

## Submersible pumps

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



### PERFORMANCE RANGE

- Flow rate up to **1200 l/min** (72 m<sup>3</sup>/h)
- Head up to **16 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
  - up to **Ø 70 mm** for VXC /70
- Minimum immersion depth for continuous service:
  - **390 mm** for VXC /50
  - **430 mm** for VXC /70

### CONSTRUCTION AND SAFETY STANDARDS

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

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 **VXC** series of pumps, manufactured from heavy gauge robust cast iron, resistant to abrasion and long-lasting, are fitted with a VORTEX impeller and are therefore suitable for draining **dirty, sewage and reflux water, and water mixed with putrid mud**. They are suitable for installation in sewers, tunnels, excavations, canals, underground car parks, etc.

### PATENTS - TRADE MARKS - MODELS

- Patent n. IT0001428923
- Registered EU Design n. 342159-0017

### OPTIONS AVAILABLE ON REQUEST

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

### GUARANTEE

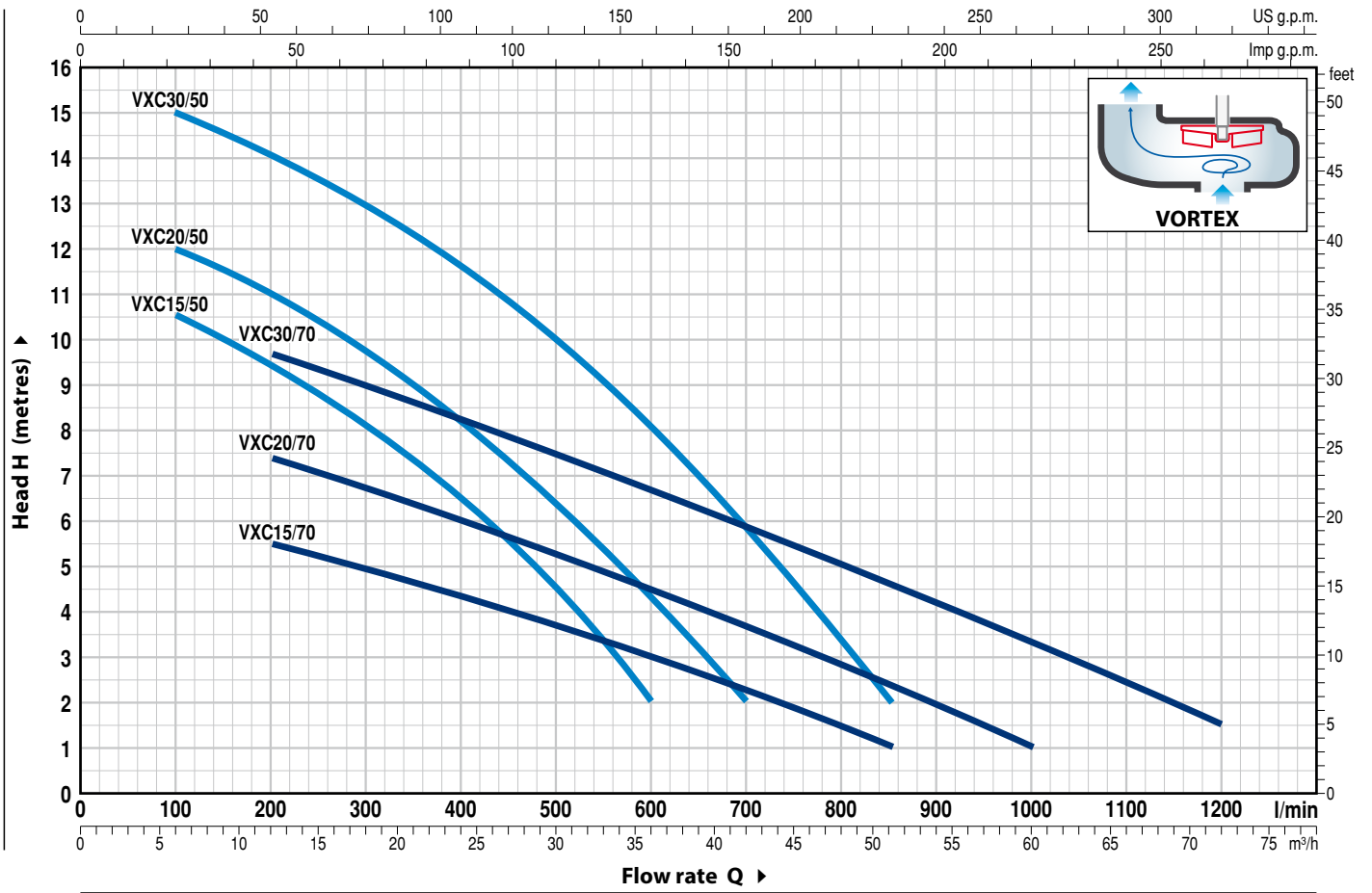
➔ **For the following versions the incorporated thermal overload protector must be connected to the control box for the guarantee to be considered valid:**

single-phase  
– VXCm 30/50  
– VXCm 30/70

three-phase  
– VXC 15-20-30/50  
– VXC 15-20-30/70

### CHARACTERISTIC CURVES AND PERFORMANCE DATA

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



MODEL		POWER (P <sub>2</sub> )		Q	H metres																
Single-phase	Three-phase	kW	HP		m <sup>3</sup> /h	0	6	12	18	21	24	30	36	42	48	51	54	60	66	72	
				l/min	0	100	200	300	350	400	500	600	700	800	850	900	1000	1100	1200		
VXCm 15/50	VXC 15/50	1.1	1.5	H metres	11.5	10.5	9.5	8.2	7.2	6.5	4.5	2									
VXCm 20/50	VXC 20/50	1.5	2		13	12	11	9.5	9	8	6.5	4.5	2								
VXCm 30/50	VXC 30/50	2.2	3		16	15	14	13	12.3	11.5	10	8	5.9	3.3	2						
VXCm 15/70	VXC 15/70	1.1	1.5		6.5	-	5.5	5	4.7	4.4	3.7	3	2.2	1.5	1						
VXCm 20/70	VXC 20/70	1.5	2		8.5	-	7.4	6.7	6.3	6	5.2	4.5	3.6	2.8	2.4	2	1				
VXCm 30/70	VXC 30/70	2.2	3		11	-	9.7	9	8.6	8.2	7.5	6.7	5.8	5	4.6	4.2	3.3	2.5	1.5		

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 threaded port in compliance with ISO 228/1
2	<b>BASE</b>	Stainless steel AISI 304
3	<b>IMPELLER</b>	VORTEX type in cast iron with an Epoxy Electro Coating treatment
4	<b>MOTOR CASING</b>	Cast iron
5	<b>MOTOR CASING PLATE</b>	Cast iron
6	<b>MOTOR SHAFT</b>	Stainless steel AISI 431

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

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
STA-20	Ø 20 mm	Motor side	Ceramic	Graphite	NBR
STA-19	Ø 19 mm	Pump side	Silicon carbide	Silicon carbide	NBR

### 8 BEARINGS 6304 ZZ - C3 / 6304 ZZ - C3

### 9 CAPACITOR

Pump Single-phase	Capacitance (230 V or 240 V)
VXCm 15/50	31.5 µF 450 VL
VXCm 15/70	
VXCm 20/50	50 µF 450 VL
VXCm 20/70	
VXCm 30/50	60 µF 450 VL
VXCm 30/70	

### 10 ELECTRIC MOTOR

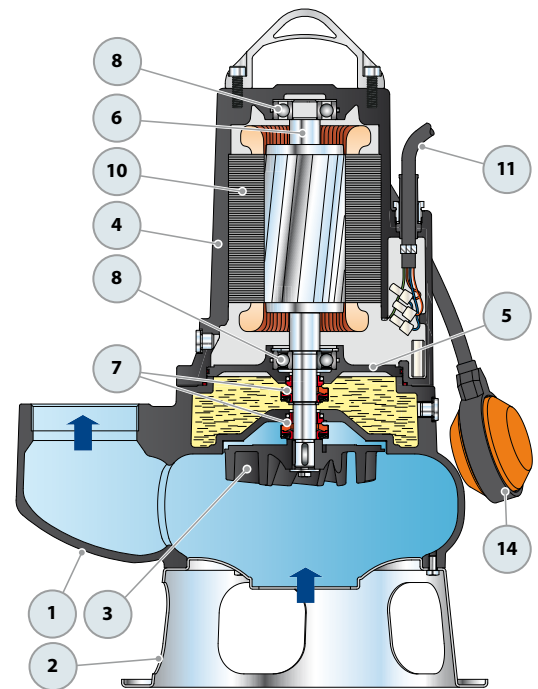
**VXCm 15-20:** single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding

⇒ **VXCm 30:** single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding to be connected to the control box

⇒ **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



### 11 POWER CABLE

10 metres long "H07 RN-F" cable

### 12 CONTROL BOX for VXCm 15-20

(only for single-phase versions)

Complete with capacitor and manual reset motor protector

### 13 CONTROL BOX for VXCm 30

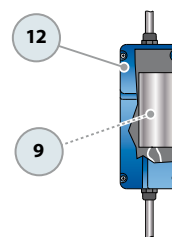
(only for single-phase versions)

QES 300 MONO series

### 14 FLOAT SWITCH

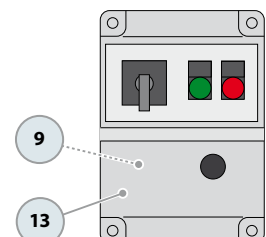
(only for single-phase versions)

#### Standard features



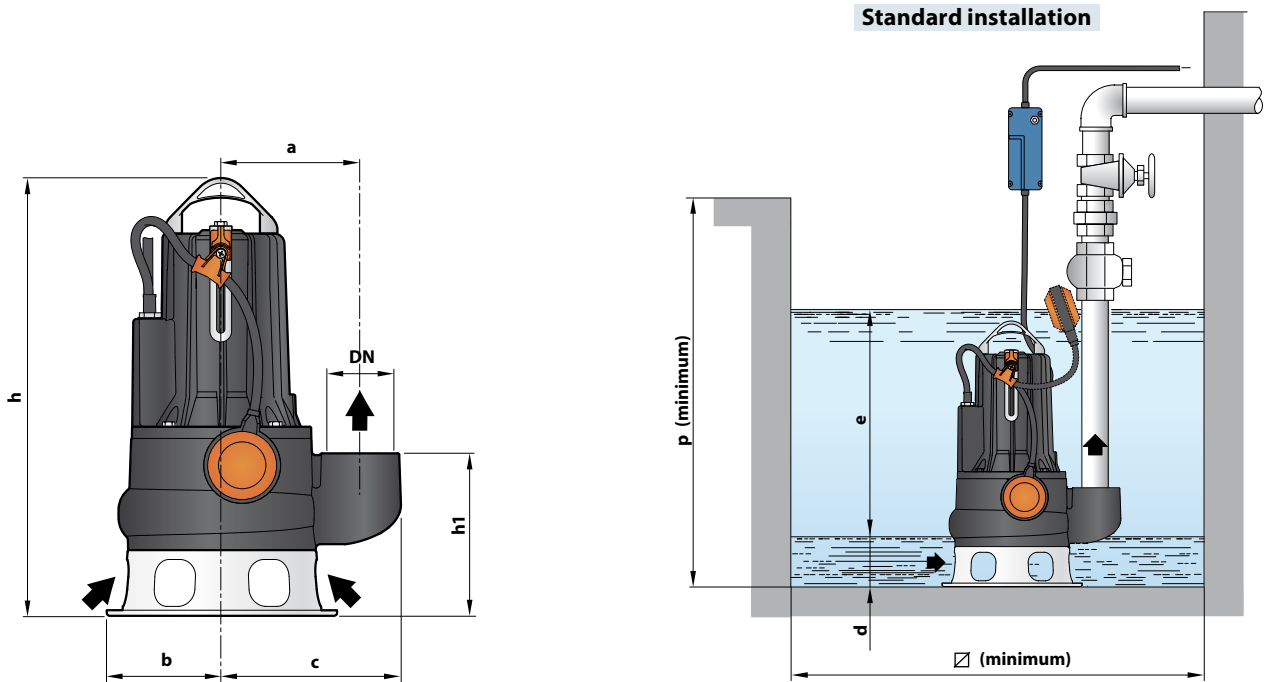
Control box for VXCm 15-20 (only for single-phase versions)

#### Standard features



Control box for VXCm 30 (only for single-phase versions)

## DIMENSIONS AND WEIGHT



MODEL		PORT DN	Passage of solids	DIMENSIONS mm									kg	
Single-phase	Three-phase			a	b	c	h	h1	d	e	p	Ø	1~	3~
VXCm 15/50	VXC 15/50	2½"	Ø 50 mm	162	135	210	517	191	75	variable	800	800	36.9	3.8
VXCm 20/50	VXC 20/50						537/524						38.4	36.7
VXCm 30/50	VXC 30/50						537/524						41.8	39.0
VXCm 15/70	VXC 15/70	3"	Ø 70 mm	180	150	237	556	233	85	variable	800	800	40.1	37.9
VXCm 20/70	VXC 20/70						577/556						40.7	38.7
VXCm 30/70	VXC 30/70						577/556						45.0	42.0

## ABSORPTION

MODEL	VOLTAGE	
	230 V	240 V
<b>Single-phase</b>		
VXCm 15/50	8.8 A	8.8 A
VXCm 20/50	10.2 A	10.2 A
VXCm 30/50	15.6 A	15.6 A
VXCm 15/70	8.7 A	8.3 A
VXCm 20/70	10.0 A	9.6 A
VXCm 30/70	15.0 A	15.0 A

MODEL	VOLTAGE		
	230-240 V	400-415 V	690-720 V
<b>Three-phase</b>			
VXC 15/50	5.9 A	3.4 A	2.0 A
VXC 20/50	7.3 A	4.2 A	2.4 A
VXC 30/50	9.9 A	5.7 A	3.3 A
VXC 15/70	5.7 A	3.3 A	1.9 A
VXC 20/70	7.3 A	4.2 A	2.4 A
VXC 30/70	9.5 A	5.5 A	3.2 A

## PALLETIZATION

MODEL		GROUPAGE n. pumps
Single-phase	Three-phase	
VXCm 15/50	VXC 15/50	16
VXCm 20/50	VXC 20/50	16
VXCm 30/50	VXC 30/50	16
VXCm 15/70	VXC 15/70	12
VXCm 20/70	VXC 20/70	12
VXCm 30/70	VXC 30/70	12