

TOP-VORTEX

Submersible pumps

 Dirty water

 Domestic use



PERFORMANCE RANGE

- Flow rate up to **180 l/min** (10.8 m³/h)
- Head up to **8.5 m**

APPLICATION LIMITS

- **3 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C** (Maximum liquid temperature +90 °C for a maximum of 3 minutes intermittent service)
- Passage of suspended solids up to **Ø 20 mm**
- Suction down to **25 mm** above ground level
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

The pumps are complete with:

- **5 m** long power cable
- float switch

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT



INSTALLATION AND USE

The **TOP-VORTEX** pump is suitable for use with **dirty water** that is not chemically aggressive towards the materials from which the pump is made.

Because of the design solutions that have been adopted, such as the complete cooling of the motor and the shaft with double seal, these pumps are easy to use and reliable.

They are suitable for use in applications such as clearing dirty water, emptying tanks, discharging domestic waste water, and for emptying collection traps containing suspended solids up to a maximum of Ø 20 mm.

PATENTS - TRADE MARKS - MODELS

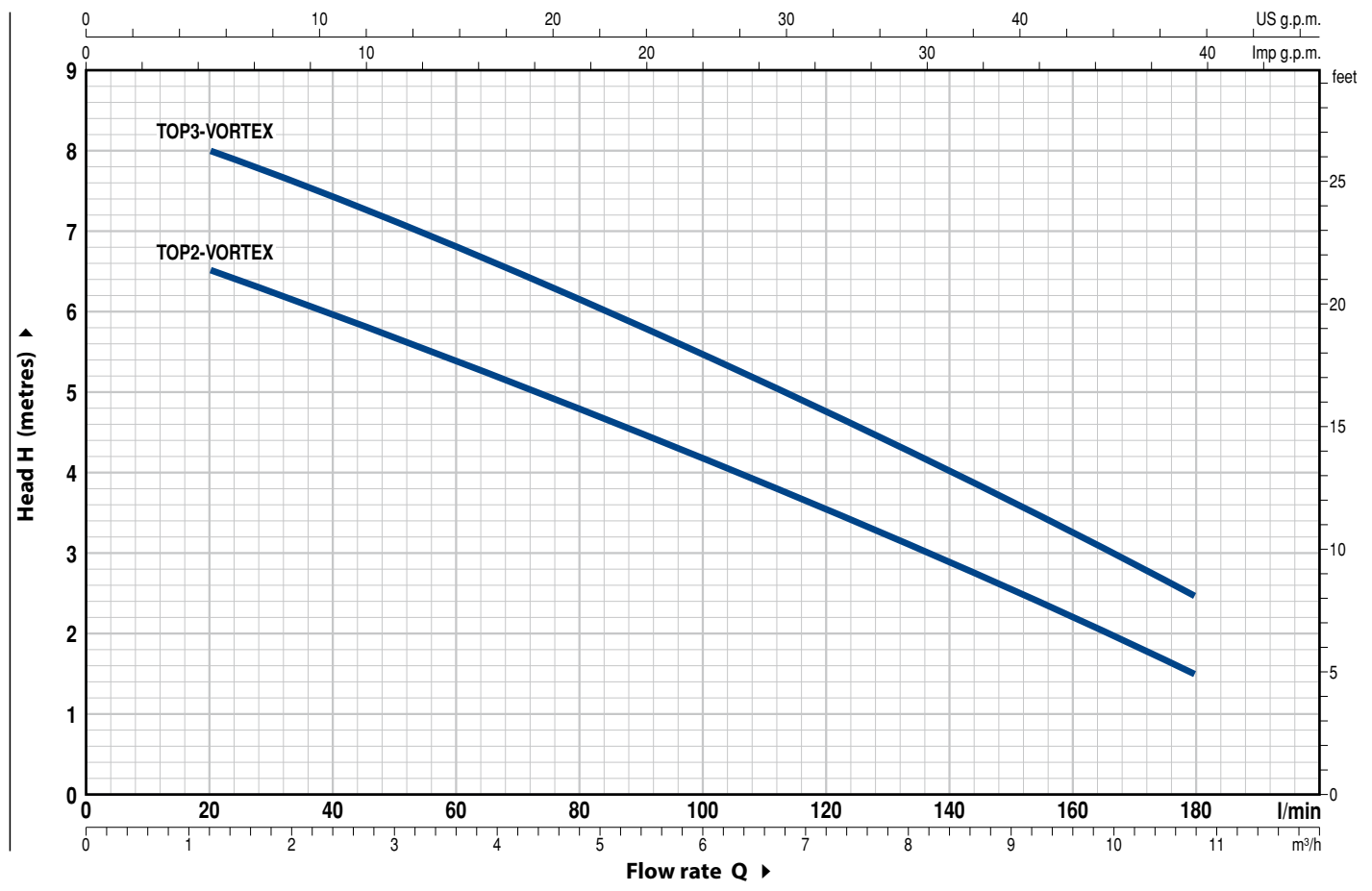
- Registered EU Design n. 342159-0011

OPTIONS AVAILABLE ON REQUEST

- “**TOP-VORTEX/GM**” pumps with vertical switch (suitable for particularly small wells)
- Special mechanical seal
- Pumps with a **10 m** long power cable.
 ➔ N.B.: Standard EN 60335-2-41 states that the power cable must be 10 m long for outdoor applications
- Pumps without float switch
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



| MODEL Single-phase | POWER (P ₂) | | Q | 0 | 1.2 | 2.4 | 3.6 | 4.8 | 6.0 | 7.2 | 8.4 | 9.6 | 10.8 |
|-----------------------|-------------------------|------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| | kW | HP | | 0 | 20 | 40 | 60 | 80 | 100 | 120 | 140 | 160 | 180 |
| TOP 2 - VORTEX | 0.37 | 0.50 | H metres | 7 | 6.5 | 6 | 5.4 | 4.8 | 4.2 | 3.5 | 2.9 | 2.2 | 1.5 |
| | | | | 8.5 | 8 | 7.4 | 6.8 | 6.1 | 5.5 | 4.7 | 4 | 3.2 | 2.5 |

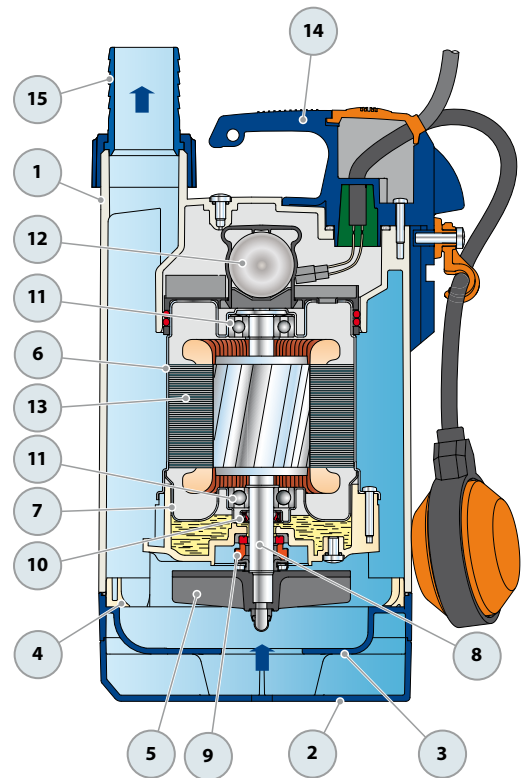
Q = Flow rate H = Total manometric head

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

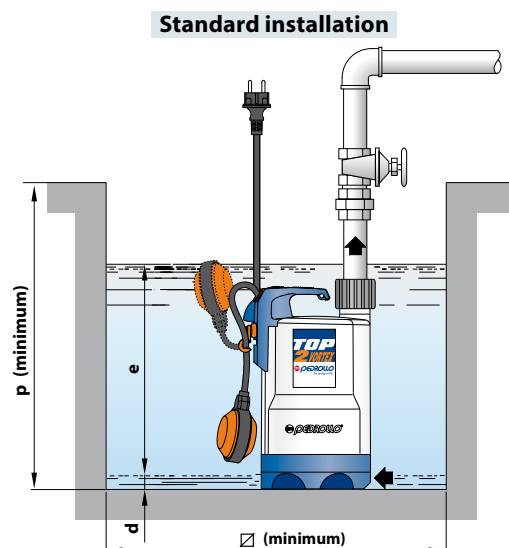
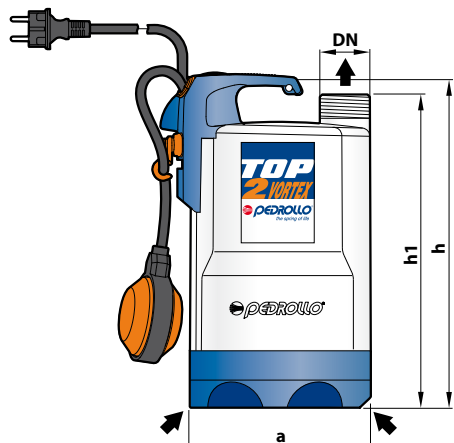
TOP-VORTEX

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

| | | | | |
|---|--|------------------------|------------------------|------------------|
| 1 PUMP BODY | Technopolymer | | | |
| 2 SUCTION FILTER | Technopolymer | | | |
| 3 SUCTION PLATE | Technopolymer | | | |
| 4 DIFFUSER | Technopolymer | | | |
| 5 IMPELLER | Technopolymer VORTEX type | | | |
| 6 MOTOR CASING | Stainless steel AISI 304 | | | |
| 7 MOTOR CASING PLATE | Stainless steel AISI 304 | | | |
| 8 MOTOR SHAFT | Stainless steel EN 10088-3 - 1.4104 | | | |
| 9 SHAFT WITH DOUBLE SEAL AND OIL CHAMBER | | | | |
| <i>Seal</i> | <i>Shaft</i> | <i>Materials</i> | | |
| <i>Model</i> | <i>Diameter</i> | <i>Stationary ring</i> | <i>Rotational ring</i> | <i>Elastomer</i> |
| STA-12R | Ø 12 mm | Ceramic | Graphite | NBR |
| 10 LIP SEAL | Ø 12 x Ø 19 x H 5 mm | | | |
| 11 BEARINGS | 6201 ZZ / 6201 ZZ | | | |
| 12 CAPACITOR | | | | |
| <i>Pump</i> | <i>Capacitance</i> | | | |
| <i>Single-phase</i> | <i>(230 V or 240 V)</i> | <i>(110 V)</i> | | |
| TOP 2 - VORTEX | 10 µF 450 VL | 16 µF - 250 VL | | |
| TOP 3 - VORTEX | 14 µF 450 VL | 16 µF - 250 VL | | |
| 13 ELECTRIC MOTOR | <p>TOP-VORTEX: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.</p> <ul style="list-style-type: none"> – Insulation: class F – Protection: IP X8 | | | |
| 14 HANDLE ASSEMBLY (resin sealed) | <p>Complete with:</p> <ul style="list-style-type: none"> – 5 metres long "H07 RN-F" power cable with Schuko plug – Float switch (Vertical float switch in the GM versions) | | | |
| 15 HOSE CONNECTOR WITH RING NUT | Hose connection Ø 35 mm | | | |

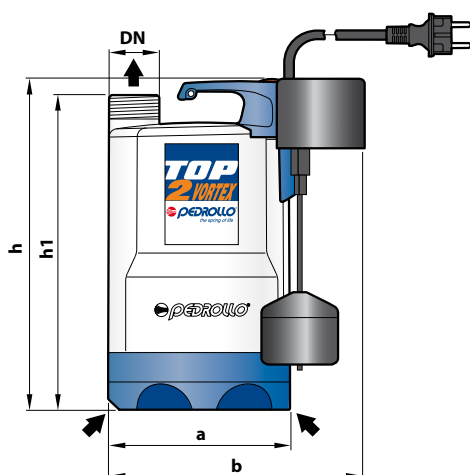


DIMENSIONS AND WEIGHT

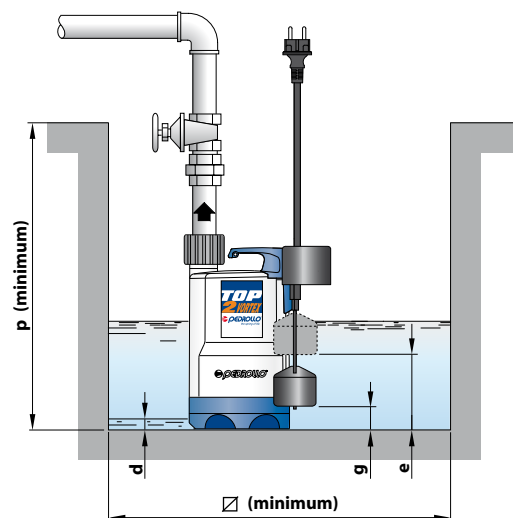


| MODEL | PORT | DIMENSIONS mm | | | | | | | kg |
|----------------|--------|---------------|-----|-----|----|----------|-----|-----|-----|
| | | a | h | h1 | d | e | p | Ø | |
| Single-phase | DN | | | | | | | | |
| TOP 2 - VORTEX | 1 1/4" | 152 | 288 | 268 | 25 | variable | 350 | 350 | 5.2 |
| TOP 3 - VORTEX | | | 318 | 298 | | | | | 6.6 |

Version with vertical float switch



Standard installation



| MODEL | PORT | DIMENSIONS mm | | | | | | | | | kg |
|-------------------|--------|---------------|-----|-----|-----|----|-----|----|-----|-----|-----|
| | | a | b | h | h1 | d | e | g | p | Ø | |
| Single-phase | DN | | | | | | | | | | |
| TOP 2 - VORTEX/GM | 1 1/4" | 152 | 200 | 288 | 268 | 25 | 170 | 40 | 350 | 220 | |
| TOP 3 - VORTEX/GM | | | | 318 | 298 | | 200 | 65 | | | 6.7 |

ABSORPTION

| MODEL | VOLTAGE | | |
|----------------|---------|-------|-------|
| | 230 V | 240 V | 110 V |
| Single-phase | | | |
| TOP 2 - VORTEX | 2.0 A | 1.9 A | 4.0 A |
| TOP 3 - VORTEX | 2.9 A | 2.8 A | 5.8 A |

PALLETIZATION

| MODEL | GROUPAGE | CONTAINER |
|----------------|----------|-----------|
| | n. pumps | n. pumps |
| Single-phase | | |
| TOP 2 - VORTEX | 96 | 144 |
| TOP 3 - VORTEX | 96 | 144 |