



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 m<sup>3</sup>/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

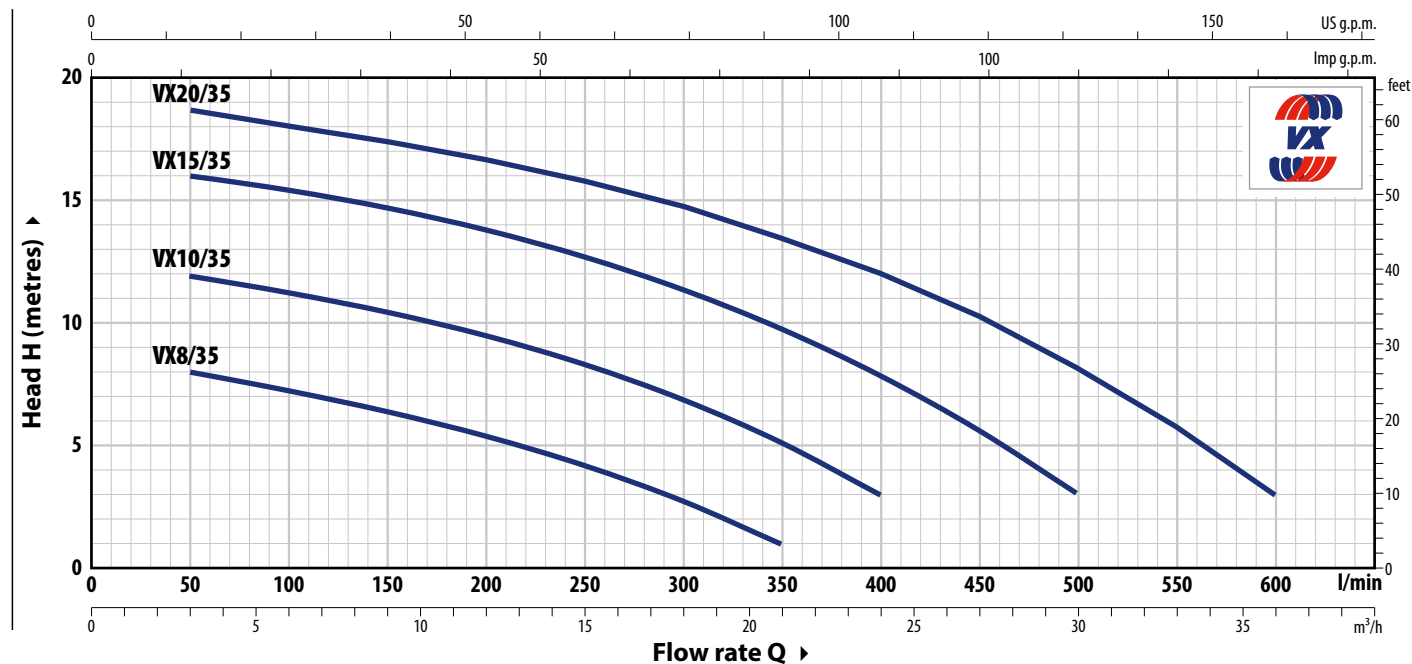
- ※ Pumps with **10 m** power cable for VX 8 and VX 10
- ※ Different voltage or frequency

#### PATENTS - TRADE MARKS - MODELS

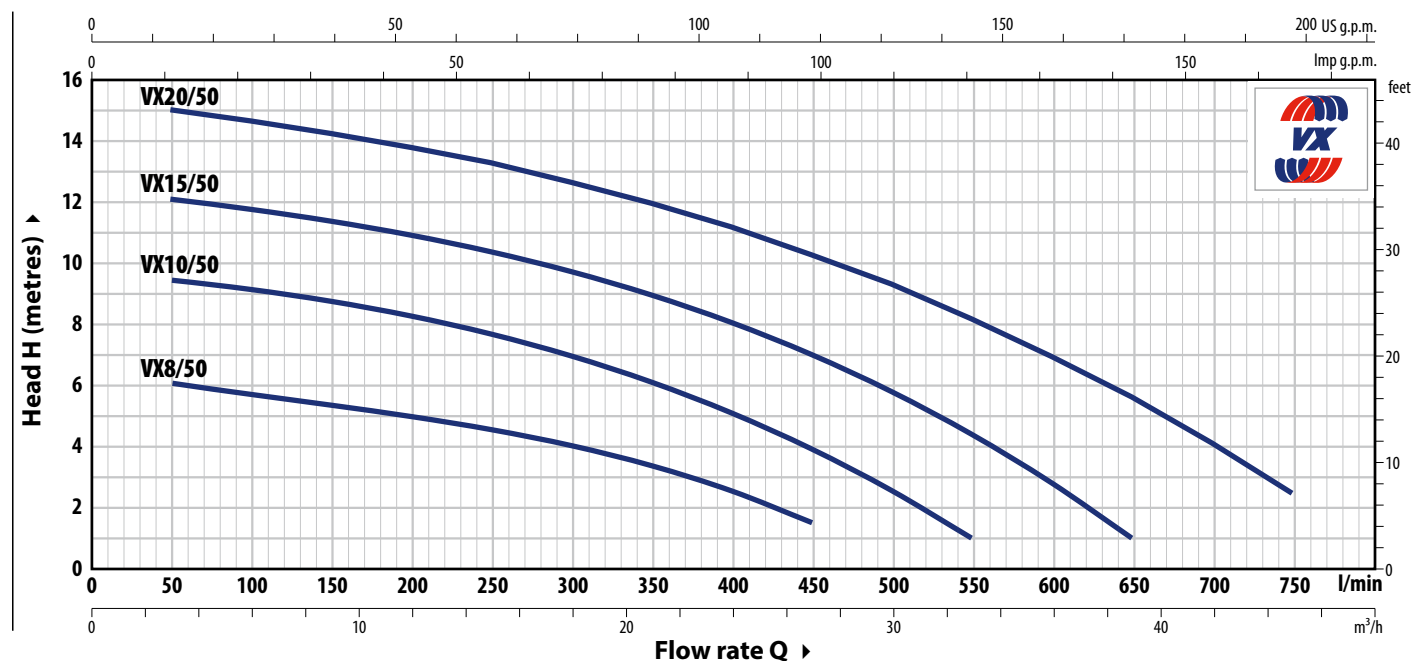
- Patent No. EP2313658
- Patent No. IT0001428923

## CURVES AND PERFORMANCE DATA

**60 Hz**



| TYPE         |             | POWER (P <sub>2</sub> ) |      | Q        | m³/h |      |      |      |      |      |     |      |     |     |     |  |  |  |
|--------------|-------------|-------------------------|------|----------|------|------|------|------|------|------|-----|------|-----|-----|-----|--|--|--|
| Single-phase | Three-phase | kW                      | HP   |          | 0    | 3    | 6    | 12   | 18   | 21   | 24  | 27   | 30  | 33  | 36  |  |  |  |
|              |             |                         |      |          | 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 (P <sub>2</sub> ) |      | Q        | m³/h |     |      |      |      |      |      |      |     |     |     |     |     |  |
|--------------|-------------|-------------------------|------|----------|------|-----|------|------|------|------|------|------|-----|-----|-----|-----|-----|--|
| Single-phase | Three-phase | kW                      | HP   |          | 0    | 3   | 6    | 12   | 18   | 21   | 24   | 27   | 30  | 33  | 36  | 39  | 45  |  |
|              |             |                         |      |          | 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

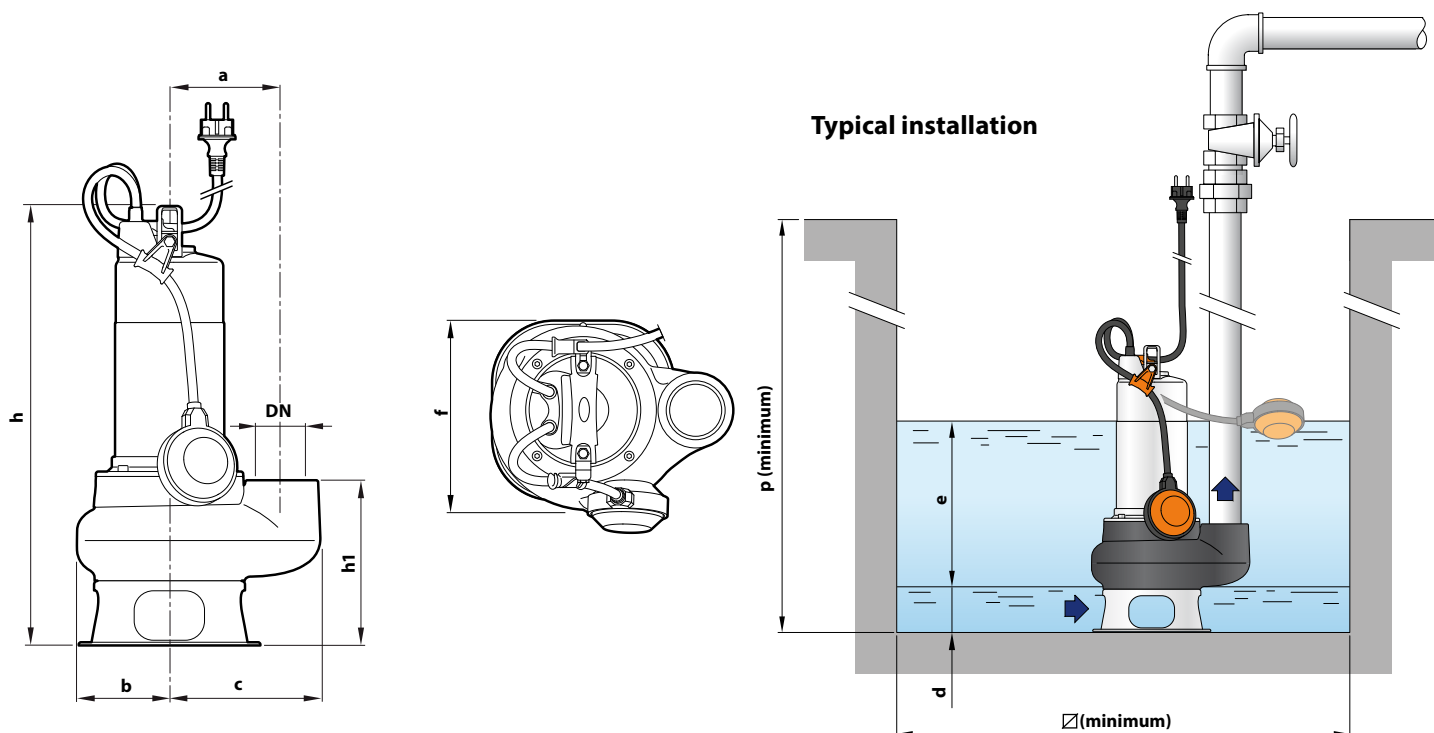
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## ABSORPTION

| TYPE         | VOLTAGE |        |
|--------------|---------|--------|
|              | 220 V   | 110 V  |
| Single-phase |         |        |
| 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 |       |
|-------------|---------|-------|
|             | 380 V   | 440 V |
| Three-phase |         |       |
| 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



| TYPE         |             | PORT<br>DN | Passage of<br>solid bodies | DIMENSIONS mm |    |     |     |     |     |    |            |     |     | kg   |      |
|--------------|-------------|------------|----------------------------|---------------|----|-----|-----|-----|-----|----|------------|-----|-----|------|------|
| Single-phase | Three-phase |            |                            | a             | b  | c   | f   | h   | h1  | d  | e          | p   | Ø   | 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 | adjustable | 500 | 500 | 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<br>n. pumps | CONTAINER<br>n. pumps |
|--------------|-------------|----------------------|-----------------------|
| Single-phase | Three-phase |                      |                       |
| 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 <b>AISI 304</b>                                                                     |            |                                     |
| 3  | Impeller                                                                                                                                                         | VORTEX type in <b>AISI 304</b> stainless steel.                                                     |            |                                     |
| 4  | Motor sleeve                                                                                                                                                     | Stainless steel <b>AISI 304</b>                                                                     |            |                                     |
| 5  | Motor cover                                                                                                                                                      | <b>AISI 304</b> stainless steel for VX 8-10<br>Cast iron with cataphoresis treatment for VX 15-20   |            |                                     |
| 6  | Motor shaft                                                                                                                                                      | Stainless steel <b>AISI 431</b>                                                                     |            |                                     |
| 7  | Double mechanical seal in oil chamber                                                                                                                            |                                                                                                     |            |                                     |
|    | Seal                                                                                                                                                             | Shaft                                                                                               | Location   | Materials                           |
|    | <b>MG1-14D SIC</b>                                                                                                                                               | 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                                                                                                                                                   |                                                                                                     |            |                                     |
|    | <b>VXm:</b> single-phase 220 V - 60 Hz or 110 V - 60 Hz with winding integrated thermal motor protection                                                         |                                                                                                     |            |                                     |
|    | <b>VX:</b> 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<br>(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<br>(exclusive to single-phase models)<br>Patent No. IT0001428923                                                              |                                                                                                     |            |                                     |
| 13 | Power cable strain relief<br>Patent No. EP2313658                                                                                                                |                                                                                                     |            |                                     |

The diagram illustrates the internal components of a submersible pump. At the bottom, the impeller (3) is mounted on the motor shaft (6). Above the shaft is a double mechanical seal (7) with two sets of silicon carbide and graphite/NBR seals. The motor sleeve (4) surrounds the shaft. The motor cover (5) is at the top of the motor assembly. The capacitor (8) is connected to the motor. The power cord (10) enters the pump through a strain relief (13) and a grommet (12). The pump body (1) is at the bottom, and the base (2) is at the top. The float switch (11) is connected to the power cord. The tilting device (12) is used to adjust the float switch. The motor cover (5) is shown in a cutaway view, revealing the internal motor components.

