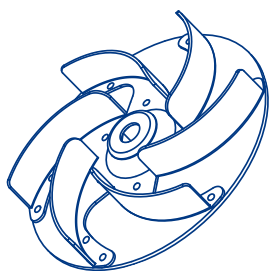




RANGER



Submersible pumps

▣▣▣▣ for sewage water

RANGER "VORTEX"

Submersible pumps

➡ for sewage water



PERFORMANCE RANGE

- Flow rate up to **500 l/min** (30 m³/h)
- Head up to **15 m**

APPLICATION LIMITS

- **5 m** maximum immersion depth
- Maximum liquid temperature **+40 °C**
- Solids passage:
 - up to **Ø 40 mm** for RANGER 8-10-15/35
 - up to **Ø 50 mm** for RANGER 8-10-15/50
- Minimum immersion depth for continuous service:
 - **290 mm** for RANGER 8-10-15/35
 - **320 mm** for RANGER 8-10-15/50

CONSTRUCTION AND SAFETY STANDARDS

- Complete with **5 m** long power cable
- RANGER versions complete with float switch

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



INSTALLATION AND USE

Suitable for use in domestic, civil and industrial applications where the water, such as **groundwater, surface water and sewage water**, contains suspended solids up to Ø 50 mm.

They are suitable for use in applications such as for draining flooded areas such as cellars, underground car parks, car washes, for emptying cesspools and for sewage disposal.

These pumps distinguish themselves for their reliability, which can be best appreciated under automatic operating conditions in fixed installations.

OPTIONALS AVAILABLE ON REQUEST

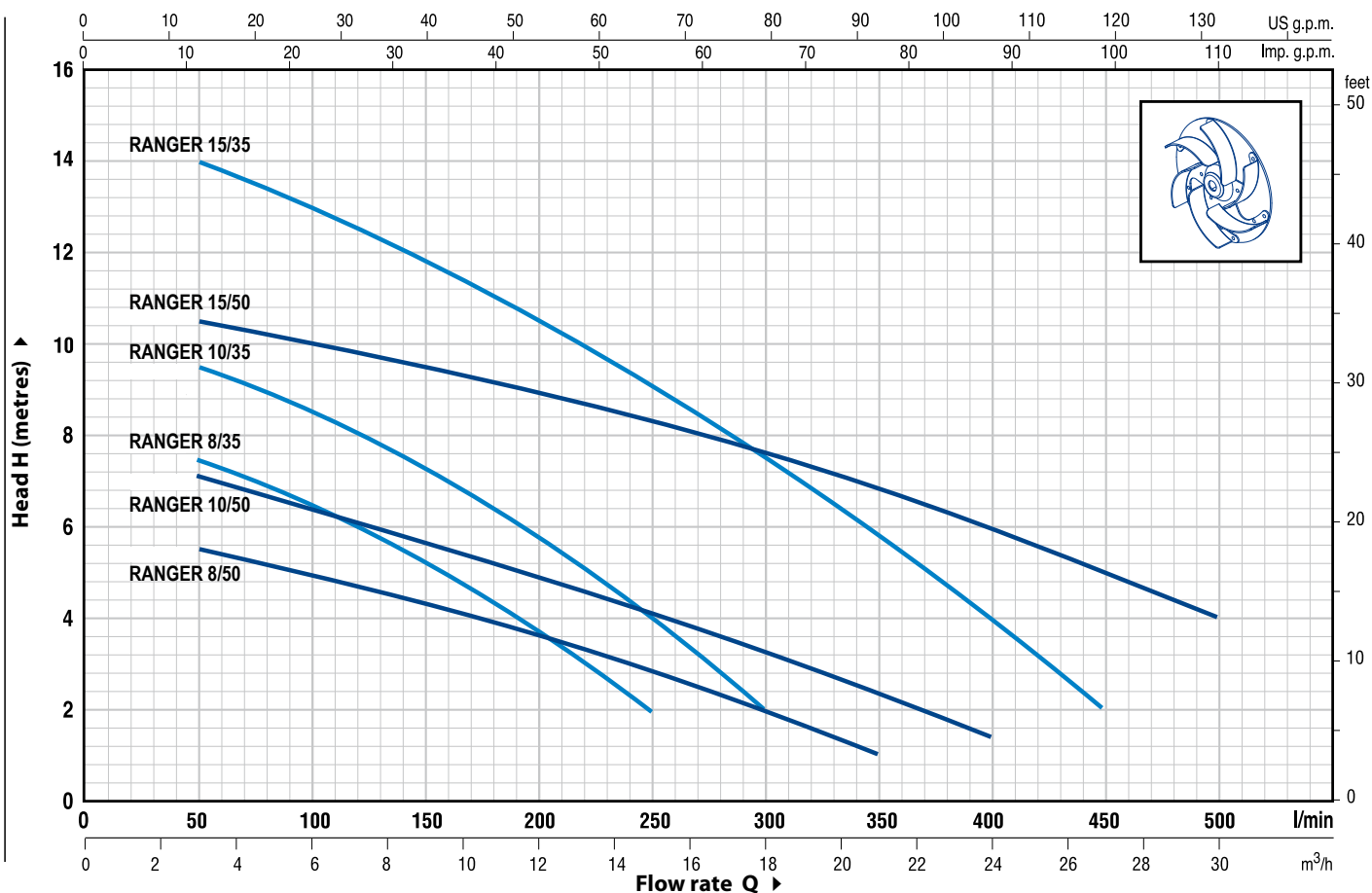
- Pumps with a **10 m** long power cable
 - ➡ N.B. Standard EN 60335-2-41 states that the power cable must be 10 m long for outdoor applications
- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

GUARANTEE

2 years subject to terms and conditions

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 1/min



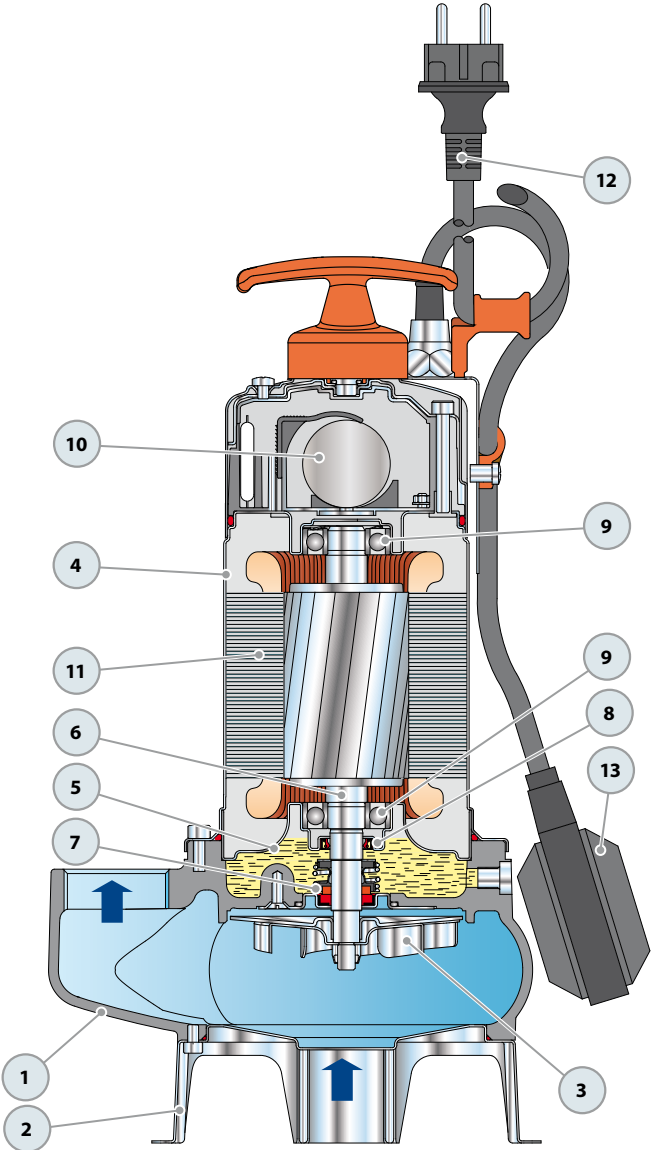
MODEL		POWER		Q													
Single-phase	Three-phase	kW	HP		m³/h	0	3	6	9	12	15	18	21	24	27	30	
RANGER 8/35M	–	0.55	0.75	H metres	l/min	0	50	100	150	200	250	300	350	400	450	500	
RANGER 10/35M	RANGER 10/35	0.75	1			8.4	7.5	6.5	5.2	3.7	2						
RANGER 15/35M	RANGER 15/35	1.1	1.5			10	9.5	8.5	7.2	5.8	4	2					
RANGER 8/50M	–	0.55	0.75			15	14	13	11.8	10.5	9	7.5	6	4	2		
RANGER 10/50M	RANGER 10/50	0.75	1			6	5.5	5	4.4	3.6	2.8	2	1				
RANGER 15/50M	RANGER 15/50	1.1	1.5			7.5	7	6.5	5.8	5	4	3.2	2.4	1.5			
						11	10.5	10	9.5	9	8.3	7.5	6.8	6	5	4	

Q = Flow rate H = Total manometric head

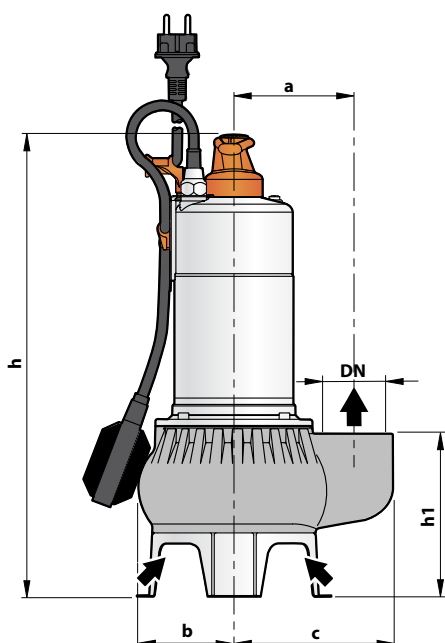
Tolerance of characteristic curves in compliance with EN ISO 9906 App. A.

POS. COMPONENT		CONSTRUCTION CHARACTERISTICS			
1	PUMP BODY	Cast iron, with threaded port in compliance with ISO 228/1			
2	BASE	Stainless steel AISI 304			
3	IMPELLER	Stainless steel AISI 304 VORTEX type			
4	MOTOR CASING	Stainless steel AISI 304			
5	MOTOR CASING PLATE	Stainless steel AISI 304			
6	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104			
7	SHAFT WITH DOUBLE SEAL AND OIL CHAMBER				
Seal		Shaft		Materials	
Model	Diameter	Stationary ring	Rotational ring	Elastomer	
MG1-14 SIC	Ø 14 mm	Ceramic	Silicon carbide	NBR	
8	LIP SEAL	Ø 15 x Ø 24 x H 5 mm for RANGER 8-10/35-50 Ø 16 x Ø 24 x H 5 mm for RANGER 15/35-50			
9	BEARINGS	6203 ZZ / 6203 ZZ			
10	CAPACITOR				
Pump		Capacitance			
Single-phase	(230 V or 240 V)	(110 V)			
RANGER 8/35M	20 µF 450 VL	30 µF 250 VL			
RANGER 8/50M					
RANGER 10/35M					
RANGER 10/50M					
RANGER 15/35M	25 µF 450 VL	–			
RANGER 15/50M					
11	ELECTRIC MOTOR				
– Single-phase 230 V - 50 Hz with thermal overload protector built-in to the winding					
– Three-phase 400 V - 50 Hz					
– Insulation: F class					
– Protection: IP 68					
12	POWER CABLE				
5 metre long "H07 RN-F" cable (with Schuko plug on single-phase versions only)					
13	FLOAT SWITCH				
(only for single-phase versions)					

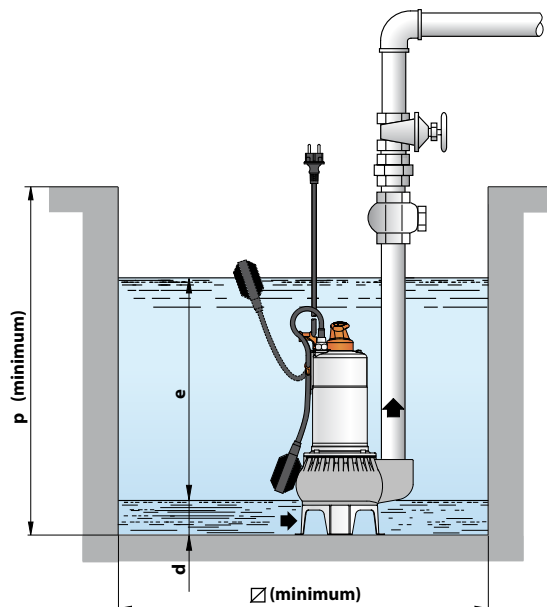
The diagram is a vertical cross-section of the pump assembly. At the top, a power cable with a Schuko plug (12) enters the motor housing. The motor casing (4) contains the electric motor (11). Below the motor is the pump body (1) with an impeller (3) mounted on a motor shaft (6). The shaft is supported by bearings (9) and has a double seal and oil chamber (7) at the bottom. A lip seal (8) is located between the pump body and the motor casing. A float switch (13) is attached to the bottom of the pump body. The entire assembly is mounted on a base (2). The diagram is numbered 1 through 13, corresponding to the components listed in the table.



DIMENSIONS AND WEIGHT



Typical installation



MODEL		PORT DN	solids passage	DIMENSIONS mm									kg	
Single-phase	Three-phase			a	b	c	h	h1	d	e	p	☐	1~	3~
RANGER 8/35M	–	1½"	Ø 40 mm	105	92	136	408	125	50	variable	500	500	12.4	–
RANGER 10/35M	RANGER 10/35					143	429	130					13.3	12.1
RANGER 15/35M	RANGER 15/35					150	437	153					16.3	15.0
RANGER 8/50M	–	2"	Ø 50 mm	110	97	157	458	159	60				12.9	–
RANGER 10/50M	RANGER 10/50					157	458	159					13.9	12.1
RANGER 15/50M	RANGER 15/50					157	458	159					17.0	15.6

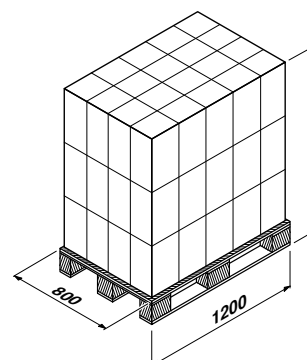
ABSORPTION

MODEL	VOLTAGE (single-phase)		
Single-phase	230 V	240 V	110 V
RANGER 8/35M	3.3 A	3.3 A	7.6 A
RANGER 10/35M	5.0 A	5.0 A	11.5 A
RANGER 15/35M	6.7 A	6.7 A	–
RANGER 8/50M	3.5 A	3.5 A	8.0 A
RANGER 10/50M	5.0 A	5.0 A	11.5 A
RANGER 15/50M	7.1 A	7.1 A	–

MODEL	VOLTAGE (three-phase)			
Three-phase	230 V	400 V	240 V	415 V
RANGER 10/35M	3.6 A	2.1 A	3.6 A	2.1 A
RANGER 15/35M	5.4 A	3.1 A	5.4 A	3.1 A
RANGER 10/50M	3.6 A	2.1 A	3.6 A	2.1 A
RANGER 15/50M	5.4 A	3.1 A	5.4 A	3.1 A

PALLETIZATION

MODEL		GROUPAGE				CONTAINER			
Single-phase	Three-phase	n° pumps	H (mm)	kg		n° pumps	H (mm)	kg	
				1~	3~			1~	3~
RANGER 8/35M	–	60	1520	761	–	80	1980	1009	–
RANGER 10/35M	RANGER 10/35	60	1520	815	744	80	1980	1081	987
RANGER 15/35M	RANGER 15/35	45	1574	748	692	60	2052	992	917
RANGER 8/50M	–	60	1520	791	–	80	1980	1049	–
RANGER 10/50M	RANGER 10/50	60	1520	851	744	80	1980	1129	986
RANGER 15/50M	RANGER 15/50	45	1574	780	718	60	2052	1034	952





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