

TOP-VORTEX

Submersible pumps

 Dirty water

 Domestic use



PERFORMANCE RANGE

- Flow rate up to **170 l/min** (10.2 m³/h)
- Head up to **8.7 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 25 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



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 25 mm.

PATENTS - TRADE MARKS - MODELS

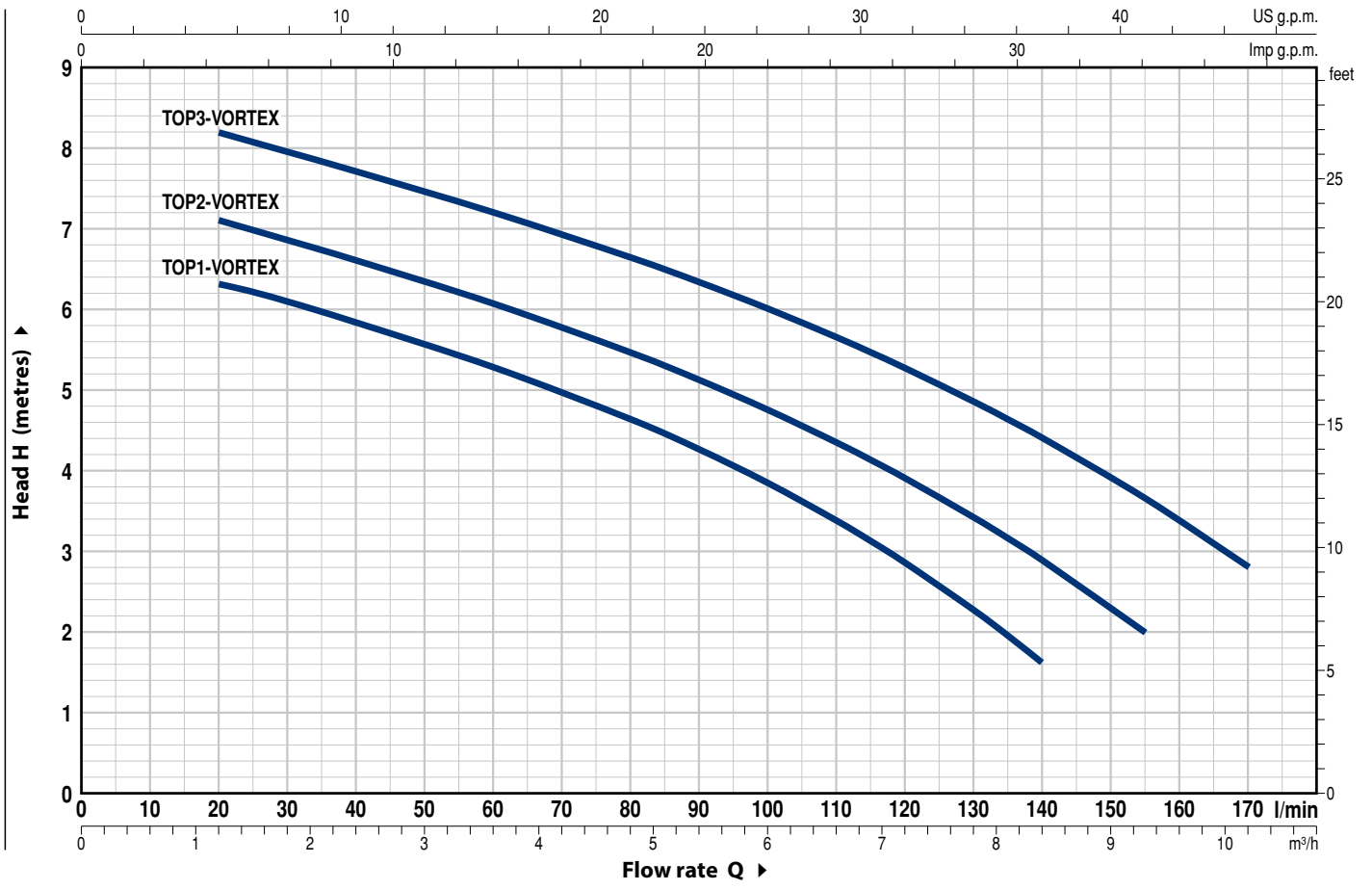
- Patent n. IT0001428923
- Registered EU Design n. 342159-0011

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 min⁻¹



MODEL Single-phase	POWER (P ₂)		Q	Flow rate											
	kW	HP		m ³ /h	0	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.3	10.2	
TOP 1 - VORTEX	0.25	0.33	l/min	0	20	40	60	80	100	120	140	155	170		
TOP 2 - VORTEX	0.37	0.50	H metres	6.9	6.3	5.8	5.3	4.6	3.8	2.8	1.6				
TOP 3 - VORTEX	0.55	0.75		7.6	7.1	6.6	6.1	5.5	4.8	3.9	2.9	2			
				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

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 AISI 431			
9	SHAFT WITH DOUBLE SEAL AND OIL CHAMBER				
	Seal	Shaft	Materials		
	Model	Diameter	Stationary ring	Rotational ring	Elastomer
	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
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12	CAPACITOR		
	Pump	Capacitance	
	<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>
	TOP 1 - VORTEX	10 µF 450 VL	16 µF - 250 VL
	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

TOP-VORTEX: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.

- Insulation: class F
- Protection: IP X8

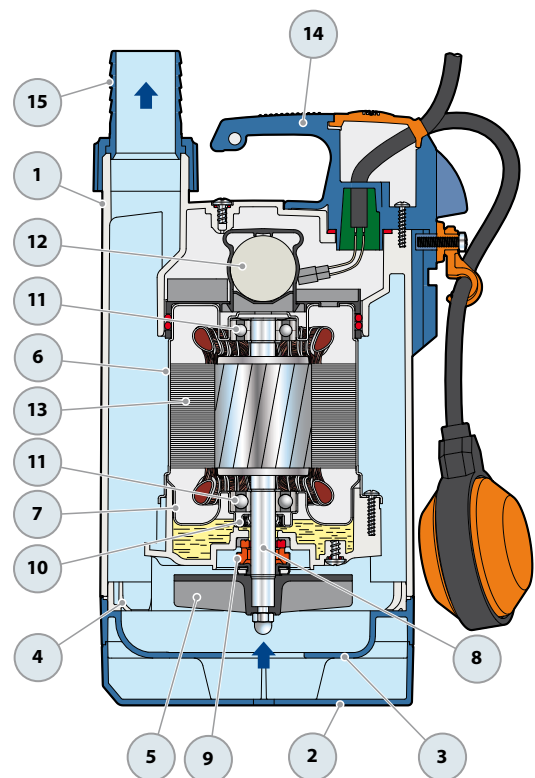
14 HANDLE ASSEMBLY (resin sealed)

Complete with:

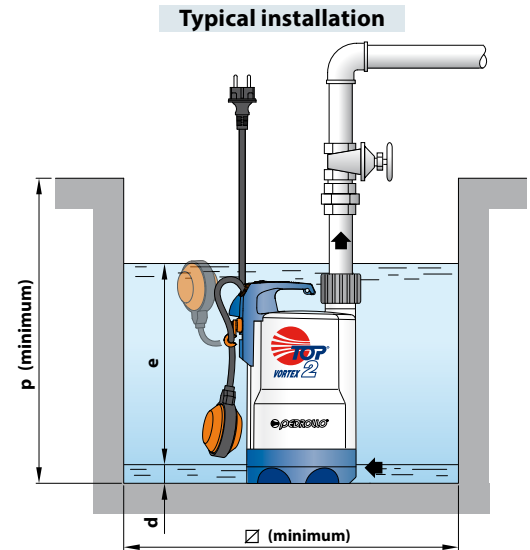
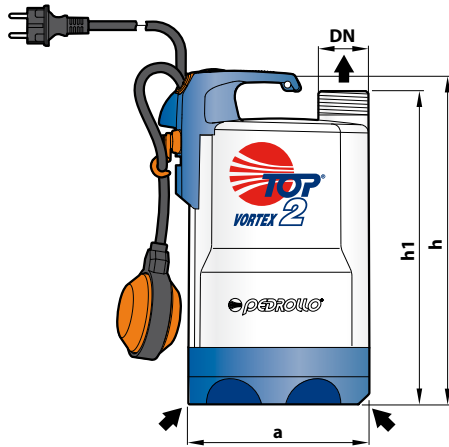
- 5 metres long "H07 RN-F" power cable with Schuko plug
- Float switch (Vertical float switch in the GM versions)

15 HOSE CONNECTOR WITH RING NUT

Hose connection Ø 35 mm

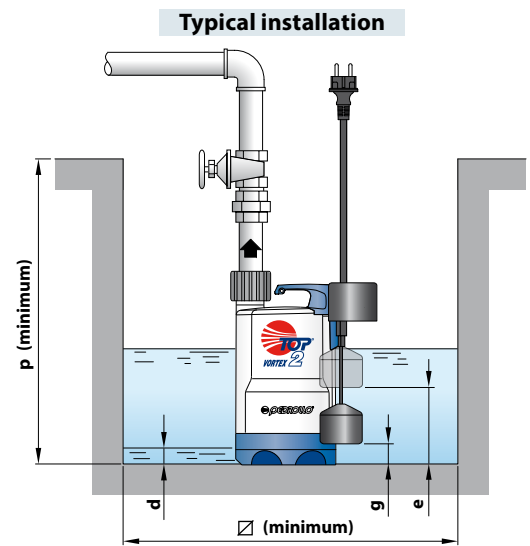
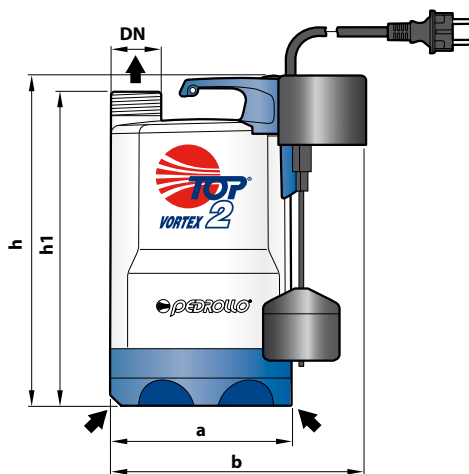


DIMENSIONS AND WEIGHT



MODEL	PORT DN	DIMENSIONS mm							kg
		a	h	h1	d	e	p	Ø	
Single-phase									
TOP 1 - VORTEX	1 1/4"	152	288	268	25	variable	350	350	5.3
TOP 2 - VORTEX			318	298					5.3
TOP 3 - VORTEX									6.7

Version with vertical float switch



MODEL	PORT DN	DIMENSIONS mm									kg
		a	b	h	h1	d	e	g	p	Ø	
Single-phase											
TOP 1 - VORTEX/GM	1 1/4"	152	200	288	268	25	170	40	350	220	5.4
TOP 2 - VORTEX/GM				318	298		200	65			5.4
TOP 3 - VORTEX/GM											6.9

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase			
TOP 1 - VORTEX	1.5 A	1.4 A	3.0 A
TOP 2 - VORTEX	2.0 A	1.9 A	4.0 A
TOP 3 - VORTEX	2.9 A	2.8 A	7.0 A

PALLETIZATION

MODEL	GROUPAGE	CONTAINER
	n. pumps	n. pumps
Single-phase		
TOP 1 - VORTEX	96	120
TOP 2 - VORTEX	96	120
TOP 3 - VORTEX	96	120