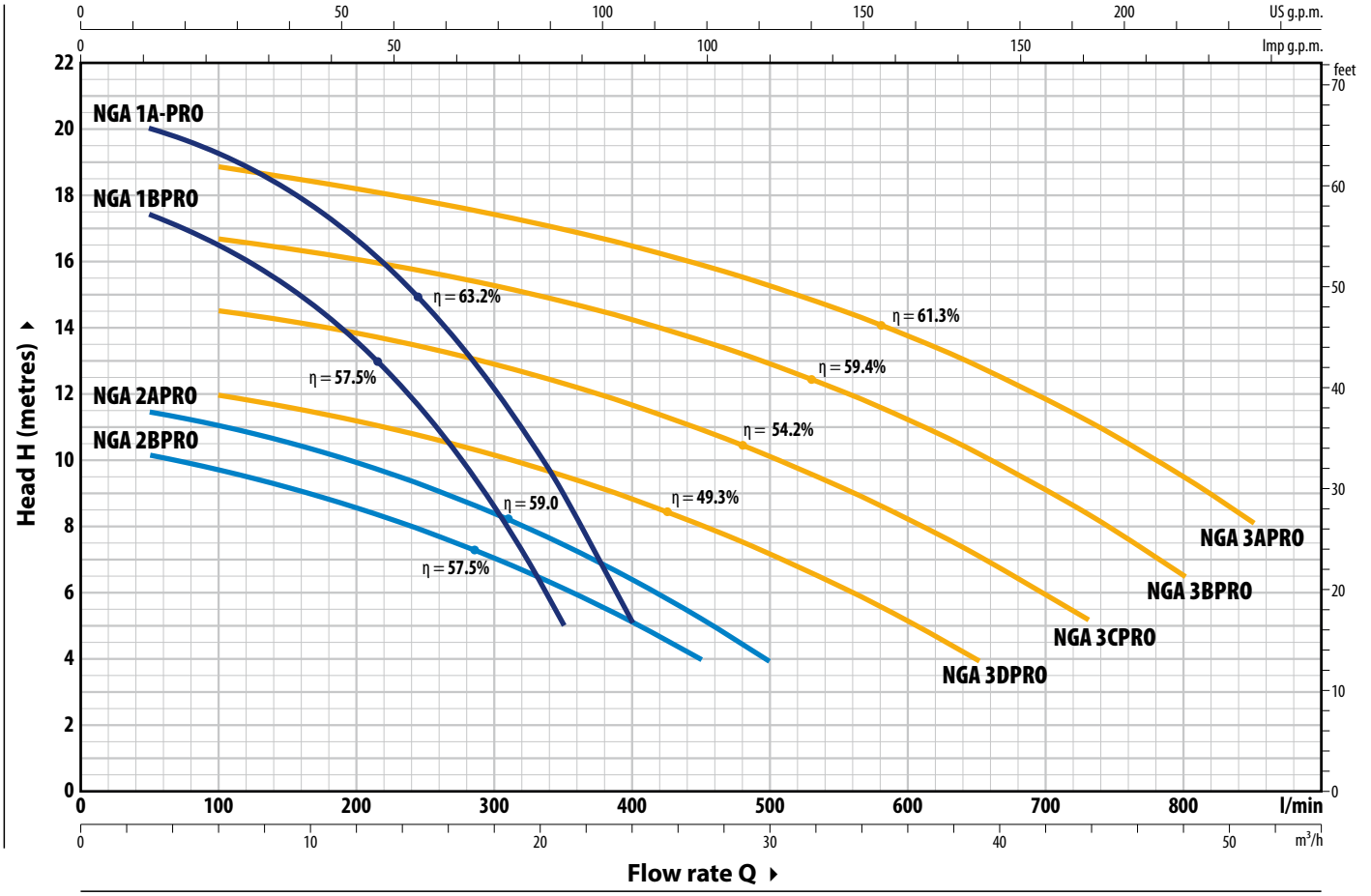
※ Mechanical seal options available
※ Standardised mechanical seal with anti-rotation (NGA3-PRO)
※ Pump body with NPT threaded ports ANSI B 1.20.1
※ On request up to **110 °C**
※ **IP X5** protection for **NGA 3-PRO**
※ Different voltage or frequency

※ ISO 228/1 standard flanges for suction and discharge openings, made of AISI 304 stainless steel



## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | **3~** | | l/min | **0** | **50** | **100** | **150** | **200** | **250** | **300** | **350** | **400** |
| **NGAm 1B - PRO** | **NGA 1B - PRO** | 0.55 | 0.75 | **IE3** | **H** | m | 18 | 17.4 | 16.4 | 15.2 | 13.5 | 11.3 | 8.7 | 5 | |
| **NGAm 1A - PRO** | **NGA 1A - PRO** | 0.75 | 1 | | | | 20.5 | 20 | 19.3 | 18.1 | 16.6 | 14.7 | 12.1 | 9 | 5 |

| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 3 | 6 | 12 | 18 | 24 | 27 | 30 | 39 | 43,8 | 48 | 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | **3~** | | l/min | **0** | **50** | **100** | **200** | **300** | **400** | **450** | **500** | **650** | **730** | **800** | **850** |
| **NGAm 2B - PRO** | **NGA 2B - PRO** | 0.55 | 0.75 | **IE3** | **H** | m | 10.5 | 10.1 | 9.6 | 8.5 | 7 | 5.1 | 4 | | | | | |
| **NGAm 2A - PRO** | **NGA 2A - PRO** | 0.75 | 1 | | | | 11.8 | 11.4 | 11 | 9.9 | 8.4 | 6.4 | 5.2 | 4 | | | | |
| **NGAm 3D - PRO** | **NGA 3D - PRO** | 1.1 | 1.5 | | | | 12.5 | - | 12 | 11.2 | 10.1 | 8.8 | 8 | 7.1 | 4 | | | |
| **NGAm 3C - PRO** | **NGA 3C - PRO** | 1.5 | 2 | | | | 15 | - | 14.5 | 13.8 | 12.8 | 11.6 | 10.9 | 10.1 | 7.1 | 5.2 | | |
| **NGAm 3B - PRO** | **NGA 3B - PRO** | 1.8 | 2.5 | | | | 17.2 | - | 16.7 | 16 | 15.2 | 14.2 | 13.6 | 12.9 | 10.2 | 8.4 | 6.5 | |
| **NGAm 3A - PRO** | **NGA 3A - PRO** | 2.2 | 3 | | | | 19.5 | - | 18.8 | 18.1 | 17.4 | 16.4 | 15.8 | 15.2 | 12.8 | 11.1 | 9.4 | 8 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

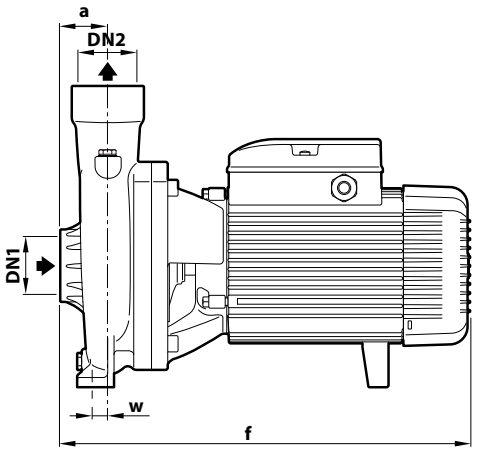
# NGA-PRO

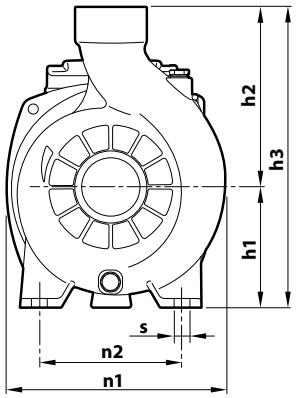
## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-phase | 220 V | 110 V |
| NGAm 1B - PRO | 5.3 A | 10.6 A |
| NGAm 1A - PRO | 6.2 A | 13.0 A |
| NGAm 2B - PRO | 4.3 A | 8.6 A |
| NGAm 2A - PRO | 4.7 A | 9.4 A |
| NGAm 3D - PRO | 7.0 A | – |
| NGAm 3C - PRO | 9.5 A | – |
| NGAm 3B - PRO | 11.0 A | – |
| NGAm 3A - PRO | 13.0 A | – |

| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 220 V - Δ | 380 V - Y |
| NGA 1B - PRO | 3.4 A | 2.0 A |
| NGA 1A - PRO | 3.9 A | 2.3 A |
| NGA 2B - PRO | 2.7 A | 1.6 A |
| NGA 2A - PRO | 3.0 A | 1.7 A |
| NGA 3D - PRO | 4.8 A | 2.8 A |
| NGA 3C - PRO | 6.0 A | 3.5 A |
| NGA 3B - PRO | 7.2 A | 4.2 A |
| NGA 3A - PRO | 8.4 A | 4.9 A |

## DIMENSIONS AND WEIGHT



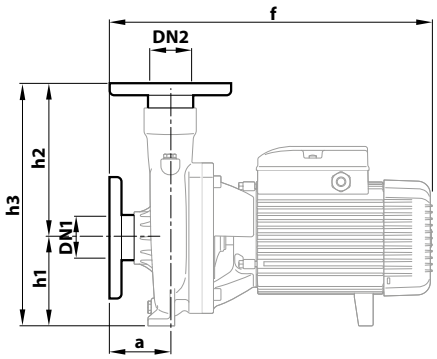




※ WITH THREADED PORTS

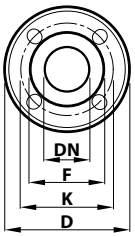
| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN1 | DN2 | a | f | h1 | h2 | h3 | n1 | n2 | w | s | 1~ | 3~ |
| NGAm 1B - PRO | NGA 1B - PRO | 1½" | 1½" | 40 | 299 | 92 | 135 | 227 | 190 | 160 | 6 | 11 | 12.7 | 12.7 |
| NGAm 1A - PRO | NGA 1A - PRO | | | | | | | | | | | | 12.7 | 12.7 |
| NGAm 2B - PRO | NGA 2B - PRO | | | 32 | | | | | | | | | 12.7 | 12.7 |
| NGAm 2A - PRO | NGA 2A - PRO | | | | | | | | | | | | 12.7 | 12.7 |
| NGAm 3D - PRO | NGA 3D - PRO | 2" | 2" | 48 | 387 | 120 | 178 | 298 | 217 | 140 | 18 | 11.5 | 22.0 | 21.2 |
| NGAm 3C - PRO | NGA 3C - PRO | | | | | | | | | | | | 22.9 | 22.9 |
| NGAm 3B - PRO | NGA 3B - PRO | | | | 407 | | | | | | | | 25.4 | 25.5 |
| NGAm 3A - PRO | NGA 3A - PRO | | | | | | | | | | | | 25.5 | 25.5 |

※ WITH FLANGED PORTS

| TYPE | | PORTS | | DIMENSIONS mm | | | | |
|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN1 | DN2 | a | f | h1 | h2 | h3 |
| NGAm 1B - PRO | NGA 1B - PRO | 40 | 40 | 60 | 334 | 92 | 156 | 248 |
| NGAm 1A - PRO | NGA 1A - PRO | | | | | | | |
| NGAm 2B - PRO | NGA 2B - PRO | | | 52 | 342 | | | |
| NGAm 2A - PRO | NGA 2A - PRO | | | | | | | |
| NGAm 3D - PRO | NGA 3D - PRO | 50 | 50 | 70 | 408 | 120 | 200 | 320 |
| NGAm 3C - PRO | NGA 3C - PRO | | | | | | | |
| NGAm 3B - PRO | NGA 3B - PRO | | | | 428 | | | |
| NGAm 3A - PRO | NGA 3A - PRO | | | | | | | |




| FLANGE | D | K | F | HOLES | |
|---|---|---|---|---|---|
| DN | mm | mm | mm | N° | Ø (mm) |
| 40 | 150 | 110 | 78 | 4 | 18 |
| 50 | 165 | 125 | 99 | 4 | 18 |



## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Stainless steel **AISI 316** with ISO 228/1 threaded ports |
| 2 | **Cover** | Stainless steel **AISI 316** |
| 3 | **Impeller** | Open impeller in **AISI 316** stainless steel |

**4 Mechanical seal**

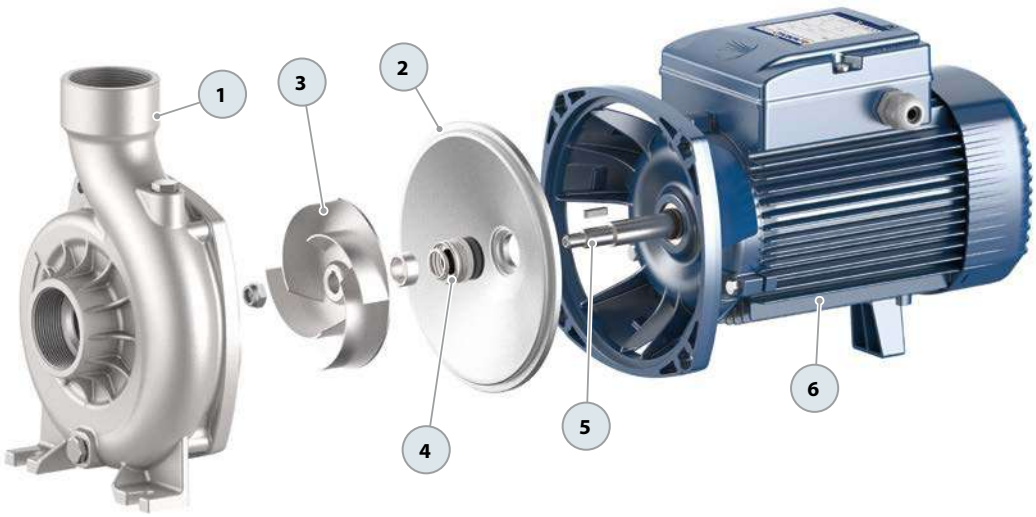
| Water pump | Seal | Shaft | Materials |
|---|---|---|---|
| NGA1-PRO<br>NGA2-PRO | **AR-14S** | Ø 14 mm | Ceramic / Graphite / Viton |
| NGA3-PRO | **FN-18 V6** | Ø 18 mm | Graphite / Ceramic / Viton |

**5 Motor shaft** Stainless steel **AISI 316L**

**6 Electric motor**

**NGAm-PRO**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection
**NGA-PRO**: three-phase 220/380 V - 60 Hz

– The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)
– Continuous running duty **S1**



# HF Centrifugal pumps

Medium flow range

Clean water

Agricultural use

Industrial use



## PERFORMANCE RANGE

- Flow rate up to **700 l/min** (42 m³/h)
- Head up to **38 m**

## INSTALLATION AND USE

Designed for civil and agricultural use.

Their high-efficiency levels and capability for continuous operation make them an ideal choice for furrow and sprinkler irrigation, in addition to drawing water from lakes, rivers, and wells. They are also suitable for a wide range of industrial applications that require substantial flow rates at medium-low head pressures.

## APPLICATION LIMITS

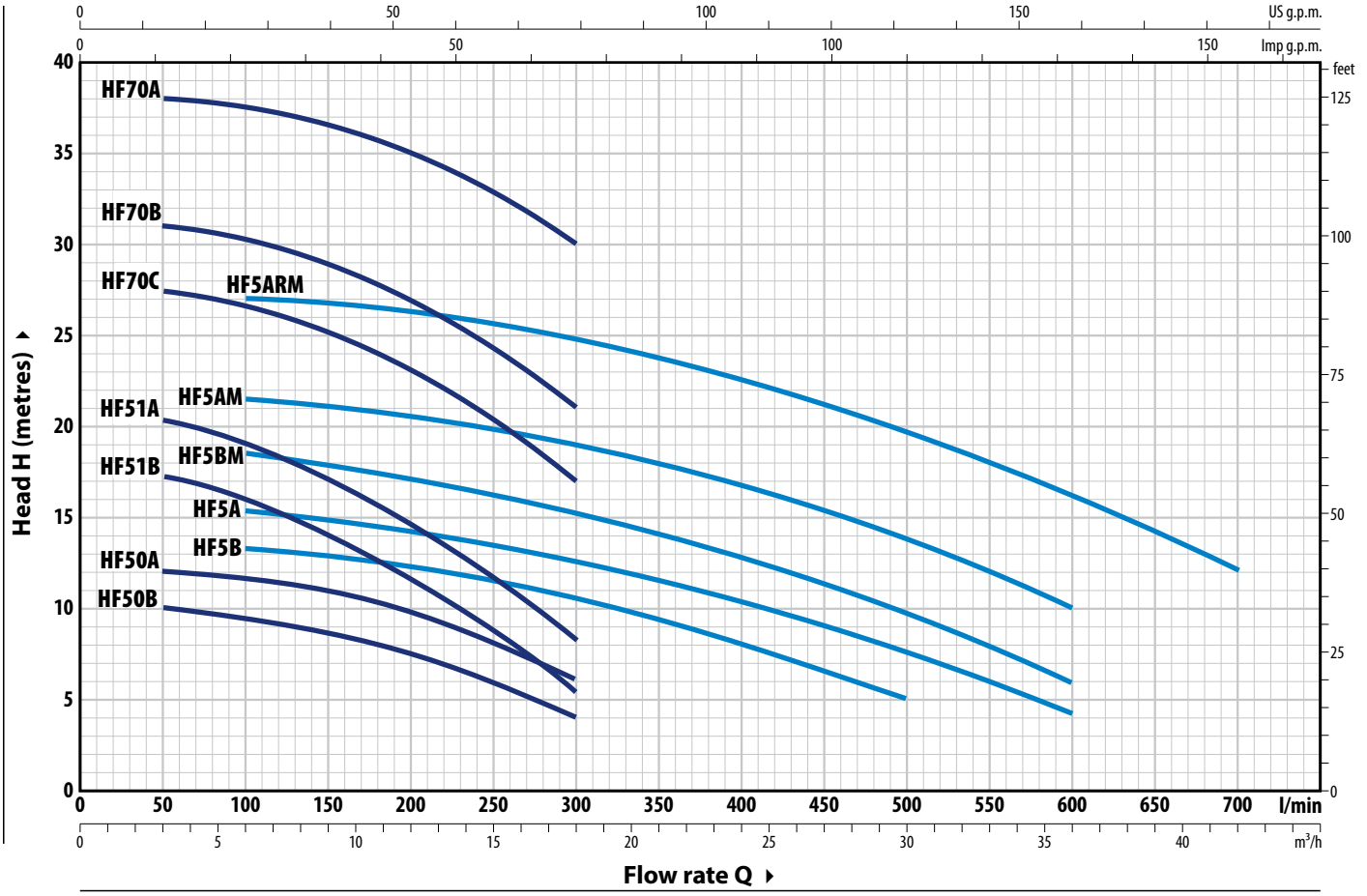
- Manometric suction head up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure:
  - **6 bar** for HF 5-50-51
  - **10 bar** for HF 5M-70

## AVAILABLE UPON REQUEST

※ Mechanical seal options available
※ Different voltage or frequency
※ IP X5 protection for HF 5M-70

## CURVES AND PERFORMANCE DATA – HS=0 m

## 60 Hz




| MODEL | | POWER (P2) | | | Q m³/h | 0 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 30 | 36 | 42 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | **3~** | l/min | **0** | **50** | **100** | **150** | **200** | **250** | **300** | **350** | **400** | **500** | **600** | **700** |
| **HFm 50B** | **HF 50B** | 0.37 | 0.50 | **IE2** | | 10 | 10 | 9.5 | 8.5 | 7.5 | 6 | 4 | | | | | |
| **HFm 50A** | **HF 50A** | 0.55 | 0.75 | | | 12 | 12 | 11.5 | 11 | 9.6 | 8 | 6 | | | | | |
| **HFm 51B** | **HF 51B** | 0.60 | 0.85 | | | 18.2 | 17.2 | 16 | 14 | 11.5 | 9 | 5.4 | | | | | |
| **HFm 51A** | **HF 51A** | 0.75 | 1 | | | 21.2 | 20.2 | 19 | 17 | 14.5 | 11.6 | 8.4 | | | | | |
| **HFm 70C** | **HF 70C** | 1.1 | 1.5 | **IE3** | | 27.5 | 27.5 | 26.5 | 25.1 | 23 | 20.3 | 17 | | | | | |
| **HFm 70B** | **HF 70B** | 1.5 | 2 | | | 31 | 31 | 30.1 | 28.8 | 26.8 | 24.2 | 21 | | | | | |
| – | **HF 70A** | 2.2 | 3 | | **H** m | 38 | 38 | 37.5 | 36.5 | 35 | 32.8 | 30 | | | | | |
| **HFm 5B** | **HF 5B** | 0.75 | 1 | | | 13.7 | – | 13.2 | 13 | 12.5 | 11.6 | 10.5 | 9.2 | 8 | 5 | | |
| **HFm 5A** | **HF 5A** | 1.1 | 1.5 | | | 16 | – | 15.4 | 14.9 | 14.2 | 13.5 | 12.6 | 11.5 | 10.4 | 7.6 | 4.3 | |
| **HFm 5BM** | **HF 5BM** | 1.1 | 1.5 | **IE3** | | 19 | – | 18.5 | 18 | 17 | 16 | 15.2 | 14 | 12.8 | 9.7 | 6 | |
| **HFm 5AM** | **HF 5AM** | 1.5 | 2 | | | 22 | – | 21.5 | 21 | 20.5 | 19.8 | 19 | 18 | 16.8 | 13.8 | 10 | |
| **HFm 5ARM** | **HF 5ARM** | 2.2 | 3 | | | 27 | – | 27 | 26.8 | 26.4 | 25.6 | 24.8 | 23.8 | 22.5 | 19.8 | 16.2 | 12 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

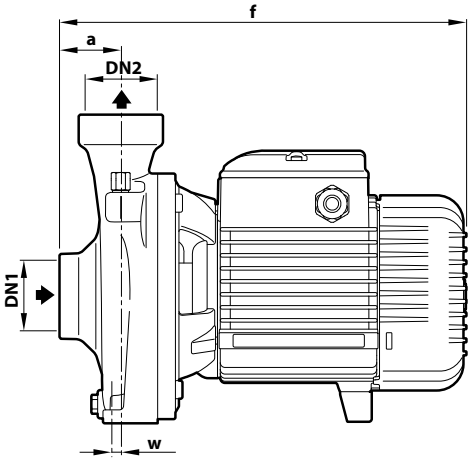
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

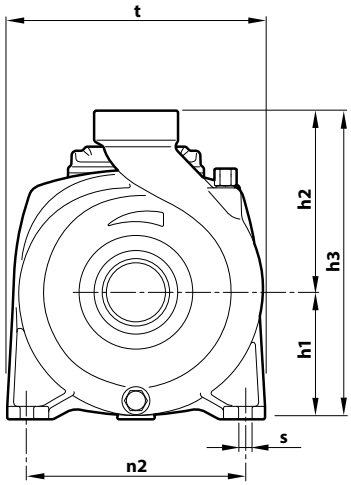
## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-ph. | 220 V | 110 V |
| HFm 50B | 2.5 A | 5.0 A |
| HFm 50A | 3.9 A | 7.8 A |
| HFm 51B | 4.6 A | 9.2 A |
| HFm 51A | 5.7 A | 11.4 A |
| HFm 70C | 8.0 A | – |
| HFm 70B | 9.5 A | – |
| HFm 5B | 6.1 A | 12.2 A |
| HFm 5A | 6.5 A | – |
| HFm 5BM | 7.4 A | – |
| HFm 5AM | 10.2 A | – |
| HFm 5ARM | 13.0 A | – |

| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| Three-ph. | 220 V - Δ | 380 V - Y | 220 V - Δ | 440 V - Y |
| HF 50B | 1.9 A | 1.1 A | 2.0 A | 1.2 A |
| HF 50A | 3.3 A | 1.9 A | 3.5 A | 2.0 A |
| HF 51B | 4.2 A | 2.4 A | 3.1 A | 1.8 A |
| HF 51A | 4.4 A | 2.6 A | 4.2 A | 2.3 A |
| HF 70C | 5.7 A | 3.3 A | 4.5 A | 2.6 A |
| HF 70B | 7.4 A | 4.3 A | 6.0 A | 3.5 A |
| HF 70A | 10.4 A | 6.0 A | 9.0 A | 5.0 A |
| HF 5B | 4.2 A | 2.4 A | 3.5 A | 2.0 A |
| HF 5A | 4.8 A | 2.8 A | 4.0 A | 2.2 A |
| HF 5BM | 5.9 A | 3.4 A | 4.8 A | 2.8 A |
| HF 5AM | 9.6 A | 5.6 A | 6.0 A | 3.4 A |
| HF 5ARM | 10.0 A | 5.8 A | 7.5 A | 4.3 A |

## DIMENSIONS AND WEIGHT




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN1 | DN2 | a | f | h1 | h2 | h3 | t | n2 | w | s | 1~ | 3~ |
| HFm 50B | HF 50B | 1½" | 1½" | 42 | 270 | 82 | 118 | 200 | 166 | 135 | -8 | 10 | 8.1 | 8.1 |
| HFm 50A | HF 50A | | | | | | | | | | | | 8.9 | 8.2 |
| HFm 51B | HF 51B | | | 45 | 303 | 92 | 133 | 225 | 190 | 160 | 2 | | 12.9 | 12.7 |
| HFm 51A | HF 51A | | | | | | | | | | | | 13.2 | 13.2 |
| HFm 70C | HF 70C | | | 48.5 | 373 | 114 | 155 | 269 | 216 | 171 | 12 | 12 | 20.0 | 20.0 |
| HFm 70B | HF 70B | | | | | | | | | | | | 21.5 | 21.5 |
| – | HF 70A | | | | 393 | | | | | | | | – | 24.3 |
| HFm 5B | HF 5B | 2" | 2" | 43 | 316 | 97 | 141 | 238 | 192 | 160 | -68 | 10 | 14.1 | 14.1 |
| HFm 5A | HF 5A | | | | | | | | | | | | 15.1 | 14.1 |
| HFm 5BM | HF 5BM | | | 59 | 386 | 110 | 150 | 260 | 208 | | 12.5 | 11 | 20.3 | 20.3 |
| HFm 5AM | HF 5AM | | | | | | | | | | | | 21.8 | 21.8 |
| HFm 5ARM | HF 5ARM | | | | 406 | | | | | | | | 24.6 | 24.6 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with ISO 228/1 threaded ports |
| 2 | **Cover** | Stainless steel **AISI 304** (cast iron for HF 5M-70) |
| 3 | **Impeller** | Stainless steel **AISI 304** HF50, HF51, HF70, HF5ARM |

**4 Mechanical seal**

| Water pump | Seal | Shaft | Materials |
|---|---|---|---|
| HF 50 | **AR-12** | Ø 12 mm | Ceramic / Graphite / NBR |
| HF 5-51 | **AR-14** | Ø 14 mm | Ceramic / Graphite / NBR |
| HF 5M-70 | **FN-18** | Ø 18 mm | Graphite / Ceramic / NBR |

| | | |
|---|---|---|
| 5 | **Motor shaft** | Stainless steel **AISI 431** |

**6 Electric motor**

**HFm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection
**HF**: three-phase 220/380 V - 60 Hz or 220/240 V - 60 Hz

– The three-phase pumps are fitted with high performance motors up to $P_2$=0.55 kW in class IE2 and from $P_2$=0.60 kW in class IE3 (IEC 60034-30-1)
– Continuous running duty S1



# HF Centrifugal pumps

High flow rates

Clean water

Agricultural use

Industrial use



## PERFORMANCE RANGE

- Flow rate up to **2400 l/min** (144 m³/h)
- Head up to **24.5 m**

## INSTALLATION AND USE

Designed for civil and agricultural use.

Their high-efficiency levels and capability for continuous operation make them an ideal choice for furrow and sprinkler irrigation, in addition to drawing water from lakes, rivers, and wells. They are also suitable for a wide range of industrial applications that require substantial flow rates at medium-low head pressures.

## APPLICATION LIMITS

- Manometric suction head up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure:
  - **6 bar** for HF 4
  - **10 bar** for HF 6-8-20-30

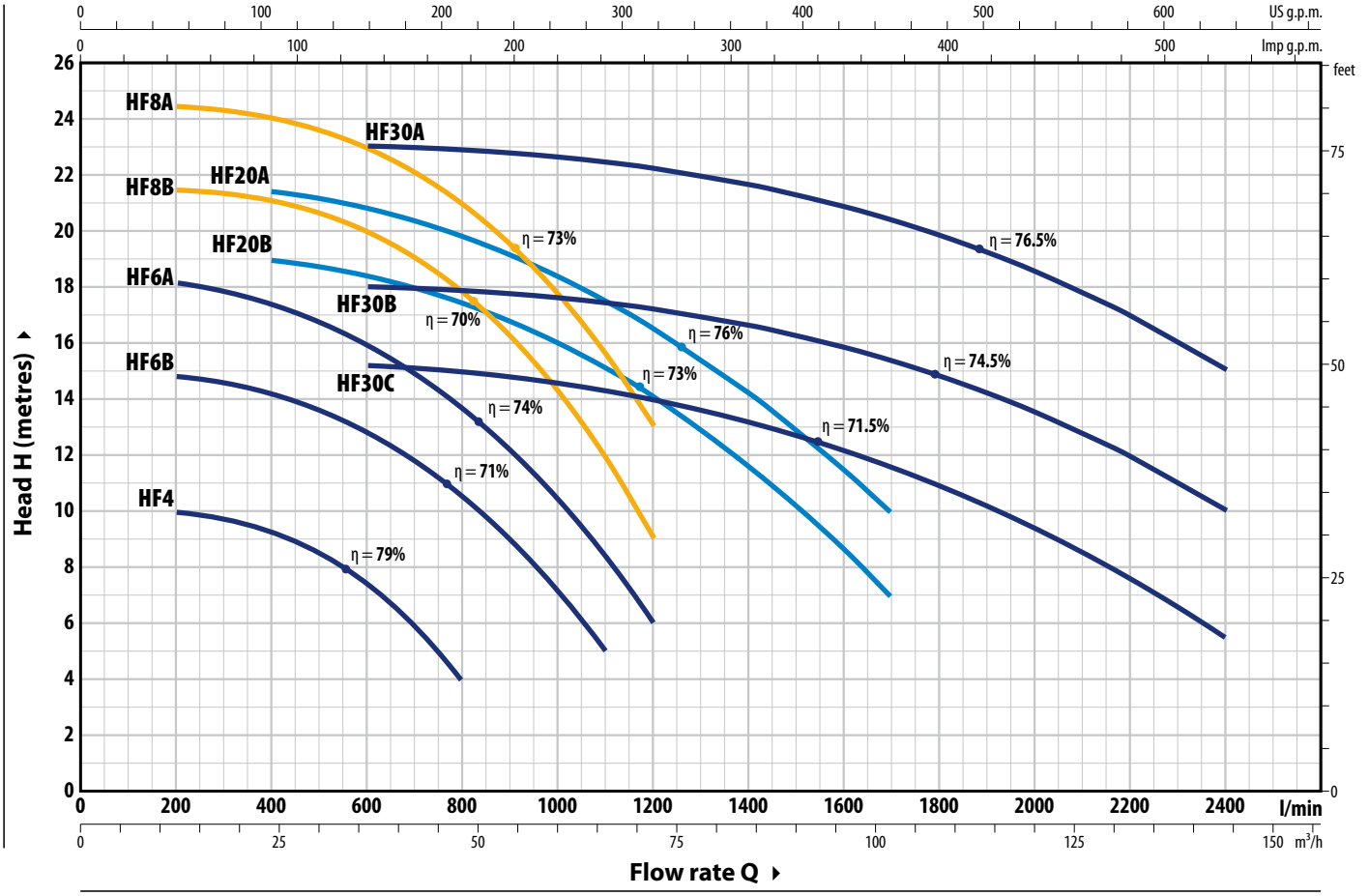
## AVAILABLE UPON REQUEST

※ Mechanical seal options available

※ Different voltage or frequency

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| MODEL | | POWER (P2) | | | Q | m³/h | 0 | 12 | 24 | 36 | 48 | 60 | 66 | 72 | 87 | 102 | 114 | 129 | 144 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | kW | HP | ▲ | | l/min | **0** | **200** | **400** | **600** | **800** | **1000** | **1100** | **1200** | **1450** | **1700** | **1900** | **2150** | **2400** |
| **HFm 4** | **HF 4** | 0.75 | 1 | IE3 | H | m | 10 | 10 | 9.3 | 7.4 | 4 | | | | | | | | |
| **HFm 6B** | **HF 6B** | 1.5 | 2 | | | | 14.8 | 14.8 | 14.2 | 12.8 | 10.5 | 7.2 | 5 | | | | | | |
| **HFm 6A** | **HF 6A** | 2.2 | 3 | | | | 18.5 | 18.1 | 17.4 | 16 | 13.7 | 10.4 | 8.4 | 6 | | | | | |
| – | **HF 8B** | 3 | 4 | | | | 21.5 | 21.5 | 21.1 | 20 | 17.8 | 14.3 | 11.9 | 9 | | | | | |
| – | **HF 8A** | 4 | 5.5 | | | | 24.5 | 24.5 | 24.1 | 23 | 21 | 17.7 | 15.6 | 13 | | | | | |
| – | **HF 20B** | 3 | 4 | | | | 19 | – | 19 | 18.4 | 17.5 | 16.1 | 15.2 | 14.2 | 11 | 7 | | | |
| – | **HF 20A** | 4 | 5.5 | | | | 21.5 | – | 21.5 | 20.9 | 19.9 | 18.5 | 17.6 | 16.6 | 13.7 | 10 | | | |
| – | **HF 30C** | 4 | 5.5 | | | | 15.5 | – | – | 15.2 | 15.0 | 14.5 | 14.3 | 14.0 | 13.0 | 11.6 | 10.2 | 8.0 | 5.5 |
| – | **HF 30B** | 5.5 | 7.5 | | | | 18 | – | – | 18 | 17.9 | 17.6 | 17.4 | 17.2 | 16.4 | 15.3 | 14.2 | 12.3 | 10 |
| – | **HF 30A** | 7.5 | 10 | | | | 23 | – | – | 23 | 22.9 | 22.6 | 22.4 | 22.2 | 21.4 | 20.4 | 19.2 | 17.3 | 15 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

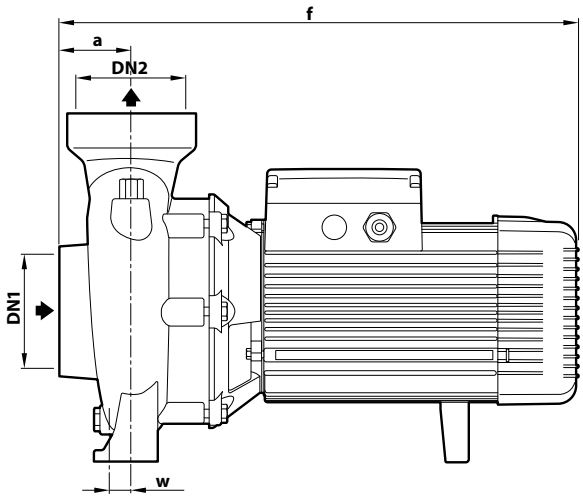
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

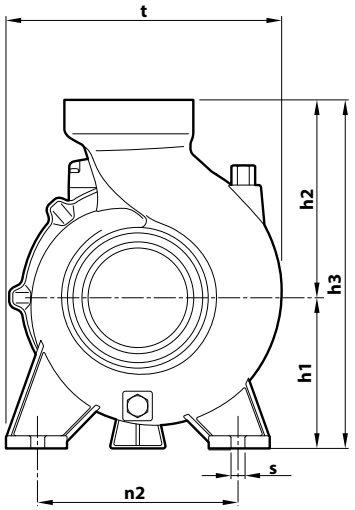
## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-ph. | 220 V | 110 V |
| HFm 4 | 5.8 A | 11.6 A |
| HFm 6B | 12.0 A | – |
| HFm 6A | 13.0 A | – |

| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| Three-ph. | 220 V - Δ | 380 V - Y | 220 V - Δ | 440 V - Y |
| HF 4 | 4.5 A | 2.6 A | 3.8 A | 2.1 A |
| HF 6B | 7.8 A | 4.5 A | 6.9 A | 4.1 A |
| HF 6A | 9.5 A | 5.5 A | 8.5 A | 4.8 A |
| HF 8B | 12.0 A | 7.0 A | 12.1 A | 6.5 A |
| HF 8A | 18.2 A | 10.5 A | 18.5 A | 12.0 A |
| HF 30C | 16.4 A | 9.5 A | 13.8 A | 8.0 A |
| HF 20B | 19.4 A | 11.2 A | 17.3 A | 10.3 A |
| HF 20A | 19.9 A | 11.5 A | 17.3 A | 10.3 A |
| HF 30B | 22.5 A | 13.0 | 20.1 A | 11.8 A |
| HF 30A | 28.8 A | 16.6 A | 26.0 A | 16.0 A |

## DIMENSIONS AND WEIGHT




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN1 | DN2 | a | f | h1 | h2 | h3 | t | n2 | w | s | 1~ | 3~ |
| HFm 4 | HF 4 | 2½" | 2½" | 47 | 317 | 97 | 143 | 240 | 198 | 155 | -63 | 10 | 14.5 | 14.5 |
| HFm 6B | HF 6B | 3" | 3" | 68 | 408 | 120 | 190 | 310 | 240 | 178 | 5 | 12 | 26.8 | 26.8 |
| HFm 6A | HF 6A | | | | 428 | | | | | | | | 29.6 | 29.6 |
| – | HF 8B | 4" | 4" | 71 | 474 | 132 | 180 | 312 | 245 | 190 | 27 | 14 | – | 37.6 |
| – | HF 8A | | | | | | | | | | | | – | 41.0 |
| – | HF 20B | | | | 479 | | | | 255 | | | | – | 37.6 |
| – | HF 20A | | | | | | | | | | | | – | 41.0 |
| – | HF 30C | | | 96.5 | 517 | 160 | 210 | 370 | 292 | 212 | 27 | 14 | – | 53.4 |
| – | HF 30B | | | 76.5 | 497 | | | | | | | | – | 52.0 |
| – | HF 30A | | | | 547 | | | | | | | | – | 58.0 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with ISO 228/1 threaded ports |
| 2 | **Cover** | Cast iron (**AISI 304** stainless steel for HF 4) |
| 3 | **Impeller** | Stainless Steel **AISI 304** for HF 4-6<br>Brass for HF 8<br>Cast iron for HF 20, HF 30 |

**4 Mechanical seal**

| Water pump | Seal | Shaft | Materials |
|---|---|---|---|
| HF 4 | **AR-14** | Ø 14 mm | Ceramic / Graphite / NBR |
| HF 6 | **FN-18** | Ø 18 mm | Graphite / Ceramic / NBR |
| HF 8, HF 20 | **FN-20** | Ø 20 mm | Graphite / Ceramic / NBR |
| HF 30 | **FN-24** | Ø 24 mm | Graphite / Ceramic / NBR |

| | | |
|---|---|---|
| 5 | **Motor shaft** | Stainless steel **AISI 431** |
| 6 | **Electric motor** | **HFm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection<br>**HF**: three-phase 220/380 V - 60 Hz or 220/240 V - 60 Hz.<br>– The three-phase pump is fitted with a high performance motor in class IE3 (IEC 60034-30-1)<br>– Continuous running duty S1 |



Clean water
Civil use
Industrial use



## PERFORMANCE RANGE

- Flow rate up to **5750 l/min** (345 m³/h)
- Head up to **98 m**
- Power from **1.5** to **75 kW**

## INSTALLATION AND USE

Close-coupled centrifugal electric pumps with flanges constructed according to the EN733 standard.

- For clean water free from abrasive particles and liquids that will not damage the pump's components
- Water supply
- Pressurization
- Irrigation
- Water circulation in air conditioning systems
- Power washing systems
- Firefighting systems
- Industrial applications
- Agriculture applications

Installation should be carried out in well-ventilated indoor or protected areas.

## ELECTRIC MOTOR

The three-phase pumps are equipped with newly developed electric motors designed to work with inverters, which guarantee stable and quiet operation.

Efficiency class **IE3** for three-phacse motors, **IE2** for single-phase motors, class F insulation and IP55 protection.

## APPLICATION LIMITS

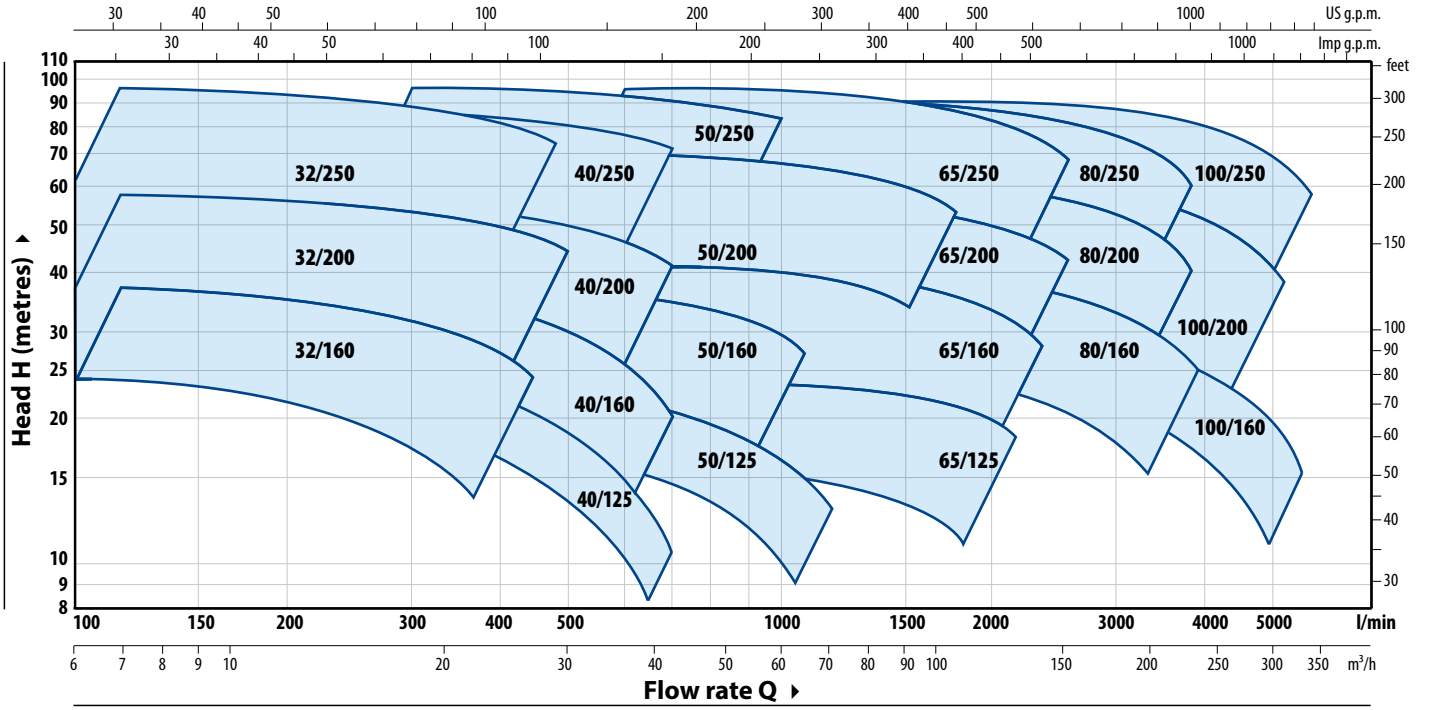
- Manometric suction head up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Maximum pressure in the pump body **10 bar** (PN10)

## AVAILABLE UPON REQUEST

※ Mechanical seal options available
※ Different voltage or frequency
※ Handling of liquids with higher or lower temperatures
※ Adaptability to operate in high or low temperature environments
※ Counterflange KIT including screws, nuts and gasketsg



## PERFORMANCE RANGE – n= 3450 min$^{-1}$ 60 Hz




## PERFORMANCE DATA – n= 3450 min$^{-1}$ 60 Hz

| TYPE | POWER (P2) | | PERFORMANCE | |
|---|---|---|---|---|
| | kW | HP | Q l/min | H metres |
| F 32/160C | 1.5 | 2 | 100 – 350 | 24 – 14 |
| F 32/160B | 2.2 | 3 | 100 – 400 | 30 – 17 |
| F 32/160A | 3 | 4 | 100 – 450 | 37 – 24 |
| F 32/200C | 4 | 5.5 | 100 – 450 | 44 – 31.5 |
| F 32/200B | 5.5 | 7.5 | 100 – 500 | 51 – 36 |
| F 32/200A | 7.5 | 10 | 100 – 500 | 57 – 44 |
| F 32/200BH | 3 | 4 | 100 – 300 | 45 – 37 |
| F 32/200AH | 4 | 5.5 | 100 – 320 | 55 – 44 |
| F 32/250C | 9.2 | 12.5 | 100 – 450 | 75 – 60 |
| F 32/250B | 11 | 15 | 100 – 500 | 87 – 70 |
| F 32/250A | 15 | 20 | 100 – 500 | 97 – 80 |
| F 40/125C | 1.1 | 1.5 | 100 – 550 | 16 – 6 |
| F 40/125B | 1.5 | 2 | 100 – 600 | 20.5 – 9 |
| F 40/125A | 2.2 | 3 | 100 – 700 | 26 – 10 |
| F 40/160C | 2.2 | 3 | 100 – 600 | 27 – 14 |
| F 40/160B | 3 | 4 | 100 – 600 | 32 – 20 |
| F 40/160A | 4 | 5.5 | 100 – 700 | 38 – 20 |
| F 40/200B | 5.5 | 7.5 | 100 – 700 | 47 – 28 |
| F 40/200A | 7.5 | 10 | 100 – 700 | 55 – 41 |
| F 40/250C | 9.2 | 12.5 | 100 – 700 | 64 – 47 |
| F 40/250B | 11 | 15 | 100 – 700 | 71 – 55 |
| F 40/250A | 15 | 20 | 100 – 700 | 88 – 72 |
| F 50/125C | 2.2 | 3 | 300 – 1100 | 17.5 – 6 |
| F 50/125B | 3 | 4 | 300 – 1200 | 20.7 – 9 |
| F 50/125A | 4 | 5.5 | 300 – 1200 | 23.5 – 13 |
| F 50/160C | 4 | 5.5 | 300 – 1000 | 27 – 16 |
| F 50/160B | 5.5 | 7.5 | 300 – 1200 | 32 – 18 |
| F 50/160A | 7.5 | 10 | 300 – 1350 | 37.5 – 20 |
| F 50/200C | 11 | 15 | 400 – 1700 | 44 – 30 |
| F 50/200B | 15 | 20 | 400 – 1700 | 52 – 38 |
| F 50/200A | 18.5 | 25 | 400 – 1800 | 61 – 45 |
| F 50/200AR | 22 | 30 | 400 – 1800 | 69 – 53 |

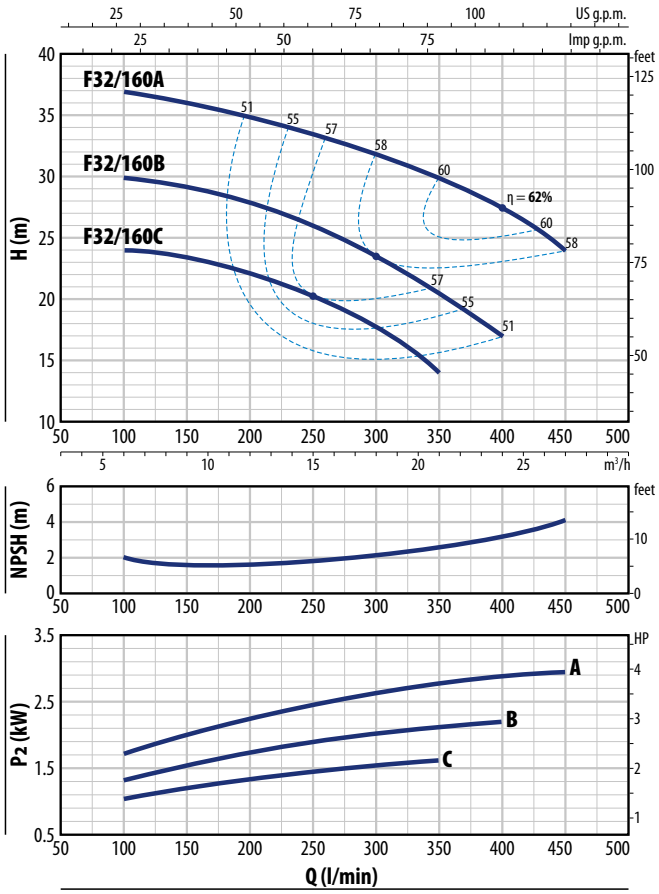
| TYPE | POWER (P2) | | PERFORMANCE | |
|---|---|---|---|---|
| | kW | HP | Q l/min | H metres |
| F 50/250D | 9.2 | 12.5 | 300 – 900 | 50.5 – 37 |
| F 50/250C | 11 | 15 | 300 – 1000 | 59 – 43 |
| F 50/250B | 15 | 20 | 300 – 1000 | 72 – 59 |
| F 50/250A | 18.5 | 25 | 300 – 1000 | 85 – 73 |
| F 50/250AR | 22 | 30 | 300 – 1000 | 95 – 83 |
| F 65/125C | 4 | 5.5 | 600 – 1800 | 16 – 11 |
| F 65/125B | 5.5 | 7.5 | 600 – 2000 | 18 – 13 |
| F 65/125A | 7.5 | 10 | 600 – 2200 | 23 – 18 |
| F 65/160C | 9.2 | 12.5 | 600 – 2200 | 32 – 22 |
| F 65/160B | 11 | 15 | 600 – 2400 | 36.5 – 23 |
| F 65/160A | 15 | 20 | 600 – 2400 | 40.5 – 28 |
| F 65/200B | 15 | 20 | 200 – 2400 | 44 – 30.5 |
| F 65/200A | 18.5 | 25 | 200 – 2500 | 50 – 36.5 |
| F 65/200AR | 22 | 30 | 200 – 2600 | 57 – 42 |
| F 65/250C | 30 | 40 | 400 – 2350 | 76 – 53 |
| F 65/250B | 37 | 50 | 400 – 2500 | 87 – 62 |
| F 65/250A | 45 | 60 | 400 – 2600 | 95 – 68 |
| F 80/160D | 11 | 15 | 500 – 4000 | 25 – 10 |
| F 80/160C | 15 | 20 | 500 – 4000 | 30 – 15 |
| F 80/160B | 18.5 | 25 | 500 – 4000 | 35 – 20 |
| F 80/160A | 22 | 30 | 500 – 4000 | 40 – 25 |
| F 80/200B | 30 | 40 | 500 – 3650 | 56 – 34.5 |
| F 80/200A | 37 | 50 | 500 – 3900 | 62 – 40 |
| F 80/250B | 45 | 60 | 600 – 3600 | 77 – 54 |
| F 80/250A | 55 | 75 | 600 – 3900 | 88.5 – 60 |
| F 100/160A | 22 | 30 | 1000 – 5500 | 38 – 17.5 |
| F 100/200C | 30 | 40 | 833 – 4650 | 51 – 28 |
| F 100/200B | 37 | 50 | 833 – 4900 | 57 – 33 |
| F 100/200A | 45 | 60 | 833 – 5250 | 63 – 38 |
| F 100/250B | 55 | 75 | 800 – 5150 | 75 – 48 |
| F 100/250A | 75 | 100 | 800 – 5750 | 89 – 58 |

# F 32

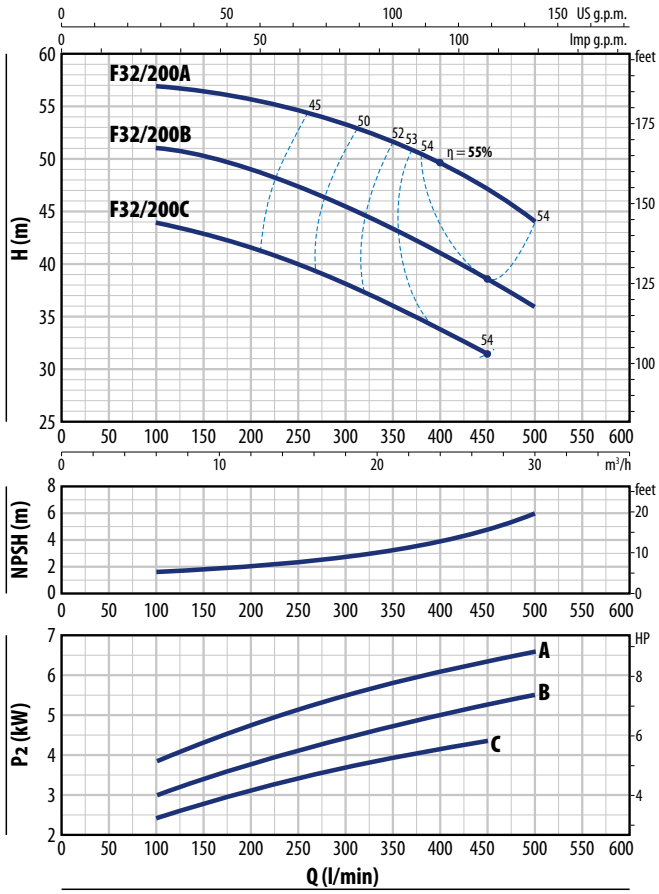
## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**

## F 32/160




## F 32/200




## F 32/160

| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | **3~** | | l/min | **0** | **100** | **150** | **200** | **250** | **300** | **350** | **400** | **450** |
| **Fm 32/160C** | **F 32/160C** | 1.5 | 2 | | | | 25 | 24 | 23.5 | 22 | 20.5 | 18 | 14 | | |
| **Fm 32/160B** | **F 32/160B** | 2.2 | 3 | **IE3** | **H** | m | 31 | 30 | 29 | 28 | 26 | 23.5 | 20.5 | 17 | |
| – | **F 32/160A** | 3 | 4 | | | | 38 | 37 | 36 | 35 | 33.5 | 31.5 | 30 | 27.5 | 24 |

## F 32/200

| TYPE | POWER (P2) | | | Q | m³/h | 0 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Three-ph.** | **kW** | **HP** | **3~** | | l/min | **0** | **100** | **150** | **200** | **250** | **300** | **350** | **400** | **450** | **500** |
| **F 32/200C** | 4 | 5.5 | | | | 46 | 44 | 43 | 41.5 | 40 | 38 | 36 | 34 | 31.5 | |
| **F 32/200B** | 5.5 | 7.5 | **IE3** | **H** | m | 52 | 51 | 50.5 | 49 | 47 | 45 | 43 | 41 | 38.5 | 36 |
| **F 32/200A** | 7.5 | 10 | | | | 60 | 57 | 56.5 | 56 | 55 | 53.5 | 52 | 50 | 47 | 44 |

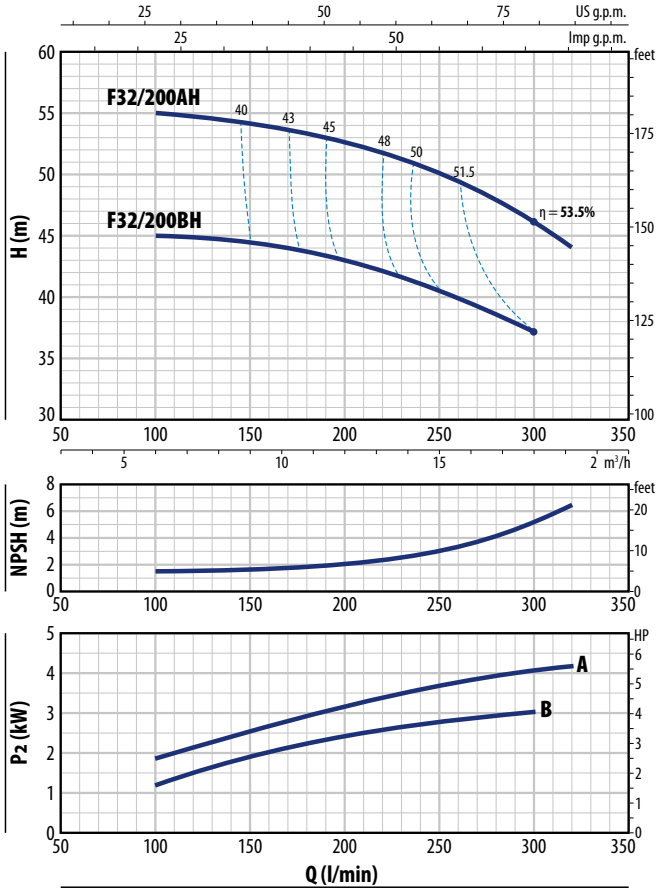
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

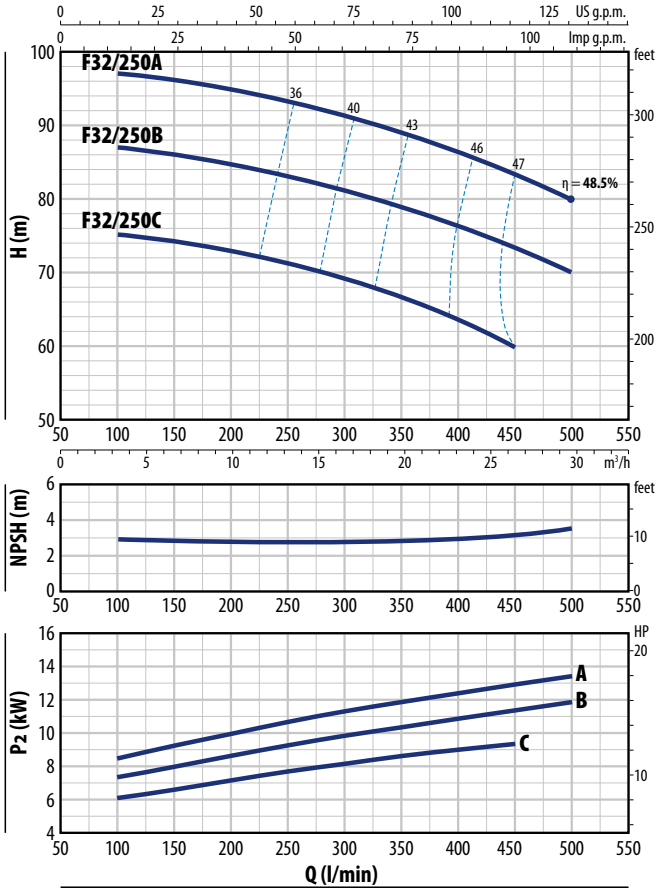
## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**

## F 32/200H




## F 32/250




## F 32/200H

| TYPE | POWER (P2) | | | Q | m³/h | 0 | 6 | 9 | 12 | 15 | 18 | 19.2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **0** | **100** | **150** | **200** | **250** | **300** | **320** |
| **F 32/200BH** | 3 | 4 | IE3 | **H** | m | 47 | 45 | 44.5 | 43 | 40.5 | 37 | |
| **F 32/200AH** | 4 | 5.5 | | | | 57 | 55 | 54 | 52.5 | 50 | 46 | 44 |

## F 32/250

| TYPE | POWER (P2) | | | Q | m³/h | 0 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **0** | **100** | **150** | **200** | **250** | **300** | **350** | **400** | **450** | **500** |
| **F 32/250C** | 9.2 | 12.5 | IE3 | **H** | m | 76 | 75 | 74.5 | 73 | 71.5 | 69.5 | 67 | 64 | 60 | |
| **F 32/250B** | 11 | 15 | | | | 88 | 87 | 86 | 85 | 83 | 81 | 79 | 76.5 | 73.5 | 70 |
| **F 32/250A** | 15 | 20 | | | | 98 | 97 | 96 | 95 | 93 | 91 | 89 | 86.5 | 83.5 | 80 |

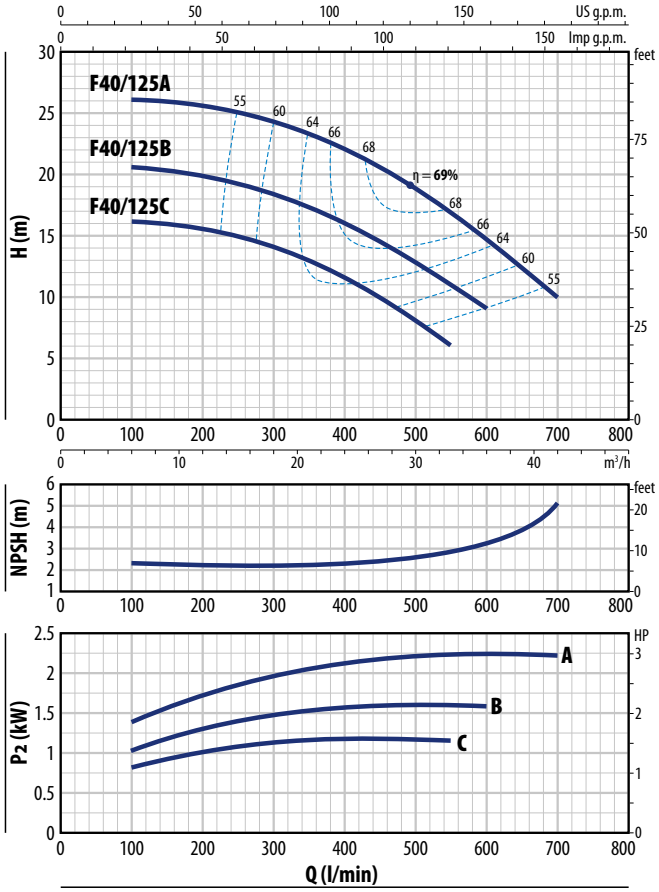
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

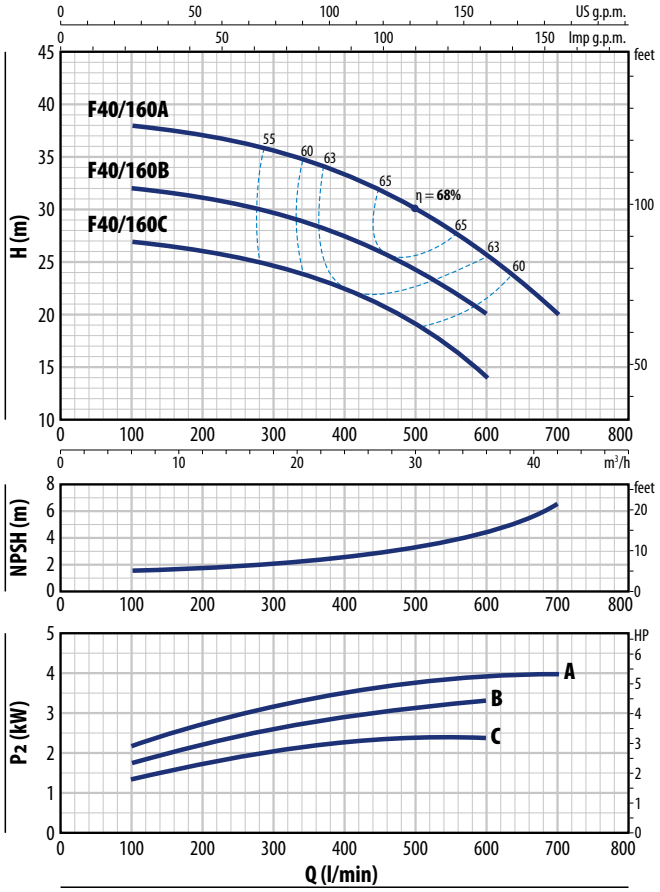
## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**

## F 40/125




## F 40/160




## F 40/125

| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 6 | 12 | 18 | 24 | 30 | 33 | 36 | 39 | 42 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | **3~** | | l/min | **0** | **100** | **200** | **300** | **400** | **500** | **550** | **600** | **650** | **700** |
| **Fm 40/125C** | **F 40/125C** | 1.1 | 1.5 | | | | 16 | 16 | 15.5 | 14 | 11.5 | 8 | 6 | | | |
| **Fm 40/125B** | **F 40/125B** | 1.5 | 2 | **IE3** | **H** | m | 20.5 | 20.5 | 19.8 | 18.5 | 16 | 12.8 | 11 | 9 | | |
| – | **F 40/125A** | 2.2 | 3 | | | | 26 | 26 | 25.5 | 24 | 22 | 18.5 | 17 | 14.5 | 12.5 | 10 |

## F 40/160

| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 6 | 9 | 12 | 15 | 18 | 24 | 30 | 36 | 42 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | **3~** | | l/min | **0** | **100** | **150** | **200** | **250** | **300** | **400** | **500** | **600** | **700** |
| **Fm 40/160C** | **F 40/160C** | 2.2 | 3 | | | | 27 | 27 | 26.5 | 26 | 25.5 | 25 | 22.5 | 19 | 14 | |
| – | **F 40/160B** | 3 | 4 | **IE3** | **H** | m | 32 | 32 | 31.5 | 31 | 30.5 | 30 | 27.5 | 24 | 20 | |
| – | **F 40/160A** | 4 | 5.5 | | | | 38 | 38 | 37.8 | 37 | 36.5 | 36 | 33.5 | 30 | 26 | 20 |

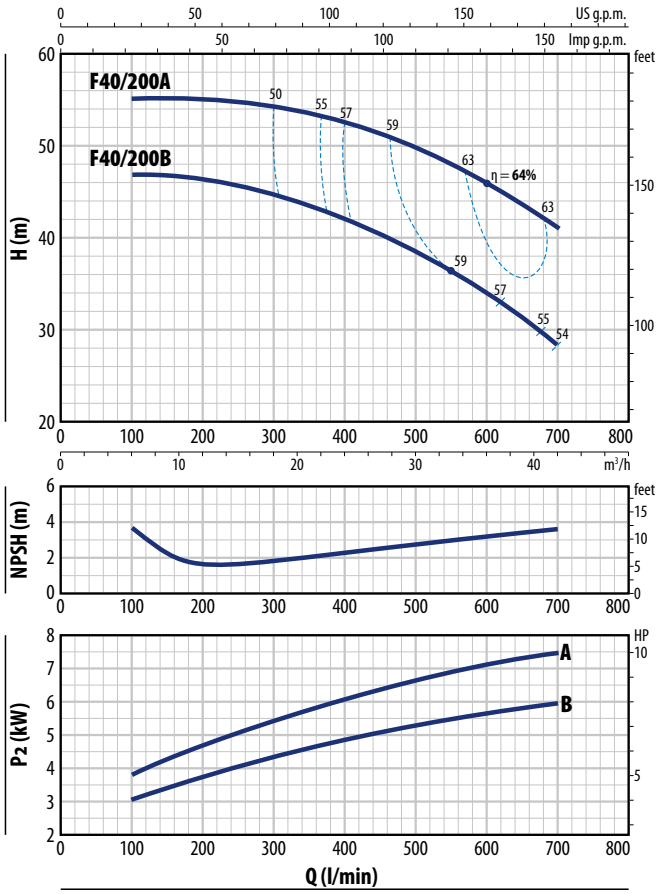
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

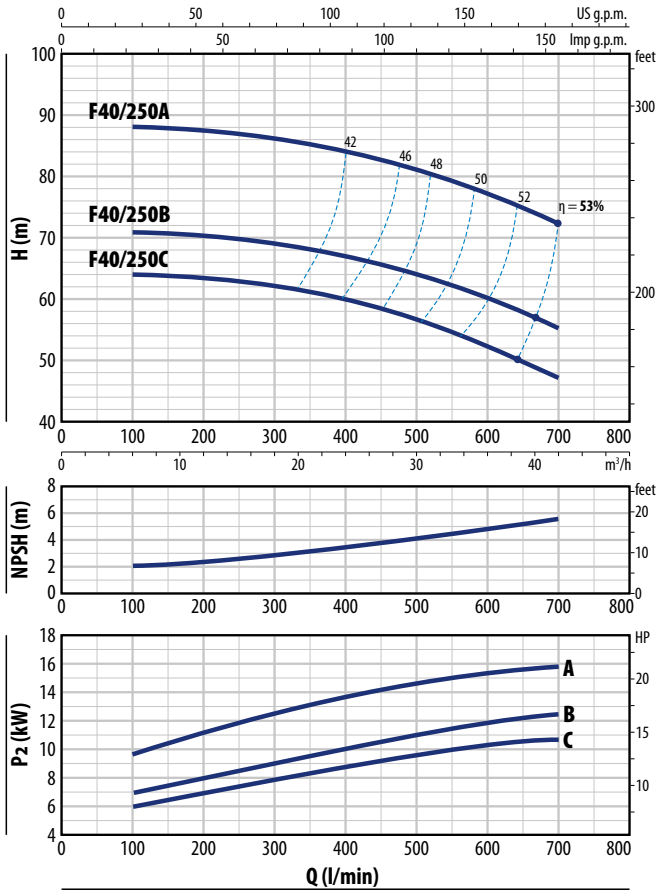
## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**

## F 40/200




## F 40/250




## F 40/200

| TYPE | POWER (P2) | | | Q | m³/h | 0 | 6 | 9 | 12 | 15 | 18 | 24 | 30 | 36 | 42 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **0** | **100** | **150** | **200** | **250** | **300** | **400** | **500** | **600** | **700** |
| **F 40/200B** | 5.5 | 7.5 | IE3 | **H** | m | 48 | 47 | 46.5 | 46 | 45.5 | 44.5 | 42 | 38 | 34 | 28 |
| **F 40/200A** | 7.5 | 10 | | | | 56 | 55 | 55 | 55 | 54.5 | 54 | 52.5 | 49.5 | 46 | 41 |

## F 40/250

| TYPE | POWER (P2) | | | Q | m³/h | 0 | 6 | 9 | 12 | 15 | 18 | 24 | 30 | 36 | 42 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **0** | **100** | **150** | **200** | **250** | **300** | **400** | **500** | **600** | **700** |
| **F 40/250C** | 9.2 | 12.5 | IE3 | **H** | m | 64 | 64 | 63.5 | 63 | 62.5 | 62 | 60 | 56.5 | 52.5 | 47 |
| **F 40/250B** | 11 | 15 | | | | 71 | 71 | 70.5 | 70 | 69.5 | 69 | 67 | 64 | 60 | 55 |
| **F 40/250A** | 15 | 20 | | | | 88 | 88 | 87.5 | 87 | 86.5 | 86 | 84 | 81 | 77 | 72 |

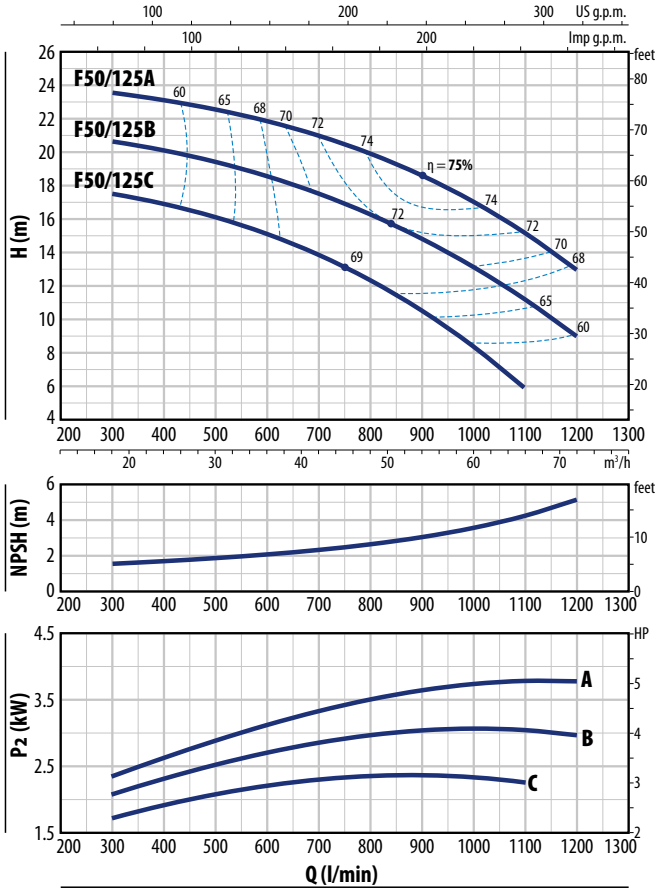
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

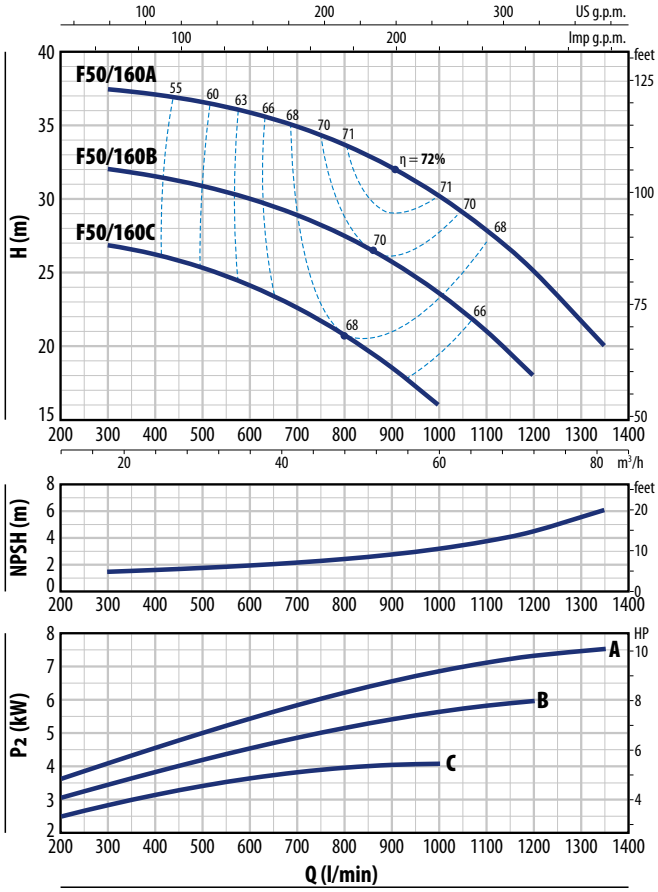
## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**

## F 50/125




## F 50/160




## F 50/125

| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | **3~** | | l/min | **0** | **300** | **400** | **500** | **600** | **700** | **800** | **900** | **1000** | **1100** | **1200** |
| **Fm 50/125C** | **F 50/125C** | 2.2 | 3 | | | | 18.5 | 17.5 | 17 | 16 | 15 | 14 | 12.5 | 10.5 | 8.5 | 6 | |
| – | **F 50/125B** | 3 | 4 | **IE3** | **H** | m | 21.5 | 20.7 | 20 | 19.5 | 18.8 | 17.8 | 16.5 | 15 | 13.5 | 11.2 | 9 |
| – | **F 50/125A** | 4 | 5.5 | | | | 24.5 | 23.5 | 23 | 22.5 | 21.8 | 20.8 | 19.5 | 18.3 | 16.8 | 15 | 13 |

## F 50/160

| TYPE | POWER (P2) | | | Q | m³/h | 0 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 81 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Three-phase** | **kW** | **HP** | **3~** | | l/min | 0 | **300** | **400** | **500** | **600** | **700** | **800** | **900** | **1000** | **1100** | **1200** | **1350** |
| **F 50/160C** | 4 | 5.5 | | | | 27 | 27 | 26.5 | 25 | 24.5 | 23 | 20 | 18.5 | 16 | | | |
| **F 50/160B** | 5.5 | 7.5 | **IE3** | **H** | m | 33 | 32 | 31.7 | 31 | 30 | 29 | 27.4 | 25.7 | 23.5 | 21 | 18 | |
| **F 50/160A** | 7.5 | 10 | | | | 38 | 37.5 | 37 | 36.5 | 36 | 35 | 33.7 | 32 | 30.2 | 28 | 25 | 20 |

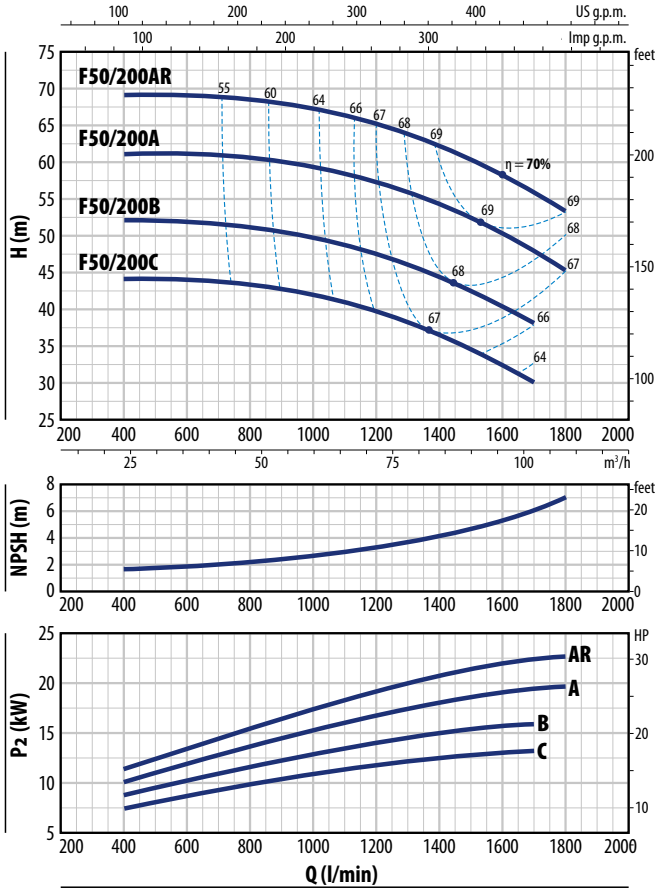
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

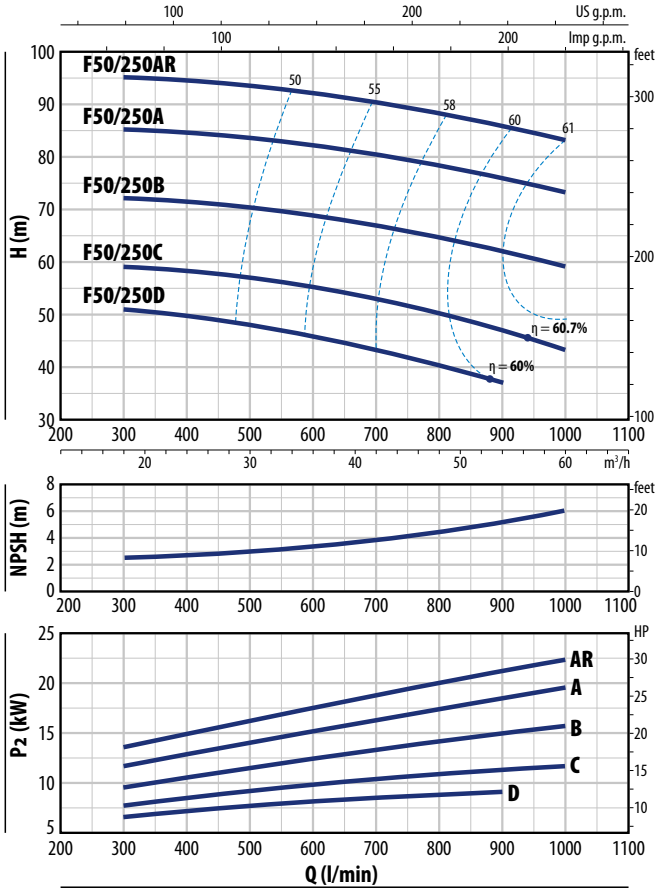
## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**

## F 50/200




## F 50/250




## F 50/200

| TYPE | POWER (P2) | | | Q | m³/h | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 102 | 108 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **400** | **600** | **800** | **1000** | **1200** | **1400** | **1600** | **1700** | **1800** |
| F 50/200C | 11 | 15 | IE3 | H | m | 44 | 44 | 44 | 42 | 39 | 36 | 33 | 30 | |
| F 50/200B | 15 | 20 | | | | 52 | 52 | 52 | 50 | 47 | 44 | 40 | 38 | |
| F 50/200A | 18.5 | 25 | | | | 61 | 61 | 60.5 | 60 | 57 | 54 | 50 | 48 | 45 |
| F 50/200AR | 22 | 30 | | | | 69 | 69 | 68.5 | 68 | 65 | 62 | 58 | 56 | 53 |

## F 50/250

| TYPE | POWER (P2) | | | Q | m³/h | 0 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **0** | **300** | **400** | **500** | **600** | **700** | **800** | **900** | **1000** |
| F 50/250D | 9.2 | 12.5 | IE3 | H | m | 51 | 50.5 | 49.5 | 48 | 45.5 | 43 | 40 | 37 | |
| F 50/250C | 11 | 15 | | | | 59 | 59 | 58 | 56.5 | 55 | 53 | 50 | 47 | 43 |
| F 50/250B | 15 | 20 | | | | 72 | 72 | 71 | 70 | 69 | 67 | 65 | 62 | 59 |
| F 50/250A | 18.5 | 25 | | | | 85 | 85 | 84 | 83 | 82 | 80 | 78 | 76 | 73 |
| F 50/250AR | 22 | 30 | | | | 95 | 95 | 94 | 93 | 92 | 90 | 88 | 86 | 83 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

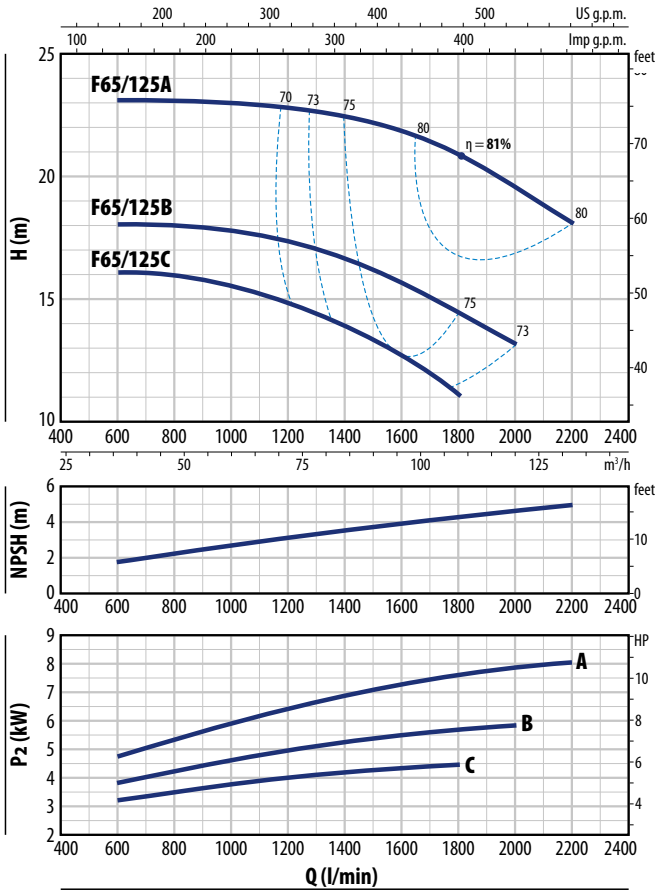
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

# F 65

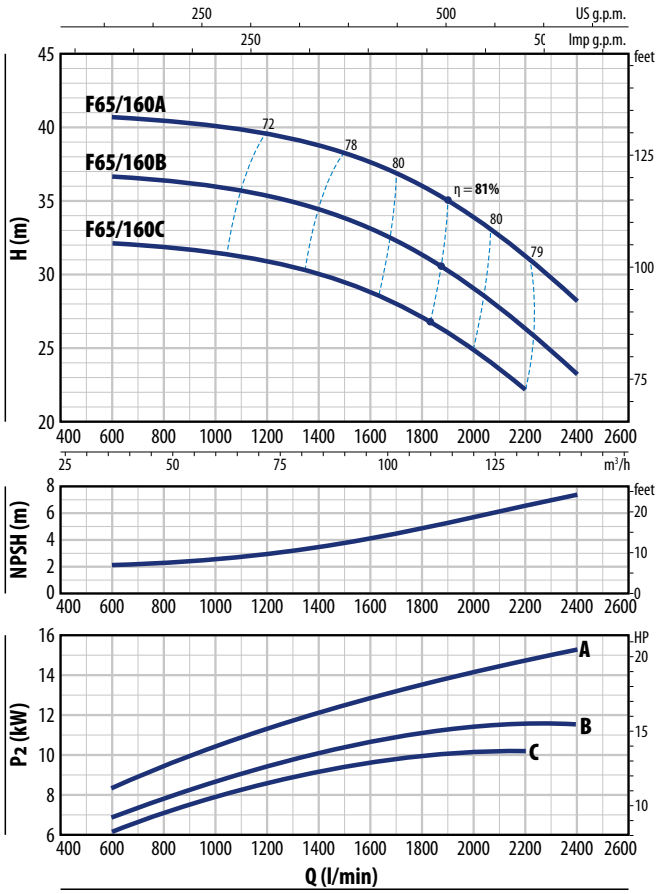
## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**

## F 65/125




## F 65/160




## F 65/125

| TYPE | POWER (P2) | | | Q | m³/h | 0 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **0** | **600** | **800** | **1000** | **1200** | **1400** | **1600** | **1800** | **2000** | **2200** |
| **F 65/125C** | 4 | 5.5 | IE3 | **H** | m | 16 | 16 | 16 | 15.5 | 14.5 | 13.5 | 12.5 | 11 | | |
| **F 65/125B** | 5.5 | 7.5 | | | | 18 | 18 | 18 | 18 | 17 | 16.5 | 15.5 | 14.5 | 13 | |
| **F 65/125A** | 7.5 | 10 | | | | 23 | 23 | 23 | 23 | 22.5 | 22.5 | 22 | 21 | 19.5 | 18 |

## F 65/160

| TYPE | POWER (P2) | | | Q | m³/h | 0 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **0** | **600** | **800** | **1000** | **1200** | **1400** | **1600** | **1800** | **2000** | **2200** | **2400** |
| **F 65/160C** | 9.2 | 12.5 | IE3 | **H** | m | 32 | 32 | 32 | 32 | 32 | 30 | 29 | 27 | 25 | 22 | |
| **F 65/160B** | 11 | 15 | | | | 37 | 36.5 | 36.5 | 36 | 35.5 | 34 | 33 | 31 | 29 | 26 | 23 |
| **F 65/160A** | 15 | 20 | | | | 41 | 40.5 | 40.5 | 40 | 39.5 | 39 | 37.5 | 36 | 34 | 31 | 28 |

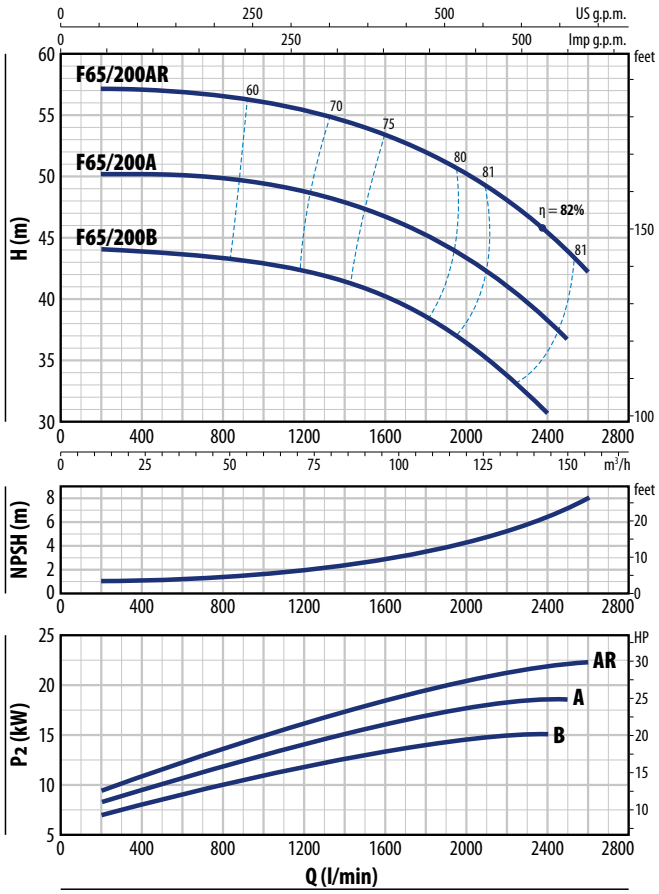
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

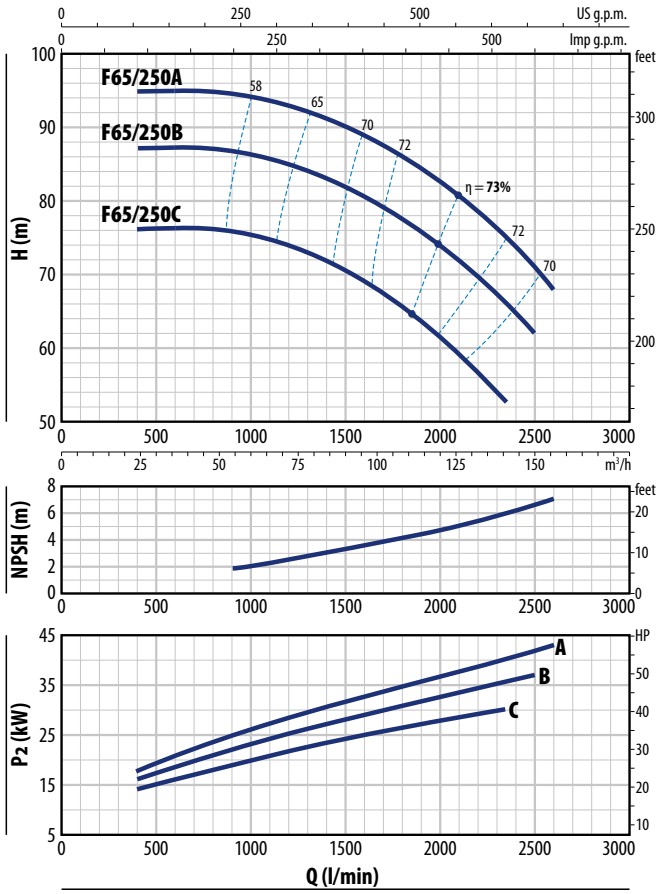
## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**

## F 65/200




## F 65/250




## F 65/200

| TYPE | POWER (P2) | | | Q | m³/h | 12 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 | 150 | 156 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **200** | **600** | **800** | **1000** | **1200** | **1400** | **1600** | **1800** | **2000** | **2200** | **2400** | **2500** | **2600** |
| **F 65/200B** | 15 | 20 | | | | 44 | 43.5 | 43.3 | 43 | 42.5 | 41.5 | 40 | 38.5 | 36.5 | 34 | 30.5 | | |
| **F 65/200A** | 18.5 | 25 | IE3 | **H** | m | 50 | 50 | 50 | 49.5 | 49 | 48 | 46.5 | 45 | 43 | 41 | 38 | 36.5 | |
| **F 65/200AR** | 22 | 30 | | | | 57 | 57 | 57 | 56 | 55.5 | 54.5 | 53.5 | 52 | 50 | 48 | 45.5 | 43.5 | 42 |

## F 65/250

| TYPE | POWER (P2) | | | Q | m³/h | 24 | 40 | 60 | 80 | 100 | 120 | 141 | 150 | 156 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **400** | **667** | **1000** | **1333** | **1667** | **2000** | **2350** | **2500** | **2600** |
| **F 65/250C** | 30 | 40 | | | | 76 | 76 | 75.5 | 72.5 | 68 | 61.5 | 53 | | |
| **F 65/250B** | 37 | 50 | IE3 | **H** | m | 87 | 87 | 86 | 84 | 80 | 74 | 66.5 | 62 | |
| **F 65/250A** | 45 | 60 | | | | 95 | 95 | 94 | 92 | 88 | 82.5 | 75 | 71 | 68 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

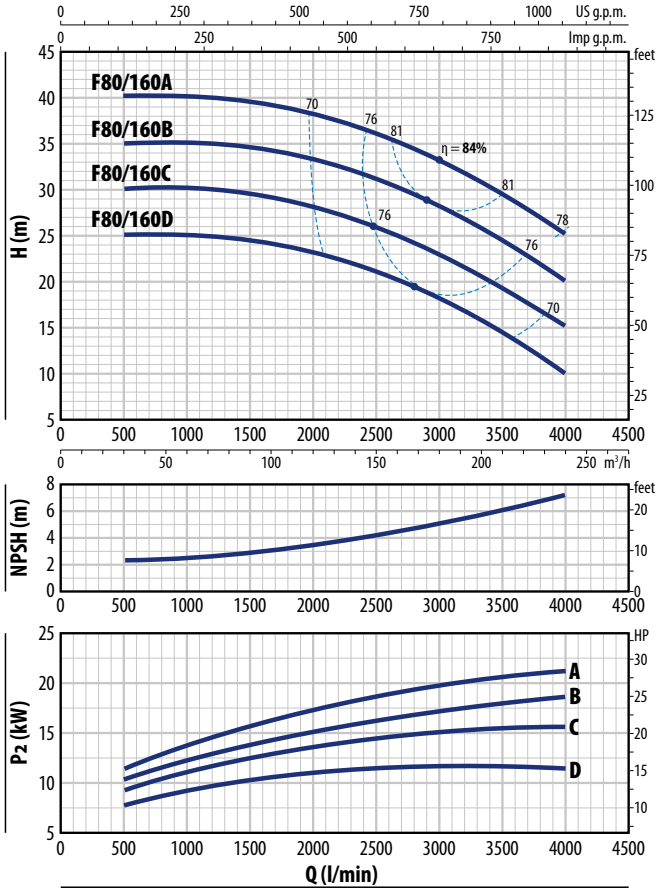
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

# F 80

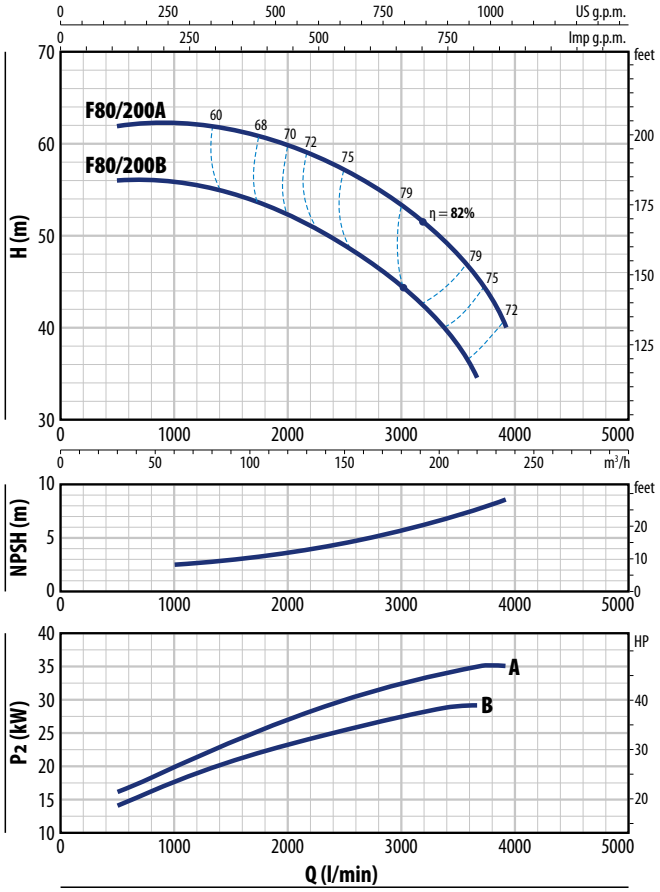
## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**

## F 80/160




## F 80/200




## F 80/160

| TYPE | POWER (P2) | | | Q | m³/h | 0 | 30 | 60 | 90 | 120 | 150 | 180 | 210 | 240 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **0** | **500** | **1000** | **1500** | **2000** | **2500** | **3000** | **3500** | **4000** |
| **F 80/160D** | 11 | 15 | IE3 | H | m | 25 | 25 | 25 | 24.5 | 23.5 | 21 | 18 | 14.5 | 10 |
| **F 80/160C** | 15 | 20 | | | | 30 | 30 | 30 | 29.5 | 28.5 | 26 | 23 | 19.5 | 15 |
| **F 80/160B** | 18.5 | 25 | | | | 35 | 35 | 35 | 34.5 | 33.5 | 31 | 28.5 | 24.5 | 20 |
| **F 80/160A** | 22 | 30 | | | | 40 | 40 | 40 | 39.5 | 38.5 | 36 | 33 | 29.5 | 25 |

## F 80/200

| TYPE | POWER (P2) | | | Q | m³/h | 30 | 50 | 100 | 150 | 200 | 219 | 234 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **500** | **833** | **1667** | **2500** | **3333** | **3650** | **3900** |
| **F 80/200B** | 30 | 40 | IE3 | H | m | 56 | 56 | 54 | 49 | 41 | 34.5 | |
| **F 80/200A** | 37 | 50 | | | | 62 | 62 | 61 | 57 | 50 | 45.5 | 40 |

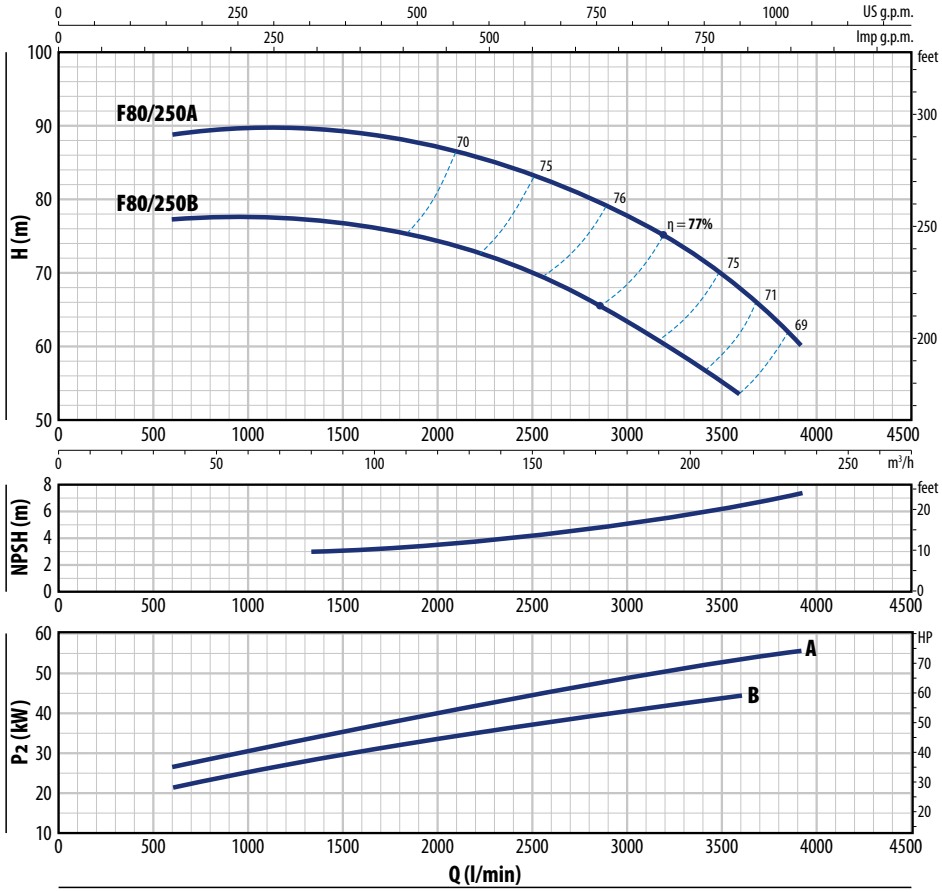
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**

# F 80/250




# F 80/250

| TYPE | POWER (P2) | | | Q | m³/h | 36 | 50 | 100 | 150 | 200 | 216 | 234 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **600** | **833** | **1667** | **2500** | **3333** | **3600** | **3900** |
| **F 80/250B** | 45 | 60 | IE3 | **H** | m | 77 | 77.5 | 76 | 70.5 | 58.5 | 54 | |
| **F 80/250A** | 55 | 75 | | | | 88.5 | 89.5 | 89 | 83 | 72 | 68 | 60 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

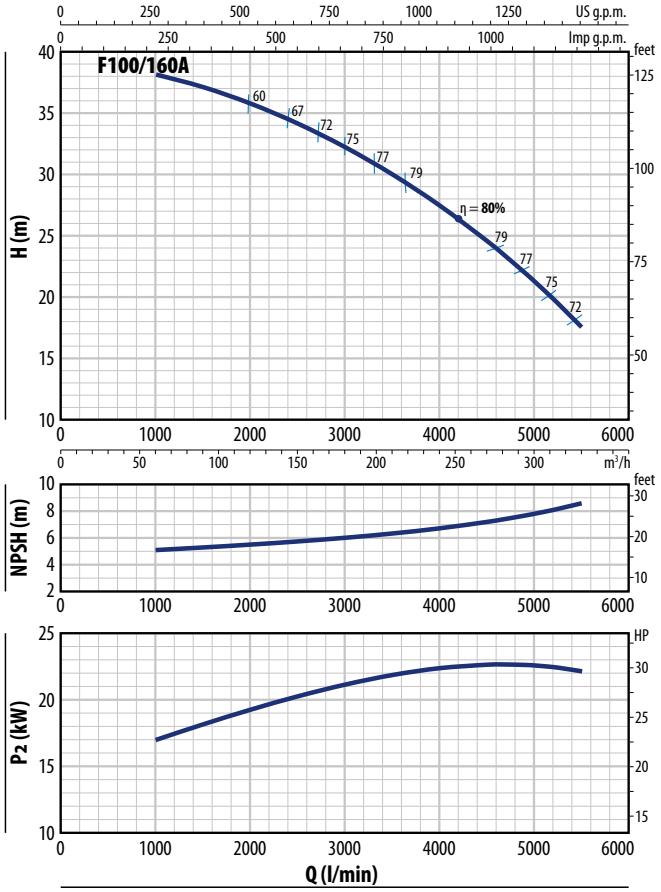
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

# F 100

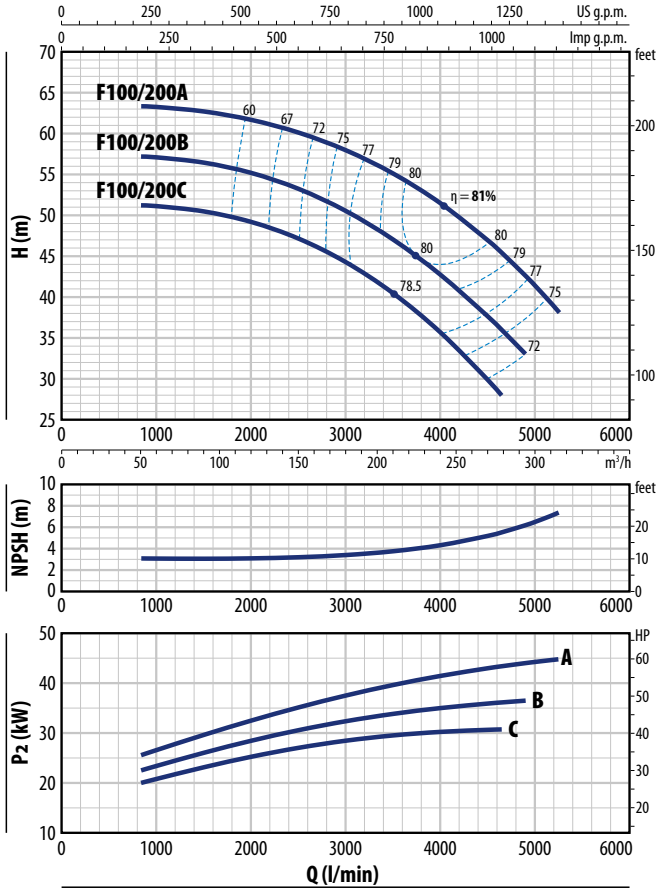
## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**

## F 100/160




## F 100/200




## F 100/160

| TYPE | POWER (P2) | | | Q | m³/h | 60 | 90 | 120 | 150 | 180 | 210 | 240 | 270 | 300 | 312 | 330 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | 1000 | 1500 | 2000 | 2500 | 3000 | 3500 | 4000 | 4500 | 5000 | 5200 | 5500 |
| F 100/160A | 22 | 30 | IE3 | H | metres | 38 | 37 | 36 | 34 | 32 | 30 | 27.5 | 24.5 | 21 | 20 | 17.5 |

## F 100/200

| TYPE | POWER (P2) | | | Q | m³/h | 0 | 50 | 96 | 150 | 180 | 210 | 240 | 279 | 294 | 300 | 315 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | 0 | 833 | 1600 | 2500 | 3000 | 3500 | 4000 | 4650 | 4900 | 5000 | 5250 |
| F 100/200C | 30 | 40 | IE3 | H | m | 51 | 51 | 50 | 47 | 44 | 40.5 | 35.5 | 28 | | | |
| F 100/200B | 37 | 50 | | | | 57 | 57 | 56 | 53 | 50.5 | 47 | 42.5 | 36 | 33 | | |
| F 100/200A | 45 | 60 | | | | 63 | 63 | 62.5 | 60 | 58 | 55 | 51.5 | 45 | 42.5 | 41.5 | 38 |

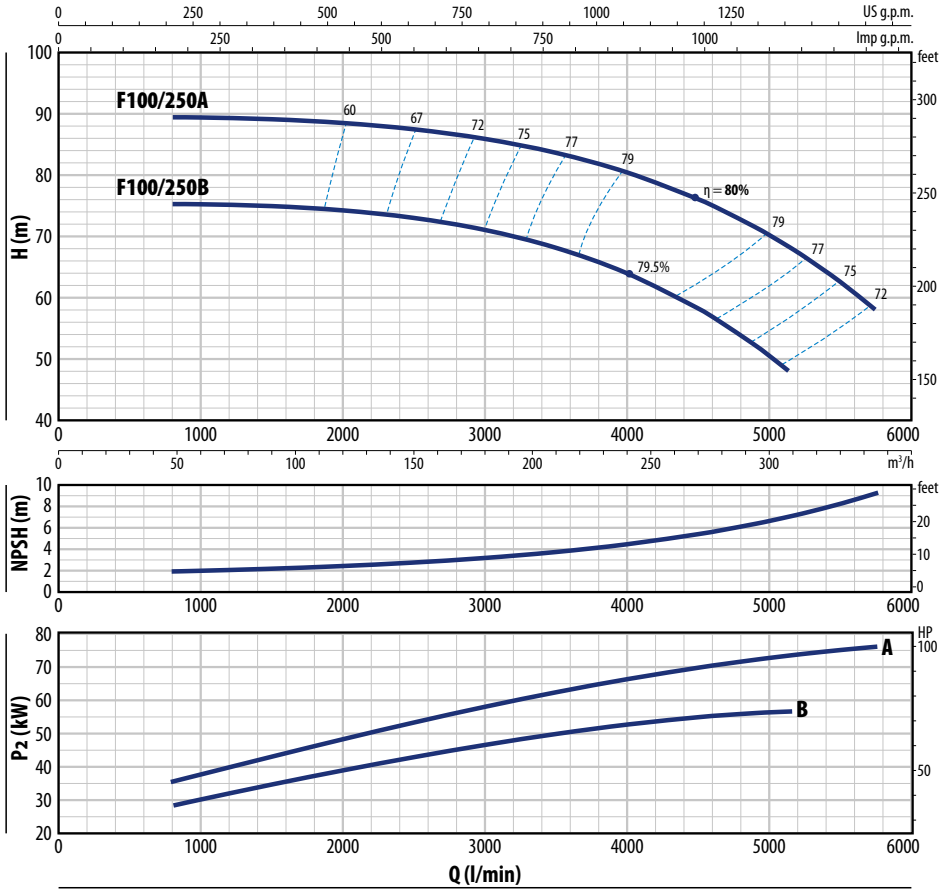
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**

# F 100/250




# F 100/250

| TYPE | POWER (P2) | | | Q | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | m³/h | 48 | 96 | 150 | 180 | 210 | 240 | 300 | 309 | 345 |
| | | | | | l/min | **800** | **1600** | **2500** | **3000** | **3500** | **4000** | **5000** | **5150** | **5750** |
| **F 100/250B** | 55 | 75 | IE3 | **H** | m | 75 | 75 | 73 | 71 | 68 | 64 | 50.5 | 48 | |
| **F 100/250A** | 75 | 100 | | | | 89 | 89 | 87.5 | 86 | 83.5 | 80.5 | 70 | 68 | 58 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## ABSORPTION

| TYPE | VOLTAGE |
|---|---|
| Single-ph. | 220 V |
| Fm 32/160C | 11.0 A |
| Fm 32/160B | 15.0 A |
| Fm 40/125C | 8.0 A |
| Fm 40/125B | 11.0 A |
| Fm 40/160C | 15.0 A |
| Fm 50/125C | 13.0 A |

| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| Three-phase | 220 V - Δ | 380 V - Y | 220 V - Δ | 440 V - Y |
| F 32/160C | 7.8 A | 4.5 A | 6.0 A | 3.9 A |
| F 32/160B | 10.0 A | 5.8 A | 7.6 A | 4.5 A |
| F 32/160A | 14.7 A | 8.5 A | 12.0 A | 7.0 A |
| F 32/200C | 18.9 A | 10.9 A | 18.5 A | 12.3 A |
| F 32/200B | 24.0 A | 13.9 A | 22.0 A | 13.8 A |
| F 32/200A | 27.0 A | 15.6 A | 27.0 A | 18.0 A |
| F 32/200BH | 13.5 A | 7.8 A | 12.7 A | 7.7 A |
| F 32/200AH | 18.0 A | 10.4 A | 17.5 A | 11.0 A |
| F 32/250C | 38.0 A | 22.0 A | 39.8 A | 20.0 A |
| F 32/250B | 43.0 A | 25.0 A | 36.5 A | 21.0 A |
| F 32/250A | 57.0 A | 33.0 A | 60.0 A | 34.0 A |
| F 40/125C | 6.0 A | 3.5 A | 6.2 A | 3.5 A |
| F 40/125B | 8.1 A | 4.7 A | 6.4 A | 4.1 A |
| F 40/125A | 10.0 A | 5.8 A | 9.5 A | 5.5 A |
| F 40/160C | 10.0 A | 5.8 A | 8.7 A | 5.0 A |
| F 40/160B | 13.5 A | 7.8 A | 11.7 A | 6.8 A |
| F 40/160A | 20.9 A | 12.1 A | 19.5 A | 12.5 A |
| F 40/200B | 28.5 A | 16.5 A | 22.7 A | 15.4 A |
| F 40/200A | 30.9 A | 17.8 A | 28.5 A | 18.0 A |
| F 40/250C | 38.0 A | 22.0 A | 38.0 A | 20.0 A |
| F 40/250B | 43.0 A | 25.0 A | 36.5 A | 21.0 A |
| F 40/250A | 57.0 A | 33.0 A | 60.0 A | 34.0 A |
| F 50/125C | 10.7 A | 6.2 A | 9.8 A | 6.7 A |
| F 50/125B | 11.3 A | 6.5 A | 12.1 A | 6.5 A |
| F 50/125A | 18.2 A | 10.5 A | 19.0 A | 12.5 A |
| F 50/160C | 17.7 A | 10.3 A | 16.4 A | 12.5 A |
| F 50/160B | 21.0 A | 12.0 A | 20.8 A | 13.5 A |
| F 50/160A | 28.0 A | 16.5 A | 26.7 A | 17.5 A |
| F 50/200C | 46.0 A | 26.5 A | 47.0 A | 25.0 A |
| F 50/200B | 56.0 A | 32.0 A | 58.0 A | 30.0 A |
| F 50/200A | 67.5 A | 39.0 A | 70.0 A | 36.0 A |
| F 50/200AR | 87.0 A | 51.0 A | 78.0 A | 45.0 A |

| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| Three-phase | 220 V - Δ | 380 V - Y | 220 V - Δ | 440 V - Y |
| F 50/250D | 32.5 A | 18.5 A | 29.5 A | 17.0 A |
| F 50/250C | 44.0 A | 25.0 A | 36.5 A | 21.0 A |
| F 50/250B | 52.0 A | 30.0 A | 50.0 A | 26.0 A |
| F 50/250A | 64.0 A | 37.0 A | 66.0 A | 36.0 A |
| F 50/250AR | 82.0 A | 48.0 A | 76.0 A | 42.0 A |
| F 65/125C | 18.0 A | 10.4 A | 19.5 A | 12.5 A |
| F 65/125B | 22.5 A | 13.0 A | 22.0 A | 13.8 A |
| F 65/125A | 32.0 A | 18.5 A | 32.0 A | 19.5 A |
| F 65/160C | 37.0 A | 21.5 A | 37.0 A | 24.0 A |
| F 65/160B | 47.0 A | 27.0 A | 48.0 A | 26.0 A |
| F 65/160A | 55.0 A | 32.0 A | 53.0 A | 28.0 A |
| F 65/200B | 56.2 A | 32.5 A | 58.5 A | 32.0 A |
| F 65/200A | 73.5 A | 42.5 A | 70.0 A | 36.0 A |
| F 65/200AR | 97.0 A | 56.0 A | 79.0 A | 48.0 A |
| F 65/250C | 110.0 A | 64.0 A | 100.0 A | 55.0 A |
| F 65/250B | 121.0 A | 70.0 A | 120.0 A | 63.0 A |
| F 65/250A | 153.0 A | 88.0 A | 140.0 A | 75.0 A |
| F 80/160D | 45.0 A | 26.0 A | 50.0 A | 27.0 A |
| F 80/160C | 59.0 A | 34.0 A | 60.0 A | 30.0 A |
| F 80/160B | 66.0 A | 38.0 A | 66.0 A | 36.0 A |
| F 80/160A | 93.5 A | 54.0 A | 79.0 A | 48.0 A |
| F 80/200B | 106.0 A | 61.0 A | 100.0 A | 55.0 A |
| F 80/200A | 121.0 A | 70.0 A | 111.0 A | 58.0 A |
| F 80/250B | 153.0 A | 88.0 A | 140.0 A | 75.0 A |
| F 80/250A | 194.0 A | 112.0 A | – | – |
| F 100/160A | 81.5 A | 47.0 A | 76.0 A | 43.0 A |
| F 100/200C | 110.0 A | 64.0 A | 100.0 A | 55.0 A |
| F 100/200B | 121.0 A | 70.0 A | 120.0 A | 63.0 A |
| F 100/200A | 153.0 A | 88.0 A | 140.0 A | 75.0 A |
| F 100/250B | 166.0 A | 94.0 A | – | – |
| F 100/250A | 228.0 A | 132.0 A | 240.0 A | 120.0 A |

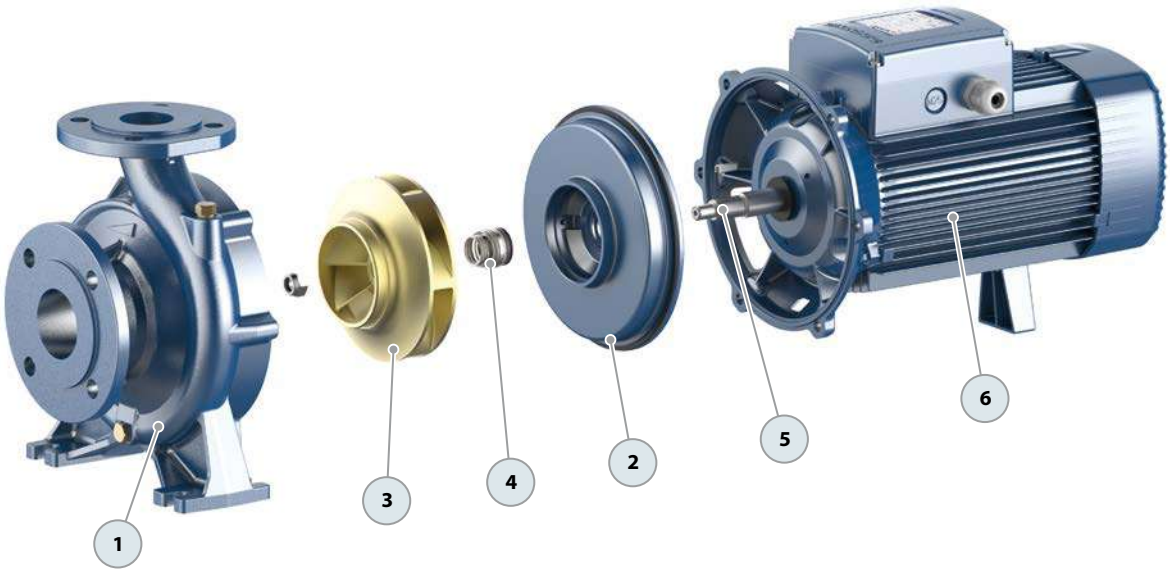
## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron, fitted with inlet and outlet flanged ports |
| 2 | **Cover/Motor bracket** | Cast iron |
| 3 | **Impeller** | Brass for F32/160 - F32/200 - F40/125 - F40/160 - F40/200 - F50/125 - F50/160<br>Cast iron for F32/250 - F40/250 - F50/200 - F50/250 - F65/125 - F65/160 - F65/200 - F65/250 F80/160 - F80/200 - F80/250 - F100/160 - F100/200 - F100/250 |

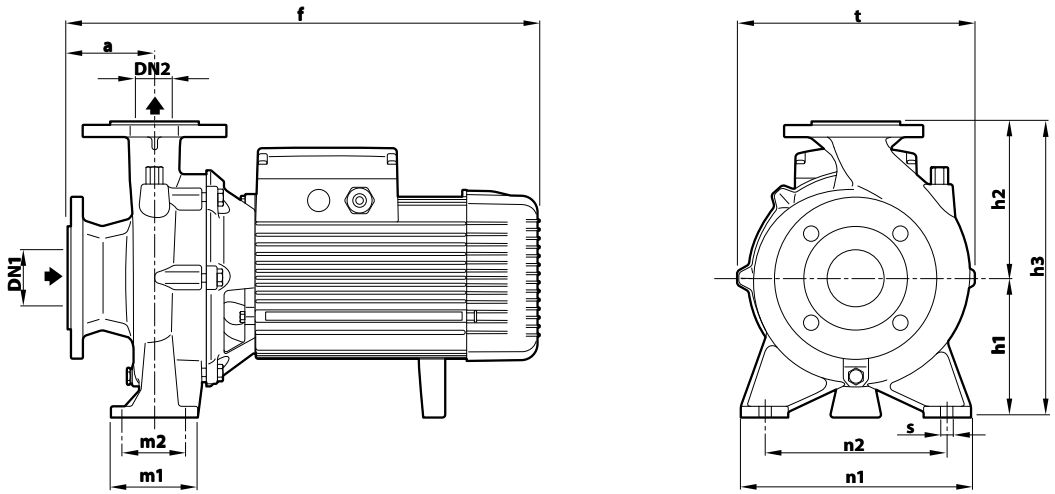
**4 Mechanical seal**

| Water pump | Seal | Shaft | Materials |
|---|---|---|---|
| F32/160 - F40/125 - F40/160 - F50/125 | **FN-20** | Ø 20 mm | Graphite<br>Ceramic<br>NBR |
| F32/200 - F40/200 - F50/160 - F65/125 | **FN-24** | Ø 24 mm | |
| F50/200 - F65/160 - F65/200 - F80/160 - F100/160 | **FN-32 NU** | Ø 32 mm | |
| F32/250 - F40/250 - F50/250 | **FN-38** | Ø 38 mm | |
| F65/250 - F80/200 - F80/250B - F100/200 | **FN-40 NU** | Ø 40 mm | |
| F80/250A - F100/250 | **FH-45 NU** | Ø 45 mm | |

| | | |
|---|---|---|
| 5 | **Motor shaft** | Stainless steel **AISI 431** |
| 6 | **Electric motor** | **Fm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection (up to 1.5 kW)<br>**F**: three-phase 220/380 V - 60 Hz or 220/240 V - 60 Hz<br>– The three-phase pump is fitted with a high performance motor in class IE3 (IEC 60034-30-1)<br>– Continuous running duty S1 |

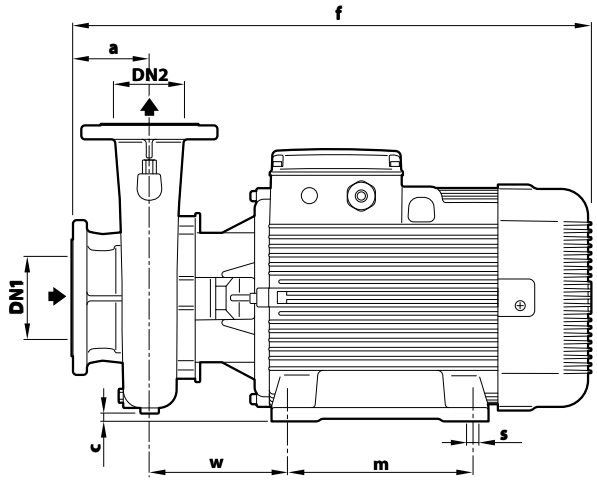


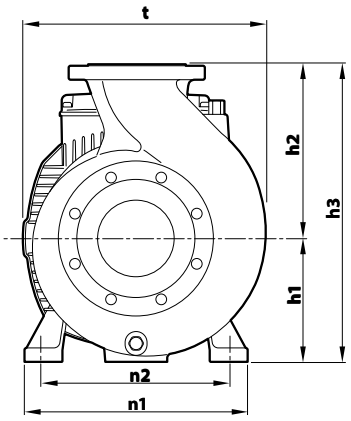
## DIMENSIONS AND WEIGHT




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN1 | DN2 | a | f | h1 | h2 | h3 | t | n1 | n2 | m1 | m2 | s | 1~ | 3~ |
| Fm 32/160C | F 32/160C | 50 | 32 | 80 | 416 | 132 | 160 | 292 | 240 | 245 | 190 | 100 | 70 | 14 | 32.6 | 32.5 |
| Fm 32/160B | F 32/160B | | | | 436 | | | | | | | | | | 35.3 | 36.0 |
| – | F 32/160A | | | | 473 | | | | | | | | | | – | 39.0 |
| – | F 32/200C | | | | 478 | 160 | 180 | 340 | 273 | | | 95 | | | – | 46.0 |
| – | F 32/200B | | | | | | | | | | | | | | – | 50.0 |
| – | F 32/200A | | | | 528 | | | | | | | | | | – | 57.0 |
| – | F 32/200BH | | | | 478 | | | | | | | | | | – | 41.7 |
| – | F 32/200AH | | | | | | | | | | | | | | – | 45.0 |
| – | F 32/250C | | | 100 | 659 | 180 | 225 | 405 | 325 | 320 | 250 | 125 | 95 | | – | 105.0 |
| – | F 32/250B | | | | | | | | | | | | | | – | 103.3 |
| – | F 32/250A | | | | | | | | | | | | | | – | 121.0 |
| Fm 40/125C | F 40/125C | 65 | 40 | 80 | 421 | 112 | 140 | 252 | 244 | 210 | 160 | 100 | 70 | | 31.5 | 31.0 |
| Fm 40/125B | F 40/125B | | | | | | | | | | | | | | 33.0 | 32.4 |
| – | F 40/125A | | | | 441 | | | | | | | | | | – | 35.3 |
| Fm 40/160C | F 40/160C | | | | 435 | 132 | 160 | 292 | 241 | 240 | 190 | | | | 35.3 | 36.0 |
| – | F 40/160B | | | | 473 | | | | | | | | | | – | 36.1 |
| – | F 40/160A | | | | | | | | | | | | | | – | 43.0 |
| – | F 40/200B | | | 100 | 498 | 160 | 180 | 340 | 277 | 265 | 212 | | | | – | 52.4 |
| – | F 40/200A | | | | 548 | | | | | | | | | | – | 59.0 |
| – | F 40/250C | | | | 659 | 180 | 225 | 405 | 329 | 320 | 250 | 125 | 95 | | – | 105.0 |
| – | F 40/250B | | | | | | | | | | | | | | – | 105.0 |
| – | F 40/250A | | | | | | | | | | | | | | – | 128.5 |
| Fm 50/125C | F 50/125C | 65 | 50 | | 455 | 132 | 160 | 292 | 242 | 240 | 190 | 100 | 70 | | 34.4 | 35.1 |
| – | F 50/125B | | | | 493 | | | | | | | | | | – | 35.2 |
| – | F 50/125A | | | | | | | | | | | | | | – | 42.0 |
| – | F 50/160C | | | | 498 | 160 | 180 | 340 | 273 | 265 | 212 | | | | – | 45.5 |
| – | F 50/160B | | | | | | | | | | | | | | – | 51.0 |
| – | F 50/160A | | | | 548 | | | | | | | | | | – | 57.0 |
| – | F 50/200C | | | | 669 | | 200 | 360 | 316.5 | | | | | | – | 100.0 |
| – | F 50/200B | | | | | | | | | | | | | | – | 114.0 |
| – | F 50/200A | | | | 769 | | | | | | | | | | – | 127.0 |
| – | F 50/200AR | | | | 768.5 | | | | | | | | | | – | 143.0 |
| – | F 50/250D | | | | 659 | 180 | 225 | 405 | 333 | 320 | 250 | 125 | 95 | | – | 105.0 |
| – | F 50/250C | | | | | | | | | | | | | | – | 108.0 |
| – | F 50/250B | | | | | | | | | | | | | | – | 121.0 |
| – | F 50/250A | | | | 759 | | | | | | | | | | – | 134.0 |
| – | F 50/250AR | | | | | | | | | | | | | | – | 149.0 |
| – | F 65/125C | 80 | 65 | | 520 | 160 | 180 | 340 | 292 | 280 | 212 | | | | – | 53.4 |
| – | F 65/125B | | | | | | | | | | | | | | – | 58.0 |
| – | F 65/125A | | | | 570 | | | | | | | | | | – | 64.0 |
| – | F 65/160C | | | | 674 | | 200 | 360 | 295 | | | | | | – | 100.0 |
| – | F 65/160B | | | | | | | | | | | | | | – | 100.0 |
| – | F 65/160A | | | | | | | | | | | | | | – | 112.0 |
| – | F 65/200B | | | | 676 | 180 | 225 | 405 | 336 | 320 | 250 | | | | – | 119.3 |
| – | F 65/200A | | | | 776 | | | | | | | | | | – | 132.0 |
| – | F 65/200AR | | | | | | | | | | | | | | – | 147.0 |
| – | F 80/160D | 100 | 80 | 125 | 705 | | | | 330 | | | | | | – | 104.0 |
| – | F 80/160C | | | | | | | | | | | | | | – | 121.0 |
| – | F 80/160B | | | | 805 | | | | | | | | | | – | 133.0 |
| – | F 80/160A | | | | | | | | | | | | | | – | 145.0 |
| – | F 100/160A | 125 | 100 | | 818 | 200 | 280 | 480 | 382 | 360 | 280 | 160 | 120 | 18 | – | 165.0 |

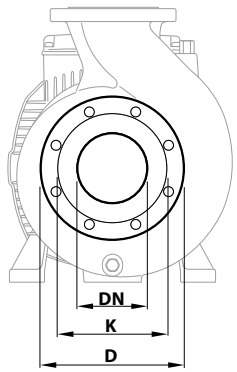
## DIMENSIONS AND WEIGHT




| TYPE | PORTS | | DIMENSIONS mm | | | | | | | | | | | kg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-ph. | DN1 | DN2 | a | f | h1 | h2 | h3 | c | t | n1 | n2 | w | m | s | 3~ |
| F 65/250C | 80 | 65 | 100 | 809 | 200 | 250 | 450 | 15 | 377 | 360 | 318 | 214.5 | 305 | 19 | 211.0 |
| F 65/250B | | | | | | | | | | | | | | | 225.0 |
| F 65/250A | | | | | | | | | | | | | | | 239.0 |
| F 80/200B | 100 | 80 | 125 | 837 | 200 | 250 | 450 | 25 | 372 | 360 | 318 | 217.5 | 305 | 19 | 203.0 |
| F 80/200A | | | | | | | | | | | | | | | 218.0 |
| F 80/250B | | | | 834 | | 280 | 480 | 5 | 390 | | | 214.5 | | | 249.0 |
| F 80/250A | | | | 1015 | 250 | | 620 | 55 | 490 | 490 | 400 | 294 | 350 | 24 | 547.0 |
| F 100/200C | 125 | 100 | 125 | 839 | 200 | 280 | 480 | – | 395 | 360 | 318 | 219.5 | 305 | 19 | 217.0 |
| F 100/200B | | | | | | | | | | | | | | | 231.0 |
| F 100/200A | | | | | | | | | | | | | | | 245.0 |
| F 100/250B | | | 140 | 1060 | 250 | 280 | 620 | 40 | 485 | 485 | 406 | 313 | 350 | 24 | 551.2 |
| F 100/250A | | | | | | | | | | | | | | | 544.3 |

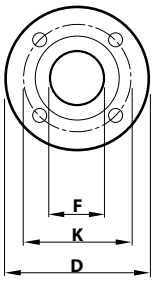
## PORT FLANGES




| DN FLANGE | D | K | HOLES | |
|---|---|---|---|---|
| mm | mm | mm | N° | Ø (mm) |
| 32 | 140 | 100 | 4 | 18 |
| 40 | 150 | 110 | | |
| 50 | 165 | 125 | | |
| 65 | 185 | 145 | | |
| 80 | 200 | 160 | 8 | |
| 100 | 220 | 180 | | |
| 125 | 250 | 210 | | |

## COUNTER-FLANGE

(CAN BE ORDERED SEPARATELY)




| DN FLANGE | F | D | K | HOLES | |
|---|---|---|---|---|---|
| mm | COUNTER-FLANGE | mm | mm | N° | Ø (mm) |
| 32 | 1¼" | 140 | 100 | 4 | 18 |
| 40 | 1½" | 150 | 110 | | |
| 50 | 2" | 165 | 125 | | |
| 65 | 2½" | 185 | 145 | | |
| 80 | 3" | 200 | 160 | 8 | |
| 100 | 4" | 220 | 180 | | |
| 125 | 5" | 250 | 210 | | |

Clean water

Industrial use

※ **Pump entirely made of AISI 316 stainless steel**



## PERFORMANCE RANGE

- Flow rate up to **2200 l/min** (132 m³/h)
- Head up to **37 m**
- Power from **4** to **7.5 kW**

## INSTALLATION AND USE

Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.

- Water supply
- Pressurization
- Irrigation
- Water circulation in air conditioning systems
- Power washing systems
- Firefighting systems
- Industrial applications
- Agriculture applications

## ELECTRIC MOTOR

The three-phase pumps are equipped with newly developed electric motors designed to work with inverters, which guarantee stable and quiet operation.

Efficiency class **IE3** for three-phase motors, **IE2** for single-phase motors, class F insulation and IP55 protection.

## APPLICATION LIMITS

- Manometric suction head up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Maximum pressure in the pump body **10 bar** (PN10)

## AVAILABLE UPON REQUEST

※ Mechanical seal options available
※ Different voltage or frequency
※ Handling of liquids with higher or lower temperatures
※ Adaptability to operate in high or low temperature environments

## PERFORMANCE DATA

**60 Hz**

| TYPE | POWER (P2) | | | PERFORMANCE | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | Q l/min | H m | Q l/min | H m | Q l/min | H m |
| **F 50/160C-I** | 4 | 5.5 | IE3 | **300** | 27 | **800** | 20 | **1000** | 16 |
| **F 50/160B-I** | 5.5 | 7.5 | | **300** | 32 | **900** | 26 | **1100** | 21 |
| **F 50/160A-I** | 7.5 | 10 | | **300** | 37 | **900** | 32 | **1100** | 27 |
| **F 65/125C-I** | 4 | 5.5 | IE3 | **600** | 16 | **1600** | 12.5 | **1800** | 11 |
| **F 65/125B-I** | 5.5 | 7.5 | | **600** | 18 | **1800** | 14.5 | **2000** | 13 |
| **F 65/125A-I** | 7.5 | 10 | | **600** | 23 | **1800** | 21 | **2200** | 18 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

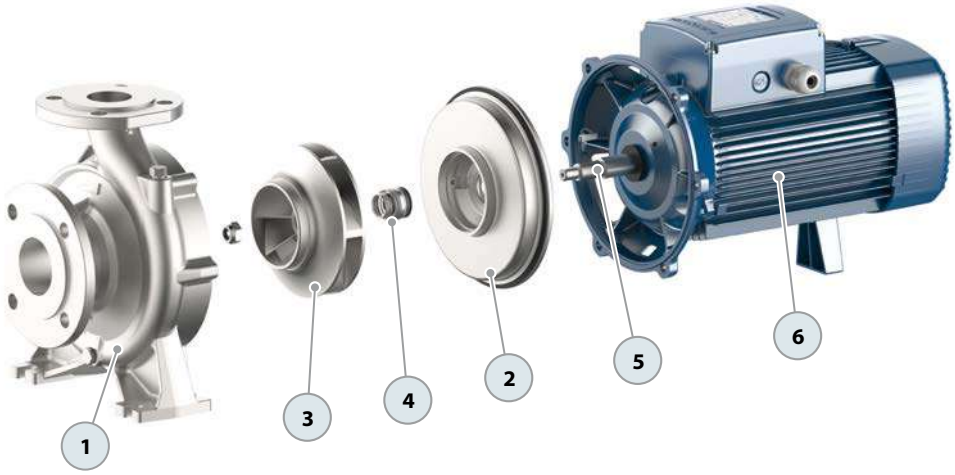
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## MATERIALS AND COMPONENTS

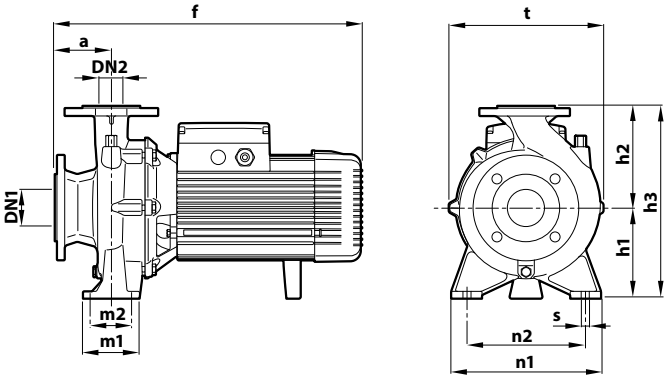
| | | | | |
|---|---|---|---|---|
| **1** | **Pump body** | Stainless steel **AISI 316** | | |
| **2** | **Cover** | Stainless steel **AISI 316** | | |
| **3** | **Impeller** | Stainless steel **AISI 316** | | |
| **4** | **Mechanical seal** | Type | Shaft | Materials |
| | | **FN-24SV** | Ø 24 mm | Silicon carbide / Silicon carbide / Viton |
| **5** | **Motor shaft** | Stainless steel **AISI 316L** | | |

**6** **Electric motor**

- Three-phase 220/380 V - 60 Hz or 220/240 V - 60 Hz
- The three-phase pump is fitted with a high performance motor in class IE3 (IEC 60034-30-1)
- Continuous running duty S1




## DIMENSIONS AND WEIGHT




## ABSORPTION

| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| **Three-phase** | **220 V - Δ** | **380 V - Y** | **220 V - Δ** | **440 V - Y** |
| **F 50/160C-I** | 17.7 A | 10.3 A | 16.4 A | 12.5 A |
| **F 50/160B-I** | 21.0 A | 12.0 A | 20.8 A | 13.5 A |
| **F 50/160A-I** | 28.0 A | 16.5 A | 26.7 A | 17.5 A |
| **F 65/125C-I** | 18.0 A | 10.4 A | 19.5 A | 12.5 A |
| **F 65/125B-I** | 22.5 A | 13.0 A | 22.0 A | 13.8 A |
| **F 65/125A-I** | 32.0 A | 18.5 A | 32.0 A | 19.5 A |

| TYPE | PORTS | | DIMENSIONS mm | | | | | | | | | | | kg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Three-phase** | **DN1** | **DN2** | a | f | h1 | h2 | h3 | t | n1 | n2 | m1 | m2 | s | 3~ |
| **F 50/160C-I** | **65** | **50** | 100 | 498 | 160 | 180 | 340 | 269 | 265 | 212 | 100 | 70 | 14 | 49.0 |
| **F 50/160B-I** | | | | | | | | | | | | | | 55.0 |
| **F 50/160A-I** | | | | 548 | | | | | | | | | | 62.0 |
| **F 65/125C-I** | **80** | **65** | | 520 | | | | 291 | 280 | | 125 | 95 | | 58.2 |
| **F 65/125B-I** | | | | | | | | | | | | | | 62.1 |
| **F 65/125A-I** | | | | 570 | | | | | | | | | | 68.0 |

Clean water

Industrial use



## PERFORMANCE RANGE

- Flow rate up to **2900 l/min** (174 m³/h)
- Head up to **23.8 m**
- Power from **0.37** to **9.2 kW**

## INSTALLATION AND USE

- Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.
- Water supply
- Pressurization
- Irrigation
- Water circulation in air conditioning systems
- Power washing systems
- Firefighting systems
- Industrial applications
- Agriculture applications

Installation is to be carried out in well-ventilated enclosed locations or otherwise protected from the weather.

## ELECTRIC MOTOR

The three-phase pumps are equipped with newly developed electric motors designed to work with inverters, which guarantee stable and quiet operation.

Efficiency class **IE3** for three-phase motors, **IE2** for single-phase motors, class F insulation and IP55 protection.

## APPLICATION LIMITS

- Manometric suction head up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Maximum pressure in the pump body **10 bar (PN10)**

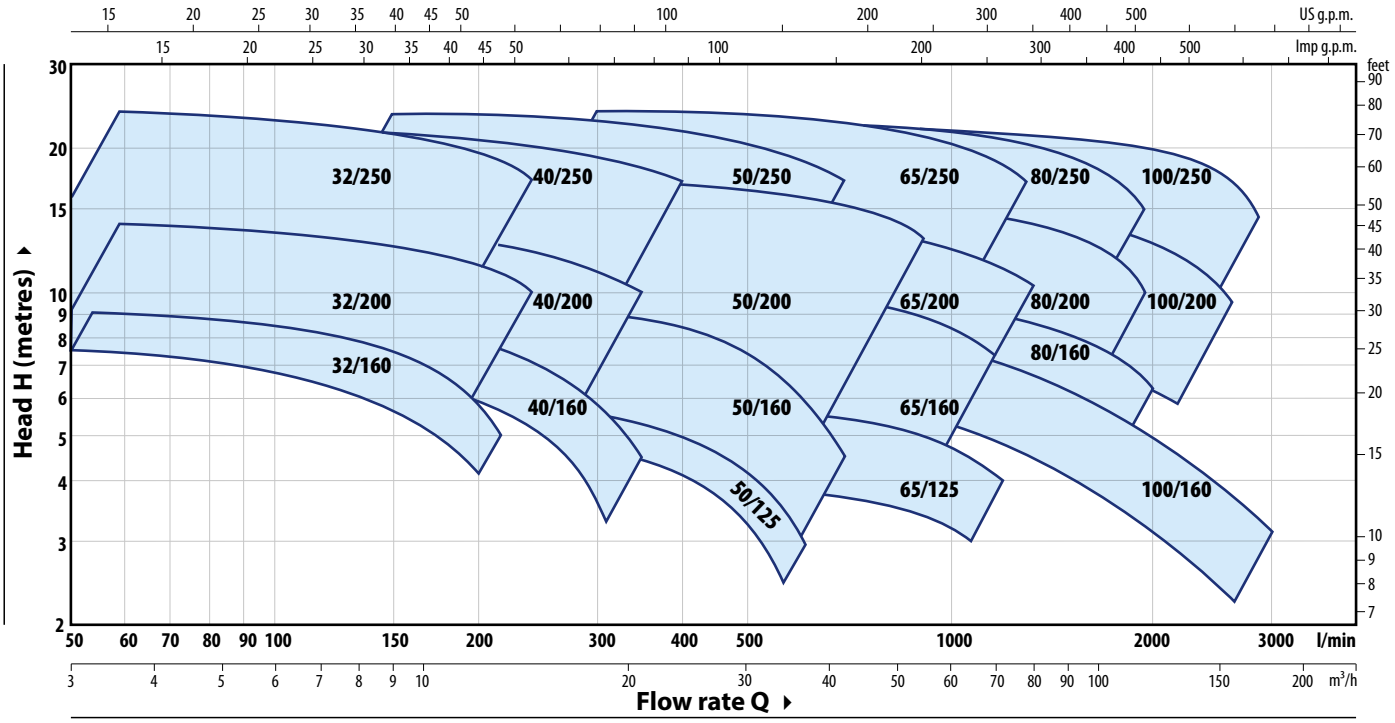
## AVAILABLE UPON REQUEST

※ Different voltage requirements 60 Hz frequency
※ Handling of liquids with higher or lower temperatures
※ Adaptability to operate in high or low temperature environments

※ Counterflange KIT including screws, nuts and gaskets



## PERFORMANCE RANGE – n= 1750 min$^{-1}$ 60 Hz




## PERFORMANCE DATA – n= 1750 min$^{-1}$ 60 Hz

| TYPE | POWER (P2) | | PERFORMANCE | |
|---|---|---|---|---|
| Three-ph. | kW | HP | Q l/min | H m |
| F4-32/160B | 0.37 | 0.5 | 50 – 200 | 7.5 – 4.5 |
| F4-32/160A | 0.37 | 0.5 | 50 – 225 | 9 – 5 |
| F4-32/200B | 0.75 | 1 | 50 – 250 | 12.5 – 9 |
| F4-32/200A | 1.1 | 1.5 | 50 – 250 | 14 – 10.5 |
| F4-32/200BH | 0.75 | 1 | 50 – 150 | 11.3 – 9.2 |
| F4-32/200AH | 0.75 | 1 | 50 – 160 | 13.8 – 11 |
| F4-32/250C | 1.1 | 1.5 | 50 – 220 | 18.4 – 15 |
| F4-32/250B | 1.5 | 2 | 50 – 250 | 21.7 – 17.4 |
| F4-32/250A | 2.2 | 3 | 50 – 270 | 23.8 – 18.7 |
| F4-40/160B | 0.37 | 0.5 | 50 – 320 | 7.5 – 3.5 |
| F4-40/160A | 0.55 | 0.75 | 50 – 350 | 9 – 4.5 |
| F4-40/200B | 0.75 | 1 | 50 – 350 | 11.5 – 7 |
| F4-40/200A | 1.1 | 1.5 | 50 – 350 | 13.8 – 10 |
| F4-40/250C | 1.1 | 1.5 | 50 – 400 | 15.5 – 10 |
| F4-40/250B | 1.5 | 2 | 50 – 400 | 17.5 – 12 |
| F4-40/250A | 2.2 | 3 | 50 – 400 | 22 – 17 |
| F4-50/125B | 0.55 | 0.75 | 150 – 600 | 5 – 2 |
| F4-50/125A | 0.55 | 0.75 | 150 – 600 | 6 – 3 |
| F4-50/160B | 0.75 | 1 | 150 – 650 | 8 – 3.8 |
| F4-50/160A | 1.1 | 1.5 | 150 – 700 | 9.3 – 4.5 |
| F4-50/200C | 1.5 | 2 | 200 – 850 | 11 – 7.5 |
| F4-50/200B | 2.2 | 3 | 200 – 850 | 13 – 9.5 |
| F4-50/200A | 2.2 | 3 | 200 – 900 | 15 – 11.2 |
| F4-50/200AR | 3 | 4 | 200 – 900 | 17 – 13.2 |
| F4-50/250D | 1.1 | 1.5 | 150 – 650 | 12.5 – 5 |
| F4-50/250C | 1.5 | 2 | 150 – 700 | 14 – 5 |
| F4-50/250B | 2.2 | 3 | 150 – 700 | 18 – 10.5 |
| F4-50/250A | 2.2 | 3 | 150 – 700 | 20 – 13 |
| F4-50/250AR | 3 | 4 | 150 – 700 | 23.5 – 17 |

| TYPE | POWER (P2) | | PERFORMANCE | |
|---|---|---|---|---|
| Three-ph. | kW | HP | Q l/min | H m |
| F4-65/125B | 0.75 | 1 | 300 – 1100 | 4.7 – 3 |
| F4-65/125A | 1.1 | 1.5 | 300 – 1200 | 5.7 – 4 |
| F4-65/160C | 1.1 | 1.5 | 300 – 1100 | 8 – 5.5 |
| F4-65/160B | 1.5 | 2 | 300 – 1200 | 9.1 – 5.7 |
| F4-65/160A | 2.2 | 3 | 300 – 1200 | 10.1 – 7 |
| F4-65/200A | 2.2 | 3 | 300 – 1250 | 12 – 8.5 |
| F4-65/200AR | 3 | 4 | 300 – 1300 | 14 – 10 |
| F4-65/250B | 4 | 5.5 | 200 – 1250 | 21.8 – 15.5 |
| F4-65/250A | 5.5 | 7.5 | 200 – 1300 | 23.5 – 17 |
| F4-80/160D | 1.5 | 2 | 300 – 2000 | 6.3 – 2.5 |
| F4-80/160C | 2.2 | 3 | 300 – 2000 | 7.5 – 3.8 |
| F4-80/160B | 2.2 | 3 | 300 – 2000 | 8.8 – 5 |
| F4-80/160A | 3 | 4 | 300 – 2000 | 10 – 6.2 |
| F4-80/200B | 4 | 5.5 | 300 – 1800 | 14 – 9 |
| F4-80/200A | 5.5 | 7.5 | 300 – 1900 | 15.5 – 10.5 |
| F4-80/250B | 5.5 | 7.5 | 300 – 1800 | 19.5 – 13.5 |
| F4-80/250A | 7.5 | 10 | 300 – 1950 | 22 – 15 |
| F4-100/160A | 3 | 4 | 400 – 2800 | 10 – 4.7 |
| F4-100/200C | 4 | 5.5 | 400 – 2300 | 12.7 – 7 |
| F4-100/200B | 5.5 | 7.5 | 400 – 2400 | 14.2 – 8.5 |
| F4-100/200A | 5.5 | 7.5 | 400 – 2600 | 15.8 – 9.5 |
| F4-100/250B | 7.5 | 10 | 400 – 2600 | 18.5 – 11.5 |
| F4-100/250A | 9.2 | 12.5 | 400 – 2900 | 22 – 13.5 |

**Q** = Flow Rate

**H** = Total manometric head

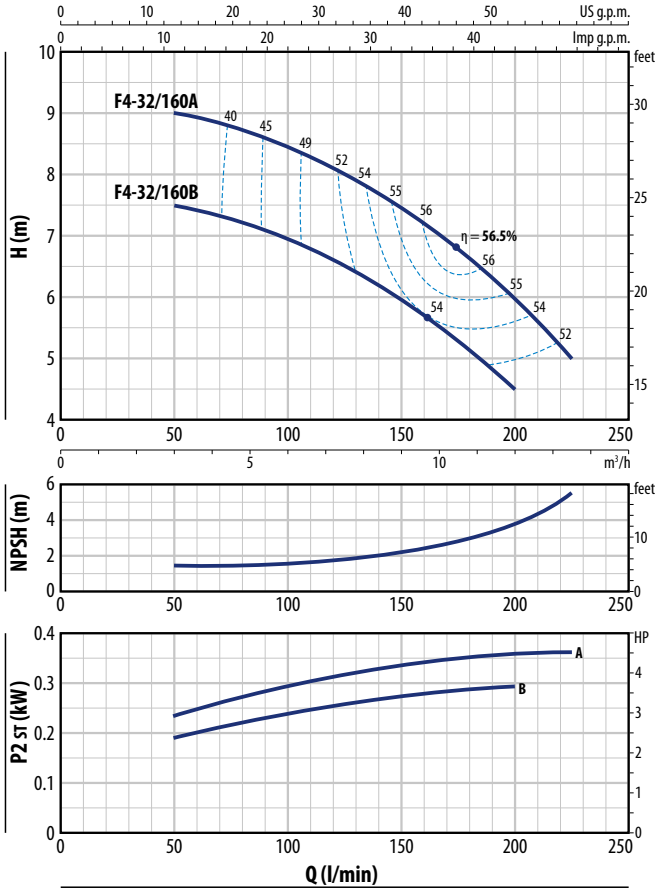
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

# F4-32

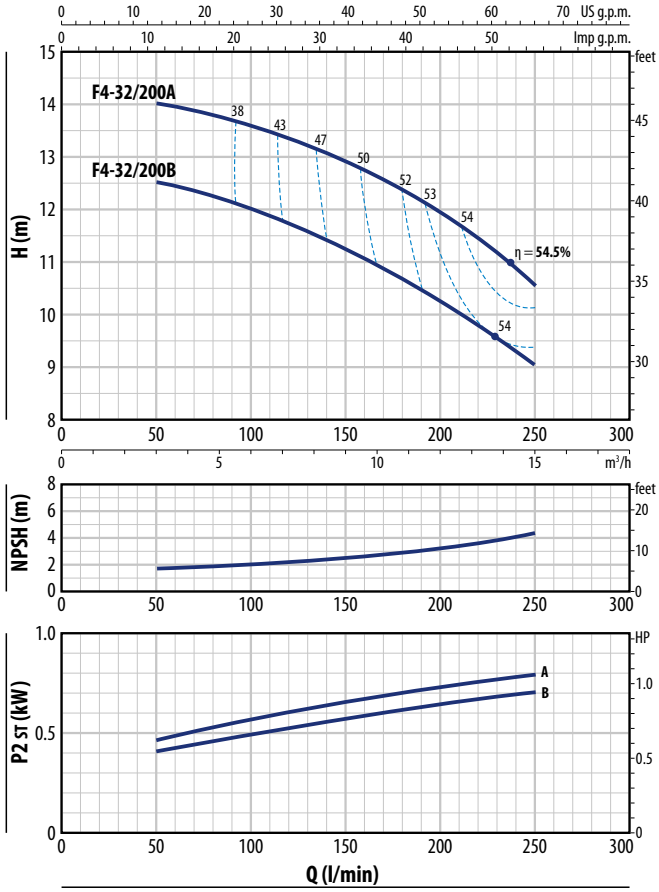
## CURVES AND PERFORMANCE DATA – n= 1750 min$^{-1}$

HS= 0 m **60 Hz**

## F4-32/160




## F4-32/200




## F4-32/160

| TYPE | POWER (P2) | | | Q | m³/h | 3 | 4.5 | 6 | 7.5 | 9 | 10.8 | 12 | 13.5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **50** | **75** | **100** | **125** | **150** | **180** | **200** | **225** |
| **F4-32/160B** | 0.37 | 0.5 | IE3 | H | m | 7.5 | 7.3 | 6.9 | 6.5 | 6 | 5.1 | 4.5 | |
| **F4-32/160A** | 0.37 | 0.5 | | | | 9 | 8.8 | 8.4 | 8 | 7.5 | 6.6 | 6 | 5 |

## F4-32/200

| TYPE | POWER (P2) | | | Q | m³/h | 3 | 6 | 9 | 12 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **50** | **100** | **150** | **200** | **250** |
| **F4-32/200B** | 0.75 | 1 | IE3 | H | m | 12.5 | 12 | 11.2 | 10.3 | 9 |
| **F4-32/200A** | 1.1 | 1.5 | | | | 14 | 13.6 | 12.8 | 11.9 | 10.5 |

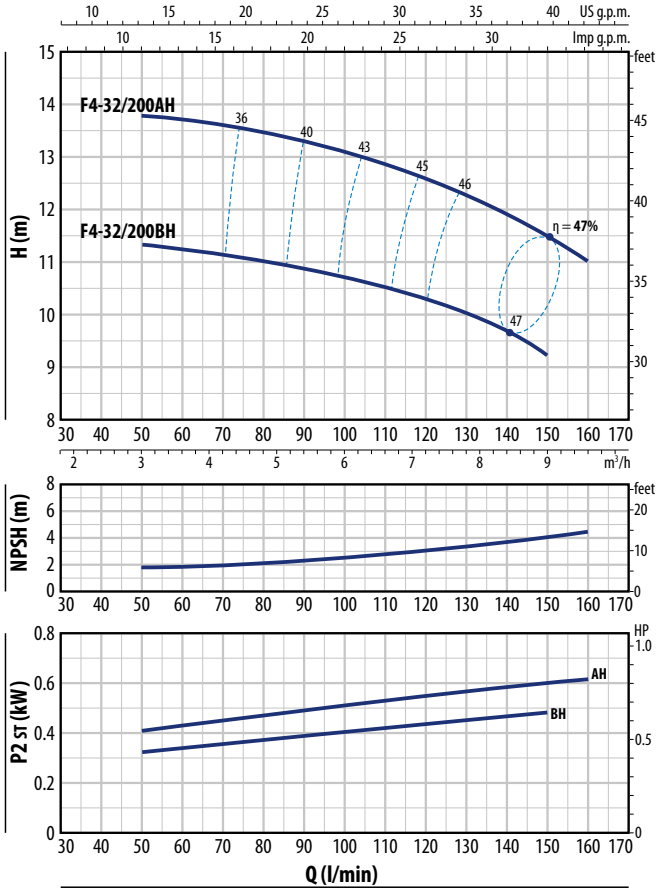
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

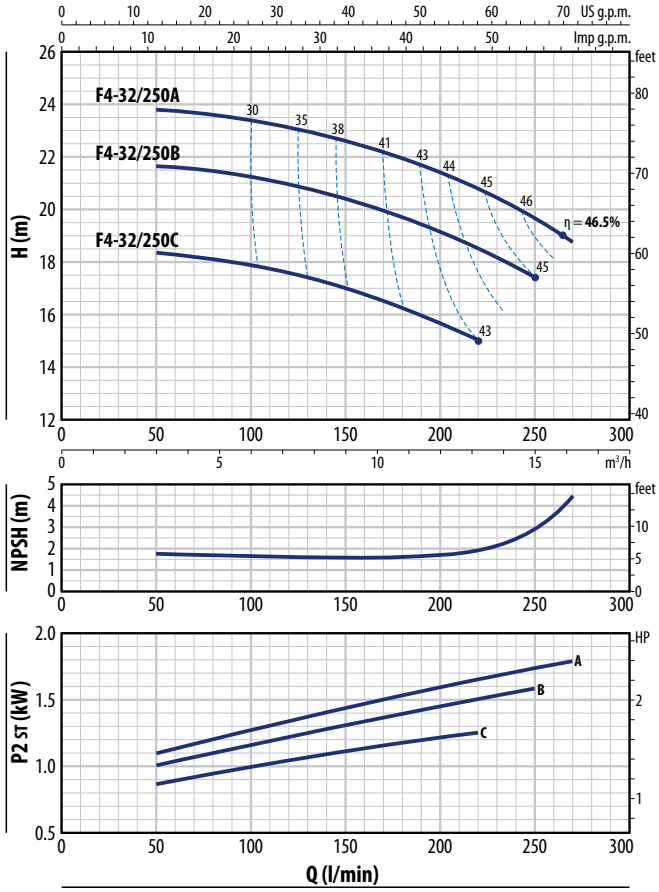
## CURVES AND PERFORMANCE DATA – n= 1750 min$^{-1}$

HS= 0 m **60 Hz**

## F4-32/200H




## F4-32/250




## F4-32/200H

| TYPE | POWER (P2) | | | Q | m³/h | 3 | 4.2 | 5.4 | 6.6 | 7.8 | 9 | 9.6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **50** | **70** | **90** | **110** | **130** | **150** | **160** |
| F4-32/200BH | 0.75 | 1 | IE3 | H | m | 11.3 | 11.1 | 10.8 | 10.5 | 10 | 9.2 | |
| F4-32/200AH | 0.75 | 1 | | | | 13.8 | 13.6 | 13.3 | 12.8 | 12.2 | 11.5 | 11 |

## F4-32/250

| TYPE | POWER (P2) | | | Q | m³/h | 3 | 4.5 | 6 | 7.5 | 9 | 10.5 | 13.2 | 15 | 16.2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **50** | **75** | **100** | **125** | **150** | **175** | **220** | **250** | **270** |
| F4-32/250C | 1.1 | 1.5 | IE3 | H | m | 18.4 | 18.1 | 17.8 | 17.5 | 17 | 16.4 | 15 | | |
| F4-32/250B | 1.5 | 2 | | | | 21.7 | 21.5 | 21.2 | 20.9 | 20.4 | 19.8 | 18.5 | 17.4 | |
| F4-32/250A | 2.2 | 3 | | | | 23.8 | 23.6 | 23.4 | 23 | 22.6 | 22.1 | 20.8 | 19.6 | 18.7 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

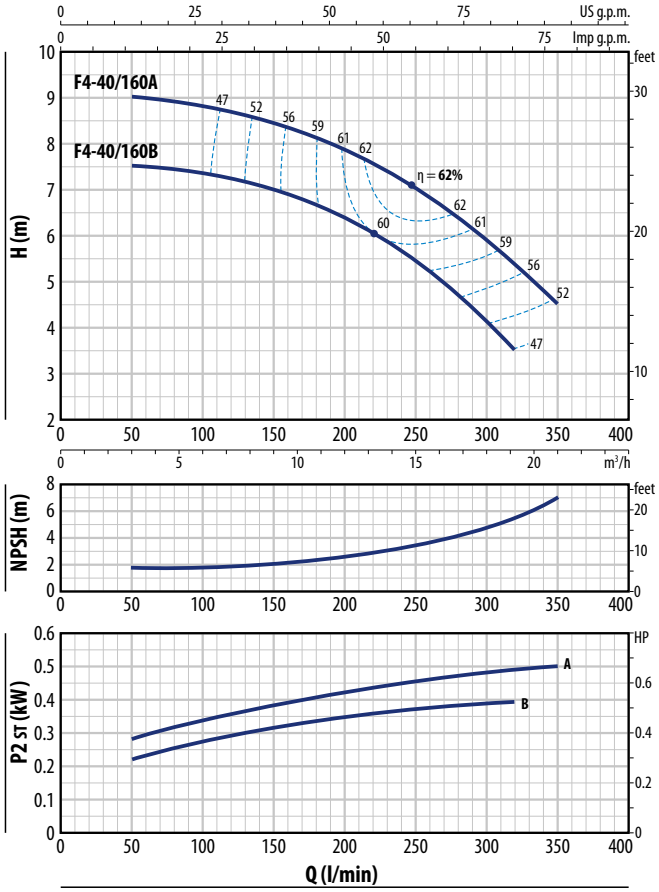
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

# F4-40

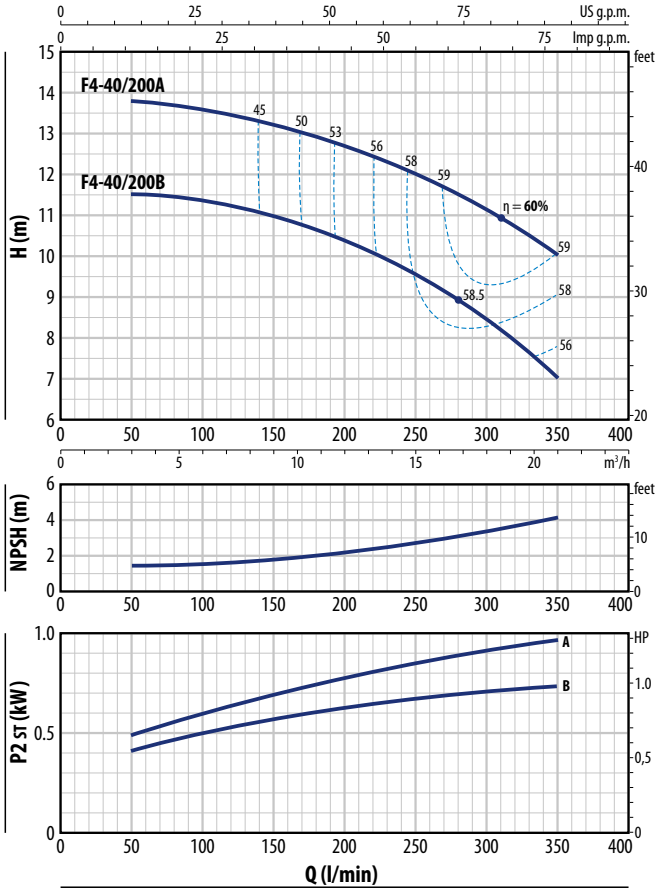
## CURVES AND PERFORMANCE DATA – n= 1750 min$^{-1}$

HS= 0 m **60 Hz**

## F4-40/160




## F4-40/200




## F4-40/160

| TYPE | POWER (P2) | | | Q | m³/h | 3 | 6 | 9 | 12 | 15 | 18 | 19.2 | 21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **50** | **100** | **150** | **200** | **250** | **300** | **320** | **350** |
| **F4-40/160B** | 0.37 | 0.5 | IE3 | H | m | 7.5 | 7.4 | 7 | 6.4 | 5.4 | 4.1 | 3.5 | |
| **F4-40/160A** | 0.55 | 0.75 | | | | 9 | 8.9 | 8.7 | 8.1 | 7.1 | 5.8 | 5.3 | 4.5 |

## F4-40/200

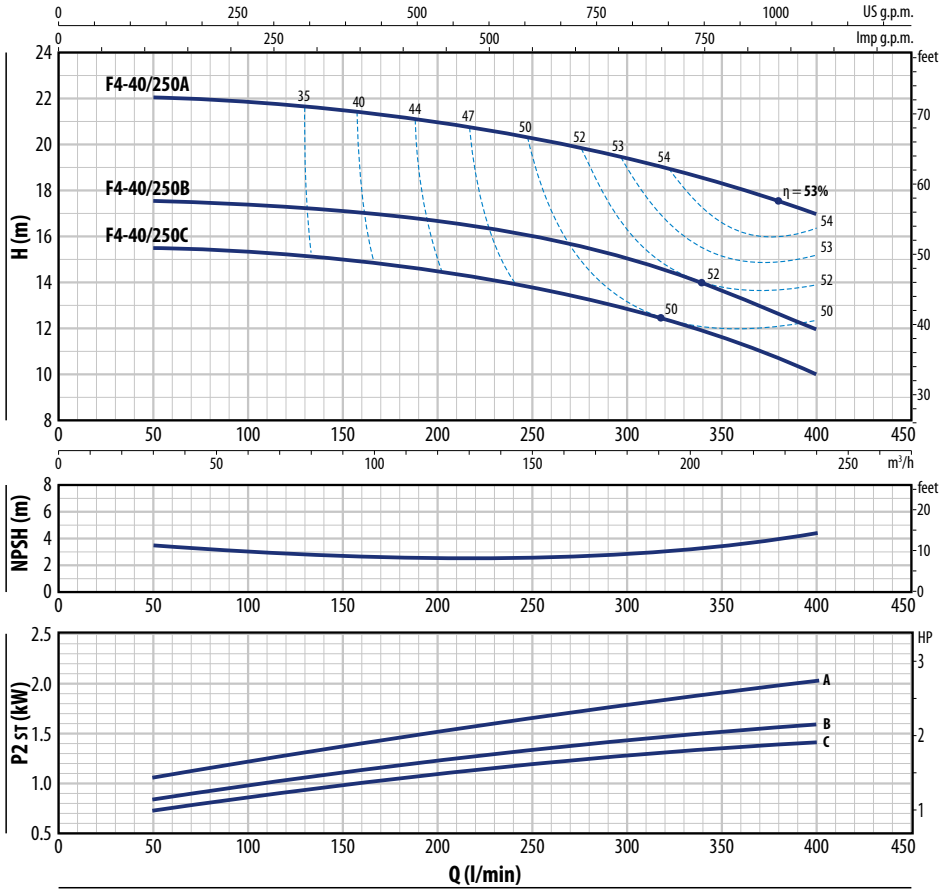
| TYPE | POWER (P2) | | | Q | m³/h | 3 | 6 | 9 | 12 | 15 | 18 | 21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **50** | **100** | **150** | **200** | **250** | **300** | **350** |
| **F4-40/200B** | 0.75 | 1 | IE3 | H | m | 11.5 | 11.4 | 11 | 10.4 | 9.5 | 8.5 | 7 |
| **F4-40/200A** | 1.1 | 1.5 | | | | 13.8 | 13.6 | 13.2 | 12.7 | 12 | 11.1 | 10 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## CURVES AND PERFORMANCE DATA – n= 1750 min$^{-1}$ HS= 0 m 60 Hz

# F4-40/250




# F4-40/250

| TYPE | POWER (P2) | | | Q | m³/h | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **50** | **100** | **150** | **200** | **250** | **300** | **350** | **400** |
| **F4-40/250C** | 1.1 | 1.5 | IE3 | H | m | 15.5 | 15.2 | 15 | 14.5 | 13.6 | 12.9 | 11.5 | 10 |
| **F4-40/250B** | 1.5 | 2 | | | | 17.5 | 17.2 | 17 | 16.5 | 16 | 15 | 13.5 | 12 |
| **F4-40/250A** | 2.2 | 3 | | | | 22 | 21.9 | 21.5 | 21 | 20.2 | 19.2 | 18.2 | 17 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

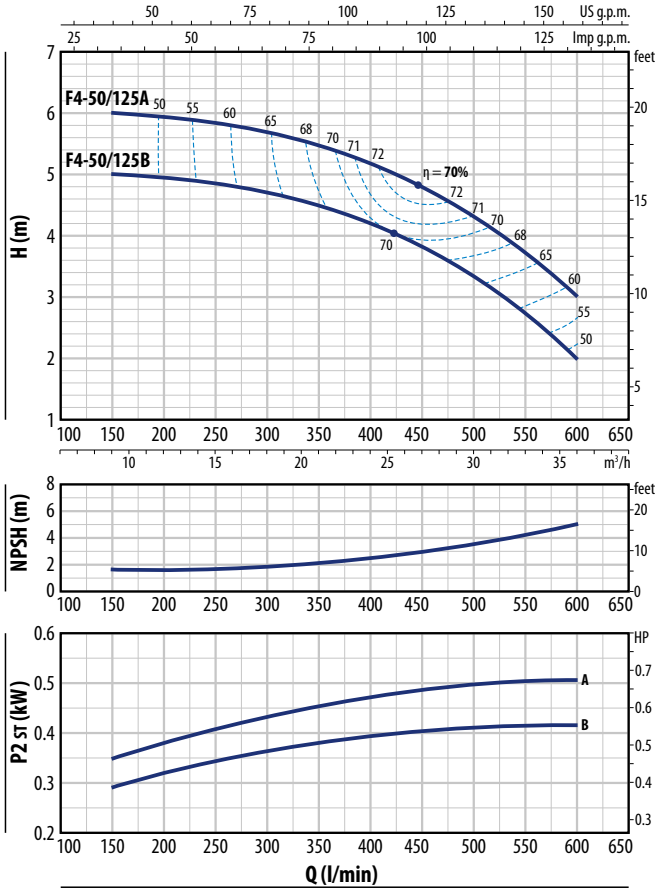
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

# F4-50

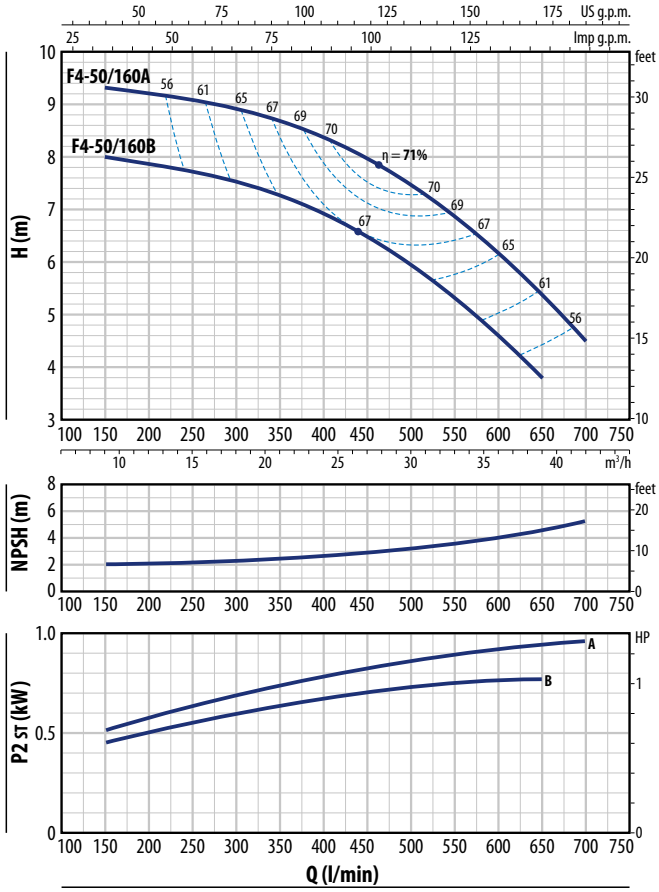
## CURVES AND PERFORMANCE DATA – n= 1750 min$^{-1}$

**HS= 0 m** **60 Hz**

## F4-50/125




## F4-50/160




## F4-50/125

| TYPE | POWER (P2) | | | Q | m³/h | 9 | 12 | 15 | 17 | 21 | 24 | 27 | 30 | 33 | 36 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 |
| F4-50/125B | 0.55 | 0.75 | IE3 | H | m | 5 | 5 | 4.9 | 4.7 | 4.5 | 4.2 | 3.8 | 3.3 | 2.7 | 2 |
| F4-50/125A | 0.55 | 0.75 | | | | 6 | 5.9 | 5.8 | 5.6 | 5.4 | 5.1 | 4.7 | 4.2 | 3.7 | 3 |

## F4-50/160

| TYPE | POWER (P2) | | | Q | m³/h | 9 | 12 | 15 | 17 | 21 | 24 | 27 | 30 | 33 | 36 | 39 | 42 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 |
| F4-50/160B | 0.75 | 1 | IE3 | H | m | 8 | 7.8 | 7.7 | 7.5 | 7.2 | 6.9 | 6.5 | 5.9 | 5.3 | 4.6 | 3.8 | |
| F4-50/160A | 1.1 | 1.5 | | | | 9.3 | 9.2 | 9.1 | 8.9 | 8.7 | 8.4 | 8 | 7.4 | 6.8 | 6.2 | 5.4 | 4.5 |

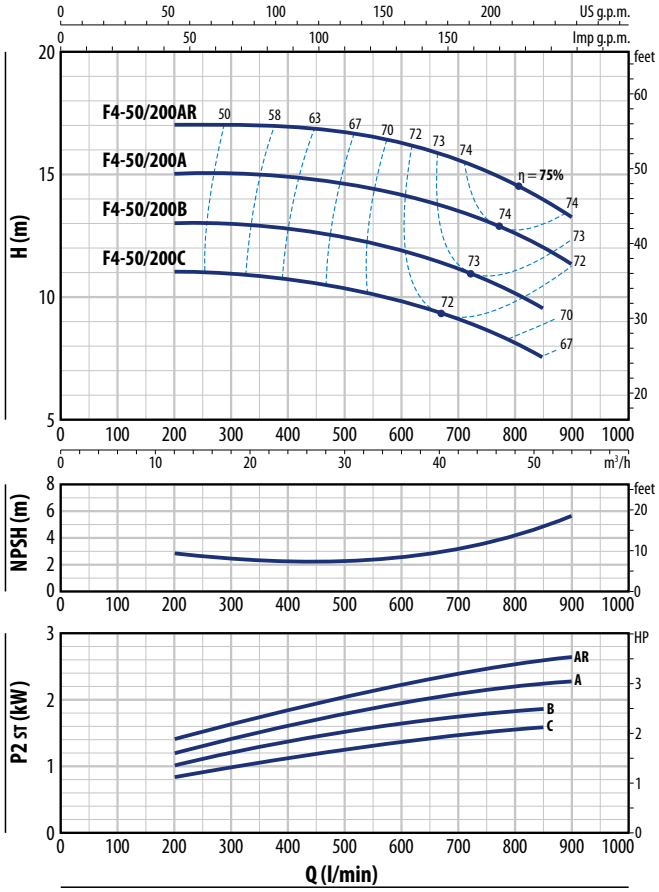
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

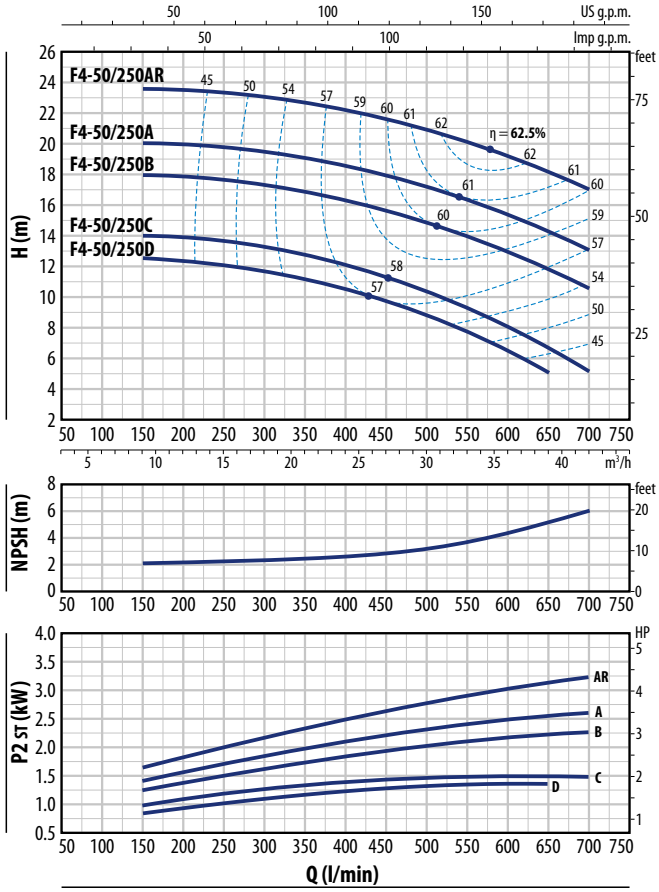
## CURVES AND PERFORMANCE DATA – n= 1750 min$^{-1}$

HS= 0 m **60 Hz**

## F4-50/200




## F4-50/250




## F4-50/200

| TYPE | POWER (P2) | | | Q m³/h | 12 | 17 | 24 | 30 | 36 | 42 | 48 | 51 | 54 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | l/min | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 850 | 900 |
| F4-50/200C | 1.5 | 2 | IE3 | H m | 11 | 11 | 10.8 | 10.3 | 9.8 | 9 | 8 | 7.5 | |
| F4-50/200B | 2.2 | 3 | | | 13 | 13 | 12.8 | 12.4 | 11.9 | 11.1 | 10.1 | 9.5 | |
| F4-50/200A | 2.2 | 3 | | | 15 | 15 | 14.9 | 14.6 | 14.1 | 13.5 | 12.5 | 12 | 11.2 |
| F4-50/200AR | 3 | 4 | | | 17 | 17 | 16.9 | 16.7 | 16.2 | 15.5 | 14.5 | 14 | 13.2 |

## F4-50/250

| TYPE | POWER (P2) | | | Q m³/h | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 | 39 | 42 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | l/min | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 |
| F4-50/250D | 1.1 | 1.5 | IE3 | H m | 12.5 | 12.3 | 12 | 11.5 | 11.1 | 10.5 | 9.8 | 8.8 | 7.8 | 6.5 | 5 | |
| F4-50/250C | 1.5 | 2 | | | 14 | 13.9 | 13.6 | 13.2 | 12.8 | 12 | 11.2 | 10.2 | 9.2 | 8 | 6.6 | 5 |
| F4-50/250B | 2.2 | 3 | | | 18 | 17.9 | 17.6 | 17.2 | 16.8 | 16.2 | 15.5 | 14.8 | 14 | 13 | 11.8 | 10.5 |
| F4-50/250A | 2.2 | 3 | | | 20 | 19.9 | 19.7 | 19.5 | 19 | 18.5 | 18 | 17.2 | 16.2 | 15.3 | 14.2 | 13 |
| F4-50/250AR | 3 | 4 | | | 23.5 | 23.4 | 23.2 | 23 | 22.6 | 22.1 | 21.6 | 21 | 20 | 19 | 18 | 17 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

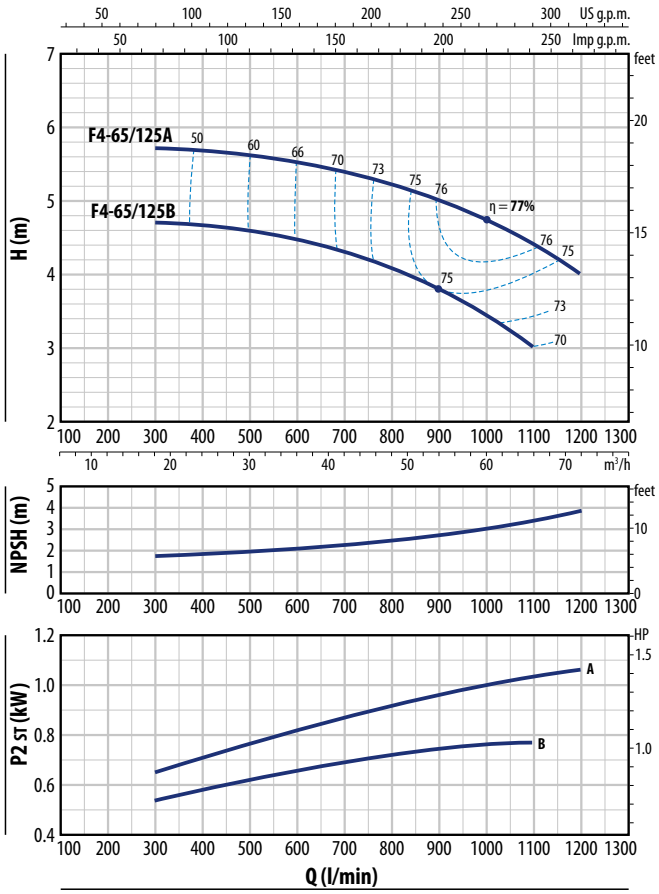
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

# F4-65

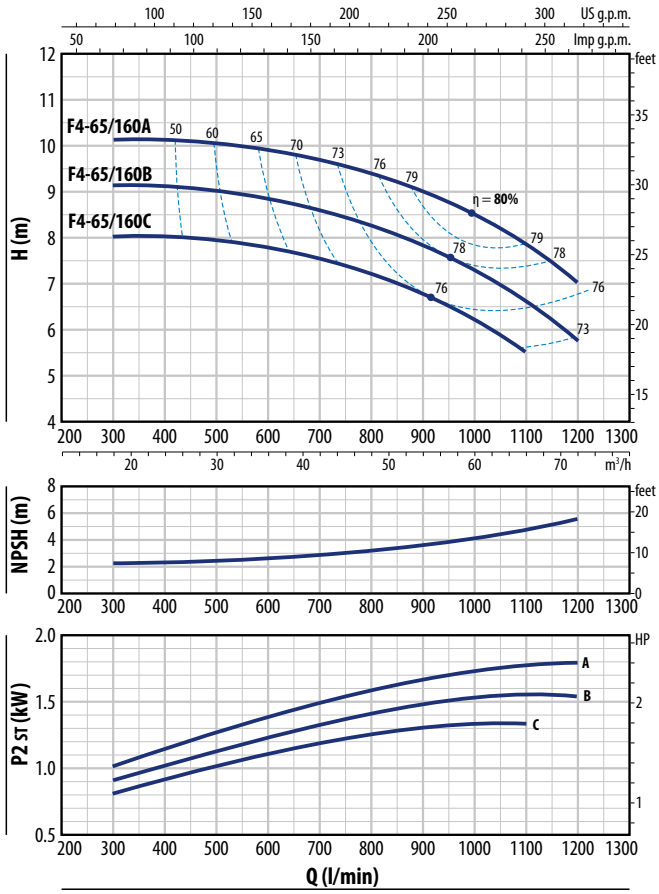
## CURVES AND PERFORMANCE DATA – n= 1750 min$^{-1}$

HS= 0 m **60 Hz**

## F4-65/125




## F4-65/160




## F4-65/125

| TYPE | POWER (P2) | | | Q | m³/h | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 |
| F4-65/125B | 0.75 | 1 | IE3 | H | m | 4.7 | 4.7 | 4.6 | 4.5 | 4.3 | 4.1 | 3.8 | 3.4 | 3 | |
| F4-65/125A | 1.1 | 1.5 | | | | 5.7 | 5.7 | 5.6 | 5.5 | 5.4 | 5.2 | 5 | 4.7 | 4.4 | 4 |

## F4-65/160

| TYPE | POWER (P2) | | | Q | m³/h | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 |
| F4-65/160C | 1.1 | 1.5 | IE3 | H | m | 8 | 8 | 7.9 | 7.7 | 7.5 | 7.2 | 6.7 | 6.2 | 5.5 | |
| F4-65/160B | 1.5 | 2 | | | | 9.1 | 9.1 | 9 | 8.8 | 8.6 | 8.3 | 7.8 | 7.3 | 6.6 | 5.7 |
| F4-65/160A | 2.2 | 3 | | | | 10.1 | 10.1 | 10.1 | 9.9 | 9.7 | 9.4 | 9 | 8.5 | 7.8 | 7 |

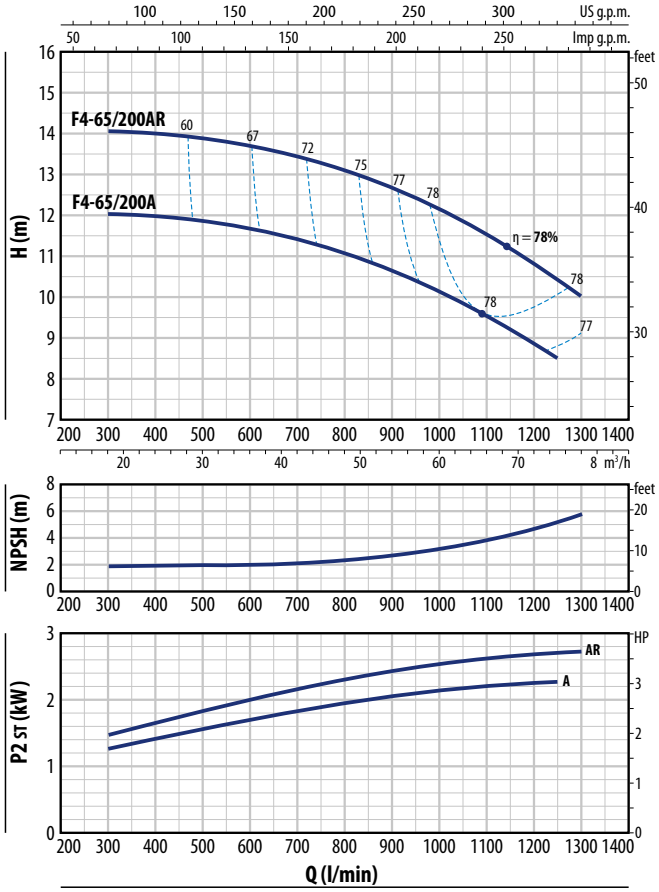
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

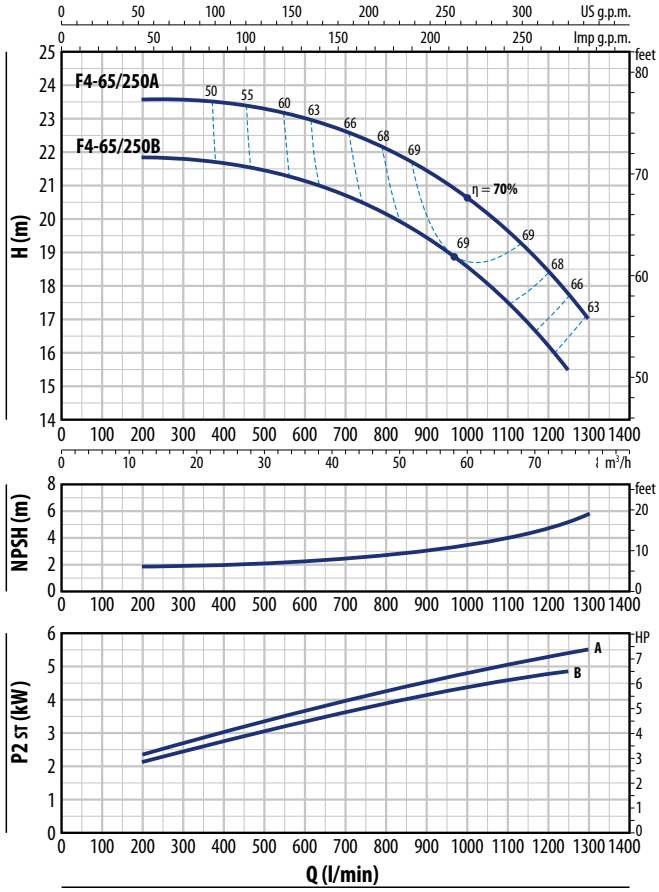
## CURVES AND PERFORMANCE DATA – n= 1750 min$^{-1}$

HS= 0 m **60 Hz**

## F4-65/200




## F4-65/250




## F4-65/200

| TYPE | POWER (P2) | | | Q | m³/h | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 75 | 78 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **300** | **400** | **500** | **600** | **700** | **800** | **900** | **1000** | **1100** | **1200** | **1250** | **1300** |
| F4-65/200A | 2.2 | 3 | IE3 | H | m | 12 | 12 | 11.9 | 11.6 | 11.4 | 11 | 10.6 | 10.1 | 9.5 | 8.8 | 8.5 | |
| F4-65/200AR | 3 | 4 | | | | 14 | 13.9 | 13.8 | 13.6 | 13.4 | 13.1 | 12.7 | 12.1 | 11.5 | 10.8 | 10.3 | 10 |

## F4-65/250

| TYPE | POWER (P2) | | | Q | m³/h | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 75 | 78 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **200** | **300** | **400** | **500** | **600** | **700** | **800** | **900** | **1000** | **1100** | **1200** | **1250** | **1300** |
| F4-65/250B | 4 | 5.5 | IE3 | H | m | 21.8 | 21.8 | 21.7 | 21.5 | 21.2 | 20.7 | 20.2 | 19.5 | 18.6 | 17.5 | 16.2 | 15.5 | |
| F4-65/250A | 5.5 | 7.5 | | | | 23.5 | 23.5 | 23.5 | 23.4 | 23.1 | 22.6 | 22.1 | 21.5 | 20.5 | 19.6 | 18.5 | 17.8 | 17 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

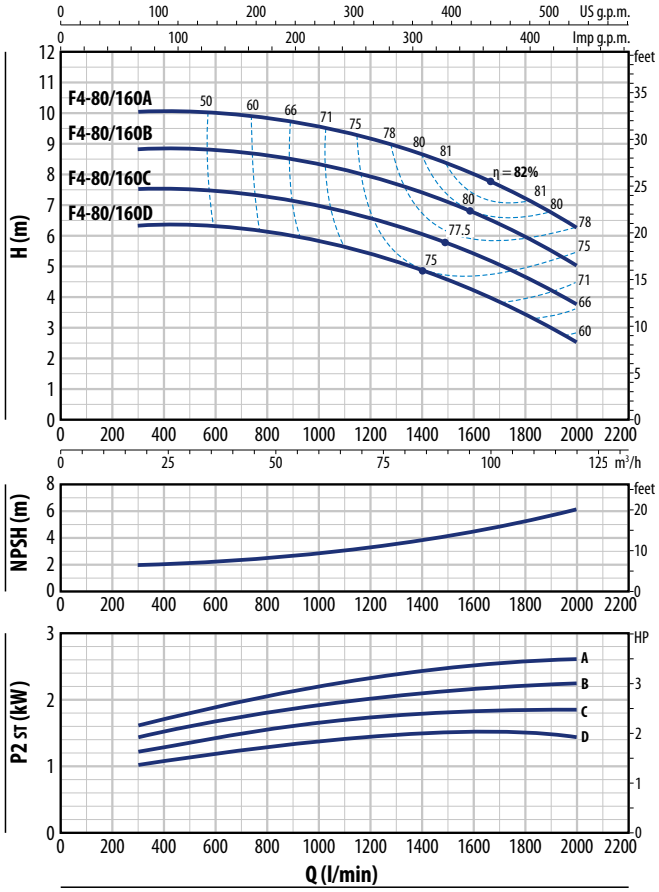
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

# F4-80

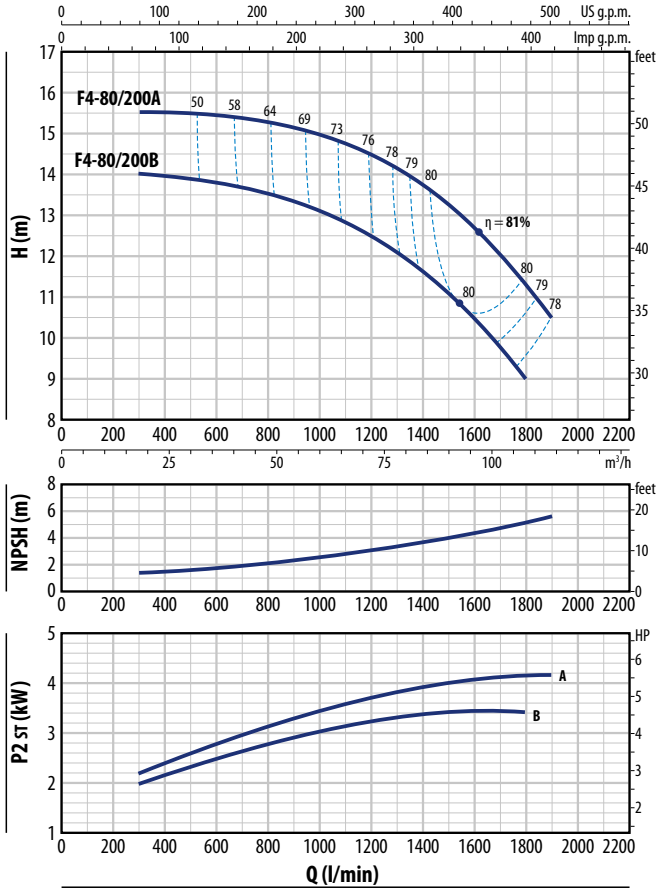
## CURVES AND PERFORMANCE DATA – n= 1750 min$^{-1}$

HS= 0 m **60 Hz**

## F4-80/160




## F4-80/200




## F4-80/160

| TYPE | POWER (P2) | | | Q | m³/h | 18 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **300** | **400** | **600** | **800** | **1000** | **1200** | **1400** | **1600** | **1800** | **2000** |
| **F4-80/160D** | 1.5 | 2 | IE3 | H | m | 6.3 | 6.3 | 6.3 | 6.1 | 5.8 | 5.4 | 4.8 | 4.2 | 3.4 | 2.5 |
| **F4-80/160C** | 2.2 | 3 | | | | 7.5 | 7.5 | 7.4 | 7.3 | 6.9 | 6.5 | 6 | 5.4 | 4.6 | 3.8 |
| **F4-80/160B** | 2.2 | 3 | | | | 8.8 | 8.8 | 8.8 | 8.6 | 8.3 | 7.9 | 7.4 | 6.7 | 5.9 | 5 |
| **F4-80/160A** | 3 | 4 | | | | 10 | 10 | 10 | 9.8 | 9.5 | 9.1 | 8.6 | 8 | 7.2 | 6.2 |

## F4-80/200

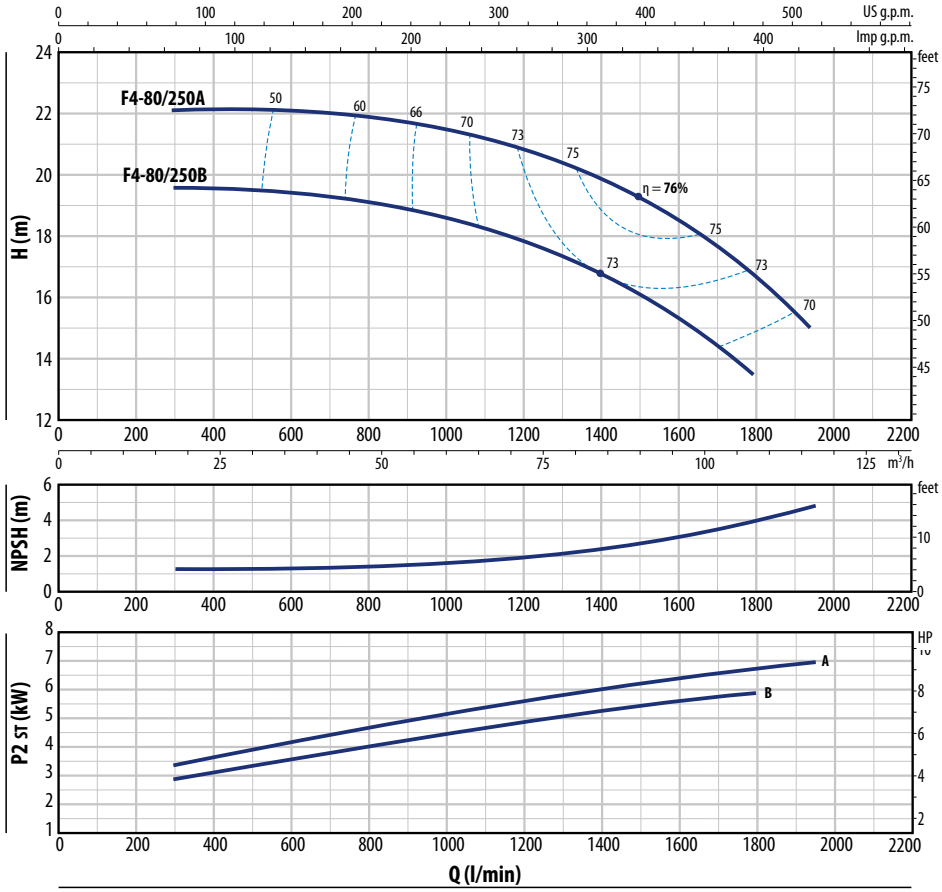
| TYPE | POWER (P2) | | | Q | m³/h | 18 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 114 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **300** | **400** | **600** | **800** | **1000** | **1200** | **1400** | **1600** | **1800** | **1900** |
| **F4-80/200B** | 4 | 5.5 | IE3 | H | m | 14 | 13.9 | 13.7 | 13.4 | 13 | 12.5 | 11.7 | 10.6 | 9 | |
| **F4-80/200A** | 5.5 | 7.5 | | | | 15.5 | 15.5 | 15.4 | 15.2 | 14.8 | 14.5 | 13.7 | 12.8 | 11.5 | 10.5 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## CURVES AND PERFORMANCE DATA – n= 1750 min$^{-1}$ HS= 0 m 60 Hz

# F4-80/250




# F4-80/250

| TYPE | POWER (P2) | | | Q | m³/h | 18 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 117 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | **300** | **400** | **600** | **800** | **1000** | **1200** | **1400** | **1600** | **1800** | **1950** |
| F4-80/250B | 5.5 | 7.5 | IE3 | H | m | 19.5 | 19.5 | 19.5 | 19.2 | 18.7 | 17.9 | 16.7 | 15.3 | 13.5 | |
| F4-80/250A | 7.5 | 10 | | | | 22 | 22 | 22 | 21.9 | 21.6 | 21 | 20 | 18.5 | 16.5 | 15 |

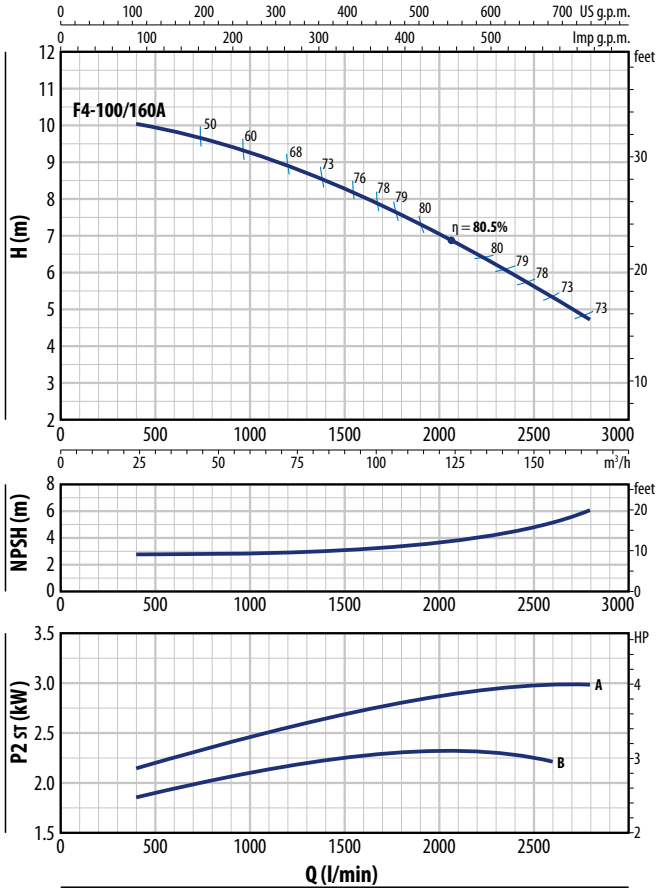
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

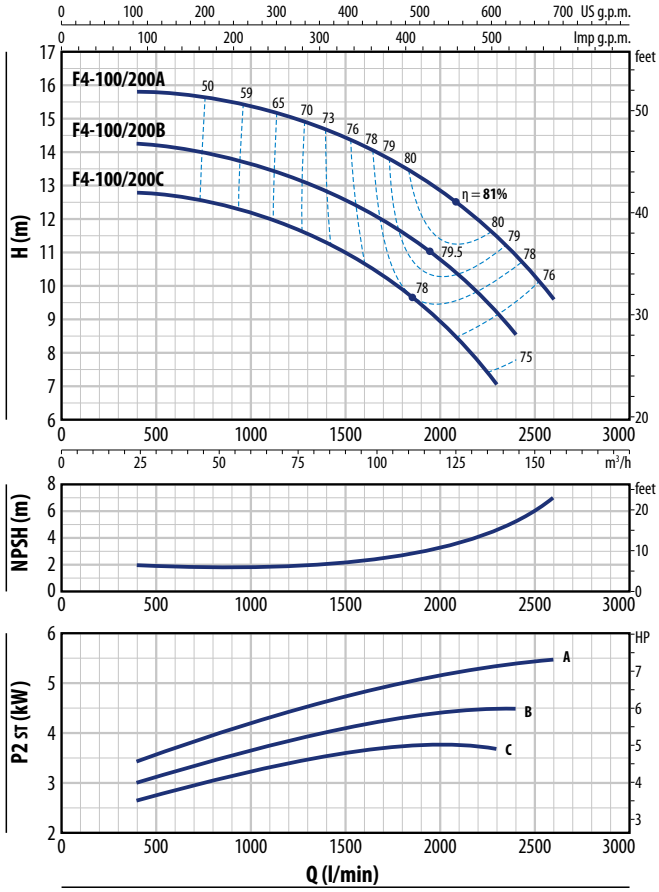
# F4-100

**CURVES AND PERFORMANCE DATA – n= 1750 min$^{-1}$** **HS= 0 m** **60 Hz**

## F4-100/160




## F4-100/200




## F4-100/160

| TYPE | POWER (P2) | | | Q | m³/h | 24 | 48 | 72 | 96 | 120 | 144 | 156 | 168 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | 400 | 800 | 1200 | 1600 | 2000 | 2400 | 2600 | 2800 |
| F4-100/160A | 3 | 4 | IE3 | H | m | 10 | 9.5 | 9 | 8 | 7 | 6 | 5.2 | 4.7 |

## F4-100/200

| TYPE | POWER (P2) | | | Q | m³/h | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 138 | 144 | 156 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | 3~ | | l/min | 400 | 600 | 800 | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 | 2300 | 2400 | 2600 |
| F4-100/200C | 4 | 5.5 | | | | 12.7 | 12.6 | 12.5 | 12.2 | 11.8 | 11.3 | 10.6 | 9.9 | 8.9 | 7 | | |
| F4-100/200B | 5.5 | 7.5 | IE3 | H | m | 14.2 | 14.1 | 13.9 | 13.6 | 13.3 | 12.8 | 12.2 | 11.6 | 10.7 | 9.2 | 8.5 | |
| F4-100/200A | 5.5 | 7.5 | | | | 15.8 | 15.7 | 15.6 | 15.4 | 15 | 14.6 | 14.2 | 13.5 | 12.8 | 12 | 11.4 | 9.5 |

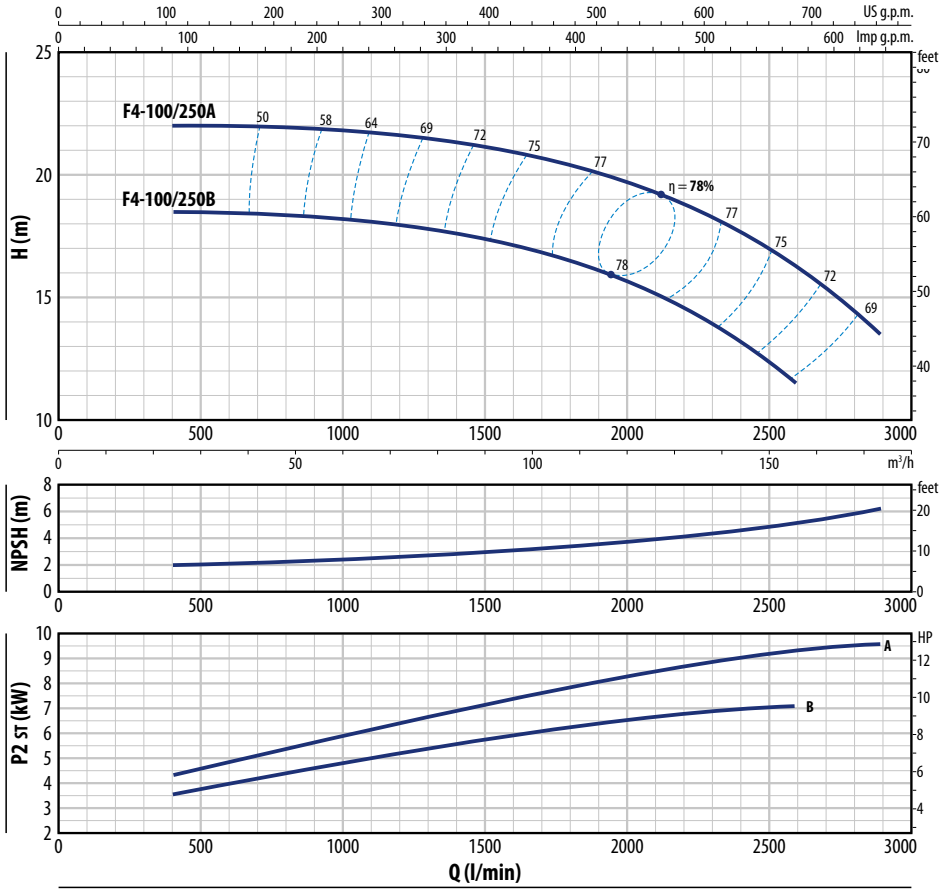
**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## CURVES AND PERFORMANCE DATA – n= 1750 min$^{-1}$

HS= 0 m **60 Hz**

# F4-100/250



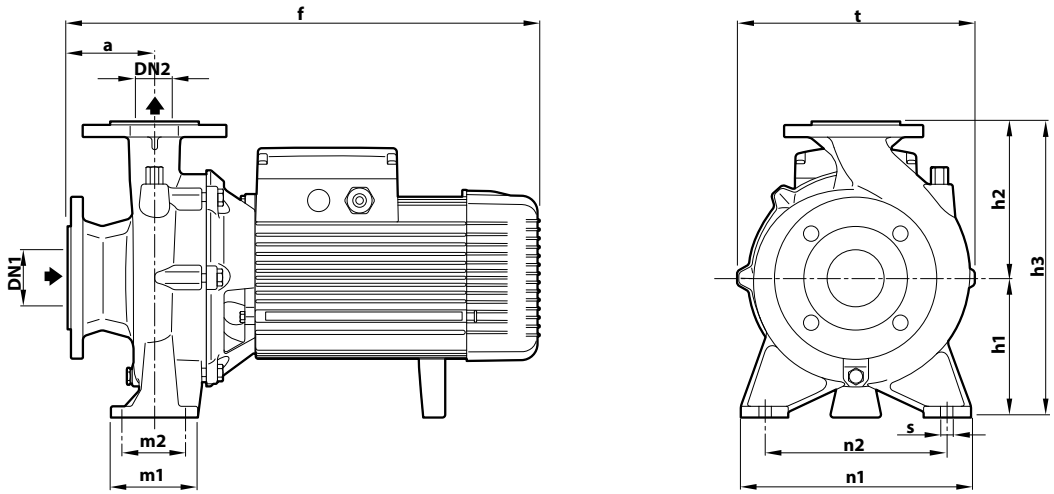

# F4-100/250

| TYPE | POWER (P2) | | | Q | m³/h | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 | 156 | 174 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Three-phase** | **kW** | **HP** | **3~** | | l/min | **400** | **600** | **800** | **1000** | **1200** | **1400** | **1600** | **1800** | **2000** | **2200** | **2400** | **2600** | **2900** |
| **F4-100/250B** | 7.5 | 10 | **IE3** | **H** | m | 18.5 | 18.5 | 18.3 | 18.2 | 18 | 17.5 | 17.1 | 16.5 | 15.7 | 14.5 | 13.2 | 11.5 | |
| **F4-100/250A** | 9.2 | 12.5 | | | | 22 | 22 | 22 | 21.8 | 21.6 | 21.2 | 20.9 | 20.3 | 19.7 | 18.9 | 17.9 | 16.5 | 13.5 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

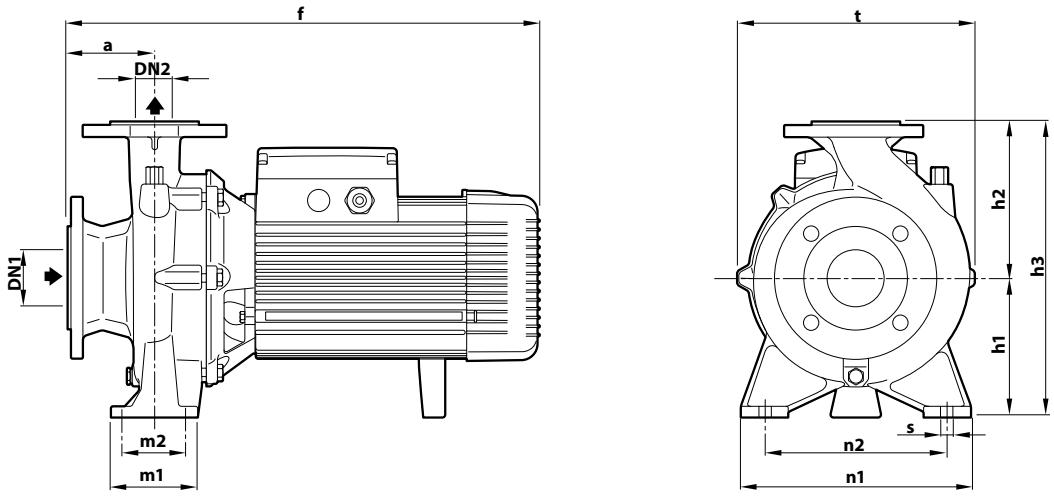
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## DIMENSIONS AND WEIGHT



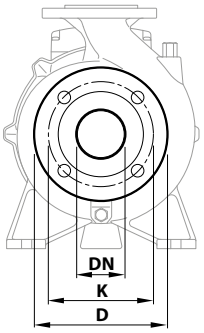

| TYPE | PORTS | | DIMENSIONS mm | | | | | | | | | | | kg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | DN1 | DN2 | a | f | h3 | h1 | h2 | t | n2 | n1 | m1 | m2 | s | |
| F4-32/160B | 50 | 32 | 80 | 412 | 292 | 132 | 160 | 242 | 190 | 240 | 100 | 70 | 14 | 31.2 |
| F4-32/160A | | | | | | | | | | | | | | 31.2 |
| F4-32/200B | | | | 478 | 340 | 160 | 180 | 270 | | | 95 | | | 43.0 |
| F4-32/200A | | | | | | | | | | | | | | 43.5 |
| F4-32/200BH | | | | | | | | | | | | | | 37.9 |
| F4-32/200AH | | | | | | | | | | | | | | 42.4 |
| F4-32/250C | | | 100 | 531 | 405 | 180 | 225 | 330 | 250 | 320 | 125 | 95 | | 64.1 |
| F4-32/250B | | | | | | | | | | | | | | 63.1 |
| F4-32/250A | | | | 581 | | | | | | | | | | 68.7 |
| F4-40/160B | 65 | 40 | 80 | 412 | 292 | 132 | 160 | 240 | 190 | 240 | 100 | 70 | 14 | 32.5 |
| F4-40/160A | | | | | | | | | | | | | | 32.9 |
| F4-40/200B | | | 100 | 498 | 340 | 160 | 180 | 275 | 212 | 265 | | | | 46.0 |
| F4-40/200A | | | | | | | | | | | | | | 46.2 |
| F4-40/250C | | | | 531 | 405 | 180 | 225 | 328 | 250 | 320 | 125 | 95 | | 60.1 |
| F4-40/250B | | | | | | | | | | | | | | 60.1 |
| F4-40/250A | | | | 581 | | | | | | | | | | 72.4 |
| F4-50/125B | 65 | 50 | 100 | 431 | 292 | 132 | 160 | 242 | 190 | 240 | 100 | 70 | 14 | 32.2 |
| F4-50/125A | | | | | | | | | | | | | | 32.2 |
| F4-50/160B | | | | 498 | 340 | 160 | 180 | 269 | 212 | 265 | | | | 44.4 |
| F4-50/160A | | | | | | | | | | | | | | 44.6 |
| F4-50/200C | | | | 538 | 360 | | 200 | 316 | | | | | | 59.2 |
| F4-50/200B | | | | 589 | | | | | | | | | | 68.3 |
| F4-50/200A | | | | | | | | | | | | | | 68.5 |
| F4-50/200AR | | | | | | | | | | | | | | 68.8 |
| F4-50/250D | | | | 531 | 405 | 180 | 225 | 337 | 250 | 320 | 125 | 95 | | 59.9 |
| F4-50/250C | | | | | | | | | | | | | | 63.3 |
| F4-50/250B | | | | 581 | | | | | | | | | | 68.7 |
| F4-50/250A | | | | | | | | | | | | | | 69.1 |
| F4-50/250AR | | | | | | | | | | | | | | 78.0 |
| F4-65/125B | 80 | 65 | 100 | 520 | 340 | 160 | 180 | 291 | 212 | 280 | 125 | 95 | 14 | 50.2 |
| F4-65/125A | | | | | | | | | | | | | | 50.4 |
| F4-65/160C | | | | 542 | 360 | | 200 | 300 | | | | | | 55.0 |
| F4-65/160B | | | | | | | | | | | | | | 58.7 |
| F4-65/160A | | | | 592 | | | | | | | | | | 65.0 |
| F4-65/200A | | | | 595 | 405 | 180 | 225 | 340 | 250 | 320 | | | | 72.0 |
| F4-65/200AR | | | | | | | | | | | | | | 78.4 |
| F4-65/250B | | | | 680 | 450 | 200 | 250 | 373 | 280 | 360 | 160 | 120 | 18 | 111.2 |
| F4-65/250A | | | | | | | | | | | | | | 139.6 |

## DIMENSIONS AND WEIGHT




| TYPE | PORTS | | DIMENSIONS mm | | | | | | | | | | | kg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | DN1 | DN2 | a | f | h3 | h1 | h2 | t | n2 | n1 | m1 | m2 | s | |
| F4-80/160D | 100 | 80 | 125 | 574 | 405 | 180 | 225 | 330 | 250 | 320 | 125 | 95 | 14 | 66.0 |
| F4-80/160C | | | | 624 | | | | | | | | | | 67.3 |
| F4-80/160B | | | | | | | | | | | | | | 70.0 |
| F4-80/160A | | | | | | | | | | | | | | 76.4 |
| F4-80/200B | | | | 709 | 430 | | 250 | 360 | 280 | 345 | | | | 100.0 |
| F4-80/200A | | | | | | | | | | | | | | 130.2 |
| F4-80/250B | | | | 727 | 480 | 200 | 280 | 405 | 315 | 400 | 160 | 120 | 18 | 123.0 |
| F4-80/250A | | | | | | | | | | | | | | 137.6 |
| F4-100/160B | 125 | 100 | 125 | 638 | 480 | 200 | 280 | 362 | 280 | 360 | 160 | 120 | 18 | 96.2 |
| F4-100/160A | | | | | | | | | | | | | | 97.0 |
| F4-100/200C | | | | 711 | | | | 391 | | | | | | 124.1 |
| F4-100/200B | | | | | | | | | | | | | | 116.0 |
| F4-100/200A | | | | | | | | | | | | | | 122.0 |
| F4-100/250B | | | 140 | 747 | 505 | 225 | | 422 | 315 | 400 | | | | 143.0 |
| F4-100/250A | | | | | | | | | | | | | | 156.0 |

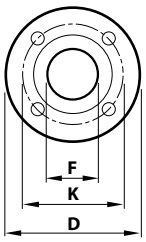
## PORT FLANGES




| DN FLANGE mm | D mm | K mm | HOLES N° | HOLES Ø (mm) |
|---|---|---|---|---|
| 32 | 140 | 100 | 4 | 18 |
| 40 | 150 | 110 | | |
| 50 | 165 | 125 | | |
| 65 | 185 | 145 | | |
| 80 | 200 | 160 | 8 | |
| 100 | 220 | 180 | | |
| 125 | 250 | 210 | | |

## COUNTER-FLANGE

(CAN BE ORDERED SEPARATELY)




| DN FLANGE mm | F COUNTER-FLANGE | D mm | K mm | HOLES N° | HOLES Ø (mm) |
|---|---|---|---|---|---|
| 32 | 1¼" | 140 | 100 | 4 | 18 |
| 40 | 1½" | 150 | 110 | | |
| 50 | 2" | 165 | 125 | | |
| 65 | 2½" | 185 | 145 | | |
| 80 | 3" | 200 | 160 | 8 | |
| 100 | 4" | 220 | 180 | | |
| 125 | 5" | 250 | 210 | | |

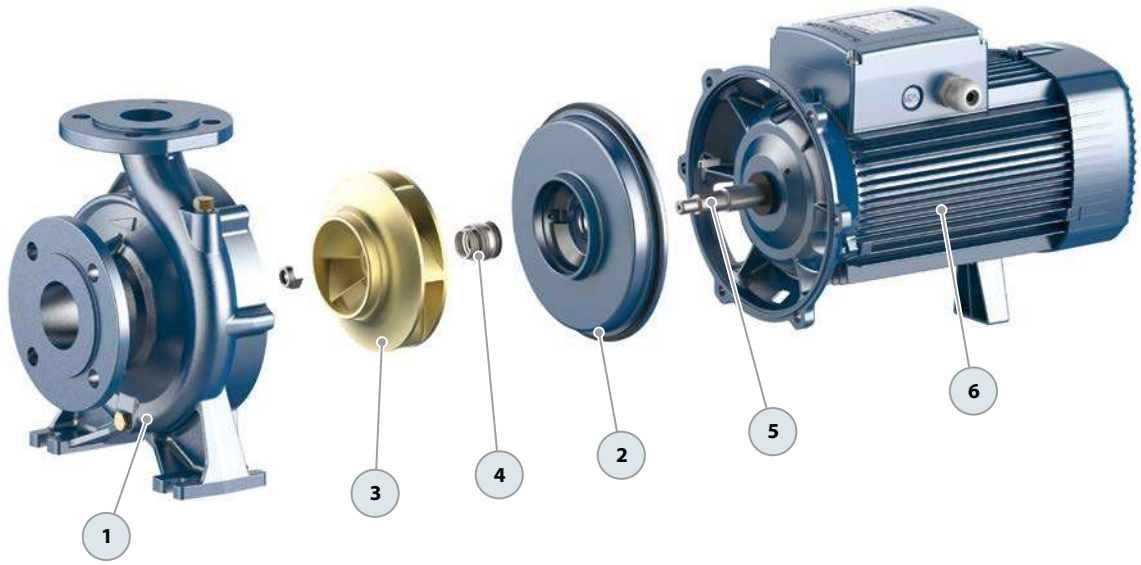
## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| **Three-phase** | **220 V - Δ** | **380 V - Y** |
| **F4-32/160B** | 1.9 A | 1.1 A |
| **F4-32/160A** | 2.3 A | 1.3 A |
| **F4-32/200B** | 3.6 A | 2.1 A |
| **F4-32/200A** | 4.0 A | 2.3 A |
| **F4-32/200BH** | 3.1 A | 1.8 A |
| **F4-32/200AH** | 3.5 A | 2.0 A |
| **F4-32/250C** | 4.5 A | 2.6 A |
| **F4-32/250B** | 5.7 A | 3.3 A |
| **F4-32/250A** | 9.0 A | 5.2 A |
| **F4-40/160B** | 2.1 A | 1.2 A |
| **F4-40/160A** | 2.8 A | 1.6 A |
| **F4-40/200B** | 3.6 A | 2.1 A |
| **F4-40/200A** | 4.2 A | 2.4 A |
| **F4-40/250C** | 4.5 A | 2.6 A |
| **F4-40/250B** | 6.1 A | 3.5 A |
| **F4-40/250A** | 9.0 A | 5.2 A |
| **F4-50/125B** | 2.4 A | 1.4 A |
| **F4-50/125A** | 2.6 A | 1.5 A |
| **F4-50/160B** | 3.6 A | 2.1 A |
| **F4-50/160A** | 4.3 A | 2.5 A |
| **F4-50/200C** | 6.1 A | 3.5 A |
| **F4-50/200B** | 8.0 A | 4.6 A |
| **F4-50/200A** | 9.0 A | 5.2 A |
| **F4-50/200AR** | 11.8 A | 6.8 A |
| **F4-50/250D** | 4.5 A | 2.6 A |
| **F4-50/250C** | 5.9 A | 3.4 A |
| **F4-50/250B** | 8.5 A | 4.9 A |
| **F4-50/250A** | 9.9 A | 5.7 A |
| **F4-50/250AR** | 11.8 A | 6.8 A |
| **F4-65/125B** | 3.6 A | 2.1 A |
| **F4-65/125A** | 4.5 A | 2.6 A |
| **F4-65/160C** | 4.7 A | 2.7 A |
| **F4-65/160B** | 5.9 A | 3.4 A |
| **F4-65/160A** | 7.8 A | 4.5 A |

| TYPE | VOLTAGE | |
|---|---|---|
| **Three-phase** | **220 V - Δ** | **380 V - Y** |
| **F4-65/200A** | 9.0 A | 5.2 A |
| **F4-65/200AR** | 11.8 A | 6.8 A |
| **F4-65/250B** | 17.3 A | 10.0 A |
| **F4-65/250A** | 23.4 A | 13.5 A |
| **F4-80/160D** | 5.9 A | 3.4 A |
| **F4-80/160C** | 8.1 A | 4.7 A |
| **F4-80/160B** | 9.2 A | 5.3 A |
| **F4-80/160A** | 11.8 A | 6.8 A |
| **F4-80/200B** | 16.4 A | 9.5 A |
| **F4-80/200A** | 22.2 A | 12.8 A |
| **F4-80/250B** | 23.4 A | 13.5 A |
| **F4-80/250A** | 25.6 A | 14.8 A |
| **F4-100/160A** | 12.1 A | 7.0 A |
| **F4-100/200C** | 16.4 A | 9.5 A |
| **F4-100/200B** | 19.0 A | 11.0 A |
| **F4-100/200A** | 21.6 A | 12.5 A |
| **F4-100/250B** | 27.5 A | 15.9 A |
| **F4-100/250A** | 34.1 A | 19.7 A |

## MATERIALS AND COMPONENTS

| | | | | | |
|---|---|---|---|---|---|
| **1** | **Pump body** | Cast iron, fitted with inlet and outlet flanged ports | | | |
| **2** | **Cover** | Cast iron | | | |
| **3** | **Impeller** | Brass | for F4-32/160 - 32/200 - 40/160 - 40/200 - 50/125 - 50/160 | | |
| | | Cast iron | for F4-32/250 - 40/250 - 50/200 - 50/250 - 65/125 - 65/160 - 65/200 - 65/250 F4-80/160 - 80/200 - 80/250 - 100/160 - 100/200 - 100/250 | | |
| **4** | **Mechanical seal** | Water pump | Seal | Shaft | Materials |
| | | F4-32/160<br>F4-40/160<br>F4-50/125 | **FN-20** | Ø 20 mm | Graphite / Ceramic / NBR |
| | | F4-32/200<br>F4-40/200<br>F4-50/160<br>F4-65/125 | **FN-24** | Ø 24 mm | Graphite / Ceramic / NBR |
| | | F4-50/200<br>F4-65/200<br>F4-65/160<br>F4-80/160<br>F4-100/160 | **FN-32 NU** | Ø 32 mm | Graphite / Ceramic / NBR |
| | | F4-32/250<br>F4-40/250<br>F4-50/250 | **FN-38** | Ø 38 mm | Graphite / Ceramic / NBR |
| | | F4-65/250<br>F4-80/200<br>F4-100/200 | **FN-40 NU** | Ø 40 mm | Graphite / Ceramic / NBR |
| | | F4-80/250<br>F4-100/250 | **FH-45 NU** | Ø 45 mm | Graphite / Ceramic / NBR |
| **5** | **Motor shaft** | Stainless steel **AISI 431** | | | |
| **6** | **Electric motor** | **F4**: 4-pole three-phase 220/380 V - 60 Hz<br>※ The pumps are equipped with high-efficiency motors (IEC 60034-30-1) class **IE3**<br>Continuous running duty **S1** | | | |



Clean water
Civil use
Industrial use
Agricultural use



## PERFORMANCE RANGE

- Flow rate up to **5750 l/min** (345 m³/h)
- Head up to **98 m**

## INSTALLATION AND USE

Standardized centrifugal pumps equipped with a support structure and built according to EN733 standard.

Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.

- **Water supply**
- **Pressurization**
- **Irrigation**
- **Firefighting systems**
- **Industrial applications**
- **Agriculture applications**
- **Civil, industrial, and agricultural applications**
- **Air conditioning, cooling, heating, and circulation systems**

## APPLICATION LIMITS

- Manometric suction head up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Maximum pressure in the pump body **10 bar** (PN10)

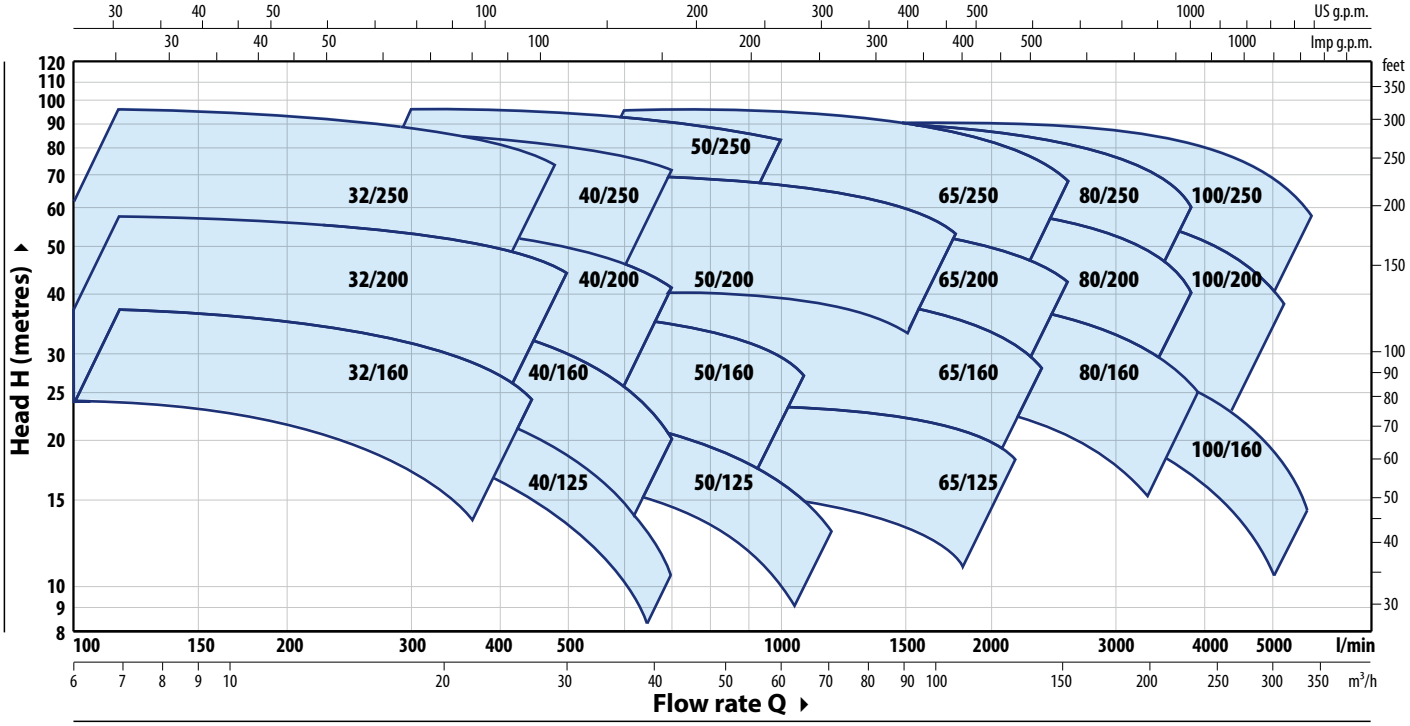
## AVAILABLE UPON REQUEST

※ Mechanical seal options available
※ Pumps for motors with 60 Hz frequency
※ Handling of liquids with higher or lower temperatures
※ Adaptability to operate in high or low temperature environments

※ Counterflange KIT including screws, nuts and gaskets



## PERFORMANCE RANGE – n= 3450 min$^{-1}$




## PERFORMANCE DATA – n= 3450 min$^{-1}$

| TYPE | MOTOR TO BE COUPLED | | PERFORMANCE n= 3450 min$^{-1}$ | |
|---|---|---|---|---|
| | kW | HP | Q m$^3$/h | H m |
| FG2-32/160C | 1.5 | 2 | 6 – 21 | 24 – 14 |
| FG2-32/160B | 2.2 | 3 | 6 – 24 | 30 – 17 |
| FG2-32/160A | 3 | 4 | 6 – 27 | 37 – 24 |
| FG2-32/200C | 4 | 5.5 | 6 – 27 | 44 – 31.5 |
| FG2-32/200B | 5.5 | 7.5 | 6 – 30 | 51 – 36 |
| FG2-32/200A | 7.5 | 10 | 6 – 30 | 57 – 44 |
| FG2-32/200BH | 3 | 4 | 6 – 18 | 45 – 37 |
| FG2-32/200AH | 4 | 5.5 | 6 – 19.2 | 55 – 44 |
| FG2-32/250C | 9.2 | 12.5 | 6 – 27 | 75 – 60 |
| FG2-32/250B | 11 | 15 | 6 – 30 | 87 – 70 |
| FG2-32/250A | 15 | 20 | 6 – 30 | 97 – 80 |
| FG2-40/125C | 1.1 | 1.5 | 6 – 33 | 16 – 6 |
| FG2-40/125B | 1.5 | 2 | 6 – 36 | 20.5 – 9 |
| FG2-40/125A | 2.2 | 3 | 6 – 42 | 26 – 10 |
| FG2-40/160C | 2.2 | 3 | 6 – 36 | 27 – 14 |
| FG2-40/160B | 3 | 4 | 6 – 36 | 32 – 20 |
| FG2-40/160A | 4 | 5.5 | 6 – 42 | 38 – 20 |
| FG2-40/200B | 5.5 | 7.5 | 6 – 42 | 47 – 28 |
| FG2-40/200A | 7.5 | 10 | 6 – 42 | 55 – 41 |
| FG2-40/250C | 9.2 | 12.5 | 6 – 42 | 64 – 47 |
| FG2-40/250B | 11 | 15 | 6 – 42 | 71 – 55 |
| FG2-40/250A | 15 | 20 | 6 – 42 | 88 – 72 |
| FG2-50/125C | 2.2 | 3 | 18 – 72 | 17.5 – 6 |
| FG2-50/125B | 3 | 4 | 18 – 72 | 20.7 – 9 |
| FG2-50/125A | 4 | 5.5 | 18 – 72 | 23.5 – 13 |
| FG2-50/160C | 4 | 5.5 | 18 – 60 | 27 – 16 |
| FG2-50/160B | 5.5 | 7.5 | 18 – 72 | 32 – 18 |
| FG2-50/160A | 7.5 | 10 | 18 – 81 | 37 – 20 |
| FG2-50/200C | 11 | 15 | 24 – 102 | 44 – 30 |
| FG2-50/200B | 15 | 20 | 24 – 102 | 52 – 38 |
| FG2-50/200A | 18.5 | 25 | 24 – 108 | 61 – 45 |
| FG2-50/200AR | 22 | 30 | 24 – 108 | 69 – 53 |
| FG2-50/250D | 9.2 | 12.5 | 18 – 54 | 51 – 37 |
| FG2-50/250C | 11 | 15 | 18 – 60 | 59 – 43 |
| FG2-50/250B | 15 | 20 | 18 – 60 | 72 – 59 |
| FG2-50/250A | 18.5 | 25 | 18 – 60 | 85 – 73 |
| FG2-50/250AR | 22 | 30 | 18 – 60 | 95 – 83 |

| TYPE | MOTOR TO BE COUPLED | | PERFORMANCE n= 3450 min$^{-1}$ | |
|---|---|---|---|---|
| | kW | HP | Q m$^3$/h | H m |
| FG2-65/125C | 4 | 5.5 | 36 – 108 | 16 – 11 |
| FG2-65/125B | 5.5 | 7.5 | 36 – 120 | 18 – 13 |
| FG2-65/125A | 7.5 | 10 | 36 – 132 | 23 – 18 |
| FG2-65/160C | 9.2 | 12.5 | 36 – 132 | 32 – 22 |
| FG2-65/160B | 11 | 15 | 36 – 144 | 36.5 – 23 |
| FG2-65/160A | 15 | 20 | 36 – 144 | 40.5 – 28 |
| FG2-65/200B | 15 | 20 | 12 – 144 | 44 – 30.5 |
| FG2-65/200A | 18.5 | 25 | 12 – 150 | 50 – 36.5 |
| FG2-65/200AR | 22 | 30 | 12 – 156 | 57 – 42 |
| FG2-65/250C | 30 | 40 | 24 – 141 | 76 – 53 |
| FG2-65/250B | 37 | 50 | 24 – 150 | 87 – 62 |
| FG2-65/250A | 45 | 60 | 24 – 156 | 95 – 68 |
| FG2-80/160D | 11 | 15 | 30 – 240 | 25 – 10 |
| FG2-80/160C | 15 | 20 | 30 – 240 | 30 – 15 |
| FG2-80/160B | 18.5 | 25 | 30 – 240 | 35 – 20 |
| FG2-80/160A | 22 | 30 | 30 – 240 | 40 – 25 |
| FG2-80/200B | 30 | 40 | 30 – 219 | 56 – 34.5 |
| FG2-80/200A | 37 | 50 | 30 – 234 | 62 – 40 |
| FG2-80/250B | 45 | 60 | 36 – 216 | 77 – 54 |
| FG2-80/250A | 55 | 75 | 36 – 234 | 88.5 – 60 |
| FG2-100/160A | 22 | 30 | 60 – 330 | 38 – 17.5 |
| FG2-100/200C | 30 | 40 | 48 – 279 | 51 – 28 |
| FG2-100/200B | 37 | 50 | 48 – 294 | 57 – 33 |
| FG2-100/200A | 45 | 60 | 48 – 315 | 63 – 38 |
| FG2-100/250B | 55 | 75 | 48 – 309 | 75 – 48 |
| FG2-100/250A | 75 | 100 | 48 – 345 | 89 – 58 |

**Q** = Flow Rate

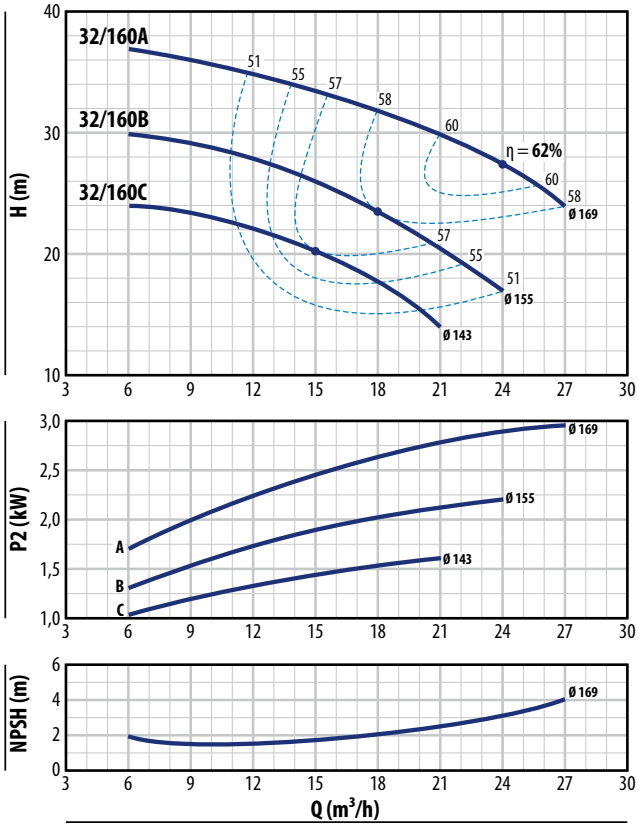
**H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

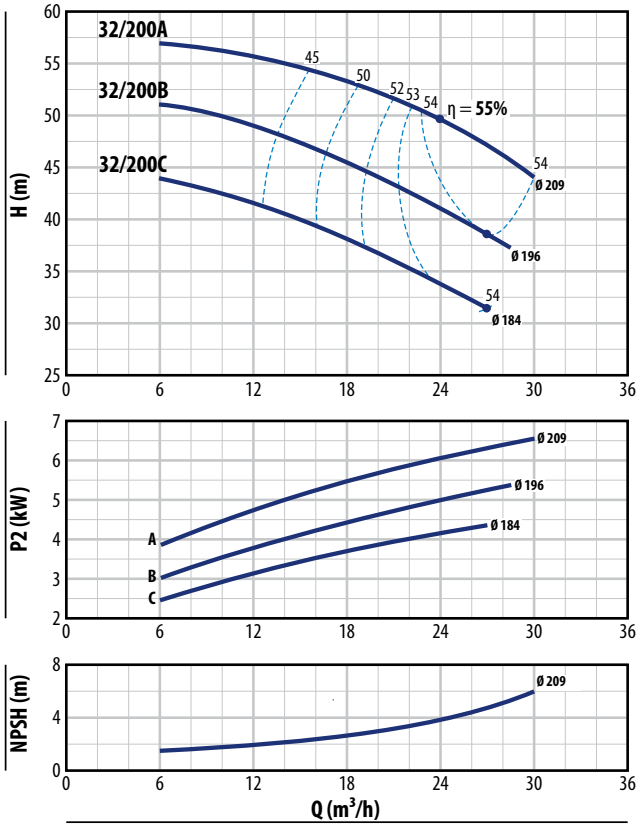
## CHARACTERISTIC CURVES

n= 3450 min$^{-1}$

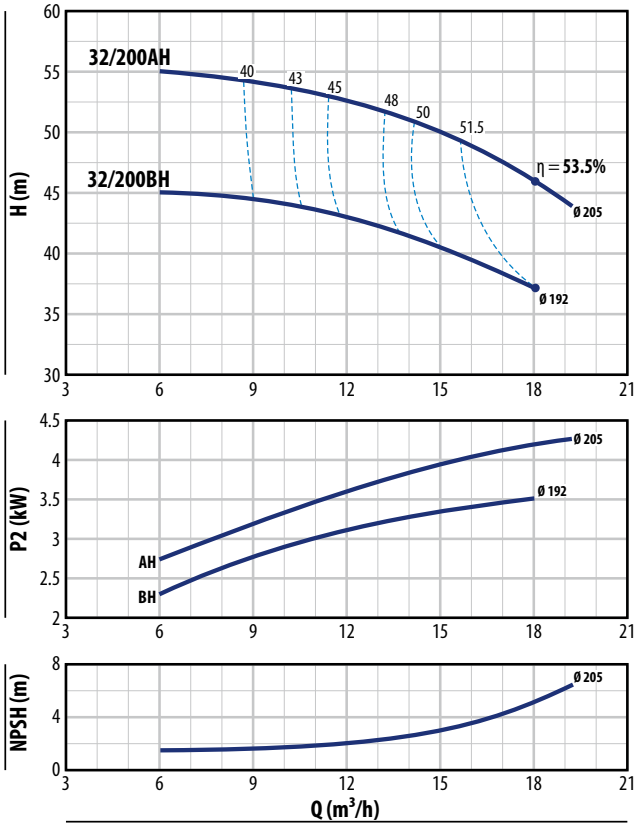
## FG2-32/160



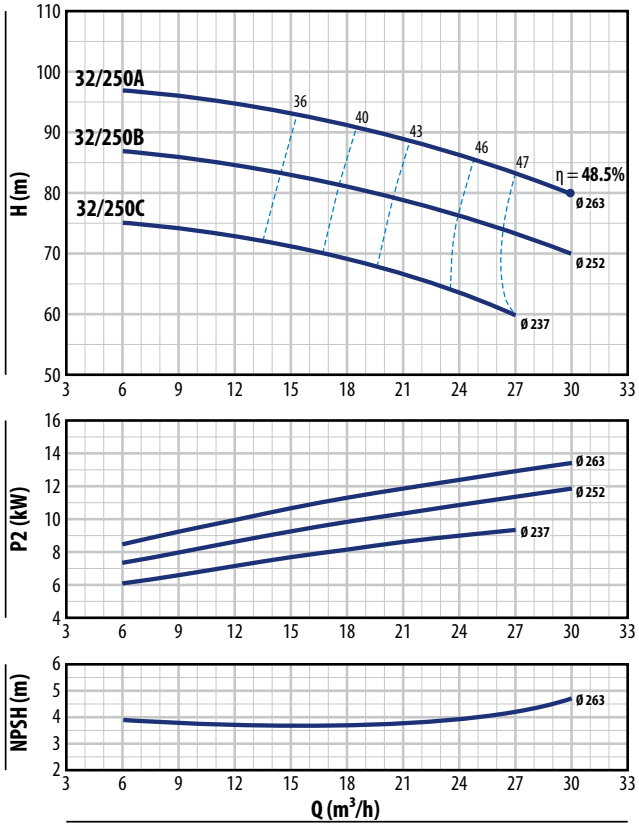

## FG2-32/200




## FG2-32/200H



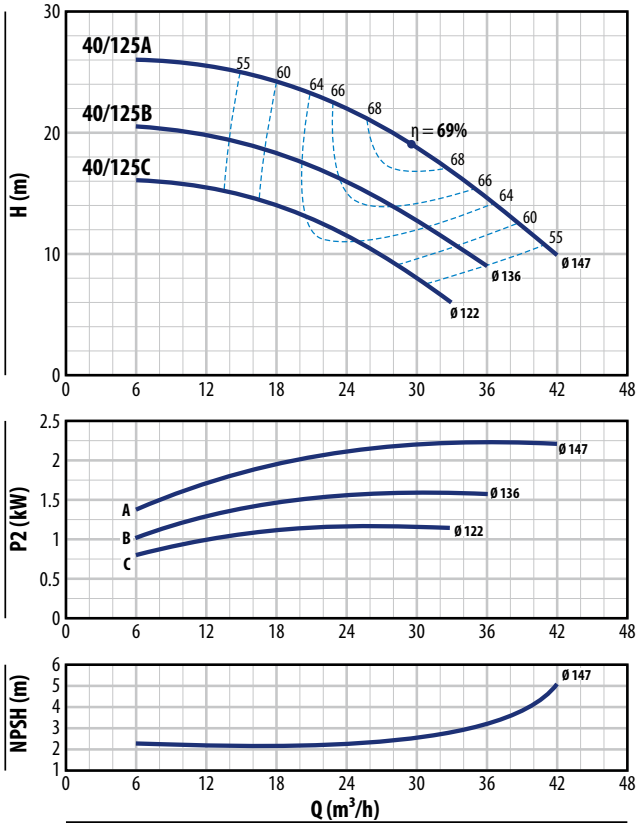

## FG2-32/250



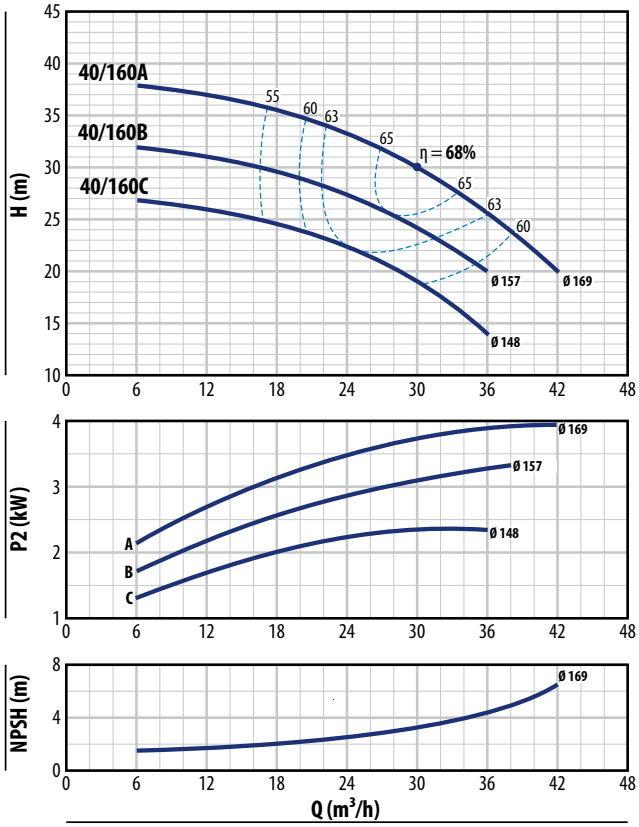
## CHARACTERISTIC CURVES

n= 3450 min$^{-1}$

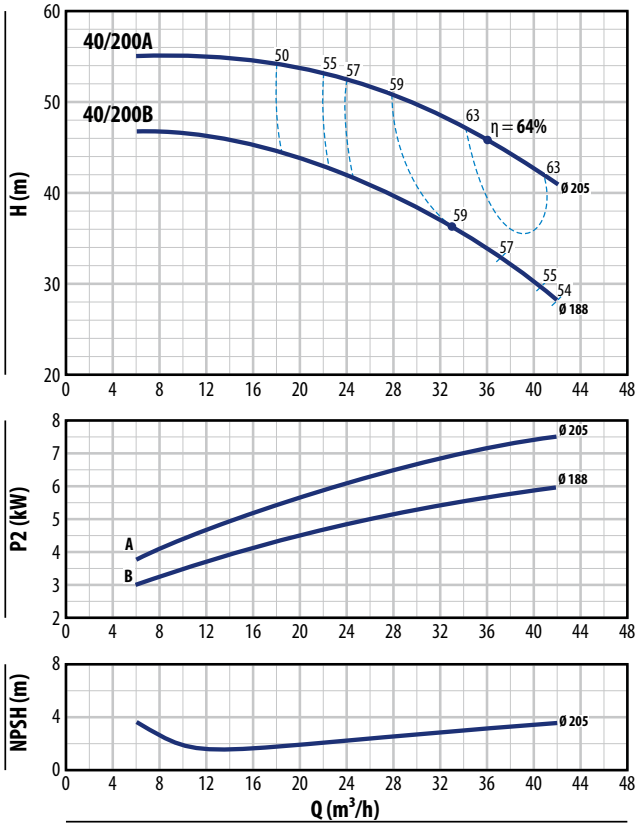
## FG2-40/125



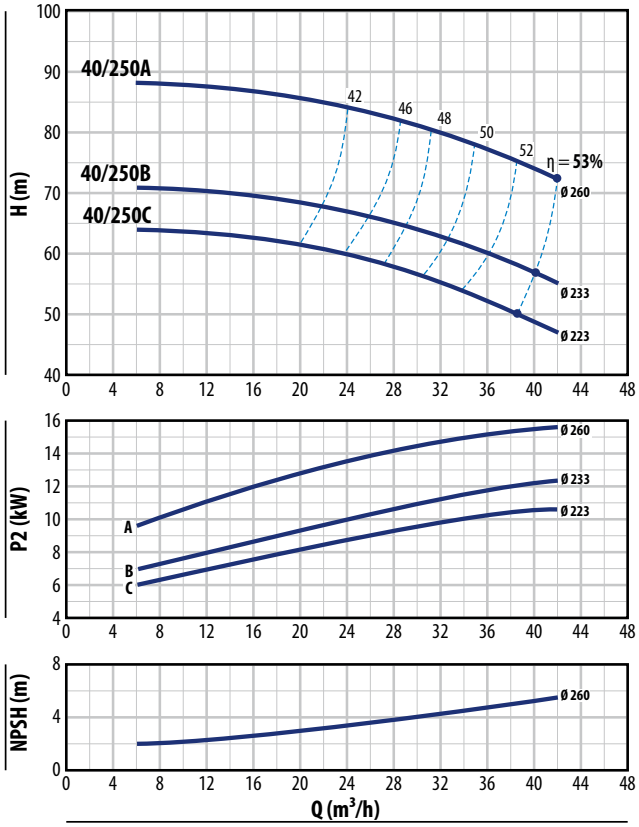

## FG2-40/160




## FG2-40/200



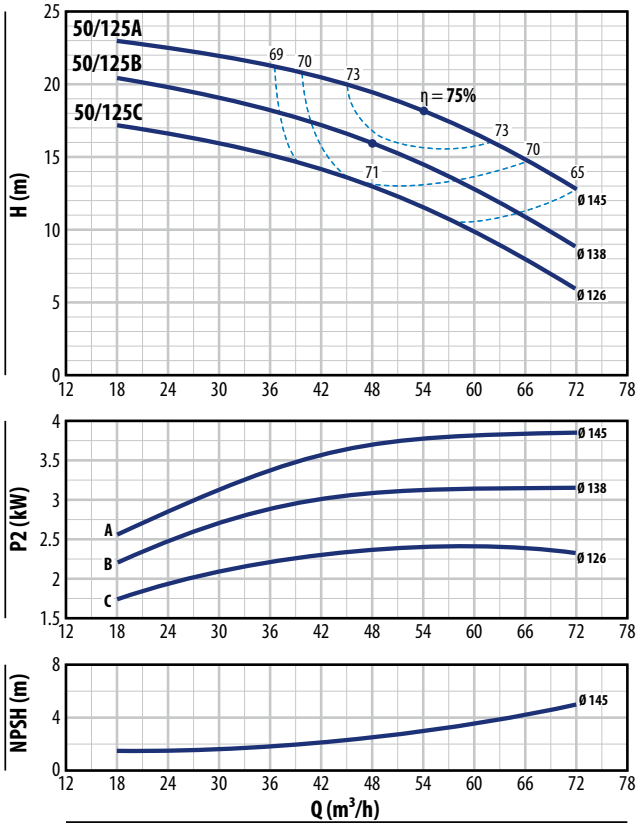

## FG2-40/250



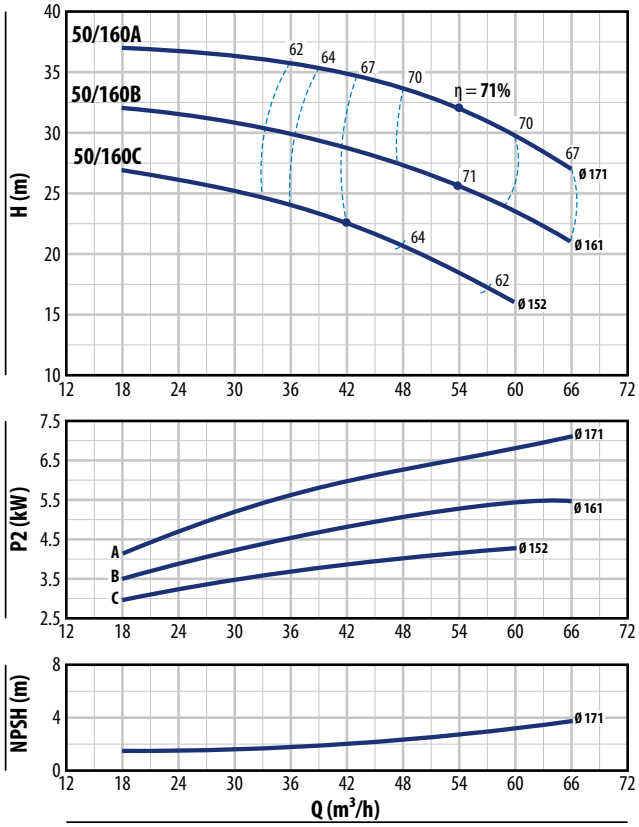
## CHARACTERISTIC CURVES

n= 3450 min$^{-1}$

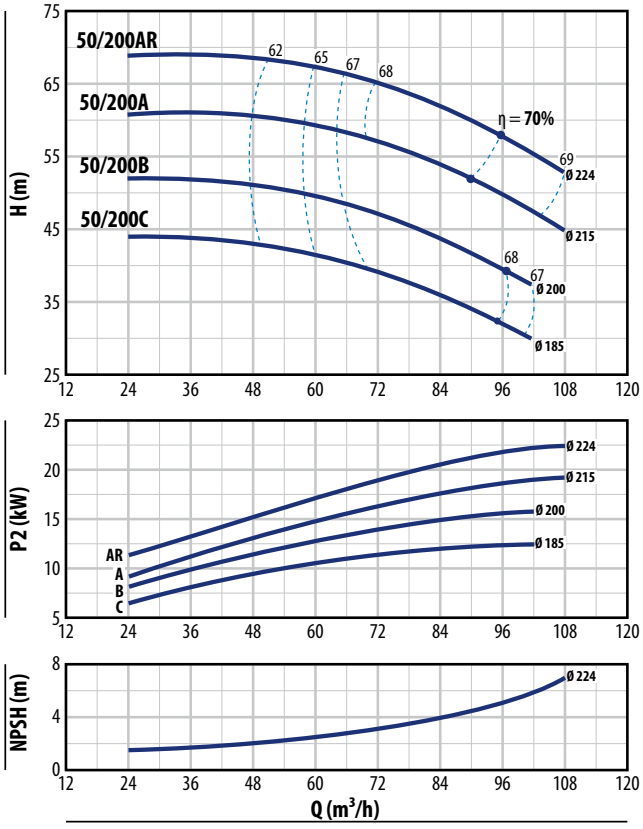
## FG2-50/125



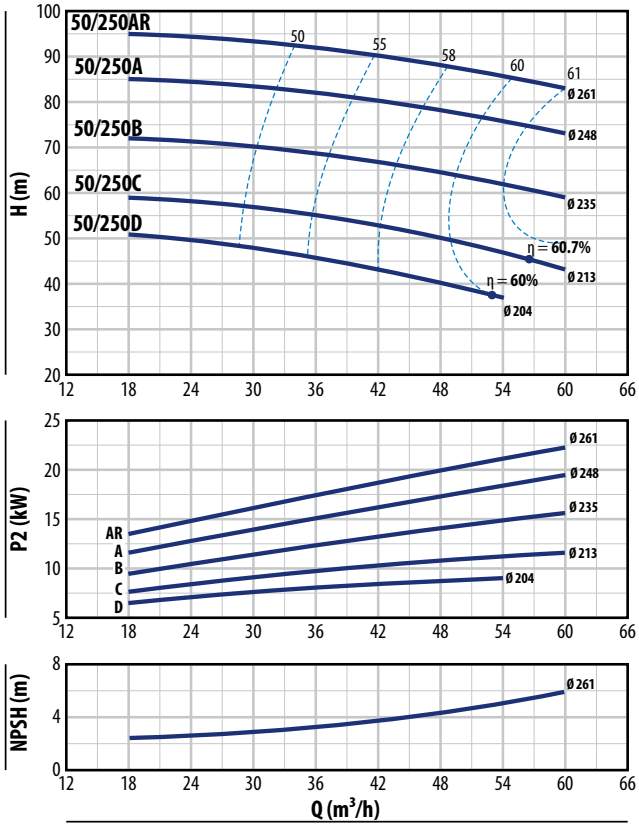

## FG2-50/160




## FG2-50/200



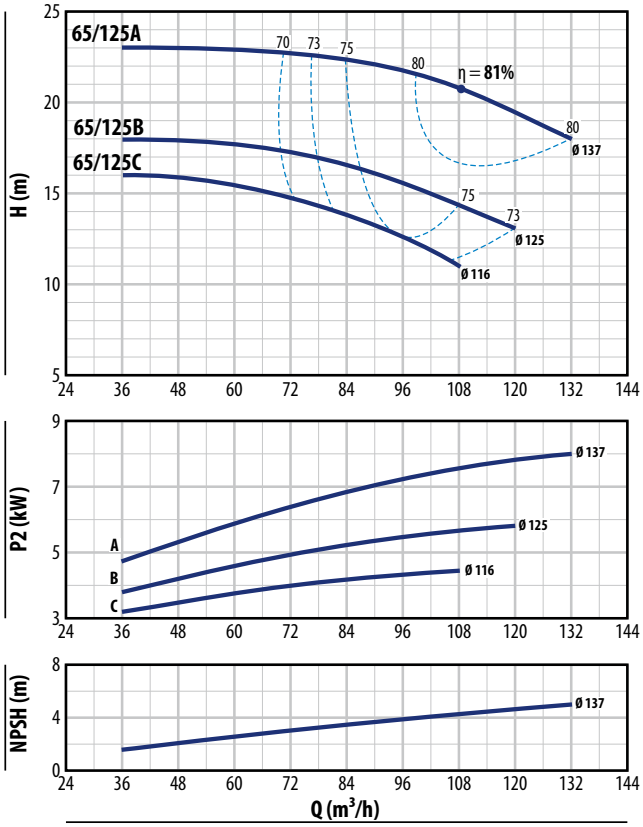

## FG2-50/250



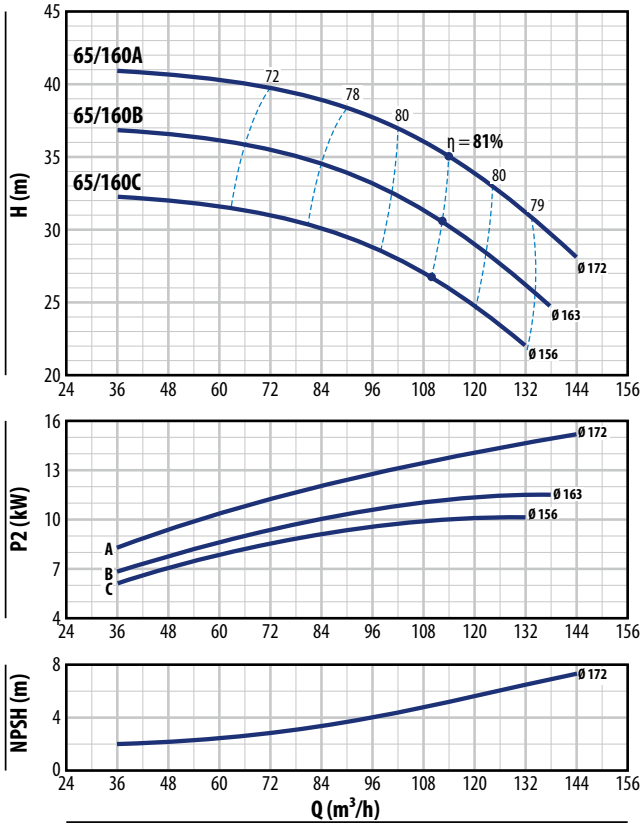
## CHARACTERISTIC CURVES

n= 3450 min$^{-1}$

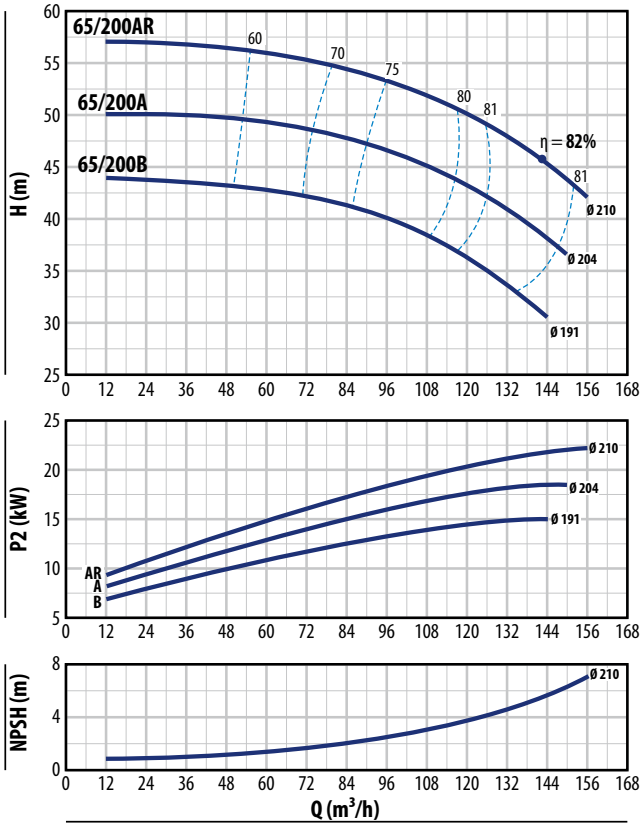
## FG2-65/125



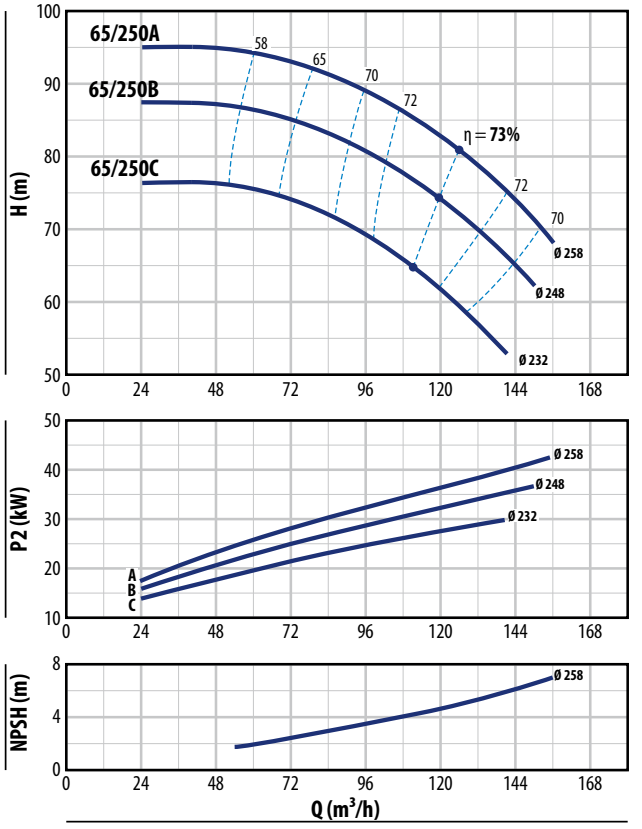

## FG2-65/160




## FG2-65/200



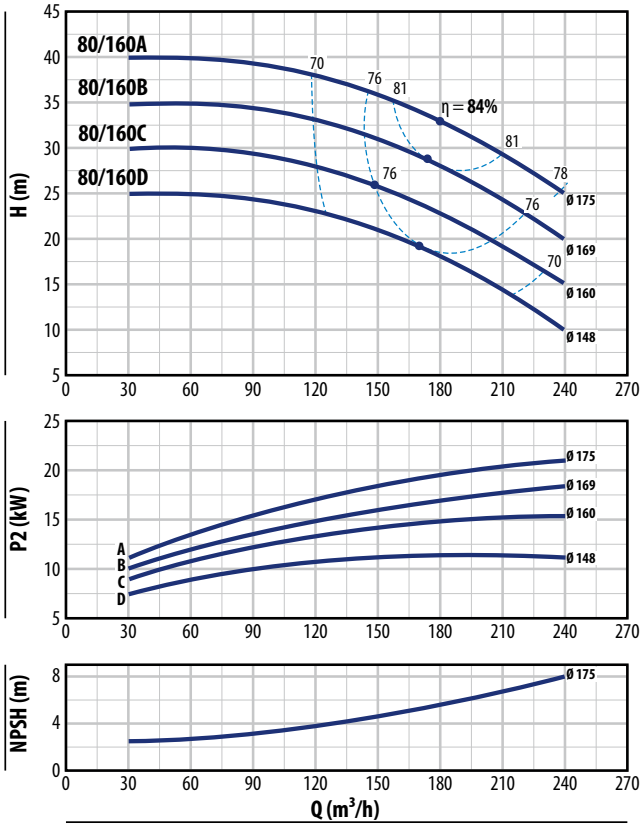

## FG2-65/250



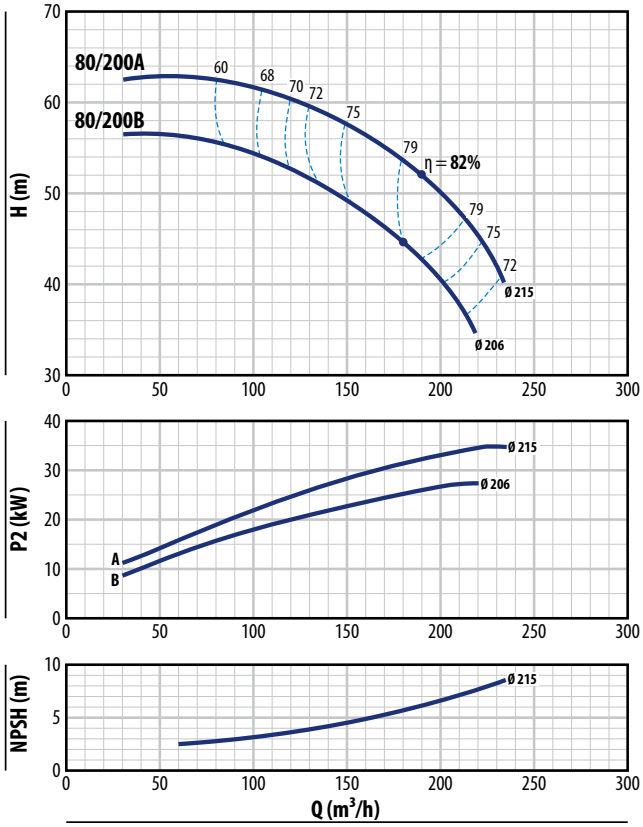
## CHARACTERISTIC CURVES

n= 3450 min$^{-1}$

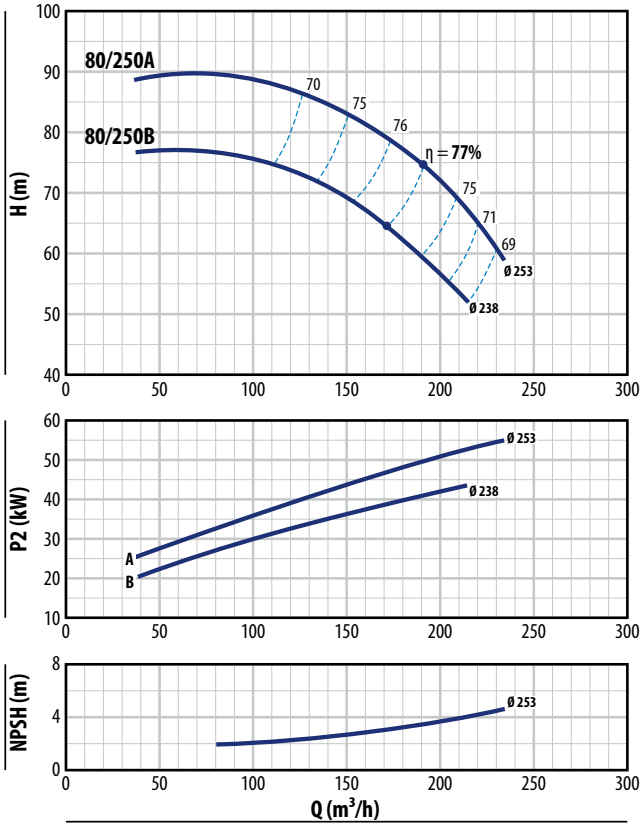
## FG2-80/160




## FG2-80/200



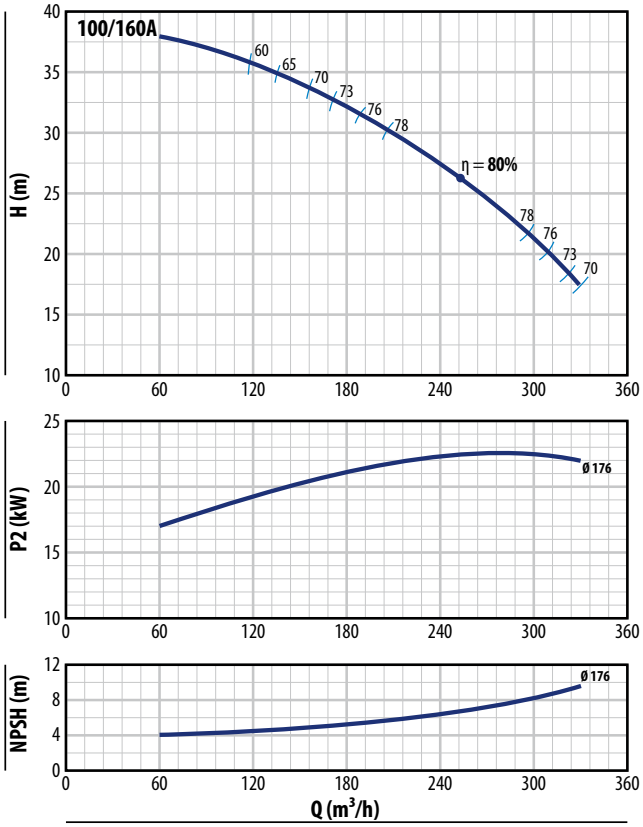

## FG2-80/250



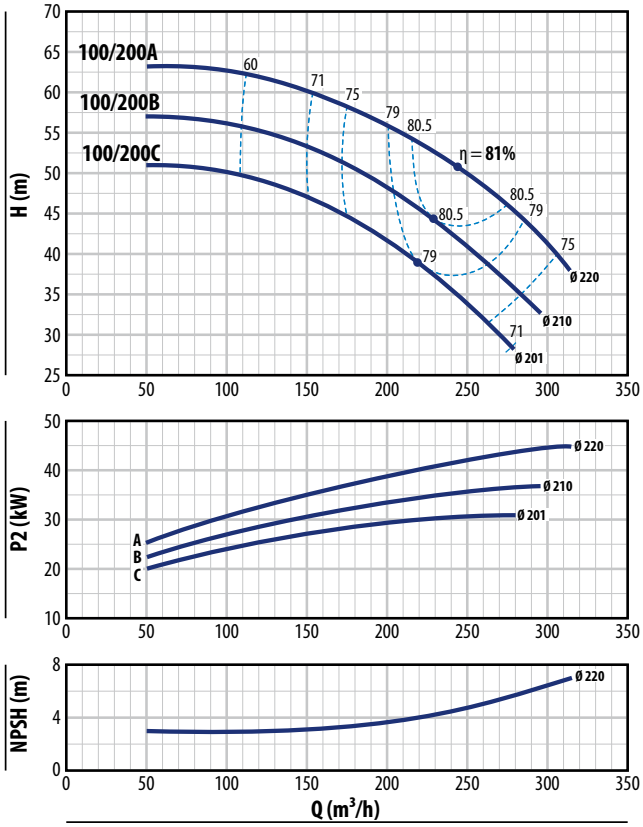
## CHARACTERISTIC CURVES

n= 3450 min$^{-1}$

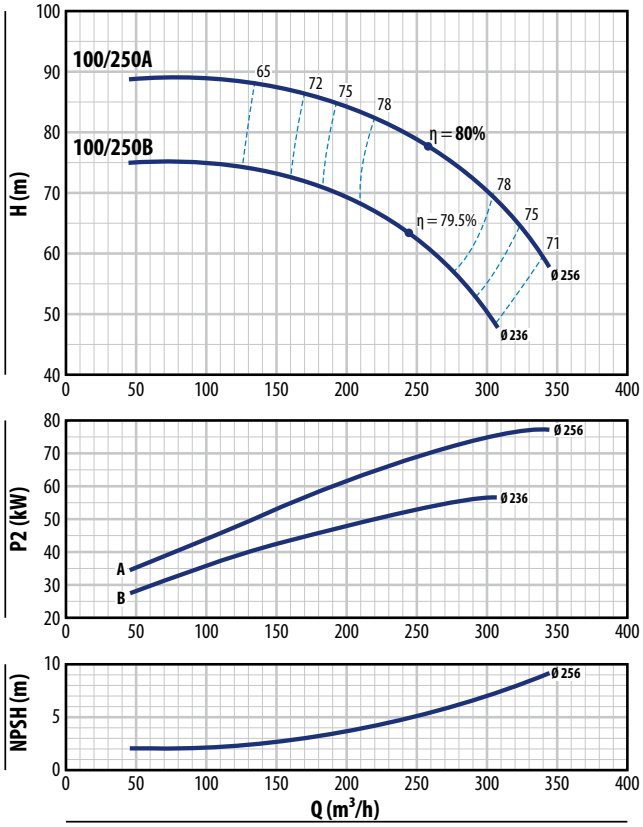
## FG2-100/160




## FG2-100/200

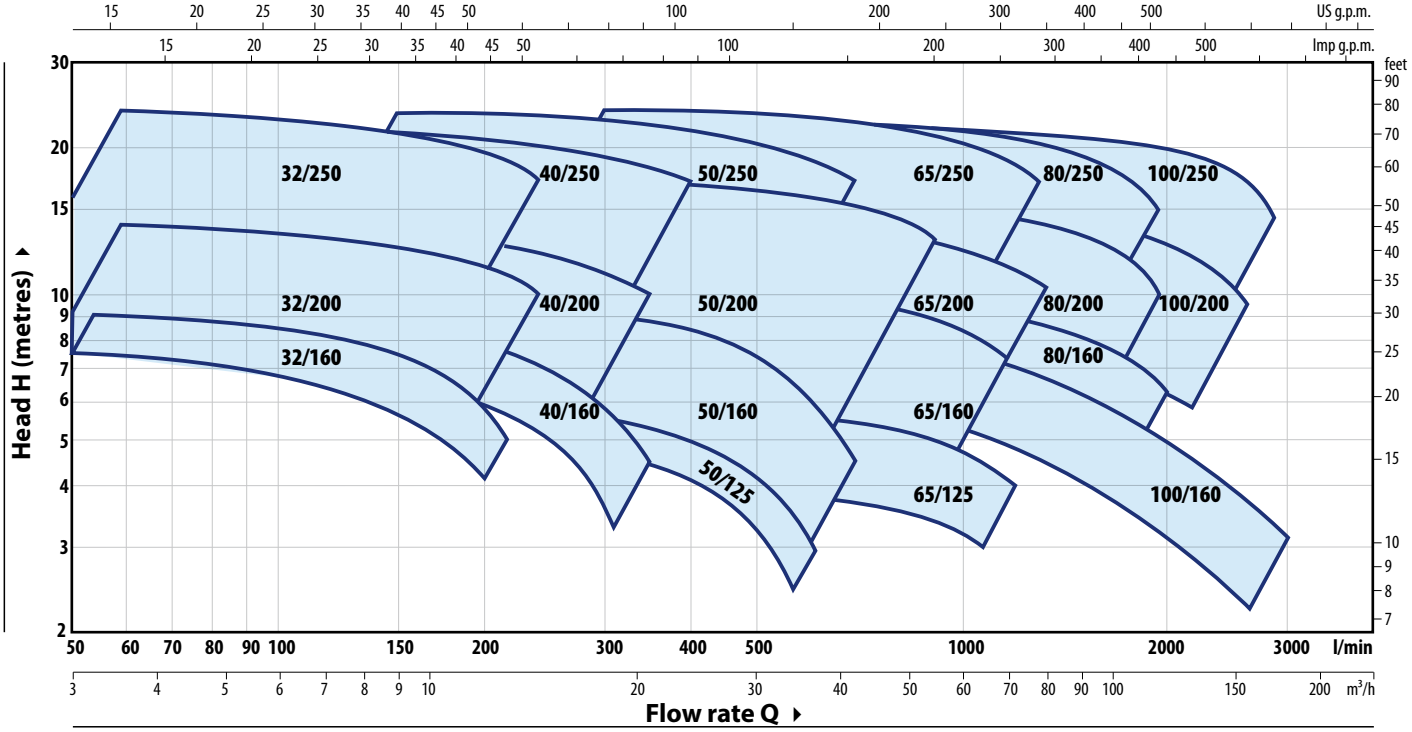



## FG2-100/250



# FG4

## PERFORMANCE RANGE – n= 1750 min$^{-1}$




## PERFORMANCE DATA – n= 1750 min$^{-1}$

| TYPE | MOTOR TO BE COUPLED | | PERFORMANCE n= 1750 min$^{-1}$ | |
|---|---|---|---|---|
| | kW | HP | Q m$^3$/h | H m |
| FG4-32/160C | 0.25 | 0.33 | 3 – 10.5 | 6 – 3.5 |
| FG4-32/160B | 0.37 | 0.5 | 3 – 12 | 7.5 – 4 |
| FG4-32/160A | 0.37 | 0.5 | 3 – 13.5 | 9 – 6 |
| FG4-32/200C | 0.55 | 0.75 | 3 – 13.5 | 11 – 8 |
| FG4-32/200B | 0.75 | 1 | 3 – 15 | 12.5 – 9 |
| FG4-32/200A | 1.1 | 1.5 | 3 – 15 | 14 – 11 |
| FG4-32/200BH | 0.55 | 0.75 | 3 – 9 | 11 – 9 |
| FG4-32/200AH | 0.55 | 0.75 | 3 – 9.6 | 13.8 – 11 |
| FG4-32/250C | 1.1 | 1.5 | 3 – 13.2 | 18.4 – 15 |
| FG4-32/250B | 1.5 | 2 | 3 – 15 | 21.7 – 17.4 |
| FG4-32/250A | 2.2 | 3 | 3 – 16.2 | 23.8 – 18.7 |
| FG4-40/160C | 0.37 | 0.5 | 3 – 18 | 6.5 – 3.5 |
| FG4-40/160B | 0.37 | 0.5 | 3 – 18 | 8 – 5 |
| FG4-40/160A | 0.55 | 0.75 | 3 – 21 | 9.5 – 5 |
| FG4-40/200B | 0.75 | 1 | 3 – 21 | 11.5 – 7 |
| FG4-40/200A | 1.1 | 1.5 | 3 – 21 | 13.5 – 10 |
| FG4-40/250C | 1.1 | 1.5 | 3 – 21 | 16 – 11.5 |
| FG4-40/250B | 1.5 | 2 | 3 – 21 | 17.5 – 13.5 |
| FG4-40/250A | 2.2 | 3 | 3 – 21 | 22 – 18 |
| FG4-50/125C | 0.37 | 0.5 | 9 – 36 | 4.3 – 1.5 |
| FG4-50/125B | 0.55 | 0.75 | 9 – 36 | 5.1 – 2.3 |
| FG4-50/125A | 0.55 | 0.75 | 9 – 36 | 5.8 – 3.2 |
| FG4-50/160C | 0.55 | 0.75 | 9 – 30 | 7 – 4 |
| FG4-50/160B | 0.75 | 1 | 9 – 33 | 8 – 5 |
| FG4-50/160A | 1.1 | 1.5 | 9 – 33 | 9 – 7 |
| FG4-50/200C | 1.5 | 2 | 12 – 51 | 11 – 7.5 |
| FG4-50/200B | 2.2 | 3 | 12 – 51 | 13 – 9.5 |
| FG4-50/200A | 2.2 | 3 | 12 – 54 | 15 – 11 |
| FG4-50/200AR | 3 | 4 | 12 – 54 | 17 – 13 |
| FG4-50/250D | 1.1 | 1.5 | 9 – 27 | 12.5 – 8 |
| FG4-50/250C | 1.5 | 2 | 9 – 27 | 14.5 – 10.5 |
| FG4-50/250B | 2.2 | 3 | 9 – 30 | 18 – 14.5 |
| FG4-50/250A | 2.2 | 3 | 9 – 30 | 21 – 18 |
| FG4-50/250AR | 3 | 4 | 9 – 30 | 24 – 21 |

| TIPO | MOTORE DA ACCOPPIARE | | PRESTAZIONI n= 1750 min$^{-1}$ | |
|---|---|---|---|---|
| | kW | HP | Q m$^3$/h | H m |
| FG4-65/125C | 0.55 | 0.75 | 18 – 54 | 4 – 2.7 |
| FG4-65/125B | 0.75 | 1 | 18 – 60 | 4.5 – 3.2 |
| FG4-65/125A | 1.1 | 1.5 | 18 – 66 | 5.8 – 4.5 |
| FG4-65/160C | 1.1 | 1.5 | 18 – 66 | 8 – 5.5 |
| FG4-65/160B | 1.5 | 2 | 18 – 72 | 9 – 5.5 |
| FG4-65/160A | 2.2 | 3 | 18 – 72 | 10 – 7 |
| FG4-65/200B | 2.2 | 3 | 6 – 72 | 10.5 – 7.3 |
| FG4-65/200A | 2.2 | 3 | 6 – 75 | 12 – 8.5 |
| FG4-65/200AR | 3 | 4 | 6 – 78 | 14 – 10 |
| FG4-65/250C | 3 | 4 | 12 – 70.5 | 19 – 13 |
| FG4-65/250B | 4 | 5.5 | 12 – 75 | 21.5 – 15.5 |
| FG4-65/250A | 5.5 | 7.5 | 12 – 78 | 23.5 – 17 |
| FG4-80/160D | 1.5 | 2 | 15 – 120 | 6 – 2.5 |
| FG4-80/160C | 2.2 | 3 | 15 – 120 | 7.5 – 3.5 |
| FG4-80/160B | 2.2 | 3 | 15 – 120 | 8.5 – 5 |
| FG4-80/160A | 3 | 4 | 15 – 120 | 10 – 6 |
| FG4-80/200B | 4 | 5.5 | 15 – 109.5 | 14 – 8.5 |
| FG4-80/200A | 5.5 | 7.5 | 15 – 117 | 15.5 – 10 |
| FG4-80/250B | 5.5 | 7.5 | 18 – 108 | 19 – 13.5 |
| FG4-80/250A | 7.5 | 10 | 18 – 117 | 22 – 15 |
| FG4-100/160A | 3 | 4 | 24 – 168 | 9.5 – 3.8 |
| FG4-100/200C | 4 | 5.5 | 24 – 139.5 | 12.5 – 7 |
| FG4-100/200B | 5.5 | 7.5 | 24 – 147 | 14 – 8 |
| FG4-100/200A | 5.5 | 7.5 | 24 – 157.5 | 15.5 – 9.5 |
| FG4-100/250B | 7.5 | 10 | 24 – 154.5 | 18.5 – 12 |
| FG4-100/250A | 9.2 | 12.5 | 24 – 172.5 | 22 – 14.5 |

**Q** = Flow Rate

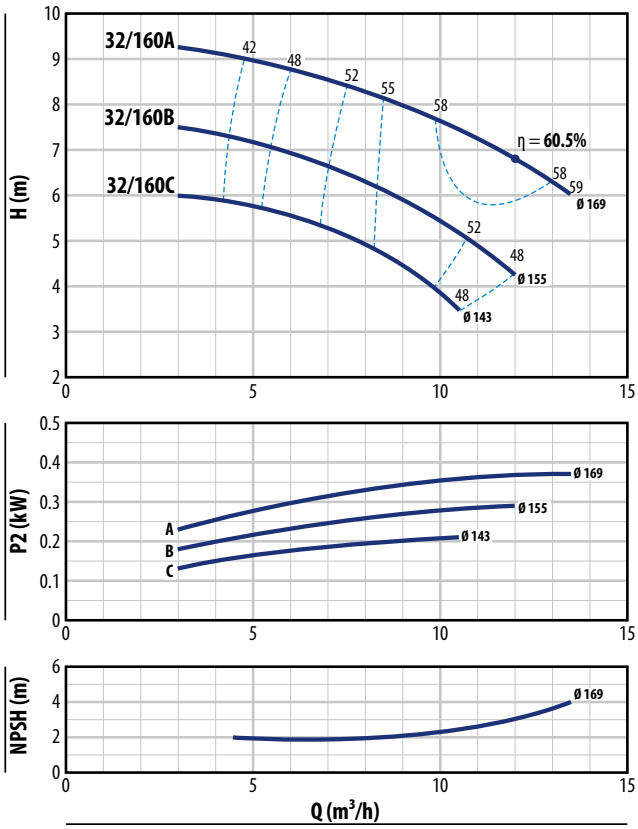
**H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

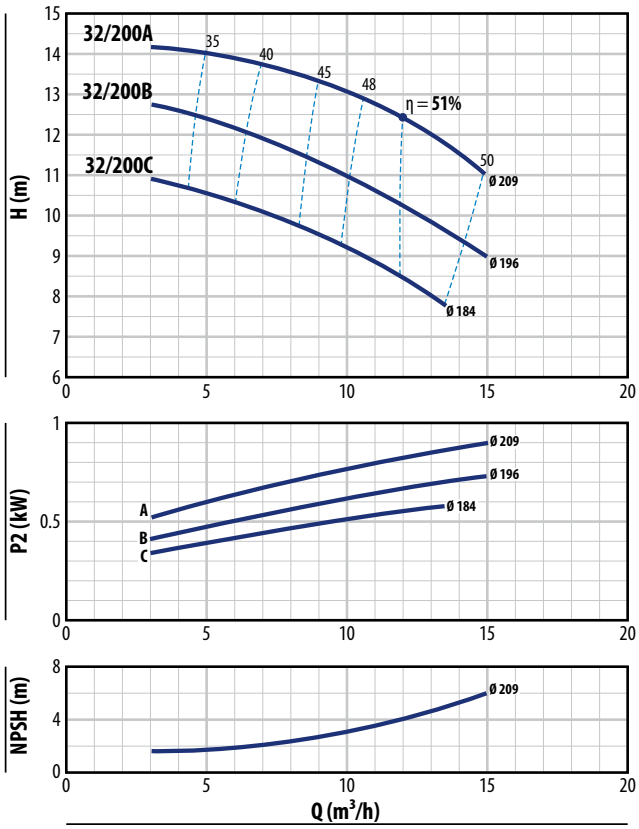
## CHARACTERISTIC CURVES

n= 1750 min$^{-1}$

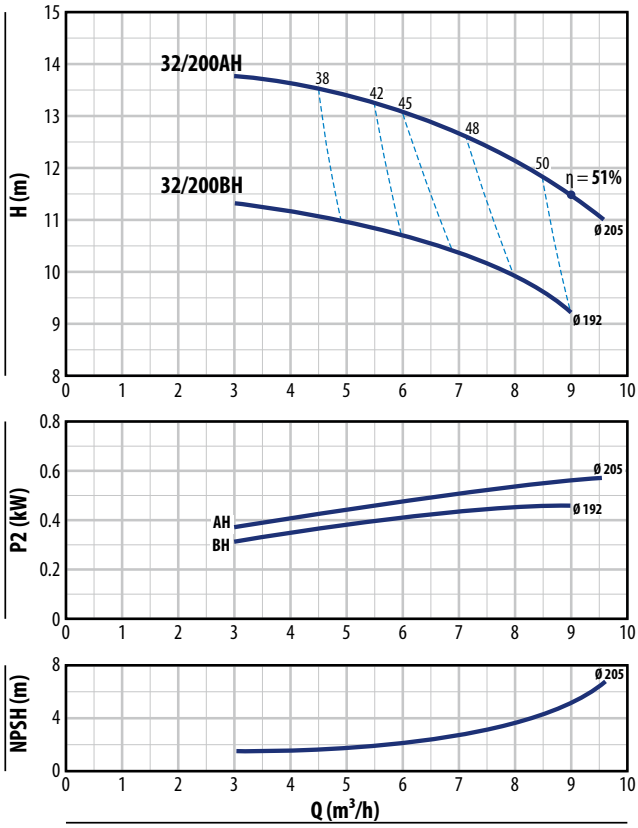
## FG4-32/160



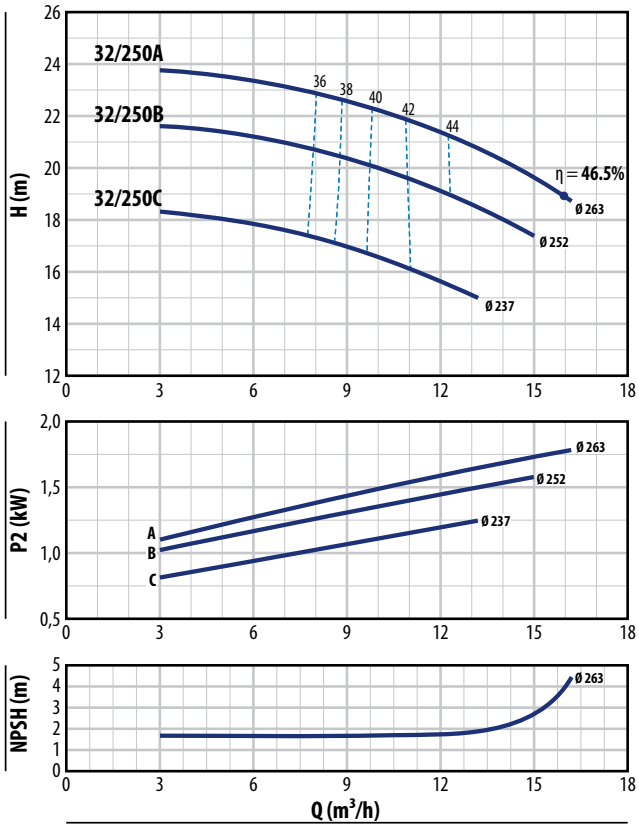

## FG4-32/200




## FG4-32/200H



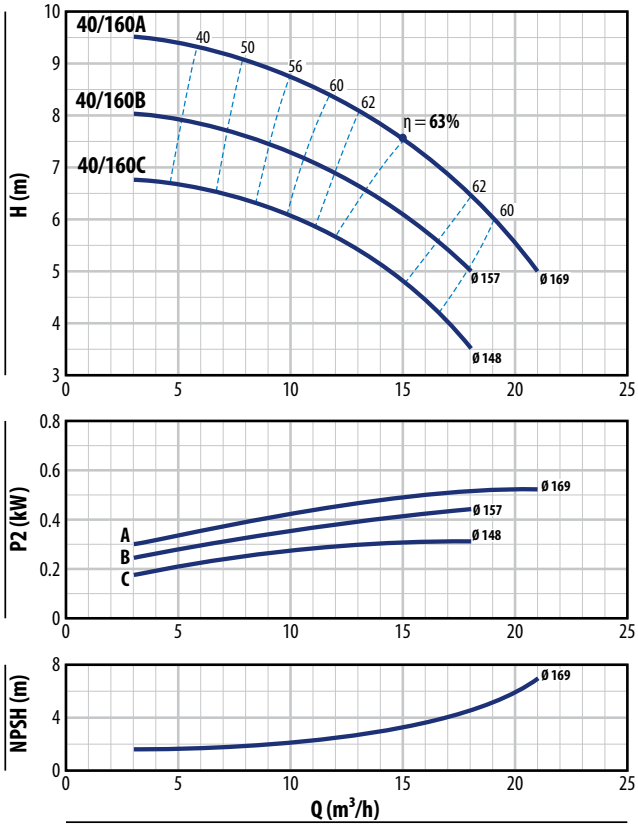

## FG4-32/250



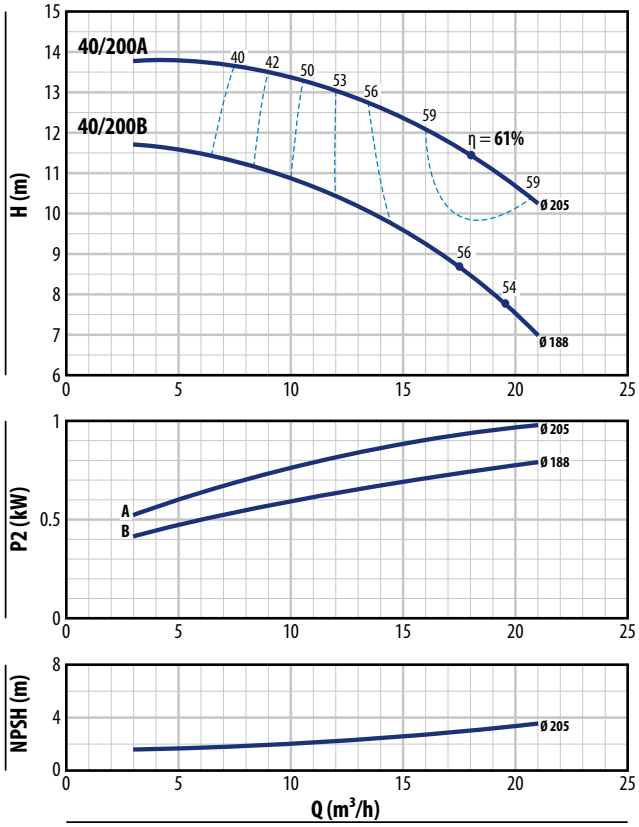
## CHARACTERISTIC CURVES

n= 1750 min$^{-1}$

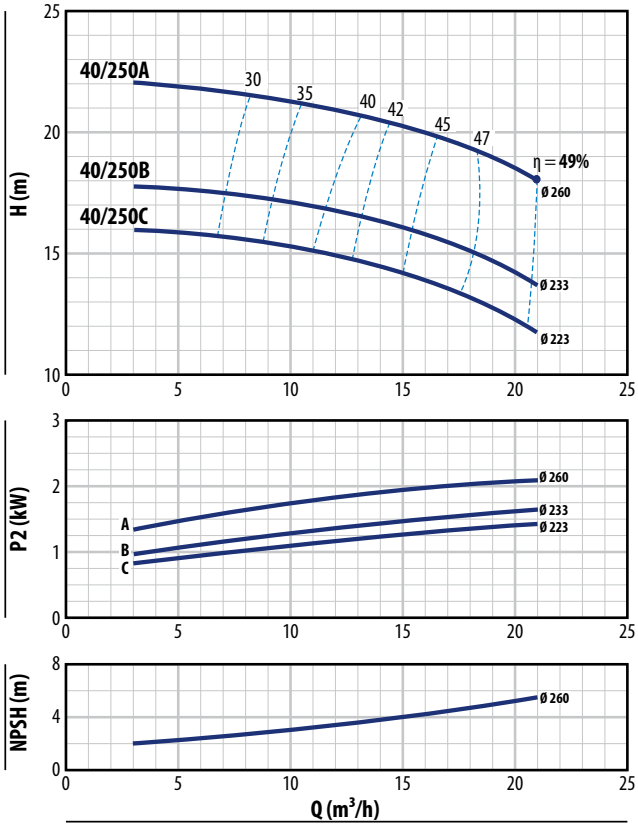
## FG4-40/160




## FG4-40/200



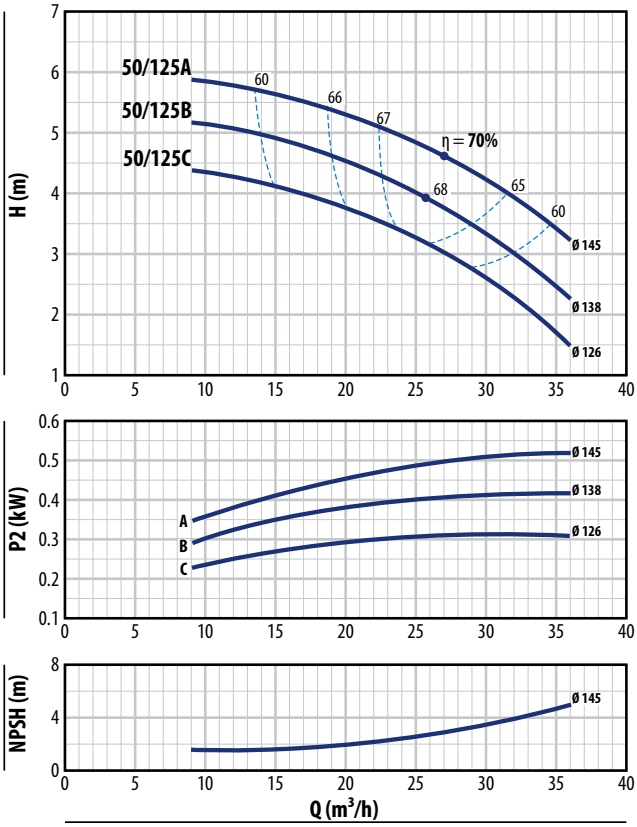

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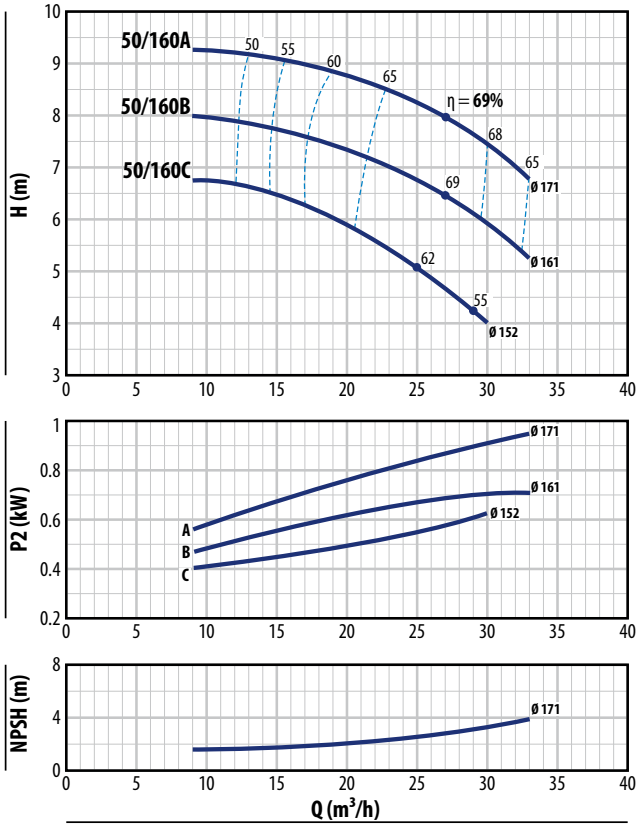
## CHARACTERISTIC CURVES

n= 1750 min$^{-1}$

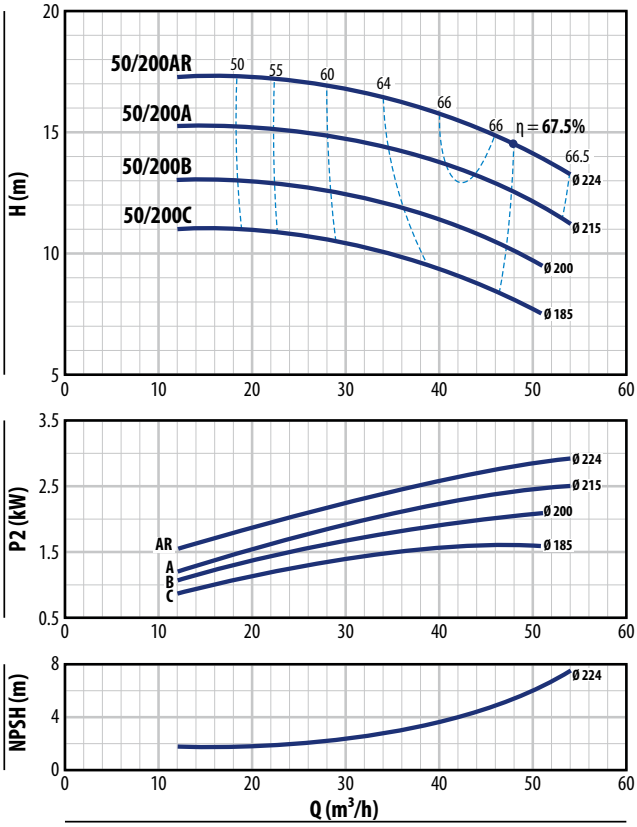
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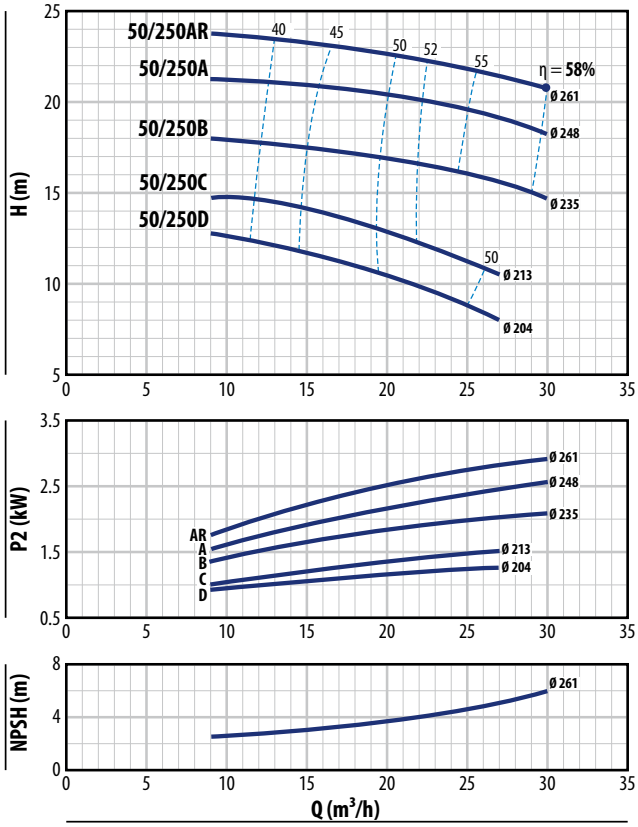

## FG4-50/160




## FG4-50/200



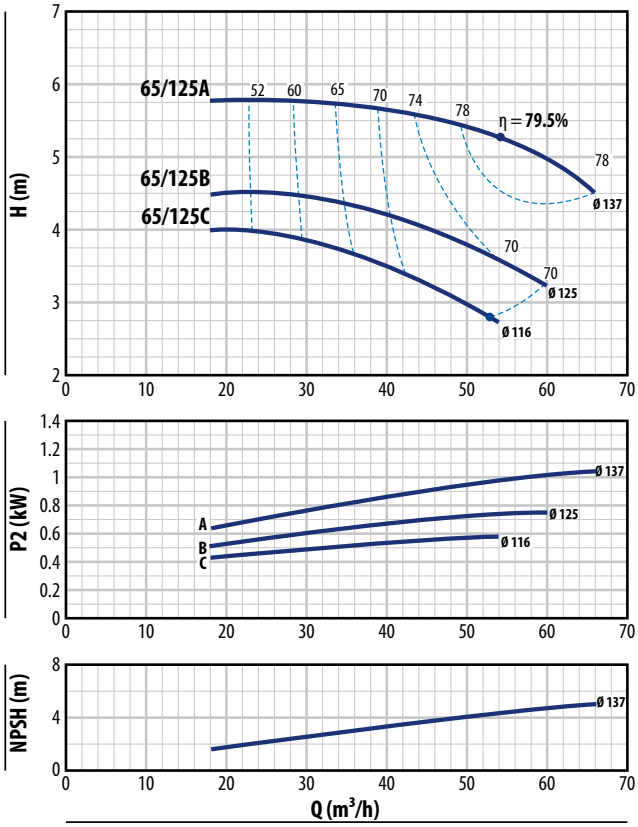

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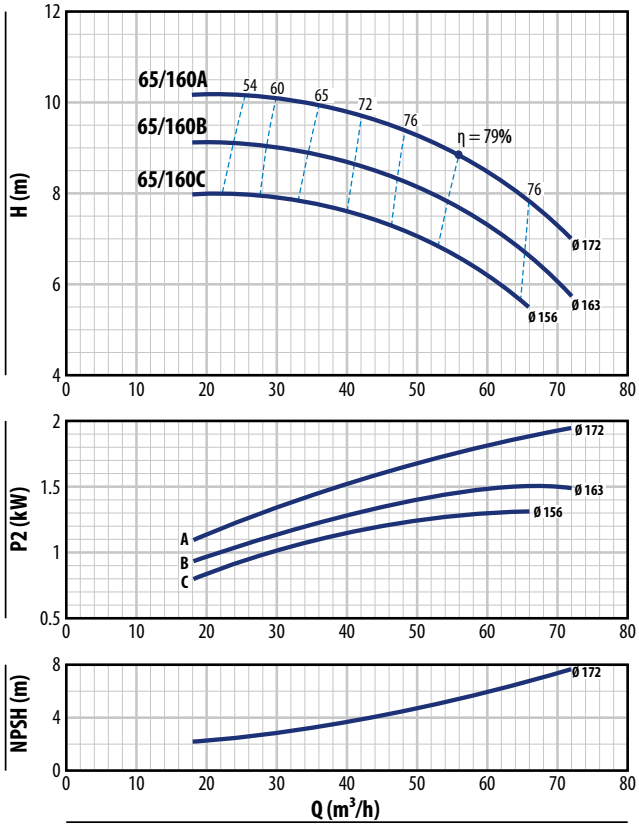
## CHARACTERISTIC CURVES

n= 1750 min$^{-1}$

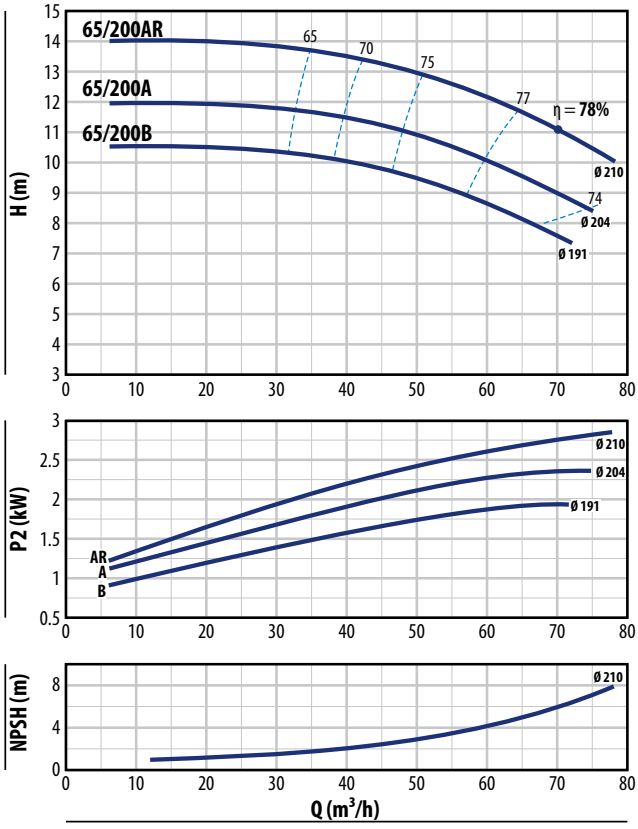
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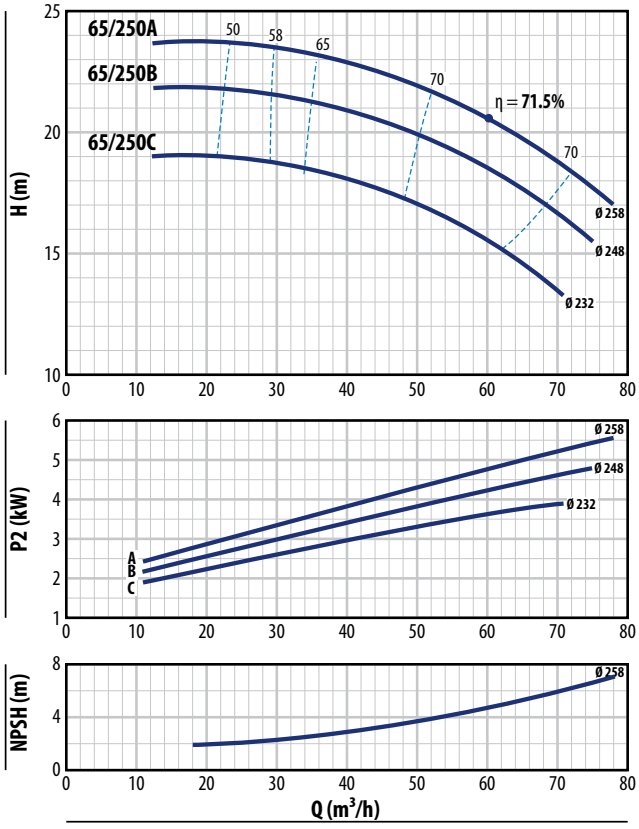

## FG4-65/160




## FG4-65/200



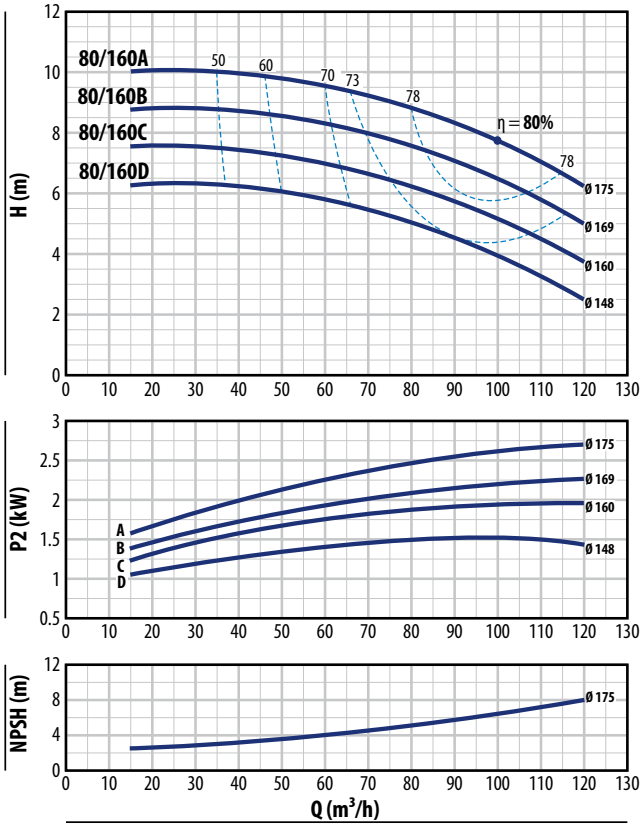

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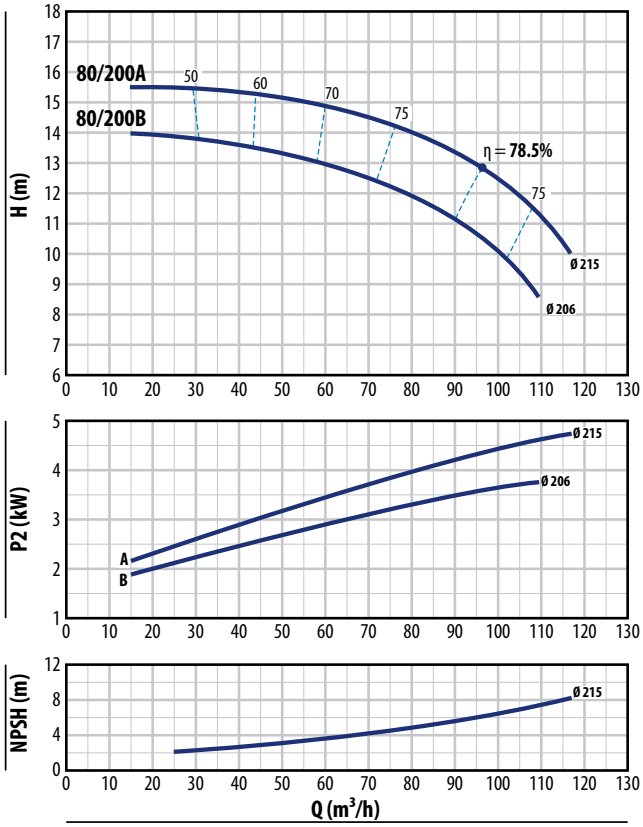
## CHARACTERISTIC CURVES

n= 1750 min$^{-1}$

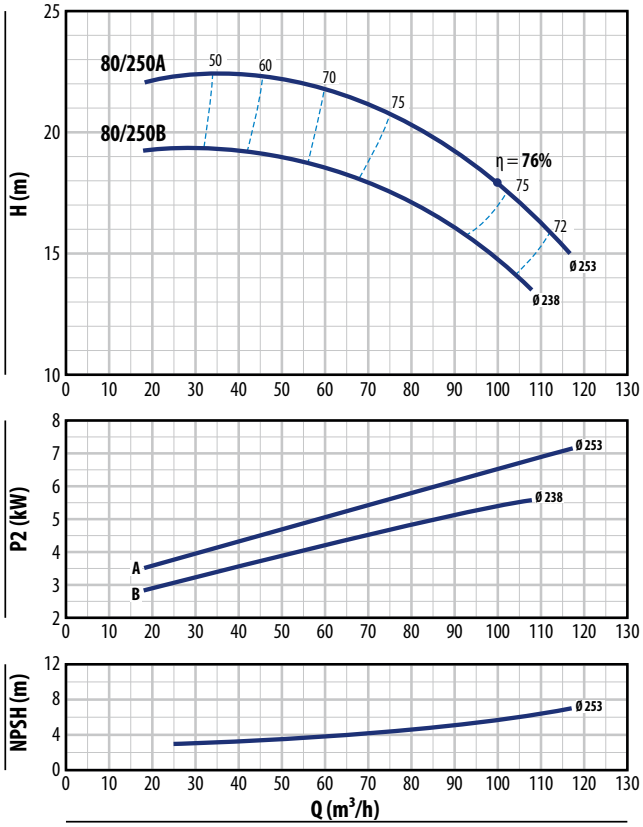
## FG4-80/160




## FG4-80/200



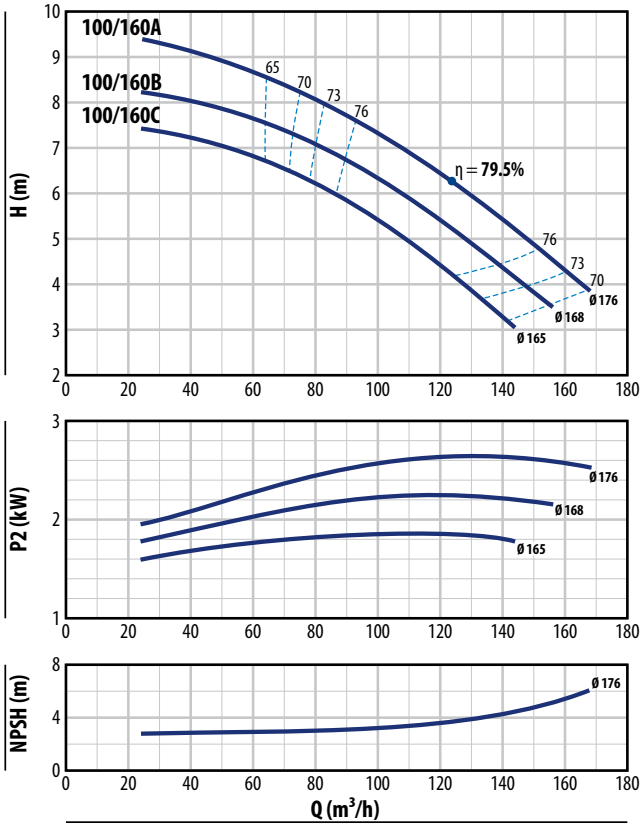

## FG4-80/250



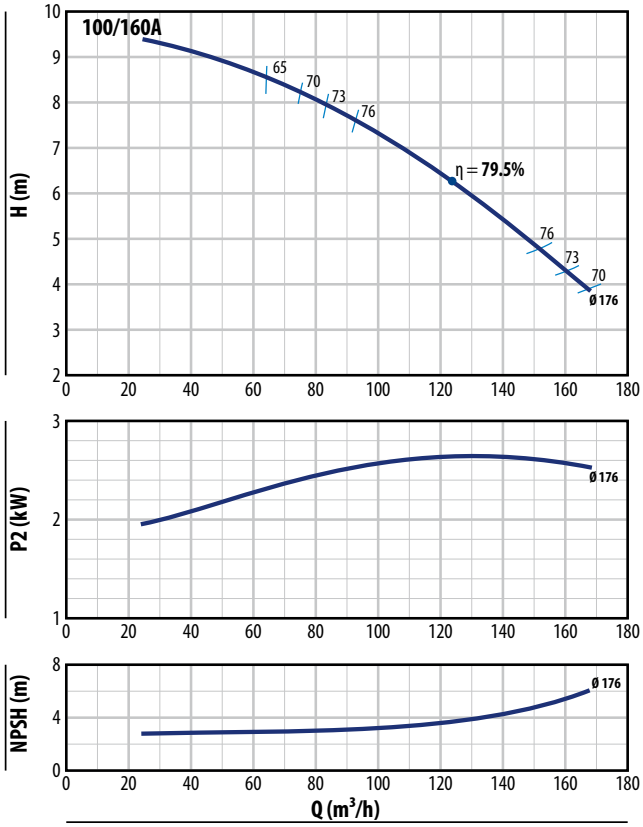
## CHARACTERISTIC CURVES

n= 1750 min$^{-1}$

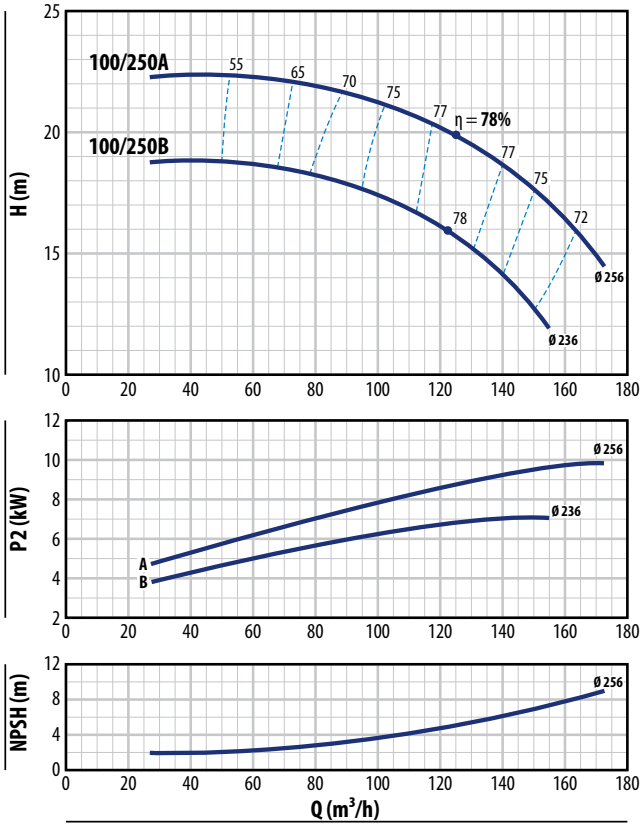
## FG4-100/160



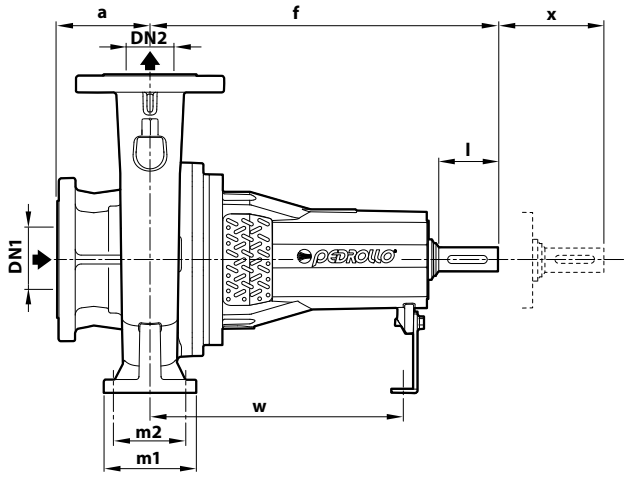

## FG4-100/200

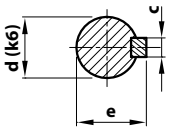


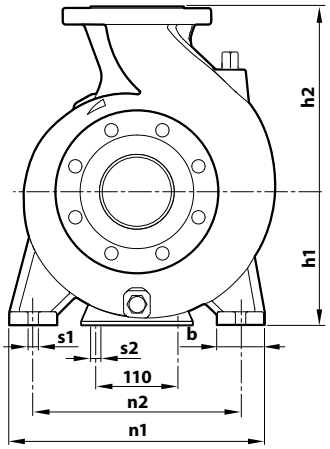

## FG4-100/250



## DIMENSIONS AND WEIGHT

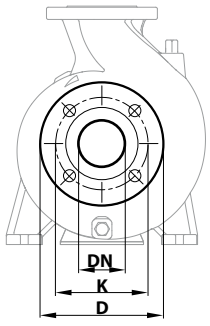



| TYPE | PORTS | | DIMENSIONS mm | | | | | | | | | | | | | | | | kg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | DN1 | DN2 | a | f | h1 | h2 | b | m1 | m2 | n1 | n2 | s1 | s2 | w | x | l | d (k6) | c | e | |
| **FG 32/160** | **50** | **32** | 80 | 360 | 132 | 160 | 55 | 96 | 71 | 240 | 190 | 14 | 14 | 260 | 100 | 50 | 24 | 8 | 27 | 33.0 |
| **FG 32/200** | | | | | 160 | 180 | 55 | 95 | | | | | | | | | | | | 38.1 |
| **FG 32/200H** | | | | | 160 | 180 | 55 | | | | | | | | | | | | | 36.9 |
| **FG 32/250** | | | 100 | | 180 | 225 | 65 | 125 | 95 | 320 | 250 | | | | | | | | | 53.0 |
| **FG 40/125** | **65** | **40** | 80 | | 112 | 140 | 50 | 100 | 70 | 210 | 160 | | | | | | | | | 30.4 |
| **FG 40/160** | | | | | 132 | 160 | | | | 240 | 190 | | | | | | | | | 34.1 |
| **FG 40/200** | | | 100 | | 160 | 180 | 55 | | | 265 | 212 | | | | | | | | | 40.2 |
| **FG 40/250** | | | | | 180 | 225 | 65 | 125 | 95 | 320 | 250 | | | | | | | | | 59.2 |
| **FG 50/125** | **65** | **50** | | | 132 | 160 | 50 | 100 | 70 | 240 | 190 | | | | | | | | | 33.0 |
| **FG 50/160** | | | | | 160 | 180 | 55 | | | 265 | 212 | | | | | | | | | 38.3 |
| **FG 50/200** | | | | | 160 | 200 | 50 | | | | | | | | | | | | | 50.3 |
| **FG 50/250** | | | | | 180 | 225 | 65 | 125 | 95 | 320 | 250 | | | | | | | | | 57.0 |
| **FG 65/125** | **80** | **65** | | | 160 | 180 | 65 | | | 280 | 212 | | | | | | | | | 45.2 |
| **FG 65/160** | | | | | 160 | 200 | 65 | | | | | | | | | | | | | 48.0 |
| **FG 65/200** | | | | | 180 | 225 | 65 | | | 320 | 250 | | | | | | | | | 55.1 |
| **FG 65/250** | | | | 470 | 200 | 250 | 80 | 160 | 120 | 360 | 280 | 18 | | 340 | | 80 | 32 | 10 | 35 | 82.4 |
| **FG 80/160** | **100** | **80** | 125 | 360 | 180 | 225 | 65 | 125 | 95 | 320 | 250 | 14 | | 260 | 140 | 50 | 24 | 8 | 27 | 53.0 |
| **FG 80/200** | | | | 470 | 180 | 250 | 65 | | | 345 | 280 | | | 340 | | 80 | 32 | 10 | 35 | 72.0 |
| **FG 80/250** | | | | | 200 | 280 | 80 | 160 | 120 | 400 | 315 | 18 | | | | | | | | 91.1 |
| **FG 100/160** | **125** | **100** | | 360 | 200 | 280 | 80 | | | 360 | 280 | | | 260 | | 50 | 24 | 8 | 27 | 76.3 |
| **FG 100/200** | | | | 470 | 200 | 280 | 80 | | | | | | | 340 | | 80 | 32 | 10 | 35 | 82.1 |
| **FG 100/250** | | | 140 | | 225 | 280 | 80 | | | 400 | 315 | | | | | | | | | 96.0 |

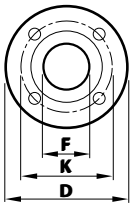
## PORT FLANGES




| DN FLANGE | D | K | HOLES | |
|---|---|---|---|---|
| mm | mm | mm | N° | Ø (mm) |
| **32** | 140 | 100 | 4 | 18 |
| **40** | 150 | 110 | | |
| **50** | 165 | 125 | | |
| **65** | 185 | 145 | | |
| **80** | 200 | 160 | 8 | |
| **100** | 220 | 180 | | |
| **125** | 250 | 210 | | |

## COUNTER-FLANGE

(CAN BE ORDERED SEPARATELY)




| DN FLANGE | F | D | K | HOLES | |
|---|---|---|---|---|---|
| mm | COUNTER-FLANGE | mm | mm | N° | Ø (mm) |
| **32** | 1¼" | 140 | 100 | 4 | 18 |
| **40** | 1½" | 150 | 110 | | |
| **50** | 2" | 165 | 125 | | |
| **65** | 2½" | 185 | 145 | | |
| **80** | 3" | 200 | 160 | 8 | |
| **100** | 4" | 220 | 180 | | |
| **125** | 5" | 250 | 210 | | |

# WR IN-LINE close-coupled centrifugal pumps

Clean water
Agricultural use
Civil use
Industrial use



## FIELD PERFORMANCE

- Flow rate up to **700 l/min** (42 m³/h)
- Head up to **26 m**

## INSTALLATION AND USE

WR centrifugal pumps are designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.
Suitable for civil and industrial applications such as **heating, air conditioning, cooling, and circulation** systems.

## INCLUDES

※ Pump's impeller directly mounted on the motor shaft.
※ Pump body with suction and discharge ports of identical diameter.

## APPLICATION LIMITS

- Manometric suction head up to **7 m**
- Liquid temperature between **-10 °C** and **+110 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Maximum pressure in the pump body **10 bar** (PN10)

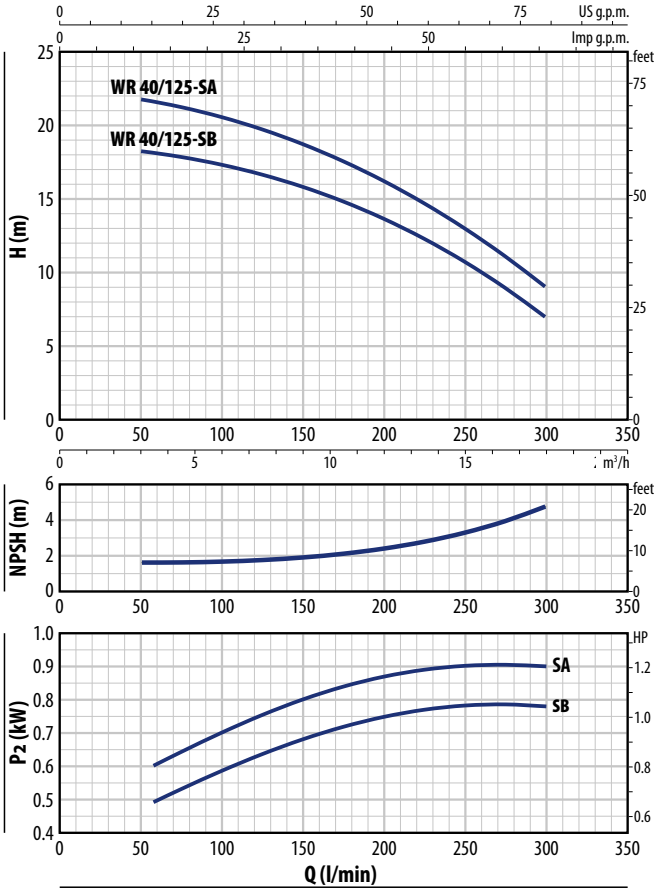
## AVAILABLE UPON REQUEST

※ Counterflange KIT including screws, nuts and gaskets
※ Mechanical seal options available
※ Different voltage or frequency

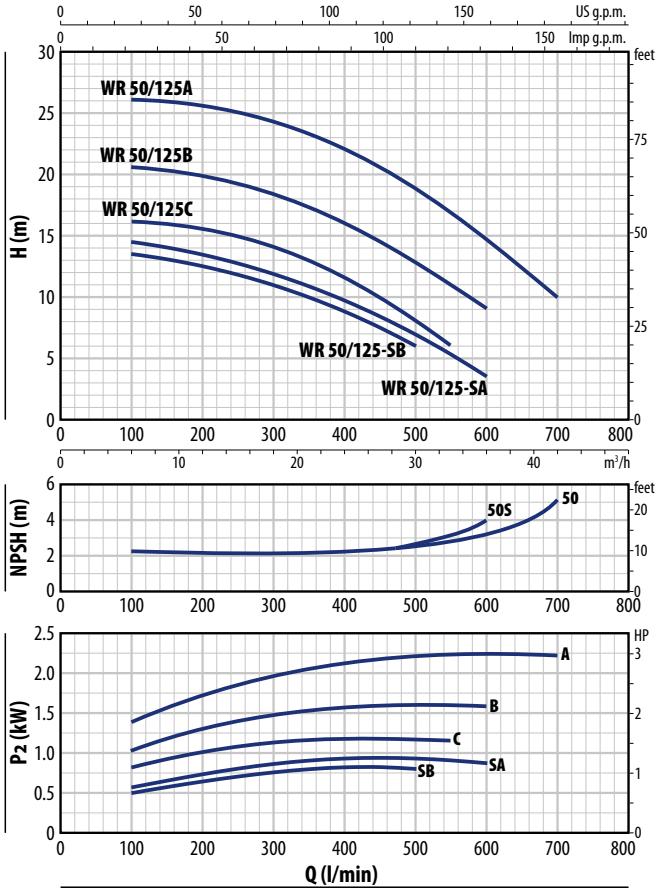
## CURVES AND PERFORMANCE DATA – HS=0 m – n = 3450 min$^{-1}$

**60 Hz**

## WR 40/125




## WR 50/125




## WR 40/125

| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 3 | 6 | 9 | 12 | 15 | 18 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | 3~ | | l/min | **0** | **50** | **100** | **150** | **200** | **250** | **300** |
| WRm 40/125-SB | WR 40/125-SB | 0.55 | 0.75 | IE3 | H | m | 18.7 | 18.2 | 17.3 | 15.8 | 13.7 | 10.7 | 7 |
| WRm 40/125-SA | WR 40/125-SA | 0.75 | 1 | | | | 22.4 | 21.8 | 20.6 | 18.7 | 16.2 | 13 | 9 |

## WR 50/125

| TYPE | | POWER (P2) | | | Q | m³/h | 0 | 6 | 12 | 18 | 24 | 30 | 33 | 36 | 39 | 42 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | 3~ | | l/min | **0** | **100** | **200** | **300** | **400** | **500** | **550** | **600** | **650** | **700** |
| WRm 50/125-SB | WR 50/125-SB | 0.55 | 0.75 | IE3 | H | m | 14 | 13.5 | 12.5 | 11 | 8.8 | 6 | | | | |
| WRm 50/125-SA | WR 50/125-SA | 0.75 | 1 | | | | 15 | 14.5 | 13.5 | 11.8 | 9.7 | 7 | 5.5 | 3.5 | | |
| WRm 50/125C | WR 50/125C | 1.1 | 1.5 | | | | 16 | 16 | 15.5 | 14 | 11.5 | 8 | 6 | | | |
| WRm 50/125B | WR 50/125B | 1.5 | 2 | | | | 20.5 | 20.5 | 19.8 | 18.5 | 16 | 12.8 | 11 | 9 | | |
| WRm 50/125A | WR 50/125A | 2.2 | 3 | | | | 26 | 26 | 25.5 | 24 | 22 | 18.5 | 17 | 14.5 | 12.5 | 10 |

**Q** = Flow rate **H** = Total manometric head **HS** = Suction height

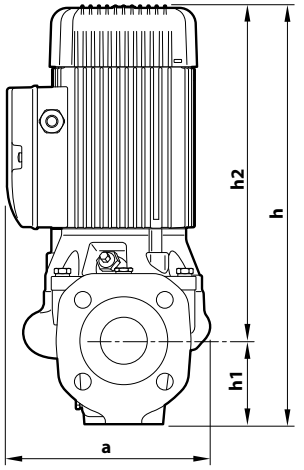
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

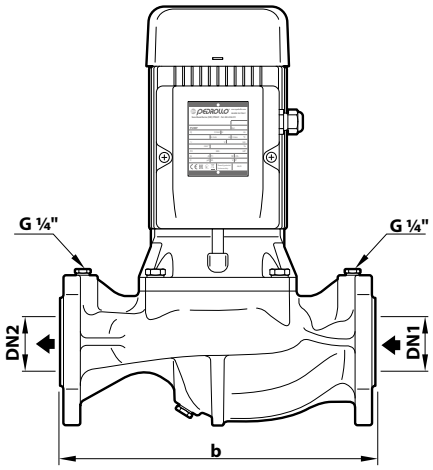
## ABSORPTION

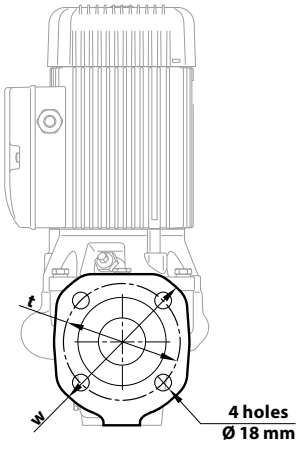
| TYPE | VOLTAGE |
|---|---|
| **Single-phase** | **220 V** |
| **WR 40/125-SB** | 5.9 A |
| **WR 40/125-SA** | 6.8 A |
| **WR 50/125-SB** | 5.0 A |
| **WR 50/125-SA** | 6.5 A |
| **WR 50/125C** | 8.9 A |
| **WR 50/125B** | 10.4 A |
| **WR 50/125A** | 14.5 A |

| TYPE | VOLTAGE | |
|---|---|---|
| **Three-phase** | **220 V - Δ** | **380 V - Y** |
| **WR 40/125-SB** | 4.3 A | 2.5 A |
| **WR 40/125-SA** | 4.9 A | 2.9 A |
| **WR 50/125-SB** | 4.6 A | 2.7 A |
| **WR 50/125-SA** | 5.1 A | 3.0 A |
| **WR 50/125C** | 6.2 A | 3.6 A |
| **WR 50/125B** | 7.3 A | 4.2 A |
| **WR 50/125A** | 10.2 A | 5.9 A |

## DIMENSIONS




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | kg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **DN1** | **DN2** | a | b | h | h1 | h2 | w | t | |
| **WRm 40/125-SB** | **WR 40/125-SB** | **DN 40** | **DN 40** | 195 | 320 | 350 | 81 | 269 | 150 | 110 | 21.1 |
| **WRm 40/125-SA** | **WR 40/125-SA** | | | | | | | | | | |
| **WRm 50/125-SB** | **WR 50/125-SB** | **DN 50** | **DN 50** | | 340 | 362 | 90 | 272 | 165 | 125 | 23.4 |
| **WRm 50/125-SA** | **WR 50/125-SA** | | | | | | | | | | |
| **WRm 50/125C** | **WR 50/125C** | | | 220 | 340 | 432 | 90 | 342 | 165 | 125 | 29.0 |
| **WRm 50/125B** | **WR 50/125B** | | | | | | | | | | 30.0 |
| **WRm 50/125A** | **WR 50/125A** | | | | | 452 | | 362 | | | 32.0 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment, provided with flanged ports |
| 2 | **Cover** | Cast iron with cataphoresis treatment |
| 3 | **Impeller** | Stainless steel **AISI 304** |
| 4 | **Shaft** | Stainless steel **AISI 431** |

**5 Mechanical seal**

| Water pump | Seal | Shaft | Materials |
|---|---|---|---|
| WR 40/125-S<br>WR 50/125-S | **FNC-14** | Ø 14 mm | Graphite / Ceramic / EPDM |
| WR 50/125 | **FN-20** | Ø 20 mm | Graphite / Ceramic / EPDM |

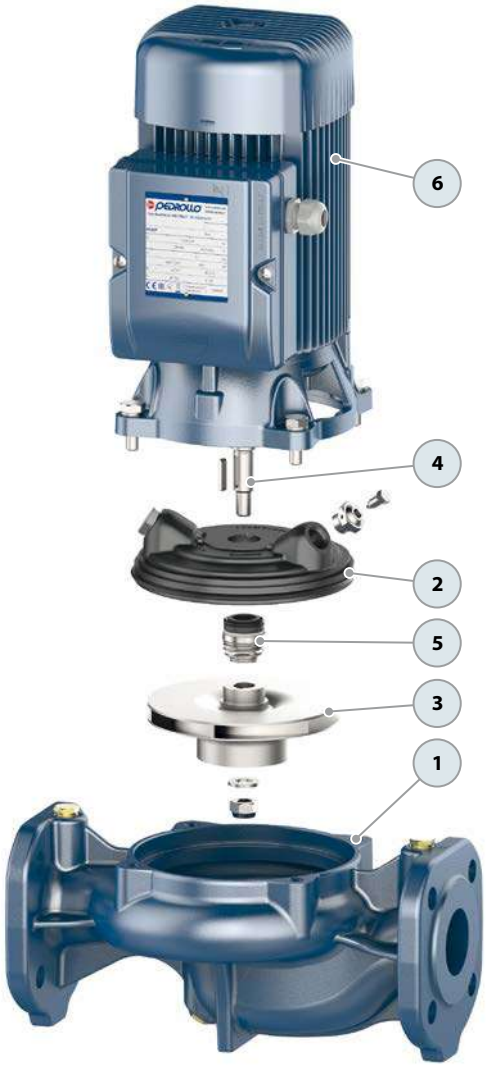
**6 Electric motor**

**WRm**: single-phase 220 V - 60 Hz with capacitor and winding integrated thermal motor protection

**WR**: three-phase 220/380 V - 60 Hz

– The three-phase pump is fitted with a high performance motor in class IE3 (IEC 60034-30-1)

– Continuous running duty S1



# 3SR 3" submersible pumps

Clean water

Domestic use

Civil use




## PERFORMANCE RANGE

- Flow rate up to **140 l/min** (8.4 m³/h)
- Head up to **246 m**

## INSTALLATION AND USE

3-inch submersible pumps are designed to transfer clean water, making them perfect for household use, irrigation, and small community water systems.

## KEY FEATURES

The increased efficiency of 3SR pumps not only saves electricity but also offers economic advantages. Their small size and light build allow for easy installation in wells 3 inches wide or more.
With a blend of hydraulic parts and a high-efficiency motor, 3SR pumps excel in the 3-inch category, capable of handling water with up to **150 g/m³** of sand.

## ELECTRIC MOTOR

- **Rewindable** motor in oil bath (non-toxic food-safe oil) 2-pole, 60 Hz
- Voltage:
  - single-phase 220 V
  - three-phase 220 V or 380 V
- Continuous running duty **S1**
- Insulation: Class F
- Protection rating: IP 68
- Shaft and sleeve: **AISI 304** stainless steel
- Flange coupling dimensions to NEMA standard
- Connector with power cable from:
  - **1.5 m** for power up to 0.75 kW
  - **2.0 m** for power ratings from 1.1 kW

## APPLICATION LIMITS

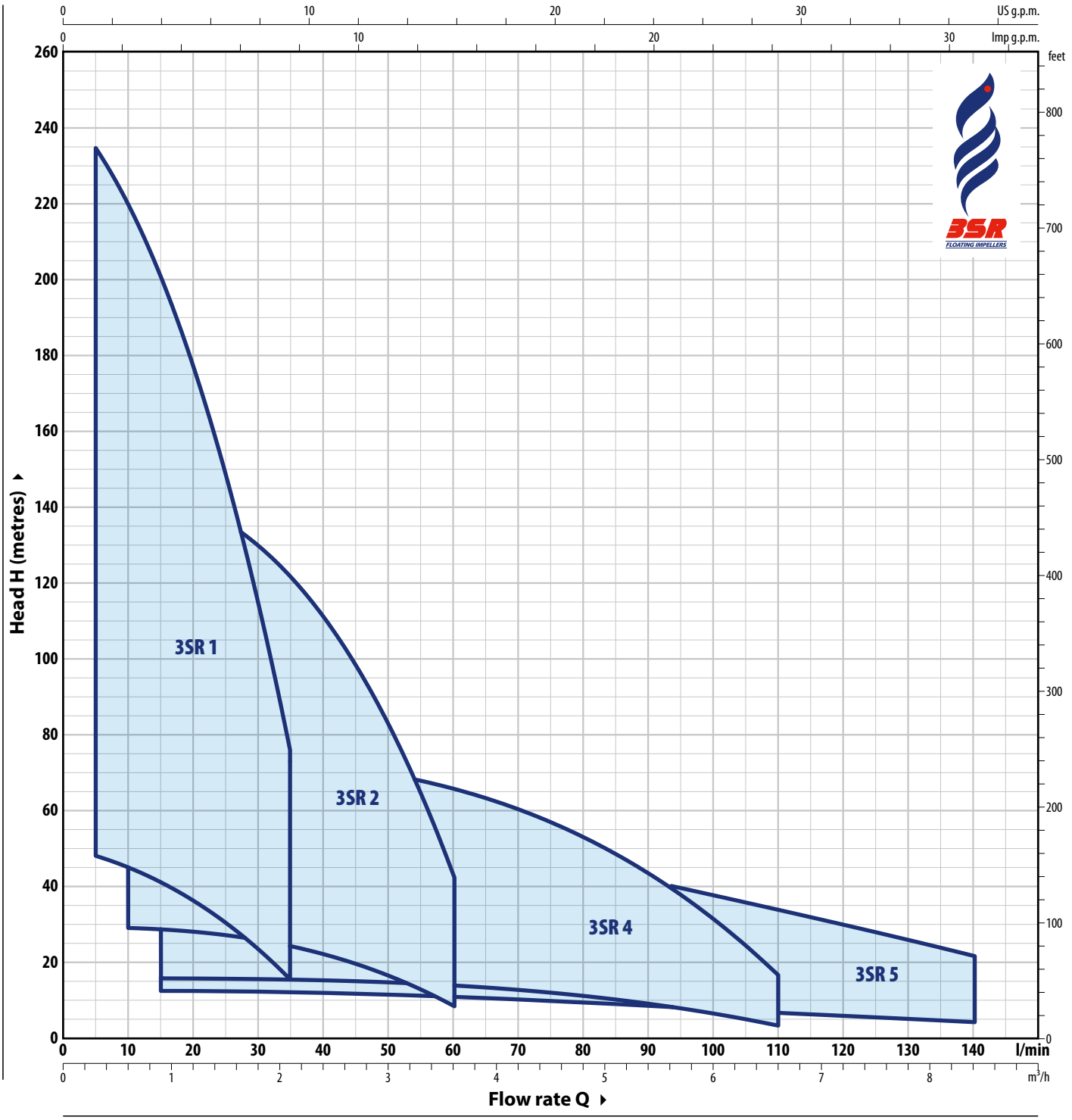
- Liquid temperature up to **+40 °C**
- Maximum sand content **150 g/m³**
- Capable of operating at depths of up to **100 metres** below water level (with an appropriately sized power cable)
- Vertical operation
- Starts per hour: **20** at regular intervals
- Minimum motor cooling flow **8 cm/s**

## AVAILABLE UPON REQUEST

※ **10, 20, 30 or 40 metres** long power cable
※ Different voltage or frequency

## PERFORMANCE RANGE

## 60 Hz




## PATENTS:

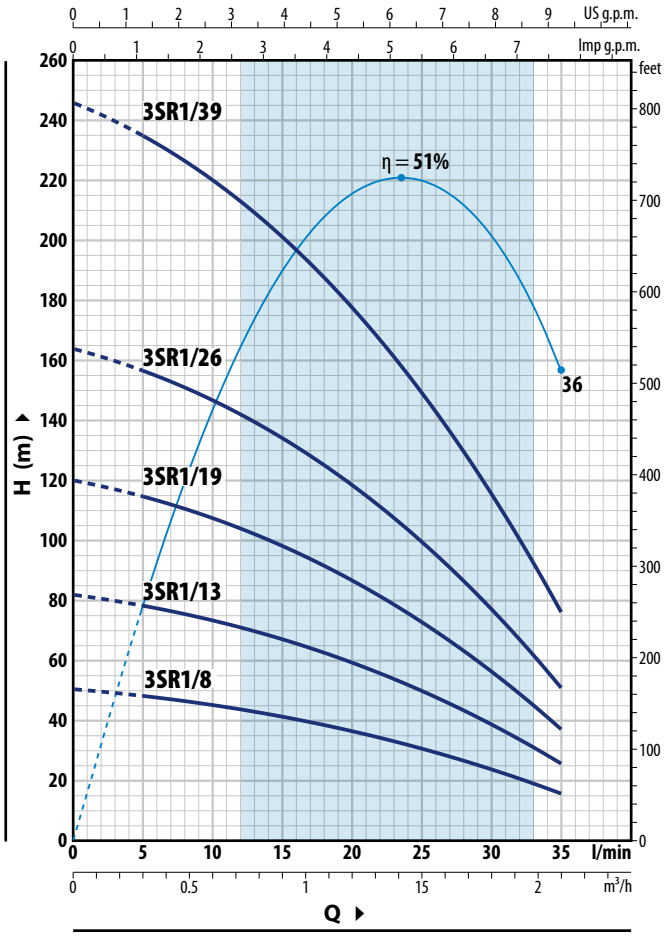
- Patent No. EP3123031, EP2419642

ECO FRIENDLY · ErP ready · RoHS 2 COMPLIANT · REACH COMPLIANT · EMC COMPLIANT

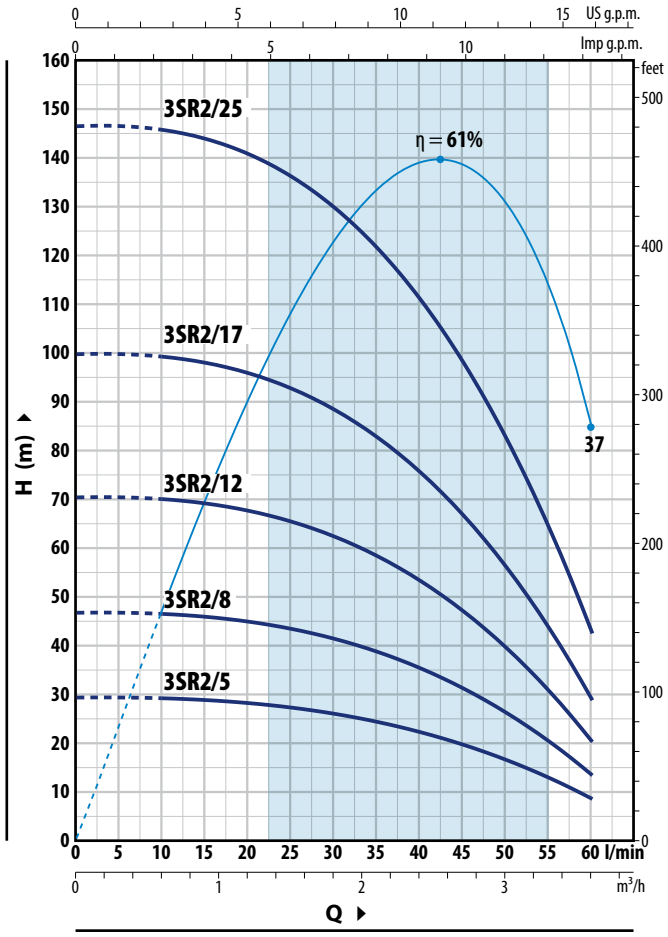
## CURVES AND PERFORMANCE DATA

60 Hz

### 3SR 1




### 3SR 2




## 3SR 1

| TYPE | | POWER (P2) | | Q | m³/h | 0 | 0.3 | 0.6 | 0.9 | 1.2 | 1.5 | 1.8 | 2.1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | | l/min | **0** | **5** | **10** | **15** | **20** | **25** | **30** | **35** |
| **3SRm 1/8** | **3SR 1/8** | 0.25 | 0.33 | **H** metres | | 50.5 | 48 | 45 | 41.5 | 36.5 | 30.5 | 23.7 | 15.5 |
| **3SRm 1/13** | **3SR 1/13** | 0.37 | 0.50 | | | 82 | 78 | 73 | 67 | 59 | 49.5 | 38.5 | 25.5 |
| **3SRm 1/19** | **3SR1/19** | 0.55 | 0.75 | | | 120 | 114 | 107 | 98 | 87 | 73 | 56.5 | 37 |
| **3SRm 1/26** | **3SR 1/26** | 0.75 | 1 | | | 164 | 157 | 147 | 134 | 118 | 99 | 77 | 51 |
| **3SRm 1/39** | **3SR 1/39** | 1.1 | 1.5 | | | 246 | 235 | 220 | 201 | 178 | 149 | 116 | 76 |

## 3SR 2

| TYPE | | POWER (P2) | | Q | m³/h | 0 | 0.6 | 0.9 | 1.2 | 1.8 | 2.4 | 3 | 3.6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | | l/min | **0** | **10** | **15** | **20** | **30** | **40** | **50** | **60** |
| **3SRm 2/5** | **3SR 2/5** | 0.25 | 0.33 | **H** metres | | 29.5 | 29 | 29 | 28 | 26 | 22.2 | 16.5 | 8.5 |
| **3SRm 2/8** | **3SR 2/8** | 0.37 | 0.50 | | | 47 | 46.5 | 46 | 45 | 41.5 | 35.5 | 26.4 | 13.5 |
| **3SRm 2/12** | **3SR 2/12** | 0.55 | 0.75 | | | 70 | 70 | 69 | 67.5 | 62.5 | 53.5 | 39.5 | 20.5 |
| **3SRm 2/17** | **3SR 2/17** | 0.75 | 1 | | | 100 | 99 | 98 | 96 | 88 | 76 | 56 | 29 |
| **3SRm 2/25** | **3SR 2/25** | 1.1 | 1.5 | | | 147 | 146 | 144 | 141 | 130 | 111 | 83 | 42.5 |

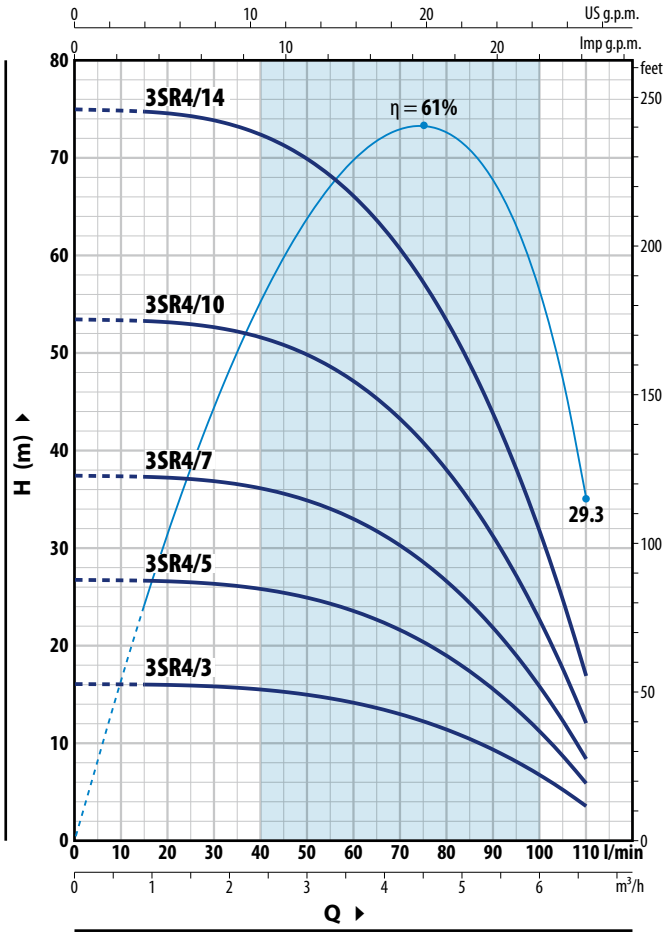
**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

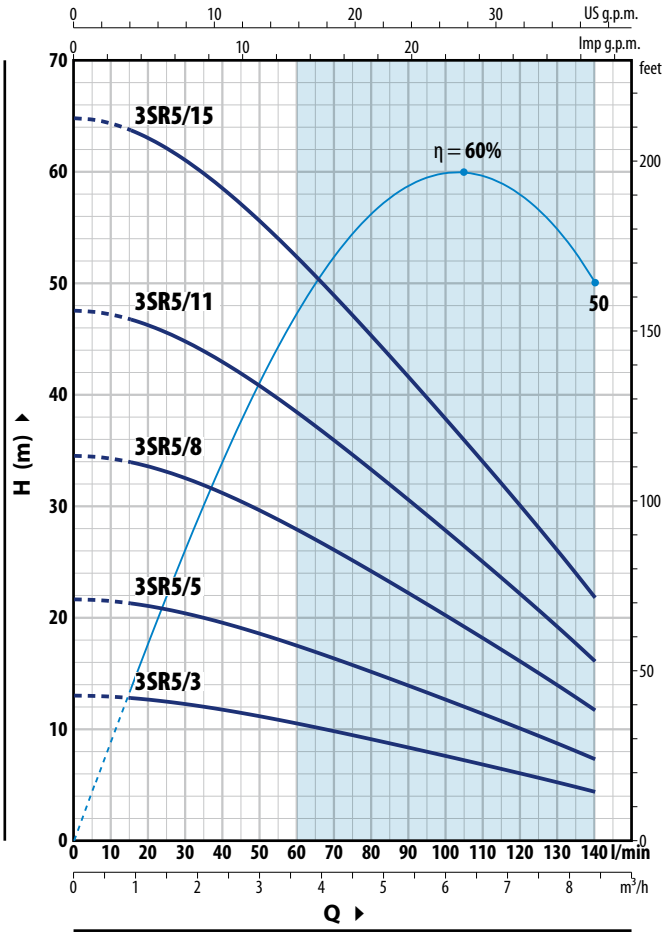
## CURVES AND PERFORMANCE DATA

**60 Hz**

### 3SR 4




### 3SR 5




## 3SR 4

| TYPE | | POWER (P2) | | Q m³/h | 0 | 0.9 | 1.8 | 2.4 | 3 | 4.2 | 5.4 | 6.6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | Q l/min | **0** | **15** | **30** | **40** | **50** | **70** | **90** | **110** |
| **3SRm 4/3** | **3SR 4/3** | 0.25 | 0.33 | | 16 | 16 | 15.8 | 15.5 | 14.9 | 13 | 9.4 | 3.5 |
| **3SRm 4/5** | **3SR 4/5** | 0.37 | 0.50 | | 26.5 | 26.5 | 26.3 | 25.8 | 24.9 | 21.6 | 15.6 | 6 |
| **3SRm 4/7** | **3SR 4/7** | 0.55 | 0.75 | **H** metres | 37.5 | 37.5 | 37 | 36 | 35 | 30.5 | 21.8 | 8.5 |
| **3SRm 4/10** | **3SR 4/10** | 0.75 | 1 | | 53.5 | 53.5 | 52.5 | 51.5 | 50 | 43 | 31 | 12 |
| **3SRm 4/14** | **3SR 4/14** | 1.1 | 1.5 | | 75 | 75 | 74 | 72 | 70 | 60.5 | 43.5 | 17 |

## ※ 3SR5

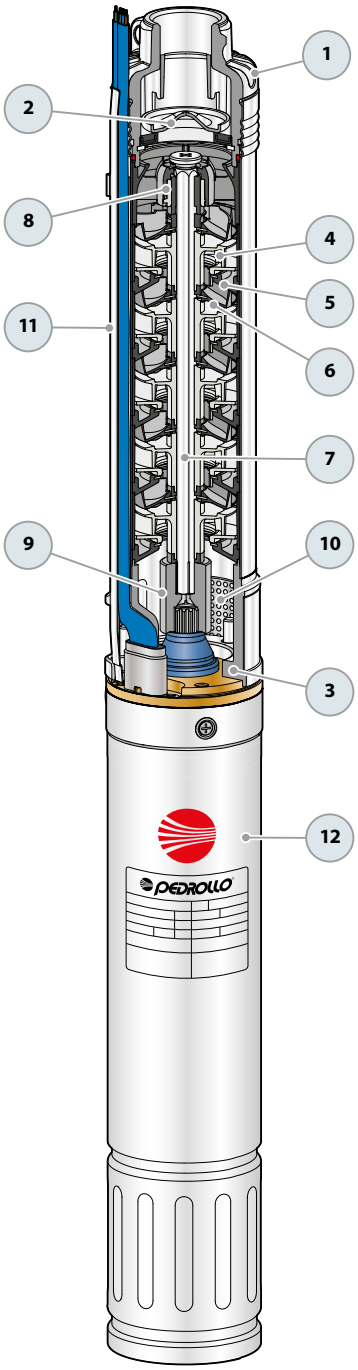
| TYPE | | POWER (P2) | | Q m³/h | 0 | 0.9 | 1.8 | 2.4 | 3 | 3.6 | 4.2 | 4.8 | 6 | 8.4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | Q l/min | **0** | **15** | **30** | **40** | **50** | **60** | **70** | **80** | **100** | **140** |
| **3SRm 5/3** | **3SR 5/3** | 0.25 | 0.33 | | 13 | 13 | 12.2 | 11.7 | 11.1 | 10.5 | 9.8 | 9.1 | 7.6 | 4.5 |
| **3SRm 5/5** | **3SR 5/5** | 0.37 | 0.50 | | 21.5 | 21.5 | 20.3 | 19.5 | 18.5 | 17.4 | 16.3 | 15.1 | 12.6 | 7.5 |
| **3SRm 5/8** | **3SR 5/8** | 0.55 | 0.75 | **H** metres | 34.5 | 34 | 32.5 | 31 | 29.5 | 28 | 26.1 | 24.1 | 20.2 | 11.5 |
| **3SRm 5/11** | **3SR 5/11** | 0.75 | 1 | | 47.5 | 47 | 45 | 43 | 41 | 38.5 | 36 | 33 | 27.5 | 16 |
| **3SRm 5/15** | **3SR 5/15** | 1.1 | 1.5 | | 65 | 64 | 61 | 58.5 | 55.5 | 52.5 | 49 | 45.5 | 38 | 22 |

**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Delivery port** | Micro-cast **AISI 304** stainless steel with thread according to ANSI/ASME B1.20.1 |
| 2 | **Check valve** | Stainless steel **AISI 304** |
| 3 | **Motor bracket** | **AISI 304** micro-cast stainless steel, sized to NEMA standards |
| 4 | **Impellers** | Delrin® for 3SR 1-2-4<br>Noryl™ for 3SR 5 |
| 5 | **Diffusers** | Noryl™ - **AISI 304** stainless steel |
| 6 | **Diffuser cover** | Noryl™ - **AISI 304** stainless steel for 3SR 1-2-4<br>Noryl™ for 3SR 5 |
| 7 | **Pump shaft** | Stainless steel **AISI 304** |
| 8 | **Pump bearings** | Made of **AISI 316L** stainless steel coated with chromium oxide, for greater durability even in the presence of sand. |
| 9 | **Tow coupling** | Stainless steel **AISI 316L** |
| 10 | **Filter** | Stainless steel **AISI 304** |
| 11 | **Cable sheath** | Stainless steel **AISI 304** |
| 12 | **Motor 3"** | Rewindable oil-submerged motor |



## ABSORPTION

### Single-phase versions - 220 V - 60 Hz

| TYPE | Power nominal P2 | | Axial Load | Capacitor (VL=450V) | Absorption |
|---|---|---|---|---|---|
| | kW | HP | N | µF | |
| **3SRm 1/8** | 0.25 | 0.33 | 800 | 12.5 | 2.9 A |
| **3SRm 1/13** | 0.37 | 0.50 | | 12.5 | 3.4 A |
| **3SRm 1/19** | 0.55 | 0.75 | | 16 | 4.4 A |
| **3SRm 1/26** | 0.75 | 1 | | 20 | 6.0 A |
| **3SRm 1/39** | 1.1 | 1.5 | | 30 | 8.0 A |
| **3SRm 2/5** | 0.25 | 0.33 | 800 | 12.5 | 2.9 A |
| **3SRm 2/8** | 0.37 | 0.50 | | 12.5 | 3.4 A |
| **3SRm 2/12** | 0.55 | 0.75 | | 16 | 4.4 A |
| **3SRm 2/17** | 0.75 | 1 | | 20 | 6.0 A |
| **3SRm 2/25** | 1.1 | 1.5 | | 30 | 8.0 A |
| **3SRm 4/3** | 0.25 | 0.33 | 800 | 12.5 | 2.9 A |
| **3SRm 4/5** | 0.37 | 0.50 | | 12.5 | 3.4 A |
| **3SRm 4/7** | 0.55 | 0.75 | | 16 | 4.4 A |
| **3SRm 4/10** | 0.75 | 1 | | 20 | 6.0 A |
| **3SRm 4/14** | 1.1 | 1.5 | | 30 | 8.0 A |
| **3SRm 5/3** | 0.25 | 0.33 | 800 | 12.5 | 2.9 A |
| **3SRm 5/5** | 0.37 | 0.5 | | 12.5 | 3.4 A |
| **3SRm 5/8** | 0.55 | 0.75 | | 16 | 4.4 A |
| **3SRm 5/11** | 0.75 | 1 | | 20 | 6.0 A |
| **3SRm 5/15** | 1.1 | 1.5 | | 30 | 8.0 A |

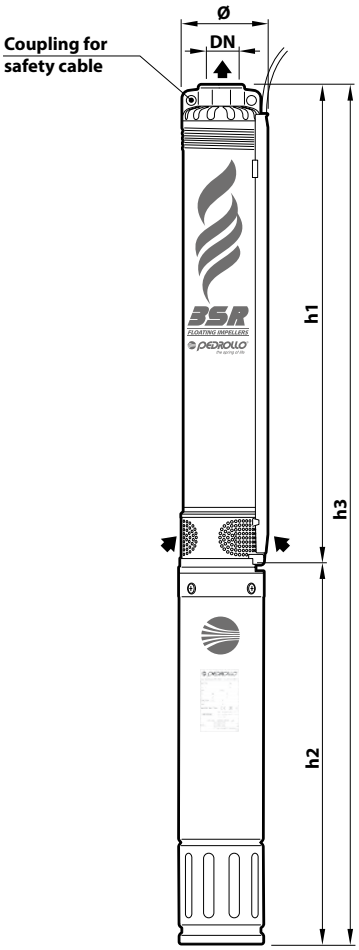
### Three-phase versions 220 V or 380 V - 60Hz

| TYPE | Power nominal P2 | | Axial Load | Absorption | |
|---|---|---|---|---|---|
| | kW | HP | N | **220 V** | **380 V** |
| **3SR 1/8** | 0.25 | 0.33 | 800 | 2.6 A | 1.5 A |
| **3SR 1/13** | 0.37 | 0.50 | | 2.6 A | 1.5 A |
| **3SR 1/19** | 0.55 | 0.75 | | 3.3 A | 1.9 A |
| **3SR 1/26** | 0.75 | 1 | | 5.2 A | 3.0 A |
| **3SR 1/39** | 1.1 | 1.5 | | 5.9 A | 3.4 A |
| **3SR 2/5** | 0.25 | 0.33 | 800 | 2.6 A | 1.5 A |
| **3SR 2/8** | 0.37 | 0.50 | | 2.6 A | 1.5 A |
| **3SR 2/12** | 0.55 | 0.75 | | 3.3 A | 1.9 A |
| **3SR 2/17** | 0.75 | 1 | | 5.2 A | 3.0 A |
| **3SR 2/25** | 1.1 | 1.5 | | 5.9 A | 3.4 A |
| **3SR 4/3** | 0.25 | 0.33 | 800 | 2.6 A | 1.5 A |
| **3SR 4/5** | 0.37 | 0.50 | | 2.6 A | 1.5 A |
| **3SR 4/7** | 0.55 | 0.75 | | 3.3 A | 1.9 A |
| **3SR 4/10** | 0.75 | 1 | | 5.2 A | 3.0 A |
| **3SR 4/14** | 1.1 | 1.5 | | 5.9 A | 3.4 A |
| **3SR5/3** | 0.25 | 0.33 | 800 | 2.6 A | 1.5 A |
| **3SR5/5** | 0.37 | 0.5 | | 2.6 A | 1.5 A |
| **3SR5/8** | 0.55 | 0.75 | | 3.3 A | 1.9 A |
| **3SR5/11** | 0.75 | 1 | | 5.2 A | 3.0 A |
| **3SR5/15** | 1.1 | 1.5 | | 5.9 A | 3.4 A |

## DIMENSIONS AND WEIGHT

| TYPE | PORT | DIMENSIONS mm | | | | kg |
|---|---|---|---|---|---|---|
| **Single-ph.** | **DN** | Ø | h1 | h2 | h3 | 1~ |
| **3SRm1/8** | **1" NPT** | **76** | 302 | 388 | 690 | 9.5 |
| **3SRm1/13** | | | 396 | 388 | 784 | 10.0 |
| **3SRm1/19** | | | 510 | 408 | 917 | 11.2 |
| **3SRm1/26** | | | 642 | 448 | 1089 | 13.1 |
| **3SRm1/39** | | | 916 | 488 | 1404 | 15.7 |
| **3SRm2/5** | | | 264 | 388 | 652 | 9.3 |
| **3SRm2/8** | | | 332 | 388 | 719 | 9.7 |
| **3SRm2/12** | | | 422 | 408 | 830 | 10.8 |
| **3SRm2/17** | | | 535 | 448 | 982 | 12.5 |
| **3SRm2/25** | | | 715 | 488 | 1203 | 14.6 |
| **3SRm4/3** | | | 247 | 388 | 634 | 9.2 |
| **3SRm4/5** | | | 311 | 388 | 698 | 9.5 |
| **3SRm4/7** | | | 374 | 408 | 782 | 10.4 |
| **3SRm4/10** | | | 470 | 448 | 918 | 12.0 |
| **3SRm4/14** | | | 598 | 488 | 1085 | 13.8 |
| **3SRm5/3** | | | 299 | 388 | 686 | 9.2 |
| **3SRm5/5** | | | 399 | 388 | 786 | 9.7 |
| **3SRm5/8** | | | 550 | 408 | 957 | 11.1 |
| **3SRm5/11** | | | 700 | 448 | 1148 | 13.1 |
| **3SRm5/15** | | | 901 | 488 | 1389 | 15.3 |

| **Three-ph.** | **DN** | Ø | h1 | h2 | h3 | 3~ |
|---|---|---|---|---|---|---|
| **3SR1/8** | **1" NPT** | **76** | 302 | 368 | 670 | 9.1 |
| **3SR1/13** | | | 396 | 368 | 764 | 9.6 |
| **3SR1/19** | | | 510 | 388 | 897 | 10.6 |
| **3SR1/26** | | | 642 | 408 | 1049 | 12.0 |
| **3SR1/39** | | | 916 | 448 | 1364 | 14.6 |
| **3SR2/5** | | | 264 | 368 | 632 | 8.9 |
| **3SR2/8** | | | 332 | 368 | 699 | 9.2 |
| **3SR2/12** | | | 422 | 388 | 810 | 10.2 |
| **3SR2/17** | | | 535 | 408 | 942 | 11.5 |
| **3SR2/25** | | | 715 | 448 | 1163 | 13.5 |
| **3SR4/3** | | | 247 | 368 | 614 | 8.7 |
| **3SR4/5** | | | 311 | 368 | 678 | 9.0 |
| **3SR4/7** | | | 374 | 388 | 762 | 9.8 |
| **3SR4/10** | | | 470 | 408 | 878 | 11.0 |
| **3SR4/14** | | | 598 | 448 | 1045 | 12.7 |
| **3SR5/3** | | | 299 | 368 | 666 | 8.8 |
| **3SR5/5** | | | 399 | 368 | 766 | 9.2 |
| **3SR5/8** | | | 550 | 388 | 937 | 10.5 |
| **3SR5/11** | | | 700 | 408 | 1108 | 12.1 |
| **3SR5/15** | | | 901 | 448 | 1349 | 14.2 |



# 4-BLOCK 4" Close-coupled electric submersible pumps

Clean water
Civil use
Domestic use
Agricultural use




**※ Ready-to-install stainless steel submersible pump equipped with an integrated capacitor and thermal protector.**

**※ Patented hydraulics featuring fully independent, floating impellers, ensuring minimal impact from sand on pump performance.**

**※ These hydraulics have a minimum efficiency index that far exceeds ErP requirements.**

**※ Outstanding performance .**

**※ Comes with a 20 m power cable.**

## PERFORMANCE RANGE

- Flow rate up to **225 l/min** (13.5 m³/h)
- Head up to **124 m**

## INSTALLATION AND USE

Designed to draw water from clean wells, even in the presence of sand (up to **200 g/m³**).

With their high efficiency, reliability, and ease of installation, they are highly recommended for domestic, commercial, and agricultural applications. They are ideal for automatic water distribution alongside pressure tanks, irrigation systems, and more.

## APPLICATION LIMITS

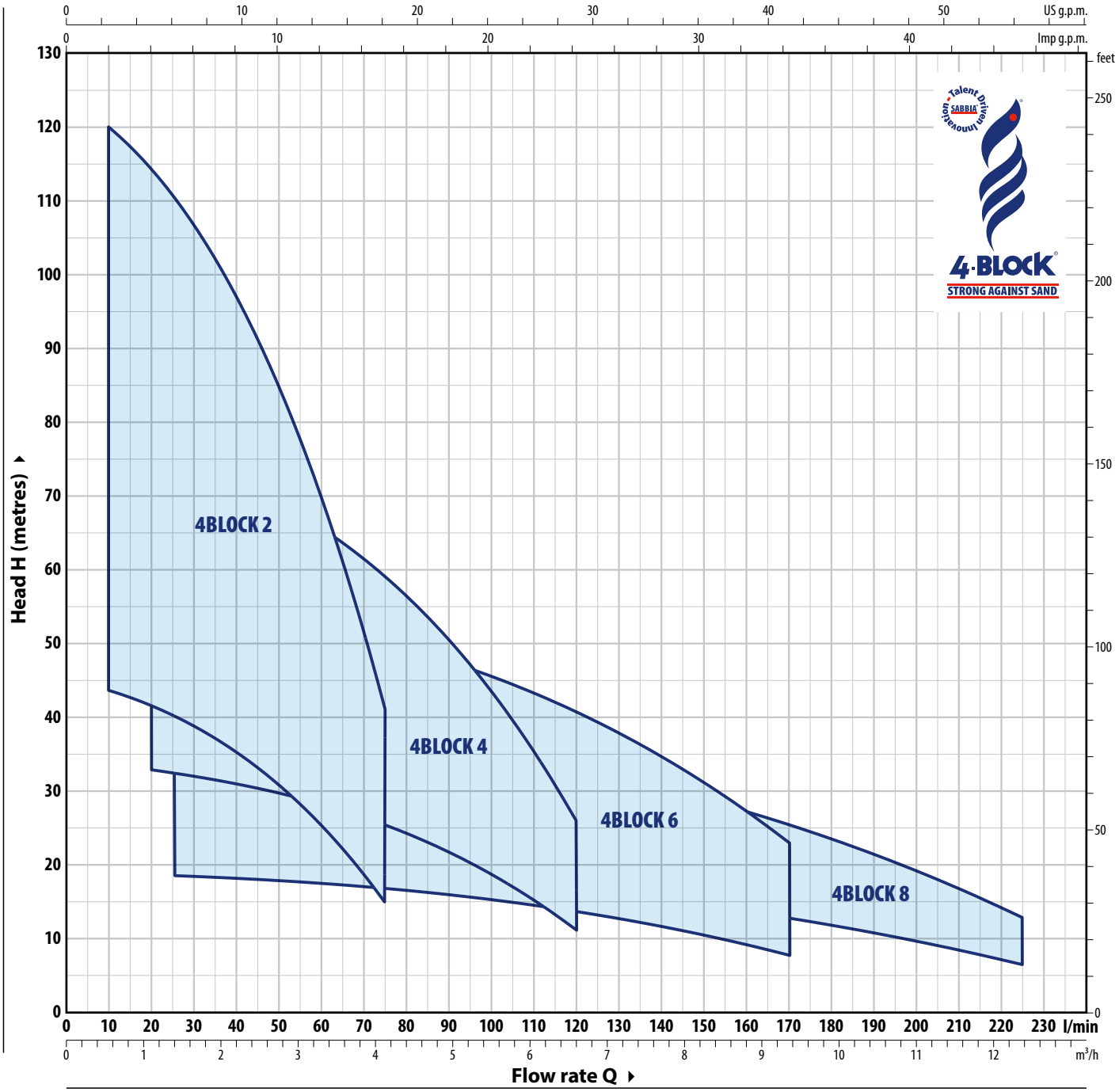
- Liquid temperature up to **+35 °C**
- Maximum sand content **200 g/m³**
- Capable of operating at depths of up to **100 metres** below water level (with an appropriately sized power cable)
- Vertical and horizontal operation
- Starts per hour: **20** at regular intervals

## AVAILABLE UPON REQUEST

※ **30 metres** long power cable
※ Different voltage or frequency

## PERFORMANCE RANGE

## 60 Hz




## PATENTS - TRADE MARKS - MODELS

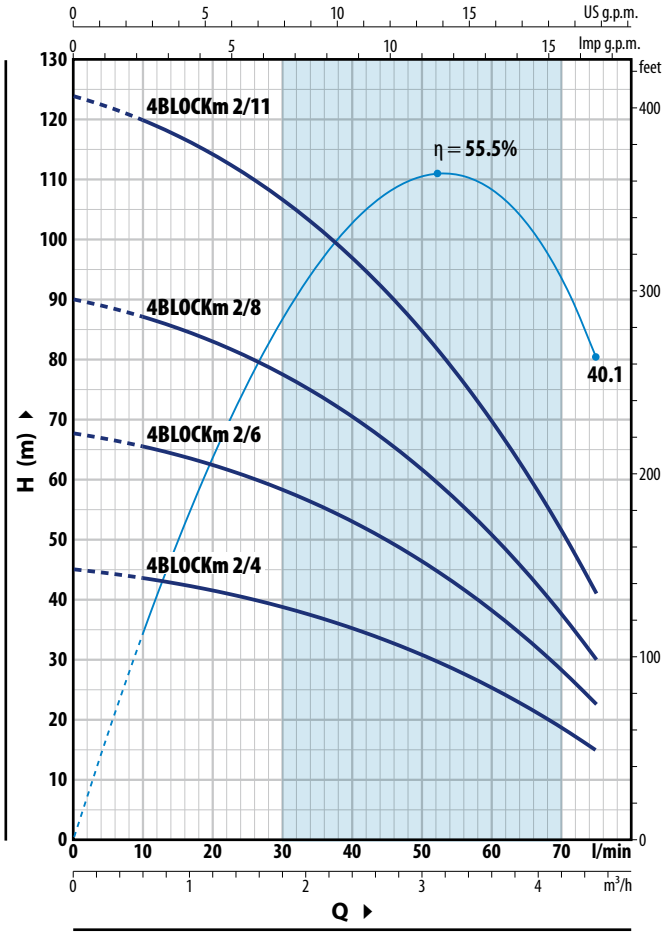
- European Patents No. EP3123031, EP2419642
- Patent No. 102021000030575
- **4-BLOCK®** is a registered trademark No. 018702380

ECO FRIENDLY · ErP ready · RoHS2 COMPLIANT · REACH COMPLIANT · EMC COMPLIANT

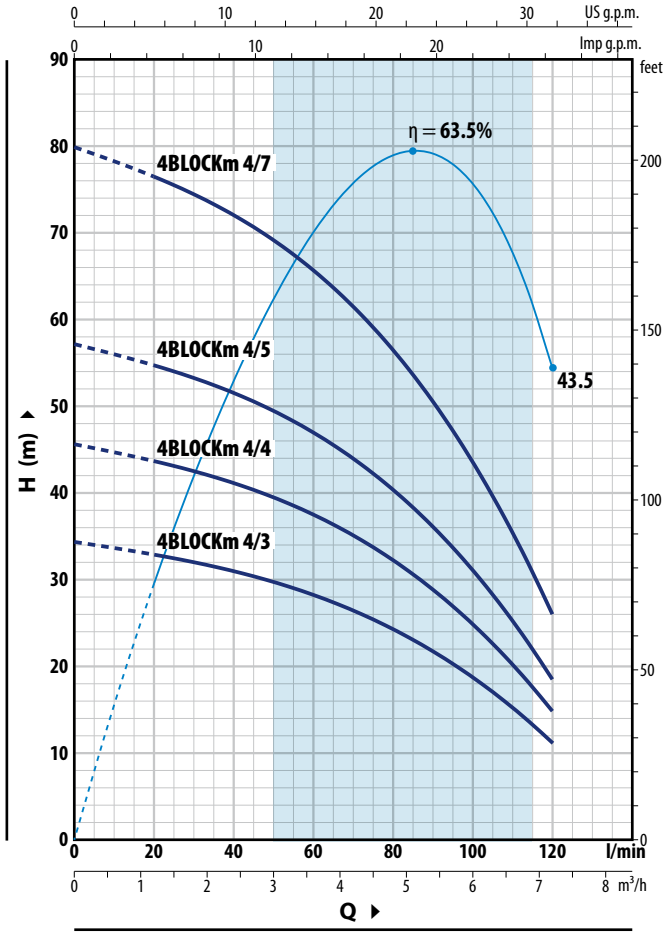
## PERFORMANCE RANGE

**60 Hz**

## 4-BLOCK 2




## 4-BLOCK 4




## 4-BLOCK 2

| TYPE | POWER (P2) | | Q m³/h | 0 | 0.6 | 1.2 | 1.8 | 2.4 | 3 | 3.6 | 4.5 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | kW | HP | l/min | **0** | **10** | **20** | **30** | **40** | **50** | **60** | **75** |
| **4-BLOCKm 2/4** | 0.37 | 0.50 | H metres | 45 | 43.5 | 41.5 | 38.5 | 35 | 31 | 25.5 | 15 |
| **4-BLOCKm 2/6** | 0.55 | 0.75 | | 67.5 | 65.5 | 62 | 58 | 53 | 46 | 38 | 22.5 |
| **4-BLOCKm 2/8** | 0.75 | 1 | | 90 | 87 | 83 | 77 | 70 | 61.5 | 50.5 | 30 |
| **4-BLOCKm 2/11** | 1.1 | 1.5 | | 124 | 120 | 114 | 107 | 97 | 85 | 69.5 | 41 |

## 4-BLOCK 4

| TYPE | POWER (P2) | | Q m³/h | 0 | 1.2 | 1.8 | 2.4 | 3 | 3.6 | 4.2 | 4.8 | 5.4 | 6 | 7.2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | kW | HP | l/min | **0** | **20** | **30** | **40** | **50** | **60** | **70** | **80** | **90** | **100** | **120** |
| **4-BLOCKm 4/3** | 0.37 | 0.50 | H metres | 34.5 | 33 | 32 | 31 | 29.5 | 28 | 26.4 | 24.2 | 21.7 | 18.7 | 11 |
| **4-BLOCKm 4/4** | 0.55 | 0.75 | | 45.5 | 43.5 | 42.5 | 41 | 39.5 | 37.5 | 35 | 32.5 | 29 | 24.9 | 15 |
| **4-BLOCKm 4/5** | 0.75 | 1 | | 57 | 54.5 | 53 | 51.5 | 49.5 | 47 | 44 | 40.5 | 36 | 31 | 18.5 |
| **4-BLOCKm 4/7** | 1.1 | 1.5 | | 80 | 77 | 75 | 72 | 69 | 65.5 | 61.5 | 56.5 | 50.5 | 43.5 | 26 |

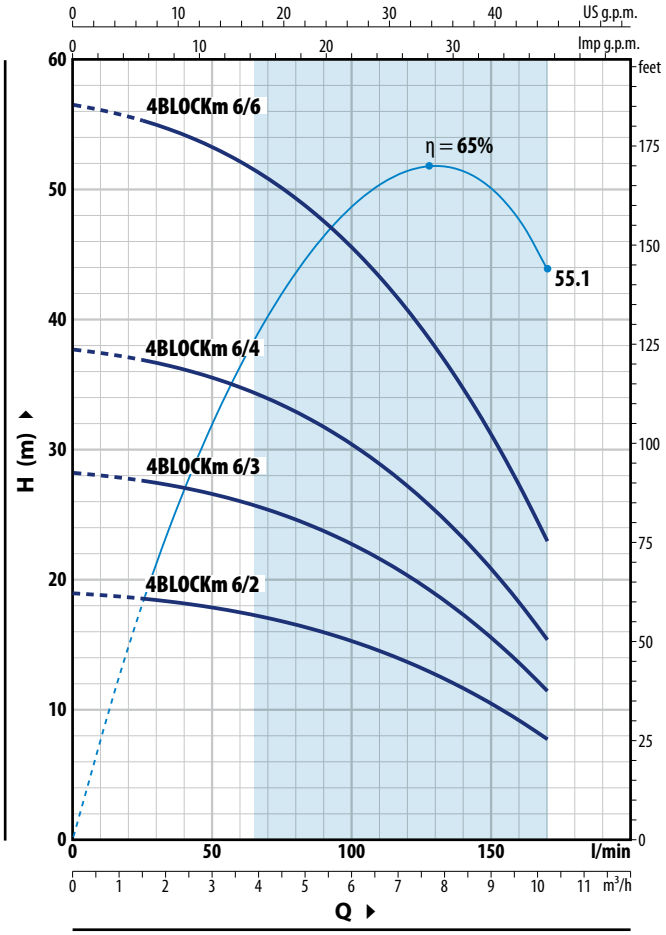
**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

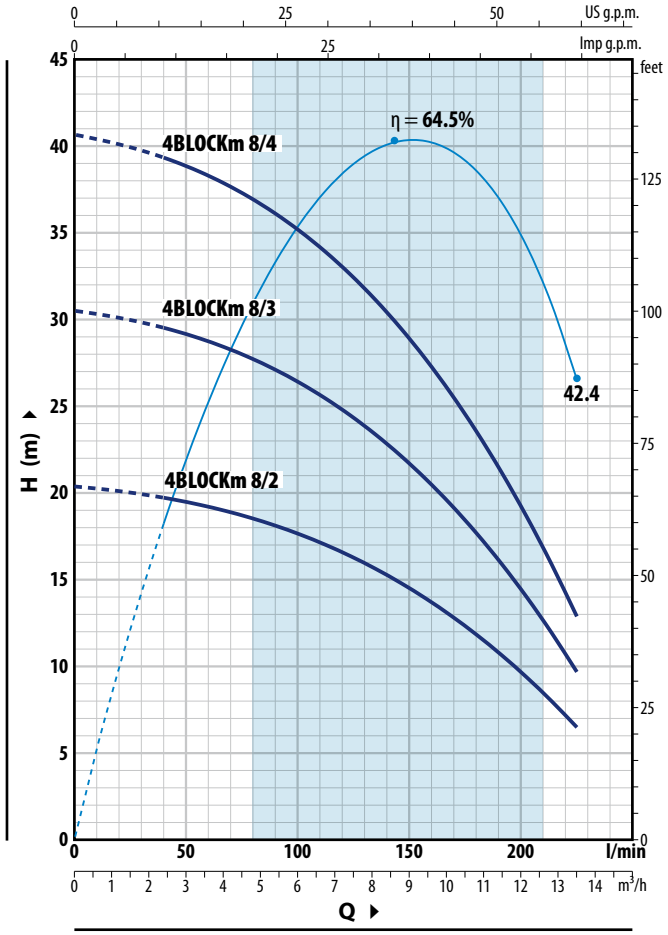
## PERFORMANCE RANGE

**60 Hz**

## 4-BLOCK 6




## 4-BLOCK 8




## 4-BLOCK 6

| TYPE | POWER (P2) | | Q | m³/h | 0 | 1.5 | 3 | 4.5 | 6 | 7.5 | 9 | 10.2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | kW | HP | | l/min | **0** | **25** | **50** | **75** | **100** | **125** | **150** | **170** |
| **4-BLOCKm 6/2** | 0.37 | 0.50 | **H** metres | | 19 | 18.5 | 17.8 | 16.8 | 15.2 | 13.2 | 10.4 | 7.5 |
| **4-BLOCKm 6/3** | 0.55 | 0.75 | | | 28.5 | 28 | 26.7 | 25.2 | 22.9 | 19.7 | 15.6 | 11.5 |
| **4-BLOCKm 6/4** | 0.75 | 1 | | | 38 | 37 | 35.5 | 33.5 | 30.5 | 26.3 | 20.8 | 15.5 |
| **4-BLOCKm 6/6** | 1.1 | 1.5 | | | 57 | 55.5 | 53.5 | 50.5 | 45.5 | 39.5 | 31.5 | 23 |

## 4-BLOCK 8

| TYPE | POWER (P2) | | Q | m³/h | 0 | 2.4 | 3.6 | 4.5 | 6 | 7.5 | 9 | 10.5 | 12 | 13.5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | kW | HP | | l/min | **0** | **40** | **60** | **75** | **100** | **125** | **150** | **175** | **200** | **225** |
| **4-BLOCKm 8/2** | 0.55 | 0.75 | **H** metres | | 20.5 | 19.5 | 19.2 | 18.7 | 17.6 | 16.2 | 14.5 | 12.3 | 9.6 | 6.5 |
| **4-BLOCKm 8/3** | 0.75 | 1 | | | 30.5 | 29.5 | 29 | 28 | 26.4 | 24.3 | 21.7 | 18.4 | 14.4 | 9.5 |
| **4-BLOCKm 8/4** | 1.1 | 1.5 | | | 40.5 | 39.5 | 38.5 | 37.5 | 35 | 32.5 | 29 | 24.6 | 19.2 | 13 |

**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Delivery port and pump jacket** | Stainless steel **AISI 304** with thread according to ISO 228/1 |
| 2 | **Pump bearing** | EPDM |
| 3 | **Impellers** | Delrin® |
| 4 | **Diffusers** | Noryl™ |
| 5 | **Stadium boxes** | Stainless steel **AISI 304** |
| 6 | **Pump shaft** | Stainless steel **AISI 304** |
| 7 | **Cable sheath** | Stainless steel **AISI 304** |
| 8 | **Filter** | Stainless steel **AISI 304** |
| 9 | **Coupling motor bracket** | Technopolymer and brass |
| 10 | **Motor shaft** | Stainless steel **AISI 431** |
| 11 | **Motor sleeve** | Stainless steel **AISI 304** |

**12 Mechanical seal**

| Seal | Shaft | Materials |
|---|---|---|
| **ST4-16** | Ø 16 mm | Ceramic / Graphite / NBR |

**13 Capacitor**

**14 Electric motor**

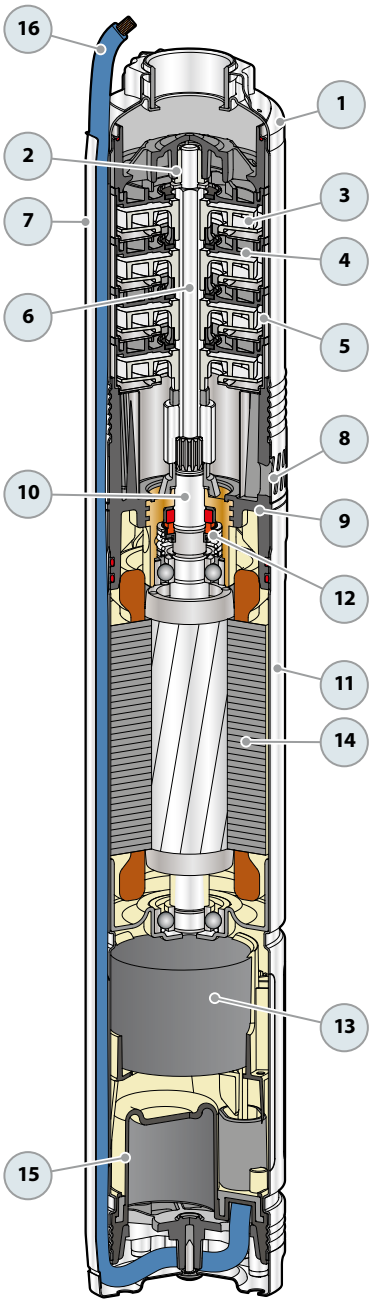
- Specially dimensioned submersible rewindable oil filled motor, suitable for continuous service (non-toxic food-safe oil).
- Single-phase 220 V - 60 Hz
- Built-in motor capacitor
- Thermal motor protection incorporated in the winding
- Continuous running duty S1
- Insulation: Class F
- Protection rating: IP X8

**15 Compensating diaphragm**

**16 Power cord**

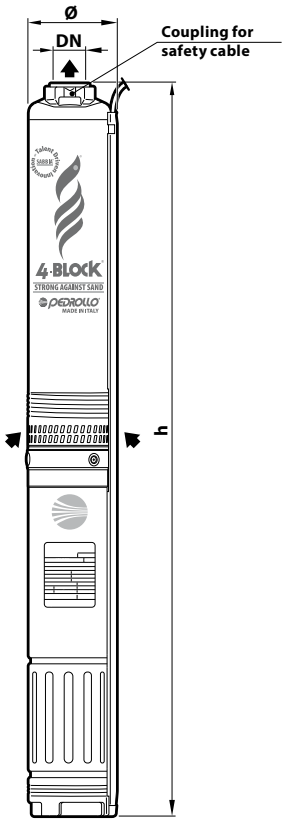
➠ **DRINCABLE® HRC** certified for use with drinking water meant for human consumption by the **ACS** according to XP P 41-250, approval no. 18 MAT NY 156

Standard length **20 metres**



## DIMENSIONS AND WEIGHT

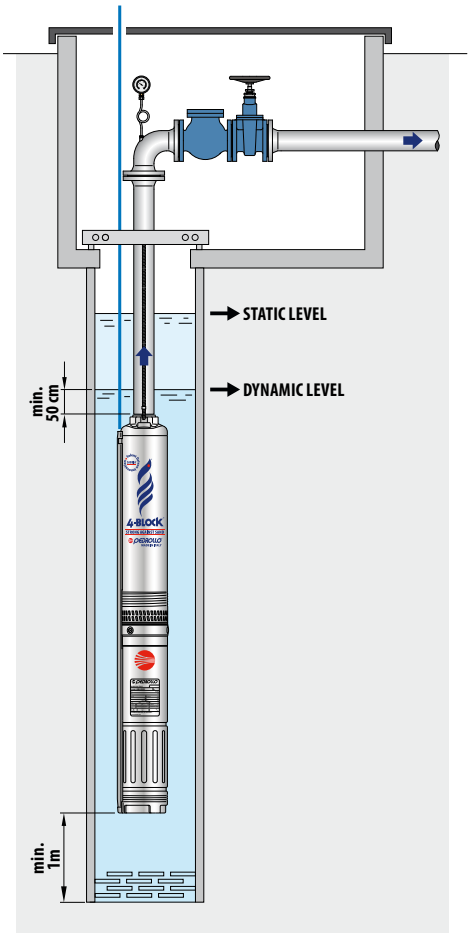
| TYPE | PORT | DIMENSIONS mm | | | kg |
|---|---|---|---|---|---|
| Single-phase | DN | NO. STAGES | Ø | h | 1~ |
| 4-BLOCKm 2/4 | | 4 | | 560 | 10.4 |
| 4-BLOCKm 2/6 | | 6 | | 596 | 11.2 |
| 4-BLOCKm 2/8 | | 8 | | 656 | 12.7 |
| 4-BLOCKm 2/11 | | 11 | | 766 | 15.7 |
| 4-BLOCKm 4/3 | | 3 | | 551 | 10.3 |
| 4-BLOCKm 4/4 | | 4 | | 576 | 10.8 |
| 4-BLOCKm 4/5 | | 5 | | 621 | 12 |
| 4-BLOCKm 4/7 | 1¼" | 7 | 100 | 721 | 14.8 |
| 4-BLOCKm 6/2 | | 2 | | 539 | 10.0 |
| 4-BLOCKm 6/3 | | 3 | | 571 | 10.6 |
| 4-BLOCKm 6/4 | | 4 | | 622 | 11.9 |
| 4-BLOCKm 6/6 | | 6 | | 735 | 14.3 |
| 4-BLOCKm 8/2 | | 2 | | 539 | 10.0 |
| 4-BLOCKm 8/3 | | 3 | | 591 | 11.3 |
| 4-BLOCKm 8/4 | | 4 | | 672 | 13.1 |




## ABSORPTION

| TYPE | VOLTAGE |
|---|---|
| Single-phase | 220 V |
| 4-BLOCKm – 0.37 kW | 4.0 A |
| 4-BLOCKm – 0.55 kW | 4.7 A |
| 4-BLOCKm – 0.75 kW | 6.6 A |
| 4-BLOCKm – 1.1 kW | 8.3 A |

Typical installation




## PALLET CAPACITY

| TYPE | GROUPAGE | CONTAINER |
|---|---|---|
| Single-phase | n. pumps | n. pumps |
| 4-BLOCKm 2 | 55 | 80 |
| 4-BLOCKm 4 | 55 | 80 |
| 4-BLOCKm 6 | 55 | 80 |
| 4-BLOCKm 8 | 55 | 80 |

# 4SR 4" submersible pumps

Clean water

Domestic use

Civil use

Agricultural use




**※ The new 4SR-S series floating impeller pumps, with their advanced hydraulic design and patented innovations, deliver outstanding performance and efficiency. They are exceptionally resistant to sand-related wear, offering a durability 10 times higher than other global market pumps!**

**※ The new 4SR-S pumps feature a patented inductor that improves priming capabilities in wells with air/water mix or water containing gasses.**

## PERFORMANCE RANGE

- Flow rate up to **550 l/min** (33 m³/h)
- Head up to **447 m**

## INSTALLATION AND USE

They are recommended for pumping clean water. Due to their high efficiency and reliability, they are suitable for **domestic, civil and industrial** applications, for water distribution coupled with autoclaves, for irrigation, for washing systems, for pressure boosting, etc.

**※ KEY FEATURES**

Low energy consumption and remarkable durability, even in the presence of sand (up to **200 g/m³**), thanks to an innovative patented hydraulics system..

## APPLICATION LIMITS

- Liquid temperature up to **+40 °C**
- Maximum sand content:
  - **200 g/m³** for 4SR-S
  - **150 g/m³** for 4SR-N
- Maximum operating depth below water level **200 m**
- Operation:
  - in vertical position
  - horizontally with the following limits:
    **4SR 7G, 10G, 13G, 25G** up to **21 stages**
    **4SR 33G, 45G, 13G, 25G** up to **12 stages**
    **4SR 60G, 75G, 90G** up to **9 stages**
    **4SR 105G** up to **6 stages**
- Starts per hour: **20** at regular intervals
- Minimum motor cooling flow **8 cm/s**
- Continuous running duty **S1**

## INCLUDES

**ELECTRIC MOTOR**

※ Three-phase 380 V - 60 Hz
※ Single-phase 220 V - 60 Hz
※ **Capacitor included in packaging**
※ Power cable:
  – **2 m** for power ratings from 0.75 to 2.2 kW
  – **3.6 m** for power ratings from 3 to 7.5 kW.

※ **4SR105G-N** without check valve

## AVAILABLE UPON REQUEST

※ Different voltage or frequency
※ Cooling jacket kit
※ 4SR105G-N with check valve

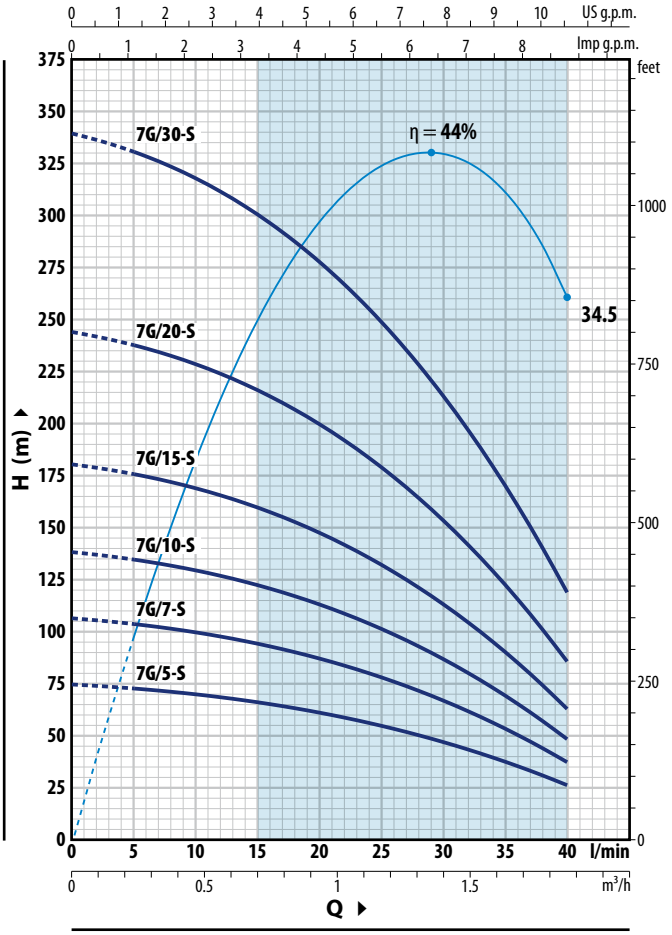
## PATENTS:

- European Patent No. EP3123031
- European Patent No. EP2419642 for 4SR-S
- Patent No. 10202100003057 for 4SR-S
- **4SR-S®** is a registered trademark No. 018702382
- **SABBIA®** is registered trademark no. 5456231

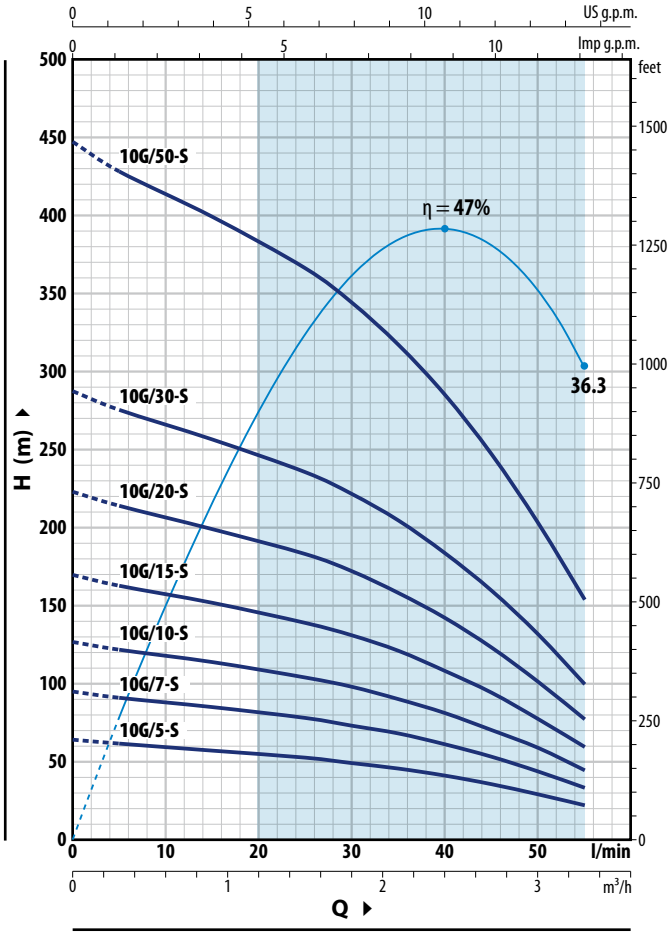
## CURVES AND PERFORMANCE DATA

**60 Hz**

## 4SR7G-S




## 4SR10G-S




## 4SR7G-S

| MODEL | | N. | POWER (P2) | | Q m³/h | 0 | 0.3 | 0.6 | 0.9 | 1.2 | 1.8 | 2.4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | STAGES | kW | HP | l/min | **0** | **5** | **10** | **15** | **20** | **30** | **40** |
| 4SRm 7G/5 - S | 4SR 7G/5 - S | 7 | 0.37 | 0.5 | H m | 74 | 72 | 69.5 | 66 | 61 | 46.5 | 26 |
| 4SRm 7G/7 - S | 4SR 7G/7 - S | 10 | 0.55 | 0.75 | | 106 | 104 | 100 | 94 | 87 | 66.5 | 37 |
| 4SRm 7G/10 - S | 4SR 7G/10 - S | 13 | 0.75 | 1 | | 138 | 135 | 129 | 122 | 113 | 87 | 48.5 |
| 4SRm 7G/15 - S | 4SR 7G/15 - S | 17 | 1.1 | 1.5 | | 181 | 176 | 169 | 160 | 148 | 113 | 63 |
| 4SRm 7G/20 - S | 4SR 7G/20 - S | 23 | 1.5 | 2 | | 245 | 238 | 229 | 216 | 200 | 153 | 85 |
| 4SRm 7G/30 - S | 4SR 7G/30 - S | 32 | 2.2 | 3 | | 340 | 331 | 319 | 301 | 278 | 214 | 119 |

## 4SR10G-S

| MODEL | | N. | POWER (P2) | | Q m³/h | 0 | 0.3 | 0.6 | 1.2 | 1.8 | 2.4 | 3.0 | 3.3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | STAGES | kW | HP | l/min | **0** | **5** | **10** | **20** | **30** | **40** | **50** | **55** |
| 4SRm 10G/5 - S | 4SR 10G/5 - S | 6 | 0.37 | 0.50 | H m | 64 | 61.5 | 59 | 55 | 49 | 41 | 29 | 22 |
| 4SRm 10G/7 - S | 4SR 10G/7 - S | 9 | 0.55 | 0.75 | | 96 | 92 | 89 | 82 | 74 | 61 | 43.5 | 33 |
| 4SRm 10G/10 - S | 4SR 10G/10 - S | 12 | 0.75 | 1 | | 128 | 123 | 118 | 110 | 98 | 82 | 58.5 | 44 |
| 4SRm 10G/15 - S | 4SR 10G/15 - S | 16 | 1.1 | 1.5 | | 170 | 163 | 158 | 146 | 131 | 109 | 78 | 59 |
| 4SRm 10G/20 - S | 4SR 10G/20 - S | 21 | 1.5 | 2 | | 224 | 214 | 207 | 192 | 172 | 143 | 102 | 77 |
| 4SRm 10G/30 - S | 4SR 10G/30 - S | 27 | 2.2 | 3 | | 288 | 276 | 266 | 247 | 221 | 184 | 131 | 99 |
| 4SRm 10G/50 - S | 4SR 10G/50 - S | 42 | 3.7 | 5 | | 447 | 429 | 414 | 384 | 344 | 286 | 204 | 155 |

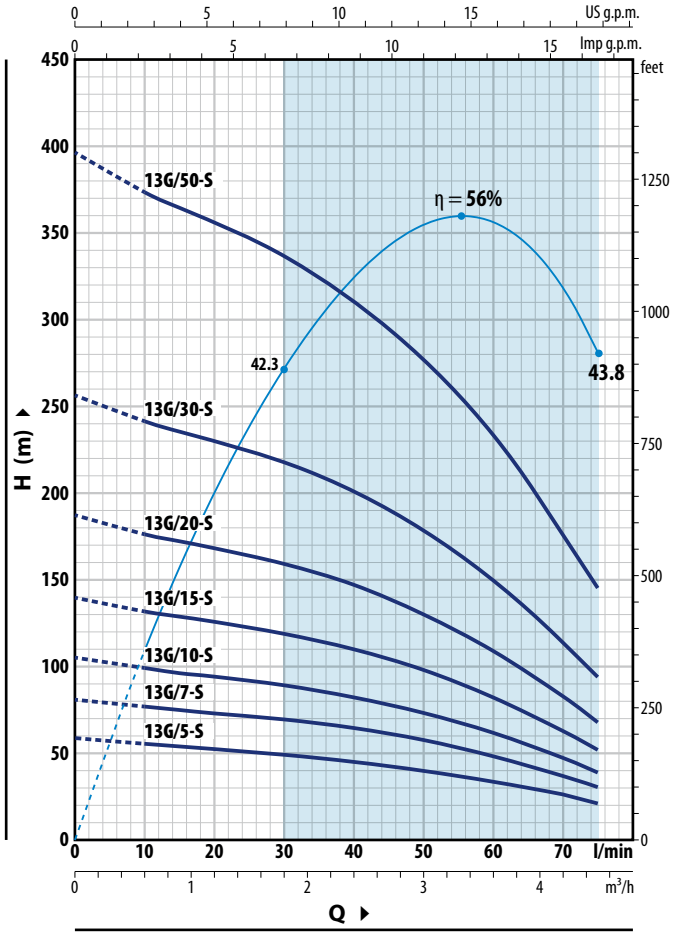
**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

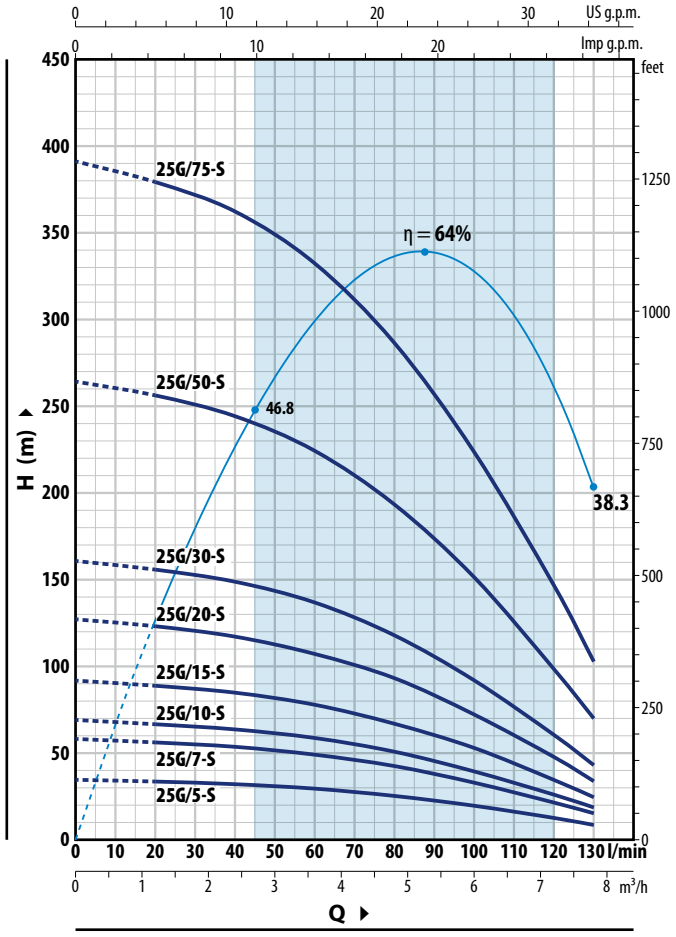
## CURVES AND PERFORMANCE DATA

60 Hz

### 4SR13G-S




### 4SR25G-S




### 4SR13G-S

| MODEL | | N. | POWER (P2) | | Q m³/h | 0 | 0.6 | 1.2 | 1.8 | 2.4 | 3.0 | 3.6 | 4.2 | 4.5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | STAGES | kW | HP | Q l/min | **0** | **10** | **20** | **30** | **40** | **50** | **60** | **70** | **75** |
| **4SRm 13G/5 - S** | **4SR 13G/5 - S** | **5** | 0.37 | 0.50 | | 58.5 | 55 | 52,5 | 49.5 | 46 | 41 | 34 | 26 | 21.5 |
| **4SRm 13G/7 - S** | **4SR 13G/7 - S** | **7** | 0.55 | 0.75 | | 82 | 77 | 74 | 69.5 | 64.5 | 57.5 | 48 | 36.5 | 30 |
| **4SRm 13G/10 - S** | **4SR 13G/10 - S** | **9** | 0.75 | 1 | | 105 | 99 | 95 | 89 | 83 | 74 | 61.5 | 47 | 38.5 |
| **4SRm 13G/15 - S** | **4SR 13G/15 - S** | **12** | 1.1 | 1.5 | **H** m | 140 | 132 | 126 | 119 | 110 | 98 | 82 | 62.5 | 51.5 |
| **4SRm 13G/20 - S** | **4SR 13G/20 - S** | **16** | 1.5 | 2 | | 187 | 176 | 168 | 159 | 147 | 131 | 110 | 83 | 68.5 |
| **4SRm 13G/30 - S** | **4SR 13G/30 - S** | **22** | 2.2 | 3 | | 257 | 242 | 231 | 219 | 202 | 180 | 151 | 114 | 94 |
| **4SRm 13G/50 - S** | **4SR 13G/50 - S** | **34** | 3.7 | 5 | | 398 | 375 | 357 | 338 | 313 | 278 | 233 | 177 | 145 |

### 4SR25G-S

| MODEL | | N. | POWER (P2) | | Q m³/h | 0 | 1.2 | 2.4 | 3.6 | 4.8 | 6.0 | 7.2 | 7.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | STAGES | kW | HP | Q l/min | **0** | **20** | **40** | **60** | **80** | **100** | **120** | **130** |
| **4SRm 25G/5 - S** | **4SR 25G/5 - S** | **3** | 0.37 | 0.50 | | 34.5 | 33.5 | 32 | 29.5 | 25.4 | 19.8 | 13 | 9 |
| **4SRm 25G/7 - S** | **4SR 25G/7 - S** | **5** | 0.55 | 0.75 | | 58 | 56 | 53.5 | 49 | 42.5 | 33 | 21.6 | 15.5 |
| **4SRm 25G/10 - S** | **4SR 25G/10 - S** | **6** | 0.75 | 1 | | 69.5 | 67 | 64 | 59 | 51 | 39.5 | 26 | 18.5 |
| **4SRm 25G/15 - S** | **4SR 25G/15 - S** | **8** | 1.1 | 1.5 | | 92 | 90 | 85 | 78 | 67.5 | 53 | 34.5 | 24.5 |
| **4SRm 25G/20 - S** | **4SR 25G/20 - S** | **11** | 1.5 | 2 | **H** m | 127 | 123 | 118 | 108 | 93 | 73 | 47.5 | 33.5 |
| **4SRm 25G/30 - S** | **4SR 25G/30 - S** | **14** | 2.2 | 3 | | 162 | 157 | 150 | 137 | 118 | 93 | 60.5 | 43 |
| **4SRm 25G/50 - S** | **4SR 25G/50 - S** | **23** | 3.7 | 5 | | 266 | 258 | 246 | 226 | 195 | 152 | 100 | 70.5 |
| – | **4SR 25G/75 - S** | **34** | 5.5 | 7.5 | | 393 | 381 | 363 | 333 | 288 | 225 | 147 | 104 |

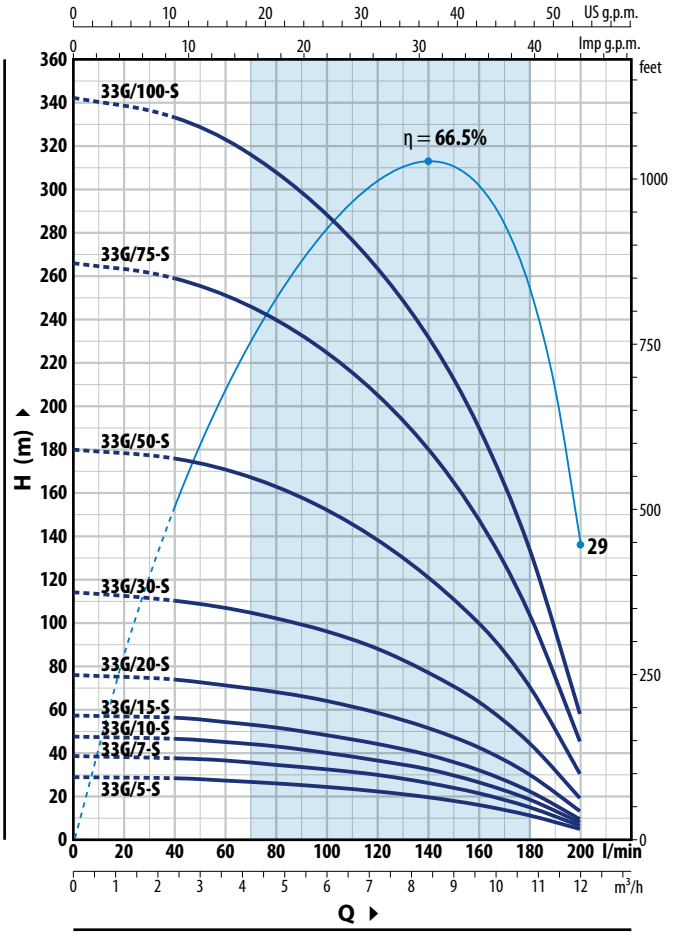
**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

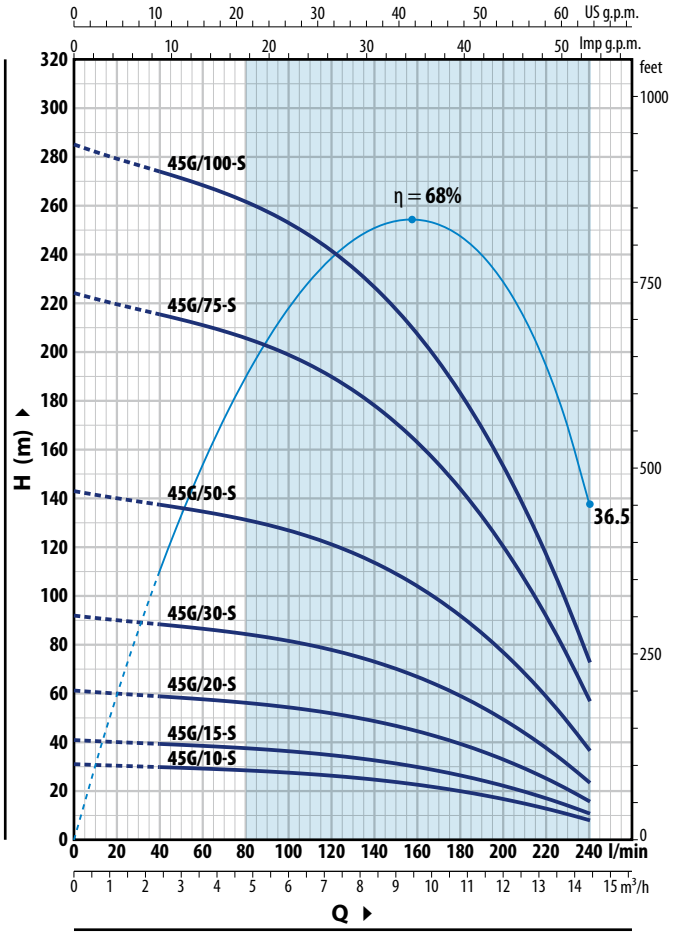
## CURVES AND PERFORMANCE DATA

**60 Hz**

## 4SR33G-S




## 4SR45G-S




## 4SR33G-S

| MODEL | | N. | POWER (P2) | | Q m³/h | 0 | 2.4 | 3.6 | 4.8 | 6.0 | 7.2 | 8.4 | 9.6 | 10.8 | 12.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | STAGES | kW | HP | Q l/min | **0** | **40** | **60** | **80** | **100** | **120** | **140** | **160** | **180** | **200** |
| 4SRm 33G/5 - S | 4SR 33G/5 - S | 3 | 0.37 | 0.50 | | 28.5 | 28 | 26.8 | 25.7 | 24.1 | 22.1 | 19.4 | 15.9 | 11.1 | 5 |
| 4SRm 33G/7 - S | 4SR 33G/7 - S | 4 | 0.55 | 0.75 | | 38 | 37 | 36 | 34 | 32 | 29.5 | 25.9 | 21.2 | 14.9 | 6.5 |
| 4SRm 33G/10 - S | 4SR 33G/10 - S | 5 | 0.75 | 1 | | 47.5 | 46.5 | 44.5 | 43 | 40 | 37 | 32.5 | 26.5 | 18.6 | 8 |
| 4SRm 33G/15 - S | 4SR 33G/15 - S | 6 | 1.1 | 1.5 | | 57 | 55.5 | 53.5 | 51.5 | 48 | 44 | 39 | 32 | 22.3 | 9.5 |
| 4SRm 33G/20 - S | 4SR 33G/20 - S | 8 | 1.5 | 2 | H m | 76 | 74 | 72 | 68.5 | 64.5 | 59 | 52 | 42.5 | 29.5 | 13 |
| 4SRm 33G/30 - S | 4SR 33G/30 - S | 12 | 2.2 | 3 | | 114 | 111 | 107 | 103 | 96 | 88 | 78 | 63.5 | 44.5 | 19 |
| 4SRm 33G/50 - S | 4SR 33G/50 - S | 19 | 3.7 | 5 | | 181 | 176 | 170 | 162 | 153 | 140 | 123 | 101 | 70.5 | 30.5 |
| – | 4SR 33G/75 - S | 28 | 5.5 | 7.5 | | 267 | 259 | 251 | 239 | 225 | 206 | 182 | 148 | 104 | 45 |
| – | 4SR 33G/100 - S | 36 | 7.5 | 10 | | 343 | 333 | 322 | 308 | 289 | 265 | 233 | 191 | 134 | 57.5 |

## 4SR45G-S

| MODEL | | N. | POWER (P2) | | Q m³/h | 0 | 2.4 | 4.8 | 7.2 | 9.6 | 12.0 | 14.4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | STAGES | kW | HP | Q l/min | **0** | **40** | **80** | **120** | **160** | **200** | **240** |
| 4SRm 45G/10 - S | 4SR 45G/10 - S | 3 | 0.75 | 1 | | 30.5 | 29.5 | 28 | 25.9 | 22.2 | 16.4 | 7.5 |
| 4SRm 45G/15 - S | 4SR 45G/15 - S | 4 | 1.1 | 1.5 | | 41 | 39 | 37.5 | 34.5 | 29.5 | 21.8 | 10.5 |
| 4SRm 45G/20 - S | 4SR 45G/20 - S | 6 | 1.5 | 2 | | 61 | 59 | 56 | 52 | 44.5 | 32.5 | 15.5 |
| 4SRm 45G/30 - S | 4SR 45G/30 - S | 9 | 2.2 | 3 | H m | 92 | 88 | 84 | 78 | 66.5 | 49 | 23 |
| 4SRm 45G/50 - S | 4SR 45G/50 - S | 14 | 3.7 | 5 | | 143 | 137 | 131 | 121 | 104 | 76 | 36 |
| – | 4SR 45G/75 - S | 22 | 5.5 | 7.5 | | 224 | 216 | 206 | 190 | 163 | 120 | 57 |
| – | 4SR 45G/100 - S | 28 | 7.5 | 10 | | 286 | 274 | 262 | 242 | 207 | 153 | 72.5 |

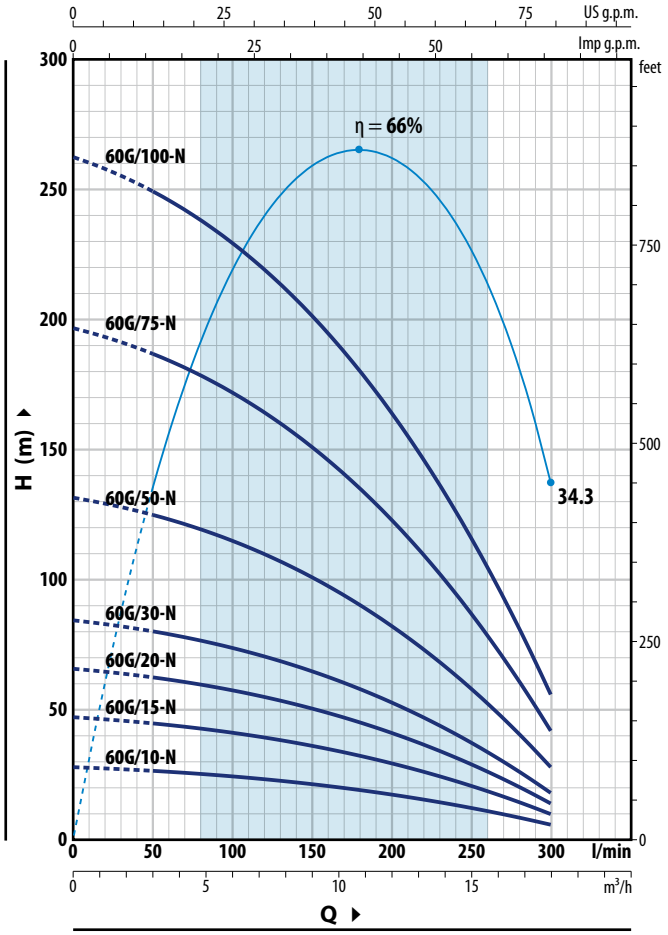
**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

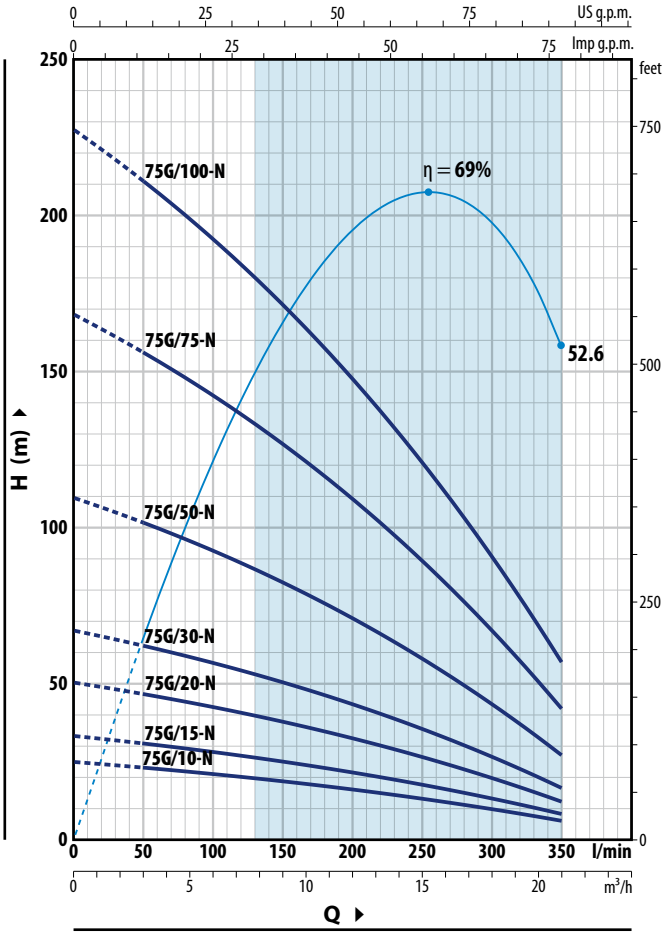
## CURVES AND PERFORMANCE DATA

60 Hz

### 4SR60G-N




### 4SR75G-N




### 4SR60G-N

| MODEL | | N. | POWER (P2) | | Q m³/h | 0 | 3 | 6 | 9 | 12 | 15 | 18 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | STAGES | kW | HP | l/min | 0 | 50 | 100 | 150 | 200 | 250 | 300 |
| 4SRm 60G/10 -N | 4SR 60G/10 -N | 3 | 0.75 | 1 | | 28 | 26.5 | 24.6 | 21.6 | 17.6 | 12.4 | 6 |
| 4SRm 60G/15 -N | 4SR 60G/15 -N | 5 | 1.1 | 1.5 | | 47 | 44.5 | 41 | 36 | 29.5 | 20.7 | 10 |
| 4SRm 60G/20 -N | 4SR 60G/20 -N | 7 | 1.5 | 2 | | 65.5 | 62.5 | 57.5 | 50.5 | 41 | 29 | 14 |
| 4SRm 60G/30 -N | 4SR 60G/30 -N | 9 | 2.2 | 3 | H m | 84 | 80 | 74 | 65 | 53 | 37.5 | 18 |
| – | 4SR 60G/50 -N | 14 | 3.7 | 5 | | 131 | 125 | 115 | 101 | 82 | 58 | 28 |
| – | 4SR 60G/75 -N | 21 | 5.5 | 7.5 | | 197 | 187 | 172 | 151 | 123 | 87 | 42 |
| – | 4SR 60G/100-N | 28 | 7.5 | 10 | | 263 | 249 | 229 | 201 | 164 | 116 | 56 |

### 4SR75G-N

| MODEL | | N. | POWER (P2) | | Q m³/h | 0 | 3 | 6 | 9 | 12 | 15 | 18 | 21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | STAGES | kW | HP | l/min | 0 | 50 | 100 | 150 | 200 | 250 | 300 | 350 |
| 4SRm 75G/10 -N | 4SR 75G/10 -N | 3 | 0.75 | 1 | | 25.5 | 23.5 | 21.4 | 19.1 | 16.4 | 13.5 | 10.1 | 6.5 |
| 4SRm 75G/15 -N | 4SR 75G/15 -N | 4 | 1.1 | 1.5 | | 33.5 | 31.5 | 28.5 | 25.4 | 21.9 | 17.9 | 13.5 | 8.5 |
| 4SRm 75G/20 -N | 4SR 75G/20 -N | 6 | 1.5 | 2 | | 50.5 | 47 | 43 | 38 | 33 | 26.9 | 20.2 | 12.5 |
| 4SRm 75G/30 -N | 4SR 75G/30 -N | 8 | 2.2 | 3 | H m | 67.5 | 62.5 | 57 | 51 | 44 | 36 | 27 | 17 |
| – | 4SR 75G/50 -N | 13 | 3.7 | 5 | | 110 | 102 | 93 | 83 | 71 | 58.5 | 44 | 27.5 |
| – | 4SR 75G/75 -N | 20 | 5.5 | 7.5 | | 169 | 156 | 143 | 127 | 109 | 90 | 67.5 | 42.5 |
| – | 4SR 75G/100-N | 27 | 7.5 | 10 | | 228 | 211 | 192 | 171 | 148 | 121 | 91 | 57 |

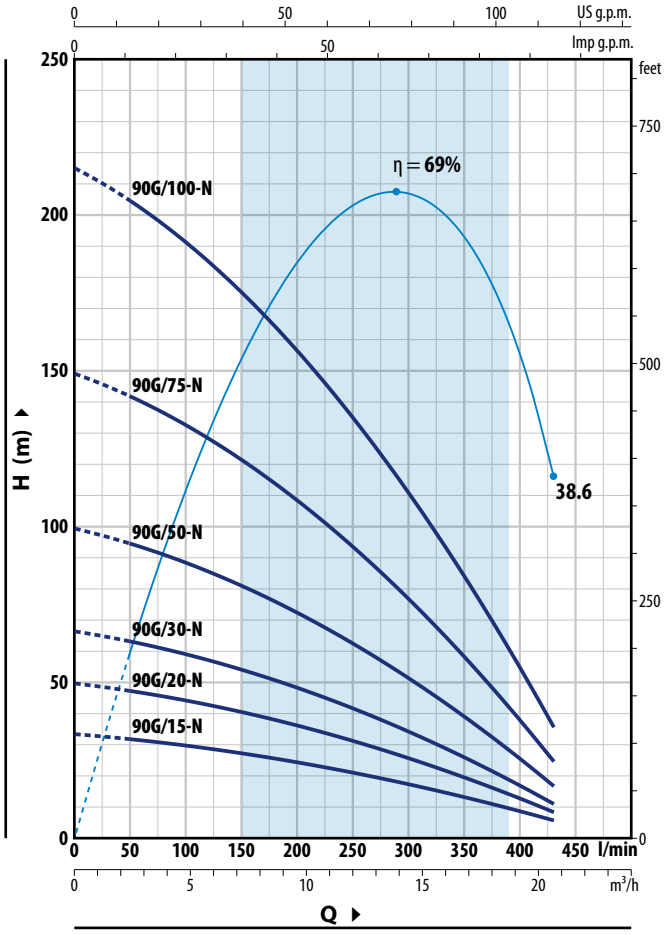
**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

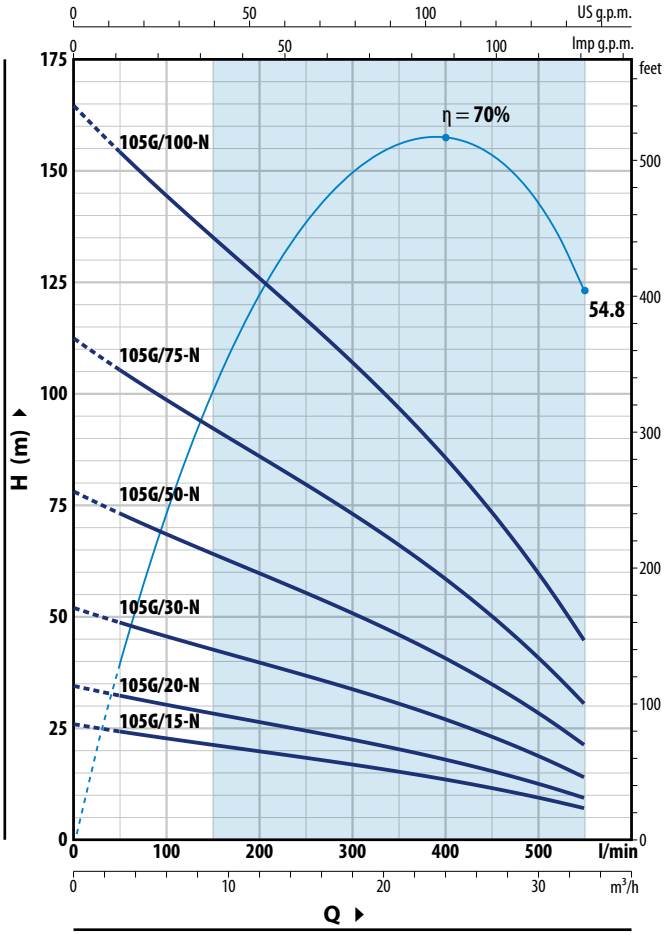
## CURVES AND PERFORMANCE DATA

**60 Hz**

## 4SR90G-N




## 4SR105G-N




## 4SR90G-N

| MODEL | | N. | POWER (P2) | | Q m³/h | 0 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 25.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | STAGES | kW | HP | Q l/min | **0** | **50** | **100** | **150** | **200** | **250** | **300** | **350** | **400** | **430** |
| 4SRm 90G/15 -N | 4SR 90G/15 -N | 4 | 1.1 | 1.5 | H m | 33 | 31.5 | 29.5 | 26.9 | 24 | 20.7 | 17 | 12.9 | 8.5 | 5.5 |
| 4SRm 90G/20 -N | 4SR 90G/20 -N | 6 | 1.5 | 2 | | 49.5 | 47 | 44 | 40.5 | 36 | 31 | 25.5 | 19.3 | 12.5 | 8 |
| 4SRm 90G/30 -N | 4SR 90G/30 -N | 8 | 2.2 | 3 | | 66 | 63 | 59 | 54 | 48 | 41.5 | 34 | 25.7 | 16.5 | 11 |
| – | 4SR 90G/50 -N | 12 | 3.7 | 5 | | 99 | 94 | 88 | 81 | 72 | 62 | 51 | 38.5 | 25 | 16.5 |
| – | 4SR 90G/75 -N | 18 | 5.5 | 7.5 | | 149 | 142 | 132 | 121 | 108 | 93 | 76 | 58 | 37.5 | 24.5 |
| – | 4SR 90G/100 -N | 26 | 7.5 | 10 | | 215 | 204 | 191 | 175 | 156 | 135 | 110 | 84 | 54 | 35.5 |

## 4SR105G-N (*)

| MODEL | | N. | POWER (P2) | | Q m³/h | 0 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | STAGES | kW | HP | Q l/min | **0** | **50** | **100** | **150** | **200** | **250** | **300** | **350** | **400** | **450** | **500** | **550** |
| 4SRm 105G/15-N | 4SR 105G/15 -N | 3 | 1,1 | 1,5 | H m | 26 | 24.5 | 22.8 | 21.3 | 19.9 | 18.4 | 16.9 | 15.3 | 13.5 | 11.5 | 9.5 | 7 |
| 4SRm 105G/20-N | 4SR 105G/20 -N | 4 | 1,5 | 2 | | 34.5 | 32.5 | 30.5 | 28.5 | 26.5 | 24.6 | 22.5 | 20.4 | 18 | 15.5 | 12.5 | 9.5 |
| 4SRm 105G/30-N | 4SR 105G/30 -N | 6 | 2,2 | 3 | | 52 | 48.5 | 45.5 | 42.5 | 39.5 | 37 | 34 | 30.5 | 27 | 23 | 19 | 14 |
| – | 4SR 105G/50 -N | 9 | 3,7 | 5 | | 78 | 73 | 68.5 | 64 | 59.5 | 55 | 50.5 | 46 | 40.5 | 35 | 28.5 | 21 |
| – | 4SR 105G/75 -N | 13 | 5,5 | 7,5 | | 113 | 105 | 99 | 92 | 86 | 80 | 73 | 66.5 | 58.5 | 50.5 | 41 | 30.5 |
| – | 4SR 105G/100 -N | 19 | 7,5 | 10 | | 164 | 154 | 144 | 135 | 126 | 117 | 107 | 97 | 86 | 74 | 60 | 45 |

**Q** = Flow rate **H** = Total manometric head

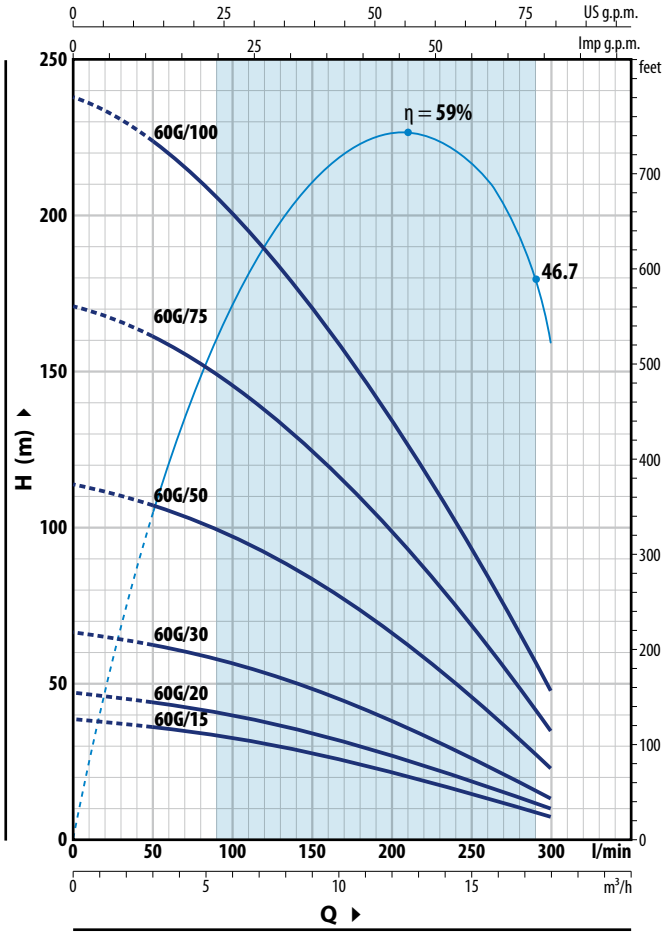
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

**(*) Performance curves without check valve**

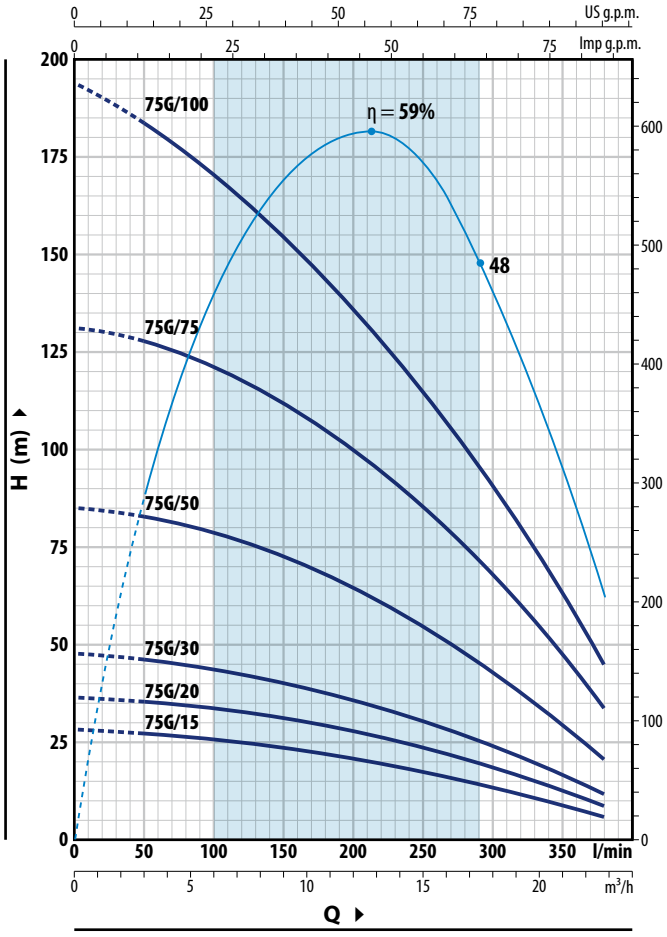
## CURVES AND PERFORMANCE DATA

60 Hz

### 4SR60G




### 4SR75G




### 4SR60G

| MODEL | | N. | POWER (P2) | | Q m³/h | 0 | 3.0 | 6.0 | 9.0 | 12.0 | 15.0 | 18.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | STAGES | kW | HP | Q l/min | **0** | **50** | **100** | **150** | **200** | **250** | **300** |
| **4SRm 60G/15** | **4SR 60G/15** | **4** | 1.1 | 1.5 | | 38 | 36 | 32 | 28 | 22 | 15 | 8 |
| **4SRm 60G/20** | **4SR 60G/20** | **5** | 1.5 | 2 | | 47 | 44 | 39.5 | 34 | 27.5 | 19 | 10 |
| **4SRm 60G/30** | **4SR 60G/30** | **7** | 2.2 | 3 | | 66 | 63 | 56 | 47.5 | 38 | 27 | 14 |
| – | **4SR 60G/50** | **12** | 3.7 | 5 | **H** m | 114 | 108 | 97 | 83 | 66 | 46 | 23 |
| – | **4SR 60G/75** | **18** | 5.5 | 7.5 | | 171 | 161 | 146 | 124 | 98 | 68 | 35 |
| – | **4SR 60G/100** | **25** | 7.5 | 10 | | 238 | 224 | 201 | 172 | 134 | 93 | 48 |

### 4SR75G

| MODEL | | N. | POWER (P2) | | Q m³/h | 0 | 3.0 | 6.0 | 9.0 | 12.0 | 15.0 | 18.0 | 21.0 | 22.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | STAGES | kW | HP | Q l/min | **0** | **50** | **100** | **150** | **200** | **250** | **300** | **350** | **380** |
| **4SRm 75G/15** | **4SR 75G/15** | **3** | 1.1 | 1.5 | | 28 | 27 | 25.5 | 23.5 | 21 | 18 | 14 | 9 | 6 |
| **4SRm 75G/20** | **4SR 75G/20** | **4** | 1.5 | 2 | | 36 | 36 | 34 | 32 | 28 | 23 | 18 | 12.5 | 9 |
| **4SRm 75G/30** | **4SR 75G/30** | **5** | 2.2 | 3 | | 47 | 46 | 44 | 40 | 35 | 30 | 22.5 | 17 | 12 |
| – | **4SR 75G/50** | **9** | 3.7 | 5 | **H** m | 85 | 83 | 79 | 72 | 64.5 | 54 | 42 | 28.5 | 21 |
| – | **4SR 75G/75** | **14** | 5.5 | 7.5 | | 130 | 127 | 122 | 113 | 102 | 85 | 66 | 46 | 34 |
| – | **4SR 75G/100** | **19** | 7.5 | 10 | | 192 | 185 | 173 | 156 | 135 | 112 | 87 | 61 | 46 |

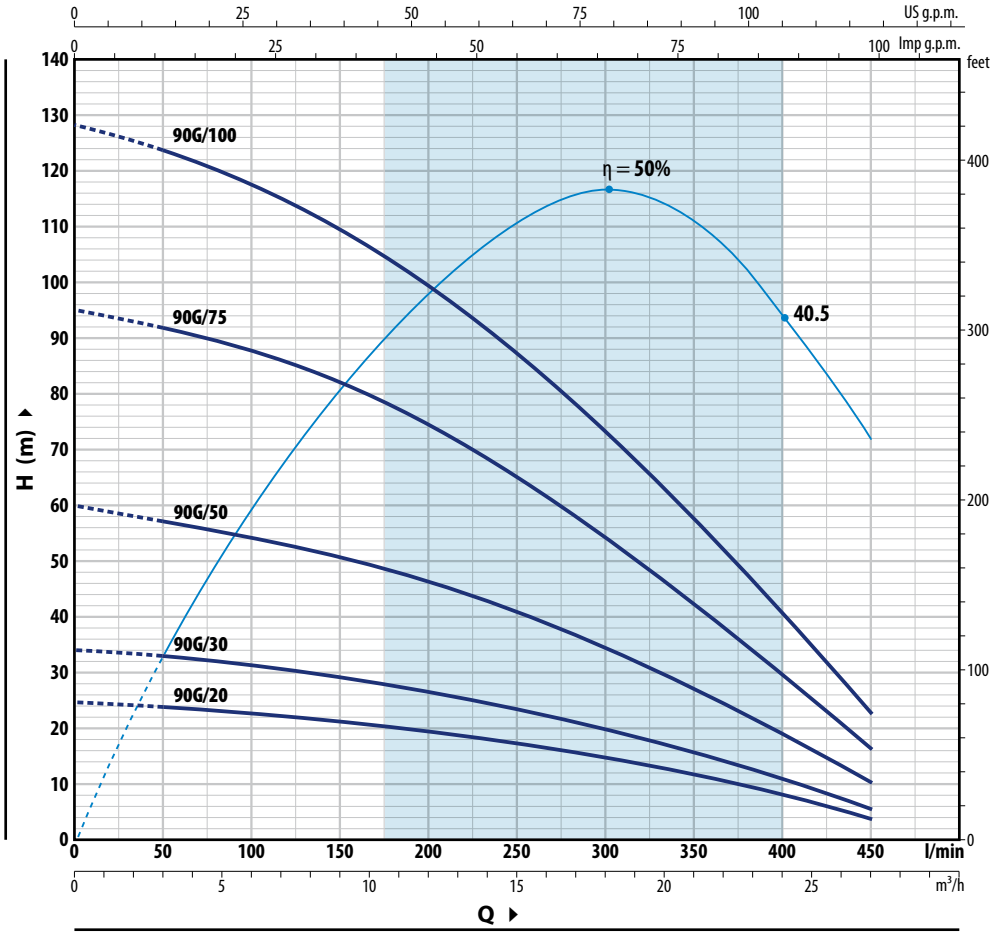
**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## CURVES AND PERFORMANCE DATA

**60 Hz**

# 4SR90G




# 4SR90G

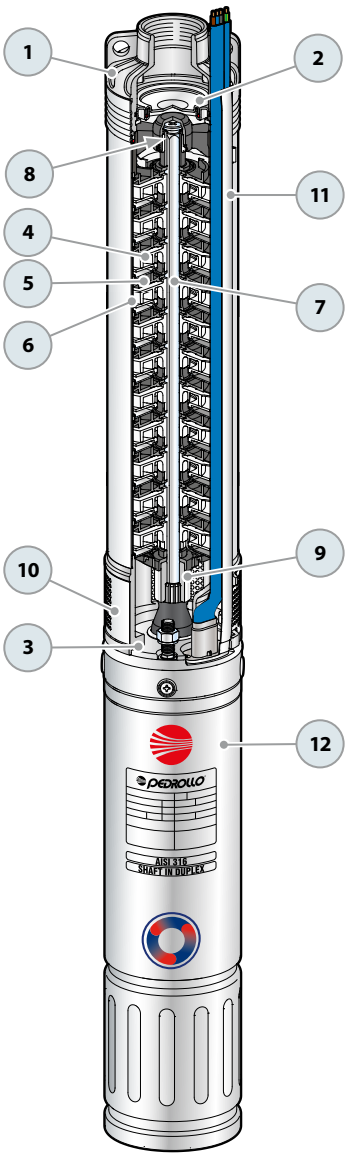
| MODEL | | N. | POWER (P2) | | Q | m³/h | 0 | 3.0 | 6.0 | 9.0 | 12.0 | 15.0 | 18.0 | 21.0 | 24.0 | 27.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | STAGES | kW | HP | | l/min | **0** | **50** | **100** | **150** | **200** | **250** | **300** | **350** | **400** | **450** |
| **4SRm 90G/20** | **4SR 90G/20** | **3** | 1.5 | 2 | | | 25 | 24 | 23 | 22 | 20 | 18 | 15 | 12 | 8 | 4 |
| **4SRm 90G/30** | **4SR 90G/30** | **4** | 2.2 | 3 | | | 34 | 33 | 32 | 30 | 27 | 24 | 20 | 16 | 11 | 6 |
| – | **4SR 90G/50** | **7** | 3.7 | 5 | **H** | m | 60 | 58 | 54 | 50 | 47 | 42 | 34 | 26 | 18 | 11 |
| – | **4SR 90G/75** | **11** | 5.5 | 7.5 | | | 95 | 92 | 88 | 83 | 75 | 66 | 56 | 42 | 29 | 17 |
| – | **4SR 90G/100** | **15** | 7.5 | 10 | | | 128 | 124 | 117 | 110 | 100 | 88 | 74 | 57 | 40 | 23 |

**Q** = Flow rate **H** = Total manometric head

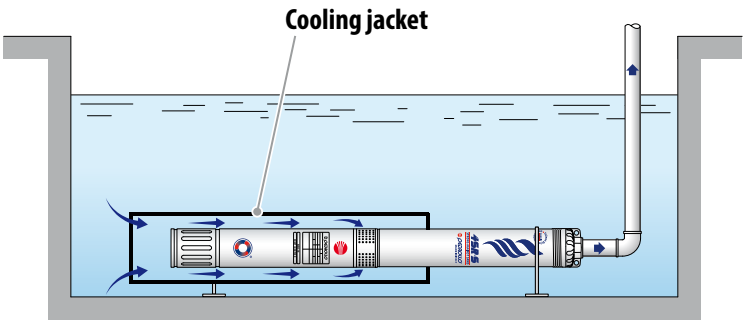
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

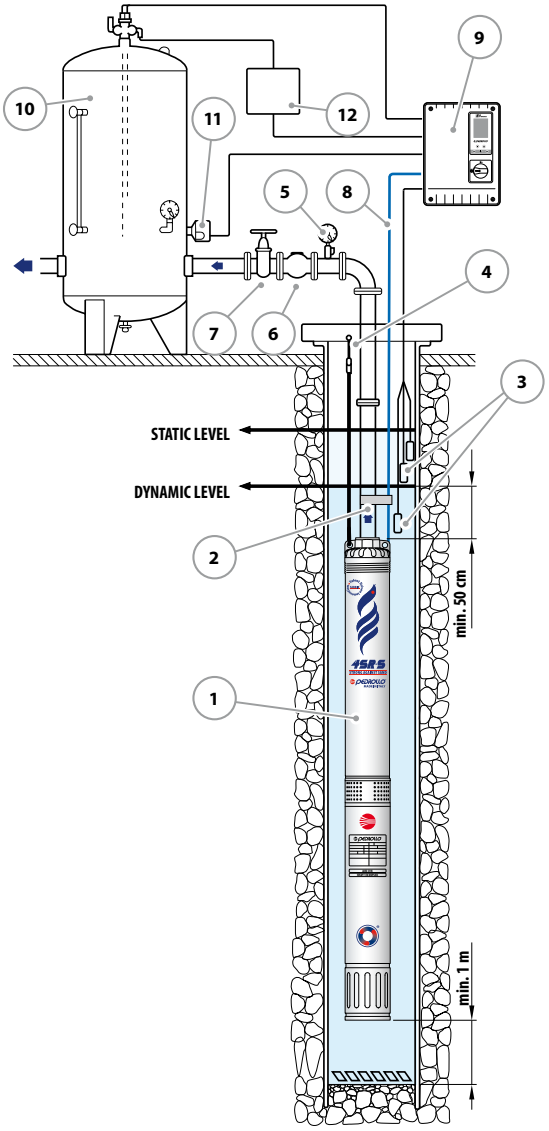
## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Delivery port** | Micro-cast **AISI 304** stainless steel with thread according to ANSI/ASME B1.20.1 |
| 2 | **Check valve** | Stainless steel **AISI 304** |
| 3 | **Motor bracket** | Stainless steel **AISI 304**, sized to NEMA standards |
| 4 | **Impeller** | Delrin® for 4SR-S, Noryl™ for 4SR-N / 4SR |
| 5 | **Diffuser** | Noryl™ |
| 6 | **Stadium box** | Stainless steel **AISI 304** |
| 7 | **Pump shaft** | Stainless steel **AISI 304** |
| 8 | **Pump bearings** | Made of **AISI 316L** stainless steel coated with chromium oxide to resist sand |
| 9 | **Tow coupling** | Stainless steel |
| 10 | **Filter** | Stainless steel **AISI 304** |
| 11 | **Cable sheath** | Stainless steel **AISI 304** |
| 12 | **Motor 4"** | **4PD = rewindable oil filled motor** |



## EXAMPLES OF INSTALLATION




## COOLING JACKET

※ When the pump is installed in reservoirs, rivers, or lakes, it requires an external cooling jacket (flow generator) to ensure sufficient water flow across the motor surface, preventing overheating.

※ Recommended for power ratings from 3 kW to 7.5 kW



※ The **4SR** pumps are suitable for wells with a minimum diameter of **4"** (**100 mm**).

※ The submersible pump must be lowered into the well through the delivery pipe to a depth that ensures it remains fully submerged, maintaining at least 50 cm or one metre from the bottom of the well, even if liquid levels decrease during operation.

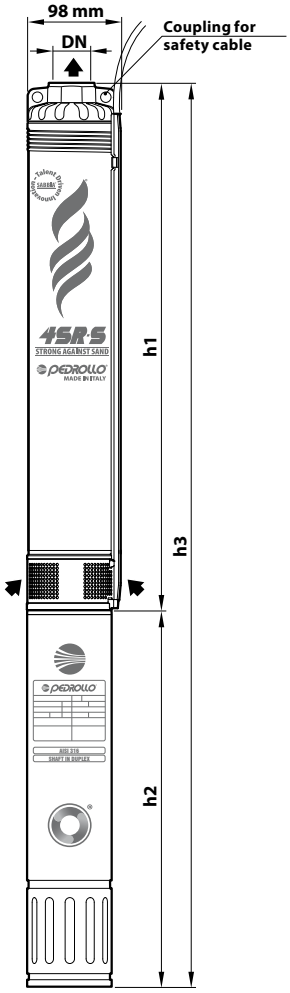
※ It is advisable to secure the submersible pump using a stainless-steel cable connected to appropriate attachments on the delivery port.

## COMPONENTS

1) Submersible pump
2) Fixing Ties
3) Level control probes
4) Bracket and anchor cable
5) Pressure Gauge
6) Check valve
7) Flow control gate valve
8) Electrical power supply cable
9) Control panel
10) Autoclave tank
11) Pressure switch
12) Solenoid valve/electric compressor

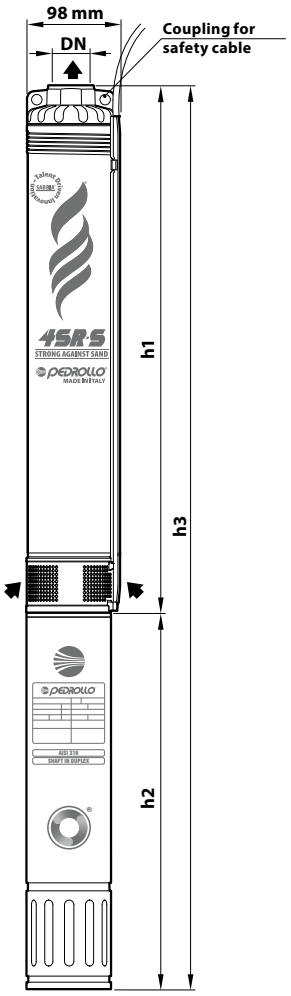
## DIMENSIONS AND WEIGHTS (single-phase models)

| MODEL | DN | N. | DIMENSIONS mm | | | | kg |
|---|---|---|---|---|---|---|---|
| Single-phase | | STAGES | Ø | h1 | h2 | h3 | 1~ |
| 4SRm 7G/5 -S - PD | 1¼" NPT | 7 | 98 | 303 | 331 | 634 | 10.2 |
| 4SRm 7G/7 -S - PD | | 10 | | 362 | 331 | 693 | 11.3 |
| 4SRm 7G/10 -S - PD | | 13 | | 423 | 356 | 779 | 12.7 |
| 4SRm 7G/15 -S - PD | | 17 | | 528 | 396 | 924 | 15.5 |
| 4SRm 7G/20 -S - PD | | 23 | | 648 | 437 | 1085 | 18.6 |
| 4SRm 7G/30 -S - PD | | 32 | | 924 | 492 | 1416 | 26.3 |
| 4SRm 10G/5 -S - PD | | 6 | | 283 | 331 | 614 | 10.8 |
| 4SRm 10G/7 -S - PD | | 9 | | 343 | 331 | 674 | 11.2 |
| 4SRm 10G/10 -S - PD | | 12 | | 402 | 356 | 758 | 13.0 |
| 4SRm 10G/15 -S - PD | | 16 | | 508 | 396 | 904 | 16.0 |
| 4SRm 10G/20 -S - PD | | 21 | | 608 | 437 | 1045 | 19.4 |
| 4SRm 10G/30 -S - PD | | 27 | | 727 | 492 | 1219 | 23.7 |
| 4SRm 13G/5 -S - PD | | 5 | | 263 | 331 | 594 | 10.6 |
| 4SRm 13G/7 -S - PD | | 7 | | 303 | 331 | 634 | 10.9 |
| 4SRm 13G/10 -S - PD | | 9 | | 343 | 356 | 699 | 12.5 |
| 4SRm 13G/15 -S - PD | | 12 | | 402 | 396 | 798 | 15.0 |
| 4SRm 13G/20 -S - PD | | 16 | | 508 | 437 | 945 | 17.9 |
| 4SRm 13G/30 -S - PD | | 22 | | 627 | 492 | 1119 | 22.2 |
| 4SRm 25G/5 -S - PD | | 3 | | 238 | 331 | 569 | 10.2 |
| 4SRm 25G/7 -S - PD | | 5 | | 288 | 331 | 619 | 10.5 |
| 4SRm 25G/10 -S - PD | | 6 | | 313 | 356 | 669 | 12.1 |
| 4SRm 25G/15 -S - PD | | 8 | | 363 | 396 | 759 | 14.3 |
| 4SRm 25G/20 -S - PD | | 11 | | 437 | 437 | 874 | 16.9 |
| 4SRm 25G/30 -S - PD | | 14 | | 538 | 492 | 1030 | 20.8 |
| 4SRm 33G/5 -S - PD | 2" NPT | 3 | | 258 | 331 | 589 | 10.2 |
| 4SRm 33G/7 -S - PD | | 4 | | 289 | 331 | 620 | 10.4 |
| 4SRm 33G/10 -S - PD | | 5 | | 320 | 356 | 676 | 12.1 |
| 4SRm 33G/15 -S - PD | | 6 | | 352 | 396 | 748 | 14.0 |
| 4SRm 33G/20 -S - PD | | 8 | | 415 | 437 | 852 | 16.3 |
| 4SRm 33G/30 -S - PD | | 12 | | 566 | 492 | 1058 | 20.5 |
| 4SRm 45G/10 -S - PD | | 3 | | 258 | 356 | 614 | 11.5 |
| 4SRm 45G/15 -S - PD | | 4 | | 289 | 396 | 685 | 13.5 |
| 4SRm 45G/20 -S - PD | | 6 | | 352 | 437 | 789 | 15.5 |
| 4SRm 45G/30 -S - PD | | 9 | | 446 | 492 | 938 | 19.8 |



## DIMENSIONS AND WEIGHTS (three-phase models)

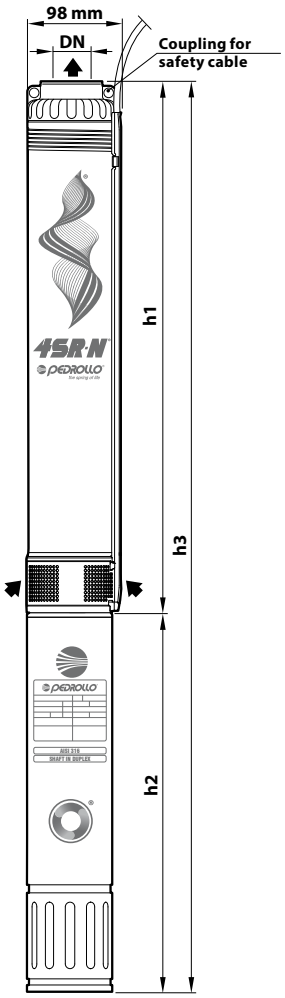
| MODEL | DN | N. | DIMENSIONS mm | | | | kg |
|---|---|---|---|---|---|---|---|
| Three-phase | | STAGES | Ø | h1 | h2 | h3 | 3~ |
| 4SR 7G/5 -S - PD | 1¼" NPT | 7 | 98 | 303 | 331 | 634 | 10.2 |
| 4SR 7G/7 -S - PD | | 10 | | 362 | 331 | 693 | 11.3 |
| 4SR 7G/10 -S - PD | | 13 | | 423 | 356 | 779 | 12.7 |
| 4SR 7G/15 -S - PD | | 17 | | 528 | 371 | 899 | 14.7 |
| 4SR 7G/20 -S - PD | | 23 | | 648 | 396 | 1044 | 17.1 |
| 4SR 7G/30 -S - PD | | 32 | | 924 | 437 | 1361 | 23.1 |
| 4SR 10G/5 -S - PD | | 6 | | 283 | 331 | 614 | 10.8 |
| 4SR 10G/7 -S - PD | | 9 | | 343 | 331 | 674 | 11.2 |
| 4SR 10G/10 -S - PD | | 12 | | 402 | 356 | 758 | 13.0 |
| 4SR 10G/15 -S - PD | | 16 | | 508 | 371 | 879 | 15.2 |
| 4SR 10G/20 -S - PD | | 21 | | 608 | 396 | 1004 | 17.9 |
| 4SR 10G/30 -S - PD | | 27 | | 727 | 437 | 1164 | 20.5 |
| 4SR 10G/50 -S - PD | | 42 | | 1123 | 505 | 1628 | 25.6 |
| 4SR 13G/5 -S - PD | | 5 | | 263 | 331 | 594 | 10.6 |
| 4SR 13G/7 -S - PD | | 7 | | 303 | 331 | 634 | 10.9 |
| 4SR 13G/10 -S - PD | | 9 | | 343 | 356 | 699 | 12.5 |
| 4SR 13G/15 -S - PD | | 12 | | 402 | 371 | 774 | 14.2 |
| 4SR 13G/20 -S - PD | | 16 | | 508 | 396 | 904 | 16.4 |
| 4SR 13G/30 -S - PD | | 22 | | 627 | 437 | 1064 | 19.0 |
| 4SR 13G/50 -S - PD | | 34 | | 964 | 505 | 1469 | 29.2 |
| 4SR 25G/5 -S - PD | | 3 | | 238 | 331 | 569 | 10.2 |
| 4SR 25G/7 -S - PD | | 5 | | 288 | 331 | 619 | 10.5 |
| 4SR 25G/10 -S - PD | | 6 | | 313 | 356 | 669 | 12.1 |
| 4SR 25G/15 -S - PD | | 8 | | 363 | 371 | 734 | 13.5 |
| 4SR 25G/20 -S - PD | | 11 | | 437 | 396 | 833 | 15.4 |
| 4SR 25G/30 -S - PD | | 14 | | 538 | 437 | 975 | 17.6 |
| 4SR 25G/50 -S - PD | | 23 | | 762 | 505 | 1267 | 24.6 |
| 4SR 25G/75 -S - PD | | 34 | | 1134 | 589 | 1723 | 34.5 |
| 4SR 33G/5 -S - PD | 2" NPT | 3 | | 258 | 331 | 589 | 10.2 |
| 4SR 33G/7 -S - PD | | 4 | | 289 | 331 | 620 | 10.4 |
| 4SR 33G/10 -S - PD | | 5 | | 320 | 356 | 676 | 12.1 |
| 4SR 33G/15 -S - PD | | 6 | | 352 | 371 | 723 | 13.2 |
| 4SR 33G/20 -S - PD | | 8 | | 415 | 396 | 811 | 14.8 |
| 4SR 33G/30 -S - PD | | 12 | | 566 | 437 | 1003 | 17.3 |
| 4SR 33G/50 -S - PD | | 19 | | 786 | 505 | 1291 | 24.6 |
| 4SR 33G/75 -S - PD | | 28 | | 1095 | 589 | 1684 | 32.5 |
| 4SR 33G/100 -S - PD | | 36 | | 1418 | 800 | 2218 | 47.0 |
| 4SR 45G/10 -S - PD | | 3 | | 258 | 356 | 614 | 11.5 |
| 4SR 45G/15 -S - PD | | 4 | | 289 | 371 | 660 | 12.6 |
| 4SR 45G/20 -S - PD | | 6 | | 352 | 396 | 748 | 14.0 |
| 4SR 45G/30 -S - PD | | 9 | | 446 | 437 | 883 | 16.6 |
| 4SR 45G/50 -S - PD | | 14 | | 629 | 505 | 1134 | 22.4 |
| 4SR 45G/75 -S - PD | | 22 | | 907 | 589 | 1496 | 29.9 |
| 4SR 45G/100 -S - PD | | 28 | | 1095 | 800 | 1895 | 41.1 |



## DIMENSIONS AND WEIGHT

| MODEL | DN | N. | DIMENSIONS mm | | | | kg |
|---|---|---|---|---|---|---|---|
| Single-phase | | STAGES | Ø | h1 | h2 | h3 | 1~ |
| 4SRm 60G/10 - N - PD | 2" NPT | 3 | 98 | 328 | 356 | 684 | 11.8 |
| 4SRm 60G/15 - N - PD | | 5 | | 430 | 396 | 826 | 14.4 |
| 4SRm 60G/20 - N - PD | | 7 | | 532 | 437 | 969 | 16.8 |
| 4SRm 60G/30 - N - PD | | 9 | | 634 | 492 | 1126 | 20.8 |
| 4SRm 75G/10 - N - PD | | 3 | | 363 | 356 | 719 | 11.9 |
| 4SRm 75G/15 - N - PD | | 4 | | 425 | 396 | 821 | 14.0 |
| 4SRm 75G/20 - N - PD | | 6 | | 551 | 437 | 988 | 16.4 |
| 4SRm 75G/30 - N - PD | | 8 | | 676 | 492 | 1168 | 21.1 |
| 4SRm 90G/15 - N - PD | | 4 | | 425 | 396 | 821 | 14.0 |
| 4SRm 90G/20 - N - PD | | 6 | | 551 | 437 | 988 | 16.4 |
| 4SRm 90G/30 - N - PD | | 8 | | 676 | 492 | 1168 | 21.1 |
| 4SR 105G/15 - N - PD | | 3 | | 378 | 396 | 774 | 13.6 |
| 4SR 105G/20 - N - PD | | 4 | | 446 | 437 | 883 | 15.6 |
| 4SR 105G/30 - N - PD | | 6 | | 582 | 492 | 1074 | 19.7 |

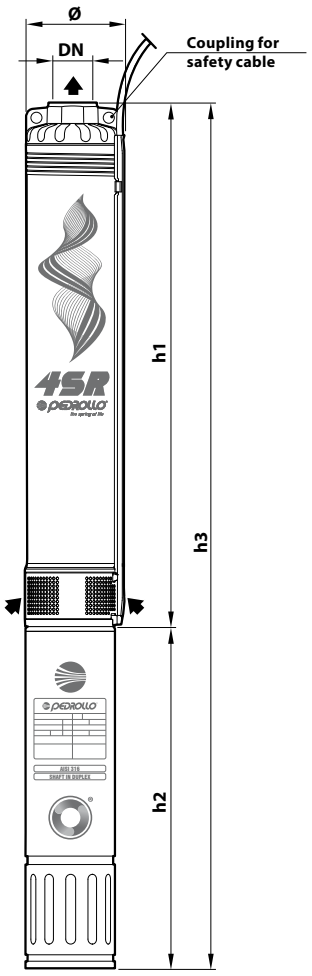
| MODEL | DN | N. | DIMENSIONS mm | | | | kg |
|---|---|---|---|---|---|---|---|
| Three-phase | | STAGES | Ø | h1 | h2 | h3 | 3~ |
| 4SR 60G/10 - N - PD | 2" NPT | 3 | 98 | 328 | 356 | 684 | 11.8 |
| 4SR 60G/15 - N - PD | | 5 | | 430 | 371 | 801 | 13.6 |
| 4SR 60G/20 - N - PD | | 7 | | 532 | 396 | 928 | 15.3 |
| 4SR 60G/30 - N - PD | | 9 | | 634 | 437 | 1071 | 17.6 |
| 4SR 60G/50 - N - PD | | 14 | | 888 | 505 | 1393 | 24.3 |
| 4SR 60G/75 - N - PD | | 21 | | 1245 | 589 | 1834 | 31.4 |
| 4SR 60G/100 - N - PD | | 28 | | 1602 | 800 | 2402 | 43.4 |
| 4SR 75G/10 - N - PD | | 3 | | 363 | 356 | 719 | 11.9 |
| 4SR 75G/15 - N - PD | | 4 | | 425 | 371 | 796 | 13.2 |
| 4SR 75G/20 - N - PD | | 6 | | 551 | 396 | 947 | 14.9 |
| 4SR 75G/30 - N - PD | | 8 | | 676 | 437 | 1113 | 17.9 |
| 4SR 75G/50 - N - PD | | 13 | | 989 | 505 | 1494 | 24.9 |
| 4SR 75G/75 - N - PD | | 20 | | 1427 | 589 | 2016 | 32.5 |
| 4SR 75G/100 - N - PD | | 27 | | 1865 | 800 | 2665 | 45.1 |
| 4SR 90G/15 - N - PD | | 4 | | 425 | 371 | 796 | 13.2 |
| 4SR 90G/20 - N - PD | | 6 | | 551 | 396 | 947 | 14.9 |
| 4SR 90G/30 - N - PD | | 8 | | 676 | 437 | 1113 | 17.9 |
| 4SR 90G/50 - N - PD | | 12 | | 926 | 505 | 1431 | 24.4 |
| 4SR 90G/75 - N - PD | | 18 | | 1302 | 589 | 1891 | 31.5 |
| 4SR 90G/100 - N - PD | | 26 | | 1803 | 800 | 2603 | 44.5 |
| 4SR 105G/15 - N - PD | | 3 | | 378 | 371 | 749 | 12.8 |
| 4SR 105G/20 - N - PD | | 4 | | 446 | 396 | 842 | 14.1 |
| 4SR 105G/30 - N - PD | | 6 | | 582 | 437 | 1019 | 16.5 |
| 4SR 105G/50 - N - PD | | 9 | | 786 | 505 | 1291 | 22.4 |
| 4SR 105G/75 - N - PD | | 13 | | 1058 | 589 | 1647 | 28.3 |
| 4SR 105G/100- N - PD | | 19 | | 1465 | 800 | 2265 | 41.5 |



## DIMENSIONS AND WEIGHT

| MODEL Single-phase | DN | N. STAGES | DIMENSIONS mm h1 | h2 | h3 | kg 1~ |
|---|---|---|---|---|---|---|
| 4SRm 60G/15 - PD | 2" NPT | 4 | 365 | 396 | 761 | 14.2 |
| 4SRm 60G/20 - PD | | 5 | 416 | 437 | 853 | 16.1 |
| 4SRm 60G/30 - PD | | 7 | 518 | 492 | 1010 | 20.2 |
| 4SRm 75G/15 - PD | | 3 | 314 | 396 | 710 | 13.8 |
| 4SRm 75G/20 - PD | | 4 | 365 | 437 | 802 | 15.7 |
| 4SRm 75G/30 - PD | | 5 | 416 | 492 | 908 | 19.3 |
| 4SRm 90G/20 - PD | | 3 | 317 | 437 | 754 | 15.4 |
| 4SRm 90G/30 - PD | | 4 | 369 | 492 | 861 | 19.0 |

| MODEL Three-phase | DN | N. STAGES | DIMENSIONS mm h1 | h2 | h3 | kg 3~ |
|---|---|---|---|---|---|---|
| 4SR 60G/15 - PD | 2" NPT | 4 | 365 | 371 | 736 | 13.4 |
| 4SR 60G/20 - PD | | 5 | 416 | 396 | 812 | 14.6 |
| 4SR 60G/30 - PD | | 7 | 518 | 437 | 955 | 17.0 |
| 4SR 60G/50 - PD | | 12 | 810 | 505 | 1315 | 24.1 |
| 4SR 60G/75 - PD | | 18 | 1154 | 700 | 1854 | 35.7 |
| 4SR 60G/100 - PD | | 25 | 1548 | 800 | 2348 | 44.1 |
| 4SR 75G/15 - PD | | 3 | 314 | 371 | 685 | 13.0 |
| 4SR 75G/20 - PD | | 4 | 365 | 396 | 761 | 14.2 |
| 4SR 75G/30 - PD | | 5 | 416 | 437 | 853 | 16.1 |
| 4SR 75G/50 - PD | | 9 | 658 | 505 | 1163 | 22.7 |
| 4SR 75G/75 - PD | | 14 | 950 | 700 | 1650 | 33.6 |
| 4SR 75G/100 - PD | | 19 | 1206 | 800 | 2006 | 40.2 |
| 4SR 90G/20 - PD | | 3 | 317 | 396 | 713 | 13.9 |
| 4SR 90G/30 - PD | | 4 | 369 | 437 | 806 | 15.8 |
| 4SR 90G/50 - PD | | 7 | 525 | 505 | 1030 | 21.4 |
| 4SR 90G/75 - PD | | 11 | 770 | 700 | 1470 | 32.2 |
| 4SR 90G/100 - PD | | 15 | 1016 | 800 | 1816 | 38.5 |



# DAVIS 4" submersible pump with peripheral impeller

Clean water

Domestic use

Agricultural use




## PERFORMANCE RANGE

- Flow rate up to **50 l/min** (3.0 m³/h)
- Head up to **75 m**

## INSTALLATION AND USE

**Ready-to-install cost-effective submersible pump, equipped with an integrated capacitor and thermal overload protector.**

Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.

Compact and cost-effective, it is suitable for domestic applications. It works seamlessly with small-sized pressure tanks, offering an ideal setup for all irrigation requirements.

## APPLICATION LIMITS

- Liquid temperature up to **+40 °C**
- Depth of use up to **40 m** below water level (with an appropriately sized power cable)
- Vertical and horizontal operation

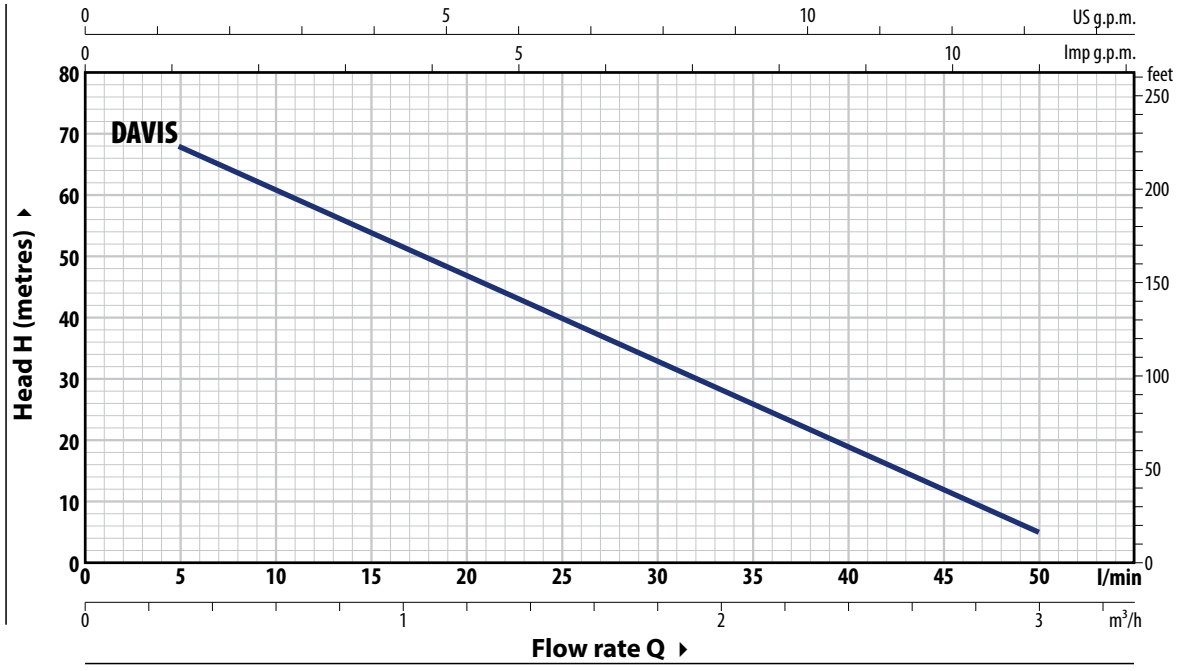
## AVAILABLE UPON REQUEST

※ **30 metres** long power cable

※ Different voltage requirements 60 Hz frequency

## CURVES AND PERFORMANCE DATA – HS=0 m

**60 Hz**




| TYPE | POWER (P2) | | Q | m³/h | 0 | 0.3 | 0.6 | 0.9 | 1.2 | 1.5 | 1.8 | 2.1 | 2.4 | 2.7 | 3.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | kW | HP | | l/min | 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| DAVIS® | 0.75 | 1 | H | metres | 75 | 68 | 61 | 54 | 47 | 40 | 33 | 26 | 19 | 12 | 5 |

**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| **1** | **Delivery port** | Cast iron with cataphoresis treatment with ISO 228/1 threaded port |
| **2** | **Sealing cover** | Cast iron with cataphoresis treatment |
| **3** | **Impeller** | Brass, radial peripheral vane type |
| **4** | **Motor sleeve** | Stainless steel **AISI 304** |
| **5** | **Motor shaft** | Stainless steel **AISI 431** |
| **6** | **Mechanical seal** | |

| Type | Shaft | Materials |
|---|---|---|
| **ST4-16** | Ø 16 mm | Ceramic / Graphite / NBR |

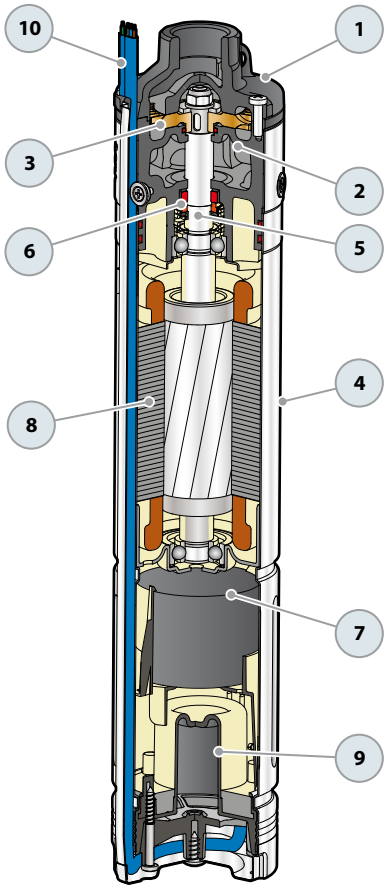
| | | |
|---|---|---|
| **7** | **Capacitor** | |
| **8** | **Electric motor** | |

– Specifically sized, rewindable motor in oil bath (non-toxic, food-safe oil), designed for continuous running duty
– Single-phase 220 - 60 Hz
– Built-in motor capacitor
– Thermal motor protection incorporated in the winding
– Continuous running duty S1
– Insulation: Class F
– Protection rating: IP X8

| | | |
|---|---|---|
| **9** | **Compensating diaphragm** | |
| **10** | **※ Power cord** | |

➠ **DRINCABLE® HRC** certified for use with drinking water meant for human consumption by the **ACS** according to XP P 41-250, approval no. 18 MAT NY 156

Standard length 20 metres




## ABSORPTION

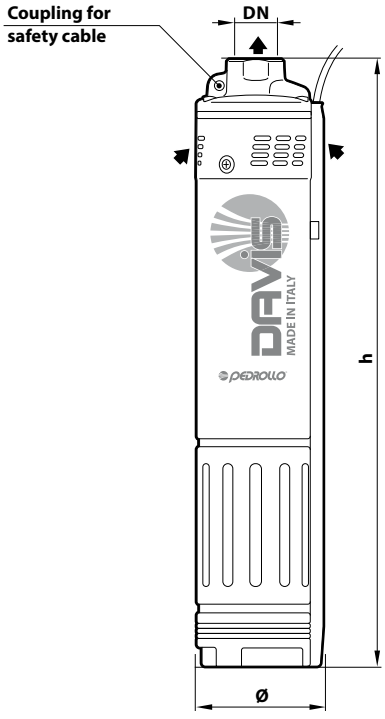
| TYPE Single-phase | VOLTAGE 220 V | 110 V |
|---|---|---|
| **DAVIS®** | 8.0 A | 16.0 A |

## DIMENSIONS AND WEIGHT

| TYPE Single-phase | PORT DN | DIMENSIONS mm Ø | h | kg |
|---|---|---|---|---|
| **DAVIS®** | **1"** | 101 | 500 | 13.6 |

## PALLET CAPACITY

| TYPE Single-phase | GROUPAGE n. pumps | CONTAINER n. pumps |
|---|---|---|
| **DAVIS®** | 60 | 60 |



# FLUID SOLAR 4" Solar submersible pumps

Clean water
Domestic use
Agricultural use




## INSTALLATION AND USE

**FLUID SOLAR** pumps are engineered to draw clean water from wells using power from photovoltaic modules.

They feature a high-efficiency motor with integrated electronic control that adjusts the motor's speed based on the solar energy available.

This ensures optimal performance: high speed and efficiency in sunny conditions, and lower speed with reduced efficiency on cloudy days.

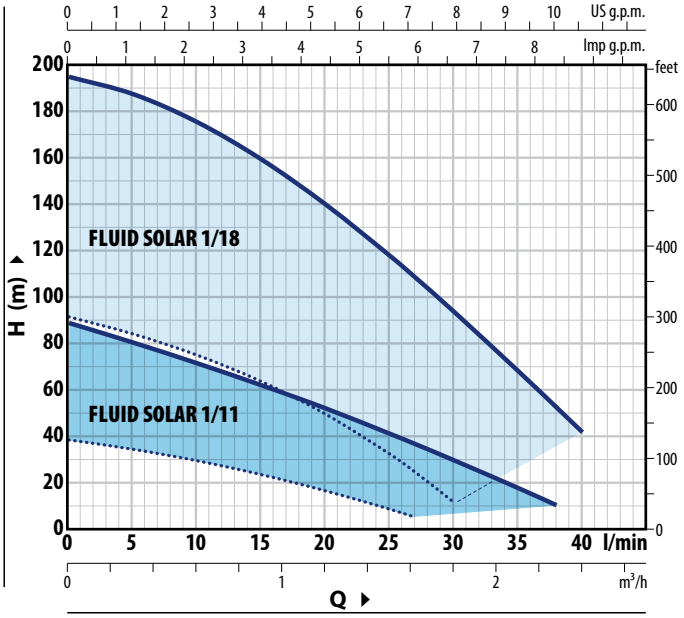
These pumps utilize a high-efficiency, oil-bathed, permanent magnet motor for enhanced performance and durability.

## APPLICATION LIMITS

- Liquid temperature up to **+35 °C**
- Maximum sand content **200 g/m³**
- Capable of operating at depths of up to **100 metres** below water level

## PATENTS - TRADEMARKS - DESIGNS

- Patent No. 0001413386, EP2419642
- Patent No. EP2300717
- Patent No. 102021000030575
- FLUID SOLAR® Registered trademark No. 001516301




## FLUID SOLAR 1/11

POWER CONSUMPTION P1 **750 W**

| Q | | 0 | 0.3 | 0.6 | 0.9 | 1.2 | 1.5 | 1.6 | 1.8 | 2.1 | 2.3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| m³/h | | 0 | 0.3 | 0.6 | 0.9 | 1.2 | 1.5 | 1.6 | 1.8 | 2.1 | 2.3 |
| l/min | | **0** | **5** | **10** | **15** | **20** | **25** | **27** | **30** | **35** | **38** |
| **H** metres | ▬ | 89 | 80.5 | 71.5 | 62 | 52 | 41 | 36.5 | 29.5 | 17.5 | 10 |
| | •••• | 38 | 34 | 29.1 | 23.2 | 16.3 | 8.5 | 5 | | | |

Performance with photovoltaic modules for a total rated power of 980 Wp

## FLUID SOLAR 1/18

POWER CONSUMPTION P1 **1500 W**

| Q | | 0 | 0.3 | 0.6 | 1.2 | 1.5 | 1.62 | 1.8 | 2.1 | 2.4 |
|---|---|---|---|---|---|---|---|---|---|---|
| m³/h | | 0 | 0.3 | 0.6 | 1.2 | 1.5 | 1.62 | 1.8 | 2.1 | 2.4 |
| l/min | | **0** | **5** | **10** | **20** | **25** | **27** | **30** | **35** | **40** |
| **H** metres | ▬ | 194.5 | 187 | 175 | 139.5 | 117.5 | 108 | 93.5 | 68 | 41.5 |
| | •••• | 91.5 | 84 | 74.8 | 49.4 | 32.3 | 24.5 | 11.5 | | |

Performance with photovoltaic modules for a total nominal power of 1960 Wp

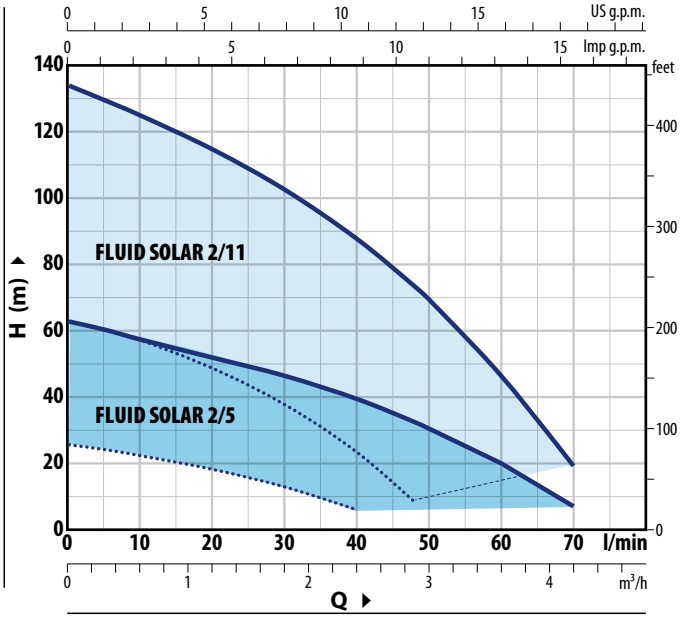
▬ **Performance under 1000 W/m² Solar Irradiation and 100 VDC No-load Voltage from Photovoltaic Modules**

•••• **Performance under 300 W/m² Solar Irradiation and 70 VDC No-load Voltage from Photovoltaic Modules**

The performance curves shown above are based on photovoltaic modules positioned towards the SOUTH (or NORTH for installations in the Southern Hemisphere). The angle of inclination is adjusted according to the latitude of the installation site to optimize performance.

## CURVES AND PERFORMANCE DATA

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.




### FLUID SOLAR 2/5

POWER CONSUMPTION P1 **750 W**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q** | m³/h | 0 | 0.3 | 0.6 | 1.2 | 1.8 | 2.4 | 2.88 | 3 | 3.6 | 4.2 |
| | l/min | **0** | **5** | **10** | **20** | **30** | **40** | **48** | **50** | **60** | **70** |
| **H** metres | ▬ | 63 | 60.5 | 57.5 | 52 | 46.5 | 39.5 | 32.5 | 30.5 | 20 | 7 |
| | •••• | 26 | 24.5 | 22.6 | 18.4 | 13 | 6 | | | | |

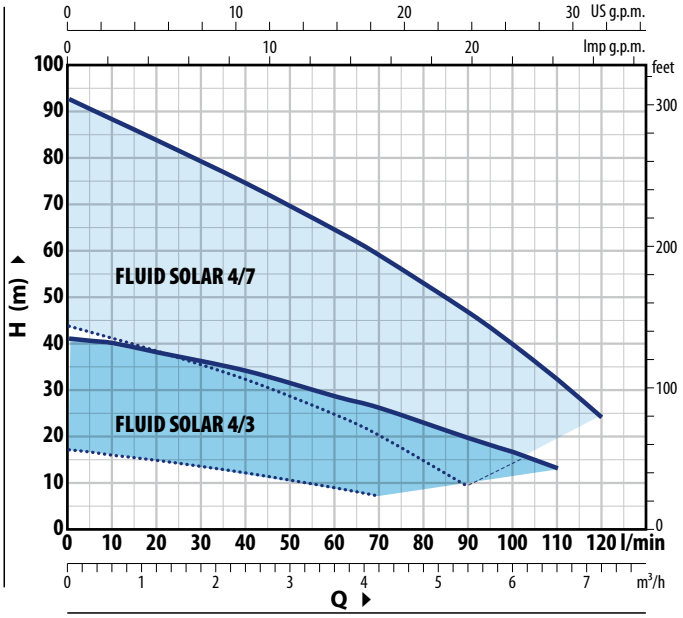
Performance with photovoltaic modules for a total rated power of 980 Wp

### FLUID SOLAR 2/11

POWER CONSUMPTION P1 **1500 W**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q** | m³/h | 0 | 0.3 | 0.6 | 1.2 | 1.8 | 2.4 | 2.88 | 3 | 3.6 | 4.2 |
| | l/min | **0** | **5** | **10** | **20** | **30** | **40** | **48** | **50** | **60** | **70** |
| **H** metres | ▬ | 134 | 129.5 | 125 | 115 | 102.5 | 88 | 73.5 | 69.5 | 47 | 19.5 |
| | •••• | 63 | 60.5 | 57.4 | 49.3 | 38.1 | 23.2 | 8 | | | |

Performance with photovoltaic modules for a total nominal power of 1960 Wp




### FLUID SOLAR 4/3

POWER CONSUMPTION P1 **750 W**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q** | m³/h | 0 | 0.3 | 0.6 | 1.2 | 2.4 | 3.6 | 4.2 | 5.4 | 6 | 6.6 |
| | l/min | **0** | **5** | **10** | **20** | **40** | **60** | **70** | **90** | **100** | **110** |
| **H** metres | ▬ | 41 | 40.5 | 40 | 38 | 34 | 28.5 | 26 | 19.5 | 16.5 | 13 |
| | •••• | 17 | 16.5 | 15.8 | 14.7 | 12 | 8.8 | 7 | | | |

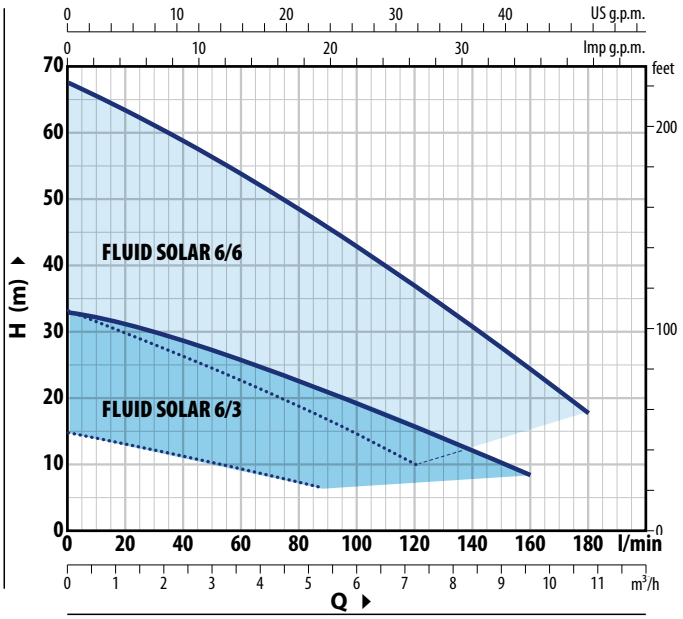
Performance with photovoltaic modules for a total rated power of 980 Wp

### FLUID SOLAR 4/7

POWER CONSUMPTION P1 **1500 W**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q** | m³/h | 0 | 0.3 | 0.6 | 1.2 | 2.4 | 3.6 | 4.2 | 5.4 | 6 | 6.6 | 7.2 |
| | l/min | **0** | **5** | **10** | **20** | **40** | **60** | **70** | **90** | **100** | **110** | **120** |
| **H** metres | ▬ | 93 | 90.5 | 88.5 | 84 | 74.5 | 64.5 | 59 | 46.5 | 40 | 32 | 24 |
| | •••• | 44 | 42.5 | 41.1 | 38.3 | 32.2 | 24.6 | 20.1 | 9 | | | |

Performance with photovoltaic modules for a total nominal power of 1960 Wp




### FLUID SOLAR 6/3

POWER CONSUMPTION P1 **750 W**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q** | m³/h | 0 | 0.3 | 1.2 | 2.4 | 3.6 | 4.8 | 5.4 | 6 | 7.2 | 7.2 | 8.4 | 9.6 |
| | l/min | **0** | **5** | **20** | **40** | **60** | **80** | **90** | **100** | **120** | **120** | **140** | **160** |
| **H** metres | ▬ | 33 | 32.5 | 31.5 | 29 | 26 | 22.5 | 20.5 | 19 | 15 | 15 | 11.5 | 8.5 |
| | •••• | 15 | 14.5 | 12.8 | 11 | 9.4 | 7.5 | 6.5 | | | | | |

Performance with photovoltaic modules for a total rated power of 980 Wp

### FLUID SOLAR 6/6

POWER CONSUMPTION P1 **1500 W**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q** | m³/h | 0 | 0.3 | 1.2 | 2.4 | 3.6 | 4.8 | 5.4 | 6 | 7.2 | 8.4 | 9.6 | 10.8 |
| | l/min | **0** | **5** | **20** | **40** | **60** | **80** | **90** | **100** | **120** | **140** | **160** | **180** |
| **H** metres | ▬ | 68 | 67 | 63.5 | 59 | 54 | 48.5 | 46 | 43 | 37 | 31 | 24.5 | 18 |
| | •••• | 33.5 | 32.5 | 30 | 26.5 | 22.8 | 18.9 | 16.8 | 14.7 | 10 | | | |

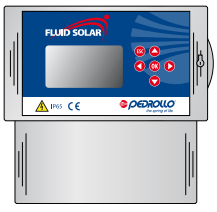
Performance with photovoltaic modules for a total nominal power of 1960 Wp

# FLUID SOLAR

## STANDARD EQUIPMENT

### P1 = 750 W

**CONTROL PANEL**





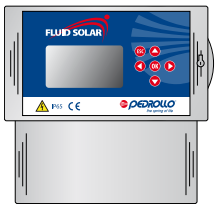

**CONNECTORS**

No. 1 male connector type **SMK**

No. 1 female connector type **SMK**

### P1 = 1500 W

**CONTROL PANEL**






**CONNECTORS**

No. 1 male connector type **SMK**

No. 1 female connector type **SMK**

No. 1 Y-connector female/ male type **MC4**

No. 1 male-female Y-connector type **MC4**

## EXAMPLES OF INSTALLATION

### FLUID SOLAR 1/11 - 2/5 - 4/3 - 6/3

※ To achieve maximum rated performance, the pump requires **photovoltaic modules** with a total rated power of **980 Wp** or higher.

※ The pump can run on lower-power photovoltaic modules than recommended, but with reduced performance.

※ Each module must have an open-circuit voltage between **35 - 55VDC**.

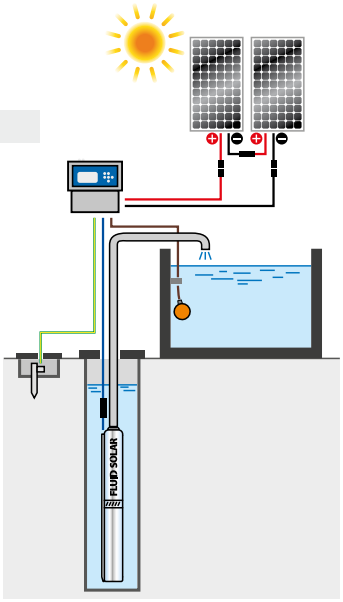
### FLUID SOLAR 1/18 - 2/11 - 4/7 - 6/6

※ To achieve maximum rated performance, the pump requires photovoltaic modules with a total rated power of **1960 Wp** or higher.

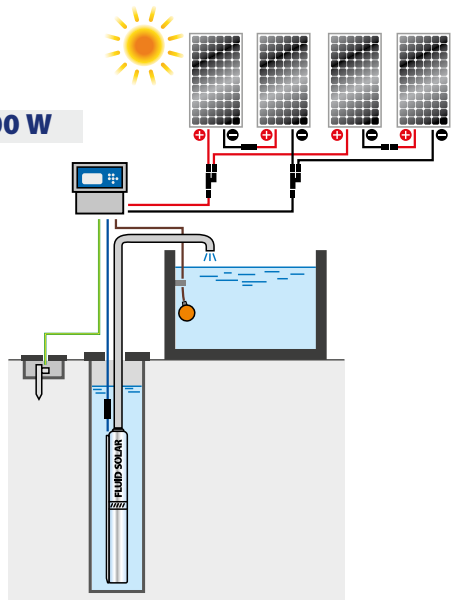
※ The pump can run on lower-power photovoltaic modules than recommended, but with reduced performance.

※ Each module must have an open-circuit voltage between **35** and **55VDC**.

**P1=750 W**




**P1=1500 W**




## DIMENSIONS AND WEIGHT

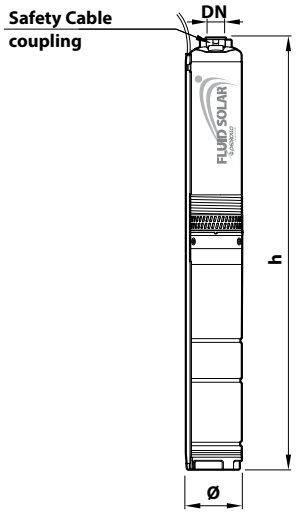
### P1 = 750 W

| TYPE | PORT DN | DIMENSIONS mm Ø | h | kg * |
|---|---|---|---|---|
| **FLUID SOLAR 1/11** | **1¼"** | 100 | 746 | 14.2 |
| **FLUID SOLAR 2/5** | | | 625 | 13.3 |
| **FLUID SOLAR 4/3** | | | 601 | 13.0 |
| **FLUID SOLAR 6/3** | | | 621 | 12.5 |

### P1 = 1500 W

| | | | | |
|---|---|---|---|---|
| **FLUID SOLAR 1/18** | **1¼"** | 100 | 956 | 18.5 |
| **FLUID SOLAR 2/11** | | | 816 | 17.7 |
| **FLUID SOLAR 4/7** | | | 771 | 16.8 |
| **FLUID SOLAR 6/6** | | | 785 | 16.6 |

**(* weight of pump with control panel)**



## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Delivery port and pump jacket** | Stainless steel **AISI 304** with thread according to ISO 228/1 |
| 2 | **Pump bearing** | EPDM |
| 3 | **Impellers** | Delrin® |
| 4 | **Diffusers** | Noryl™ |
| 5 | **Stadium boxes** | Stainless steel **AISI 304** |
| 6 | **Pump shaft** | Stainless steel **AISI 304** |
| 7 | **Cable sheath** | Stainless steel **AISI 304** |
| 8 | **Filter** | Stainless steel **AISI 304** |
| 9 | **Coupling motor bracket** | Technopolymer and brass |
| 10 | **Motor shaft** | Stainless steel **AISI 431** |
| 11 | **Motor sleeve** | Stainless steel **AISI 304** |

**12 Mechanical seal**

| Seal | Shaft | Materials |
|---|---|---|
| **ST4-16** | Ø 16 mm | Ceramic / Graphite / NBR |

**13 Vectoral**

**14 Electric motor**
- High-efficiency permanent magnet oil filled motor (non-toxic food-safe oil), rewindable.
- Continuous running duty S1
- Insulation: Class F
- Protection rating: IP X8

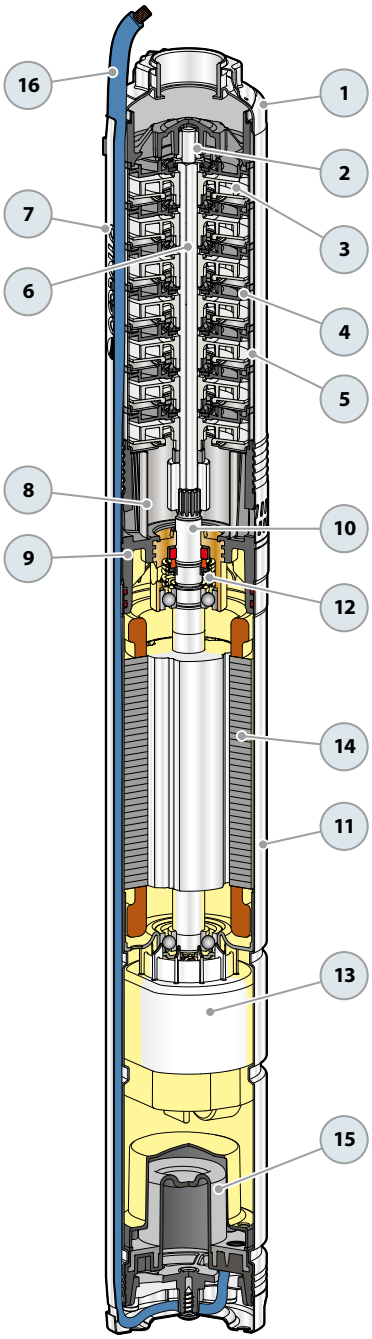
**15 Compensating diaphragm**

**16 Power cord**

Cable approved for use in drinking water by ACS, KTW, WRAS

※ Standard length 2.2 metres

※ Standard equipment: RPS2 cable splice kit



# 6SR 6" submersible pumps

Clean water
(Maximum sand content 100 g/m³)

Civil use

Agricultural use




## ※ 6SR submersible pumps: designed with special materials to resist sand abrasion for long-lasting performance

### PERFORMANCE RANGE

- Flow rate up to **1200 l/min** (72 m³/h)
- Head up to **381 m**

### INSTALLATION AND USE

Designed to transfer clean water with sand content up to **100 g/m³**. Highly efficient and reliable, they are suitable for industrial, civil, and agricultural applications, such as water distribution coupled with pressure tanks, irrigation, pressure boosting, fire-fighting systems, and more.

### INCLUDES

※ Three-phase electric motor 380 V - 60 Hz
The pump is supplied with motor **6PD** rewindable and oil filled
※ **4 m** power cable

### APPLICATION LIMITS

- Liquid temperature up to **+40 °C**
- Maximum sand content **100 g/m³**
- Maximum operating depth below water level: **200 m**
- Operation:
  – in vertical position
  – horizontally with the following limits: up to **12 stages** or up to **11 kW**
- Starts per hour: **20** at regular intervals
- Minimum cooling flow **8 cm/s**
- Continuous running duty **S1**

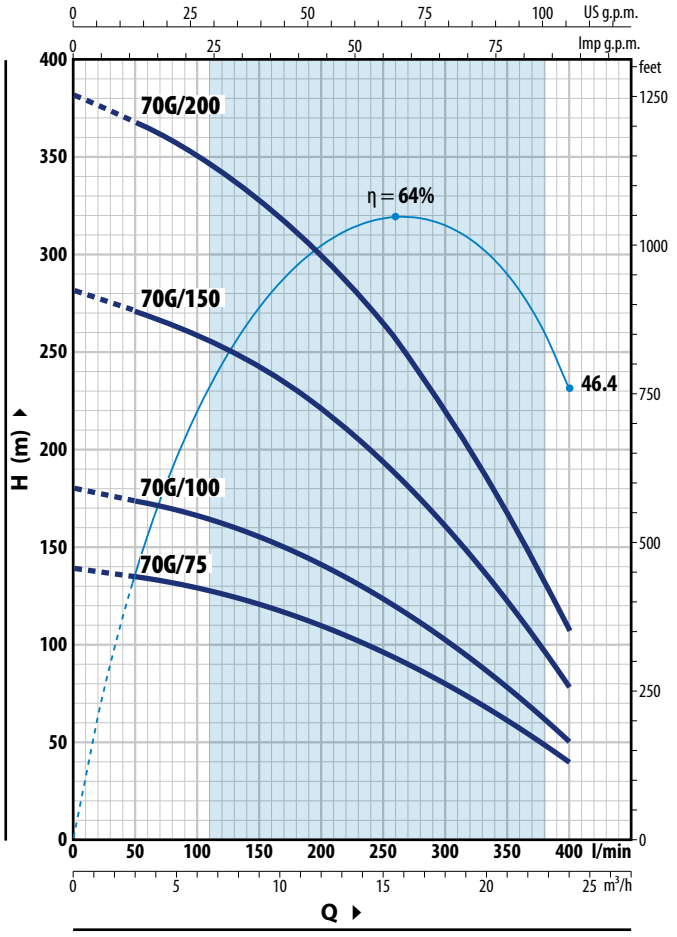
### AVAILABLE UPON REQUEST

※ 6SR-HYD pumps with double cable cover for coupling with 380/660 V ⅄/Δ dual voltage motors (star/delta)
※ Different voltage or frequency
※ Cooling jacket kit complete with filter and supinlets

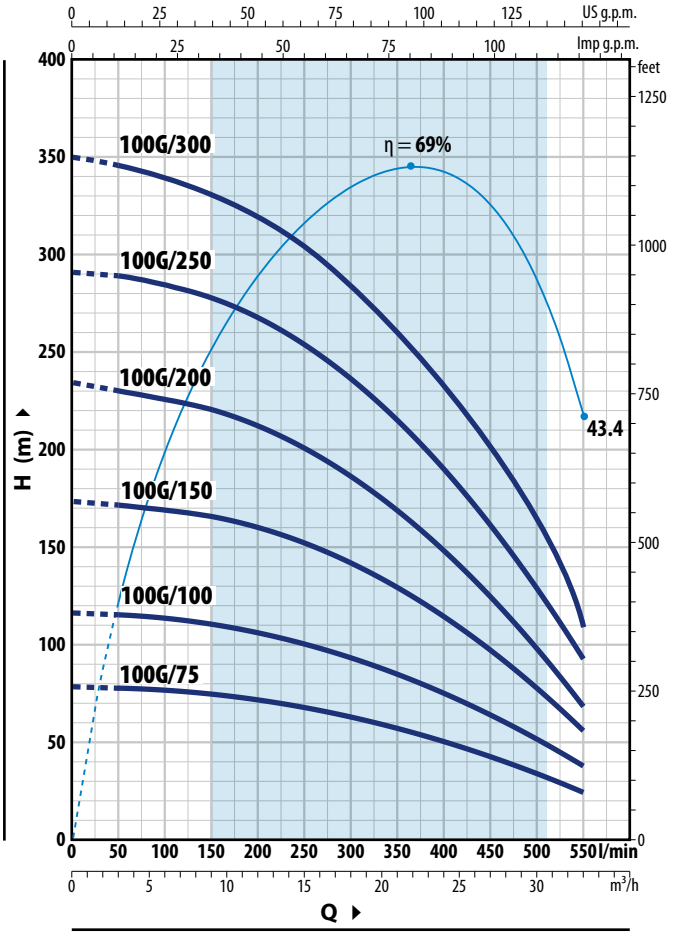
## CURVES AND PERFORMANCE DATA

**60 Hz**

## 6SR70G




## 6SR100G




## 6SR70G

| MODEL | N. | POWER (P2) | | Q | m³/h | 0 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | STAGES | kW | HP | | l/min | **0** | **50** | **100** | **150** | **200** | **250** | **300** | **350** | **400** |
| **6SR 70G/75** | **7** | 5.5 | 7.5 | **H** | m | 140 | 135 | 130 | 122 | 110 | 98 | 80 | 60 | 40 |
| **6SR 70G/100** | **9** | 7.5 | 10 | | | 182 | 174 | 168 | 155 | 140 | 125 | 104 | 80 | 50 |
| **6SR 70G/150** | **14** | 11 | 15 | | | 281 | 270 | 260 | 240 | 220 | 198 | 162 | 122 | 78 |
| **6SR 70G/200** | **19** | 15 | 20 | | | 381 | 365 | 351 | 325 | 300 | 265 | 220 | 168 | 108 |

## 6SR100G

| MODEL | N. | POWER (P2) | | Q | m³/h | 0 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | STAGES | kW | HP | | l/min | **0** | **50** | **100** | **150** | **200** | **250** | **300** | **350** | **400** | **450** | **500** | **550** |
| **6SR 100G/75** | **4** | 5.5 | 7.5 | **H** | m | 80 | 79 | 77 | 75 | 72 | 68 | 63 | 58 | 52 | 44 | 38 | 25 |
| **6SR 100G/100** | **6** | 7.5 | 10 | | | 118 | 117 | 114 | 110 | 105 | 100 | 95 | 88 | 78 | 68 | 58 | 38 |
| **6SR 100G/150** | **9** | 11 | 15 | | | 177 | 173 | 170 | 166 | 160 | 152 | 142 | 130 | 118 | 100 | 85 | 56 |
| **6SR 100G/200** | **12** | 15 | 20 | | | 235 | 230 | 225 | 220 | 213 | 202 | 190 | 170 | 150 | 133 | 110 | 69 |
| **6SR 100G/250** | **15** | 18.5 | 25 | | | 292 | 290 | 284 | 275 | 265 | 252 | 238 | 218 | 195 | 167 | 140 | 92 |
| **6SR 100G/300** | **18** | 22 | 30 | | | 350 | 345 | 339 | 333 | 320 | 305 | 285 | 260 | 230 | 200 | 168 | 110 |

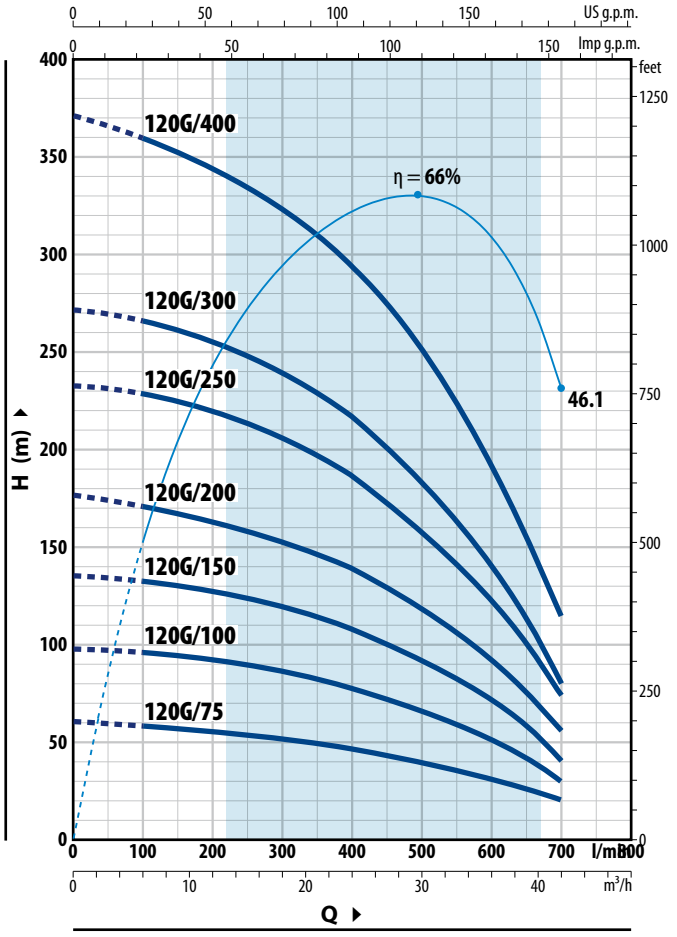
**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

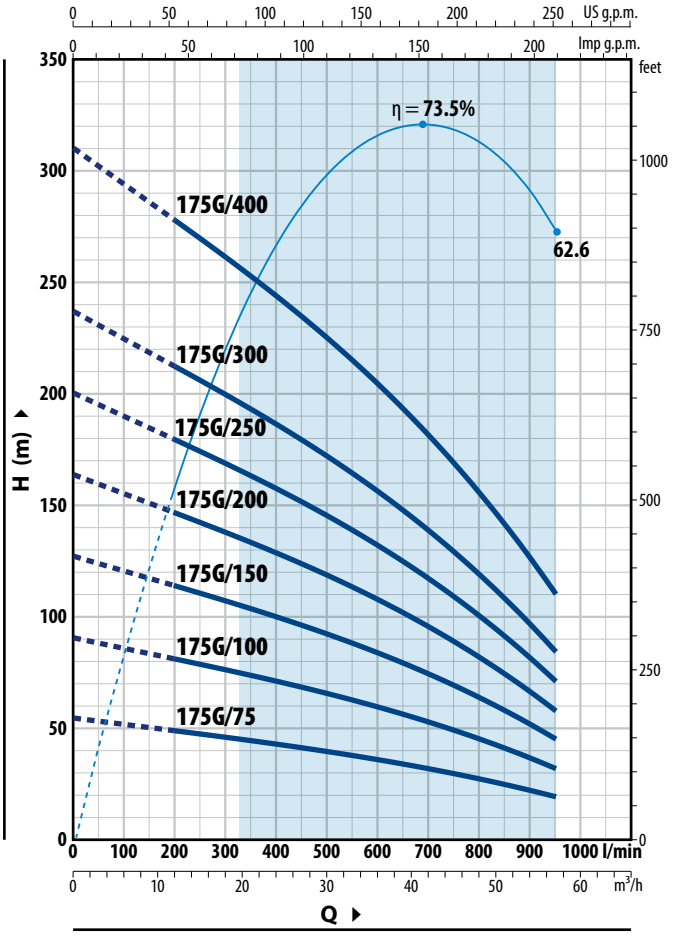
## CURVES AND PERFORMANCE DATA

60 Hz

### 6SR120G




### 6SR175G




### 6SR120G

| MODEL | N. | POWER (P2) | | Q | m³/h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | STAGES | kW | HP | | l/min | **0** | **100** | **200** | **300** | **400** | **500** | **600** | **700** |
| **6SR 120G/75** | **3** | 5.5 | 7.5 | | | 61 | 58 | 55 | 52 | 46 | 40 | 31 | 20 |
| **6SR 120G/100** | **5** | 7.5 | 10 | | | 98 | 95 | 91 | 85 | 78 | 66 | 52 | 30 |
| **6SR 120G/150** | **7** | 11 | 15 | | | 136 | 132 | 128 | 120 | 108 | 92 | 73 | 45 |
| **6SR 120G/200** | **9** | 15 | 20 | **H** | m | 177 | 170 | 163 | 155 | 140 | 120 | 94 | 56 |
| **6SR 120G/250** | **12** | 18.5 | 25 | | | 233 | 230 | 220 | 205 | 188 | 159 | 125 | 75 |
| **6SR 120G/300** | **14** | 22 | 30 | | | 272 | 267 | 255 | 240 | 218 | 185 | 143 | 80 |
| **6SR 120G/400** | **19** | 30 | 40 | | | 372 | 360 | 345 | 325 | 295 | 253 | 195 | 115 |

### 6SR175G

| MODEL | N. | POWER (P2) | | Q | m³/h | 0 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 57 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | STAGES | kW | HP | | l/min | **0** | **200** | **300** | **400** | **500** | **600** | **700** | **800** | **900** | **950** |
| **6SR 175G/75** | **3** | 5.5 | 7.5 | | | 55 | 49 | 46 | 43 | 40 | 36 | 32 | 27.5 | 22.3 | 19.5 |
| **6SR 175G/100** | **5** | 7.5 | 10 | | | 91 | 82 | 77 | 72 | 66.5 | 60 | 53.5 | 46 | 37 | 32.5 |
| **6SR 175G/150** | **7** | 11 | 15 | | | 128 | 115 | 108 | 101 | 93 | 84 | 75 | 64 | 52 | 45.5 |
| **6SR 175G/200** | **9** | 15 | 20 | **H** | m | 164 | 147 | 138 | 129 | 119 | 108 | 96 | 82 | 67 | 58.5 |
| **6SR 175G/250** | **11** | 18.5 | 25 | | | 201 | 180 | 169 | 158 | 146 | 132 | 118 | 101 | 82 | 72 |
| **6SR 175G/300** | **13** | 22 | 30 | | | 237 | 213 | 200 | 187 | 172 | 156 | 139 | 119 | 97 | 85 |
| **6SR 175G/400** | **17** | 30 | 40 | | | 310 | 278 | 262 | 244 | 225 | 205 | 182 | 156 | 127 | 111 |

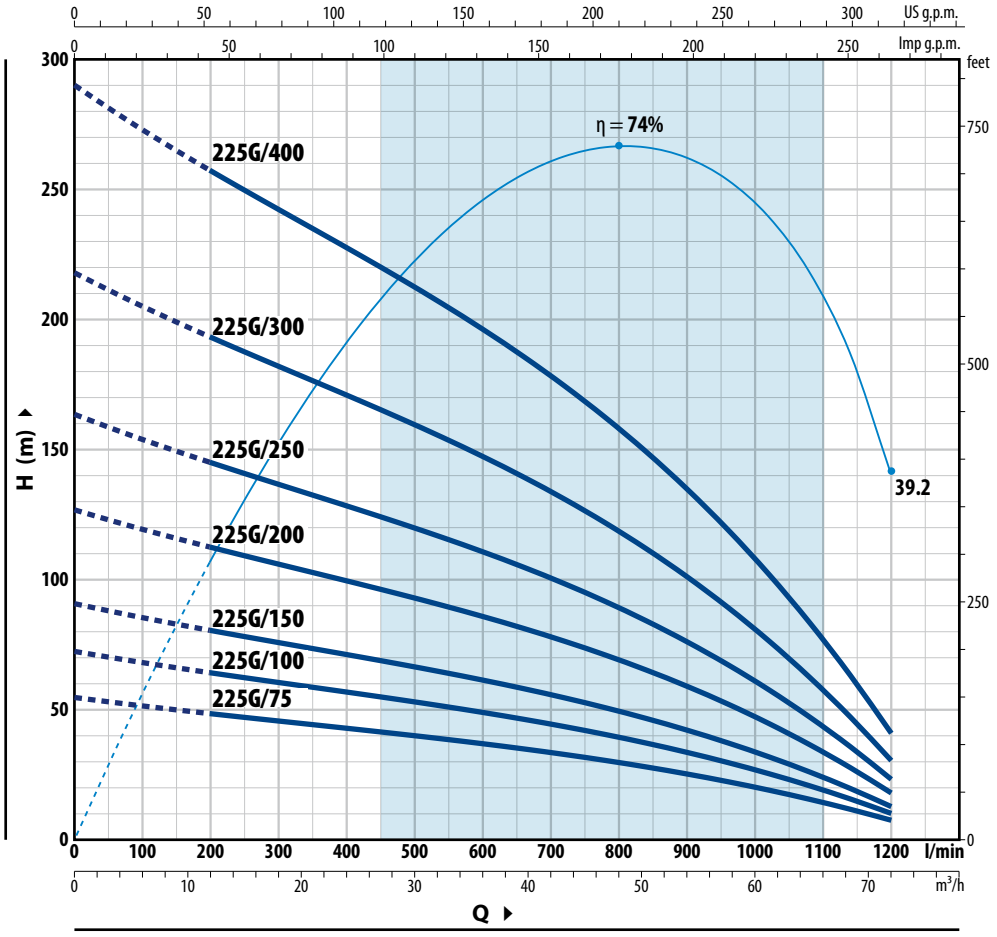
**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## CURVES AND PERFORMANCE DATA

**60 Hz**

# 6SR225G



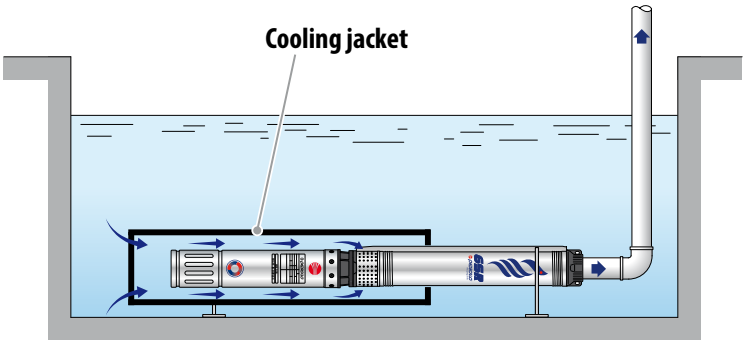

# 6SR225G

| MODEL | N. | POWER (P2) | | Q | m³/h | 0 | 12 | 24 | 36 | 48 | 60 | 72 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | STAGES | kW | HP | | l/min | **0** | **200** | **400** | **600** | **800** | **1000** | **1200** |
| **6SR 225G/75** | **3** | 5.5 | 7.5 | | | 54.5 | 48.5 | 42.5 | 37 | 29.5 | 20.3 | 7.5 |
| **6SR 225G/100** | **4** | 7.5 | 10 | | | 73 | 64.5 | 57 | 49 | 39.5 | 27 | 10 |
| **6SR 225G/150** | **5** | 11 | 15 | | | 91 | 81 | 71 | 61.5 | 49.5 | 34 | 13 |
| **6SR 225G/200** | **7** | 15 | 20 | **H** | m | 127 | 113 | 100 | 86 | 69 | 47.5 | 18 |
| **6SR 225G/250** | **9** | 18.5 | 25 | | | 163 | 145 | 128 | 111 | 89 | 61 | 23 |
| **6SR 225G/300** | **12** | 22 | 30 | | | 218 | 193 | 171 | 147 | 119 | 81 | 30.5 |
| **6SR 225G/400** | **16** | 30 | 40 | | | 291 | 258 | 228 | 197 | 158 | 108 | 41 |

**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## EXAMPLES OF INSTALLATION




## COOLING JACKET

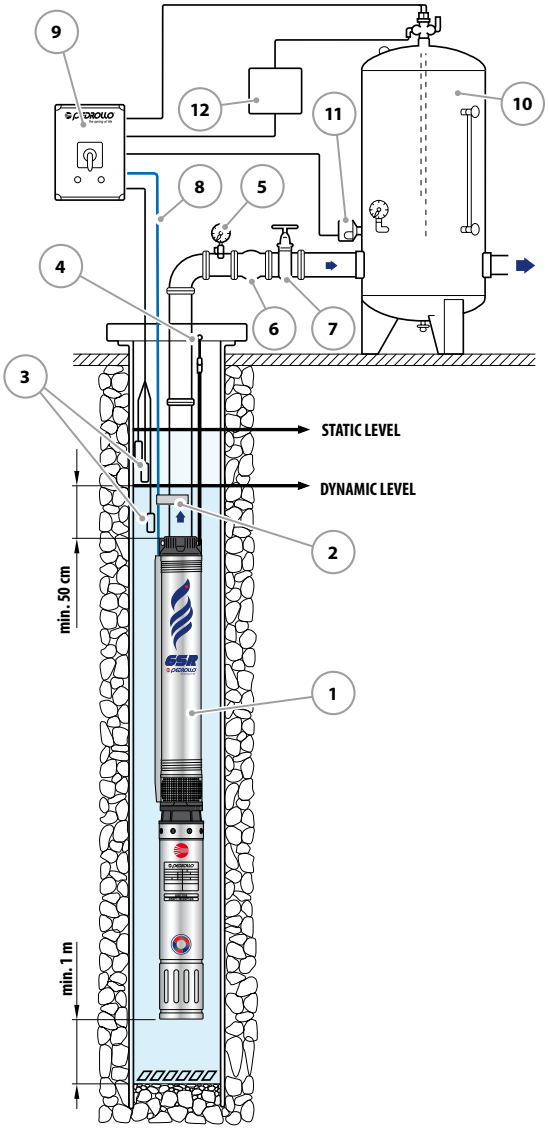
※ When the pump is installed in reservoirs, rivers, or lakes, it requires an external cooling jacket (flow generator) to ensure sufficient water flow across the motor surface, preventing overheating.



※ The **6SR** pumps are suitable for wells with a minimum diameter of **6"** (**153 mm**).

※ The submersible pump must be lowered into the well through the delivery pipe to a depth that ensures it remains fully submerged, maintaining at least 50 cm or one metre from the bottom of the well, even if liquid levels decrease during operation.

※ It is advisable to secure the submersible pump using a stainless-steel cable connected to appropriate attachments on the delivery port.

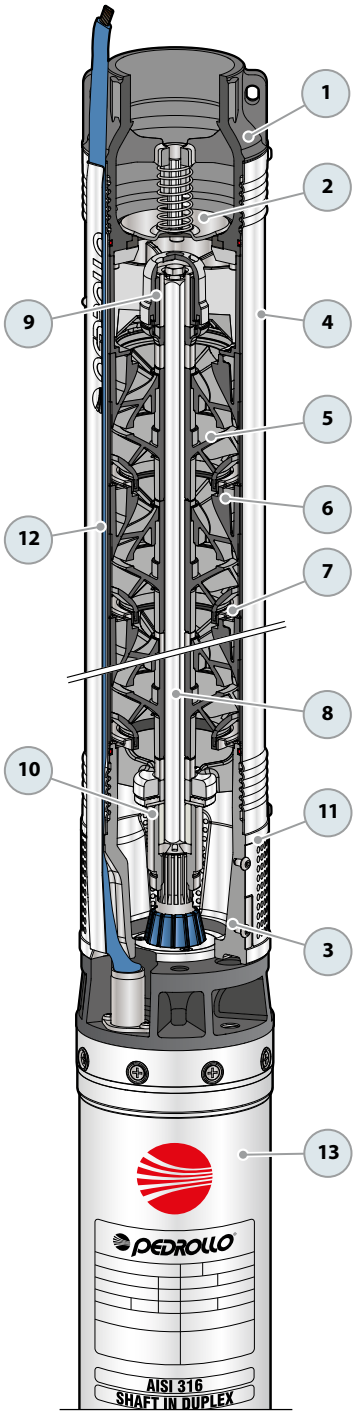



## COMPONENTS

1) Submersible pump
2) Fixing Ties
3) Level control probes
4) Bracket and anchor cable
5) Pressure Gauge
6) Check valve
7) Flow control gate valve
8) Electrical power supply cable
9) Control panel
10) Autoclave tank
11) Pressure switch
12) Solenoid valve/electric compressor

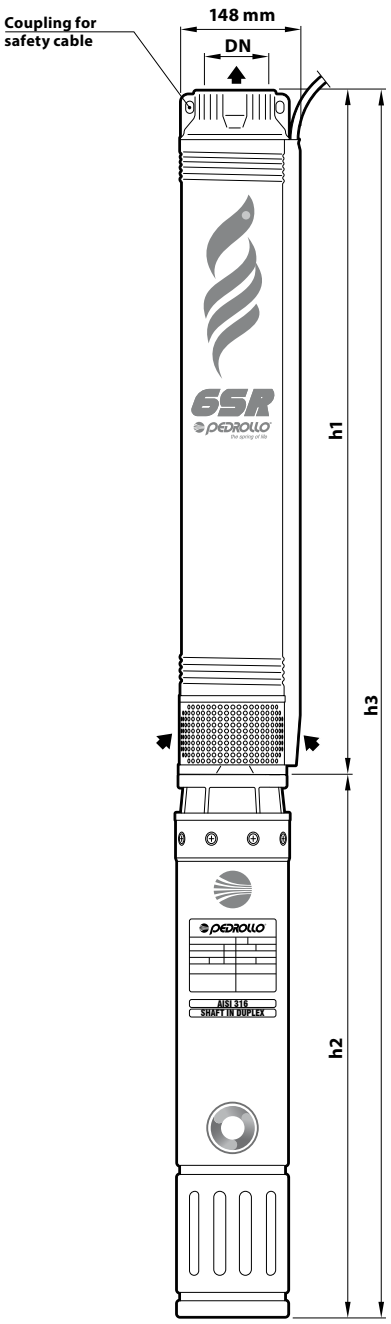
## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Delivery port** | Cast iron with cataphoresis treatment with thread according to ANSI/ASME B1.20.1 |
| 2 | **Check valve** | Stainless steel **AISI 304** stainless steel |
| 3 | **Motor bracket** | Cast iron with cataphoresis treatment sized to NEMA standards |
| 4 | **External sleeve** | **AISI 304** stainless steel |
| 5 | **Impellers** | Noryl™ and coated with special sand-resistant elastomer |
| 6 | **Diffusers** | Noryl™ |
| 7 | **Diffuser boxes** | **AISI 304** stainless steel |
| 8 | **Pump shaft** | **AISI 304** stainless steel |
| 9 | **Pump bearings** | Made of **AISI 316L** stainless steel coated with chromium oxide to resist sand |
| 10 | **Tow coupling** | **AISI 420** stainless steel |
| 11 | **Filter** | **AISI 304** stainless steel |
| 12 | **Cable sheath** | **AISI 304** stainless steel |
| 13 | **Motor 6"** | **6PD rewindable oil filled motor** |



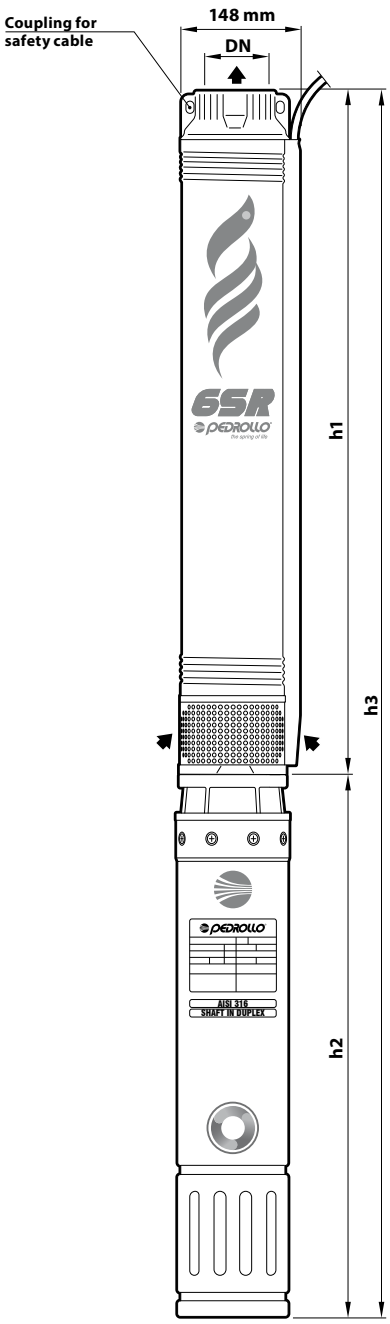
## DIMENSIONS AND WEIGHT

| MODEL Three-phase | PORT DN | N. STAGES | DIMENSIONS mm Ø | h1 | h2 | h3 | kg 3~ |
|---|---|---|---|---|---|---|---|
| 6SR 70G/75 - PD | | 7 | | 671 | 625 | 1296 | 55.2 |
| 6SR 70G/100 - PD | | 9 | | 758 | 660 | 1418 | 60.5 |
| 6SR 70G/150 - PD | | 14 | | 1020 | 765 | 1785 | 77.2 |
| 6SR 70G/200 - PD | | 19 | | 1237 | 820 | 2057 | 86.8 |
| 6SR 100G/75 - PD | | 4 | | 542 | 625 | 1167 | 52.8 |
| 6SR 100G/100 - PD | | 6 | | 629 | 660 | 1289 | 58.0 |
| 6SR 100G/150 - PD | | 9 | | 759 | 765 | 1524 | 67.0 |
| 6SR 100G/200 - PD | | 12 | | 934 | 820 | 1754 | 81.9 |
| 6SR 100G/250 - PD | 3" NPT | 15 | 149.5 | 1064 | 883 | 1947 | 94.7 |
| 6SR 100G/300 - PD | | 18 | | 1194 | 953 | 2147 | 103.5 |
| 6SR 120G/75 - PD | | 3 | | 526 | 625 | 1151 | 51.8 |
| 6SR 120G/100 - PD | | 5 | | 632 | 660 | 1292 | 58.9 |
| 6SR 120G/150 - PD | | 7 | | 738 | 765 | 1503 | 70.8 |
| 6SR 120G/200 - PD | | 9 | | 888 | 820 | 1708 | 80.9 |
| 6SR 120G/250 - PD | | 12 | | 1047 | 883 | 1930 | 92.3 |
| 6SR 120G/300 - PD | | 14 | | 1153 | 953 | 2106 | 102.3 |
| 6SR 120G/400 - PD | | 19 | | 1417 | 1098 | 2515 | 123.7 |



## DIMENSIONS AND WEIGHT

| MODEL Three-phase | PORT DN | N. STAGES | DIMENSIONS mm Ø | h1 | h2 | h3 | kg 3~ |
|---|---|---|---|---|---|---|---|
| **6SR 175G/75 - PD** | 3" NPT | **3** | 149.5 | 662 | 625 | 1287 | 54.4 |
| **6SR 175G/100 - PD** | | **5** | | 859 | 660 | 1519 | 61.3 |
| **6SR 175G/150 - PD** | | **7** | | 1056 | 765 | 1821 | 76.5 |
| **6SR 175G/200 - PD** | | **9** | | 1253 | 820 | 2073 | 86.3 |
| **6SR 175G/250 - PD** | | **11** | | 1450 | 883 | 2333 | 98.3 |
| **6SR 175G/300 - PD** | | **13** | | 1646 | 953 | 2599 | 109.5 |
| **6SR 175G/400 - PD** | | **17** | | 2040 | 1098 | 3138 | 136.0 |
| **6SR 225G/75 - PD** | | **3** | | 662 | 625 | 1287 | 55.0 |
| **6SR 225G/100 - PD** | | **4** | | 761 | 660 | 1421 | 58.8 |
| **6SR 225G/150 - PD** | | **5** | | 859 | 765 | 1624 | 67.0 |
| **6SR 225G/200 - PD** | | **7** | | 1056 | 820 | 1876 | 82.0 |
| **6SR 225G/250 - PD** | | **9** | | 1253 | 883 | 2136 | 96.6 |
| **6SR 225G/300 - PD** | | **12** | | 1548 | 953 | 2501 | 106.8 |
| **6SR 225G/400 - PD** | | **16** | | 1942 | 1098 | 3040 | 135.0 |



# 6ST 6" stainless steel submersible pumps




Clean water

Agricultural use

Civil use

Industrial use

**※ For reliable performance in tough conditions, our stainless steel pumps, such as the 6ST series, are recommended for their high quality, ensuring a long service life with exceptional mechanical strength and corrosion resistance.**

## PERFORMANCE RANGE

- Flow rate up to **1600 l/min** (96 m³/h)
- Head up to **531 m**

## INSTALLATION AND USE

Experience exceptional energy savings with our completely stainless steel 6" submersible borehole pumps, the **6ST** series. Engineered with optimized diffuser and impeller geometry, they deliver unmatched efficiency.

Designed to transfer clean water with sand content up to **100 g/m³.** Highly efficient and reliable, they are suitable for **industrial, civil, and agricultural applications**, such as water distribution coupled with pressure tanks, irrigation, pressure boosting, fire-fighting systems, and more.

## INCLUDES

※ Three-phase electric motor 380 V - 60 Hz
The pump is supplied with motor **6PD** rewindable and oil filled
※ **4 m** power cable

## APPLICATION LIMITS

- Liquid temperature up to **+35 °C**
- Sand content max. **100 g/m³**
- Maximum operating depth below water level:
  – **200 m** with 6PD motors
  – **150 m** with 6PSR motors
- Vertical operation
- Starts per hour: **20** at regular intervals
- Minimum cooling flow **8 cm/s**
- Continuous running duty **S1**

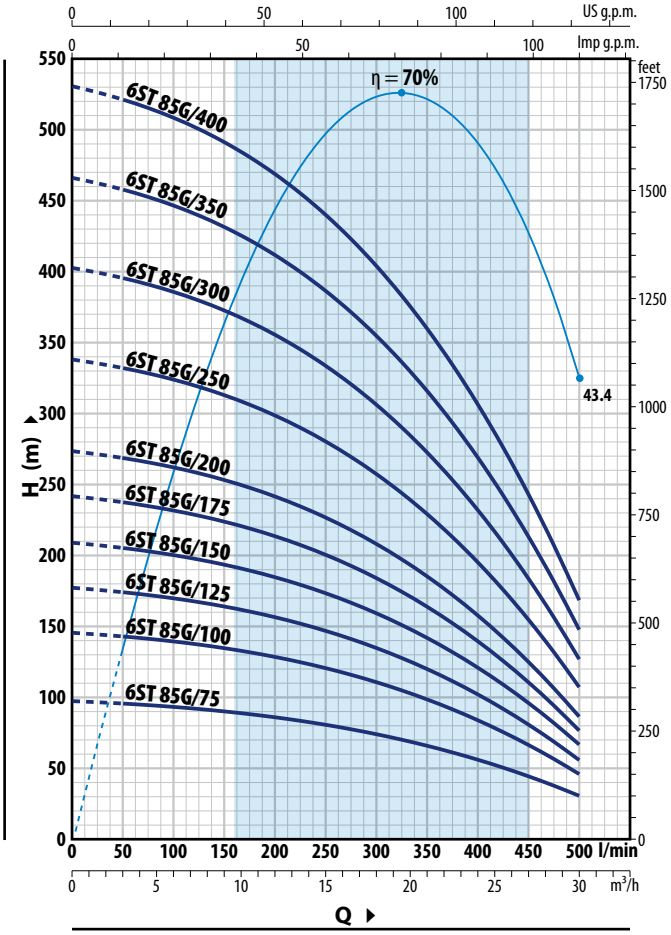
## AVAILABLE UPON REQUEST

※ 6ST pumps with double cable cover for coupling with 380/660 V ⅄/Δ dual voltage motors (star/delta)
※ Different voltage or frequency

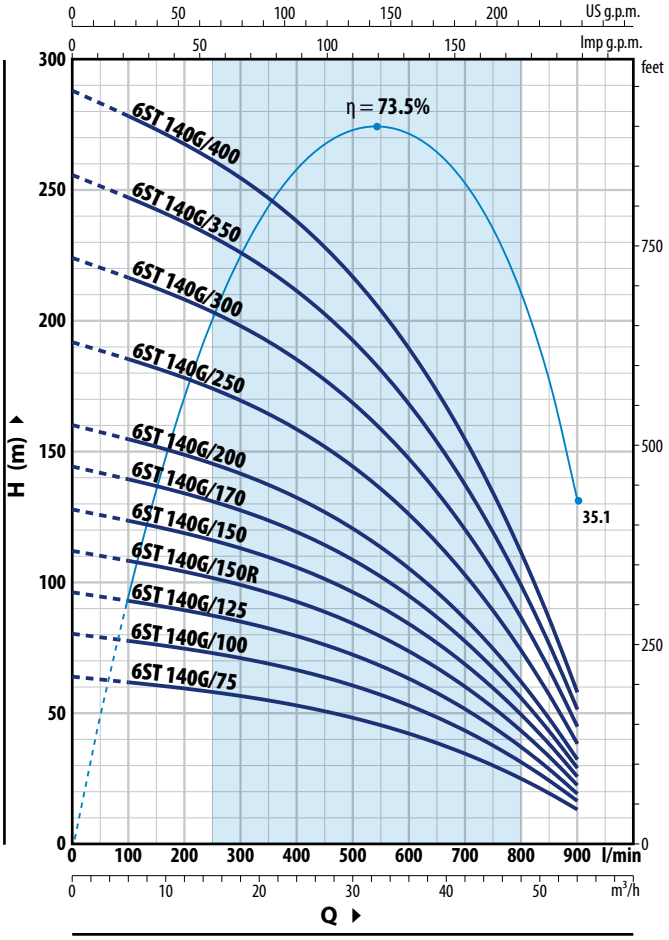
## PERFORMANCE RANGE

## 60 Hz

### 6ST 85G




### 6ST 140G




### 6ST 85G

| MODEL | N. | POWER (P2) | | Q | m³/h | 0 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 30 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | STAGES | kW | HP | | l/min | **0** | **50** | **100** | **150** | **200** | **250** | **300** | **350** | **500** |
| **6ST 85G/75** | **6** | 5.5 | 7.5 | | | 97 | 95 | 92 | 89 | 85 | 80 | 73 | 65.5 | 30.5 |
| **6ST 85G/100** | **9** | 7.5 | 10 | | | 145 | 142 | 139 | 134 | 128 | 120 | 110 | 98 | 45.5 |
| **6ST 85G/125** | **11** | 9.2 | 12.5 (1) | | | 177 | 174 | 169 | 164 | 156 | 147 | 135 | 120 | 56 |
| **6ST 85G/150** | **13** | 11 | 15 | | | 209 | 205 | 200 | 194 | 185 | 173 | 159 | 142 | 66 |
| **6ST 85G/175** | **15** | 13 | 17.5 (2) | **H** | m | 241 | 237 | 231 | 223 | 213 | 200 | 184 | 163 | 76 |
| **6ST 85G/200** | **17** | 15 | 20 | | | 273 | 269 | 262 | 253 | 241 | 227 | 208 | 185 | 86 |
| **6ST 85G/250** | **21** | 18.5 | 25 | | | 338 | 332 | 324 | 313 | 298 | 280 | 257 | 229 | 107 |
| **6ST 85G/300** | **25** | 22 | 30 | | | 402 | 395 | 385 | 372 | 355 | 333 | 306 | 272 | 127 |
| **6ST 85G/350** | **29** | 26 | 35 (3) | | | 466 | 458 | 447 | 432 | 412 | 387 | 355 | 316 | 147 |
| **6ST 85G/400** | **33** | 30 | 40 | | | 531 | 521 | 508 | 491 | 469 | 440 | 404 | 359 | 168 |

### 6ST 140G

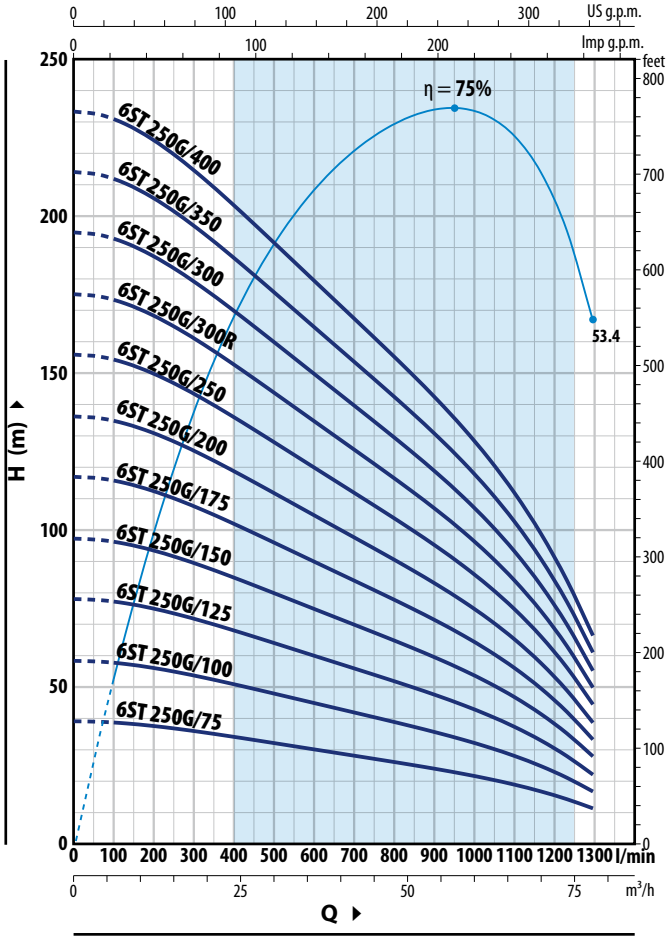
| MODEL | N. | POWER (P2) | | Q | m³/h | 0 | 6 | 12 | 18 | 24 | 30 | 42 | 54 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | STAGES | kW | HP | | l/min | **0** | **100** | **200** | **300** | **400** | **500** | **700** | **900** |
| **6ST 140G/75** | **4** | 5.5 | 7.5 | | | 64 | 62 | 59.5 | 56.5 | 53 | 48 | 34.5 | 13 |
| **6ST 140G/100** | **5** | 7.5 | 10 | | | 80 | 77 | 74 | 71 | 66 | 60 | 43 | 16 |
| **6ST 140G/125** | **6** | 9.2 | 12.5 (1) | | | 96 | 93 | 89 | 85 | 79 | 72 | 51.5 | 19 |
| **6ST 140G/150R** | **7** | 11 | 15 | | | 112 | 108 | 104 | 99 | 93 | 84 | 60 | 22.5 |
| **6ST 140G/150** | **8** | 11 | 15 | | | 128 | 124 | 119 | 113 | 106 | 96 | 68.5 | 25.5 |
| **6ST 140G/175** | **9** | 13 | 17.5 (2) | **H** | m | 144 | 139 | 134 | 127 | 119 | 108 | 77 | 29 |
| **6ST 140G/200** | **10** | 15 | 20 | | | 160 | 155 | 149 | 141 | 132 | 120 | 86 | 32 |
| **6ST 140G/250** | **12** | 18.5 | 25 | | | 192 | 186 | 178 | 170 | 159 | 144 | 103 | 38.5 |
| **6ST 140G/300** | **14** | 22 | 30 | | | 224 | 217 | 208 | 198 | 185 | 169 | 120 | 45 |
| **6ST 140G/350** | **16** | 26 | 35 (3) | | | 256 | 247 | 238 | 226 | 212 | 193 | 137 | 51 |
| **6ST 140G/400** | **18** | 30 | 40 | | | 288 | 278 | 268 | 255 | 238 | 217 | 154 | 57.5 |

(1) Pumps equipped with 15 HP motor
(2) Pumps equipped with 20 HP motor
(3) Pumps equipped with 40 HP motor

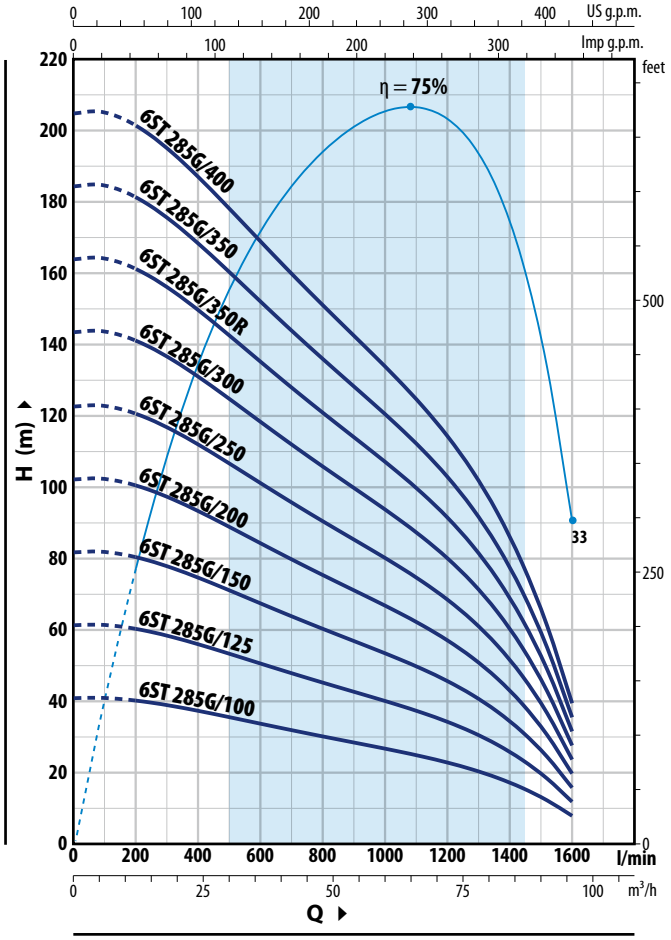
## PERFORMANCE RANGE

60 Hz

### 6ST 250G




### 6ST 285G




### 6ST 250G

| MODEL | N. | POWER (P2) | | Q | m³/h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 66 | 78 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | STAGES | kW | HP | | l/min | **0** | **100** | **200** | **300** | **400** | **500** | **600** | **700** | **800** | **900** | **1100** | **1300** |
| **6ST 250G/75** | **2** | 5.5 | 7.5 | | | 39 | 38.5 | 37.5 | 36 | 34 | 32 | 30 | 28 | 26 | 23.8 | 18.8 | 11 |
| **6ST 250G/100** | **3** | 7.5 | 10 | | | 58.5 | 58 | 56 | 54 | 51 | 48 | 45 | 42 | 39 | 36 | 28 | 16.5 |
| **6ST 250G/125** | **4** | 9.2 | 12.5(1) | | | 78 | 77 | 75 | 72 | 68 | 64 | 60 | 56 | 52 | 47.5 | 37.5 | 22 |
| **6ST 250G/150** | **5** | 11 | 15 | | | 97 | 96 | 94 | 90 | 85 | 80 | 75 | 70 | 65 | 59.5 | 47 | 27.5 |
| **6ST 250G/175** | **6** | 13 | 17.5(2) | | | 117 | 116 | 112 | 108 | 102 | 96 | 90 | 84 | 78 | 72 | 56.5 | 33 |
| **6ST 250G/200** | **7** | 15 | 20 | **H** | m | 136 | 135 | 131 | 126 | 119 | 112 | 105 | 98 | 91 | 83 | 65.5 | 38.5 |
| **6ST 250G/250** | **8** | 18.5 | 25 | | | 156 | 154 | 150 | 143 | 136 | 128 | 120 | 112 | 104 | 95 | 75 | 44 |
| **6ST 250G/300R** | **9** | 22 | 30 | | | 175 | 174 | 169 | 161 | 153 | 144 | 135 | 126 | 117 | 107 | 84 | 49.5 |
| **6ST 250G/300** | **10** | 22 | 30 | | | 195 | 193 | 187 | 179 | 170 | 160 | 150 | 140 | 130 | 119 | 94 | 55.5 |
| **6ST 250G/350** | **11** | 26 | 35(3) | | | 214 | 212 | 206 | 197 | 187 | 176 | 165 | 154 | 143 | 131 | 103 | 61 |
| **6ST 250G/400** | **12** | 30 | 40 | | | 234 | 231 | 225 | 215 | 204 | 192 | 180 | 168 | 156 | 143 | 113 | 66.5 |

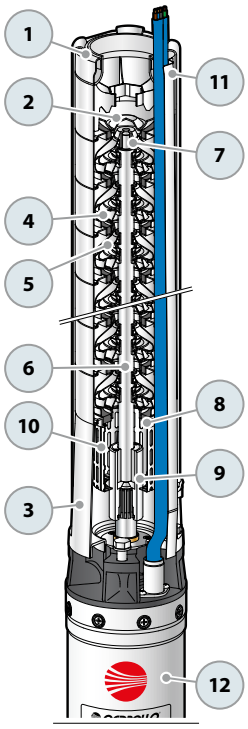
### 6ST 285G

| MODEL | N. | POWER (P2) | | Q | m³/h | 0 | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | STAGES | kW | HP | | l/min | **0** | **200** | **400** | **600** | **800** | **1000** | **1200** | **1400** | **1600** |
| **6ST 285G/100** | **2** | 7.5 | 10 | | | 41 | 40.5 | 37.5 | 34 | 30 | 26.8 | 22.9 | 17.2 | 8 |
| **6ST 285G/125** | **3** | 9.2 | 12.5(1) | | | 61.5 | 60.5 | 56 | 50.5 | 45.5 | 40 | 34.5 | 25.9 | 12 |
| **6ST 285G/150** | **4** | 11 | 15 | | | 82 | 81 | 75 | 67.5 | 60.5 | 53.5 | 45.5 | 34.5 | 16 |
| **6ST 285G/200** | **5** | 15 | 20 | | | 102 | 101 | 93 | 84 | 75 | 67 | 57 | 43 | 20 |
| **6ST 285G/250** | **6** | 18.5 | 25 | **H** | m | 123 | 121 | 112 | 101 | 91 | 80 | 68.5 | 51.5 | 24 |
| **6ST 285G/300** | **7** | 22 | 30 | | | 143 | 141 | 131 | 118 | 106 | 94 | 80 | 60.5 | 27.5 |
| **6ST 285G/350R** | **8** | 26 | 35(3) | | | 164 | 161 | 150 | 135 | 121 | 107 | 91 | 69 | 31.5 |
| **6ST 285G/350** | **9** | 26 | 35(3) | | | 184 | 181 | 168 | 152 | 136 | 120 | 103 | 78 | 35.5 |
| **6ST 285G/400** | **10** | 30 | 40 | | | 205 | 201 | 187 | 169 | 151 | 134 | 114 | 86 | 39.5 |

(1) Pumps equipped with 15 HP motor
(2) Pumps equipped with 20 HP motor
(3) Pumps equipped with 40 HP motor

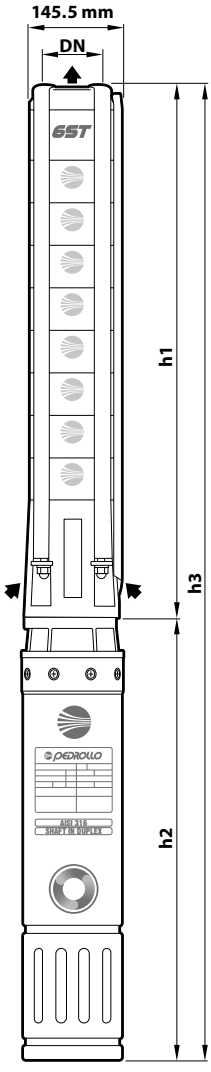
## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Delivery port** | **AISI 304** stainless steel with thread according to ANSI/ASME B1.20.1 |
| 2 | **Check valve** | Stainless steel **AISI 304** |
| 3 | **Motor bracket** | Stainless steel **AISI 304** |
| 4 | **Impellers** | Stainless steel **AISI 304** |
| 5 | **Diffusers** | Stainless steel **AISI 304** |
| 6 | **Pump shaft** | Stainless steel **AISI 304** |
| 7 | **Pump bearings** | Special elastomer |
| 8 | **Wear rings** | Special elastomer |
| 9 | **Tow coupling** | Stainless steel **AISI 304** |
| 10 | **Filter** | Stainless steel **AISI 304** |
| 11 | **Cable sheath** | Stainless steel **AISI 304** |
| 12 | **Motor 6"** | **6PD rewindable oil filled motor** |




## DIMENSIONS AND WEIGHT

| TYPE Three-phase | N. STAGES | DN | DIMENSIONS mm h1 | h2 | h3 | kg |
|---|---|---|---|---|---|---|
| **6ST 85G/75 - PD** | **6** | | 634 | 625 | 1259 | 49.1 |
| **6ST 85G/100 - PD** | **9** | | 816 | 660 | 1476 | 56.4 |
| **6ST 85G/125 - PD** | **11** | | 937 | 700 | 1637 | 61.3 |
| **6ST 85G/150 - PD** | **13** | | 1058 | 765 | 1823 | 69.8 |
| **6ST 85G/175 - PD** | **15** | | 1179 | 820 | 1999 | 82.2 |
| **6ST 85G/200 - PD** | **17** | | 1300 | 820 | 2120 | 85.6 |
| **6ST 85G/250 - PD** | **21** | | 1542 | 883 | 2425 | 101.0 |
| **6ST 85G/300 - PD** | **25** | | 1784 | 953 | 2737 | 112.2 |
| **6ST 85G/350 - PD** | **29** | | 2026 | 1098 | 3124 | 131.0 |
| **6ST 85G/400 - PD** | **33** | | 2268 | 1098 | 3366 | 137.0 |
| **6ST 140G/75 - PD** | **4** | | 655 | 625 | 1280 | 50.5 |
| **6ST 140G/100 - PD** | **5** | | 751 | 660 | 1411 | 54.6 |
| **6ST 140G/125 - PD** | **6** | | 847 | 700 | 1547 | 59.0 |
| **6ST 140G/150R - PD** | **7** | | 943 | 765 | 1708 | 66.8 |
| **6ST 140G/150 - PD** | **8** | | 1039 | 765 | 1804 | 68.6 |
| **6ST 140G/175 - PD** | **9** | | 1135 | 820 | 1955 | 80.4 |
| **6ST 140G/200 - PD** | **10** | | 1231 | 820 | 2051 | 82.2 |
| **6ST 140G/250 - PD** | **12** | | 1423 | 883 | 2306 | 97.3 |
| **6ST 140G/300 - PD** | **14** | | 1615 | 953 | 2568 | 107.4 |
| **6ST 140G/350 - PD** | **16** | **3" NPT** | 1807 | 1098 | 2905 | 127.0 |
| **6ST 140G/400 - PD** | **18** | | 1999 | 1098 | 3097 | 131.0 |
| **6ST 250G/75 - PD** | **2** | | 497 | 625 | 1122 | 46.3 |
| **6ST 250G/100 - PD** | **3** | | 610 | 660 | 1270 | 52.2 |
| **6ST 250G/125 - PD** | **4** | | 723 | 700 | 1423 | 56.9 |
| **6ST 250G/150 - PD** | **5** | | 836 | 765 | 1601 | 63.1 |
| **6ST 250G/175 - PD** | **6** | | 949 | 820 | 1769 | 77.2 |
| **6ST 250G/200 - PD** | **7** | | 1062 | 820 | 1882 | 79.4 |
| **6ST 250G/250 - PD** | **8** | | 1175 | 883 | 2058 | 92.1 |
| **6ST 250G/300R - PD** | **9** | | 1288 | 953 | 2241 | 100.8 |
| **6ST 250G/300 - PD** | **10** | | 1401 | 953 | 2354 | 103.0 |
| **6ST 250G/350 - PD** | **11** | | 1514 | 1098 | 2612 | 122.2 |
| **6ST 250G/400 - PD** | **12** | | 1627 | 1098 | 2725 | 124.4 |
| **6ST 285G/100 - PD** | **2** | | 497 | 660 | 1157 | 48.6 |
| **6ST 285G/125 - PD** | **3** | | 610 | 700 | 1310 | 54.7 |
| **6ST 285G/150 - PD** | **4** | | 723 | 765 | 1488 | 60.9 |
| **6ST 285G/200 - PD** | **5** | | 836 | 820 | 1656 | 73.1 |
| **6ST 285G/250 - PD** | **6** | | 949 | 883 | 1832 | 87.7 |
| **6ST 285G/300 - PD** | **7** | | 1062 | 953 | 2015 | 95.4 |
| **6ST 285G/350R - PD** | **8** | | 1175 | 1098 | 2273 | 114.6 |
| **6ST 285G/350 - PD** | **9** | | 1288 | 1098 | 2386 | 116.8 |
| **6ST 285G/400 - PD** | **10** | | 1401 | 1098 | 2499 | 119.0 |



# 4HR 4" submersible pumps in micro-cast stainless steel

Clean water
Agricultural use
Civil use
Industrial use




**※ Featuring high mechanical resistance against both sand abrasion and corrosion, even in marine environments or brackish water installations, the 4HR pump is the ideal choice when durability and quality are paramount.**

## PERFORMANCE RANGE

- Flow rate up to **500 l/min** (30 m³/h)
- Head up to **172 m**

## INSTALLATION AND USE

Submersible pump designed for 4" wells, constructed with durable micro-cast stainless steel.

Designed to transfer clean or brackish water with sand content up to 100 g/m³. Highly efficient and reliable, they are suitable for industrial, civil, and agricultural applications, such as water distribution coupled with pressure tanks, irrigation, pressure boosting, fire-fighting systems, and more.

## INCLUDES

※ Electric motor
- Single-phase 380 V - 60 Hz
- Three-phase 220 V - 60 Hz

The pump is supplied with a motor **4PD** rewindable and oil filled

※ Power cable from:
- **2 m** for power ratings from 0.37 to 2.2 kW
- **3.6 m** for power ratings from 3 to 7.5 kW.

## APPLICATION LIMITS

- Liquid temperature up to **+40 °C**
- Sand content max. **100 g/m³**
- Maximum operating depth below water level:
  - **200 m** with 4PD motors
  - **300 m** with 4PS motors
- Operation:
  - in vertical position
  - horizontally up to **10 stages**
- Starts per hour: **20** at regular intervals
- Minimum motor cooling flow **8 cm/s**
- Continuous running duty **S1**

## AVAILABLE UPON REQUEST

※ Different voltage or frequency

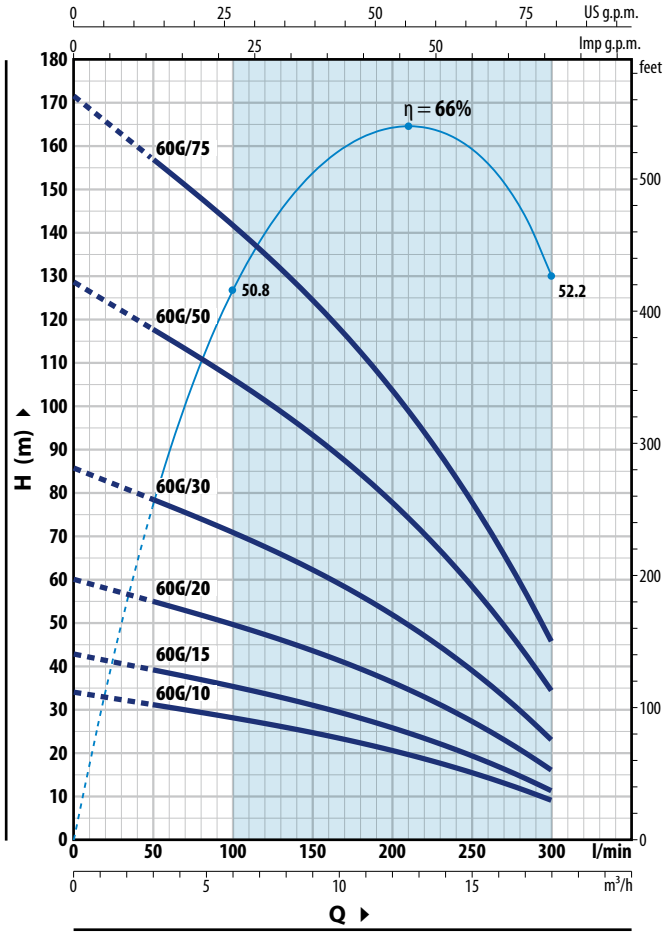
## PATENTS - TRADE MARKS - MODELS

- Registered Community Model No. 004128619-0001

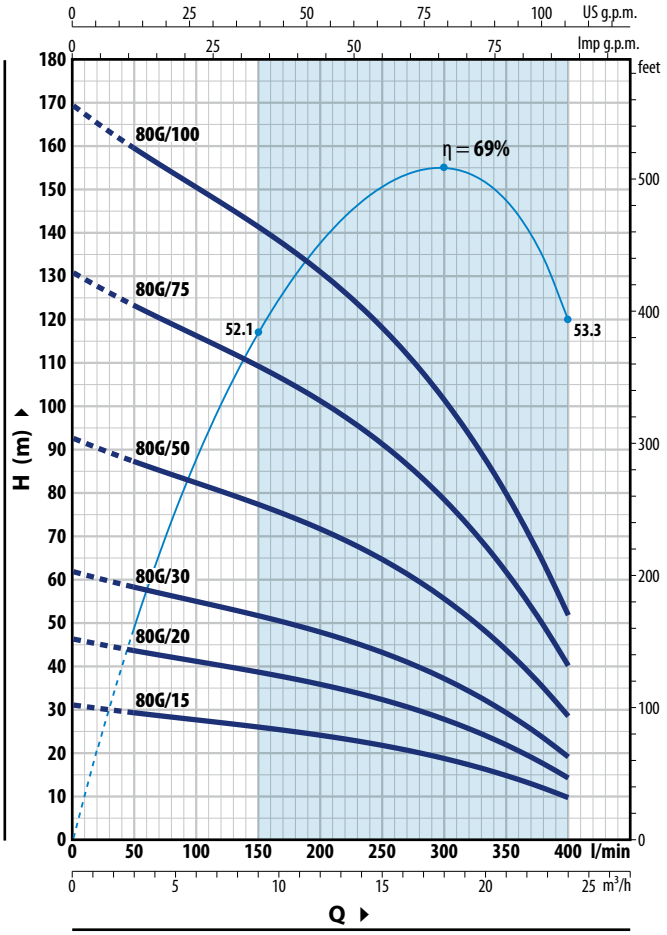
## PERFORMANCE RANGE

## 60 Hz

## 4HR60G




## 4HR80G




## 4HR60G

| MODEL | | N. | POWER (P2) | | Q | m³/h | 0 | 3 | 6 | 7.5 | 9 | 10.5 | 12 | 15 | 18 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | STAGES | kW | HP | | l/min | **0** | **50** | **100** | **125** | **150** | **175** | **200** | **250** | **300** |
| 4HRm 60G/10 | 4HR 60G/10 | 4 | 0.75 | 1 | H | m | 34.5 | 31.5 | 28.5 | 26.7 | 25 | 23 | 20.8 | 15.7 | 9 |
| 4HRm 60G/15 | 4HR 60G/15 | 5 | 1.1 | 1.5 | | | 43 | 39.5 | 35.5 | 33.5 | 31 | 28.5 | 26 | 19.6 | 11.5 |
| 4HRm 60G/20 | 4HR 60G/20 | 7 | 1.5 | 2 | | | 60 | 55 | 49.5 | 47 | 43.5 | 40 | 36.5 | 27.5 | 16 |
| 4HRm 60G/30 | 4HR 60G/30 | 10 | 2.2 | 3 | | | 86 | 79 | 71 | 67 | 62.5 | 57.5 | 52 | 39 | 23 |
| – | 4HR 60G/50 | 15 | 3.7 | 5 | | | 129 | 118 | 107 | 100 | 94 | 86 | 78 | 58.5 | 34.5 |
| – | 4HR 60G/75 | 20 | 5.5 | 7.5 | | | 172 | 157 | 142 | 134 | 125 | 115 | 104 | 78 | 46 |

## 4HR80G

| MODEL | | N. | POWER (P2) | | Q | m³/h | 0 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | STAGES | kW | HP | | l/min | **0** | **50** | **100** | **150** | **200** | **250** | **300** | **350** | **400** |
| 4HRm 80G/15 | 4HR 80G/15 | 4 | 1.1 | 1.5 | H | m | 31 | 29 | 27.5 | 25.7 | 23.8 | 21.5 | 18.4 | 14.5 | 9.5 |
| 4HRm 80G/20 | 4HR 80G/20 | 6 | 1.5 | 2 | | | 46 | 43.5 | 41 | 38.5 | 35.5 | 32 | 27.5 | 21.7 | 14 |
| 4HRm 80G/30 | 4HR 80G/30 | 8 | 2.2 | 3 | | | 61.5 | 58 | 55 | 51.5 | 47.5 | 43 | 37 | 29 | 19 |
| – | 4HR 80G/50 | 12 | 3.7 | 5 | | | 92 | 87 | 82 | 77 | 71 | 64.5 | 55.5 | 43.5 | 28 |
| – | 4HR 80G/75 | 17 | 5.5 | 7.5 | | | 131 | 123 | 116 | 109 | 101 | 91 | 78 | 61.5 | 40 |
| – | 4HR 80G/100 | 22 | 7.5 | 10 | | | 170 | 160 | 151 | 141 | 131 | 118 | 101 | 80 | 51.5 |

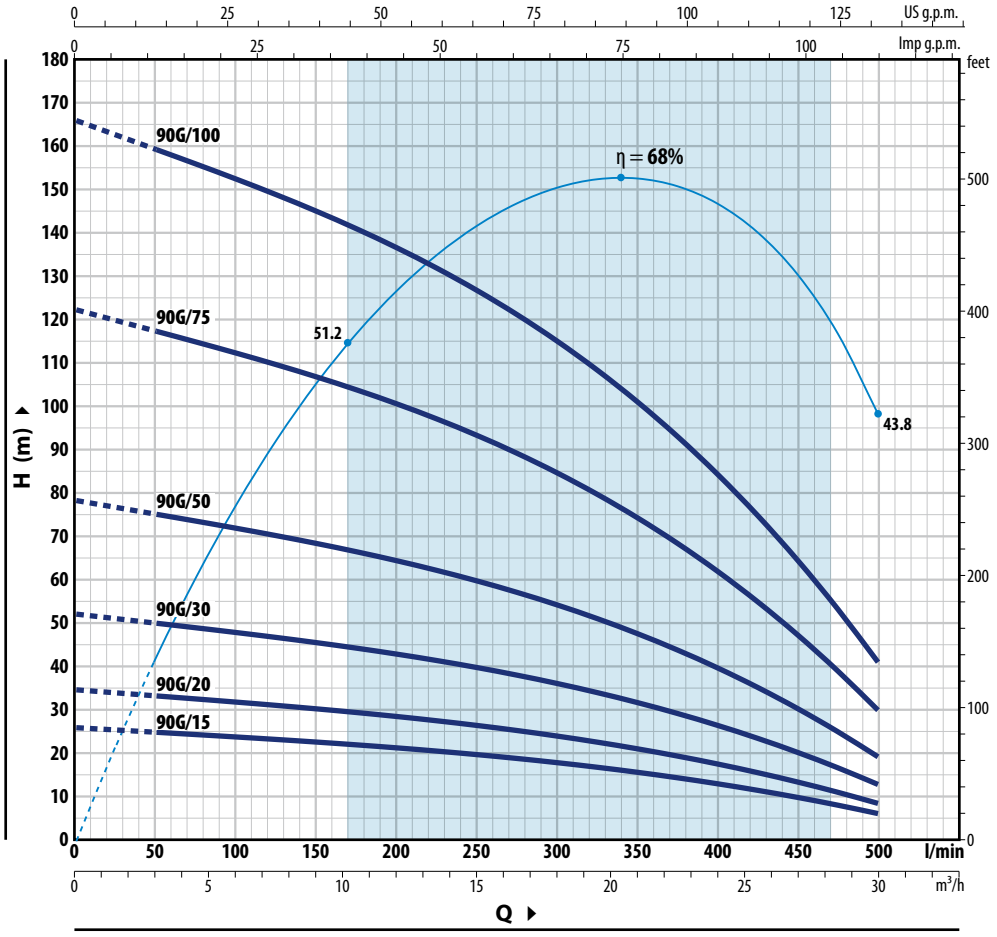
**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## PERFORMANCE RANGE

**60 Hz**

# 4HR90G




# 4HR90G

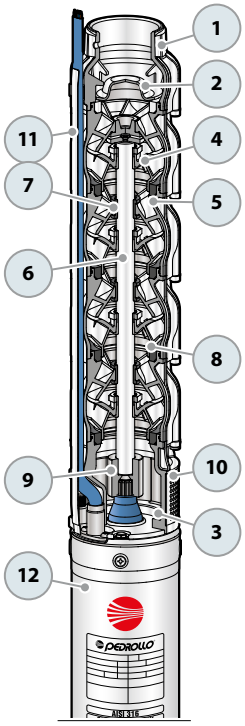
| MODEL | | N. | POWER (P2) | | Q | m³/h | 0 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 30 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | STAGES | kW | HP | | l/min | **0** | **50** | **100** | **150** | **200** | **250** | **300** | **350** | **400** | **500** |
| **4HRm 90G/15** | **4HR 90G/15** | **3** | 1.1 | 1.5 | | | 26.5 | 25 | 24.1 | 23 | 21.6 | 20.1 | 18.2 | 16 | 13.4 | 6.5 |
| **4HRm 90G/20** | **4HR 90G/20** | **4** | 1.5 | 2 | | | 35 | 33.5 | 32 | 30.5 | 29 | 26.8 | 24.3 | 21.3 | 17.8 | 8.5 |
| **4HRm 90G/30** | **4HR 90G/30** | **6** | 2.2 | 3 | | | 52.5 | 50.5 | 48.5 | 46 | 43.5 | 40 | 36.5 | 32 | 26.7 | 13 |
| – | **4HR 90G/50** | **9** | 3.7 | 5 | **H** | m | 79 | 76 | 72 | 69 | 65 | 60 | 54.5 | 48 | 40 | 19.5 |
| – | **4HR 90G/75** | **14** | 5.5 | 7.5 | | | 123 | 118 | 113 | 107 | 101 | 94 | 85 | 75 | 62.5 | 30.5 |
| – | **4HR 90G/100** | **19** | 7.5 | 10 | | | 166 | 160 | 153 | 145 | 137 | 127 | 115 | 101 | 85 | 41.5 |

**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## MATERIALS AND COMPONENTS

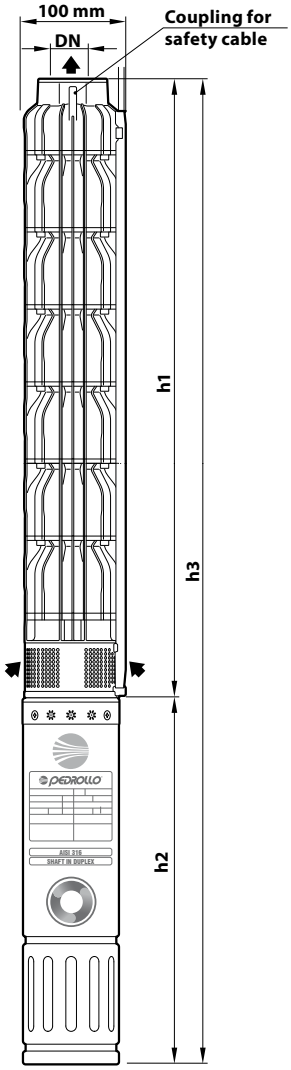
| | | |
|---|---|---|
| 1 | **Delivery port** | Micro-cast **AISI 304** stainless steel with thread according to ANSI/ASME B1.20.1 |
| 2 | **Check valve** | Stainless steel **AISI 304** |
| 3 | **Motor bracket** | **AISI 304** micro-cast stainless steel sized to NEMA standards |
| 4 | **Impellers** | **AISI 304** micro-cast stainless steel |
| 5 | **Diffusers** | **AISI 304** micro-cast stainless steel |
| 6 | **Pump shaft** | Stainless steel **AISI 304** |
| 7 | **Pump bearings** | Special elastomer |
| 8 | **Wear rings** | Special elastomer |
| 9 | **Tow coupling** | Stainless steel **AISI 304** |
| 10 | **Filter** | Stainless steel **AISI 304** |
| 11 | **Cable sheath** | Stainless steel **AISI 304** |
| 12 | **Motor 4"** | **4PD = rewindable oil filled motor** |




## DIMENSIONS AND WEIGHT

| MODEL | DN | N. | DIMENSIONS mm | | | | kg |
|---|---|---|---|---|---|---|---|
| Single-phase | | STAGES | Ø | h1 | h2 | h3 | 1~ |
| 4HRm 60G/10 - PD | 2" NPT | 4 | 100 | 438 | 356 | 794 | 16.9 |
| 4HRm 60G/15 - PD | | 5 | | 511 | 396 | 907 | 20.1 |
| 4HRm 60G/20 - PD | | 7 | | 657 | 437 | 1094 | 24.4 |
| 4HRm 60G/30 - PD | | 10 | | 876 | 492 | 1368 | 31.9 |
| 4HRm 80G/15 - PD | | 4 | | 438 | 396 | 834 | 18.4 |
| 4HRm 80G/20 - PD | | 6 | | 584 | 437 | 1021 | 22.7 |
| 4HRm 80G/30 - PD | | 8 | | 730 | 492 | 1222 | 28.7 |
| 4HRm 90G/15 - PD | | 3 | | 365 | 396 | 761 | 17.1 |
| 4HRm 90G/20 - PD | | 4 | | 438 | 437 | 875 | 20.0 |
| 4HRm 90G/30 - PD | | 6 | | 584 | 492 | 1076 | 26.0 |

| MODEL | DN | N. | DIMENSIONS mm | | | | kg |
|---|---|---|---|---|---|---|---|
| Three-phase | | STAGES | Ø | h1 | h2 | h3 | 3~ |
| 4HR 60G/10 - PD | 2" NPT | 4 | 100 | 438 | 356 | 794 | 16.9 |
| 4HR 60G/15 - PD | | 5 | | 511 | 371 | 882 | 19.2 |
| 4HR 60G/20 - PD | | 7 | | 657 | 396 | 1053 | 22.9 |
| 4HR 60G/30 - PD | | 10 | | 876 | 437 | 1313 | 28.7 |
| 4HR 60G/50 - PD | | 15 | | 1241 | 505 | 1746 | 40.2 |
| 4HR 60G/75 - PD | | 20 | | 1606 | 589 | 2195 | 51.6 |
| 4HR 80G/15 - PD | | 4 | | 438 | 371 | 809 | 17.6 |
| 4HR 80G/20 - PD | | 6 | | 584 | 396 | 980 | 21.1 |
| 4HR 80G/30 - PD | | 8 | | 730 | 437 | 1167 | 25.4 |
| 4HR 80G/50 - PD | | 12 | | 1022 | 505 | 1527 | 35.3 |
| 4HR 80G/75 - PD | | 17 | | 1387 | 589 | 1976 | 46.1 |
| 4HR 80G/100 - PD | | 22 | | 1752 | 800 | 2552 | 62.3 |
| 4HR 90G/15 - PD | | 3 | | 365 | 371 | 736 | 16.3 |
| 4HR 90G/20 - PD | | 4 | | 438 | 396 | 834 | 18.5 |
| 4HR 90G/30 - PD | | 6 | | 584 | 437 | 1021 | 22.7 |
| 4HR 90G/50 - PD | | 9 | | 803 | 505 | 1308 | 31.3 |
| 4HR 90G/75 - PD | | 14 | | 1168 | 589 | 1757 | 42.1 |
| 4HR 90G/100 - PD | | 19 | | 1533 | 800 | 2333 | 58.3 |



# 6HR Microcast stainless steel 6" submersible pumps




Clean water
Agricultural use
Civil use
Industrial use

**※ Distinguished by their exceptional mechanical resilience, our pumps excel in combating both sand wear and corrosion, making them perfect for coastal installations and brackish water environments. They are the optimal choice when seeking a high-quality product that ensures long-term operation.**

## PERFORMANCE RANGE

- Flow rate up to **1800 l/min** (108 m³/h)
- Head up to **349 m**

## INSTALLATION AND USE

Submersible pump designed for 6" wells, constructed with durable micro-cast stainless steel.

Designed to transfer clean or brackish water with sand content up to **100 g/m³**. Highly efficient and reliable, they are suitable for industrial, civil, and agricultural applications, such as water distribution coupled with pressure tanks, irrigation, pressure boosting, fire-fighting systems, and more.

## INCLUDES

※ Three-phase electric motor 380 V - 60 Hz
The pump is supplied with motor **6PD** rewindable and oil filled
※ **4 m** power cable

## APPLICATION LIMITS

- Liquid temperature up to **+40 °C**
- Sand content max. **100 g/m³**
- Maximum operating depth below water level **200 m**
- Operation:
  - in vertical position
  - horizontally with the following limits:
    **6HR200G** up to **7 stages**
    **6HR250G** up to **6 stages**
    **6HR300G** up to **6 stages**
    **6HR370G** up to **4 stages**
- Starts per hour: **20** at regular intervals
- Minimum cooling flow **8 cm/s**
- Continuous running duty **S1**

## AVAILABLE UPON REQUEST

※ Different voltage or frequency
※ Counterflange kit
※ 6HR-HYD pumps with double cable cover for coupling with 380/660 V dual voltage motors ⅄/▲ (star/delta)

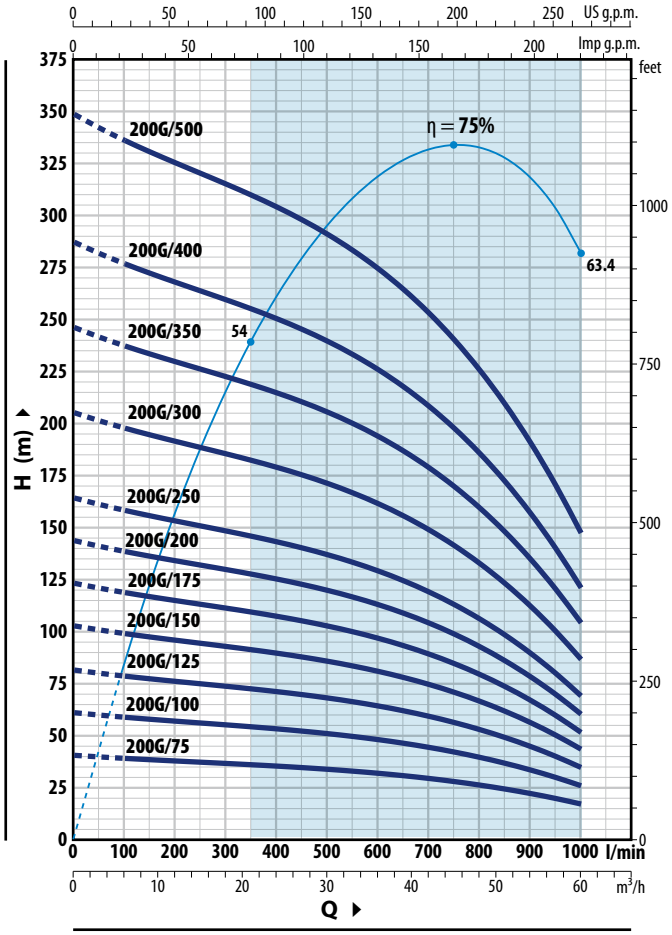
## PATENTS - TRADE MARKS - MODELS

- Registered Community Model No. 004675106-0002

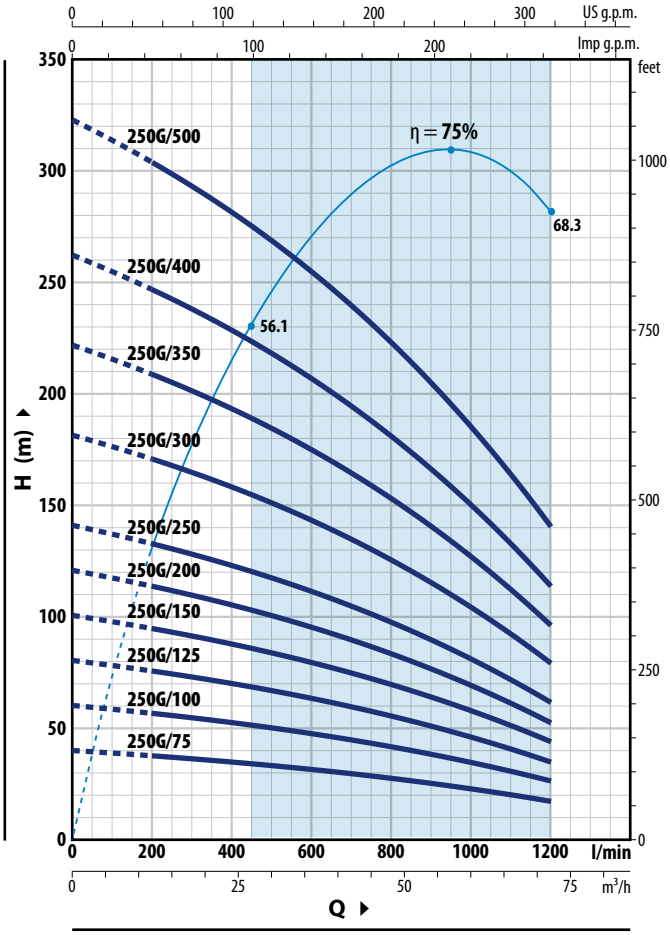
## PERFORMANCE RANGE

## 60 Hz

## 6HR200G




## 6HR250G




## 6HR200G

| MODEL | N. | POWER (P2) | | Q | m³/h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | STAGES | kW | HP | | l/min | 0 | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| 6HR200G/75 | 2 | 5.5 | 7.5 | | | 41 | 39.5 | 38.5 | 37 | 36 | 34 | 32.5 | 30 | 26.6 | 22.5 | 17.5 |
| 6HR200G/100 | 3 | 7.5 | 10 | | | 61.5 | 59.5 | 57.5 | 55.5 | 53.5 | 51.5 | 48.5 | 44.5 | 40 | 33.5 | 26 |
| 6HR200G/125 | 4 | 9.2 | 12.5(1) | | | 82 | 79 | 77 | 74 | 72 | 68.5 | 64.5 | 59.5 | 53 | 45 | 34.5 |
| 6HR200G/150 | 5 | 11 | 15 | | | 103 | 99 | 96 | 93 | 89 | 86 | 81 | 74 | 66.5 | 56 | 43.5 |
| 6HR200G/175 | 6 | 13 | 17.5(2) | | | 123 | 119 | 115 | 111 | 107 | 103 | 97 | 89 | 80 | 67.5 | 52 |
| 6HR200G/200 | 7 | 15 | 20 | H | m | 144 | 138 | 134 | 130 | 125 | 120 | 113 | 104 | 93 | 79 | 60.5 |
| 6HR200G/250 | 8 | 18.5 | 25 | | | 164 | 158 | 153 | 148 | 143 | 137 | 129 | 119 | 106 | 90 | 69.5 |
| 6HR200G/300 | 10 | 22 | 30 | | | 205 | 198 | 191 | 185 | 179 | 171 | 161 | 149 | 133 | 112 | 87 |
| 6HR200G/350 | 12 | 26 | 35(3) | | | 246 | 237 | 230 | 222 | 215 | 205 | 194 | 179 | 159 | 135 | 104 |
| 6HR200G/400 | 14 | 30 | 40 | | | 287 | 277 | 268 | 259 | 250 | 240 | 226 | 208 | 186 | 157 | 121 |
| 6HR200G/500 | 17 | 37 | 50 | | | 349 | 336 | 325 | 315 | 304 | 291 | 274 | 253 | 226 | 191 | 147 |

## 6HR250G

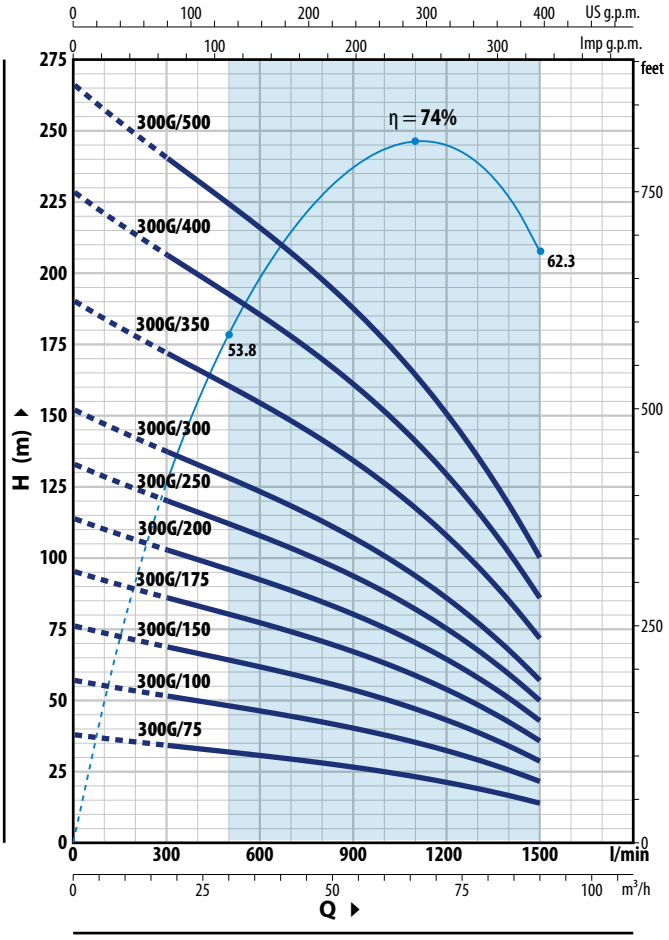
| MODEL | N. | POWER (P2) | | Q | m³/h | 0 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | STAGES | kW | HP | | l/min | 0 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 |
| 6HR250G/75 | 2 | 5.5 | 7.5 | | | 40.5 | 38 | 36.5 | 35 | 33.5 | 32 | 30 | 28 | 25.6 | 23.2 | 20.5 | 17.5 |
| 6HR250G/100 | 3 | 7.5 | 10 | | | 60.5 | 57 | 55 | 53 | 50.5 | 48 | 45 | 42 | 38.5 | 35 | 30.5 | 26.5 |
| 6HR250G/125 | 4 | 9.2 | 12.5(1) | | | 81 | 76 | 73 | 70 | 67.5 | 64 | 60 | 56 | 51.5 | 46.5 | 41 | 35 |
| 6HR250G/150 | 5 | 11 | 15 | | | 101 | 95 | 92 | 88 | 84 | 80 | 75 | 70 | 64 | 58 | 51 | 44 |
| 6HR250G/200 | 6 | 15 | 20 | H | m | 121 | 114 | 110 | 106 | 101 | 96 | 90 | 84 | 77 | 69.5 | 61.5 | 52.5 |
| 6HR250G/250 | 7 | 18.5 | 25 | | | 142 | 133 | 128 | 123 | 118 | 112 | 105 | 98 | 90 | 81 | 72 | 61.5 |
| 6HR250G/300 | 9 | 22 | 30 | | | 182 | 171 | 165 | 159 | 151 | 144 | 135 | 126 | 115 | 104 | 92 | 79 |
| 6HR250G/350 | 11 | 26 | 35(3) | | | 222 | 209 | 202 | 194 | 185 | 175 | 165 | 154 | 141 | 127 | 113 | 97 |
| 6HR250G/400 | 13 | 30 | 40 | | | 263 | 247 | 239 | 229 | 219 | 207 | 195 | 181 | 167 | 151 | 133 | 114 |
| 6HR250G/500 | 16 | 37 | 50 | | | 323 | 304 | 294 | 282 | 269 | 255 | 240 | 223 | 205 | 185 | 164 | 141 |

(1) Pumps equipped with 15 HP motor
(2) Pumps equipped with 20 HP motor
(3) Pumps equipped with 40 HP motor

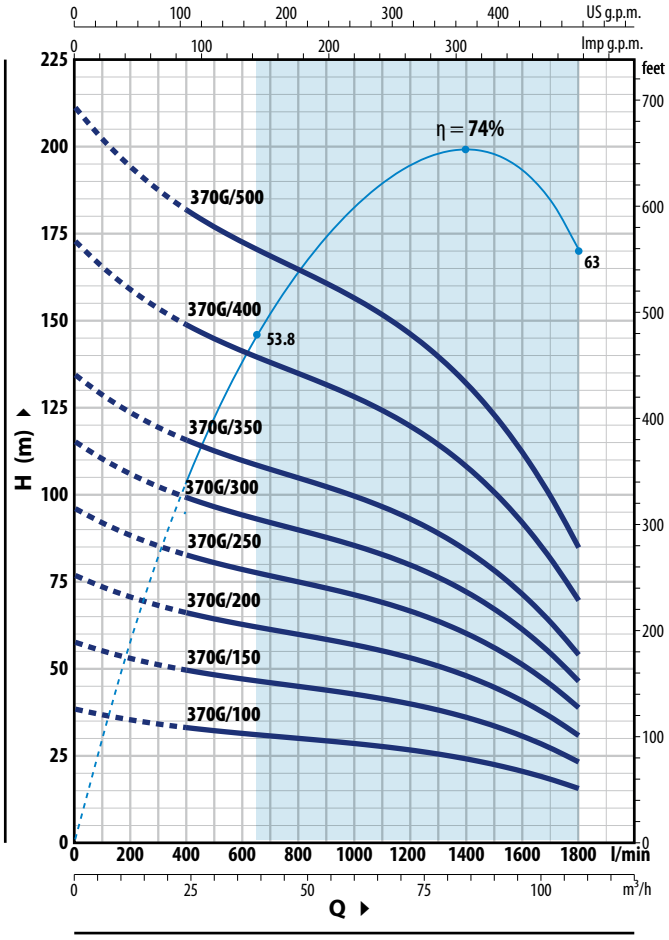
## PERFORMANCE RANGE

60 Hz

## 6HR300G




## 6HR370G




## 6HR300G

| MODEL | N. | POWER (P2) | | Q | m³/h | 0 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 75 | 90 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | STAGES | kW | HP | | l/min | **0** | **300** | **400** | **500** | **600** | **700** | **800** | **900** | **1000** | **1250** | **1500** |
| 6HR300G/75 | 2 | 5.5 | 7.5 | H | m | 38 | 34.5 | 33 | 32 | 31 | 29.5 | 28.5 | 26.8 | 25.2 | 20.5 | 14.5 |
| 6HR300G/100 | 3 | 7.5 | 10 | | | 57 | 51.5 | 50 | 48 | 46.5 | 44.5 | 42.5 | 40 | 38 | 30.5 | 21.5 |
| 6HR300G/150 | 4 | 11 | 15 | | | 76 | 69 | 66.5 | 64 | 62 | 59 | 56.5 | 53.5 | 50.5 | 41 | 28.5 |
| 6HR300G/175 | 5 | 13 | 17.5(1) | | | 95 | 86 | 83 | 80 | 77 | 74 | 71 | 67 | 63 | 51 | 36 |
| 6HR300G/200 | 6 | 15 | 20 | | | 114 | 103 | 100 | 96 | 93 | 89 | 85 | 80 | 76 | 61.5 | 43 |
| 6HR300G/250 | 7 | 18.5 | 25 | | | 133 | 120 | 116 | 112 | 108 | 104 | 99 | 94 | 88 | 72 | 50 |
| 6HR300G/300 | 8 | 22 | 30 | | | 152 | 138 | 133 | 128 | 124 | 118 | 113 | 107 | 101 | 82 | 57.5 |
| 6HR300G/350 | 10 | 26 | 35 | | | 190 | 172 | 166 | 160 | 154 | 148 | 141 | 134 | 126 | 102 | 72 |
| 6HR300G/400 | 12 | 30 | 40 | | | 228 | 206 | 199 | 192 | 185 | 178 | 170 | 161 | 151 | 123 | 86 |
| 6HR300G/500 | 14 | 37 | 50 | | | 267 | 241 | 233 | 225 | 216 | 207 | 198 | 188 | 177 | 144 | 100 |

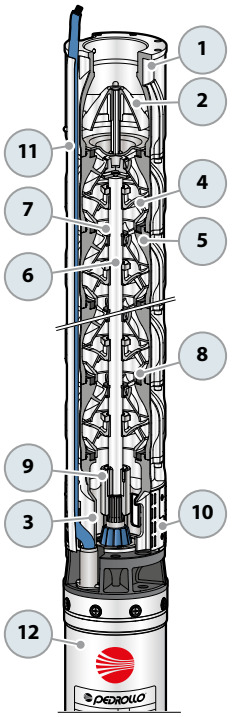
## 6HR370G

| MODEL | N. | POWER (P2) | | Q | m³/h | 0 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | STAGES | kW | HP | | l/min | **0** | **400** | **600** | **800** | **1000** | **1200** | **1400** | **1600** | **1800** |
| 6HR370G/100 | 2 | 7.5 | 10 | H | m | 38.5 | 33 | 31.5 | 30 | 28.5 | 26.5 | 23.9 | 20.3 | 15.5 |
| 6HR370G/150 | 3 | 11 | 15 | | | 57.5 | 49.5 | 47 | 45 | 42.5 | 40 | 36 | 30.5 | 23 |
| 6HR370G/200 | 4 | 15 | 20 | | | 77 | 66 | 62.5 | 60 | 57 | 53 | 48 | 40.5 | 31 |
| 6HR370G/250 | 5 | 18.5 | 25 | | | 96 | 83 | 78 | 75 | 71 | 66.5 | 60 | 51 | 38.5 |
| 6HR370G/300 | 6 | 22 | 30 | | | 115 | 99 | 94 | 90 | 85 | 80 | 72 | 61 | 46 |
| 6HR370G/350 | 7 | 26 | 35(2) | | | 134 | 116 | 110 | 105 | 99 | 93 | 84 | 71 | 54 |
| 6HR370G/400 | 9 | 30 | 40 | | | 173 | 149 | 141 | 135 | 128 | 119 | 108 | 92 | 69.5 |
| 6HR370G/500 | 11 | 37 | 50 | | | 211 | 182 | 172 | 164 | 156 | 146 | 132 | 112 | 85 |

(1) Pumps equipped with 20 HP motor
(2) Pumps equipped with 40 HP motor

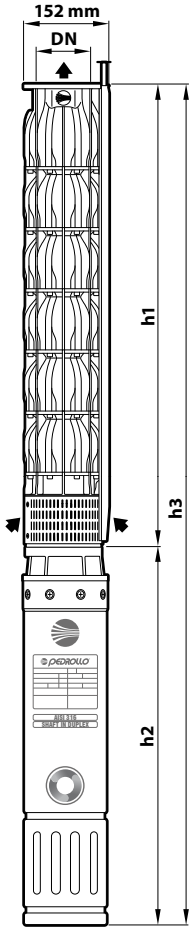
## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Delivery port** | Micro-cast **AISI 304** stainless steel with thread according to ANSI/ASME B1.20.1 |
| 2 | **Check valve** | Stainless steel **AISI 304** |
| 3 | **Motor bracket** | **AISI 304** micro-cast stainless steel sized to NEMA standards |
| 4 | **Impellers** | **AISI 304** micro-cast stainless steel |
| 5 | **Diffusers** | **AISI 304** micro-cast stainless steel |
| 6 | **Pump shaft** | Stainless steel **AISI 304** |
| 7 | **Pump bearings** | Special elastomer |
| 8 | **Wear rings** | Special elastomer |
| 9 | **Tow coupling** | Stainless steel **AISI 304** |
| 10 | **Filter** | Stainless steel **AISI 304** |
| 11 | **Cable sheath** | Stainless steel **AISI 304** |
| 12 | **Motor 6"** | **6PD = rewindable oil filled motor** |

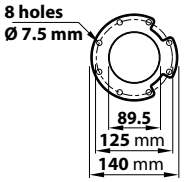



## DIMENSIONS AND WEIGHT

| MODEL | PORT | DIMENSIONS mm | | | | kg |
|---|---|---|---|---|---|---|
| Three-phase | DN | Ø | h1 | h2 | h3 | 3~ |
| **6HR200G/75 - PD** | | | 480 | 625 | 1105 | **53.8** |
| **6HR200G/100 - PD** | | | 581 | 660 | 1241 | **65.2** |
| **6HR200G/125 - PD** | | | 682 | 700 | 1382 | **71.2** |
| **6HR200G/150 - PD** | | | 783 | 765 | 1548 | **78.8** |
| **6HR200G/175 - PD** | | | 884 | 820 | 1704 | **94.0** |
| **6HR200G/200 - PD** | | | 985 | 820 | 1805 | **97.7** |
| **6HR200G/250 - PD** | | | 1086 | 883 | 1969 | **111.3** |
| **6HR200G/300 - PD** | | | 1288 | 953 | 2241 | **124.9** |
| **6HR200G/350 - PD** | | | 1490 | 1098 | 2588 | **149.1** |
| **6HR200G/400 - PD** | | | 1692 | 1098 | 2790 | **158.9** |
| **6HR200G/500 - PD** | | | 1995 | 1233 | 3228 | **167.9** |
| **6HR250G/75 - PD** | | | 480 | 625 | 1105 | **53.7** |
| **6HR250G/100 - PD** | | | 581 | 660 | 1241 | **60.2** |
| **6HR250G/125 - PD** | | | 682 | 700 | 1382 | **66.2** |
| **6HR250G/150 - PD** | | | 783 | 765 | 1548 | **73.7** |
| **6HR250G/200 - PD** | | | 884 | 820 | 1704 | **88.3** |
| **6HR250G/250 - PD** | | | 985 | 883 | 1868 | **101.8** |
| **6HR250G/300 - PD** | | | 1187 | 953 | 2140 | **114.9** |
| **6HR250G/350 - PD** | | | 1389 | 1098 | 2487 | **138.0** |
| **6HR250G/400 - PD** | **3" NPT** | **150** | 1591 | 1098 | 2689 | **146.1** |
| **6HR250G/500 - PD** | | | 1894 | 1233 | 3127 | **163.8** |
| **6HR300G/75 - PD** | | | 492 | 625 | 1117 | **53.8** |
| **6HR300G/100 - PD** | | | 599 | 660 | 1259 | **60.4** |
| **6HR300G/150 - PD** | | | 706 | 765 | 1471 | **70.5** |
| **6HR300G/175 - PD** | | | 813 | 820 | 1633 | **82.1** |
| **6HR300G/200 - PD** | | | 920 | 820 | 1740 | **88.7** |
| **6HR300G/250 - PD** | | | 1027 | 883 | 1910 | **102.3** |
| **6HR300G/300 - PD** | | | 1134 | 953 | 2087 | **112.0** |
| **6HR300G/350 - PD** | | | 1348 | 1098 | 2446 | **135.2** |
| **6HR300G/400 - PD** | | | 1562 | 1098 | 2660 | **143.5** |
| **6HR300G/500 - PD** | | | 1776 | 1233 | 3009 | **157.7** |
| **6HR370G/100 - PD** | | | 492 | 660 | 1152 | **56.7** |
| **6HR370G/150 - PD** | | | 599 | 765 | 1364 | **66.7** |
| **6HR370G/200 - PD** | | | 706 | 820 | 1526 | **78.3** |
| **6HR370G/250 - PD** | | | 813 | 883 | 1696 | **94.9** |
| **6HR370G/300 - PD** | | | 920 | 953 | 1873 | **103.4** |
| **6HR370G/350 - PD** | | | 1027 | 1098 | 2125 | **124.0** |
| **6HR370G/400 - PD** | | | 1241 | 1098 | 2339 | **131.2** |
| **6HR370G/500 - PD** | | | 1455 | 1233 | 2688 | **148.3** |

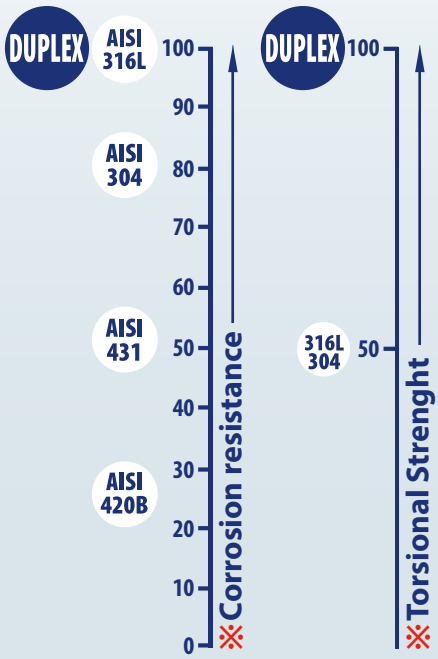



**COUNTERFLANGE**



※ **High-quality submersible motors made of premium AISI 316 and DUPLEX materials for a long service life**




※ **DUPLEX stainless steel shaft**

※ **AISI 316 casing**

※ **DUPLEX steel is recognized for its outstanding mechanical strength, which is twice that of AISI 304/316L steel.**

## ELECTRIC MOTOR

Our **4"** submersible oil-filled motors are crafted from top-tier materials and designed with industry expertise. They ensure exceptional performance, superior quality, and maintenance-free longevity.

### TECHNICAL DATA

- 2 poles, 60 Hz (n ≈ 3450 $min^{-1}$)
- Voltage:
  - single-phase 220 V
  - three-phase 380 V
- Power from **0.37** to **7.5 kW**
- Continuous running duty **S1**
- Class F insulation and IP 68 protection

## AVAILABLE UPON REQUEST

※ Different voltage or frequency

## MATERIALS AND COMPONENTS

※ **Rewindable** motor in oil bath (non-toxic food-safe oil)
※ Sleeve: AISI 316 stainless steel
※ Coupling dimensions in compliance with NEMA standards.
※ Power cable included:
  – **2 m** for power ratings from 0.37 to 2.2 kW
  – **3.6 m** for powers from 3 to 7.5 kW
※ Shaft: 'DUPLEX' stainless steel

## APPLICATION LIMITS

- Liquid temperature up to **+40 °C**
- Depth of use up to **200 m** below water level
- Starts per hour: max. **20** at regular intervals
- Minimum cooling flow **8 cm/s**

## CORROSION CONTROL

The sacrificial anode, composed of a 'cadmium-free' zinc-aluminum alloy safe for potable water, is simple to attach to 4PD motors. It shields against corrosion, especially from stray currents or aggressive water, thus greatly extending the lifespan of the motor and pump components.

**Available upon request - code ASS4PDA01**



## PERFORMANCE DATA

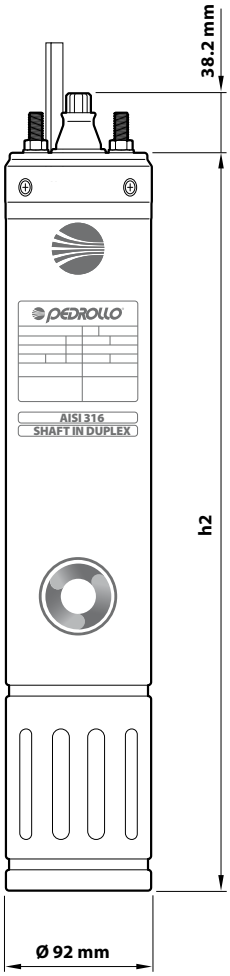
## 60 Hz

### ※ Single-phase versions - 220 V / 60 Hz

| TYPE | Rated power P2 | | Axial load | Revolutions | Starting current / Current nominal | Power factor | Capacitor (VL=450V) | h2 | Weight |
|---|---|---|---|---|---|---|---|---|---|
| Single-phase | kW | HP | N | min-1 | | Cos φ | µF | mm | kg |
| 4PDm / 0.50 | 0.37 | 0.50 | 2000 | 3450 | 2.7 | 0.95 | 20 | 331 | 7.5 |
| 4PDm / 0.75 | 0.55 | 0.75 | | 3420 | 2.1 | 0.94 | 25 | 331 | 7.7 |
| 4PDm / 1 | 0.75 | 1 | | 3435 | 2.4 | 0.94 | 35 | 356 | 8.9 |
| 4PDm / 1.5 | 1.1 | 1.5 | | 3425 | 2.5 | 0.93 | 40 | 396 | 10.6 |
| 4PDm / 2 | 1.5 | 2 | | 3445 | 2.6 | 0.90 | 60 | 437 | 12.6 |
| 4PDm / 3 | 2.2 | 3 | | 3425 | 2.9 | 0.92 | 75 | 492 | 14.9 |
| 4PDm / 5.5 | 4 | 5.5 | 5000 | 3465 | 3.5 | 0.91 | 120 + 250/300 | 800 | 30.0 |

### ※ Three-phase versions - 380 V / 60 Hz

| TYPE | Rated power P2 | | Axial load | Revolutions | Starting current / Current nominal | Power factor | h2 | Weight |
|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | N | min-1 | | Cos φ | mm | kg |
| 4PD / 0.50 | 0.37 | 0.50 | 2000 | 3455 | 3.4 | 0.79 | 331 | 7.5 |
| 4PD / 0.75 | 0.55 | 0.75 | | 3450 | 3.3 | 0.68 | 331 | 7.7 |
| 4PD / 1 | 0.75 | 1 | | 3460 | 3.7 | 0.61 | 356 | 8.8 |
| 4PD / 1.5 | 1.1 | 1.5 | | 3440 | 3.5 | 0.72 | 371 | 9.4 |
| 4PD / 2 | 1.5 | 2 | | 3445 | 3.5 | 0.76 | 396 | 10.6 |
| 4PD / 3 | 2.2 | 3 | | 3430 | 3.2 | 0.73 | 437 | 12.5 |
| 4PD / 5.5 | 4 | 5.5 | 5000 | 3440 | 4.1 | 0.78 | 505 | 16.3 |
| 4PD / 7.5 | 5.5 | 7.5 | | 3450 | 4.2 | 0.80 | 590 | 20.1 |
| 4PD / 10 | 7.5 | 10 | | 3440 | 4.2 | 0.81 | 800 | 29.5 |




## ABSORPTION

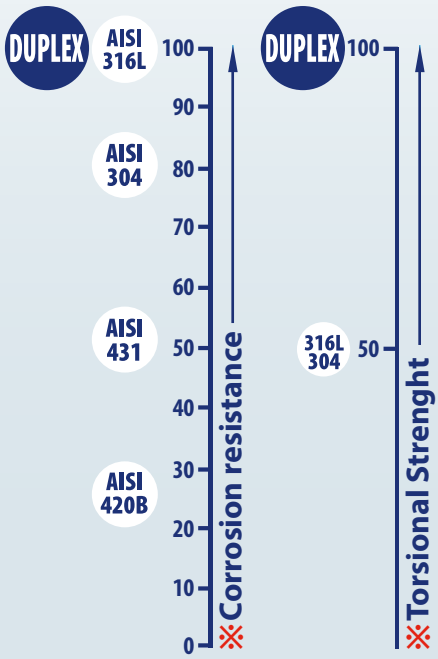
| MODEL | | VOLTAGE (single-phase) 220 V | |
|---|---|---|---|
| Single-phase | Service Factor | Rated current | Service factor current |
| 4PDm / 0.50 | 1.6 | 3.4 A | 4.2 A |
| 4PDm / 0.75 | 1.5 | 4.7 A | 6.8 A |
| 4PDm / 1 | 1.4 | 6.3 A | 8.1 A |
| 4PDm / 1.5 | 1.3 | 8.3 A | 10.8 A |
| 4PDm / 2 | 1.25 | 10.8 A | 13.5 A |
| 4PDm / 3 | 1.15 | 15.5 A | 16.6 A |
| 4PDm / 5 | 1.15 | 26.2 A | 30.8 A |

| MODEL | | VOLTAGE (three-phase) 220 V | | 380 V | |
|---|---|---|---|---|---|
| Three-phase | Service Factor | Rated current | S.F. current | Rated current | S.F. current |
| 4PD / 0.50 | 1.6 | 2.0 A | 2.9 A | 1.2 A | 1.6 A |
| 4PD / 0.75 | 1.5 | 3.2 A | 4.1 A | 1.9 A | 2.3 A |
| 4PD / 1 | 1.4 | 4.5 A | 5.3 A | 2.7 A | 3.0 A |
| 4PD / 1.5 | 1.3 | 6.7 A | 7.4 A | 3.9 A | 4.3 A |
| 4PD / 2 | 1.25 | 6.8 A | 8.2 A | 4.5 A | 5.1 A |
| 4PD / 3 | 1.15 | 9.6 A | 10.6 A | 6.7 A | 7.4 A |
| 4PD / 5.5 | 1.15 | 16.5 A | 18.4 A | 9.9 A | 11.2 A |
| 4PD / 7.5 | 1.15 | 21.9 A | 25.1 A | 12.9 A | 14.2 A |
| 4PD / 10 | 1.15 | 28.1 A | 31.4 A | 16.9 A | 18.9 A |

# 6PD 6" submersible motors

※ **High-quality submersible motors made of premium AISI 316 and DUPLEX materials for a long service life**




※ **DUPLEX stainless steel shaft**

※ **AISI 316 casing**

※ **DUPLEX steel is recognized for its outstanding mechanical strength, which is twice that of AISI 304/316L steel.**

## ELECTRIC MOTOR

**6"** submersible oil-filled motors are crafted from top-tier materials and designed with industry expertise.

They ensure exceptional performance, superior quality, and maintenance-free longevity.

### TECHNICAL DATA

- 2 poles, 60 Hz (n ≈ 3450 $min^{-1}$)
- Three-phase voltage:
  - 220 V up to 22 kW
  - 380 V
  - 460 V
- Power from **4** to **37 kW**
- Continuous running duty **S1**
- Class F insulation and IP 68 protection

## AVAILABLE UPON REQUEST

※ Different voltage or frequency

※ Motors with double power cable for star/delta starting(**Y/Δ**)

## MATERIALS AND COMPONENTS

※ Rewindable oil filled submersible motors (non-toxic food-safe oil).

※ **Sleeve: AISI 316 stainless steel**

※ **Shaft: 'DUPLEX' stainless steel**

※ Coupling dimensions in compliance with NEMA standards.

※ Power cable included:
  - **3 m** for power up to 15 kW
  - **4 m** for powers from 18.5 to 37 kW.

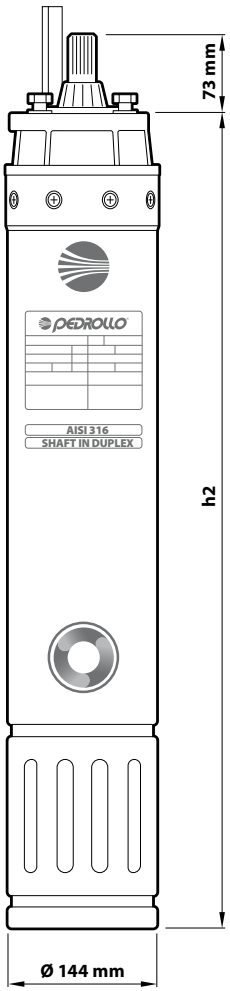
## APPLICATION LIMITS

- Liquid temperature up to **+35 °C**
- Depth of use up to **200 m** below water level
- Starts per hour: **30** at regular intervals
- Minimum cooling flow **8 cm/s**

## PERFORMANCE DATA

## 60 Hz

| MODEL Three-phase 380 V / 60 Hz | Rated power P2 kW | HP | Axial load N | Revs min-1 | Starting current / Rated current | Efficiency η | Power factor cos φ | Rated torque Nm | Starting torque / Rated torque | h mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **6PD / 5.5** | 4 | 5.5 | 10000 | 3435 | 4.6 | 75 | 0.81 | 11.1 | 1.65 | 595 | 33 |
| **6PD / 7.5** | 5.5 | 7.5 | | 3440 | 5.1 | 78 | 0.78 | 15.3 | 1.75 | 625 | 35 |
| **6PD / 10** | 7.5 | 10 | | 3435 | 5.3 | 79 | 0.84 | 20.9 | 1.75 | 660 | 38 |
| **6PD / 15** | 11 | 15 | | 3450 | 5.7 | 80 | 0.81 | 30.5 | 2.15 | 765 | 44 |
| **6PD / 20** | 15 | 20 | | 3435 | 6.0 | 81 | 0.81 | 41.7 | 2.2 | 820 | 52 |
| **6PD / 25** | 18.5 | 25 | 20000 | 3445 | 5.9 | 82 | 0.78 | 51.3 | 2.2 | 883 | 62 |
| **6PD / 30** | 22 | 30 | | 3450 | 6.2 | 83 | 0.81 | 60.9 | 2.25 | 953 | 67 |
| **6PD / 40** | 30 | 40 | | 3445 | 6.2 | 84 | 0.82 | 83.2 | 2.2 | 1098 | 83 |
| **6PD / 50** | 37 | 50 | | 3440 | 6.0 | 84 | 0.83 | 102.8 | 2.15 | 1233 | 92 |




## ABSORPTION

| MODEL | VOLTAGE (Three-phase) | | | | | |
|---|---|---|---|---|---|---|
| | 220 V | | 380 V | | 460 V | |
| Three-phase | S.F. = 1 | S.F. = 1.15 | S.F. = 1 | S.F. = 1.15 | S.F. = 1 | S.F. = 1.15 |
| **6PD / 5.5** | 16.1 A | 16.9 A | 9.7 A | 10.1 A | 7.9 A | 9.1 A |
| **6PD / 7.5** | 23.7 A | 26.4 A | 13.2 A | 15.3 A | 11.3 A | 12.7 A |
| **6PD / 10** | 28.4 A | 32.9 A | 17.3 A | 19.3 A | 14.7 A | 16.6 A |
| **6PD / 15** | 38.4 A | 46.7 A | 25.8 A | 29.6 A | 21.2 A | 24.3 A |
| **6PD / 20** | 54.1 A | 60.8 A | 33.8 A | 37.2 A | 27.8 A | 30.9 A |
| **6PD / 25** | 66.5 A | 75.5 A | 40.1 A | 45.9 A | 35.7 A | 38.5 A |
| **6PD / 30** | 79.1 A | 89.0 A | 46.2 A | 53.8 A | 43.1 A | 46.0 A |
| **6PD / 40** | – | – | 65.1 A | 74.2 A | 55.2 A | 61.2 A |
| **6PD / 50** | – | – | 82.2 A | 93.5 A | 74.3 A | 77.0 A |

# TOP MULTI

## Multi-stage submersible pumps

Clean water

Domestic use

Civil use




TOP MULTI 1




TOP MULTI 2-3-4-5

### PERFORMANCE RANGE

- Flow rate up to **120 l/min** (7.2 $m^3$/h)
- Head up to **52 m**

### INSTALLATION AND USE

**TOPMULTI®** pumps are designed to transfer **clean water** free from abrasive particles and liquids that will not damage the pump's components. Efficient and reliable, they are ideal for domestic applications involving tanks, reservoirs, and deep wells. They are also perfect for collecting rainwater from water tanks (rain barrels) for manual watering or irrigation systems.

### APPLICATION LIMITS

- Maximum operating depth below water level:
  - up to **3 m** for TOP MULTI 1
  - up to **10 m** for TOP MULTI 2-3-4-5
  (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Draining capability:
  – up to **25 mm** from the bottom for TOP MULTI 1
  – up to **35 mm** from the bottom for TOP MULTI 2-3-4-5

### INCLUDES

※ Power cable length **10 m**
※ Float switch
※ Anti-vibration feet
※ Hose connector **Ø 35 mm**
※ Sleeve with clapet valve (for TOP MULTI 2-3-4-5)



### PATENTS - TRADE MARKS - MODELS

- Registered Community Model No. 000885587 for TOP MULTI 2-3-4-5
- TOP MULTI® Registered trademark No. 0001334477

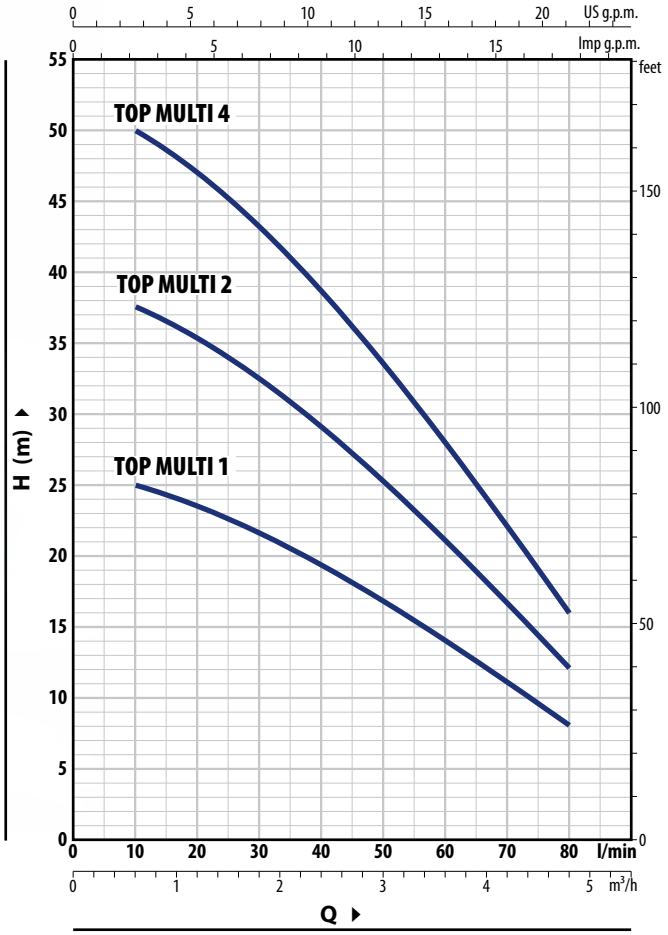
### AVAILABLE UPON REQUEST

※ Different voltage or frequency

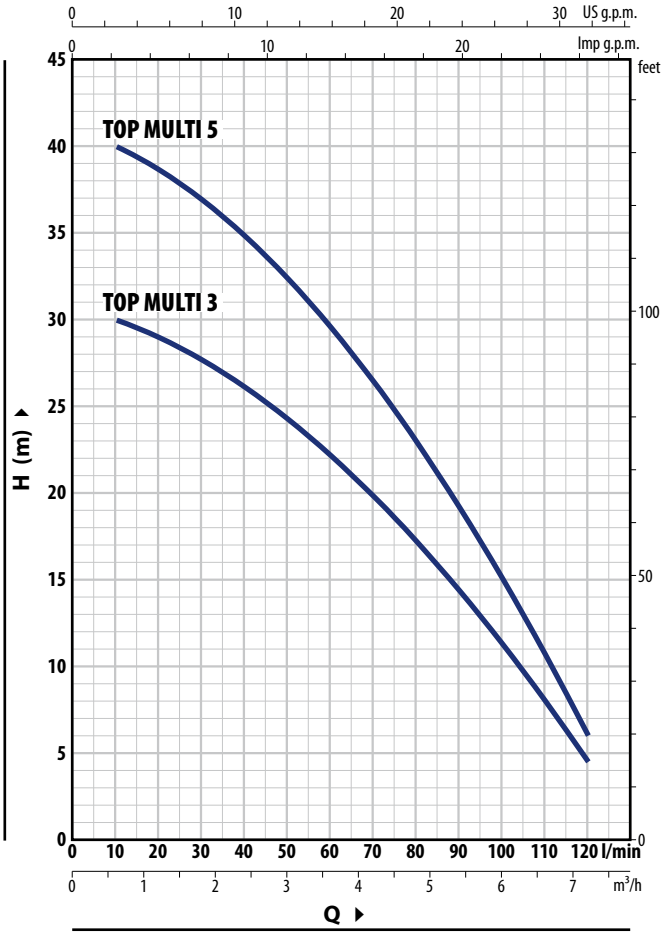
## CURVES AND PERFORMANCE DATA

**60 Hz**

## TOP MULTI 1 - 2 - 4




## TOP MULTI 3 - 5




## TOP MULTI 1 - 2 - 4

| TYPE | POWER (P2) | | Q | m³/h | 0 | 0.6 | 1.2 | 1.8 | 2.4 | 3.0 | 3.6 | 4.2 | 4.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | kW | HP | | l/min | **0** | **10** | **20** | **30** | **40** | **50** | **60** | **70** | **80** |
| TOP MULTI 1 | 0.37 | 0.50 | H | m | 26 | 25 | 23.5 | 21.6 | 19.3 | 16.8 | 14 | 11 | 8 |
| TOP MULTI 2 | 0.55 | 0.75 | | | 39 | 37.5 | 35.5 | 32.5 | 29 | 25 | 21 | 16.6 | 12 |
| TOP MULTI 4 | 0.75 | 1 | | | 52 | 50 | 47 | 43 | 38.5 | 33.5 | 28 | 22.1 | 16 |

## TOP MULTI 3 - 5

| TYPE | POWER (P2) | | Q | m³/h | 0 | 0.6 | 1.2 | 1.8 | 2.4 | 3.0 | 3.6 | 4.2 | 4.8 | 5.4 | 6.0 | 6.6 | 7.2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | kW | HP | | l/min | **0** | **10** | **20** | **30** | **40** | **50** | **60** | **70** | **80** | **90** | **100** | **110** | **120** |
| TOP MULTI 3 | 0.55 | 0.75 | H | m | 30.5 | 30 | 29 | 27.5 | 26 | 24.3 | 22.2 | 19.8 | 17.2 | 14.4 | 11.3 | 8 | 4.5 |
| TOP MULTI 5 | 0.75 | 1 | | | 41 | 40 | 38.5 | 37 | 35 | 32.5 | 29.5 | 26.5 | 22.9 | 19.2 | 15.1 | 10.7 | 6 |

**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## ABSORPTION

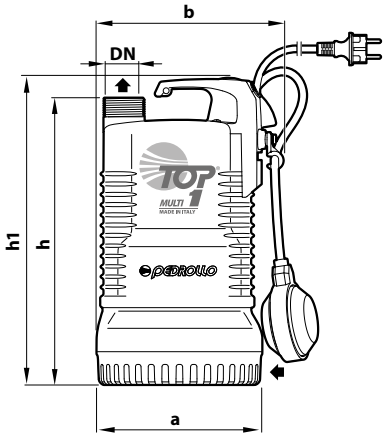
| TYPE | VOLTAGE |
|---|---|
| Single-phase | 220 V |
| TOP MULTI 1 | 2.3 A |
| TOP MULTI 2 | 3.4 A |
| TOP MULTI 3 | 3.4 A |
| TOP MULTI 4 | 4.3 A |
| TOP MULTI 5 | 4.7 A |

| TYPE | VOLTAGE |
|---|---|
| Single-phase | 110 V |
| TOP MULTI 1 | 4.8 A |
| TOP MULTI 2 | 6.9 A |
| TOP MULTI 3 | 6.9 A |
| TOP MULTI 4 | 8.6 A |
| TOP MULTI 5 | 9.4 A |

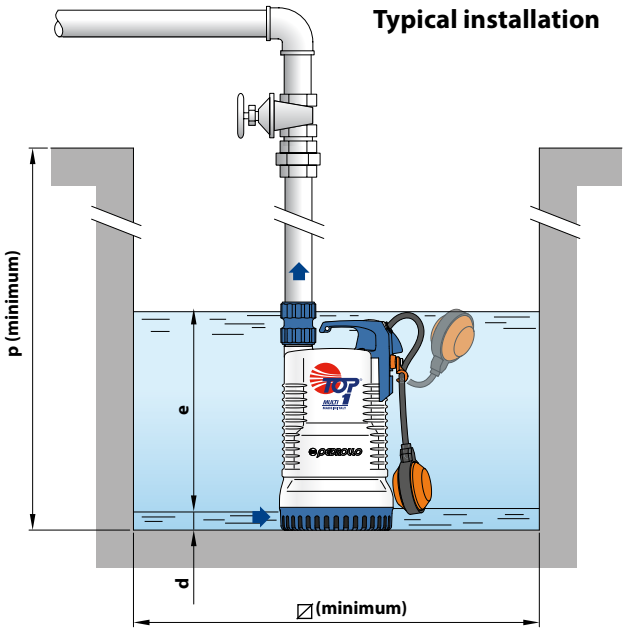
# TOP MULTI

## DIMENSIONS AND WEIGHT

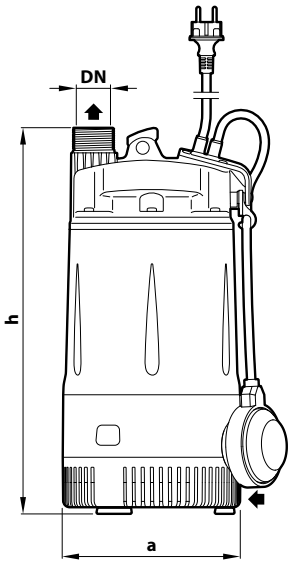
### TOP MULTI 1

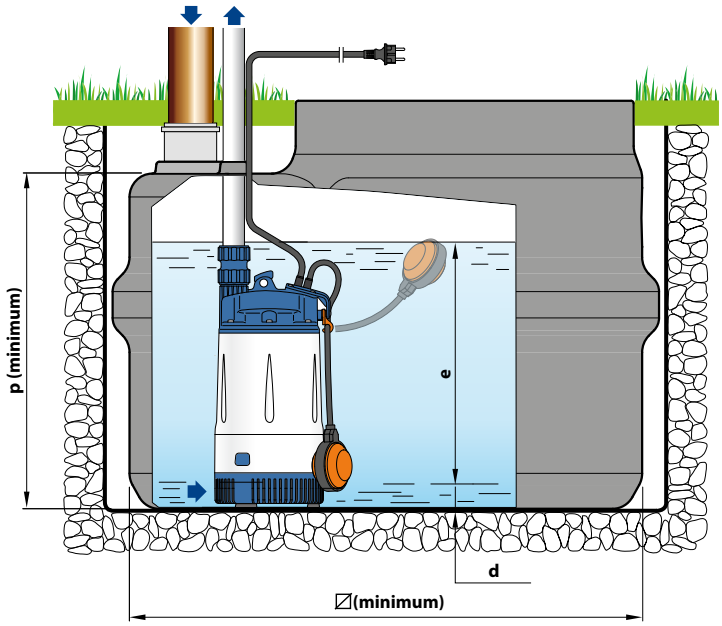



**Typical installation**




### TOP MULTI 2-3-4-5




| TYPE | PORT DN | NO. STAGES | DIMENSIONS mm | | | | | | | | kg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | a | b | h | h1 | d | e | p | ⍁ | |
| **TOP MULTI 1** | **1¼"** | 2 | 170 | 192 | 295 | 315 | 25 | adjustable | 350 | 350 | 6.9 |
| **TOP MULTI 2** | | 3 | 178 | - | 380 | - | 35 | | 500 | 500 | 9.3 |
| **TOP MULTI 3** | | | | | | | | | | | 9.3 |
| **TOP MULTI 4** | | 4 | | | 415 | | | | | | 10.4 |
| **TOP MULTI 5** | | | | | | | | | | | 10.5 |

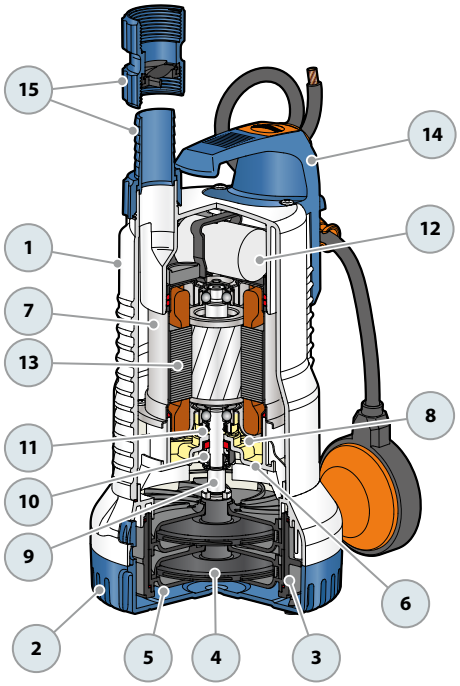
## PALLET CAPACITY

| TYPE | GROUPAGE n. pumps | CONTAINER n. pumps |
|---|---|---|
| **TOP MULTI 1** | 60 | 100 |
| **TOP MULTI 2** | 60 | 80 |
| **TOP MULTI 3** | 60 | 80 |
| **TOP MULTI 4** | 60 | 80 |
| **TOP MULTI 5** | 60 | 80 |

# TOP MULTI 1

## MATERIALS AND COMPONENTS

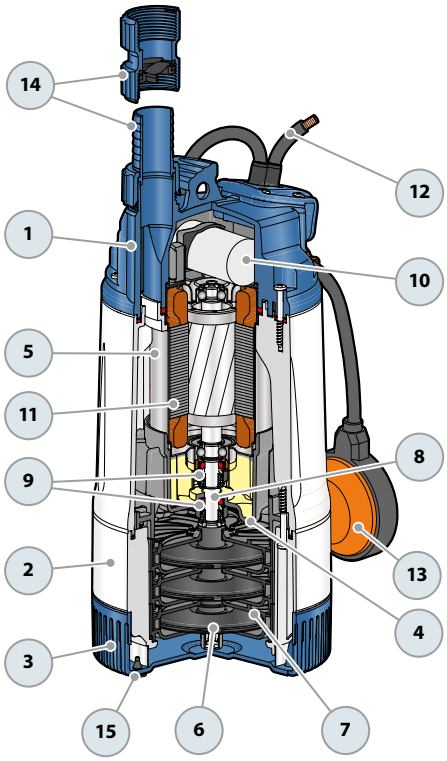
| | | |
|---|---|---|
| 1 | **Pump body** | Technopolymer |
| 2 | **Suction filter** | Technopolymer |
| 3 | **Containment stages** | Technopolymer |
| 4 | **Impellers** | Noryl™ |
| 5 | **Diffusers and stage boxes** | Noryl™ |
| 6 | **Diffuser vanes** | Technopolymer |
| 7 | **Motor sleeve** | Stainless steel **AISI 304** |
| 8 | **Motor cover** | Stainless steel **AISI 304** |
| 9 | **Motor shaft** | Stainless steel **AISI 431** |
| 10 | **Mechanical seal** | **STA-12R**<br>Ceramic/Graphite/NBR |
| 11 | **Shaft seal** | Ø 12 x Ø 19 x H 5 mm |
| 12 | **Capacitor** | |
| 13 | **Electric motor** | |
| 14 | **Handle group**<br>Including:<br>- Float switch<br>- Power cable with Schuko plug | |
| 15 | **Ferrule and hose nozzle** |  |
| | **Sleeve**<br>With built-in clapet valve |  |




# TOP MULTI 2-3-4-5

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Delivery port** | Technopolymer |
| 2 | **Pump body** | Technopolymer |
| 3 | **Suction filter** | Technopolymer |
| 4 | **Diffuser vanes** | Technopolymer |
| 5 | **Motor sleeve** | Stainless steel **AISI 304** |
| 6 | **Impellers** | Noryl™ |
| 7 | **Diffusers and stage boxes** | Noryl™ |
| 8 | **Motor shaft** | Stainless steel **AISI 431** |
| 9 | **Double mechanical seal**<br>**STA-13R** Motor side Ceramic/Graphite/NBR<br>**STA-13R SIC** Pump side SIC/Graphite/NBR | |
| 10 | **Capacitor** | |
| 11 | **Electric motor** | |
| 12 | **Power cable** with Schuko plug | |
| 13 | **Float switch** | |
| 14 | **Ferrule and hose nozzle** |  |
| | **Sleeve**<br>With built-in clapet valve |  |
| 15 | **Anti-vibration feet** | |



# TOP MULTI-EVO Multi-stage submersible pumps

Clean water
Domestic use
Civil use




TOP MULTI 1 - EVO




TOP MULTI 2-3-4-5 - EVO

## PERFORMANCE RANGE

- Flow rate up to **120 l/min** (7.2 $m^3$/h)
- Head up to **52 m**

## INSTALLATION AND USE

**TOP MULTI-EVO** pumps are designed to transfer **clean water** free from abrasive particles and liquids that will not damage the pump's components. Efficient and reliable, they are ideal for domestic applications involving tanks, reservoirs, and deep wells. They are also perfect for collecting rainwater from water tanks (rain barrels) for manual watering or irrigation systems.

## APPLICATION LIMITS

- Maximum operating depth below water level:
  – up to **3 m** for TOP MULTI 1-EVO
  – up to **10 m** for TOP MULTI 2-3-4-5 EVO
  (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Draining capability:
  – up to **25 mm** from the bottom for TOP MULTI 1-EVO
  – up to **35 mm** from the bottom for TOP MULTI 2-3-4-5 EVO
- Manometric suction head up to **7 m**

## PATENTS - TRADE MARKS - MODELS

- TOP MULTI® Registered trademark No. 0001334477

## INCLUDES

※ **10 m** power cable
※ Float switch
※ Hose connector **Ø 35 mm**
※ Complete sleeve with clapet valve

## AVAILABLE UPON REQUEST

※ Different voltage or frequency
※ **KGE - Floating suction kit**



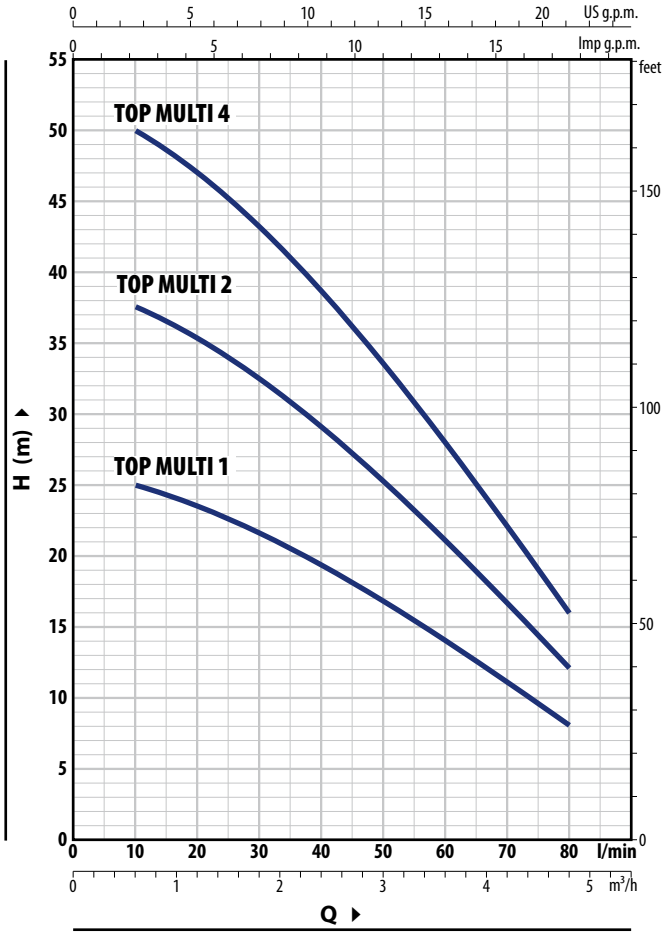
The KGE kit enables suction about 10 cm below the water surface, avoiding floating debris and sediment, thereby protecting the pump from damage.

Includes:
- 30 mm PVC spiral hose 1.5 metres long
- stainless steel suction filter
- spherical polyethylene float
- hose fittings Ø 30 mm

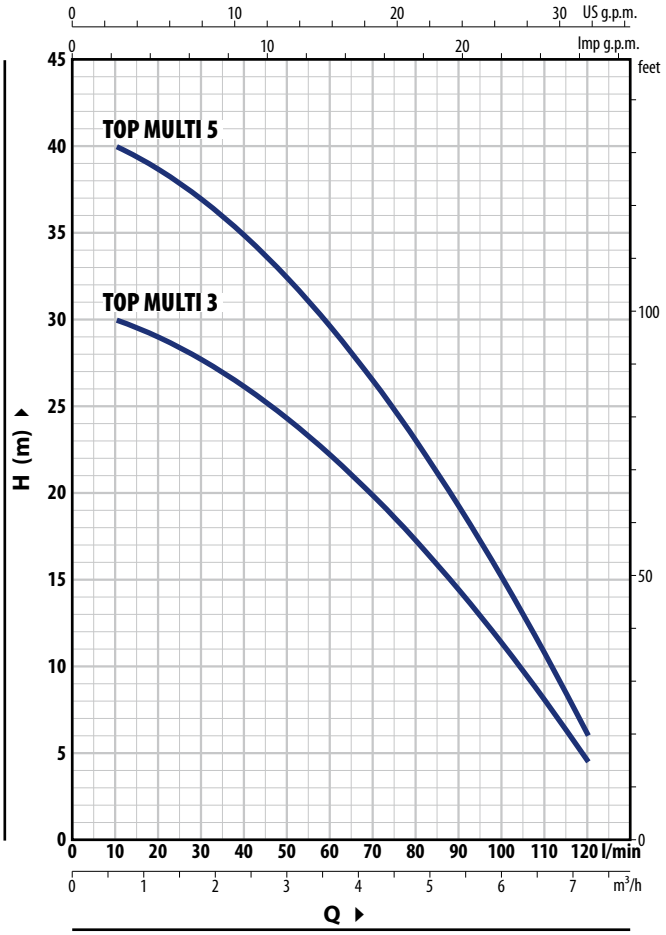
## CURVES AND PERFORMANCE DATA

**60 Hz**

## TOP MULTI 1 - 2 - 4 EVO




## TOP MULTI 3 - 5 EVO




## TOP MULTI 1 - 2 - 4 EVO

| TYPE | POWER (P2) | | Q | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | kW | HP | | m³/h | 0 | 0.6 | 1.2 | 1.8 | 2.4 | 3.0 | 3.6 | 4.2 | 4.8 |
| | | | | l/min | **0** | **10** | **20** | **30** | **40** | **50** | **60** | **70** | **80** |
| TOP MULTI 1-EVO | 0.37 | 0.50 | H | m | 26 | 25 | 23.5 | 21.6 | 19.3 | 16.8 | 14 | 11 | 8 |
| TOP MULTI 2-EVO | 0.55 | 0.75 | | | 39 | 37.5 | 35.5 | 32.5 | 29 | 25 | 21 | 16.6 | 12 |
| TOP MULTI 4-EVO | 0.75 | 1 | | | 52 | 50 | 47 | 43 | 38.5 | 33.5 | 28 | 22.1 | 16 |

## TOP MULTI 3 - 5 EVO

| TYPE | POWER (P2) | | Q | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | kW | HP | | m³/h | 0 | 0.6 | 1.2 | 1.8 | 2.4 | 3.0 | 3.6 | 4.2 | 4.8 | 5.4 | 6.0 | 6.6 | 7.2 |
| | | | | l/min | **0** | **10** | **20** | **30** | **40** | **50** | **60** | **70** | **80** | **90** | **100** | **110** | **120** |
| TOP MULTI 3-EVO | 0.55 | 0.75 | H | m | 30.5 | 30 | 29 | 27.5 | 26 | 24.3 | 22.2 | 19.8 | 17.2 | 14.4 | 11.3 | 8 | 4.5 |
| TOP MULTI 5-EVO | 0.75 | 1 | | | 41 | 40 | 38.5 | 37 | 35 | 32.5 | 29.5 | 26.5 | 22.9 | 19.2 | 15.1 | 10.7 | 6 |

**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

### ABSORPTION

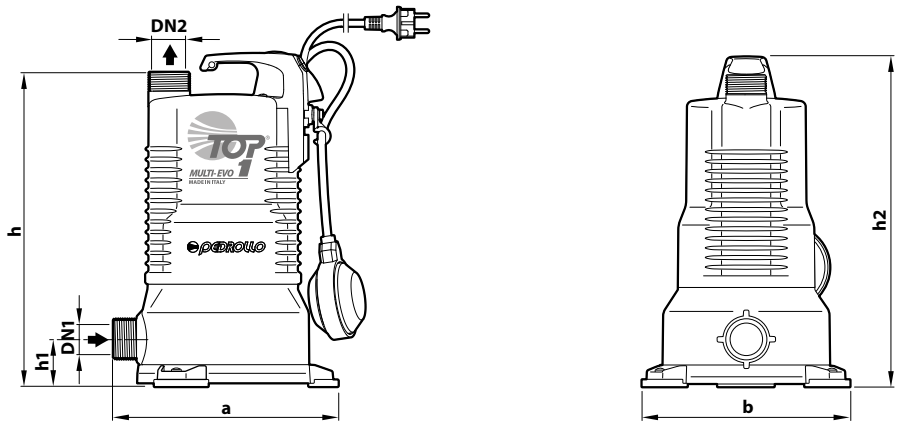
| TYPE | VOLTAGE |
|---|---|
| Single-phase | 220 V |
| TOP MULTI 1-EVO | 2.3 A |
| TOP MULTI 2-EVO | 3.4 A |
| TOP MULTI 3-EVO | 3.4 A |
| TOP MULTI 4-EVO | 4.3 A |
| TOP MULTI 5-EVO | 4.7 A |

| TYPE | VOLTAGE |
|---|---|
| Single-phase | 110 V |
| TOP MULTI 1-EVO | 4.8 A |
| TOP MULTI 2-EVO | 6.9 A |
| TOP MULTI 3-EVO | 6.9 A |
| TOP MULTI 4-EVO | 8.6 A |
| TOP MULTI 5-EVO | 9.4 A |

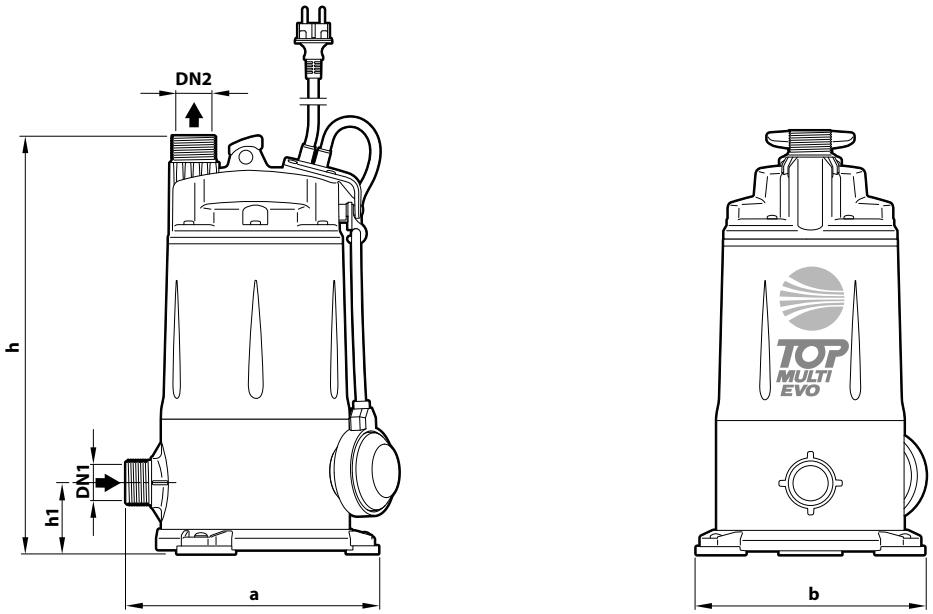
# TOP MULTI-EVO

## DIMENSIONS AND WEIGHT

### TOP MULTI 1 EVO




### TOP MULTI 2-3-4-5 EVO

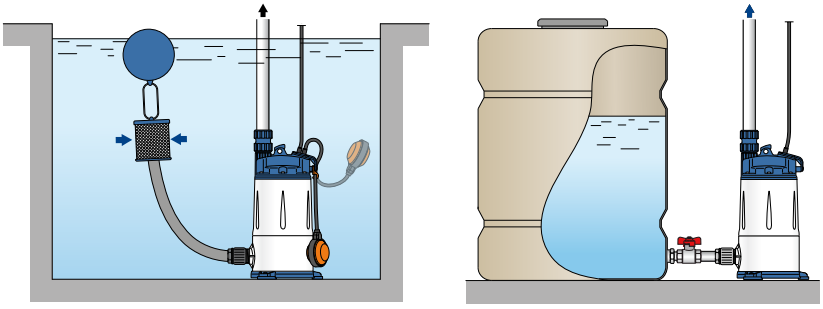



| TYPE | PORTS | | NO. STAGES | DIMENSIONS mm | | | | | kg |
|---|---|---|---|---|---|---|---|---|---|
| | DN1 | DN2 | | a | b | h | h1 | h2 | |
| TOP MULTI 1-EVO | 1¼" | 1¼" | 2 | 227 | 210 | 317 | 49 | 337 | 7.1 |
| TOP MULTI 2-EVO | | | 3 | 239 | 216 | 394 | 68 | – | 9.9 |
| TOP MULTI 3-EVO | | | | | | | | | 9.9 |
| TOP MULTI 4-EVO | | | 4 | | | 428 | | | 10.4 |
| TOP MULTI 5-EVO | | | | | | | | | 10.4 |

## PALLET CAPACITY

| TYPE | GROUPAGE n. pumps | CONTAINER n. pumps |
|---|---|---|
| TOP MULTI 1-EVO | 45 | 60 |
| TOP MULTI 2-EVO | 45 | 60 |
| TOP MULTI 3-EVO | 45 | 60 |
| TOP MULTI 4-EVO | 45 | 60 |
| TOP MULTI 5-EVO | 45 | 60 |

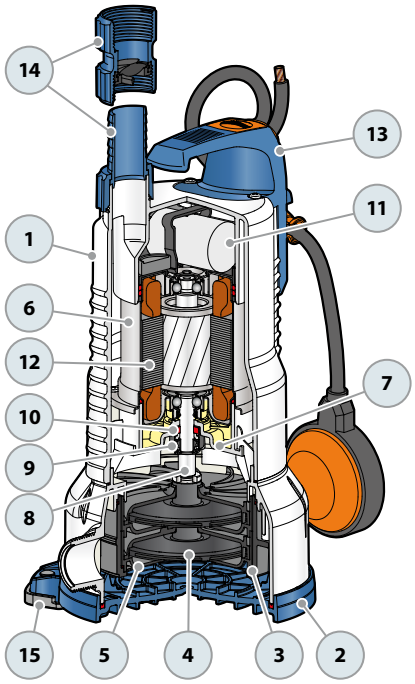
## INSTALLATION EXAMPLES



# TOP MULTI 1 EVO

## MATERIALS AND COMPONENTS

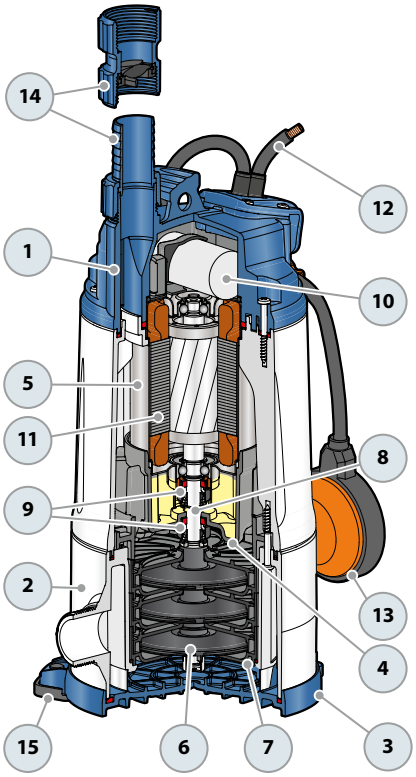
| | | |
|---|---|---|
| 1 | **Pump body** | Technopolymer |
| 2 | **Base** | Technopolymer |
| 3 | **Containment stages** | Technopolymer |
| 4 | **Impellers** | Noryl™ |
| 5 | **Diffusers and stage boxes** | Noryl™ |
| 6 | **Motor sleeve** | Stainless steel **AISI 304** |
| 7 | **Motor cover** | Stainless steel **AISI 304** |
| 8 | **Motor shaft** | Stainless steel **AISI 431** |
| 9 | **Mechanical seal** | **STA-12R**<br>Ceramic/Graphite/NBR |
| 10 | **Shaft seal** | Ø 12 x Ø 19 x H 5 mm |
| 11 | **Capacitor** | |
| 12 | **Electric motor** | |
| 13 | **Handle group**<br>Including:<br>- Float switch<br>- Power cable with Schuko plug | |
| 14 | **Ferrule and hose nozzle** |  |
| | **Sleeve**<br>With built-in clapet valve |  |
| 15 | **Anti-vibration feet** | |




# TOP MULTI 2-3-4-5 EVO

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Delivery port** | Technopolymer |
| 2 | **Suction body** | Technopolymer |
| 3 | **Base** | Technopolymer |
| 4 | **Diffuser vanes** | Technopolymer |
| 5 | **Motor sleeve** | Stainless steel **AISI 304** |
| 6 | **Impellers** | Noryl™ |
| 7 | **Diffusers and stage boxes** | Noryl™ |
| 8 | **Motor shaft** | Stainless steel **AISI 431** |
| 9 | **Double mechanical seal**<br>**STA-13R** Motor side Ceramic/Graphite/NBR<br>**STA-13R SIC** Pump side SIC/Graphite/NBR | |
| 10 | **Capacitor** | |
| 11 | **Electric motor** | |
| 12 | **Power cable** with Schuko plug | |
| 13 | **Float switch** | |
| 14 | **Ferrule and hose nozzle** |  |
| | **Sleeve**<br>With built-in clapet valve |  |
| 15 | **Anti-vibration feet** | |



# TOP MULTI-TECH

## Automatic submersible pumps

Clean water

Domestic use

Civil use

### ※ AUTOMATIC START & STOP

**The integrated electronic device allows the pump to be started or stopped automatically by opening or closing the tap.**




### PERFORMANCE RANGE

- Flow rate up to **120 l/min** (7.2 $m^3$/h)
- Head up to **52 m**
- Restart pressure:
  - **1.5 bar** for TOP MULTI-TECH 2-3-5
  - **2.5 bar** for TOP MULTI-TECH 4

### INSTALLATION AND USE

**TOP-MULTI-TECH** pumps are designed to transfer **clean water** free from abrasive particles and liquids that will not damage the pump's components. Efficient and reliable, they are ideal for domestic applications involving tanks, reservoirs, and deep wells. They are also perfect for collecting rainwater from water tanks (rain barrels) for manual watering or irrigation systems.

### ELECTRONIC DEVICE

**TOP MULTI-TECH** pumps feature an internal electronic device that activates the pump if system pressure (such as when a tap opens) falls below **1.5 bar** (or **2.5 bar** for TOP MULTI-TECH 4) and deactivates it when flow declines to less than 3 l/min.

※ Protects the pump:
- **against dry running;**
- **to prevent blockages, the electronic device automatically runs the pump for 10 seconds every 48 hours after extended periods of inactivity.**

### APPLICATION LIMITS

- Maximum operating depth below water level up to **5 m**
- Maximum height between pump and user: **10 m**
- Liquid temperature up to **+40 °C**
- Draining capability up to **35 mm** from the bottom

### INCLUDES

※ **10 m** power cable
※ Threaded fitting 1¼"
※ Hose connector **Ø 35 mm**

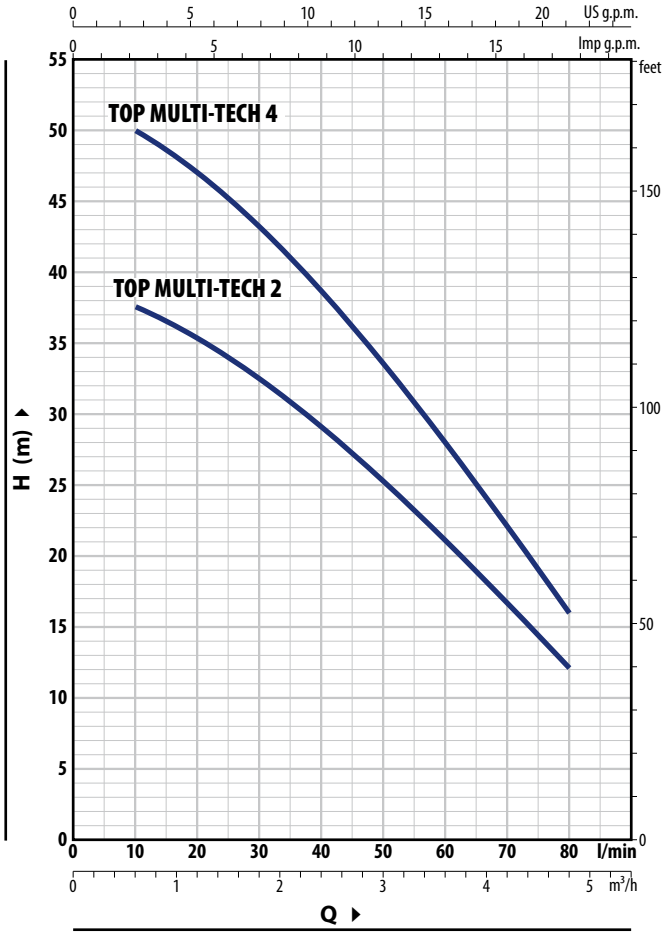
### PATENTS - TRADE MARKS - MODELS

- Patent No. EP2990653
- TOP MULTI® Registered trademark No. 0001334477

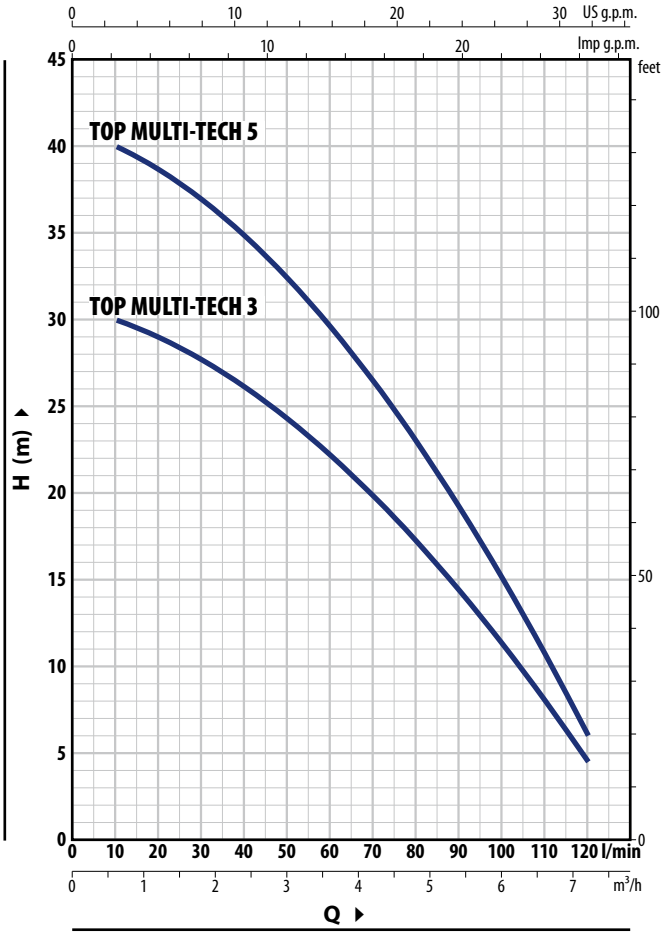
## CURVES AND PERFORMANCE DATA

**60 Hz**

## TOP MULTI-TECH 2-4




## TOP MULTI-TECH 3-5




## TOP MULTI-TECH 2-4

| MODEL | POWER (P2) | | Q | m³/h | 0 | 0.6 | 1.2 | 1.8 | 2.4 | 3.0 | 3.6 | 4.2 | 4.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | kW | HP | | l/min | **0** | **10** | **20** | **30** | **40** | **50** | **60** | **70** | **80** |
| **TOP MULTI-TECH 2** | 0.55 | 0.75 | H | m | 39 | 37.5 | 35.5 | 32.5 | 29 | 25 | 21 | 16.6 | 12 |
| **TOP MULTI-TECH 4** | 0.75 | 1 | | | 52 | 50 | 47 | 43 | 38.5 | 33.5 | 28 | 22.1 | 16 |

## TOP MULTI-TECH 3-5

| MODEL | POWER (P2) | | Q | m³/h | 0 | 0.6 | 1.2 | 1.8 | 2.4 | 3.0 | 3.6 | 4.2 | 4.8 | 5.4 | 6.0 | 6.6 | 7.2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | kW | HP | | l/min | **0** | **10** | **20** | **30** | **40** | **50** | **60** | **70** | **80** | **90** | **100** | **110** | **120** |
| **TOP MULT-TECHI 3** | 0.55 | 0.75 | H | m | 30.5 | 30 | 29 | 27.5 | 26 | 24.3 | 22.2 | 19.8 | 17.2 | 14.4 | 11.3 | 8 | 4.5 |
| **TOP MULTI-TECH 5** | 0.75 | 1 | | | 41 | 40 | 38.5 | 37 | 35 | 32.5 | 29.5 | 26.5 | 22.9 | 19.2 | 15.1 | 10.7 | 6 |

**Q** = Flow rate **H** = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

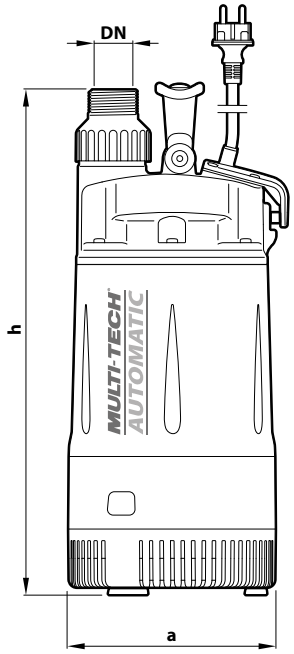
## ABSORPTION

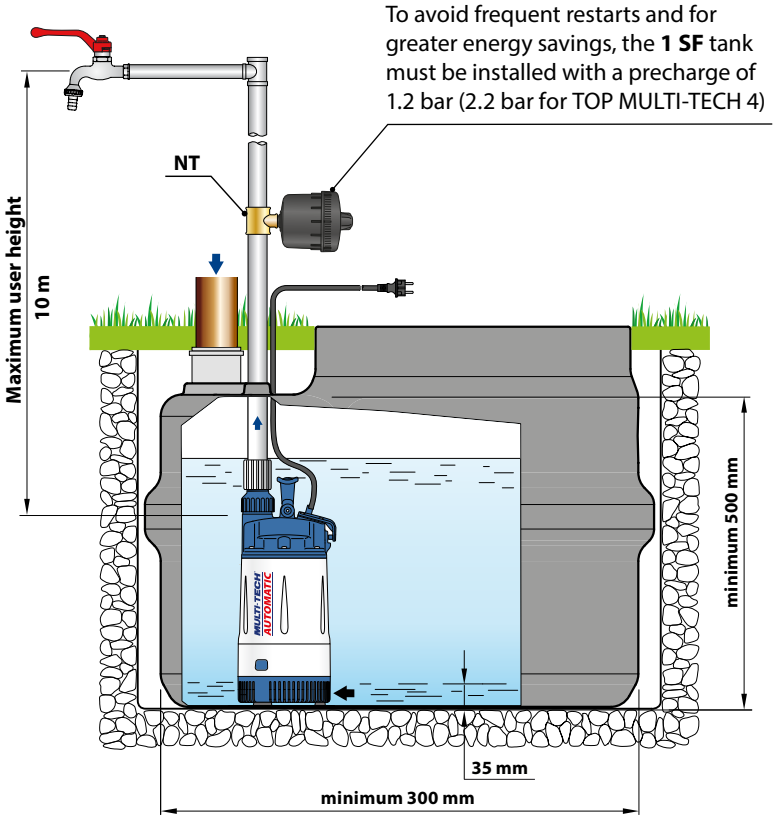
| TYPE | VOLTAGE |
|---|---|
| Single-phase | 220 V |
| **TOP MULTI-TECH 2** | 3.4 A |
| **TOP MULTI-TECH 3** | 3.4 A |
| **TOP MULTI-TECH 4** | 4.3 A |
| **TOP MULTI-TECH 5** | 4.7 A |

| TYPE | VOLTAGE |
|---|---|
| Single-phase | 110 V |
| **TOP MULTI-TECH 2** | 6.9 A |
| **TOP MULTI-TECH 3** | 6.9 A |
| **TOP MULTI-TECH 4** | 8.6 A |
| **TOP MULTI-TECH 5** | 9.4 A |

# TOP MULTI-TECH

## DIMENSIONS AND WEIGHT




| TYPE | PORT | DIMENSIONS mm | | kg |
|---|---|---|---|---|
| | DN | a | h | |
| TOP MULTI-TECH 2 | 1¼" | 178 | 428 | 9.5 |
| TOP MULTI-TECH 3 | | | | |
| TOP MULTI-TECH 4 | | | 463 | 10.5 |
| TOP MULTI-TECH 5 | | | | |

**Typical installation**



## PALLET CAPACITY

| TYPE | GROUPAGE | CONTAINER |
|---|---|---|
| | n. pumps | n. pumps |
| TOP MULTI-TECH 2 | 60 | 80 |
| TOP MULTI-TECH 3 | 60 | 80 |
| TOP MULTI-TECH 4 | 60 | 80 |
| TOP MULTI-TECH 5 | 60 | 80 |

## ACCESSORIES (CAN BE ORDERED SEPARATELY)

| TYPE | Code | FITTING | CAPACITY | PRECARE | MAXIMUM WORKING PRESSURE |
|---|---|---|---|---|---|
| Tank **1 SF**  | 50057005 | ½" (male) | 1 litre | 1.2 bar | 10 bar |
| 3-way fitting **NT 1.25**  | 500160001 | 1¼" - 1¼" - ½" gas | – | – | – |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Delivery port** | Technopolymer |
| 2 | **Pump body** | Technopolymer |
| 3 | **Suction filter** | Technopolymer |
| 4 | **Diffuser vanes** | Technopolymer |
| 5 | **Motor sleeve** | Stainless steel **AISI 304** |
| 6 | **Impellers** | Noryl™ |
| 7 | **Diffusers and stage boxes** | Noryl™ |
| 8 | **Motor shaft** | Stainless steel **AISI 431** |
| 9 | **Electronic device** | |

**10 Double mechanical seal with interposed oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **STA-13R** | Ø 13 mm | Motor side | Ceramic / Graphite /NBR |
| **STA-13R SIC** | Ø 13 mm | Pump side | Silicon carbide / Graphite /NBR |

**11 Capacitor**

**12 Electric motor**

**TOP MULTI-TECH**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection.

- Continuous running duty S1
- Insulation: Class F
- Protection rating: IP X8

**13 Power cord**
**Type 'H07 RN-F' with Schuko plug**

※ Standard length 10 metres

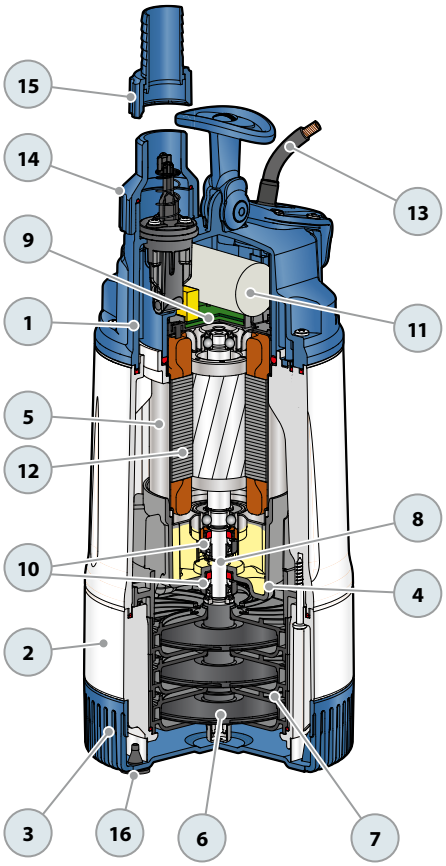
**14 Threaded connection 1¼"**



**15 Ferrule and hose connector Ø 35 mm**



**16 Anti-vibration feet**



# TOP MULTI-EVOTECH

## Automatic submersible pumps

Clean water

Domestic use

Civil use

### ※ AUTOMATIC START & STOP

**The integrated electronic device automatically starts or stops the pump when the tap is opened or closed.**




### PERFORMANCE RANGE

- Flow rate up to **120 l/min** (7.2 $m^3$/h)
- Head up to **52 m**
- Restart pressure:
  - **1.5 bar** for TOP MULTI-EVOTECH 2-3-5
  - **2.5 bar** for TOP MULTI-EVOTECH 4

### INSTALLATION AND USE

**TOP MULTI-EVOTECH** pumps are designed to transfer **clean water** free from abrasive particles and liquids that will not damage the pump's components. Efficient and reliable, they are ideal for domestic applications involving tanks, reservoirs, and deep wells. They are also perfect for collecting rainwater from water tanks (rain barrels) for manual watering or irrigation systems.

### ELECTRONIC DEVICE

TOP MULTI-EVOTECH pumps feature an internal electronic device that activates the pump if system pressure (such as when a tap opens) falls below **1.5 bar** (or **2.5 bar** for TOP MULTI-EVOTECH 4) and deactivates it when flow declines to less than 3 l/min.

※ Protects the pump:
- **against dry running;**
- **to prevent blockages, the electronic device automatically runs the pump for 10 seconds every 48 hours after extended periods of inactivity.**

### APPLICATION LIMITS

- Maximum operating depth below water level up to **5 m**
- Maximum height between pump and utility **10 m**
- Liquid temperature up to **+40 °C**
- Draining capability up to **35 mm** from the bottom

### INCLUDES

※ **10 m** power cable
※ Threaded connection 1¼" (delivery)
※ Hose connector Ø 35 mm

### AVAILABLE UPON REQUEST

※ Different voltage or frequency

※ **KGE - Floating suction kit**



The KGE kit enables suction about 10 cm below the water surface, avoiding floating debris and sediment, thereby protecting the pump from damage.

Includes:
- 30 mm PVC spiral hose 1.5 metres long
- stainless steel suction filter
- spherical polyethylene float
- hose fittings Ø 30 mm

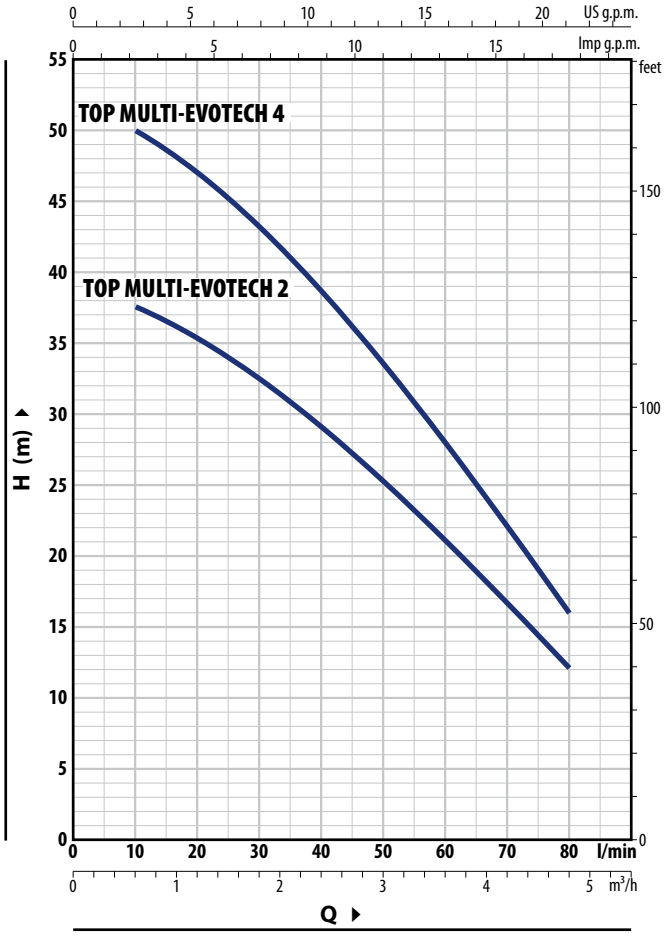
### PATENTS - TRADE MARKS - MODELS

- Patent No. EP2990653
- TOP MULTI® Registered trademark No. 0001334477

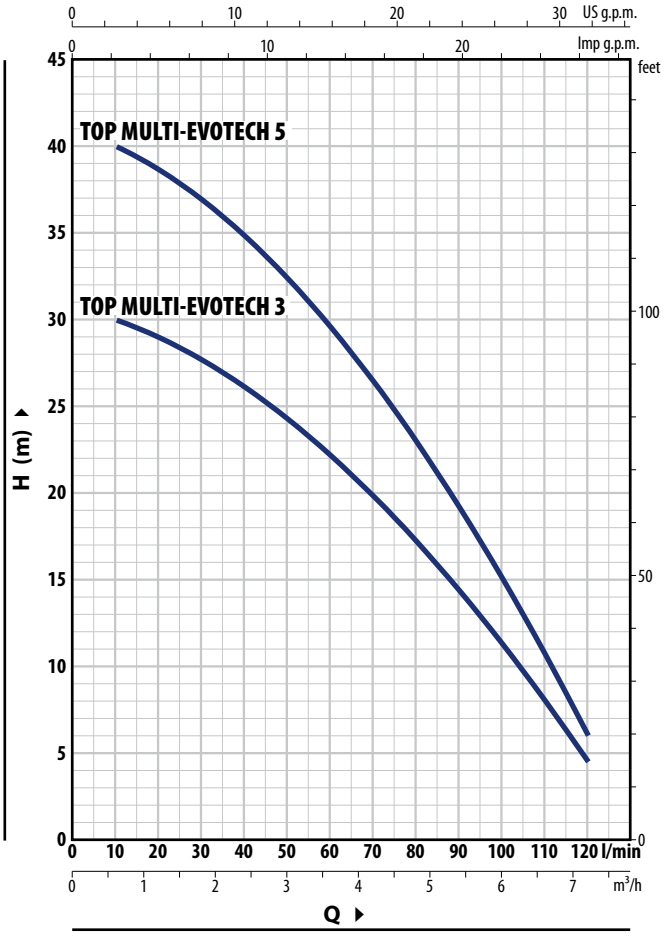
## CURVES AND PERFORMANCE DATA

**60 Hz**

## TOP MULTI-EVOTECH 2-4




## TOP MULTI-EVOTECH 3-5




## TOP MULTI-EVOTECH 2-4

| MODEL | POWER (P2) | | Q | m³/h | 0 | 0.6 | 1.2 | 1.8 | 2.4 | 3.0 | 3.6 | 4.2 | 4.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | kW | HP | | l/min | **0** | **10** | **20** | **30** | **40** | **50** | **60** | **70** | **80** |
| TOP MULTI-EVOTECH 2 | 0.55 | 0.75 | H | m | 39 | 37.5 | 35.5 | 32.5 | 29 | 25 | 21 | 16.6 | 12 |
| TOP MULTI-EVOTECH 4 | 0.75 | 1 | | | 52 | 50 | 47 | 43 | 38.5 | 33.5 | 28 | 22.1 | 16 |

## TOP MULTI-EVOTECH 3-5

| MODEL | POWER (P2) | | Q | m³/h | 0 | 0.6 | 1.2 | 1.8 | 2.4 | 3.0 | 3.6 | 4.2 | 4.8 | 5.4 | 6.0 | 6.6 | 7.2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | kW | HP | | l/min | **0** | **10** | **20** | **30** | **40** | **50** | **60** | **70** | **80** | **90** | **100** | **110** | **120** |
| TOP MULTI-EVOTECH 3 | 0.55 | 0.75 | H | m | 30.5 | 30 | 29 | 27.5 | 26 | 24.3 | 22.2 | 19.8 | 17.2 | 14.4 | 11.3 | 8 | 4.5 |
| TOP MULTI-EVOTECH 5 | 0.75 | 1 | | | 41 | 40 | 38.5 | 37 | 35 | 32.5 | 29.5 | 26.5 | 22.9 | 19.2 | 15.1 | 10.7 | 6 |

**Q** = Flow rate **H** = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

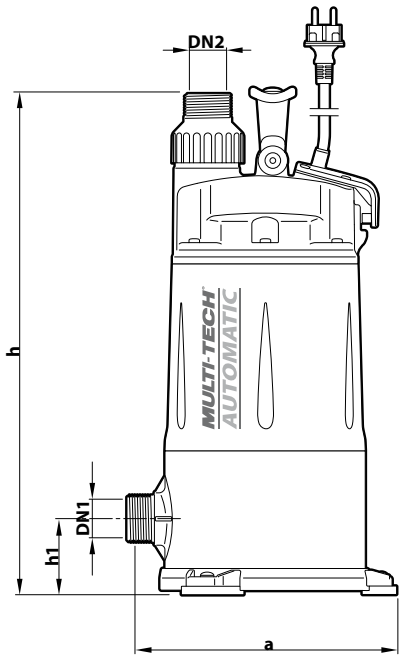
## ABSORPTION

| TYPE | VOLTAGE |
|---|---|
| Single-phase | 220 V |
| TOP MULTI-EVOTECH 2 | 3.4 A |
| TOP MULTI-EVOTECH 3 | 3.4 A |
| TOP MULTI-EVOTECH 4 | 4.3 A |
| TOP MULTI-EVOTECH 5 | 4.7 A |

| TYPE | VOLTAGE |
|---|---|
| Single-phase | 110 V |
| TOP MULTI-EVOTECH 2 | 6.9 A |
| TOP MULTI-EVOTECH 3 | 6.9 A |
| TOP MULTI-EVOTECH 4 | 8.6 A |
| TOP MULTI-EVOTECH 5 | 9.4 A |

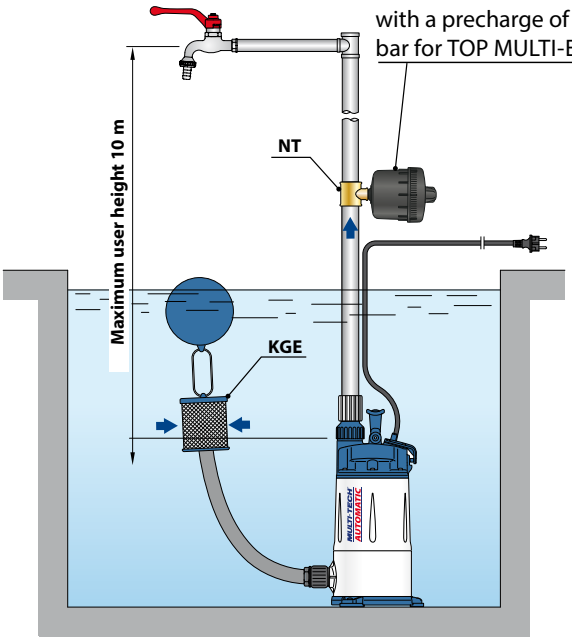
# TOP MULTI-EVOTECH

## DIMENSIONS AND WEIGHT




**Typical installation**

To avoid frequent restarts and for greater energy savings, the **1 SF** tank must be installed with a precharge of 1.2 bar (2.2 bar for TOP MULTI-EVOTECH 4)




| TYPE | PORTS | | NO. STAGES | DIMENSIONS mm | | | kg |
|---|---|---|---|---|---|---|---|
| | DN1 | DN2 | | a | h | h1 | |
| **TOP MULTI-EVOTECH 2** | **1¼"** | **1¼"** | **3** | 239 | 442 | 68 | 9.9 |
| **TOP MULTI-EVOTECH 3** | | | | | | | 9.9 |
| **TOP MULTI-EVOTECH 4** | | | **4** | | 476 | | 11.0 |
| **TOP MULTI-EVOTECH 5** | | | | | | | 11.0 |

## ACCESSORIES (CAN BE ORDERED SEPARATELY)

| TYPE | Code | FITTING | CAPACITY | PRECARE | MAXIMUM WORKING PRESSURE |
|---|---|---|---|---|---|
| ※ Tank **1 SF**  | 50057005 | ½" (male) | 1 litre | 1.2 bar | 10 bar |
| 3-way fitting **NT 1.25**  | 500160001 | 1¼" - 1¼" - ½" gas | – | – | – |

## PALLET CAPACITY

| TYPE | GROUPAGE | CONTAINER |
|---|---|---|
| | n. pumps | n. pumps |
| **TOP MULTI-EVOTECH 2** | 45 | 60 |
| **TOP MULTI-EVOTECH 3** | 45 | 60 |
| **TOP MULTI-EVOTECH 4** | 45 | 60 |
| **TOP MULTI-EVOTECH 5** | 45 | 60 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Delivery port** | Technopolymer with ISO 228/1 threaded port |
| 2 | **Suction body** | Technopolymer with ISO 228/1 threaded port |
| 3 | **Base** | Technopolymer |
| 4 | **Diffuser vanes** | Technopolymer |
| 5 | **Motor sleeve** | Stainless steel **AISI 304** |
| 6 | **Impellers** | Noryl™ |
| 7 | **Diffusers and stage boxes** | Noryl™ |
| 8 | **Motor shaft** | Stainless steel **AISI 431** |
| 9 | **ELECTRONIC DEVICE** | |

**10** **Double mechanical seal with interposed oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **STA-13R** | Ø 13 mm | Motor side | Ceramic / Graphite /NBR |
| **STA-13R SIC** | Ø 13 mm | Pump side | Silicon carbide / Graphite /NBR |

**11** **Capacitor**

**12** **Electric motor**

**TOP MULTI-EVOTECH**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection.

- Continuous running duty S1
- Insulation: Class F
- Protection rating: IP X8

**13** **Power cord**
**Type 'H07 RN-F' with Schuko plug**

※ Standard length 10 metres

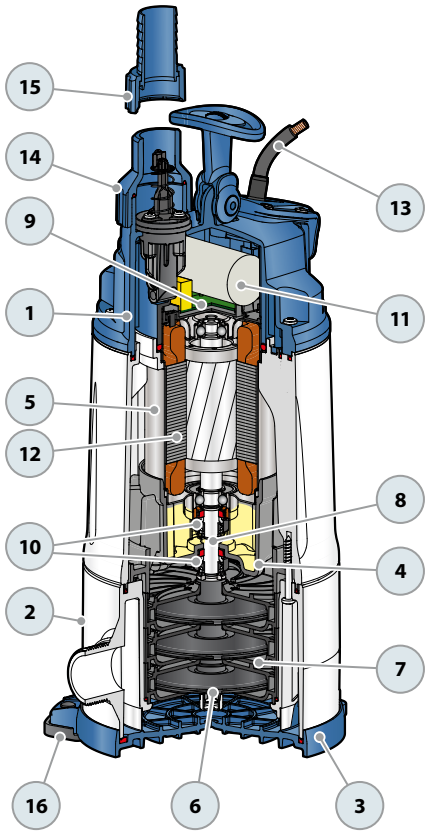
**14** **Threaded connection 1¼"**



**15** **Ferrule and hose connector Ø 35 mm**



**16** **Anti-vibration feet**



# UP Multi-stage submersible pumps

Clean water

Domestic use

Civil use

Agricultural use




## PERFORMANCE RANGE

- Flow rate up to **200 l/min** (12 $m^3$/h)
- Head up to **92 m**

## INSTALLATION AND USE

A series of multi-impeller submersible pumps engineered for enhanced reliability, thanks to innovative patented solutions that prevent stalling even after prolonged periods of inactivity.

Highly efficient and reliable, these pumps are ideal for various applications, including water distribution in domestic, civil, and agricultural settings, particularly for water distribution in conjunction with pressure tanks, for irrigation, pressure boosting, and more.

## APPLICATION LIMITS

- Liquid temperature up to **+40 °C**
- Maximum sand content **150 g/$m^3$**
- Maximum operating depth below water level up to **20 m** (with an appropriately sized power cable)
- Vertical and horizontal operation

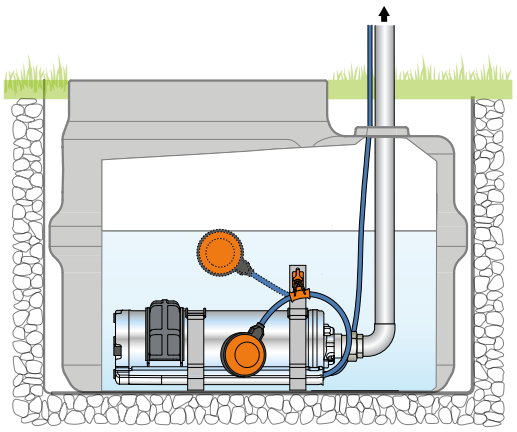
## INCLUDES

※ Float switch (exclusive to single-phase models)
※ Power cable length **10 m**

## AVAILABLE UPON REQUEST

※ Pumps without float switch
※ **20 m** or **30 m** power cables
※ Different voltage or frequency

※ **Support kit for horizontal operation**

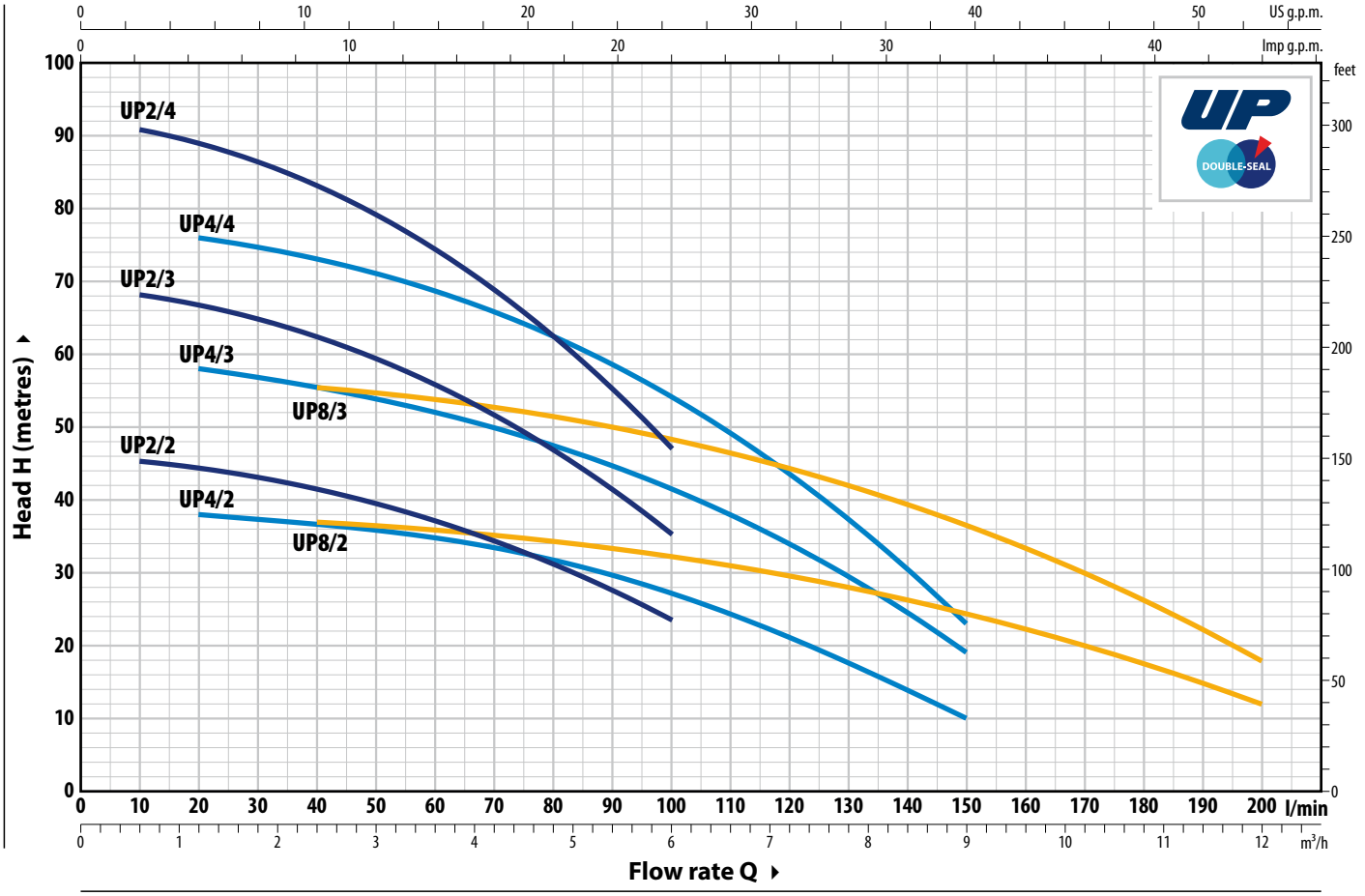


## PATENTS - TRADE MARKS - MODELS

- Patent No. IT0001428923
- Patent No. EP2419642

## CURVES AND PERFORMANCE DATA

## 60 Hz




| MODEL | | POWER (P2) | | Q | m³/h | 0 | 0.6 | 1.2 | 2.4 | 3.6 | 4.8 | 6.0 | 7.2 | 9.0 | 10.2 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | | l/min | **0** | **10** | **20** | **40** | **60** | **80** | **100** | **120** | **150** | **170** | **200** |
| **UPm 2/2-GE** | **UP 2/2** | 0.75 | 1 | | | 46 | 45.5 | 44.5 | 41.5 | 37 | 31 | 23.5 | | | | |
| **UPm 2/3-GE** | **UP 2/3** | 1.1 | 1.5 | | | 69 | 68 | 66.5 | 62.5 | 55.5 | 47 | 35 | | | | |
| **UPm 2/4-GE** | **UP 2/4** | 1.5 | 2 | | | 92 | 91 | 89 | 83 | 74 | 62.5 | 47 | | | | |
| **UPm 4/2-GE** | **UP 4/2** | 0.75 | 1 | **H** | m | 40 | – | 38 | 36.5 | 35 | 32 | 27 | 21 | 10 | | |
| **UPm 4/3-GE** | **UP 4/3** | 1.1 | 1.5 | | | 60 | – | 58 | 55.5 | 52 | 47.5 | 41.5 | 34 | 19 | | |
| **UPm 4/4-GE** | **UP 4/4** | 1.5 | 2 | | | 78 | – | 76 | 73 | 68.5 | 62.5 | 54 | 43.5 | 23 | | |
| **UPm 8/2-GE** | **UP 8/2** | 1.1 | 1.5 | | | 38 | – | – | 37 | 36 | 34.5 | 32.5 | 29.5 | 24.4 | 20 | 12 |
| **UPm 8/3-GE** | **UP 8/3** | 1.5 | 2 | | | 57 | – | – | 55.5 | 54 | 51.5 | 48.5 | 44.5 | 36.5 | 30 | 18 |

**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

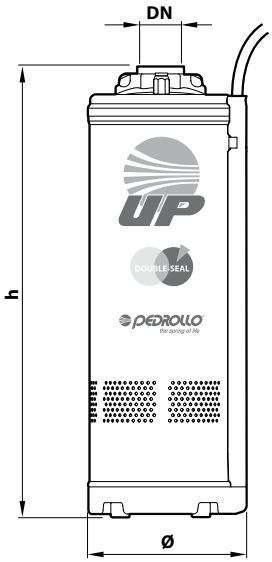
➠ **On request single-phase pumps without float switch**

## ABSORPTION

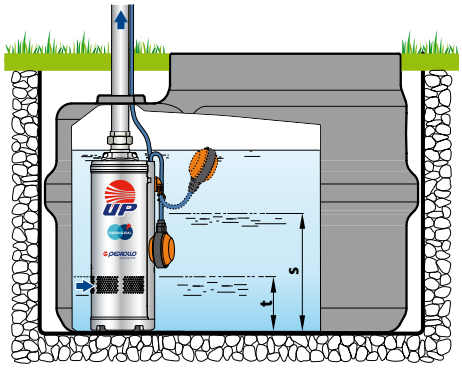
| TYPE Single-phase | VOLTAGE 220 V |
|---|---|
| **UPm 2/2-GE** | 5.6 A |
| **UPm 2/3-GE** | 8.0 A |
| **UPm 2/4-GE** | 10.0 A |
| **UPm 4/2-GE** | 5.8 A |
| **UPm 4/3-GE** | 7.7 A |
| **UPm 4/4-GE** | 10.0 A |
| **UPm 8/2-GE** | 8.0 A |
| **UPm 8/3-GE** | 10.0 A |

| TYPE Three-phase | VOLTAGE 380 V |
|---|---|
| **UP 2/2** | 2.3 A |
| **UP 2/3** | 3.5 A |
| **UP 2/4** | 4.1 A |
| **UP 4/2** | 2.3 A |
| **UP 4/3** | 3.5 A |
| **UP 4/4** | 4.0 A |
| **UP 8/2** | 3.5 A |
| **UP 8/3** | 4.0 A |

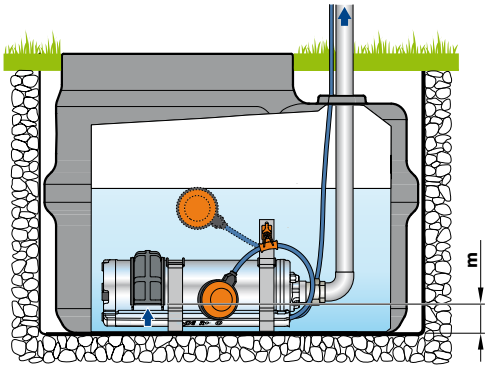
## DIMENSIONS AND WEIGHT




VERTICAL INSTALLATION




HORIZONTAL INSTALLATION




| MODEL | | PORT | N. STAGES | DIMENSIONS mm | | kg | |
|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN | | Ø | h | 1~ | 3~ |
| UPm 2/2-GE | UP 2/2 | 1¼" | 2 | 150 | 384 | 12.6 | 12.3 |
| UPm 2/3-GE | UP 2/3 | | 3 | | 441 | 14.6 | 14.3 |
| UPm 2/4-GE | UP 2/4 | | 4 | | 488 | 17.1 | 16.8 |
| UPm 4/2-GE | UP 4/2 | | 2 | | 384 | 12.6 | 12.3 |
| UPm 4/3-GE | UP 4/3 | | 3 | | 441 | 14.6 | 14.3 |
| UPm 4/4-GE | UP 4/4 | | 4 | | 488 | 17.1 | 16.8 |
| UPm 8/2-GE | UP 8/2 | | 2 | | 414 | 14.5 | 14.2 |
| UPm 8/3-GE | UP 8/3 | | 3 | | 461 | 17.0 | 16.7 |

| MODEL | LEVELS mm | | |
|---|---|---|---|
| | s | t | m |
| UP 2/2<br>UP 4/2 | 310 | 113 | 55 |
| UP 2/3<br>UP 4/3<br>UP 8/2 | 340 | | |
| UP 2/4<br>UP 4/4<br>UP 8/3 | 360 | | |

**s** = Minimum restart level
**t** = Draining capability
**m** = Minimum operating level

## PALLET CAPACITY

| MODEL | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-ph. | Three-ph. | n. pumps | n. pumps |
| UPm 2/2-GE | UP 2/2 | 30 | 54 |
| UPm 2/3-GE | UP 2/3 | 30 | 54 |
| UPm 2/4-GE | UP 2/4 | 25 | 45 |
| UPm 4/2-GE | UP 4/2 | 30 | 54 |
| UPm 4/3-GE | UP 4/3 | 30 | 54 |
| UPm 4/4-GE | UP 4/4 | 25 | 45 |
| UPm 8/2-GE | UP 8/2 | 30 | 54 |
| UPm 8/3-GE | UP 8/3 | 30 | 54 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| **1** | **Outer sleeve** | **AISI 304** stainless steel with ISO 228/1 threaded delivery port |
| **2** | **Internal motor jacket** | Stainless steel **AISI 304** |
| **3** | **Impellers and diffusers** | Noryl™ |
| **4** | **Diaphragms** | Stainless steel **AISI 304** |
| **5** | **Motor shaft** | Stainless steel **AISI 431** |

**6** **Double mechanical seal with interposed oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **STA-17** | Ø 17 mm | Motor side | Ceramic / Graphite /NBR |
| **ST1-16** | Ø 16 mm | Pump side | Silicon carbide / Graphite / NBR |

**7** **Capacitor**

**8** **Electric motor**

**UPm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection
**UP**: three-phase 380 V - 60 Hz

- Continuous running duty S1
- Insulation: Class F
- Protection rating: IP X8

**9** **Power cord**

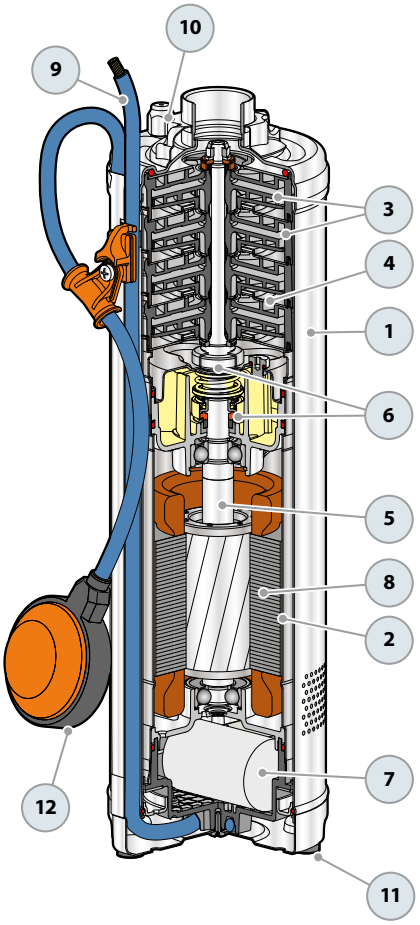
➠ **DRINCABLE®** type
approved for use in drinking water by **WRAS**
according to BS 6920, approval no. 7513

※ Standard length 10 metres

**10** **Automatic vent valve**

**11** **Anti-vibration feet**

**12** **Float switch**
(exclusive to single-phase models)



# NK Multi-stage submersible pumps

Clean water
Domestic use
Civil use
Agricultural use




**※ Designed to transfer clean water in domestic, agricultural, and civil settings. Optimal for tanks or reservoirs water supply and garden irrigation**

## PERFORMANCE RANGE

- Flow rate up to **200 l/min** (12 $m^3$/h)
- Head up to **92 m**

## INSTALLATION AND USE

Designed for enhanced reliability with patented solutions to prevent stalling during extended periods of inactivity. Superb for various applications including domestic, civil, and agricultural sectors, water distribution with pressure tanks, irrigation, and enhancing water pressure.

## INCLUDES

※ Float switch (exclusive to single-phase models)
※ Power cable length **10 m**

## APPLICATION LIMITS

- Liquid temperature up to **+40 °C**
- Maximum sand content **150 g/$m^3$**
- Maximum operating depth below water level up to **20 m** (with an appropriately sized power cable)

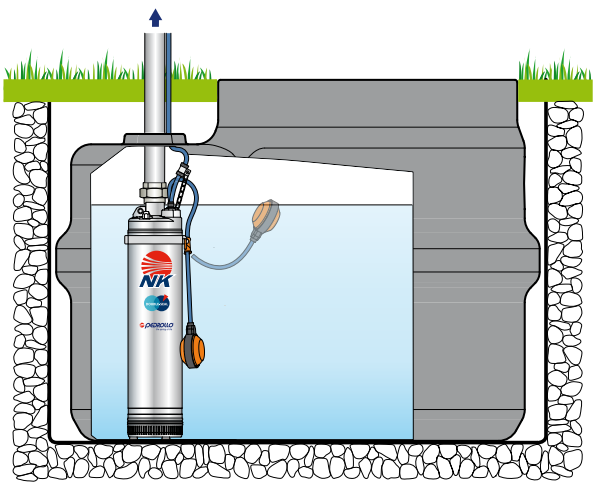
## AVAILABLE UPON REQUEST

※ Other power cable lengths available
※ Different voltage or frequency

## PATENTS - TRADE MARKS - MODELS

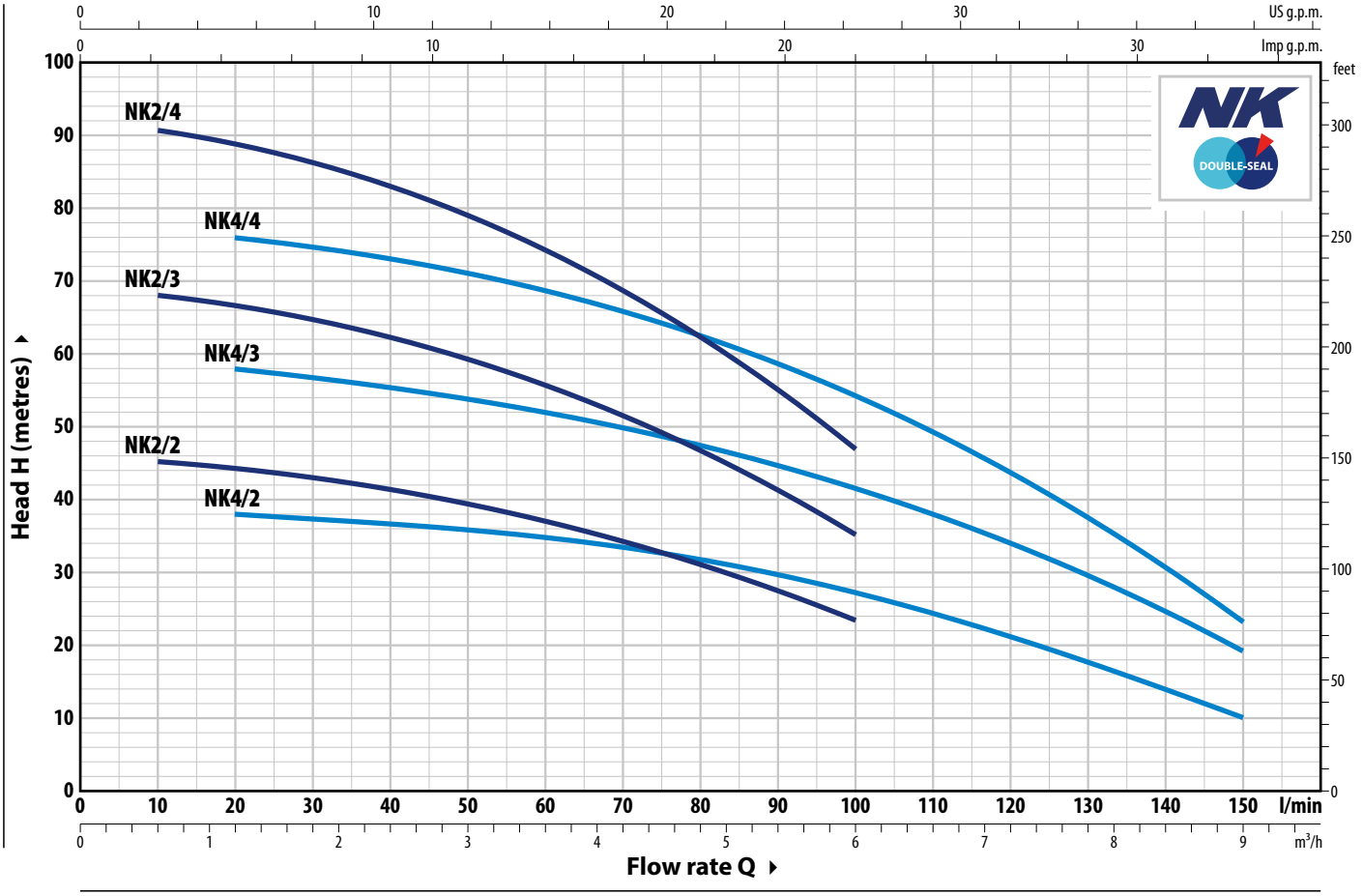
- Patent No. IT0001428923

**Vertical Installation**



## CURVES AND PERFORMANCE DATA

**60 Hz**




| MODEL | | POWER (P2) | | Q | m³/h | 0 | 0.6 | 1.2 | 2.4 | 3.6 | 4.8 | 6.0 | 7.2 | 9.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | | l/min | **0** | **10** | **20** | **40** | **60** | **80** | **100** | **120** | **150** |
| **NKm 2/2 GE** | **NK 2/2** | 0.75 | 1 | | | 46 | 45.5 | 44.5 | 41.5 | 37 | 31 | 23.5 | | |
| **NKm 2/3 GE** | **NK 2/3** | 1.1 | 1.5 | | | 69 | 68 | 66.5 | 62.5 | 55.5 | 47 | 35 | | |
| **NKm 2/4 GE** | **NK 2/4** | 1.5 | 2 | | | 92 | 91 | 89 | 83 | 74 | 62.5 | 47 | | |
| **NKm 4/2 GE** | **NK 4/2** | 0.75 | 1 | **H** | m | 40 | – | 38 | 36.5 | 35 | 32 | 27 | 21 | 10 |
| **NKm 4/3 GE** | **NK 4/3** | 1.1 | 1.5 | | | 60 | – | 58 | 55.5 | 52 | 47.5 | 41.5 | 34 | 19 |
| **NKm 4/4 GE** | **NK 4/4** | 1.5 | 2 | | | 78 | – | 76 | 73 | 68.5 | 62.5 | 54 | 43.5 | 23 |

**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

➠ **On request single-phase pumps without float switch**

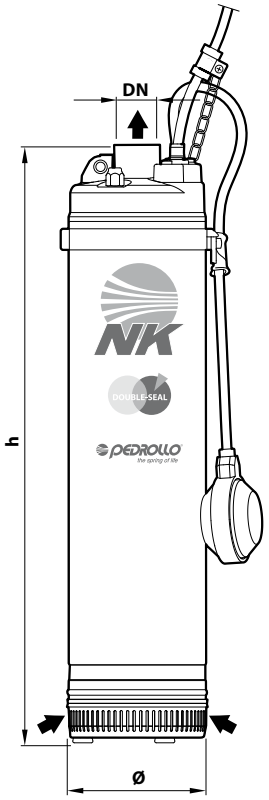
## ABSORPTION

| MODEL<br>Single-phase | VOLTAGE<br>220 V |
|---|---|
| **NKm 2/2 GE** | 5.8 A |
| **NKm 2/3 GE** | 8.2 A |
| **NKm 2/4 GE** | 10.0 A |
| **NKm 4/2 GE** | 5.8 A |
| **NKm 4/3 GE** | 7.7 A |
| **NKm 4/4 GE** | 10.2 A |

| MODEL<br>Three-phase | VOLTAGE<br>380 V |
|---|---|
| **NK 2/2** | 2.2 A |
| **NK 2/3** | 3.1 A |
| **NK 2/4** | 3.5 A |
| **NK 4/2** | 2.3 A |
| **NK 4/3** | 3.1 A |
| **NK 4/4** | 3.5 A |

## DIMENSIONS AND WEIGHT

| MODEL | | PORT | N. STAGES | DIMENSIONS mm | | kg | |
|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN | | Ø | h | 1~ | 3~ |
| **NKm 2/2 GE** | **NK 2/2** | 1¼" | 2 | 135 | 459 | 15.2 | 15.0 |
| **NKm 2/3 GE** | **NK 2/3** | | 3 | | 516 | 16.6 | 15.4 |
| **NKm 2/4 GE** | **NK 2/4** | | 4 | | 563 | 18.6 | 19.2 |
| **NKm 4/2 GE** | **NK 4/2** | | 2 | | 459 | 15.2 | 15.0 |
| **NKm 4/3 GE** | **NK 4/3** | | 3 | | 516 | 16.6 | 15.4 |
| **NKm 4/4 GE** | **NK 4/4** | | 4 | | 563 | 18.6 | 19.2 |




## PALLET CAPACITY

| MODEL | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-phase | Three-phase | n. pumps | n. pumps |
| **NKm 2/2 GE** | **NK 2/2** | 30 | 54 |
| **NKm 2/3 GE** | **NK 2/3** | 30 | 54 |
| **NKm 2/4 GE** | **NK 2/4** | 25 | 45 |
| **NKm 4/2 GE** | **NK 4/2** | 30 | 54 |
| **NKm 4/3 GE** | **NK 4/3** | 30 | 54 |
| **NKm 4/4 GE** | **NK 4/4** | 25 | 45 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Outer sleeve** | **AISI 304** stainless steel, fitted with ISO 228/1 threaded delivery port |
| 2 | **Suction filter** | **AISI 304** stainless steel, complete with anti-vibration feet |
| 3 | **Motor sleeve** | Stainless steel **AISI 304** |
| 4 | **Impellers and diffusers** | Noryl™ |
| 5 | **Diaphragms** | Stainless steel **AISI 304** |
| 6 | **Motor shaft** | Stainless steel **AISI 431** |

**7 Double mechanical seal with interposed oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **STA-17** | Ø 17 mm | Motor side | Ceramic / Graphite / NBR |
| **ST1-16** | Ø 16 mm | Pump side | Silicon carbide / Graphite / NBR |

**8 Capacitor**

**9 Electric motor**

**NKm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection
**NK**: three-phase 380 V - 60 Hz
- Continuous running duty S1
- Insulation: Class F
- Protection rating IP X8

**10 Power cord**

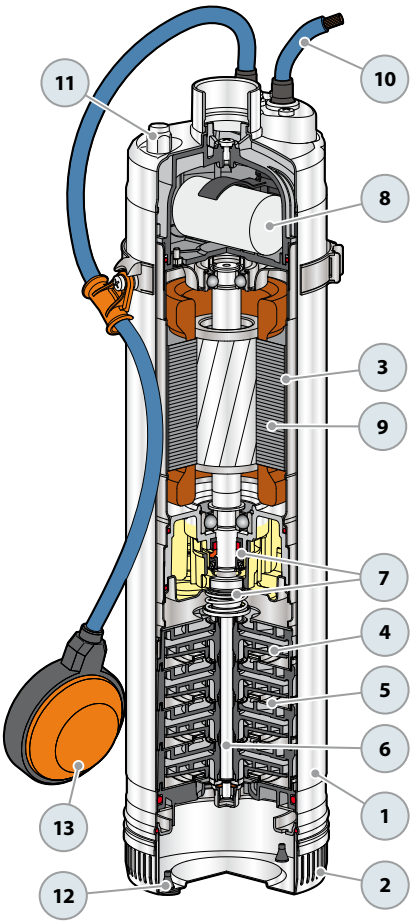
➠ **DRINCABLE®** type
approved for use in drinking water by **WRAS**
according to BS 6920, approval no. 7513

※ Standard length 10 metres

**11 Automatic vent valve**

**12 Anti-vibration feet**

**13 Float switch**
(exclusive to single-phase models)



# TOP Submersible pumps for DRAINAGE

Clear waters

Domestic use

## ※ TOP

### Drainage pumps: reliable and durable




### PERFORMANCE RANGE

- Flow rate up to **360 l/min** (21.6 m³/h)
- Head up to **15.5 m**

### INSTALLATION AND USE

The **TOP** series is excellent for draining **clear water** without abrasive particles. Construction features ensure user-friendly and safe operation, including motor cooling and a double shaft seal. Recommended for emergency drainage of small, flooded areas (rooms, basements, garages), disposing of household water (dishwashers, washing machines), and emptying sumps.

### APPLICATION LIMITS

- Liquid temperature up to +**40 °C** and up to **+90 °C** for short bursts (up to 3 minutes max) for intermittent service
- Capable of processing suspended solids up to **Ø 10 mm**
- Draining capability:
  - up to **14 mm** from the bottom for TOP 1-2-3
  - up to **30 mm** from the bottom for TOP 4-5
- Maximum operating depth below water level:
  - up to **3 m** for TOP 1-2-3
  - up to **5 m** for TOP 4-5

  (with an appropriately sized power cable)

### PATENTS - TRADE MARKS - MODELS

- Patent No. IT0001428923
- Registered Community Model No. 342159-0011

### INCLUDES

※ **5 m** power cable
※ Float switch

### AVAILABLE UPON REQUEST

※ Mechanical seal options available
※ Different voltage or frequency
※ Power cable length **10 m**
※ **TOP-GM** " pumps with magnetic float operation (suitable for small sumps)

※ **TOP-LA"** special pumps with all metal components in contact with the pumped liquid in AISI 316 stainless steel



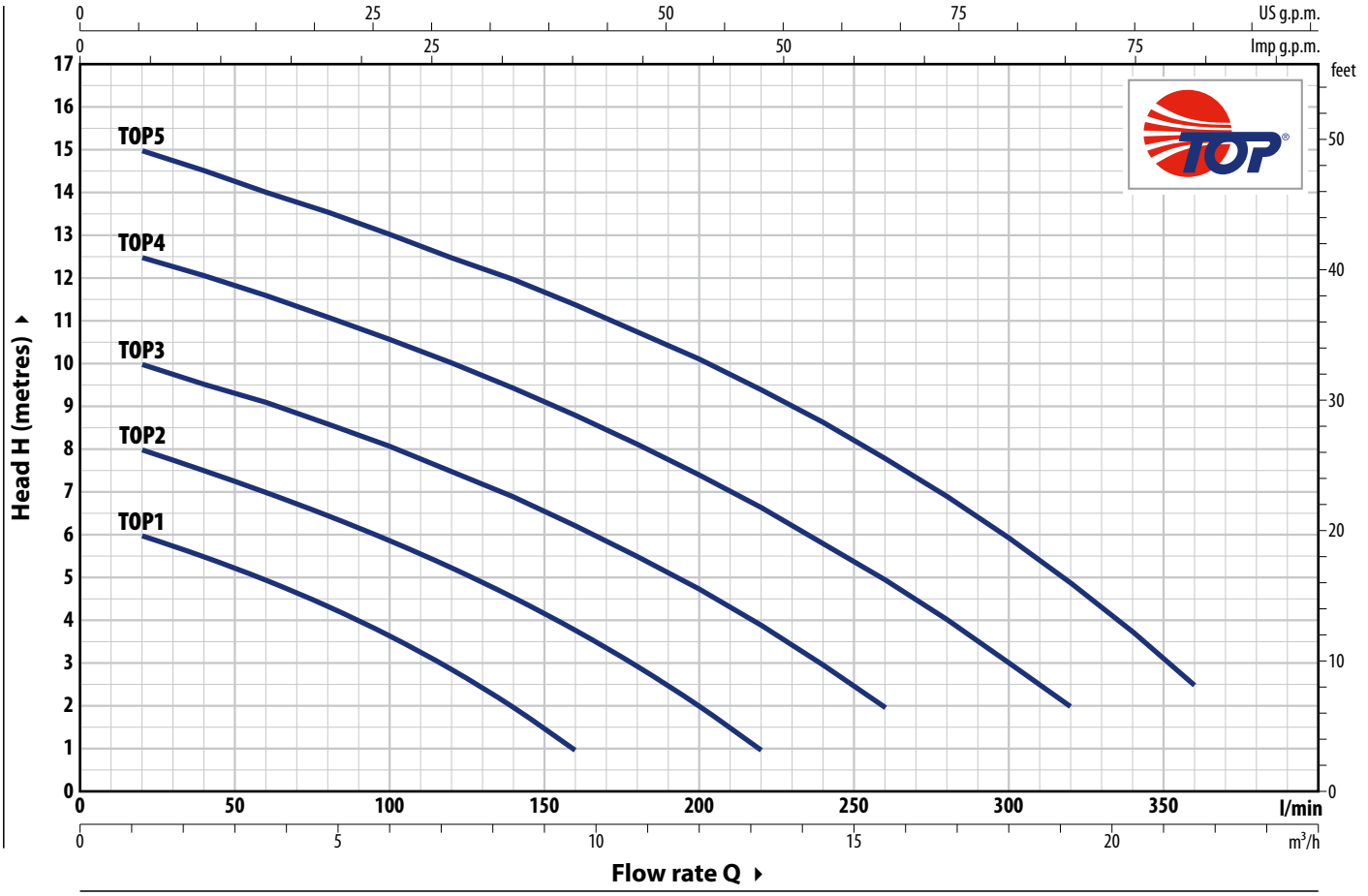

※ **TOP LA**




※ **TOP GM**

## CURVES AND PERFORMANCE DATA

**60 Hz**




| TYPE Single-phase | POWER (P2) kW | POWER (P2) HP | Q m³/h | 0 | 1.2 | 2.4 | 3.6 | 4.8 | 6.0 | 7.2 | 8.4 | 9.6 | 10.8 | 12.0 | 13.2 | 14.4 | 15.6 | 18.0 | 19.2 | 21.6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Q l/min | **0** | **20** | **40** | **60** | **80** | **100** | **120** | **140** | **160** | **180** | **200** | **220** | **240** | **260** | **300** | **320** | **360** |
| **TOP 1** | 0.25 | 0.33 | | 6.5 | 6 | 5.5 | 5 | 4.4 | 3.7 | 3 | 2 | 1 | | | | | | | | |
| **TOP 2** | 0.37 | 0.50 | | 8.5 | 8 | 7.5 | 7 | 6.5 | 6 | 5.3 | 4.6 | 3.8 | 3 | 2 | 1 | | | | | |
| **TOP 3** | 0.55 | 0.75 | **H** m | 10.4 | 10 | 9.6 | 9 | 8.6 | 8 | 7.5 | 7 | 6.3 | 5.5 | 4.8 | 4 | 3 | 2 | | | |
| **TOP 4** | 0.75 | 1 | | 13 | 12.5 | 12 | 11.6 | 11 | 10.6 | 10 | 9.5 | 8.8 | 8.2 | 7.4 | 6.7 | 6 | 5 | 3 | 2 | |
| **TOP 5** | 0.92 | 1.25 | | 15.5 | 15 | 14.5 | 14 | 13.6 | 13 | 12.6 | 12 | 11.4 | 10.8 | 10 | 9.4 | 8.7 | 7.8 | 6 | 5 | 2.5 |

**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## ABSORPTION

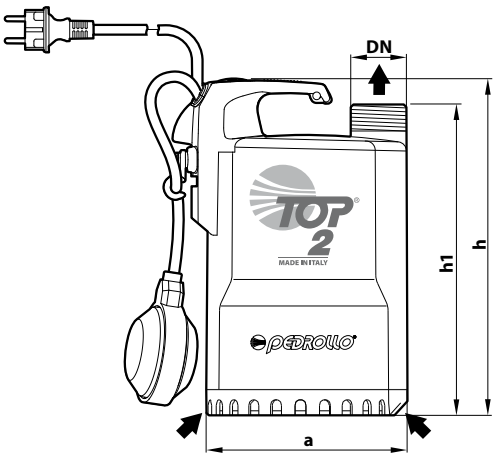
| TYPE Single-phase | VOLTAGE 220 V |
|---|---|
| **TOP 1** | 1.5 A |
| **TOP 2** | 2.2 A |
| **TOP 3** | 3.7 A |
| **TOP 4** | 5.0 A |
| **TOP 5** | 6.0 A |

| TYPE Single-phase | VOLTAGE 110 V |
|---|---|
| **TOP 1** | 3.0 A |
| **TOP 2** | 4.5 A |
| **TOP 3** | 8.6 A |
| **TOP 4** | 9.8 A |
| **TOP 5** | – |

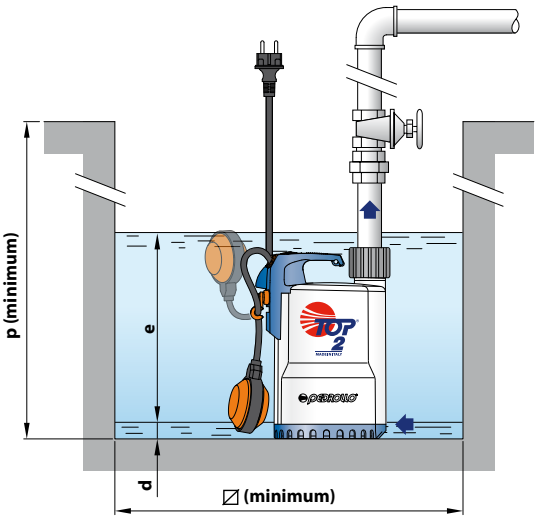
※ **TOP-LA** and **TOP-GM** pumps have the same performance

# TOP

## DIMENSIONS AND WEIGHT



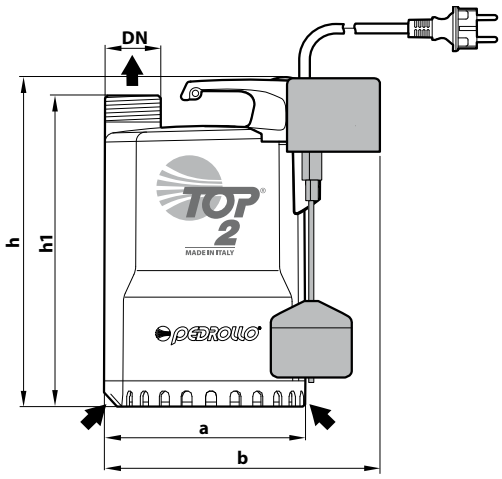

**Typical installation**



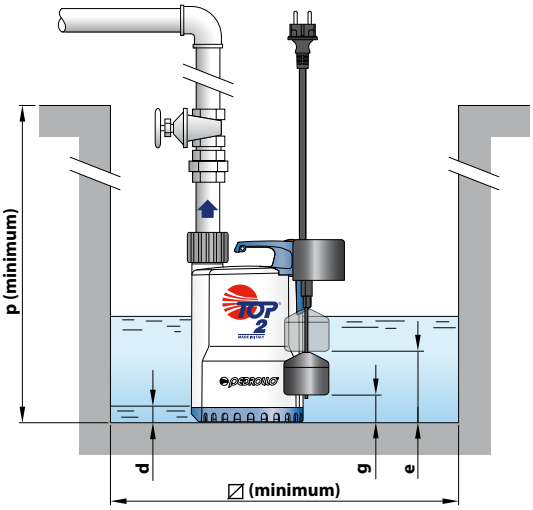

| TYPE | PORT | DIMENSIONS mm | | | | | | | kg |
|---|---|---|---|---|---|---|---|---|---|
| Single-phase | DN | a | h | h1 | d | e | p | ⍁ | |
| TOP 1 | 1¼" | 152 | 260 | 240 | 14 | adjustable | 350 | 350 | 5.4 |
| TOP 2 | | | | | | | | | 5.4 |
| TOP 3 | | | 290 | 270 | | | | | 6.7 |
| TOP 4 | 1½" | 204 | 337 | 313 | 30 | | 450 | 450 | 10.3 |
| TOP 5 | | | | | | | | | 11.3 |

※ **TOP-LA** pumps have the same dimensions

**※ Version with 'GM' magnetic float switch**




**Typical installation**




| TYPE | PORT | DIMENSIONS mm | | | | | | | | | kg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | DN | a | b | h | h1 | d | e | g (adjustable) | p | ⍁ | |
| TOP 1 - GM | 1¼" | 152 | 200 | 260 | 240 | 14 | 140 | 35 | 350 | 220 | 5.4 |
| TOP 2 - GM | | | | | | | | | | | 5.4 |
| TOP 3 - GM | | | | 290 | 270 | | 170 | 40 | | | 6.9 |
| TOP 4 - GM | 1½" | 204 | - | 337 | 313 | 30 | 220 | 65 | 450 | 300 | 10.5 |
| TOP 5 - GM | | | | | | | | | | | 11.4 |

## PALLET CAPACITY

| TYPE | GROUPAGE | CONTAINER |
|---|---|---|
| Single-phase | n. pumps | n. pumps |
| TOP 1 | 96 | 144 |
| TOP 2 | 96 | 144 |
| TOP 3 | 96 | 144 |
| TOP 4 | 60 | 100 |
| TOP 5 | 60 | 100 |

| TYPE | GROUPAGE | CONTAINER |
|---|---|---|
| Single-phase | n. pumps | n. pumps |
| TOP 1- GM | 80 | 120 |
| TOP 2 - GM | 80 | 120 |
| TOP 3 - GM | 80 | 120 |
| TOP 4 - GM | 45 | 60 |
| TOP 5 - GM | 45 | 60 |

# TOP 1-2-3

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Technopolymer |
| 2 | **Suction filter** | Technopolymer |
| 3 | **Suction cover** | Stainless steel **AISI 304** (for TOP-LA versions **AISI 316L**) |
| 4 | **Diffuser** | Technopolymer |
| 5 | **Impeller** | Noryl™ |
| 6 | **Motor sleeve** | Stainless steel **AISI 304** (for TOP-LA versions **AISI 316L**) |
| 7 | **Motor cover** | **AISI 304** stainless steel |
| 8 | **Motor shaft** | Stainless steel **AISI 431** (for TOP-LA versions **AISI 316L**) |

**9 Mechanical seal**

| Water pump | Seal | Shaft | Materials |
|---|---|---|---|
| TOP 1-2-3 | **STA-12R** | Ø 12 mm | Ceramic / Graphite / NBR |
| TOP 2-3 LA | **AR-12R LA** | Ø 12 mm | Ceramic / Graphite / NBR |

**10 Sealing ring** Ø 12 x Ø 19 x H 5 mm

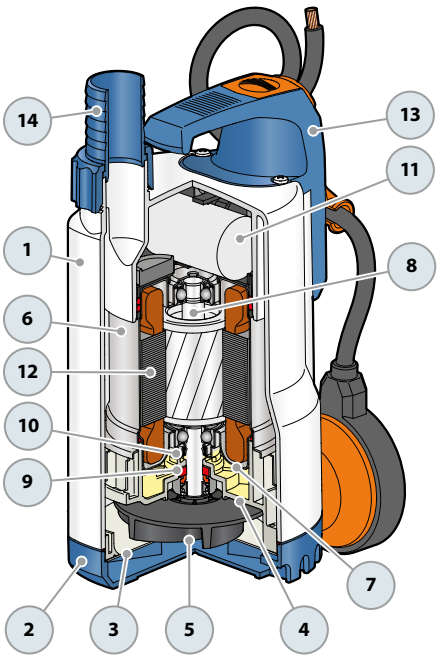
**11 Capacitor**

**12 Electric motor**
**TOP**: single-phase 220 V - 60 Hz or 110 V - 60 Hz with winding integrated thermal motor protection
- Continuous duty S1 - Insulation: class F
- Protection rating IP X8

**13 Handle group**
Complete with
– 5 m power cable type 'H07 RN-F' with Schuko plug
– Float switch (vertical operation in GM versions)

**14 Ferrule and hose nozzle**
Hose connector Ø 25 mm for TOP 1
Ø 35 mm for TOP 2-3






# TOP 4-5

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Technopolymer |
| 2 | **Suction filter** | Technopolymer |
| 3 | **Suction cover** | Stainless steel **AISI 304** |
| 4 | **Diffuser** | Technopolymer |
| 5 | **Impeller** | Noryl™ |
| 6 | **Motor sleeve** | Stainless steel **AISI 304** |
| 7 | **Motor cover** | Stainless steel **AISI 304** |
| 8 | **Motor shaft** | Stainless steel **AISI 431** |

**9 Double mechanical seal** with interposed oil chamber

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **MG1-14D SIC** | Ø 14 mm | Motor side | SiC / Graphite / NBR |
| | | Pump side | SiC / SiC / NBR |

**10 Capacitor**

**11 Electric motor**
**TOP**: single-phase 220 V - 60 Hz or 110 V - 60 Hz with winding integrated thermal motor protection
- Continuous duty S1 - Insulation: class F
- Protection rating IP X8

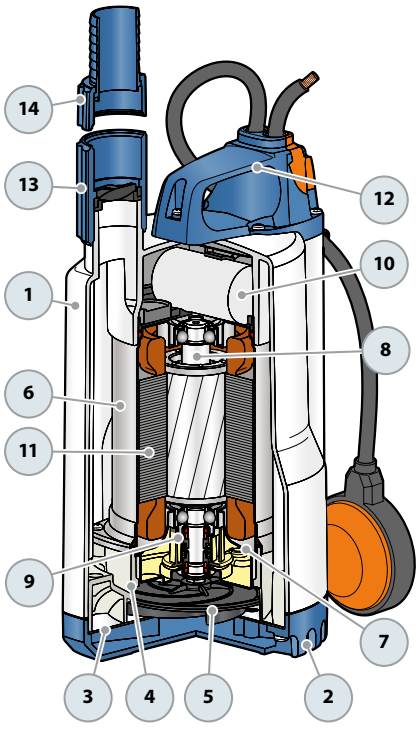
**12 Handle group**
Including:
– 5 m power cable type 'H07 RN-F' with Schuko plug
– Float switch (vertical operation in GM versions)

**13 Sleeve**
Threaded technopolymer 1½" with clapet valve



**14 Ferrule and hose nozzle**
Hose connector Ø 41 mm





# TOP-FLOOR

## Submersible pumps for DRAINAGE

Clear waters

Domestic use

※ **TOP-FLOOR**

**Designed to remove water from flooded rooms up to 2 mm from the floor**




### PERFORMANCE RANGE

- Flow rate up to **170 l/min** (10.2 m³/h)
- Head up to **10.4 m**

### INSTALLATION AND USE

**Clear water TOP-FLOOR** series drainage pumps are capable of removing water up to **2 millimeters** from the floor, these pumps are ideal for emergency household use in small, flooded areas and any situation where maximum drainage is needed.

### APPLICATION LIMITS

- Maximum operating depth below water level up to **3 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C** and up to **+90 °C** for short bursts (up to 3 minutes max) for intermittent service
- Capable of processing suspended solids up to **Ø 2 mm**
- Draining capability up to **2 mm** from the bottom

### INCLUDES

※ **5 m** long power cable

### AVAILABLE UPON REQUEST

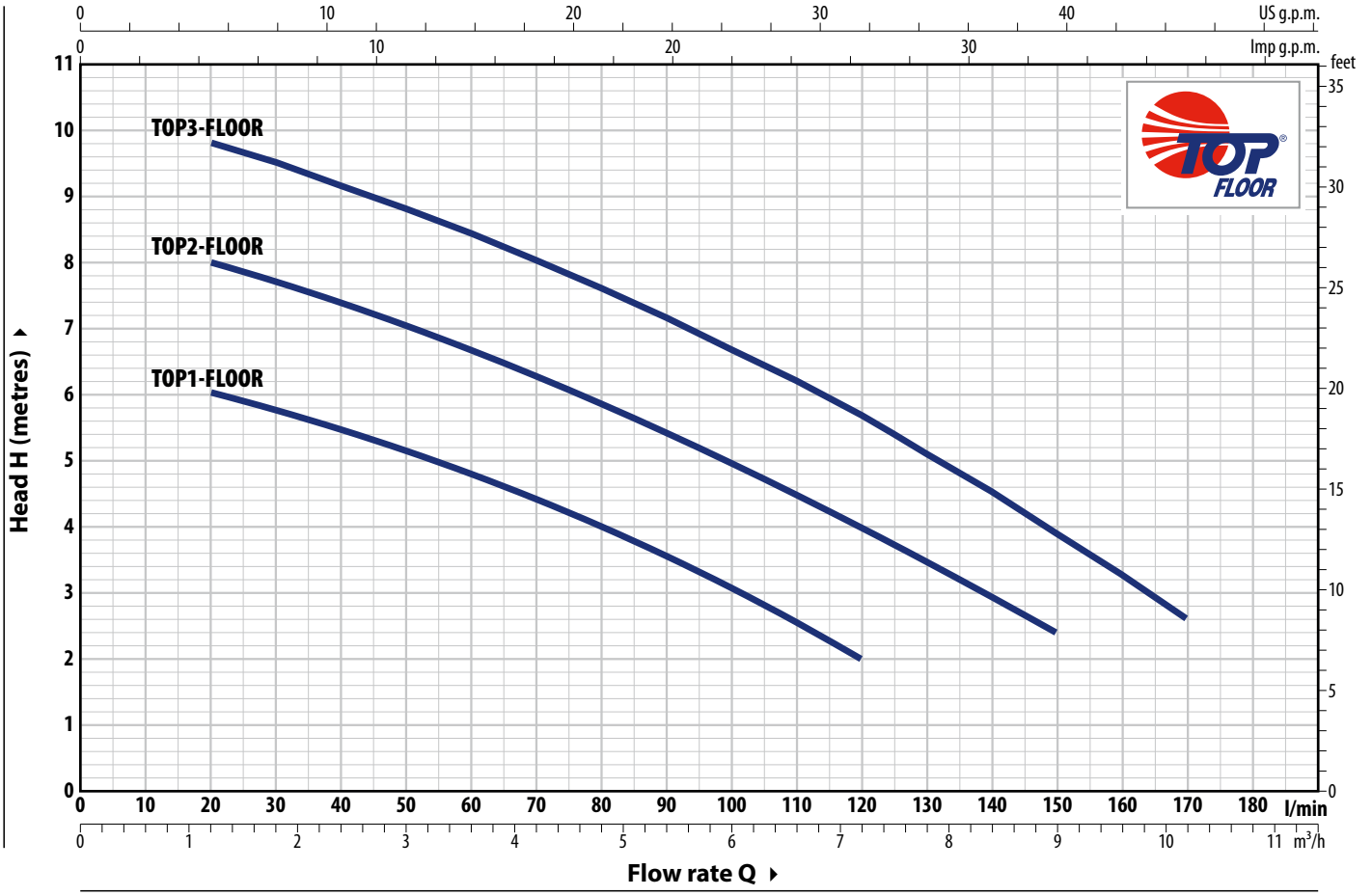
※ Pumps with float switch
※ Mechanical seal options available
※ Pumps with **10 m** power cable.
※ Different voltage or frequency

### PATENTS - TRADE MARKS - MODELS

- Registered Community Model No. 342159-0011

## CURVES AND PERFORMANCE DATA

**60 Hz**




| TYPE | POWER (P2) | | Q | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m³/h | 0 | 1.2 | 2.4 | 3.6 | 4.8 | 6.0 | 7.2 | 7.8 | 9.0 | 10.2 |
| Single-phase | kW | HP | l/min | **0** | **20** | **40** | **60** | **80** | **100** | **120** | **130** | **150** | **170** |
| **TOP 1-FLOOR** | 0.25 | 0.33 | | 6.5 | 6 | 5.5 | 4.8 | 4 | 3 | 2 | | | |
| **TOP 2-FLOOR** | 0.37 | 0.50 | **H** metres | 8.5 | 8 | 7.4 | 6.7 | 6 | 5 | 4 | 3.5 | 2.4 | |
| **TOP 3-FLOOR** | 0.55 | 0.75 | | 10.4 | 9.8 | 9.2 | 8.4 | 7.6 | 6.7 | 5.7 | 5 | 4 | 2.6 |

**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

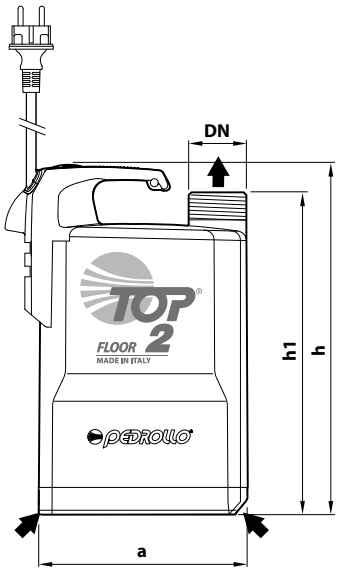
## ABSORPTION

| TYPE | VOLTAGE |
|---|---|
| Single-phase | **220 V** |
| **TOP 1-FLOOR** | 1.5 A |
| **TOP 2-FLOOR** | 2.5 A |
| **TOP 3-FLOOR** | 3.5 A |

| TYPE | VOLTAGE |
|---|---|
| Single-phase | **110 V** |
| **TOP 1-FLOOR** | 3.0 A |
| **TOP 2-FLOOR** | 4.5 A |
| **TOP 3-FLOOR** | 8.6 A |

# TOP-FLOOR

## DIMENSIONS AND WEIGHT




**Typical installation**




| TYPE<br>Single-phase | PORT<br>DN | DIMENSIONS mm<br>a | h | h1 | Minimum drainage level | kg |
|---|---|---|---|---|---|---|
| **TOP 1-FLOOR** | **1¼"** | 152 | 257 | 237 | **2 mm** | 5.2 |
| **TOP 2 -FLOOR** | | | | | | 5.2 |
| **TOP 3 -FLOOR** | | | 287 | 268 | | 6.6 |

## PALLET CAPACITY

| TYPE<br>Single-phase | GROUPAGE<br>n. pumps | CONTAINER<br>n. pumps |
|---|---|---|
| **TOP 1-FLOOR** | 96 | 144 |
| **TOP 2-FLOOR** | 96 | 144 |
| **TOP 3-FLOOR** | 96 | 144 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Technopolymer |
| 2 | **Suction filter** | Technopolymer |
| 3 | **Suction cover** | Stainless steel **AISI 304** |
| 4 | **Diffuser** | Technopolymer |
| 5 | **Impeller** | Noryl™ |
| 6 | **Motor sleeve** | Stainless steel **AISI 304** |
| 7 | **Motor cover** | Stainless steel **AISI 304** |
| 8 | **Motor shaft** | Stainless steel **AISI 431** |

**9 Double shaft seal with interposed oil chamber**

| Seal | Shaft | Materials |
|---|---|---|
| **STA-12R** | Ø 12 mm | Ceramic / Graphite / NBR |

**Sealing ring** Ø 12 x Ø 19 x H 5 mm

**10 Capacitor**

**11 Electric motor**

**TOP-FLOOR**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection

- Continuous running duty S1
- Insulation: Class F
- Protection rating IP X8

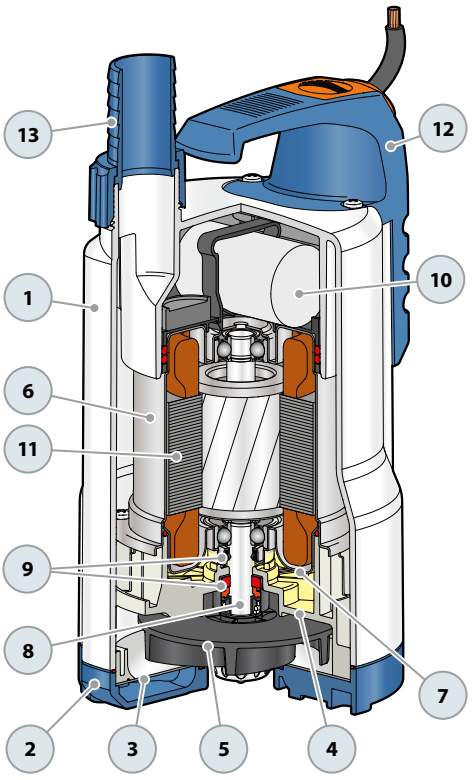
**12 Handle group**

※ Complete with 5 metres long power cable type 'H07 RN-F' with Schuko plug

**13 Ferrule and hose nozzle**



Hose connector Ø 25 mm for TOP1-FLOOR
Ø 35 mm for TOP2-FLOOR, TOP3-FLOOR



Dirty water

Domestic use

## ※ TOP-VORTEX

### Drainage pumps: reliable and durable




### PERFORMANCE RANGE

- Flow rate up to **170 l/min** (10.2 m³/h)
- Head up to **8.7 m**

### INSTALLATION AND USE

**TOP-VORTEX** pumps are suitable for draining clear water without abrasive particles that will not damage the pump's components. Construction features ensure user-friendly and safe operation, including motor cooling and a double shaft seal.

These pumps are particularly well-suited for domestic applications, including draining dirty water, emptying tanks, managing domestic drains, and clearing sumps, even in the presence of suspended solids of up to 25 mm in diameter.

### APPLICATION LIMITS

- Maximum operating depth below water level up to **3 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C** and up to **+90 °C** for short bursts (up to 3 minutes max) for intermittent service
- Capable of processing suspended solids up to **Ø 25 mm**
- Draining capability up to **25 mm** from the bottom

### INCLUDES

※ **5 m** power cable
※ Float switch

### PATENTS - TRADE MARKS - MODELS

- Patent No. IT0001428923
- Registered Community Model No. 342159-0011

### AVAILABLE UPON REQUEST

※ Mechanical seal options available
※ Pumps with **10 m** power cable
※ Different voltage or frequency

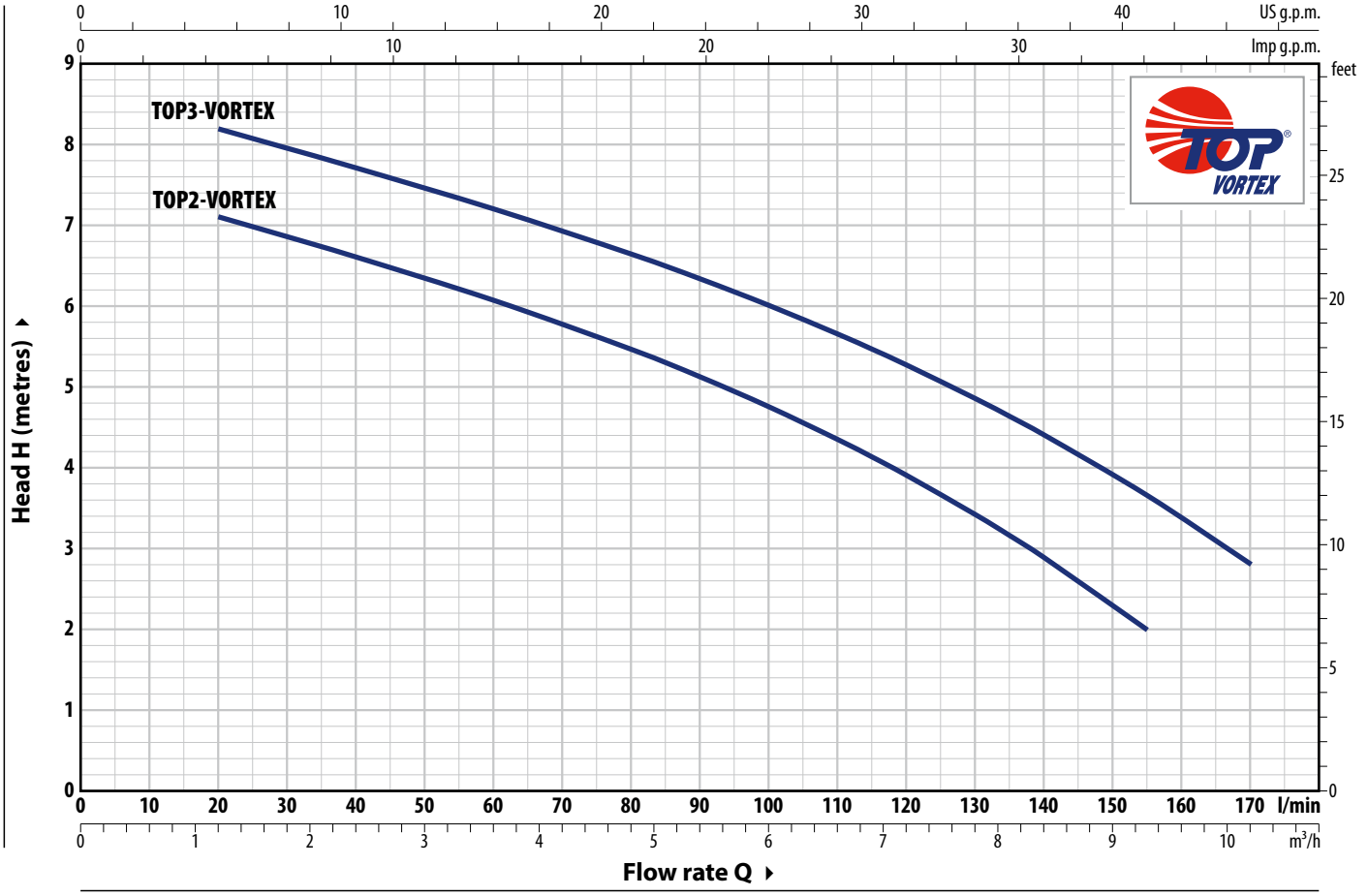
※ **TOP-VORTEX/GM** " pumps with magnetic float operation (suitable for small sumps)



※ **TOP-VORTEX/GM**

## CURVES AND PERFORMANCE DATA

**60 Hz**




| TYPE Single-phase | POWER (P2) kW | POWER (P2) HP | Q m³/h | 0 | 1.2 | 2.4 | 3.6 | 4.8 | 6.0 | 7.2 | 8.4 | 9.3 | 10.2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Q l/min | **0** | **20** | **40** | **60** | **80** | **100** | **120** | **140** | **155** | **170** |
| **TOP 2 - VORTEX** | 0.37 | 0.50 | **H** m | 7.6 | 7 | 6.6 | 6 | 5.5 | 4.8 | 4 | 3 | 2 | |
| **TOP 3 - VORTEX** | 0.55 | 0.75 | | 8.7 | 8.2 | 7.7 | 7.2 | 6.7 | 6 | 5.3 | 4.4 | 3.7 | 2.8 |

**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

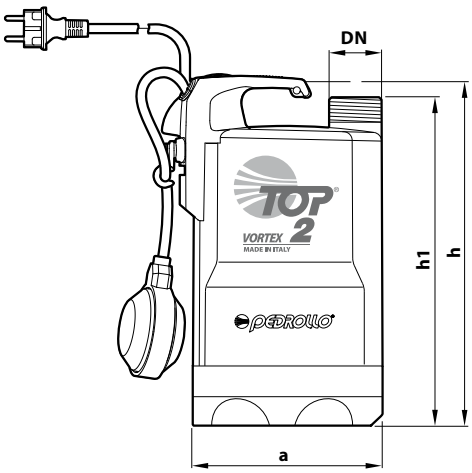
## ABSORPTION

| TYPE Single-phase | VOLTAGE 220 V |
|---|---|
| **TOP 2 - VORTEX** | 2.8 A |
| **TOP 3 - VORTEX** | 3.2 A |

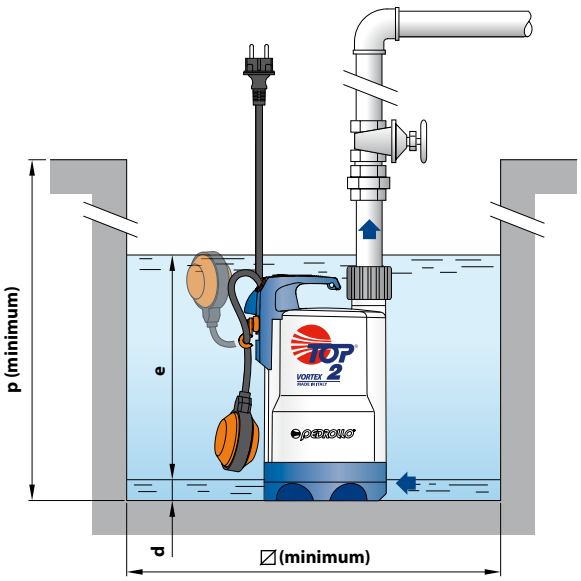
| TYPE Single-phase | VOLTAGE 110 V |
|---|---|
| **TOP 2 - VORTEX** | 4.5 A |
| **TOP 3 - VORTEX** | 8.0 A |

# TOP-VORTEX

## DIMENSIONS AND WEIGHT

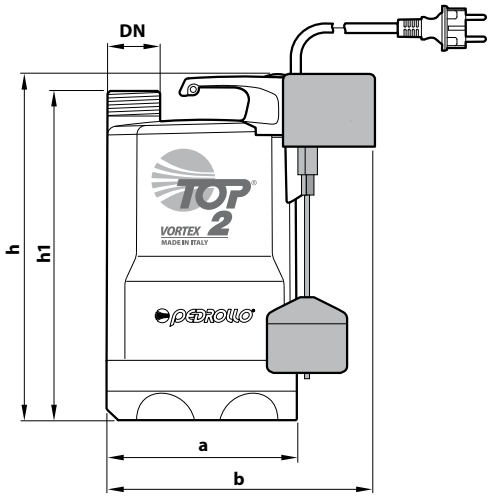



**Typical installation**

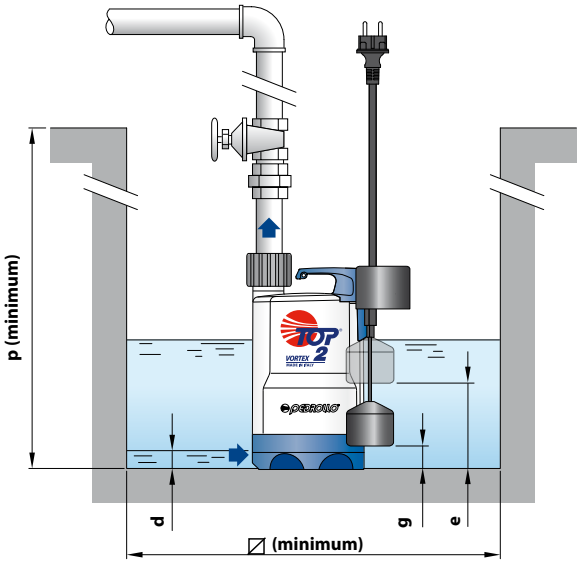



| TYPE<br>Single-phase | PORT<br>DN | DIMENSIONS mm<br>a | h | h1 | d | e | p | ⍁ | kg |
|---|---|---|---|---|---|---|---|---|---|
| TOP 2 - VORTEX | 1¼" | 152 | 288 | 268 | 25 | adjustable | 350 | 350 | 5.4 |
| TOP 3 - VORTEX | | | 318 | 298 | | | | | 6.8 |

※ **Version with 'GM' magnetic float switch**




**Typical installation**




| TYPE<br>Single-phase | PORT<br>DN | DIMENSIONS mm<br>a | b | h | h1 | d | e | g (adjustable) | p | ⍁ | kg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP 2 - VORTEX/GM | 1¼" | 152 | 200 | 288 | 268 | 25 | 170 | 40 | 350 | 220 | 5.5 |
| TOP 3 - VORTEX/GM | | | | 318 | 298 | | 200 | 65 | | | 6.9 |

## PALLET CAPACITY

| TYPE<br>Single-phase | GROUPAGE<br>n. pumps | CONTAINER<br>n. pumps |
|---|---|---|
| TOP 2 - VORTEX | 96 | 120 |
| TOP 3 - VORTEX | 96 | 120 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Technopolymer |
| 2 | **Suction filter** | Technopolymer |
| 3 | **Suction cover** | Technopolymer |
| 4 | **Diffuser** | Technopolymer |
| 5 | **Impeller** | VORTEX technopolymer type |
| 6 | **Motor sleeve** | Stainless steel **AISI 304** |
| 7 | **Motor cover** | Stainless steel **AISI 304** |
| 8 | **Motor shaft** | Stainless steel **AISI 431** |

**9 Double shaft seal with interposed oil chamber**

| Seal | Shaft | Materials |
|---|---|---|
| **STA-12R** | Ø 12 mm | Ceramic / Graphite / NBR |

**Shaft seal** Ø 12 x Ø 19 x H 5 mm

**10 Capacitor**

**11 Electric motor**

**TOP-VORTEX**: single-phase 220 V - 60 Hz or 110 V - 60 Hz with winding integrated thermal motor protection
- Continuous running duty S1
- Insulation: Class F
- Protection rating IP X8

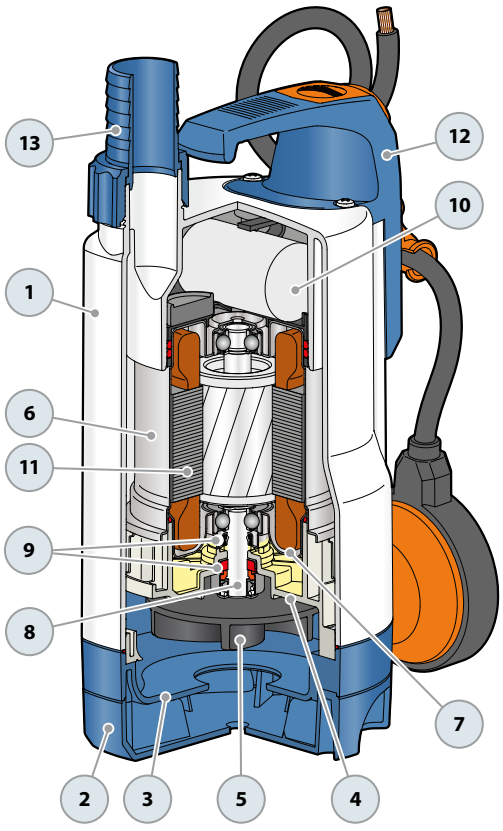
**12 Handle group**

Including:
– Float switch
(vertically operating float switch in GM versions)
– 5 metres power cable type 'H07 RN-F' with Schuko plug

**13 Ferrule and hose nozzle**

Hose connector Ø 35 mm





Dirty water

Domestic use

## ※ TEX: reliable water elimination with magnetic level switch




## ※ Innovative, patented design
## ※ Premium quality
## ※ Ideal for sumps with limited space
## ※ Robust and compact
## ※ Equipped with retractable handle
## ※ Exceptional performance

### PERFORMANCE RANGE

- Flow rate up to **240 l/min** (14.4 m³/h)
- Head up to **10 m**

### INSTALLATION AND USE

**TEX** electric sewage pumps offer a dependable solution for wastewater management. Primarily utilized in stationary setups to remove water from sumps, they are also suitable for portable applications, such as tanks, reservoirs, ditches, or during floods.

**TEX** pumps offer increased power and a larger clearance area, while the oversized motor prevents overheating even when operating without cover.

※ Key features include a spacious side drain for rapid water evacuation with minimal energy consumption.

※ Additionally, **TEX** pumps come equipped with a compact, integrated magnetic float switch that ensures complete electrical safety and enables usage in confined spaces, including sumps as small as **220 mm** on each side.

### APPLICATION LIMITS

- Maximum operating depth below water level up to **5 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C** and up to **+90 °C** for short bursts (up to 3 minutes max) for intermittent service
- Capable of processing suspended solids up to **Ø 30 mm**
- Draining capability up to **35 mm** from the bottom

### INCLUDES

※ **5 m** power cable
※ An adjustable vertical magnetic float level switch
※ Hose connector **Ø 40 mm**

### AVAILABLE UPON REQUEST

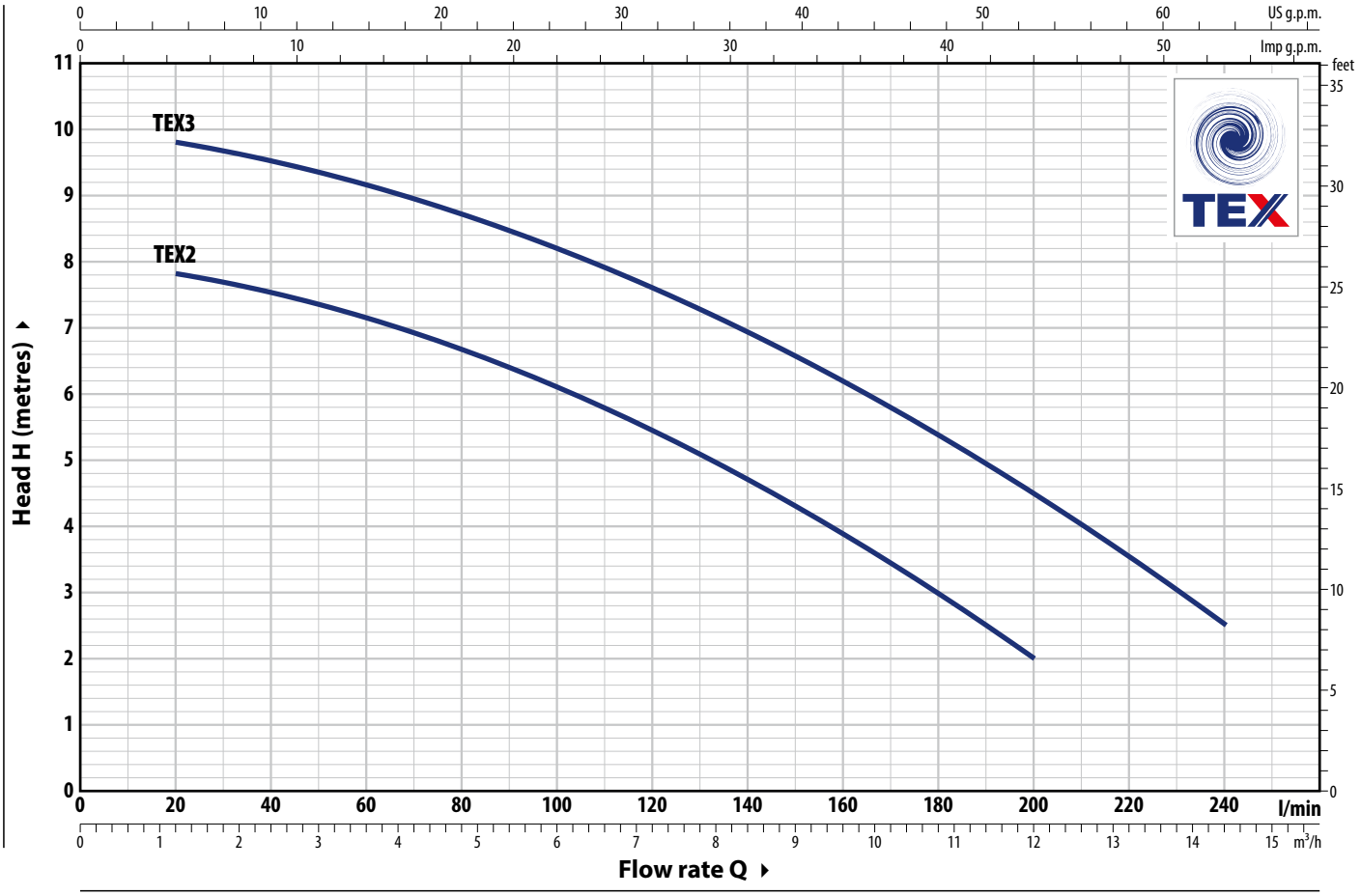
※ Mechanical seal options available
※ Pumps with **10 m** power cable.
※ Different voltage or frequency

### PATENTS - TRADE MARKS - MODELS

- Registered Community Model No. 005205556
- **TEX**®European registered trademark No. 017884160

## CURVES AND PERFORMANCE DATA

**60 Hz**




| MODEL | POWER (P2) | | Q | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m³/h | 0 | 1.2 | 2.4 | 3.6 | 4.8 | 6 | 7.2 | 8.4 | 9.6 | 10.8 | 12 | 13.2 | 14.4 |
| Single-phase | kW | HP | l/min | **0** | **20** | **40** | **60** | **80** | **100** | **120** | **140** | **160** | **180** | **200** | **220** | **240** |
| **TEX 2** | 0.37 | 0.50 | **H** m | 8 | 7.8 | 7.5 | 7.1 | 6.7 | 6.1 | 5.4 | 4.7 | 3.9 | 3 | 2 | | |
| **TEX 3** | 0.55 | 0.75 | | 10 | 9.8 | 9.5 | 9.2 | 8.7 | 8.2 | 7.6 | 6.9 | 6.2 | 5.4 | 4.5 | 3.5 | 2.5 |

**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## RETRACTABLE HANDLE



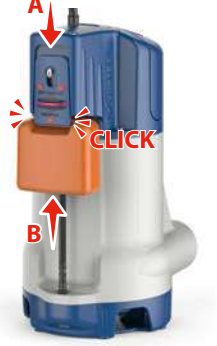

## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-ph. | 220 V | 110 V |
| **TEX 2** | 2.3 A | 4.6 A |
| **TEX 3** | 3.7 A | 7.5 A |

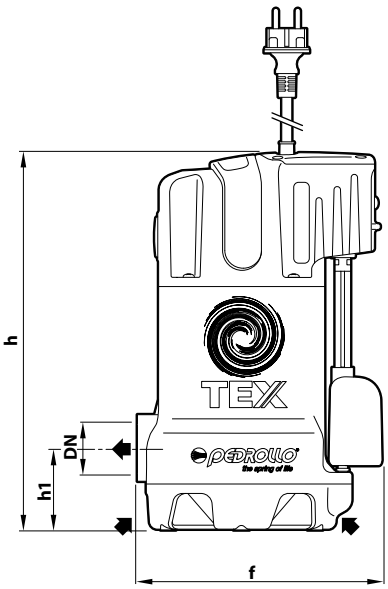
**SWITCH FOR AUTOMATIC MODE**

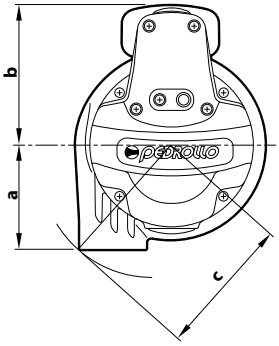


**SWITCH FOR MANUAL MODE**

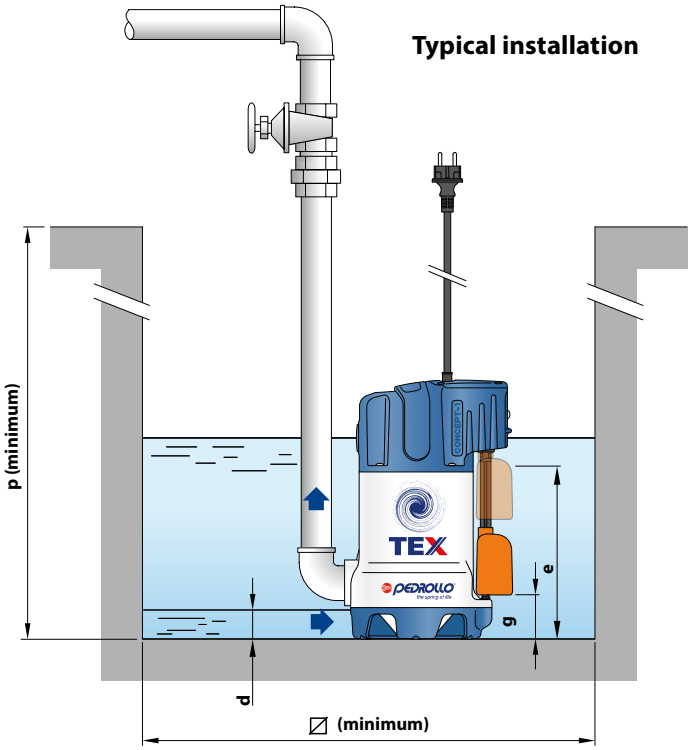


## DIMENSIONS AND WEIGHT

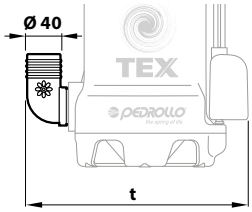



**Typical installation**




**Rubber holder fitting**




| TYPE<br>Single-phase | PORT<br>DN | Passage of solid bodies | DIMENSIONS mm | | | | | | | | | | | | kg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | a | b | c | f | h1 | h | d | e | g (adjustable) | t | p | ⧄ | 1~ |
| **TEX 2** | **1¼"** | **Ø 30 mm** | 88 | 117 | 118 | 205 | 69.5 | 318 | 35 | 206 | 80 or 100 | 251 | 350 | 220 | 6.1 |
| **TEX 3** | | | | | | | | | | | | | | | 7.0 |

## PALLET CAPACITY

| TYPE<br>Single-phase | GROUPAGE<br>n. pumps | CONTAINER<br>n. pumps |
|---|---|---|
| **TEX 2** | 60 | 100 |
| **TEX 3** | 60 | 100 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Handle** | Technopolymer |
| 2 | **Pump body** | Particularly impact-resistant technopolymer with ISO 228/1 threaded metal insert port |
| 3 | **Suction filter** | Technopolymer |
| 4 | **Suction cover** | Technopolymer |
| 5 | **Impeller** | VORTEX type made of technopolymer |
| 6 | **Motor sleeve** | Stainless steel **AISI 304** |
| 7 | **Motor cover** | Stainless steel **AISI 304** |
| 8 | **Motor shaft** | Stainless steel **AISI 431** |
| 9 | **Double shaft seal with interposed oil chamber** | |

| Seal | Shaft | Materials |
|---|---|---|
| **STA-12R** | Ø 12 mm | Ceramic / Graphite / NBR |

**Shaft seal** Ø 12 x Ø 19 x H 5 mm

**10 Capacitor**

**11 Electric motor**

**TEX**: single-phase 220 V - 60 Hz
with winding integrated thermal motor protection

- Continuous running duty S1
- Insulation: Class F
- Protection rating IP X8

**12 Power cord**

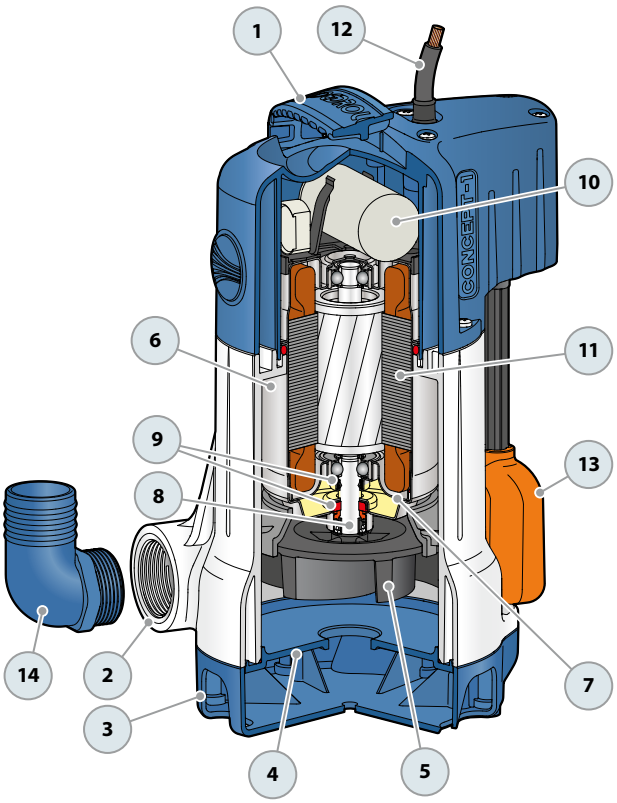
Type 'H07 RN-F' with Schuko plug

※ Standard length 5 metres

**13 Float level switch**
Float magnetic vertical solid adjustable

**14 Hose connector**

Ø 40 mm



# TOP MULTI-AD Submersible pump for AdBlue®

Industrial use




## INSTALLATION AND USE

**TOP MULTI 1-AD** submersible pumps are engineered to handle AUS32 (Aqueous Urea Solution 32.5%), a clean liquid meeting ISO 22241 standards. This solution is also recognized globally under:

※ **AdBlue®** (registered trademark of Verband der Automobilindustrie VDA);
※ **DEF** (Diesel Exhaust Fluid);
※ **Arla 32** (Agente Redutor Liquido de Óxido de Nitrogênio Automotivo).

## APPLICATION LIMITS

- Depth of use below liquid level up to **3 m**
- Liquid temperature up to **+40 °C**
- Draining capability up to **25 mm** from the bottom

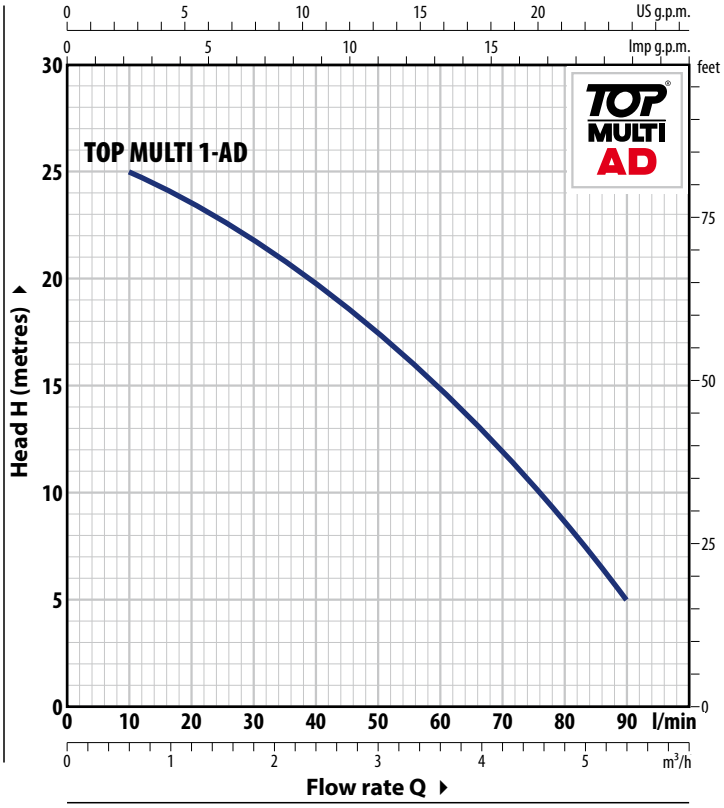
## INCLUDES

※ **5 m** long power cable with H07BN4-F sheathing
※ Complete sleeve with clapet valve

## AVAILABLE UPON REQUEST

※ Different voltage or frequency
※ 10 metres long power cable

## CURVES AND PERFORMANCE DATA 60 Hz




## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| **Single-phase** | **220 V** | **110 V** |
| **TOP MULTI 1-AD** | 2.3 A | 4.8 A |

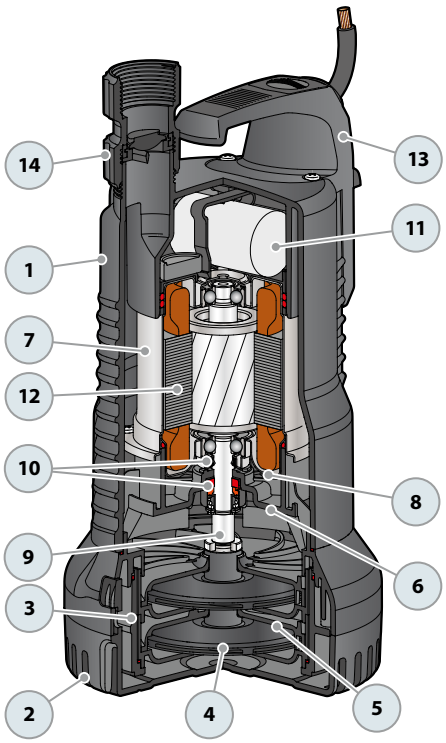
| TYPE | POWER (P2) | | Q | m³/h | 0 | 0.6 | 1.2 | 1.8 | 2.4 | 3.0 | 3.6 | 4.2 | 4.8 | 5.4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **kW** | **HP** | | l/min | **0** | **10** | **20** | **30** | **40** | **50** | **60** | **70** | **80** | **90** |
| **TOP MULTI 1-AD** | 0.37 | 0.50 | **H** | metres | 27 | 25 | 23.5 | 22 | 20 | 17.5 | 15 | 12 | 8.5 | 5 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Technopolymer with ISO 228/1 threaded delivery port |
| 2 | **Suction filter** | Technopolymer |
| 3 | **Containment stages** | Technopolymer |
| 4 | **Impeller** | Noryl™ |
| 5 | **Diffuser** | Noryl™ |
| 6 | **Diffuser vanes** | Technopolymer |
| 7 | **Motor sleeve** | Stainless steel **AISI 304** |
| 8 | **Motor cover** | Stainless steel **AISI 304** |
| 9 | **Motor shaft** | Stainless steel **AISI 431** |
| 10 | **Double shaft seal** | |

| Seal | Shaft | Materials |
|---|---|---|
| **STA-12R SGE** | Ø 12 mm | Silicon carbide / Graphite / EPDM |
| **Shaft seal** | | Ø 12 x Ø 19 x H 5 mm |

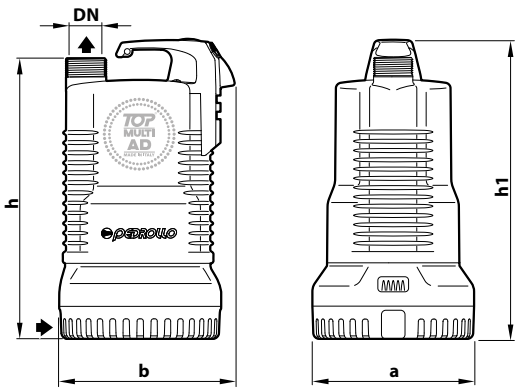
| | | |
|---|---|---|
| 11 | **Capacitor** | |
| 12 | **Electric motor** | **TOP MULTI-AD**: Single-phase 220 V - 60 Hz with winding integrated thermal motor protection<br>- Continuous running duty **S1**<br>- Insulation: Class F<br>- Protection rating IP X8 |
| 13 | **Handle group** | ※ Complete with 5 metres long power cable type 'H07BN4-F'. |
| 14 | **Sleeve** | Threaded 1¼" ISO 228/1 with built-in clapet valve (Included in delivery) |






## DIMENSIONS AND WEIGHTS (mm)

| TYPE Single-phase | PORT DN | N° STAGES | DIMENSIONS mm | | | | | | | kg |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | a | b | h | h1 | d | p | ⍁ | |
| **TOP MULTI 1-AD** | **1¼"** | 2 | 170 | 180 | 295 | 315 | 25 | 350 | 220 | 5.9 |




## PALLET CAPACITY

| TYPE Single-phase | GROUPAGE n. pumps | CONTAINER n. pumps |
|---|---|---|
| **TOP MULTI 1-AD** | 60 | 100 |

# PLUG & DRAIN

## Ready-to-use anti-flooding kit







**※ PLUG & DRAIN PLUG & DRAIN is the essential emergency kit for fast and effective flood management in garages, basements, and cellars.**

**※ Features a high-performance drainage pump and a 12.5-metre-long PVC hose for quick water evacuation, plus the option to use the storage case as a filter.**

**※ PLUG & DRAIN efficiently lowers water to just about 2 mm from the ground, ensuring nearly complete removal.**

**※ Comes in a convenient carrying case that simplifies transport and doubles as a filter while you're draining.**

## PLUG & DRAIN Code. ASSKPDSTO2FA1

### ※ STANDARD COMPONENTS

**SUBMERSIBLE Pump TOP2-FLOOR**

- Single-phase **220 V - 60 Hz**
- Performance:
  – **H max= 8.5 m**
  – **Q max= 150 l/min**
- **10 metres** long power cable with Schuko plug
- Float switch
- **STORZ**' quick coupling
- Draining capability up to **2 mm** from the bottom



**PVC HOSE**

- **STORZ**' quick coupling
- Hose length **12.5 m**
- Pipe diameter **1¼"**



**FILTER-BOX**

- Features a secure pump attachment system for stable operation, with a quick-release option to use the pump independently
- Includes a cover for tidy storage, ensuring it's always ready for immediate use




## ※ PLUG & DRAIN WITH Pumps ON REQUEST

**TOP3**

Performance:
– H max= **10.4 m**
– Q max= **260 l/min**

CODE ASSKPDSTOP3A1



**RXm 2**

Performance:
– H max= **10.3 m**
– Q max= **190 l/min**

CODE ASSKPDSRX2A1




**RXm 3**

Performance:
- H max= **12.3 m**
- Q max= **220 l/min**

CODE ASSKPDSRX3A1





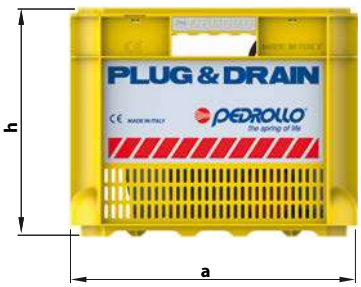



| TECHNICAL SPECIFICATIONS | | ※ SERIES MODEL | ※ AVAILABLE MODELS | | |
|---|---|---|---|---|---|
| | | TOP 2-FLOOR | TOP 3 | RXm 2 | RXm 3 |
| SPECIFICATIONS | Pump type | Submersible | Submersible | Submersible | Submersible |
| | Pump control | Float | Float | Float | Float |
| MATERIALS | Pump body | Technopolymer | Technopolymer | **AISI 304** stainless steel | **AISI 304** stainless steel |
| | Impeller | Noryl™ | Noryl™ | **AISI 304** stainless steel | **AISI 304** stainless steel |
| | Mechanical seal | Ceramic/Graphite/NBR | Ceramic/Graphite/NBR | Ceramic/Graphite/NBR | Ceramic/Graphite/NBR |
| PERFORMANCE | Draining capability from the bottom | **2 mm** | **14 mm** | **14 mm** | **14 mm** |
| | Maximum depth of immersion | **3 m** | **3 m** | **10 m** | **10 m** |
| | Maximum size of suspended solids | **2 mm** | **10 mm** | **10 mm** | **10 mm** |
| FITTINGS | Pump connections Outlet port | **1 ¼" M** | **1 ¼" M** | **1 ¼" F** | **1 ¼" F** |
| MOTOR ELECTRIC | Typology | Asynchronous (with automatic reset thermal protector) | Asynchronous (with automatic reset thermal protector) | Asynchronous (with automatic reset thermal protector) | Asynchronous (with automatic reset thermal protector) |
| | Electric power supply | **~ 220 V / 60 Hz** | **~ 220 V / 60 Hz** | **~ 220 V / 60 Hz** | **~ 220 V / 60 Hz** |
| | Consumption | **460 W** | **780 W** | **500 W** | **670 W** |
| | Current at full load | **2.5 A** | **3.7 A** | **2.5 A** | **3.3 A** |
| | Power cord (pre-wired) | **10 m with Schuko plug** | **10 m with Schuko plug** | **10 m with Schuko plug** | **10 m with Schuko plug** |
| | Service index | Continuous running duty (S1) | Continuous running duty (S1) | Continuous running duty (S1) | Continuous running duty (S1) |

## DIMENSIONS AND WEIGHT

| TYPE | DIMENSIONS mm | | | kg* |
|---|---|---|---|---|
| | a | b | h | |
| **PLUG & DRAIN - TOP 2-FLOOR** | 400 | 300 | 320 | 10.5 |
| **PLUG & DRAIN - TOP 3** | 400 | 300 | 362 | 12.9 |
| **PLUG & DRAIN - RXm 2** | 400 | 300 | 362 | 11.6 |
| **PLUG & DRAIN - RXm 3** | 400 | 300 | 362 | 13.1 |

(* Total weight: pump, hose, fittings and box)






Clear waters
Domestic use
Civil use

※ **Pumps entirely made of stainless steel**




## PERFORMANCE RANGE

- Flow rate up to **320 l/min** (19.2 m³/h)
- Head up to **20.5 m**

## INSTALLATION AND USE

**RX** pumps are designed for efficiently draining **clear water** without abrasive particles. Their design ensures user-friendly operation and safe performance, thanks to complete motor cooling and a double shaft seal. Ideal for home and public applications, these pumps are perfect for permanent setups, quickly handling emergency situations like small floods in rooms, basements, and garages. They're also great for managing household wastewater from dishwashers and washing machines, as well as for sump emptying.

## APPLICATION LIMITS

- Maximum operating depth below water level up to **10 m** (with an appropriately sized power cable)
- Liquid temperature up to **+50 °C** and up to +90 °C for short bursts (up to 3 minutes max) for intermittent service
- Capable of processing suspended solids up to **Ø 10 mm**
- Draining capability:
  - up to **14 mm** from the bottom for RX 1-2-3
  - up to **25 mm** from the bottom for RX 4-5

## PATENTS - TRADE MARKS - MODELS

- Patent No. EP2313658
- Patent No. IT0001428923

## INCLUDES

※ **5 m** power cable
※ Float switch for single-phase versions

## AVAILABLE UPON REQUEST

※ Mechanical seal options available
※ Pumps with **10 m** power cable
※ Different voltage or frequency

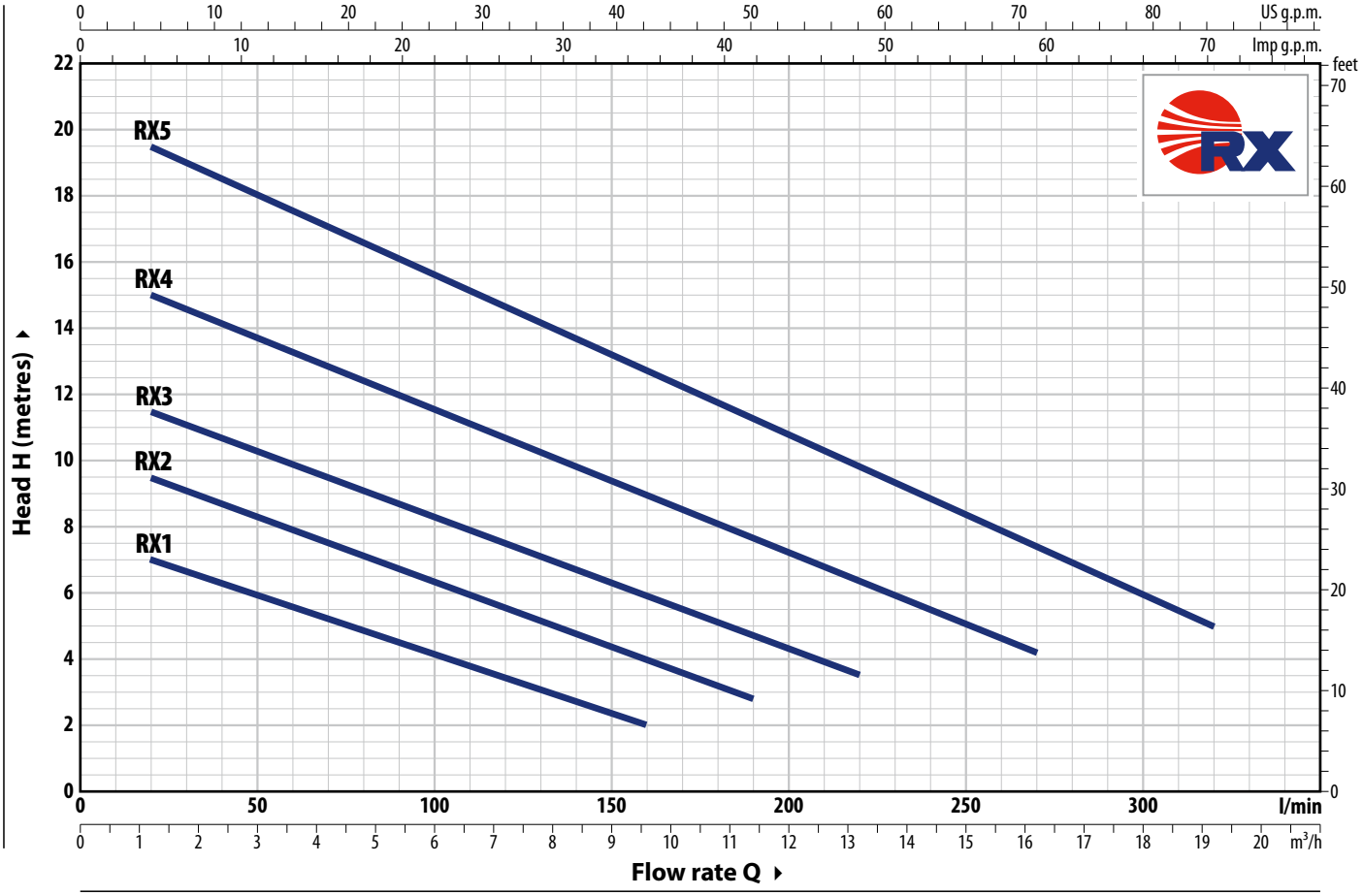
※ **RX-GM**" pumps with magnetic float switch (suitable for small sumps)




※ **RX-GM**

## CURVES AND PERFORMANCE DATA

**60 Hz**




| TYPE | | POWER (P2) | | Q | m³/h | 0 | 1.2 | 3.6 | 6 | 7.8 | 9.6 | 11.4 | 13.2 | 14.4 | 16.2 | 18 | 19.2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | kW | HP | | l/min | **0** | **20** | **60** | **100** | **130** | **160** | **190** | **220** | **240** | **270** | **300** | **320** |
| **RXm 1** | **RX 1** | 0.25 | 0.33 | | | 7.7 | 7 | 5.6 | 4 | 3 | 2 | | | | | | |
| **RXm 2** | **RX 2** | 0.37 | 0.50 | | | 10.3 | 9.5 | 8 | 6.4 | 5.2 | 4 | 2.8 | | | | | |
| **RXm 3** | **RX 3** | 0.55 | 0.75 | **H** | metres | 12.3 | 11.5 | 10 | 8.3 | 7 | 6 | 4.7 | 3.5 | | | | |
| **RXm 4** | **RX 4** | 0.75 | 1 | | | 16 | 15 | 13.3 | 11.5 | 10.3 | 9 | 7.7 | 6.4 | 5.5 | 4.2 | | |
| **RXm 5** | **RX 5** | 1.1 | 1.5 | | | 20.5 | 19.5 | 17.6 | 15.6 | 14.2 | 12.7 | 11.3 | 9.8 | 9 | 7.4 | 6 | 5 |

**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

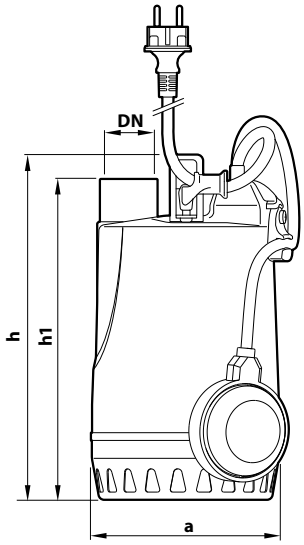
## ABSORPTION

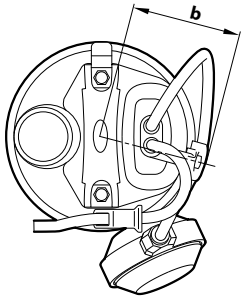
| TYPE | VOLTAGE | |
|---|---|---|
| Single-phase | 220 V | 110 V |
| **RXm 1** | 1.5 A | 3.2 A |
| **RXm 2** | 2.5 A | 5.7 A |
| **RXm 3** | 3.3 A | 7.5 A |
| **RXm 4** | 5.9 A | 11.8 A |
| **RXm 5** | 7.7 A | – |

| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 380 V | 440 V |
| **RX 1** | 0.9 A | 0.8 A |
| **RX 2** | 1.3 A | 1.1 A |
| **RX 3** | 1.6 A | 1.4 A |
| **RX 4** | 2.5 A | 2.3 A |
| **RX 5** | 3.5 A | 3.3 A |

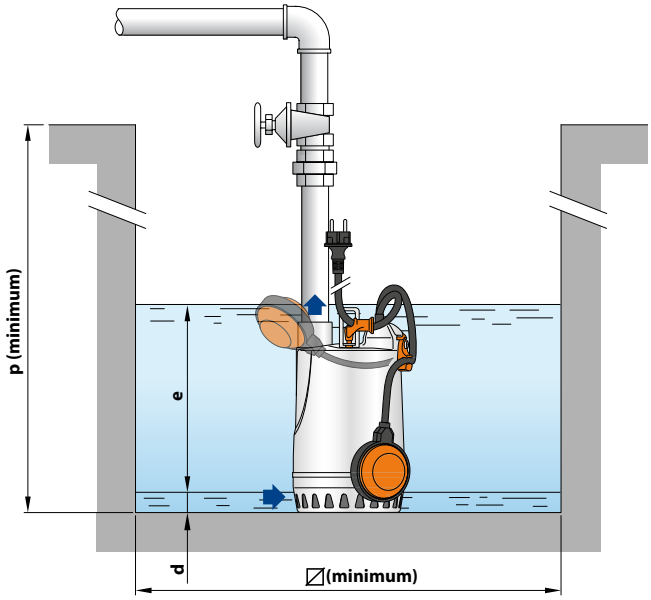
# RX 1-2-3

## DIMENSIONS AND WEIGHT



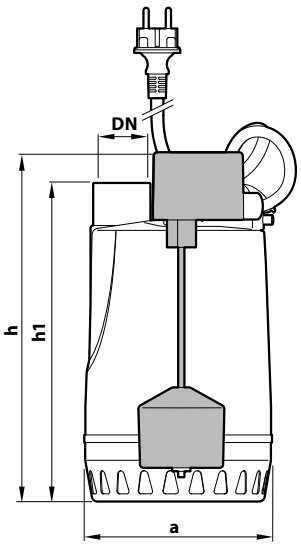

**Typical installation**

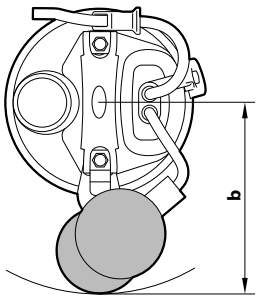



| TYPE | | PORT | DIMENSIONS mm | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN | a | b | h | h1 | d | e | p | ⍁ | 1~ | 3~ |
| RXm 1 | RX 1 | 1¼" | 147 | 84 | 268 | 243 | 14 | adjustable | 350 | 350 | 6.1 | 5.7 |
| RXm 2 | RX 2 | | | | | | | | | | 6.1 | 5.7 |
| RXm 3 | RX 3 | | | | 298 | 273 | | | | | 7.6 | 7.1 |

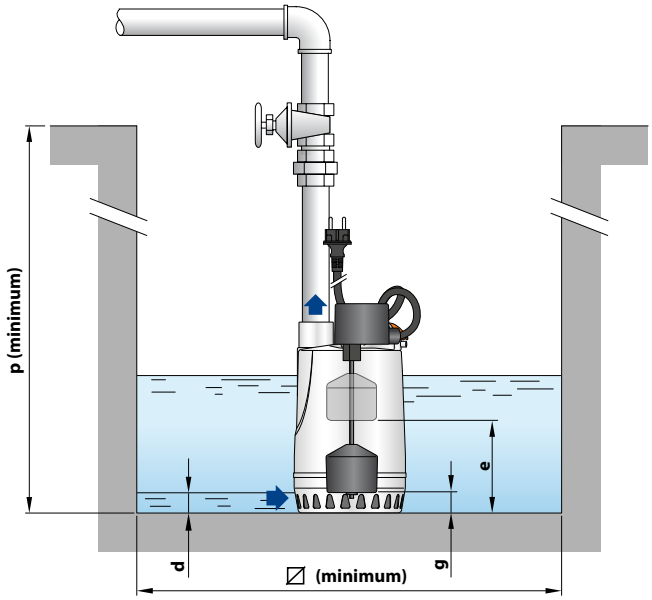
| GROUPAGE | CONTAINER |
|---|---|
| n. pumps | n. pumps |
| 96 | 144 |
| 96 | 144 |
| 96 | 144 |

※ **Version with 'GM' magnetic float switch**




**Typical installation**




| TYPE | PORT | DIMENSIONS mm | | | | | | | | | kg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | DN | a | b | h | h1 | d | e | g (adjustable) | p | ⍁ | 1~ |
| RXm 1-GM | 1¼" | 147 | 150 | 270 | 243 | 14 | 145 | 40 | 350 | 240 | 6.3 |
| RXm 2-GM | | | | | | | | | | | 6.3 |
| RXm 3-GM | | | | 300 | 273 | | 175 | 45 | | | 7.6 |

| GROUPAGE | CONTAINER |
|---|---|
| n. pumps | n. pumps |
| 80 | 120 |
| 80 | 120 |
| 80 | 120 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Outer sleeve** | **AISI 304** stainless steel with ISO 228/1 threaded port |
| 2 | **Suction filter** | Stainless steel **AISI 304** |
| 3 | **Diffuser** | Stainless steel **AISI 304** |
| 4 | **Impeller** | Stainless steel **AISI 304** |
| 5 | **Motor sleeve** | Stainless steel **AISI 304** |
| 6 | **Motor cover** | Stainless steel **AISI 304** |
| 7 | **Motor shaft** | Stainless steel **AISI 431** |

**8 Double shaft seal with interposed oil chamber**

| Seal | Shaft | Materials |
|---|---|---|
| **STA-12R** | Ø 12 mm | Ceramic / Graphite / NBR |

**Shaft seal** Ø 12 x Ø 19 x H 5 mm

**9 Capacitor**
(exclusive to single-phase models)

**10 Electric motor**

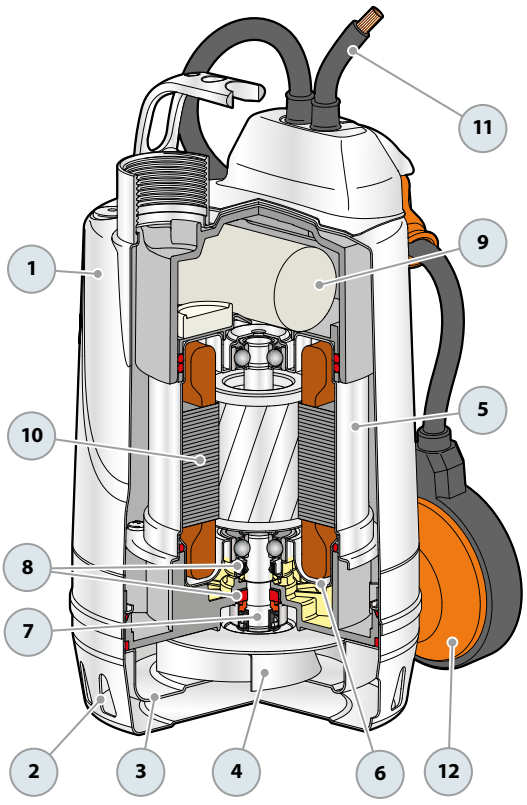
**RXm**: single-phase 220 V - 60 Hz or 110 V - 60Hz with winding integrated thermal motor protection
**RX**: three-phase 380 V - 60 Hz or 440 V - 60Hz
- Continuous running duty S1
- Insulation: Class F
- Protection rating IP X8

**11 Power cord**

Type 'H07 RN-F
(Schuko plug exclusive to single-phase models)

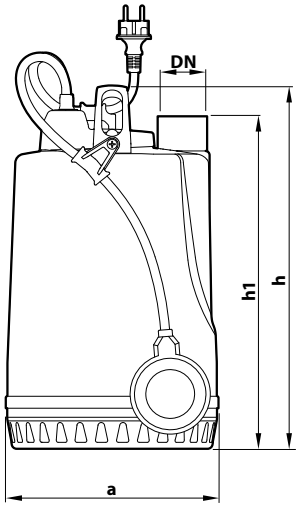
※ Standard length 5 metres

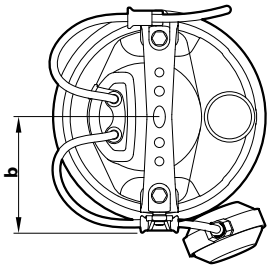
**12 Float switch**
(exclusive to single-phase models)



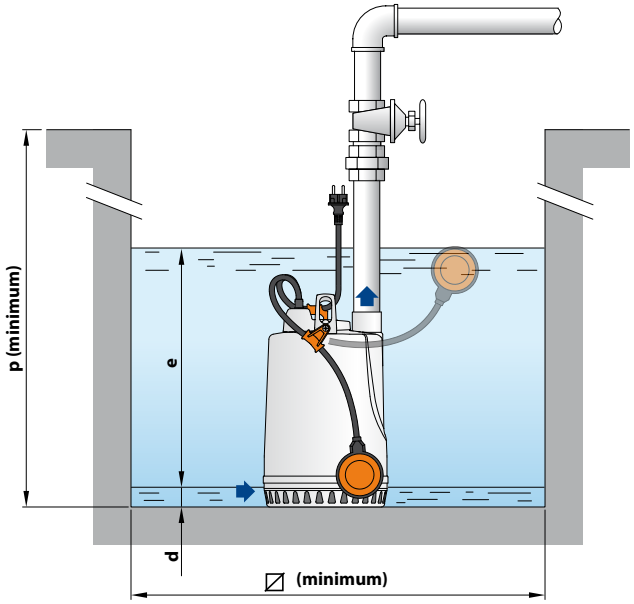
# RX 4-5

## DIMENSIONS AND WEIGHT



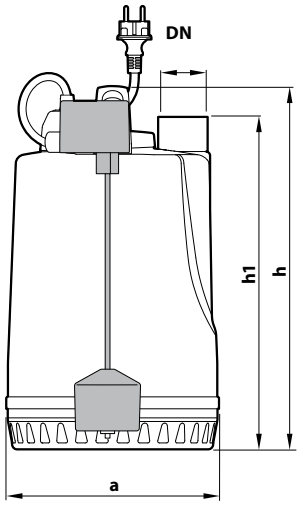

**Typical installation**

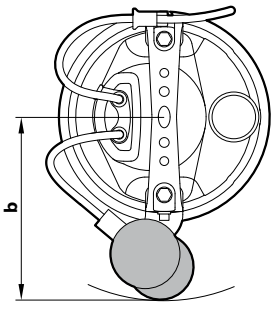



| TYPE | | PORT | DIMENSIONS mm | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN | a | b | h | h1 | d | e | p | ⍁ | 1~ | 3~ |
| RXm 4 | RX 4 | 1½" | 220 | 118.5 | 368 | 336 | 25 | adjusta-ble | 500 | 500 | 14.3 | 13.3 |
| RXm 5 | RX 5 | | | | | | | | | | 15.5 | 14.4 |

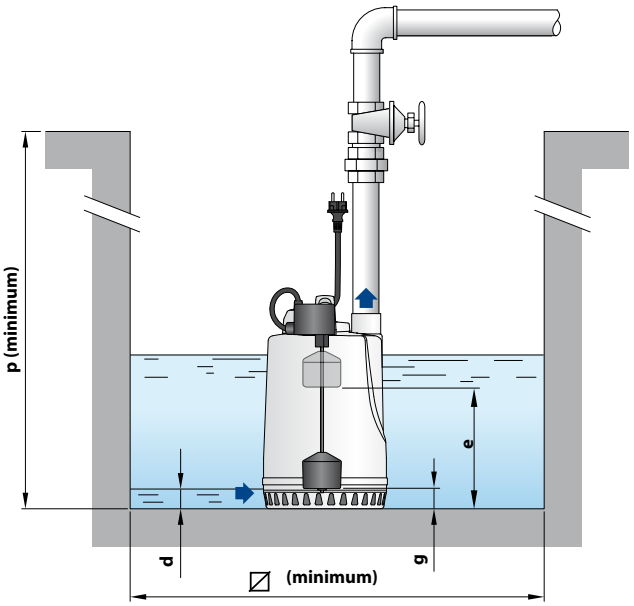
| GROUPAGE | CONTAINER |
|---|---|
| n. pumps | n. pumps |
| 45 | 60 |
| 45 | 60 |

**※ Version with 'GM' magnetic float switch**




**Typical installation**




| TYPE | PORT | DIMENSIONS mm | | | | | | | | | kg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | DN | a | b | h | h1 | d | e | g (adjustable) | p | ⍁ | 1~ |
| RXm 4 - GM | 1½" | 220 | 186.5 | 368 | 336 | 25 | 250 | 50 | 500 | 300 | 14.5 |
| RXm 5 - GM | | | | | | | | | | | 15.6 |

| GROUPAGE | CONTAINER |
|---|---|
| n. pumps | n. pumps |
| 36 | 48 |
| 36 | 48 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Outer sleeve** | **AISI 304** stainless steel with ISO 228/1 threaded port |
| 2 | **Suction filter** | Stainless steel **AISI 304** |
| 3 | **Diffuser** | Stainless steel **AISI 304** |
| 4 | **Impeller** | Stainless steel **AISI 304** |
| 5 | **Motor sleeve** | Stainless steel **AISI 304** |
| 6 | **Motor cover** | Stainless steel **AISI 304** |
| 7 | **Motor shaft** | Stainless steel **AISI 431** |

**8 Double mechanical seal with interposed oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **MG1-14D SIC** | Ø 14 mm | Motor side | Silicon carbide / Graphite / NBR |
| | | Pump side | Silicon carbide/Silicon carbide/NBR |

**9 Capacitor**
(exclusive to single-phase models)

**10 Electric motor**

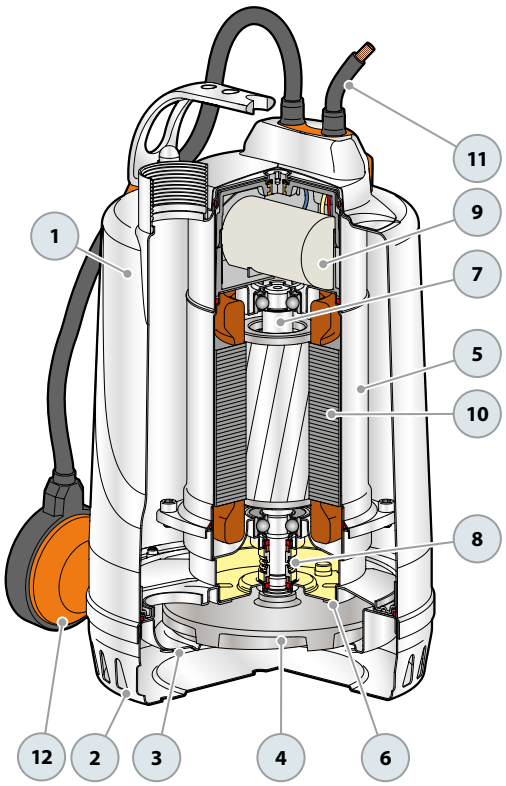
**RXm**: single-phase 220 V - 60 Hz or 110 V - 60Hz with winding integrated thermal motor protection
**RX**: three-phase 380 V - 60 Hz or 440 V - 60Hz
- Continuous running duty S1
- Insulation: Class F
- Protection rating IP X8

**11 Power cord**

Type 'H07 RN-F
(Schuko plug exclusive to single-phase models)

※ Standard length 5 metres

**12 Float switch**
(exclusive to single-phase models)



# RX-VORTEX Submersible pumps for DRAINAGE

Dirty water
Domestic use
Civil use

## ※ All stainless steel pumps




### PERFORMANCE RANGE
- Flow rate up to **380 l/min** (22.8 m³/h)
- Head up to **12.8 m**

### INSTALLATION AND USE
**RX-VORTEX** pumps excel in draining **dirty water**, featuring designs that ensure reliable performance even during continuous operation, thanks to comprehensive motor cooling. Ideal for **domestic, civil, and industrial applications**, these pumps are perfect for removing dirty water containing suspended solids.

### APPLICATION LIMITS
- Maximum operating depth below water level up to **10 m** (with an appropriately sized power cable)
- Liquid temperature up to **+50 °C** and up to **+90 °C** for short bursts (up to 3 minutes max) for intermittent service
- Suspended solids transfer:
  - up to **Ø 20 mm** for RX 2/20, RX 3/20
  - up to **Ø 40 mm** for RX 4/40, RX 5/40
- Draining capability:
  - up to **25 mm** from the bottom for RX 2/20, RX 3/20
  - up to **50 mm** from the bottom for RX 4/40, RX 5/40

### PATENTS - TRADE MARKS - MODELS
- Patent No. EP2313658
- Patent No. IT0001428923

### INCLUDES
※ Power cable length **5 m**
※ Float switch for single-phase versions

### AVAILABLE UPON REQUEST
※ Mechanical seal options available
※ Pumps with **10 m** power cable.
※ Different voltage or frequency

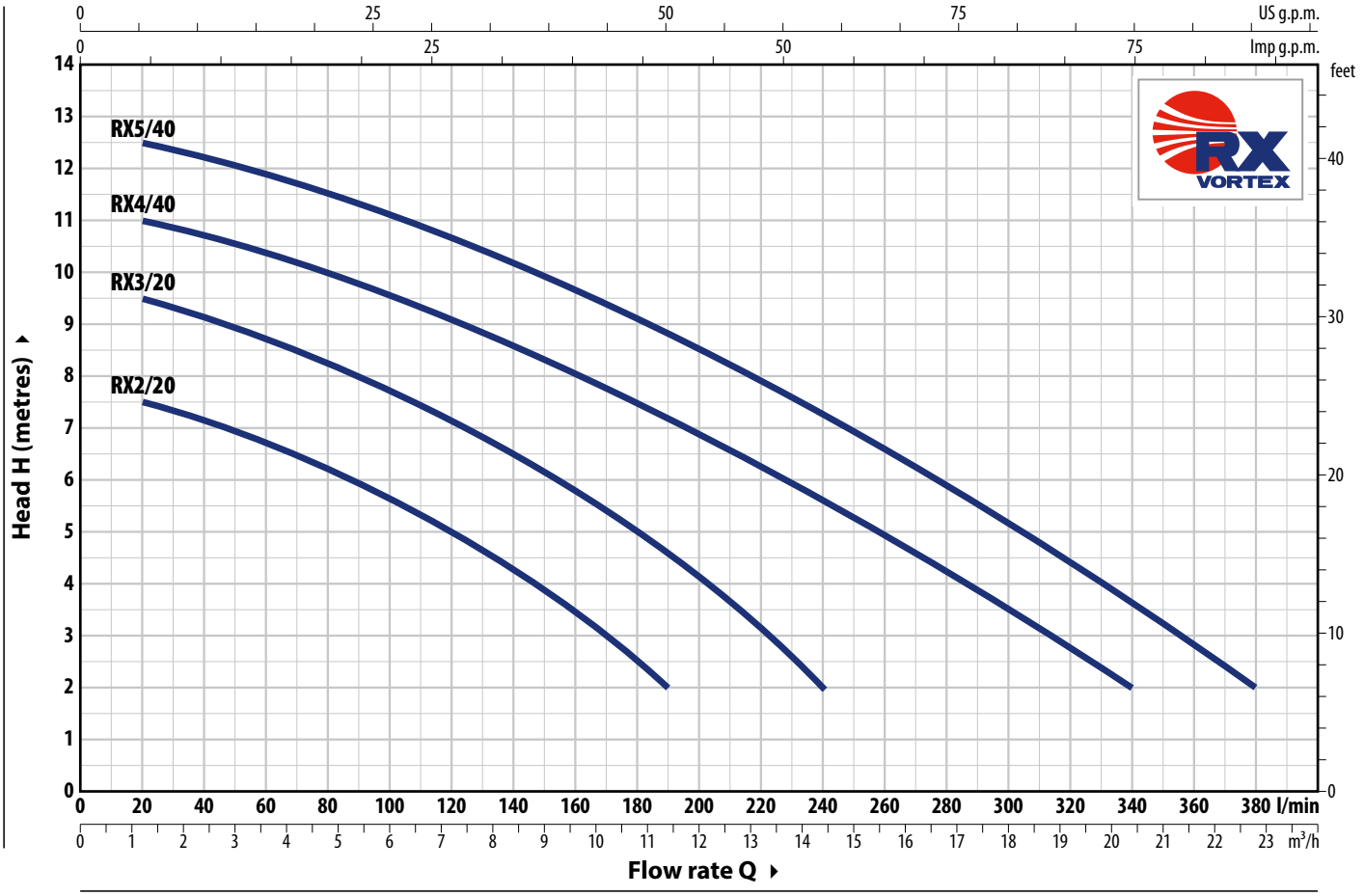
※ **RX-VORTEX GM**" pumps with magnetically operated float switch (suitable for small sumps)




**RX-VORTEX GM**

## CURVES AND PERFORMANCE DATA

**60 Hz**




| TYPE | | POWER (P2) | | Q | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | m³/h | 0 | 1.2 | 3.6 | 6.0 | 7.8 | 9.6 | 11.4 | 12.6 | 14.4 | 16.2 | 18.0 | 20.4 | 22.8 |
| | | | | l/min | **0** | **20** | **60** | **100** | **130** | **160** | **190** | **210** | **240** | **270** | **300** | **340** | **380** |
| **RXm 2/20** | **RX 2/20** | 0.37 | 0.50 | **H** metres | 8 | 7.5 | 6.7 | 5.6 | 4.7 | 3.5 | 2 | | | | | | |
| **RXm 3/20** | **RX 3/20** | 0.55 | 0.75 | | 10 | 9.5 | 8.7 | 7.7 | 6.8 | 5.8 | 4.5 | 3.6 | 2 | | | | |
| **RXm 4/40** | **RX 4/40** | 0.75 | 1 | | 11.3 | 11 | 10.3 | 9.5 | 8.8 | 8 | 7.2 | 6.6 | 5.7 | 4.7 | 3.6 | 2 | |
| **RXm 5/40** | **RX 5/40** | 1.1 | 1.5 | | 12.8 | 12.5 | 11.8 | 11 | 10.4 | 9.7 | 8.8 | 8.3 | 7.3 | 6.3 | 5.3 | 3.7 | 2 |

**Q** = Flow rate **H** = Total manometric head

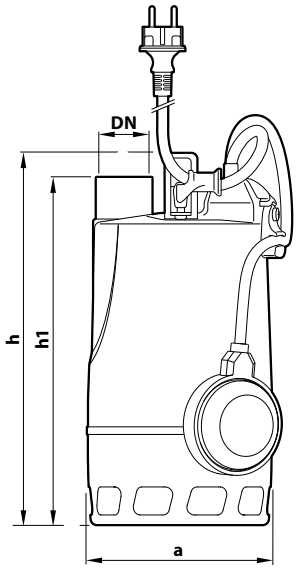
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

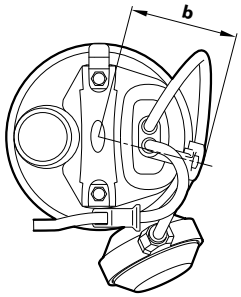
## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-phase | 220 V | 110 V |
| **RXm 2/20** | 2.5 A | 5.0 A |
| **RXm 3/20** | 3.2 A | 7.0 A |
| **RXm 4/40** | 5.0 A | 10.0 A |
| **RXm 5/40** | 7.5 A | – |

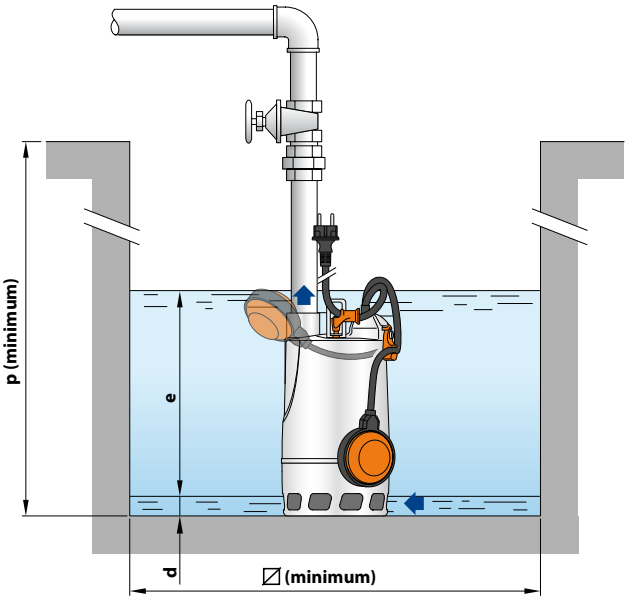
| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 380 V | 440 V |
| **RX 2/20** | 1.2 A | 1.1 A |
| **RX 3/20** | 1.5 A | 1.4 A |
| **RX 4/40** | 2.3 A | 2.0 A |
| **RX 5/40** | 3.5 A | 3.1 A |

## DIMENSIONS AND WEIGHT



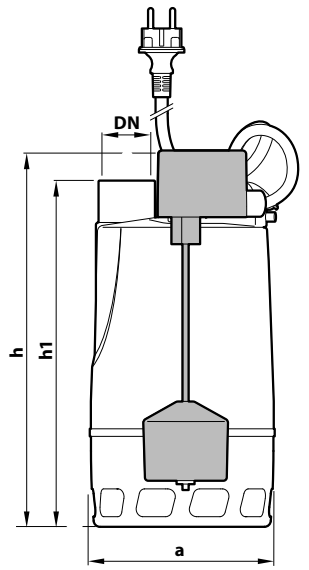

**Typical installation**

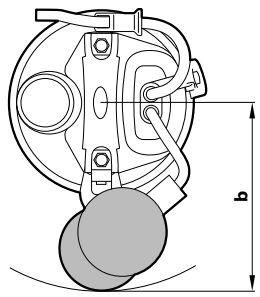


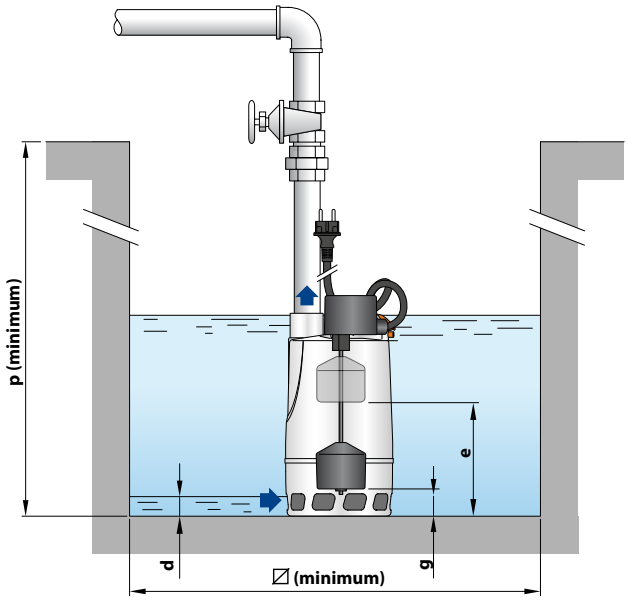

| TYPE | | PORT | DIMENSIONS mm | | | | | | | | kg | | GROUPAGE | CONTAINER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph | DN | a | b | h | h1 | d | e | p | ⍁ | 1~ | 3~ | n. pumps | n. pumps |
| RXm 2/20 | RX 2/20 | 1¼" | 147 | 84 | 300 | 275 | 25 | adjustable | 350 | 350 | 6.2 | 5.8 | 96 | 144 |
| RXm 3/20 | RX 3/20 | | | | 330 | 305 | | | | | 7.7 | 7.0 | 96 | 144 |

※ **Version with 'GM' magnetic float switch**

**Typical installation**




| TYPE | PORT | DIMENSIONS mm | | | | | | | | | kg | GROUPAGE | CONTAINER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | DN | a | b | h | h1 | d | e | g (adjustable) | p | ⍁ | 1~ | n. pumps | n. pumps |
| RXm 2/20-GM | 1¼" | 147 | 150 | 302 | 275 | 25 | 180 | 50 | 350 | 240 | 6.3 | 80 | 120 |
| RXm 3/20-GM | | | | 332 | 305 | | 210 | 80 | | | 7.9 | 80 | 120 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Outer sleeve** | **AISI 304** stainless steel with ISO 228/1 threaded port |
| 2 | **Suction filter** | Stainless steel **AISI 304** |
| 3 | **Diffuser** | Stainless steel **AISI 304** |
| 4 | **Impeller** | VORTEX in **AISI 304** stainless steel |
| 5 | **Motor sleeve** | Stainless steel **AISI 304** |
| 6 | **Motor cover** | Stainless steel **AISI 304** |
| 7 | **Motor shaft** | Stainless steel **AISI 431** |

**8 Double shaft seal with interposed oil chamber**

| Seal | Shaft | Materials |
|---|---|---|
| **STA-12R SIC** | Ø 12 mm | Ceramic / Silicon carbide / NBR |

**Shaft seal** Ø 12 x Ø 19 x H 5 mm

**9 Capacitor**
(exclusive to single-phase models)

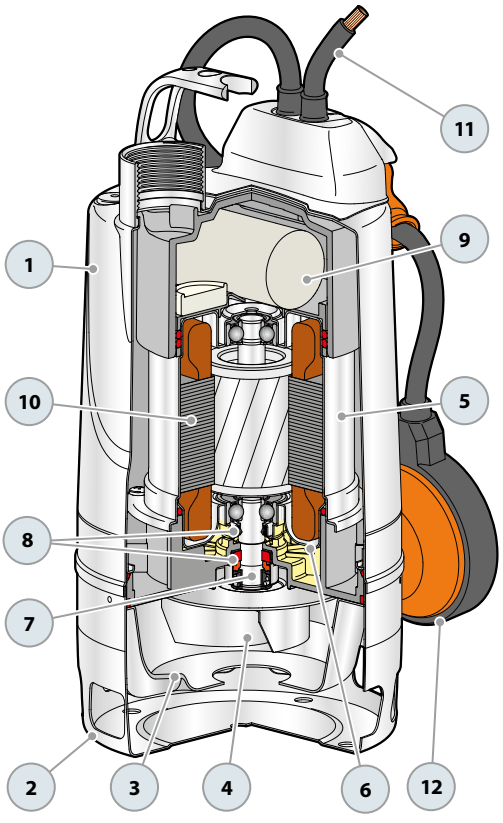
**10 Electric motor**

**RXm**: single-phase 220 V - 60 Hz or 110 V - 60Hz with winding integrated thermal motor protection
**RX**: three-phase 380 V - 60 Hz or 440 V - 60Hz
– Continuous running duty S1
– Insulation: Class F
– Protection rating IP X8

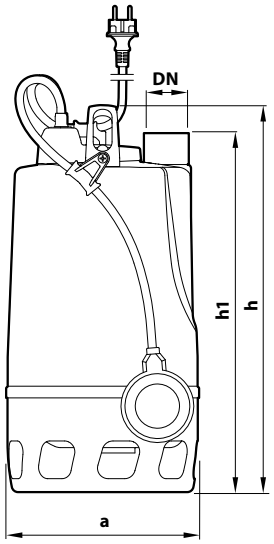
**11 Power cord**

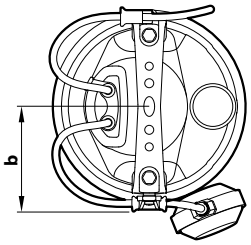
Type 'H07 RN-F
(Schuko plug exclusive to single-phase models)
※ Standard length 5 metres

**12 Float switch**
(exclusive to single-phase models)

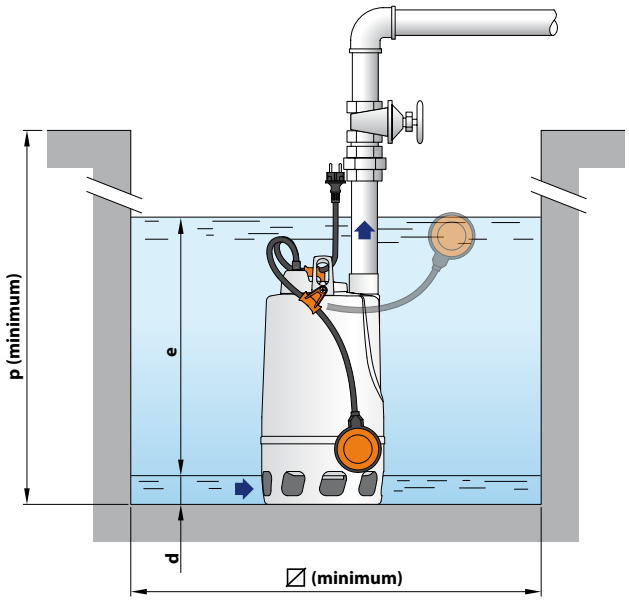


## DIMENSIONS AND WEIGHT



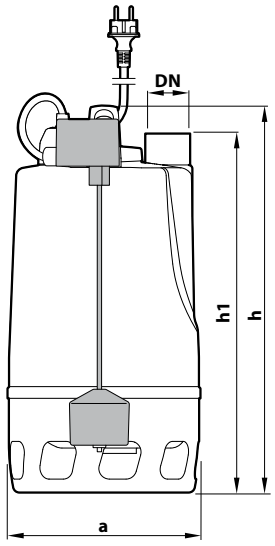

**Typical installation**

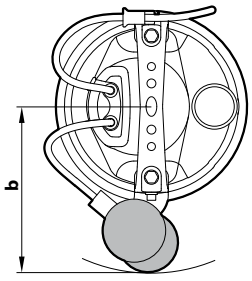



| TYPE | | PORT | DIMENSIONS mm | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN | a | b | h | h1 | d | e | p | ⍁ | 1~ | 3~ |
| RXm 4/40 | RX 4/40 | 1½" | 215 | 115 | 432 | 400 | 50 | adjustable | 500 | 500 | 14.8 | 13.9 |
| RXm 5/40 | RX 5/40 | | | | | | | | | | 16.0 | 14.8 |

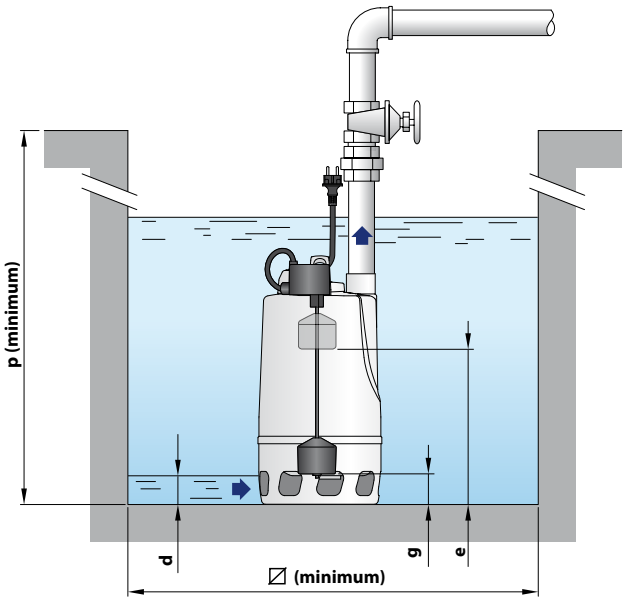
| GROUPAGE | CONTAINER |
|---|---|
| n. pumps | n. pumps |
| 45 | 60 |
| 45 | 60 |

※ **Version with 'GM' magnetic float switch**




**Typical installation**




| TYPE | PORT | DIMENSIONS mm | | | | | | | | | kg | GROUPAGE | CONTAINER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | DN | a | b | h | h1 | d | e | g (adjustable) | p | ⍁ | 1~ | n. pumps | n. pumps |
| RXm 4/40 - GM | 1½" | 215 | 186.5 | 432 | 400 | 50 | 320 | 80 | 500 | 350 | 15.2 | 36 | 48 |
| RXm 5/40 - GM | | | | | | | | | | | 16.2 | 36 | 48 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Outer sleeve** | **AISI 304** stainless steel with ISO 228/1 threaded port |
| 2 | **Suction filter** | Stainless steel **AISI 304** |
| 3 | **Diffuser** | Stainless steel **AISI 304** |
| 4 | **Impeller** | VORTEX in **AISI 304** stainless steel |
| 5 | **Motor sleeve** | Stainless steel **AISI 304** |
| 6 | **Motor cover** | Stainless steel **AISI 304** |
| 7 | **Motor shaft** | Stainless steel **AISI 431** |

**8 Double mechanical seal with interposed oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **MG1-14D SIC** | Ø 14 mm | Motor side | Silicon carbide / Graphite / NBR |
| | | Pump side | Silicon carbide/Silicon carbide/NBR |

**9 Capacitor**
(exclusive to single-phase models)

**10 Electric motor**

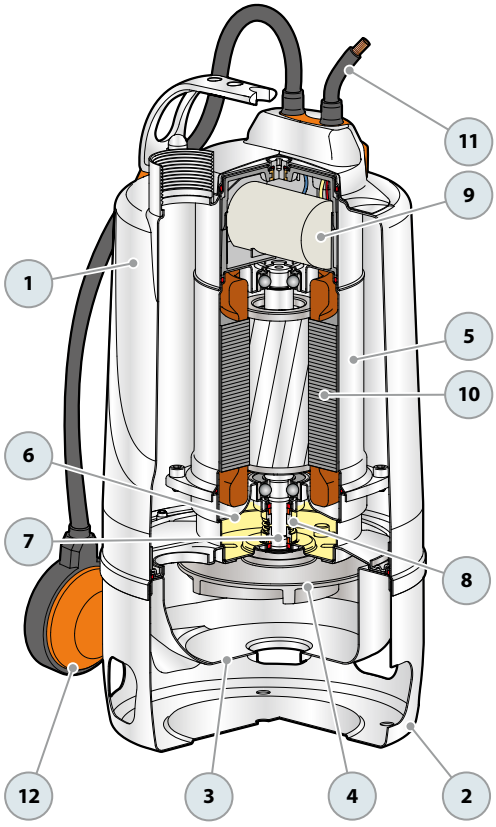
**RXm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection
**RX**: three-phase 380 V - 60 Hz

– Continuous running duty S1
– Insulation: Class F
– Protection rating IP X8

**11 Power cord**

Type 'H07 RN-F
(Schuko plug exclusive to single-phase models)
※ Standard length 5 metres

**12 Float switch**
(exclusive to single-phase models)



Sewage
Domestic use
Civil use
Industrial use

## ※ Powerful and robust high-efficiency pumps made entirely of stainless steel




## ※ VX-ST constructed entirely from stainless steel, VX-ST submersible pumps offer superior corrosion and abrasion.

### PERFORMANCE RANGE

- Flow rate up to **700 l/min** (42 m³/h)
- Head up to **21.5 m**

### INSTALLATION AND USE

**VX-ST** stainless steel submersible pumps are designed for sewage drainage in **domestic, civil, and industrial** settings where suspended solids are present in the water, such as sludge-mixed water, groundwater, or surface water.

They are also perfect for pumping out flooded areas like basements, underground parking garages, car wash stations, and emptying septic tanks and sewage systems.

※ The hydraulic configuration of the **VORTEX** volute and impeller results from advanced fluid dynamics calculations, delivering superior performance and efficiency for notable energy savings.

※ The **VORTEX** impeller can handle solids up to **50 mm** in diameter. Its unique design ensures safe operation against clogging.

### INCLUDES

※ Power cable length **10 m**
※ Float switch (exclusive to single-phase models)

### APPLICATION LIMITS

- Depth below water level up to **5 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Suspended solids transfer:
  - up to **Ø 40 mm** for VX /35-ST
  - up to **Ø 50 mm** for VX /50-ST
- **Minimum immersion for continuous service:**
  **- 290 mm for VX 8-ST and VX 10-ST**
  **- 330 mm for VX 15-ST**
  **- 360 mm for VX 20-ST**

### AVAILABLE UPON REQUEST

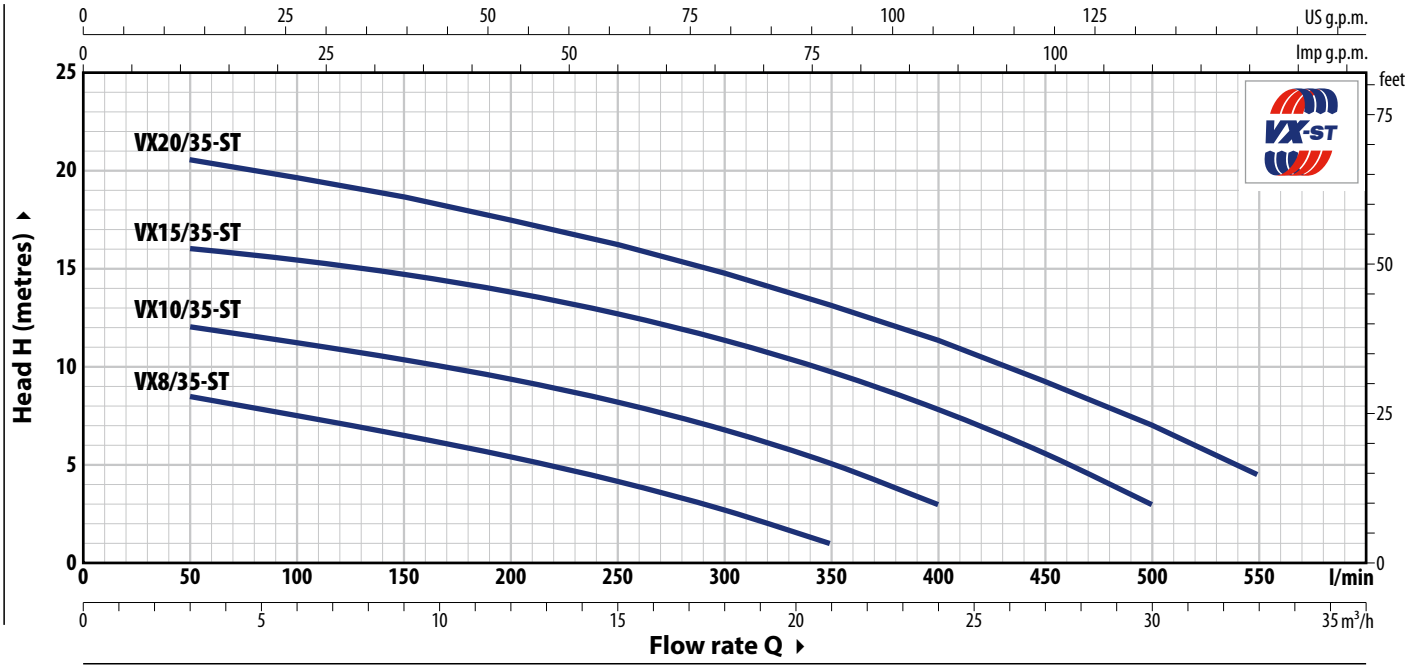
※ AISI 316L stainless steel pump shaft
※ Different voltage or frequency

### PATENTS - TRADE MARKS - MODELS

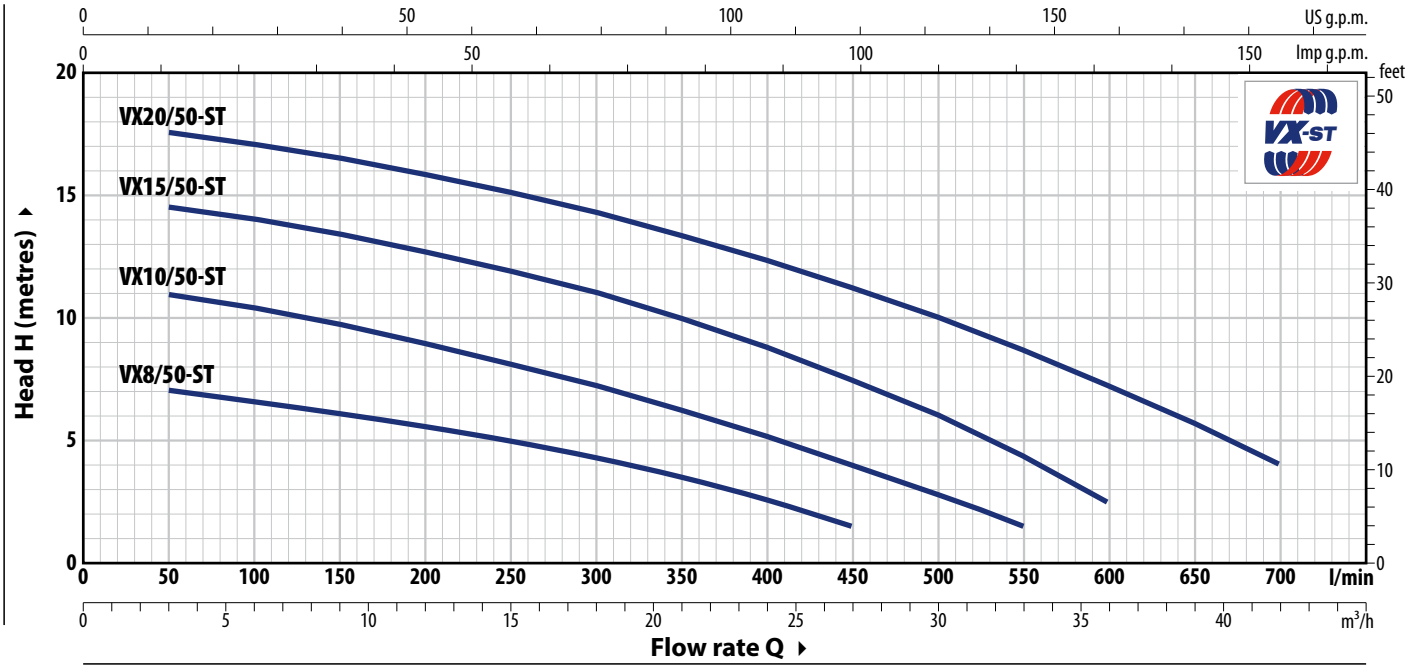
- Patent No. EP2313658
- Patent No. IT0001428923

## CURVES AND PERFORMANCE DATA

**60 Hz**




| TYPE | | POWER (P2) | | Q m³/h | 0 | 3 | 6 | 12 | 18 | 21 | 24 | 27 | 30 | 33 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | Q l/min | **0** | **50** | **100** | **200** | **300** | **350** | **400** | **450** | **500** | **550** |
| **VXm 8/35 -ST** | **VX 8/35 -ST** | 0.55 | 0.75 | H metres | 9.5 | 8.5 | 7.5 | 5.4 | 2.7 | 1 | | | | |
| **VXm 10/35-ST** | **VX 10/35-ST** | 0.75 | 1 | | 13 | 12 | 11.4 | 9.5 | 6.9 | 5.1 | 3 | | | |
| **VXm 15/35-ST** | **VX 15/35-ST** | 1.1 | 1.5 | | 16.5 | 16 | 15.4 | 13.8 | 11.4 | 9.8 | 7.8 | 5.6 | 3 | |
| **VXm 20/35-ST** | **VX 20/35-ST** | 1.5 | 2 | | 21.5 | 20.5 | 19.7 | 17.5 | 14.8 | 13.2 | 11.4 | 9.3 | 7 | 4.5 |




| TYPE | | POWER (P2) | | Q m³/h | 0 | 3 | 6 | 12 | 18 | 24 | 27 | 30 | 33 | 36 | 42 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | Q l/min | **0** | **50** | **100** | **200** | **300** | **400** | **450** | **500** | **550** | **600** | **700** |
| **VXm 8/50 -ST** | **VX 8/50 -ST** | 0.55 | 0.75 | H metres | 7.5 | 7 | 6.6 | 5.7 | 4.2 | 2.5 | 1.5 | | | | |
| **VXm 10/50-ST** | **VX 10/50-ST** | 0.75 | 1 | | 11.5 | 11 | 10.4 | 9 | 7.2 | 5.2 | 4 | 2.8 | 1.5 | | |
| **VXm 15/50-ST** | **VX 15/50-ST** | 1.1 | 1.5 | | 15 | 14.5 | 14 | 12.7 | 11 | 8.8 | 7.5 | 6 | 4.3 | 2.5 | |
| **VXm 20/50-ST** | **VX 20/50-ST** | 1.5 | 2 | | 18 | 17.5 | 17.1 | 15.9 | 14.3 | 12.3 | 11.2 | 10 | 8.7 | 7.2 | 4 |

**Q** = Flow rate **H** = Total manometric head

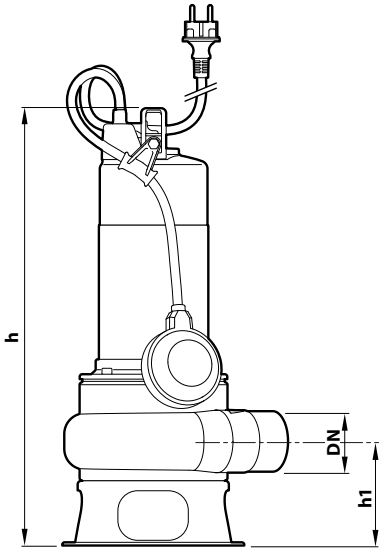
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

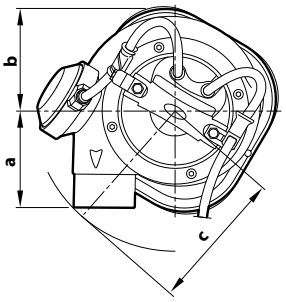
## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-phase | 220 V | 110 V |
| VXm 8/35 -ST | 4.0 A | 8.0 A |
| VXm 10/35-ST | 6.3 A | 12.6 A |
| VXm 15/35-ST | 8.0 A | – |
| VXm 20/35-ST | 11.5 A | – |
| VXm 8/50 -ST | 4.0 A | 8.0 A |
| VXm 10/50-ST | 6.3 A | 12.6 A |
| VXm 15/50-ST | 8.0 A | – |
| VXm 20/50-ST | 11.5 A | – |

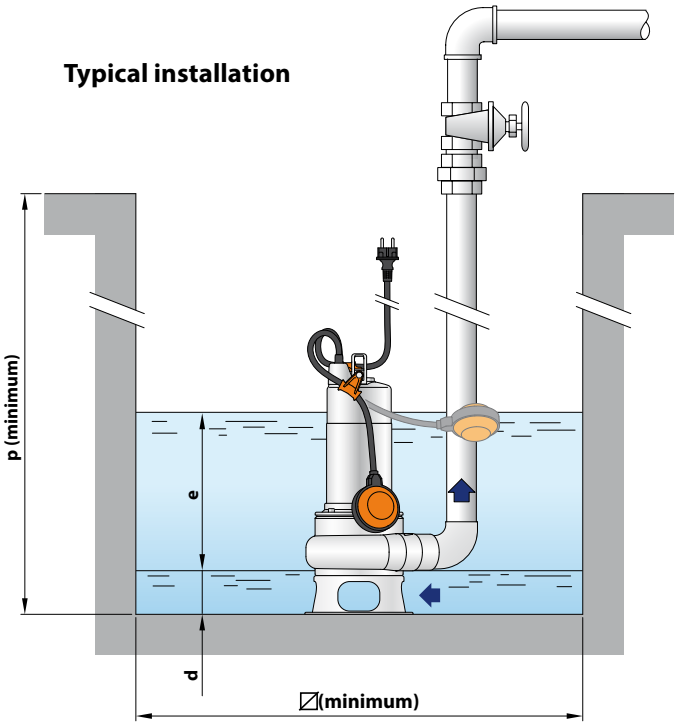
| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 380 V | 440 V |
| VX 8/35 -ST | 1.6 A | 1.5 A |
| VX 10/35-ST | 2.2 A | 1.0 A |
| VX 15/35-ST | 3.6 A | 3.1 A |
| VX 20/35-ST | 4.3 A | 3.8 A |
| VX 8/50 -ST | 1.6 A | 1.5 A |
| VX 10/50-ST | 2.4 A | 1.0 A |
| VX 15/50-ST | 3.6 A | 3.1 A |
| VX 20/50-ST | 4.3 A | 3.8 A |

## DIMENSIONS AND WEIGHT




Typical installation




| TYPE | | PORT | Passage of | DIMENSIONS mm | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN | solid bodies | a | b | c | h | h1 | d | e | p | ⍁ | 1~ | 3~ |
| VXm 8/35 -ST | VX 8/35 -ST | 1½" | Ø 40 mm | 95 | 96 | 140 | 424 | 106 | 55 | adjustable | 500 | 500 | 11.2 | 10.1 |
| VXm 10/35-ST | VX 10/35-ST | | | | | | 439 | | | | | | 12.7 | 11.5 |
| VXm 15/35-ST | VX 15/35-ST | | | | | | 472 | | | | | | 15.5 | 13.9 |
| VXm 20/35-ST | VX 20/35-ST | | | | | | 502 | | | | | | 17.7 | 15.5 |
| VXm 8/50 -ST | VX 8/50 -ST | 2" | Ø 50 mm | 102 | 96 | 145 | 435 | 107 | 60 | | | | 11.4 | 10.3 |
| VXm 10/50-ST | VX 10/50-ST | | | | | | 450 | | | | | | 12.9 | 11.7 |
| VXm 15/50-ST | VX 15/50-ST | | | | | | 483 | | | | | | 15.7 | 14.1 |
| VXm 20/50-ST | VX 20/50-ST | | | | | | 513 | | | | | | 17.9 | 15.7 |

## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-phase | Three-phase | n. pumps | n. pumps |
| VXm 8/35 -ST | VX 8/35 -ST | 45 | 60 |
| VXm 10/35-ST | VX 10/35-ST | 45 | 60 |
| VXm 15/35-ST | VX 15/35-ST | 30 | 45 |
| VXm 20/35-ST | VX 20/35-ST | 30 | 45 |
| VXm 8/50 -ST | VX 8/50 -ST | 45 | 60 |
| VXm 10/50-ST | VX 10/50-ST | 45 | 60 |
| VXm 15/50-ST | VX 15/50-ST | 30 | 45 |
| VXm 20/50-ST | VX 20/50-ST | 30 | 45 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | **AISI 304** stainless steel with ISO 228/1 threaded port |
| 2 | **Base** | Stainless steel **AISI 304** |
| 3 | **Impeller** | VORTEX type in **AISI 304** stainless steel |
| 4 | **Motor sleeve** | Stainless steel **AISI 304** |
| 5 | **Motor cover** | Stainless steel **AISI 304**<br>Cast iron with cataphoresis treatment for VX 15-20 ST |
| 6 | **Motor shaft** | Stainless steel **AISI 431** |

**7 Double mechanical seal in oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **MG1-14D SIC** | Ø 14 mm | Motor side | Silicon carbide / Graphite / NBR |
| | | Pump side | Silicon carbide/Silicon carbide/NBR |

**8 Capacitor**
(exclusive to single-phase models)

**9 Electric motor**

**VXm-ST**: single-phase 220 V - 60 Hz or 110 V - 60 Hz with winding integrated thermal motor protection
**VX-ST**: three-phase 380 V - 60 Hz or 440 V - 60 Hz

– Insulation: class F
– Protection rating: IP X8

**10 Power cord**

Power cable encapsulated with epoxy resin both in the grommet area and where the conductors exit the sheath, for absolute insulation against moisture and water.

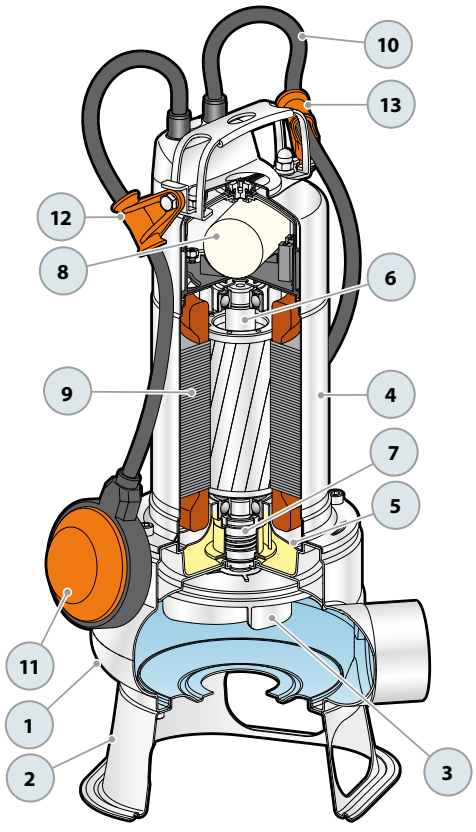
Type 'H07 RN-F' (Schuko plug exclusive to single-phase models)

※ Standard length 10 metres

**11 Float switch** (exclusive to single-phase models)

**12 Tilting device for the float cable**
(exclusive to single-phase models)
Patent No. IT0001428923

**13 Power cable strain relief**
Patent No. EP2313658



Sewage
Domestic use
Civil use
Industrial use

## ※ Powerful and robust high-efficiency pumps made entirely of stainless steel




## ※ Constructed entirely from stainless steel, BC-ST submersible pumps offer superior corrosion and abrasion.

### PERFORMANCE RANGE

- Flow rate up to **850 l/min** (51 m³/h)
- Head up to **16 m**

### INSTALLATION AND USE

**BC-ST** stainless steel submersible pumps are designed to drain dirty and **sewage water** in **domestic, civil, and industrial settings**. Featuring a **TWO-CHANNEL** impeller, they can efficiently pump liquids containing suspended solids up to 50 mm in diameter with short fibers and handle wastewater, sewage, surface water, and sludge-mixed water in residential properties.

※ The hydraulic configuration of the volute and **TWO-CHANNEL** impeller results from advanced fluid dynamics calculations, delivering superior performance and efficiency for notable energy savings.

※ The **TWO-CHANNEL** impeller provides excellent performance and high energy efficiency, generating increased pressure for pumping solids up to **50 mm** in diameter, making it the best choice for wastewater drainage.

### INCLUDES

※ Power cable length **10 m**
※ Float switch (exclusive to single-phase models)

### APPLICATION LIMITS

- Depth below water level up to **5 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Capable of processing suspended solids up to **Ø 50 mm**
- **Minimum immersion for continuous service:**
  – **290 mm for BC 10/50-ST**
  – **330 mm for BC 15/50-ST**
  – **360 mm for BC 20/50-ST**

### AVAILABLE UPON REQUEST

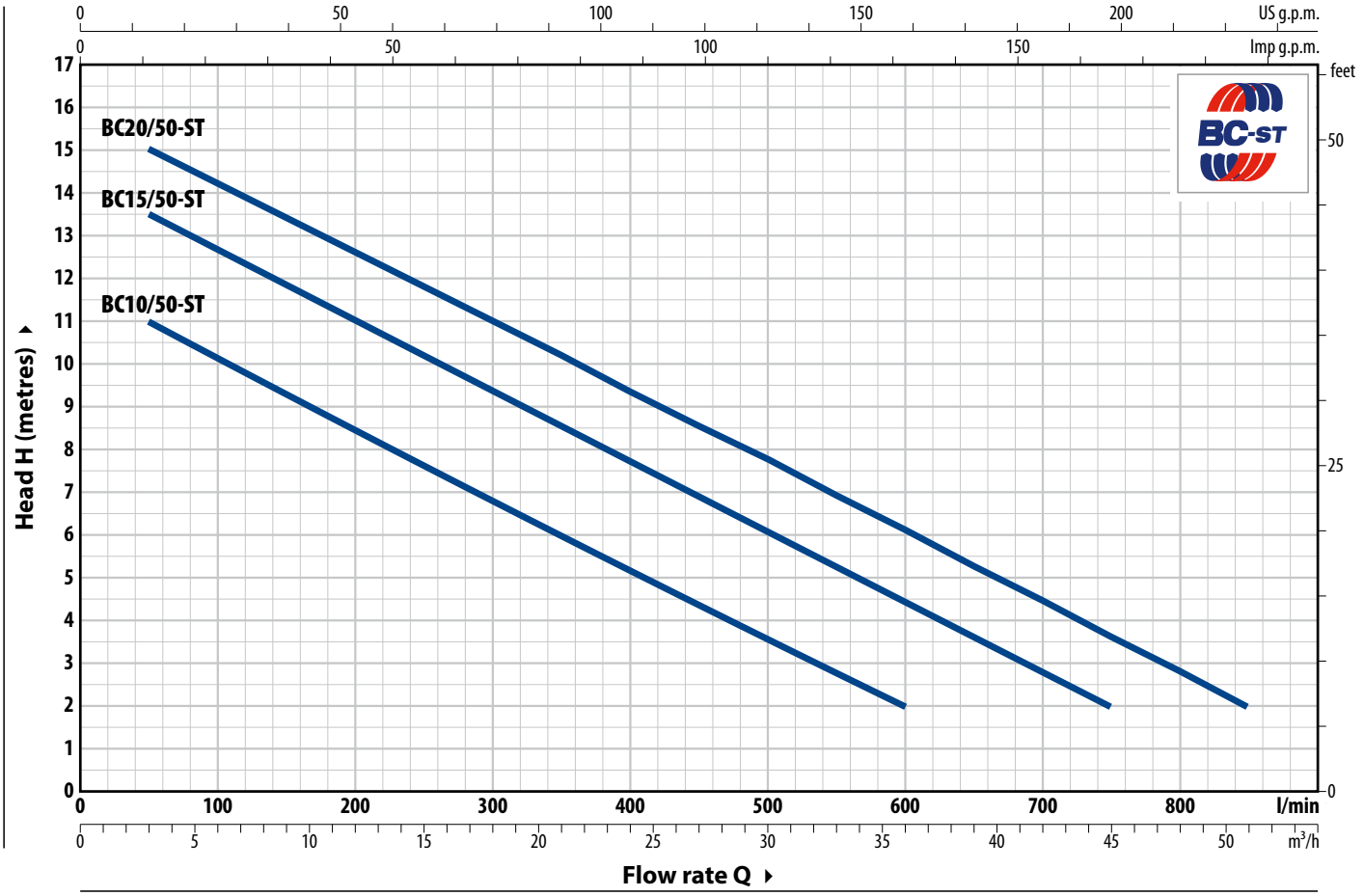
※ AISI 316L stainless steel pump shaft
※ Different voltage or frequency

### PATENTS - TRADE MARKS - MODELS

- Patent No. EP2313658
- Patent No. IT0001428923

## CURVES AND PERFORMANCE DATA

**60 Hz**




| TYPE | | POWER (P2) | | Q m³/h | 0 | 3 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 45 | 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | Q l/min | **0** | **50** | **100** | **200** | **300** | **400** | **500** | **600** | **700** | **750** | **850** |
| **BCm 10/50-ST** | **BC 10/50-ST** | 0.75 | 1 | | 12 | 11 | 10.3 | 8.6 | 6.9 | 5 | 3.6 | 2 | | | |
| **BCm 15/50-ST** | **BC 15/50-ST** | 1.1 | 1.5 | **H** metres | 14.5 | 13.5 | 12.8 | 11.2 | 9.5 | 7.8 | 6.1 | 4.5 | 2.8 | 2 | |
| **BCm 20/50-ST** | **BC 20/50-ST** | 1.5 | 2 | | 16 | 15 | 14.4 | 12.8 | 11.1 | 9.5 | 7.9 | 6.2 | 4.5 | 3.7 | 2 |

**Q** = Flow rate **H** = Total manometric head

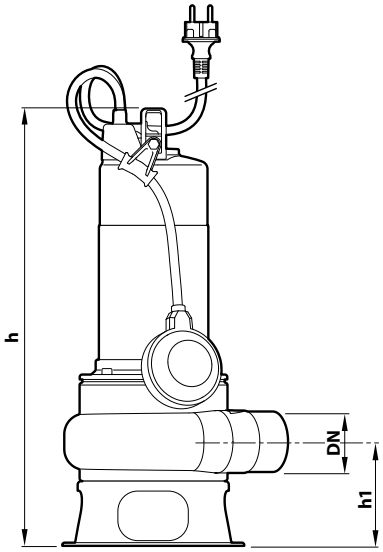
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

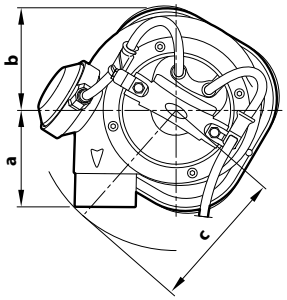
## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| **Single-phase** | **220 V** | **110 V** |
| **BCm 10/50-ST** | 6.3 A | 12.6 A |
| **BCm 15/50-ST** | 8.0 A | - |
| **BCm 20/50-ST** | 10.0 A | - |

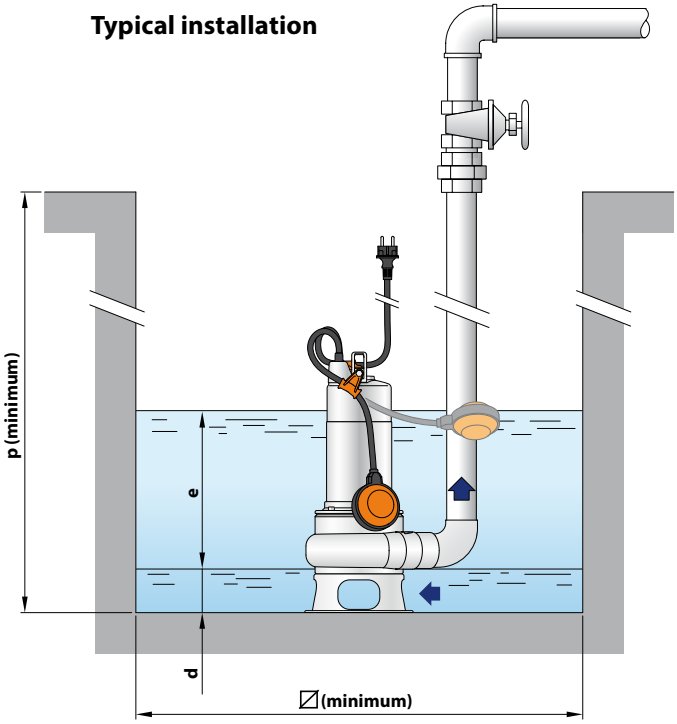
| TYPE | VOLTAGE | |
|---|---|---|
| **Three-phase** | **380 V** | **440 V** |
| **BC 10/50-ST** | 2.4 A | 2.2 A |
| **BC 15/50-ST** | 3.5 A | 3.3 A |
| **BC 20/50-ST** | 4.3 A | 3.8 A |

## DIMENSIONS AND WEIGHT




Typical installation




| TYPE | | PORT | Passage of | DIMENSIONS mm | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN | solid bodies | a | b | c | h | h1 | d | e | p | ⧄ | 1~ | 3~ |
| BCm 10/50-ST | BC 10/50-ST | 2" | Ø 50 mm | 102 | 95 | 145 | 450 | 107 | 60 | adjustable | 500 | 500 | 13.4 | 12.2 |
| BCm 15/50-ST | BC 15/50-ST | | | | | | 483 | | | | | | 16.0 | 14.4 |
| BCm 20/50-ST | BC 20/50-ST | | | | | | 513 | | | | | | 18.2 | 16.0 |

## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-phase | Three-phase | n. pumps | n. pumps |
| BCm 10/50-ST | BC 10/50-ST | 45 | 60 |
| BCm 15/50-ST | BC 15/50-ST | 30 | 45 |
| BCm 20/50-ST | BC 20/50-ST | 30 | 45 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | **AISI 304** stainless steel with ISO 228/1 threaded port |
| 2 | **Base** | Stainless steel **AISI 304** |
| 3 | **Impeller** | TWO-CHANNEL type in micro-cast **AISI 304** stainless steel. |
| 4 | **Motor sleeve** | Stainless steel **AISI 304** |
| 5 | **Motor cover** | **AISI 304** stainless steel for BC 10/50-ST<br>Cast iron with cataphoresis treatment for BC 15/50-ST, BC 20/50-ST |
| 6 | **Motor shaft** | Stainless steel **AISI 431** |

**7 Double mechanical seal in oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **MG1-14D SIC** | Ø 14 mm | Motor side | Silicon carbide / Graphite / NBR |
| | | Pump side | Silicon carbide/Silicon carbide/NBR |

**8 Capacitor**
(exclusive to single-phase models)

**9 Electric motor**

**BCm-ST**: single-phase 220 V - 60 Hz or 110 V - 60 Hz with winding integrated thermal motor protection
**BC-ST**: three-phase 380 V - 60 Hz or 440 V - 60 Hz
– Insulation: class F
– Protection rating: IP X8

**10 Power cord**

Power cable encapsulated with epoxy resin both in the grommet area and where the conductors exit the sheath, for absolute insulation against moisture and water.

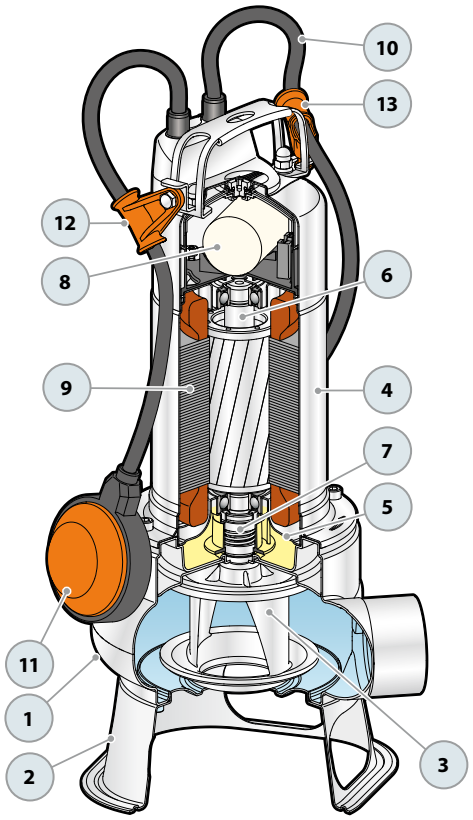
Type 'H07 RN-F' (Schuko plug exclusive to single-phase models)

※ Standard length 10 metres

**11 Float switch** (exclusive to single-phase models)

**12 Tilting device for the float cable**
(exclusive to single-phase models)
Patent No. IT0001428923

**13 Power cable strain relief**
Patent No. EP2313658



# SEWAGE LIFTING SYSTEM KIT VX-ST - BC-ST

## VERSION WITH HORIZONTAL DELIVERY AND ¾" GUIDE PIPES

| | | |
|---|---|---|
| For **VX /35-ST** | CODE ASSPVX35ST | DN **2"** |
| For **VX /50-ST , BC /50-ST** | CODE ASSPVX50ST | DN **2"** |



**※ Kit consisting of:**



Coupling foot



Solids rail with ring nut and seal



Support for guide tubes

## VERSION WITH VERTICAL DELIVERY AND ¾" GUIDE PIPES

| | | |
|---|---|---|
| For **VX /35-ST** | CODE ASSPVX35STV | DN **2½"** |
| For **VX /50-ST, BC /50-ST** | CODE ASSPVX50STV | DN **2½"** |



**※ Kit consisting of:**



Coupling foot complete with counterflange



Solids rail with ring nut and seal



Support for guide tubes

## ● ACCESSORIES AVAILABLE FOR ORDER

### RUNNING GUIDE

| | |
|---|---|
| ※ For **VX /35-ST** | CODE ASSFL005 |
| ※ For **VX /50-ST , BC /50-ST** | CODE ASSFL006 |



Complete with ring nut and gasket

### GUIDE TUBE SUPPORT

| | |
|---|---|
| ※ For Ø ¾ **"** guide tubes | CODE 859SV340INTFA |



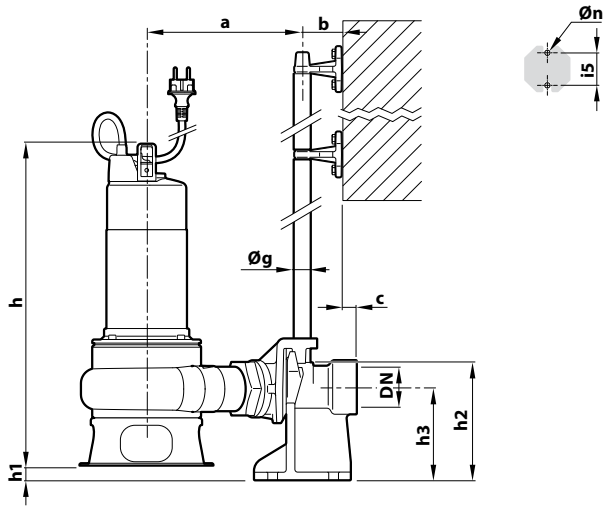
**To ensure stability, insert a support every 2 metres along the guide tube**

### GUIDE TUBE (AISI 304 stainless steel)

| | |
|---|---|
| ※ 2 metres Ø ¾" guide tube | CODE 54SARTG0052F |
| ※ 3 metres Ø ¾" guide tube | CODE 54SARTG0053F |
| ※ 6 metres Ø ¾" guide tube | CODE 54SARTG0056F |

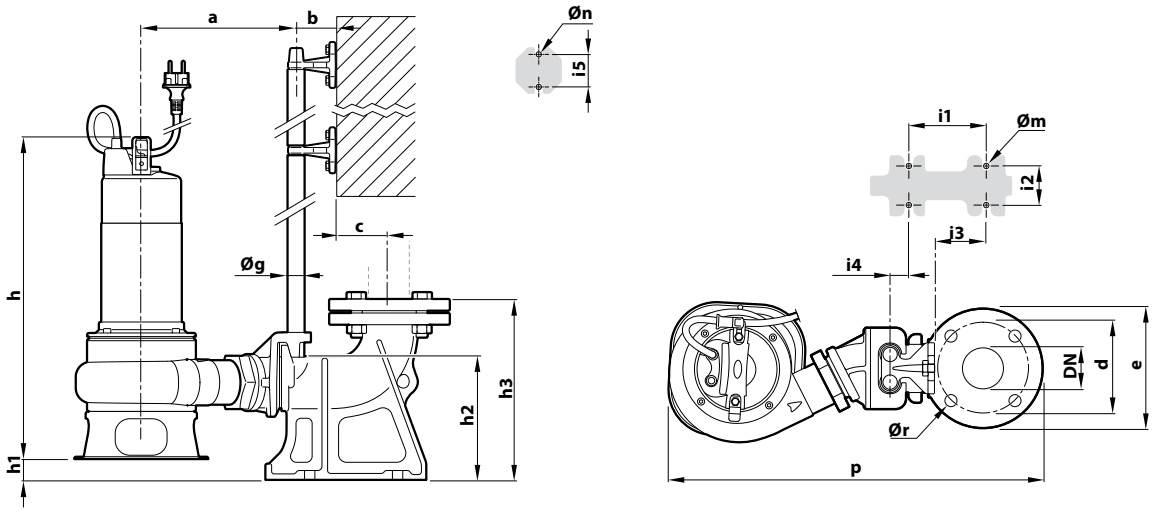


## DIMENSIONS (Version with horizontal outlet)




| TYPE | | Passage of solid bodies | PORT | DIMENSIONS mm | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | mm | DN | a | b | c | p | h | h1 | h2 | h3 | i1 | i2 | i3 | i4 | i5 | Øg | Øm | Øn |
| **VXm 8/35 -ST** | **VX 8/35 -ST** | **40** | **2"** | 214 | 61 | 17 | 386 | 424 | 24 | 165 | 130 | 85 | 94 | 16 | 40 | 50 | ¾" | 12 | 11 |
| **VXm 10/35 -ST** | **VX 10/35 -ST** | | | | | | | 439 | | | | | | | | | | | |
| **VXm 15/35 -ST** | **VX 15/35 -ST** | | | | | | | 472 | | | | | | | | | | | |
| **VXm 20/35 -ST** | **VX 20/35 -ST** | | | | | | | 502 | | | | | | | | | | | |
| **VXm 8/50 -ST** | **VX 8/50 -ST** | **50** | **2"** | 221 | | | 372 | 435 | 23 | | | | | | | | | | |
| **VXm 10/50 -ST** | **VX 10/50 -ST** | | | | | | | 450 | | | | | | | | | | | |
| **VXm 15/50 -ST** | **VX 15/50 -ST** | | | | | | | 483 | | | | | | | | | | | |
| **VXm 20/50 -ST** | **VX 20/50 -ST** | | | | | | | 513 | | | | | | | | | | | |
| **BCm 10/50 -ST** | **BC 10/50 -ST** | **50** | **2"** | | | | | 450 | | | | | | | | | | | |
| **BCm 15/50 -ST** | **BC 15/50 -ST** | | | | | | | 483 | | | | | | | | | | | |
| **BCm 20/50 -ST** | **BC 20/50 -ST** | | | | | | | 513 | | | | | | | | | | | |

## DIMENSIONS (Version with vertical delivery)




| TYPE | | Passage of solid bodies | PORT | DIMENSIONS mm | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | mm | DN | a | b | c | d | e | p | h | h1 | h2 | h3 | i1 | i2 | i3 | i4 | i5 | Øg | Øm | Øn | Ør |
| **VXm 8/35 -ST** | **VX 8/35 -ST** | **40** | **2½"** | 207 | 61 | 52 | 125 | 165 | 495 | 424 | 22 | 164 | 215 | 120 | 72 | 62 | 3 | 50 | ¾" | 14 | 11 | 18 |
| **VXm 10/35 -ST** | **VX 10/35 -ST** | | | | | | | | | 439 | | | | | | | | | | | | |
| **VXm 15/35 -ST** | **VX 15/35 -ST** | | | | | | | | | 472 | | | | | | | | | | | | |
| **VXm 20/35 -ST** | **VX 20/35 -ST** | | | | | | | | | 502 | | | | | | | | | | | | |
| **VXm 8/50 -ST** | **VX 8/50 -ST** | **50** | **2½"** | 212 | | | | | 501 | 435 | 26 | | | | | | | | | | | |
| **VXm 10/50 -ST** | **VX 10/50 -ST** | | | | | | | | | 450 | | | | | | | | | | | | |
| **VXm 15/50 -ST** | **VX 15/50 -ST** | | | | | | | | | 483 | | | | | | | | | | | | |
| **VXm 20/50 -ST** | **VX 20/50 -ST** | | | | | | | | | 513 | | | | | | | | | | | | |
| **BCm 10/50 -ST** | **BC 10/50 -ST** | **50** | **2½"** | | | | | | | 450 | | | | | | | | | | | | |
| **BCm 15/50 -ST** | **BC 15/50 -ST** | | | | | | | | | 483 | | | | | | | | | | | | |
| **BCm 20/50 -ST** | **BC 20/50 -ST** | | | | | | | | | 513 | | | | | | | | | | | | |

Sewage
Domestic use
Civil use
Industrial use

※ They are recommended when an pump of high efficiency, quality and durability is required




※ Constructed entirely from stainless steel, VX-MF submersible pumps offer superior corrosion and abrasion.

## PERFORMANCE RANGE

- Flow rate up to **750 l/min** (45 $m^3$/h)
- Head up to **19.5 m**

## INSTALLATION AND USE

The **VX-MF** micro-cast stainless steel submersible pumps are designed for demanding working conditions, ideal for sewage drainage in **domestic, civil, and industrial settings** where suspended solids are present, such as water mixed with sludge, groundwater, or surface water. such as sludge-mixed water, groundwater, or surface water.

They are also perfect for pumping out flooded areas like basements, underground parking garages, car wash stations, and emptying septic tanks and sewage systems.

※ The hydraulic configuration of the **VORTEX** volute and impeller results from advanced fluid dynamics calculations, delivering superior performance and efficiency for notable energy savings.

※ The **VORTEX** impeller can handle solids up to **50 mm** in diameter. Its unique design ensures safe operation against clogging.

## INCLUDES

※ Power cable length **10 m**
※ Float switch (exclusive to single-phase models)

## APPLICATION LIMITS

- Depth below water level up to **5 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Suspended solids transfer:
  - up to **Ø 40 mm** for VX /35-MF
  - up to **Ø 50 mm** for VX /50-MF
- **Minimum immersion for continuous service:**
  **– 290 mm for VX 8-MF and VX 10-MF**
  **– 330 mm for VX 15-MF**
  **– 360 mm for VX 20-MF**

## AVAILABLE UPON REQUEST

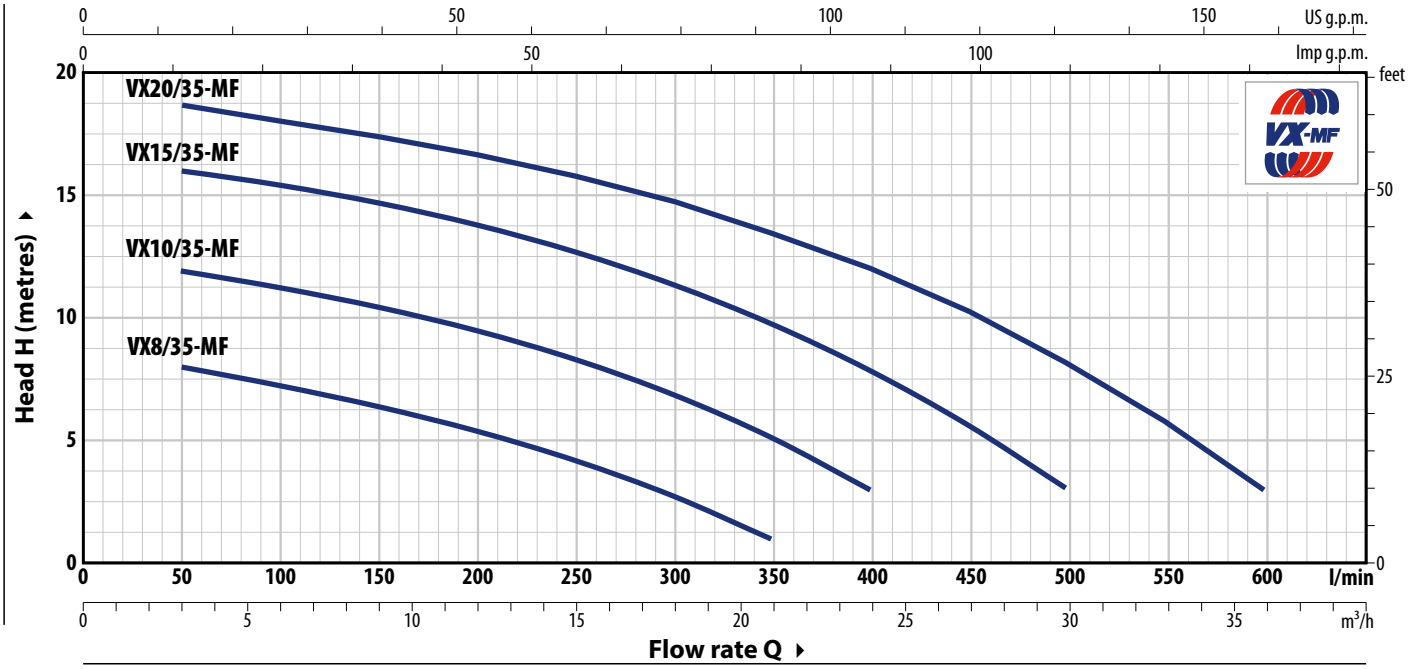
※ Different voltage or frequency

## PATENTS - TRADE MARKS - MODELS

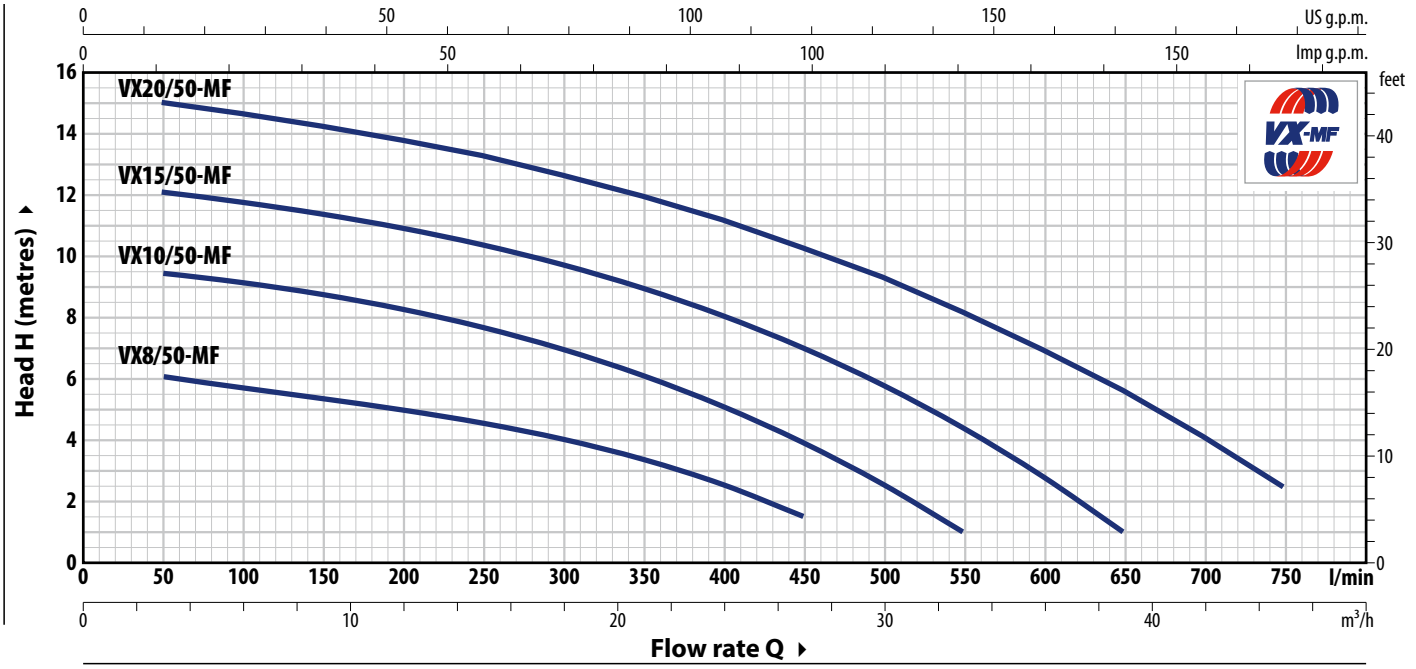
- Patent No. EP2313658
- Patent No. IT0001428923

## CURVES AND PERFORMANCE DATA

**60 Hz**




| TYPE | | POWER (P2) | | Q | m³/h | 0 | 3 | 6 | 12 | 18 | 21 | 24 | 27 | 30 | 33 | 36 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | | l/min | **0** | **50** | **100** | **200** | **300** | **350** | **400** | **450** | **500** | **550** | **600** |
| VXm 8/35 -MF | VX 8/35 -MF | 0.55 | 0.75 | H metres | | 9 | 8 | 7.5 | 5.5 | 2.7 | 1 | | | | | |
| VXm 10/35-MF | VX 10/35-MF | 0.75 | 1 | | | 12.5 | 12 | 11.2 | 9.5 | 6.9 | 5.1 | 3 | | | | |
| VXm 15/35-MF | VX 15/35-MF | 1.1 | 1.5 | | | 16.5 | 16 | 15.4 | 13.8 | 11.4 | 9.8 | 7.8 | 5.6 | 3 | | |
| VXm 20/35-MF | VX 20/35-MF | 1.5 | 2 | | | 19.5 | 18.5 | 18 | 16.6 | 14.7 | 13.5 | 12 | 10.3 | 8.2 | 5.8 | 3 |




| TYPE | | POWER (P2) | | Q | m³/h | 0 | 3 | 6 | 12 | 18 | 24 | 27 | 30 | 33 | 36 | 39 | 45 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | | l/min | **0** | **50** | **100** | **200** | **300** | **400** | **450** | **500** | **550** | **600** | **650** | **750** |
| VXm 8/50 -MF | VX 8/50 -MF | 0.55 | 0.75 | H metres | | 6.5 | 6 | 5.8 | 5 | 4 | 2.5 | 1.5 | | | | | |
| VXm 10/50-MF | VX 10/50-MF | 0.75 | 1 | | | 9.5 | 9.5 | 9 | 8.1 | 6.8 | 5 | 3.8 | 2.5 | 1 | | | |
| VXm 15/50-MF | VX 15/50-MF | 1.1 | 1.5 | | | 12.5 | 12 | 11.9 | 11 | 9.8 | 8.1 | 7.1 | 5.8 | 4.4 | 2.8 | 1 | |
| VXm 20/50-MF | VX 20/50-MF | 1.5 | 2 | | | 15.5 | 15 | 14.8 | 13.9 | 12.8 | 11.3 | 10.4 | 9.4 | 8.2 | 7 | 5.6 | 2.5 |

**Q** = Flow rate **H** = Total manometric head

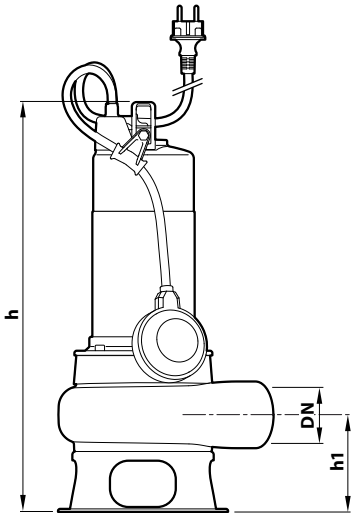
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

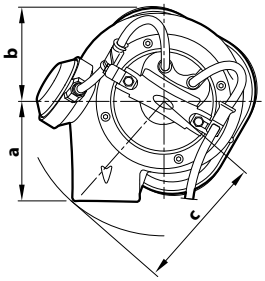
## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-phase | 220 V | 110 V |
| VXm 8/35 -MF | 4.0 A | 8.0 A |
| VXm 10/35-MF | 6.3 A | 12.6 A |
| VXm 15/35-MF | 8.2 A | – |
| VXm 20/35-MF | 11.5 A | – |
| VXm 8/50 -MF | 4.0 A | 8.0 A |
| VXm 10/50-MF | 6.3 A | 13.5 A |
| VXm 15/50-MF | 7.7 A | – |
| VXm 20/50-MF | 11.5 A | – |

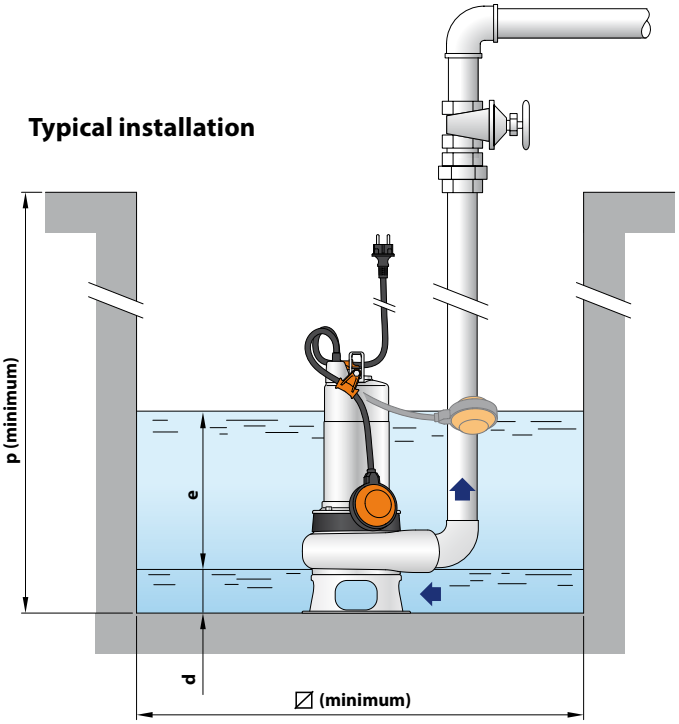
| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 380 V | 440 V |
| VX 8/35 -MF | 1.8 A | 1.6 A |
| VX 10/35-MF | 2.2 A | 2.0 A |
| VX 15/35-MF | 3.6 A | 3.1 A |
| VX 20/35-MF | 4.3 A | 3.8 A |
| VX 8/50 -MF | 1.8 A | 1.6 A |
| VX 10/50-MF | 2.3 A | 2.0 A |
| VX 15/50-MF | 3.6 A | 3.1 A |
| VX 20/50-MF | 4.3 A | 3.8 A |

## DIMENSIONS AND WEIGHT




**Typical installation**




| TYPE | | PORT | Passage of | DIMENSIONS mm | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN | solid bodies | a | b | c | h | h1 | d | e | p | ⍁ | 1~ | 3~ |
| VXm 8/35 -MF | VX 8/35 -MF | 1½" | Ø 40 mm | 107 | 97 | 148 | 424 | 105 | 55 | adjustable | 500 | 500 | 12.9 | 11.8 |
| VXm 10/35-MF | VX 10/35-MF | | | | | | 439 | | | | | | 14.4 | 13.2 |
| VXm 15/35-MF | VX 15/35-MF | | | | | | 472 | | | | | | 17.2 | 15.6 |
| VXm 20/35-MF | VX 20/35-MF | | | | | | 502 | | | | | | 19.4 | 17.2 |
| VXm 8/50 -MF | VX 8/50 -MF | 2" | Ø 50 mm | 112 | 97 | 149 | 435 | 107 | 60 | | | | 13.2 | 12.1 |
| VXm 10/50-MF | VX 10/50-MF | | | | | | 450 | | | | | | 14.7 | 13.5 |
| VXm 15/50-MF | VX 15/50-MF | | | | | | 483 | | | | | | 17.5 | 15.9 |
| VXm 20/50-MF | VX 20/50-MF | | | | | | 513 | | | | | | 19.7 | 17.5 |

## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-phase | Three-phase | n. pumps | n. pumps |
| VXm 8/35 -MF | VX 8/35 -MF | 45 | 60 |
| VXm 10/35-MF | VX 10/35-MF | 45 | 60 |
| VXm 15/35-MF | VX 15/35-MF | 30 | 45 |
| VXm 20/35-MF | VX 20/35-MF | 30 | 45 |
| VXm 8/50 -MF | VX 8/50 -MF | 45 | 60 |
| VXm 10/50-MF | VX 10/50-MF | 45 | 60 |
| VXm 15/50-MF | VX 15/50-MF | 30 | 45 |
| VXm 20/50-MF | VX 20/50-MF | 30 | 45 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Micro-cast **AISI 316L** stainless steel with ISO 228/1 threaded port |
| 2 | **Base** | Stainless steel **AISI 304** |
| 3 | **Impeller** | VORTEX type in **AISI 304** stainless steel. |
| 4 | **Motor sleeve** | Stainless steel **AISI 304** |
| 5 | **Motor cover** | **AISI 304** stainless steel for VX 8-10 MF<br>Cast iron with cataphoresis treatment for VX 15-20 MF |
| 6 | **Motor shaft** | Stainless steel **AISI 316L** |

**7 Double mechanical seal in oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **MG1-14D SIC** | Ø 14 mm | Motor side | Silicon carbide / Graphite / NBR |
| | | Pump side | Silicon carbide/Silicon carbide/NBR |

**8 Capacitor** (exclusive to single-phase models)

**9 Electric motor**

**VXm-MF**: single-phase 220 V - 60 Hz or 110 V - 60 Hz with winding integrated thermal motor protection
**VX-MF**: three-phase 380 V - 60 Hz or 440 V - 60 Hz

– Insulation: class F
– Protection rating: IP X8

**10 Power cord**

Power cable encapsulated with epoxy resin both in the grommet area and where the conductors exit the sheath, for absolute insulation against moisture and water.

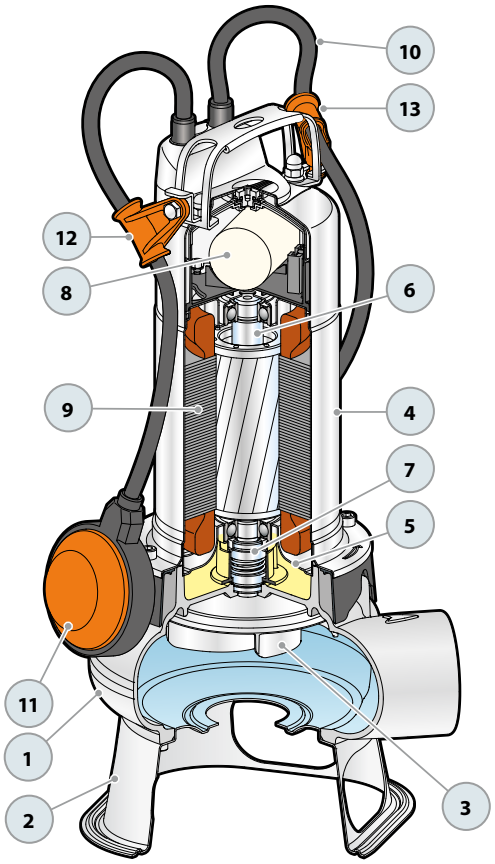
Type 'H07 RN-F
(Schuko plug exclusive to single-phase models)

※ Standard length 10 metres

**11 Float switch** (exclusive to single-phase models)

**12 Tilting device for the float cable**
(exclusive to single-phase models)
Patent No. IT0001428923

**13 Power cable strain relief**
Patent No. EP2313658



# BC-MF Microcast stainless steel submersible pumps

## TWO-CHANNEL

Sewage
Domestic use
Civil use
Industrial use

※ **Experience high-efficiency, quality, and durability**




※ **Constructed entirely from micro-cast stainless steel, BC-MF submersible pumps offer superior corrosion and abrasion.**

### PERFORMANCE RANGE

- Flow rate up to **850 l/min** (51 m³/h)
- Head up to **16 m**

### INSTALLATION AND USE

**BC-MF** stainless steel submersible pumps are designed to drain dirty and sewage water in domestic, civil, and industrial settings. Featuring a TWO-CHANNEL impeller, they can efficiently pump liquids containing suspended solids up to 50 mm in diameter with short fibers and handle wastewater, sewage, surface water, and sludge-mixed water in residential properties.

※ The hydraulic configuration of the volute and **TWO-CHANNEL** impeller results from advanced fluid dynamics calculations, delivering superior performance and efficiency for notable energy savings.

※ The **TWO-CHANNEL** impeller provides excellent performance and high energy efficiency, generating increased pressure for pumping solids up to **50 mm** in diameter, making it the best choice for wastewater drainage.

### INCLUDES

※ Power cable length **10 m**
※ Float switch (exclusive to single-phase models)

### APPLICATION LIMITS

- Depth below water level up to **5 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Capable of processing suspended solids up to **Ø 50 mm**
- **Minimum immersion for continuous service:**
  – **290 mm for BC 10/50-MF**
  – **330 mm for BC 15/50-MF**
  – **360 mm for BC 20/50-MF**

### AVAILABLE UPON REQUEST

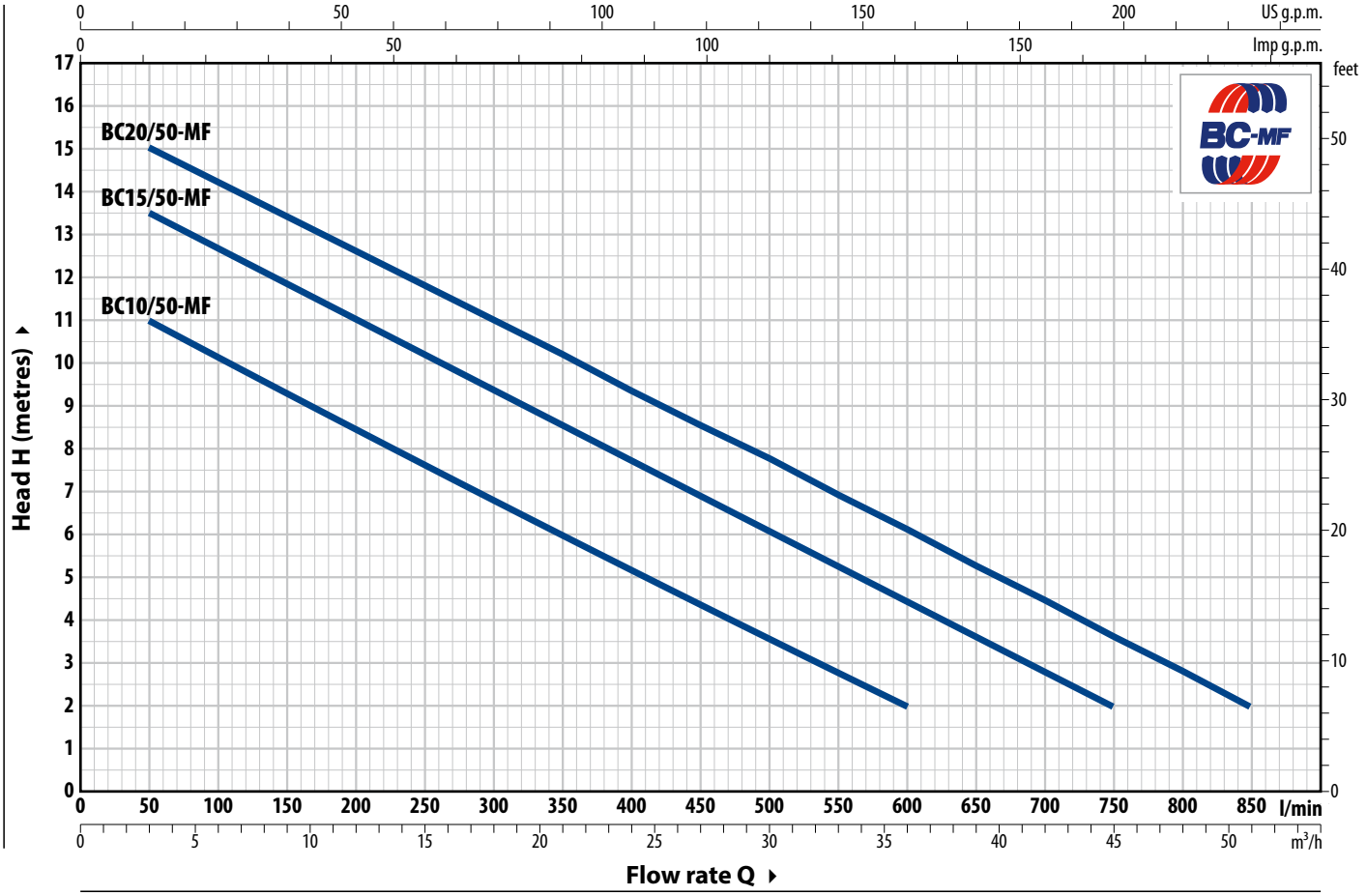
※ Different voltage or frequency

### PATENTS - TRADE MARKS - MODELS

- Patent No. EP2313658
- Patent No. IT0001428923

## CURVES AND PERFORMANCE DATA

**60 Hz**




| TYPE | | POWER (P2) | | Q | m³/h | 0 | 3 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 45 | 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | | l/min | **0** | **50** | **100** | **200** | **300** | **400** | **500** | **600** | **700** | **750** | **850** |
| **BCm 10/50-MF** | **BC 10/50-MF** | 0.75 | 1 | | | 12 | 11 | 10.3 | 8.6 | 6.9 | 5 | 3.6 | 2 | | | |
| **BCm 15/50-MF** | **BC 15/50-MF** | 1.1 | 1.5 | **H** | metres | 14.5 | 13.5 | 12.8 | 11.2 | 9.5 | 7.8 | 6.1 | 4.5 | 2.8 | 2 | |
| **BCm 20/50-MF** | **BC 20/50-MF** | 1.5 | 2 | | | 16 | 15 | 14.4 | 12.8 | 11.1 | 9.5 | 7.9 | 6.2 | 4.5 | 3.7 | 2 |

**Q** = Flow rate **H** = Total manometric head

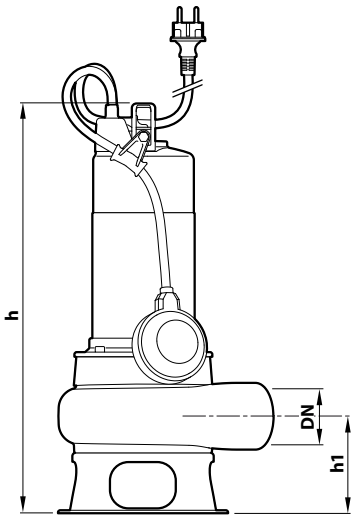
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

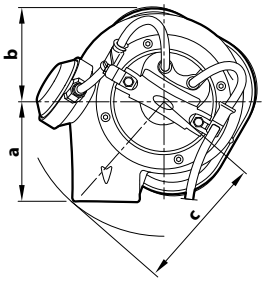
## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| **Single-phase** | **220 V** | **110 V** |
| **BCm 10/50-MF** | 6.3 A | 12.6 A |
| **BCm 15/50-MF** | 8.5 A | – |
| **BCm 20/50-MF** | 10.0 A | – |

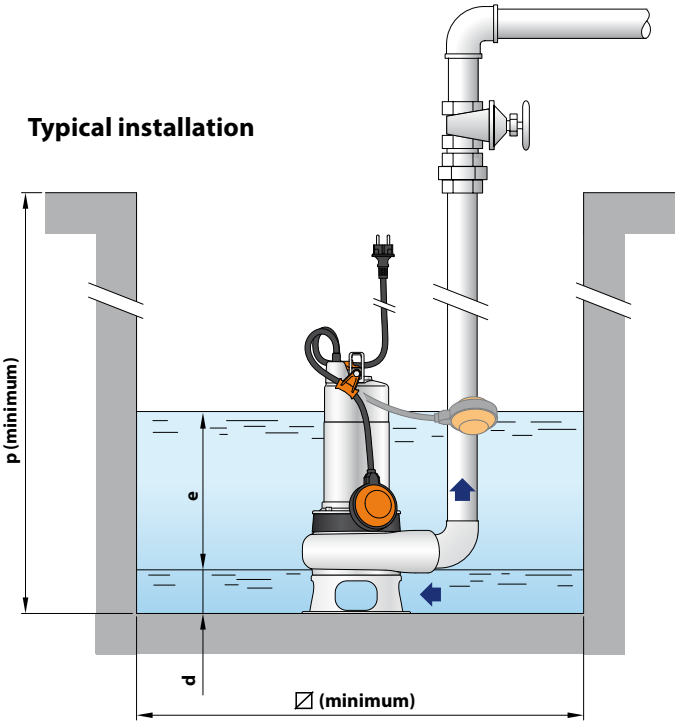
| TYPE | VOLTAGE | |
|---|---|---|
| **Three-phase** | **380 V** | **440 V** |
| **BC 10/50-MF** | 2.4 A | 2.2 A |
| **BC 15/50-MF** | 3.5 A | 3.3 A |
| **BC 20/50-MF** | 4.3 A | 3.8 A |

## DIMENSIONS AND WEIGHT




**Typical installation**




| TYPE | | PORT | Passage of | DIMENSIONS mm | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN | solid bodies | a | b | c | h | h1 | d | e | p | ⍁ | 1~ | 3~ |
| BCm 10/50-MF | BC 10/50-MF | 2" | Ø 50 mm | 102 | 95 | 145 | 450 | 107 | 60 | adjustable | 500 | 500 | 15.2 | 14.0 |
| BCm 15/50-MF | BC 15/50-MF | | | | | | 483 | | | | | | 17.8 | 16.2 |
| BCm 20/50-MF | BC 20/50-MF | | | | | | 513 | | | | | | 20.0 | 17.8 |

## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-phase | Three-phase | n. pumps | n. pumps |
| BCm 10/50-MF | BC 10/50-MF | 45 | 60 |
| BCm 15/50-MF | BC 15/50-MF | 30 | 45 |
| BCm 20/50-MF | BC 20/50-MF | 30 | 45 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Micro-cast **AISI 316L** stainless steel with ISO 228/1 threaded port |
| 2 | **Base** | Stainless steel **AISI 304** |
| 3 | **Impeller** | TWO-CHANNEL type in micro-cast **AISI 304** stainless steel. |
| 4 | **Motor sleeve** | Stainless steel **AISI 304** |
| 5 | **Motor cover** | **AISI 304** stainless steel for BC 10/50-MF<br>Cast iron with cataphoresis treatment for BC 15/50-MF, BC 20/50-MF |
| 6 | **Motor shaft** | Stainless steel **AISI 316L** |

**7 Double mechanical seal in oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **MG1-14D SIC** | Ø 14 mm | Motor side | Silicon carbide / Graphite / NBR |
| | | Pump side | Silicon carbide/Silicon carbide/NBR |

**8 Capacitor** (exclusive to single-phase models)

**9 Electric motor**

**BCm-MF**: single-phase 220 V - 60 Hz or 110 V - 60 Hz with winding integrated thermal motor protection
**BC-MF**: three-phase 380 V - 60 Hz or 440 V - 60 Hz

– Insulation: class F
– Protection rating: IP X8

**10 Power cord**

Power cable encapsulated with epoxy resin both in the grommet area and where the conductors exit the sheath, for absolute insulation against moisture and water.

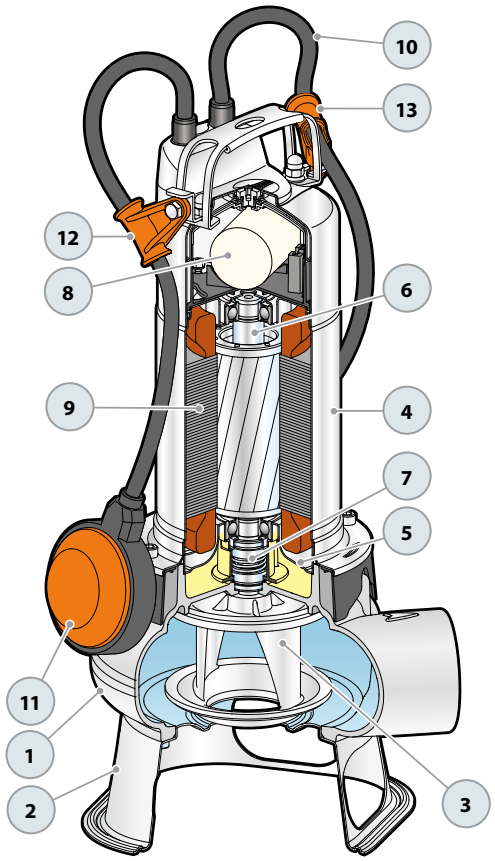
Type 'H07 RN-F' (Schuko plug exclusive to single-phase models)

※ Standard length 10 metres

**11 Float switch** (exclusive to single-phase models)

**12 Tilting device for the float cable**
(exclusive to single-phase models)
Patent No. IT0001428923

**13 Power cable strain relief**
Patent No. EP2313658



# SEWAGE LIFTING SYSTEM KIT VX-MF - BC-MF

## VERSION WITH HORIZONTAL DELIVERY AND ¾" GUIDE PIPES

| | | |
|---|---|---|
| For **VX /35-MF** | CODE ASSPVX35ST | DN **2"** |
| Per **VX /50-MF , BC /50-MF** | CODE ASSPVX50ST | DN **2"** |



**※ Kit consisting of:**



Coupling foot



Solids rail with ring nut and seal



Support for guide tubes

## VERSION WITH VERTICAL DELIVERY AND ¾" GUIDE PIPES

| | | |
|---|---|---|
| For **VX /35-MF** | CODE ASSPVX35STV | DN **2½"** |
| For **VX /50-MF, BC /50-MF** | CODE ASSPVX50STV | DN **2½"** |



**※ Kit consisting of:**



Coupling foot complete with counterflange



Solids rail with ring nut and seal



Support for guide tubes

## ● ACCESSORIES AVAILABLE FOR ORDER

### RUNNING GUIDE

| | |
|---|---|
| ※ For **VX /35-MF** | CODE ASSFL005 |
| ※ For **VX /50-MF , BC /50-MF** | CODE ASSFL006 |



Complete with ring nut and gasket

### GUIDE TUBE SUPPORT

| | |
|---|---|
| ※ For Ø ¾ **"** guide tubes | CODE 859SV340INTFA |



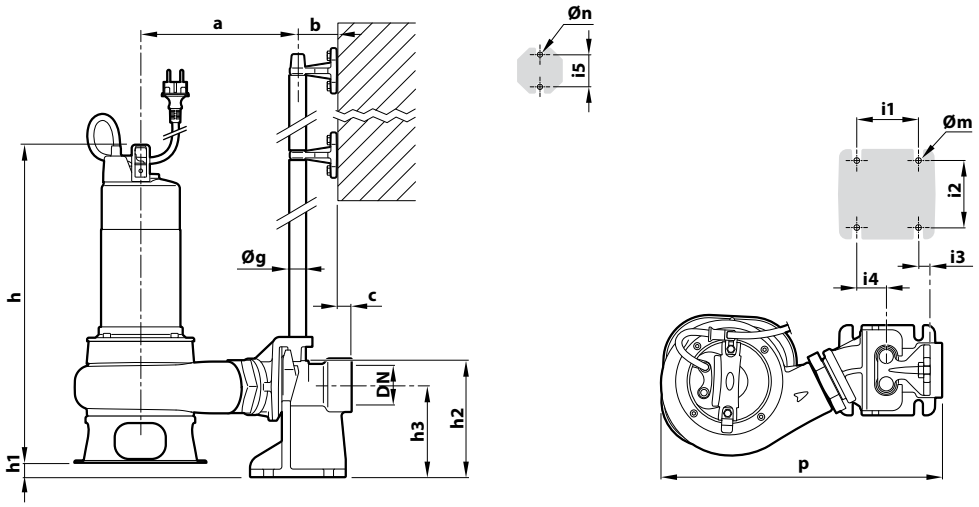
**To ensure stability, insert a support every 2 metres along the guide tube**

### GUIDE TUBE (AISI 304 stainless steel)

| | |
|---|---|
| ※ 2 metres Ø ¾" guide tube | CODE 54SARTG0052F |
| ※ 3 metres Ø ¾" guide tube | CODE 54SARTG0053F |
| ※ 6 metres Ø ¾" guide tube | CODE 54SARTG0056F |

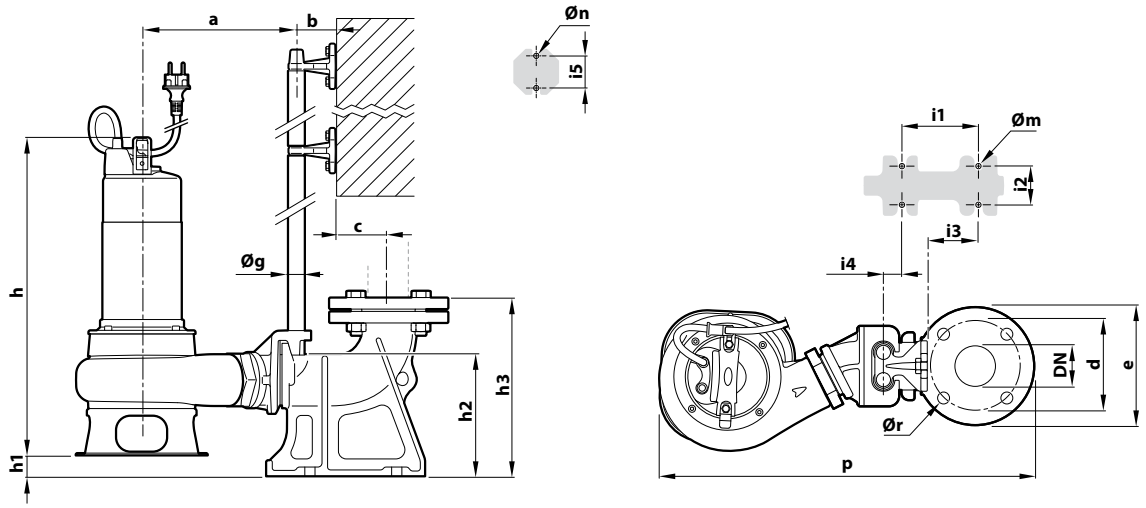


## DIMENSIONS (Version with horizontal outlet)




| TYPE | | Passage of solid bodies | PORT | DIMENSIONS mm | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | mm | DN | a | b | c | p | h | h1 | h2 | h3 | i1 | i2 | i3 | i4 | i5 | Øg | Øm | Øn |
| VXm 8/35 -MF | VX 8/35 -MF | **40** | **2"** | 222 | 61 | 17 | 395 | 424 | 25 | 165 | 130 | 85 | 94 | 16 | 40 | 50 | ¾" | 12 | 11 |
| VXm 10/35 -MF | VX 10/35 -MF | | | | | | | 439 | | | | | | | | | | | |
| VXm 15/35 -MF | VX 15/35 -MF | | | | | | | 472 | | | | | | | | | | | |
| VXm 20/35 -MF | VX 20/35 -MF | | | | | | | 502 | | | | | | | | | | | |
| VXm 8/50 -MF | VX 8/50 -MF | **50** | **2"** | 226 | | | 398 | 435 | 23 | | | | | | | | | | |
| VXm 10/50 -MF | VX 10/50 -MF | | | | | | | 450 | | | | | | | | | | | |
| VXm 15/50 -MF | VX 15/50 -MF | | | | | | | 483 | | | | | | | | | | | |
| VXm 20/50 -MF | VX 20/50 -MF | | | | | | | 513 | | | | | | | | | | | |
| BCm 10/50 -MF | BC 10/50 -MF | **50** | **2"** | | | | | 450 | | | | | | | | | | | |
| BCm 15/50 -MF | BC 15/50 -MF | | | | | | | 483 | | | | | | | | | | | |
| BCm 20/50 -MF | BC 20/50 -MF | | | | | | | 513 | | | | | | | | | | | |

## DIMENSIONS (Version with vertical delivery)




| TYPE | | Passage of solid bodies | PORT | DIMENSIONS mm | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | mm | DN | a | b | c | d | e | p | h | h1 | h2 | h3 | i1 | i2 | i3 | i4 | i5 | Øg | Øm | Øn | Ør |
| VXm 8/35 -MF | VX 8/35 -MF | **40** | **2½"** | 215 | 61 | 52 | 125 | 165 | 503 | 424 | 23 | 164 | 215 | 120 | 72 | 62 | 3 | 50 | ¾" | 14 | 11 | 18 |
| VXm 10/35 -MF | VX 10/35 -MF | | | | | | | | | 439 | | | | | | | | | | | | |
| VXm 15/35 -MF | VX 15/35 -MF | | | | | | | | | 472 | | | | | | | | | | | | |
| VXm 20/35 -MF | VX 20/35 -MF | | | | | | | | | 502 | | | | | | | | | | | | |
| VXm 8/50 -MF | VX 8/50 -MF | **50** | **2½"** | 217 | | | | | 507 | 435 | 21 | | | | | | | | | | | |
| VXm 10/50 -MF | VX 10/50 -MF | | | | | | | | | 450 | | | | | | | | | | | | |
| VXm 15/50 -MF | VX 15/50 -MF | | | | | | | | | 483 | | | | | | | | | | | | |
| VXm 20/50 -MF | VX 20/50 -MF | | | | | | | | | 513 | | | | | | | | | | | | |
| BCm 10/50 -MF | BC 10/50 -MF | **50** | **2½"** | | | | | | | 450 | | | | | | | | | | | | |
| BCm 15/50 -MF | BC 15/50 -MF | | | | | | | | | 483 | | | | | | | | | | | | |
| BCm 20/50 -MF | BC 20/50 -MF | | | | | | | | | 513 | | | | | | | | | | | | |

# D Submersible pumps for drainage

Clear waters

Domestic use

Civil use




## PERFORMANCE RANGE

- Flow rate up to **300 l/min** (18 m³/h)
- Head up to **26 m**

## INSTALLATION AND USE

Designed to **drain clear** or slightly dirty water, **D**-Series pumps are ideal for **domestic and civil applications**, including basement and garage flood mitigation, swimming pool and tank drainage, and non-sewage wastewater disposal. Known for their reliability, these pumps excel in automated fixed installations.

## INCLUDES

※ Power cable length:
- **5 m** for D8, D10, D20
- **10 m** for D30

※ Float switch (exclusive to single-phase models)

## APPLICATION LIMITS

- Depth below water level up to **5 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Capable of processing suspended solids up to **Ø 10 mm**
- Bottom drainage level up to **17 mm**
- **Minimum immersion for continuous service:**
  **- 210 mm for D 8-10-20**
  **- 250 mm for D 30**

## AVAILABLE UPON REQUEST

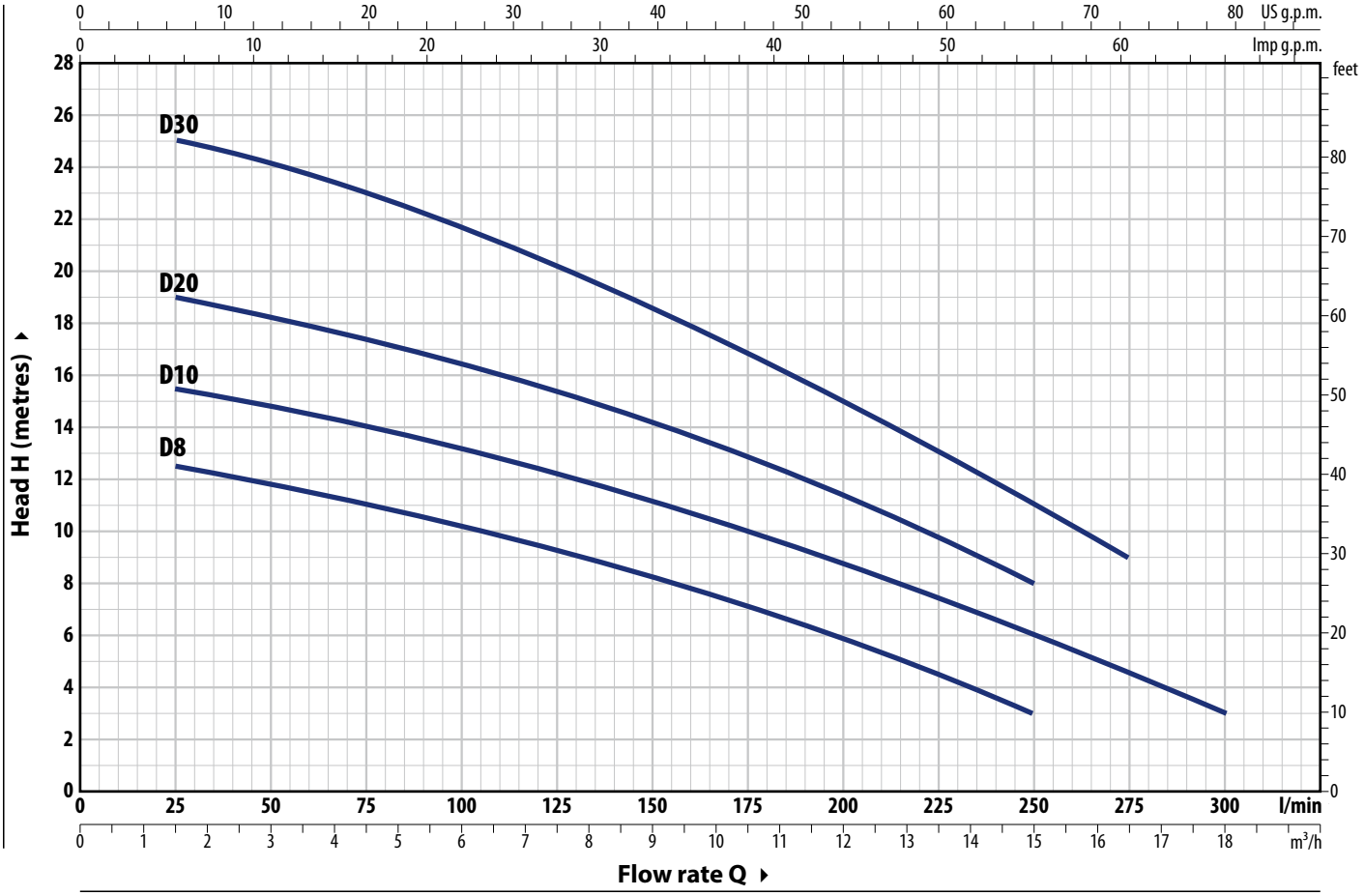
※ Pumps with **10 m** power cable.
※ Different voltage or frequency

## PATENTS - TRADE MARKS - MODELS

- Patent No. EP2313658
- Patent No. IT0001428923

## CURVES AND PERFORMANCE DATA

**60 Hz**




| TYPE | | POWER (P2) | | Q | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | kW | HP | m³/h | 0 | 1.5 | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.2 | 15.0 | 16.5 | 18.0 |
| | | | | l/min | **0** | **25** | **50** | **75** | **100** | **125** | **150** | **175** | **200** | **220** | **250** | **275** | **300** |
| **Dm 8** | **D 8** | 0.55 | 0.75 | **H** m | 13 | 12.5 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 4.7 | 3 | | |
| **Dm 10** | **D 10** | 0.75 | 1 | | 16 | 15.5 | 15 | 14 | 13.2 | 12.2 | 11.2 | 10 | 8.8 | 7.8 | 6 | 4.5 | 3 |
| **Dm 20** | **D 20** | 0.75 | 1 | | 20 | 19 | 18.5 | 17.5 | 16.5 | 15.5 | 14.3 | 13 | 11.5 | 10 | 8 | | |
| **Dm 30** | **D 30** | 1.1 | 1.5 | | 26 | 25 | 24.4 | 23.2 | 21.8 | 20.3 | 18.7 | 16.9 | 15 | 13.5 | 11.1 | 9 | |

**Q** = Flow rate **H** = Total manometric head

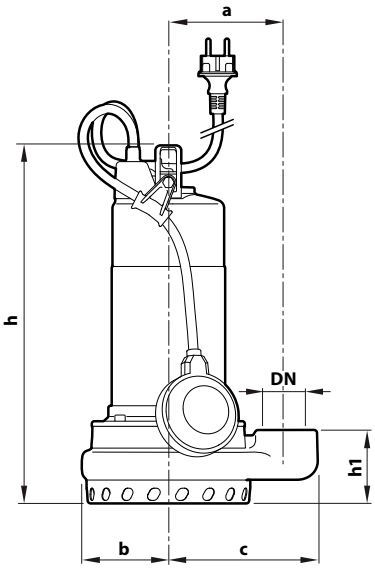
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

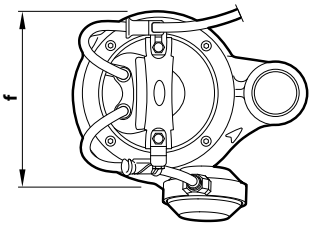
## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-ph. | 220 V | 110 V |
| **Dm 8** | 4.0 A | 8.5 A |
| **Dm 10** | 5.5 A | 10.0 A |
| **Dm 20** | 6.3 A | 13.0 A |
| **Dm 30** | 7.7 A | – |

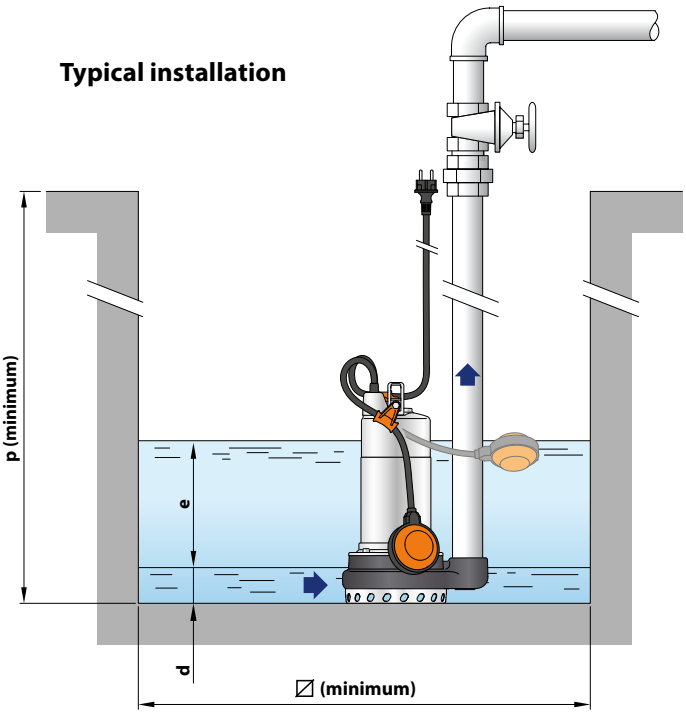
| TYPE | VOLTAGE | |
|---|---|---|
| Three-ph. | 380 V | 440 V |
| **D 8** | 1.8 A | 1.6 A |
| **D 10** | 2.3 A | 2.0 A |
| **D 20** | 2.8 A | 2.5 A |
| **D 30** | 3.3 A | 3.0 A |

## DIMENSIONS AND WEIGHT




**Typical installation**




| TYPE | | PORT | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **DN** | a | b | c | f | h | h1 | d | e | p | ⍁ | 1~ | 3~ |
| **Dm 8** | **D 8** | **1½"** | 115 | 85 | 147 | 177 | 338 | 73 | 17 | adjustable | 500 | 500 | 12.8 | 11.7 |
| **Dm 10** | **D 10** | | | | | | 353 | | | | | | 14.0 | 12.9 |
| **Dm 20** | **D 20** | | | | | | | | | | | | 14.0 | 12.9 |
| **Dm 30** | **D 30** | | | 93 | | 195 | 390 | 84 | | | | | 17.4 | 16.0 |

## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| **Single-ph.** | **Three-ph.** | n. pumps | n. pumps |
| **Dm 8** | **D 8** | 60 | 80 |
| **Dm 10** | **D 10** | 60 | 80 |
| **Dm 20** | **D 20** | 60 | 80 |
| **Dm 30** | **D 30** | 60 | 80 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| **1** | **Pump body** | Cast iron with cataphoresis treatment, provided with ISO 228/1 threaded port |
| **2** | **Suction filter** | Stainless steel **AISI 304** |
| **3** | **Suction cover** | Stainless steel **AISI 304** |
| **4** | **Impeller** | Open type in technopolymer |
| **5** | **Motor sleeve** | Stainless steel **AISI 304** |
| **6** | **Motor cover** | **AISI 304** stainless steel for D 8-10-20<br>Cast iron with cataphoresis treatment for D 30 |
| **7** | **Motor shaft** | Stainless steel **AISI 431** |

**8 Double shaft seal with interposed oil chamber**

| Water pump | Seal | Shaft | Location | Materials |
|---|---|---|---|---|
| D8, D10, D20 | **MG1-14D SIC** | Ø 14 mm | Motor side | SiC / Graphite / NBR |
| | | | Pump side | SiC / SiC / NBR |
| D30 | **ST1-14 SIC** | Ø 14 mm | | Ceramic / SiC / NBR |
| | **Shaft seal** | Ø 16 x Ø 24 x H 5 mm | | |

**9 Capacitor**
(exclusive to single-phase models)

**10 Electric motor**

**Dm**: single-phase 220 V - 60 Hz or 110 V - 60 Hz with winding integrated thermal motor protection
**D**: three-phase 380 V - 60 Hz or 440 V - 60 Hz
– Insulation: class F
– Protection rating: IP X8

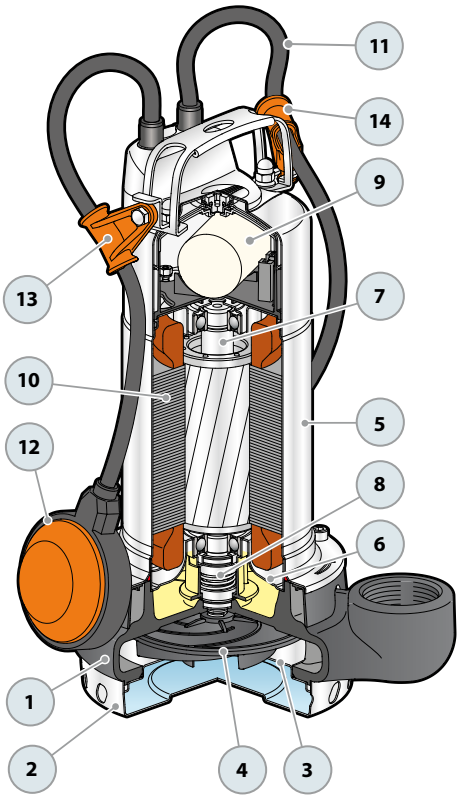
**11 Power cord**

Type 'H07 RN-F
(Schuko plug exclusive to single-phase models)
※ Standard length 5 metres (10 metres for D30)

**12 Float switch** (exclusive to single-phase models)

**13 Tilting device for the float cable**
(exclusive to single-phase models)
Patent No. IT0001428923

**14 Power cable strain relief**
Patent No. EP2313658



Dirty water | Domestic use | Civil use




## PERFORMANCE RANGE

- Flow rate up to **400 l/min** (24 m³/h)
- Head up to **13 m**

## INSTALLATION AND USE

**ZXm 2** pumps are designed for sewage drainage in **domestic and civil settings**.

※ Featuring a **VORTEX** impeller, these pumps efficiently handle solids up to **40 mm** in diameter, with a unique design that prevents clogging.

## INCLUDES

※ **5 m** power cable
※ Float switch
※ Hose connector **Ø 50 mm**

## APPLICATION LIMITS

- Maximum operating depth below water level up to **5 m** (with an appropriately sized power cable)
- Liquid temperature up to +40 **°C**
- Suspended solids transfer:
  - up to **Ø 30 mm** for ZXm 2/30
  - up to **Ø 40 mm** for ZXm 2/40
- **Minimum immersion for continuous service:**
  **- 265 mm for ZXm 2/30**
  **- 275 mm for ZXm 2/40**

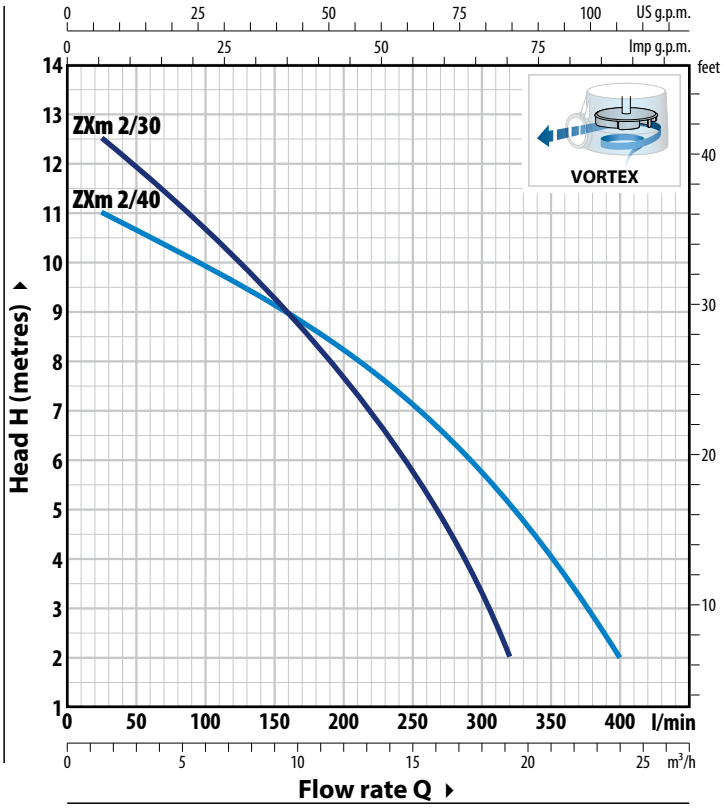
## AVAILABLE UPON REQUEST

※ Pumps with **10 m** power cable
※ Different voltage or frequency

## PATENTS - TRADE MARKS - MODELS

- Patent No. EP2313658
- Patent No. IT0001428923

## CURVES AND PERFORMANCE DATA 60 Hz




## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-phase | 220 V | 110 V |
| ZXm 2/30 | 4.2 A | 8.5 A |
| ZXm 2/40 | 4.2 A | 8.5 A |

| TYPE | POWER (P2) | | Q m³/h | 0 | 1.5 | 3 | 6 | 9 | 12 | 15 | 18 | 19.2 | 21 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | kW | HP | Q l/min | 0 | 25 | 50 | 100 | 150 | 200 | 250 | 300 | 320 | 350 | 400 |
| ZXm 2/30 | 0.55 | 0.75 | H metres | 13 | 12.5 | 11.8 | 10.6 | 9.3 | 7.6 | 5.8 | 3.3 | 2 | | |
| ZXm 2/40 | 0.55 | 0.75 | | 11.5 | 11 | 10.6 | 9.8 | 9.2 | 8.2 | 7.2 | 5.7 | 5.2 | 4 | 2 |

**Q** = Flow rate **H** = Total manometric head

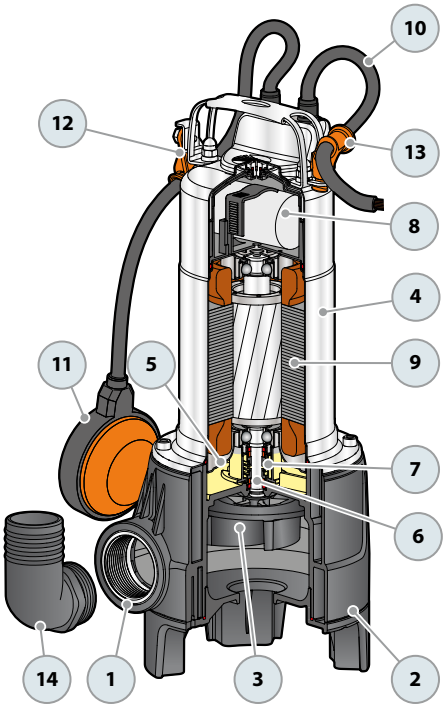
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## MATERIALS AND COMPONENTS

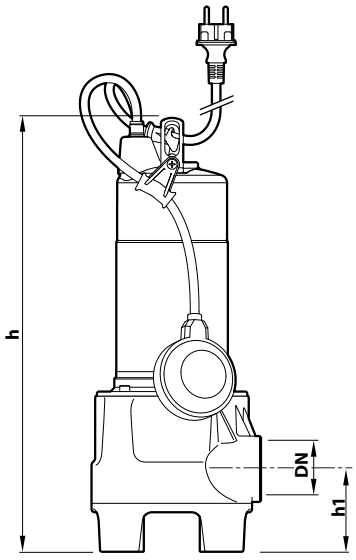
| | | |
|---|---|---|
| 1 | **Pump body** | Fibreglass-filled technopolymer with ISO 228/1 threaded delivery port (5-year warranty) |
| 2 | **Base** | Glass-fibre reinforced technopolymer |
| 3 | **Impeller** | VORTEX type made of glass-fibre reinforced technopolymer |
| 4 | **Motor sleeve** | Stainless steel **AISI 304** |
| 5 | **Motor cover** | Stainless steel **AISI 304** |
| 6 | **Motor shaft** | Stainless steel **AISI 431** |
| 7 | **Double mechanical seal with interposed oil chamber** | |

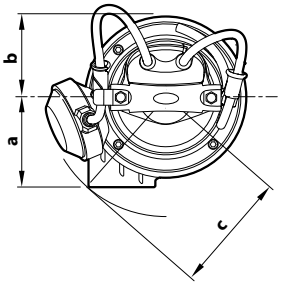
| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **MG1-14D SIC** | Ø 14 mm | Motor side | SiC / Graphite / NBR |
| | | Pump side | SiC / SiC / NBR |

| | | |
|---|---|---|
| 8 | **Capacitor** | |
| 9 | **Electric motor** | Single-phase 220 V - 60 Hz or 110 V - 60 Hz<br>with winding integrated thermal motor protection<br>– Insulation: class F<br>– Protection rating: IP X8 |
| 10 | **Power cord** | Type 'H07 RN-F' with Schuko plug<br>※ Standard length 5 metres |
| 11 | **Float switch** | |
| 12 | **Tilting device for the float cable** | Patent No. IT0001428923 |
| 13 | **Power cable strain relief** | Patent No. EP2313658 |
| 14 | **Hose connector Ø 50 mm (included in delivery)** | |

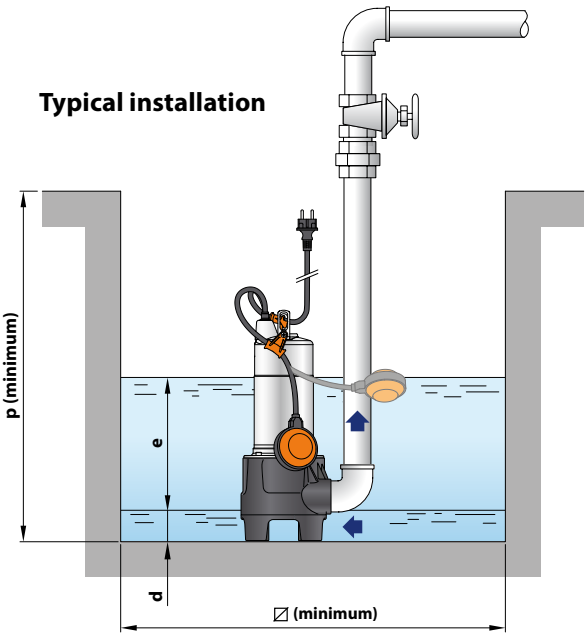



## DIMENSIONS AND WEIGHT




**Typical installation**




| TYPE Single-phase | PORT DN | Passage of solid bodies | DIMENSIONS mm a | b | c | h | h1 | d | e | p | ⍁ | kg 1~ | PALLET CAPACITY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ZXm 2/30** | **1½"** | **Ø 30 mm** | 90 | 81 | 118 | 412 | 73 | 50 | adjustable | 500 | 500 | 10.8 | 54 |
| **ZXm 2/40** | | **Ø 40 mm** | | | | 422 | 83 | | | | | 10.8 | 54 |

Dirty water Domestic use Civil use




## PERFORMANCE RANGE

- Flow rate up to **400 l/min** (24 $m^3$/h)
- Head up to **13 m**

## INSTALLATION AND USE

**ZXm 2-GM** pumps are recommended for drainage of **sewage** in the **domestic and civil** sectors, for the evacuation of dirty water even in **very small spaces (sumps of only 220 mm side)**.

※ The **VORTEX** impeller allows the pumping of solids with a diameter of up to **40 mm** and, thanks to its special geometry, guarantees safe operation against clogging.

## INCLUDES

※ Adjustable vertical magnetic float switch
※ Hose connector **Ø 50 mm**
※ **5 m** power cable

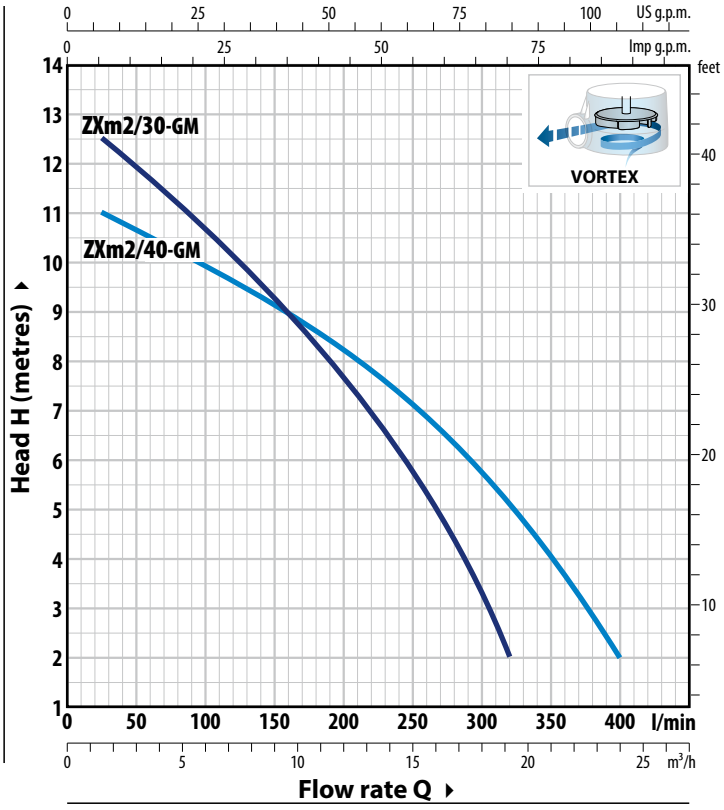
## APPLICATION LIMITS

- Depth below water level up to **5 m**(with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Suspended solids transfer:
  - up to **Ø 30 mm** for ZXm 2/30-GM
  - up to **Ø 40 mm** for ZXm 2/40-GM
- **Minimum immersion for continuous service:**
  **- 265 mm for ZXm 2/30-GM**
  **- 275 mm for ZXm 2/40-GM**

## AVAILABLE UPON REQUEST

※ Pumps with **10 m** power cable
※ Different voltage or frequency

## CURVES AND PERFORMANCE DATA 60 Hz




## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| **Single-phase** | **220 V** | **110 V** |
| **ZXm 2/30-GM** | 4.2 A | 8.5 A |
| **ZXm 2/40-GM** | 4.2 A | 8.5 A |

| TYPE | POWER (P2) | | Q | m³/h | 0 | 1.5 | 3 | 6 | 9 | 12 | 15 | 18 | 19.2 | 21 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **kW** | **HP** | | l/min | **0** | **25** | **50** | **100** | **150** | **200** | **250** | **300** | **320** | **350** | **400** |
| **ZXm 2/30-GM** | 0.55 | 0.75 | **H** metres | | 13 | 12.5 | 11.8 | 10.6 | 9.3 | 7.6 | 5.8 | 3.3 | 2 | | |
| **ZXm 2/40-GM** | 0.55 | 0.75 | | | 11.5 | 11 | 10.6 | 9.8 | 9.2 | 8.2 | 7.2 | 5.7 | 5.2 | 4 | 2 |

**Q** = Flow rate **H** = Total manometric head

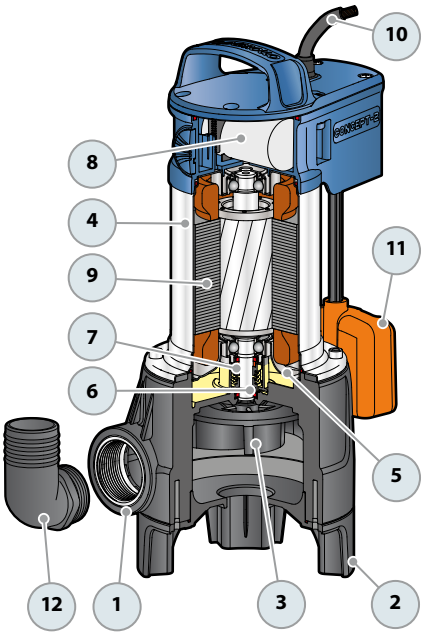
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## MATERIALS AND COMPONENTS

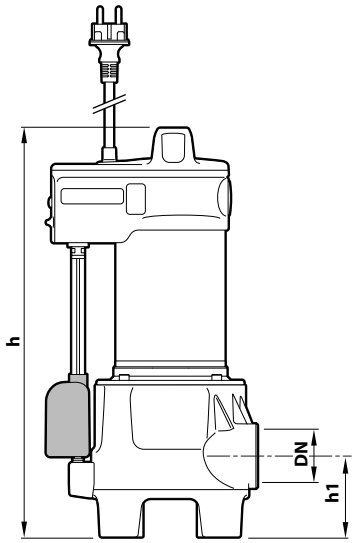
| | | |
|---|---|---|
| 1 | **Pump body** | Fibreglass-filled technopolymer with ISO 228/1 threaded delivery port (5-year warranty) |
| 2 | **Base** | Glass-fibre reinforced technopolymer |
| 3 | **Impeller** | VORTEX type made of glass-fibre reinforced technopolymer |
| 4 | **Motor sleeve** | Stainless steel **AISI 304** |
| 5 | **Motor cover** | Stainless steel **AISI 304** |
| 6 | **Motor shaft** | Stainless steel **AISI 431** |
| 7 | **Double mechanical seal with interposed oil chamber** | |

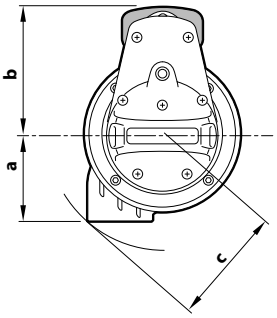
| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **MG1-14D SIC** | Ø 14 mm | Motor side | SiC / Graphite / NBR |
| | | Pump side | SiC / SiC / NBR |

| | | |
|---|---|---|
| 8 | **Capacitor** | |
| 9 | **Electric motor** | Single-phase 220 V - 60 Hz or 110 V - 60 Hz<br>with winding integrated thermal motor protection<br>– Insulation: class F<br>– Protection rating: IP X8 |
| 10 | **Power cord** | Type 'H07 RN-F' with Schuko plug<br>※ Standard length 5 metres |
| 11 | **Float level switch** | Float magnetic vertical solids adjustable |
| 12 | **Hose connector** | Ø 50 mm (included in delivery) |

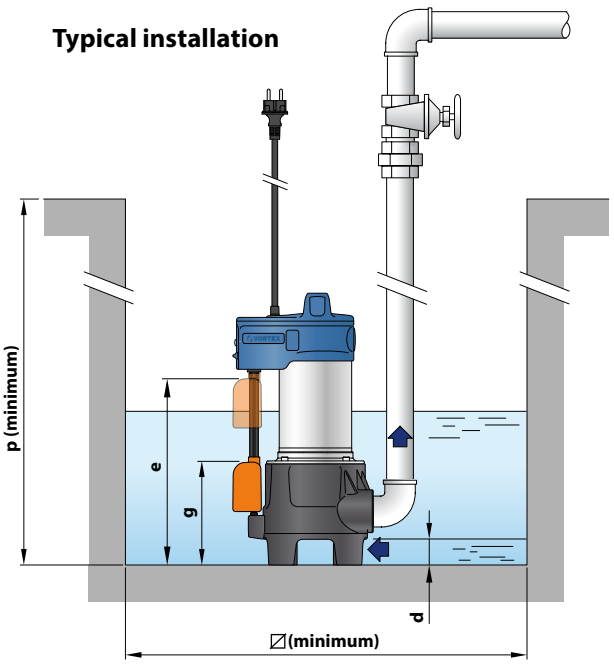



## DIMENSIONS AND WEIGHT




**Typical installation**




| TYPE Single-phase | PORT DN | Passage of solid bodies | DIMENSIONS mm a | b | c | h | h1 | d | g (adjustable) | e | p | ⍁ | kg 1~ | PALLET CAPACITY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ZXm 2/30-GM** | **1½"** | **Ø 30 mm** | 90 | 127 | 118 | 394 | 73 | 50 | 130 | 260 | 450 | 300 | 10.6 | 54 |
| **ZXm 2/40-GM** | | **Ø 40 mm** | | | | 404 | 83 | | 140 | 270 | | | 10.6 | 54 |

Dirty water Domestic use



## PERFORMANCE RANGE

- Flow rate up to **400 l/min** (24 m³/h)
- Head up to **11 m**

## INSTALLATION AND USE

**ZXm 1** pump is designed for **dirty water** and sewage drainage in **domestic settings**, capable of handling suspened solids up to **40 mm in diameter**. It's easy to operate and reliable in automated fixed installations.

## INCLUDES

※ **5 m** power cable
※ Float switch

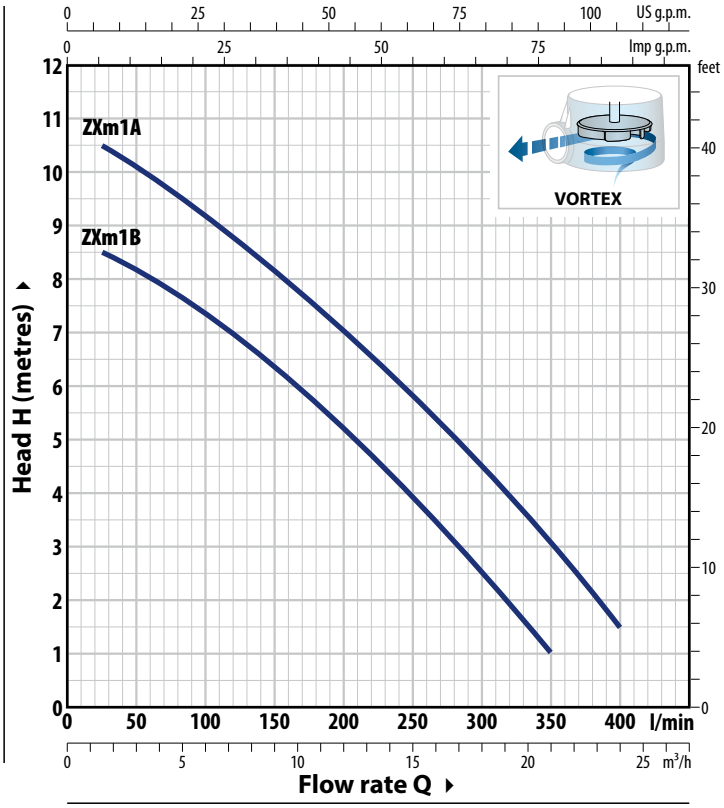
## APPLICATION LIMITS

- Depth below water level up to **5 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Capable of processing suspended solids up to **Ø 40 mm**
- Draining capability up to **50 mm** from the bottom
- **Minimum immersion for continuous service: 240 mm**

## AVAILABLE UPON REQUEST

※ Pumps with **10 m** power cable.
※ Different voltage or frequency

## CURVES AND PERFORMANCE DATA **60 Hz**




## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| **Single-phase** | **220 V** | **110 V** |
| **ZXm 1B/40** | 3.6 A | 7.2 A |
| **ZXm 1A/40** | 5.0 A | 10.0 A |

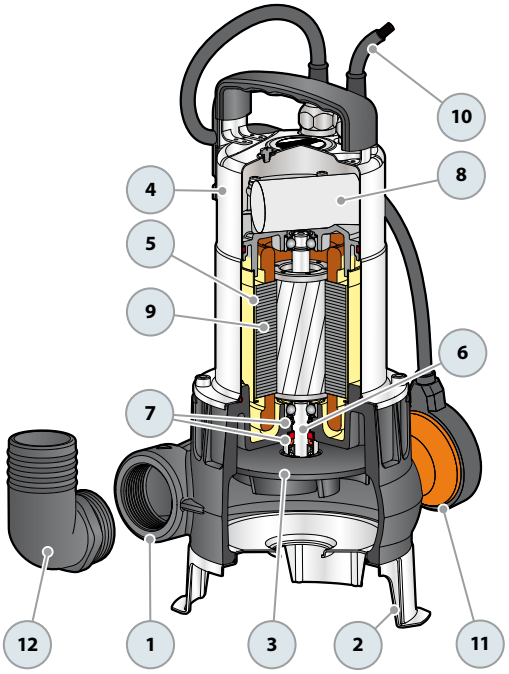
| TYPE | POWER (P2) | | Q m³/h | 0 | 1.5 | 3.0 | 4.5 | 6.0 | 9.0 | 12.0 | 15.0 | 18.0 | 21.0 | 24.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **kW** | **HP** | l/min | **0** | **25** | **50** | **75** | **100** | **150** | **200** | **250** | **300** | **350** | **400** |
| **ZXm 1B/40** | 0.50 | 0.70 | **H** m | 9 | 8.5 | 8.3 | 8 | 7.5 | 6.5 | 5.2 | 4 | 2.5 | 1 | |
| **ZXm 1A/40** | 0.60 | 0.85 | | 11 | 10.5 | 10 | 9.5 | 9.2 | 8.2 | 7 | 5.7 | 4.3 | 2.8 | 1.5 |

**Q** = Flow rate **H** = Total manometric head

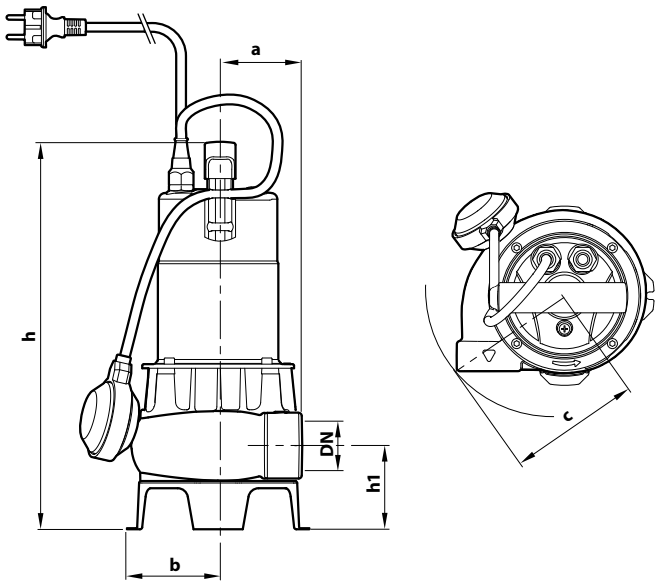
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

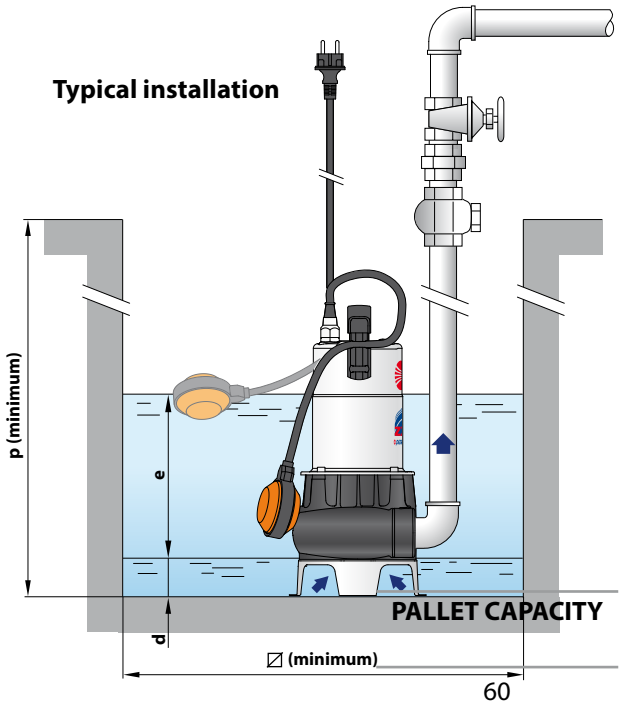
## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with ISO 228/1 threaded port |
| 2 | **Base** | Stainless steel **AISI 304** |
| 3 | **Impeller** | VORTEX technopolymer type |
| 4 | **Outer sleeve** | Stainless steel **AISI 304** |
| 5 | **Motor sleeve** | Steel |
| 6 | **Motor shaft** | Stainless steel **AISI 431** |
| 7 | **Double shaft seal** | |
| | Seal / Shaft / Materials | |
| | **STA-12R** / Ø 12 mm / Ceramic / Graphite / NBR | |
| | **Sealing ring** | Ø 12 x Ø 22 x H 6 mm |
| 8 | **Capacitor** | |
| 9 | **Electric motor** | |
| | Single-phase 220 V - 60 Hz or 110 V - 60 Hz<br>with winding integrated thermal motor protection<br>– Insulation: class F<br>– Protection rating: IP X8 | |
| 10 | **Power cord** | |
| | Type 'H07 RN-F' with Schuko plug<br>※ Standard length 5 metres | |
| 11 | **Float switch** | |
| 12 | **Hose holder** (included in delivery)<br>Ø 50 mm | |




## DIMENSIONS AND WEIGHT




60

60

| TYPE Single-phase | PORT DN | Passage of solid bodies | DIMENSIONS mm a | b | c | h | h1 | d | e | p | ⍁ | kg 1~ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ZXm 1B/40** | **1½"** | **Ø 40 mm** | 75 | 89 | 130 | 378 | 82 | 50 | adjustable | 450 | 450 | 11.6 |
| **ZXm 1A/40** | | | | | | | | | | | | 12.0 |

| GROUPAGE n. pumps | CONTAINER n. pumps |
|---|---|
| 60 | 80 |
| 60 | 80 |

Dirty water Domestic use

※ FAMILY is an innovative and reliable stainless steel product




## PERFORMANCE RANGE

- Flow rate up to **220 l/min** (13.2 m³/h)
- Head up to **11 m**

## INSTALLATION AND USE

The **FAMILY** pump is designed for **dirty water** and sewage drainage in **domestic settings**, capable of handling suspended solids up to **30 mm in diameter**. It's easy to operate and reliable in automated fixed installations.

## INCLUDES

※ **5 m** power cable
※ Float switch
※ Rubber element holder

## APPLICATION LIMITS

- Depth below water level up to **5 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Capable of processing suspended solids up to **Ø 30 mm**
- **Minimum immersion for continuous service: 160 mm**

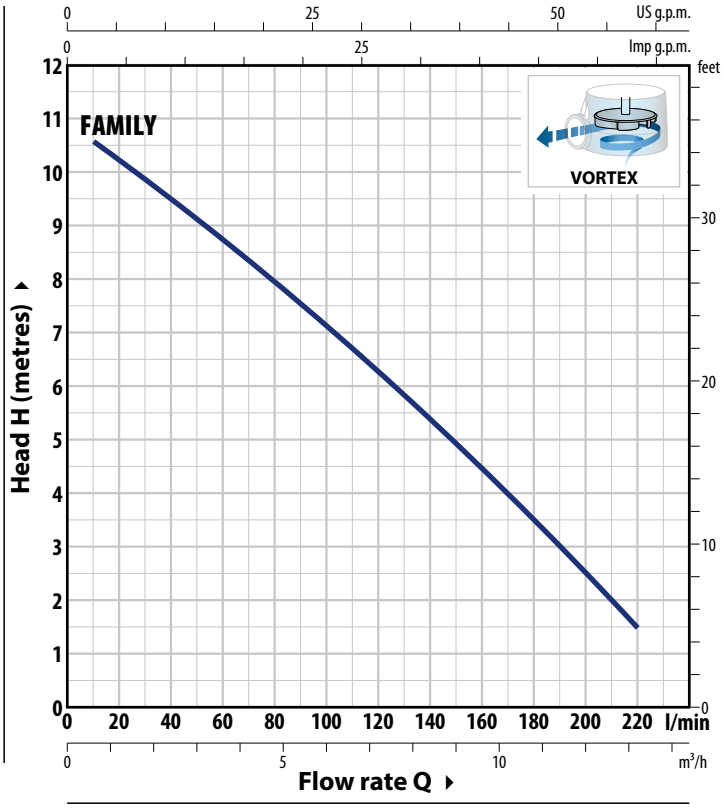
## AVAILABLE UPON REQUEST

※ Technopolymer impeller (economic)
※ Pumps with **10 m** power cable
※ Different voltage or frequency

## PATENTS - TRADE MARKS - MODELS

- Patent No. IT0001428923

## CURVES AND PERFORMANCE DATA 60 Hz




## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-phase | 220 V | 110 V |
| FAMILY | 3.2 A | 6.4 A |

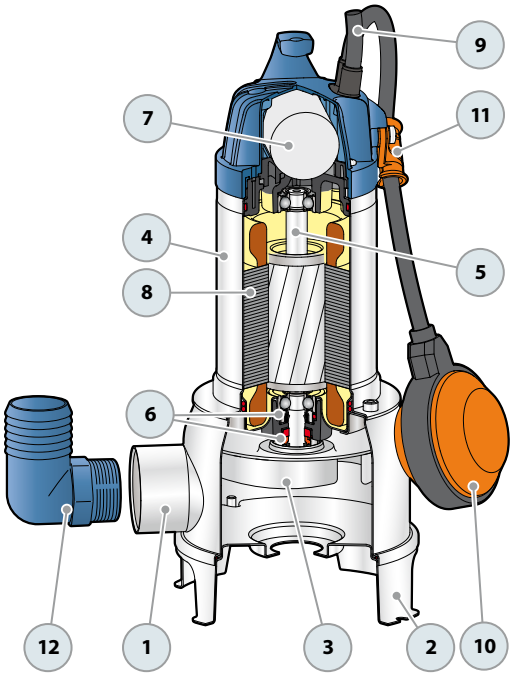
| TYPE | POWER (P2) | | Q | m³/h | 0 | 0.6 | 1.2 | 3.6 | 6 | 8.4 | 10.8 | 12 | 13.2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | kW | HP | | l/min | 0 | 10 | 20 | 60 | 100 | 140 | 180 | 200 | 220 |
| FAMILY | 0.50 | 0.70 | H | metres | 11 | 10.6 | 10.3 | 8.8 | 7.2 | 5.4 | 3.6 | 2.6 | 1.5 |

**Q** = Flow rate **H** = Total manometric head

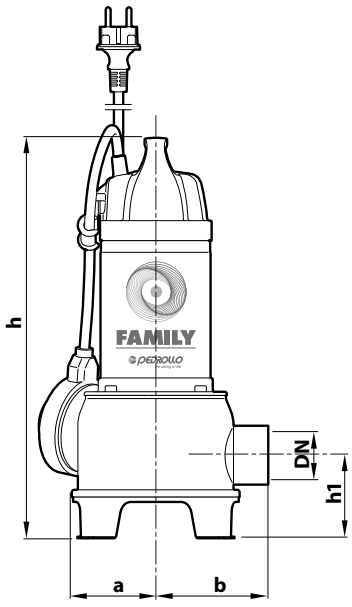
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

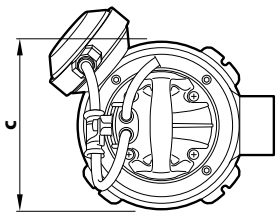
## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | **AISI 304** stainless steel with ISO 228/1 threaded port |
| 2 | **Base** | Stainless steel **AISI 304** |
| 3 | **Impeller** | VORTEX type in **AISI 304** stainless steel |
| 4 | **Motor sleeve** | Stainless steel **AISI 304** |
| 5 | **Motor shaft** | Stainless steel **AISI 431** |
| 6 | **Double shaft seal** | |
| | Seal / Shaft / Materials | |
| | **STA-12R** / Ø 12 mm / Ceramic / Graphite /NBR | |
| | **Shaft seal** | Ø 12 x Ø 19 x H 5 mm |
| 7 | **Capacitor** | |
| 8 | **Electric motor** | |
| | Single-phase 220 V - 60 Hz or 110 V - 60 Hz with winding integrated thermal motor protection<br>– Insulation: class F<br>– Protection rating: IP X8 | |
| 9 | **Power cord** | |
| | Type 'H07 RN-F' with Schuko plug<br>※ Standard length 5 metres | |
| 10 | **Float switch** | |
| 11 | **Tilting device for the float cable** | |
| | Patent No. IT0001428923 | |
| 12 | **Hose holder** (included in delivery) | |
| | Ø 50 mm | |

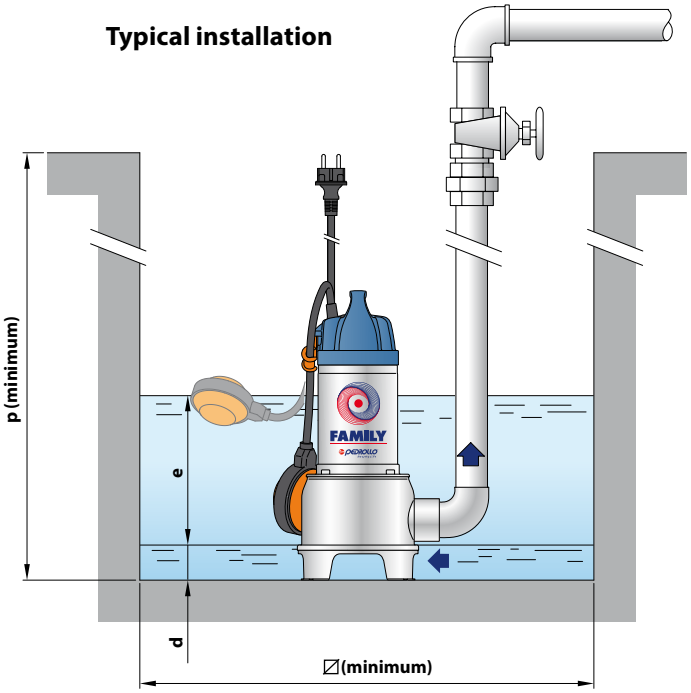



## DIMENSIONS AND WEIGHT




**Typical installation**




| TYPE<br>Single-phase | PORT<br>DN | Passage of solid bodies | DIMENSIONS mm<br>a | b | c | h | h1 | d | e | p | ⍁ | kg<br>1~ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **FAMILY** | **1½"** | **Ø 30 mm** | 70 | 93 | 140 | 333 | 68 | 30 | adjustable | 450 | 450 | 7.0 |

| PALLET CAPACITY |
|---|
| 96 |

Sewage
Domestic use
Civil use
Industrial use

## ※ The Go-To Pump for Demanding Conditions and Performance Requirements




### PERFORMANCE RANGE

- Flow rate up to **750 l/min** (45 m³/h)
- Head up to **19.5 m**

### INSTALLATION AND USE

**VX** pumps are renowned for their reliability, especially in automated fixed installations.

Ideal for **domestic, civil, and industrial settings**, they efficiently handle suspended solids up to 50 mm in diameter, including in **groundwater**, **surface water, and sewage.**

They are also perfect for pumping out flooded areas like basements, underground parking garages, car wash stations, and emptying septic tanks and sewage systems.

※ The VORTEX impeller can handle solids up to **50 mm** in diameter. Its unique design ensures safe operation against clogging.

### INCLUDES

※ Power cable length:
  – **5 m** for VX 8 and VX 10
  – **10 m** for VX 15 and VX 20
※ Float switch (exclusive to single-phase models)

### APPLICATION LIMITS

- Depth below water level up to **5 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Suspended solids transfer:
  - up to **Ø 40 mm** for VX /35
  - up to **Ø 50 mm** for VX /50
- **Minimum immersion for continuous service:**
  **- 290 mm for VX 8 and VX 10**
  **- 330 mm for VX 15**
  **- 360 mm for VX 20**

### AVAILABLE UPON REQUEST

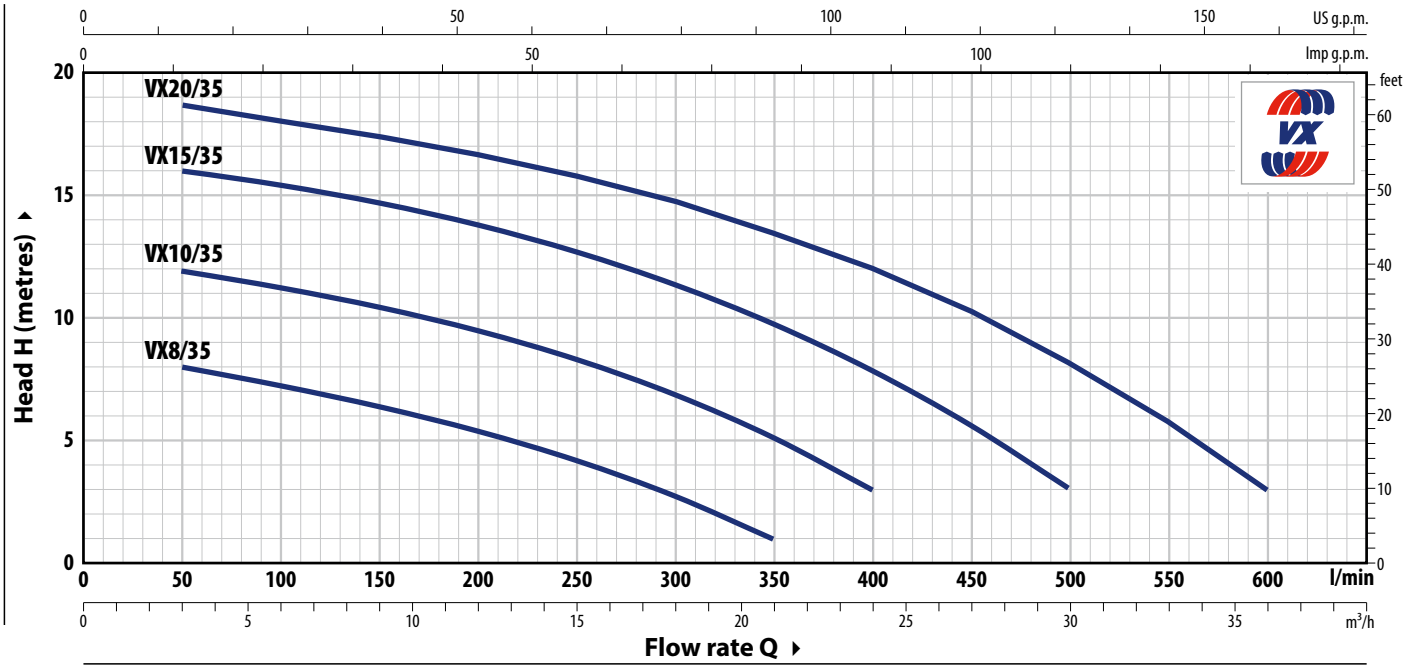
※ Pumps with **10 m** power cable for VX 8 and VX 10
※ Different voltage or frequency

### PATENTS - TRADE MARKS - MODELS

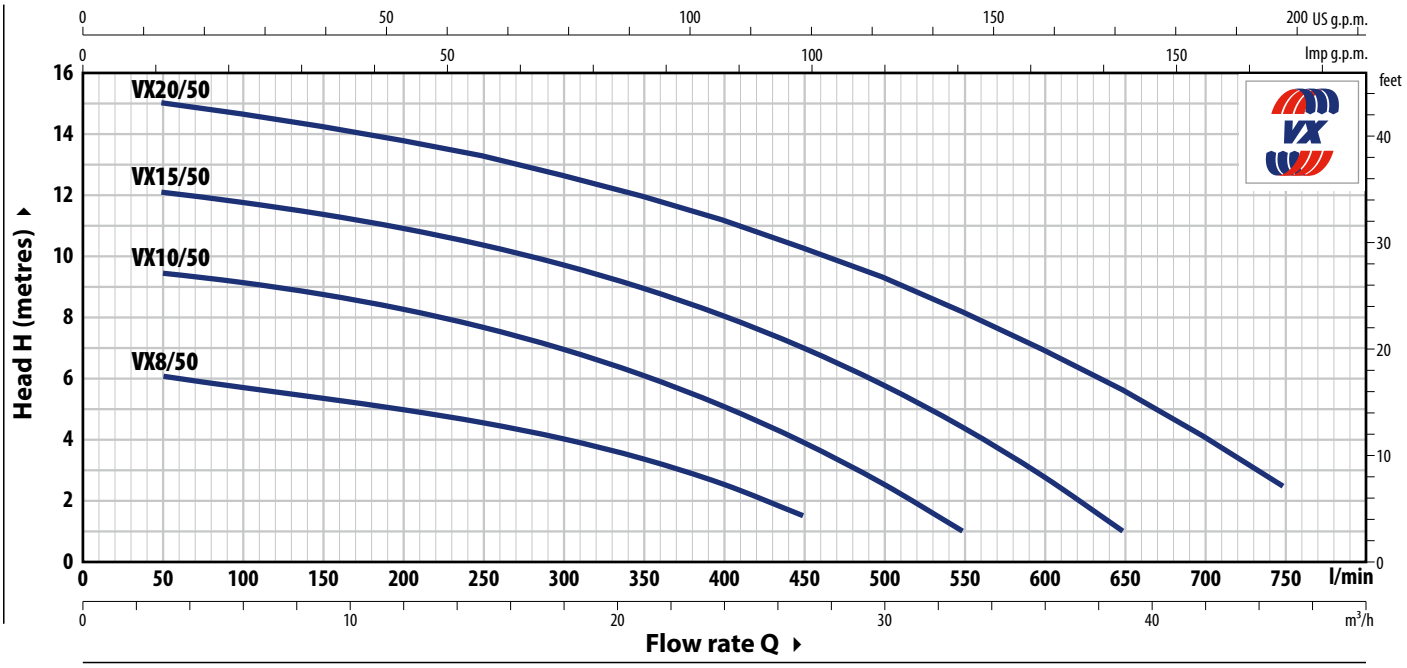
- Patent No. EP2313658
- Patent No. IT0001428923

## CURVES AND PERFORMANCE DATA

**60 Hz**




| TYPE | | POWER (P2) | | Q m³/h | 0 | 3 | 6 | 12 | 18 | 21 | 24 | 27 | 30 | 33 | 36 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | l/min | **0** | **50** | **100** | **200** | **300** | **350** | **400** | **450** | **500** | **550** | **600** |
| **VXm 8/35** | **VX 8/35** | 0.55 | 0.75 | **H** metres | 9 | 8 | 7.5 | 5.5 | 2.7 | 1 | | | | | |
| **VXm 10/35** | **VX 10/35** | 0.75 | 1 | | 12.5 | 12 | 11.2 | 9.5 | 6.9 | 5.1 | 3 | | | | |
| **VXm 15/35** | **VX 15/35** | 1.1 | 1.5 | | 16.5 | 16 | 15.4 | 13.8 | 11.4 | 9.8 | 7.8 | 5.6 | 3 | | |
| **VXm 20/35** | **VX 20/35** | 1.5 | 2 | | 19.5 | 18.5 | 18 | 16.6 | 14.7 | 13.5 | 12 | 10.3 | 8.2 | 5.8 | 3 |




| TYPE | | POWER (P2) | | Q m³/h | 0 | 3 | 6 | 12 | 18 | 21 | 24 | 27 | 30 | 33 | 36 | 39 | 45 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | l/min | **0** | **50** | **100** | **200** | **300** | **350** | **400** | **450** | **500** | **550** | **600** | **650** | **750** |
| **VXm 8/50** | **VX 8/50** | 0.55 | 0.75 | **H** metres | 6.5 | 6 | 5.8 | 5 | 4 | 3.3 | 2.5 | 1.5 | | | | | |
| **VXm 10/50** | **VX 10/50** | 0.75 | 1 | | 9.5 | 9.5 | 9 | 8.1 | 6.8 | 6 | 5 | 3.8 | 2.5 | 1 | | | |
| **VXm 15/50** | **VX 15/50** | 1.1 | 1.5 | | 12.5 | 12 | 11.9 | 11 | 9.8 | 9 | 8.1 | 7.1 | 5.8 | 4.4 | 2.8 | 1 | |
| **VXm 20/50** | **VX 20/50** | 1.5 | 2 | | 15.5 | 15 | 14.8 | 13.9 | 12.8 | 12.1 | 11.3 | 10.4 | 9.4 | 8.2 | 7 | 5.6 | 2.5 |

**Q** = Flow rate **H** = Total manometric head

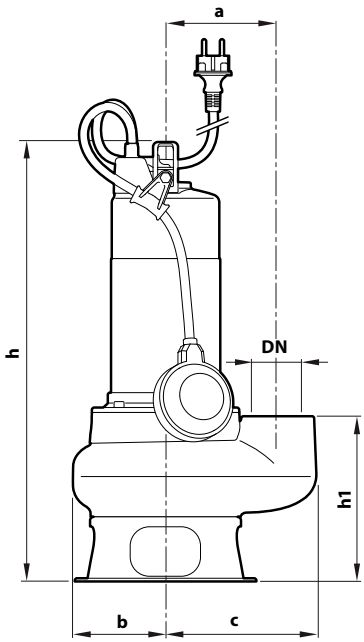
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

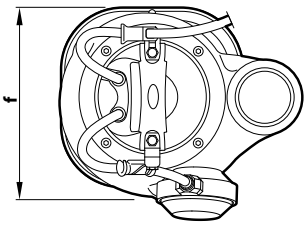
## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-phase | 220 V | 110 V |
| VXm 8/35 | 4.0 A | 7.6 A |
| VXm 10/35 | 6.3 A | 12.6 A |
| VXm 15/35 | 8.2 A | – |
| VXm 20/35 | 11.5 A | – |
| VXm 8/50 | 4.0 A | 7.6 A |
| VXm 10/50 | 6.3 A | 12.6 A |
| VXm 15/50 | 7.7 A | – |
| VXm 20/50 | 11.5 A | – |

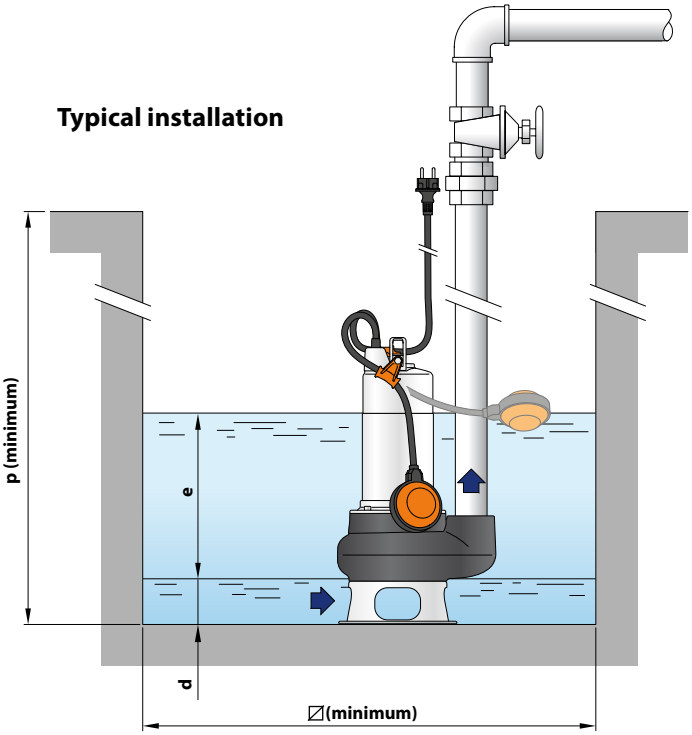
| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 380 V | 440 V |
| VX 8/35 | 1.6 A | 1.5 A |
| VX 10/35 | 2.4 A | 2.2 A |
| VX 15/35 | 3.6 A | 3.1 A |
| VX 20/35 | 4.3 A | 3.8 A |
| VX 8/50 | 1.6 A | 1.5 A |
| VX 10/50 | 2.5 A | 2.1 A |
| VX 15/50 | 3.6 A | 3.1 A |
| VX 20/50 | 4.3 A | 3.8 A |

## DIMENSIONS AND WEIGHT




Typical installation




| TYPE | | PORT | Passage of | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN | solid bodies | a | b | c | f | h | h1 | d | e | p | ⍁ | 1~ | 3~ |
| VXm 8/35 | VX 8/35 | 1½" | Ø 40 mm | 115 | 95 | 148 | 200 | 425 | 158 | 55 | adjustable | 500 | 500 | 13.7 | 12.6 |
| VXm 10/35 | VX 10/35 | | | | | | | 440 | | | | | | 15.2 | 14.0 |
| VXm 15/35 | VX 15/35 | | | | | | | 473 | | | | | | 18.0 | 16.4 |
| VXm 20/35 | VX 20/35 | | | | | | | 503 | | | | | | 20.2 | 18.0 |
| VXm 8/50 | VX 8/50 | 2" | Ø 50 mm | 115 | 95 | 155 | 200 | 436 | 169 | 60 | | | | 14.2 | 13.1 |
| VXm 10/50 | VX 10/50 | | | | | | | 451 | | | | | | 15.7 | 14.5 |
| VXm 15/50 | VX 15/50 | | | | | | | 484 | | | | | | 18.5 | 16.9 |
| VXm 20/50 | VX 20/50 | | | | | | | 514 | | | | | | 20.7 | 18.5 |

## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-phase | Three-phase | n. pumps | n. pumps |
| VXm 8/35 | VX 8/35 | 45 | 60 |
| VXm 10/35 | VX 10/35 | 45 | 60 |
| VXm 15/35 | VX 15/35 | 30 | 45 |
| VXm 20/35 | VX 20/35 | 30 | 45 |
| VXm 8/50 | VX 8/50 | 45 | 60 |
| VXm 10/50 | VX 10/50 | 45 | 60 |
| VXm 15/50 | VX 15/50 | 30 | 45 |
| VXm 20/50 | VX 20/50 | 30 | 45 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment for greater corrosion resistance with ISO 228/1 threaded port |
| 2 | **Base** | Stainless steel **AISI 304** |
| 3 | **Impeller** | VORTEX type in **AISI 304** stainless steel. |
| 4 | **Motor sleeve** | Stainless steel **AISI 304** |
| 5 | **Motor cover** | **AISI 304** stainless steel for VX 8-10<br>Cast iron with cataphoresis treatment for VX 15-20 |
| 6 | **Motor shaft** | Stainless steel **AISI 431** |

**7 Double mechanical seal in oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **MG1-14D SIC** | Ø 14 mm | Motor side | Silicon carbide / Graphite / NBR |
| | | Pump side | Silicon carbide/Silicon carbide/NBR |

**8 Capacitor** (exclusive to single-phase models)

**9 Electric motor**

**VXm**: single-phase 220 V - 60 Hz or 110 V - 60 Hz with winding integrated thermal motor protection
**VX**: three-phase 380 V - 60 Hz or 440 V - 60 Hz
– Insulation: class F
– Protection rating: IP X8

**10 Power cord**

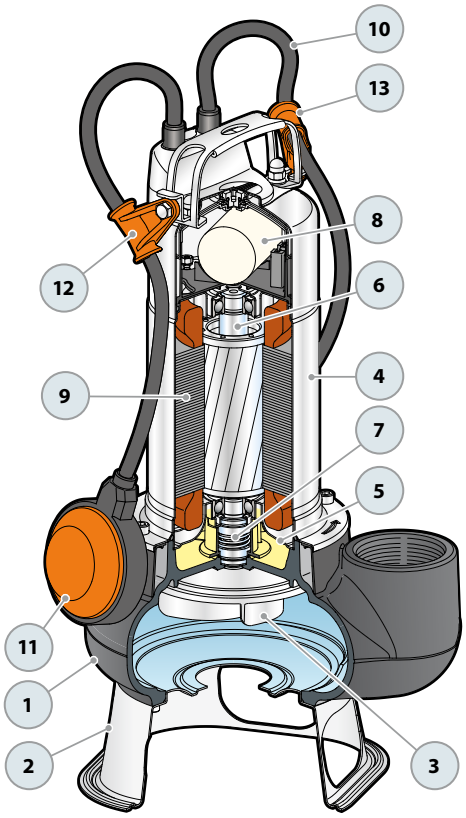
Power cable encapsulated with epoxy resin both in the grommet area and where the conductors exit the sheath, for absolute insulation against moisture and water.

Type 'H07 RN-F
(Schuko plug exclusive to single-phase models)
※ Standard length 5 metres (10 metres for VX 15 and VX 20)

**11 Float switch** (exclusive to single-phase models)

**12 Tilting device for the float cable**
(exclusive to single-phase models)
Patent No. IT0001428923

**13 Power cable strain relief**
Patent No. EP2313658



Sewage
Domestic use
Civil use
Industrial use

## ※ BC: The Ultimate Pump for Demanding Conditions and Maximum Performance




### PERFORMANCE RANGE

- Flow rate up to **850 l/min** (51 $m^3$/h)
- Head up to **17 m**

### INSTALLATION AND USE

**BC** submersible pumps are designed to drain **dirty and sewage water** in **domestic, civil, and industrial settings**. Featuring a **TWO-CHANNEL** stainless steel impeller, they can efficiently pump liquids containing suspended solids up to **50 mm in diameter** with short fibers and handle wastewater, sewage, surface water, and sludge-mixed water in residential properties.

※ The **TWO-CHANNEL** impeller provides excellent performance and high energy efficiency, generating increased pressure for pumping solids up to **50 mm in diameter**, making it the best choice for wastewater drainage.

### INCLUDES

※ Power cable length:
- **5 m** for BC 10
- **10 m** for BC 15 and BC 20

※ Float switch (exclusive to single-phase models)

### APPLICATION LIMITS

- Depth below water level up to **5 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Capable of processing suspended solids up to **Ø 50 mm**
- **Minimum immersion for continuous service:**
  - **290 mm for BC 10/50**
  - **330 mm for BC 15/50**
  - **360 mm for BC 20/50**

### AVAILABLE UPON REQUEST

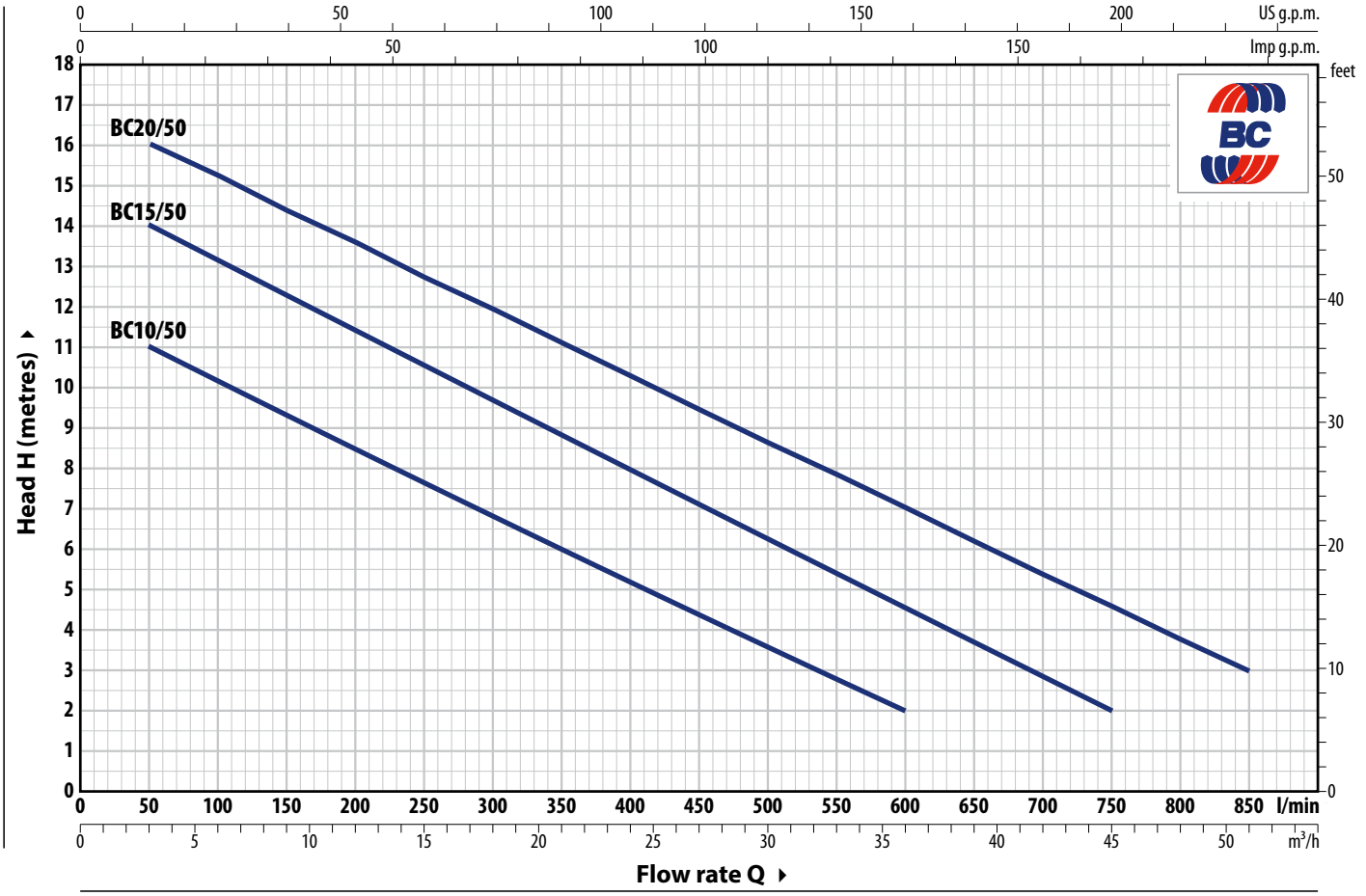
※ Pumps with **10 m** power cable for BC 10
※ Different voltage or frequency

### PATENTS - TRADE MARKS - MODELS

- Patent No. EP2313658
- Patent No. IT0001428923

## CURVES AND PERFORMANCE DATA

**60 Hz**




| TYPE | | POWER (P2) | | Q m³/h | 0 | 3 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 45 | 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | l/min | **0** | **50** | **100** | **200** | **300** | **400** | **500** | **600** | **700** | **750** | **850** |
| **BCm 10/50** | **BC 10/50** | 0.75 | 1 | **H** metres | 12 | 11 | 10 | 8.5 | 7 | 5 | 3.6 | 2 | | | |
| **BCm 15/50** | **BC 15/50** | 1.1 | 1.5 | | 15 | 14 | 13 | 11.5 | 9.7 | 8 | 6.3 | 4.6 | 3 | 2 | |
| **BCm 20/50** | **BC 20/50** | 1.5 | 2 | | 17 | 16 | 15.3 | 13.5 | 12 | 10.3 | 8.6 | 7.0 | 5.3 | 4.5 | 3 |

**Q** = Flow rate **H** = Total manometric head

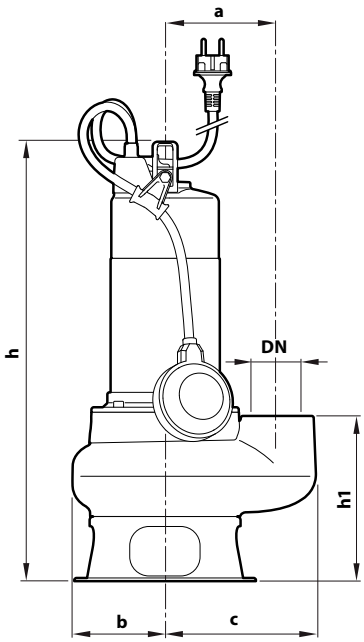
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

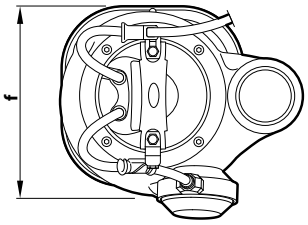
## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| **Single-phase** | **220 V** | **110 V** |
| **BCm 10/50** | 6.3 A | 13.5 A |
| **BCm 15/50** | 8.5 A | – |
| **BCm 20/50** | 10.0 A | – |

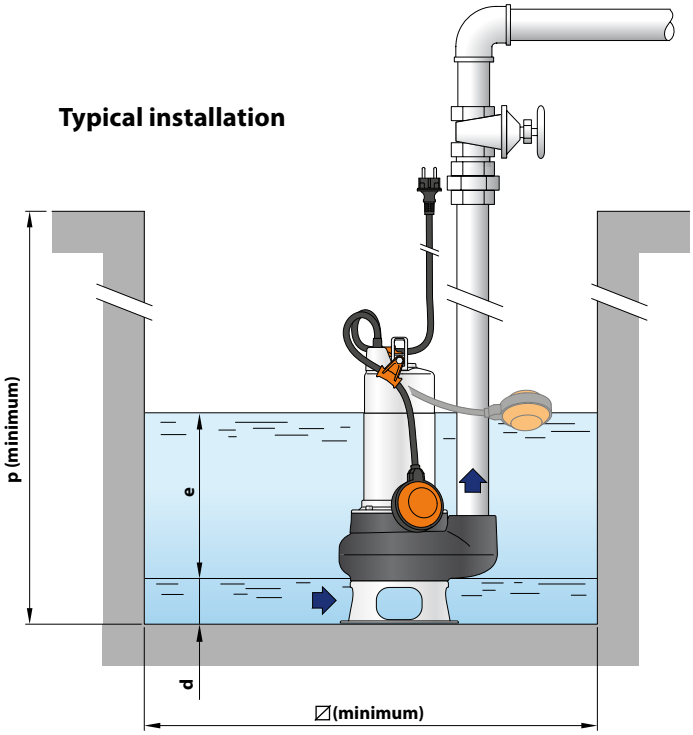
| TYPE | VOLTAGE | |
|---|---|---|
| **Three-phase** | **380 V** | **440 V** |
| **BC 10/50** | 2.4 A | 2.2 A |
| **BC 15/50** | 3.5 A | 3.3 A |
| **BC 20/50** | 4.3 A | 3.8 A |

## DIMENSIONS AND WEIGHT




Typical installation




| TYPE | | PORT | Passage of | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN | solid bodies | a | b | c | f | h | h1 | d | e | p | ⍁ | 1~ | 3~ |
| **BCm 10/50** | **BC 10/50** | | | | | | | 451 | | | | | | 16.2 | 15.0 |
| **BCm 15/50** | **BC 15/50** | **2"** | **Ø 50 mm** | 115 | 95 | 155 | 200 | 484 | 169 | 60 | adjustable | 500 | 500 | 18.8 | 17.2 |
| **BCm 20/50** | **BC 20/50** | | | | | | | 514 | | | | | | 21.0 | 18.8 |

## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-phase | Three-phase | n. pumps | n. pumps |
| **BCm 10/50** | **BC 10/50** | 45 | 60 |
| **BCm 15/50** | **BC 15/50** | 30 | 45 |
| **BCm 20/50** | **BC 20/50** | 30 | 45 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment for greater corrosion resistance with ISO 228/1 threaded port |
| 2 | **Base** | Stainless steel **AISI 304** |
| 3 | **Impeller** | TWO-CHANNEL type in micro-cast **AISI 304** stainless steel. |
| 4 | **Motor sleeve** | Stainless steel **AISI 304** |
| 5 | **Motor cover** | **AISI 304** stainless steel for BC 10/50<br>Cast iron with cataphoresis treatment for BC 15/50, BC 20/50 |
| 6 | **Motor shaft** | Stainless steel **AISI 431** |

**7 Double mechanical seal in oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **MG1-14D SIC** | Ø 14 mm | Motor side | Silicon carbide / Graphite / NBR |
| | | Pump side | Silicon carbide/Silicon carbide/NBR |

**8 Capacitor** (exclusive to single-phase models)

**9 Electric motor**

**BCm**: single-phase 220 V - 60 Hz or 110 V - 60 Hz with winding integrated thermal motor protection
**BC**: three-phase 380 V - 60 Hz or 440 V - 60 Hz
– Insulation: class F
– Protection rating: IP X8

**10 Power cord**

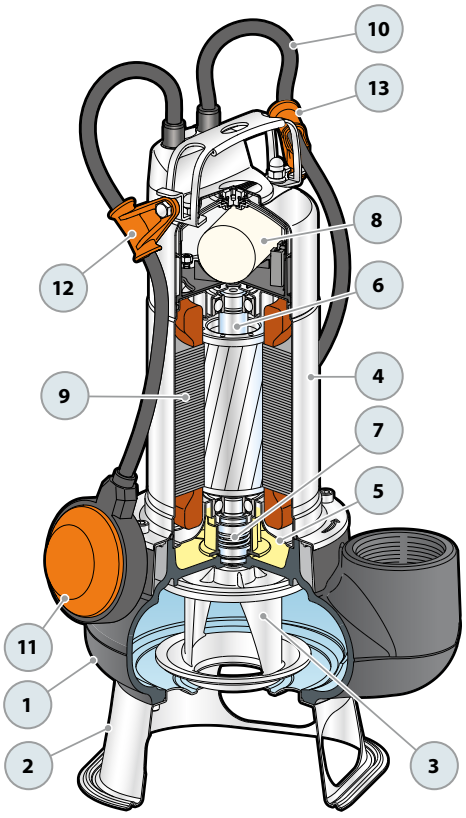
Power cable encapsulated with epoxy resin both in the grommet area and where the conductors exit the sheath, for absolute insulation against moisture and water.

Type 'H07 RN-F
(Schuko plug exclusive to single-phase models)
※ Standard length 5 metres (10 metres for BC 15 and BC 20)

**11 Float switch** (exclusive to single-phase models)

**12 Tilting device for the float cable**
(exclusive to single-phase models)
Patent No. IT0001428923

**13 Power cable strain relief**
Patent No. EP2313658



Sewage

Domestic use

Civil use

※ **High-quality materials and robust construction ensure superior performance and reliability**



## PERFORMANCE RANGE

- Flow rate up to **650 l/min** (39 m³/h)
- Head up to **14 m**

## INSTALLATION AND USE

The **VXC** series features **VORTEX**-type impellers, offering robust and reliable performance for demanding applications. Constructed from thick cast iron, these pumps are exceptionally strong and resistant to abrasion, ensuring continuous operation.

They are perfectly suited for draining **dirty water with suspended solids and sewage, wastewater, and sludge mixtures**.

## INCLUDES

※ Power cable length **10 m**
※ Float switch (exclusive to single-phase models)

## APPLICATION LIMITS

- Depth below water level up to **10 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Suspended solids transfer:
  – up to **Ø 40 mm** for VXC /35
  – up to **Ø 50 mm** for VXC /45
- **Minimum immersion for continuous service 305 mm**

## AVAILABLE UPON REQUEST

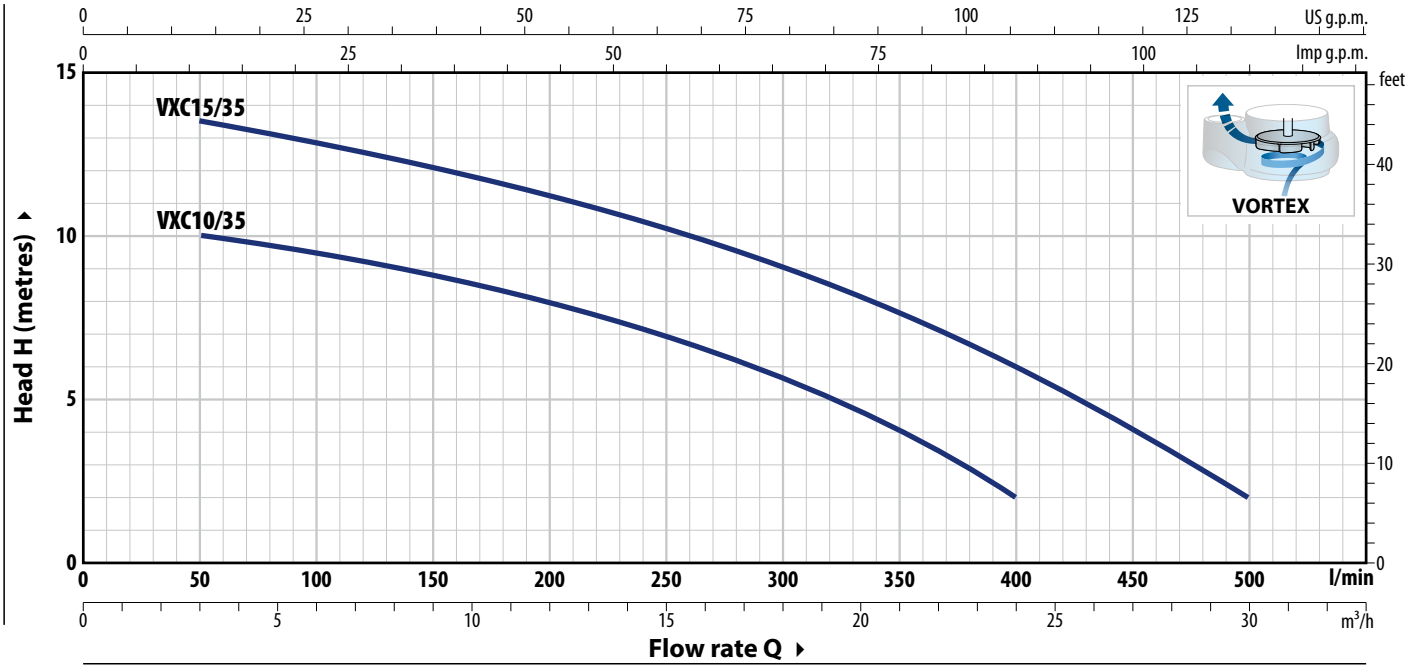
※ Different voltage or frequency

## PATENTS - TRADE MARKS - MODELS

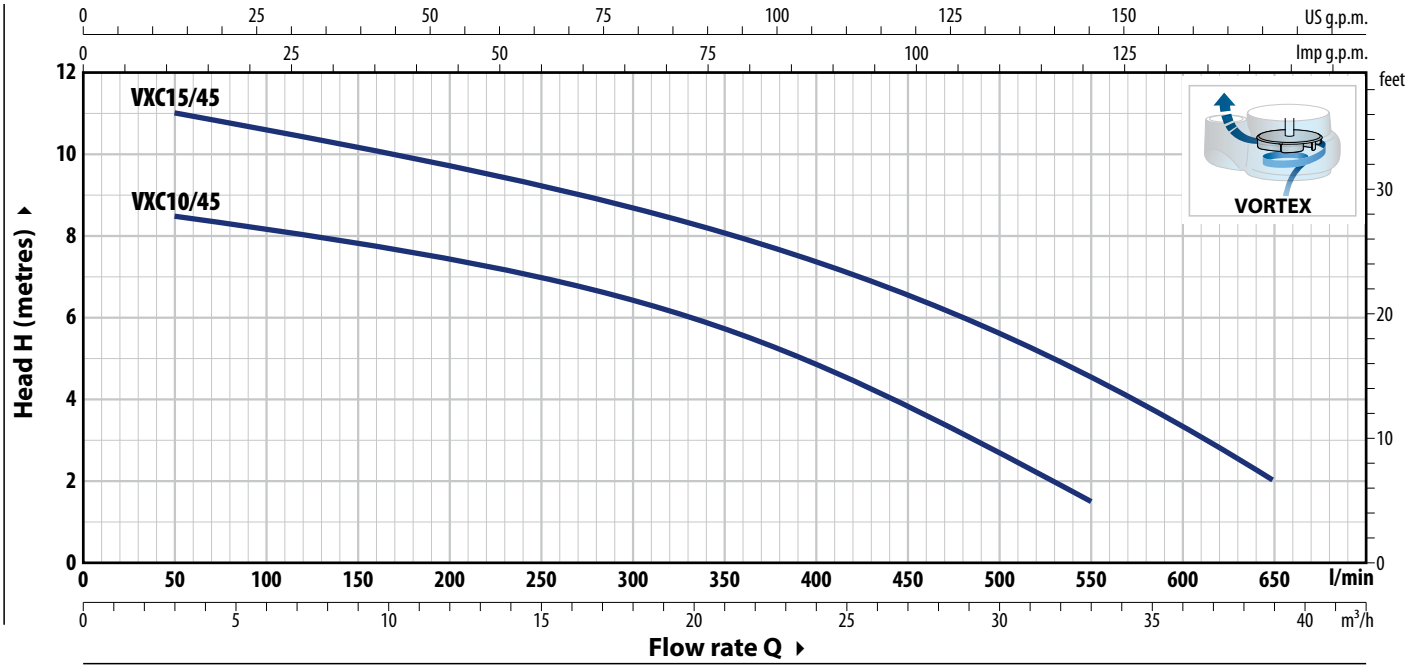
- Patent No. IT0001428923
- Registered Community Model No. 002501486-0003

## CURVES AND PERFORMANCE DATA

**60 Hz**




| TYPE | | POWER (P2) | | Q m³/h | 0 | 3 | 6 | 12 | 18 | 21 | 24 | 27 | 30 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | l/min | **0** | **50** | **100** | **200** | **300** | **350** | **400** | **450** | **500** |
| **VXCm 10/35** | **VXC 10/35** | 0.75 | 1 | **H** metres | 11 | 10 | 9.5 | 8 | 5.7 | 4 | 2 | | |
| **VXCm 15/35** | **VXC 15/35** | 1.1 | 1.5 | | 14 | 13.5 | 12.8 | 11.2 | 9 | 7.7 | 6 | 4 | 2 |




| TYPE | | POWER (P2) | | Q m³/h | 0 | 3 | 6 | 12 | 18 | 24 | 27 | 30 | 33 | 36 | 39 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | l/min | **0** | **50** | **100** | **200** | **300** | **400** | **450** | **500** | **550** | **600** | **650** |
| **VXCm 10/45** | **VXC 10/45** | 0.75 | 1 | **H** metres | 9 | 8.5 | 8.2 | 7.5 | 6.5 | 5 | 3.8 | 2.5 | 1.5 | | |
| **VXCm 15/45** | **VXC 15/45** | 1.1 | 1.5 | | 11.5 | 11 | 10.5 | 9.8 | 8.7 | 7.5 | 6.5 | 5.5 | 4.5 | 3.5 | 2 |

**Q** = Flow rate **H** = Total manometric head

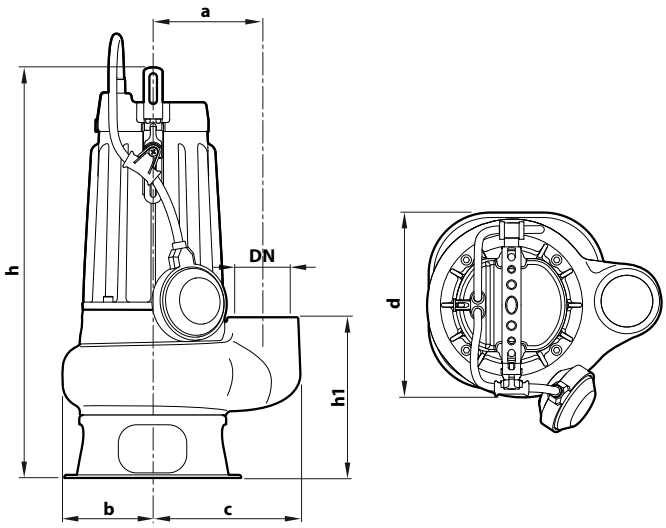
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## ABSORPTION

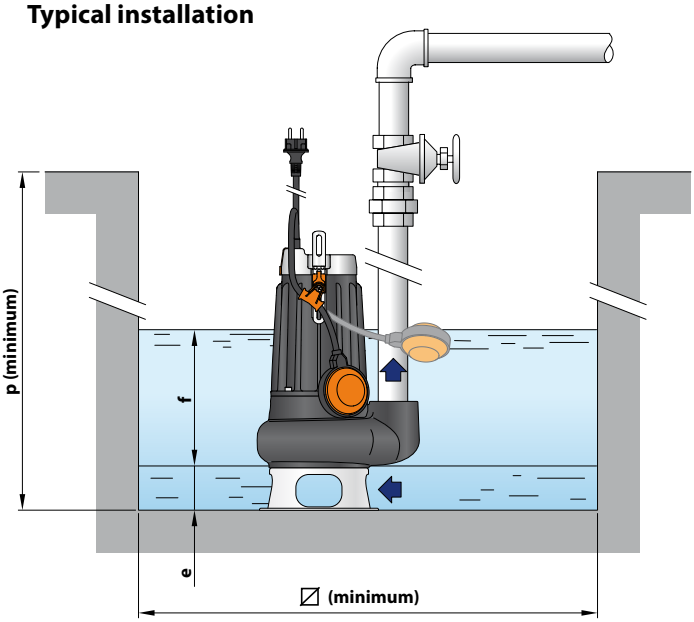
| TYPE | VOLTAGE | |
|---|---|---|
| Single-phase | 220 V | 110 V |
| VXCm 10/35 | 6.2 A | 12.4 A |
| VXCm 15/35 | 8.2 A | – |
| VXCm 10/45 | 6.3 A | 12.6 A |
| VXCm 15/45 | 7.7 A | – |

| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 380 V | 440 V |
| VXC 10/35 | 2.4 A | 2.0 A |
| VXC 15/35 | 3.6 A | 3.1 A |
| VXC 10/45 | 2.3 A | 2.0 A |
| VXC 15/45 | 3.6 A | 3.0 A |

## DIMENSIONS AND WEIGHT




**Typical installation**




| TYPE | | PORT | Passage of | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN | solid bodies | a | b | c | d | h | h1 | e | f | p | ⍁ | 1~ | 3~ |
| VXCm 10/35 | VXC 10/35 | 1½" | Ø 40 mm | 115 | 95 | 148 | 200 | 421 | 158 | 55 | adjustable | 500 | 500 | 19.6 | 18.2 |
| VXCm 15/35 | VXC 15/35 | | | | | | | | | | | | | 19.7 | 18.3 |
| VXCm 10/45 | VXC 10/45 | 2" | Ø 50 mm | | | 155 | | 434 | 169 | 60 | | | | 20.1 | 19.0 |
| VXCm 15/45 | VXC 15/45 | | | | | | | | | | | | | 20.2 | 19.1 |

## PALLET CAPACITY

| TYPE | GROUPAGE | CONTAINER |
|---|---|---|
| Three-phase | n. pumps | n. pumps |
| VXC 10/35 | 45 | 60 |
| VXC 15/35 | 45 | 60 |
| VXC 10/45 | 45 | 60 |
| VXC 15/45 | 45 | 60 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment for greater corrosion resistance with ISO 228/1 threaded port |
| 2 | **Base** | Stainless steel **AISI 304** |
| 3 | **Impeller** | VORTEX type in **AISI 304** stainless steel |
| 4 | **Motor holder** | Cast iron with cataphoresis treatment |
| 5 | **Motor cover** | Stainless steel **AISI 304** |
| 6 | **Motor shaft** | Stainless steel **AISI 431** |

**7 Double mechanical seal with interposed oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **MG1-14D SIC** | Ø 14 mm | Motor side | Silicon carbide / Graphite / NBR |
| | | Pump side | Silicon carbide/Silicon carbide/NBR |

**8 Electric motor**

**VXCm**: single-phase 220 V - 60 Hz or 110 V - 60 Hz
with winding integrated thermal motor protection
**VXC**: three-phase 380 V - 60 Hz or 440 V - 60 Hz
– Insulation: class F
– Protection rating: IP X8

**9 Power cord**

Type 'H07 RN-F
(Schuko plug exclusive to single-phase models)

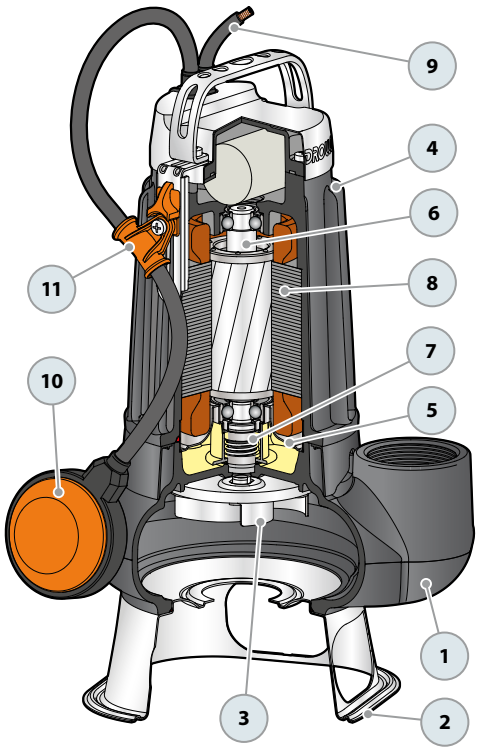
※ Standard length 10 metres

**10 Float switch**

(exclusive to single-phase models)

**11 Tilting device for the float cable**

(exclusive to single-phase models)
Patent No. IT0001428923



Sewage Domestic use Civil use



## PERFORMANCE RANGE

- Flow rate up to **750 l/min** (45 m³/h)
- Head up to **15 m**

## INSTALLATION AND USE

The **MC** series features **TWO-CHANNEL** impellers, offering **robust** and reliable performance for demanding applications. Constructed from thick cast iron, these pumps are exceptionally strong and resistant to abrasion, ensuring continuous operation.
They are perfectly suited for draining **dirty water with suspended solids, and sewage.**

## INCLUDES

※ Power cable length **10 m**
※ Float switch (exclusive to single-phase models)

## APPLICATION LIMITS

- Depth below water level up to **10 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Capable of processing suspended solids up to **Ø 50 mm**
- **Minimum immersion for continuous service: 305 mm**

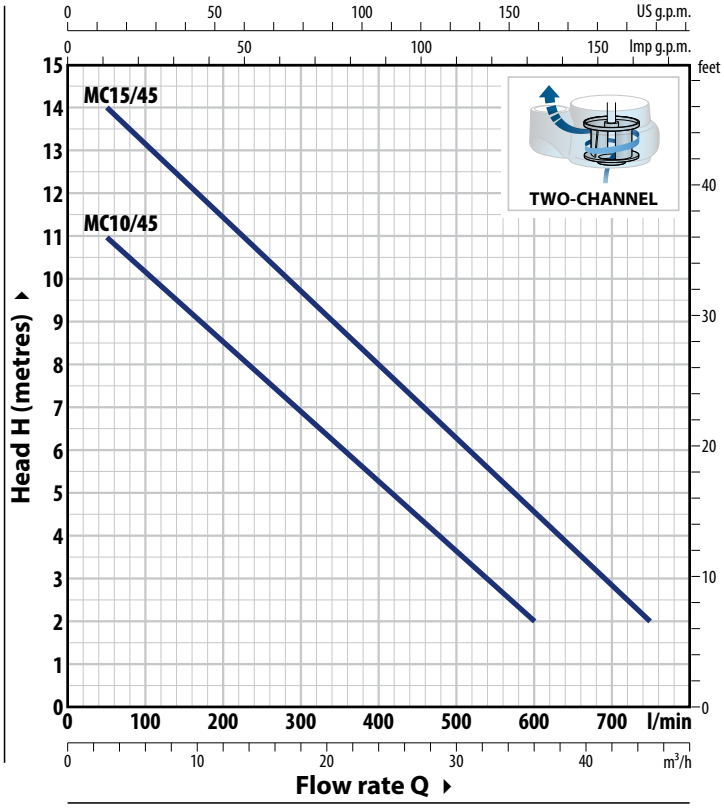
## AVAILABLE UPON REQUEST

※ Different voltage or frequency

## PATENTS - TRADE MARKS - MODELS

- Patent No. IT0001428923
- Registered Community Model No. 002501486-0003

## CURVES AND PERFORMANCE DATA **60 Hz**




## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| Single-phase | **220 V** | **110 V** |
| **MCm 10/45** | 6.3 A | 12.6 A |
| **MCm 15/45** | 8.8 A | – |

| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | **380 V** | **440 V** |
| **MC 10/45** | 2.4 A | 2.1 A |
| **MC 15/45** | 3.8 A | 3.3 A |

| TYPE | | POWER (P2) | | Q m³/h | 0 | 3 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 45 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | l/min | **0** | **50** | **100** | **200** | **300** | **400** | **500** | **600** | **700** | **750** |
| **MCm 10/45** | **MC 10/45** | 0.75 | 1 | **H** metres | 12 | 11 | 10 | 8.5 | 7 | 5 | 3.5 | 2 | | |
| **MCm 15/45** | **MC 15/45** | 1.1 | 1.5 | | 15 | 14 | 13 | 11.5 | 9.7 | 8 | 6.3 | 4.5 | 3 | 2 |

**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment for greater corrosion resistance with ISO 228/1 threaded port |
| 2 | **Base** | Stainless steel **AISI 304** |
| 3 | **Impeller** | Two-channel type in micro-cast **AISI 304** stainless steel |
| 4 | **Motor holder** | Cast iron with cataphoresis treatment |
| 5 | **Motor cover** | Stainless steel **AISI 304** |
| 6 | **Motor shaft** | Stainless steel **AISI 431** |

**7 Double mechanical seal with interposed oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **MG1-14D SIC** | Ø 14 mm | Motor side | SiC / Graphite / NBR |
| | | Pump side | SiC / SiC / NBR |

**8 Electric motor**

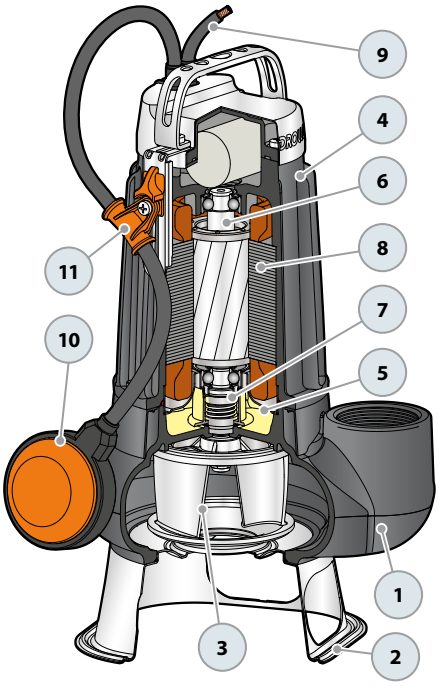
**MCm**: single-phase 220 V - 60 Hz or 110 V - 60 Hz
with winding integrated thermal motor protection
**MC**: three-phase 380 V - 60 Hz or 440 V - 60 Hz
– Insulation: class F – Protection rating: IP X8

**9 Power cord**

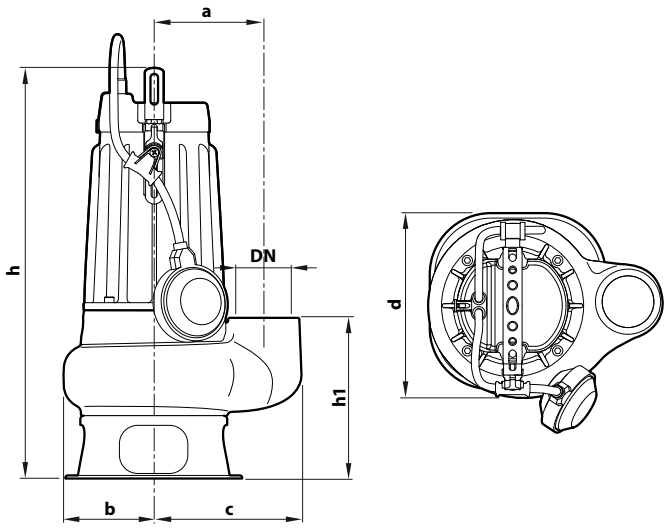
Type 'H07 RN-F' (Schuko plug exclusive to single-phase models)
※ Standard length 10 metres

**10 Float switch**
(exclusive to single-phase models)

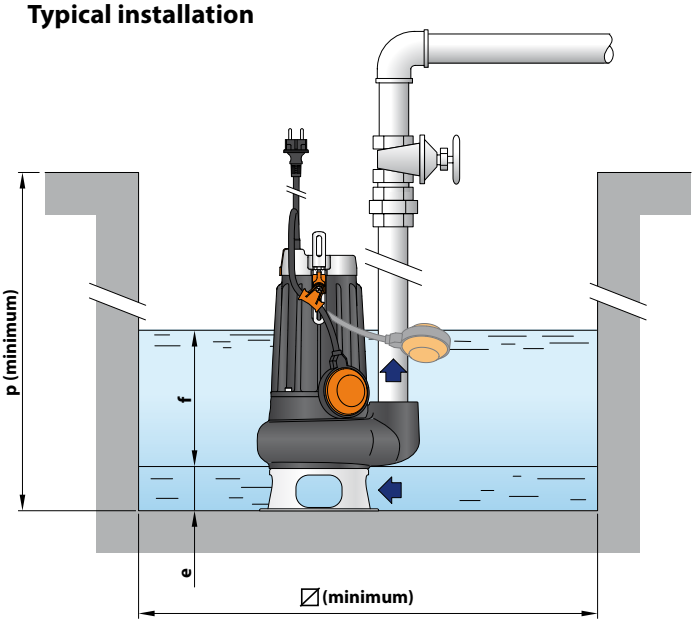
**11 Tilting device for the float cable**
(exclusive to single-phase models)
Patent No. IT0001428923




## DIMENSIONS AND WEIGHT




**Typical installation**




| TYPE | | PORT | Passage of solid bodies | DIMENSIONS mm | | | | | | | | | | kg | | GROUPAGE | CONTAINER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN | | a | b | c | d | h | h1 | e | f | p | ⍁ | 1~ | 3~ | n. pumps | n. pumps |
| MCm 10/45 | MC 10/45 | 2" | Ø 50 mm | 115 | 95 | 155 | 200 | 434 | 169 | 60 | adjustable | 500 | 500 | 19.2 | 17.7 | 45 | 60 |
| MCm 15/45 | MC 15/45 | | | | | | | | | | | | | 20.1 | 19.3 | 45 | 60 |

# DC Submersible pumps for drainage

Clear waters
Domestic use
Civil use
Industrial use

※ **High-quality materials and robust construction ensure superior performance and reliability**



## PERFORMANCE RANGE

- Flow rate up to **550 l/min** (33 m³/h)
- Head up to **41 m**

## INSTALLATION AND USE

**DC** submersible pumps are constructed from thick cast iron, offering exceptional robustness, abrasion resistance, and longevity. Perfect for **draining both clear and slightly dirty water**, their durability and reliability set them apart. Designed for automated fixed installations, the **DC** series guarantees continuous operation, even in conditions where they are not fully submerged.

## INCLUDES

※ Power cable length **10 m**
※ Float switch (exclusive to single-phase models)
※ Switchbox compatible with DCm42, DCm43 (exclusive to single-phase models)

## APPLICATION LIMITS

- Maximum operating depth below water level up to **10 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Capable of processing suspended solids up to **Ø 10 mm**
- Draining capability:
  – up to **17 mm** from the bottom for DC 10-20-30
  – up to **25 mm** from the bottom for DC 42-43-44
- **Minimum immersion for continuous service:**
  – **220 mm DC 10-20-30**
  – **300 mm DC 42-43-44**

## AVAILABLE UPON REQUEST

※ Different voltage or frequency

## WARRANTY

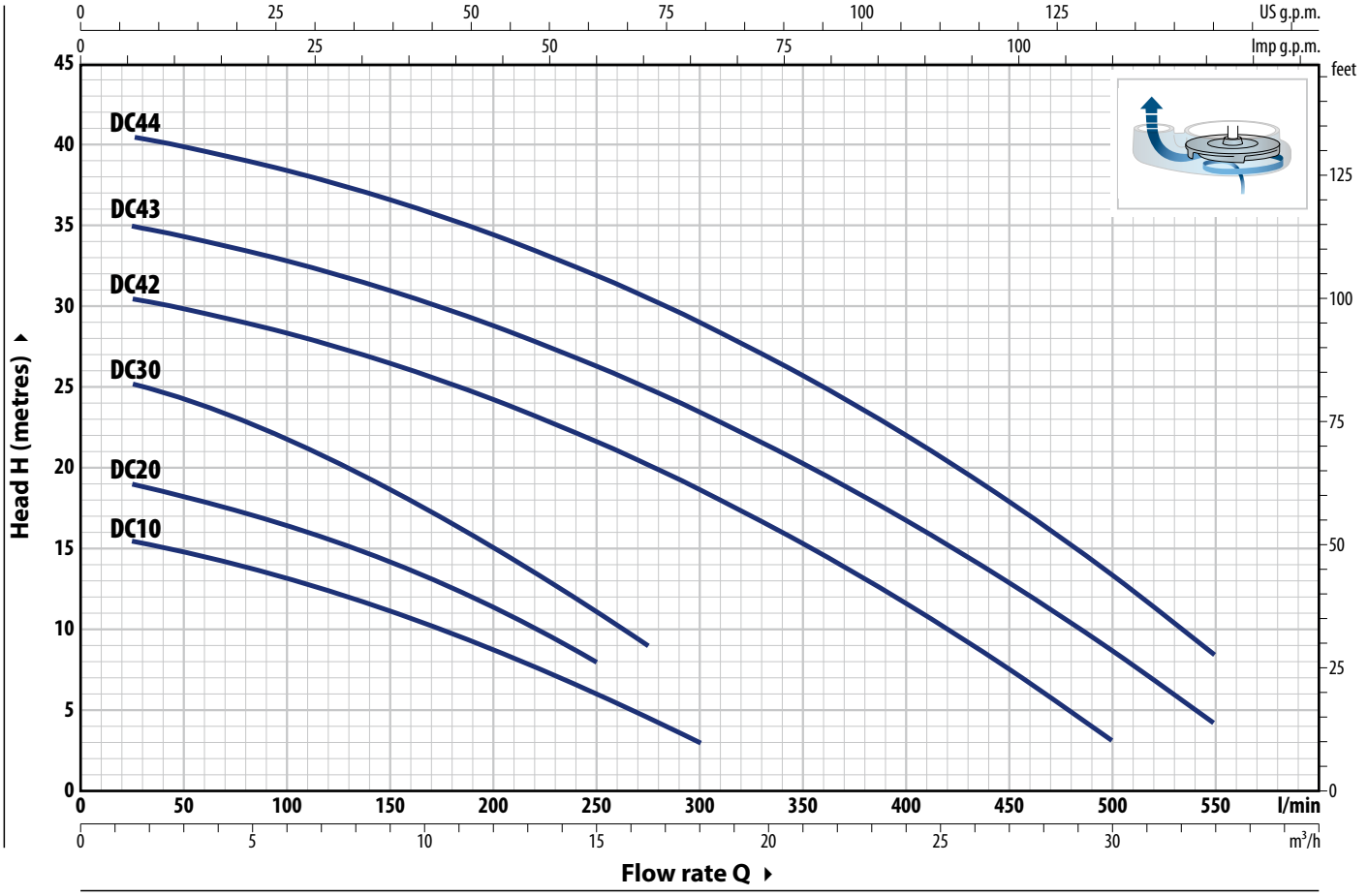
※ **The warranty for the Three-Phase DC 42-43-44 models remains valid only if the motor's built-in thermal protector is properly connected to the control panel. This connection is essential for the warranty's applicability**

## PATENTS - TRADE MARKS - MODELS

- Patent No. IT0001428923
- Registered Community Model No. 002501486-0001

## CURVES AND PERFORMANCE DATA

**60 Hz**




| TYPE | | POWER (P2) | | Q m³/h | 0 | 1.5 | 3.0 | 6.0 | 9.0 | 12.0 | 15.0 | 16.5 | 18.0 | 21.0 | 24.0 | 27.0 | 30.0 | 33.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | l/min | **0** | **25** | **50** | **100** | **150** | **200** | **250** | **275** | **300** | **350** | **400** | **450** | **500** | **550** |
| **DCm 10** | **DC 10** | 0.75 | 1 | H metres | 16 | 15.5 | 14.8 | 13.2 | 11.2 | 8.8 | 6 | 4.5 | 3 | | | | | |
| **DCm 20** | **DC 20** | 0.75 | 1 | | 20 | 19 | 18.5 | 16.5 | 14.3 | 11.5 | 8 | | | | | | | |
| **DCm 30** | **DC 30** | 1.1 | 1.5 | | 26 | 25 | 24.4 | 21.8 | 18.7 | 15 | 11.1 | 9 | | | | | | |
| **DCm 42** | **DC 42** | 1.5 | 2 | | 31 | 30.5 | 30 | 28.4 | 26.5 | 24.3 | 21.6 | 20.2 | 18.6 | 15.3 | 11.6 | 7.5 | 3 | |
| **DCm 43** | **DC 43** | 2.2 | 3 | | 35.5 | 35 | 34.4 | 33 | 31 | 28.8 | 26.3 | 25 | 23.5 | 20.3 | 16.7 | 12.8 | 8.5 | 4 |
| – | **DC 44** | 3 | 4 | | 41 | 40.5 | 39.9 | 38.4 | 36.6 | 34.4 | 31.9 | 30.5 | 29 | 25.7 | 22.1 | 18 | 13.5 | 8.5 |

**Q** = Flow rate **H** = Total manometric head

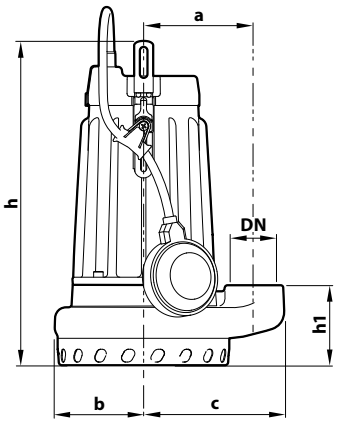
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

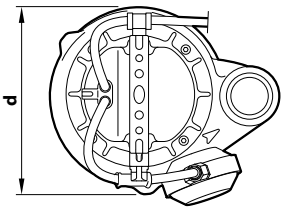
## ABSORPTION

| TYPE | VOLTAGE | |
|---|---|---|
| **Single-phase** | **220 V** | **110 V** |
| **DCm 10** | 5.0 A | 10.0 A |
| **DCm 20** | 6.5 A | 13.0 A |
| **DCm 30** | 7.7 A | – |
| **DCm 42** | 14.0 A | – |
| **DCm 43** | 18.0 A | – |

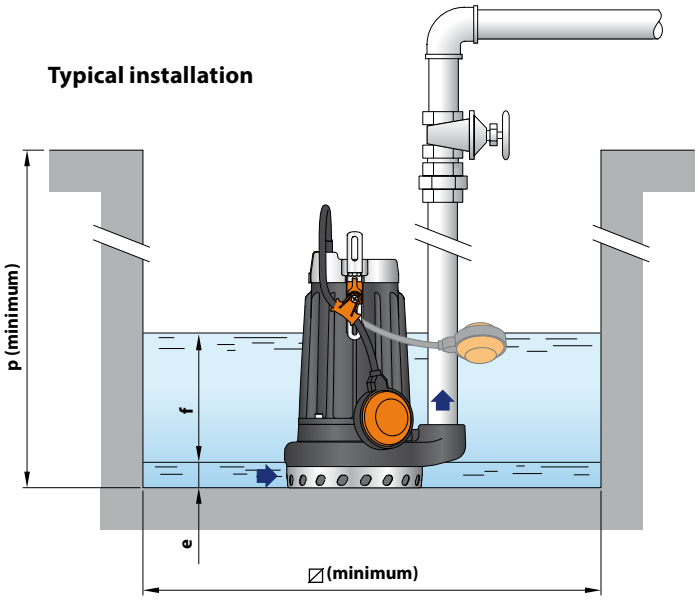
| TYPE | VOLTAGE | |
|---|---|---|
| **Three-phase** | **380 V** | **440 V** |
| **DC 10** | 2.3 A | 2.0 A |
| **DC 20** | 2.8 A | 2.5 A |
| **DC 30** | 3.3 A | 2.9 A |
| **DC 42** | 5.2 A | 4.6 A |
| **DC 43** | 7.5 A | 6.6 A |
| **DC 44** | 8.5 A | 7.5 A |

## DIMENSIONS AND WEIGHT

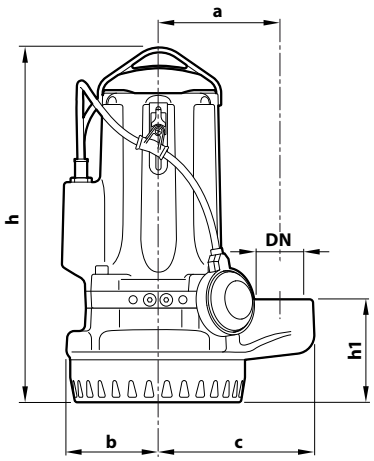


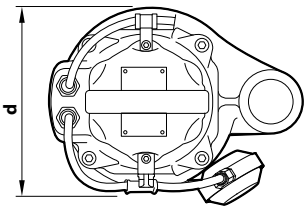




**Typical installation**

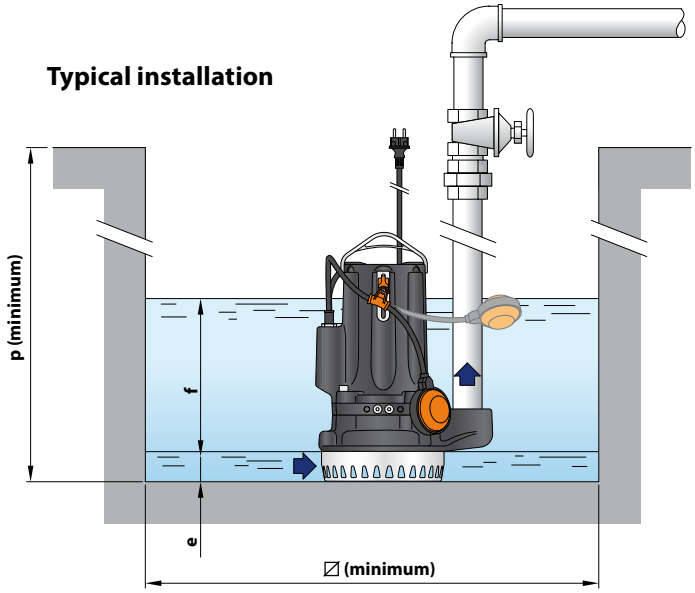



| TYPE | | PORT | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN | a | b | c | d | h | h1 | e | f | p | ⍁ | 1~ | 3~ |
| DCm 10 | DC 10 | 1½" | 115 | 85 | 147 | 177 | 336 | 73 | 17 | adjustable | 500 | 500 | 16.9 | 15.8 |
| DCm 20 | DC 20 | | | | | | | | | | | | 16.9 | 15.9 |
| DCm 30 | DC 30 | | | 93 | | 195 | 340 | 84 | | | | | 19.0 | 17.7 |




**Typical installation**




| TYPE | | PORT | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-ph. | Three-ph. | DN | a | b | c | d | h | h1 | e | f | p | ⍁ | 1~ | 3~ |
| DCm 42 | DC 42 | 2" | 150 | 112 | 190 | 230 | 434 | 125 | 25 | adjustable | 800 | 800 | 42.0 | 41.0 |
| DCm 43 | DC 43 | | | | | | 460 \| 434 | | | | | 47.0 | 42.0 |
| – | DC 44 | | | | | | 460 | | | | | | – | 47.0 |

## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-ph. | Three-ph. | n. pumps | n. pumps |
| DCm 10 | DC 10 | 60 | 80 |
| DCm 20 | DC 20 | 60 | 80 |
| DCm 30 | DC 30 | 60 | 80 |

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-ph. | Three-ph. | n. pumps | n. pumps |
| DCm 42 | DC 42 | 16 | 24 |
| DCm 43 | DC 43 | 16 | 24 |
| – | DC 44 | 16 | 24 |

## MATERIALS AND COMPONENTS

### DC 10-20-30

| | | |
|---|---|---|
| **1** | **Pump body** | Cast iron with cataphoresis |
| **2** | **Grid** | Stainless steel **AISI 304** |
| **3** | **Cover** | Stainless steel **AISI 304** |
| **4** | **Impeller** | Open type in technopolymer |
| **5** | **Motor holder** | Cast iron with cataphoresis |
| **6** | **Motor cover** | Stainless steel **AISI 304** |
| **7** | **Motor shaft** | Stainless steel **AISI 431** |

**8 Double mechanical seal in oil chamber**

| Pump | Seal | Shaft | Materials |
|---|---|---|---|
| DC10<br>DC20 | **MG1-14D SIC** | Ø 14 mm | SiC / Graphite / NBR<br>SiC / SiC / NBR |
| Double shaft seal with sealing ring Ø 16 x Ø 24 x H 5 mm | | | |
| DC30 | **ST1-14 SIC** | Ø 14 mm | Ceramic / C. silicon / NBR |

**9 Electric Motor**

**DCm** :single-phase 220 V - 60 Hz or 110 V - 60 Hz with thermal motor protection

**DC**: three-phase 380 V - 60 Hz or 440 V - 60 Hz

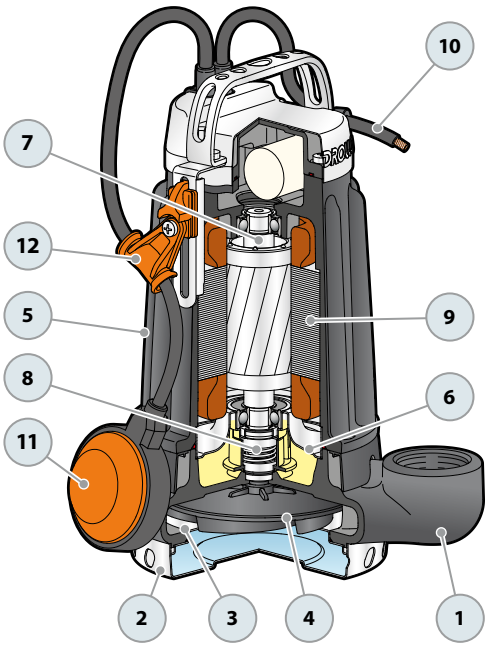
– Insulation: class F – Protection rating: IP X8

**10 Power cord**
**(Schuko plug exclusive to single-phase models)**

※ 10 metres 'H07 RN-F' type

**11 Float switch**

**12 Tilting device for the float cable**
(exclusive to single-ph. models) Patent No. IT0001428923




### DC 42-43-44

| | | |
|---|---|---|
| **1** | **Pump body** | Cast iron with cataphoresis |
| **2** | **Grid** | Stainless steel **AISI 304** |
| **3** | **Cover** | Cast iron with cataphoresis |
| **4** | **Impeller** | Stainless steel **AISI 304** micro-cast |
| **5** | **Motor holder** | Cast iron with cataphoresis |
| **6** | **Motor cover** | Cast iron with cataphoresis |
| **7** | **Motor shaft** | Stainless steel **AISI 431** |

**8 Double mechanical seal with interposed oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **STA-24** | Ø 24 mm | Motor side | Ceramic / Graphite / NBR |
| **STA-22 SIC** | Ø 22 mm | Motor side | SiC / SiC / NBR |

**9 Electric Motor**

**DCm** :single-phase 220 V - 60 Hz or 110 V - 60 Hz with thermal motor protection

**DC**: three-phase 380 V - 60 Hz or 440 V - 60 Hz
with winding integrated thermal motor protection to be connected to the control panel

– Insulation: class F – Protection rating: IP X8

**10 Power cord**

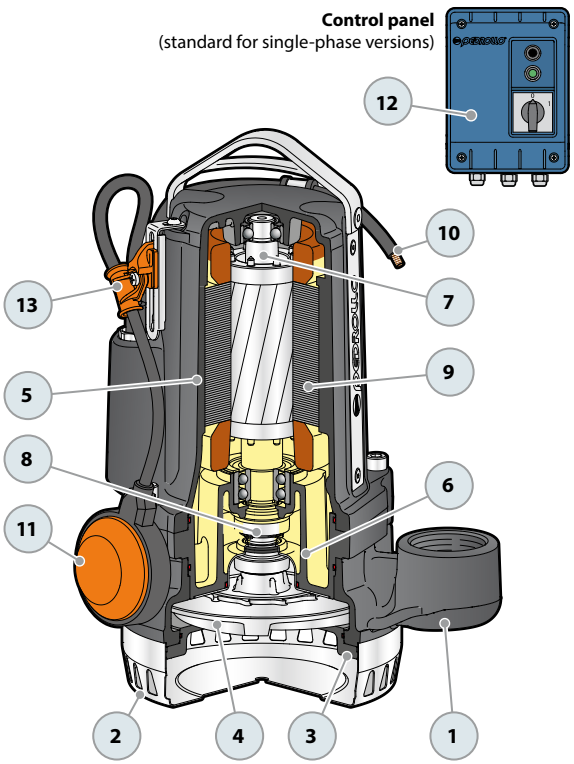
※ 10 metres 'H07 RN-F' type

**11 Float switch**

**12 Switch cabinet** for DCM 42, DCM 43
(exclusive to single-phase models)

**13 Tilting device for the float cable**
(exclusive to single-ph. models) Patent No. IT0001428923

**Control panel**
(standard for single-phase versions)



# TRITUS-TX Submersible pumps with grinder

Sewage  Domestic use




## INSTALLATION AND USE

The **TRITUS-TX** grinder pump is equipped with a robust, hardened **stainless steel blade**, expertly designed to cut through solids and fibers found in **domestic wastewater and sewage**. It includes a compact, integrated magnetic float switch with a vertical sliding mechanism. This innovative design ensures outmost electrical safety while facilitating operation in confined spaces, requiring as little as **220 mm** of clearance from the pit wall.

## INCLUDES

※ **5 m** power cable
※ float switch

## APPLICATION LIMITS

- Depth below water level up to **5 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C** and up to **+90 °C** for short bursts (up to 3 minutes max) for intermittent service
- Bottom drainage level up to **35 mm**

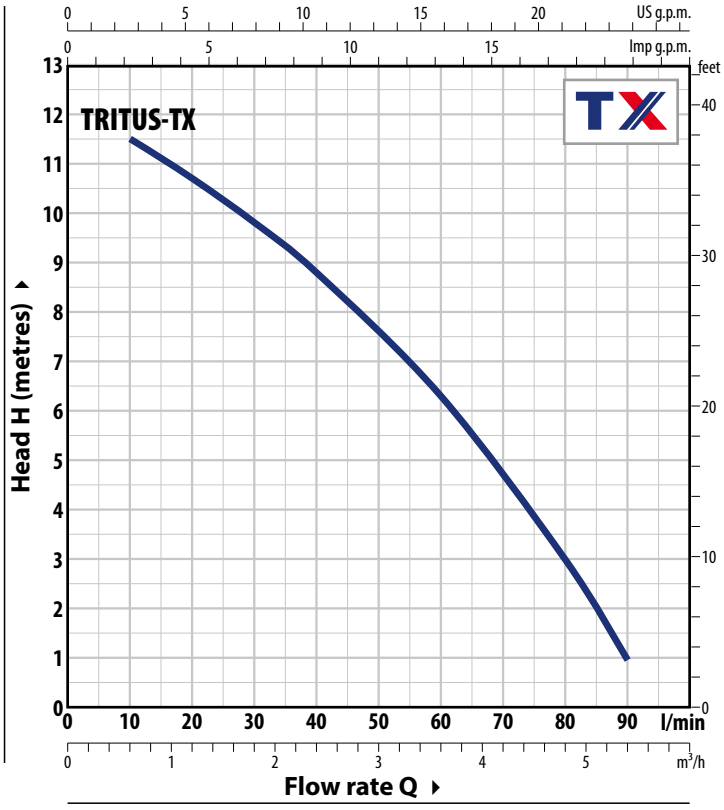
## AVAILABLE UPON REQUEST

※ Power cable length **10 m**
※ Different voltage or frequency

## PATENTS - TRADE MARKS - MODELS

- TRITUS® Registered Trade mark No. 013017181

## CURVES AND PERFORMANCE DATA 60 Hz




## ABSORPTION

| TYPE<br>Single-phase | VOLTAGE<br>220 V |
|---|---|
| **TRITUS-TX** | 3.5 A |

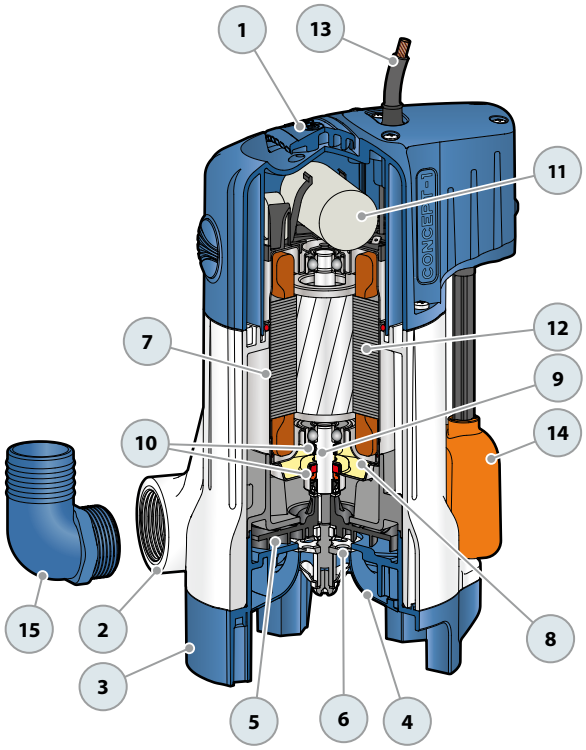
| TYPE<br>Single-phase | POWER (P2)<br>kW | <br>HP | Q | m³/h<br>l/min | 0<br>**0** | 0.6<br>**10** | 1.2<br>**20** | 1.8<br>**30** | 2.4<br>**40** | 3.6<br>**60** | 4.8<br>**80** | 5.4<br>**90** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TRITUS-TX** | 0.55 | 0.75 | **H** | metres | 12.0 | 11.5 | 10.5 | 9.6 | 8.6 | 6.2 | 3.0 | 1.0 |

**Q** = Flow rate **H** = Total manometric head

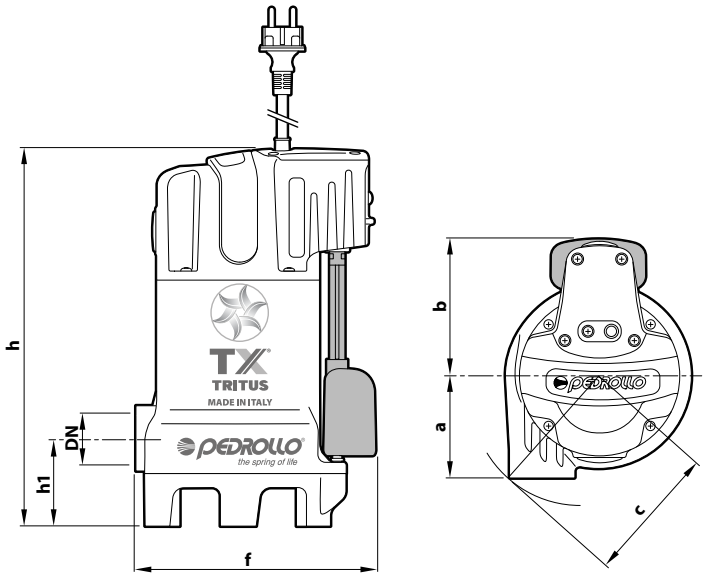
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## MATERIALS AND COMPONENTS

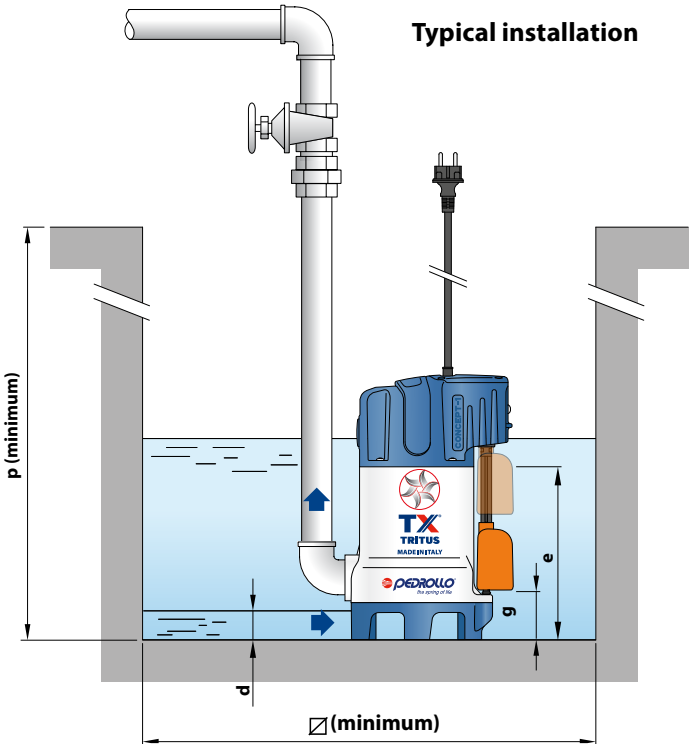
| | | |
|---|---|---|
| 1 | **Handle** | Technopolymer |
| 2 | **Pump body** | Technopolymer with ISO 228/1 threaded metal insert delivery port |
| 3 | **Base** | Technopolymer |
| 4 | **Conveyor belt** | Technopolymer |
| 5 | **Impeller** | Noryl™ |
| 6 | **Grinder** | Hardened **AISI 440C** stainless steel |
| 7 | **Motor sleeve** | Stainless steel **AISI 304** |
| 8 | **Motor cover** | Stainless steel **AISI 304** |
| 9 | **Motor shaft** | Stainless steel **AISI 431** |
| 10 | **Double shaft seal with interposed oil chamber** | |
| | Seal: **STA-12R SIC** | Shaft: Ø 12 mm — Materials: Ceramic / S. Carbide /NBR |
| | **Shaft seal** | Ø 12 x Ø 19 x H 5 mm |
| 11 | **Capacitor** | |
| 12 | **Electric motor** single-phase 220 V - 60 Hz with winding integrated thermal motor protection Continuous duty S1, - Class F - IP X8 | |
| 13 | **Power cord** ※ 5 metres 'H07 RN-F' type with Schuko plug | |
| 14 | **Vertical solids magnetic float** (adjustable) | |
| 15 | **Hose connector Ø 40 mm** | |




## DIMENSIONS AND WEIGHT




**Typical installation**




| TYPE | PORT | DIMENSIONS mm | | | | | | | | | | | | kg | PALLET CAPACITY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **DN** | a | b | c | f | h1 | h | d | e | g (adjustable) | t | p | ⍁ | 1~ | |
| **TRITUS-TX** | **1¼"** | 88 | 117 | 118 | 205 | 76 | 324 | 35 | 206 | 80 or 100 | 251 | 350 | 220 | 7.0 | 60 |

# TRITUS-INOX Submersible pumps with grinder

Sewage
Domestic use
Civil use

**※ TRITUS-INOX pumps deliver reliable performance in demanding work conditions**




## PERFORMANCE RANGE

- Flow rate up to **250 l/min** (15 $m^3$/h)
- Head up to **24 m**

## INSTALLATION AND USE

The **TRITUS-INOX** series is equipped with a robust, **hardened stainless steel blade**, expertly designed to cut through solids and fibers found in domestic wastewater and sewage, for pressurized for pressurized transfer of materials into sewage systems via small-diameter piping

## INCLUDES

※ Power cable length **10 m**
※ Float switch (exclusive to single-phase models)

## APPLICATION LIMITS

- Depth below water level up to **5 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Bottom drainage level up to **85 mm**
- **Minimum immersion for continuous service: 300 mm**

## AVAILABLE UPON REQUEST

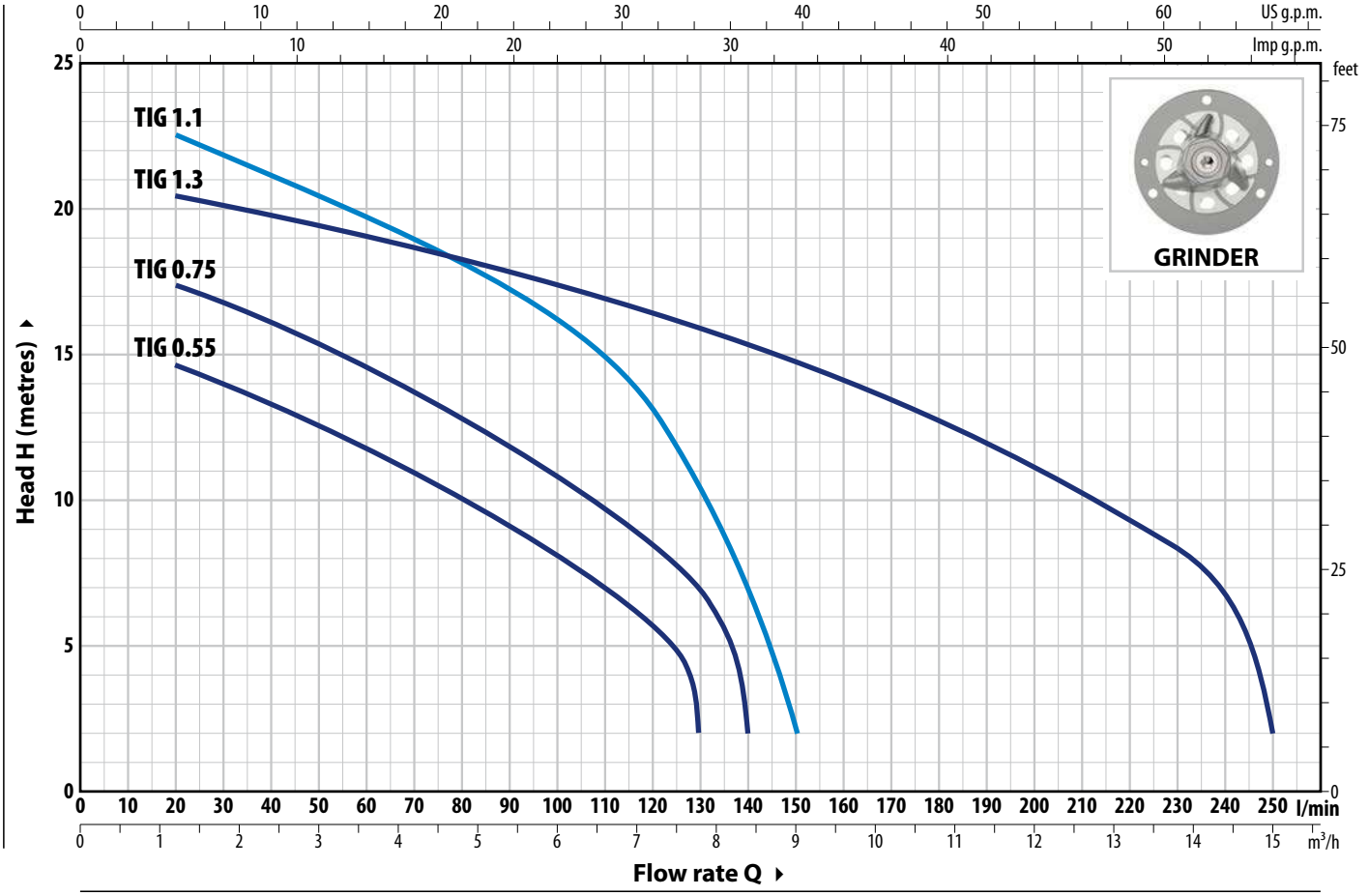
※ Different voltage or frequency
※ Three-phase pumps
※ For TIGm 1.1 and TIGm 1.3 external control cabinet for increased operational safety due to special capacitor that significantly increases torque. The panel includes the manual reset motor protection switch.

## PATENTS - TRADE MARKS - MODELS

- Patent No. EP2313658
- Patent No. IT0001428923
- TRITUS® Registered Trade mark No. 013017181

## CURVES AND PERFORMANCE DATA

**60 Hz**




| TYPE | POWER (P2) | | Q m³/h | 0 | 1.2 | 2.4 | 3.6 | 4.8 | 6 | 7.2 | 7.8 | 8.4 | 9 | 10.2 | 12 | 13.2 | 14.4 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **kW** | **HP** | l/min | **0** | **20** | **40** | **60** | **80** | **100** | **120** | **130** | **140** | **150** | **170** | **200** | **220** | **240** | **250** |
| **TIGm 0.55** | 0.55 | 0.75 | H metres | 16 | 14.5 | 13.3 | 11.8 | 10 | 8 | 5.7 | 2 | | | | | | | |
| **TIGm 0.75** | 0.75 | 1 | | 18.5 | 17.5 | 16 | 14.6 | 12.8 | 10.8 | 14 | 7 | 2 | | | | | | |
| **TIGm 1.1** | 1.1 | 1.5 | | 24 | 22.5 | 21 | 19.5 | 18 | 16.3 | 13 | 10.4 | 6.8 | 2 | | | | | |
| **TIGm 1.3** | 1.3 | 1.75 | | 21 | 20.5 | 19.7 | 19 | 18.2 | 17.4 | 16.5 | 16 | 15.4 | 14.8 | 13.5 | 11 | 9.2 | 7 | 2 |

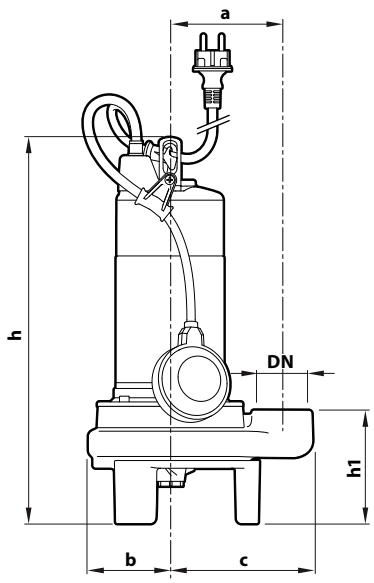
**Q** = Flow rate **H** = Total manometric head

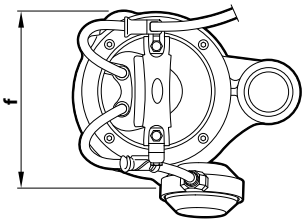
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## ABSORPTION

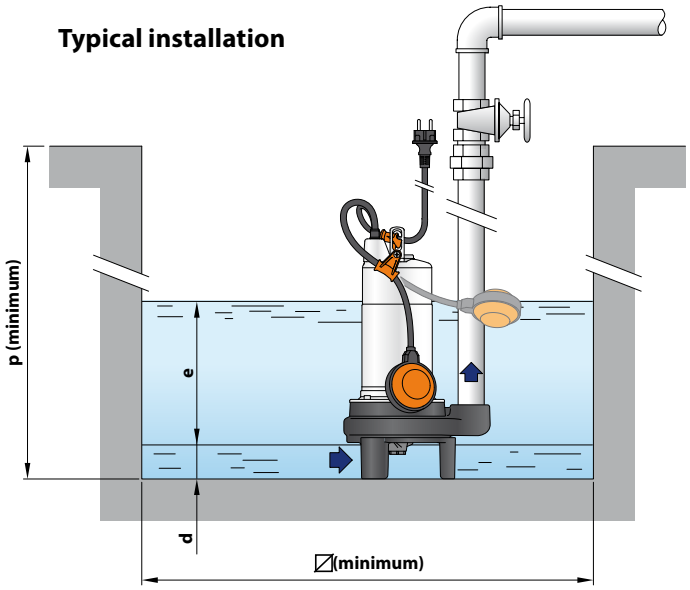
| TYPE | VOLTAGE | |
|---|---|---|
| **Single-phase** | **220 V** | **110 V** |
| **TIGm 0.55** | 4.5 A | 9.0 A |
| **TIGm 0.75** | 5.5 A | 11.0 A |
| **TIGm 1.1** | 7.4 A | – |
| **TIGm 1.3** | 9.0 A | – |

## DIMENSIONS AND WEIGHT




**Typical installation**




| TYPE<br>Single-phase | PORT<br>DN | DIMENSIONS mm<br>a | b | c | f | h | h1 | d | e | p | ⍁ | kg<br>1~ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TIGm 0.55** | **1½"** | 115 | 85 | 147 | 177 | 398 | 117 | 65 | adjustable | 500 | 500 | 15.9 |
| **TIGm 0.75** | | | | | | | | | | | | 16.0 |
| **TIGm 1.1** | | | 93 | | 195 | 432 | 127 | 70 | | | | 18.3 |
| **TIGm 1.3** | | | | | | | | | | | | 18.3 |

## PALLET CAPACITY

| TYPE<br>**Single-phase** | **GROUPAGE**<br>n. pumps | **CONTAINER**<br>n. pumps |
|---|---|---|
| **TIGm 0.55** | 60 | 80 |
| **TIGm 0.75** | 60 | 80 |
| **TIGm 1.1** | 45 | 60 |
| **TIGm 1.3** | 45 | 60 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment, provided with ISO 228/1 threaded port |
| 2 | **Impeller** | Open type in technopolymer |
| 3 | **Grinder** | Hardened **AISI 440C** stainless steel |
| 4 | **Motor shaft** | Stainless steel **AISI 431** |
| 5 | **Motor sleeve** | Stainless steel **AISI 304** |

**6 Double shaft seal with interposed oil chamber**

| Water pump | Seal | Shaft | Location | Materials |
|---|---|---|---|---|
| TIG 0.55<br>TIG 0.75 | **MG1-14D SIC** | Ø 14 mm | Motor side | SiC / Graphite / NBR |
| | | | Pump side | SiC / SiC / NBR |
| TIG 1.1<br>TIG 1.3 | **ST1-14 SIC** | Ø 14 mm | | Ceramic / SiC / NBR |
| | **Shaft seal** | Ø 16 x Ø 24 x H 5 mm | | |

**7 Electric motor**
Single-phase 220 V - 60 Hz or 110 V - 60 Hz
with winding integrated thermal motor protection
- Insulation: class F
- Protection rating: IP X8

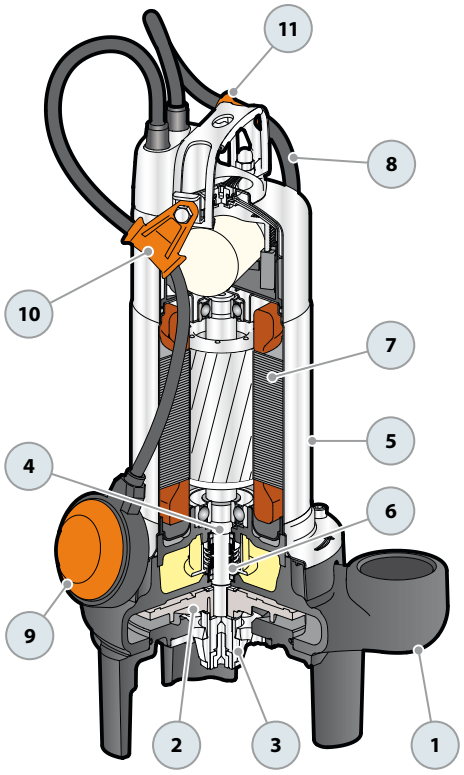
**8 Power cord**

※ 10 metres 'H07 RN-F' type with Schuko plug

**9 Float switch**

**10 Tilting device for the float cable**
Patent No. IT0001428923

**11 Power cable strain relief**
Patent No. EP2313658



# TRITUS Submersible pumps with grinder

Sewage
Domestic use
Industrial use



TRm 1.3



TRm 2.2 AP

## PERFORMANCE RANGE

- Flow rate up to **400 l/min** (24.6 m³/h)
- Head up to **36.5 m**

## INSTALLATION AND USE

The **TRITUS** is constructed from thick cast iron, offering exceptional robustness, abrasion resistance, and longevity. The pumps are equipped with a robust, **hardened stainless steel blade**, expertly designed to cut through solids and fibers found in **domestic and civil** wastewater and sewage, for pressurized transfer of materials into sewage systems via small-diameter piping

## INCLUDES

※ Power cable length **10 m**
※ Float switch (exclusive to single-phase models)
※ Switchbox compatible with single-phase versions

## APPLICATION LIMITS

- Depth below water level up to **10 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Draining capability from bottom up to:
  – **85 mm** for 0.75, 0.9, 1.1, 1.3
  – **95 mm** for 1.5, 2.2, TR 2.2 AP, TR 3 AP, TR 3, TR 4
- **Minimum immersion for continuous service:**
  **– 300 mm for 0.75, 0.9, 1.1, 1.3**
  **– 350 mm for 1.5, 2.2, TR 2.2 AP, TR 3 AP, TR 3, TR 4**

## AVAILABLE UPON REQUEST

※ Different voltage requirements or frequency

## WARRANTY

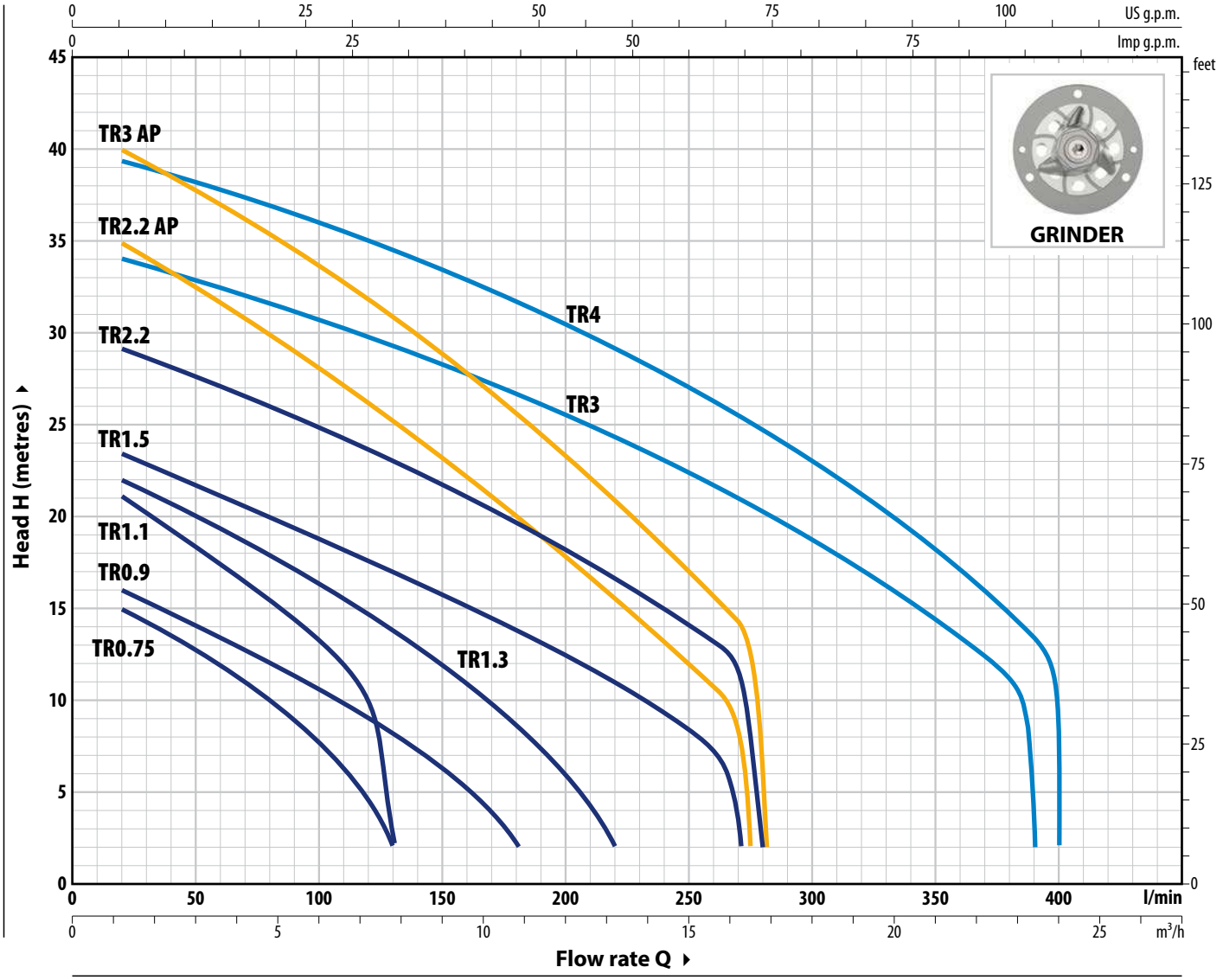
※ **The warranty for the Three-Phase TR 1.5, TR 2.2, TR 2.2 AP, TR3 AP, TR3, TR 4 models remains valid only if the motor's built-in thermal protector is properly connected to the control panel. This connection is essential for the warranty's applicability.**

## PATENTS - TRADE MARKS - MODELS

- Patent No. IT0001428923
- Registered Community Model No. 002501486-0002, 008625685-0005, 008625685-0006
- TRITUS® Registered Trade mark No. 013017181

## CURVES AND PERFORMANCE DATA

**60 Hz**




| TYPE | | POWER (P2) | | Q | m³/h | 0 | 1.2 | 2.4 | 3.6 | 4.8 | 6.0 | 7.2 | 7.8 | 10.8 | 13.2 | 16.2 | 16.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | | l/min | **0** | **20** | **40** | **60** | **80** | **100** | **120** | **130** | **180** | **220** | **270** | **280** |
| **TRm 0.75** | **TR 0.75** | 0.75 | 1 | **H** | metres | 16.5 | 15 | 13.5 | 11.9 | 9.9 | 7.5 | 4.5 | 2 | | | | |
| **TRm 0.9** | **TR 0.9** | 0.9 | 1.25 | | | 17 | 16 | 14.5 | 13.3 | 12 | 10.5 | 9 | 8.1 | 2 | | | |
| **TRm 1.1** | **TR 1.1** | 1.1 | 1.5 | | | 23 | 21 | 19.4 | 17.5 | 15.5 | 13 | 10 | 2 | | | | |
| **TRm 1.3** | **TR 1.3** | 1.3 | 1.75 | | | 23 | 22 | 20.8 | 19.5 | 18.1 | 16.5 | 14.8 | 13.9 | 8.5 | 2 | | |
| **TRm 1.5** | **TR 1.5** | 1.5 | 2 | | | 24.5 | 23.5 | 22.3 | 21.1 | 20 | 18.9 | 17.7 | 17.1 | 13.7 | 10.6 | 2 | |
| – | **TR 2.2** | 2.2 | 3 | | | 30 | 29 | 28 | 26.9 | 25.9 | 24.8 | 23.6 | 23 | 19.7 | 16.6 | 12.1 | 2 |

| TYPE | | POWER (P2) | | Q | m³/h | 0 | 1.2 | 3.0 | 6.0 | 9.0 | 12.0 | 15.0 | 16.2 | 16.5 | 16.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | | l/min | **0** | **20** | **50** | **100** | **150** | **200** | **250** | **270** | **275** | **280** |
| **TRm 2.2 AP** | **TR 2.2 AP** | 2.2 | 3 | **H** | metres | 36.5 | 35 | 32.5 | 28 | 23.1 | 17.7 | 11.6 | 9 | 2 | |
| – | **TR 3 AP** | 3 | 4 | | | 41.5 | 40 | 38 | 33.5 | 29 | 23.3 | 16.9 | 14.1 | 13.4 | 2 |

| TYPE | POWER (P2) | | Q | m³/h | 0 | 1.2 | 3.6 | 6.0 | 9.6 | 12.0 | 15.0 | 18 | 21.6 | 23.4 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Three-phase** | **kW** | **HP** | | l/min | **0** | **20** | **60** | **100** | **160** | **200** | **250** | **300** | **360** | **390** | **400** |
| **TR 3** | 3 | 4 | **H** | metres | 34.5 | 34 | 32.3 | 30.6 | 27.8 | 25.7 | 22.5 | 18.7 | 13 | 2 | |
| **TR 4** | 4 | 5.5 | | | 40 | 39.5 | 37.8 | 35.9 | 32.7 | 30.3 | 27 | 23.1 | 17.2 | 13.4 | 2 |

**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

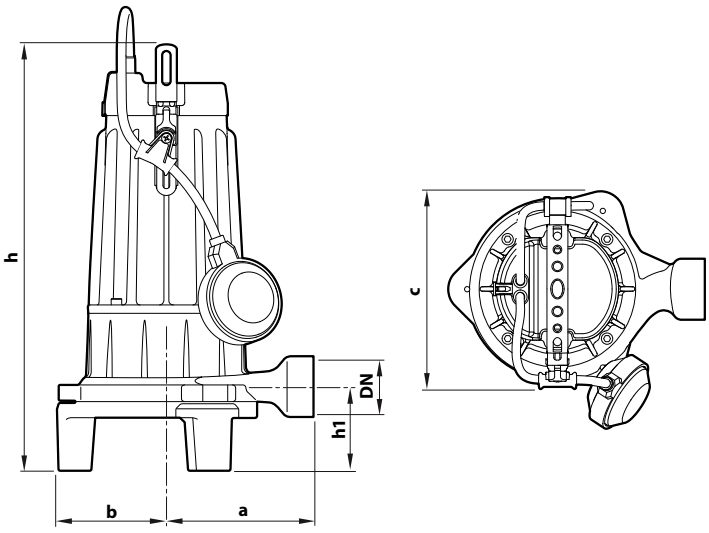
# TRITUS 0.75 – 0.9 – 1.1 – 1.3

## ABSORPTION

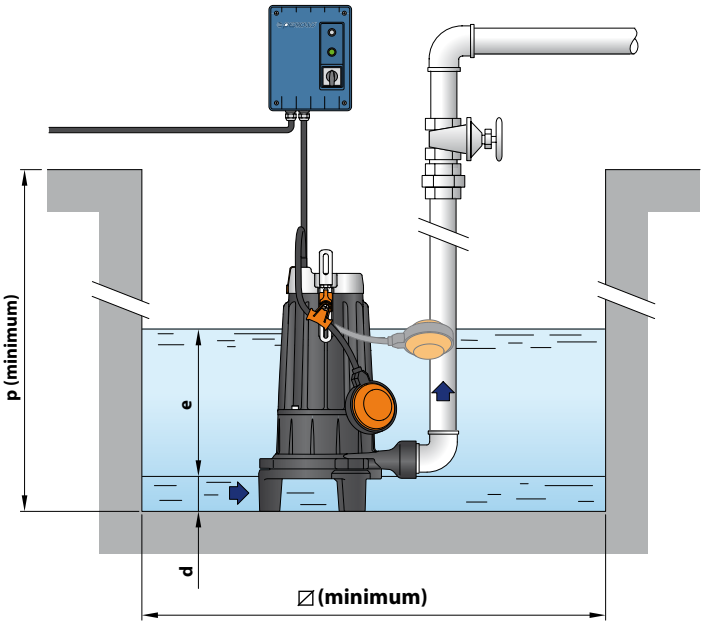
| TYPE<br>Single-phase | VOLTAGE<br>220 V |
|---|---|
| **TRm 0.75** | 5.5 A |
| **TRm 0.9** | 6.5 A |
| **TRm 1.1** | 7.4 A |
| **TRm 1.3** | 8.5 A |

| TYPE<br>Three-phase | VOLTAGE<br>380 V |
|---|---|
| **TR 0.75** | 2.5 A |
| **TR 0.9** | 2.7 A |
| **TR 1.1** | 3.2 A |
| **TR 1.3** | 3.4 A |

## DIMENSIONS AND WEIGHT




**Typical installation**




| TYPE | | PORT | DIMENSIONS mm | | | | | | | | | kg * | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **DN** | a | b | c | h | h1 | d | e | p | ⍁ | 1~ | 3~ |
| **TRm 0.75** | **TR 0.75** | **1¼"** | 140 | 104 | 186 | 406 | 80 | 85 | adjustable | 500 | 500 | 24.0 | 22.2 |
| **TRm 0.9** | **TR 0.9** | | | | | | | | | | | 23.9 | 22.2 |
| **TRm 1.1** | **TR 1.1** | | | | | | | | | | | 25.7 | 23.1 |
| **TRm 1.3** | **TR 1.3** | | | | | | | | | | | 25.5 | 23.1 |

**(* weight of pump without control panel)**

## PALLET CAPACITY

| TYPE<br>**Single-ph.** | **GROUPAGE**<br>n. pumps | **CONTAINER**<br>n. pumps |
|---|---|---|
| **TRm 0.75** | 36 | 48 |
| **TRm 0.9** | 36 | 48 |
| **TRm 1.1** | 36 | 48 |
| **TRm 1.3** | 36 | 48 |

| TYPE<br>**Three-ph.** | **GROUPAGE**<br>n. pumps | **CONTAINER**<br>n. pumps |
|---|---|---|
| **TR 0.75** | 60 | 80 |
| **TR 0.9** | 60 | 80 |
| **TR 1.1** | 60 | 80 |
| **TR 1.3** | 60 | 80 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment |
| 2 | **Impeller** | Open type in technopolymer |
| 3 | **Grinder** | Hardened **AISI 440C** stainless steel |
| 4 | **Motor shaft** | Stainless steel **AISI 431** |
| 5 | **Motor holder** | Cast iron with cataphoresis treatment |

**6 Double mechanical seal in oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **MG1-14D SIC** | Ø 14 mm | Motor side | Silicon carbide / Graphite / NBR |
| | | Pump side | Silicon carbide/Silicon carbide/NBR |

**7 Electric Motor**

**TRm**: single-phase 220 V - 60 Hz with thermal motor protection

**TR**: three-phase 380 V - 60 Hz

– Insulation: class F
– Protection rating: IP X8

**8 Power cord**

※ 10 metres 'H07 RN-F' type

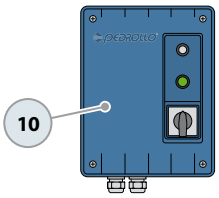
**9 Float switch**

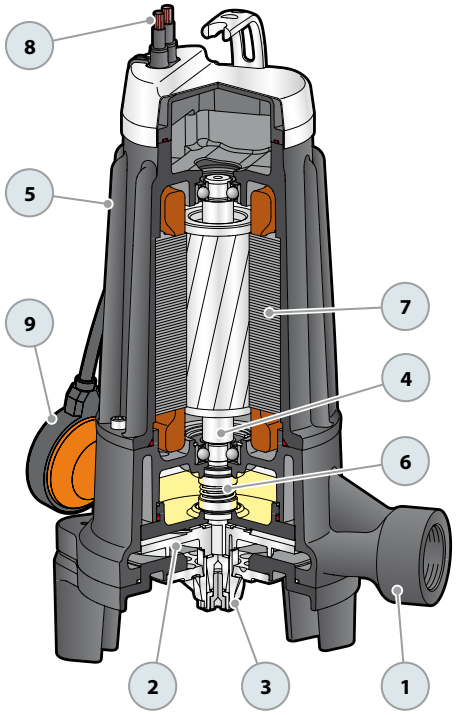
(exclusive to single-phase models)

**10 Control panel** (exclusive to single-phase models)

Including:
– ON/OFF switch
– manual reset motor protection
– operating capacitor (permanently switched on)
– starting capacitor

**Control panel**
(standard for single-phase versions)



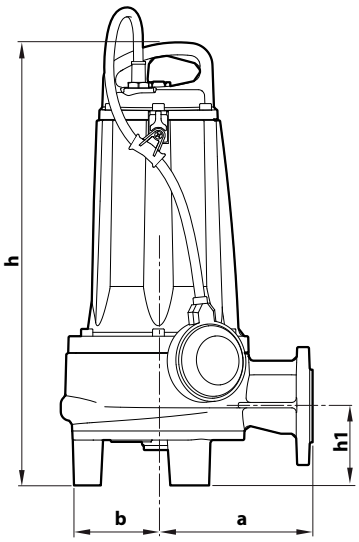
# TRITUS 1.5 – 2.2

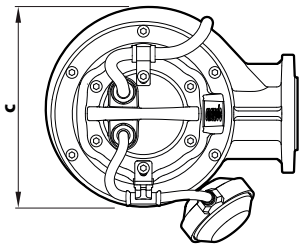
## ABSORPTION

| TYPE<br>Single-phase | VOLTAGE<br>220 V |
|---|---|
| **TRm 1.5** | 11.0 A |

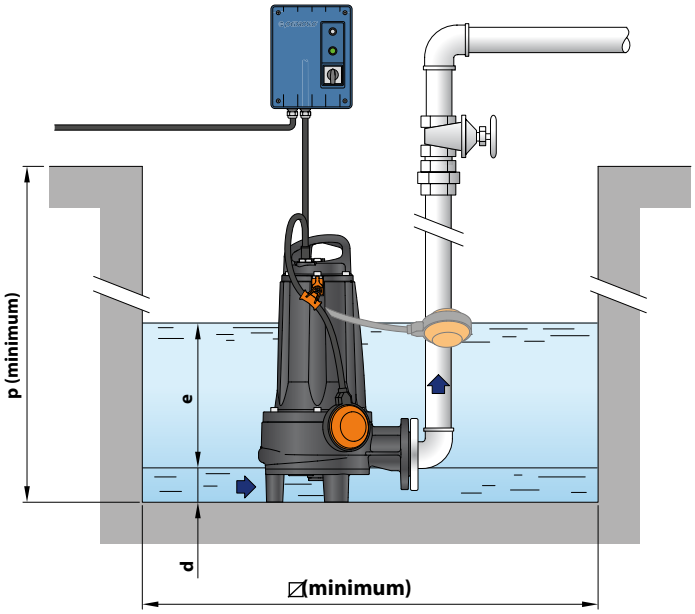
| TYPE<br>Three-phase | VOLTAGE<br>380 V |
|---|---|
| **TR 1.5** | 4.5 A |
| **TR 2.2** | 6.5 A |

## DIMENSIONS AND WEIGHT



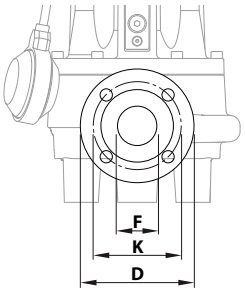

**Typical installation**




| TYPE | | DIMENSIONS mm | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | a | b | c | h | h1 | d | e | p | ⍁ | 1~ | 3~ |
| **TRm 1.5** | **TR 1.5** | 172 | 105 | 221 | 489 | 87.5 | 95 | adjustable | 800 | 800 | 45.0 | 44.0 |
| – | **TR 2.2** | | | | | | | | | | – | 44.0 |

## PORT FLANGE

| TYPE | | FLANGE | F | K | D | HOLES | |
|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **DN** | | mm | mm | N° | Ø (mm) |
| **TRm 1.5** | **TR 1.5** | **40** (PN6) | **1½"** | 100 | 130 | 4 | 14 |
| – | **TR 2.2** | | | | | | |




## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| **Single-phase** | **Three-phase** | n. pumps | n. pumps |
| **TRm 1.5** | **TR 1.5** | 12 | 18 |
| – | **TR 2.2** | 12 | 18 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| **1** | **Pump body** | Cast iron with cataphoresis treatment |
| **2** | **Impeller** | Micro-cast **AISI 304** stainless steel |
| **3** | **Grinder** | Hardened **AISI 440C** stainless steel |
| **4** | **Motor shaft** | Stainless steel **AISI 431** |
| **5** | **Motor holder** | Cast iron with cataphoresis treatment |

**6 Double mechanical seal with interposed oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **STA-20** | Ø 20 mm | Motor side | Ceramic / Graphite / NBR |
| **STA-19** | Ø 19 mm | Pump side | Silicon carbide/Silicon carbide/NBR |

**7 Electric Motor**

**TRm**: single-phase 220 V - 60 Hz with thermal motor protection

**TR**: three-phase 380 V - 60 Hz

※ with winding integrated thermal motor protection to be connected to the control panel

– Insulation: class F
– Protection rating: IP X8

**8 Power cord**

※ 10 metres 'H07 RN-F' type

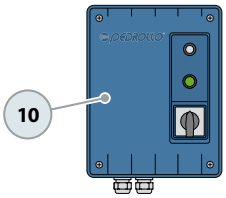
**9 Float switch**

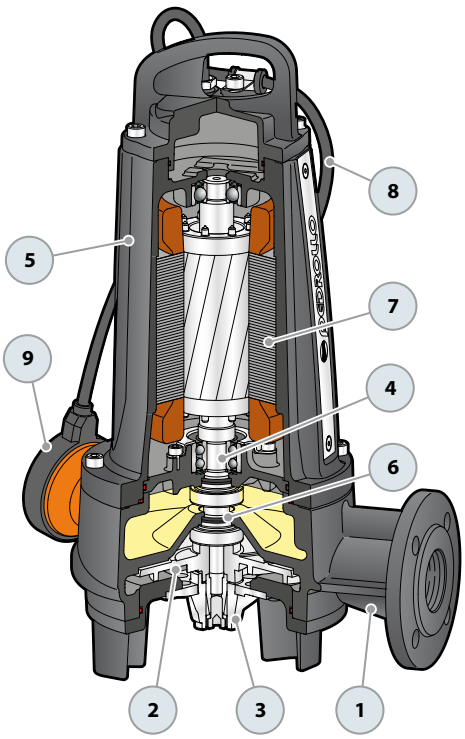
(exclusive to single-phase models)

**10 Control panel** (exclusive to single-phase models)

Including:
– ON/OFF switch
– manual reset motor protection
– operating capacitor (permanently switched on)
– starting capacitor

**Control panel**
(standard for single-phase versions)



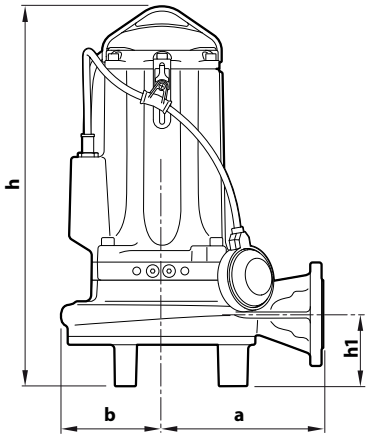
# TRITUS 2.2 AP - 3 AP - 3 - 4

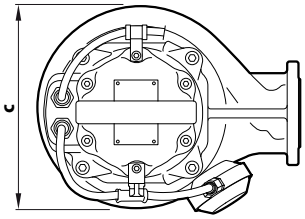
## ABSORPTION

| TYPE | VOLTAGE |
|---|---|
| Single-phase | 220 V |
| TRm 2.2 AP | 15.0 A |

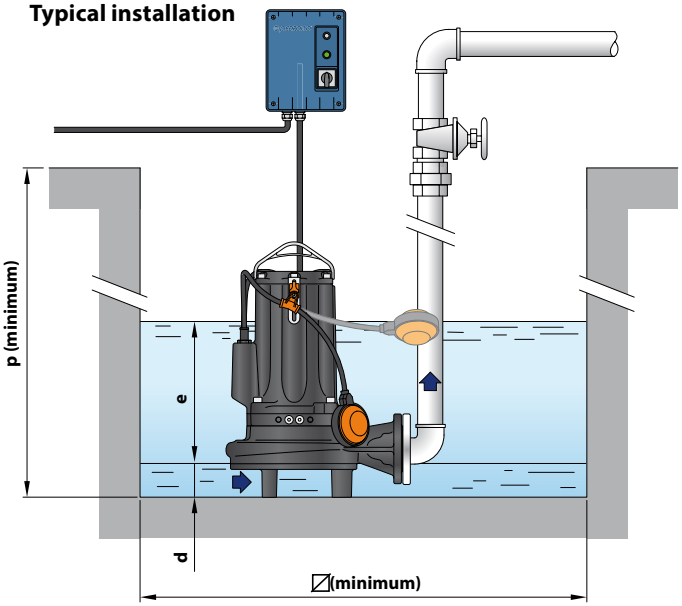
| TYPE | VOLTAGE |
|---|---|
| Three-phase | 380 V |
| TR 2.2 AP | 6.5 A |
| TR 3 AP | 7.0 A |
| TR 3 | 7.0 A |
| TR 4 | 8.0 A |

## DIMENSIONS AND WEIGHT



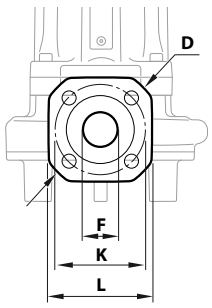

Typical installation




| TYPE | | DIMENSIONS mm | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | a | b | c | h | h1 | d | e | p | ⍁ | 1~ | 3~ |
| TRm 2.2 AP | TR 2.2 AP | 203 | 126 | 256 | 480 \| 453 | 90 | 95 | adjustable | 800 | 800 | 53.5 | 47.0 |
| – | TR 3 AP | | | | 480 | | | | | | – | 53.0 |
| – | TR 3 | | | | | | | | | | – | 53.0 |
| – | TR 4 | | | | | | | | | | – | 54.0 |

## PORT FLANGE

| TYPE | | FLANGE | F | K | D | L | HOLES | |
|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN | | mm | mm | mm | N° | Ø mm |
| TRm 2.2 AP | TR 2.2 AP | 40 (PN10) | 1½" | 110 | 150 | 130 | 4 | 18 |
| – | TR 3 AP | | | | | | | |
| – | TR 3 | | | | | | | |
| – | TR 4 | | | | | | | |




## PALLET CAPACITY

| TYPE | | GROUPAGE |
|---|---|---|
| Single-phase | Three-phase | n. pumps |
| TRm 2.2 AP | TR 2.2 AP | 18 |
| – | TR 3 AP | 18 |
| – | TR 3 | 18 |
| – | TR 4 | 18 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment |
| 2 | **Impeller** | Open type in micro-cast **AISI 304** stainless steel |
| 3 | **Grinder** | Hardened **AISI 440C** stainless steel |
| 4 | **Motor shaft** | Stainless steel **AISI 431** |
| 5 | **Motor holder** | Cast iron with cataphoresis treatment |
| 6 | **Motor bracket** | Cast iron with cataphoresis treatment |

**7 Double mechanical seal with interposed oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **STA-24** | Ø 24 mm | Motor side | Ceramic / Graphite / NBR |
| **STA-22 SIC** | Ø 22 mm | Pump side | Silicon Carbide/Silicon Carbide/NBR |

**8 Electric Motor**

**TRm**: single-phase 220 V - 60 Hz with thermal motor protection

**TR**: three-phase 380 V - 60 Hz
※ with winding integrated thermal motor protection to be connected to the Control panel

– Insulation: class F
– Protection rating: IP X8

**9 Power cord**

※ 10 metres 'H07 RN-F' type

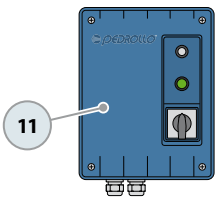
**10 Float switch**

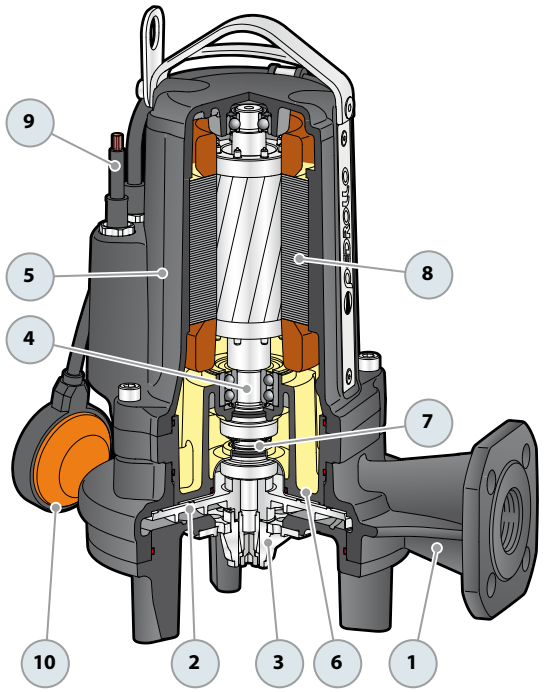
(exclusive to single-phase models)

**11 Control panel** (exclusive to single-phase models)

Including:
– ON/OFF switch
– manual reset motor protection
– operating capacitor (permanently switched on)
– starting capacitor

**Control panel**
(standard for single-phase versions)



# SEWAGE LIFTING SYSTEM (TRITUS 0.75 - 2.2)

## VERSION WITH HORIZONTAL DELIVERY AND ¾" GUIDE PIPES

| | | |
|---|---|---|
| For **TR 0.75, 0.9, 1.1, 1.3** | Code ASSPTRITUS11 | **DN 2"** |
| For **TR 1.5, 2.2** | Code ASSPTRITUS22 | **DN 2"** |



**※ Kit consisting of:**



Coupling foot



Guide rail



Support for guide tubes

## VERSION WITH VERTICAL DELIVERY AND ¾" GUIDE PIPES

| | | |
|---|---|---|
| For **TR 0.75, 0.9, 1.1, 1.3** | Code ASSPTRITUS11V | **DN 2½"** |
| For **TR 1.5, 2.2** | Code ASSPTRITUS22V | **DN 2½"** |



**※ Kit consisting of:**



Coupling foot complete with counter-flange



Guide rail



Support for guide tubes

## ● ACCESSORIES AVAILABLE FOR ORDER

### RUNNING GUIDE

| | |
|---|---|
| ※ For TR 0.75, 0.9, 1.1, 1.3 | Code ASSFL003 |
| ※ For TR 1.5, 2.2 | Code ASSFL004 |



Complete with ring nut and gasket for 0.75, 0.9, 1.1, 1.3
Complete with screws and seals for TR 1.5, 2.2

### GUIDE TUBE SUPPORT

| | |
|---|---|
| ※ For Ø ¾ " guide tubes | Code 859SV340INTFA |



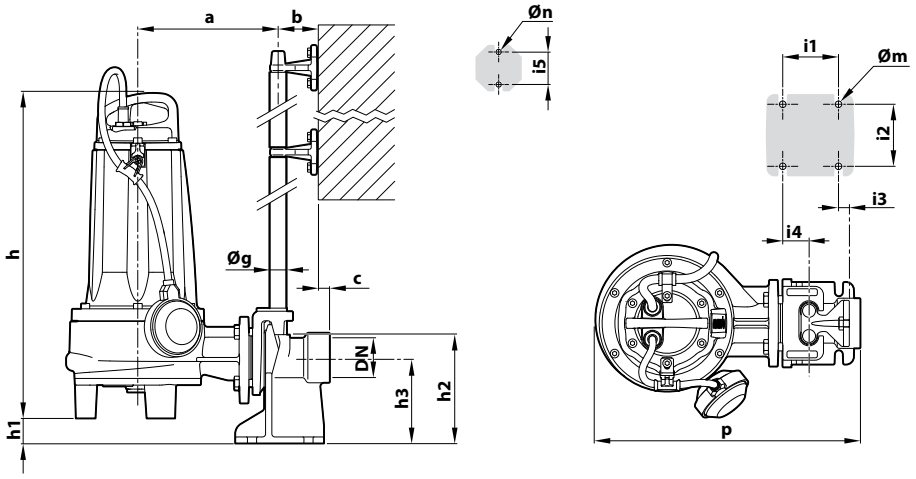
**To ensure stability, insert a support every 2 metres along the guide tube**

### GUIDE TUBE (AISI 304 stainless steel)

| | |
|---|---|
| ※ 2 metres Ø ¾" guide tube | Code 54SARTG0052F |
| ※ 3 metres Ø ¾" guide tube | Code 54SARTG0053F |
| ※ 6 metres Ø ¾" guide tube | Code 54SARTG0056F |

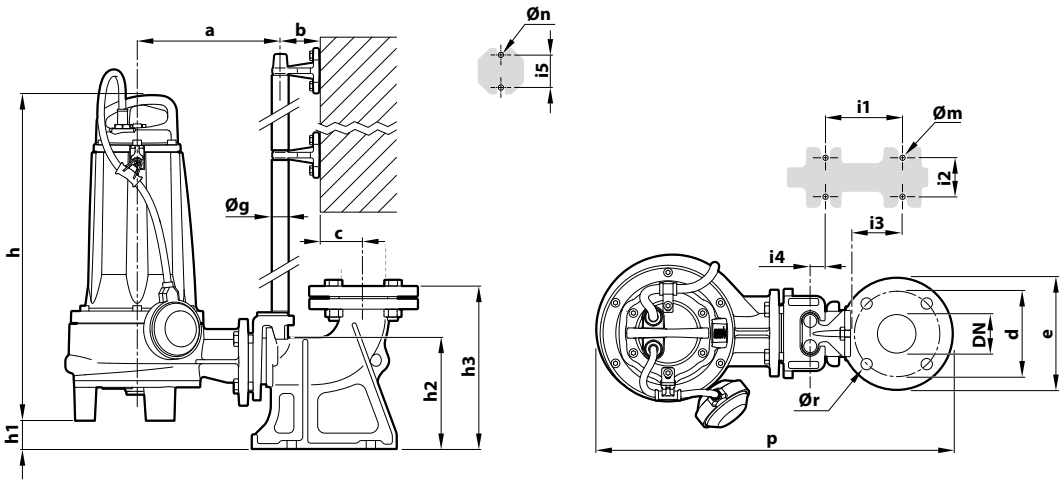


## DIMENSIONS (Version with horizontal outlet)




| TYPE | | PORT | Solid bodies | DIMENSIONS mm | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **DN** | | a | b | c | p | h1 | h2 | h3 | i1 | i2 | i3 | i4 | i5 | Øg | Øm | Øn |
| **TRm 0.75** | **TR 0.75** | **2"** | **Ø 7 mm** | 212 | 61 | 17 | 395 | 50 | 165 | 130 | 85 | 94 | 16 | 40 | 50 | ¾" | 14 | 11 |
| **TRm 0.9** | **TR 0.9** | | | | | | | | | | | | | | | | | |
| **TRm 1.1** | **TR 1.1** | | | | | | | | | | | | | | | | | |
| **TRm 1.3** | **TR 1.3** | | | | | | | | | | | | | | | | | |
| **TRm 1.5** | **TR 1.5** | **2"** | **Ø 7 mm** | 215 | 61 | 17 | 400 | 42.5 | 165 | 130 | 85 | 94 | 16 | 40 | 50 | ¾" | 14 | 11 |
| **–** | **TR 2.2** | | | | | | | | | | | | | | | | | |

## DIMENSIONS (Version with vertical delivery)




| TYPE | | PORT | Solid bodies | DIMENSIONS mm | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **DN** | | a | b | c | d | e | p | h1 | h2 | h3 | i1 | i2 | i3 | i4 | i5 | Øg | Øm | Øn | Ør |
| **TRm 0.75** | **TR 0.75** | **2½"** | **Ø 7 mm** | 206 | 61 | 51.5 | 125 | 165 | 505 | 48 | 163.5 | 215.5 | 120 | 72 | 62 | 3 | 50 | 3/4 | 14 | 11 | 18 |
| **TRm 0.9** | **TR 0.9** | | | | | | | | | | | | | | | | | | | | |
| **TRm 1.1** | **TR 1.1** | | | | | | | | | | | | | | | | | | | | |
| **TRm 1.3** | **TR 1.3** | | | | | | | | | | | | | | | | | | | | |
| **TRm 1.5** | **TR 1.5** | **2½"** | | 211 | 61 | 51.5 | 125 | 165 | 514 | 40 | 163.5 | 215.5 | 120 | 72 | 62 | 3 | 50 | 3/4 | 14 | 11 | 18 |
| **–** | **TR 2.2** | | | | | | | | | | | | | | | | | | | | |

# SEWAGE LIFTING SYSTEM (TRITUS 2.2 AP - 3 AP - TR3 - TR4)

## VERSION WITH HORIZONTAL DELIVERY AND ¾" GUIDE PIPES

| | | |
|---|---|---|
| For **TR 2.2 AP, 3 AP, 3, 4** | Code ASSPTRITUS61 | **DN 2"** |

**※ Kit consisting of:**



Coupling foot



Guide rail



Support for guide tubes



## VERSION WITH VERTICAL DELIVERY AND ¾" GUIDE PIPES

| | | |
|---|---|---|
| For **TR 2.2 AP, 3 AP, 3, 4** | Code ASSPTRITUS61V | **DN 2½"** |

**※ Kit consisting of:**



Coupling foot complete with counterflange



Guide rail



Support for guide tubes



## ● ACCESSORIES AVAILABLE FOR ORDER

### RUNNING GUIDE

| | |
|---|---|
| ※ For TR 2.2 AP, 3 AP, 3, 4 | Code ASSFL014 |



Complete with screws and seals

### GUIDE TUBE SUPPORT

| | |
|---|---|
| ※ For Ø ¾ " guide tubes | Code 859SV340INTFA |



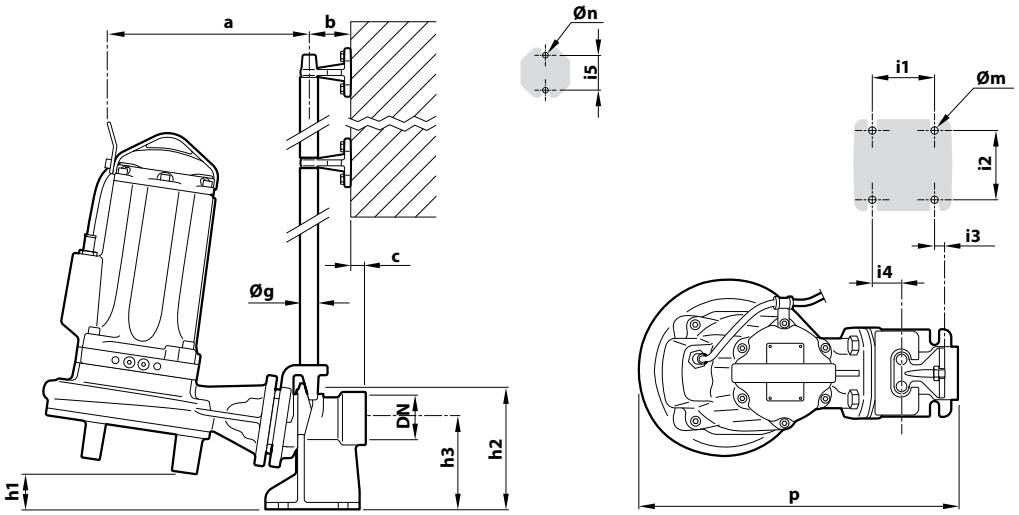
**To ensure stability, insert a support every 2 metres along the guide tube**

### GUIDE TUBE (AISI 304 stainless steel)

| | |
|---|---|
| ※ 2 metres Ø ¾" guide tube | Code 54SARTG0052F |
| ※ 3 metres Ø ¾" guide tube | Code 54SARTG0053F |
| ※ 6 metres Ø ¾" guide tube | Code 54SARTG0056F |

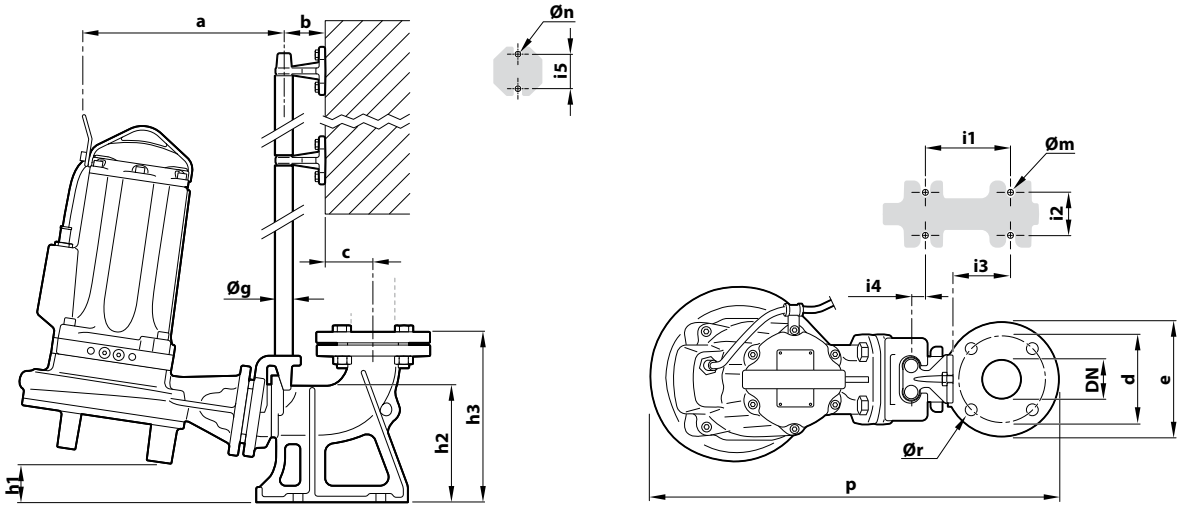


## DIMENSIONS (Version with horizontal outlet)




| TYPE | PORT DN | Solid bodies | DIMENSIONS mm | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | a | b | c | p | h1 | h2 | h3 | i1 | i2 | i3 | i4 | i5 | Øg | Øm | Øn |
| **TR 2.2 AP** | **2"** | **Ø 7 mm** | 228 | 61 | 17 | 455 | 71 | 165 | 130 | 85 | 94 | 16 | 40 | 50 | 3/4 | 14 | 11 |
| **TR 3 AP** | | | | | | | | | | | | | | | | | |
| **TR 3** | | | 238 | | | | | | | | | | | | | | |
| **TR 4** | | | | | | | | | | | | | | | | | |

## DIMENSIONS (Version with vertical delivery)




| TYPE | PORT DN | Solid bodies | DIMENSIONS mm | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | a | b | c | d | e | p | h1 | h2 | h3 | i1 | i2 | i3 | i4 | i5 | Øg | Øm | Øn | Ør |
| **TR 2.2 AP** | **2½"** | **Ø 7 mm** | 225 | 61 | 51.5 | 125 | 165 | 569 | 69 | 163.5 | 215.5 | 120 | 72 | 62 | 3 | 50 | 3/4 | 14 | 11 | 18 |
| **TR 3 AP** | | | | | | | | | | | | | | | | | | | | |
| **TR 3** | | | 235 | | | | | | | | | | | | | | | | | |
| **TR 4** | | | | | | | | | | | | | | | | | | | | |

Sewage
Civil use
Industrial use

※ **High-quality materials and robust construction ensure superior performance and reliability**



## PERFORMANCE RANGE

- Flow rate up to **1250 l/min** (75 $m^3$/h)
- Head up to **20 m**

## INSTALLATION AND USE

The **VXC** series is constructed from thick cast iron, offering exceptional robustness, abrasion resistance, and longevity. Featuring **VORTEX**-type impellers, these pumps are designed to drain **sewage, wastewater, sludge-mixed water, activated and putrid sludge**.
They are suitable for a wide range of applications, including sewers, tunnels, excavations, canals, and underground parking facilities

## APPLICATION LIMITS

- Depth below water level up to **10 m**
  (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Suspended solids transfer:
  – up to **Ø 50 mm** for VXC /50
  – up to **Ø 65 mm** for VXC /65
- **Continuous operation of the pump even when completely uncovered.**

## INCLUDES

※ Power cable length **10 m**
※ Float switch (exclusive to single-phase models)
※ Switchbox compatible with single-phase versions

## AVAILABLE UPON REQUEST

※ **QES** control panel for three-phase pumps
※ Different voltage or frequency

## WARRANTY

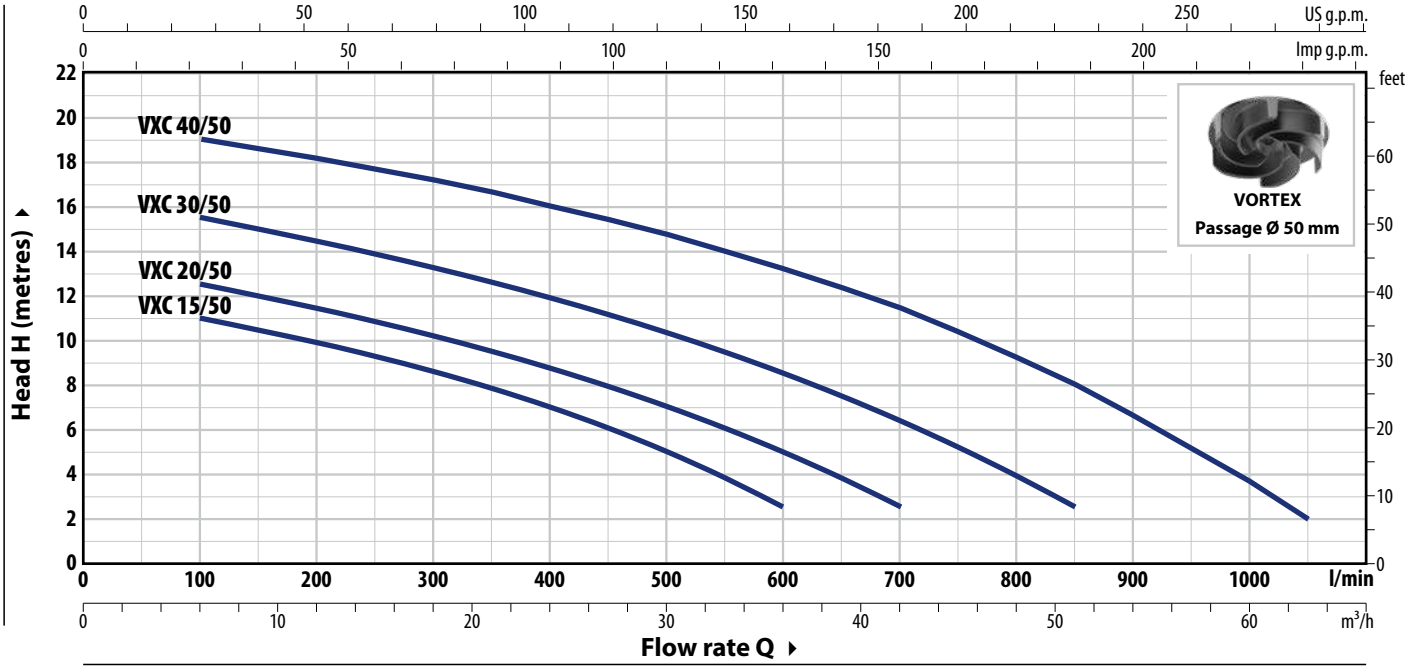
※ **The warranty for three-phase models remains valid only if the motor's built-in thermal protector is properly connected to the control panel. This connection is essential for the warranty's applicability.**

## PATENTS - TRADE MARKS - MODELS

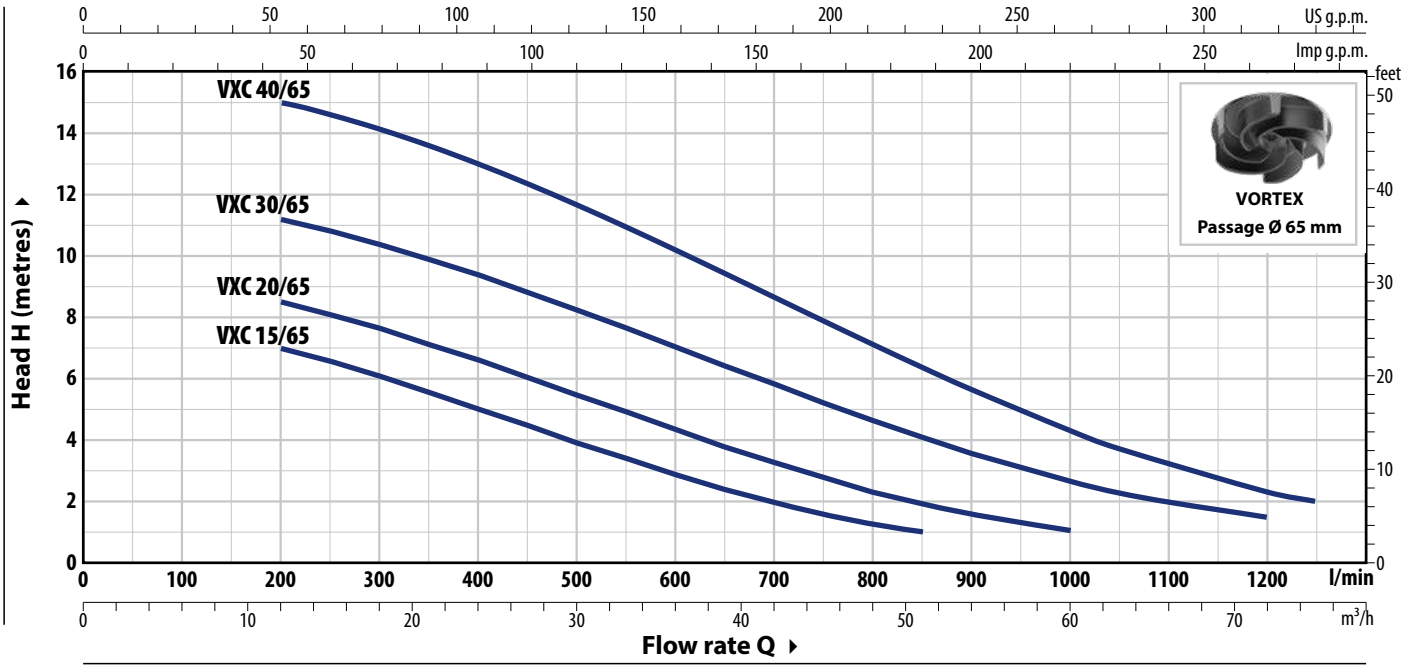
- Patent No. IT0001428923
- Registered Community Model No. 008625685-0001, No. 008625685-0002

## CURVES AND PERFORMANCE DATA

**60 Hz**




| TYPE | | POWER (P2) | | Q m³/h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 51 | 60 | 63 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | l/min | **0** | **100** | **200** | **300** | **400** | **500** | **600** | **700** | **850** | **1000** | **1050** |
| **VXCm 15/50** | **VXC 15/50** | 1.1 | 1.5 | **H** metres | 12 | 11 | 9.9 | 8.6 | 7 | 5 | 2.5 | | | | |
| **VXCm 20/50** | **VXC 20/50** | 1.5 | 2 | | 13.5 | 12.5 | 11.4 | 10.2 | 8.7 | 7 | 5 | 2.5 | | | |
| **VXCm 30/50** | **VXC 30/50** | 2.2 | 3 | | 16.5 | 15.5 | 14.4 | 13.2 | 11.9 | 10.3 | 8.5 | 6.4 | 2.5 | | |
| **–** | **VXC 40/50** | 3 | 4 | | 20 | 19 | 18.1 | 17.1 | 16 | 14.7 | 13.2 | 11.4 | 8 | 3.6 | 2 |




| TYPE | | POWER (P2) | | Q m³/h | 0 | 12 | 18 | 24 | 30 | 36 | 42 | 51 | 60 | 63 | 72 | 75 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | l/min | **0** | **200** | **300** | **400** | **500** | **600** | **700** | **850** | **1000** | **1050** | **1200** | **1250** |
| **VXCm 15/65** | **VXC 15/65** | 1.1 | 1.5 | **H** metres | 8 | 7 | 6 | 5 | 4 | 2.8 | 2 | 1 | | | | |
| **VXCm 20/65** | **VXC 20/65** | 1.5 | 2 | | 9.5 | 8.5 | 7.6 | 6.6 | 5.4 | 4.3 | 3.3 | 2 | 1 | | | |
| **VXCm 30/65** | **VXC 30/65** | 2.2 | 3 | | 12 | 11 | 10.3 | 9.3 | 8.2 | 7 | 5.8 | 4 | 2.6 | 2.3 | 1.5 | |
| **–** | **VXC 40/65** | 3 | 4 | | 15.5 | 15 | 14 | 13 | 11.6 | 10 | 8.6 | 6.3 | 4.3 | 3.7 | 2.3 | 2 |

**Q** = Flow rate **H** = Total manometric head

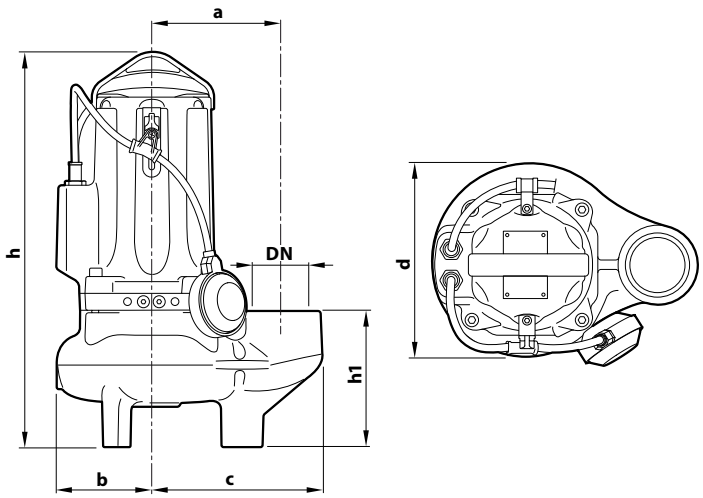
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## ABSORPTION

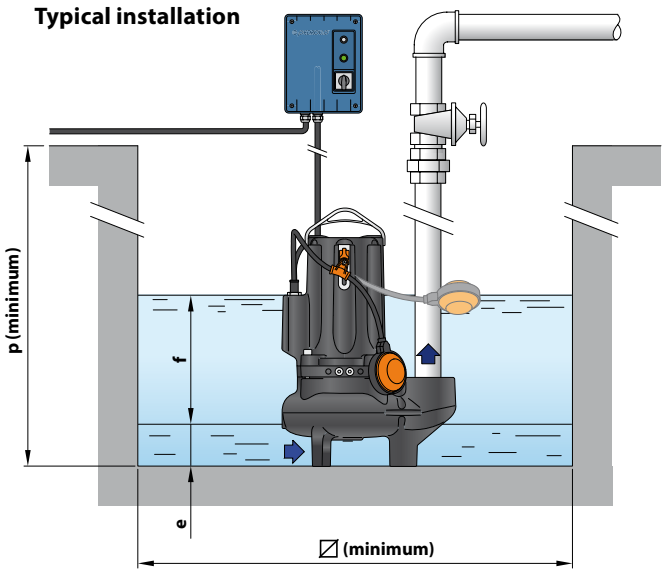
| TYPE | VOLTAGE |
|---|---|
| Single-phase | 220 V |
| VXCm 15/50 | 11.0 A |
| VXCm 20/50 | 12.0 A |
| VXCm 30/50 | 15.0 A |
| VXCm 15/65 | 11.0 A |
| VXCm 20/65 | 12.0 A |
| VXCm 30/65 | 15.0 A |

| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 380 V | 440 V |
| VXC 15/50 | 4.6 A | 4.0 A |
| VXC 20/50 | 5.0 A | 4.5 A |
| VXC 30/50 | 6.0 A | 5.3 A |
| VXC 40/50 | 7.0 A | 5.5 A |
| VXC 15/65 | 4.6 A | 4.0 A |
| VXC 20/65 | 5.0 A | 4.5 A |
| VXC 30/65 | 6.0 A | 5.3 A |
| VXC 40/65 | 7.0 A | 5.5 A |

## DIMENSIONS AND WEIGHT




Typical installation




| TYPE | | PORT | Passage of | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN | solid bodies | a | b | c | h | h1 | d | e | f | p | ⍁ | 1~ | 3~ |
| VXCm 15/50 | VXC 15/50 | 2½" | 50 mm | 162 | 119 | 212 | 487 | 167 | 242 | 75 | adjustable | 800 | 800 | 42.1 | 40.0 |
| VXCm 20/50 | VXC 20/50 | | | | | | | | | | | | | 43.0 | 42.0 |
| VXCm 30/50 | VXC 30/50 | | | | | | 513 \| 487 | | | | | | 48.0 | 44.0 |
| – | VXC 40/50 | | | | | | 513 | | | | | | | – | 48.0 |
| VXCm 15/65 | VXC 15/65 | 3" | 65 mm | 180 | 120 | 240 | 521 | 201 | 246 | 85 | | | | 44.0 | 42.5 |
| VXCm 20/65 | VXC 20/65 | | | | | | | | | | | | | 45.1 | 44.0 |
| VXCm 30/65 | VXC 30/65 | | | | | | 547 \| 521 | | | | | | 49.8 | 46.0 |
| – | VXC 40/65 | | | | | | 547 | | | | | | | – | 49.8 |

## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| Single-phase | Three-phase | n. pumps | n. pumps |
| VXCm 15/50 | VXC 15/50 | 16 | 24 |
| VXCm 20/50 | VXC 20/50 | 16 | 24 |
| VXCm 30/50 | VXC 30/50 | 12 \| 16 | 18 \| 24 |
| – | VXC 40/50 | 12 | 18 |
| VXCm 15/65 | VXC 15/65 | 12 | 18 |
| VXCm 20/65 | VXC 20/65 | 12 | 18 |
| VXCm 30/65 | VXC 30/65 | 12 | 18 |
| – | VXC 40/65 | 12 | 18 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment |
| 2 | **Impeller** | Cast iron VORTEX type with cataphoresis treatment |
| 3 | **Motor holder** | Cast iron with cataphoresis treatment |
| 4 | **Motor bracket** | Cast iron with cataphoresis treatment |
| 5 | **Motor shaft** | Stainless steel **AISI 431** |

**6 Double mechanical seal with interposed oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **STA-22** | Ø 22 mm | Motor side | Ceramic / Graphite / NBR |
| **STA-20** | Ø 20 mm | Pump side | Silicon carbide/Silicon carbide/NBR |

**7 Electric Motor**

**VXCm**: single-phase 220 V - 60 Hz with thermal motor protection

**VXC**: three-phase 380 V - 60 Hz or 440 V - 60 Hz
※ with winding integrated thermal motor protection (to be connected to the control panel supplied on request)

– Insulation: class F
– Protection rating: IP X8

**8 Power cord**

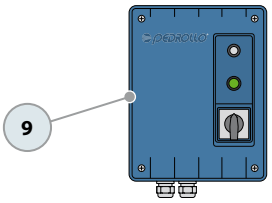
※ 10 metres 'H07 RN-F' type

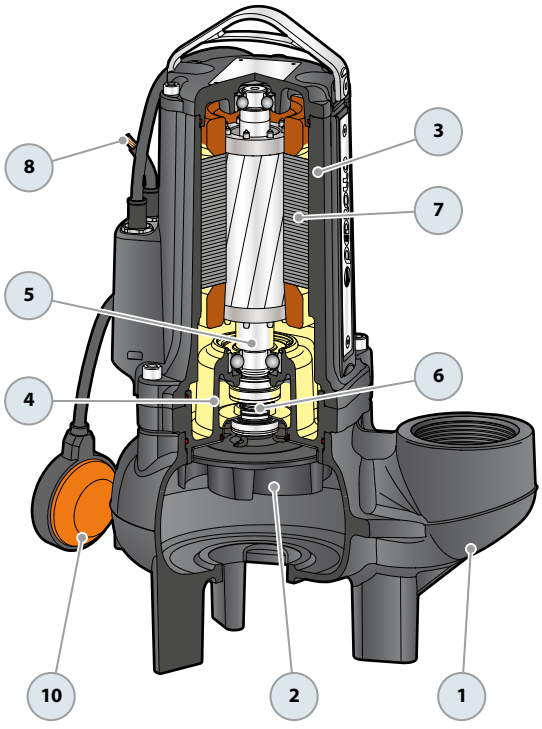
**9 Control panel**
(exclusive to single-phase models)

With capacitor and manual reset motor protection switch

**10 Float switch**
(exclusive to single-phase models)

**Control panel**
(standard for single-phase versions)




**OPTIONAL -** Support base
(Cod. ASSBAVM)



Sewage
Civil use
Industrial use

※ **High-quality materials and robust construction ensure superior performance and reliability**



## PERFORMANCE RANGE

- Flow rate up to **1600 l/min** (96 $m^3$/h)
- Head up to **25 m**

## INSTALLATION AND USE

The **MC** deries is constructed from thick cast iron, offering exceptional robustness, abrasion resistance, and longevity. Featuring **TWO-CHANNEL** impellers, these pumps are designed to drain liquids containing suspended solids and short fibers, as well as **sewage, wastewater, sludge-mixed water, activated and putrid sludge**.
They are suitable for a wide range of applications, including sewers, tunnels, excavations, canals, and underground parking facilities

## APPLICATION LIMITS

- Depth below water level up to **10 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Suspended solids transfer:
  – up to **Ø 50 mm** for MC /50
  – up to **Ø 65 mm** for MC /65
- **Minimum immersion for continuous service:**
  **– 320 mm for MC /50**
  **– 360 mm for MC /65**

## INCLUDES

※ Power cable length **10 m**
※ Float switch (exclusive to single-phase models)
※ Switchbox compatible with single-phase versions

## AVAILABLE UPON REQUEST

※ **QES** control panel for three-phase pumps
※ Different voltage or frequency

## WARRANTY

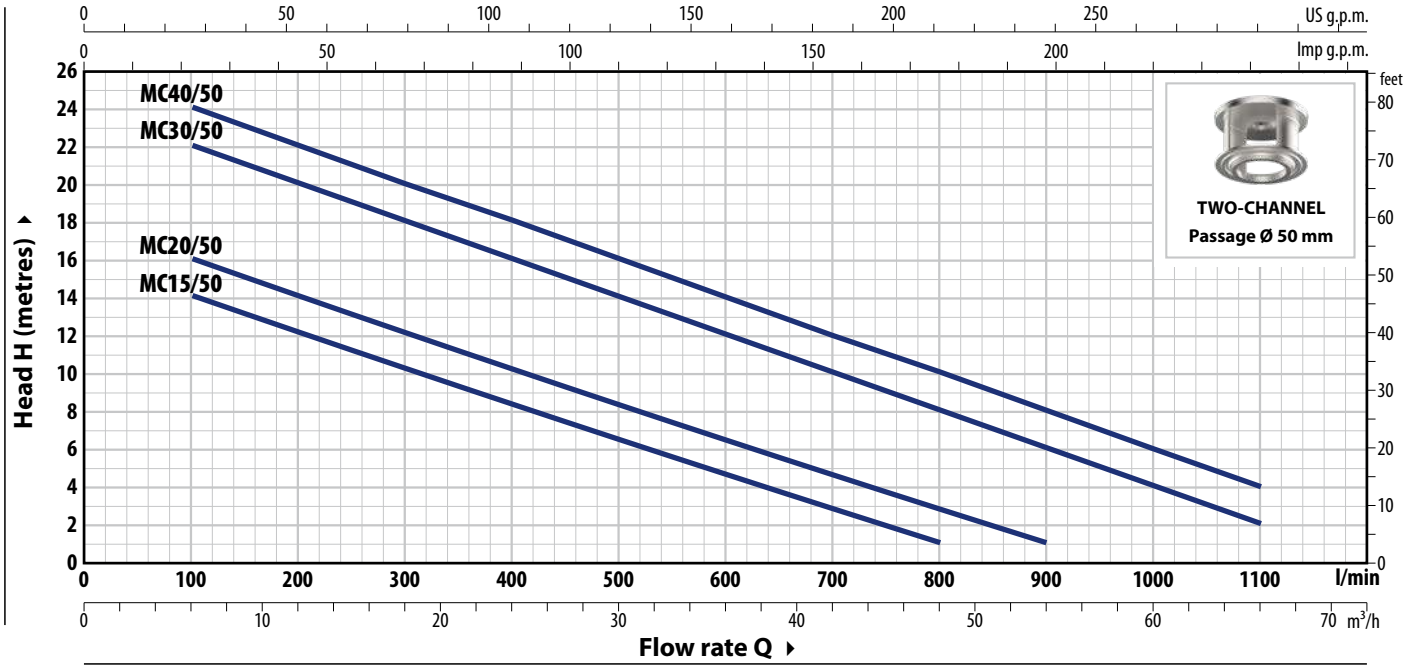
※ **The warranty for three-phase models remains valid only if the motor's built-in thermal protector is properly connected to the control panel. This connection is essential for the warranty's applicability.**

## PATENTS - TRADE MARKS - MODELS

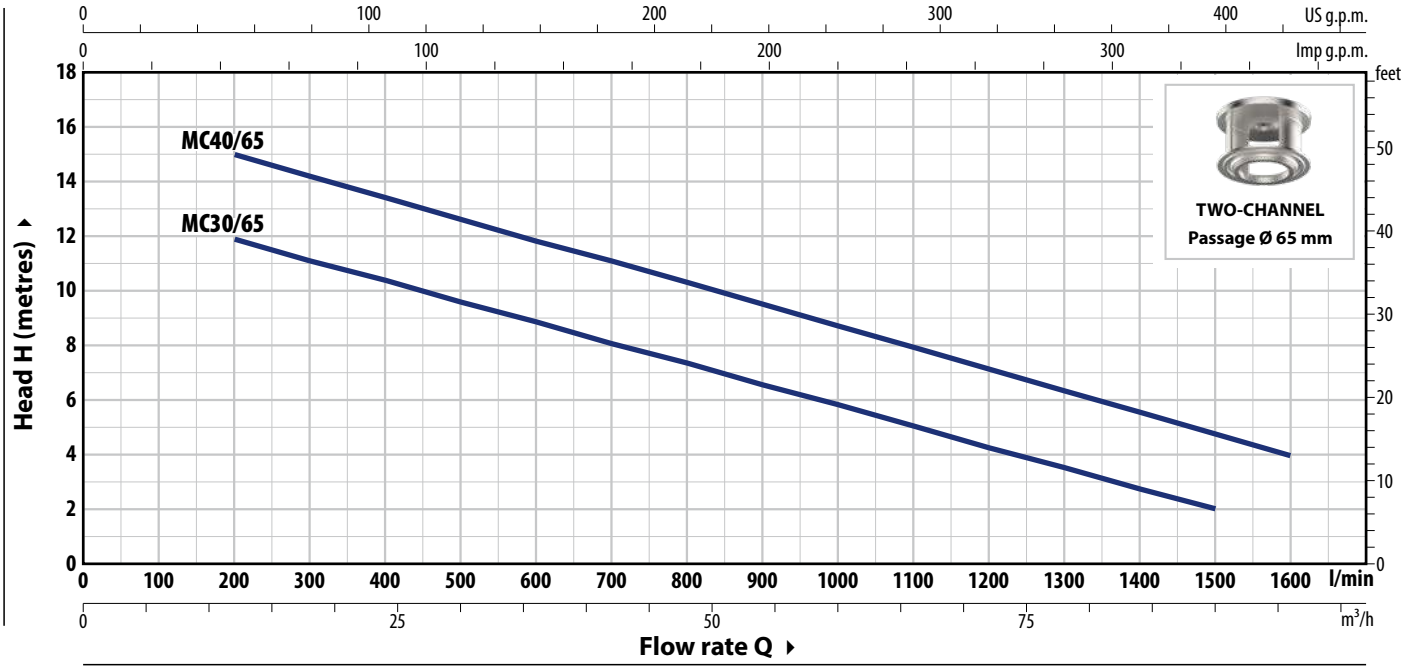
- Patent No. IT0001428923
- Registered Community Model No. 008625685-0001, No. 008625685-0002

## CURVES AND PERFORMANCE DATA

**60 Hz**




| TYPE | | POWER (P2) | | Q | m³/h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | | l/min | **0** | **100** | **200** | **300** | **400** | **500** | **600** | **700** | **800** | **900** | **1000** | **1100** |
| **MCm 15/50** | **MC 15/50** | 1.1 | 1.5 | **H** metres | | 16 | 14 | 12.5 | 10.5 | 8.5 | 6.5 | 4.5 | 3 | 1 | | | |
| **MCm 20/50** | **MC 20/50** | 1.5 | 2 | | | 18 | 16 | 14 | 12.5 | 10.5 | 8.5 | 6.5 | 5 | 3 | 1 | | |
| **MCm 30/50** | **MC 30/50** | 2.2 | 3 | | | 24 | 22 | 20 | 18 | 16 | 14 | 12 | 10 | 8 | 6 | 4 | 2 |
| – | **MC 40/50** | 3 | 4 | | | 25 | 24 | 22 | 20 | 18 | 16 | 14 | 12 | 10 | 8 | 6 | 4 |




| TYPE | | POWER (P2) | | Q | m³/h | 0 | 12 | 24 | 36 | 48 | 54 | 60 | 66 | 72 | 90 | 96 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-ph.** | **Three-ph.** | **kW** | **HP** | | l/min | **0** | **200** | **400** | **600** | **800** | **900** | **1000** | **1100** | **1200** | **1500** | **1600** |
| **MCm 30/65** | **MC 30/65** | 2.2 | 3 | **H** metres | | 13 | 12 | 10.5 | 9 | 7.5 | 6.5 | 6 | 5 | 4.5 | 2 | |
| – | **MC 40/65** | 3 | 4 | | | 17 | 15 | 13.5 | 12 | 10.5 | 9.5 | 8.5 | 8 | 7 | 4.8 | 4 |

**Q** = Flow rate **H** = Total manometric head

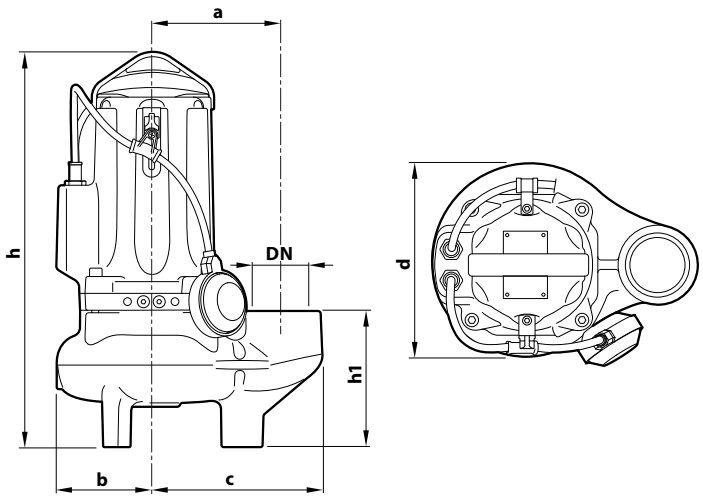
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## ABSORPTION

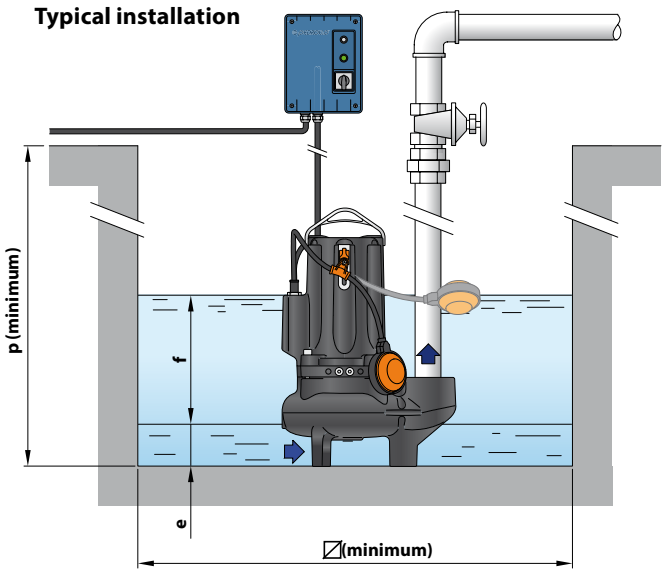
| TYPE | VOLTAGE |
|---|---|
| **Single-phase** | **220 V** |
| **MCm 15/50** | 12.0 A |
| **MCm 20/50** | 13.0 A |
| **MCm 30/50** | 19.0 A |
| **MCm 30/65** | 18.5 A |

| TYPE | VOLTAGE | |
|---|---|---|
| **Three-phase** | **380 V** | **440 V** |
| **MC 15/50** | 4.6 A | 4.0 A |
| **MC 20/50** | 5.2 A | 4.5 A |
| **MC 30/50** | 7.5 A | 5.5 A |
| **MC 40/50** | 8.5 A | 7.0 A |
| **MC 30/65** | 7.5 A | 5.5 A |
| **MC 40/65** | 8.5 A | 7.0 A |

## DIMENSIONS AND WEIGHT




**Typical installation**




| TYPE | | PORT | Passage of | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **DN** | **solid bodies** | a | b | c | h | h1 | d | e | f | p | ⍁ | 1~ | 3~ |
| **MCm 15/50** | **MC 15/50** | **2½"** | **50 mm** | 162 | 119 | 212 | 487 | 167 | 242 | 75 | adjustable | 800 | 800 | 42.0 | 40.0 |
| **MCm 20/50** | **MC 20/50** | | | | | | | | | | | | | 43.0 | 41.9 |
| **MCm 30/50** | **MC 30/50** | | | | | | 513 \| 487 | | | | | | 47.8 | 44.0 |
| – | **MC 40/50** | | | | | | 513 | | | | | | | – | 47.8 |
| **MCm 30/65** | **MC 30/65** | **3"** | **65 mm** | 180 | 120 | 240 | 547 \| 521 | 201 | 246 | 85 | | | | 50.0 | 46.0 |
| – | **MC 40/65** | | | | | | 547 | | | | | | | – | 49.8 |

## PALLET CAPACITY

| TYPE | | GROUPAGE | CONTAINER |
|---|---|---|---|
| **Single-phase** | **Three-phase** | n. pumps | n. pumps |
| **MCm 15/50** | **MC 15/50** | 16 | 18 |
| **MCm 20/50** | **MC 20/50** | 16 | 18 |
| **MCm 30/50** | **MC 30/50** | 12 \| 16 | 18 \| 24 |
| – | **MC 40/50** | 12 | 18 |
| **MCm 30/65** | **MC 30/65** | 12 | 18 |
| – | **MC 40/65** | 12 | 18 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment |
| 2 | **Impeller** | TWO-CHANNEL type in micro-cast **AISI 304** stainless steel |
| 3 | **Motor holder** | Cast iron with cataphoresis treatment |
| 4 | **Motor bracket** | Cast iron with cataphoresis treatment |
| 5 | **Motor shaft** | Stainless steel **AISI 431** |

**6 Double mechanical seal with interposed oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **STA-22** | Ø 22 mm | Motor side | Ceramic / Graphite / NBR |
| **STA-20** | Ø 20 mm | Pump side | Silicon carbide/Silicon carbide/NBR |

**7 Electric Motor**

**MCm**: single-phase 220 V - 60 Hz with thermal motor protection

**MC**: three-phase 380 V - 60 Hz or 440 V - 60 Hz
※ with winding integrated thermal motor protection (to be connected to the control panel supplied on request)

– Insulation: class F
– Protection rating: IP X8

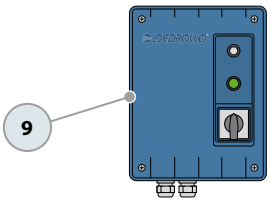
**8 Power cord**
※ 10 metres 'H07 RN-F' type

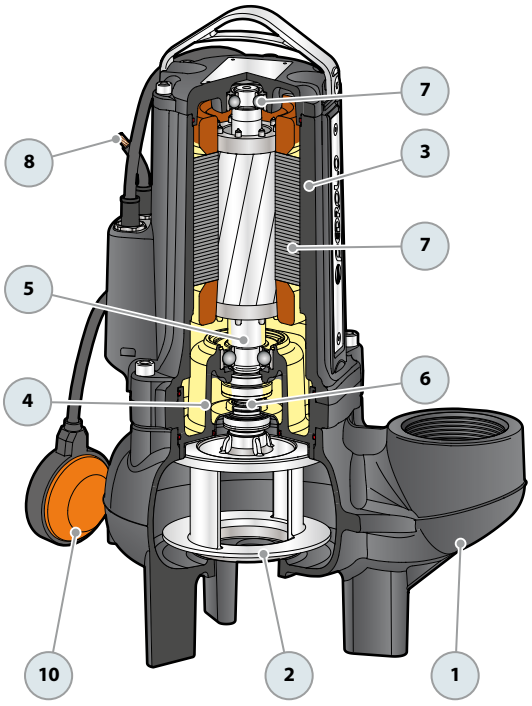
**9 Switchbox** compatible with MCm 15-20-30
(exclusive to single-phase models)

With capacitor and manual reset motor protection switch

**10 Float switch**
(exclusive to single-phase models)

**Control panel**
(standard for single-phase versions)




**OPTIONAL -** Support base
(Cod. ASSBAVM)



Sewage
Civil use
Industrial use

※ **High quality materials and robustness assure superior performance and reliability**



## PERFORMANCE RANGE

- Flow rate up to **1250 l/min** (75 $m^3$/h)
- Head up to **20 m**

## INSTALLATION AND USE

The **VXC-F** series is constructed from thick cast iron, offering exceptional robustness, abrasion resistance, and longevity.
Featuring VORTEX-type impellers, these pumps are designed to drain **wastewater, sludge-mixed water, liquids with air or gas, as well as activated and putrid sludge**.
Recommended for stationary installation in sewers, tunnels, shafts, underground parking facilities, and specialized manholes.

## APPLICATION LIMITS

- Depth below water level up to **10 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Suspended solids transfer:
  – up to **Ø 50 mm** for **VXC /50-F**
  – up to **Ø 65 mm** for **VXC /65-F**
- **Continuous operation of the pump even when completely uncovered.**

## INCLUDES

※ Power cable length **10 m**
※ Float switch (exclusive to single-phase models)
※ Switchbox compatible with single-phase versions

## AVAILABLE UPON REQUEST

※ Coupling foot kit
※ **QES** control panel for three-phase pumps
※ Different voltage or frequency

## WARRANTY

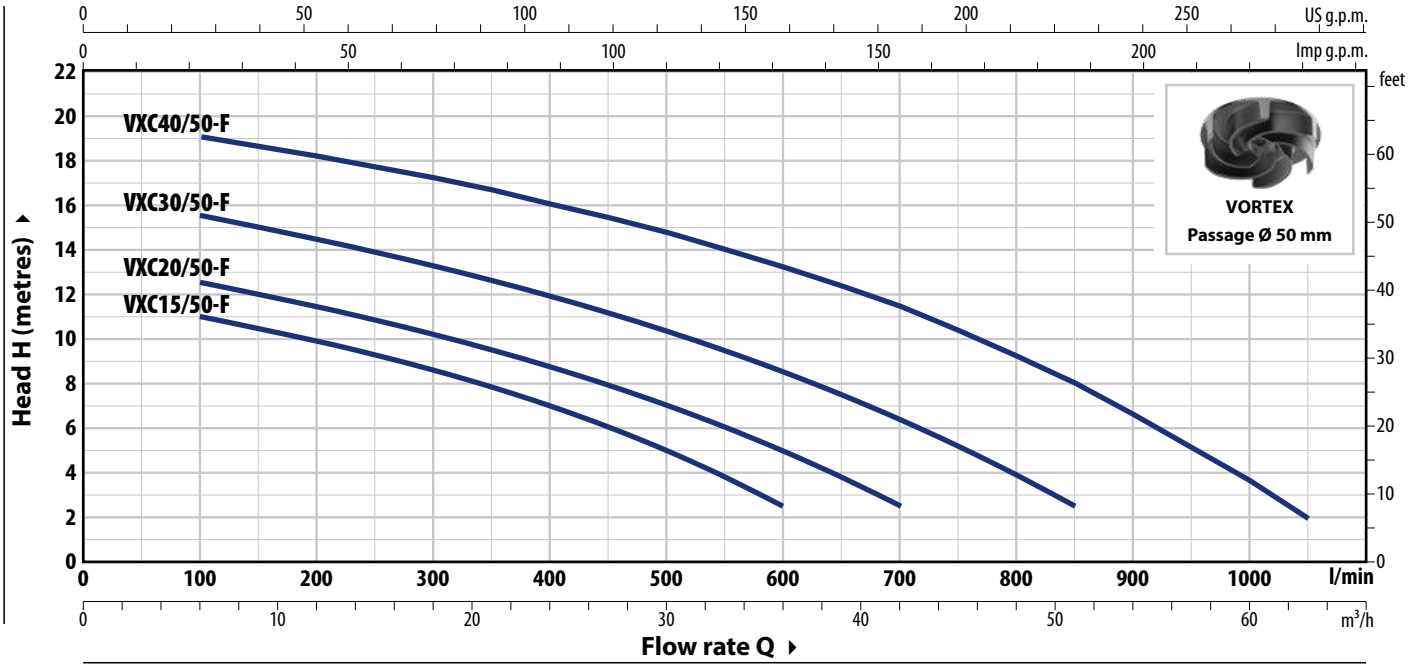
※ **The warranty for three-phase models remains valid only if the motor's built-in thermal protector is properly connected to the control panel. This connection is essential for the warranty's applicability.**

## PATENTS - TRADE MARKS - MODELS

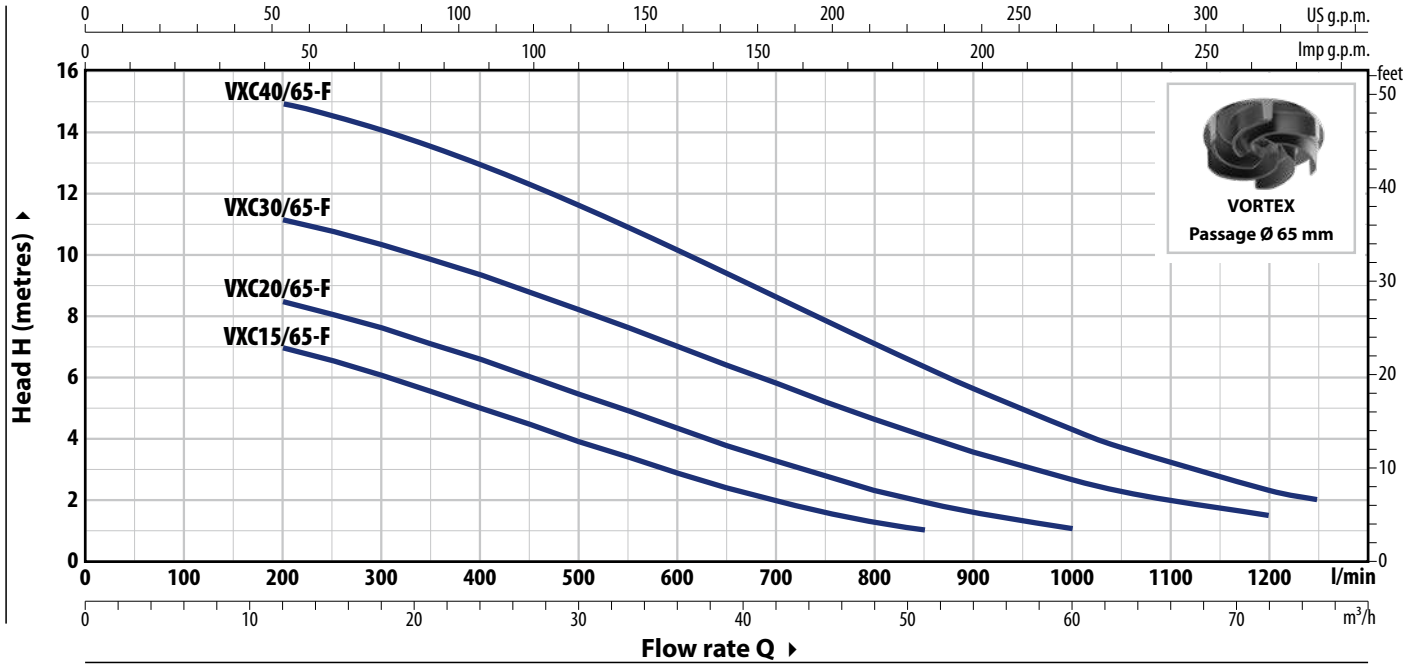
- Patent No. IT0001428923

## CURVES AND PERFORMANCE DATA

**60 Hz**




| TYPE | | POWER (P2) | | Q m³/h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 51 | 60 | 63 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | l/min | **0** | **100** | **200** | **300** | **400** | **500** | **600** | **700** | **850** | **1000** | **1050** |
| **VXCm 15/50-F** | **VXC 15/50-F** | 1.1 | 1.5 | **H** metres | 12 | 11 | 10 | 8.6 | 7 | 5 | 2.5 | | | | |
| **VXCm 20/50-F** | **VXC 20/50-F** | 1.5 | 2 | | 13.5 | 12.5 | 11.4 | 10.2 | 8.7 | 7 | 5 | 2.5 | | | |
| **VXCm 30/50-F** | **VXC 30/50-F** | 2.2 | 3 | | 16.5 | 15.5 | 14.4 | 13.2 | 12 | 10.3 | 8.5 | 6.4 | 2.5 | | |
| – | **VXC 40/50-F** | 3 | 4 | | 20 | 19 | 18 | 17 | 16 | 14.7 | 13.2 | 11.4 | 8 | 3.6 | 2 |




| TYPE | | POWER (P2) | | Q m³/h | 0 | 12 | 24 | 36 | 42 | 51 | 60 | 63 | 72 | 75 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | l/min | **0** | **200** | **400** | **600** | **700** | **850** | **1000** | **1050** | **1200** | **1250** |
| **VXCm 15/65-F** | **VXC 15/65-F** | 1.1 | 1.5 | **H** metres | 8 | 7 | 5 | 2.8 | 2 | 1 | | | | |
| **VXCm 20/65-F** | **VXC 20/65-F** | 1.5 | 2 | | 9.5 | 8.5 | 6.6 | 4.3 | 3.3 | 2 | 1 | | | |
| **VXCm 30/65-F** | **VXC 30/65-F** | 2.2 | 3 | | 12 | 11 | 9.3 | 7 | 5.8 | 4 | 2.6 | 2.3 | 1.5 | |
| – | **VXC 40/65-F** | 3 | 4 | | 15.5 | 15 | 13 | 10 | 8.6 | 6.3 | 4.3 | 3.7 | 2.3 | 2 |

**Q** = Flow rate **H** = Total manometric head

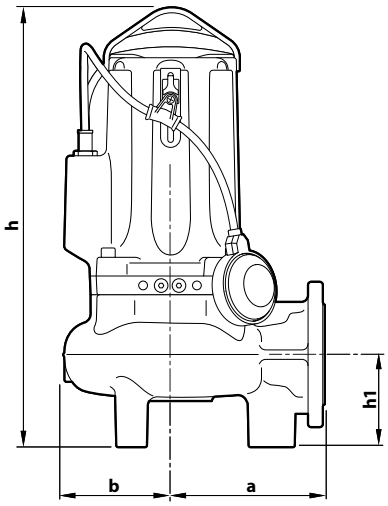
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

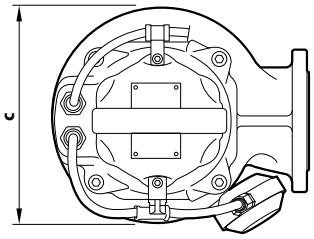
## ABSORPTION

| TYPE | VOLTAGE |
|---|---|
| Single-phase | 220 V |
| VXCm 15/50-F | 11.0 A |
| VXCm 20/50-F | 12.0 A |
| VXCm 30/50-F | 15.0 A |
| VXCm 15/65-F | 11.0 A |
| VXCm 20/65-F | 12.0 A |
| VXCm 30/65-F | 15.0 A |

| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 380 V | 440 V |
| VXC 15/50-F | 4.6 A | 4.0 A |
| VXC 20/50-F | 5.0 A | 4.5 A |
| VXC 30/50-F | 6.0 A | 5.3 A |
| VXC 40/50-F | 7.0 A | 5.5 A |
| VXC 15/65-F | 4.6 A | 4.0 A |
| VXC 20/65-F | 5.0 A | 4.5 A |
| VXC 30/65-F | 6.0 A | 5.3 A |
| VXC 40/65-F | 7.0 A | 5.5 A |

## DIMENSIONS AND WEIGHT

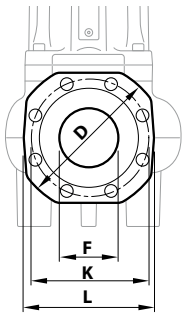



| TYPE | | Passage of solid bodies | DIMENSIONS mm | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | | a | b | c | h | h1 | 1~ | 3~ |
| VXCm 15/50-F | VXC 15/50-F | 50 mm | 170 | 119 | 242 | 487 | 102 | 43.6 | 42.0 |
| VXCm 20/50-F | VXC 20/50-F | | | | | | | 44.6 | 43.3 |
| VXCm 30/50-F | VXC 30/50-F | | | | | 513 \| 487 | | 49.5 | 45.5 |
| – | VXC 40/50-F | | | | | 513 | | – | 50.0 |
| VXCm 15/65-F | VXC 15/65-F | 65 mm | 210 | 120 | 246 | 521 | 123 | 46.0 | 44.7 |
| VXCm 20/65-F | VXC 20/65-F | | | | | | | 47.1 | 46.0 |
| VXCm 30/65-F | VXC 30/65-F | | | | | 547 \| 521 | | 51.8 | 48.0 |
| – | VXC 40/65-F | | | | | 547 | | – | 51.8 |

## PORT FLANGE

| TYPE | FLANGE | F | K | D | L | HOLES | |
|---|---|---|---|---|---|---|---|
| | | | mm | mm | mm | N° | Ø (mm) |
| VXC /50-F | DN65 (PN10) | 2½" | 145 | 185 | 160 | 4 | 18 |
| VXC /65-F | DN80 (PN10) | 3" | 160 | 200 | 180 | 8 | 18 |



## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment with flanged and threaded ISO 228/1 port |
| 2 | **Impeller** | Cast iron VORTEX type with cataphoresis treatment |
| 3 | **Motor holder** | Cast iron with cataphoresis treatment |
| 4 | **Motor bracket** | Cast iron with cataphoresis treatment |
| 5 | **Motor shaft** | Stainless steel **AISI 431** |

**6 Double mechanical seal with interposed oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **STA-22** | Ø 22 mm | Motor side | Ceramic / Graphite / NBR |
| **STA-20** | Ø 20 mm | Pump side | Silicon carbide/Silicon carbide/NBR |

**7 Electric Motor**

**VXCm-F**: single-phase 220 V - 60 Hz
with thermal motor protection

**VXC-F**: three-phase 380 V - 60 Hz or 440 V - 60 Hz
※ with winding integrated thermal motor protection (to be connected to the control panel supplied on request)

– Insulation: class F
– Protection rating: IP X8

**8 Power cord**

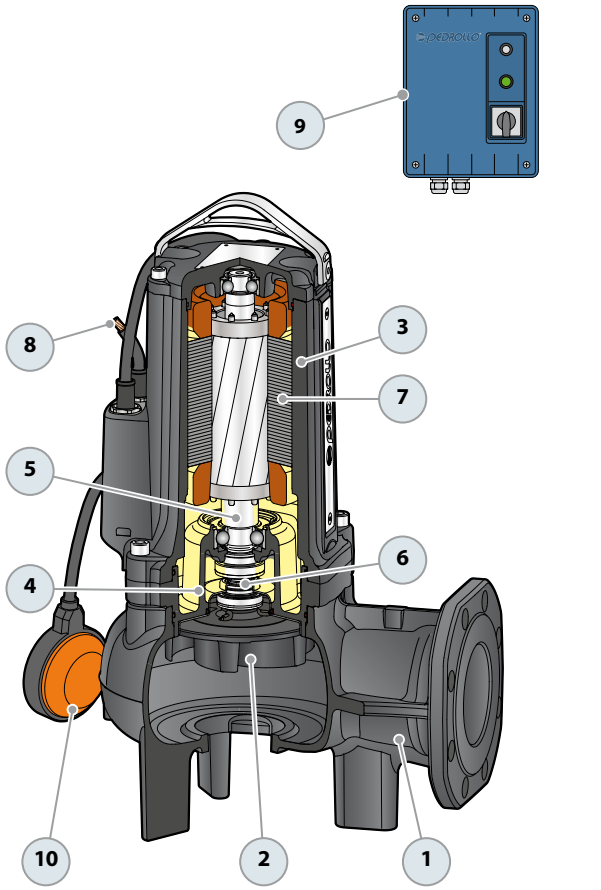
※ 10 metres 'H07 RN-F' type

**9 Control panel**
(exclusive to single-phase models)

With capacitor and manual reset motor protection switch

**10 Float switch**
(exclusive to single-phase models)

**Control panel**
(standard for single-phase versions)




**OPTIONAL -** Support base
(Cod. ASSBAVM)



Sewage
Civil use
Industrial use

※ **High quality materials and robustness assure superior performance and reliability**



## PERFORMANCE RANGE

- Flow rate up to **1600 l/min** (96 $m^3$/h)
- Head up to **25 m**

## INSTALLATION AND USE

The **MC-F** series is constructed from thick cast iron, offering exceptional robustness, abrasion resistance, and longevity. Featuring **TWO-CHANNEL** impellers, these pumps are designed to drain liquids containing suspended solids and short fibers, as well as wastewater, **sewage, sludge-mixed water, groundwater, and surface water** in various settings including apartment buildings, public facilities, industrial sites, parking facilities, and washing areas.

## APPLICATION LIMITS

- Depth below water level up to **10 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Suspended solids transfer:
  – up to **Ø 50 mm** for **MC /50-F**
  – up to **Ø 65 mm** for **MC /65-F**
- **Minimum immersion for continuous service:**
  **– 320 mm for MC /50**
  **– 360 mm for MC /65**

## INCLUDES

※ Power cable length **10 m**
※ Float switch (exclusive to single-phase models)
※ Switchbox compatible with single-phase versions

## AVAILABLE UPON REQUEST

※ Coupling foot kit
※ **QES** control panel for three-phase pumps
※ Different voltage or frequency

## WARRANTY

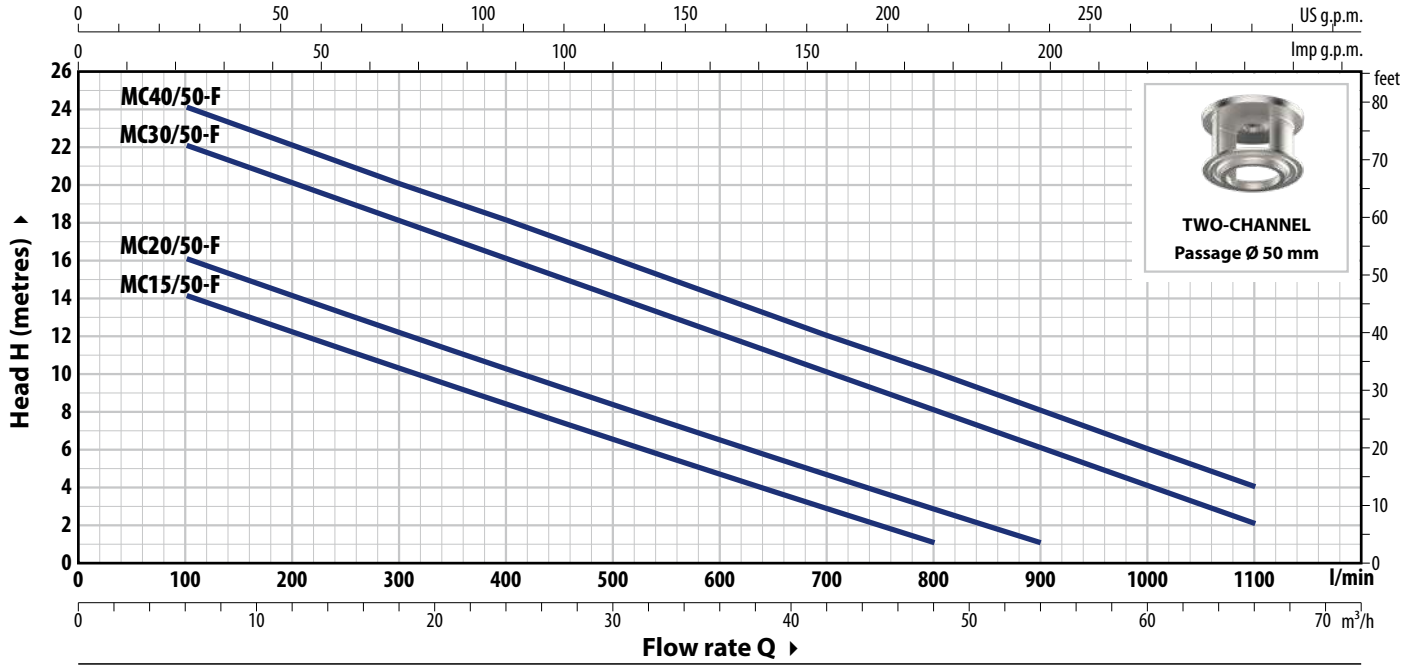
※ **The warranty for three-phase models remains valid only if the motor's built-in thermal protector is properly connected to the control panel. This connection is essential for the warranty's applicability.**

## PATENTS - TRADE MARKS - MODELS

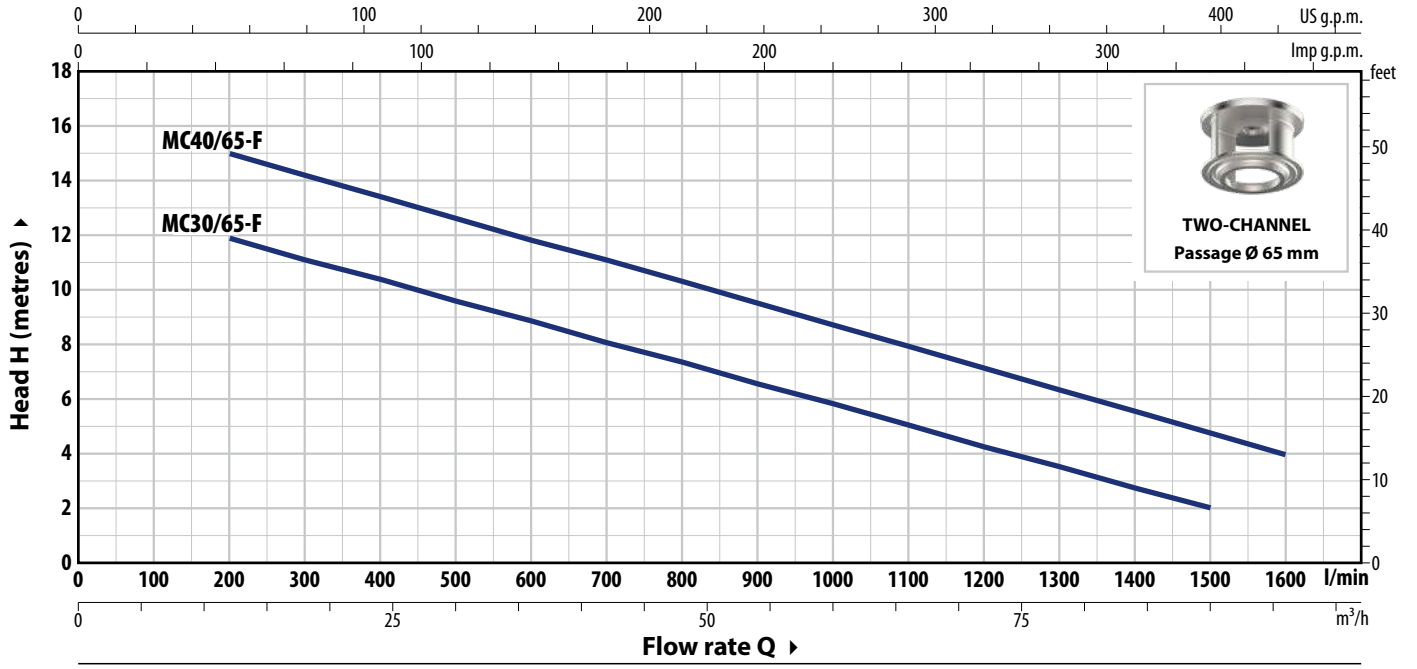
- Patent No. IT0001428923

## CURVES AND PERFORMANCE DATA

**60 Hz**




| TYPE | | POWER (P2) | | Q m³/h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | l/min | **0** | **100** | **200** | **300** | **400** | **500** | **600** | **700** | **800** | **900** | **1000** | **1100** |
| **MCm 15/50-F** | **MC 15/50-F** | 1.1 | 1.5 | H metres | 16 | 14 | 12.5 | 10.5 | 8.5 | 6.5 | 4.5 | 3 | 1 | | | |
| **MCm 20/50-F** | **MC 20/50-F** | 1.5 | 2 | | 18 | 16 | 14 | 12.5 | 10.5 | 8.5 | 6.5 | 5 | 3 | 1 | | |
| **MCm 30/50-F** | **MC 30/50-F** | 2.2 | 3 | | 24 | 22 | 20 | 18 | 16 | 14 | 12 | 10 | 8 | 6 | 4 | 2 |
| – | **MC 40/50-F** | 3 | 4 | | 25 | 24 | 22 | 20 | 18 | 16 | 14 | 12 | 10 | 8 | 6 | 4 |




| TYPE | | POWER (P2) | | Q m³/h | 0 | 12 | 24 | 36 | 48 | 60 | 66 | 72 | 90 | 96 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | l/min | **0** | **200** | **400** | **600** | **800** | **1000** | **1100** | **1200** | **1500** | **1600** |
| **MCm 30/65-F** | **MC 30/65-F** | 2.2 | 3 | H metres | 13 | 12 | 10.5 | 9 | 7.5 | 6 | 5 | 4.5 | 2 | |
| – | **MC 40/65-F** | 3 | 4 | | 17 | 15 | 13.5 | 12 | 10.5 | 8.5 | 8 | 7 | 4.8 | 4 |

**Q** = Flow rate **H** = Total manometric head

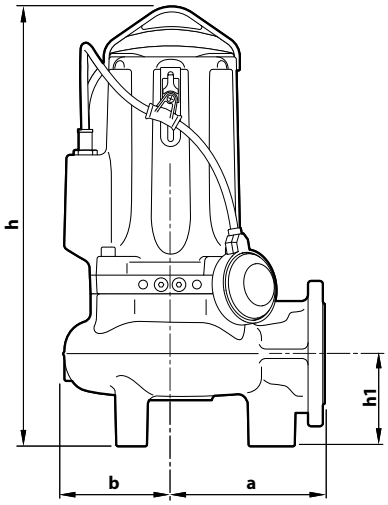
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

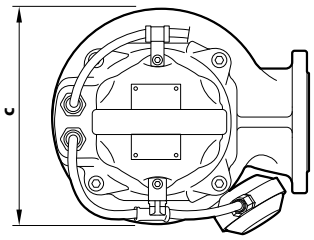
## ABSORPTION

| TYPE | VOLTAGE |
|---|---|
| **Single-phase** | **220 V** |
| **MCm 15/50-F** | 12.0 A |
| **MCm 20/50-F** | 13.0 A |
| **MCm 30/50-F** | 19.0 A |
| **MCm 30/65-F** | 18.5 A |

| TYPE | VOLTAGE | |
|---|---|---|
| **Three-phase** | **380 V** | **440 V** |
| **MC 15/50-F** | 4.6 A | 4.0 A |
| **MC 20/50-F** | 5.2 A | 4.5 A |
| **MC 30/50-F** | 7.5 A | 5.5 A |
| **MC 40/50-F** | 8.5 A | 7.0 A |
| **MC 30/65-F** | 7.5 A | 5.5 A |
| **MC 40/65-F** | 8.5 A | 7.0 A |

## DIMENSIONS AND WEIGHT

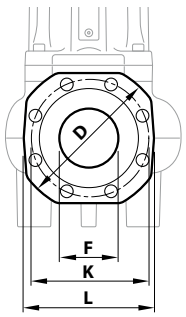



| TYPE | | Passage of solid bodies | DIMENSIONS mm | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | | a | b | c | h | h1 | 1~ | 3~ |
| **MCm 15/50-F** | **MC 15/50-F** | **50 mm** | 170 | 119 | 242 | 487 | 102 | 43.6 | 42.0 |
| **MCm 20/50-F** | **MC 20/50-F** | | | | | | | 44.6 | 43.5 |
| **MCm 30/50-F** | **MC 30/50-F** | | | | | 513 \| 487 | | 50.0 | 45.5 |
| – | **MC 40/50-F** | | | | | 513 | | – | 49.8 |
| **MCm 30/65-F** | **MC 30/65-F** | **65 mm** | 210 | 120 | 246 | 547 \| 521 | 123 | 51.8 | 48.0 |
| – | **MC 40/65-F** | | | | | 547 | | – | 52.8 |

## PORT FLANGE

| TYPE | FLANGE | F | K | D | L | HOLES | |
|---|---|---|---|---|---|---|---|
| | | | mm | mm | mm | N° | Ø (mm) |
| **MC /50-F** | **DN65** (PN10) | **2½"** | 145 | 185 | 160 | 4 | 18 |
| **MC /65-F** | **DN80** (PN10) | **3"** | 160 | 200 | 180 | 8 | 18 |



## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment with flanged and threaded ISO 228/1 port |
| 2 | **Impeller** | TWO-CHANNEL type in micro-cast **AISI 304** stainless steel |
| 3 | **Motor holder** | Cast iron with cataphoresis treatment |
| 4 | **Motor bracket** | Cast iron with cataphoresis treatment |
| 5 | **Motor shaft** | Stainless steel **AISI 431** |

**6 Double mechanical seal with interposed oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **STA-22** | Ø 22 mm | Motor side | Ceramic / Graphite / NBR |
| **STA-20** | Ø 20 mm | Pump side | Silicon carbide/Silicon carbide/NBR |

**7 Electric Motor**

**MCm-F**: single-phase 220 V - 60 Hz
with thermal motor protection

**MC-F**: three-phase 380 V - 60 Hz or 440 V - 60 Hz
※ with winding integrated thermal motor protection (to be connected to the control panel supplied on request)

– Insulation: class F
– Protection rating: IP X8

**8 Power cord**

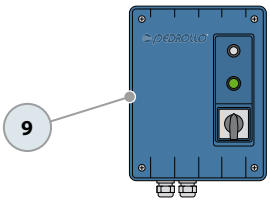
※ 10 metres 'H07 RN-F' type

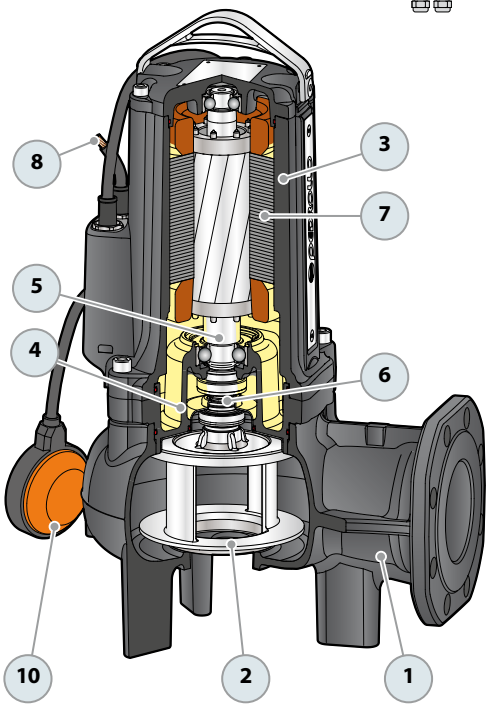
**9 Control panel**
(exclusive to single-phase models)

With capacitor and manual reset motor protection switch

**10 Float switch**
(exclusive to single-phase models)

**Control panel**
(standard for single-phase versions)




## OPTIONAL - Support base

(Cod. ASSBAVM)



# SEWAGE LIFTING SYSTEM VXC-F - MC-F

## VERSION WITH HORIZONTAL DELIVERY AND ¾" GUIDE PIPES

| | | |
|---|---|---|
| For **VXC /50-F, MC /50-F** | Code ASSVXCF051 | **DN 2"** |

※ **Kit consisting of:**



Coupling foot



Slide rail with screws and gasket



Support for guide tubes



## VERSION WITH VERTICAL DELIVERY AND ¾" GUIDE PIPES

| | | |
|---|---|---|
| For **VXC /50-F, MC /50-F** | Code ASSVXCF051V | **DN 2½"** |
| For **VXC /65-F, MC /65-F** | Code ASSVXCF071V | **DN 3"** |

## VERSION WITH VERTICAL DELIVERY AND 2" GUIDE TUBES

| | | |
|---|---|---|
| For **VXC /50-F, MC /50-F** | Code ASSVXCF0704V | **DN 3"** |
| For **VXC /65-F, MC /65-F** | Code ASSVXCF0705V | |

※ **Kit consisting of:**



Coupling foot complete with counterflange



Slide rail with screws and gasket



Support for guide tubes



## ● ACCESSORIES AVAILABLE FOR ORDER

### RUNNING GUIDE

| | |
|---|---|
| ※ For VXC /50-F, MC /50-F with guide tubes Ø ¾". | Code ASSFL0017 |
| ※ For VXC /65-F, MC /65-F with guide tubes Ø ¾". | Code ASSFL0018 |
| ※ For VXC /50-F, MC /50-F with guide tubes Ø 2". | Code ASSFL071 |
| ※ For VXC /65-F, MC /65-F with guide tubes Ø 2". | Code ASSFL072 |

Complete with screws and seals



for Ø ¾" guide tubes



for guide tubes Ø 2"

### INTERMEDIATE GUIDE TUBE SUPPORT

| | |
|---|---|
| ※ For Ø ¾" guide tubes | Code 859SV340INTFA |
| ※ For guide tubes Ø 2" | Code 859SV349INTFA |

For reasons of stability, interpose a support:
– every 2 metres with ¾ " guide pipes (mandatory)
– every 3 metres with 2" guide tubes (recommended)



for Ø ¾" guide tubes



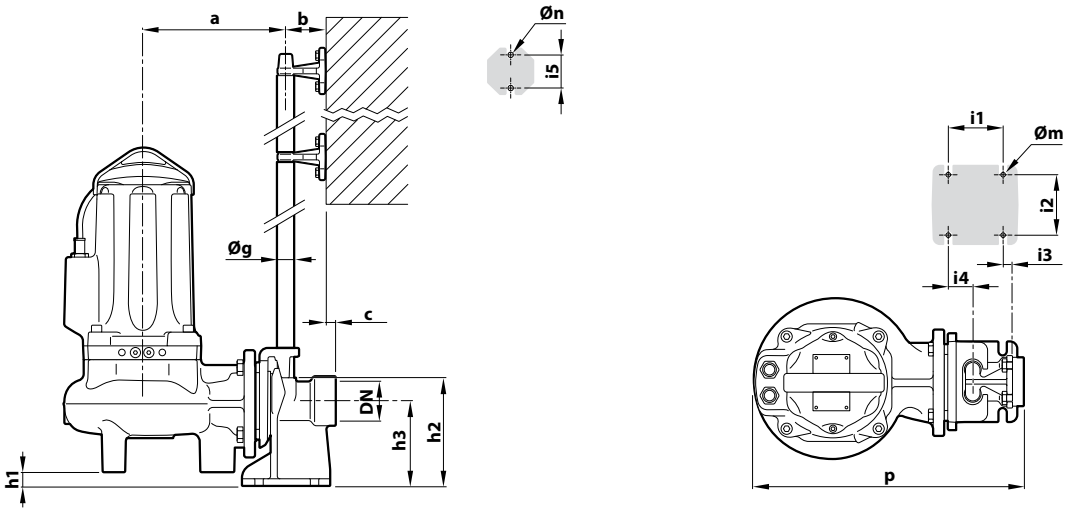
for guide tubes Ø 2"

### GUIDE TUBE (AISI 304 stainless steel)

| | |
|---|---|
| ※ 2 metres Ø ¾" guide tube | Code 54SARTG0052F |
| ※ 3 metres Ø ¾" guide tube | Code 54SARTG0053F |
| ※ 6 metres Ø ¾" guide tube | Code 54SARTG0056F |
| ※ 3 metres Ø 2" guide tube | Code 54SARTG0063F |
| ※ 6 metres guide tube Ø 2" | Code 54SARTG0066F |

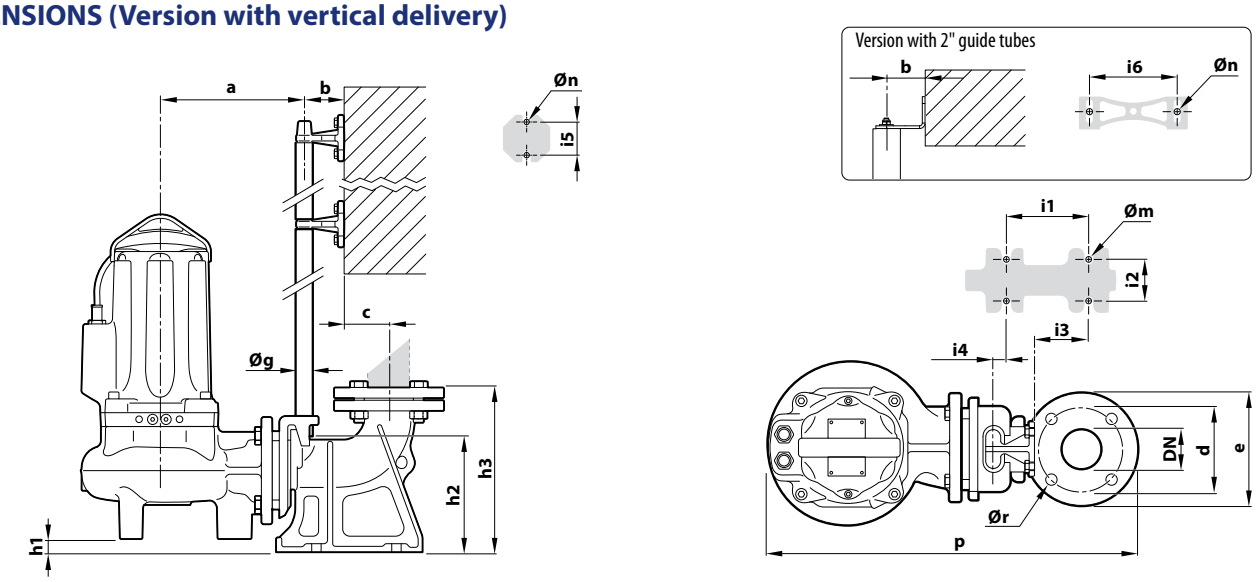


## DIMENSIONS (Version with horizontal outlet)




| TYPE | Solid bodies mm | PORT DN | DIMENSIONS mm | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | a | b | c | p | h1 | h2 | h3 | i1 | i2 | i3 | i4 | i5 | Øg | Øm | Øn |
| VXC /50 -F<br>MC /50 -F | Ø 50 | 2" | 216 | 61 | 17 | 412 | 28 | 165 | 130 | 85 | 94 | 16 | 40 | 50 | ¾" | 12 | 11 |

## DIMENSIONS (Version with vertical delivery)




### Version with ¾" guide tubes

| TYPE | Solid bodies mm | PORT DN | DIMENSIONS mm | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | a | b | c | d | e | p | h1 | h2 | h3 | i1 | i2 | i3 | i4 | i5 | Øg | Øm | Øn | Ør |
| VXC /50 -F<br>MC /50 -F | Ø 50 mm | 2½" | 213 | 61 | 52 | 125 | 165 | 526 | 25.5 | 164 | 215 | 120 | 72 | 62 | 3 | 50 | ¾" | 14 | 11 | 18 |
| VXC /65 -F<br>MC /65 -F | Ø 65 mm | 3" (PN6) | 253 | 61 | 69 | 150 | 190 | 598 | 46 | 216 | 279 | 130 | 112 | 84 | 15 | 50 | ¾" | 14 | 11 | 18 |

### Version with 2" guide tubes

| TYPE | Solid bodies mm | PORT DN | DIMENSIONS mm | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | a | b | c | d | e | p | h1 | h2 | h3 | i1 | i2 | i3 | i4 | i5 | i6 | Øg | Øm | Øn | Ør |
| VXC /50 -F<br>MC /50 -F | Ø 50 mm | 3" (PN10) | 320 | 85 | 95 | 160 | 200 | 718 | 105 | 265 | 392 | 250 | 150 | 35 | -130 | – | 187 | 2" | 22 | 13.5 | 18 |
| VXC /65 -F<br>MC /65 -F | Ø 65 mm | 3" (PN10) | 359 | 85 | 95 | 160 | 200 | 760 | 84 | 256 | 392 | 250 | 150 | 35 | -130 | – | 187 | 2" | 22 | 13.5 | 18 |

Sewage
Civil use
Industrial use

※ **Advanced design and high-quality materials assure long-term performance and reliability**




## PERFORMANCE RANGE

- Flow rate up to **1800 l/min** (108 m³/h)
- Head up to **27 m**

## INSTALLATION AND USE

The **VX** series is constructed from thick stainless steel and cast iron, offering exceptional robustness, abrasion resistance, and durability. The pumps feature **VORTEX**-type impellers, renowned for their reliable operation and minimal risk of clogging.
Recommended for various applications including sewage with suspended solids, wastewater, rainwater, city sewage, and industrial wastewater.
They are suitable for a wide range of applications, including sewers, tunnels, excavations, canals, and underground parking facilities.

## ELECTRIC MOTOR

※ **The electric motor is safeguarded by a special three-phase thermal protector, situated within the motor, which activates in case of overheating or abnormal power consumption.**

## INCLUDES

※ Power cable length **10 m**

## APPLICATION LIMITS

- Depth below water level up to **10 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Suspended solids transfer:
  – up to **Ø 50 mm** for VX/50
  – up to **Ø 65 mm** for VX/65
  – up to **Ø 80 mm** for VX/80
- **Minimum immersion for continuous service: 500 mm**

## AVAILABLE UPON REQUEST

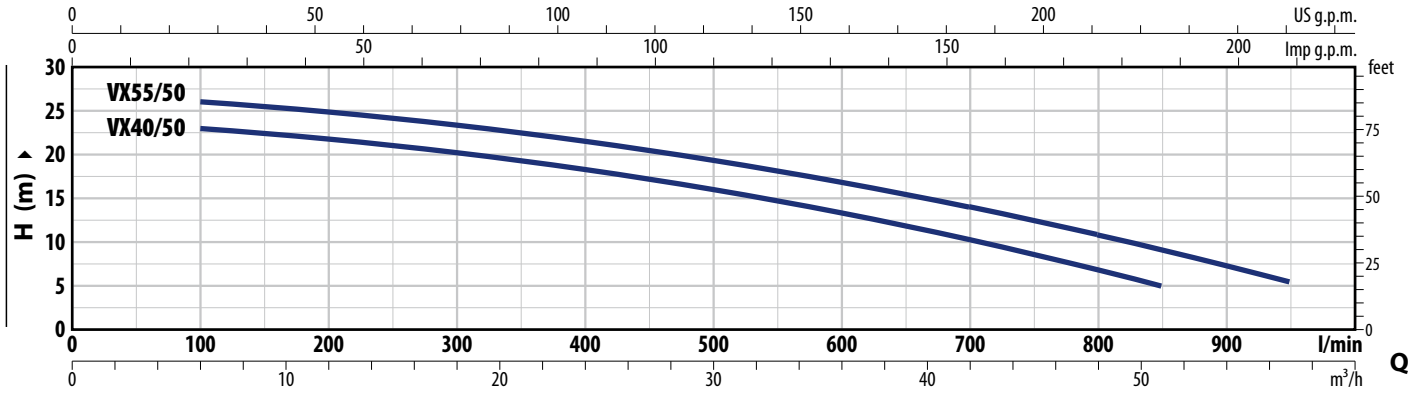
※ Different voltage requirements or frequency

## PATENTS - TRADE MARKS - MODELS

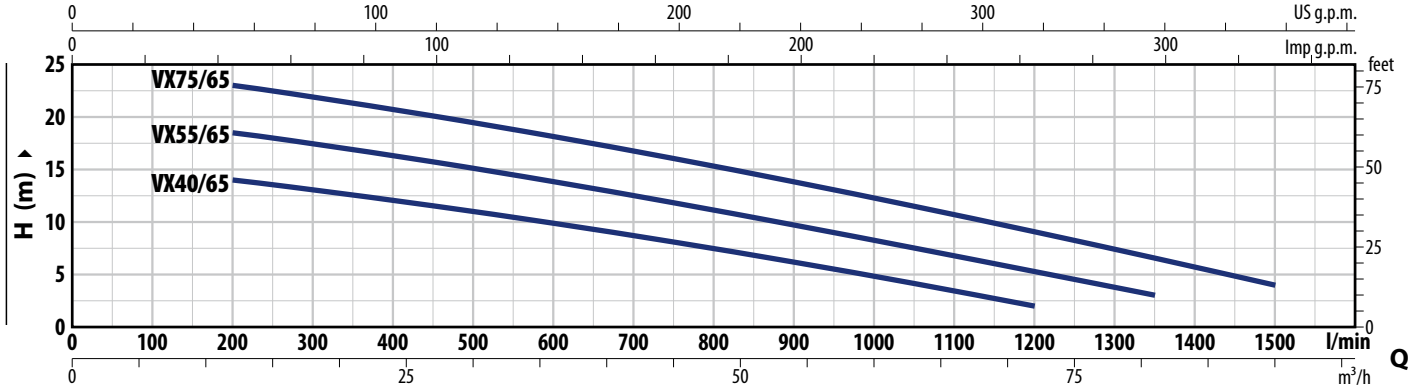
- Registered Community Model No. 003863158-0002

## CURVES AND PERFORMANCE DATA

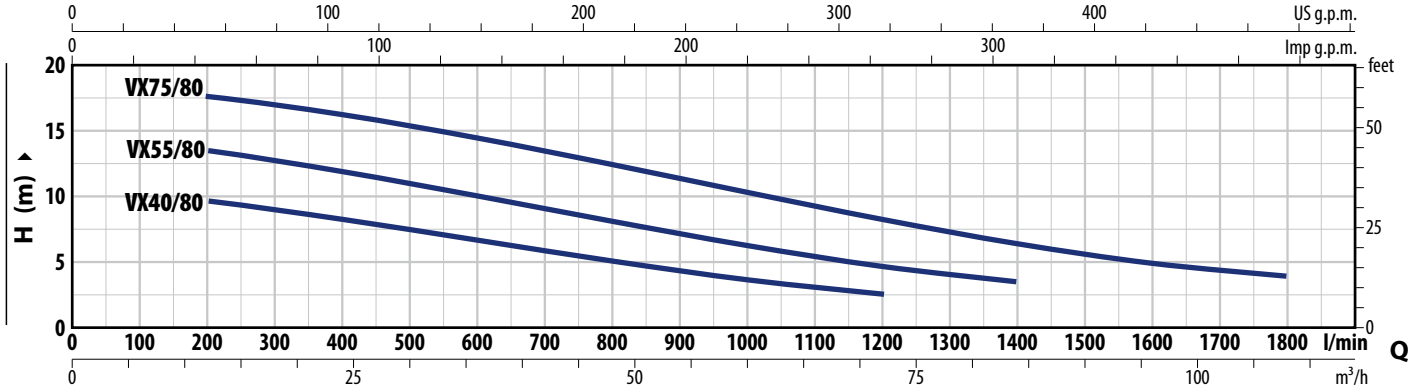
## 60 Hz




| TYPE Three-phase | POWER (P2) kW | POWER (P2) HP | Q m³/h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 51 | 57 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Q l/min | **0** | **100** | **200** | **300** | **400** | **500** | **600** | **700** | **800** | **850** | **950** |
| **VX 40/50** | 3 | 4 | **H** m | 24 | 23 | 21.8 | 20.3 | 18.4 | 16.1 | 13.4 | 10.3 | 6.9 | 5 | |
| **VX 55/50** | 4 | 5.5 | | 27 | 26 | 25 | 23.4 | 21.6 | 19.4 | 16.9 | 14 | 10.9 | 9.2 | 5.5 |




| TYPE Three-phase | POWER (P2) kW | POWER (P2) HP | Q m³/h | 0 | 12 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Q l/min | **0** | **200** | **300** | **450** | **600** | **750** | **900** | **1050** | **1200** | **1350** | **1500** |
| **VX 40/65** | 3 | 4 | | 15.7 | 14 | 13.1 | 11.6 | 9.9 | 8.1 | 6.2 | 4.2 | 2 | | |
| **VX 55/65** | 4 | 5.5 | **H** m | 20.3 | 18.5 | 17.5 | 15.7 | 13.8 | 11.8 | 9.7 | 7.5 | 5.3 | 3 | |
| **VX 75/65** | 5.5 | 7.5 | | 25 | 23 | 21.9 | 20.1 | 18.2 | 16 | 13.8 | 11.5 | 9.1 | 6.6 | 4 |




| TYPE Three-phase | POWER (P2) kW | POWER (P2) HP | Q m³/h | 0 | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Q l/min | **0** | **200** | **400** | **600** | **800** | **1000** | **1200** | **1400** | **1600** | **1800** |
| **VX 40/80** | 3 | 4 | | 10.5 | 9.5 | 8.2 | 6.7 | 5.1 | 3.6 | 2.5 | | | |
| **VX 55/80** | 4 | 5.5 | **H** m | 14.5 | 13.5 | 11.9 | 10 | 8.1 | 6.3 | 4.7 | 3.5 | | |
| **VX 75/80** | 5.5 | 7.5 | | 18.5 | 17.5 | 16.2 | 14.4 | 12.4 | 10.3 | 8.2 | 6.4 | 4.9 | 4 |

**Q** = Flow rate **H** = Total manometric head

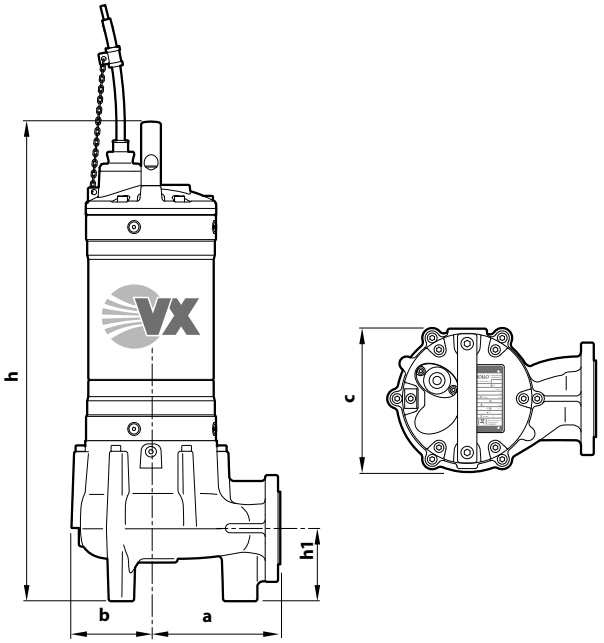
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## ABSORPTION

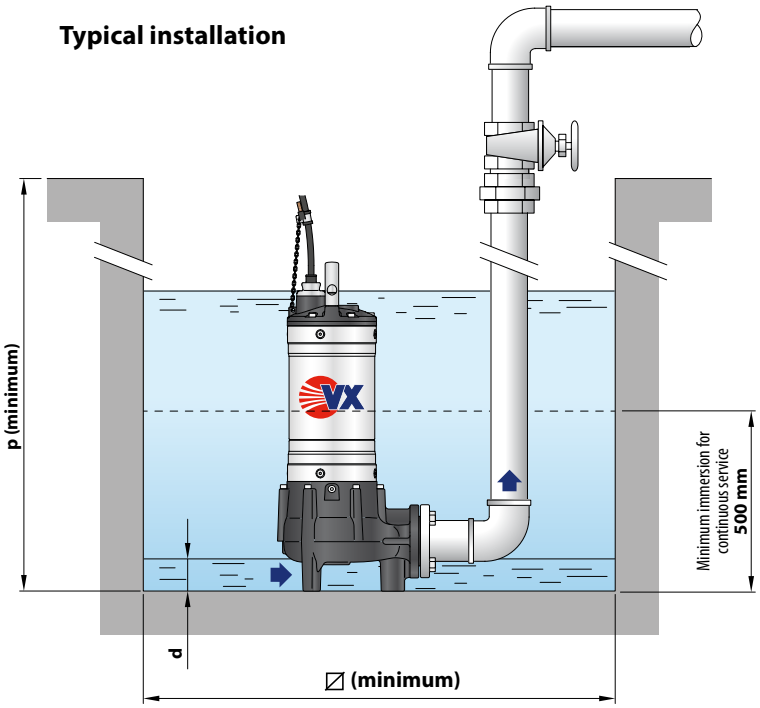
| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 380 V | 440 V |
| VX 40/50 | 7.0 A | 6.0 A |
| VX 55/50 | 8.2 A | 7.1 A |
| VX 40/65 | 7.0 A | 6.0 A |
| VX 55/65 | 9.4 A | 8.2 A |
| VX 75/65 | 15.5 A | 12.0 A |

| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 380 V | 440 V |
| VX 40/80 | 8.0 A | 7.0 A |
| VX 55/80 | 10.0 A | 8.7 A |
| VX 75/80 | 16.5 A | 14.3 A |

## DIMENSIONS AND WEIGHT



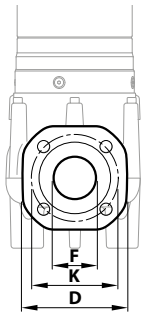

**Typical installation**




| TYPE | Passage of solid bodies | DIMENSIONS mm | | | | | | | | kg |
|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | | a | b | c | h | h1 | d | p | ⍁ | 3~ |
| VX 40/50 | Ø 50 mm | 170 | 106 | 193 | 602 | 100 | 55 | 700 | 500 | 50.0 |
| VX 55/50 | | | | | 642 | | | | | 59.0 |
| VX 40/65 | Ø 65 mm | 170 | 107 | 196 | 630 | 121 | 70 | 800 | 500 | 54.0 |
| VX 55/65 | | | | | 670 | | | | | 60.0 |
| VX 75/65 | | | | | 700 | | | | | 67.0 |
| VX 40/80 | Ø 80 mm | 178 | 107 | 210 | 655 | 150 | 85 | 800 | 500 | 54.8 |
| VX 55/80 | | | | | 695 | | | | | 60.0 |
| VX 75/80 | | | | | 725 | | | | | 68.0 |

## PORT FLANGE

| TYPE | FLANGE | F | K | D | HOLES | |
|---|---|---|---|---|---|---|
| Three-phase | DN | | mm | mm | N° | Ø (mm) |
| VX 40/50 | 50 (PN10) | 2" | 125 | 150 | 4 | 18 |
| VX 55/50 | | | | | | |
| VX 40/65 | 65 (PN10) | 2½" | 145 | 185 | 8 | 18 |
| VX 55/65 | | | | | | |
| VX 75/65 | | | | | | |
| VX 40/80 | 80 (PN10) | 3" | 160 | 200 | 8 | 18 |
| VX 55/80 | | | | | | |
| VX 75/80 | | | | | | |




## PALLET CAPACITY

| TYPE | GROUPAGE | CONTAINER |
|---|---|---|
| Three-phase | n. pumps | n. pumps |
| VX 40/50 | 12 | 16 |
| VX 55/50 | 12 | 16 |
| VX 40/65 | 12 | 16 |
| VX 55/65 | 12 | 16 |
| VX 75/65 | 12 | 16 |
| VX 40/80 | 12 | 16 |
| VX 55/80 | 12 | 16 |
| VX 75/80 | 12 | 16 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment |
| 2 | **Impeller** | Cast iron VORTEX type with cataphoresis treatment |
| 3 | **Motor sleeve** | Stainless steel **AISI 304** |
| 4 | **Motor cover** | Cast iron with cataphoresis treatment |
| 5 | **Motor shaft** | Stainless steel **AISI 431** |

**6 Double mechanical seal with interposed oil chamber**

| Water pump | Seal | Shaft | Location | Materials |
|---|---|---|---|---|
| **VX 50** | **ED560-25** | Ø 25 mm | Motor side | Silicon carbide / Graphite / NBR |
| | | | Pump side | Silicon carbide/Silicon carbide/NBR |
| **VX 65-80** | **AR-27** | Ø 27 mm | Motor side | Silicon carbide / Graphite / NBR |
| | **AR-25** | Ø 25 mm | Pump side | Silicon carbide/Silicon carbide/NBR |

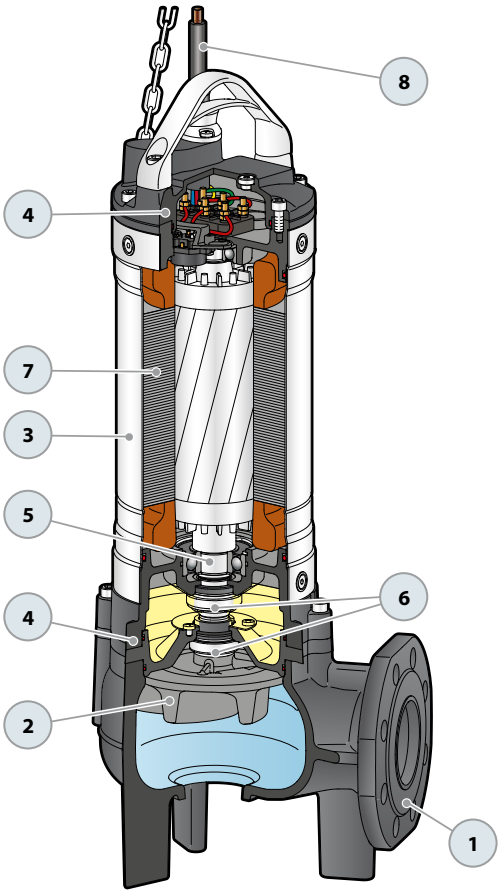
**7 Electric Motor**

Three-phase 380 V - 60 Hz or 440 V - 60 Hz
with winding integrated thermal motor protection

– Insulation: class F
– Protection rating: IP X8

**8 Power cord**

※ 10 metres 'H07 RN-F' type



Sewage
Civil use
Industrial use

※ **Advanced design and high-quality materials assure long-term performance and reliability**




## PERFORMANCE RANGE

- Flow rate up to **2300 l/min** (138 m³/h)
- Head up to **31 m**

## INSTALLATION AND USE

The **BC** series is constructed from thick stainless steel and cast iron, offering exceptional robustness, abrasion resistance, and durability. Equipped with **TWO-CHANNEL** impellers, the pumps are designed to drain **sewage, sludge-mixed water, and activated and putrid sludge**.
They are suitable for a wide range of applications, including sewers, tunnels, excavations, canals, and underground parking facilities.

## ELECTRIC MOTOR

※ **The electric motor is safeguarded by a special three-phase thermal protector, situated within the motor, which activates in case of overheating or abnormal power consumption.**

## INCLUDES

※ Power cable length **10 m**

## APPLICATION LIMITS

- Depth below water level up to **10 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Suspended solids transfer:
  – up to **Ø 35 mm** for BC/35
  – up to **Ø 50 mm** for BC/50
- **Minimum immersion for continuous service: 500 mm**

## AVAILABLE UPON REQUEST

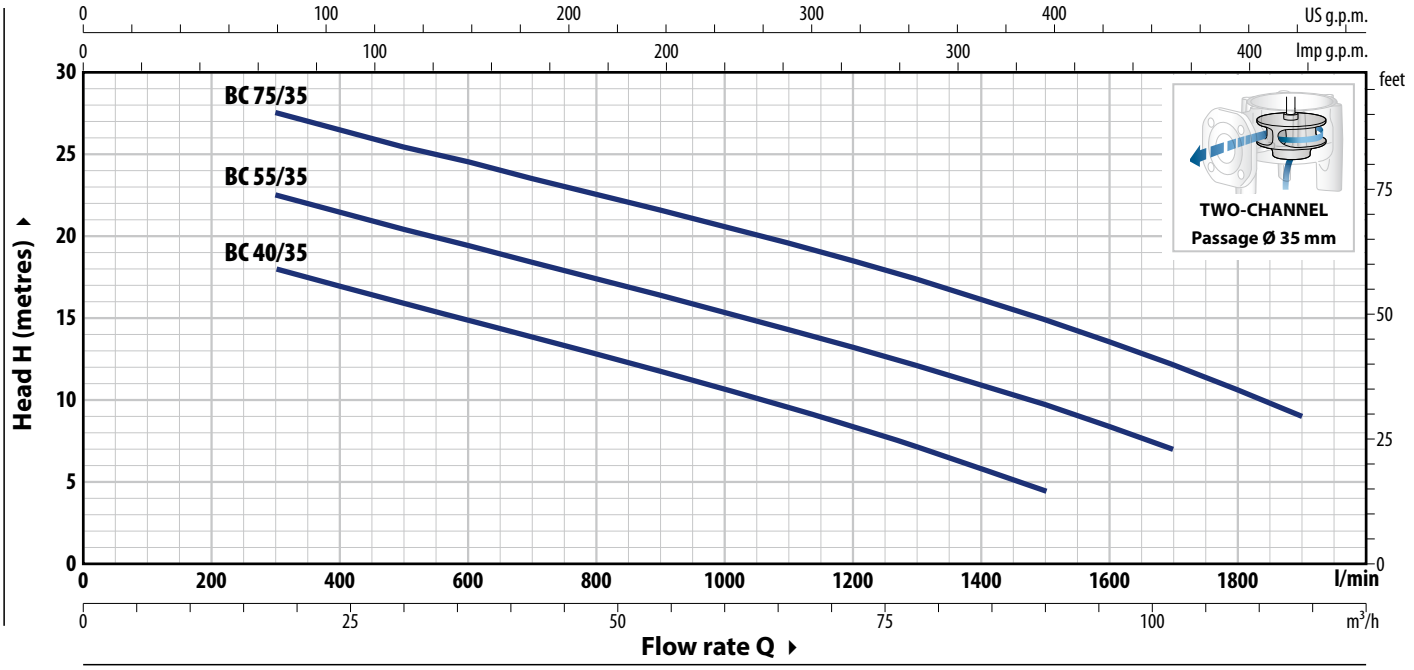
※ Different voltage or frequency

## PATENTS - TRADE MARKS - MODELS

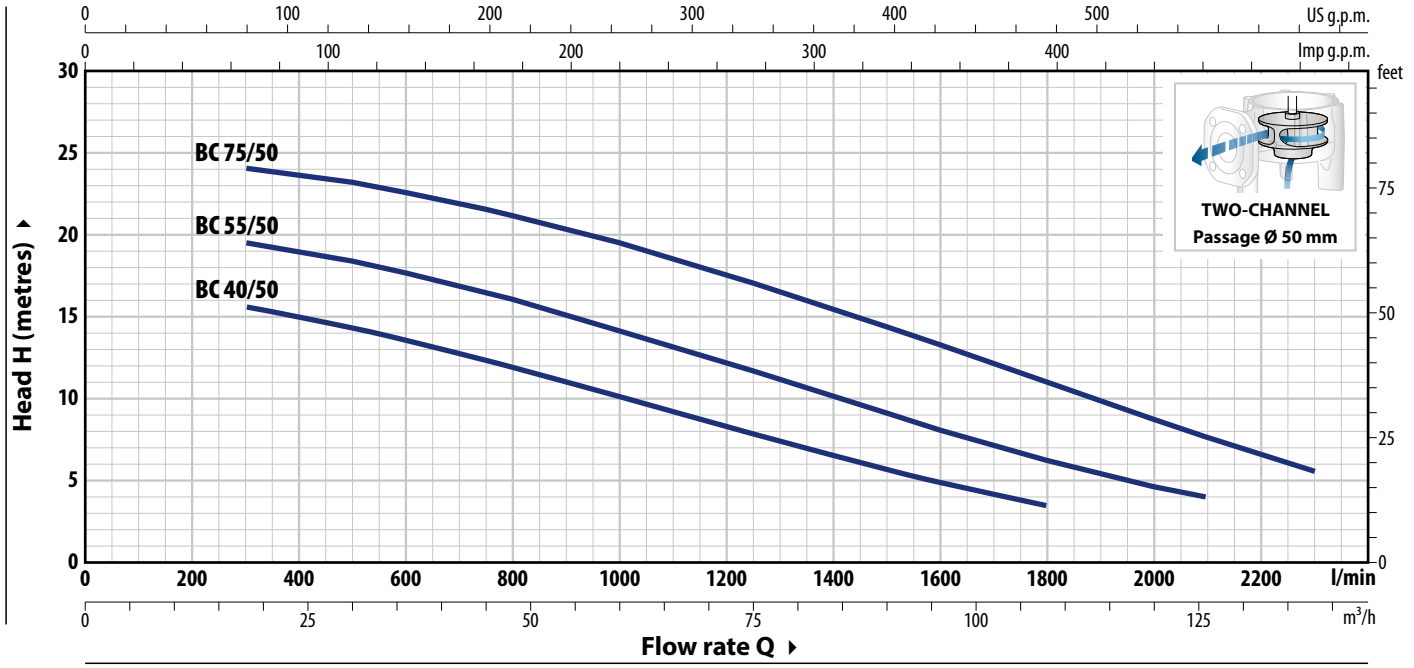
- Registered Community Model No. 003863158-0001

## CURVES AND PERFORMANCE DATA

**60 Hz**




| TYPE | POWER (P2) | | Q | m³/h | 0 | 18 | 30 | 42 | 54 | 66 | 78 | 90 | 102 | 114 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | | l/min | **0** | **300** | **500** | **700** | **900** | **1100** | **1300** | **1500** | **1700** | **1900** |
| BC 40/35 | 3 | 4 | | | 21.5 | 18 | 15.9 | 13.9 | 11.8 | 9.6 | 7.2 | 4.5 | | |
| BC 55/35 | 4 | 5.5 | H | m | 26 | 22.5 | 20.4 | 18.4 | 16.4 | 14.4 | 12.1 | 9.7 | 7 | |
| BC 75/35 | 5.5 | 7.5 | | | 31 | 27.5 | 25.5 | 23.5 | 21.6 | 19.6 | 17.4 | 15 | 12.2 | 9 |




| TYPE | POWER (P2) | | Q | m³/h | 0 | 18 | 30 | 45 | 60 | 75 | 90 | 108 | 126 | 138 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | | l/min | **0** | **300** | **500** | **750** | **1000** | **1250** | **1500** | **1800** | **2100** | **2300** |
| BC 40/50 | 3 | 4 | | | 16.5 | 15.5 | 14 | 12.1 | 10 | 7.8 | 5.7 | 3.5 | | |
| BC 55/50 | 4 | 5.5 | H | m | 20 | 19.5 | 18.3 | 16.4 | 14.1 | 11.6 | 9.1 | 6.3 | 4 | |
| BC 75/50 | 5.5 | 7.5 | | | 24.5 | 24 | 23.2 | 21.6 | 19.5 | 17.1 | 14.4 | 11 | 7.6 | 5.5 |

**Q** = Flow rate **H** = Total manometric head

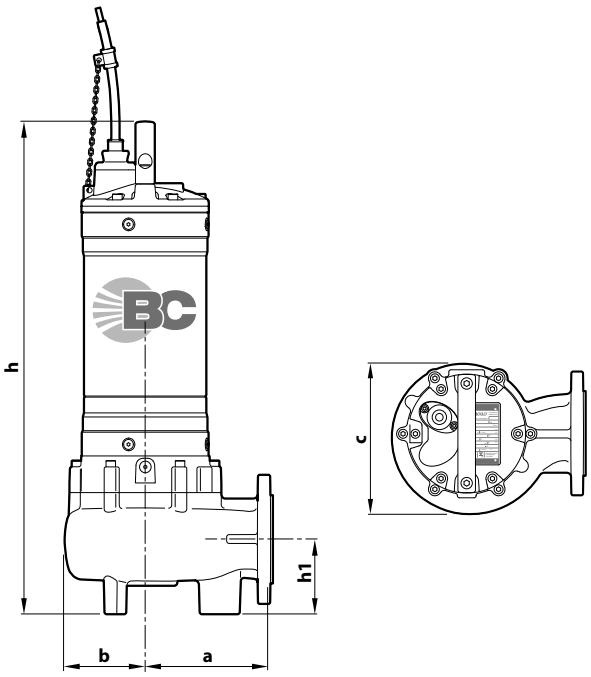
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## ABSORPTION

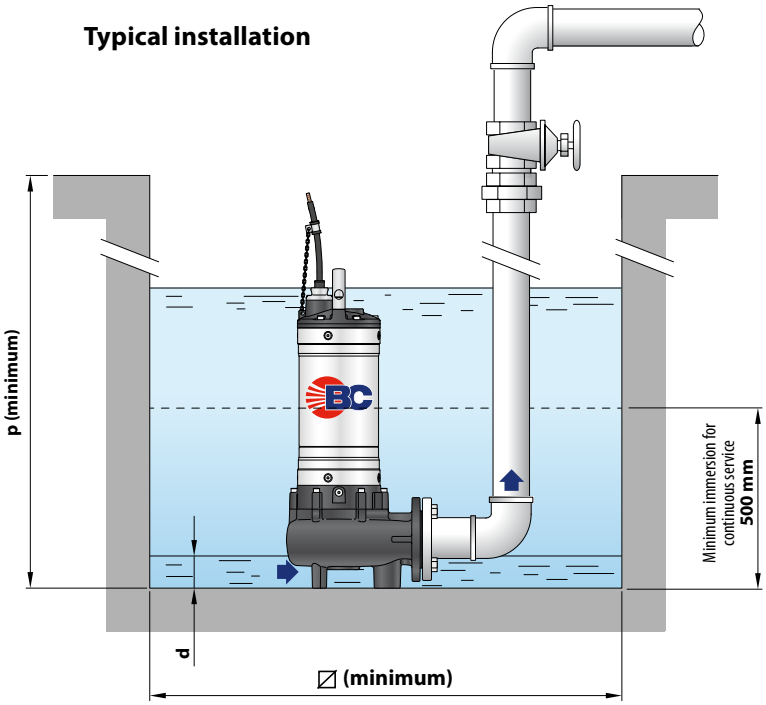
| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 380 V | 440 V |
| BC 40/35 | 6.5 A | 5.5 A |
| BC 55/35 | 8.5 A | 7.2 A |
| BC 75/35 | 15.5 A | 14.5 A |

| TYPE | VOLTAGE | |
|---|---|---|
| Three-phase | 380 V | 440 V |
| BC 40/50 | 8.5 A | 7.2 A |
| BC 55/50 | 9.5 A | 8.3 A |
| BC 75/50 | 15.6 A | 13.5 A |

## DIMENSIONS AND WEIGHT



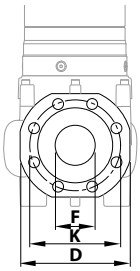

Typical installation




| TYPE | Passage of solid bodies | DIMENSIONS mm | | | | | | | | kg |
|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | | a | b | c | h | h1 | d | p | ⍁ | 3~ |
| BC 40/35 | Ø 35 mm | 170 | 113 | 225 | 595 | 100 | 40 | 800 | 500 | 56.0 |
| BC 55/35 | | | | | 635 | | | | | 62.2 |
| BC 75/35 | | | | | 665 | | | | | 67.0 |
| BC 40/50 | Ø 50 mm | 178 | 107 | 210 | 655 | 150 | 85 | 800 | 500 | 58.1 |
| BC 55/50 | | | | | 695 | | | | | 64.3 |
| BC 75/50 | | | | | 725 | | | | | 69.1 |

## PORT FLANGE

| TYPE | FLANGE | F | K | D | HOLES | |
|---|---|---|---|---|---|---|
| Three-phase | DN | | mm | mm | N° | Ø (mm) |
| BC 40/35 | 65 (PN10) | 2½" | 145 | 185 | 4 | 18 |
| BC 55/35 | | | | | | |
| BC 75/35 | | | | | | |
| BC 40/50 | 80 (PN10) | 3" | 160 | 200 | 8 | 18 |
| BC 55/50 | | | | | | |
| BC 75/50 | | | | | | |




## PALLET CAPACITY

| TYPE | GROUPAGE | CONTAINER |
|---|---|---|
| Three-phase | n. pumps | n. pumps |
| BC 40/35 | 12 | 16 |
| BC 55/35 | 12 | 16 |
| BC 75/35 | 12 | 16 |
| BC 40/50 | 12 | 16 |
| BC 55/50 | 12 | 16 |
| BC 75/50 | 12 | 16 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment |
| 2 | **Impeller** | TWO-CHANNEL cast iron type with cataphoresis treatment |
| 3 | **Motor sleeve** | Stainless steel **AISI 304** |
| 4 | **Motor cover** | Cast iron with cataphoresis treatment |
| 5 | **Motor shaft** | Stainless steel **AISI 431** |

**6 Double mechanical seal with interposed oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **AR-27** | Ø 27 mm | Motor side | Silicon carbide / Graphite / NBR |
| **AR-25** | Ø 25 mm | Pump side | Silicon carbide/Silicon carbide/NBR |

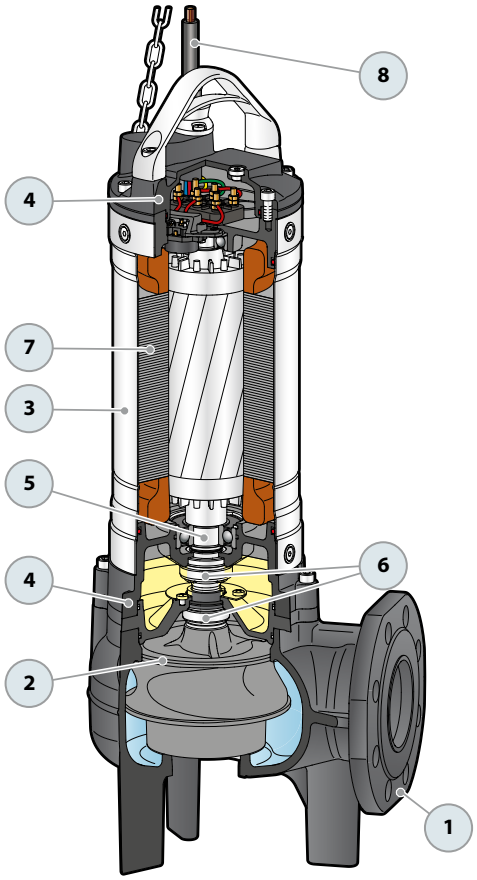
**7 Electric Motor**

Three-phase 380 V - 60 Hz or 440 V - 60 Hz
with winding integrated thermal motor protection

– Insulation: class F
– Protection rating: IP X8

**8 Power cord**

※ 10 metres 'H07 RN-F' type



# SEWAGE LIFTING SYSTEM VX - BC

## VERSION WITH HORIZONTAL DELIVERY AND ¾" GUIDE PIPES

| | | |
|---|---|---|
| For **VX /50** | Code ASSPVX50 | **DN 2** |

**※ Kit consisting of:**



Coupling foot



Guide rail



Support for guide tubes



## VERSION WITH VERTICAL DELIVERY AND ¾" GUIDE PIPES

| | | |
|---|---|---|
| For **VX /50** | Code ASSPVX503V | **DN 2½"** |
| For **VX /65, BC /35** | Code ASSPVX653V | **DN 3"** |
| For **BC /50** | Code ASSVXCF071V | |

## VERSION WITH VERTICAL DELIVERY AND 2" GUIDE TUBES

| | | |
|---|---|---|
| For **VX /50** | Code ASSPVX50V | **DN 3"** |
| For **VX /65, BC /35** | Code ASSPVX65V | |
| For **VX /80, BC /50** | Code ASSVXCF0705V | |

**※ Kit consisting of:**



Coupling foot complete with counterflange



Guide rail



Support for guide tubes



## ● ACCESSORIES AVAILABLE FOR ORDER

### RUNNING GUIDE

| | |
|---|---|
| ※ For VX /50 with Ø ¾" guide tubes | Code ASSFL009 |
| ※ For VX /65, BC /35 with Ø ¾" guide tubes | Code ASSFL010 |
| ※ For BC /50 with Ø ¾" guide tubes | Code ASSFL0018 |
| ※ For VX /50 with Ø 2" guide tubes | Code ASSFL050 |
| ※ For VX /65, BC /35 with Ø 2" guide tubes | Code ASSFL065 |
| ※ For VX /80, BC /50 with Ø 2" guide tubes | Code ASSFL072 |

Complete with screws and seals



for Ø ¾" guide tubes



for guide tubes Ø 2"

### INTERMEDIATE GUIDE TUBE SUPPORT

| | |
|---|---|
| ※ For Ø ¾" guide tubes | Code 859SV340INTFA |
| ※ For guide tubes Ø 2" | Code 859SV349INTFA |

For reasons of stability, an intermediate support should be interposed:
– every 2 metres with ¾" guide pipes (mandatory)
– every 3 metres with 2" guide tubes (recommended)



for Ø ¾" guide tubes



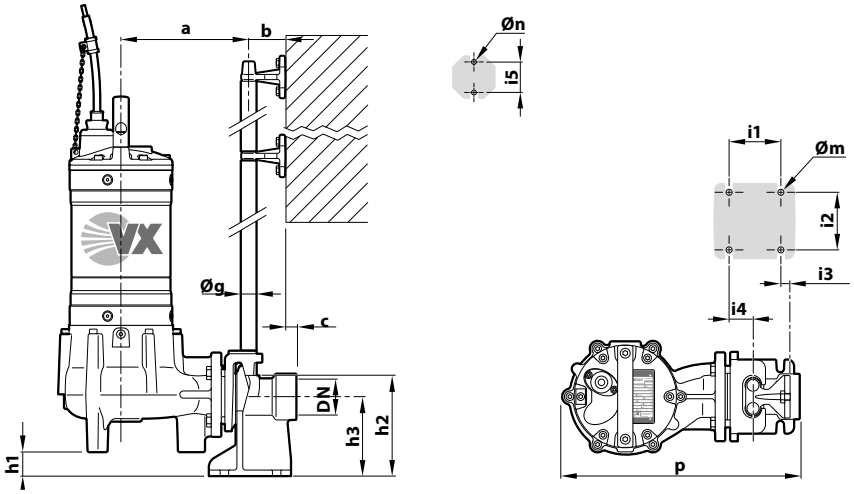
for guide tubes Ø 2"

### GUIDE TUBE (AISI 304 stainless steel)

| | |
|---|---|
| ※ 2 metres Ø ¾" guide tube | Code 54SARTG0052F |
| ※ 3 metres Ø ¾" guide tube | Code 54SARTG0053F |
| ※ 6 metres Ø ¾" guide tube | Code 54SARTG0056F |
| ※ 3 metres Ø 2" guide tube | Code 54SARTG0063F |
| ※ 6 metres guide tube Ø 2" | Code 54SARTG0066F |

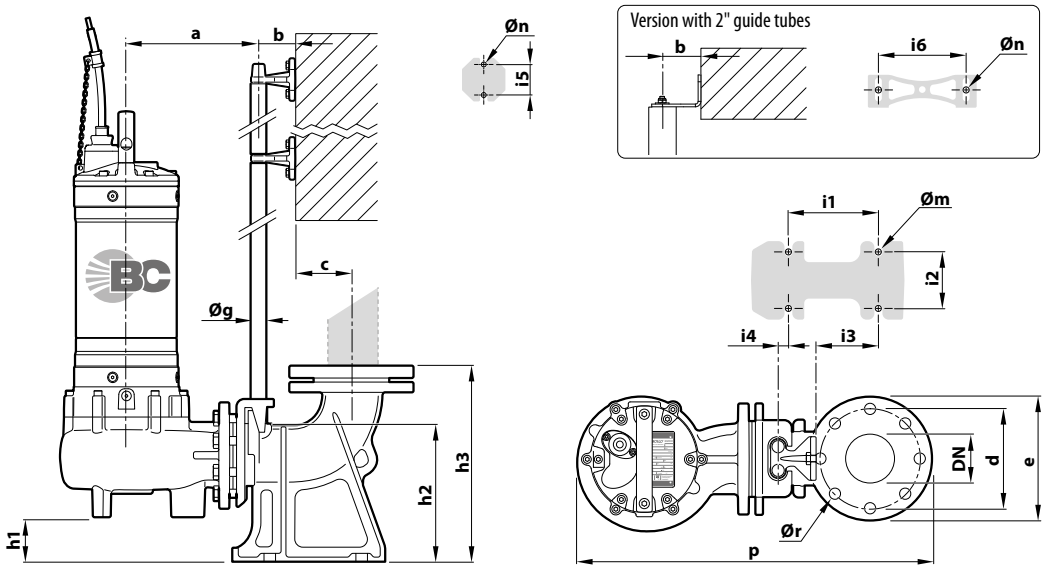


## DIMENSIONS (HORIZONTAL delivery version)




| TYPE | Solid bodies mm | PORT DN | DIMENSIONS mm | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | a | b | c | p | h1 | h2 | h3 | i1 | i2 | i3 | i4 | i5 | Øg | Øm | Øn |
| **VX /50** | **Ø 50** | **2"** | 214 | 61 | 17 | 400 | 30 | 165 | 130 | 85 | 94 | 16 | 40 | 50 | ¾" | 12 | 11 |

## DIMENSIONS (Version with VERTICAL delivery)




**※ Version with ¾" guide tubes**

| TYPE | Solid bodies mm | PORT DN | DIMENSIONS mm | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | a | b | c | d | e | p | h1 | h2 | h3 | i1 | i2 | i3 | i4 | i5 | Øg | Øm | Øn | Ør |
| **VX /50** | **Ø 50 mm** | **2½"** | 211 | 61 | 52 | 125 | 165 | 506 | 28 | 164 | 216 | 120 | 72 | 62 | 3 | 50 | ¾" | 14 | 11 | 18 |
| **VX /65** | **Ø 65 mm** | **3"** | 213 | | 69 | 150 | 190 | 537 | 48 | 216 | 280 | 130 | 112 | 84 | 15 | | | | | |
| **BC /35** | **Ø 35 mm** | | 231 | | | | | 550 | 69 | | | | | | | | | | | |
| **BC /50** | **Ø 50 mm** | | 222 | | | | | 553 | 19 | | | | | | | | | | | |

**※ Version with 2" guide tubes**

| TYPE | Solid bodies mm | PORT DN | DIMENSIONS mm | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | a | b | c | d | e | p | h1 | h2 | h3 | i1 | i2 | i3 | i4 | i5 | i6 | Øg | Øm | Øn | Ør |
| **VX /50** | **Ø 50 mm** | **3"** | 319 | 86 | 95 | 160 | 200 | 706 | 107 | 264 | 392 | 250 | 150 | 34 | – | 80 | 186 | 2" | 22 | 13.5 | 18 |
| **VX /65** | **Ø 65 mm** | | | | | | | 697 | 86 | | | | | | | | | | | | |
| **VX /80** | **Ø 80 mm** | | 328 | | | | | 714 | 57 | | | | | | | | | | | | |
| **BC /35** | **Ø 35 mm** | | 319 | | | | | 710 | 107 | | | | | | | | | | | | |
| **BC /50** | **Ø 50 mm** | | 328 | | | | | 714 | 57 | | | | | | | | | | | | |

Sewage
Civil use
Industrial use

# ※ Submersible pumps 4 poles (1450 min$^{-1}$)




## PERFORMANCE RANGE

- Flow rate up to **1100 l/min** (66 m³/h)
- Head up to **7.5 m**

## INSTALLATION AND USE

The **VX4** series is constructed from thick cast iron, offering exceptional robustness, abrasion resistance, and longevity. Equipped with **VORTEX**-type impellers, known for their reliability and minimal clogging risk, these pumps are versatile for handling sewage with suspended solids up to **80 mm** in diameter, as well as wastewater, rainwater, city sewage, and industrial wastewater. They are suitable for a wide range of applications, including sewers, tunnels, excavations, canals, and underground parking facilities.

## ELECTRIC MOTOR

※ **The electric motor is safeguarded by a special three-phase thermal protector, situated within the motor, which activates in case of overheating or abnormal power consumption.**

## INCLUDES

※ Power cable length **10 m**

## APPLICATION LIMITS

- Depth below water level up to **10 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Suspended solids transfer:
  – up to **Ø 50 mm** for VX4-15/50
  – up to **Ø 65 mm** for VX4-15/65
  – up to **Ø 80 mm** for VX4-15/80
- **Minimum immersion for continuous service: 500 mm**

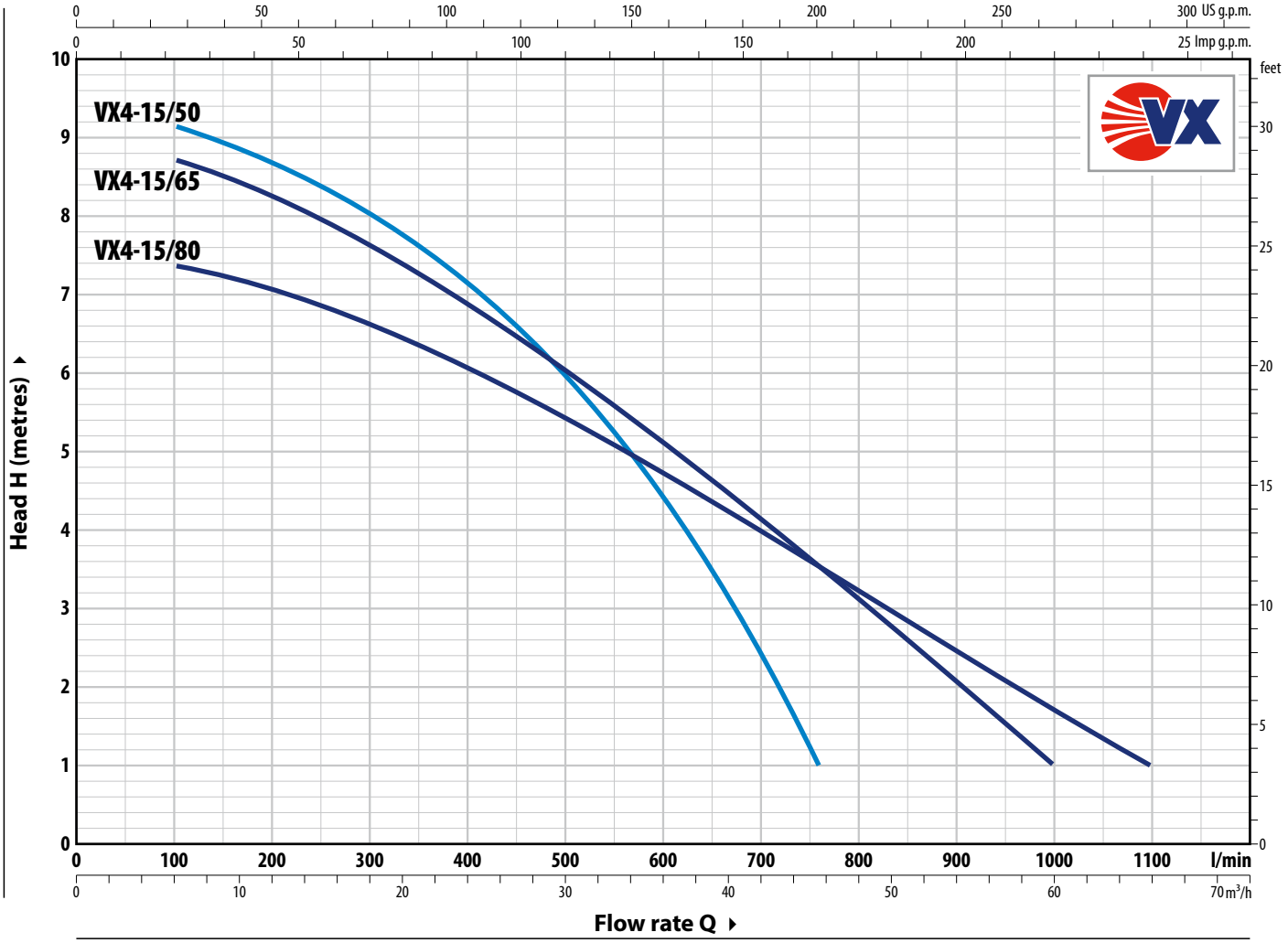
## AVAILABLE UPON REQUEST

※ Different voltage or frequency

## PATENTS - TRADE MARKS - MODELS

- Registered Community Model No. 003863158-0002

## CURVES AND PERFORMANCE DATA – n= 1450 min$^{-1}$ 60 Hz




| TYPE | POWER (P2) | | Q | m³/h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 45.6 | 54 | 60 | 66 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | | l/min | **0** | **100** | **200** | **300** | **400** | **500** | **600** | **760** | **900** | **1000** | **1100** |
| **VX4-15/50** | 1.1 | 1.5 | | | 9.5 | 9.2 | 8.7 | 8 | 7.2 | 6 | 4.4 | 1 | | | |
| **VX4-15/65** | 1.1 | 1.5 | **H** | metres | 9 | 8.7 | 8.2 | 7.6 | 6.9 | 6 | 5.1 | 3.5 | 2 | 1 | |
| **VX4-15/80** | 1.1 | 1.5 | | | 7.5 | 7.4 | 7.1 | 6.6 | 6.1 | 5.4 | 4.7 | 3.5 | 2.4 | 1.7 | 1 |

**Q** = Flow rate **H** = Total manometric head

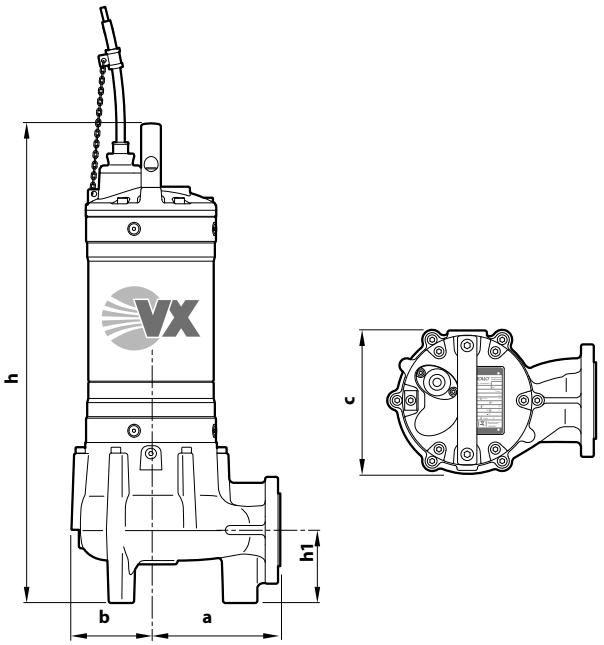
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## ABSORPTION

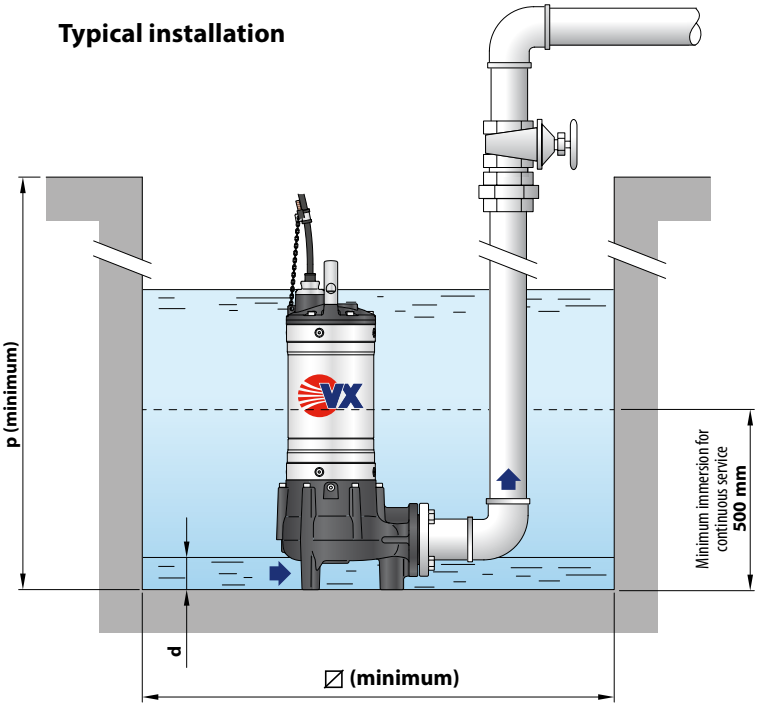
| TYPE Three-phase | VOLTAGE 380 V |
|---|---|
| VX4-15/50 | 2.8 A |
| VX4-15/65 | 2.8 A |
| VX4-15/80 | 2.8 A |

| TYPE Three-phase | VOLTAGE 440 V |
|---|---|
| VX4-15/50 | 2.5 A |
| VX4-15/65 | 2.5 A |
| VX4-15/80 | 2.5 A |

## DIMENSIONS AND WEIGHT



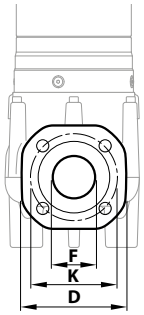

Typical installation




| TYPE Three-phase | Passage of solid bodies | DIMENSIONS mm a | b | c | h | h1 | d | p | ⍁ | kg 3~ |
|---|---|---|---|---|---|---|---|---|---|---|
| VX4-15/50 | Ø 50 mm | 170 | 106 | 193 | 602 | 100 | 55 | 700 | 500 | 47.3 |
| VX4-15/65 | Ø 65 mm | 170 | 107 | 196 | 630 | 121 | 70 | 800 | 500 | 50.6 |
| VX4-15/80 | Ø 80 mm | 178 | 107 | 210 | 655 | 150 | 85 | 800 | 500 | 52.1 |

## PORT FLANGE

| TYPE Three-phase | FLANGE DN | F | K mm | D mm | HOLES N° | HOLES Ø (mm) |
|---|---|---|---|---|---|---|
| VX4-15/50 | 50 (PN10) | 2" | 125 | 150 | 4 | 18 |
| VX4-15/65 | 65 (PN10) | 2½" | 145 | 185 | 8 | 18 |
| VX4-15/80 | 80 (PN10) | 3" | 160 | 200 | 8 | 18 |




## PALLET CAPACITY

| TYPE Three-phase | GROUPAGE n. pumps | CONTAINER n. pumps |
|---|---|---|
| VX4-10/50 | 12 | 16 |
| VX4-10/65 | 12 | 16 |
| VX4-10/80 | 12 | 16 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment |
| 2 | **Impeller** | Cast iron VORTEX type with cataphoresis treatment |
| 3 | **Motor sleeve** | Stainless steel **AISI 304** |
| 4 | **Motor cover** | Cast iron with cataphoresis treatment |
| 5 | **Motor shaft** | Stainless steel **AISI 431** |

**6 Double mechanical seal with interposed oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **AR-27** | Ø 27 mm | Motor side | Silicon carbide / Graphite / NBR |
| **AR-25** | Ø 25 mm | Pump side | Silicon carbide/Silicon carbide/NBR |

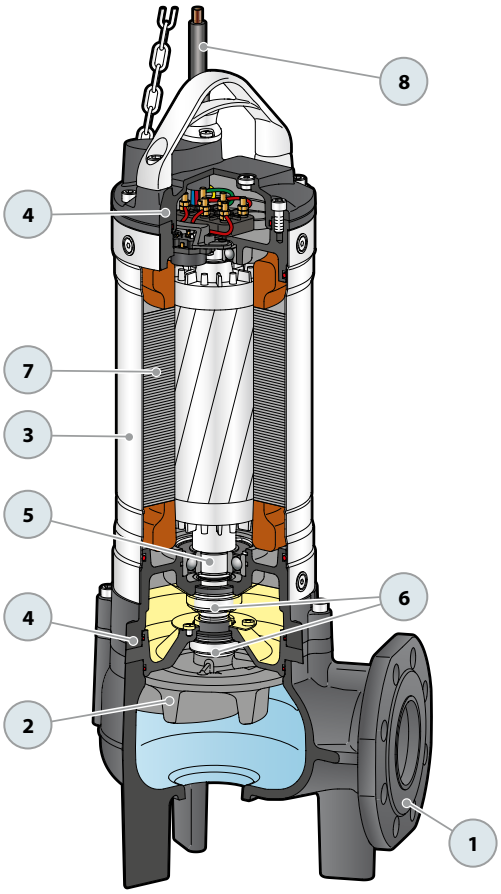
**7 Electric Motor**

Three-phase 380 V - 60 Hz or 440 V - 60 Hz
with winding integrated thermal three-phase motor protection

– Insulation: class F
– Protection rating: IP X8

**8 Power cord**

※ 10 metres 'H07 RN-F' type



Sewage

Civil use

Industrial use

## ※ Submersible pumps 4 poles (1450 $min^{-1}$)




### PERFORMANCE RANGE

- Flow rate up to **1500 l/min** (90 m³/h)
- Head up to **9 m**

### INSTALLATION AND USE

The **BC4** series is constructed from thick stainless steel and cast iron, offering exceptional robustness, abrasion resistance, and durability. Equipped with a **TWO-CHANNEL** impeller, the pumps are designed to **drain sewage, sludge-mixed water, and activated and putrid sludge**. They are suitable for a wide range of applications, including sewers, tunnels, excavations, canals, and underground parking facilities.

### ELECTRIC MOTOR

※ **The electric motor is safeguarded by a special three-phase thermal protector, situated within the motor, which activates in case of overheating or abnormal power consumption.**

### INCLUDES

※ Power cable length **10 m**

### APPLICATION LIMITS

- Depth below water level up to **10 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Capable of processing suspended solids up to **Ø 50 mm**
- **Minimum immersion for continuous service: 500 mm**

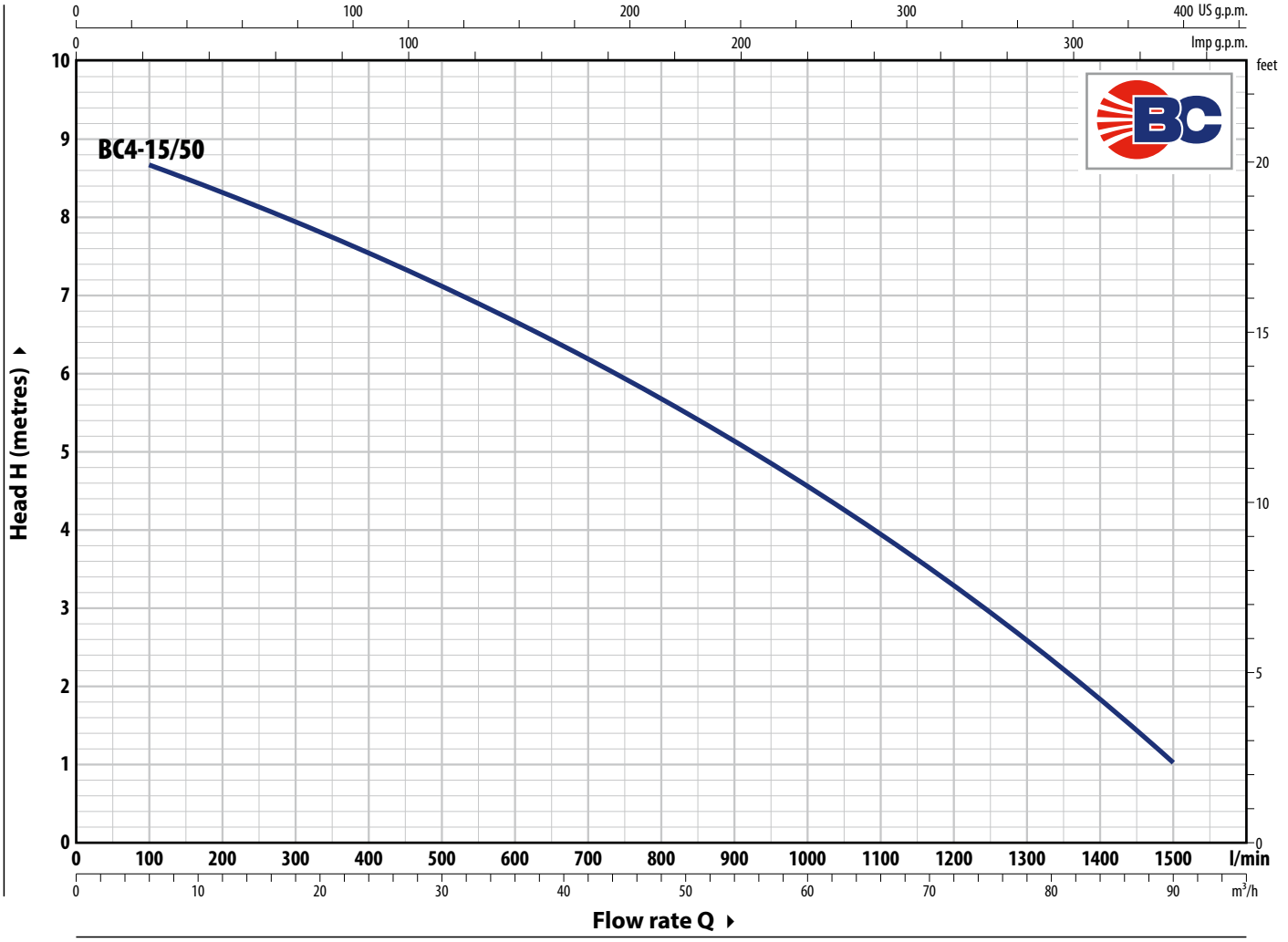
### AVAILABLE UPON REQUEST

※ Different voltage or frequency

### PATENTS - TRADE MARKS - MODELS

- Registered Community Model No. 003863158-0001

## CURVES AND PERFORMANCE DATA – n= 1450 min$^{-1}$ 60 Hz




| TYPE | POWER (P2) | | Q | m³/h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 54 | 60 | 66 | 90 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | | l/min | **0** | **100** | **200** | **300** | **400** | **500** | **600** | **700** | **900** | **1000** | **1100** | **1500** |
| **BC4-15/50** | 1.1 | 1.5 | **H** | metres | 9 | 8.6 | 8.3 | 7.9 | 7.5 | 7.1 | 6.6 | 6.2 | 5.1 | 4.5 | 3.9 | 1 |

**Q** = Flow rate **H** = Total manometric head

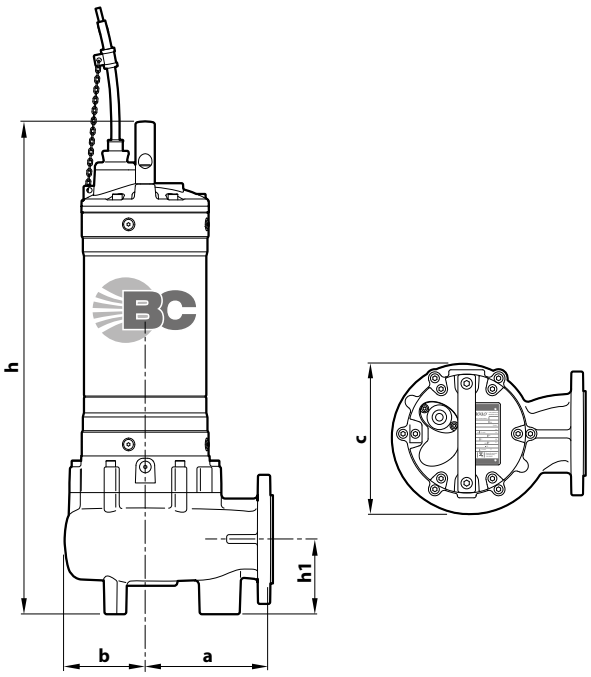
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## ABSORPTION

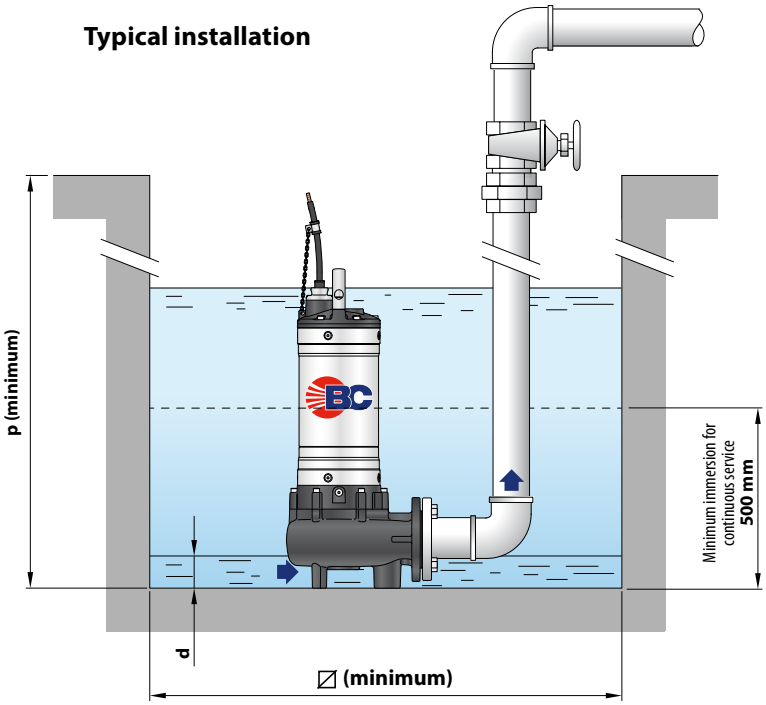
| TYPE<br>Three-phase | VOLTAGE<br>380 V |
|---|---|
| **BC4-15/50** | 2.8 A |

| TYPE<br>Three-phase | VOLTAGE<br>440 V |
|---|---|
| **BC4-15/50** | 2.5 A |

## DIMENSIONS AND WEIGHT



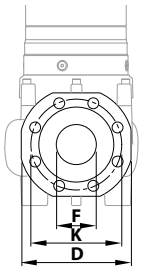

**Typical installation**




| TYPE<br>Three-phase | Passage of solid bodies | DIMENSIONS mm | | | | | | | | kg |
|---|---|---|---|---|---|---|---|---|---|---|
| | | a | b | c | h | h1 | d | p | ⍁ | 3~ |
| **BC4-15/50** | **Ø 50 mm** | 178 | 107 | 210 | 655 | 150 | 85 | 800 | 500 | 55.8 |

## PORT FLANGE

| TYPE<br>Three-phase | FLANGE<br>DN | F | K<br>mm | D<br>mm | HOLES<br>N° | <br>Ø mm) |
|---|---|---|---|---|---|---|
| **BC4-15/50** | **80**<br>(PN10) | **3"** | 160 | 200 | 8 | 18 |




## PALLET CAPACITY

| TYPE<br>Three-phase | GROUPAGE<br>n. pumps | CONTAINER<br>n. pumps |
|---|---|---|
| **BC4-15/50** | 12 | 16 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment |
| 2 | **Impeller** | TWO-CHANNEL cast iron type with cataphoresis treatment |
| 3 | **Motor sleeve** | Stainless steel **AISI 304** |
| 4 | **Motor cover** | Cast iron with cataphoresis treatment |
| 5 | **Motor shaft** | Stainless steel **AISI 431** |

**6 Double mechanical seal with interposed oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **AR-27** | Ø 27 mm | Motor side | Silicon carbide / Graphite / NBR |
| **AR-25** | Ø 25 mm | Pump side | Silicon carbide/Silicon carbide/NBR |

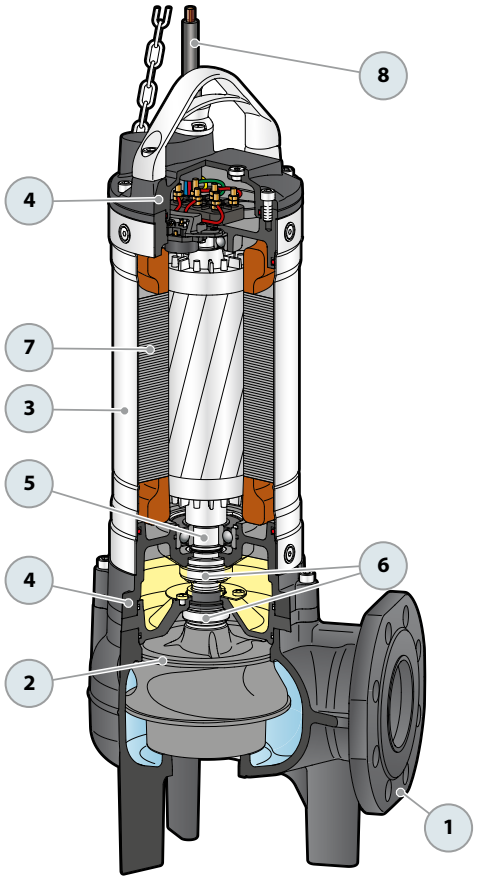
**7 Electric Motor**

Three-phase 380 V - 60 Hz or 440 V - 60 Hz
with winding integrated thermal three-phase motor protection

– Insulation: class F
– Protection rating: IP X8

**8 Power cord**

※ 10 metres 'H07 RN-F' type



# SEWAGE LIFTING SYSTEM VX4 - BC4

## VERSION WITH HORIZONTAL DELIVERY AND ¾" GUIDE PIPES

| | | |
|---|---|---|
| For **VX4 /50** | Code ASSPVX50 | **DN 2** |

**※ Kit consisting of:**


Coupling foot


Guide rail


Support for guide tubes



## VERSION WITH VERTICAL DELIVERY AND ¾" GUIDE PIPES

| | | |
|---|---|---|
| For **VX4 /50** | Code ASSPVX503V | **DN 2½"** |
| For **VX4 /65** | Code ASSPVX653V | **DN 3"** |
| For **BC4 /50** | Code ASSVXCF071V | |

## VERSION WITH VERTICAL DELIVERY AND 2" GUIDE TUBES

| | | |
|---|---|---|
| For **VX4 /50** | Code ASSPVX50V | **DN 3"** |
| For **VX4 /65** | Code ASSPVX65V | |
| For **VX4 /80, BC4 /50** | Code ASSVXCF0705V | |

**※ Kit consisting of:**


Coupling foot complete with counterflange


Guide rail


Support for guide tubes



## ● ACCESSORIES AVAILABLE FOR ORDER

### RUNNING GUIDE

| | |
|---|---|
| ※ For VX4 /50 with Ø ¾" guide tubes | Code ASSFL009 |
| ※ For VX4 /65 with Ø ¾" guide tubes | Code ASSFL010 |
| ※ For BC4 /50 with Ø ¾" guide tubes | Code ASSFL0018 |
| ※ For VX4 /50 with Ø 2" guide tubes | Code ASSFL050 |
| ※ For VX4 /65 with Ø 2" guide tubes | Code ASSFL065 |
| ※ For VX4 /80, BC4 /50 with Ø 2" guide tubes | Code ASSFL072 |

Complete with screws and seals


for Ø ¾" guide tubes


for guide tubes Ø 2"

### INTERMEDIATE GUIDE TUBE SUPPORT

| | |
|---|---|
| ※ For Ø ¾" guide tubes | Code 859SV340INTFA |
| ※ For guide tubes Ø 2" | Code 859SV349INTFA |

For reasons of stability, an intermediate support should be interposed:
– every 2 metres with ¾" guide pipes (mandatory)
– every 3 metres with 2" guide tubes (recommended)


for Ø ¾" guide tubes

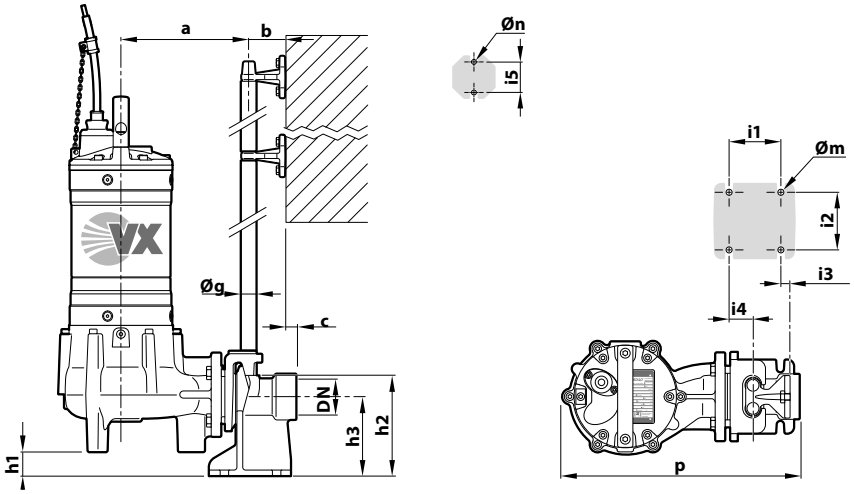

for guide tubes Ø 2"

### GUIDE TUBE (AISI 304 stainless steel)

| | |
|---|---|
| ※ 2 metres Ø ¾" guide tube | Code 54SARTG0052F |
| ※ 3 metres Ø ¾" guide tube | Code 54SARTG0053F |
| ※ 6 metres Ø ¾" guide tube | Code 54SARTG0056F |
| ※ 3 metres Ø 2" guide tube | Code 54SARTG0063F |
| ※ 6 metres guide tube Ø 2" | Code 54SARTG0066F |

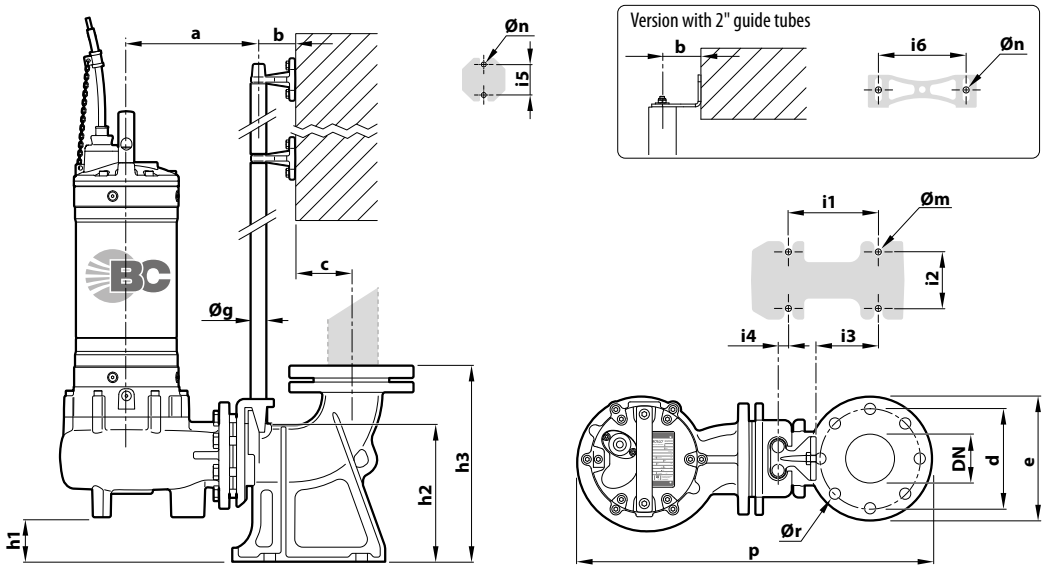


## DIMENSIONS (HORIZONTAL delivery version)




| TYPE | Solid bodies mm | PORT DN | DIMENSIONS mm | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | a | b | c | p | h1 | h2 | h3 | i1 | i2 | i3 | i4 | i5 | Øg | Øm | Øn |
| **VX4 /50** | **Ø 50** | **2"** | 214 | 61 | 17 | 400 | 30 | 165 | 130 | 85 | 94 | 16 | 40 | 50 | ¾" | 12 | 11 |

## DIMENSIONS (Version with VERTICAL delivery)




**※ Version with ¾" guide tubes**

| TYPE | Solid bodies mm | PORT DN | DIMENSIONS mm | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | a | b | c | d | e | p | h1 | h2 | h3 | i1 | i2 | i3 | i4 | i5 | Øg | Øm | Øn | Ør |
| **VX4 /50** | **Ø 50 mm** | **2½"** | 211 | 61 | 52 | 125 | 165 | 506 | 28 | 164 | 216 | 120 | 72 | 62 | 3 | 50 | ¾" | 14 | 11 | 18 |
| **VX4 /65** | **Ø 65 mm** | **3"** | 213 | | 69 | 150 | 190 | 537 | 48 | 216 | 280 | 130 | 112 | 84 | 15 | | | | | |
| **BC4 /50** | **Ø 50 mm** | | 222 | | | | | 553 | 19 | | | | | | | | | | | |

**※ Version with 2" guide tubes**

| TYPE | Solid bodies mm | PORT DN | DIMENSIONS mm | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | a | b | c | d | e | p | h1 | h2 | h3 | i1 | i2 | i3 | i4 | i5 | i6 | Øg | Øm | Øn | Ør |
| **VX4 /50** | **Ø 50 mm** | **3"** | 319 | 86 | 95 | 160 | 200 | 706 | 107 | 264 | 392 | 250 | 150 | 34 | – | 80 | 186 | 2" | 22 | 13.5 | 18 |
| **VX4 /65** | **Ø 65 mm** | | | | | | | 697 | 86 | | | | | | | | | | | | |
| **VX4 /80** | **Ø 80 mm** | | 328 | | | | | 714 | 57 | | | | | | | | | | | | |
| **BC4 /50** | **Ø 50 mm** | | 328 | | | | | 714 | 57 | | | | | | | | | | | | |

Sewage
Civil use
Industrial use

## ※ Submersible pumps 4 poles (1450 min$^{-1}$)



### PERFORMANCE RANGE
- Flow rate up to **2000 l/min** (120 m$^3$/h)
- Head up to **10.3 m**

### INSTALLATION AND USE
The **VXC4** series is constructed from thick stainless steel and cast iron, offering exceptional robustness, abrasion resistance, and durability. Equipped with a **VORTEX**-type impeller, the pumps are designed to **drain sewage, sludge-mixed water, and activated and putrid sludge**.
They are suitable for a wide range of applications, including sewers, tunnels, excavations, canals, and underground parking facilities.

### ELECTRIC MOTOR
※ **The electric motor is safeguarded by a special three-phase thermal protector, situated within the motor, which activates in case of overheating or abnormal power consumption.**

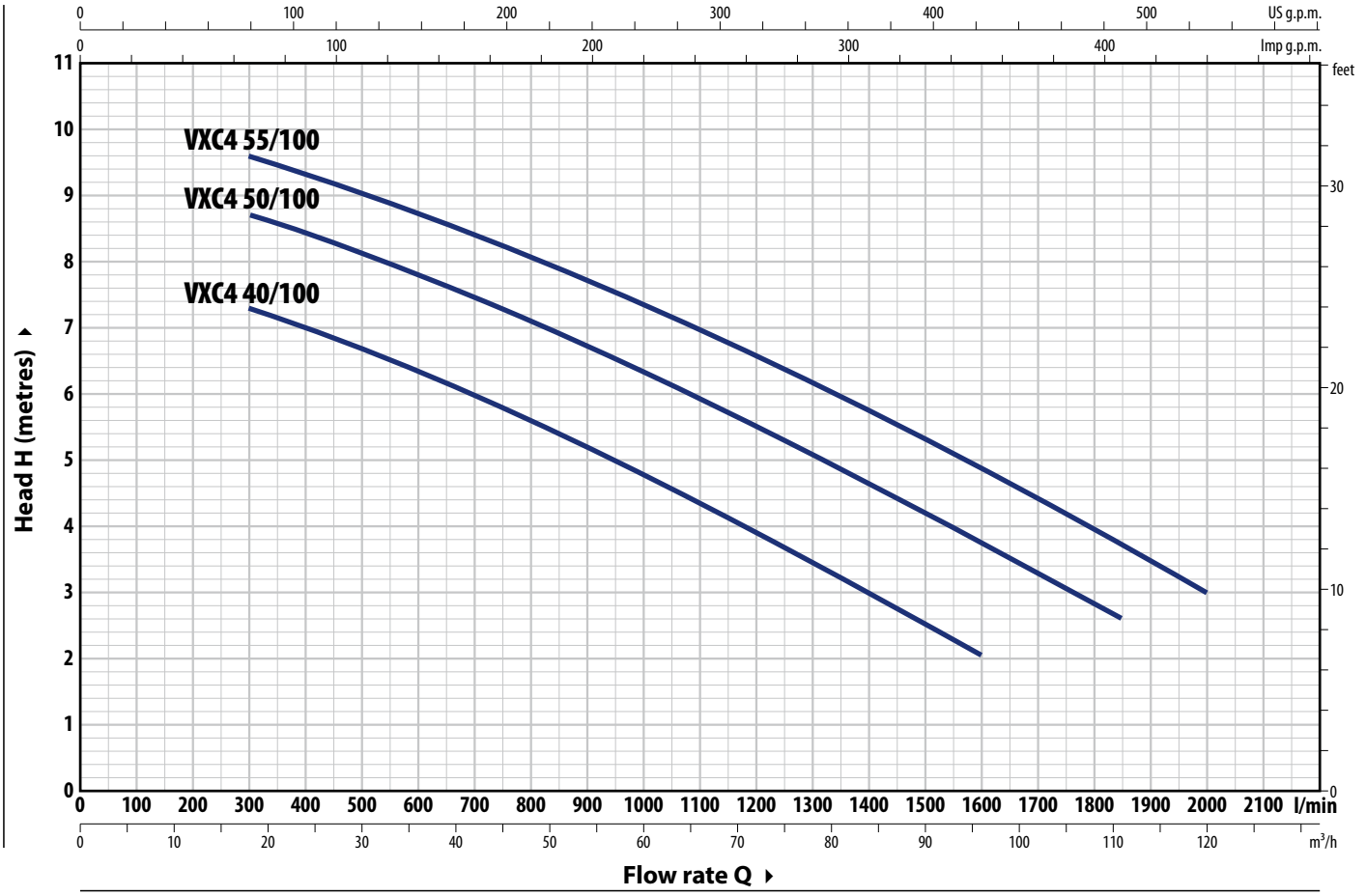
### INCLUDES
※ Power cable length **10 m**

### APPLICATION LIMITS
- Depth below water level up to **10 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Capable of processing suspended solids up to Ø **100 mm**
- **Minimum immersion for continuous service: 550 mm**

### AVAILABLE UPON REQUEST
※ Pumps equipped with internal probes that detect the presence of water in the oil chamber
※ Different voltage or frequency

### PATENTS - TRADE MARKS - MODELS
- Registered Community Model No. 003863158-0003

## CURVES AND PERFORMANCE DATA – n= 1450 min$^{-1}$ 60 Hz




| TYPE | POWER (P2) | | Q | m³/h | 0 | 18 | 30 | 45 | 60 | 75 | 90 | 96 | 111 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | | l/min | **0** | **300** | **500** | **750** | **1000** | **1250** | **1500** | **1600** | **1850** | **2000** |
| **VXC4-40/100** | 3 | 4 | | | 8 | 7.3 | 6.7 | 5.8 | 4.8 | 3.7 | 2.5 | 2.1 | | |
| **VXC4-50/100** | 3.7 | 5 | **H** | metres | 9.4 | 8.7 | 8.1 | 7.3 | 6.3 | 5.3 | 4.2 | 3.8 | 2.6 | |
| **VXC4-55/100** | 4 | 5.5 | | | 10.3 | 9.6 | 9.1 | 8.3 | 7.4 | 6.4 | 5.3 | 4.9 | 3.7 | 3 |

**Q** = Flow rate **H** = Total manometric head

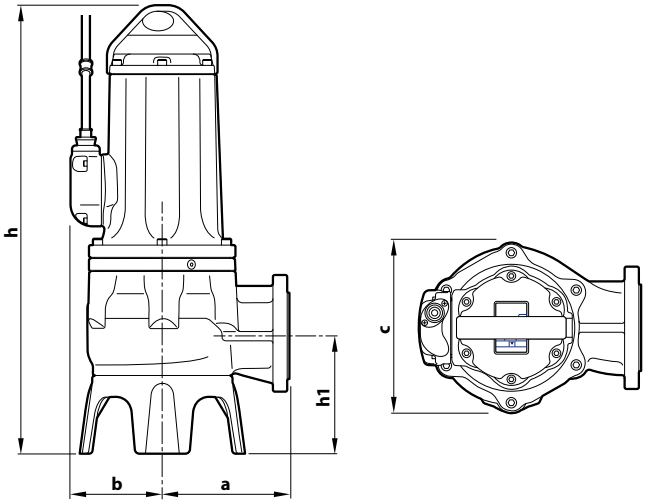
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## ABSORPTION

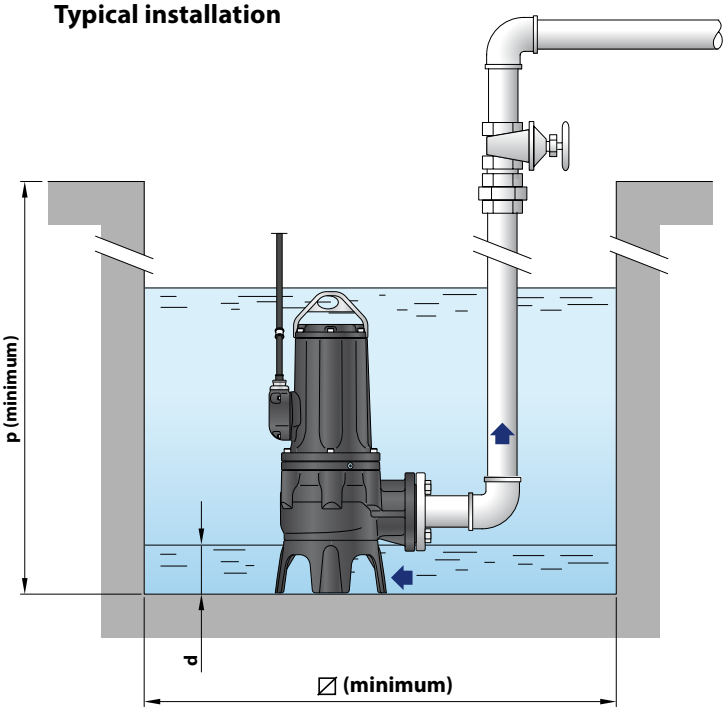
| TYPE Three-phase | VOLTAGE 380 V |
|---|---|
| **VXC4-40/100** | 7.0 A |
| **VXC4-50/100** | 9.0 A |
| **VXC4-55/100** | 9.5 A |

| TYPE Three-phase | VOLTAGE 440 V |
|---|---|
| **VXC4-40/100** | 6.0 A |
| **VXC4-50/100** | 7.8 A |
| **VXC4-55/100** | 8.2 A |

## DIMENSIONS AND WEIGHT

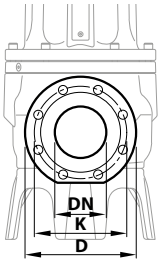



**Typical installation**




| TYPE Three-phase | Passage of solid bodies | DIMENSIONS mm a | b | c | h | h1 | d | p | ⍁ | kg 3~ |
|---|---|---|---|---|---|---|---|---|---|---|
| VXC4-40/100 | Ø 100 mm | 228 | 165 | 302 | 806 | 211 | 140 | 1000 | 1000 | 129.1 |
| VXC4-50/100 | | | | | | | | | | 129.0 |
| VXC4-55/100 | | | | | | | | | | 132.0 |

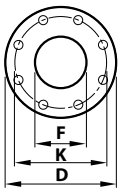
## PORT FLANGE




| TYPE Three-phase | FLANGE DN | K mm | D mm | HOLES N° | HOLES Ø (mm) |
|---|---|---|---|---|---|
| VXC4-40/100 | 100 (PN10) | 180 | 220 | 8 | 18 |
| VXC4-50/100 | | | | | |
| VXC4-55/100 | | | | | |

## COUNTERFLANGE

(CAN BE ORDERED SEPARATELY)




| TYPE Three-phase | FLANGE DN | F | K mm | D mm | HOLES N° | HOLES Ø (mm) |
|---|---|---|---|---|---|---|
| VXC4-40/100 | 100 | 4" | 180 | 220 | 8 | 18 |
| VXC4-50/100 | | | | | | |
| VXC4-55/100 | | | | | | |

## PALLET CAPACITY

| TYPE Three-phase | GROUPAGE n. pumps |
|---|---|
| VXC4-40/100 | 4 |
| VXC4-50/100 | 4 |
| VXC4-55/100 | 4 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment |
| 2 | **Base** | Cast iron with cataphoresis treatment |
| 3 | **Impeller** | Cast iron VORTEX type with cataphoresis treatment |
| 4 | **Motor holder** | Cast iron with cataphoresis treatment |
| 5 | **Motor cover** | Cast iron with cataphoresis treatment |
| 6 | **Motor shaft** | Stainless steel **AISI 431** |

**7 Double mechanical seal with interposed oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **MG91-40D** | Ø 40 mm | Motor side | Silicon carbide / Graphite / NBR |
| | | Pump side | Silicon carbide/Silicon carbide/NBR |

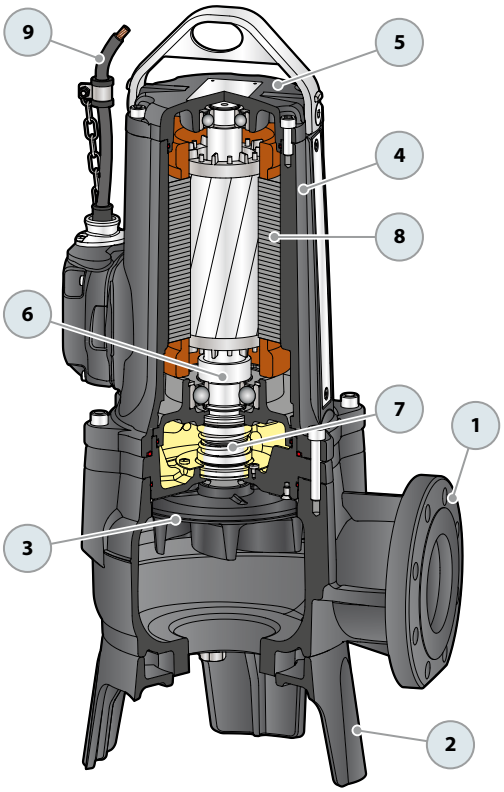
**8 Electric motor**

Three-phase 380 V - 60 Hz or 440 V - 60 Hz
with winding integrated thermal motor protection

– Insulation: class F
– Protection rating: IP X8

**9 Power cord**

※ 10 metres 'H07 RN-F' type



Sewage
Civil use
Industrial use

## ※ Submersible pumps 4 poles (1450 min$^{-1}$)



### PERFORMANCE RANGE
- Flow rate up to **2800 l/min** (168 m$^3$/h)
- Head up to **16.5 m**

### INSTALLATION AND USE
The **MC4** series is constructed from thick stainless steel and cast iron, offering exceptional robustness, abrasion resistance, and durability. Equipped with a **TWO-CHANNEL** impeller, the pumps are designed to **drain liquids containing suspended solids and short fibers, as well as sewage**, sludge-mixed water, groundwater, and surface water.
They are suitable for a wide range of applications, including apartment buildings, public facilities, industries, parking facilities, washing areas.

### ELECTRIC MOTOR
※ **The electric motor is safeguarded by a special three-phase thermal protector, situated within the motor, which activates in case of overheating or abnormal power consumption.**

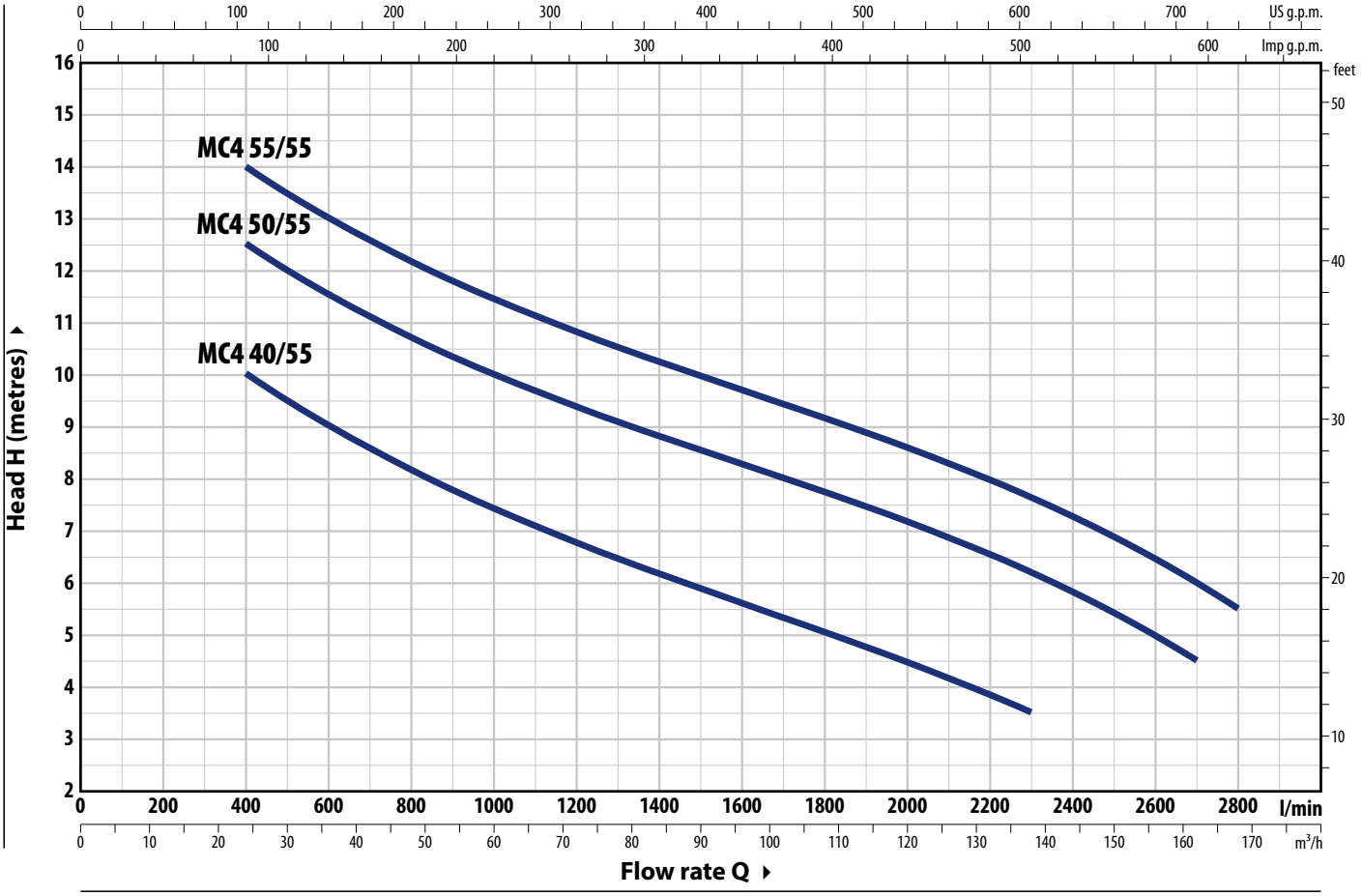
### INCLUDES
※ Power cable length **10 m**

### APPLICATION LIMITS
- Depth below water level up to **10 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Capable of processing suspended solids up to **Ø 55 mm**
- **Minimum immersion for continuous service: 550 mm**

### AVAILABLE UPON REQUEST
※ Pumps equipped with internal probes that detect the presence of water in the oil chamber

### PATENTS - TRADE MARKS - MODELS
- Registered Community Model No. 003863158-0004

## CURVES AND PERFORMANCE DATA – n= 1450 min$^{-1}$ 60 Hz




| TYPE | POWER (P2) | | Q | m³/h | 0 | 24 | 48 | 72 | 96 | 108 | 120 | 138 | 150 | 162 | 168 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | | l/min | **0** | **400** | **800** | **1200** | **1600** | **1800** | **2000** | **2300** | **2500** | **2700** | **2800** |
| **MC4 40/55** | 3 | 4 | | | 12.5 | 10 | 8.2 | 6.8 | 5.6 | 5 | 4.5 | 3.5 | | | |
| **MC4 50/55** | 3.7 | 5 | **H** | m | 15 | 12.5 | 10.7 | 9.4 | 8.3 | 7.7 | 7.2 | 6.2 | 5.4 | 4.5 | |
| **MC4 55/55** | 4 | 5.5 | | | 16.5 | 14 | 12.2 | 10.8 | 9.7 | 9.2 | 8.6 | 7.6 | 6.9 | 6 | 5.5 |

**Q** = Flow rate **H** = Total manometric head

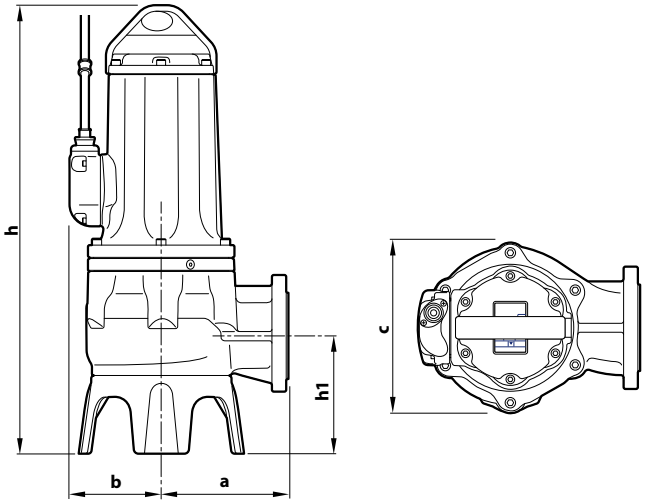
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## ABSORPTION

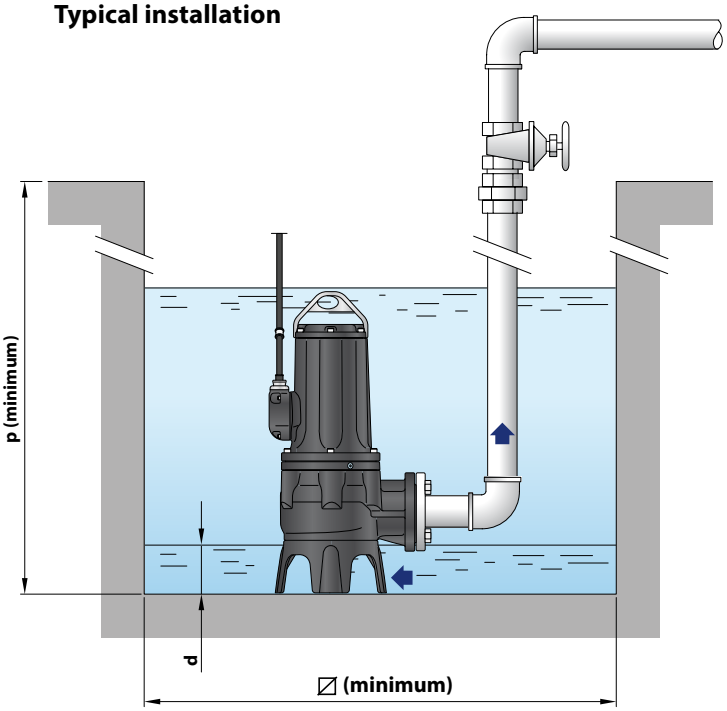
| TYPE Three-phase | VOLTAGE 380 V |
|---|---|
| **MC4-40/55** | 6.0 A |
| **MC4-50/55** | 7.9 A |
| **MC4-55/55** | 8.8 A |

| TYPE Three-phase | VOLTAGE 440 V |
|---|---|
| **MC4-40/55** | 5.2 A |
| **MC4-50/55** | 6.8 A |
| **MC4-55/55** | 7.7 A |

## DIMENSIONS AND WEIGHT

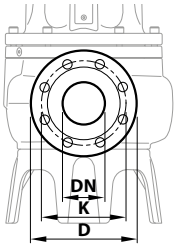



**Typical installation**




| TYPE Three-phase | Passage of solid bodies | DIMENSIONS mm a | b | c | h | h1 | d | p | ⍁ | kg 3~ |
|---|---|---|---|---|---|---|---|---|---|---|
| MC4-40/55 | Ø 55 mm | 248 | 165 | 320 | 792 | 228 | 140 | 1000 | 1000 | 125.2 |
| MC4-50/55 | | | | | | | | | | 133.0 |
| MC4-55/55 | | | | | | | | | | 136.0 |

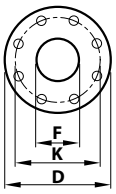
## PORT FLANGE




| TYPE Three-phase | FLANGE DN | K mm | D mm | HOLES N° | HOLES Ø (mm) |
|---|---|---|---|---|---|
| MC4-40/55 | 80 (PN10) | 160 | 200 | 8 | 18 |
| MC4-50/55 | | | | | |
| MC4-55/55 | | | | | |

## COUNTERFLANGE

(CAN BE ORDERED SEPARATELY)




| TYPE Three-phase | FLANGE DN | F | K mm | D mm | HOLES N° | HOLES Ø (mm) |
|---|---|---|---|---|---|---|
| MC4-40/55 | 80 | 3" | 160 | 200 | 8 | 18 |
| MC4-50/55 | | | | | | |
| MC4-55/55 | | | | | | |

## PALLET CAPACITY

| TYPE Three-phase | GROUPAGE n. pumps |
|---|---|
| MC4-40/55 | 4 |
| MC4-50/55 | 4 |
| MC4-55/55 | 4 |

## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment |
| 2 | **Base** | Cast iron with cataphoresis treatment |
| 3 | **Impeller** | TWO-CHANNEL cast iron type with cataphoresis treatment |
| 4 | **Motor holder** | Cast iron with cataphoresis treatment |
| 5 | **Motor cover** | Cast iron with cataphoresis treatment |
| 6 | **Motor shaft** | Stainless steel **AISI 431** |

**7 Double mechanical seal with interposed oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **MG91-40D** | Ø 40 mm | Motor side | Silicon carbide / Graphite / NBR |
| | | Pump side | Silicon carbide/Silicon carbide/NBR |

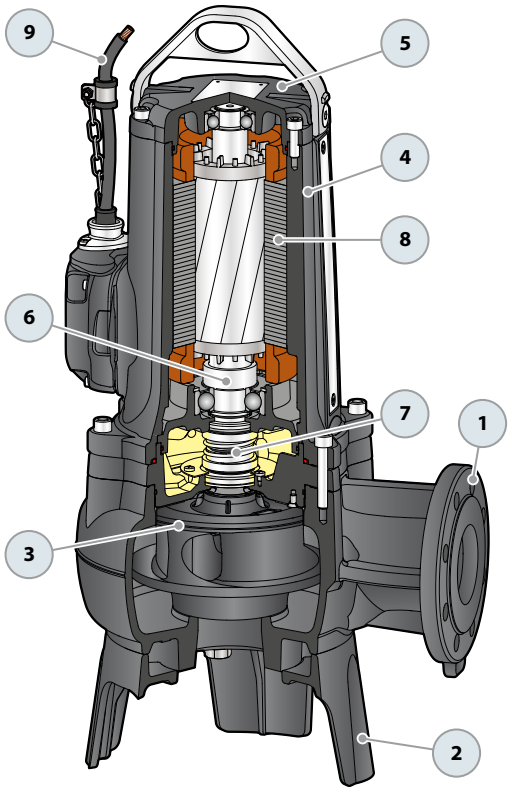
**8 Electric motor**

Three-phase 380 V - 60 Hz or 440 V - 60 Hz
with winding integrated thermal motor protection

– Insulation: class F
– Protection rating: IP X8

**9 Power cord**

※ 10 metres 'H07 RN-F' type



# SEWAGE LIFTING SYSTEM VXC4 - MC4

## VERSION WITH VERTICAL DELIVERY AND 2" GUIDE TUBES

| | | |
|---|---|---|
| For **VXC4** | Code ASSPVXC4V | DN **4"** |
| For **MC4** | Code ASSPMC4V | DN **3"** |



**※ Kit consisting of:**



Coupling foot complete with counterflange



Slide rail with screws and gasket



Support for guide tubes

## ACCESSORIES AVAILABLE FOR ORDER

### RUNNING GUIDE

| | |
|---|---|
| ※ For VXC4 | Code ASSFL100 |
| ※ For MC4 | Code ASSFL080 |

Complete with screws and seals



### INTERMEDIATE GUIDE TUBE SUPPORT

| | |
|---|---|
| ※ For guide tubes Ø 2" | Code 859SV349INTFA |



**For reasons of stability, interpose a support every 3 metres (recommended)**

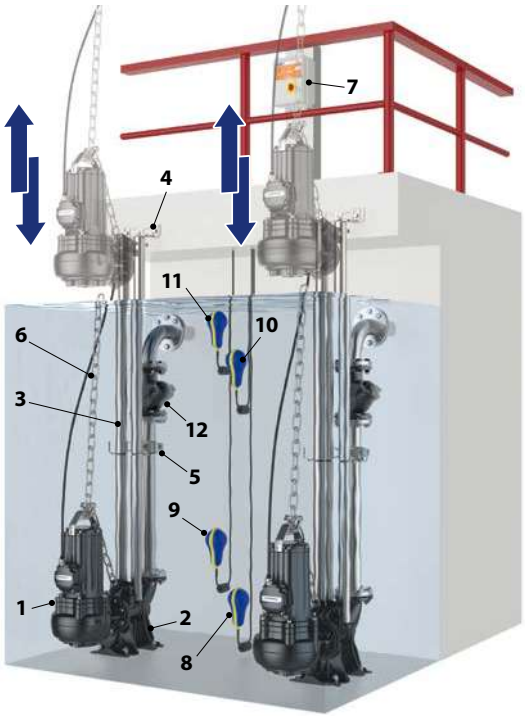
### GUIDE TUBE ( AISI 304 stainless steel)

| | |
|---|---|
| ※ 3 metres Ø 2" guide tube | Code 54SARTG0063F |
| ※ 6 metres guide tube Ø 2" | Code 54SARTG0066F |

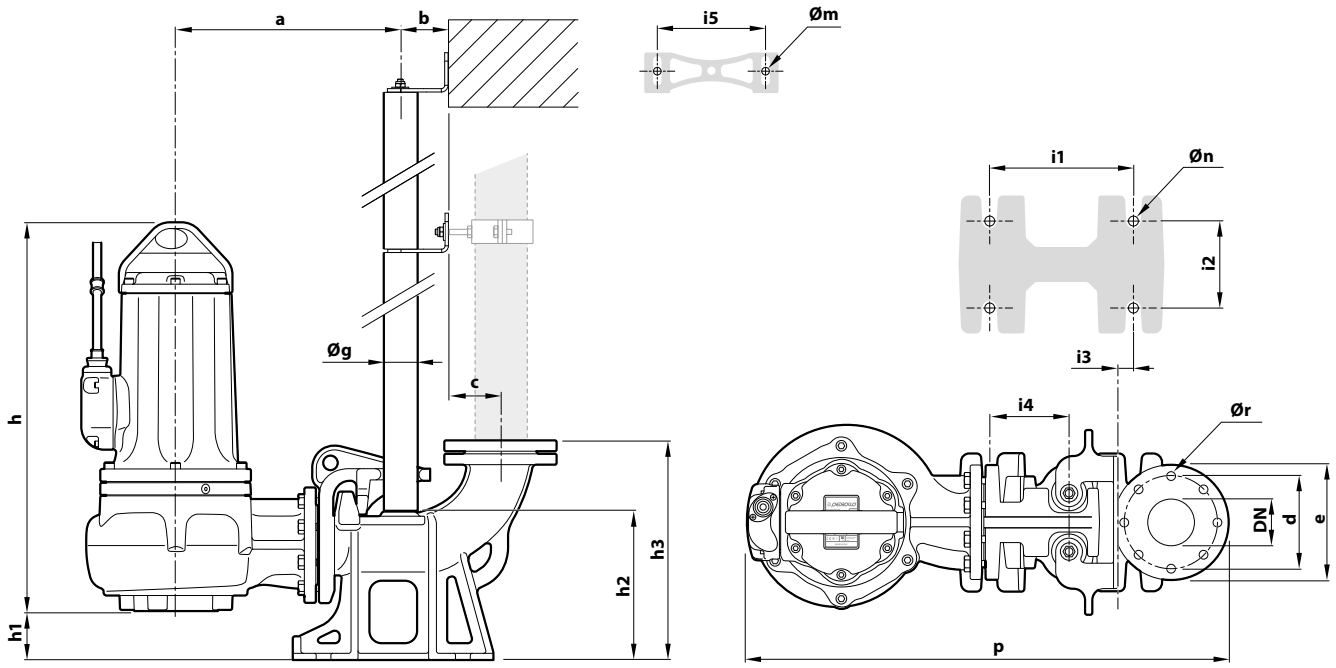


## Typical installation

1. Water pump
2. Pump Base
3. Guide Rails
4. Upper Guide Rail Support
5. Intermediate Guide Rail Support
6. Lifting chain
7. Control Panel
8. Stop Float Switch
9. Start Float Switch
10. Supplementary pump start float switch
11. Alarm float
12. Check val



## DIMENSIONS




| TYPE | Passage of solid bodies | PORT | DIMENSIONS mm | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Three-phase** | mm | **DN** | a | b | c | d | e | p | h | h1 | h2 | h3 | i1 | i2 | i3 | i4 | i5 | Øg | Øm | Øn | Ør |
| **VXC4-40/100** | | | | | | | | | | | | | | | | | | | | | |
| **VXC4-50/100** | **Ø 100 mm** | **4"** | 376 | 85 | 105 | 180 | 220 | 841 | 695 | 107 | 266 | 426 | 250 | 150 | 34 | 130 | 186 | 2" | 13 | 16 | 18 |
| **VXC4-55/100** | | | | | | | | | | | | | | | | | | | | | |

| TYPE | Passage of solid bodies | PORT | DIMENSIONS mm | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Three-phase** | mm | **DN** | a | b | c | d | e | p | h | h1 | h2 | h3 | i1 | i2 | i3 | i4 | i5 | Øg | Øm | Øn | Ør |
| **MC4-40/55** | | | | | | | | | | | | | | | | | | | | | |
| **MC4-50/55** | **Ø 55 mm** | **3"** | 396 | 85 | 95 | 160 | 200 | 841 | 680 | 92 | 256 | 592 | 250 | 150 | 34 | 130 | 186 | 2" | 13 | 16 | 18 |
| **MC4-55/55** | | | | | | | | | | | | | | | | | | | | | |

Sewage
Civil use
Industrial use

## ※ Submersible pumps 4 poles (1750 min$^{-1}$)



### PERFORMANCE RANGE

- Flow rate up to **5000 l/min** (300 m$^3$/h)
- Head up to **21 m**

### INSTALLATION AND USE

The **VXC4** series is constructed from thick stainless steel and cast iron, offering exceptional robustness, abrasion resistance, and durability. Equipped with a **VORTEX**-type impeller, the pumps are designed to **drain sewage, sludge-mixed water, and activated and putrid sludge**.
They are suitable for a wide range of applications, including sewers, tunnels, excavations, canals, and underground parking facilities.

### ELECTRIC MOTOR

※ **Electric motor with built-in three-phase thermal protection in the winding must be connected to the control panel.**
**N.B. The warranty is valid if the thermal protection is connected to the control panel.**

### INCLUDES

※ Power cable length **10 m**

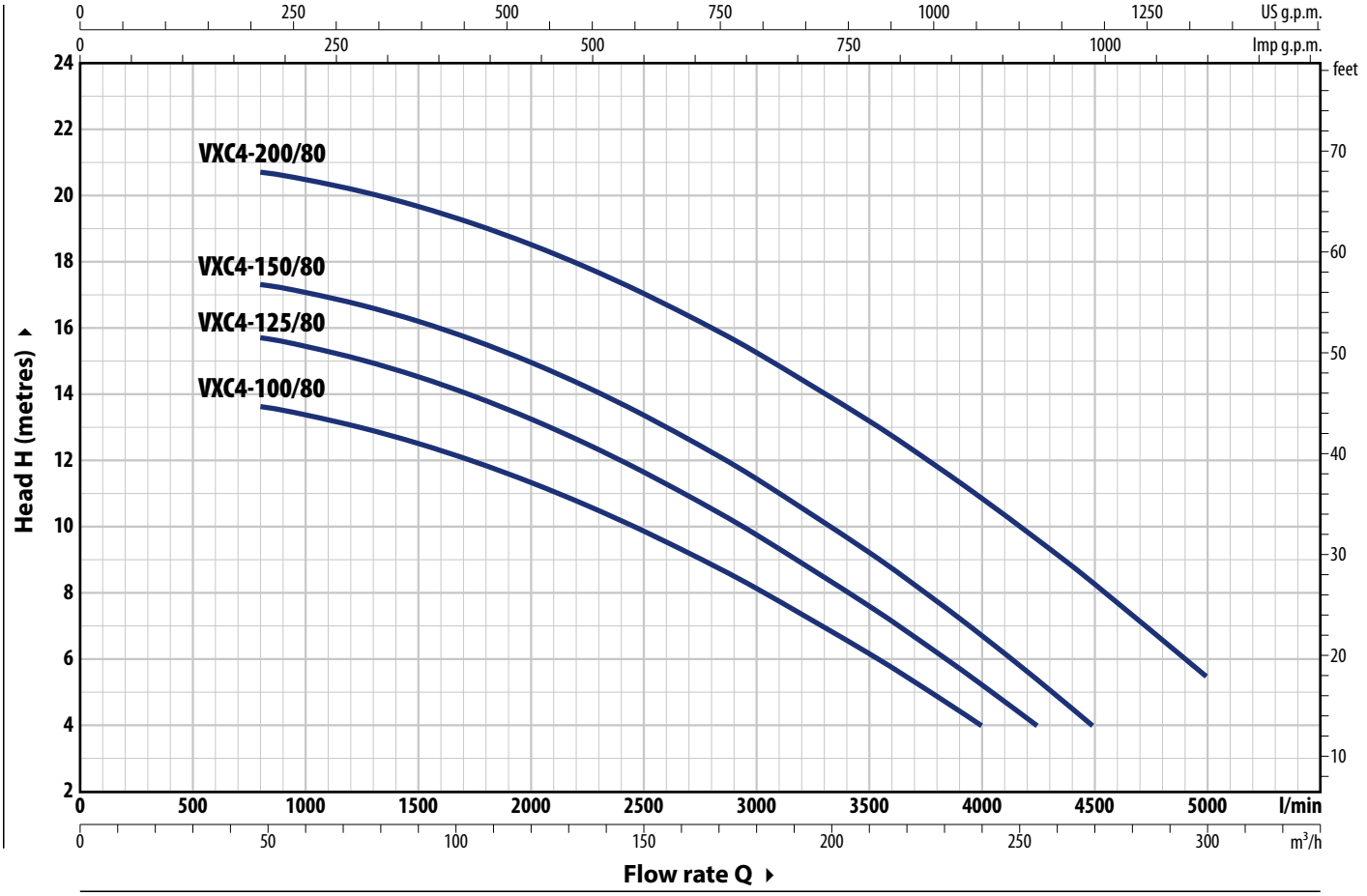
### APPLICATION LIMITS

- Depth below water level up to **10 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Capable of processing suspended solids up to **Ø 80 mm**
- **For continuous service, the pump must not rise more than 290 mm**

### AVAILABLE UPON REQUEST

※ Pumps equipped with internal probes that detect the presence of water in the oil chamber
※ Pumps with double cable for star/delta starting
※ Different voltage or frequency

## CURVES AND PERFORMANCE DATA – n= 1750 min$^{-1}$ 60 Hz




| TYPE | POWER (P2) | | Q | m³/h | 0 | 48 | 60 | 90 | 120 | 150 | 180 | 210 | 240 | 255 | 270 | 300 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | | l/min | **0** | **800** | **1000** | **1500** | **2000** | **2500** | **3000** | **3500** | **4000** | **4250** | **4500** | **5000** |
| **VXC4-100/80** | 7.5 | 10 | H | metres | 14 | 13.5 | 13.4 | 12.5 | 11.3 | 9.9 | 8.1 | 6.2 | 4 | | | |
| **VXC4-125/80** | 9.2 | 12.5 | | | 16 | 15.5 | 15.5 | 14.5 | 13.3 | 11.7 | 9.8 | 7.6 | 5.3 | 4 | | |
| **VXC4-150/80** | 11 | 15 | | | 17.5 | 17.5 | 17.1 | 16.2 | 14.9 | 13.4 | 11.4 | 9.2 | 6.7 | 5.4 | 4 | |
| **VXC4-200/80** | 15 | 20 | | | 21 | 20.5 | 20.5 | 19.7 | 18.5 | 17.1 | 15.3 | 13.2 | 10.9 | 9.6 | 8.3 | 5.5 |

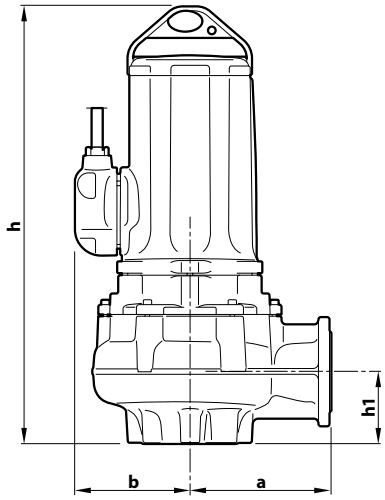
**Q** = Flow rate **H** = Total manometric head

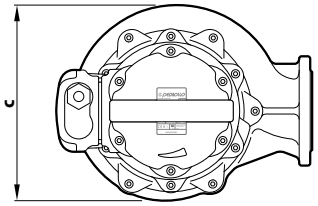
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## ABSORPTION

| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| Three-phase | 220 V - Δ | 380 V - Y | 380 V - Δ | 660 V - Y |
| **VXC4-100/80** | 41.5 A | 24.0 A | 24.0 A | 13.9 A |
| **VXC4-125/80** | 45.0 A | 26.0 A | 26.0 A | 15.0 A |
| **VXC4-150/80** | 47.6 A | 27.5 A | 27.5 A | 15.9 A |
| **VXC4-200/80** | – | – | 39.0 A | 22.5 A |

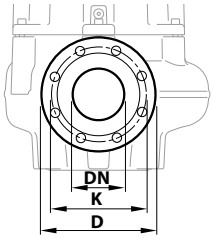
## DIMENSIONS AND WEIGHT




| TYPE Three-phase | Passage of solid bodies | DIMENSIONS mm a | b | c | h | h1 | kg 3~ |
|---|---|---|---|---|---|---|---|
| VXC4-100/80 | Ø 80 mm | 285 | 228 | 395 | 858 | 130 | 215 |
| VXC4-125/80 | | | | | | | 217 |
| VXC4-150/80 | | | | | | | 227 |
| VXC4-200/80 | | | | | | | 237 |

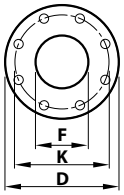
## PORT FLANGE




| TYPE Three-phase | FLANGE DN | K mm | D mm | HOLES N° | HOLES Ø (mm) |
|---|---|---|---|---|---|
| VXC4-100/80<br>VXC4-125/80<br>VXC4-150/80<br>VXC4-200/80 | 100 (PN10) | 180 | 220 | 8 | 18 |

## COUNTERFLANGE

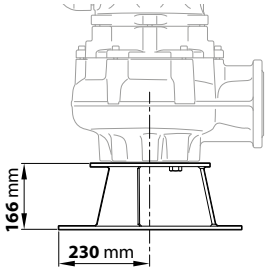
(CAN BE ORDERED SEPARATELY)

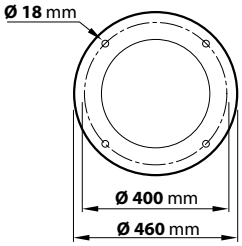



| TYPE Three-phase | FLANGE DN | F | K mm | D mm | HOLES N° | HOLES Ø (mm) |
|---|---|---|---|---|---|---|
| VXC4-100/80<br>VXC4-125/80<br>VXC4-150/80<br>VXC4-200/80 | 100 | 4" | 180 | 220 | 8 | 18 |

## BASE

(CAN BE ORDERED SEPARATELY)



## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment |
| 2 | **Impeller** | Cast iron VORTEX type with cataphoresis treatment |
| 3 | **Motor holder** | Cast iron |
| 4 | **Motor cover** | Cast iron |
| 5 | **Motor shaft** | Stainless steel **AISI 431** |

**6 Double mechanical seal with interposed oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **MG1-43** | Ø 43 mm | Motor side | Ceramic / Graphite / NBR |
| **ARP-40** | Ø 40 mm | Pump side | Silicon carbide/Silicon carbide/NBR |

**7 Electric Motor**

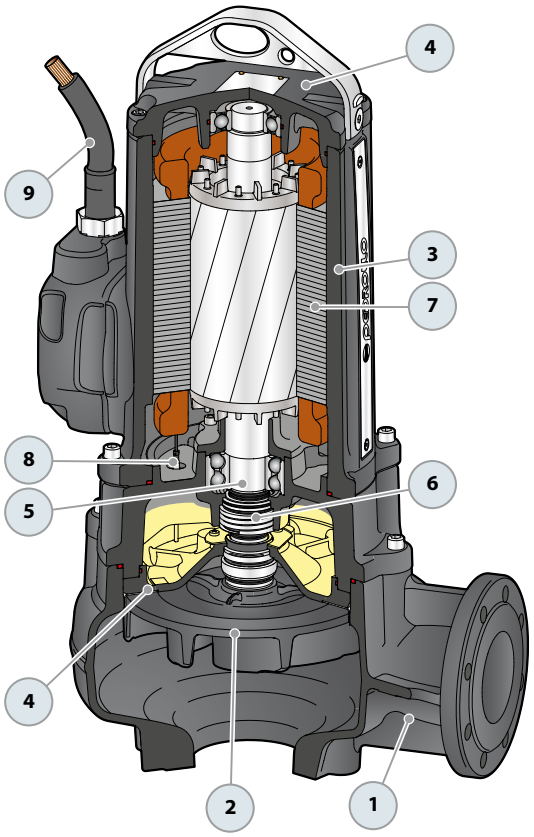
Three-phase 220/380 V - 60 Hz or 380/660 V - 60 Hz
with winding integrated thermal three-phase motor protection to be connected to the control panel

– Insulation: class F
– Protection rating: IP X8

**8 ※ Probe for detecting water in the oil chamber**

**9 Power cord**

※ 10 metres '**EM2 quality**' type



Sewage
Civil use
Industrial use

## ※ Submersible pumps 4 poles (1750 $min^{-1}$)



### PERFORMANCE RANGE

- Flow rate up to **5000 l/min** (300 $m^3$/h)
- Head up to **26.5 m**

### INSTALLATION AND USE

The **MC4** series is constructed from thick stainless steel and cast iron, offering exceptional robustness, abrasion resistance, and durability.
Equipped with a **TWO-CHANNEL** impeller, the pumps are designed to drain liquids containing suspended solids and short fibers, as well as **sewage, sludge-mixed water, groundwater, and surface water**. They are suitable for a wide range of applications, including apartment buildings, public facilities, industries, parking facilities, washing areas.

### ELECTRIC MOTOR

※ **Electric motor with built-in three-phase thermal protection in the winding must be connected to the control panel.**
**N.B. The warranty is valid if the thermal protection is connected to the control panel.**

### INCLUDES

※ Power cable length **10 m**

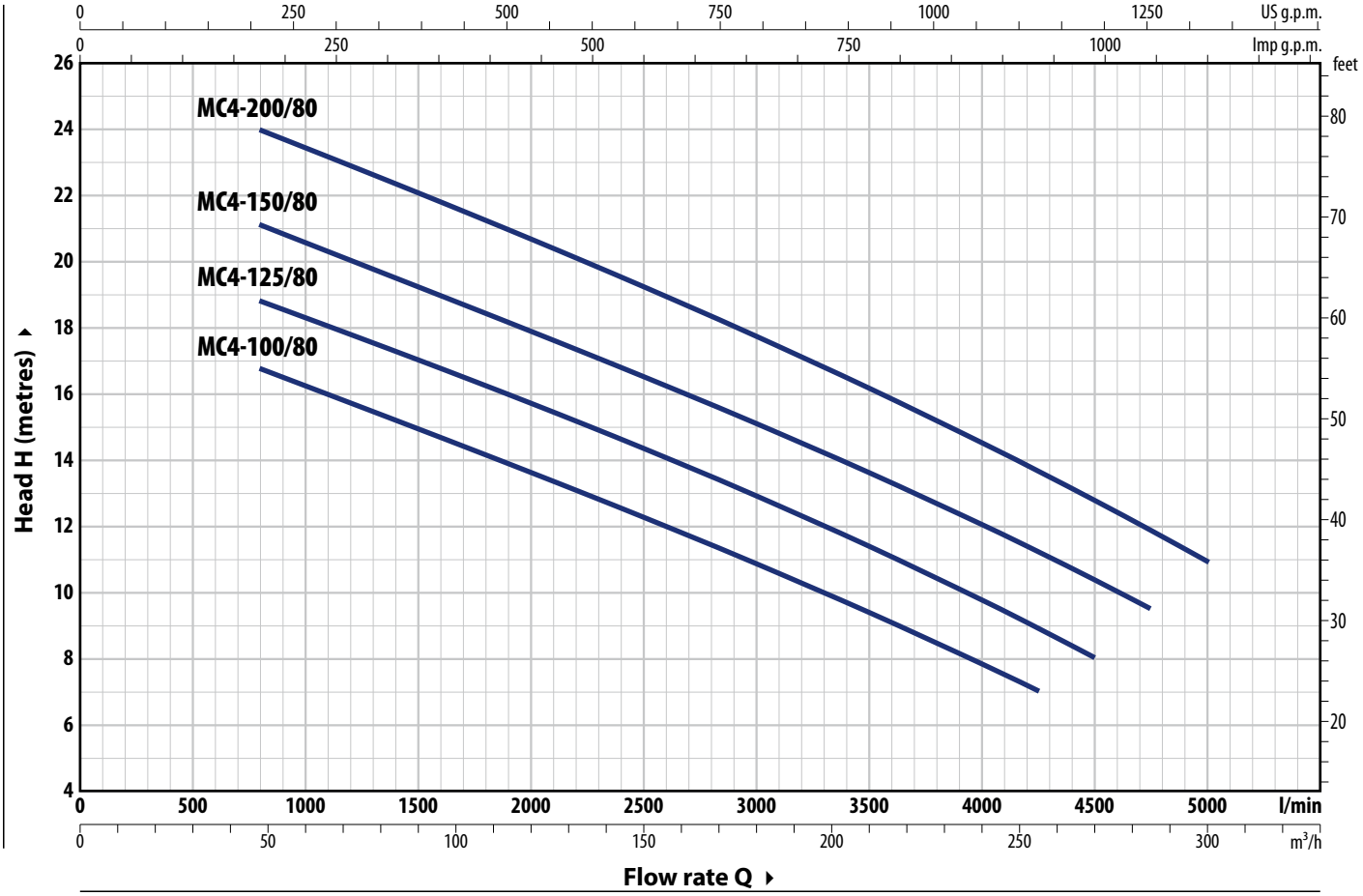
### APPLICATION LIMITS

- Depth below water level up to **10 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Capable of processing suspended solids up to **Ø 80 mm**
- **For continuous service, the pump must not rise more than 290 mm**

### AVAILABLE UPON REQUEST

※ Pumps equipped with internal probes that detect the presence of water in the oil chamber
※ Pumps with double cable for star/delta starting
※ Different voltage or frequency

## CURVES AND PERFORMANCE DATA – n= 1750 min$^{-1}$ 60 Hz




| TYPE | POWER (P2) | | Q | m³/h | 0 | 48 | 60 | 90 | 120 | 150 | 180 | 210 | 240 | 255 | 270 | 285 | 300 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | kW | HP | | l/min | **0** | **800** | **1000** | **1500** | **2000** | **2500** | **3000** | **3500** | **4000** | **4250** | **4500** | **4750** | **5000** |
| **MC4-100/80** | 7.5 | 10 | **H** | metres | 19 | 17 | 16.4 | 15.1 | 13.7 | 12.3 | 10.9 | 9.4 | 7.8 | 7 | | | |
| **MC4-125/80** | 9.2 | 12.5 | | | 21 | 19 | 18.5 | 17.2 | 15.8 | 14.4 | 13 | 11.4 | 9.8 | 8.9 | 8 | | |
| **MC4-150/80** | 11 | 15 | | | 23.5 | 21.5 | 20.7 | 19.4 | 18 | 16.6 | 15.2 | 13.7 | 12.1 | 11.3 | 10.4 | 9.5 | |
| **MC4-200/80** | 15 | 20 | | | 26.5 | 24 | 23.7 | 22.3 | 20.9 | 19.4 | 17.9 | 16.3 | 14.6 | 13.8 | 12.9 | 12 | 11 |

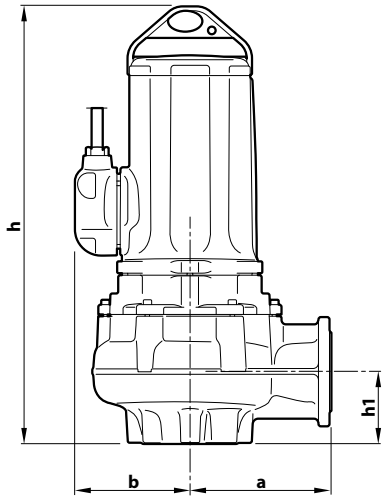
**Q** = Flow rate **H** = Total manometric head

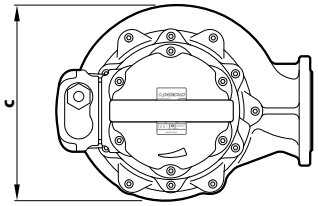
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## ABSORPTION

| TYPE | VOLTAGE | | | |
|---|---|---|---|---|
| Three-phase | 220 V - Δ | 380 V - Y | 380 V - Δ | 660 V - Y |
| **MC4-100/80** | 34.6 A | 20.0 A | 20.0 A | 11.6 A |
| **MC4-125/80** | 39.8 A | 23.0 A | 23.0 A | 13.3 A |
| **MC4-150/80** | 43.3 A | 25.0 A | 25.0 A | 14.5 A |
| **MC4-200/80** | – | – | 30.0 A | 17.3 A |

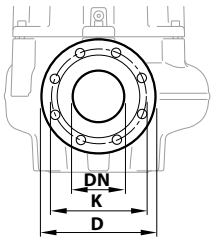
## DIMENSIONS AND WEIGHT




| TYPE Three-phase | Passage of solid bodies | DIMENSIONS mm a | b | c | h | h1 | kg 3~ |
|---|---|---|---|---|---|---|---|
| MC4-100/80 | Ø 80 mm | 285 | 228 | 395 | 858 | 130 | 224 |
| MC4-125/80 | | | | | | | 226 |
| MC4-150/80 | | | | | | | 236 |
| MC4-200/80 | | | | | | | 246 |

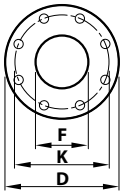
## PORT FLANGE




| TYPE Three-phase | FLANGE DN | K mm | D mm | HOLES N° | HOLES Ø (mm) |
|---|---|---|---|---|---|
| MC4-100/80<br>MC4-125/80<br>MC4-150/80<br>MC4-200/80 | 100 (PN10) | 180 | 220 | 8 | 18 |

## COUNTERFLANGE

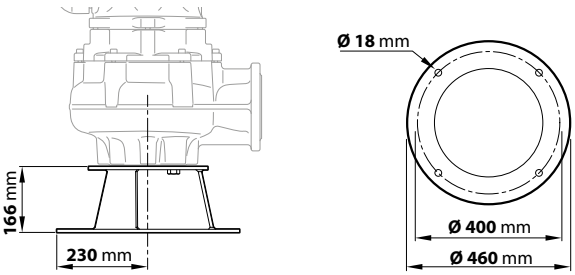
(CAN BE ORDERED SEPARATELY)




| TYPE Three-phase | FLANGE DN | F | K mm | D mm | HOLES N° | HOLES Ø (mm) |
|---|---|---|---|---|---|---|
| MC4-100/80<br>MC4-125/80<br>MC4-150/80<br>MC4-200/80 | 100 | 4" | 180 | 220 | 8 | 18 |

## BASE

(CAN BE ORDERED SEPARATELY)



## MATERIALS AND COMPONENTS

| | | |
|---|---|---|
| 1 | **Pump body** | Cast iron with cataphoresis treatment |
| 2 | **Impeller** | TWO-CHANNEL cast iron type with cataphoresis treatment |
| 3 | **Motor holder** | Cast iron |
| 4 | **Motor cover** | Cast iron |
| 5 | **Motor shaft** | Stainless steel **AISI 431** |

**6 Double mechanical seal with interposed oil chamber**

| Seal | Shaft | Location | Materials |
|---|---|---|---|
| **MG1-43** | Ø 43 mm | Motor side | Ceramic / Graphite / NBR |
| **ARP-40** | Ø 40 mm | Pump side | Silicon carbide/Silicon carbide/NBR |

**7 Electric Motor**

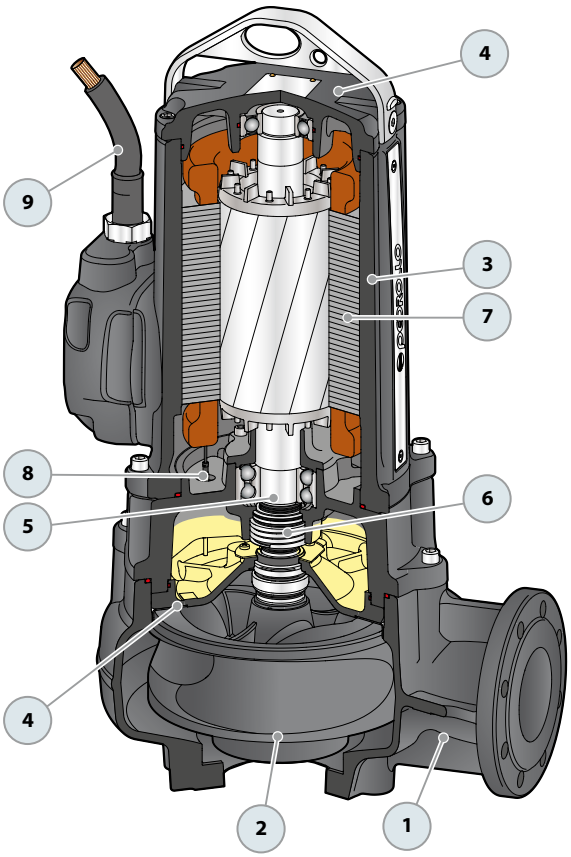
Three-phase 220/380 V - 60 Hz or 380/660 V - 60 Hz
with winding integrated thermal three-phase motor protection to be connected to the control panel

– Insulation: class F
– Protection rating: IP X8

**8 ※ Probe for detecting water in the oil chamber**

**9 Power cord**

※ 10 metres '**EM2 quality**' type



# SEWAGE LIFTING SYSTEM VXC4 - MC4

## VERSION WITH VERTICAL DELIVERY AND 2" GUIDE TUBES

| | | |
|---|---|---|
| For **VXC4, MC4** | Code ASSPVXC4V | DN **4"** |



**※ Kit consisting of:**



Coupling foot complete with counterflange



Slide rail with screws and gasket



Support for guide tubes

## ACCESSORIES AVAILABLE FOR ORDER

### RUNNING GUIDE

| | |
|---|---|
| ※ For VXC4, MC4 | Code ASSFL100 |

Complete with screws and seals



### INTERMEDIATE GUIDE TUBE SUPPORT

| | |
|---|---|
| ※ For guide tubes Ø **2"** | Code 859SV349INTFA |

**For reasons of stability interpose a support every 3 metres**



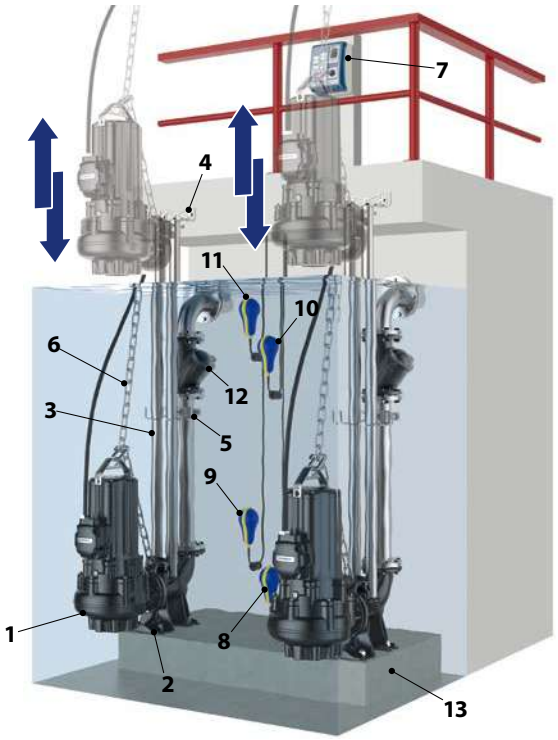
### GUIDE TUBE ( **AISI 304 stainless steel**)

| | |
|---|---|
| ※ 3 metres Ø 2" guide tube | Code 54SARTG0063F |
| ※ 6 metres guide tube Ø 2" | Code 54SARTG0066F |

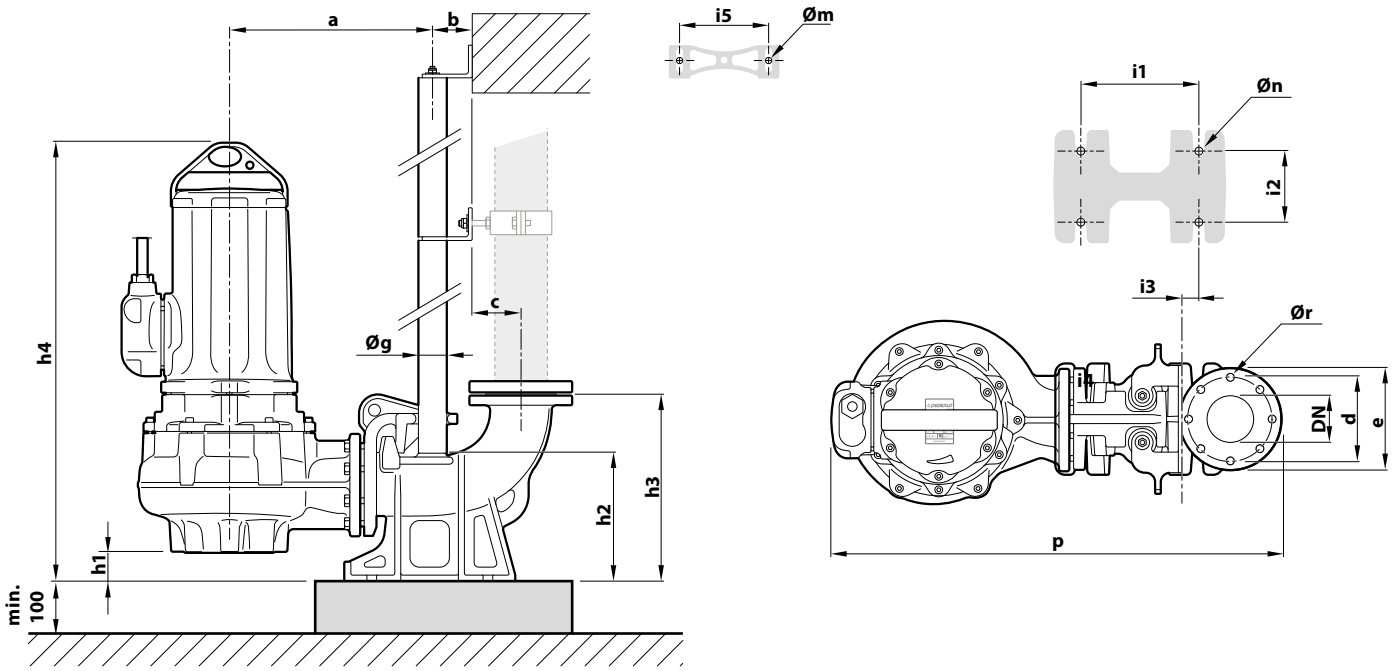


## Typical installation

1. Water pump
2. Pump Base
3. Guide Rails
4. Upper Guide Rail Support
5. Intermediate Guide Rail Support
6. Lifting chain
7. Control panel
8. Stop Float Switch
9. Start Float Switch
10. Supplementary pump start float switch
11. Alarm float
12. Check valve
13. Pump Pedestal



## DIMENSIONS




| TYPE | Passage of solid bodies | PORT | DIMENSIONS mm | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Three-phase | mm | DN | a | b | c | d | e | p | h1 | h2 | h3 | h4 | i1 | i2 | i3 | i5 | Øg | Øm | Øn | Ør |
| VXC4 /80<br>MC4 /80 | Ø 80 mm | 100 | 435 | 85.5 | 104.5 | 180 | 220 | 965 | 77 | 275 | 400 | 935 | 250 | 150 | 34 | 187 | 2" | 13.5 | 22 | 18 |

# SAR 40 Lift and collection stations




## INSTALLATION AND USE

The **SAR 40** lift and collection stations are designed to handle clear water, rainwater, and wastewater from household drains like washing machines, dishwashers, and sinks, especially in situations where connection to the main sewer system is impractical or impossible due to distance or gravity constraints.

The **SAR 40** stations are compact and easy to install in basements, single-residence garages, or even underground

## COMPONENTS INCLUDED

※ **40 litres** polyethylene tank with a non-walkable and non-driveable cover.

※ Single-phase submersible pump.

※ Standard **5-metres** power cable .

※ Swing check valve for models with drainage pumps only (for clear wastewater).

## AVAILABLE UPON REQUEST

※ **SAR 40 lift station, equipped with a single-phase submersible pump with a float switch, based on your specific requirements.**

※ **10-metres** power cable.

※ Full-flow check valve (for external installation) designed for vortex and grinder pumps.

## ※ SAR 40 with grinder pump

| TYPE | POWER (P2) kW | HP | MAXIMUM FLOW RATE litres/min | PREVALENCE MAX metres | |
|---|---|---|---|---|---|
| **TRITUS-TX** | **0.55** | **0.75** | **90** | **11.5** |  |

**※ Suitable for sewage**

## ※ SAR 40 with drainage pumps

| TYPE | POWER (P2) kW | HP | MAXIMUM FLOW RATE litres/min | PREVALENCE MAX metres | |
|---|---|---|---|---|---|
| **TOP 1 -GM** | **0.25** | **0.33** | **160** | **6.0** |  |
| **RXm 1 -GM** | **0.25** | **0.33** | **160** | **7.0** |  |

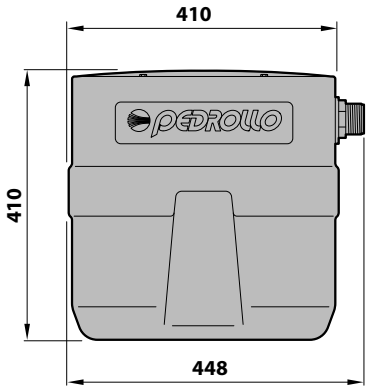
**※ Suitable for clear wastewater**

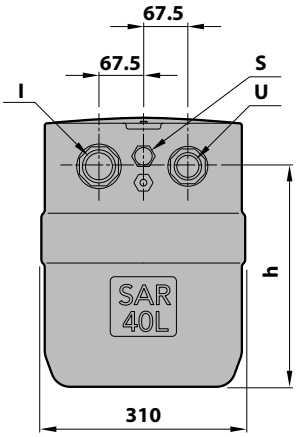
## ※ SAR 40 with vortex pumps

| TYPE | POWER (P2) kW | HP | MAXIMUM FLOW RATE litres/min | PREVALENCE MAX metres | |
|---|---|---|---|---|---|
| **TOP 2 VORTEX-GM** | **0.37** | **0.50** | **155** | **7.0** |  |
| **TEX 2** | **0.37** | **0.50** | **200** | **7.8** |  |

**※ Suitable for dirty waste water**

## DIMENSIONS AND WEIGHT



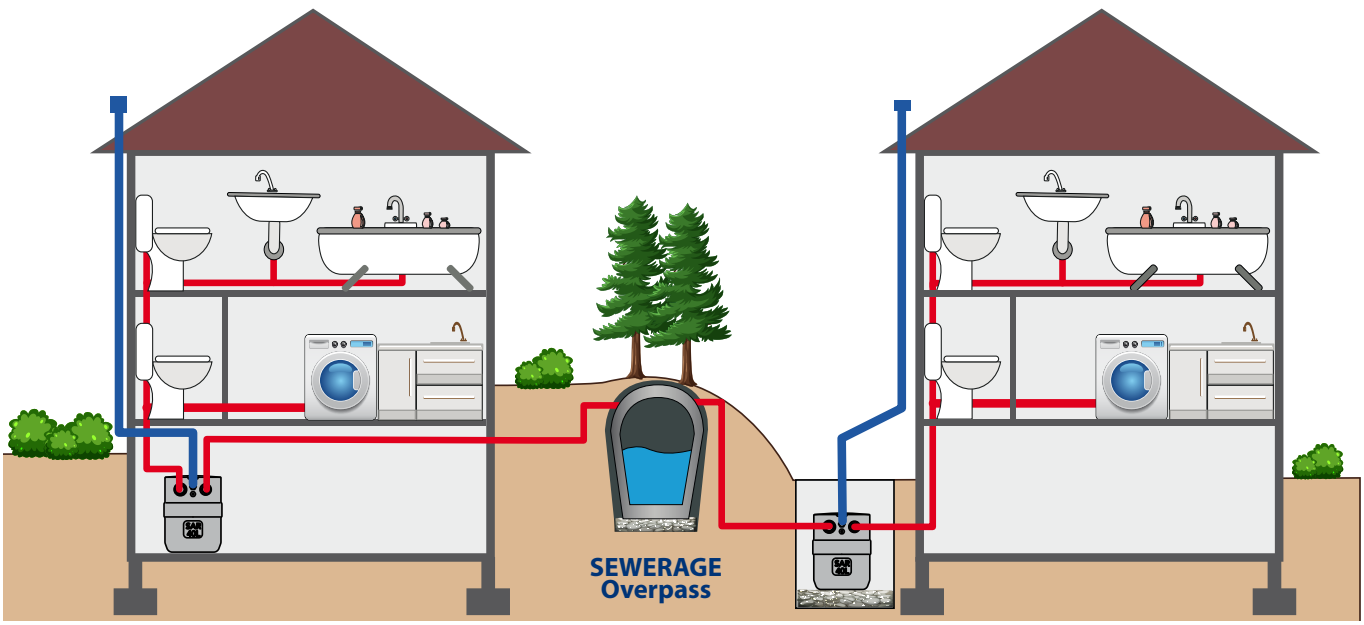

**KEY:**

**I** collection pipe connection
**U** discharge pipe connection
**S** ventilation pipe connection

| TYPE | PORTS | | | h | kg |
|---|---|---|---|---|---|
| | I[1] | U[1] | S[1] | | |
| **SAR 40 - TRITUS-TX** | 1½" | 1¼" | ½" | 335 | 15.9 |
| **SAR 40 - TOP 1-GM** | | | | 305 | 14.3 |
| **SAR 40 - RXm 1-GM** | | | | | 15.2 |
| **SAR 40 - TOP 2 VORTEX-GM** | | | | 335 | 14.4 |
| **SAR 40 - TEX 2** | | | | | 15.0 |

[1] Male threaded connection

## EXAMPLES OF INSTALLATION




**Surface installation** **Underground installation**

# SAR 100 Lift and collection stations



## INSTALLATION AND USE

**SAR 100** lift and collection stations are designed to handle clear water, rainwater, and wastewater from household drains like washing machines, dishwashers, sinks, and toilets, especially in situations where connection to the main sewer system is impractical or impossible due to distance or gravity constraints.

The **SAR 100** stations are compact and easy to install either on the floor or underground, both inside and outside of single or two-family homes.

## COMPONENTS INCLUDED

※ **100 litres** polyethylene tank with a non-walkable and non-driveable cover.

※ Single-phase submersible pump.

※ Standard **10-metres** power cable.

※ Control panel (only for **SAR 100-TIGm 1.1** and **1.3**)

## AVAILABLE UPON REQUEST

※ **SAR 100 lift station, equipped with a single-phase submersible pump with a float switch, based on your specific requirements**

## ※ SAR 100 with drainage pumps

| TYPE | POWER (P2) kW | POWER (P2) HP | MAXIMUM FLOW RATE litres/min | PREVALENCE MAX metres | |
|---|---|---|---|---|---|
| TOP 3 | 0.55 | 0.75 | 260 | 10.0 |  |
| RXm 3 | 0.55 | 0.75 | 220 | 11.5 |  |
| Dm 10 | 0.75 | 1.0 | 300 | 15.5 |  |
| Dm 20 | 0.75 | 1.0 | 250 | 19.0 | |

**※ suitable for clear wastewater**

## ※ SAR 100 with vortex pumps

| TYPE | POWER (P2) kW | POWER (P2) HP | MAXIMUM FLOW RATE litres/min | PREVALENCE MAX metres | |
|---|---|---|---|---|---|
| TOP 3-VORTEX | 0.55 | 0.75 | 170 | 8.2 |  |
| RXm 3/20 | 0.55 | 0.75 | 240 | 9.5 |  |
| ZXm 2/30 | 0.55 | 0.75 | 320 | 12.5 |  |
| VXm 10/35 | 0.75 | 1.0 | 400 | 12.0 |  |

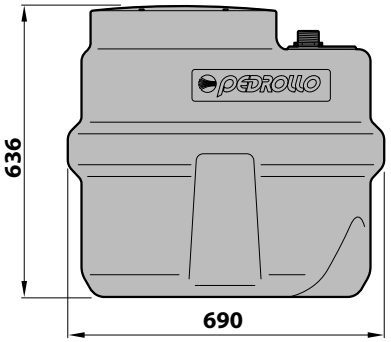
**※ suitable for dirty waste water**

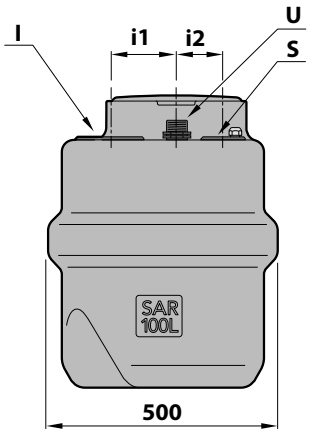
## ※ SAR 100 with grinder pumps (TRITUS)

| TYPE | POWER ($P_2$) kW | POWER ($P_2$) HP | MAXIMUM FLOW RATE litres/min | PREVALENCE MAX metres | |
|---|---|---|---|---|---|
| **TIGm 0.55** | **0.55** | **0.75** | **130** | **14.5** |  |
| **TIGm 0.75** | **0.75** | **1.0** | **140** | **17.5** | |
| **TIGm 1.1** | **1.1** | **1.5** | **150** | **22.5** | |
| **TIGm 1.3** | **1.3** | **1.75** | **250** | **20.5** | |

※ **suitable for sewage water**

### DIMENSIONS AND WEIGHT




**KEY:**

**I** collection pipe port
**U** discharge pipe connection
**S** ventilation pipe port

| TYPE | PORTS I | PORTS U(1) | PORTS S | i1 | I2 | kg |
|---|---|---|---|---|---|---|
| **SAR 100 - TOP 3** | DN 110 | 1¼" | DN 50 | 145 | 100 | 29.0 |
| **SAR 100 - RXm 3** | | 1¼" | | | | 29.9 |
| **SAR 100 - Dm 10** | | 1½" | | | | 36.3 |
| **SAR 100 - Dm 20** | | 1½" | | | | 36.3 |
| **SAR 100 - TOP 3-VORTEX** | | 1¼" | | | | 29.1 |
| **SAR 100 - RXm 3/20** | | 1¼" | | | | 30.0 |
| **SAR 100 - ZXm 2/30** | | 1½" | | | | 33.1 |
| **SAR 100 - VXm 10/35** | | 1½" | | | | 37.5 |
| **SAR 100 - TIGm 0.55** | | 1½" | | | | 38.2 |
| **SAR 100 - TIGm 0.75** | | 1½" | | | | 38.3 |
| **SAR 100 - TIGm 1.1** | | 1½" | | | | 40.6 |
| **SAR 100 - TIGm 1.3** | | 1½" | | | | 40.6 |

(1) Male threaded connection

# SAR 250 Lift and collection stations



## INSTALLATION AND USE

**SAR 250** lift and collection stations are designed to handle clear water, rainwater, and wastewater from household and civil drains like washing machines, dishwashers, sinks, and toilets, especially in situations where connection to the main sewer system is impractical or impossible due to distance or gravity constraints.

**SAR 250** stations are compact and easy to install, suitable for floor or underground placement, both indoors and outdoors of multi-unit buildings.

## COMPONENTS INCLUDED

※ **SAR 250** polyethylene tank with a non-driveable cover that can support pedestrian traffic up to a maximum of 100 kg.

※ Single-phase submersible pump.

※ Control panel (only for **SAR 250-TIGm 1.1** and **1.3**).

※ Standard **10-metres** power cable.

## AVAILABLE UPON REQUEST

※ **SAR 250 lift station, equipped with a single-phase submersible pump with a float switch, based on your specific requirements.**

※ Three-phase submersible pump

※ **Alarm kit** (Code: KSKIT-ALLARME) equipped with control panel, self-powered siren, and float

※ **300 mm extension kit** (Code No. KSKIT-308MA) for installing the "SAR" tank at greater depths

※ "SAR" Stations with check valve and ball valve in the discharge pipe.

## ※ SAR 250 with drainage pumps

| TYPE | POWER ($P_2$) kW | HP | MAXIMUM FLOW RATE litres/min | PREVALENCE MAX metres | |
|---|---|---|---|---|---|
| **TOP 3** | **0.55** | **0.75** | **260** | **10.0** |  |
| **TOP 4** | **0.75** | **1.0** | **320** | **12.5** | |
| **TOP 5** | **0.92** | **1.25** | **360** | **15.0** | |
| **RXm 3** | **0.55** | **0.75** | **220** | **11.5** |  |
| **Dm 10** | **0.75** | **1.0** | **300** | **15.5** |  |
| **Dm 20** | **0.75** | **1.0** | **250** | **19.0** | |
| **Dm 30** | **1.1** | **1.5** | **275** | **25.0** | |

**※ suitable for clear wastewater**

## ※ SAR 250 with VORTEX pumps

| TYPE | POWER ($P_2$) kW | HP | MAXIMUM FLOW RATE litres/min | PREVALENCE MAX metres | |
|---|---|---|---|---|---|
| **RXm 3/20** | **0.55** | **0.75** | **240** | **9.5** |  |
| **ZXm 2/40** | **0.55** | **0.75** | **400** | **11** |  |
| **VXm 10/35** | **0.75** | **1** | **400** | **10** |  |
| **VXm 15/35** | **1.1** | **1.5** | **500** | **16** | |
| **VXm 15/50** | **1.1** | **1.5** | **650** | **12** | |

**※ suitable for dirty waste water**

## ※ SAR 250 with grinder pumps (TRITUS)

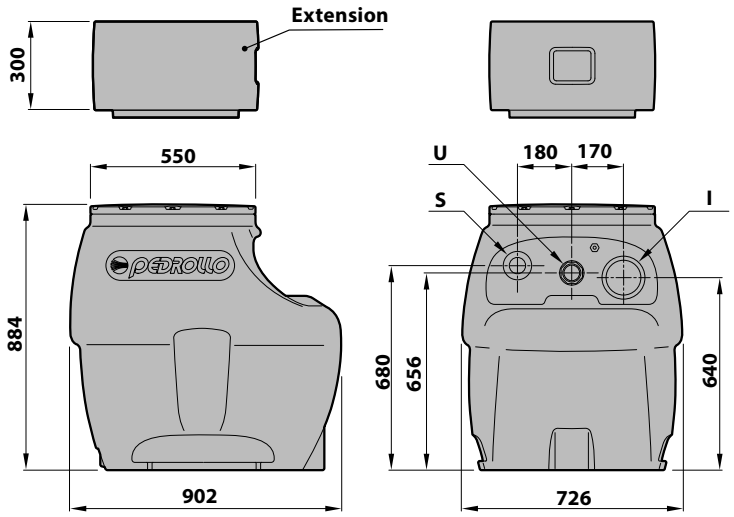
| TYPE | POWER ($P_2$) kW | POWER ($P_2$) HP | MAXIMUM FLOW RATE litres/min | PREVALENCE MAX metres | |
|---|---|---|---|---|---|
| **TIGm 0.75** | **0.75** | **1.0** | **140** | **17.5** |  |
| **TIGm 1.1** | **1.1** | **1.5** | **150** | **22.5** | |
| **TIGm 1.3** | **1.3** | **1.75** | **250** | **20.5** | |

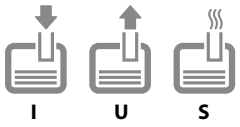
**※ suitable for sewage water**

### DIMENSIONS AND WEIGHT

| TYPE | PORTS I | PORTS U(1) | PORTS S | kg |
|---|---|---|---|---|
| **SAR 250 - TOP 3** | DN 110 | 1¼" | DN 50 | 49.7 |
| **SAR 250 - TOP 4** | | 1½" | | 53.3 |
| **SAR 250 - TOP 5** | | 1½" | | 54.3 |
| **SAR 250 - RXm 3** | | 1¼" | | 50.6 |
| **SAR 250 - Dm 10** | | 1½" | | 57.0 |
| **SAR 250 - Dm 20** | | 1½" | | 57.0 |
| **SAR 250 - Dm 30** | | 1½" | | 60.4 |
| **SAR 250 - RXm 3/20** | | 1¼" | | 50.7 |
| **SAR 250 - ZXm 2/40** | | 1½" | | 53.8 |
| **SAR 250 - VXm 10/35** | | 1½" | | 58.2 |
| **SAR 250 - VXm 15/35** | | 1½" | | 61.0 |
| **SAR 250 - VXm 15/50** | | 2" | | 61.5 |
| **SAR 250 - TIGm 0.75** | | 1½" | | 59.0 |
| **SAR 250 - TIGm 1.1** | | 1½" | | 61.3 |
| **SAR 250 - TIGm 1.3** | | 1½" | | 61.3 |

(1) Male threaded connection




**KEY:**
**I** collection pipe port
**U** discharge pipe connection
**S** ventilation pipe port

# SAR 550 Lift and collection stations



## INSTALLATION AND USE

The **SAR 550** lift and collection stations are designed to handle clear water, rainwater, or dirty water from civil and industrial drains, where the sewer network is too far away or not accessible by gravity.
The **SAR 550** stations are compact and easy to install on the floor or underground, both indoors and outdoors of residential buildings, offices, public establishments, courtyards, and parking facilities, for sewage or rainwater disposal.

## COMPONENTS INCLUDED

※ **550 litres** polyethylene tank with a non-driveable cover that can support pedestrian traffic up to a maximum of 100 kg.
※ **Two single-phase pumps (without float switches) pre-installed and already connected to a control panel.**
※ Standard **10-metres** power cable .
※ Control panel (**E2** model).
※ Three float switches with the following functions:
**1)** Alternating activation of one of the two pumps
**2)** Activation of the second pump at maximum level
**3)** Shutdown of the pump at minimum level

## AVAILABLE UPON REQUEST

※ **SAR 550 lift station, equipped with two single-phase pumps, based on your specific requirements.**
※ **Three-phase submersible pump.**

## OPTIONAL

※ **Alarm kit** (Code: KSKIT-ALLARME) equipped with control panel, self-powered siren, and float
※ **300 mm extension kit** (Code No. KSKIT-308MA) for installing the "SAR" tank at greater depths
※ "SAR" Stations with check valve and ball valve in the discharge pipe

## ※ SAR 550 with drainage pumps

| TYPE | POWER ($P_2$) kW | POWER ($P_2$) HP | MAXIMUM FLOW RATE [1] pump litres/min | PREVALENCE MAX metres | |
|---|---|---|---|---|---|
| **TOP 4** | **0.75** | **1** | **320** | **12.5** |  |
| **TOP 5** | **0.92** | **1.25** | **360** | **15** | |
| **Dm 10** | **0.75** | **1** | **300** | **15.5** |  |
| **Dm 20** | **0.75** | **1** | **250** | **19** | |
| **Dm 30** | **1.1** | **1.5** | **275** | **25** | |

**※ suitable for clear wastewater**

## ※ SAR 550 with VORTEX pumps

| TYPE | POWER ($P_2$) kW | POWER ($P_2$) HP | MAXIMUM FLOW RATE [1] pump litres/min | PREVALENCE MAX metres | |
|---|---|---|---|---|---|
| **VXm 10/35** | **0.75** | **1** | **400** | **12** |  |
| **VXm 15/35** | **1.1** | **1.5** | **500** | **16** | |
| **VXm 10/50** | **0.75** | **1** | **550** | **9.5** | |
| **VXm 15/50** | **1.1** | **1.5** | **650** | **12** | |
| **BCm 10/50** | **0.75** | **1** | **600** | **11** |  |
| **BCm 15/50** | **1.1** | **1.5** | **750** | **14** | |

**※ suitable for dirty waste water**

## ※ SAR 550 with grinder pumps (TRITUS)

| TYPE | POWER (P2) kW | POWER (P2) HP | MAXIMUM FLOW RATE [1] pump litres/min | PREVALENCE MAX metres | |
|---|---|---|---|---|---|
| TIGm 0.75 | 0.75 | 1 | 140 | 17.5 |  |
| TRm 0.9 | 0.9 | 1.25 | 170 | 15 | |
| TRm 1.1 | 1.1 | 1.5 | 140 | 21.5 | |
| TRm 1.3 | 1.3 | 1.75 | 220 | 22.5 | |
| TRm 1.5 | 1.5 | 2 | 270 | 25 | |

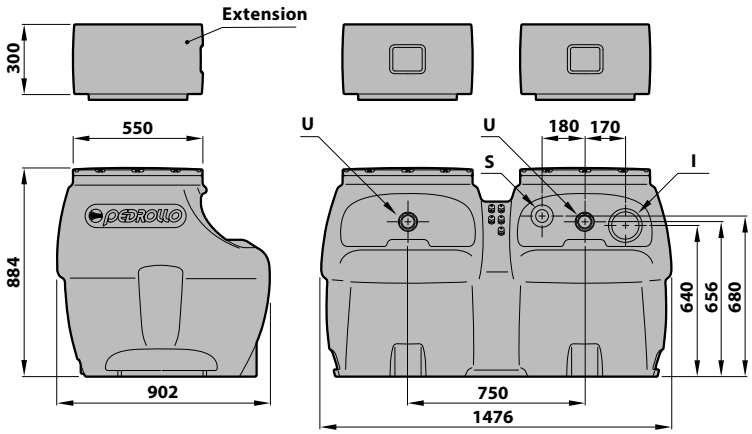
**※ suitable for sewage water**

**(*) On request "SAR" stations with coupling feet and guide pipes for pump descent**

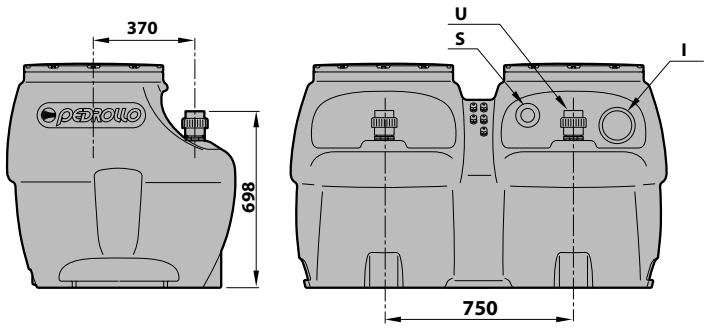
## DIMENSIONS AND WEIGHT

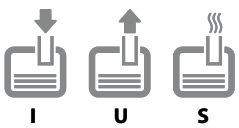
| TYPE | PORTS I | PORTS U(1) | PORTS S | kg |
|---|---|---|---|---|
| SAR 550 - TOP 4 | DN 110 | 1½" | DN 50 | 109.0 |
| SAR 550 - TOP 5 | | 1½" | | 110.9 |
| SAR 550 - Dm 10 | | 1½" | | 116.4 |
| SAR 550 - Dm 20 | | 1½" | | 116.4 |
| SAR 550 - Dm 30 | | 1½" | | 123.2 |
| SAR 550 - VXm 10/35 | | 1½" | DN 75 | 118.8 |
| SAR 550 - VXm 15/35 | | 1½" | | 124.4 |
| SAR 550 - VXm 10/50 | | 2 | | 119.8 |
| SAR 550 - VXm 15/50 | | 2 | | 125.4 |
| SAR 550 - BCm 10/50 | | 2 | | 120.8 |
| SAR 550 - BCm 15/50 | | 2 | | 126.0 |
| SAR 550 - TIGm 0.75 | | 1½" | DN 50 | 120.4 |
| SAR 550 - TRm 0.9 | | 1¼" | | 136.4 |
| SAR 550 - TRm 1.1 | | 1¼" | | 139.7 |
| SAR 550 - TRm 1.3 | | 1¼" | | 139.4 |
| SAR 550 - TRm 1.5 | | 1½" | | 178.4 |

(1) Male threaded connection




**Only for TR versions with coupling feet**




**KEY:**

**I** collection pipe port

**U** discharge pipe connection

**S** ventilation pipe port

# EASYPUMP Pumps with electronic control device

Domestic use



FUTURE JET-EP

## INSTALLATION AND USE

**EASYPUMP** is a ready-to-use and easy-to-install pressurization system, designed to increase water pressure for residential use or irrigation purposes.

**EASYPUMP** features a single-phase pump paired with an electronic control unit, known as EASYPRESS.
EASYPRESS ensures automatic activation or deactivation of the pump based on water consumption, offering protection against dry running and system leaks. it also has an integrated non-return valve and a micro-accumulator that allows operation without the need for an expansion tank.

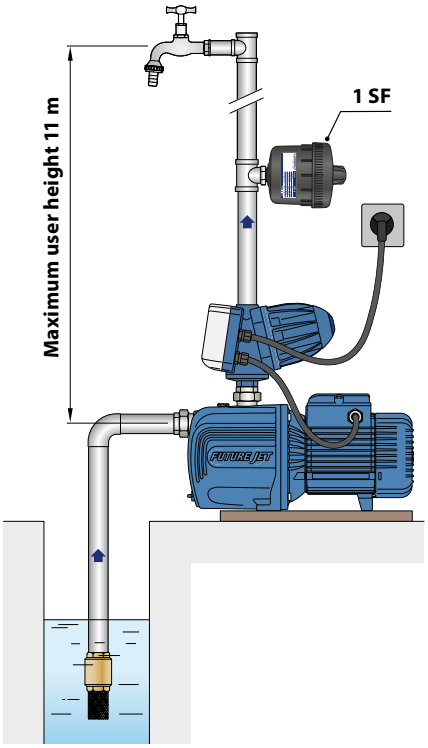
**EASYPUMP** activates automatically when the system's pressure drops below the preset threshold (**1.5 bar**) and continues to run as long as water is flowing**.**

## COMPONENTS INCLUDED

- **Single-phase pump**
- **EASYPRESS electronic control device with 1.5 bar restart pressure**
- **GSR quick-connect coupling**
- **1.5 metres cable with Schuko plug**

## EXAMPLES OF INSTALLATION

※ To minimize frequent restarts resulting from brief usage or system leaks, it is advisable to install an expansion tank pre-filled to **1.2 bar** (e.g., tank **1SF**).




| TYPE | POWER (P2) | | Q | H |
|---|---|---|---|---|
| **Single-phase** | **kW** | **HP** | l/min | metres |
| **3CPm 80-EP** | 0.45 | 0.60 | 5 – 80 | 38 – 5 |
| **4CPm 80-EP** | 0.55 | 0.75 | 5 – 80 | 50 – 10 |
| **4CPm 100-EP** | 0.75 | 1 | 5 – 130 | 50 – 5 |
| **3CRm 80-EP** | 0.45 | 0.60 | 5 – 80 | 38 – 5 |
| **4CRm 80-EP** | 0.55 | 0.75 | 5 – 80 | 50 – 10 |
| **4CRm 100-EP** | 0.75 | 1 | 5 – 130 | 50 – 5 |
| **CPm 620-EP** | 0.75 | 1 | 10 – 100 | 34 – 21 |
| **FUTURE JETm 2C - EP** | 0.75 | 1 | 5 – 120 | 47 – 6 |
| **FUTURE JETm 2A - EP** | 1.1 | 1.5 | 5 – 120 | 56 – 13.7 |
| **FUTURE JETm 2C ST - EP** | 0.75 | 1 | 5 – 100 | 47 – 6 |
| **FUTURE JETm 2A ST - EP** | 1.1 | 1.5 | 5 – 100 | 56 – 13.7 |
| **PLURIJETm 3/80-EP** | 0.48 | 0.65 | 5 – 80 | 38 – 5 |
| **PLURIJETm 4/80-EP** | 0.55 | 0.75 | 5 – 80 | 50 – 10 |
| **PLURIJETm 4/100-EP** | 0.75 | 1 | 5 – 130 | 50 – 5 |




HYDROFRESH 24 CL

## INSTALLATION AND USE

The **HYDROFRESH** group is designed for residential water supply or irrigation purposes and is available with a **24 litres** or a **60 litres** horizontal expansion tank. This cost-effective, ready-to-use system improves pressurization through two key features:

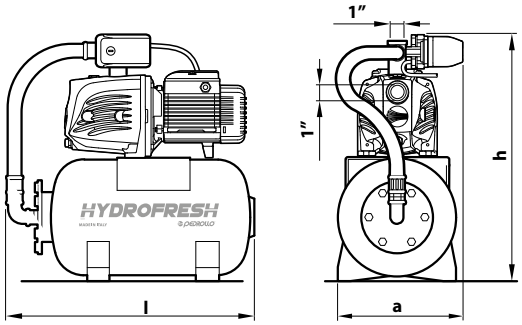
- an **expansion tank** designed to reduce the number of times the pump needs to turn on and counteract any loss of water pressure that occurs when you open a faucet
- a **pressure switch** that automatically controls the pump operation

## COMPONENTS INCLUDED

- ※ **Single-phase pump**
- ※ **Expansion tank**
- ※ **PSG-1 pressure switch**
- ※ **Pressure Gauge**
- ※ **Flexible hose**
- ※ **Brass fitting**
- ※ **1.5 metres cable with Schuko plug**

| TYPE | POWER (P2) kW | POWER (P2) HP | CAPACITY litres | FLOW RATE (1) litres/min | CALIBRATION (2) bar |
|---|---|---|---|---|---|
| **HYDROFRESH 24 CL** | | | | | |
| FUTURE JETm 1A - **24 CL** | 0.55 | 0.75 | **24** | 90 | 1.2 – 3.2 |
| FUTURE JETm 2C - **24 CL** | 0.75 | 1 | **24** | 98 | 1.2 – 3.2 |
| FUTURE JETm 1A-ST - **24 CL** | 0.55 | 0.75 | **24** | 90 | 1.2 – 3.2 |
| FUTURE JETm 2C-ST - **24 CL** | 0.75 | 1 | **24** | 98 | 1.2 – 3.2 |
| **HYDROFRESH 60 CL** | | | | | |
| FUTURE JETm 1A - **60 CL** | 0.55 | 0.75 | **60** | 90 | 1.2 – 3.2 |
| FUTURE JETm 2C - **60 CL** | 0.75 | 1 | **60** | 98 | 1.2 – 3.2 |
| FUTURE JETm 1A-ST - **60 CL** | 0.55 | 0.75 | **60** | 90 | 1.2 – 3.2 |
| FUTURE JETm 2C-ST - **60 CL** | 0.75 | 1 | **60** | 98 | 1.2 – 3.2 |

(1) Maximum flow rate corresponding to the minimum set pressure of the pressure switch
(2) Pressure switch calibration (recommended)




## DIMENSIONS AND WEIGHT

| HYDROFRESH 24 CL | DIMENSIONS mm l | DIMENSIONS mm a | DIMENSIONS mm h | WEIGHT kg |
|---|---|---|---|---|
| FUTURE JETm 1A - **24 CL** | 535 | 255 | 520 | **18.7** |
| FUTURE JETm 2C - **24 CL** | | | 530 | **22.0** |
| FUTURE JETm 1A-ST - **24 CL** | | | 560 | **15.8** |
| FUTURE JETm 2C-ST - **24 CL** | | | 570 | **19.2** |
| **HYDROFRESH 60 CL** | | | | |
| FUTURE JETm 1A - **60 CL** | 730 | 340 | 657 | **23.7** |
| FUTURE JETm 2C - **60 CL** | | | 675 | **27.0** |
| FUTURE JETm 1A-ST - **60 CL** | 730 | 340 | 678 | **20.8** |
| FUTURE JETm 2C-ST - **60 CL** | | | 703 | **24.2** |

# DG-BLU

## Automatic pressurization system with inverter

Clean water

Domestic use

Civil use




### PRODUCT DESCRIPTION

**DG-BLU** is a cutting-edge, automatic pressurization system featuring a high-efficiency, self-priming pump with multiple impellers. It comes complete with a storage tank, pressure and flow sensors, and a check valve, all designed to work quietly and efficiently**.**

This compact powerhouse stands out for its advanced electronic inverter control, which intelligently manages the system performance by:

– keeping the pressure constant according to water usage;
– monitoring hydraulic and electrical conditions to safeguard against malfunctions;
– allowing for integration with another DG-BLU unit through an optional expansion card;
– adapting seamlessly to any type of pressurization system, even existing ones;
– reducing electrical consumption with lower startup and running currents, achieving greater energy efficiency.

### INSTALLATION AND USE

※ **DG-BLU** is designed to cater to the needs of single and two-family homes.
※ **DUAL-DG-BLU** units are pre-assembled pump systems, perfectly suited for multi-unit residences.

### CERTIFICATIONS IN PROGRESS

### TECHNICAL DATA

※ Power supply:
  – **1~ 230 V** ± 10% DG-BLU 3, DG-BLU 5
  – **1~ 115/230 V** ± 10% DG-BLU 3 115/230 V
※ Frequency: **50/60 Hz**
※ Insulation: **class F**
※ Maximum current absorbed:
  – **7.5 A** DG-BLU 3
  – **10 A** DG-BLU 5
  – **10 A**/**7.6 A** DG-BLU 3 115/230 V
※ Maximum power input P1:
  – **1.0 kW** DG-BLU 3
  – **1.5 kW** DG-BLU 5
  – **0.76 kW**/**0.98 kW** DG-BLU 3 115/230 V
※ Protection rating: **IP X4**
※ Set point from the factory: **3 bar** (45 psi)
※ 1.5 metres cable with Schuko plug

### APPLICATION LIMITS

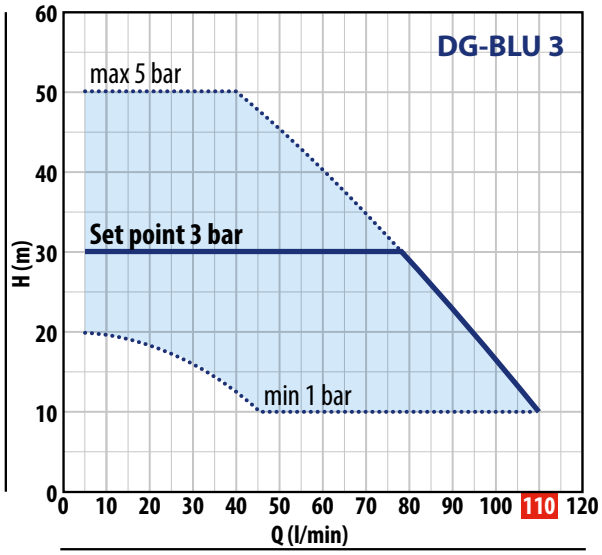
- Manometric suction head up to **8 m** (11 psi)
- Liquid temperature between:
  **0 °C** and **+40 °C** (32 °F and 104 °F)
- Ambient temperature between:
  **0 °C** and **+40 °C** (32 °F and 104 °F)
- Max. port pressure **4 bar** (58 psi)
- Max pressure **10 bar** (145 psi)
- Continuous running duty **S1**

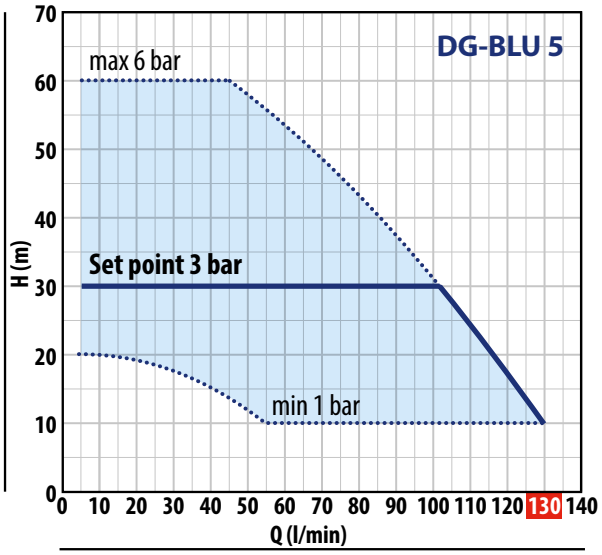
### PATENTS - TRADE MARKS - MODELS

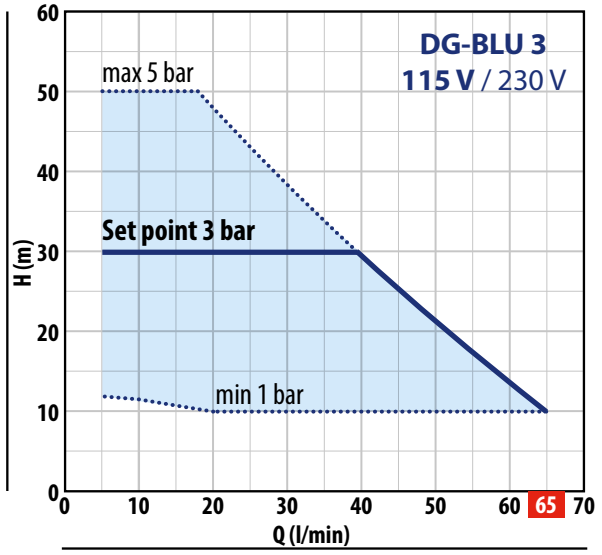
- Registered community model No. 015048622-0001

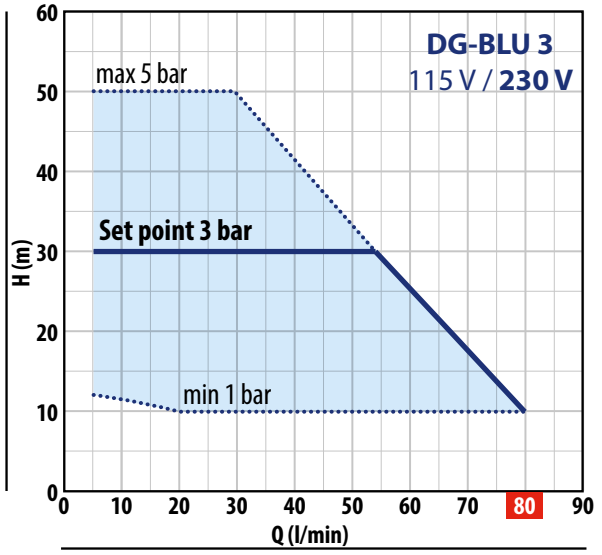
## PERFORMANCE CURVES

**Q (l/min) H (m)**



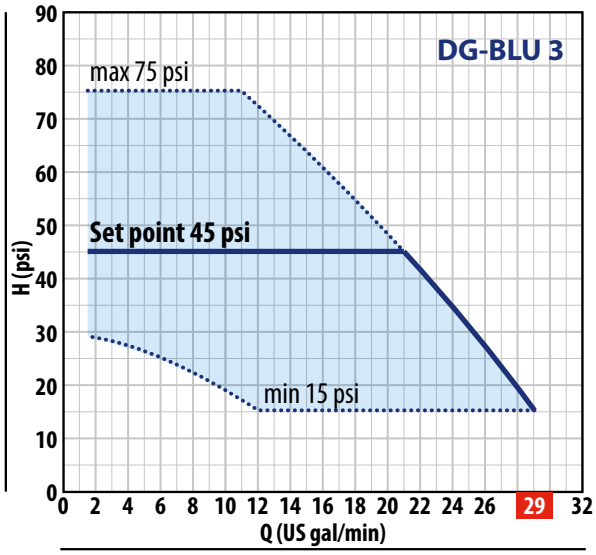

| TYPE | | POWER P2 | | | PERFORMANCE | | PERFORMANCE (ADJUSTABLE SET POINT) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Q | H | Set Point Min | | Set Point Calibration Std | | Set Point Max | |
| Single-phase | | kW | HP | ▲ | l/min | metres | bar | l/min | bar | l/min | bar | l/min |
| **DG-BLU 3** | 230 V | 0.75 | 1 | IE3 | 5 – **110** | 50 – 10 | 1.0 | 45 – **110** | **3.0** | 5 – **79** | 5.0 | 5 – 40 |
| **DG-BLU 5** | 230 V | 1.1 | 1.5 | | 5 – **130** | 60 – 10 | 1.0 | 55 – **130** | **3.0** | 5 – **102** | 6.0 | 5 – 45 |
| **DG-BLU 3 115/230 V** | 115 V | 0.55 | 0.75 | | 5 – **65** | 50 – 10 | 1.0 | 20 – **65** | **3.0** | 5 – **39** | 5.0 | 5 – 18 |
| | 230 V | 0.75 | 1 | | 5 – **80** | 50 – 10 | 1.0 | 20 – **80** | **3.0** | 5 – **54** | 5.0 | 5 – 30 |

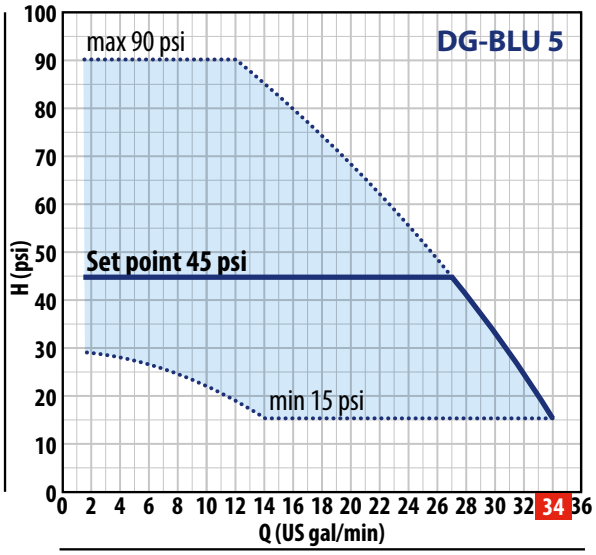
**Q** = Flow rate **H** = Total manometric head ▲Efficiency three-phase motor (IEC 60034-30-1)

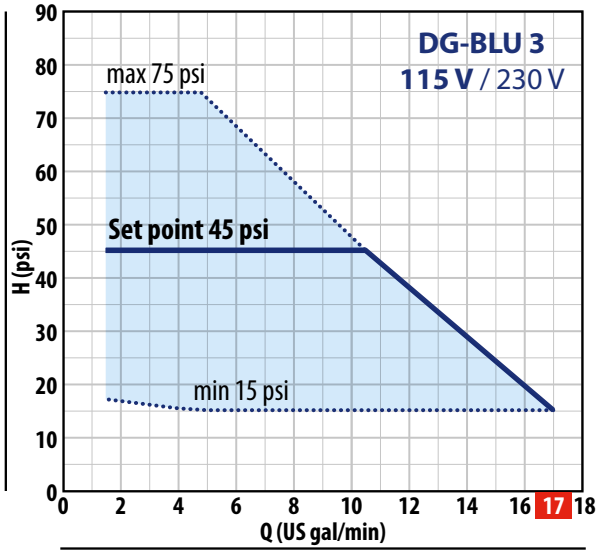
# DG-BLU

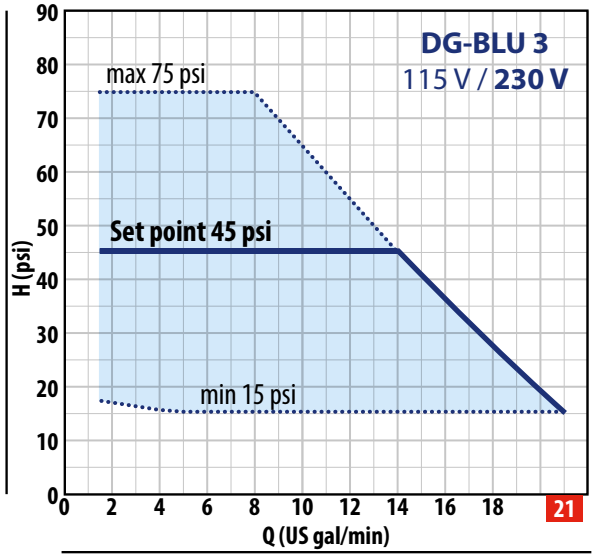
## PERFORMANCE CURVES

**Q (US gal/min) H (psi)**



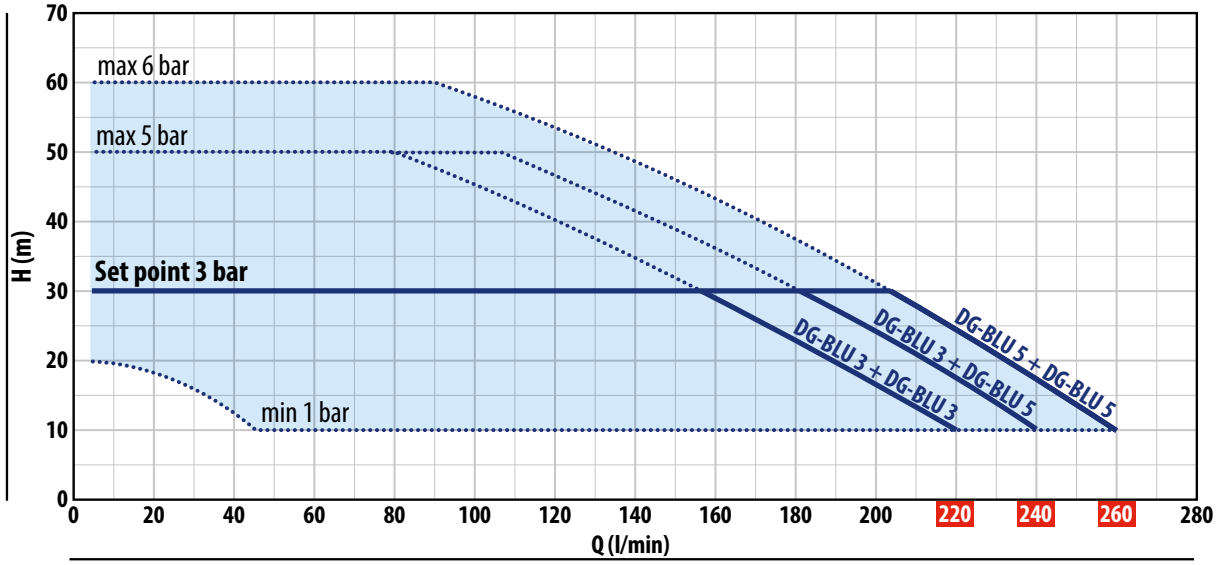




| TYPE | | POWER P2 | | | PERFORMANCE | | PERFORMANCE (ADJUSTABLE SET POINT) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Q | H | Set Point Min | | **Set Point Calibration Std** | | Set Point Max | |
| **Single-phase** | | **kW** | **HP** | ▲ | US gal/min | psi | psi | US gal/min | psi | US gal/min | psi | US gal/min |
| **DG-BLU 3** | 230 V | 0.75 | 1 | IE3 | 1.5 – **29** | 75 – 15 | 15 | 12 – **29** | **45** | 1.5 – **21** | 75 | 1.5 – 11 |
| **DG-BLU 5** | 230 V | 1.1 | 1.5 | | 1.5 – **34** | 90 – 15 | 15 | 14 – **34** | **45** | 1.5 – **27** | 90 | 1.5 – 12 |
| **DG-BLU 3 115/230 V** | 115 V | 0.55 | 0.75 | | 1.5 – **17** | 75 – 15 | 15 | 5 – **17** | **45** | 1.5 – **10.5** | 75 | 1.5 – 4.8 |
| | 230 V | 0.75 | 1 | | 1.5 – **21** | 75 – 15 | 15 | 5 – **21** | **45** | 1.5 – **14** | 75 | 1.5 – 8 |

**Q** = Flow rate **H** = Total manometric head ▲Efficiency three-phase motor (IEC 60034-30-1)

## PERFORMANCE CURVES FOR A GROUP OF TWO DG-BLU UNITS

**Q (l/min) H (m)**




| TYPE | POWER P2 | | | PERFORMANCE Q | PERFORMANCE H | PERFORMANCE (ADJUSTABLE SET POINT) Set Point Min | | Set Point Calibration Std | | Set Point Max | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **kW** | **HP** | ▲ | l/min | metres | bar | l/min | bar | l/min | bar | l/min |
| **DUAL DG-BLU 3+3** | 0.75+0.75 | 1+1 | | 5 – **220** | 50 – 10 | 1.0 | 45 – **220** | **3.0** | 5 – **158** | 5.0 | 5 – **80** |
| **DUAL DG-BLU 3+5** | 0.75+1.1 | 1+1.5 | IE3 | 5 – **240** | 50 – 10 | 1.0 | 45 – **240** | **3.0** | 5 – **181** | 5.0 | 5 – **107** |
| **DUAL DG-BLU 5+5** | 1.1+1.1 | 1.5+1.5 | | 5 – **260** | 60 – 10 | 1.0 | 55 – **260** | **3.0** | 5 – **204** | 6.0 | 5 – **90** |

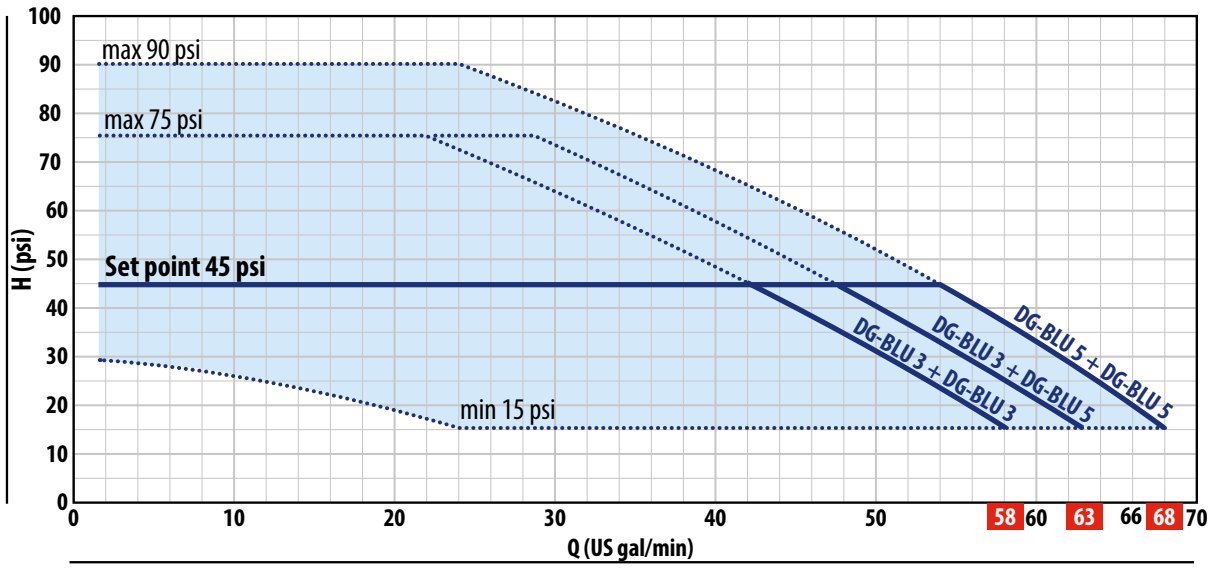
**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

▲ Three-phase motor efficiency (IEC 60034-30-1)

## PERFORMANCE CURVES FOR A GROUP OF TWO DG-BLU UNITS

**Q (US gal/min) H (psi)**




| TYPE | POWER P2 | | | PERFORMANCE Q | PERFORMANCE H | PERFORMANCE (ADJUSTABLE SET POINT) Set Point Min | | Set Point Calibration Std | | Set Point Max | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **kW** | **HP** | ▲ | US gal/min | psi | psi | US gal/min | psi | US gal/min | psi | US gal/min |
| **DUAL DG-BLU 3+3** | 0.75+0.75 | 1+1 | | 1.5 – **58** | 75 – 15 | 15 | 24 – **58** | **45** | 1.5 – **42** | 75 | 1.5 – **22** |
| **DUAL DG-BLU 3+5** | 0.75+1.1 | 1+1.5 | IE3 | 1.5 – **63** | 75 – 15 | 15 | 24 – **63** | **45** | 1.5 – **48** | 75 | 1.5 – **29** |
| **DUAL DG-BLU 5+5** | 1.1+1.1 | 1.5+1.5 | | 1.5 – **68** | 90 – 15 | 15 | 28 – **68** | **45** | 1.5 – **54** | 90 | 1.5 – **24** |

**Q** = Flow rate **H** = Total manometric head

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

▲ Three-phase motor efficiency (IEC 60034-30-1)

# DG-BLU

## KEY FEATURES

### ALL IN ONE
- Self-priming multistage pump
- Frequency inverter
- Expansion tank
- Check valve
- Pressure and flow sensor

### INSTALLABLE ANYWHERE
Thanks to its compactness, quiet operation, and 360° adjustable connections, DG-BLU can be installed anywhere

### QUIET

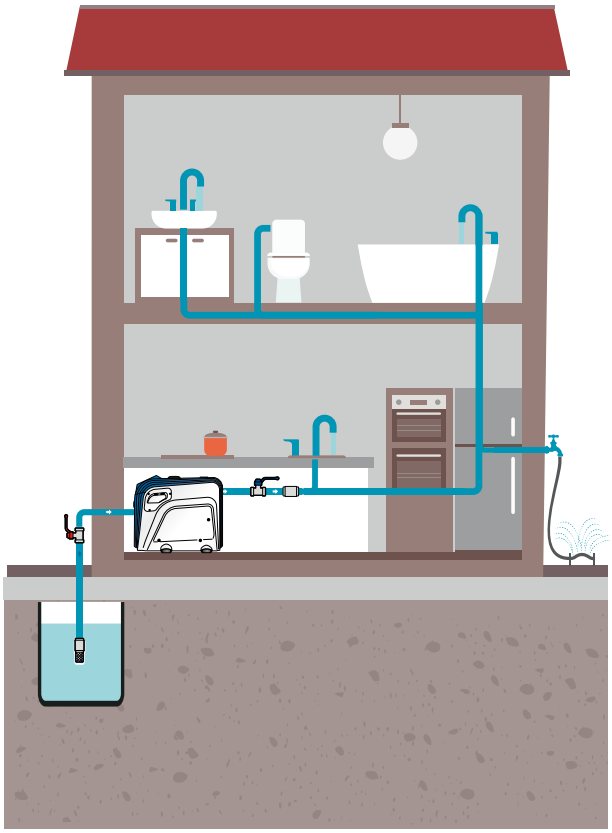
### COMPACT

### CONSTANT PRESSURE

### EASY TO USE

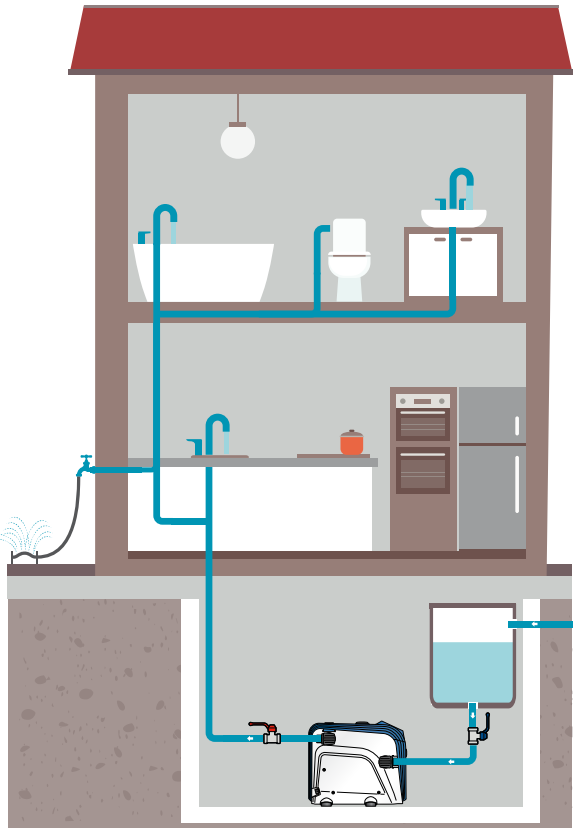
## TYPICAL INSTALLATION

### ABOVE GROUND
(drawing from a shallow tank or well)

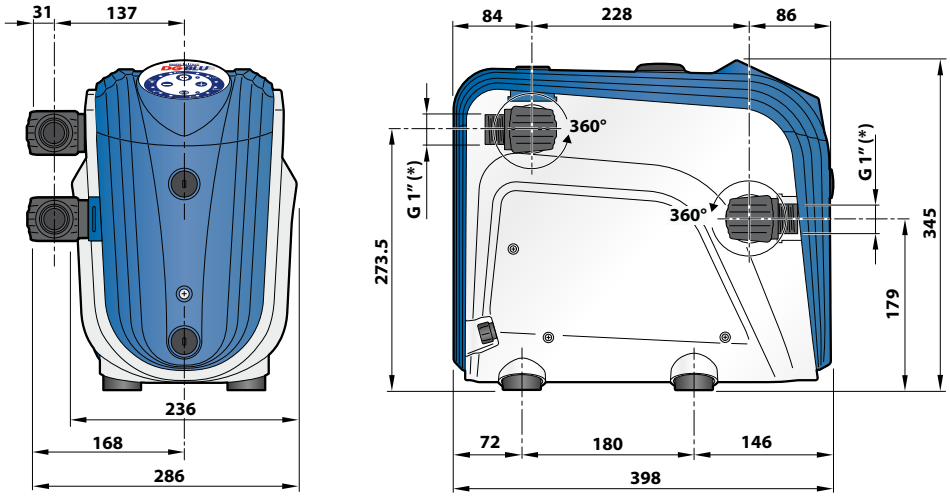




### BELOW GROUND
(tank or aqueduct)



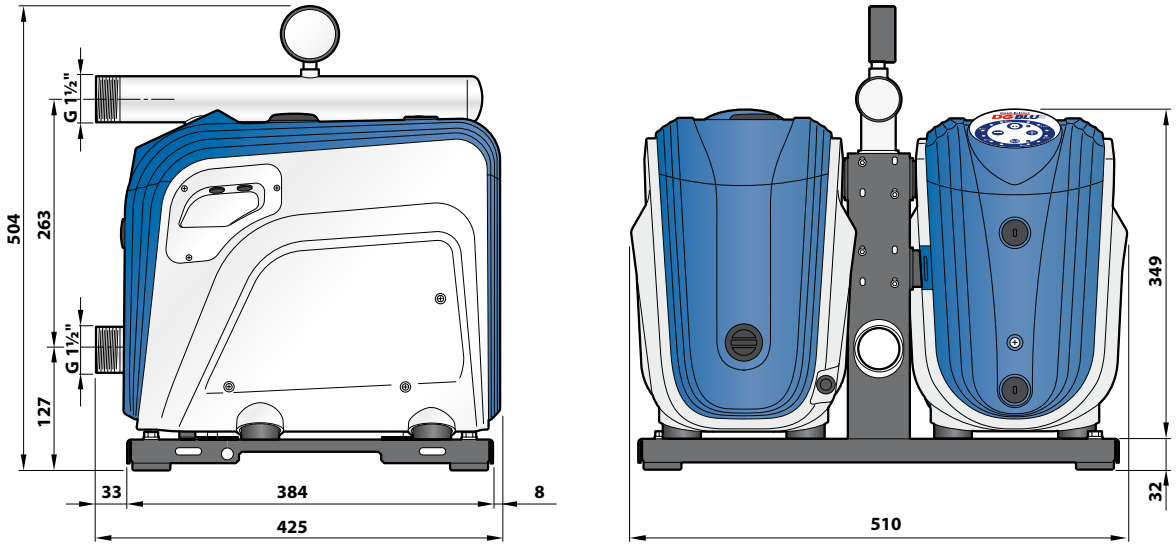
## DIMENSIONS AND WEIGHTS (mm)




**(*) NPT on request**

DG-BLU 3: **15 kg**
DG-BLU 5: **16 kg**

## DUAL DG-BLU DIMENSIONS AND WEIGHTS (mm)




DUAL DG-BLU 3+3: **43 kg**
DUAL DG-BLU 3+5: **44 kg**
DUAL DG-BLU 5+5: **45 kg**

## OPTIONAL ACCESSORIES



Connection kit for two DG-BLU units



Electronic expansion board



Kit for wall installation of a single DG-BLU



Wall installation kit of a two-unit group

# EASYSMALL Automatic control device

Clean water  Domestic use




## INSTALLATION AND USE

**EASYSMALL** is a compact and **cost-effective** electronic control and protection device for single-phase domestic pumps with power up to **1.5 HP**.

## PRODUCT DESCRIPTION

※ **EASYSMALL** features a pressure sensor and a flow sensor linked to an electronic system that automatically activates the pump when a faucet's opening lowers the pressure below a specified level and deactivates it when the flow stops or dips under **2 l/min**.

※ **EASYSMALL** is also equipped with:
- a pressure gauge for immediate pressure readings;
- an integrated and inspectable check valve;
- Two outlets to fit existing systems and to allow for the installation of a small expansion tank, ensuring better operation (**1SF**).

**EASYSMALL's integrated electronics protect the pump from:**

※ Dry running
※ frequent starts due to leaks in the system;
※ lockout due to system inactivity.

## TECHNICAL DATA

| TYPE | P2 | | Power supply | | Continuous duty current |
|---|---|---|---|---|---|
| Single-phase | kW | HP | Volt | Hz | |
| EASYSMALL | 1.1 | 1.5 | 230 | 50/60 | 10 A |

## PERFORMANCE RANGE

※ Restart pressure: **1.5 bar**
※ Max load capacity: **120 l/min** (7.2 m³/h)

## APPLICATION LIMITS

※ Liquid temperature up to **+50 °C**
※ Ambient temperature up to **+40 °C**
※ Maximum operating pressure **10 bar**
※ Protection rating: **IP 65**

## ACCESSORIES

※ **1SF 1 litre(1" M) technopolymer tank**



※ **GSR** Special three-piece coupling with o-ring seal (**1"**)



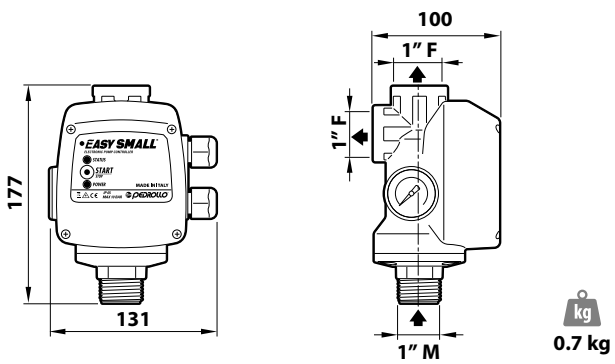
## PATENTS - TRADE MARKS - MODELS

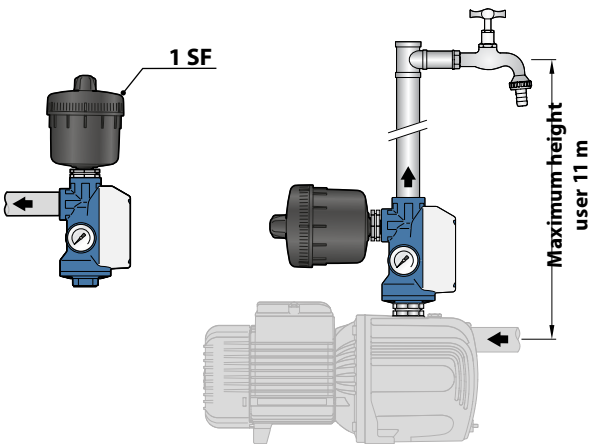
※ Registered Community Model No. 001774928
※ EASYSMALL® registered trademark No. 0001511131

## ADJUSTMENT

To avoid frequent restarts due to possible microleaks in the system and for greater energy savings, the **1SF** tank should be installed with a precharge of **1.2 bar**.

## DIMENSIONS AND WEIGHT



# EASYPRESS Automatic control device

Clean water  Domestic use




## TECHNICAL DATA

| TYPE Single-phase | P2 kW | P2 HP | Power supply Volt | Power supply Hz | Continuous duty current |
|---|---|---|---|---|---|
| EASYPRESS | 1.5 | 2 | 230 | 50/60 | 13 A |

OUT OF SERVICE

DRY RUNNING

FREQUENT START-UP

The **EASYPRESS** features 2 LED indicators to show the system's operating status and alerting to any issues through blinking patterns. A guide on the user interface helps to identify specific problems indicated by the LEDs..

## PERFORMANCE RANGE

※ Restart pressure: **1.5 bar** 🔵
※ Maximum volume capacity: **170 l/min** (10 m³/h)

## INSTALLATION AND USE

**EASYPRESS** is a durable and reliable electronic device designed to control and safeguard single-phase domestic pumps with a power capacity up to **2 HP**.

## PRODUCT DESCRIPTION

※ **EASYPRESS** features a pressure sensor and a flow sensor linked to an electronic system that automatically activates the pump when a faucet's opening lowers the pressure below a specified level and deactivates it when the flow stops or dips under **2 l/min**.

※ **The EASYPRESS** is equipped with:
- Circuit board
- Pressure Gauge
- Integrated micro-accumulation enables operation even without an expansion tank, though the use of a **1SF tank is recommended**.

**The integrated electronics protect the pump from:**
※ dry running
※ frequent start-ups due to leaks in the system;
※ lockout due to plant inactivity.

## APPLICATION LIMITS

※ Liquid temperature up to **+55 °C**
※ Ambient temperature up to **+40 °C**
※ Maximum operating pressure **10 bar**
※ Protection rating: **IP 65**

## PATENTS - TRADE MARKS - MODELS

※ Registered Community Model No. 868062
※ Patent No. IT 1388969, IT 1388970
※ EASYPRESS® registered trademark No. 0001334481

## ACCESSORIES

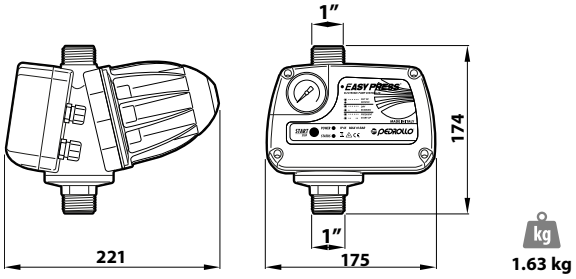
※ **GSR** Special three-piece coupling with o-ring seal (**1"**)


GSR

## AVAILABLE UPON REQUEST

※ **EASYPRESS** version with **0.8 bar** restart pressure 🟡
※ **EASYPRESS** version with restart pressure **2.2 bar** 🔴
※ Version with power cable with Schuko plug and motor pump connection cable

## DIMENSIONS AND WEIGHT



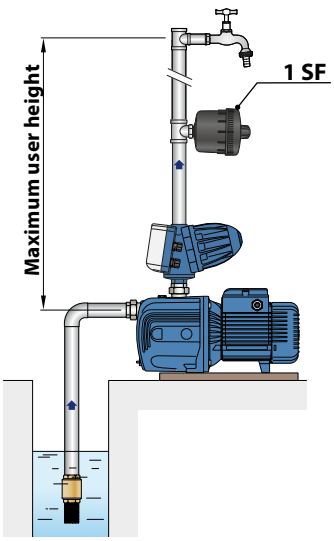

**Maximum user height**


Version **2.2 bar** 🔴 = **18 m**


Version **1.5 bar** 🔵 = **11 m**


Version **0.8 bar** 🟡 = **5 m**

**Typical installation**



# PRESFLO VARIO Automatic control device

Clean water  Domestic use



## TECHNICAL DATA

| TYPE Single-phase | P2 kW | P2 HP | Power supply Volt | Power supply Hz | Continuous duty current |
|---|---|---|---|---|---|
| PRESFLO VARIO | 1.5 | 2 | 230 | 50/60 | 13 A |




**PRESFLO VARIO** features 2 LED indicators to show the system's operating status and alerting to any issues through blinking patterns. A guide on the user interface helps to identify specific problems indicated by the LEDs.

## INSTALLATION AND USE

**PRESFLO VARIO** is an electronic device designed to control and protect single-phase domestic pumps with a power capacity of up to 2 HP. It is ideal for water supply and pressure boosting in residential settings, as well as for small-scale irrigation applications.

## PRODUCT DESCRIPTION

※ **PRESFLO VARIO** features a pressure sensor and a flow sensor linked to an electronic system that automatically activates the pump when a faucet's opening lowers the pressure below a specified level and deactivates it when the flow stops or dips under **2 l/min**.

※ **Adjustable restart pressure ranging from 0.8 bar to 2.4 bar.**

※ **PRESFLO VARIO** is also equipped with**:**

- Pressure Gauge
- Integrated micro-accumulation enables operation even without an expansion tank, though the use of a **1SF tank is recommended**;

**The integrated electronics protect the pump from:**

※ dry running

※ frequent start-ups due to leaks in the system.

## PERFORMANCE RANGE

※ Maximum volume capacity: **170 l/min** (10 m³/h)

※ Restart pressure: **adjustable** (factory setting **1.5 bar**)

## APPLICATION LIMITS

※ Liquid temperature up to **+40 °C**

※ Ambient temperature up to **+40 °C**

※ Maximum operating pressure **10 bar**

※ Protection rating: **IP 65**

## PERFORMANCE AND SAFETY STANDARDS

The electronic circuit board inside the **PRESFLO VARIO** has passed the most rigorous **EMC tests** for electromagnetic compatibility.

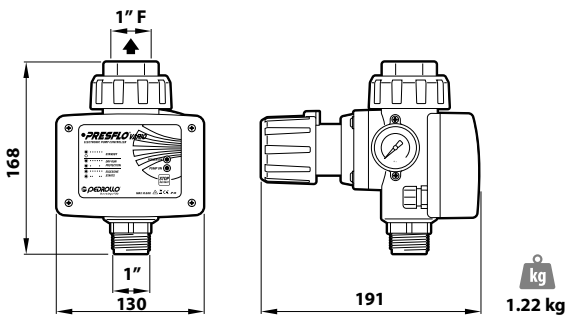
## AVAILABLE UPON REQUEST

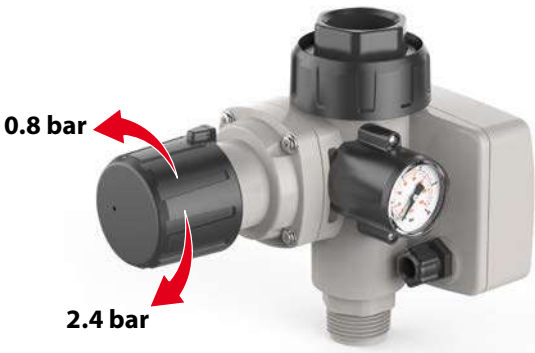
※ Version with power cable with Schuko plug and pump connection cable

## ADJUSTMENT

**PRESFLO VARIO has** a knob for quick and intuitive adjustment of the restart pressure from a minimum **of 0.8 bar** to a maximum of **2.4 bar**

## DIMENSIONS AND WEIGHT



# PRESFLO MULTI Automatic control device

Clean water  Domestic use



## INSTALLATION AND USE

**PRESFLO MULTI** is an electronic device designed to control and protect single-phase domestic pumps with a power capacity of up to 2 HP. It is ideal for water supply and pressure boosting in residential settings, as well as for small-scale irrigation applications.

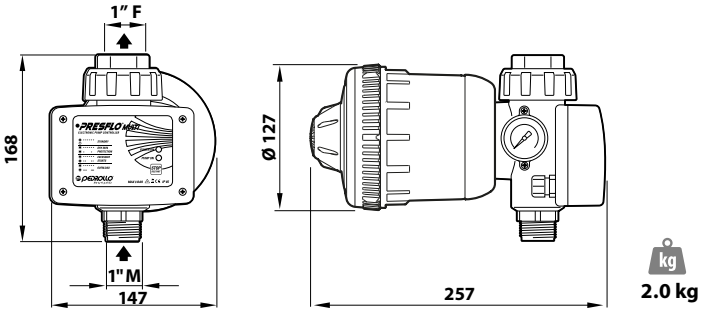
## PRODUCT DESCRIPTION

※ **PRESFLO MULTI** features a pressure sensor and a flow sensor linked to an electronic system that automatically activates the pump when a faucet's opening lowers the pressure below a specified level and deactivates it when the flow stops or dips under **2 l/min**.

※ **PRESFLO MULTI** is also equipped with:
- Pressure Gauge
- integrated **1-litre** expansion tank useful in case of leaks and to protect against water hammer;
- option to adjust the restart pressure from **1 bar** to **5 bar**;
- capability to set the maximum current up to **13 A**

**The integrated electronics protect the pump from:**
※ dry running
※ frequent start-ups due to leaks in the system;
※ Overcurrent

## DIMENSIONS AND WEIGHT




## TECHNICAL DATA

| TYPE Single-phase | P2 kW | P2 HP | Power supply Volt | Power supply Hz | Continuous duty current |
|---|---|---|---|---|---|
| PRESFLO MULTI | 1.5 | 2 | 230 | 50/60 | 13 A |




**PRESFLO MULTI** features 2 LED indicators to show the system's operating status and alerting to any issues through blinking patterns. A guide on the user interface helps to identify specific problems indicated by the LEDs.

## PERFORMANCE RANGE

※ Maximum volume capacity: **170 l/min** (10 m³/h)
※ Adjustable restart pressure (factory setting **2 bar**)
※ maximum current: **adjustable** up to **13 A**.

## APPLICATION LIMITS

※ Liquid temperature up to **+40 °C**
※ Ambient temperature up to **+40 °C**
※ Maximum operating pressure **8 bar**
※ Protection rating: **IP 65**

## PERFORMANCE AND SAFETY STANDARDS

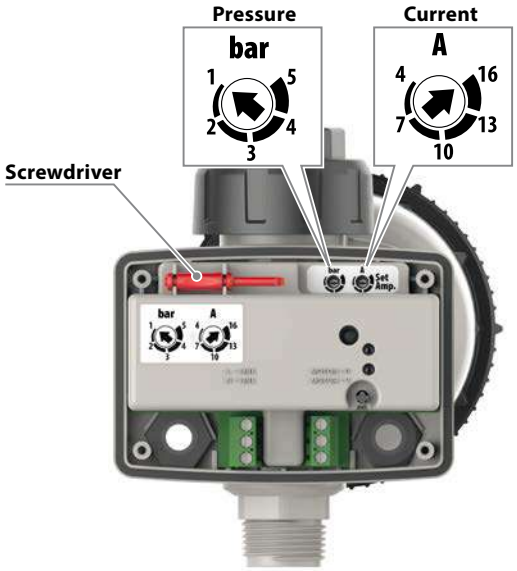
The electronic circuit board inside the **PRESFLO MULTI** has passed the most rigorous **EMC tests** for electromagnetic compatibility.

## AVAILABLE UPON REQUEST

※ Version with power cable with Schuko plug and pump connection cable

## ADJUSTMENT

**PRESFLO MULTI** is equipped with two trimmers and a screwdriver for simple and intuitive adjustment of:
- restart pressure from **1 bar** to **5 bar**
- amperometric protection from **4** to **16 A**



# PRESET Electronic pressure switch

Clean water  Domestic use




## INSTALLATION AND USE

**PRESET** is an electronic device ideal for the control and protection of single-phase domestic pumps with power up to 2 HP, in connection with autoclaves for water supply and pressure boosting in domestic applications and for residential irrigation systems.

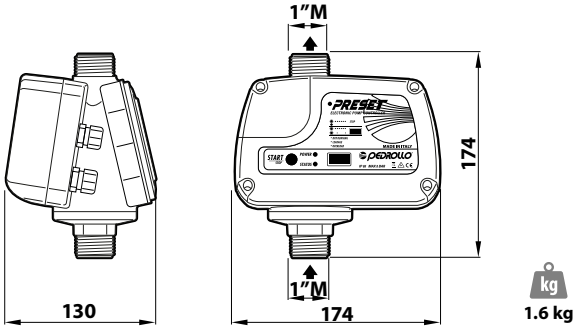
## PRODUCT DESCRIPTION

※ **PRESET** activates the pump when opening a faucet reduces system pressure below the operational threshold and turns it off once pressure surpasses the shut-off limit, serving as a modern alternative to conventional mechanical pressure switches.

※ **PRESET** is equipped with:
- **pressure sensor enabling accurate digital control of start and stop pressures from 0.8 to 9 bar;**
- display for reading the operating parameters;
- integrated and inspectable non-return valve.

**The integrated electronics protect the pump from:**
※ dry running
※ frequent start-ups due to leaks in the system;
※ Overcurrent

## DIMENSIONS AND WEIGHT




## TECHNICAL DATA

| TYPE | P2 | | Power supply | | Continuous duty current |
|---|---|---|---|---|---|
| Single-phase | kW | HP | Volt | Hz | |
| PRESET | 1.5 | 2 | 230 | 50/60 | 13 A |

## PERFORMANCE RANGE

※ Running pressure: adjustable from **0.8** to **9 bar** (factory setting at **2 bar**)
※ Cut-off pressure: adjustable from **1** to **9.2 bar**(factory setting **3 bar**)
※ Maximum current: adjustable (factory setting **13 A)**

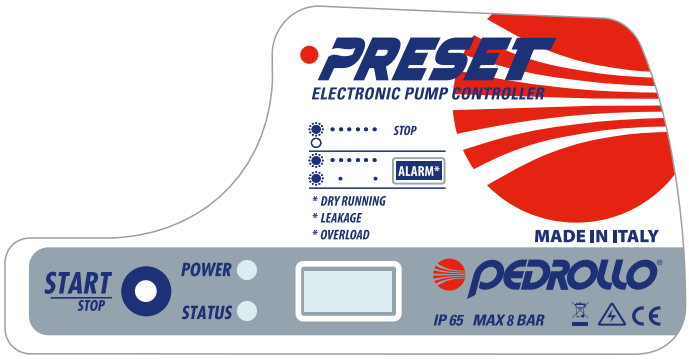
## APPLICATION LIMITS

※ Liquid temperature up to **+40 °C**
※ Ambient temperature up to **+40 °C**
※ Maximum working pressure: **10 bar**
※ Protection rating: **IP 65**

## PERFORMANCE AND SAFETY STANDARDS

The circuit board inside the **PRESET** has passed the most stringent **EMC tests** for electromagnetic compatibility.

## ADJUSTMENT




**Pressing the START button begins a step-by-step guide to configure PRESET, which involves setting specific parameters:**

※ operating pressure (M)
※ shut-off pressure (A)
※ maximum allowed current (C)
※ operating time at no flow (TD)
※ restart time after shutdown (TP)




## PRODUCT DESCRIPTION

**EP is an electronic device designed to safeguard the pump by automatically shutting it off in case of:**

※ Dry running
※ Overcurrent
※ Overvoltage
※ Undervoltage

## TECHNICAL DATA

| | |
|---|---|
| Single-phase supply voltage | **110/230 V ±10** |
| Frequency | **50-60 Hz** |
| Maximum pump current | **16 A** |
| Maximum pump power | **2 HP** |
| Operating temperature | From **-5** to **45 °C** |
| Maximum ambient temperature | **55 °C** |
| Protection rating | **IP 55** |

## INSTALLATION

Fig. 1

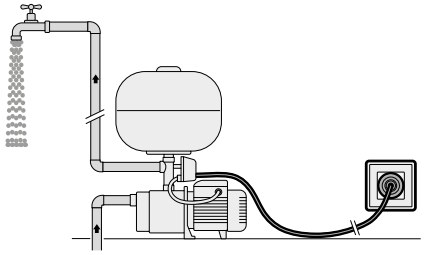


Fig. 2

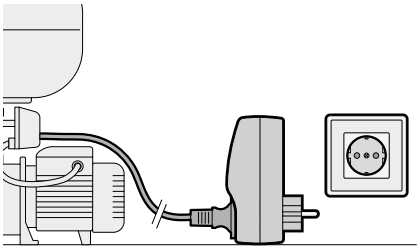
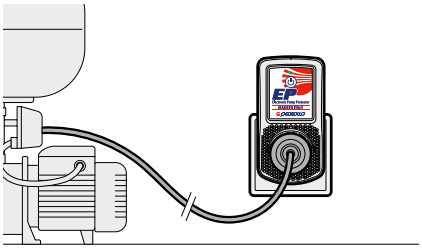


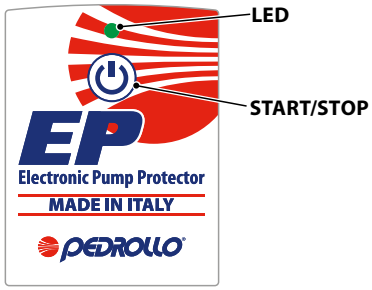
Fig. 3



VIDEO TUTORIAL

## USER INTERFACE

- Key ⏻ with **START/STOP** function, self-learning and alarm reset.
- Multicoloured LED indicator. It flashes and changes colour depending on the status of the EP device.




| LED light description | Meaning of the LED light |
|---|---|
| **Indicator light OFF:** | Device off |
| **Steady GREEN light** | Powered Device |
| **Steady BLUE light** | Device in regular operation |
| **Flashing RED light** | Dry running |
| **Red light fixed** | Overcurrent |
| **Steady YELLOW light** | Overvoltage/undervoltage |
| **Continuously variable colour indicator** | Self-learning phase (WIZARD) |

## INSTALLATION AND OPERATION

**After verifying the water system is functioning correctly, proceed with the following steps:**

※ Operate the pump with the delivery point open **(Fig. 1).**

※ Disconnect the plug of the pump's power cable from the power socket, leaving the supply point open, and drain the system completely **(Fig. 2).**

※ Insert the pump's power cable plug into the EP device **(Fig. 2).**

※ Plug the EP device into the outlet (**Fig. 3**) and start the self-learning procedure (see instruction manual).

**After completing the self-learning procedure, the system is ready for use.**

# STEADYPRES Inverter with water passage

Clean water




## INSTALLATION AND USE

**STEADYPRES** is an inverter-based electronic control device compatible with both surface and submersible pumps, SINGLE-PHASE or THREE-PHASE, up to **1.5 HP (1.1 kW)**. Designed for domestic water supply and irrigation, it seamlessly integrates with any pressurization system, including existing setups, to enhance comfort, extend system lifespan, and achieve significant energy savings.

## PRODUCT DESCRIPTION

**STEADYPRES** is connected to the pump's delivery system and adjusts the motor's rotation speed by modulating the output voltage's value and frequency. This adaptation is based on the required water flow, ensuring constant pressure within the system.

**STEADYPRES** components:
- electronic frequency converter (inverter);
- integrated pressure and flow sensors;
- user interface with keypad and LED indicators for intuitive parameter reading;
- integrated and inspectable non-return valve;
- rear threaded connection to equip the system with a small expansion tank.

**STEADYPRES protects the pump from:**
※ Dry running
※ Overcurrent
※ Undervoltage
※ Overheating
※ Short circuit or current leakage

## VERSATILE PRODUCT

**STEADYPRES** can be paired with both single-phase and three-phase pumps, featuring internal switches for configuration settings of

※ **the output frequency at 50 Hz or 60 Hz**
※ **the output supply voltage**
(single-phase or three-phase 230V )




| N | Position | Selector switch position | Value |
|---|---|---|---|
| 1 | Operating FREQUENCY | **ON** | 60 Hz |
| | | **OFF** | 50 Hz |
| 2 | SINGLE-PHASE or THREE-PHASE output | **ON** | MT (three-phase) |
| | | **OFF** | MM (single-phase) |

## KEY FEATURES

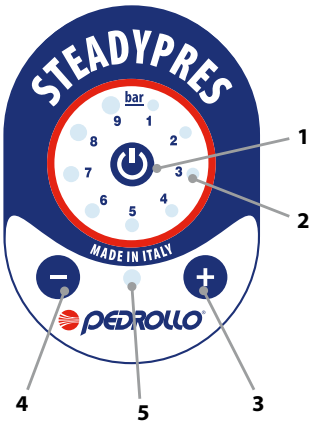
※ Quick and intuitive pressure adjustment via +/- buttons (**1-9 bar**)
※ Energy-saving with reduced pump absorption
※ Reduced noise operation
※ Minimal pressure drops
※ Extended pump lifespan

## OPTIONAL

※ **Expansion board** enables parallel connection of up to two devices, forming pumping groups.

| TECHNICAL DATA | M/M USE (Single-phase / Single-phase) | M/T USE (Single-phase / Three-phase) |
|---|---|---|
| Power supply voltage | 1 ~ 230 V | 1 ~ 230 V |
| Pump motor voltage | 1 ~ 230 V | 3 ~ 230 V |
| Permissible voltage variation | ± 10% | ± 10% |
| Supply frequency | 50/60 Hz | 50/60 Hz |
| Maximum electric pump motor current | 8.5 A | 7.0 A |
| Maximum electric pump motor power | 1.5 HP | 1.5 HP |
| Setting pressure | 1÷9 bar | 1÷9 bar |
| Maximum liquid temperature | +40 °C | +40 °C |
| Room temperature | 0 °C ÷ 40 °C | 0 °C ÷ 40 °C |
| Maximum pressure | 10 bar | 10 bar |
| Protection rating | IP 65 | IP 65 |

## USER INTERFACE




**KEY**

**1) ON/OFF button**

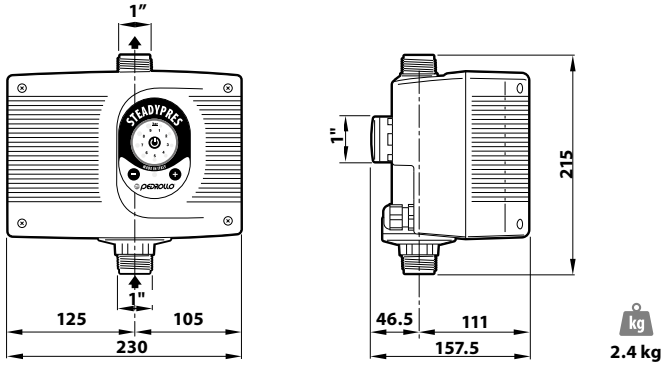
**2) Operation and alarm LED indicators**

**3) Increase pressure button**

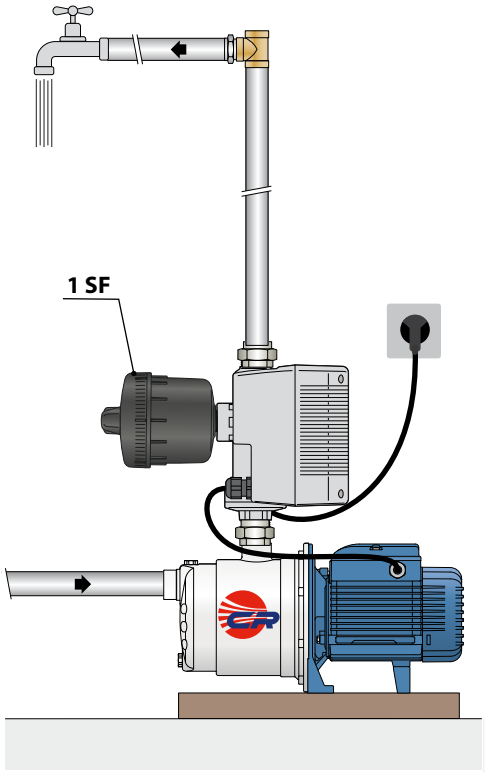
**4) Decrease pressure button**

**5) Operating status LED**

## DIMENSIONS AND WEIGHT (mm)




## TYPICAL INSTALLATION




N.B.: It's advisable to install a membrane EXPANSION TANK (**1SF**) downstream of the inverter to:

※ decrease pump start frequency

※ absorbe excess pressure from the system, like water hammer

# STEADYPRES Inverter with water passage

Clean water

Domestic use

Civil use




## INSTALLATION AND USE

**STEADYPRES** is an electronic device that manages and controls both surface and submersible pumps using inverter technology.

**STEADYPRESIt** is designed for water supply in homes, businesses, and for irrigation purposes. Suitable for all kinds of pressurization systems, including existing ones, STEADYPRES enhances comfort, extends the system's lifespan, and significantly reduces energy consumption.

## PRODUCT DESCRIPTION

**STEADYPRES** is connected to the pump's delivery system and regulates the motor's rotation speed by adjusting the voltage and frequency of the output, in response to water flow demand, ensuring constant pressure within the system.

**STEADYPRES** components:
- electronic frequency converter (inverter);
- pressure and flow sensor;
- user interface with keypad and display to facilitate setting and reading operations;
- integrated and inspectable non-return valve.

**STEADYPRES** features include:
※ A display and keypad for easy, step-by-step setup of operating parameters with two levels of adjustment:
  - BASIC, for setting pressure and current;
  - ADVANCED, for customizing the inverter for specific system needs .

※ Internal electronic components are cooled as water flows through the device, helping to dissipate heat.

**STEADYPRES protects the pump from:**
※ Dry running
※ Overcurrents
※ Overvoltage
※ Undervoltage
※ Overheating
※ Short circuit
※ Phase failure in connections (for TT version)

## KEY FEATURES

※ Easy installation, adjustment and setting.
※ Energy saving due to lower absorption of the pump.
※ Control of hydraulic and electrical operating parameters and protection against faults.
※ Reduced noise operation.
※ Longer pump life.

## OPTIONAL A RICHIESTA

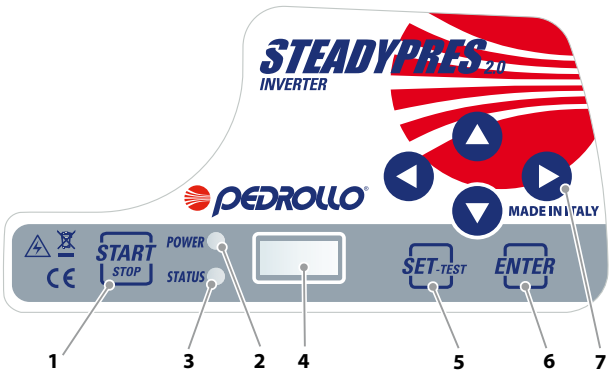
※ **Expansion board**, which allows:
  - RS485 communication to link up to three STEADYPRES inverters and create pumping groups;
  - alternating pump operation;
  - configuration of a dry input contact (e.g. float, double set point);
  - configuration of a dry output contact (e.g. alarm)

| TECHNICAL DATA | STEADYPRES MM 11 | STEADYPRES MM 16 | STEADYPRES MT 10 | STEADYPRES TT 6 | STEADYPRES TT 8 |
|---|---|---|---|---|---|
| Power supply voltage | 1 ~ 230 V | 1 ~ 230 V | 1 ~ 230 V | 3 ~ 400 V | 3 ~ 400 V |
| Pump motor voltage | 1 ~ 230 V | 1 ~ 230 V | 3 ~ 230 V | 3 ~ 400 V | 3 ~ 400 V |
| Permissible voltage variation | ± 10% | ± 10% | ± 10% | ± 10% | ± 10% |
| Supply frequency | 50/60Hz | 50/60Hz | 50/60Hz | 50/60Hz | 50/60Hz |
| Maximum pump motor current | 11 A | 16 A | 10 A | 6 A | 8 A |
| Maximum pump motor power | 2 HP (1.5 kW) | 3 HP (2.2 kW) | 3 HP (2.2 kW) | 3 HP (2.2 kW) | 4 HP (3 kW) |
| Setting pressure | 1÷10 bar | 1÷10 bar | 1÷10 bar | 1÷10 bar | 1÷10 bar |
| Maximum liquid temperature | +40 °C | +40 °C | +40 °C | +40 °C | +40 °C |
| Room temperature | 0 °C ÷ 40 °C | 0 °C ÷ 40 °C | 0 °C ÷ 40 °C | 0 °C ÷ 40 °C | 0 °C ÷ 40 °C |
| Maximum pressure | 10 bar | 10 bar | 10 bar | 10 bar | 10 bar |
| Protection rating | IP 65 | IP 65 | IP 65 | IP 65 | IP 65 |
| Weight | 3 kg | 4 kg | 3 kg | 4 kg | 4 kg |

## USER INTERFACE

※ **The keypad makes it easy to access and navigate through configuration menus, allowing you to adjust and view various operating parameters such as system pressure, operating frequency, absorbed current, and alarm messages.**

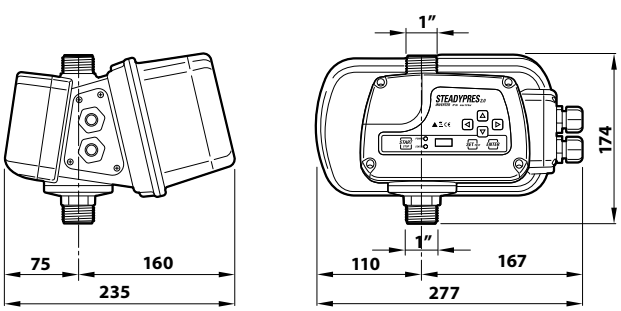
※ **LED light signals indicate the pump's operating status for quick checking.**



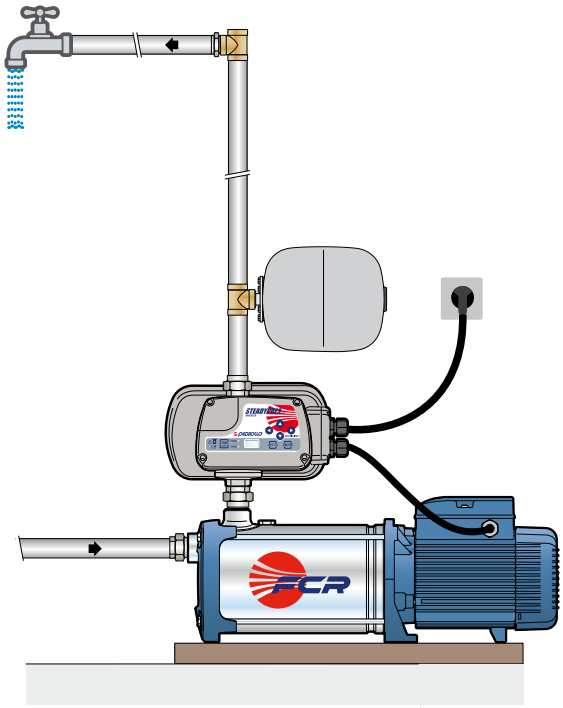

**KEY**

1) ON/OFF button
2) Red networking LED
3) Green run LED
4) Display
5) SET button
6) ENTER confirmation button
7) Scroll Arrows

## DIMENSIONS (mm)




## TYPICAL INSTALLATION



N.B.: it's advisable to install a membrane EXPANSION TANK downstream of the inverter to:

※ decrease pump start frequency
※ absorb excess pressure from the system, like water hammer

# DG FIT Wall-mounted inverter

Domestic use

Civil use



## INSTALLATION AND USE

**DG FIT** is an inverter-based electronic control device designed for single-phase surface or submersible pumps.

It is utilized for water supply in residential, commercial, and irrigation applications, and is compatible with all types of pressurization systems, including existing ones.

**DG FIT** ensures maximum comfort, extends the system's service life, and facilitates significant energy savings.

**DG FIT protects the pump from:**

※ Dry running
※ Overcurrent
※ Overvoltage
※ Undervoltage
※ Overheating
※ Short circuit

## PRODUCT DESCRIPTION

**DG FIT** is a wall-mounted frequency converter which, equipped with a pressure sensor, allows the rotation speed of the motor to adjust dynamically according to the amount of water required, thus ensuring constant pressure in the system.

**DG FIT** is characterised by:

※ A display and keypad for easy, step-by-step setup of operating parameters with two levels of adjustment:
  – **BASIC**, for setting pressure and current;
  – **ADVANCED**, for customizing the inverter for specific system needs.
※ Electronic components are cooled by an integrated fan to ensure heat dissipation.
※ Integrated expansion board, which allows:
  – RS 485 communication for up to three **DG FIT** to talk to each other
  – configuration of a dry input contact (e.g. float, double set point)
  – configuration of a dry output contact (e.g. alarm)
※ Input signal: pressure sensor
※ Arrangement for wall connection

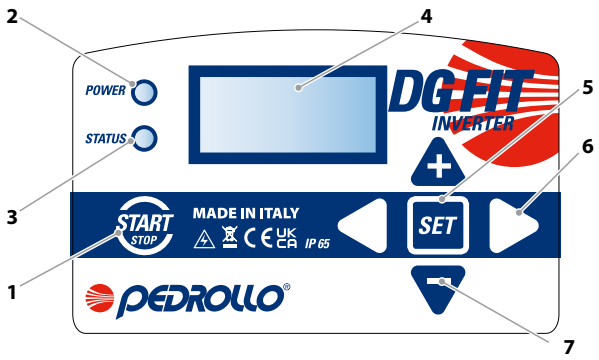
## ADVANTAGES IN USE

※ Easy installation, adjustment and setting.
※ Energy saving due to lower absorption of the pump.
※ Control of hydraulic and electrical operating parameters and protection against faults.
※ Reduced noise operation.
※ Longer pump life.
※ Possibility to connect up to three devices to create pressurization units

| TECHNICAL DATA | DG FIT MM 8 | DG FIT MM 11 | DG FIT MM 16 |
|---|---|---|---|
| Power supply voltage | 1 ~ 230 V | 1 ~ 230 V | 1 ~ 230 V |
| Pump motor voltage | 1 ~ 230 V | 1 ~ 230 V | 1 ~ 230 V |
| Permissible voltage variation | ± 10% | ± 10% | ± 10% |
| Supply frequency | 50/60Hz | 50/60Hz | 50/60Hz |
| Maximum pump motor current | 8.5 A | 11 A | 16 A |
| Maximum pump motor power | 1.5 HP (1.1 kW) | 2 HP (1.5 kW) | 3 HP (2.2 kW) |
| Room temperature | 0 °C ÷ 40 °C | 0 °C ÷ 40 °C | 0 °C ÷ 40 °C |
| Protection rating | IP 54 | IP 54 | IP 54 |
| RS-485 communication | standard | standard | standard |
| Dry input contact | standard | standard | standard |
| Dry contact output | standard | standard | standard |

## USER INTERFACE

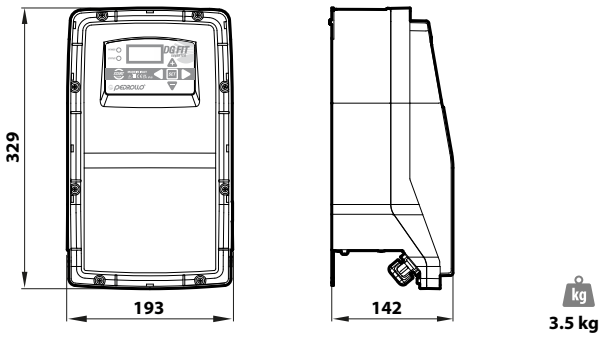
The keypad simplifies the process of accessing and navigating configuration menus, enabling the adjustment, and monitoring of various operational parameters, including system pressure, operating frequency, absorbed current, and alarm messages. LED indicators provide quick insights into the pump's operational status at a glance.



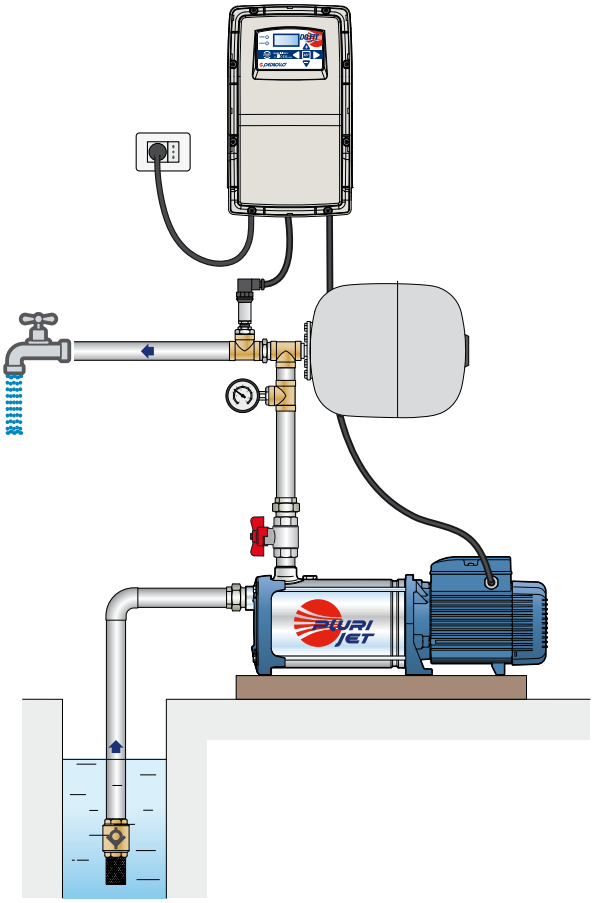

**KEY**

1) Power on/off key
2) Red networking LED
3) Green run LED
4) Display
5) SET button
6) Menu/parameter input/output arrows
7) Menu/parameter scrolling arrows

## DIMENSIONS (mm)




## TYPICAL INSTALLATION




N.B.: it's neceadvisable to install a membrane EXPANSION TANK downstream of the inverter to:

※ decrease pump start frequency
※ absorb excess pressure from the system, like water hammer

# PRO-DG Wall-mounted inverter




## INSTALLATION AND USE

**PRO-DG** is an inverter-based electronic control device compatible with both surface and submersible pumps, with motor powers of up to 15 HP. It is specifically engineered for professional applications in water supply, distribution, and transportation across commercial, industrial, and agricultural sectors.
Additionally, **PRO-DG** seamlessly integrates with all types of pressurization systems, including existing setups, ensuring enhanced comfort, prolonged system lifespan, and significant energy savings.

**PRO-DG protects the pump from:**
※ Dry running
※ Overcurrent
※ Overheating
※ Lack of phases in connections (for TT versions)
※ Motor faults

## PRODUCT DESCRIPTION

**PRO-DG** is a frequency inverter to be installed on the wall using the **WALL MOUNT SUPPORT** installation kit , which includes a ventilation system to induce forced cooling of the electronic components.
Connected to an appropriate pressure sensor, **PRO-DG** adjusts the motor rotation speed to be varied according to water demand and maintains a constant pressure in the system for greater comfort and energy savings.

**PRO-DG** features include:
– RS485 communication facilitates the connection of up to 8 devices and the creation of pumping groups comprising multiple pumps of the same type.
– a display and keypad enable straightforward and intuitive configuration of basic operating parameters through a start-up wizard consisting of a few simple steps.

## KEY FEATURES

※ Easy programming and adjustment
※ Constant pressure in the system
※ Energy Conservation
※ Reduced noise operation
※ Compatible with all pumps on the market
※ Communication of up to eight devices
※ Intelligent intervention management in case of anomalies

## OPTIONAL A RICHIESTA

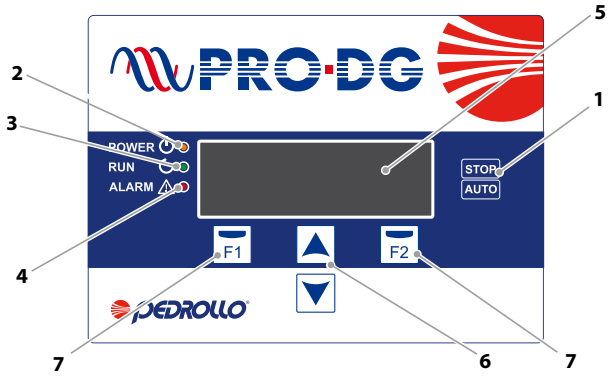
※ An expansion board can be connected to the MT2-11 and TT3-11 models (standard in the TT3-30 model), providing the following capabilities:
– connect to monitoring systems with ModBus connection;
– take a differential pressure reading by connecting a second pressure transducer.

| TECHNICAL DATA | PRO-DG MT2-11A | PRO-DG TT3-11A | PRO-DG TT3-30A |
|---|---|---|---|
| Power supply voltage | 1 ~ 230 V | 3 ~ 400 V | 3 ~ 400 V |
| Pump motor voltage | 3 ~ 230 V | 3 ~ 400 V | 3 ~ 400 V |
| Permissible voltage variation | ± 10% | ± 10% | ± 10% |
| Supply frequency | 50/60Hz | 50/60Hz | 50/60Hz |
| Maximum inverter input current | 20 A | 12 A | 31 A |
| Maximum electric pump motor current | 11 A | 11 A | 30 A |
| Maximum electric pump motor power | 3 HP | 5.5 HP | 15 HP |
| Room temperature | -10 °C ÷ 40 °C | -10 °C ÷ 40 °C | -10 °C ÷ 40 °C |
| Protection rating | IP 55* | IP 55* | IP 55* |
| No. of 4-20 mA inputs | 1 | 1 | 2 |
| No. of configurable digital inputs | 2 | 2 | 4 |
| RS485 Communication | standard | standard | standard |
| Motor temperature probe input | optional | optional | standard |
| 0-10 V input | optional | optional | standard |
| Modbus communication | optional | optional | standard |

* IP 54 degree of protection when using the "WALL MOUNT SUPPORT" accessory for wall installation

## USER INTERFACE

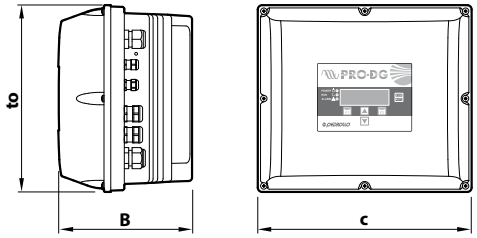
The keypad simplifies the process of accessing and navigating configuration menus, enabling the adjustment, and monitoring of various operational parameters, including system pressure, operating frequency, absorbed current, and alarm messages. LED indicators provide quick insights into the pump's operational status at a glance




**KEY**

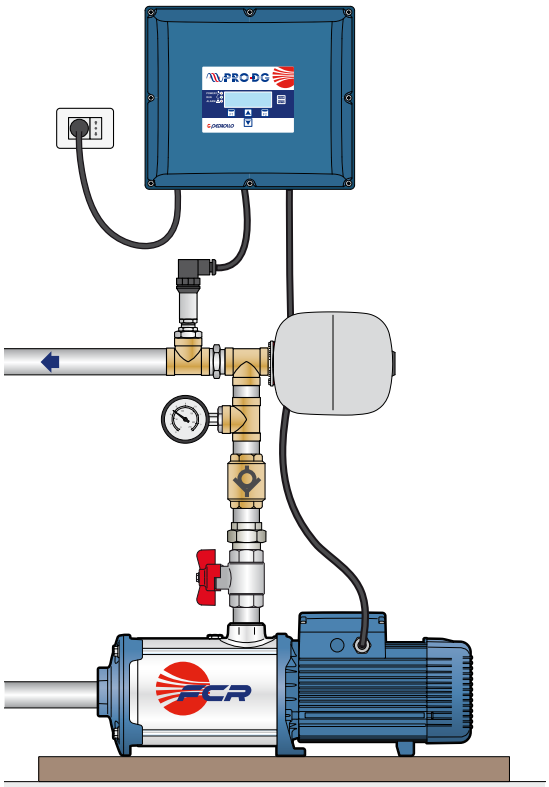
**1) Manual switch-off button**
**2) Networking LED**
**3) Running LEDs**
**4) Alarm LED**
**5) Display**
**6) Scroll Arrows**
**7) FUNCTION KEYS.**

## DIMENSIONS (mm)




| TYPE | DIMENSIONS mm | | | kg |
|---|---|---|---|---|
| | a | b | c | |
| PRO-DG MT 2-11A | 183 | 149 | 230 | 2.8 |
| PRO-DG TT 3-11A | 183 | 149 | 230 | 2.8 |
| PRO-DG TT 3-30A | 276 | 198 | 316 | 6.4 |

## TYPICAL INSTALLATION







**PRO-DG is designed for wall-mounting exclusively when fitted with the WALL MOUNT SUPPORT, available for separate purchase**

# VSP Pumps with inverters

Clean water

Domestic use

Civil use




## INSTALLATION AND USE

**VSP** is a versatile pumping unit designed for various applications. It's ideal for residential and commercial use, providing water supply and pressure boosting.
**VSP** seamlessly integrates with any pressurization system, including existing ones, ensuring maximum comfort and enabling significant energy savings.

## PRODUCT DESCRIPTION

**VSP** is a system comprising a pump and an integrated frequency converter. Equipped with a pressure sensor, it ensures a constant pressure as the system's water demand fluctuates.

This ready-to-use product eliminates the need for configuration procedures. Users can adjust the working pressure and view operating parameters and alarm messages via the user interface.

For advanced users, the system offers access to an advanced menu for modifying factory parameters through a guided procedure, allowing adaptation to specific plant conditions.

**VSP** is an intelligent pumping unit, equipped with:

※ **display and keypad** allowing simple and intuitive configuration and reading of operating parameters;
※ interface ports for additional **analogue** and **digital** input and output **signals**;
※ **PFC technology** maintains hydraulic performance unaffected even when supply voltages vary within ±20% of the nominal value;
※ **RS 485 communication** for connection to a second device in parallel.

**Integrated protection against:**

※ dry running
※ overcurrent
※ overvoltage and undervoltage
※ combustion chamber
※ short circuit
※ lack of phases in the connections (for three-phase version)

## TECHNICAL DATA

- Power supply:
  – **1~ 230V±10%** or **3~ 400V±10%**
  – Frequency: **50/60 Hz**
- Please refer to the technical data of the specific electropumps for liquid temperature, ambient temperature, and protection degree.

## KEY FEATURES

※ Easy installation, configuration, and adjustment.
※ Greater comfort, thanks to optimized performance and low noise levels.
※ Energy saving reduces startup and operating currents, ensuring.
※ Automatic compensation for fluctuations in the supply voltage.
※ Communication with another device to enhance system capabilities.
※ Intelligent management of control and intervention in case of anomalies.

## USER INTERFACE

It enables access to configuration menus, navigation through settings, adjustment of operating parameters, and activation or deactivation of the pumping unit.

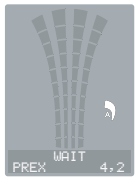
**1.** Scroll arrow keys ▼ ▲

**2.** ESC menu exit key ESC

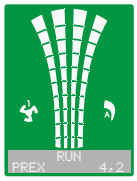
**3.** ON/OFF button ⏻

**4.** Confirmation button OK OK

**5.** 4-backlit display to indicate the operating status of the VSP



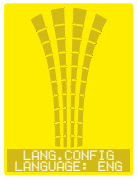

**WHITE display EXPECTATION**



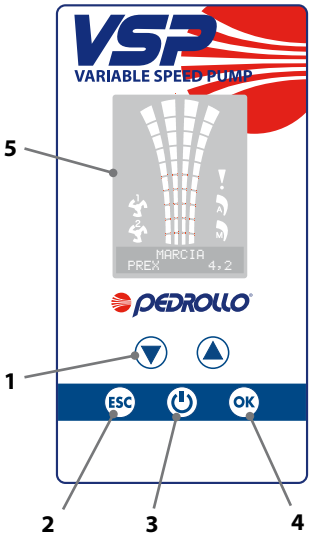

**Display VERDE START**




**RED display ERROR**




**YELLOW display (MENU OF PROGRAMMING**




## DISPLAY SYMBOLS

**6.** ALARM warning light !

**7.** AUTOMATIC operation indicator light A

**8.** MANUAL operation indicator light M

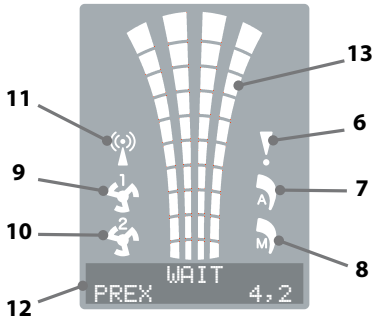
**9.** Indicator light for running pump no. 1 1

**10.** Indicator light for running pump no. 2 2 (if present)

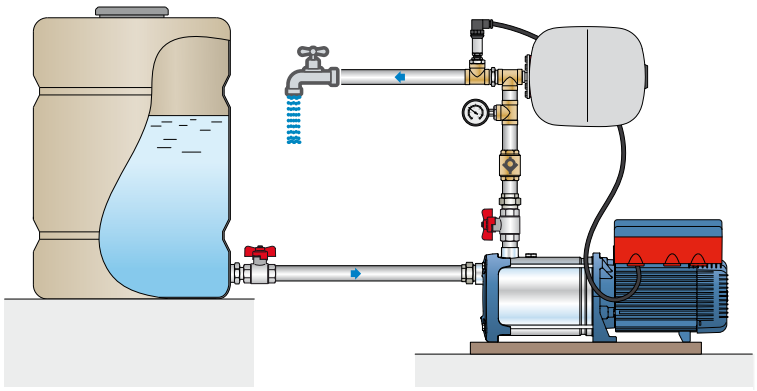
**11.** WI-FI active indicator light (if present)

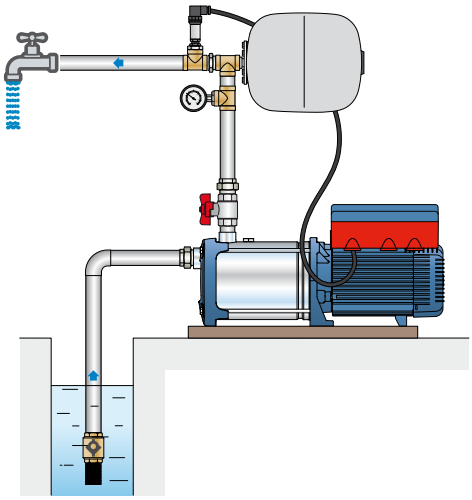
**12.** Alphanumeric display with 2 lines for visualization of: voltage, frequency, current, power factor (cosφ), pressure, level, system operating status, system anomalies.

**13.** VSP operating status LED lights



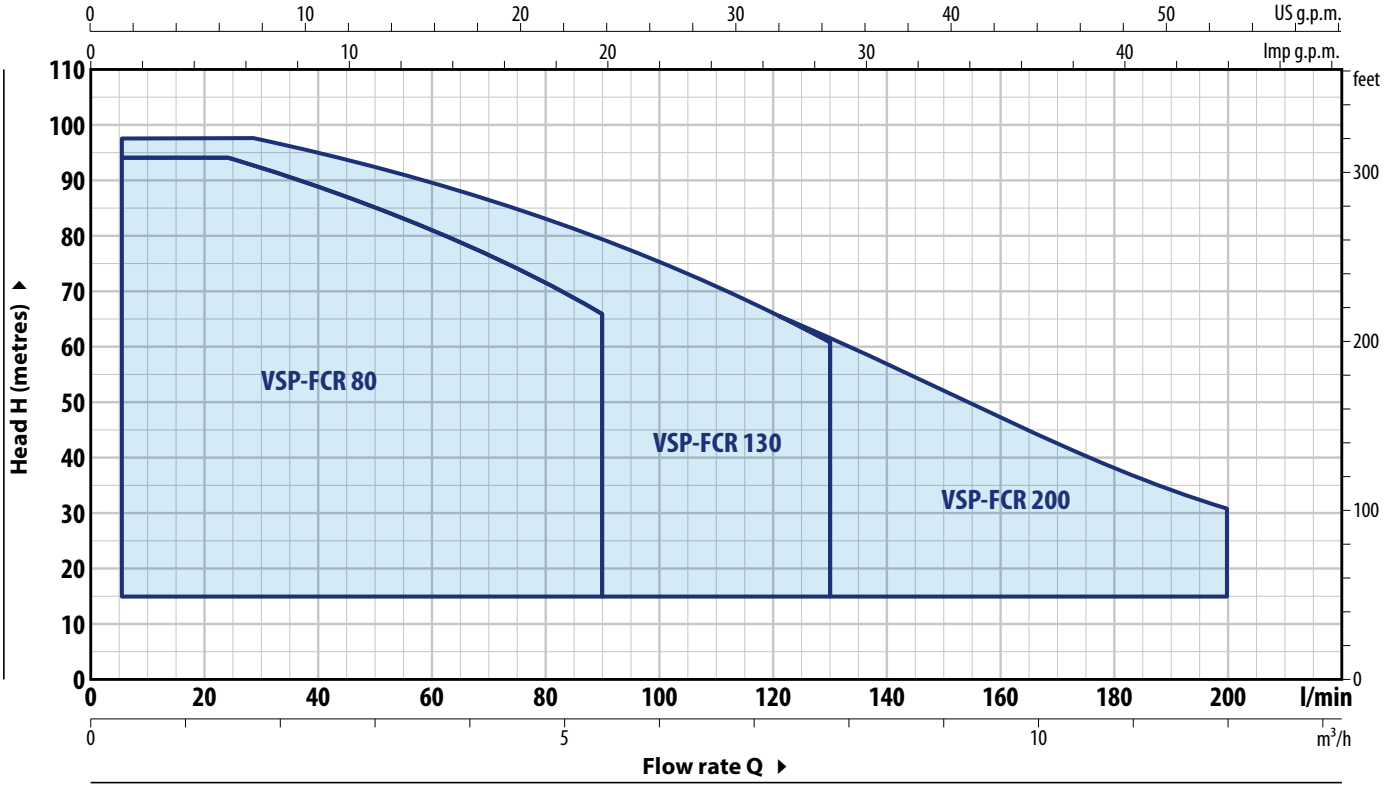

## TYPICAL INSTALLATION





# VSP – FCR

## PERFORMANCE RANGE

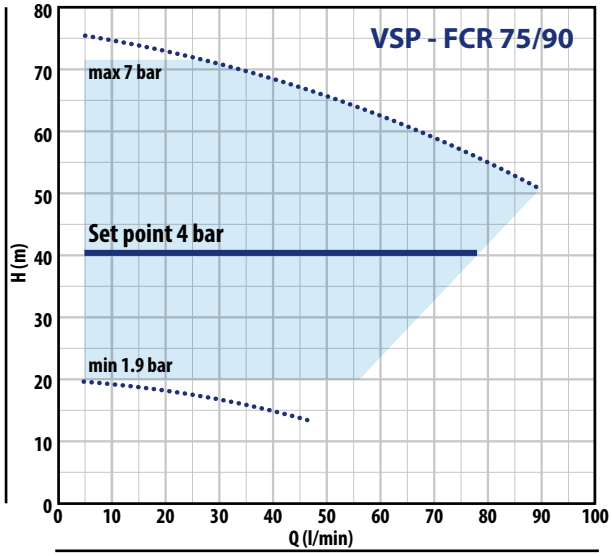


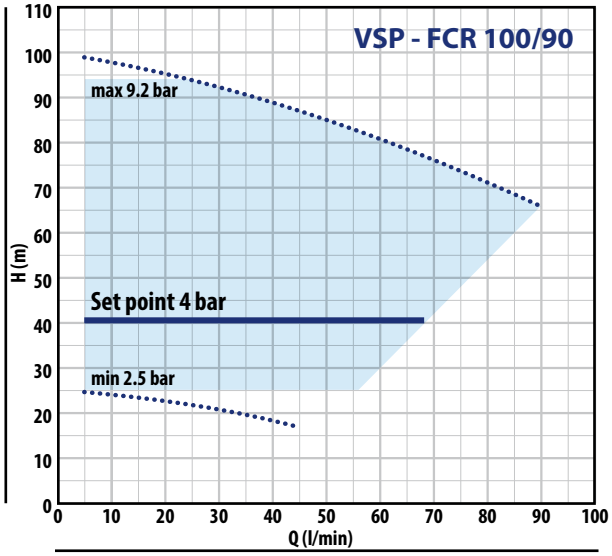

| TYPE | | POWER P2 | | Q m³/h | 0 | 0.3 | 1.2 | 2.4 | 3 | 3.6 | 4.8 | 5.4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | l/min | **0** | **5** | **20** | **40** | **50** | **60** | **80** | **90** |
| **VSPm - FCR 75/90** | **VSP - FCR 75/90** | 1.5 | 2 | **H** m | 71.5 | 71.5 | 71.5 | 68.5 | 66 | 63 | 55.5 | 50.5 |
| – | **VSP - FCR 100/90** | 2.2 | 3 | | 94 | 94 | 94 | 89 | 85 | 80.5 | 71 | 66 |

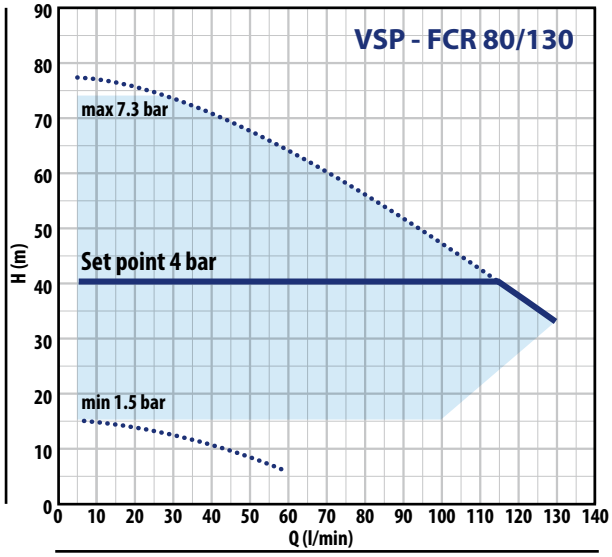
| TYPE | | POWER P2 | | Q m³/h | 0 | 0.3 | 1.2 | 2.4 | 3.6 | 4.8 | 6 | 7.2 | 7.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | l/min | **0** | **5** | **20** | **40** | **60** | **80** | **100** | **120** | **130** |
| **VSPm - FCR 80/130** | **VSP - FCR 80/130** | 1.5 | 2 | **H** m | 74.5 | 74.5 | 74.5 | 71 | 64.5 | 56 | 47 | 38 | 33.5 |
| – | **VSP - FCR 105/130** | 2.2 | 3 | | 98 | 98 | 98 | 95.5 | 90 | 83.5 | 75.5 | 66 | 61 |

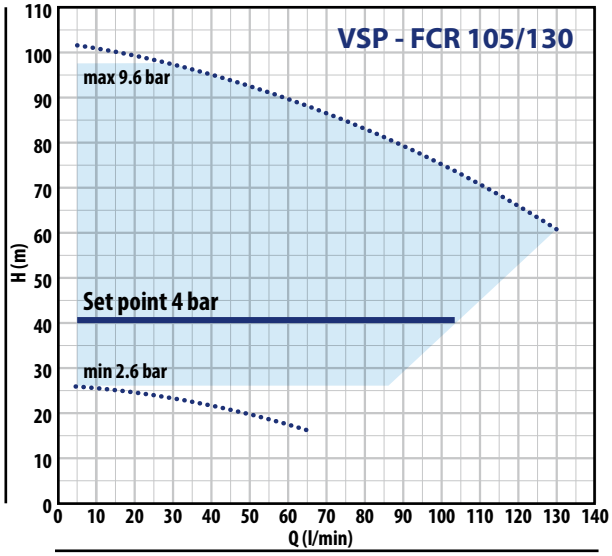
| TYPE | | POWER P2 | | Q m³/h | 0 | 0.3 | 1.2 | 2.4 | 3.6 | 4.8 | 6 | 7.2 | 9 | 10.2 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | l/min | **0** | **5** | **20** | **40** | **60** | **80** | **100** | **120** | **150** | **170** | **200** |
| **VSPm - FCR 70/200** | **VSP - FCR 70/200** | 1.5 | 2 | **H** m | 67.5 | 67.5 | 67.5 | 67.5 | 64 | 58.5 | 51.5 | 44 | 31.5 | 23.5 | 14 |
| – | **VSP - FCR 95/200** | 2.2 | 3 | | 87.5 | 87.5 | 87.5 | 87.5 | 85 | 80.5 | 74 | 66 | 52.5 | 43 | 31 |

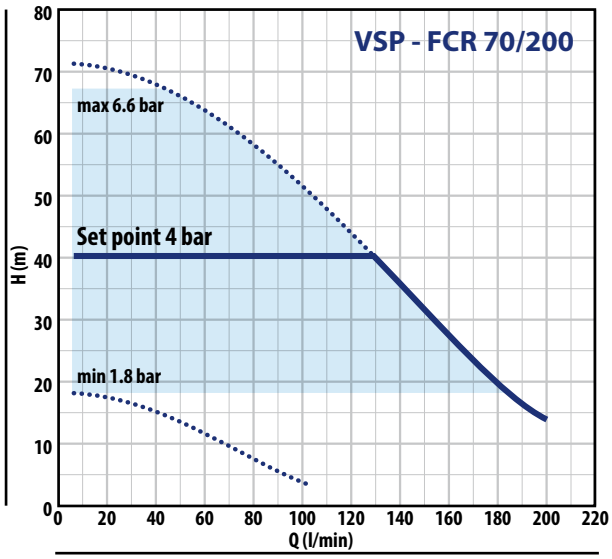
## PERFORMANCE CURVES

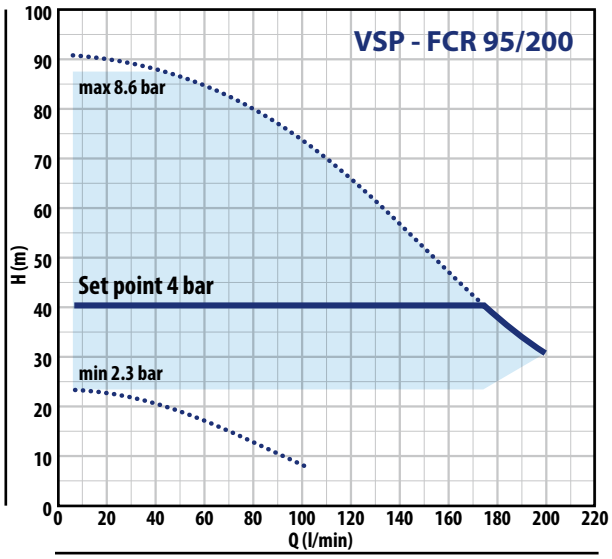


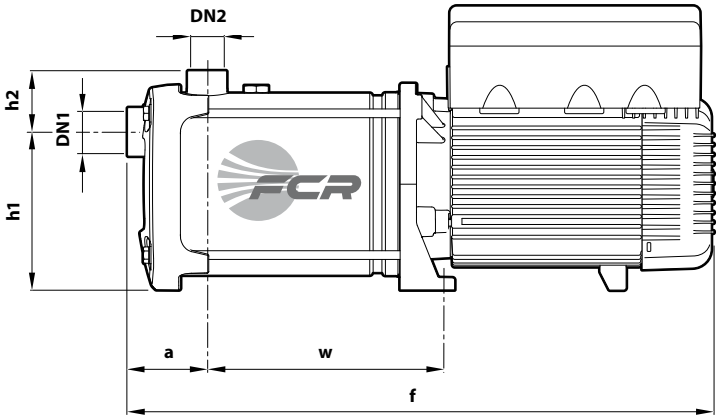



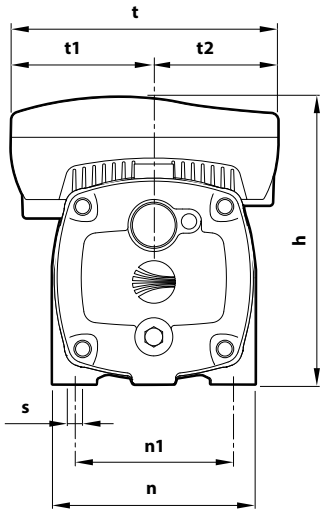



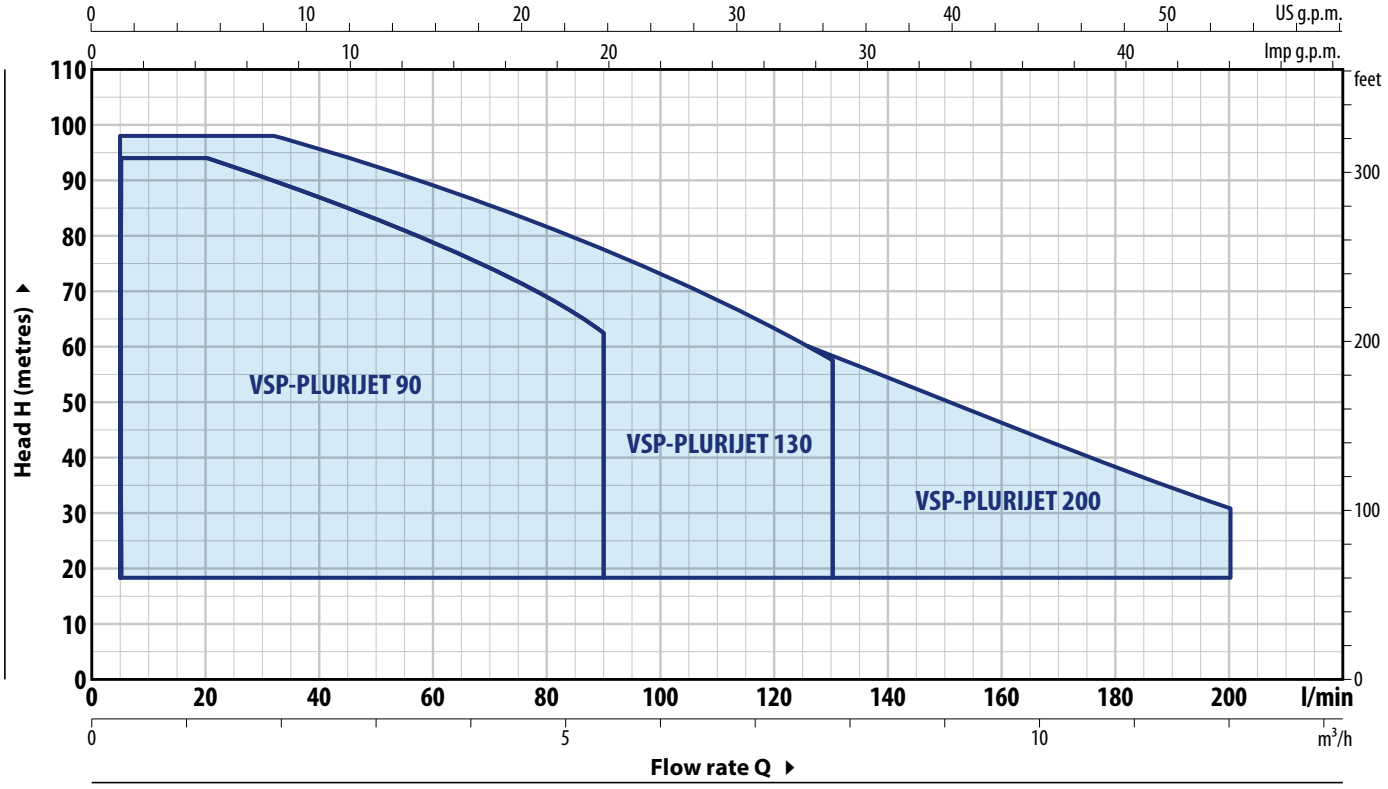
## DIMENSIONS AND WEIGHT




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **DN1** | **DN2** | f | a | w | h | h1 | h2 | t | t1 | t2 | n | n1 | s | 1~ | 3~ |
| **VSPm - FCR 75/90** | **VSP - FCR 75/90** | **1¼"** | **1"** | 445 | 75 | 139 | 260 | 145 | 59 | 242 | 129 | 113 | 185 | 145 | 11 | 21.7 | 21.7 |
| – | **VSP - FCR 100/90** | | | 471 | | 165 | | | | | | | | | | – | 21.9 |
| **VSPm - FCR 80/130** | **VSP - FCR 80/130** | | | 445 | | 139 | | | | | | | | | | 21.9 | 21.9 |
| – | **VSP - FCR 105/130** | | | 471 | | 165 | | | | | | | | | | – | 21.9 |
| **VSPm - FCR 70/200** | **VSP - FCR 70/200** | | | 445 | | 139 | | | | | | | | | | 24.1 | 23.9 |
| – | **VSP - FCR 95/200** | | | 471 | | 165 | | | | | | | | | | – | 24.0 |

## PERFORMANCE RANGE



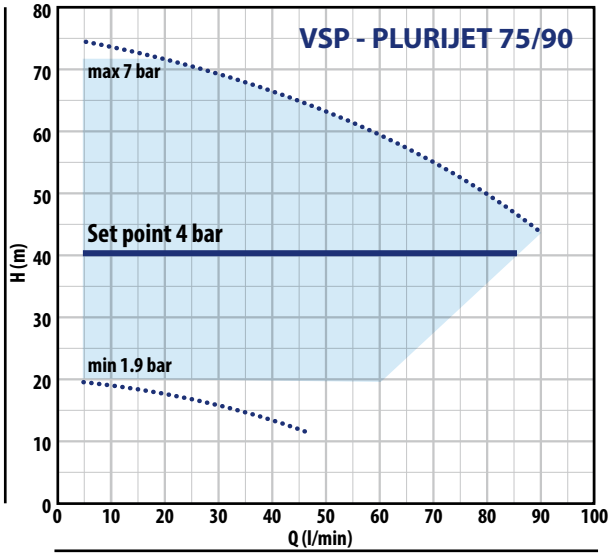

| TYPE | | POWER P2 | | Q m³/h | 0 | 0.3 | 1.2 | 2.4 | 3 | 3.6 | 4.8 | 5.4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | l/min | **0** | **5** | **20** | **40** | **50** | **60** | **80** | **90** |
| **VSPm - PJ 75/90** | **VSP - PJ 75/90** | 1.5 | 2 | **H** m | 71.5 | 71.5 | 71 | 66 | 63 | 59.5 | 49.5 | 43.5 |
| – | **VSP - PJ 100/90** | 2.2 | 3 | | 94 | 94 | 94 | 87.5 | 83 | 78.5 | 68 | 62.5 |

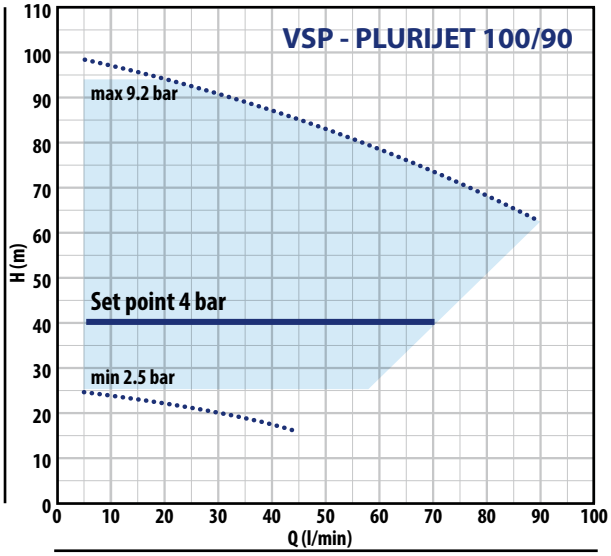
| TYPE | | POWER P2 | | Q m³/h | 0 | 0.3 | 1.2 | 2.4 | 3.6 | 4.8 | 6 | 7.2 | 7.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | l/min | **0** | **5** | **20** | **40** | **60** | **80** | **100** | **120** | **130** |
| **VSPm - PJ 80/130** | **VSP - PJ 80/130** | 1.5 | 2 | **H** m | 74.5 | 74.5 | 74.5 | 69.5 | 62 | 52.5 | 43 | 34 | 30 |
| – | **VSP - PJ 105/130** | 2.2 | 3 | | 98 | 98 | 98 | 96 | 89.5 | 81 | 72 | 62 | 57.5 |

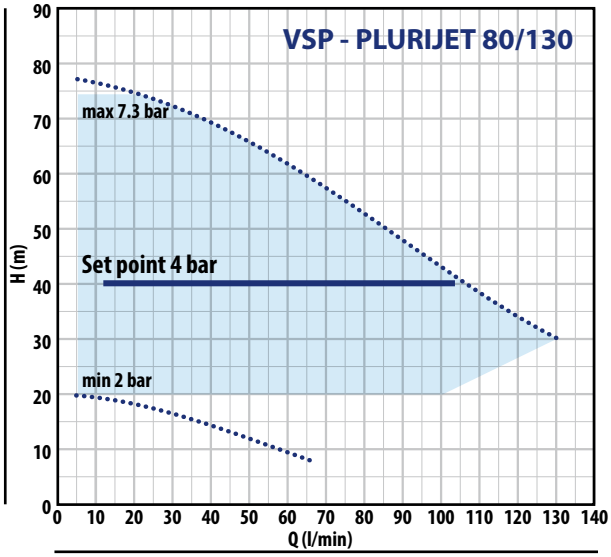
| TYPE | | POWER P2 | | Q m³/h | 0 | 0.3 | 1.2 | 2.4 | 3.6 | 4.8 | 6 | 7.2 | 9 | 10.2 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | l/min | **0** | **5** | **20** | **40** | **60** | **80** | **100** | **120** | **150** | **170** | **200** |
| **VSPm - PJ 70/200** | **VSP - PJ 70/200** | 1.5 | 2 | **H** m | 65.5 | 65.5 | 65.5 | 65 | 60 | 53.5 | 46 | 38.5 | 27.5 | 21 | 14 |
| – | **VSP - PJ 95/200** | 2.2 | 3 | | 87.5 | 87.5 | 87.5 | 87 | 82.5 | 76.5 | 70 | 62.5 | 50.5 | 42 | 31 |

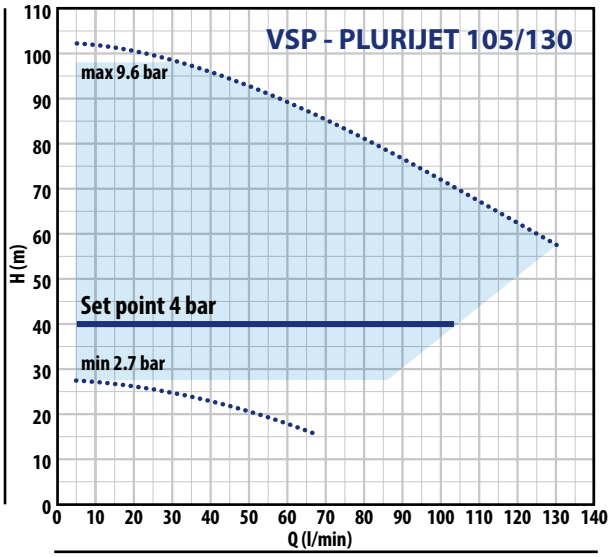
# VSP – PLURIJET

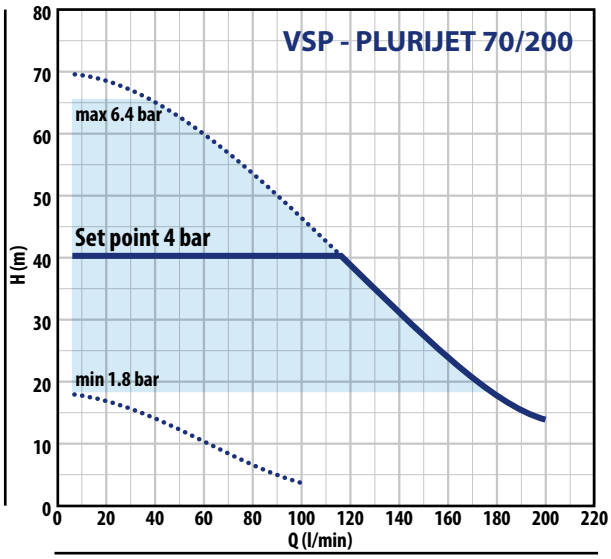
## PERFORMANCE CURVES

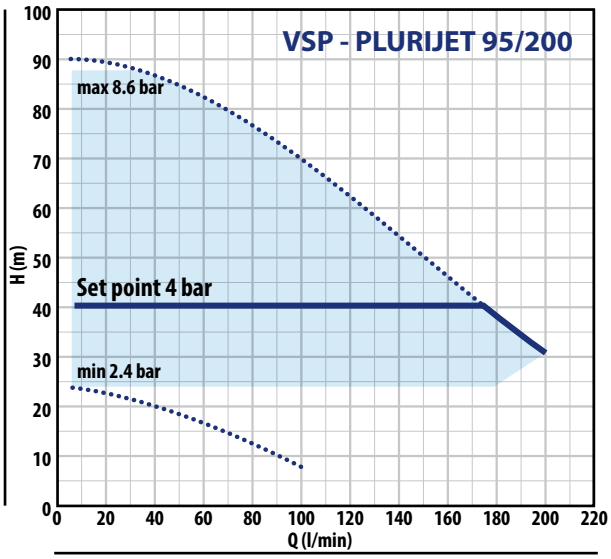


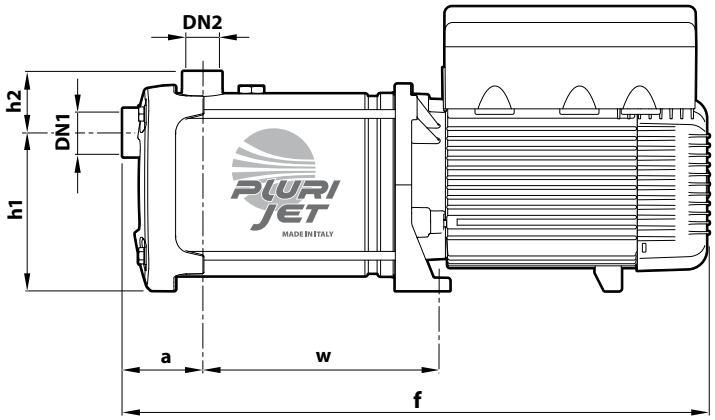



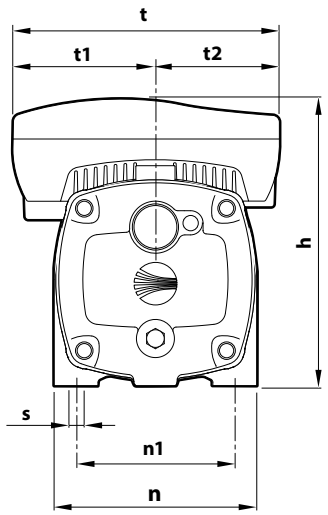



## DIMENSIONS AND WEIGHT

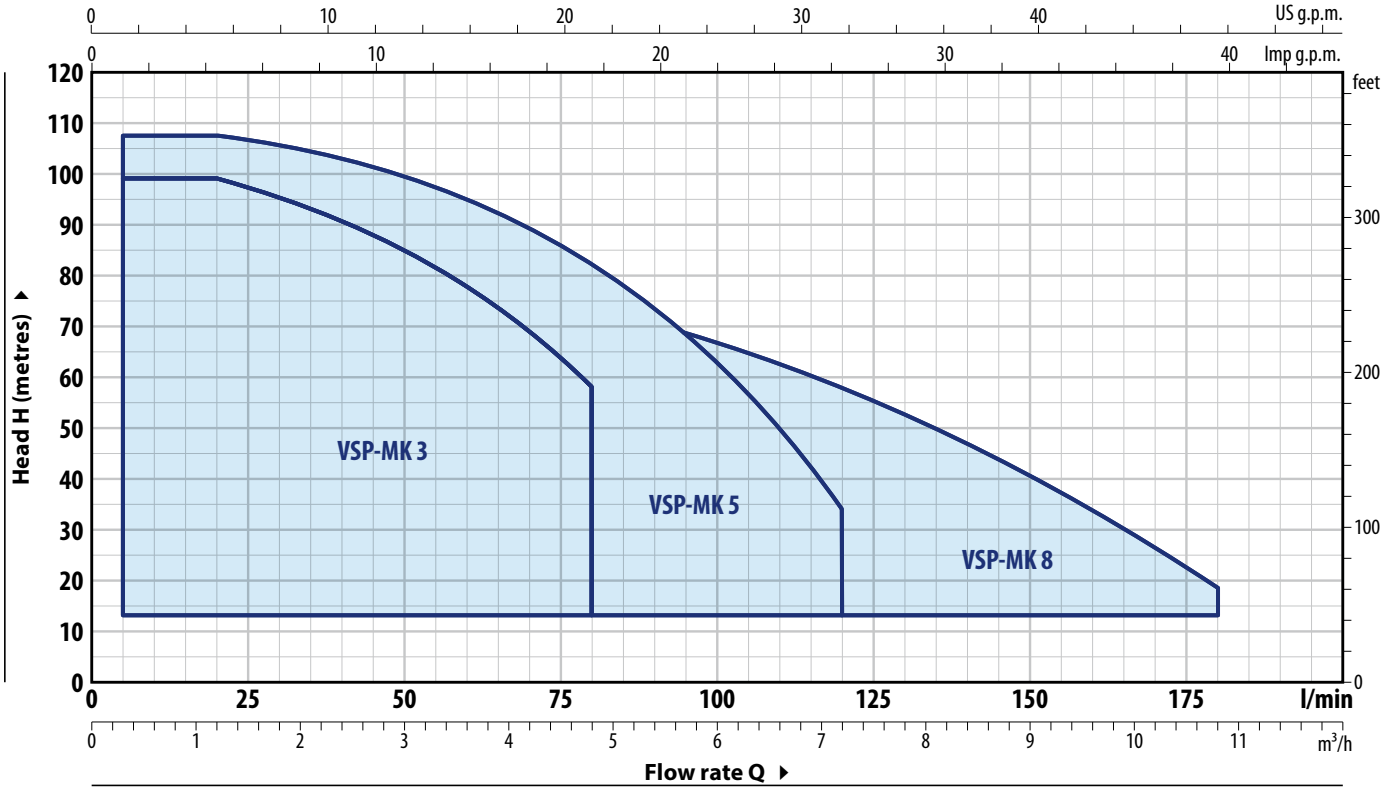



| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **DN1** | **DN2** | f | a | w | h | h1 | h2 | t | t1 | t2 | n | n1 | s | 1~ | 3~ |
| **VSPm - PLURIJET 75/90** | **VSP - PLURIJET 75/90** | **1¼"** | **1"** | 497 | 75 | 191 | 260 | 145 | 59 | 242 | 129 | 113 | 185 | 145 | 11 | 21.7 | 21.7 |
| – | **VSP - PLURIJET 100/90** | | | 523 | | 217 | | | | | | | | | | – | 23.9 |
| **VSPm - PLURIJET 80/130** | **VSP - PLURIJET 80/130** | | | 497 | | 191 | | | | | | | | | | 21.9 | 21.9 |
| – | **VSP - PLURIJET 105/130** | | | 523 | | 217 | | | | | | | | | | – | 24.1 |
| **VSPm - PLURIJET 70/200** | **VSP - PLURIJET 70/200** | | | 497 | | 191 | | | | | | | | | | 21.9 | 21.9 |
| – | **VSP - PLURIJET 95/200** | | | 523 | | 217 | | | | | | | | | | – | 24.0 |

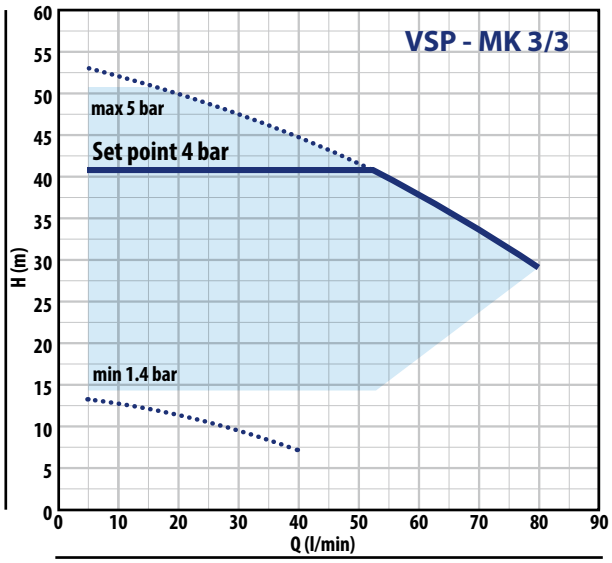
# VSP – MK

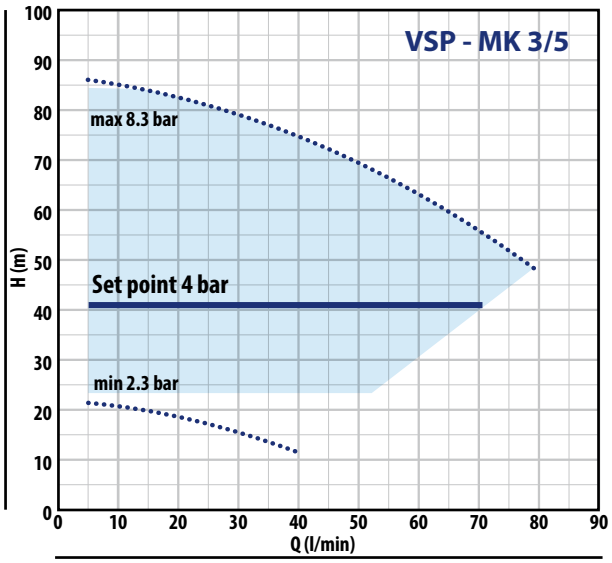
## PERFORMANCE RANGE



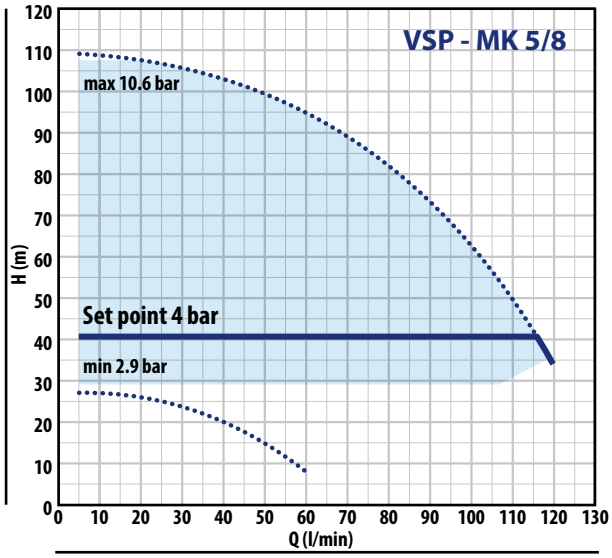

| TYPE | | POWER P2 | | Q m³/h | 0 | 0.6 | 1.2 | 2.4 | 3.6 | 4.8 | 6 | 7.2 | 8.4 | 9.6 | 10.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | l/min | **0** | **5** | **20** | **40** | **60** | **80** | **100** | **120** | **140** | **160** | **180** |
| VSPm - MK 3/3 | VSP - MK 3/3 | 0.75 | 1 | H m | 51 | 51 | 50 | 45 | 38.5 | 29 | | | | | |
| VSPm - MK 3/5 | VSP - MK 3/5 | 1.1 | 1.5 | | 84.5 | 84.5 | 83 | 75 | 64 | 48 | | | | | |
| VSPm - MK 3/6 | VSP - MK 3/6 | 1.5 | 2 | | 99 | 99 | 99 | 90 | 77 | 58 | | | | | |
| VSPm - MK 5/4 | VSP - MK 5/4 | 0.75 | 1 | | 54 | 54 | 54 | 50 | 45 | 37.5 | 28.5 | 17 | | | |
| VSPm - MK 5/5 | VSP - MK 5/5 | 1.1 | 1.5 | | 68.5 | 68.5 | 67.5 | 62.5 | 56 | 47 | 35.5 | 21.5 | | | |
| VSPm - MK 5/7 | VSP - MK 5/7 | 1.5 | 2 | | 95 | 95 | 95 | 88 | 78 | 66 | 50 | 30 | | | |
| – | VSP - MK 5/8 | 2.2 | 3 | | 108 | 108 | 108 | 100 | 90 | 75 | 57 | 34 | | | |
| VSPm - MK 8/4 | VSP - MK 8/4 | 1.1 | 1.5 | | 53 | 53 | 53 | 53 | 51 | 47.5 | 43 | 37.5 | 30.5 | 22.1 | 12 |
| VSPm - MK 8/5 | VSP - MK 8/5 | 1.5 | 2 | | 67.5 | 67.5 | 67.5 | 67 | 64 | 59.5 | 54 | 47 | 38 | 27.5 | 15.5 |
| – | VSP - MK 8/6 | 2.2 | 3 | | 81.5 | 81.5 | 81.5 | 80 | 77 | 72 | 64.5 | 56 | 45.5 | 33 | 18.5 |

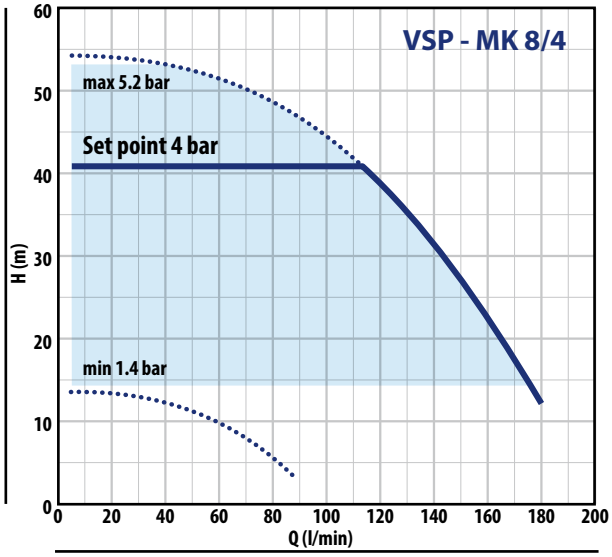
## PERFORMANCE CURVES

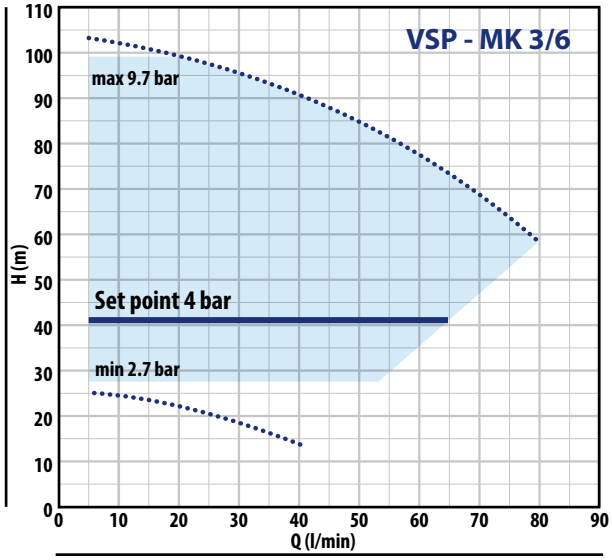


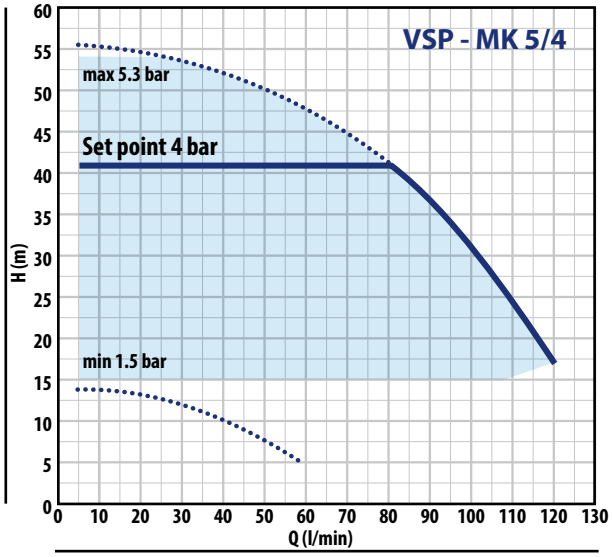



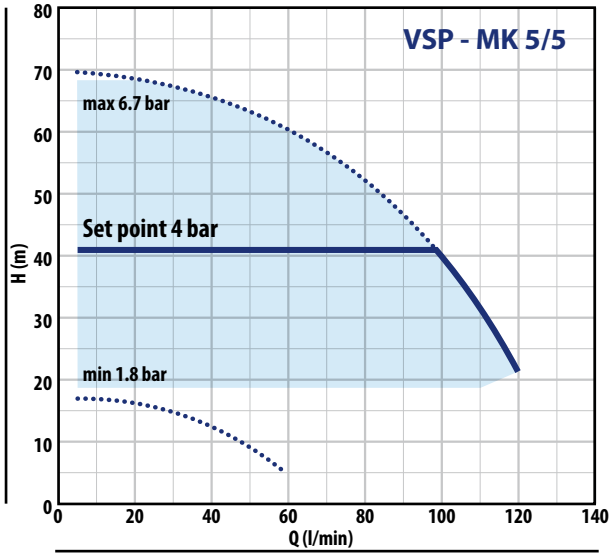
## PERFORMANCE CURVES

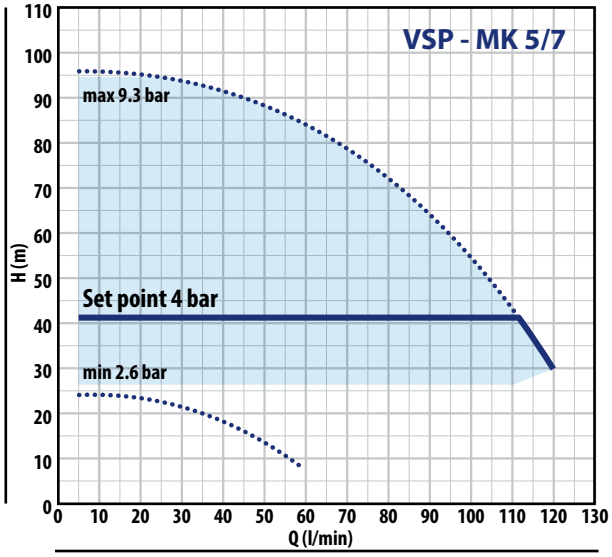


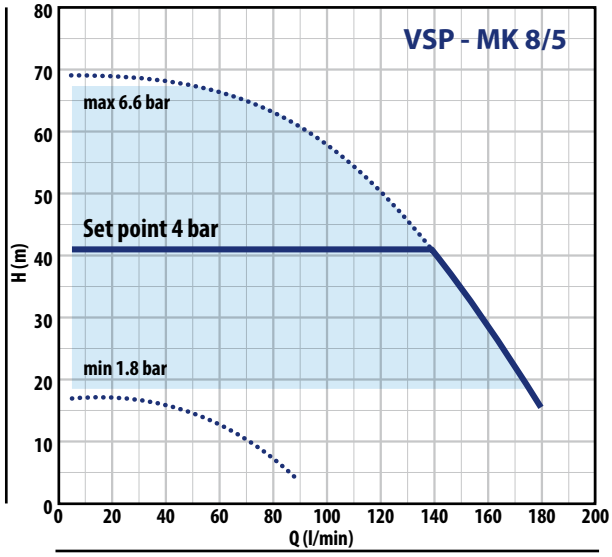



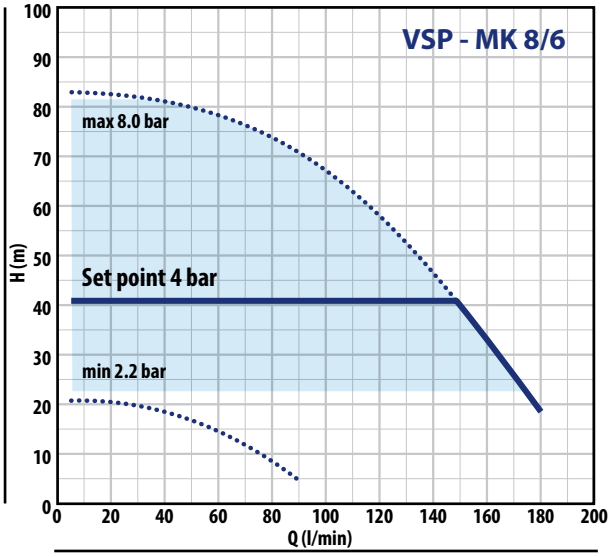



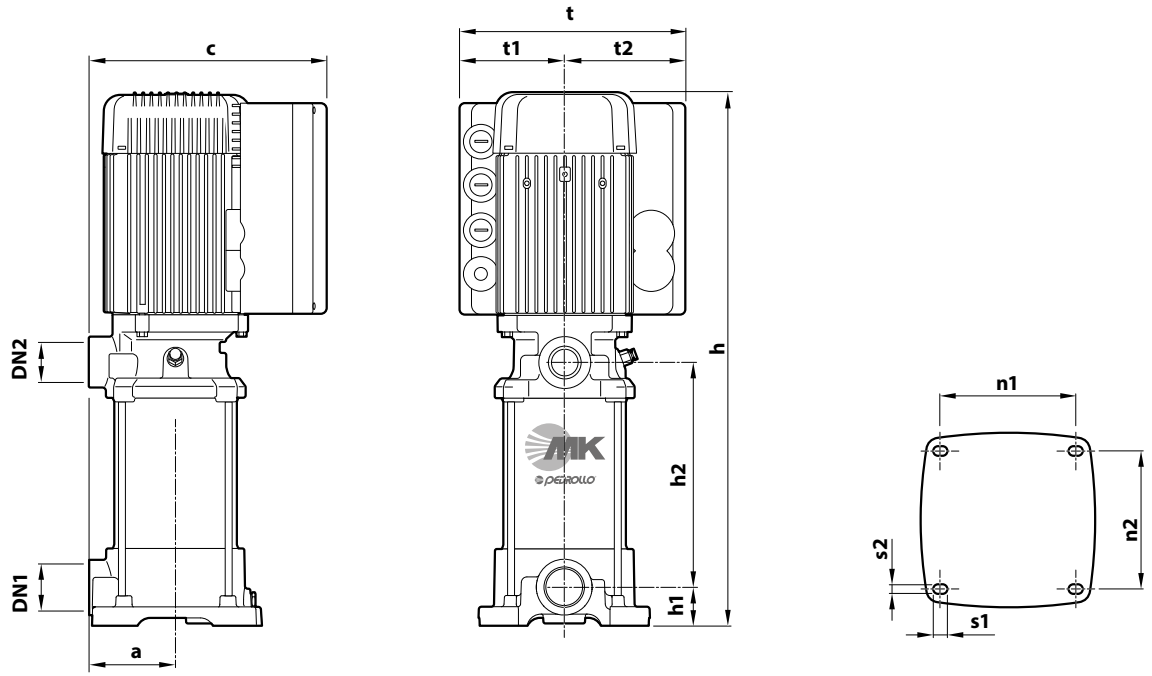
# VSP – MK

## PERFORMANCE CURVES



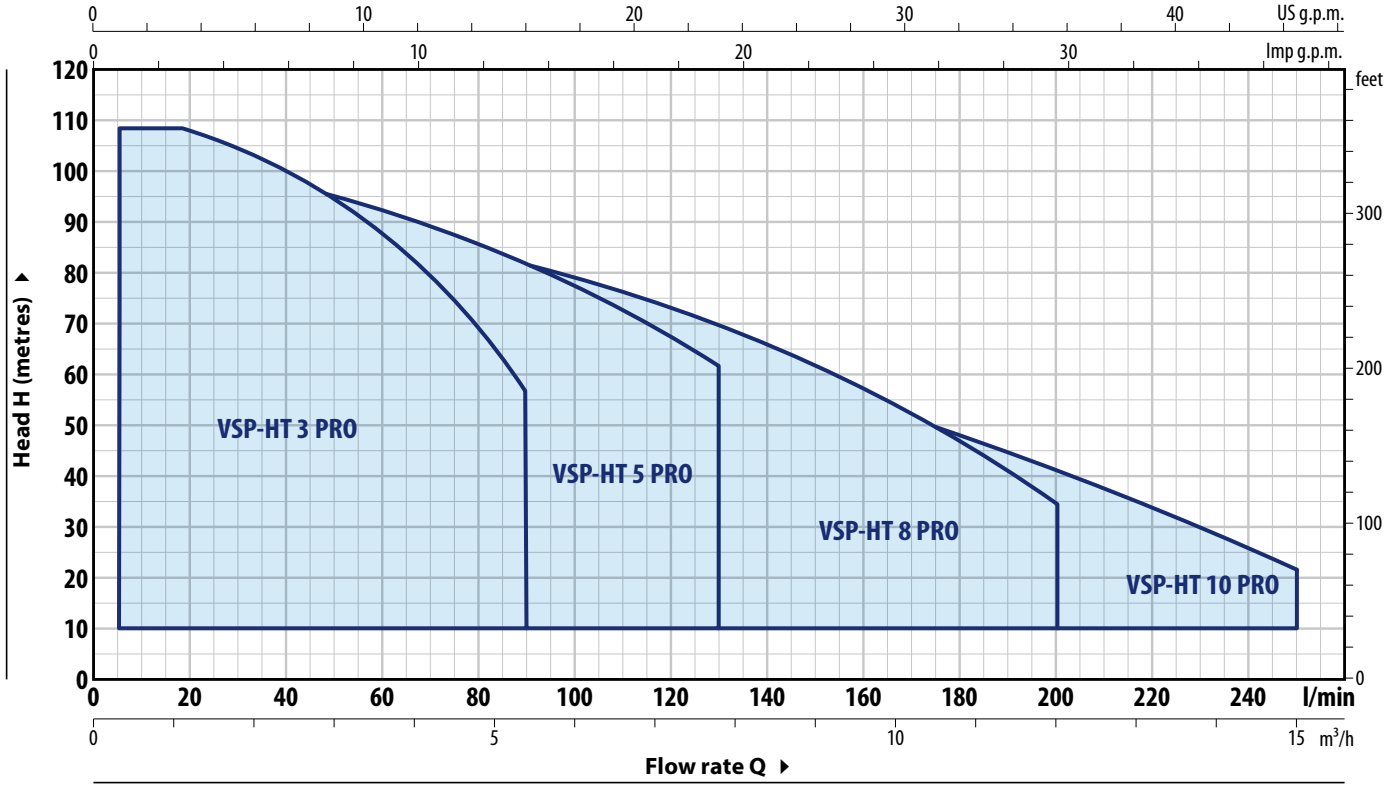




## DIMENSIONS AND WEIGHT




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN1 | DN2 | a | c | h | h1 | h2 | t | t1 | t2 | n1 | n2 | S1 | s2 | 1~ | 3~ |
| VSPm - MK 3/3 | VSP - MK 3/3 | 1¼" | 1" | 93 | 255 | 447 | 41 | 132 | 242 | 113 | 129 | 143 | 146 | 14.5 | 10 | 23.3 | 23.3 |
| VSPm - MK 3/5 | VSP - MK 3/5 | | | | | 501 | | 186 | | | | | | | | 25.5 | 25.5 |
| VSPm - MK 3/6 | VSP - MK 3/6 | | | | | 528 | | 213 | | | | | | | | 27.3 | 27.3 |
| VSPm - MK 5/4 | VSP - MK 5/4 | | | | | 474 | | 159 | | | | | | | | 23.8 | 23.8 |
| VSPm - MK 5/5 | VSP - MK 5/5 | | | | | 501 | | 186 | | | | | | | | 25.2 | 25.2 |
| VSPm - MK 5/7 | VSP - MK 5/7 | | | | | 555 | | 240 | | | | | | | | 28.3 | 28.3 |
| – | VSP - MK 5/8 | | | | | 602 | | 267 | | | | | | | | – | 28.6 |
| VSPm - MK 8/4 | VSP - MK 8/4 | | | | | 474 | | 159 | | | | | | | | 26.6 | 26.6 |
| VSPm - MK 8/5 | VSP - MK 8/5 | | | | | 501 | | 186 | | | | | | | | 27.0 | 27.0 |
| – | VSP - MK 8/6 | | | | | 548 | | 213 | | | | | | | | – | 29.4 |

## PERFORMANCE RANGE




| TYPE | | POWER P2 | | Q m³/h | 0 | 0.3 | 1.2 | 1.8 | 2.4 | 3 | 3.6 | 4.2 | 4.8 | 5.4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | Q l/min | **0** | **5** | **20** | **30** | **40** | **50** | **60** | **70** | **80** | **90** |
| VSPm - HT3/4 PRO | VSP - HT3/4 PRO | 0.75 | 1 | H m | 61 | 61 | 61 | 59.5 | 57 | 54 | 50 | 45.5 | 39.5 | 32 |
| VSPm - HT3/5 PRO | VSP - HT3/5 PRO | 1.1 | 1.5 | | 76.5 | 76.5 | 76.5 | 74.5 | 71.5 | 67.5 | 63 | 56.5 | 49.5 | 40 |
| VSPm - HT3/6 PRO | VSP - HT3/6 PRO | 1.5 | 2 | | 92 | 92 | 92 | 89.5 | 85.5 | 81 | 75.5 | 68 | 59 | 48 |
| – | VSP - HT3/7 PRO | 1.8 | 2.5 | | 108 | 108 | 107.5 | 104 | 100 | 94.5 | 88 | 79.5 | 69 | 56 |

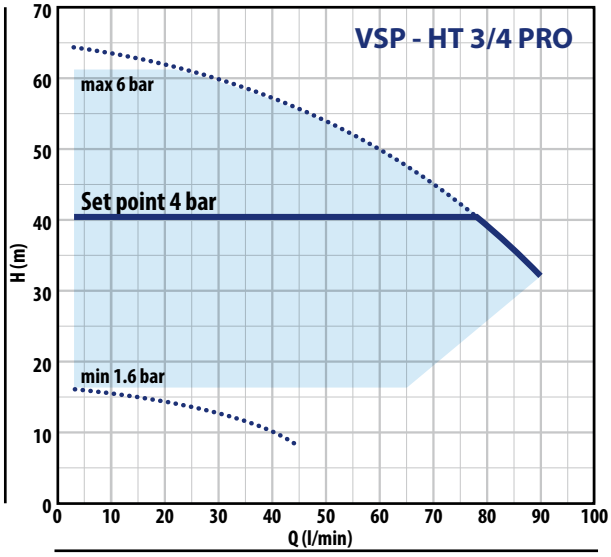
| TYPE | | POWER P2 | | Q m³/h | 0 | 0.3 | 2.4 | 3.6 | 4.8 | 5.4 | 6 | 7.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | Q l/min | **0** | **5** | **40** | **60** | **80** | **90** | **100** | **130** |
| VSPm - HT5/2 PRO | VSP - HT5/2 PRO | 0.75 | 1 | H m | 32.5 | 32.5 | 32.5 | 31 | 28.5 | 27.5 | 26 | 20.5 |
| VSPm - HT5/3 PRO | VSP - HT5/3 PRO | 1.1 | 1.5 | | 49 | 49 | 49 | 46.5 | 43 | 41 | 39 | 31 |
| VSPm - HT5/4 PRO | VSP - HT5/4 PRO | 1.5 | 2 | | 65.5 | 65.5 | 65 | 62 | 57.5 | 55 | 52 | 41 |
| – | VSP - HT5/5 PRO | 1.8 | 2.5 | | 81.5 | 81.5 | 81.5 | 77.5 | 72 | 68.5 | 65 | 51.5 |
| – | VSP - HT5/6 PRO | 2.2 | 3 | | 97 | 97 | 97 | 92.5 | 86 | 82.5 | 78 | 62 |

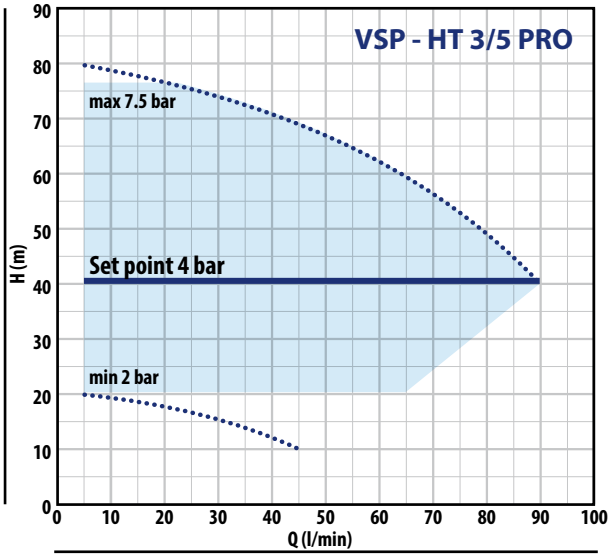
| TYPE | | POWER P2 | | Q m³/h | 0 | 0.3 | 2.4 | 3.6 | 4.8 | 5.4 | 7.2 | 9 | 10.8 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | Q l/min | **0** | **5** | **40** | **60** | **80** | **90** | **120** | **150** | **180** | **200** |
| VSPm - HT8/3 PRO | VSP - HT8/3 PRO | 1.1 | 1.5 | H m | 45 | 45 | 45 | 44 | 42 | 41 | 36.5 | 30.5 | 23 | 17 |
| VSPm - HT8/4 PRO | VSP - HT8/4 PRO | 1.5 | 2 | | 60 | 60 | 60 | 58.5 | 56 | 54.5 | 48.5 | 40.5 | 31 | 23 |
| – | VSP - HT8/5 PRO | 1.8 | 2.5 | | 74.5 | 74.5 | 74.5 | 73.5 | 70 | 68 | 61 | 51 | 38.5 | 28.5 |
| – | VSP - HT8/6 PRO | 2.2 | 3 | | 91 | 91 | 91 | 88 | 84 | 82 | 73 | 61 | 46 | 34.5 |

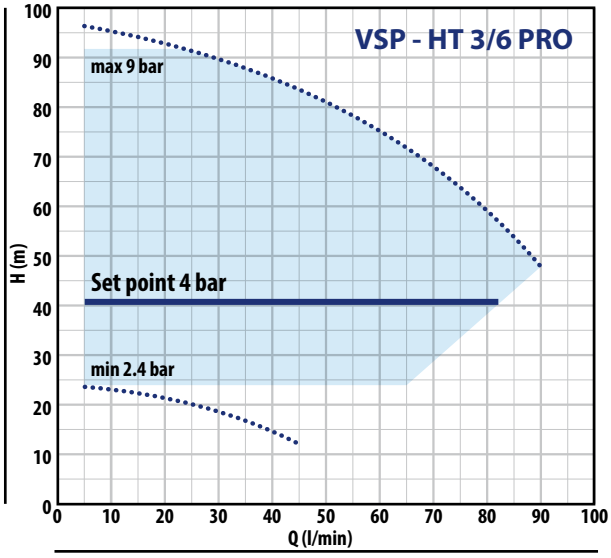
| TYPE | | POWER P2 | | Q m³/h | 0 | 0.3 | 2.4 | 3.6 | 4.8 | 6 | 7.2 | 9 | 11.4 | 13.2 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | Q l/min | **0** | **5** | **40** | **60** | **80** | **100** | **120** | **150** | **190** | **220** | **250** |
| VSPm - HT10/3 PRO | VSP - HT10/3 PRO | 1.5 | 2 | H m | 45 | 45 | 45 | 43.5 | 42 | 40 | 38 | 33.5 | 26.5 | 20.5 | 13 |
| – | VSP - HT10/4 PRO | 1.8 | 2.5 | | 60 | 60 | 60 | 58 | 56 | 53.5 | 50.5 | 45 | 35.5 | 27 | 17 |
| – | VSP - HT10/5 PRO | 2.2 | 3 | | 73.5 | 73.5 | 73.5 | 72.5 | 70 | 67 | 63 | 56 | 44.5 | 34 | 21.5 |

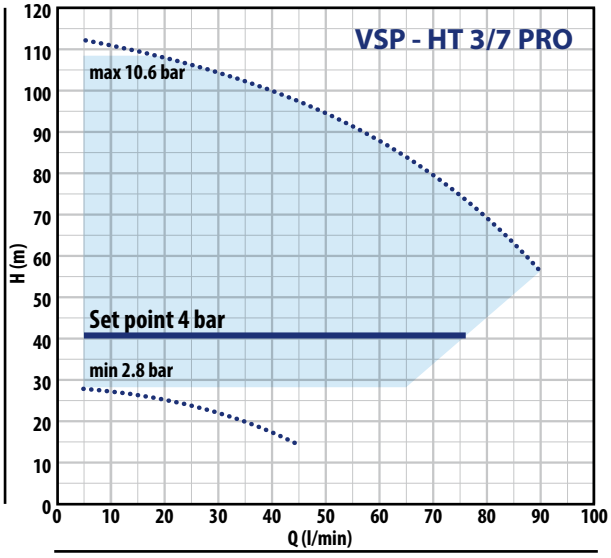
# VSP – HT-PRO

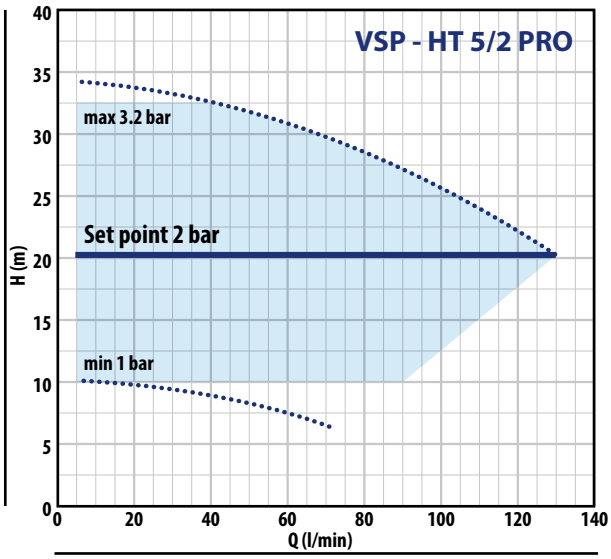
## PERFORMANCE CURVES

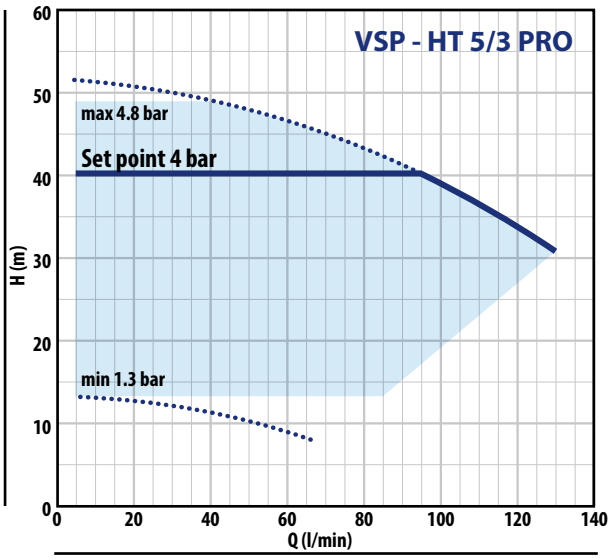


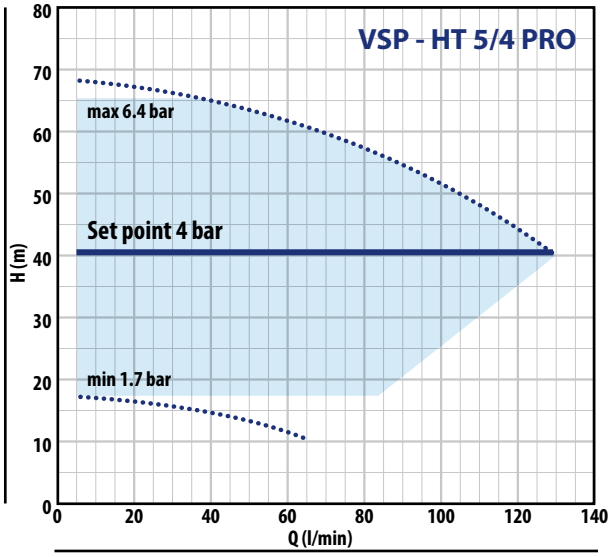



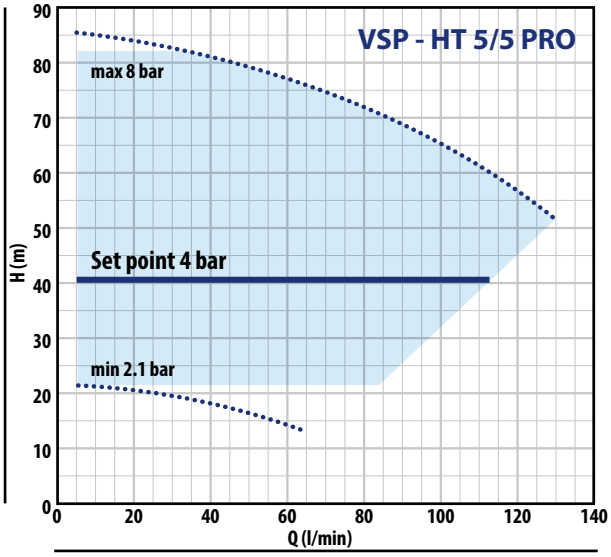



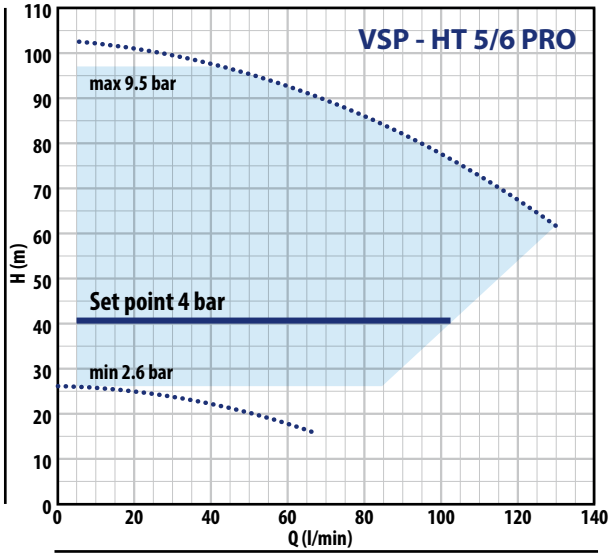



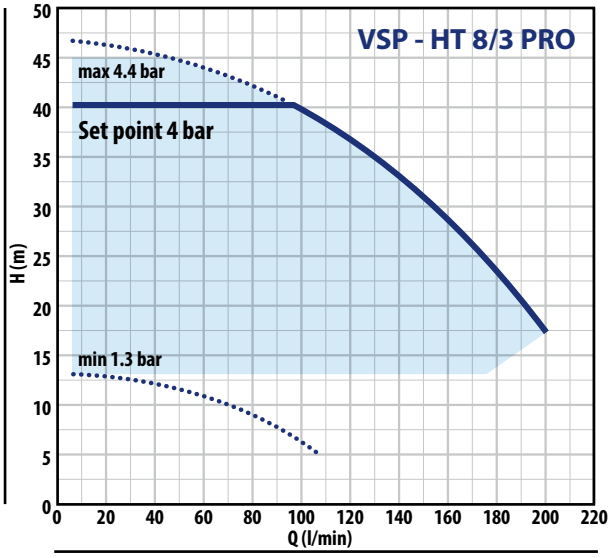



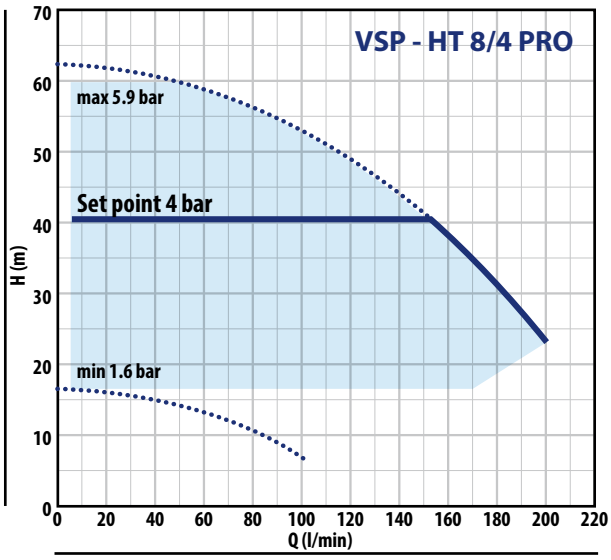
## PERFORMANCE CURVES

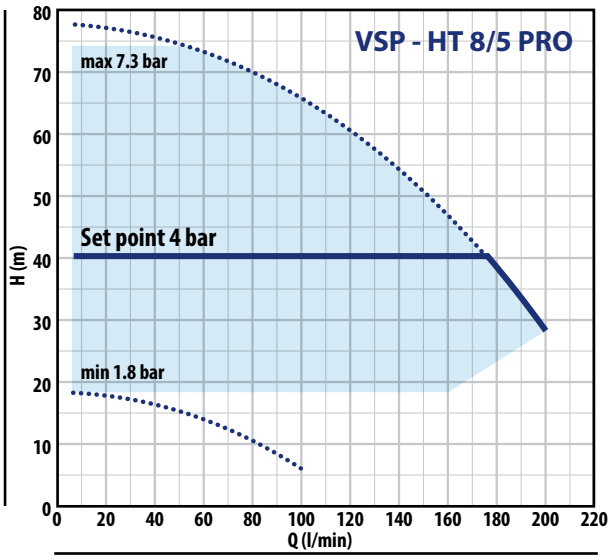


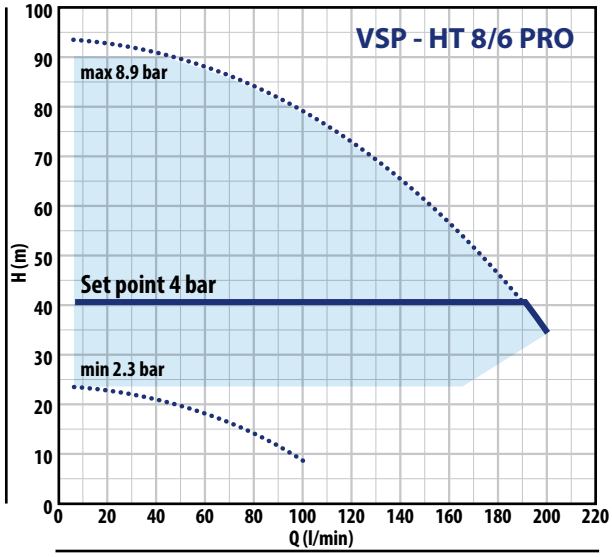



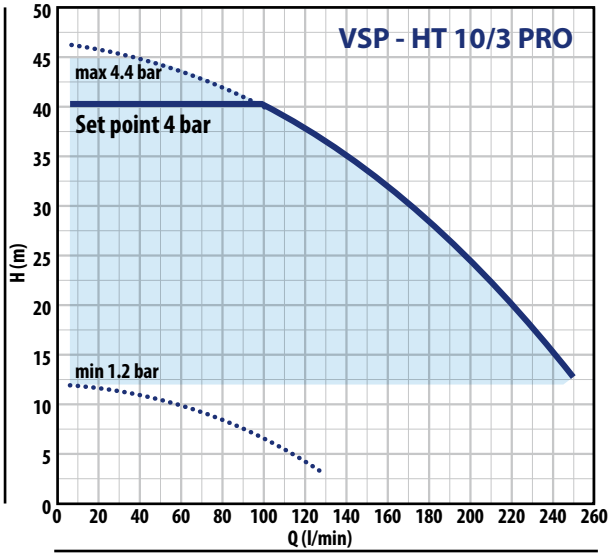



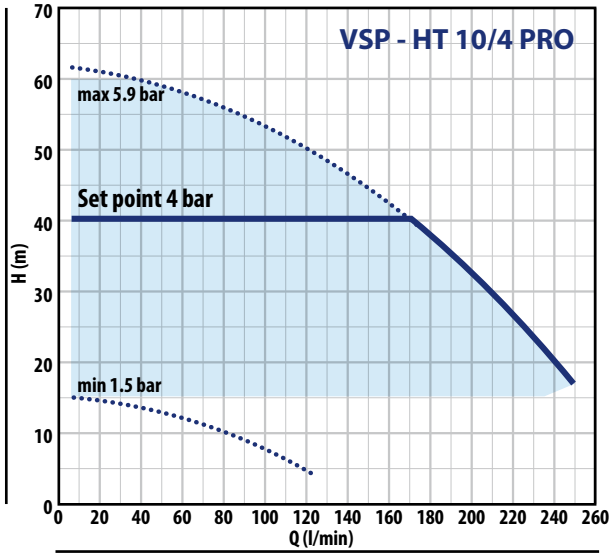



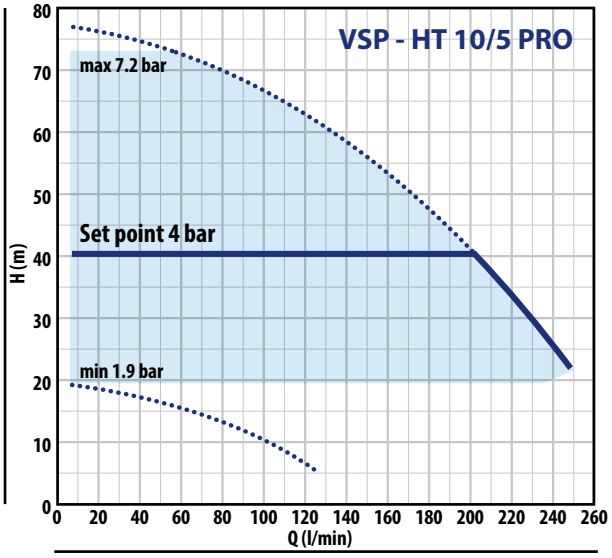
# VSP – HT-PRO

## PERFORMANCE CURVES

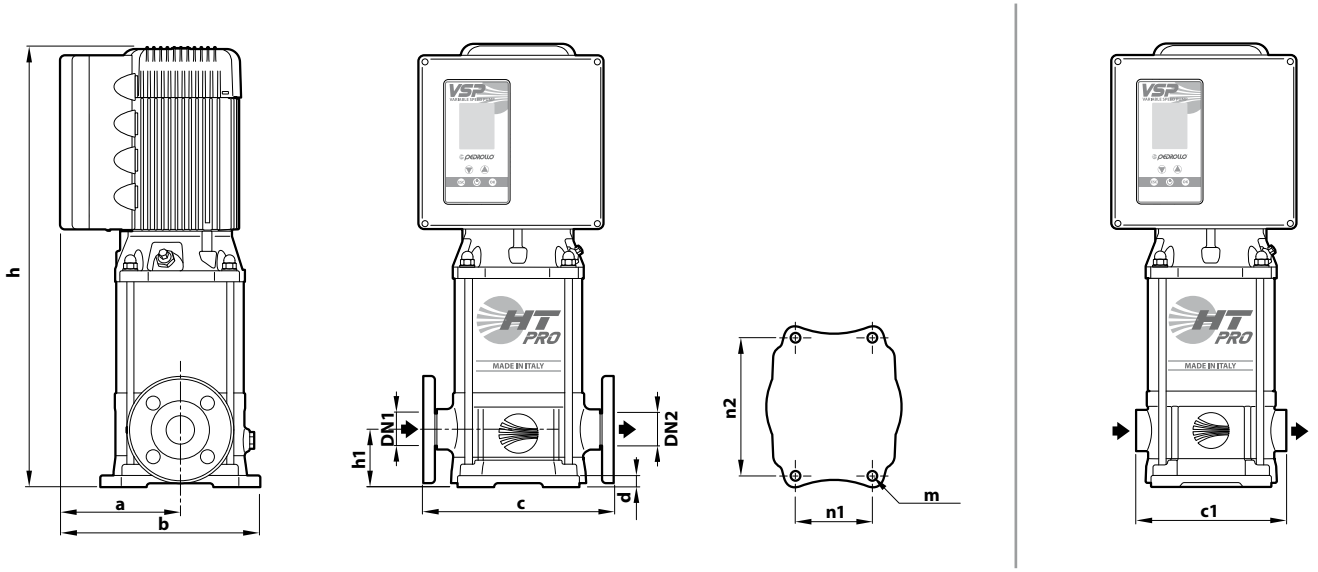


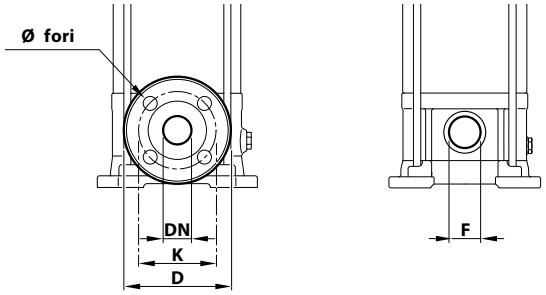
## DIMENSIONS AND WEIGHT




| TYPE | | PORTS | | DIMENSIONS mm | | | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN1 | DN2 | a | b | c | c1 | d | h | h1 | n1 | n2 | m | 1~ | 3~ |
| VSPm - HT 3/4 PRO | VSP - HT 3/4 PRO | DN25 or 1" | DN25 or 1" | 164 | 269 | 250 | 212 | 15 | 509 | 75 | 100 | 180 | Ø 13 | 35.3 | 34.8 |
| VSPm - HT 3/5 PRO | VSP - HT 3/5 PRO | | | | | | | | 535 | | | | | 35.5 | 35.0 |
| VSPm - HT 3/6 PRO | VSP - HT 3/6 PRO | | | | | | | | 561 | | | | | 36.2 | 37.1 |
| – | VSP - HT 3/7 PRO | | | | | | | | 607 | | | | | – | 41.2 |
| VSPm - HT 5/2 PRO | VSP - HT 5/2 PRO | DN32 or 1¼" | DN32 or 1¼" | | | | | | 457 | | | | | 33.2 | 33.2 |
| VSPm - HT 5/3 PRO | VSP - HT 5/3 PRO | | | | | | | | 483 | | | | | 33.4 | 33.4 |
| VSPm - HT 5/4 PRO | VSP - HT 5/4 PRO | | | | | | | | 509 | | | | | 35.3 | 35.4 |
| – | VSP - HT 5/5 PRO | | | | | | | | 555 | | | | | – | 39.1 |
| – | VSP - HT 5/6 PRO | | | | | | | | 581 | | | | | – | 40.1 |
| VSPm - HT 8/3 PRO | VSP - HT 8/3 PRO | DN40 or 1½" | DN40 or 1½" | | | 280 | 240 | | 488 | 80 | | | | 33.9 | 33.9 |
| VSPm - HT 8/4 PRO | VSP - HT 8/4 PRO | | | | | | | | 514 | | | | | 35.8 | 35.9 |
| – | VSP - HT 8/5 PRO | | | | | | | | 560 | | | | | – | 39.4 |
| – | VSP - HT 8/6 PRO | | | | | | | | 586 | | | | | – | 40.2 |
| VSPm - HT 10/3 PRO | VSP - HT 10/3 PRO | | | | | | | | 488 | | | | | 34.0 | 34.0 |
| – | VSP - HT 10/4 PRO | | | | | | | | 534 | | | | | – | 36.0 |
| – | VSP - HT 10/5 PRO | | | | | | | | 560 | | | | | – | 39.5 |

## FLANGED

| TYPE VSP | DN mm | D mm | K mm | Ø mm |
|---|---|---|---|---|
| HT 3 | 25 | 115 | 85 | 14 |
| HT 5 | 32 | 140 | 100 | 18 |
| HT 8 | 40 | 150 | 110 | |



# E1 - E2 Electronic control panels for pumps




## INSTALLATION AND USE

**E1/E2** are **multifunctional electronic control panels** designed to manage one or two pumps in residential, commercial, or industrial settings.
Thanks to their versatility, they provide protection and facilitate operations such as pressurization, filling, drainage, and emptying, accommodating both clean and wastewater applications.

## PRODUCT DESCRIPTION

**E1/E2 electronic control panels** offer unmatched adaptability for various systems by featuring **six selectable operating modes**. These modes facilitate comprehensive pump management and protection through both analogue and digital inputs, alongside electrical parameter monitoring.

Equipped with an intuitive **keypad and LCD display**, the panels simplify programming and configuration of pump settings, protections, and operational modes through a user-friendly guided process.

These panels feature **dry-running protection**, managed through power factor (**cosφ**), current control, or by activating a float or level probe. The integrated self-learning Wizard simplifies the system initialization by automatically storing key electrical parameter values, ensuring a quick and straightforward setup.

When managing two pumps, the **E2** panel automatically switches between them, reducing wear and maximizing efficiency in their operation.

## MAIN FEATURES

※ Power supply:
**1~ 230V±15% (E1/E2 MONO)**
**3~ 400V±15% (E1/E2 TRI)**
※ Frequency: **50/60 Hz**
※ door lock main isolating switch,
※ Motor and auxiliary circuit protection fuse
※ **ABS** outer container
※ **IP55** protection degree
※ Ambient temperature: **-5 °C ÷ +40 °C**
※ Relative humidity **50% at 40 °C**

## INPUTS

**E1/E2 electronic control panels** allow pumps to be managed via analogue and digital inputs:
※ Pressure switches
※ Floats
※ Remote contacts
※ Run/stop floats
※ Level probes
※ Pressure transducers

## CONTROLS

※ Minimum and maximum operating current control
※ Minimum and maximum supply voltage control
※ Input phase failure or inversion control

## E1 Electronic control panel for one single pump

| TYPE | VOLTAGE | CURRENT POWER (*) | FUSES PROTECTION |
|---|---|---|---|
| **E1 MONO** | **1~ 230 V - 50/60 Hz** | up to **18 A** | **20 A** |
| **E1 TRI/1** | **3~ 400 V - 50/60 Hz** | up to **18 A** | **20 A** |
| **E1 TRI/2** | **3~ 400 V - 50/60 Hz** | up to **25 A** | **32 A** |

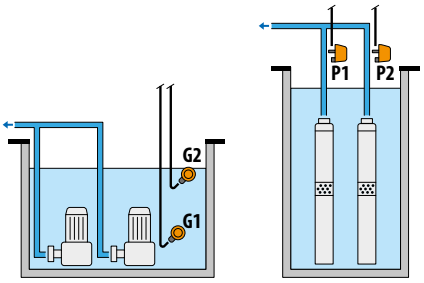
(*) The rated current value refers to a single electric pump

## E2 Electronic control panel for two pumps

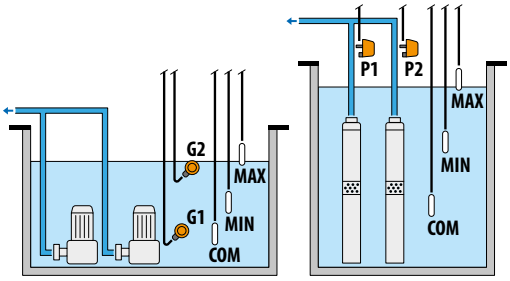
| TYPE | VOLTAGE | CURRENT POWER (*) | FUSES COVER |
|---|---|---|---|
| **E2 MONO** | **1~ 230V - 50/60 Hz** | up to **18 A** | **20 A** |
| **E2 TRI** | **3~ 400V - 50/60 Hz** | up to **16 A** | **32 A** |

## OPERATING MODE

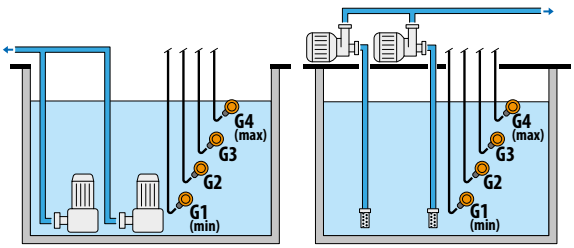
**MODE 1:** **DRAINING AND PRESSURIZING**
Dry run protection via cosφ or current



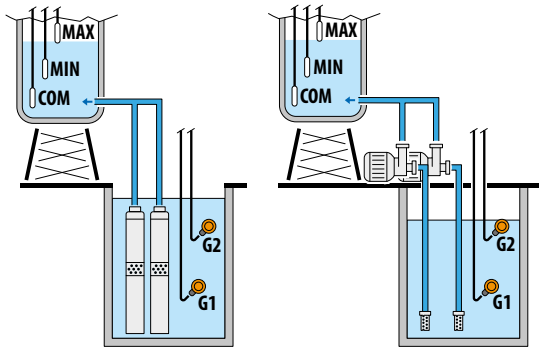

**MODE 2:** **DRAINING AND PRESSURIZING**
Dry run protection via level probes



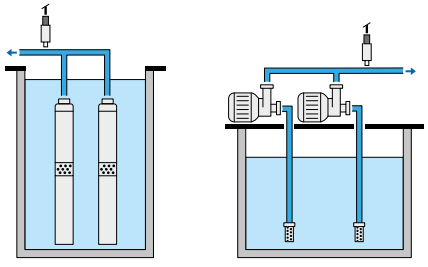

**MODE 3:** **DRAINING**
Dry run protection via minimum float switch



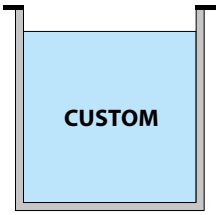

**MODE 4:** **FILLING**
Dry run protection via minimum float switch



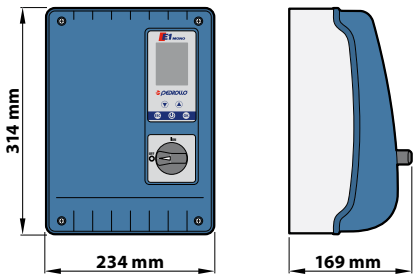

**MODE 5:** **PRESSURIZING**
Dry run protection via cosφ or current

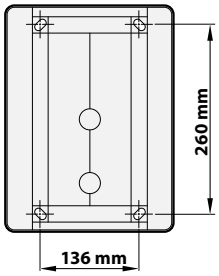


**MODE 6:** CUSTOMIZED:




## DIMENSIONS AND HOLE SPACING FOR MOUNTING



# CONTROL PANELS



## QEM/3 Control panel for 3" submersible pumps

| TYPE | CODE | POWER MOTOR (P2) | | CAPACITOR | CURRENT POWER |
|---|---|---|---|---|---|
| Single-phase | | kW | HP | CAPACITY | A |
| **QEM/3-050** | 530QEM305A1 | 0.37 | **0.50** | 12.5 µF | 5 |
| **QEM/3-075** | 530QEM307A1 | 0.55 | **0.75** | 16 µF | 6 |
| **QEM/3-100** | 530QEM310A1 | 0.75 | **1** | 20 µF | 7 |
| **QEM/3-150** | 530QEM315A1 | 1.1 | **1.5** | 30 µF | 10 |

※ **Single-phase 220 V - 60 Hz**



## QEM Control panel for 4" single-phase submersible pumps

| TYPE | CODE | POWER MOTOR (P2) | | CAPACITOR | CURRENT POWER |
|---|---|---|---|---|---|
| Single-phase | | kW | HP | CAPACITY | A |
| **QEM 050** | 530QEMA05P1 | 0.37 | **0.50** | 20 µF | 6 |
| **QEM 075** | 530QEMA07P1 | 0.55 | **0.75** | 25 µF | 8 |
| **QEM 100** | 530QEMA10P1 | 0.75 | **1** | 35 µF | 10 |
| **QEM 150** | 530QEMA15P1 | 1.1 | **1.5** | 40 µF | 13 |
| **QEM 200** | 530QEMA20P1 | 1.5 | **2** | 60 µF | 16 |
| **QEM 300** | 530QEMA30P1 | 2.2 | **3** | 80 µF | 20 |

※ **Single-phase 220 V - 60 Hz**



## QET Control panel for 3", 4" and 6" three-phase submersible pumps

| TYPE | CODE | POWER MOTOR (P2) | | CURRENT POWER |
|---|---|---|---|---|
| Three-phase | | kW | HP | A |
| **QET 050** | 530QETA05P | 0.37 | **0.50** | 1.7 |
| **QET 075** | 530QETA07P | 0.55 | **0.75** | 2 |
| **QET 100** | 530QETA10P | 0.75 | **1** | 2.5 |
| **QET 150** | 530QETA15P | 1.1 | **1.5** | 3.9 |
| **QET 200** | 530QETA20P | 1.5 | **2** | 4.8 |
| **QET 300** | 530QETA30P | 2.2 | **3** | 7 |
| **QET 400** | 530QETA40P | 3 | **4** | 9 |
| **QET 550** | 530QETA55P | 4 | **5.5** | 11.5 |
| **QET 750** | 530QETA75P | 5.5 | **7.5** | 15.5 |
| **QET 1000** | 530AD100P | 7.5 | **10** | 21.5 |
| **QET 1250** | 530AD125P | 9.2 | **12.5** | 23.5 |
| **QET 1500** | 530AD150P | 11 | **15** | 27.5 |
| **QET 2000** | 530AD200P | 15 | **20** | 36 |
| **QET 2500** | 530AD250P | 18.5 | **25** | 45 |
| **QET 3000** | 530AD300P | 22 | **30** | 54 |
| **QET 4000** | 530AD400P | 30 | **40** | 68 |
| **QET 5000** | 530AD500P | 37 | **50** | 85 |

※ The control panel is equipped with a selector switch for manual or automatic operation with provision for connecting a float switch (or pressure switch, etc.).

※ **Three-phase 380 V - 60 Hz**

## QSM Control panel 4" single-phase pumps with level probes





Probes indicator

| TYPE<br>Single-phase | CODE | POWER MOTOR ($P_2$)<br>kW | <br>HP | CAPACITOR<br>CAPACITY | CURRENT POWER<br>A |
|---|---|---|---|---|---|
| **QSM 050** | 530QSMA05P1 | 0.37 | **0.50** | 20 µF | 6 |
| **QSM 075** | 530QSMA07P1 | 0.55 | **0.75** | 25 µF | 8 |
| **QSM 100** | 530QSMA10P1 | 0.75 | **1** | 35 µF | 10 |
| **QSM 150** | 530QSMA15P1 | 1.1 | **1.5** | 40 µF | 13 |
| **QSM 200** | 530QSMA20P1 | 1.5 | **2** | 60 µF | 16 |
| **QSM 300** | 530QSMA30P1 | 2.2 | **3** | 80 µF | 20 |

※ The control panel features a selector switch allowing for either manual or automatic operation. It comes preconfigured to connect with devices like a float switch, pressure switch, or level probes, offering protection against the pump running dry.

※ **Single-phase 220 V - 60 Hz**

## QST Control panel for 3", 4" and 6" three-phase pumps with level probes





Probes indicator

| TYPE<br>Three-phase | CODE | MOTOR POWER ($P_2$)<br>kW | <br>HP | CURRENT POWER<br>A |
|---|---|---|---|---|
| **QST 50** | 530QSTA05P | 0.37 | **0.50** | 1.7 |
| **QST 75** | 530QSTA07P | 0.55 | **0.75** | 2 |
| **QST 100** | 530QSTA10P | 0.75 | **1** | 2.5 |
| **QST 150** | 530QSTA15P | 1.1 | **1.5** | 3.9 |
| **QST 200** | 530QSTA20P | 1.5 | **2** | 4.8 |
| **QST 300** | 530QSTA30P | 2.2 | **3** | 7 |
| **QST 400** | 530QSTA40P | 3 | **4** | 9 |
| **QST 550** | 530QSTA55P | 4 | **5.5** | 11.5 |
| **QST 750** | 530QSTA75P | 5.5 | **7.5** | 15.5 |
| **QST 1000** | 530ADL100P | 7.5 | **10** | 21.5 |
| **QST 1250** | 530ADL125P | 9.2 | **12.5** | 23.5 |
| **QST 1500** | 530ADL150P | 11 | **15** | 27.5 |
| **QST 2000** | 530ADL200P | 15 | **20** | 36 |
| **QST 2500** | 530ADL250P | 18.5 | **25** | 45 |
| **QST 3000** | 530ADL300P | 22 | **30** | 54 |
| **QST 4000** | 530ADL400P | 30 | **40** | 68 |
| **QST 5000** | 530ADL500P | 37 | **50** | 85 |

※ The control panel features a selector switch allowing for either manual or automatic operation. It comes preconfigured to connect with devices like a float switch, pressure switch, or level probes, offering protection against the pump running dry.

※ **Three-phase 380 V - 60 Hz**

# CONTROL PANELS



## QES Control panel for three-phase drainage pumps

| TYPE<br><br>Three-phase | CODE | POWER MOTOR ($P_2$)<br>kW | <br>HP | CURRENT POWER<br>A |
|---|---|---|---|---|
| **QES 150** | 530QESA150P | 1.1 | **1.5** | 4.2 |
| **QES 200** | 530QESA200P | 1.5 | **2** | 5.2 |
| **QES 300** | 530QESA300P | 2.2 | **3** | 6.5 |
| **QES 400** | 530QESA400P | 3 | **4** | 8 |

※ The control panel features a selector switch allowing for either manual or automatic operation. It comes preconfigured to connect with devices like a float switch and the integrated thermal protector for VXC, VXC-F, MC, MC-F drainage pumps

※ **Three-phase 380 V 60 Hz**



## ALARM KIT Electronic control panel for SAR 250 and SAR 550

| TYPE | CODE | VOLTAGE |
|---|---|---|
| **ALARM KIT** | KSKIT-ALARM | **single-phase 220 V - 60 Hz** |

※ The panel contains an electronic board, a buffer battery to power the panel, a red flashing light and a 90 dB alarm siren at 1 m.

※ The panel is preconfigured for the connection of a float switch (included in the kit) that triggers the alarm when the contact is closed.


SF

## SF - SPHERICAL TANK

| TYPE | CODE | FITTING | CAPACITY | PALLET CAPACITY No. of tanks |
|---|---|---|---|---|
| **24 SF** | 50011 | 1" | **24 litres** | **54** |

※ Maximum operating pressure **8 bar** - Interchangeable butyl rubber diaphragm


CL

## CL -CYLINDRICAL TANKS

| TYPE | CODE | FITTING | CAPACITY | PALLET CAPACITY No. of tanks |
|---|---|---|---|---|
| **24 CL** | 50012 | 1" | **20 litres** | **56** |
| **60 CL** | 50031 | 1" | **60 litres** | **15** |
| **100 CL** | 50032 | 1" | **100 litres** | **12** |

※ Maximum operating pressure **10 bar** - Interchangeable butyl rubber diaphragm


VT

## VT - VERTICAL TANKS

| TYPE | CODE | FITTING | CAPACITY | PALLET CAPACITY No. of tanks |
|---|---|---|---|---|
| **8 VT** | 50051 | 1" | **8 litres** | **189** |
| **19 VT** | 50052 | 1" | **19 litres** | **63** |
| **60 VT** | 50040 | 1" | **60 litres** | **15** |
| **100 VT** | 50041 | 1" | **100 litres** | **12** |
| **200 VT** | 50042 | 1½" | **200 litres** | **6** |
| **300 VT** | 50043 | 1½" | **300 litres** | **6** |

※ Maximum operating pressure **10 bar (8 bar** for 8VT, 19VT) - Interchangeable butyl rubber diaphragm

### REPLACEMENT MEMBRANE

| | |
|---|---|
| **24 SF** | CODE 50019 |
| **24 CL** | CODE 50019 |
| **60 CL** | CODE 5001960 |
| **100 CL** | CODE 50019100 |

### REPLACEMENT MEMBRANE

| | |
|---|---|
| **8 VT** | CODE 5001905/8 |
| **19 VT** | CODE 50019 |
| **60 VT** | CODE 5001960 |
| **100 VT** | CODE 50019100 |
| **200 VT** | CODE 50019200C |
| **300 VT** | CODE 50019300 |


05SF

1SF

## SF - *SPHERICAL TANKS WITH FIXED MEMBRANE*

| TYPE | CODE | FITTING | CAPACITY |
|---|---|---|---|
| **05SF 0.5** | 500570045 | ½" | **½ litre** |
| **05SF 1.0** | 500570090 | 1" | **½ litre** |
| **1SF 0.5** | 50057005 | ½" | **1 litre** |
| **1SF 1.0** | 50057010 | 1" | **1 litre** |

※ Maximum operating pressure **10 bar**

# ACCESSORIES

## ROUND TANK KIT

**KSP-24**




| TYPE | CODE |
|---|---|
| **KSP-24**<br>※ **24-litre** round tank<br>※ Pressure gauge **0 - 6 bar**.<br>※ 5-way fitting - G 1"<br>※ Pressure switch '**PSG-1** | 50008SP24 |
| **KSD-24**<br>※ **24-litre** round tank<br>※ Pressure gauge **0 - 6 bar**.<br>※ 5-way fitting - G 1"<br>※ Pressure switch '**FSG2** | 50010 |

## CYLINDER KITS

**KCP-24**




| TYPE | CODE |
|---|---|
| **KCP-24**<br>※ **20-litres** cylindrical tank<br>※ Pressure gauge **0 - 6 bar**.<br>※ 5-way fitting - G 1"<br>※ Hose G 1" (**500 mm**)<br>※ Pressure switch '**PSG-1** | 50008CP24 |
| **KCD-24**<br>※ **20-litre** cylindrical tank<br>※ Pressure gauge **0 - 6 bar.**<br>※ 5-way fitting - G 1"<br>※ Hose G 1" **(500 mm)**<br>※ Pressure switch '**FSG2** | 50009 |

**KCP-60**




| TYPE | CODE |
|---|---|
| **KCP-60**<br>※ **60-litre** cylindrical tank<br>※ Pressure gauge **0 - 6 bar**.<br>※ 5-way fitting - G 1"<br>※ Hose G 1" (**600 mm**)<br>※ Pressure switch'**PSG-1** | 50008CP60 |
| **KCD-60**<br>※ **60-litre** cylindrical tank<br>※ Pressure gauge **0 - 6 bar.**<br>※ 5-way fitting - G 1"<br>※ Hose G 1" **(600 mm)**<br>※ Pressure switch '**FSG2** | 50009/67 |

# ACCESSORIES FOR ELECTRIC SUBMERSIBLE PUMPS



| TYPE | CODE | CABLE DIAMETER | CABLE WEIGHT | TENSILE STRENGTH |
|---|---|---|---|---|
| **SAFETY CABLE (in polypropylene)** | 116310 | **Ø 8 mm** | 30 gr/m | 960 kg |
| | 116311 | **Ø 10 mm** | 45 gr/m | 1425 Kg |
| | 116312 | **Ø 12 mm** | 65 gr/m | 2030 kg |
| | 116313 | **Ø 14 mm** | 90 gr/m | 2790 kg |
| | 116314 | **Ø 16 mm** | 115 gr/m | 3500 kg |

※ Twisted cable made of UV-stabilised polypropylene yarn
※ Maximum available reel length: 220 metres



| | | | | |
|---|---|---|---|---|
| **SAFETY CABLE (AISI 316 stainless steel)** | 116305 | **Ø 5 mm** | 100 gr/m | 1500 kg |

※ 49 wire cable in AISI 316 stainless steel
※ Maximum available reel length: 250 metres



| | |
|---|---|
| STRAIGHT SHACKLE WITH PIN (For **8 mm** cable) (in **AISI 316** stainless steel) | CODE 1160305 |



| | |
|---|---|
| **5 mm** CABLE CLAMP (in **AISI 316** stainless steel) | CODE 1160304 |

# FLOAT SWITCHES



| TYPE | CODE | | LENGTH |
|---|---|---|---|
| | CABLE = **H07 RN-F** | **PVC** CABLE | |
| **0315/3** | 50014H | 50014 | **3 metres** |
| **0315/5** | 500145H | 500145 | **5 metres** |
| **0315/10** | 5001410H | 5001410 | **10 metres** |

※ With cable **H07 RN-F**: single function (emptying), with 10 A switch
※ With cable **PVC**: dual function (emptying and filling), with 10 A switch



| | | | |
|---|---|---|---|
| **T 80/3** | 50014/1H | 50014/1 | **3 metres** |
| **T 80/5** | 50014/5H | 50014/5 | **5 metres** |
| **T 80/10** | 50014/10H | 50014/10 | **10 metres** |

※ With **H07 RN-F** cable: single-function (emptying), double sealed float switches, with 10 A switch
※ With **PVC** cable: dual-function (emptying and filling), double sealed float switches, with 10 A switch



| | | | |
|---|---|---|---|
| **SMALL 3** | 50014S4 | 50014S3 | **3 metres** |
| **SMALL 5** | 50014S5 | 50014S51 | **5 metres** |

※ With **H07 RN-F** cable: single-function (emptying), double sealed float switches, with 10 A switch
※ With **PVC** cable: dual-function (emptying and filling), double sealed float switches, with 10 A switch



| TYPE | CODE | CABLE | LENGTH |
|---|---|---|---|
| **MAC 5** | 54SARGL001 | PVC | 10 **metres** |

※ Tilting float: dual function (emptying and filling), double sealed protection chamber, with 10 A switch
※ Recommended for Waste Water Recovery Stations (SAR)

# ACCESSORIES



## *AIRFLO - AIR FEEDERS*

| TYPE | CODE | TANK CAPACITY |
|---|---|---|
| **AIRFLO 1** | 50021 | 100 + 500 litres |
| **AIRFLO 2** | 50022 | 750 + 2000 litres |

※ Air feeders suitable for maintaining the air cushion in autoclave tanks without a membrane.



## NA *- 3-WAY NIPPLE FOR AIR FEEDERS*

| TYPE | CODE | FITTING | DOUBLE CENTRAL ATTACK |
|---|---|---|---|
| **NA < 1.00** | 50023 | **1" x 1"** | ½" x ¼" (male/female) |
| **NA < 1.25** | 50023/1 | **1¼"** x **1¼"** | ½" x ¼" (male/female) |
| **NA < 1.50** | 50023/2 | **1½"** x **1½"** | ½" x ¼" (male/female) |
| **NA < 2.00** | 50023/3 | **2" x 2"** | ½" x ¼" (male/female) |

※ 3-way brass fittings for air supply connections (AIRFLO)



**PSG**



**FSG**

## PRESSURE SWITCHES

| TYPE | CODE | FITTING | CALIBRATION (*) |
|---|---|---|---|
| **PSG-1** | 50018/8 | **¼" Female** | **1.4 – 2.8 bar** |
| **PSG-1M** | 50018/8M | **¼" Male** | **1.4 – 2.8 bar** |
| **FSG 2** | 50018 | **¼" Female** | **1.4 – 2.8 bar** |
| **FYG 22** | 50018/1 | **¼" Female** | **5.4 – 7.0 bar** |
| **FYG 32** | 50018/2 | **¼" Female** | **8 – 10.5 bar** |
| **PT/5 SK (Three-phase)** | 50018/8T | **¼" Female** | **1.4 – 2.8 bar** |

※ **PSG** registered Community model no. 002248955
(*) Adjustable



**MC**



**MR**



**MCG**



**MRG**

## PRESSURE GAUGES

| TYPE | CODE | FITTING | DIAMETER | SCALE |
|---|---|---|---|---|
| **MC 6** | 50015/2 | **¼"** - central | **50 mm** | 0 – **6 bar** |
| **MR 6** | 50015 | **¼"** - radial | **63 mm** | 0 – **6 bar** |
| **MR 10** | 50015/0 | **¼"** - radial | **63 mm** | 0 – **10 bar** |

## *GLYCERINE BATH PRESSURE GAUGES*

| TYPE | CODE | FITTING | DIAMETER | SCALE |
|---|---|---|---|---|
| **MCG 6** | 50015/2G | **¼"** - central | **50 mm** | 0 – **6 bar** |
| **MRG 6** | 50015G | **¼"** - radial | **63 mm** | 0 – **6 bar** |
| **MRG 10** | 50015/0G | **¼"** - radial | **63 mm** | 0 – **10 bar** |




# FITTINGS 3-5 WAYS

| TYPE | CODE | FITTING |
|---|---|---|
| **R 3 - 3 vie** | 50017 | **1"** |
| **R 4 - 4 vie** | 50016V8 | **1"** |
| **R 5 - 5 vie** | 50016 | **1"** |

※ **R 3**: three-way brass fitting with **G 1"** connections
※ **R 4**: four-way brass fitting with **G ½"** and **G ¼"** connections
※ **R 5**: five-way brass fitting with **G 1"** and **G ¼"** connections



# HOSES

| TYPE | CODE | TUBE | FITTINGS | LENGTH |
|---|---|---|---|---|
| **TF 5** | 50013 | **1"** | **1" x 1"** | **500 mm** |
| **TF 6** | 50013/1 | **1"** | **1" x 1"** | **600 mm** |
| **TF 10** | 50013/6 | **1"** | **1" x 1"** | **1000 mm** |

※ EPDM rubber hoses
※ Maximum operating pressure **10 bar**



## *HOSES COMPLETE WITH ELBOW*

| TYPE | CODE | TUBE | FITTINGS | LENGTH |
|---|---|---|---|---|
| **TFG 5** | 50013/01 | **¾"** | **1" x 1"** | **500 mm** |
| **TFG 6** | 50013/10 | **1"** | **1" x 1"** | **600 mm** |

※ EPDM rubber hoses
※ Maximum operating pressure **10 bar**



# QUICK RELEASE COUPLINGS

| TYPE | CODE | Hose connector diameter | Male union thread |
|---|---|---|---|
| **FASTFIT 1.25** | 5027125 | **Ø 32 mm** | **1¼"** |
| **FASTFIT 1.5** | 5027150 | **Ø 38 mm** | **1½"** |
| **FASTFIT 2** | 5027200 | **Ø 50 mm** | **2"** |
| **FASTFIT 3** | 5027300 | **Ø 75 mm** | **3"** |

※ CAMLOCK polypropylene quick release coupling kit: - n.1 female coupling with hose connector - n.1 male coupling with male thread





# HOSE FITTINGS

| TYPE | CODE | RUBBER HOLDER | THREADED CONNECTOR |
|---|---|---|---|
| **RP 0.75** | 50210 | **Ø 25 mm** | **¾"** |
| **RP 1** | 50211 | **Ø 30 mm** | **1"** |
| **RP 1.25** | 50212 | **Ø 35 mm** | **1¼"** |
| **RP 1.5** | 50213 | **Ø 40 mm** | **1½"** |
| **RP 2** | 50214 | **Ø 50 mm** | **2"** |
| **RPG 0.75** | 50220 | **Ø 25 mm** | **¾"** |
| **RPG 1** | 50221 | **Ø 30 mm** | **1"** |
| **RPG 1.25** | 50222 | **Ø 35 mm** | **1¼"** |
| **RPG 1.5** | 50223 | **Ø 40 mm** | **1½"** |
| **RPG 2** | 50224 | **Ø 50 mm** | **2"** |

※ Nylon fittings

# ACCESSORIES



## VF - *FOOT VALVES*

| TYPE | CODE | FITTING |
|---|---|---|
| **VF 0.5** | 50100 | **½"** |
| **VF 0.75** | 50101 | **¾"** |
| **VF 1** | 50102 | **1"** |
| **VF 1.25** | 50103 | **1¼"** |
| **VF 1.5** | 50104 | **1½"** |
| **VF 2** | 50105 | **2"** |

※ Brass foot valves with stainless steel suction filter



## VR - *CHECK VALVES*

| TYPE | CODE | FITTINGS |
|---|---|---|
| **VR 0.5** | 50110 | **½"** |
| **VR 0.75** | 50111 | **¾"** |
| **VR 1** | 50112 | **1"** |
| **VR 1.25** | 50113 | **1¼"** |
| **VR 1.5** | 50114 | **1½"** |
| **VR 2** | 50115 | **2"** |

※ Brass check valves



## VR-FT - *BALL CHECK VALVES*

| TYPE | CODE | FITTINGS |
|---|---|---|
| **VR-FT 1.25** | 501201 | **1¼"** |
| **VR-FT 1.5** | 501202 | **1½"** |
| **VR-FT 2** | 501203 | **2"** |

※ Check valves for submersible pumps (sewage)
※ Max. operating pressure **16 bar**
※ Min. operating pressure **0.5 bar**
※ Operating temperature 0 °C - **+80 °C**



## VR-FF - *BALL CHECK VALVES*

| TYPE | CODE | FITTINGS |
|---|---|---|
| **VR-FF/DN 65 - FLANGED** | 501210 | **DN 65** (PN16) **2½"** |
| **VR-FF/DN 80 - FLANGED** | 501212 | **DN 80** (PN16) **3"** |
| **VR-FF/DN 100 - FLANGED** | 501214 | **DN 100** (PN16) **4"** |

※ Check valves for submersible pumps (sewage).
※ Max. operating pressure **16 bar**
※ Min. operating pressure **0.3 bar**
※ Operating temperature 0 °C - **+80 °C**



## SCHUKO SOCKET WITH PROTECTIVE SHELLS

| TYPE | CODE |
|---|---|
| PSC | 117985 |

※ Water and dust protection with IP 65 or IP 67 rating
※ Mechanical protection from tearing



## ELECTRIC CABLES FOR ELECTRIC SUBMERSIBLE PUMPS

| TYPE | CODE | TYPE | WEIGHT PER METRE |
|---|---|---|---|
| **4 x 1 mm²** | 117G100AN | H07 RN-F | 0.165 kg |
| **4 x 1.5 mm²** | 117G150AN | H07 RN-F | 0.205 kg |
| **4 x 2.5 mm²** | 117G200AN | H07 RN-F | 0.290 kg |
| **4 x 4 mm²** | 117G250AN | H07 RN-F | 0.420 kg |
| **4 x 6 mm²** | 117G300AN | H07 RN-F | 0.505 kg |
| **4 x 10 mm²** | 117G350AN | H07 RN-F | 1.030 Kg |
| **4 x 16 mm²** | 117G400AN | H07 RN-F | 2.050 Kg |



## CABLES WITH PLUG

| TYPE | CODE | CABLE SECTION | LENGTH | PLUG |
|---|---|---|---|---|
| **H05 VV-F** (PVC) | 117FGA21G | **3 x 0.75 mm²** | 150 cm | SCHUKO |
| **H07 RN-F** (NEOPRENE) | 117GLA21G | **3 x 1 mm²** | 150 cm | SCHUKO |



## ELECTRICAL CABLES FOR PHOTOVOLTAIC SYSTEMS

| FG21M21 TYPE | CODE | WEIGHT PER METRE |
|---|---|---|
| 1 x **4 mm²** colour red | 117SF104R | 0.060 kg |
| 1 x **4 mm²** colour black | 117SF104N | 0.060 kg |
| 1 x **6 mm²** colour red | 117SF106R | 0.080 kg |
| 1 x **6 mm²** colour black | 117SF106N | 0.080 kg |

# ACCESSORIES



## F - *FILTER HOLDER WITH PLASTIC HEADER*

| TYPE | CODE | THREADED FITTINGS | HEIGHT CARTRIDGE |
|---|---|---|---|
| **MEDIUM - F 0.75** | 504F075M | **¾"** | 5" |
| **MEDIUM - F 1** | 504F100M | **1"** | 5" |
| **JUNIOR - F 0.75** | 504F075J | **¾"** | 7" |
| **JUNIOR - F 1** | 504F100J | **1"** | 7" |
| **SENIOR - F 0.75** | 504F075S | **¾"** | 10" |
| **SENIOR - F 1** | 504F100S | **1"** | 10" |

※ Maximum operating pressure **5 bar** (at **+20 °C**)
※ Maximum temperature + **45 °C (at 2 bar pressure**)



### *SPANNER FOR DISASSEMBLY OF F-HOLDER CONTAINER*

(code: 504KNPP)



## RL - *POLYESTER FILTER CARTRIDGES*

| TYPE | CODE | FILTRATION | HEIGHT CARTRIDGE | TYPE FILTER HOUSING |
|---|---|---|---|---|
| **RL 5** | 504C05 | 50 µ | 5" | MEDIUM **F** |
| **RL 7** | 504C07 | 50 µ | 7" | JUNIOR **F** |
| **RL 10** | 504C10 | 50 µ | 10" | SENIOR **F** |



## FA - *POLYPROPYLENE FILTER CARTRIDGES*

| TYPE | CODE | FILTRATION | HEIGHT CARTRIDGE | TYPE FILTER HOUSING |
|---|---|---|---|---|
| **FA 5** | 504F05 | 50 µ | 5" | MEDIUM **F** |
| **FA 7** | 504F07 | 50 µ | 7" | JUNIOR **F** |
| **FA 10** | 504F10 | 50 µ | 10" | SENIOR **F** |



## HA - *FILTER CARTRIDGE WITH POLYPHOSPHATE CRYSTALS*

| TYPE | CODE | HEIGHT CARTRIDGE | TYPE FILTER HOUSING |
|---|---|---|---|
| **HA 10** | 504F08 | 10" | SENIOR **F** |



## LA - *ACTIVATED CARBON FILTER*

| TYPE | CODE | HEIGHT CARTRIDGE | TYPE FILTER HOUSING |
|---|---|---|---|
| **LA 10 BX** | 504LA10BX | 10" | SENIOR **F** |



## GARDEN KIT - *FLEXIBLE SUCTION HOSE*

| TYPE | CODE | FITTING | LENGTH |
|---|---|---|---|
| **GARDEN KIT** | 50200 | **1"** | 7 metres |

※ Flexible hose, complete with foot valve



## *TEFLON FOR HYDRAULIC JOINTS*

| TYPE | CODE | LENGTH | TAPE WIDTH |
|---|---|---|---|
| **TFN 1** | 14TFN/1 | **12 m** | **12 mm** |
| **TFN 2** | 14TFN/21 | **30 m** | **12 mm** |
| **TFN 3** | 14TFN/3 | **12 m** | **19 mm** |




## *SPRAY CAN*

| TYPE | CODE | COLOUR | CAPACITY |
|---|---|---|---|
| **SPRAY PAINT 1** | 120200A/2 | **Pedrollo blue** | 400 ml |



※ **RECOMMENDED**

## *CAST RESIN CABLE JOINTING KIT*

| TYPE | CODE | NUMBER CONDUCTORS | SECTION CABLES | INSIDE DIAMETER FITTING |
|---|---|---|---|---|
| **RPS 1** | 530GT3M82A1 | 4 | **1 – 4 mm²** | **Ø 38 mm** |
| **RPS 2** | 530GT3M82A2 | 4 | **1 – 10 mm²** | **Ø 32 mm** |
| **RPS 3** | 530GT3M92A1 | 4 | **6 – 16 mm²** | **Ø 36 mm** |



※ **ECONOMICAL**

## *HEAT SHRINKABLE CABLE SPLICE KIT*

| TYPE | CODE | NUMBER CONDUCTORS | SECTION CABLES |
|---|---|---|---|
| **GPS 1** | 530GT3MGPS1 | 4 | **1 - 2.5 mm²** |
| **GPS 2** | 530GT3MGPS2 | 4 | **4 – 6 mm²** |

# ACCESSORIES



## BEARINGS FOR PUMPS AND MOTORS

| TYPE | CODE | DIMENSIONS |
|---|---|---|
| **6201 ZZ** | 113001 | 12 x 32 x 10 mm |
| **6201 ZZ - C3E** | 113001C3E | 12 x 32 x 10 mm |
| **6201 2RS - C3** | 113001SC3E | 12 x 32 x 10 mm |
| **6202 ZZ - C3** | 113012 | 15 x 35 x 11 mm |
| **6202 2RS - C3** | 113012SC3 | 15 x 35 x 11 mm |
| **6203** | 113002A | 17 x 40 x 12 mm |
| **6203 ZZ** | 113002 | 17 x 40 x 12 mm |
| **6203 ZZ - C3E** | 113002C3E | 17 x 40 x 12 mm |
| **6203 2RS - C3E** | 113002RC3E | 17 x 40 x 12 mm |
| **6203 2RS - C3W** | 113002RC3W | 17 x 40 x 12 mm |
| **6204 ZZ - C3** | 113003C3E | 20 x 47 x 14 mm |
| **6204 ZZ - C3E** | 113003 | 20 x 47 x 14 mm |
| **6204 2RS - C3E** | 113004RC3E | 20 x 47 x 14 mm |
| **6205 ZZ** | 113004 | 25 x 52 x 15 mm |
| **6206 ZZ - C3** | 113005C3E | 30 x 62 x 16 mm |
| **6206 2RS - C3E** | 113005C3ES | 30 x 62 x 16 mm |
| **6208 ZZ - C3** | 113008 | 40 x 80 x 18 mm |
| **6003 ZZ - C3** | 113010 | 17 x 35 x 10 mm |
| **6212 ZZ - C3** | 113020 | 60 x 110 x 22 mm |
| **6302** | 1130145 | 15 x 42 x 13 mm |
| **6303 2RS - C3** | 113014SC3 | 17 x 47 x 14 mm |
| **6304 ZZ** | 113013 | 20 x 52 x 15 mm |
| **6304 ZZ - C3** | 113013C3E | 20 x 52 x 15 mm |
| **6304 2RS - C3** | 113013SC3 | 20 x 52 x 15 mm |
| **6305** | 113043 | 25 x 62 x 17 mm |
| **6306 ZZ - C3** | 113015 | 30 x 72 x 19 mm |
| **6307 ZZ - C3** | 113017 | 35 x 80 x 21 mm |
| **6307 2RS - C3** | 1130451 | 35 x 80 x 21 mm |
| **6308 ZZ - C3** | 113018 | 40 x 90 x 23 mm |
| **6308 2RS - C3** | 113025 | 40 x 90 x 23 mm |
| **6308 2RS - C3M** | 1130181 | 40 x 90 x 23 mm |
| **6309 ZZ - C3** | 1130185 | 45 x 100 x 25 mm |
| **6310 ZZ - C3** | 113019 | 50 x 110 x 27 mm |
| **6312 ZZ - C3** | 113021 | 60 x 130 x 31 mm |
| **6313 ZZ - C3** | 113023 | 65 x 140 x 33 mm |
| **6314 ZZ - C3** | 113024 | 70 x 150 x 35 mm |
| **3203 B 2RS - C3** | 113040RC3E | 17 x 40 x 17.5 mm |
| **3205 A 2RS** | 113045 | 25 x 52 x 20.6 mm |
| **3304 B ZZ - C3** | 113041 | 20 x 52 x 22.2 mm |
| **3305 B 2RS - C3** | 113042 | 25 x 62 x 25.4 mm |
| **3307 A 2RS** | 1130425 | 35 x 80 x 34.9 mm |
| **3308 A 2RS - C3** | 113044 | 40 x 90 x 36.5 mm |
| **3309 A 2RS** | 1130446 | 45 x 100 x 39.7 mm |
| **3309 B 2RS - C3** | 1130445 | 45 x 100 x 39.7 mm |
| **7202 B** | 113029 | 15 x 35 x 22.2 mm |
| **7203 B** | 113030 | 17 x 40 x 12 mm |



## FANS FOR PUMPS AND MOTORS

| TYPE | CODE | DIMENSIONS | SHAFT DIAMETER |
|---|---|---|---|
| **FAN-63** | 14VN059 | 104 x 21 mm | 12 mm |
| **FAN-63/1** | 14VN067 | 99 x 22 mm | 12 mm |
| **FAN-63/2** | 14VN068 | 99 x 26 mm | 12 mm |
| **FAN-71R** | 14VN07 | 125 x 24 mm | 14.5 mm |
| **FAN-71** | 14VN076 | 114 x 20 mm | 14.5 mm |
| **FAN-71/1** | 14VN072 | 116 x 23 mm | 14.5 mm |
| **FAN-80R** | 14VN08 | 138 x 27 mm | 20 mm |
| **FAN-80** | 14VN08181 | 126 x 26 mm | 20 mm |
| **FAN-90R** | 14VN09 | 162 x 32 mm | 24 mm |
| **FAN-90** | 14VN095 | 148 x 33 mm | 24 mm |
| **FAN-100R** | 14VN10 | 176 x 38 mm | 28 mm |
| **FAN-100** | 14VN10162 | 155 x 37 mm | 28 mm |
| **FAN-132** | 14VN132 | 165 x 45 mm | 36 mm |
| **FAN-180** | 14VN180 | 240 x 60 mm | 55 mm |
| **FAN-200** | 14VN2023 | 170 x 80 mm | 55 mm |
| **FAN-250** | 14VN250 | 230 x 90 mm | 63 mm |

## CAPACITORS WITH FASTON CONNECTIONS



**TYPE F**
Capacitor with faston

| TYPE | CODE | CAPACITY | Voltage | Frequency |
|---|---|---|---|---|
| **10 F** | 111010F | 10 µF | 450 VL | 50 – 60 Hz |
| **10 FC*** | 111010FC | 10 µF | 450 VL | 50 – 60 Hz |
| **12 F** | 111012F | 12.5 µF | 450 VL | 50 – 60 Hz |
| **14 F** | 111014F | 14 µF | 450 VL | 50 – 60 Hz |
| **16 F - 500** | 111016F5 | 16 µF | 500 VL | 50 – 60 Hz |
| **16 F - 450** | 111016F | | 450 VL | 50 – 60 Hz |
| **16 F - 250** | 112016F | | 250 VL | 50 – 60 Hz |
| **20 F - 500** | 111020F5 | 20 µF | 500 VL | 50 – 60 Hz |
| **20 F - 450** | 111020F | | 450 VL | 50 – 60 Hz |
| **25 F - 450** | 111025F | 25 µF | 450 VL | 50 – 60 Hz |
| **25 F - 250** | 112025F | | 250 VL | 50 – 60 Hz |
| **30 F - 450** | 111030F | 30 µF | 450 VL | 50 – 60 Hz |
| **30 F - 250** | 112030F | 30 µF | 250 VL | 50 – 60 Hz |
| **31 F** | 111031F | 31.5 µF | 450 VL | 50 – 60 Hz |
| **35 F** | 111035F | 35 µF | 450 VL | 50 – 60 Hz |
| **35 FC*** | 111035F1 | 35 µF | 450 VL | 50 – 60 Hz |
| **40 F** | 111040F | 40 µF | 450 VL | 50 – 60 Hz |
| **45 F** | 111045F | 45 µF | 450 VL | 50 – 60 Hz |
| **50 F** | 111050F | 50 µF | 450 VL | 50 – 60 Hz |
| **60 F - 450** | 111060F | 60 µF | 450 VL | 50 – 60 Hz |
| **60 F - 300** | 112061F | | 300 VL | 50 – 60 Hz |
| **60 F - 250** | 112060F | | 250 VL | 50 – 60 Hz |
| **70 F** | 111070F | 70 µF | 450 VL | 50 – 60 Hz |
| **80 F** | 112080F | 80 µF | 250 VL | 50 – 60 Hz |
| **90 F** | 111090F | 90 µF | 450 VL | 50 – 60 Hz |

**(*) FC** = Special small capacitor
**※ VDE-IMQ approved capacitors**

## CAPACITORS WITH OUTGOING CABLES



**TYPE C**
Capacitor with outgoing cables

| TYPE | CODE | CAPACITY | Voltage | Frequency |
|---|---|---|---|---|
| **12 C** | 1110122F | 12.5 µF | 450 VL | 50 – 60 Hz |
| **16 C - 500** | 1110162F5C | 16 µF | 500 VL | 50 – 60 Hz |
| **16 C - 450** | 1110162F | | 450 VL | 50 – 60 Hz |
| **20 C - 500** | 1110202FC5 | 20 µF | 500 VL | 50 – 60 Hz |
| **20 C - 450** | 1110202F | | 450 VL | 50 – 60 Hz |
| **25 C - 450** | 1110252F | 25 µF | 450 VL | 50 – 60 Hz |
| **30 C - 250** | 1120302F | 30 µF | 250 VL | 50 – 60 Hz |
| **31 C - 500** | 1110312F5C | 31.5 µF | 500 VL | 50 – 60 Hz |
| **35 C - 500** | 1110352FC5 | 35 µF | 500 VL | 50 – 60 Hz |
| **35 C - 450** | 1110352F | | 450 VL | 50 – 60 Hz |
| **35 CC* - 450** | 1110352F1 | 35 µF | 450 VL | 50 – 60 Hz |
| **40 C** | 1110402F | 40 µF | 450 VL | 50 – 60 Hz |
| **50 C** | 1110502F | 50 µF | 450 VL | 50 – 60 Hz |
| **70 C - 450** | 1110702F | 70 µF | 450 VL | 50 – 60 Hz |
| **70 C - 300** | 1120702FC | 70 µF | 300 VL | 50 – 60 Hz |
| **75 C** | 1110752F | 75 µF | 450 VL | 50 – 60 Hz |
| **80 C - 250** | 1120802F | 80 µF | 250 VL | 50 – 60 Hz |
| **80 C - 450** | 1110802FC | 80 µF | 450 VL | 50 – 60 Hz |
| **100 C** | 1111002FC | 100 µF | 450 VL | 50 – 60 Hz |

**(*) CC** = Special small capacitor
**※ VDE-IMQ approved capacitors**



## CAPACITOR WITH CIRCUIT BREAKER

| TYPE | CODE | CAPACITY | Voltage | Frequency |
|---|---|---|---|---|
| **80 D** | 111080D2F | **80 µF** | 320-480 VL | 50 – 60 Hz |

※ Capacitor for submersible pumps with grinder (TRITUS)

# BEARINGS

| MODEL | BEARINGS | |
|---|---|---|
| **2CP** | | |
| 2CP 25/14<br>2CP 25/16 | 6204 ZZ - C3 | 6204 ZZ - C3 |
| 2CP 32/200<br>2CP 32/210 | 6206 ZZ - C3 | 6206 ZZ - C3 |
| 2CP 40/180 | 6306 ZZ - C3 | 6206 ZZ - C3 |
| 2CP 40/200 | 6308 ZZ - C3 | 6308 ZZ - C3 |
| **2-5CP** | | |
| 2-3-4CP 80<br>3CP 100 | 6202 ZZ - C3 | 6201 ZZ |
| 4CP 100<br>5CP 80-100 I | 6203 ZZ | 6203 ZZ |
| **2-5CR** | | |
| 2-3-4CR 80<br>3CR 100 | 6202 ZZ - C3 | 6201 ZZ |
| 4CR 100<br>5CR 80-100 | 6203 ZZ | 6203 ZZ |
| **4BLOCK** | | |
| 4BLOCK | 6203 | 6203 |
| **AL-RED -4 AL-RED -6** | | |
| CP 600-610 | 6201 ZZ | 6201 ZZ |
| CP 620 | 6203 ZZ | 6203 ZZ |
| CP 650-660-670 | 6204 ZZ - C3 | 6204 ZZ - C3 |
| **BC** | | |
| BC 10 | 6203 ZZ - C3 | 6203 ZZ - C3 |
| BC 15-20 | 6303 2RS - C3 | 6203 ZZ - C3 |
| BC 40-55-75 | 6306 ZZ - C3 | 6304 ZZ - C3 |
| **BC -MF** | | |
| BC 10 -MF | 6203 ZZ - C3 | 6203 ZZ - C3 |
| BC 15-20 -MF | 6303 2RS - C3 | 6203 ZZ - C3 |
| **BC -ST** | | |
| BC 10 -ST | 6203 ZZ - C3 | 6203 ZZ - C3 |
| BC 15-20 -ST | 6303 2RS - C3 | 6203 ZZ - C3 |
| **CKR** | | |
| CKR 90 | 6203 ZZ | 6203 ZZ |
| **CP** | | |
| CP 600-610 | 6201 ZZ | 6201 ZZ |
| CP 620 | 6203 ZZ | 6203 ZZ |
| CP 650-660-670 | 6204 ZZ - C3 | 6204 ZZ - C3 |
| CP 210 | 6307 ZZ - C3 | 6206 ZZ - C3 |
| CP 680-700 | 6307 ZZ - C3 | 6206 ZZ - C3 |
| CP 750 | 6310 ZZ - C3 | 6308 ZZ - C3 |
| **D** | | |
| D 8-10-20 | 6203 ZZ - C3 | 6203 ZZ - C3 |
| D 30 | 6303 2RS - C3 | 6203 ZZ - C3 |
| **DAVIS** | | |
| DAVIS | 6203 ZZ | 6203 ZZ |
| **DC** | | |
| DC 8-10-20-30 | 6203 ZZ - C3 | 6203 ZZ - C3 |
| DC 42-43-44 | 3305B 2RS | 6204 ZZ - C3 |
| **DG-BLU** | | |
| DG-BLU | 6203 ZZ 2RS-C3 | 6203 ZZ 2RS-C3 |

| MODEL | BEARINGS | |
|---|---|---|
| **F** | | |
| F 32/160 | 6306 ZZ - C3 | 6206 ZZ - C3 |
| F 32/200 | 6307 ZZ - C3 | 6206 ZZ - C3 |
| F 32/250 | 6310 ZZ - C3 | 6308 ZZ - C3 |
| F 40/125 | 6206 ZZ - C3 | 6204 ZZ - C3 |
| F 40/160 | 6306 ZZ - C3 | 6206 ZZ - C3 |
| F 40/200 | 6307 ZZ - C3 | 6206 ZZ - C3 |
| F 40/250 | 6310 ZZ - C3 | 6308 ZZ - C3 |
| F 50/125 | 6306 ZZ - C3 | 6206 ZZ - C3 |
| F 50/160 | 6307 ZZ - C3 | 6206 ZZ - C3 |
| F 50/200<br>F 50/250 | 6310 ZZ - C3 | 6308 ZZ - C3 |
| F 65/125 | 6307 ZZ - C3 | 6206 ZZ - C3 |
| F 65/160<br>F 65/200<br>F 80/160<br>F 100/160 | 6310 ZZ - C3 | 6308 ZZ - C3 |
| F 65/250<br>F 80/200<br>F 80/250B | 6312 ZZ - C3 | 6212 ZZ - C3 |
| F 80/250A | 6314 ZZ - C3 | 6313 ZZ - C3 |
| F 100/200 | 6312 ZZ - C3 | 6212 ZZ - C3 |
| F 100/250 | 6314 ZZ - C3 | 6313 ZZ - C3 |
| **F -INOX** | | |
| F 50/160 -I<br>F 65/125 -I | 6307 ZZ - C3 | 6206 ZZ - C3 |
| **F4** | | |
| F4 32/160 | 6206 ZZ - C3 | 6204 ZZ - C3 |
| F4 32/200 | 6307 ZZ - C3 | 6206 ZZ - C3 |
| F4 32/250 | 6208 ZZ - C3 | 6206 ZZ - C3 |
| F4 40/160 | 6206 ZZ - C3 | 6204 ZZ - C3 |
| F4 40/200 | 6307 ZZ - C3 | 6206 ZZ - C3 |
| F4 40/250 | 6208 ZZ - C3 | 6206 ZZ - C3 |
| F4 50/125 | 6206 ZZ - C3 | 6204 ZZ - C3 |
| F4 50/160 | 6307 ZZ - C3 | 6206 ZZ - C3 |
| F4 50/200<br>F4 50/250 | 6208 ZZ - C3 | 6206 ZZ - C3 |
| F4 65/125 | 6307 ZZ - C3 | 6206 ZZ - C3 |
| F4 65/160<br>F4 65/200 | 6208 ZZ - C3 | 6206 ZZ - C3 |
| F4 65/250 | 6310 ZZ - C3 | 6308 ZZ - C3 |
| F4 80/160 | 6208 ZZ - C3 | 6206 ZZ - C3 |
| F4 80/200<br>F4 80/250 | 6310 ZZ - C3 | 6308 ZZ - C3 |
| F4 100/160 | 6208 ZZ - C3 | 6206 ZZ - C3 |
| F4 100/200<br>F4 100/250 | 6310 ZZ - C3 | 6308 ZZ - C3 |
| **FAMILY** | | |
| FAMILY | 6201 ZZ | 6201 ZZ |
| **FCR** | | |
| FCR 15-30 | 6307 ZZ - C3 | 6206 ZZ - C3 |
| FCR 80/2-3-4 | 6202 ZZ - C3 | 6201 ZZ |
| FCR 80/5 | 6203 ZZ | 6203 ZZ |
| FCR 90-130-200-240 | 6304 2RS - C3 | 6204 ZZ - C3 |
| FCR 100/3 | 6202 ZZ - C3 | 6201 ZZ |
| FCR 100/4-5 | 6203 ZZ | 6203 ZZ |

| MODEL | BEARINGS | |
|---|---|---|
| **FG** | | |
| FG 32/160<br>FG 32/200 | 6307 ZZ - C3 | 6307 ZZ - C3 |
| FG 32/250 | 6307 ZZ - C3 | 6208 ZZ - C3 |
| FG 40/125<br>FG 40/160<br>FG 40/200 | 6307 ZZ - C3 | 6307 ZZ - C3 |
| FG 40/250 | 6307 ZZ - C3 | 6208 ZZ - C3 |
| FG 50/125<br>FG 50/160<br>FG 50/200 | 6307 ZZ - C3 | 6307 ZZ - C3 |
| FG 50/250 | 6307 ZZ - C3 | 6208 ZZ - C3 |
| FG 65/125<br>FG 65/160<br>FG 65/200 | 6307 ZZ - C3 | 6307 ZZ - C3 |
| FG 65/250 | 6309 ZZ - C3 | 6309 ZZ - C3 |
| FG 80/160 | 6307 ZZ - C3 | 6307 ZZ - C3 |
| FG 80/200<br>FG 80/250 | 6309 ZZ - C3 | 6309 ZZ - C3 |
| FG 100/160 | 6307 ZZ - C3 | 6307 ZZ - C3 |
| FG 100/200<br>FG 100/250 | 6309 ZZ - C3 | 6309 ZZ - C3 |
| **FLUID SOLAR** | | |
| FLUID SOLAR 1/11, 2/5, 2/11, 4/3, 4/7, 6/3, 6/6 | 6203 | 6203 |
| FLUID SOLAR 1/18 | 7203B | 6203 |
| **FUTURE JET** | | |
| FUTURE-JET 1 | 6201 ZZ | 6201 ZZ |
| FUTURE-JET 2 | 6203 ZZ | 6203 ZZ |
| **FUTURE JET-ST** | | |
| FUTURE-JET 1-ST | 6201 ZZ | 6201 ZZ |
| FUTURE-JET 2-ST | 6203 ZZ | 6203 ZZ |
| **HF** | | |
| HF 4-5-51 | 6203 ZZ | 6203 ZZ |
| HF 50 | 6201 ZZ | 6201 ZZ |
| HF 5M-70 | 6204 ZZ - C3 | 6204 ZZ - C3 |
| HF 6 | 6304 ZZ | 6204 ZZ - C3 |
| HF 8-20 | 6306 ZZ - C3 | 6206 ZZ - C3 |
| HF 30 | 6307 ZZ - C3 | 6206 ZZ - C3 |
| **HT & HT-PRO** | | |
| HT & HT-PRO 3/4-5-6-7 | 6304 2RS - C3 | 6204 ZZ - C3 |
| HT & HT-PRO 3/8-9-10 | 6307 2RS - C3 | 6206 2RS - C3 |
| HT & HT-PRO 5/2-3-4-5-6 | 6304 2RS - C3 | 6204 ZZ - C3 |
| HT & HT-PRO 5/7-8-9-10 | 6307 2RS - C3 | 6206 2RS - C3 |
| HT & HT-PRO 8/3-4-5-6<br>HT & HT-PRO 10/3-4-5 | 6304 2RS - C3 | 6204 ZZ - C3 |
| HT & HT-PRO 8/7-8-9-10-11<br>HT & HT-PRO 10/6-7-8-9 | 6307 2RS - C3 | 6206 2RS - C3 |
| HT & HT-PRO 15/2-3-4 | 6307 2RS - C3 | 6206 2RS - C3 |
| HT & HT-PRO 15/5-6-7 | 3309A 2RS | 6308 2RS - C3 |
| HT & HT-PRO 30/2-3 | 6307 2RS - C3 | 6206 2RS - C3 |
| HT & HT-PRO 30/4-5-6-7-8 | 3309A 2RS | 6308 2RS - C3 |
| **JSW** | | |
| JSW 3 | 6204 ZZ - C3 | 6204 ZZ - C3 |

| MODEL | BEARINGS | |
|---|---|---|
| **MAGNIFICA** | | |
| MAGNIFICA 1-2 | 6203 2RS - C3 | 6203 2RS - C3 |
| MAGNIFICA 3-4-5 | 6204 2RS - C3 | 6204 2RS - C3 |
| **MC** | | |
| MC /45 | 6203 ZZ - C3 | 6203 ZZ - C3 |
| MC /50-65 | 6305 | 6204 ZZ - C3 |
| **MC-F** | | |
| MC /50-65 -F | 6305 | 6204 ZZ - C3 |
| **MC4** | | |
| MC4 /55 | 6309 ZZ - C3 | 6306 ZZ - C3 |
| MC4 /80 | 3309B 2RS - C3 | 6308 ZZ - C3 |
| **MK** | | |
| MK | 6304 ZZ | 6204 ZZ - C3 |
| **NGA & NGA-PRO** | | |
| NGA & NGA-PRO 1-2 | 6203 ZZ | 6203 ZZ |
| NGA & NGA-PRO 3 | 6204 ZZ - C3 | 6204 ZZ - C3 |
| **NK** | | |
| NK | 6303 2RS - C3 | 6203 ZZ - C3 |
| **PK** | | |
| PK 60-65 | 6201 ZZ | 6201 ZZ |
| PK 80-90 | 6203 ZZ | 6203 ZZ |
| PK 100-200-300 | 6204 ZZ - C3 | 6204 ZZ - C3 |
| **PKS** | | |
| PKS 60-65 | 6201 ZZ | 6201 ZZ |
| PKS 80 | 6203 ZZ | 6203 ZZ |
| **PLUG & DRAIN** | | |
| PLUG & DRAIN | 6201 ZZ | 6201 ZZ |
| **PLURIJET** | | |
| PLURIJET 3-4/80<br>PLURIJET 3-4/90 | 6202 ZZ - C3 | 6201 ZZ |
| PLURIJET 5-6/90 | 6304 2RS - C3 | 6204 ZZ - C3 |
| PLURIJET 3/100 | 6202 ZZ - C3 | 6201 ZZ |
| PLURIJET 4/100 | 6203 ZZ | 6203 ZZ |
| PLURIJET 3/120 | 6202 ZZ - C3 | 6201 ZZ |
| PLURIJET 4/120 | 6203 ZZ | 6203 ZZ |
| PLURIJET /130-200 | 6304 2RS - C3 | 6204 ZZ - C3 |
| **PQ** | | |
| PQ 60-65 | 6201 ZZ | 6201 ZZ |
| PQ 80-90 | 6203 ZZ | 6203 ZZ |
| PQ 100-200-300 | 6204 ZZ - C3 | 6204 ZZ - C3 |
| **PQ 3000** | | |
| PQ 3000 | 6204 ZZ - C3 | 6204 ZZ - C3 |
| **PQ-Bs, PQ-PPS** | | |
| PQ 60-65-81 Bs PQ81-PPS | 6201 ZZ | 6201 ZZ |
| **PQA** | | |
| PQA 60 | 6201 ZZ | 6201 ZZ |
| PQA 70-90 | 6203 ZZ | 6203 ZZ |
| **PV** | | |
| PV 55-60-65-81 | 6201 ZZ | 6201 ZZ |
| PV 70-90 | 6203 ZZ | 6203 ZZ |

# BEARINGS

| MODEL | BEARINGS | |
|---|---|---|
| **RX** | | |
| RX 1-2-3 | 6201 ZZ | 6201 ZZ |
| RX 4-5 | 6203 ZZ - C3 | 6203 ZZ - C3 |
| **RX VORTEX** | | |
| RX 2-3/20 | 6201 ZZ | 6201 ZZ |
| RX 4-5/40 | 6203 ZZ - C3 | 6203 ZZ - C3 |
| **SPRINKLER** | | |
| SKR 1.5-2 | 6204 ZZ - C3 | 6204 ZZ - C3 |
| **TEX** | | |
| TEX | 6201 ZZ | 6201 ZZ |
| **TOP** | | |
| TOP 1-2-3 | 6201 ZZ | 6201 ZZ |
| TOP 4-5 | 6203 ZZ - C3 | 6203 ZZ - C3 |
| **TOP FLOOR** | | |
| TOP FLOOR | 6201 ZZ | 6201 ZZ |
| **TOP MULTI-AD** | | |
| TOP MULTI 1-AD | 6201 ZZ - C3 | 6201 ZZ - C3 |
| **TOP MULTI** | | |
| TOP MULTI 1-2-3 | 6201 ZZ - C3 | 6201 ZZ - C3 |
| TOP MULTI 4-5 | 6302 ZZ | 6201 ZZ |
| **TOP MULTI-EVO** | | |
| TOP MULTI 1-2-3 EVO | 6201 ZZ - C3 | 6201 ZZ - C3 |
| TOPMULTI 4-5 EVO | 6302 ZZ | 6201 ZZ |
| **TOP MULTI-TECH** | | |
| TOP MULTI TECH 2-3 | 6202 ZZ - C3 | 6201 ZZ |
| TOP MULTI TECH 4-5 | 6302 ZZ | 6201 ZZ |
| **TOP MULTI-EVOTECH** | | |
| TOP MULTI EVOTECH 2-3 | 6202 ZZ - C3 | 6201 ZZ |
| TOP MULTI EVOTECH 4-5 | 6302 ZZ | 6201 ZZ |
| **TOP VORTEX** | | |
| TOP VORTEX | 6201 ZZ | 6201 ZZ |
| **TRITUS** | | |
| TRITUS-TX | 6201 ZZ | 6201 ZZ |
| TRITUS TR 0.75-0.9-1.1-1.3 | 6203 ZZ - C3 | 6203 ZZ - C3 |
| TRITUS TR 1.5-2.2 | 3304B ZZ - C3 | 6304 ZZ - C3 |
| TRITUS TR 2.2AP-3-3AP-4 | 3305B 2RS | 6204 ZZ - C3 |
| **TRITUS INOX** | | |
| TIG | 6303 2RS - C3 | 6203 ZZ - C3 |
| **UP** | | |
| UP | 6303 2RS - C3 | 6203 ZZ - C3 |
| **VX** | | |
| VX 8-10 | 6203 ZZ - C3 | 6203 ZZ - C3 |
| VX 15-20 | 6303 2RS - C3 | 6203 ZZ - C3 |
| VX 40-55-75<br>VX4 | 6306 ZZ - C3 | 6304 ZZ - C3 |
| **VX -MF** | | |
| VX 8-10 -MF | 6203 ZZ - C3 | 6203 ZZ - C3 |
| VX 15-20 -MF | 6303 2RS - C3 | 6203 ZZ - C3 |
| **VX -ST** | | |
| VX 8-10 -ST | 6203 ZZ - C3 | 6203 ZZ - C3 |
| VX 15-20 -ST | 6303 2RS - C3 | 6203 ZZ - C3 |

| MODEL | BEARINGS | |
|---|---|---|
| **VXC** | | |
| VXC /35-45 | 6203 ZZ - C3 | 6203 ZZ - C3 |
| VXC /50-65 | 6305 | 6204 ZZ - C3 |
| **VXC-F** | | |
| VXC /50-65 -F | 6305 | 6204 ZZ - C3 |
| **VXC4** | | |
| VXC4 /80 | 3309B 2RS - C3 | 6308 ZZ - C3 |
| VXC4 /100 | 6309 ZZ - C3 | 6306 ZZ - C3 |
| **WR** | | |
| WR40-S/125<br>WR50-S/125 | 6203 2RS - C3 | 6203 2RS - C3 |
| WR50/125 | 3205A 2RS | 6204 2RS - C3 |
| **ZX1** | | |
| ZXm 1/40 | 6201 ZZ | 6201 ZZ |
| **ZX2** | | |
| ZXm 2/30-40 | 6203 ZZ - C3 | 6203 ZZ - C3 |

# CAPACITORS

| MODEL | CAPACITOR |
|---|---|
| **2-5CP** | |
| 2CPm 80-I | 10 µF - 450 VL |
| 3CPm 100-I | 14 µF - 450 VL |
| 3CPm 80-I | 12.5 µF - 450 VL |
| 4CPm 100-I | 20 µF - 450 VL |
| 4CPm 80-I | 14 µF - 450 VL |
| 5CPm 100-I | 25 µF - 450 VL |
| 5CPm 80-I | 20 µF - 450 VL |
| **2-5CR** | |
| 2CRm 80 | 10 µF - 450 VL |
| 3CRm 100 | 14 µF - 450 VL |
| 3CRm 80 | 12.5 µF - 450 VL |
| 4CRm 100 | 20 µF - 450 VL |
| 4CRm 80 | 14 µF - 450 VL |
| 5CRm 100 | 25 µF - 450 VL |
| 5CRm 80 | 20 µF - 450 VL |
| **2CP** | |
| 2CPm 25/14A | 45 µF - 450 VL |
| 2CPm 25/14B | 31.5 µF - 450 VL |
| 2CPm 25/16A | 50 µF - 450 VL |
| 2CPm 25/16B | 45 µF - 450 VL |
| 2CPm 25/16C | 31.5 µF - 450 VL |
| 2CPm 25/130N | 20 µF - 450 VL |
| **3SR** | |
| 3SRm 1/8 | 12.5 µF - 450 VL |
| 3SRm 1/13 | 12.5 µF - 450 VL |
| 3SRm 1/19 | 16 µF - 450 VL |
| 3SRm 1/26 | 20 µF - 450 VL |
| 3SRm 1/39 | 30 µF - 450 VL |
| 3SRm 2/5 | 12.5 µF - 450 VL |
| 3SRm 2/8 | 12.5 µF - 450 VL |
| 3SRm 2/12 | 16 µF - 450 VL |
| 3SRm 2/17 | 20 µF - 450 VL |
| 3SRm 2/25 | 30 µF - 450 VL |
| 3SRm 4/3 | 12.5 µF - 450 VL |
| 3SRm 4/5 | 12.5 µF - 450 VL |
| 3SRm 4/7 | 16 µF - 450 VL |
| 3SRm 4/10 | 20 µF - 450 VL |
| 3SRm 4/14 | 30 µF - 450 VL |
| 3SRm 5/3 | 12.5 µF - 450 VL |
| 3SRm 5/5 | 12.5 µF - 450 VL |
| 3SRm 5/8 | 16 µF - 450 VL |
| 3SRm 5/11 | 20 µF - 450 VL |
| 3SRm 5/15 | 30 µF - 450 VL |
| **4BLOCK** | |
| 4BLOCKm 2/4 | 20 µF - 450 VL |
| 4BLOCKm 2/6 | 20 µF - 450 VL |
| 4BLOCKm 2/8 | 35 µF - 450 VL |
| 4BLOCKm 2/11 | 35 µF - 450 VL |
| 4BLOCKm 4/3 | 20 µF - 450 VL |
| 4BLOCKm 4/4 | 20 µF - 450 VL |
| 4BLOCKm 4/5 | 35 µF - 450 VL |
| 4BLOCKm 4/7 | 35 µF - 450 VL |
| 4BLOCKm 6/2 | 20 µF - 450 VL |

| MODEL | CAPACITOR |
|---|---|
| 4BLOCKm 6/3 | 20 µF - 450 VL |
| 4BLOCKm 6/4 | 35 µF - 450 VL |
| 4BLOCKm 6/6 | 35 µF - 450 VL |
| 4BLOCKm 8/2 | 20 µF - 450 VL |
| 4BLOCKm 8/3 | 35 µF - 450 VL |
| 4BLOCKm 8/4 | 35 µF - 450 VL |
| **4PD** | |
| 4PDm/0.50 | 20 µF - 450 VL |
| 4PDm/0.75 | 25 µF - 450 VL |
| 4PDm/1 | 35 µF - 450 VL |
| 4PDm/1.5 | 40 µF - 450 VL |
| 4PDm/2 | 60 µF - 450 VL |
| 4PDm/3 | 75 µF - 450 VL |
| 4PDm/5.5 | 120+250/300 µF - 450 VL |
| **BC** | |
| BCm 10/50 | 25 µF - 450 VL |
| BCm 15/50 | 35 µF - 450 VL |
| BCm 20/50 | 35 µF - 450 VL |
| **BC-MF** | |
| BCm 10/50-MF | 25 µF - 450 VL |
| BCm 15/50-MF | 35 µF - 450 VL |
| BCm 20/50-MF | 35 µF - 450 VL |
| **BC-ST** | |
| BCm 10/50-ST | 25 µF - 450 VL |
| BCm 15/50-ST | 35 µF - 450 VL |
| BCm 20/50-ST | 35 µF - 450 VL |
| **CKR** | |
| CKRm 90 | 20 µF - 450 VL |
| **CP** | |
| CPm 600 | 10 µF - 450 VL |
| CPm 610 | 14 µF - 450 VL |
| CPm 620 | 20 µF - 450 VL |
| CPm 650, 650M | 25 µF - 450 VL |
| CPm 660, 660M | 31.5 µF - 450 VL |
| CPm 670, 670M | 50 µF - 450 VL |
| CPm 160A | 50 µF - 450 VL |
| CPm 160B | 45 µF - 450 VL |
| CPm 160C | 31.5 µF - 450 VL |
| CPm 680C | 100 µF - 450 VL |
| **AL-RED -4 AL-RED -6** | |
| AL–REDm 600-4 | 10 µF - 450 VL |
| AL–REDm 610-4 | 14 µF - 450 VL |
| AL–REDm 620-4 | 25 µF - 450 VL |
| AL–REDm 650-4 | 25 µF - 450 VL |
| AL–REDm 650L-4 | 31.5 µF - 450 VL |
| AL–REDm 600, 6670M, 670L-4 | 31.5 µF - 450 VL |
| AL–REDm 670, 670M, 670L-4 | 50 µF - 450 VL |
| **CP-ST6** | |
| AL–REDm 600-6 | 10 µF - 450 VL |
| AL–REDm 610-6 | 14 µF - 450 VL |
| AL–REDm 620-6 | 25 µF - 450 VL |
| AL–REDm 650-6 | 25 µF - 450 VL |
| AL–REDm 650L-6 | 31.5 µF - 450 VL |

# CAPACITORS

| MODEL | CAPACITOR |
|---|---|
| **AL–REDm 600, 6670M, 670L-6** | 31.5 µF - 450 VL |
| **AL–REDm 670, 670M, 670L-6** | 50 µF - 450 VL |
| **D** | |
| **Dm 8** | 20 µF - 450 VL |
| **Dm 10** | 25 µF - 450 VL |
| **Dm 20** | 25 µF - 450 VL |
| **Dm 30** | 35 µF - 450 VL |
| **DAVIS** | |
| **DAVIS** | 35 µF - 500 VL |
| **DC** | |
| **DCm 10** | 20 µF - 450 VL |
| **DCm 20** | 20 µF - 450 VL |
| **DCm 30** | 25 µF - 450 VL |
| **DCm 42** | 50 µF - 450 VL |
| **DCm 43** | 60 µF - 450 VL |
| **F** | |
| **Fm 32/160B** | 50 µF - 450 VL |
| **Fm 32/160C** | 45 µF - 450 VL |
| **Fm 40/125B** | 45 µF - 450 VL |
| **Fm 40/125C** | 31.5 µF - 450 VL |
| **Fm 40/160C** | 50 µF - 450 VL |
| **Fm 50/125C** | 50 µF - 450 VL |
| **FAMILY** | |
| **FAMILY** | 12.5 µF - 450 VL |
| **FCR** | |
| **FCRm 80/2** | 10 µF - 450 VL |
| **FCRm 80/3** | 12.5 µF - 450 VL |
| **FCRm 80/4** | 14 µF - 450 VL |
| **FCRm 80/5** | 20 µF - 450 VL |
| **FCRm 100/3** | 14 µF - 450 VL |
| **FCRm 100/4** | 20 µF - 450 VL |
| **FCRm 100/5** | 25 µF - 450 VL |
| **FCRm 90/5** | 31.5 µF - 450 VL |
| **FCRm 90/6** | 45 µF - 450 VL |
| **FCRm 90/7** | 50 µF - 450 VL |
| **FCRm 130/3** | 31.5 µF - 450 VL |
| **FCRm 130/4** | 45 µF - 450 VL |
| **FCRm 130/5** | 50 µF - 450 VL |
| **FCRm 130/6** | 50 µF - 450 VL |
| **FCRm 200/3** | 31.5 µF - 450 VL |
| **FCRm 200/4** | 45 µF - 450 VL |
| **FCRm 200/5** | 50 µF - 450 VL |
| **FCRm 200/6** | 50 µF - 450 VL |
| **FCRm 240/3** | 45 µF - 450 VL |
| **FCRm 240/4** | 50 µF - 450 VL |
| **FCRm 240/5** | 50 µF - 450 VL |
| **FUTURE JET** | |
| **FUTURE JETm 1A** | 14 µF - 450 VL |
| **FUTURE JETm 1B** | 12.5 µF - 450 VL |
| **FUTURE JETm 1C** | 10 µF - 450 VL |
| **FUTURE JETm 2A** | 25 µF - 450 VL |
| **FUTURE JETm 2B** | 25 µF - 450 VL |
| **FUTURE JETm 2C** | 20 µF - 450 VL |

| MODEL | CAPACITOR |
|---|---|
| **FUTURE JET-ST** | |
| **FUTURE JETm 1A-ST** | 14 µF - 450 VL |
| **FUTURE JETm 1B-ST** | 12.5 µF - 450 VL |
| **FUTURE JETm 1C-ST** | 10 µF - 450 VL |
| **FUTURE JETm 2A-ST** | 25 µF - 450 VL |
| **FUTURE JETm 2B-ST** | 25 µF - 450 VL |
| **FUTURE JETm 2C-ST** | 20 µF - 450 VL |
| **HF** | |
| **HFm 4** | 20 µF - 450 VL |
| **HFm 6A** | 50 µF - 450 VL |
| **HFm 6B** | 45 µF - 450 VL |
| **HFm 50A** | 14 µF - 450 VL |
| **HFm 50B** | 12.5 µF - 450 VL |
| **HFm 51A** | 20 µF - 450 VL |
| **HFm 51B** | 20 µF - 450 VL |
| **HFm 5A** | 25 µF - 450 VL |
| **HFm 5AM** | 45 µF - 450 VL |
| **HFm 5ARM** | 50 µF - 450 VL |
| **HFm 5B** | 20 µF - 450 VL |
| **HFm 5BM** | 31.5 µF - 450 VL |
| **HFm 70B** | 45 µF - 450 VL |
| **HFm 70C** | 31.5 µF - 450 VL |
| **HT** | |
| **HTm 3/4** | 31.5 µF - 450 VL |
| **HTm 3/5** | 31.5 µF - 450 VL |
| **HTm 3/6** | 45 µF - 450 VL |
| **HTm 3/7** | 50 µF - 450 VL |
| **HTm 3/8** | 80 µF - 450 VL |
| **HTm 3/9** | 80 µF - 450 VL |
| **HTm 3/10** | 80 µF - 450 VL |
| **HTm 5/2** | 31.5 µF - 450 VL |
| **HTm 5/3** | 31.5 µF - 450 VL |
| **HTm 5/4** | 45 µF - 450 VL |
| **HTm 5/5** | 50 µF - 450 VL |
| **HTm 5/6** | 50 µF - 450 VL |
| **HTm 5/7** | 80 µF - 450 VL |
| **HTm 5/8** | 80 µF - 450 VL |
| **HTm 5/9** | 100 µF - 450 VL |
| **HTm 8/3** | 31.5 µF - 450 VL |
| **HTm 8/4** | 45 µF - 450 VL |
| **HTm 8/5** | 50 µF - 450 VL |
| **HTm 8/6** | 50 µF - 450 VL |
| **HTm 8/7** | 80 µF - 450 VL |
| **HTm 8/8** | 100 µF - 450 VL |
| **HTm 8/9** | 100 µF - 450 VL |
| **HTm 10/3** | 45 µF - 450 VL |
| **HTm 10/4** | 50 µF - 450 VL |
| **HTm 10/5** | 50 µF - 450 VL |
| **HTm 10/6** | 80 µF - 450 VL |
| **HTm 10/7** | 80 µF - 450 VL |
| **HTm 10/8** | 100 µF - 450 VL |
| **HTm 10/9** | 100 µF - 450 VL |
| **HT-PRO** | |
| **HTm 3/4 - PRO** | 31.5 µF - 450 VL |

| MODEL | CAPACITOR |
|---|---|
| **HTm 3/5 - PRO** | 31.5 µF - 450 VL |
| **HTm 3/6 - PRO** | 45 µF - 450 VL |
| **HTm 3/7 - PRO** | 50 µF - 450 VL |
| **HTm 3/8 - PRO** | 80 µF - 450 VL |
| **HTm 3/9 - PRO** | 80 µF - 450 VL |
| **HTm 3/10 - PRO** | 80 µF - 450 VL |
| **HTm 5/2 - PRO** | 31.5 µF - 450 VL |
| **HTm 5/3 - PRO** | 31.5 µF - 450 VL |
| **HTm 5/4 - PRO** | 45 µF - 450 VL |
| **HTm 5/5 - PRO** | 50 µF - 450 VL |
| **HTm 5/6 - PRO** | 50 µF - 450 VL |
| **HTm 5/7 - PRO** | 80 µF - 450 VL |
| **HTm 5/8 - PRO** | 80 µF - 450 VL |
| **HTm 5/9 - PRO** | 100 µF - 450 VL |
| **HTm 8/3 - PRO** | 31.5 µF - 450 VL |
| **HTm 8/4 - PRO** | 45 µF - 450 VL |
| **HTm 8/5 - PRO** | 50 µF - 450 VL |
| **HTm 8/6 - PRO** | 50 µF - 450 VL |
| **HTm 8/7 - PRO** | 80 µF - 450 VL |
| **HTm 8/8 - PRO** | 100 µF - 450 VL |
| **HTm 8/9 - PRO** | 100 µF - 450 VL |
| **HTm 10/3 - PRO** | 45 µF - 450 VL |
| **HTm 10/4 - PRO** | 50 µF - 450 VL |
| **HTm 10/5 - PRO** | 50 µF - 450 VL |
| **HTm 10/6 - PRO** | 80 µF - 450 VL |
| **HTm 10/7 - PRO** | 80 µF - 450 VL |
| **HTm 10/8 - PRO** | 100 µF - 450 VL |
| **HTm 10/9 - PRO** | 100 µF - 450 VL |
| **JSW** | |
| **JSWm 3AL** | 50 µF - 450 VL |
| **JSWm 3AM** | 50 µF - 450 VL |
| **JSWm 3BH** | 45 µF - 450 VL |
| **JSWm 3BL** | 45 µF - 450 VL |
| **JSWm 3BM** | 45 µF - 450 VL |
| **JSWm 3CH** | 31.5 µF - 450 VL |
| **JSWm 3CL** | 31.5 µF - 450 VL |
| **JSWm 3CM** | 31.5 µF - 450 VL |
| **MAGNIFICA** | |
| **MAGNIFICA 1m** | 20 µF - 450 VL |
| **MAGNIFICA 2m** | 20 µF - 450 VL |
| **MAGNIFICA 3m** | 31.5 µF - 450 VL |
| **MAGNIFICA 4m** | 45 µF - 450 VL |
| **MAGNIFICA 5m** | 50 µF - 450 VL |
| **MC** | |
| **MCm 10/45** | 20 µF - 450 VL |
| **MCm 15/45** | 25 µF - 450 VL |
| **MCm 15/50** | 50 µF - 450 VL |
| **MCm 20/50** | 50 µF - 450 VL |
| **MCm 30/50** | 60 µF - 450 VL |
| **MCm 30/65** | 60 µF - 450 VL |
| **MC-F** | |
| **MCm 15/50-F** | 50 µF - 450 VL |
| **MCm 20/50-F** | 50 µF - 450 VL |
| **MCm 30/50-F** | 60 µF - 450 VL |

| MODEL | CAPACITOR |
|---|---|
| **MCm 30/65-F** | 60 µF - 450 VL |
| **MK** | |
| **MKm 3/3** | 25 µF - 450 VL |
| **MKm 3/5** | 31.5 µF - 450 VL |
| **MKm 3/6** | 45 µF - 450 VL |
| **MKm 5/4** | 25 µF - 450 VL |
| **MKm 5/5** | 31.5 µF - 450 VL |
| **MKm 5/7** | 45 µF - 450 VL |
| **MKm 8/4** | 31.5 µF - 450 VL |
| **MKm 8/5** | 45 µF - 450 VL |
| **MKm 8/6** | 50 µF - 450 VL |
| **NGA** | |
| **NGAm 1A** | 20 µF - 450 VL |
| **NGAm 1B** | 16 µF - 450 VL |
| **NGAm 2A** | 20 µF - 450 VL |
| **NGAm 2B** | 20 µF - 450 VL |
| **NGAm 3A** | 50 µF - 450 VL |
| **NGAm 3B** | 50 µF - 450 VL |
| **NGAm 3C** | 45 µF - 450 VL |
| **NGAm 3D** | 31.5 µF - 450 VL |
| **NGA-PRO** | |
| **NGAm 1A-PRO** | 20 µF - 450 VL |
| **NGAm 1B-PRO** | 16 µF - 450 VL |
| **NGAm 2A-PRO** | 20 µF - 450 VL |
| **NGAm 2B-PRO** | 20 µF - 450 VL |
| **NGAm 3A-PRO** | 50 µF - 450 VL |
| **NGAm 3B-PRO** | 50 µF - 450 VL |
| **NGAm 3C-PRO** | 45 µF - 450 VL |
| **NGAm 3D-PRO** | 31.5 µF - 450 VL |
| **NK** | |
| **NKm 2/2 GE** | 20 µF - 450 VL |
| **NKm 2/3 GE** | 25 µF - 450 VL |
| **NKm 2/4 GE** | 35 µF - 450 VL |
| **NKm 4/2 GE** | 20 µF - 450 VL |
| **NKm 4/3 GE** | 25 µF - 450 VL |
| **NKm 4/4 GE** | 35 µF - 450 VL |
| **PK** | |
| **PKm 100** | 31.5 µF - 450 VL |
| **PKm 200** | 45 µF - 450 VL |
| **PKm 300** | 50 µF - 450 VL |
| **PKm 60** | 10 µF - 450 VL |
| **PKm 65** | 14 µF - 450 VL |
| **PKm 80** | 20 µF - 450 VL |
| **PKm 90** | 20 µF - 450 VL |
| **PKS** | |
| **PKSm 60** | 10 µF - 450 VL |
| **PKSm 65** | 14 µF - 450 VL |
| **PKSm 80** | 20 µF - 450 VL |
| **PLUG & DRAIN** | |
| **RXm 2** | 10 µF - 450 VL |
| **RXm 3** | 14 µF - 450 VL |
| **TOP 2-FLOOR** | 10 µF - 450 VL |
| **TOP 3** | 14 µF - 450 VL |

# CAPACITORS

| MODEL | CAPACITOR |
|---|---|
| **PLURIJET** | |
| PLURIJETm 3/100 | 14 µF - 450 VL |
| PLURIJETm 3/80 | 12.5 µF - 450 VL |
| PLURIJETm 4/100 | 20 µF - 450 VL |
| PLURIJETm 4/80 | 14 µF - 450 VL |
| PLURIJETm 3/120 | 14 µF - 450 VL |
| PLURIJETm 3/90 | 12.5 µF - 450 VL |
| PLURIJETm 4/120 | 20 µF - 450 VL |
| PLURIJETm 4/90 | 14 µF - 450 VL |
| PLURIJETm 3/130 | 31.5 µF - 450 VL |
| PLURIJETm 3/200 | 31.5 µF - 450 VL |
| PLURIJETm 4/130 | 45 µF - 450 VL |
| PLURIJETm 4/200 | 45 µF - 450 VL |
| PLURIJETm 5/130 | 50 µF - 450 VL |
| PLURIJETm 5/200 | 50 µF - 450 VL |
| PLURIJETm 5/90 | 31.5 µF - 450 VL |
| PLURIJETm 6/90 | 45 µF - 450 VL |
| **PQ** | |
| PQm 100 | 31.5 µF - 450 VL |
| PQm 200 | 45 µF - 450 VL |
| PQm 300 | 50 µF - 450 VL |
| PQm 60 | 10 µF - 450 VL |
| PQm 65 | 14 µF - 450 VL |
| PQm 80 | 20 µF - 450 VL |
| PQm 90 | 20 µF - 450 VL |
| **PQ81-Bs, PQ81-PPS** | |
| PQm 81-Bs PQm 81-PPS | 14 µF - 450 VL |
| **PQA** | |
| PQAm 60 | 10 µF - 450 VL |
| PQAm 70 | 16 µF - 450 VL |
| PQAm 90 | 20 µF - 450 VL |
| **PQ-Bs** | |
| PQm 60-Bs | 10 µF - 450 VL |
| PQm 65-BS | 14 µF - 450 VL |
| **PV** | |
| PVm 55 | 10 µF - 450 VL |
| PVm 60 | 10 µF - 450 VL |
| PVm 65 | 14 µF - 450 VL |
| PVm 70 | 25 µF - 450 VL |
| PVm 81 | 14 µF - 450 VL |
| PVm 90 | 25 µF - 450 VL |
| **RX** | |
| RXm 1 | 10 µF - 450 VL |
| RXm 2 | 10 µF - 450 VL |
| RXm 3 | 14 µF - 450 VL |
| RXm 4 | 20 µF - 450 VL |
| RXm 5 | 25 µF - 450 VL |
| **RX-VORTEX** | |
| RXm 2/20 | 10 µF - 450 VL |
| RXm 3/20 | 14 µF - 450 VL |
| RXm 4/40 | 20 µF - 450 VL |
| RXm 5/40 | 25 µF - 450 VL |

| MODEL | CAPACITOR |
|---|---|
| **SPRINKLER** | |
| SKRm 1.5 | 31.5 µF - 450 VL |
| SKRm 2 | 50 µF - 450 VL |
| **TEX** | |
| TEX 2 | 10 µF - 450 VL |
| TEX 3 | 12.5 µF - 450 VL |
| **TOP** | |
| TOP 1 | 10 µF - 450 VL |
| TOP 2 | 10 µF - 450 VL |
| TOP 3 | 14 µF - 450 VL |
| TOP 4 | 16 µF - 450 VL |
| TOP 5 | 20 µF - 450 VL |
| **TOP FLOOR** | |
| TOP 1-FLOOR | 10 µF - 450 VL |
| TOP 2-FLOOR | 10 µF - 450 VL |
| TOP 3-FLOOR | 14 µF - 450 VL |
| **TOP MULTI** | |
| TOP MULTI 1 | 10 µF - 450 VL |
| TOP MULTI 2 | 12.5 µF - 450 VL |
| TOP MULTI 3 | 12.5 µF - 450 VL |
| TOP MULTI 4 | 14 µF - 450 VL |
| TOP MULTI 5 | 14 µF - 450 VL |
| **TOP MULTI-AD** | |
| TOP MULTI 1-AD | 10 µF - 450 VL |
| **TOP MULTI-EVO** | |
| TOP MULTI 1 EVO | 10 µF - 450 VL |
| TOP MULTI 2-EVO | 12.5 µF - 450 VL |
| TOP MULTI 3-EVO | 12.5 µF - 450 VL |
| TOP MULTI 4-EVO | 14 µF - 450 VL |
| TOP MULTI 5-EVO | 14 µF - 450 VL |
| **TOP MULTI-EVOTECH** | |
| TOP MULTI-EVOTECH 2 | 12.5 µF - 450 VL |
| TOP MULTI-EVOTECH 3 | 12.5 µF - 450 VL |
| TOP MULTI-EVOTECH 4 | 14 µF - 450 VL |
| TOP MULTI-EVOTECH 5 | 14 µF - 450 VL |
| **TOP MULTI-TECH** | |
| TOP MULTI-TECH 2 | 12.5 µF - 450 VL |
| TOP MULTI-TECH 3 | 12.5 µF - 450 VL |
| TOP MULTI-TECH 4 | 14 µF - 450 VL |
| TOP MULTI-TECH 5 | 14 µF - 450 VL |
| **TOP VORTEX** | |
| TOP 1 - VORTEX | 10 µF - 450 VL |
| TOP 1 - VORTEX/GM | 10 µF - 450 VL |
| TOP 2 - VORTEX | 10 µF - 450 VL |
| TOP 2 - VORTEX/GM | 10 µF - 450 VL |
| TOP 3 - VORTEX | 14 µF - 450 VL |
| TOP 3 - VORTEX/GM | 14 µF - 450 VL |
| **TRITUS** | |
| TRm 0.75 | 25 µF - 450 VL / 80 µF - 450 VL |
| TRm 0.9 | 25 µF - 450 VL / 80 µF - 450 VL |
| TRm 1.1 | 25 µF - 450 VL / 80 µF - 450 VL |
| TRm 1.3 | 25 µF - 450 VL / 80 µF - 450 VL |
| TRm 1.5 | 50 µF - 450 VL / 80 µF - 450 VL |

| MODEL | CAPACITOR |
|---|---|
| **TRm 2.2 AP** | 60 µF - 450 VL / 120 µF - 330 VL |
| **TIGm 0.55** | 25 µF - 450 VL |
| **TIGm 0.75** | 25 µF - 450 VL |
| **TIGm 1.1** | 35 µF - 450 VL |
| **TIGm 1.3** | 35 µF - 450 VL |
| **TRITUS-TX** | 14 µF - 450 VL |
| **UP** | |
| **UPm 2/2-GE** | 20 µF - 450 VL |
| **UPm 2/3-GE** | 25 µF - 450 VL |
| **UPm 2/4-GE** | 35 µF - 450 VL |
| **UPm 4/2-GE** | 20 µF - 450 VL |
| **UPm 4/3-GE** | 25 µF - 450 VL |
| **UPm 4/4-GE** | 35 µF - 450 VL |
| **UPm 8/2-GE** | 25 µF - 450 VL |
| **UPm 8/3-GE** | 35 µF - 450 VL |
| **VX** | |
| **VXm 10/35** | 25 µF - 450 VL |
| **VXm 10/50** | 25 µF - 450 VL |
| **VXm 15/35** | 35 µF - 450 VL |
| **VXm 15/50** | 35 µF - 450 VL |
| **VXm 20/35** | 35 µF - 450 VL |
| **VXm 20/50** | 35 µF - 450 VL |
| **VXm 8/35** | 20 µF - 450 VL |
| **VXm 8/50** | 20 µF - 450 VL |
| **VXC** | |
| **VXCm 10/35** | 20 µF - 450 VL |
| **VXCm 10/45** | 20 µF - 450 VL |
| **VXCm 15/35** | 25 µF - 450 VL |
| **VXCm 15/45** | 25 µF - 450 VL |
| **VXCm 15/50** | 50 µF - 450 VL |
| **VXCm 15/65** | 50 µF - 450 VL |
| **VXCm 20/50** | 50 µF - 450 VL |
| **VXCm 20/65** | 50 µF - 450 VL |
| **VXCm 30/50** | 60 µF - 450 VL |
| **VXCm 30/65** | 60 µF - 450 VL |
| **VXC-F** | |
| **VXCm 15/50-F** | 50 µF - 450 VL |
| **VXCm 15/65-F** | 50 µF - 450 VL |
| **VXCm 20/50-F** | 50 µF - 450 VL |
| **VXCm 20/65-F** | 50 µF - 450 VL |
| **VXCm 30/50-F** | 60 µF - 450 VL |
| **VXCm 30/65-F** | 60 µF - 450 VL |
| **VX-MF** | |
| **VXm 10/35-MF** | 25 µF - 450 VL |
| **VXm 10/50-MF** | 25 µF - 450 VL |
| **VXm 15/35-MF** | 35 µF - 450 VL |
| **VXm 15/50-MF** | 35 µF - 450 VL |
| **VXm 20/35-MF** | 35 µF - 450 VL |
| **VXm 20/50-MF** | 35 µF - 450 VL |
| **VXm 8/35-MF** | 20 µF - 450 VL |
| **VXm 8/50-MF** | 20 µF - 450 VL |
| **VX-ST** | |
| **VXm 10/35-ST** | 25 µF - 450 VL |
| **VXm 10/50-ST** | 25 µF - 450 VL |
| **VXm 15/35-ST** | 35 µF - 450 VL |

| MODEL | CAPACITOR |
|---|---|
| **VXm 15/50-ST** | 35 µF - 450 VL |
| **VXm 20/35-ST** | 35 µF - 450 VL |
| **VXm 20/50-ST** | 35 µF - 450 VL |
| **VXm 8/35-ST** | 20 µF - 450 VL |
| **VXm 8/50-ST** | 20 µF - 450 VL |
| **WR** | |
| **WRm 40/125-SA** | 20 µF - 450 VL |
| **WRm 40/125-SB** | 20 µF - 450 VL |
| **WRm 50/125A** | 50 µF - 450 VL |
| **WRm 50/125B** | 45 µF - 450 VL |
| **WRm 50/125C** | 31.5 µF - 450 VL |
| **WRm 50/125-SA** | 50 µF - 450 VL |
| **WRm 50/125-SB** | 45 µF - 450 VL |
| **ZX** | |
| **ZXm 1A/40** | 16 µF - 450 VL |
| **ZXm 1B/40** | 12.5 µF - 450 VL |
| **ZXm 2/30** | 20 µF - 450 VL |
| **ZXm 2/40** | 20 µF - 450 VL |
| **ZX2-GM** | |
| **ZXm 2/30-GM** | 20 µF - 450 VL |
| **ZXm 2/40-GM** | 20 µF - 450 VL |

# CABLE SIZING FOR SUBMERSIBLE MOTORS

## SINGLE-PHASE 220 V - 60 Hz

| MOTOR POWER (P2) | | cable cross-section in mm² | | | | | | |
|---|---|---|---|---|---|---|---|---|
| kW | HP | 4 x 1 | 4 x 1.5 | 4 x 2.5 | 4 x 4 | 4 x 6 | 4 x 10 | 4 x 16 |
| | | maximum cable length in metres | | | | | | |
| 0.37 | 0.50 | 60 | 90 | 140 | | | | |
| 0.55 | 0.75 | 45 | 70 | 110 | 180 | | | |
| 0.75 | 1 | 35 | 50 | 85 | 140 | 210 | | |
| 1.1 | 1.5 | 25 | 35 | 60 | 95 | 145 | 240 | |
| 1.5 | 2 | | 30 | 45 | 75 | 115 | 190 | 305 |
| 2.2 | 3 | | | 30 | 50 | 75 | 125 | 200 |

## Three-phase 220 V - 60 Hz

| MOTOR POWER (P2) | | cable cross-section in mm² | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| kW | HP | 4x1 | 4 x 1.5 | 4 x 2.5 | 4 x 4 | 4 x 6 | 4 x 10 | 4 x 16 | 4 x 25 | 4 x 35 | 4 x 50 | 4 x 70 |
| | | maximum cable length in metres | | | | | | | | | | |
| 0.37 | 0.50 | 100 | 152 | 255 | | | | | | | | |
| 0.55 | 0.75 | 83 | 126 | 210 | 338 | | | | | | | |
| 0.75 | 1 | 65 | 99 | 165 | 265 | 405 | | | | | | |
| 1.1 | 1.5 | 48 | 72 | 120 | 192 | 292 | 485 | | | | | |
| 1.5 | 2 | | 53 | 88 | 142 | 215 | 360 | | | | | |
| 2.2 | 3 | | | 60 | 97 | 147 | 245 | 392 | | | | |
| 3 | 4 | | | 47 | 73 | 110 | 183 | 295 | 510 | | | |
| 4 | 5.5 | | | | 55 | 83 | 138 | 220 | 380 | | | |
| 5.5 | 7.5 | | | | | 60 | 100 | 160 | 275 | 385 | | |
| 7.5 | 10 | | | | | 45 | 73 | 114 | 195 | 275 | 395 | |
| 9.2 | 12.5 | | | | | | 64 | 100 | 157 | 220 | 315 | |
| 11 | 15 | | | | | | 54 | 87 | 135 | 190 | 270 | 378 |
| 13 | 17.5 | | | | | | | 75 | 117 | 164 | 236 | 330 |
| 15 | 20 | | | | | | | 65 | 102 | 144 | 205 | 287 |
| 18.5 | 25 | | | | | | | | 82 | 114 | 162 | 225 |
| 22 | 30 | | | | | | | | 69 | 95 | 137 | 190 |
| 30 | 40 | | | | | | | | | 70 | 102 | 142 |
| 37 | 50 | | | | | | | | | 52 | 68 | 95 |

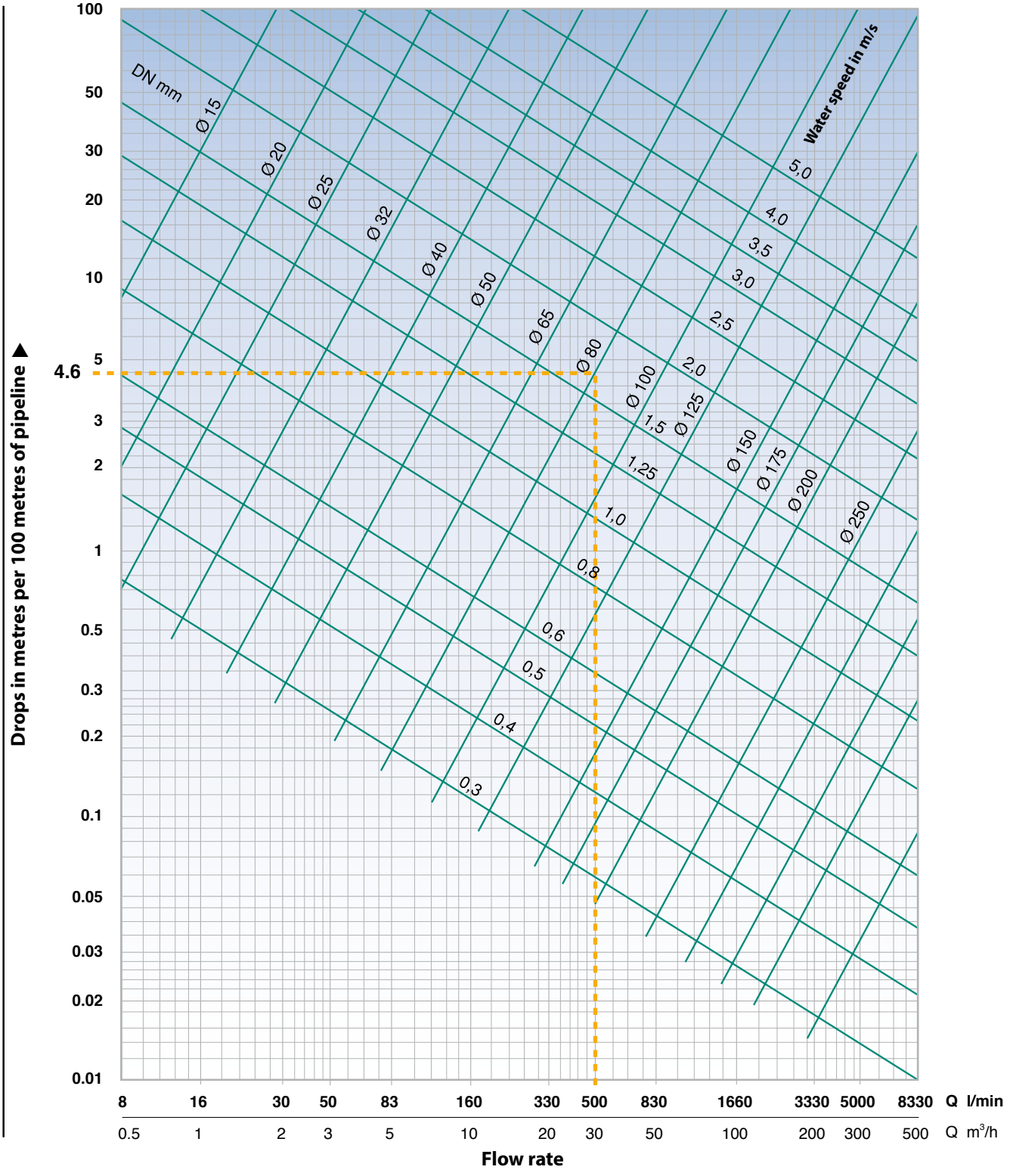
## Three-phase 380 V - 60 Hz

| MOTOR POWER (P2) | | cable cross-section in mm² | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| kW | HP | 4x1 | 4 x 1.5 | 4 x 2.5 | 4 x 4 | 4 x 6 | 4 x 10 | 4 x 16 | 4 x 25 | 4 x 35 | 4 x 50 | 4 x 70 |
| | | maximum cable length in metres | | | | | | | | | | |
| 0.37 | 0.50 | 300 | | | | | | | | | | |
| 0.55 | 0.75 | 250 | 380 | | | | | | | | | |
| 0.75 | 1 | 195 | 295 | | | | | | | | | |
| 1.1 | 1.5 | 145 | 215 | 360 | | | | | | | | |
| 1.5 | 2 | 105 | 160 | 265 | 425 | | | | | | | |
| 2.2 | 3 | 70 | 110 | 180 | 290 | 440 | | | | | | |
| 3 | 4 | 55 | 85 | 140 | 220 | 330 | | | | | | |
| 4 | 5.5 | 40 | 60 | 105 | 165 | 250 | 415 | | | | | |
| 5.5 | 7.5 | | 45 | 75 | 120 | 180 | 300 | 480 | | | | |
| 7.5 | 10 | | 35 | 55 | 95 | 135 | 220 | 340 | 585 | | | |
| 9.2 | 12.5 | | | 47 | 75 | 115 | 190 | 300 | 470 | | | |
| 11 | 15 | | | 40 | 65 | 95 | 160 | 260 | 405 | | | |
| 13 | 17.5 | | | | 60 | 85 | 140 | 225 | 350 | 490 | | |
| 15 | 20 | | | | 50 | 75 | 125 | 195 | 305 | 430 | | |
| 18.5 | 25 | | | | | 58 | 100 | 155 | 245 | 340 | 485 | |
| 22 | 30 | | | | | 49 | 85 | 130 | 205 | 285 | 410 | 570 |
| 30 | 40 | | | | | 36 | 63 | 96 | 152 | 210 | 305 | 425 |
| 37 | 50 | | | | | | 47 | 74 | 115 | 156 | 205 | 284 |

**Voltage drop 3% - Maximum ambient temperature + 30 °C**

# PRESSURE DROP DIAGRAM

## (for straight pipes of 15-250 mm internal diameter and flow rates of 8 to 8330 l/min)




The data in the table are valid for cold water and for liquids with the same kinematic viscosity, for factory-new, cast-iron pipes. The pressure drops **hv** resulting from the tables must be multiplied by: **0.8** for steel pipes, new rolled; **1.25** for iron pipes, old, slightly rusted; **1.7** for old pipes for which the reduced cross-section due to scaling must be taken into account.

➠ **EXAMPLE**: Flow data **Q = 500 l/min**, new steel pipe Ø 80 mm, pipe length 50 m.
On the horizontal axis, locate the flow rate and continue vertically until you meet the line of DN 80 mm.
Pressure losses are therefore read on the vertical axis.
**hv = 4.6 m** per 100 m of pipe.
**hv1 = 4.6 x 0.8** = 3.68 m/100 (steel tube).
To consider the actual length of the pipe:
**hv2 = 3.68 x 50:100** = 1.84 m (for 50 m of pipe).
The flow velocity is determined by considering the point of intersection between the oblique straight lines to be 1.5-2 m/sec. Thus in the present case we have:
**C = 1.7 metres/sec. ac.**

# CONVERSION OF UNITS OF MEASUREMENT

## LENGTH

| millimeter | centimeter | metres | inch | foot | yard |
|---|---|---|---|---|---|
| mm | cm | m | in | ft | yd |
| 1 | 0.1 | 0.001 | 0.0394 | 0.0033 | 0.0011 |
| 10 | 1 | 0.01 | 0.3937 | 0.0328 | 0.0109 |
| 1000 | 100 | 1 | 393.701 | 3.2808 | 10.936 |
| 25.4 | 2.54 | 0.0254 | 1 | 0.0833 | 0.0278 |
| 304.8 | 30.48 | 0.3048 | 12 | 1 | 0.3333 |
| 914.4 | 91.44 | 0.9144 | 36 | 3 | 1 |

1 kilometre = 1000 metres = 0.62137 miles - 1 mile = 1609.34 metres = 1.60934 kilometres

## VOLUME

| cubic metre | litre | millilitre | gallon Imp. | US gallon | cube foot |
|---|---|---|---|---|---|
| $m^3$ | l | ml | Imp. gal. | US gal | $ft^3$ |
| 1 | 1000 | $1 \times 10^6$ | 220 | 264.2 | 35.3147 |
| 0.001 | 1 | 1000 | 0.22 | 0.2642 | 0.0353 |
| $1 \times 10^{-6}$ | 0.001 | 1 | $2.2 \times 10^{-4}$ | 2.642 x 10-4 = 1047.75 | $3.53 \times 10^{-5}$ |
| 0.00455 | 4.546 | 4546 | 1 | 1.201 | 0.1605 |
| 0.00378 | 3.785 | 3785 | 0.8327 | 1 | 0.1337 |
| 0.0283 | 28.317 | 28.317 | 6.2288 | 7.4805 | 1 |

## WEIGHT

| kilogramme | pound | centiweight | ton | t long | t short |
|---|---|---|---|---|---|
| kg | lb | cwt | t | tn | sh. tn |
| 1 | 2.205 | 0.0197 | 0.001 | $9.84 \times 10^{-4}$ | 0.0011 |
| 0.454 | 1 | 0.0089 | $4.54 \times 10^{-4}$ | $4.46 \times 10^{-4}$ | $5.0 \times 10^{-4}$ |
| 50.802 | 112 | 1 | 0.0508 | 0.05 | 0.056 |
| 1000 | 2204.6 | 19.684 | 1 | 0.9842 | 1.1023 |
| 1016 | 2240 | 20 | 1.0161 | 1 | 1.102 |
| 907.2 | 2000 | 17.857 | 0.9072 | 0.8929 | 1 |

## VOLUMETRIC FLOW

| litres latter | litres minute | Cubic metres time | cubic feet time | cubic feet minute | Imp. gal. minute | US gal. minute | US barrel day |
|---|---|---|---|---|---|---|---|
| l/s | l/min | $m^3/h$ | $ft^3/h$ | $ft^3/min$ | Imp. gal/min | US gal/min | mineral oil US barrel/g |
| 1 | 60 | 3.6 | 127.133 | 2.1189 | 13.2 | 15.85 | 543.439 |
| 0.017 | 1 | 0.06 | 2.1189 | 0.0353 | 0.22 | 0.264 | 9.057 |
| 0.278 | 16.667 | 1 | 35.3147 | 0.5886 | 3.666 | 4.403 | 150.955 |
| 0.008 | 0.472 | 0.0283 | 1 | 0.0167 | 0.104 | 0.125 | 4.275 |
| 0.472 | 28.317 | 1.6990 | 60 | 1 | 6.229 | 7.480 | 256.475 |
| 0.076 | 4.546 | 0.2728 | 9.6326 | 0.1605 | 1 | 1.201 | 41.175 |
| 0.063 | 3.785 | 0.2271 | 8.0209 | 0.1337 | 0.833 | 1 | 34.286 |
| 0.002 | 0.110 | 0.0066 | 0.2339 | 0.0039 | 0.024 | 0.029 | 1 |

## PRESSURE AND HEAD

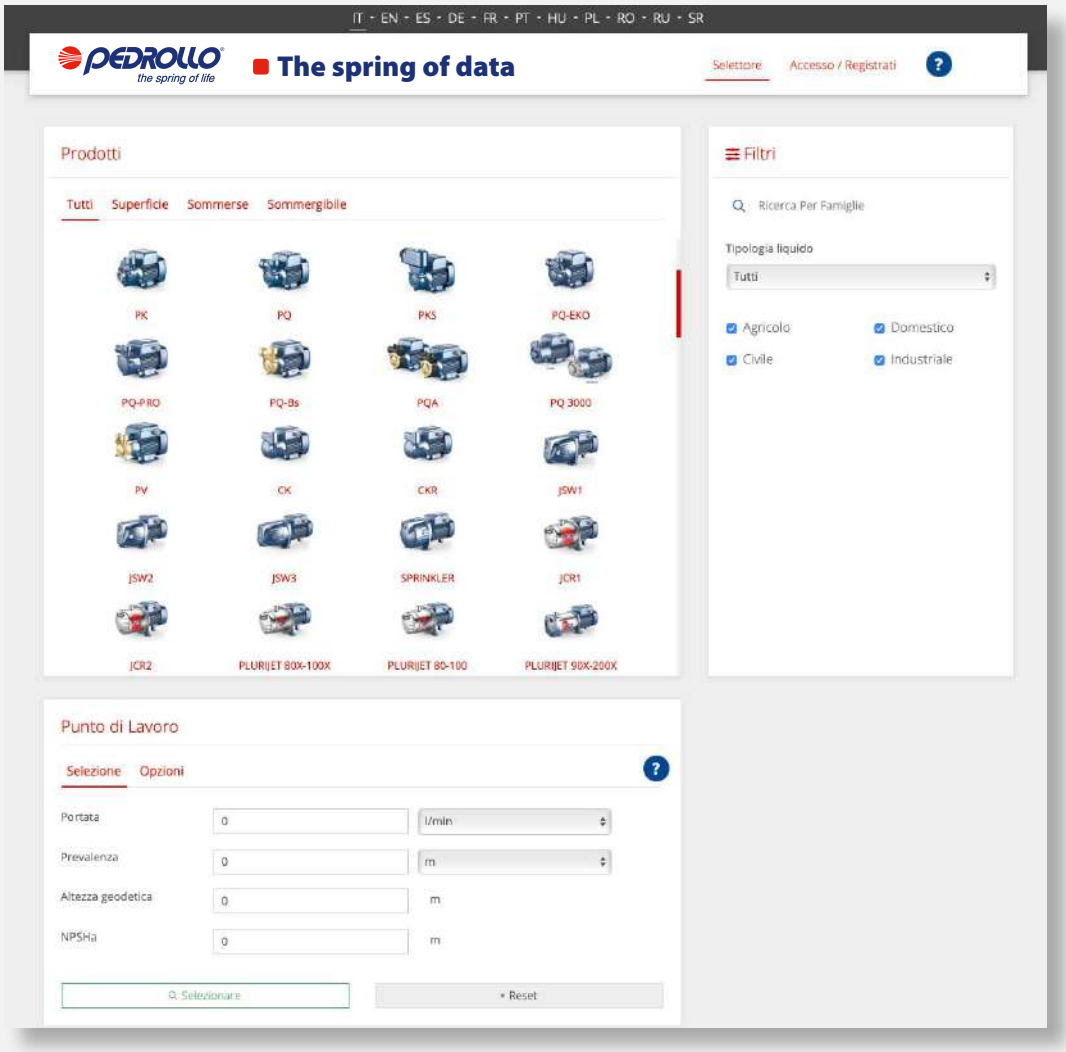
| Newton metres panel/board $N/m^2$ | kilopascal | bar | kilogramme force centimeter panel/board | pound force inch panel/board | foot Water % | metres Water % | millimeter mercury | inch mercury |
|---|---|---|---|---|---|---|---|---|
| (Pa) | kPa | bar | $kgf/cm^2$ | psi | ft $H_20$ | m $H_20$ | mm Hg | In Hg |
| 1 | 0.001 | $1 \times 10^{-5}$ | $1.02 \times 10^{-5}$ | $1.45 \times 10^{-4}$ | $3.35 \times 10^{-4}$ | $1.02 \times 10^{-4}$ | 0.0075 | $2.95 \times 10^{-4}$ |
| 1000 | 1 | 0.01 | $1.02 \times 10^{-2}$ | 0.145 | 0.335 | 0.102 | 7.5 | 0.295 |
| 100000 | 100 | 1 | 1.02 | 14.5 | 33.52 | 10.2 | 750.1 | 29.53 |
| 98067 | 98.07 | 0.981 | 1 | 14.22 | 32.81 | 10 | 735.6 | 28.96 |
| 6895 | 6.895 | 0.069 | 0.0703 | 1 | 2.31 | 0.703 | 51.72 | 2.036 |
| 2984 | 2.984 | 0.03 | 0.0305 | 0.433 | 1 | 0.305 | 22.42 | 0.882 |
| 9789 | 9.789 | 0.098 | 0.1 | 1.42 | 3.28 | 1 | 73.42 | 2.891 |
| 133.3 | 0.133 | 0.0013 | 0.0014 | 0.019 | 0.045 | 0.014 | 1 | 0.039 |
| 3386 | 3.386 | 0.0338 | 0.0345 | 0.491 | 1.133 | 0.345 | 25.4 | 1 |

# PUMP SELECTOR

## The spring of data

※ The Pedrollo pump selector.

※ The tool that helps you select the right pump for your requirements.




To access the **Pump Selector - The spring of data**
https://springofdata.pedrollo.com/selector

PUMP SELECTOR

For a general overview watch the Video Tutorial
https://www.youtube.com/watch?v=P9KGMOaDz58

VIDEO TUTORIAL

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