

# VXC

## VORTEX submersible pumps

-  Sewage water
-  Domestic use
-  Civil use
-  Industrial use

- ※ An innovative project by Pedrollo's Research and Development department, has resulted in the new VXC, a complete range of extremely robust and reliable electric pumps.
- ※ Thanks to the enhanced oversizing of the oil-bath electric motor, shaft and bearings, the new VXC electric pumps guarantee an unprecedented service life, with high hydraulic performance, low operating costs and easy maintenance. The oil-bath motor also allows continuous operation of the electric pump, even if completely uncovered.
- ※ They are recommended in all installations for pumping waste water with suspended solid bodies up to 65 mm diameter.
- ※ The VXC series is equipped with an extremely reliable and robust VORTEX impeller with low risk of clogging.



### PERFORMANCE RANGE

- Flow rate up to **1250 l/min** (75 m<sup>3</sup>/h)
- Head up to **20 m**

### APPLICATION LIMITS

- **10 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C**
- Passage of solids:
  - up to **Ø 50 mm** for VXC /50-F
  - up to **Ø 65 mm** for VXC /65-F

### CONSTRUCTION AND SAFETY STANDARDS

- **10 m** long power cable
- External float switch and control box for single-phase versions

### INSTALLATION AND USE

The VXC series of pumps, manufactured from heavy gauge robust cast iron, resistant to abrasion and long lasting, are fitted with a VORTEX impeller and therefore suitable for drainage of **refluent water, water mixed with mud, liquids containing air or gas, and putrid muds**. They are recommended for fixed installations, when placed in suitable wells, in sewers, tunnels, wells, underground car parks, etc.

### PATENTS - TRADE MARKS - MODELS

- Patent n° IT0001428923

### OPTIONS AVAILABLE ON REQUEST

- **QES** control box for three-phase pumps
- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

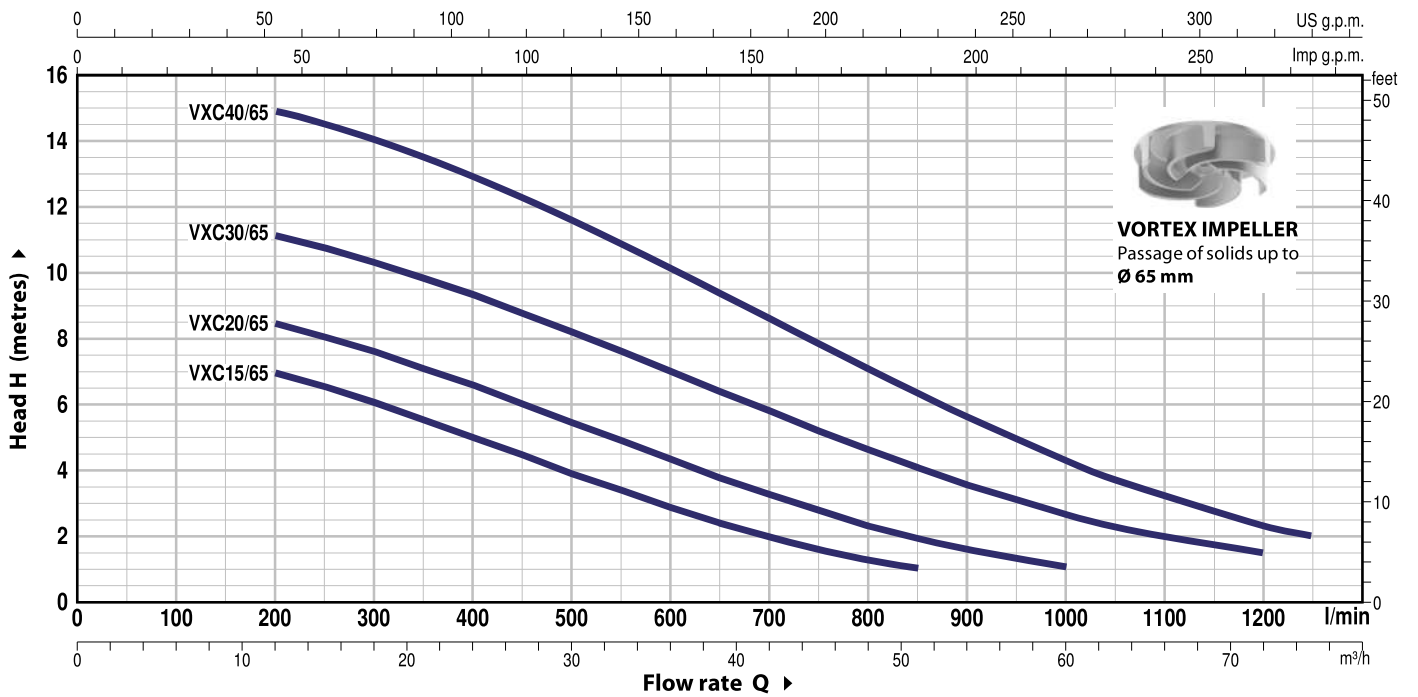
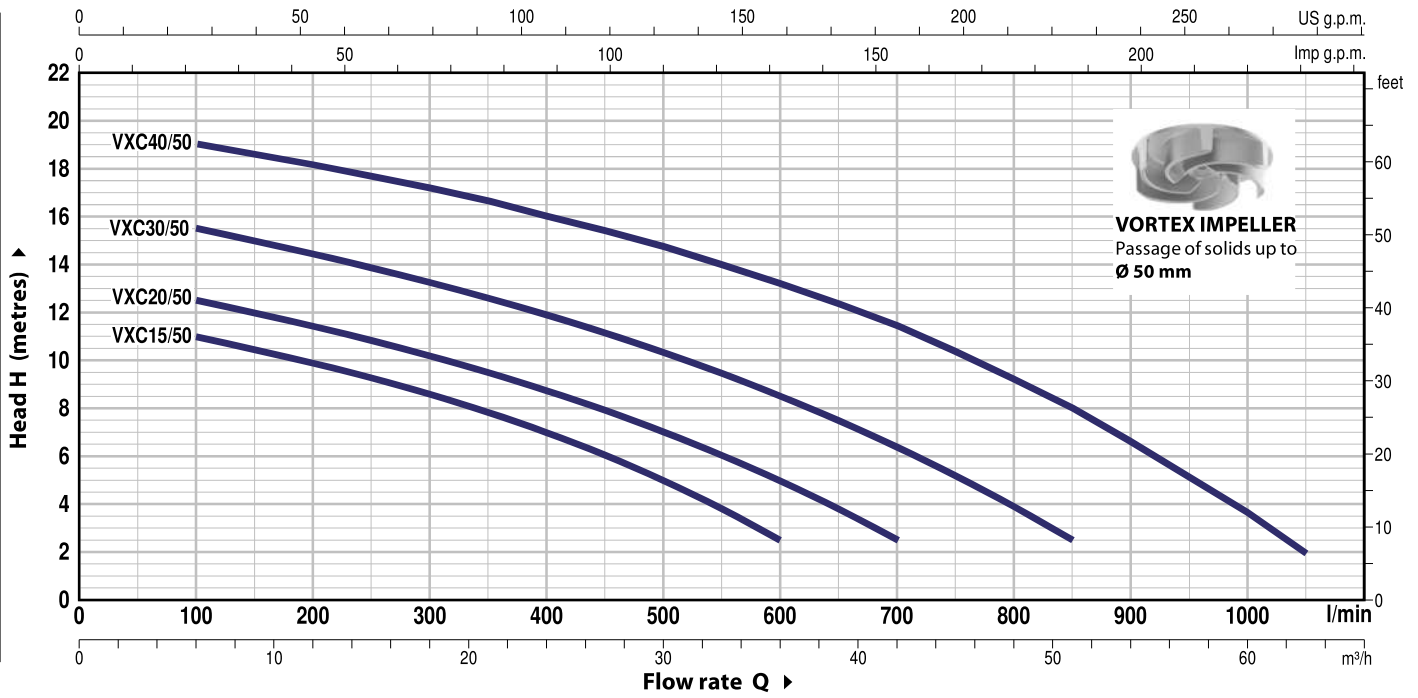
### GUARANTEE

► For the following versions, to validate the guarantee, the built-in thermal overload protector must be connected to the control box:

- three-phase
  - VXC 15-20-30-40/50
  - VXC 15-20-30-40/65

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min<sup>-1</sup>



MODEL		POWER (P <sub>2</sub> )		Q	m <sup>3</sup> /h													
Single-phase	Three-phase	kW	HP		0	6	12	18	24	30	36	42	51	60	63	72	75	
				l/min	0	100	200	300	400	500	600	700	850	1000	1050	1200	1250	
VXCm 15/50	VXC 15/50	1.1	1.5	H metres	12.0	11.0	9.9	8.6	7.0	5.0	2.5							
VXCm 20/50	VXC 20/50	1.5	2		13.5	12.5	11.4	10.2	8.7	7.0	5.0	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		20.0	19.0	18.1	17.1	16.0	14.7	13.2	11.4	8.0	3.6	2.0			
VXCm 15/65	VXC 15/65	1.1	1.5	8.0	-	7.0	6.0	5.0	3.9	2.8	2.0	1.0						
VXCm 20/65	VXC 20/65	1.5	2	9.5	-	8.5	7.6	6.6	5.4	4.3	3.3	2.0	1.0					
VXCm 30/65	VXC 30/65	2.2	3	12.0	-	11.1	10.3	9.3	8.2	7.0	5.8	4.1	2.6	2.3	1.5			
-	VXC 40/65	3	4	15.5	-	15.0	14.0	13.0	11.6	10.1	8.6	6.3	4.3	3.7	2.3	2.0		

Q = Flow rate H = Total manometric head

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

## POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	<b>PUMP BODY</b>	Cast iron with an Epoxy Electro Coating treatment, with threaded ports in compliance with ISO 228/1
2	<b>IMPELLER</b>	Precision cast stainless steel AISI 304 VORTEX type
3	<b>MOTOR CASING</b>	Cast iron with an Epoxy Electro Coating treatment
4	<b>MOTOR CASING PLATE</b>	Cast iron with an Epoxy Electro Coating treatment
5	<b>MOTOR SHAFT</b>	Stainless steel AISI 431

### 6 TWO MECHANICAL SEALS SEPARATED BY AN OIL CHAMBER

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
STA-22	Ø 22 mm	Motor side	Ceramic	Graphite	NBR
STA-20	Ø 20 mm	Pump side	Silicon carbide	Silicon carbide	NBR

### 7 BEARINGS 6305 CM D 6 / 6204 ZZ - C3

### 8 ELECTRIC MOTOR

**VXCm 15-20-30:** single-phase 230 V - 50 Hz  
with thermal overload protector incorporated into the winding

**VXC:** three-phase 400 V - 50 Hz.  
with thermal overload protector incorporated into the winding to be connected to the control box (supplied on demand)

- Insulation: class F
- Protection: IP X8

### 9 POWER CABLE

10 metres long "H07 RN-F" cable

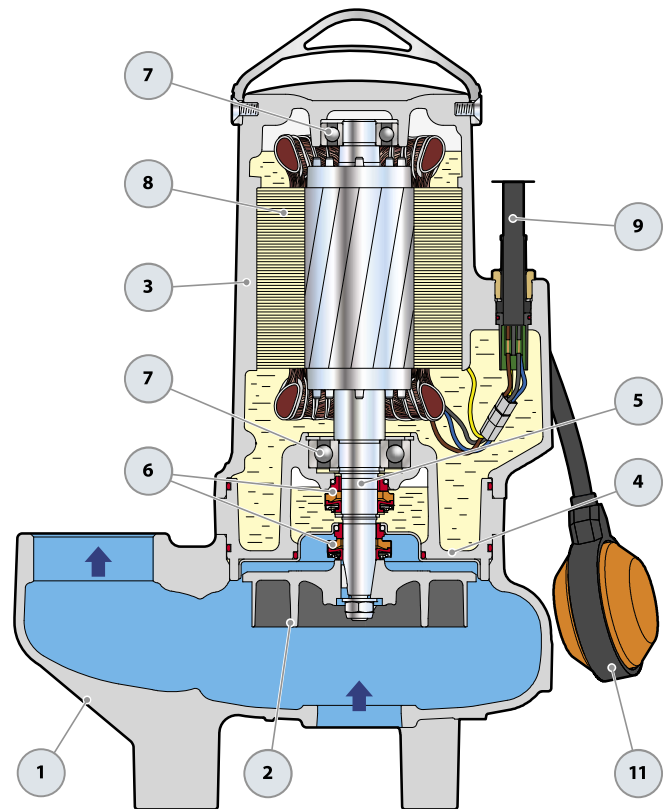
### 10 CONTROL BOX for VXCm 15-20-30

(only for single-phase versions)

Complete with capacitor and manual reset motor protector

### 11 FLOAT SWITCH

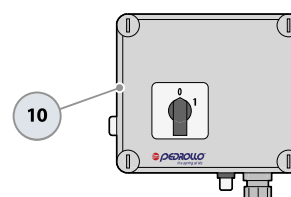
(only for single-phase versions)



### OPTIONAL – Supporting Base

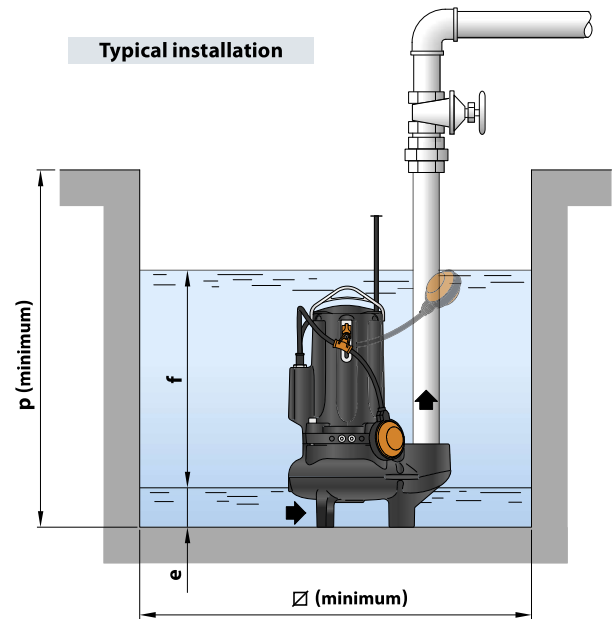
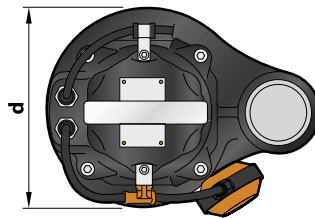
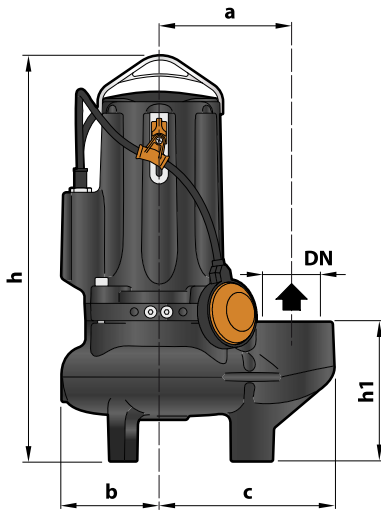


### Standard features



Control box  
(only for single-phase versions)

## DIMENSIONS AND WEIGHT



MODEL		PORT DN	Passage of solids mm	DIMENSIONS mm										kg	
Single-phase	Three-phase			a	b	c	h	h1	d	e	f	p	Ø	1~	3~
VXCm 15/50	VXC 15/50	2½"	Ø 50	162	119	212	487	167	242	75	variable	800	800	42.0	40.5
VXCm 20/50	VXC 20/50						513   487							43.0	42.0
VXCm 30/50	VXC 30/50						513							48.0	43.0
-	VXC 40/50													-	48.0
VXCm 15/65	VXC 15/65	3"	Ø 65	180	120	240	521	201	246	85	variable	800	800	44.0	42.5
VXCm 20/65	VXC 20/65						547   521							45.0	44.0
VXCm 30/65	VXC 30/65						547							50.0	45.0
-	VXC 40/65													-	50.0

## ABSORPTION AND CAPACITORS

MODEL	VOLTAGE	
Single-phase	230 V	240 V
VXCm 15/50	8.5 A	8.1 A
VXCm 20/50	9.0 A	8.6 A
VXCm 30/50	12.0 A	11.5 A
VXCm 15/65	8.5 A	8.1 A
VXCm 20/65	9.0 A	8.6 A
VXCm 30/65	12.0 A	11.5 A

MODEL	VOLTAGE		
Three-phase	230-240 V	400-415 V	690-720 V
VXC 15/50	5.9 A	3.4 A	2.0 A
VXC 20/50	6.4 A	3.7 A	2.1 A
VXC 30/50	8.7 A	5.0 A	2.9 A
VXC 40/50	10.7 A	6.2 A	3.5 A
VXC 15/65	5.9 A	3.4 A	2.0 A
VXC 20/65	6.4 A	3.7 A	2.1 A
VXC 30/65	8.7 A	5.0 A	2.9 A
VXC 40/65	10.7 A	6.2 A	3.6 A

MODEL	CAPACITANCE CAPACITORS
Single-phase	(230 V o 240 V)
VXCm 15/50 VXCm 15/65	50 µF 450 VL
VXCm 20/50 VXCm 20/65	50 µF 450 VL
VXCm 30/50 VXCm 30/65	60 µF 450 VL