

RX-VORTEX

Submersible pumps

 Dirty water

 Domestic use

 Civil use



PERFORMANCE RANGE

- Flow rate up to **380 l/min** (22.8 m³/h)
- Head up to **13 m**

APPLICATION LIMITS

- **10 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+50 °C** (Maximum liquid temperature +90 °C for a maximum of 3 minutes intermittent service)
- Passage of solids:
 - up to **Ø 20 mm** for RX 2/20, RX 3/20
 - up to **Ø 40 mm** for RX 4/40, RX 5/40
- Suction level:
 - **25 mm** above ground level for RX 2/20, RX 3/20
 - **50 mm** above ground level for RX 4/40, RX 5/40
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

The pumps are complete with:

- **5 m** long power cable for RX 2/20, RX 3/20
- **10 m** long power cable for RX 4/40, RX 5/40
- float switch 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 **RX-VORTEX** series pumps are suitable for use with **dirty water**. The design solutions that have been adopted, such as the complete cooling of the motor, guarantee the reliability of the pump. They are suitable for use in domestic applications such as for discharging dirty water containing suspended solids.

PATENTS - TRADE MARKS - MODELS

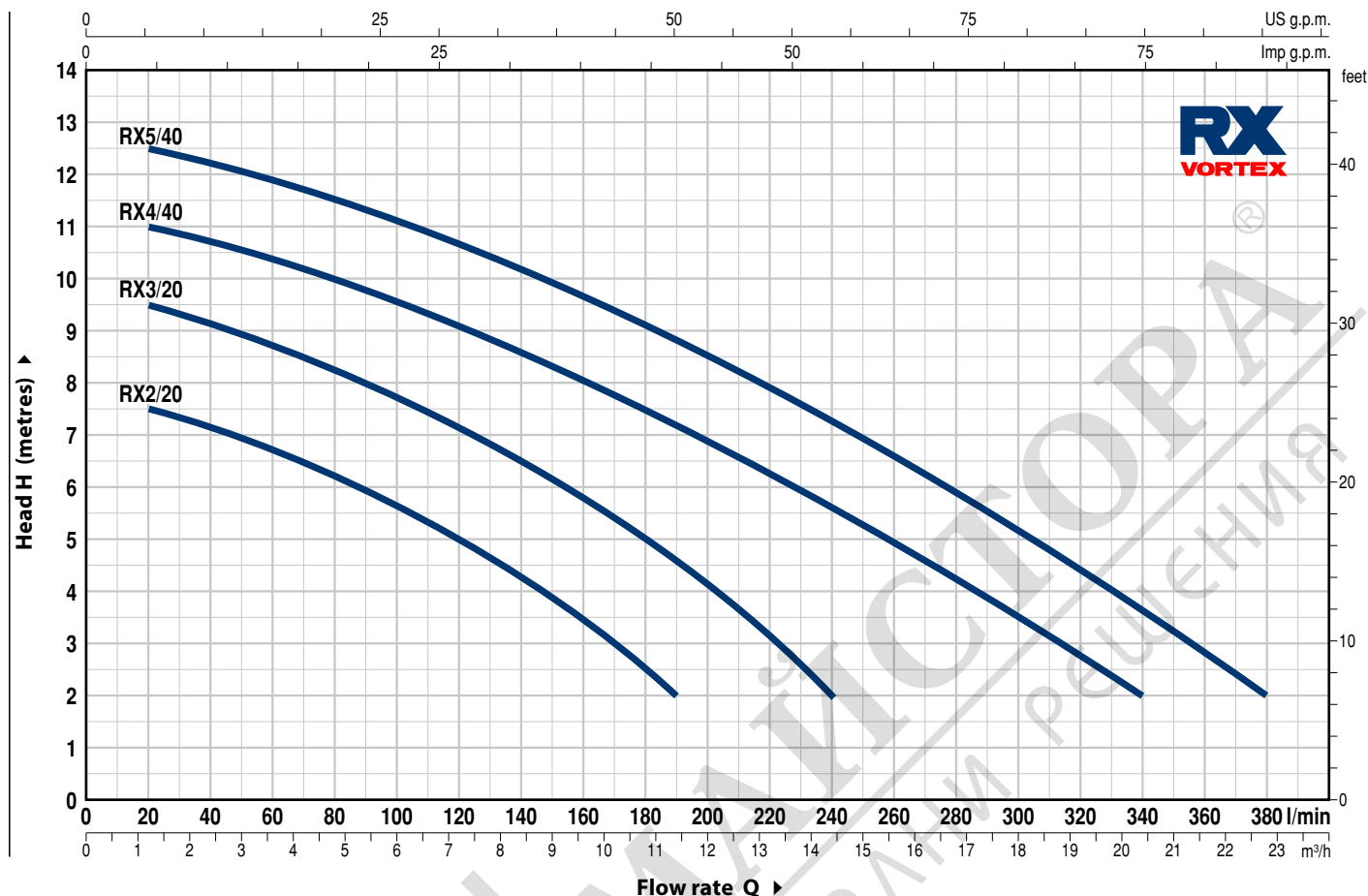
- Patent n. EP2313658
- Patent n. IT0001428923

OPTIONS AVAILABLE ON REQUEST

- **"RX-VORTEX GM"** pumps with a vertical float switch (suitable for particularly small wells)
- Special mechanical seal
- RX 2-3/20 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
- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min⁻¹



MODEL		POWER (P ₂)		Q	Flow rate (l/min)																
Single-phase	Three-phase	kW	HP		0	1.2	2.4	3.6	4.8	6	7.2	8.4	9.6	11.4	13.2	14.4	20.4	22.8			
RXm 2/20	RX 2/20	0.37	0.50	H metres	0	20	40	60	80	100	120	140	160	190	220	240	340	380			
RXm 3/20	RX 3/20	0.55	0.75		8	7.5	7.1	6.7	6.2	5.7	5	4.3	3.4	2							
RXm 4/40	RX 4/40	0.75	1		10	9.5	9.1	8.7	8.2	7.7	7.1	6.5	5.8	4.6	3.2	2					
RXm 5/40	RX 5/40	1.1	1.5		11.2	11	10.7	10.4	10	9.5	9	8.5	8	7.1	6.2	5.6	2				
					13	12.5	12.2	11.9	11.5	11.1	10.6	10.1	9.6	8.8	7.9	7.3	3.6	2			

Q = Flow rate H = Total manometric head

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



POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Stainless steel AISI 304 with threaded port in compliance with ISO 228/1
2	SUCTION FILTER	Stainless steel AISI 304
3	DIFFUSER	Stainless steel AISI 304
4	IMPELLER	Stainless steel AISI 304 VORTEX type
5	MOTOR CASING	Stainless steel AISI 304
6	MOTOR CASING PLATE	Stainless steel AISI 304
7	MOTOR SHAFT	Stainless steel AISI 431

8 SHAFT WITH DOUBLE SEAL AND OIL CHAMBER

<i>Seal</i>	<i>Shaft</i>	<i>Materials</i>		
		<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
STA-12R SIC	Ø 12 mm	Ceramic	Silicon carbide	NBR

9 LIP SEAL Ø 12 x Ø 19 x H 5 mm

10 BEARINGS 6201 ZZ / 6201 ZZ

11 CAPACITOR

<i>Pump</i>	<i>Capacitance</i>	
<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>
RXm 2/20	10 µF 450 VL	16 µF - 250 VL
RXm 3/20	14 µF 450 VL	16 µF - 250 VL

12 ELECTRIC MOTOR

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

RX: three-phase 400 V - 50 Hz

- Insulation: class F
- Protection: IP X8

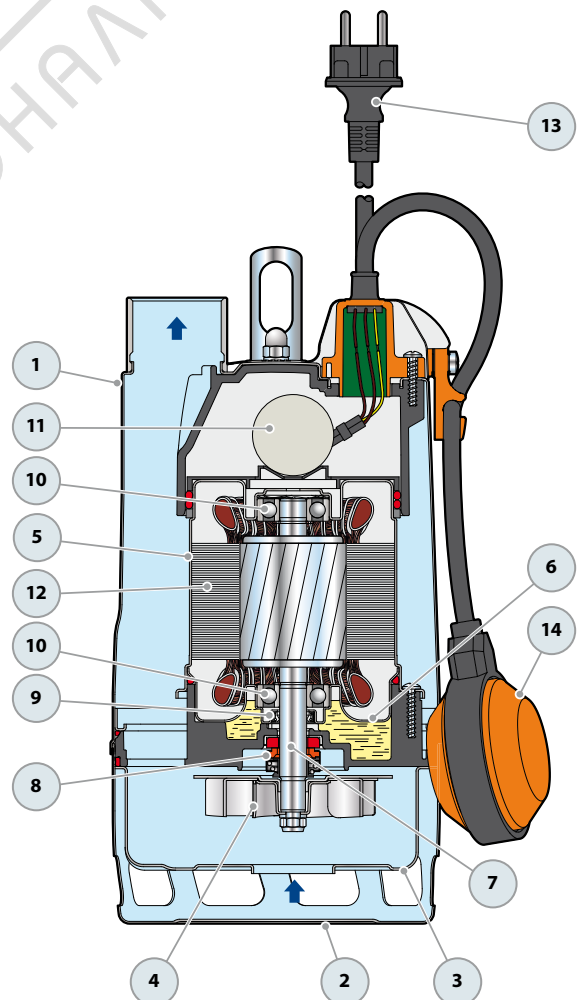
13 POWER CABLE

"H07 RN-F" type
(with Schuko plug for single-phase versions only)

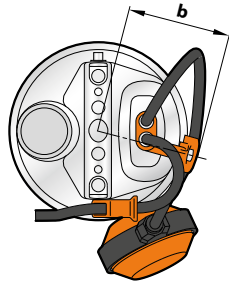
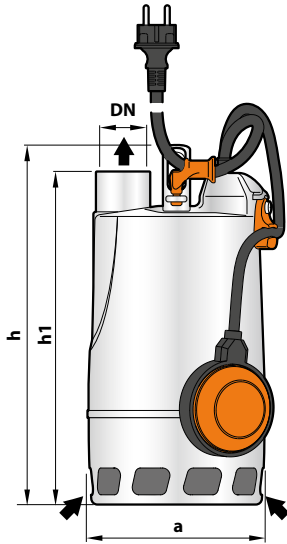
Standard length 5 metres

14 FLOAT SWITCH

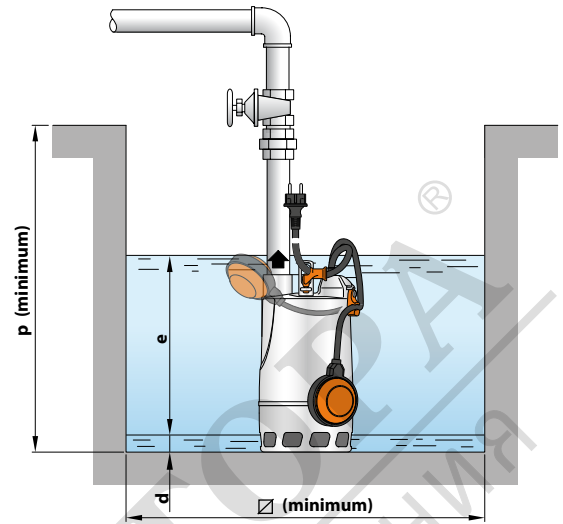
(Only for single-phase versions)



DIMENSIONS AND WEIGHT

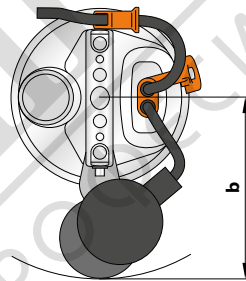
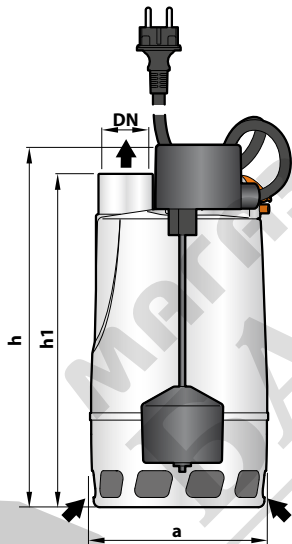


Standard installation

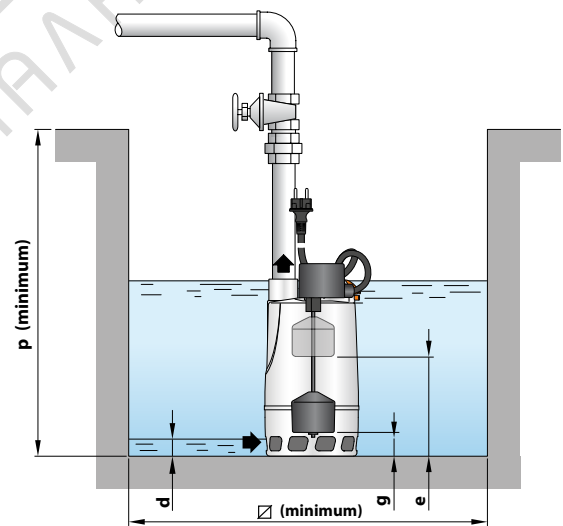


MODEL		PORT	DIMENSIONS mm								kg		PALLETIZATION	
Single-phase	Three-phase	DN	a	b	h	h1	d	e	p	Ø	1~	3~	GROUPAGE n. pumps	CONTAINER n. pumps
RXm 2/20	RX 2/20	1 1/4"	147	83	302	278	25	variable	350	350	6.2	5.8	96	144
RXm 3/20	RX 3/20				330	308					7.3	7.0	96	144

Version with vertical float switch



Standard installation



MODEL	PORT	DIMENSIONS mm									kg	PALLETIZATION	
Single-phase	DN	a	b	h	h1	d	e	g	p	Ø	1~	GROUPAGE n. pumps	CONTAINER n. pumps
RXm 2/20-GM	1 1/4"	147	150	300	278	25	180	50	350	240	6.3	96	144
RXm 3/20-GM				335	308		210	80			7.9	96	144

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
RXm 2/20	2.6 A	2.5 A	5.2 A
RXm 3/20	3.5 A	3.4 A	6.4 A

MODEL	VOLTAGE			
Three-phase	230 V	400 V	240 V	415 V
RX 2/20	1.9 A	1.1 A	1.9 A	1.1 A
RX 3/20	2.9 A	1.7 A	2.8 A	1.6 A

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

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5	MOTOR CASING	Stainless steel AISI 304				
6	MOTOR CASING PLATE	Stainless steel AISI 304				
7	MOTOR SHAFT	Stainless steel AISI 431				
8	SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER					
	<i>Seal</i>	<i>Shaft</i>	<i>Position</i>	<i>Materials</i>		
	<i>Model</i>	<i>Diameter</i>		<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
	MG1-14D SIC	Ø 14 mm	Motor side Pump side	Silicon carbide Silicon carbide	Graphite Silicon carbide	NBR NBR

9	BEARINGS	6203 ZZ-C3E / 6203 ZZ-C3E				
	CAPACITOR					
	<i>Pump</i>	<i>Capacitance</i>				
10	<i>Single-phase</i>	<i>(230 V or 240 V)</i>				
	RXm 4/40	20 µF 450 VL				
	RXm 5/40	25 µF 450 VL				

11 ELECTRIC MOTOR

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

RX: three-phase 400 V - 50 Hz

- Insulation: class F
- Protection: IP X8

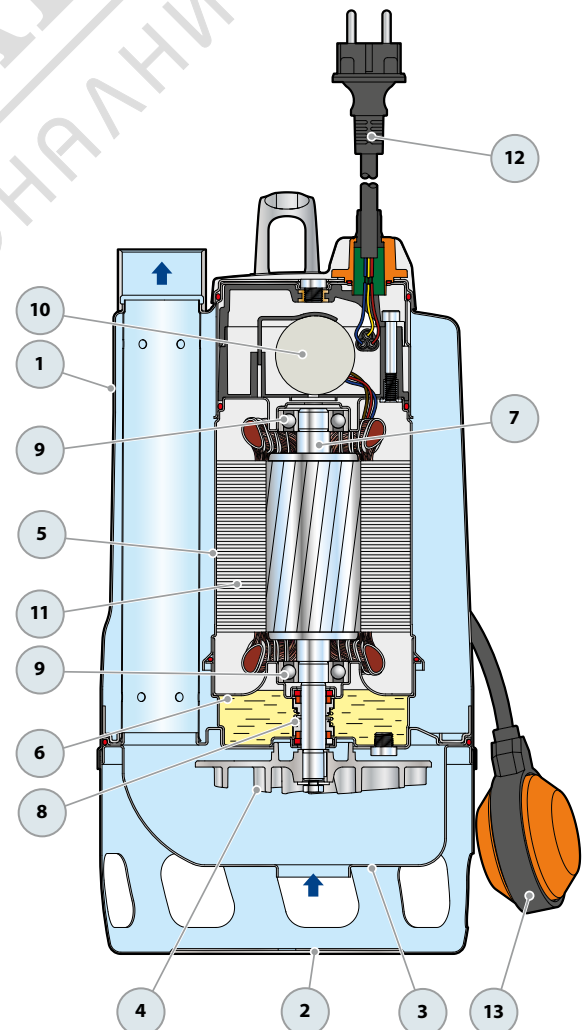
12 POWER CABLE

"H07 RN-F" type
(with Schuko plug for single-phase versions only)

Standard length 10 metres

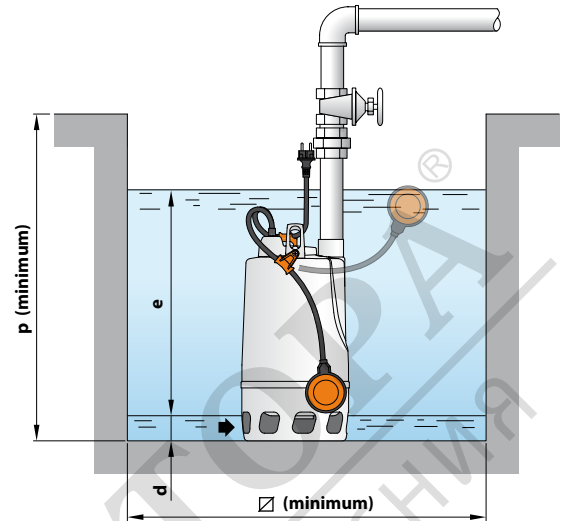
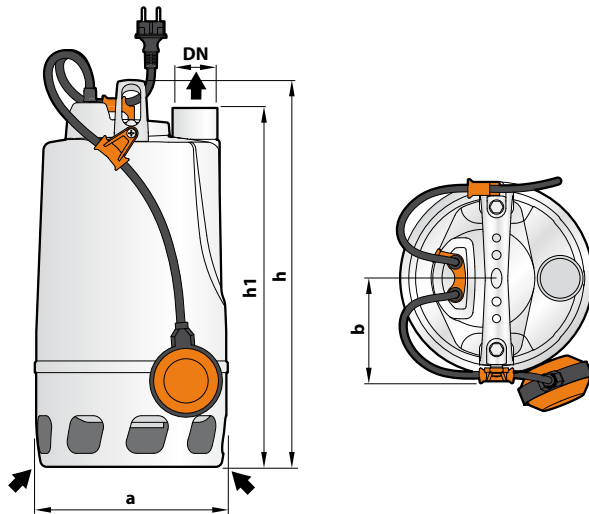
13 FLOAT SWITCH

Only for single-phase versions
(Vertical float switch in the GM versions).



DIMENSIONS AND WEIGHT

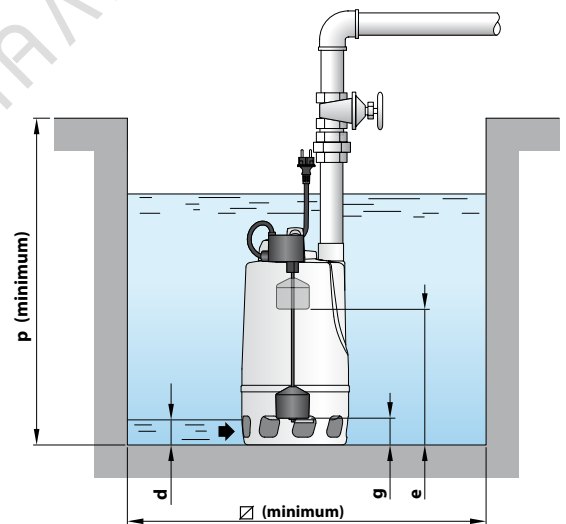
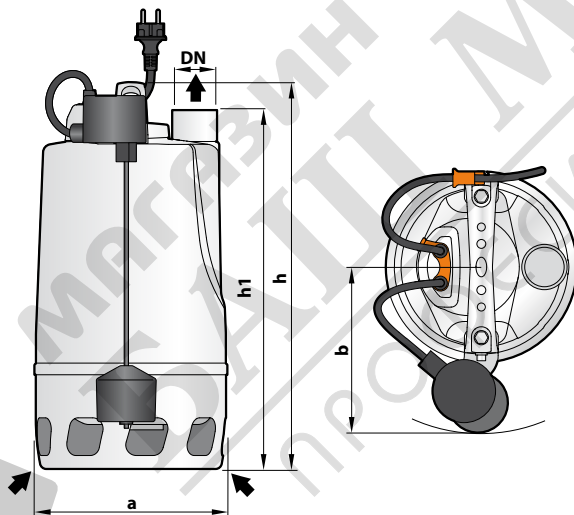
Standard installation



MODEL		PORT	DIMENSIONS mm								kg		PALLETIZATION	
Single-phase	Three-phase	DN	a	b	h	h1	d	e	p	Ø	1~	3~	GROUPAGE n. pumps	CONTAINER n. pumps
RXm 4/40	RX 4/40	1½"	215	115	433	400	50	variable	500	500	14.8	13.9	45	60
RXm 5/40	RX 5/40										16.0	15.1	45	60

Version with vertical float switch

Standard installation



MODEL	PORT	DIMENSIONS mm										kg	PALLETIZATION	
Single-phase	DN	a	b	h	h1	d	e	g	p	Ø	1~	GROUPAGE n. pumps	CONTAINER n. pumps	
RXm 4/40 - GM	1½"	215	186.5	433	400	50	320	80	500	350	15.2	36	48	
RXm 5/40 - GM											16.3	36	48	

ABSORPTION

MODEL	VOLTAGE	
Single-phase	230 V	240 V
RXm 4/40	5.2 A	5.0 A
RXm 5/40	6.5 A	6.5 A

MODEL	VOLTAGE			
Three-phase	230 V	400 V	240 V	415 V
RX 4/40	3.6 A	2.1 A	3.5 A	2.0 A
RX 5/40	5.4 A	3.1 A	5.2 A	3.0 A