

# RANGER

## SUBMERSIBLE PUMPS



### VORTEX

-  Filthy water
-  Domestic use
-  Civil use
-  Industrial use



### PERFORMANCE RANGE

- Flow rate up to **650 l/min** (39 m<sup>3</sup>/h)
- Head up to **14 m**

### APPLICATION LIMITS

- **5 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C**
- Passage of solids:
  - up to **Ø 40 mm** for RANGER /35
  - up to **Ø 50 mm** for RANGER /50
- Minimum immersion depth for continuous service:
  - **280 mm** for RANGER /35
  - **300 mm** for RANGER /50

### CONSTRUCTION AND SAFETY STANDARDS

- The pumps are complete with:
- power cable
  - float switch for single-phase versions

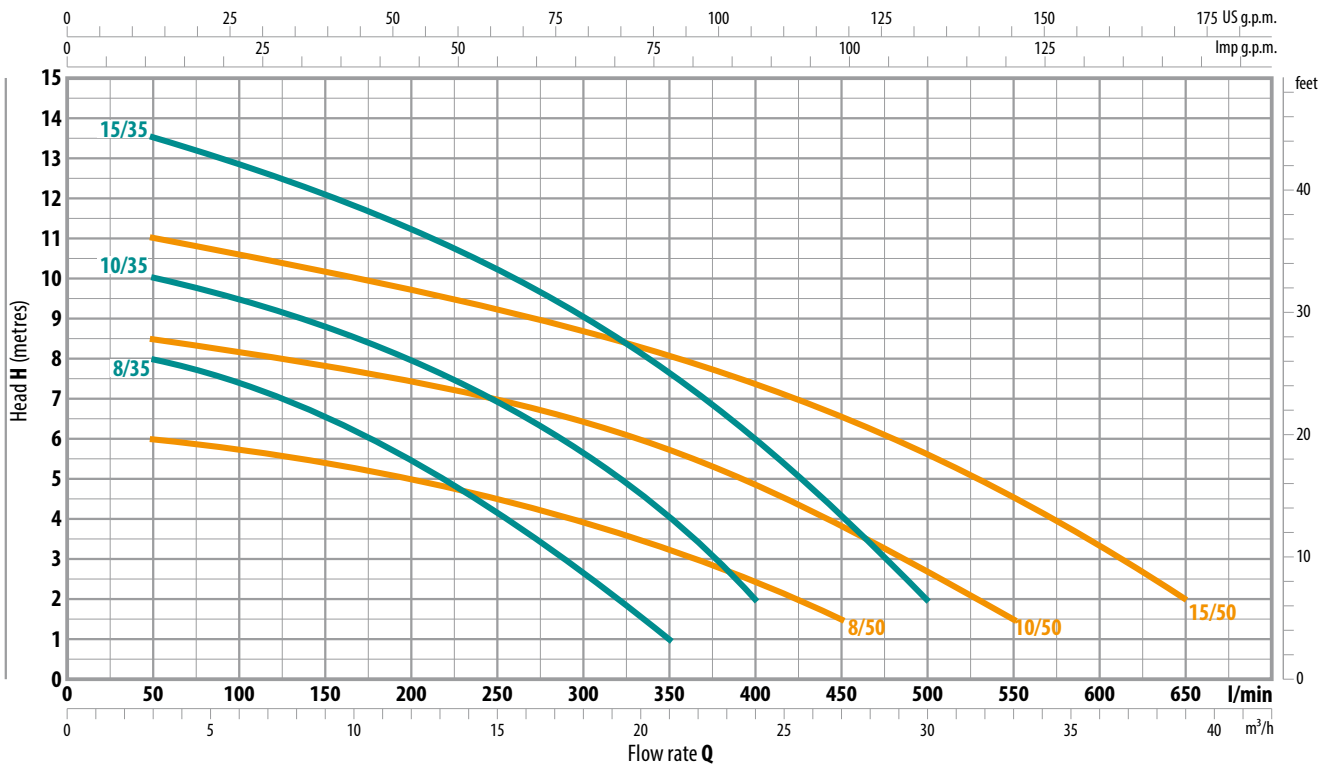
EN 60335-1  
IEC 60335-1  
CEI 61-150

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



### CHARACTERISTIC CURVES AND PERFORMANCE DATA

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



MODEL		POWER (P <sub>2</sub> )		Q	Flow rate													
Single-phase	Three-phase	kW	HP		m <sup>3</sup> /h	0	3	6	12	18	21	24	27	30	33	36	39	
				l/min	0	50	100	200	300	350	400	450	500	550	600	650		
RANGER 8/35M	RANGER 8/35	0.55	0.75	H metres	9	8	7.5	5.5	2.7	1								
RANGER 10/35M	RANGER 10/35	0.75	1		11	10	9.5	8	5.7	4	2							
RANGER 15/35M	RANGER 15/35	1.1	1.5		14	13.5	12.8	11.2	9	7.7	6	4	2					
RANGER 8/50M	RANGER 8/50	0.55	0.75		6.5	6	5.8	5	4	3.3	2.5	1.5						
RANGER 10/50M	RANGER 10/50	0.75	1		9	8.5	8.2	7.5	6.5	5.8	5	3.8	2.5	1.5				
RANGER 15/50M	RANGER 15/50	1.1	1.5		11.5	11	10.5	9.8	8.7	8	7.5	6.5	5.5	4.5	3.5	2		

Q = Flow rate  
H = Total manometric head

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

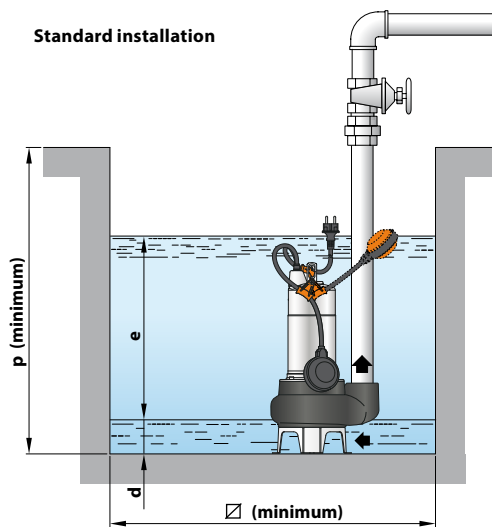
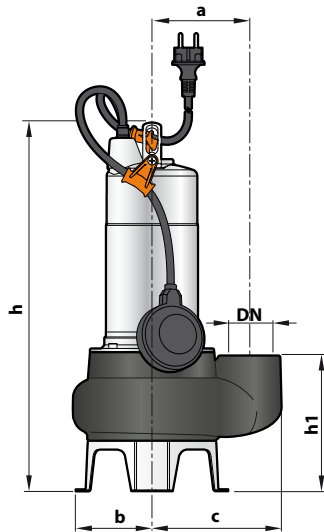
## INSTALLATION AND USE

RANGER pumps are recommended for domestic, civil and industrial applications in all cases where the water contains suspended solids up to Ø 50 mm, for example groundwater, surface water, filthy and dirty water.

They are for example suitable 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 for the disposal of waste water in the home (from dishwashers, washing machines) and for emptying drainage traps.

## DIMENSIONS AND WEIGHT



## CONSTRUCTION CHARACTERISTICS

<b>PUMP BODY</b>	Cast iron with an Epoxy Electro Coating treatment, with threaded port in compliance with ISO 228/1
<b>IMPELLER</b>	Stainless steel AISI 304 VORTEX type
<b>MOTOR SHAFT</b>	Stainless steel AISI 431
<b>SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER</b>	<b>Motor side:</b> Silicon carbide - Graphite - NBR <b>Pump side:</b> Silicon carbide - Silicon carbide - NBR
<b>POWER CABLE</b>	H07 RN-F type 5 m for RANGER 8-10/35, 8-10/50 10 m for RANGER 15/35, 15/50 (with Schuko plug for single-phase versions only)

MODEL		PORT DN	Passage of solids	DIMENSIONS mm										kg					
Single-phase	Three-phase			a	b	c	h	h1	d	e	p	Ø	1~	3~					
RANGER 8/35M	RANGER 8/35	1½"	Ø 40 mm	115	95	148	406	139	50	variable	500	500	12.9	12.6					
RANGER 10/35M	RANGER 10/35						421						13.7	12.6					
RANGER 15/35M	RANGER 15/35						421						15.7	14.7					
RANGER 8/50M	RANGER 8/50	2"	Ø 50 mm			115	95	155	431				164	60	variable	500	500	13.4	13.1
RANGER 10/50M	RANGER 10/50								446									14.2	13.1
RANGER 15/50M	RANGER 15/50								446									16.2	15.2

## ABSORPTION

MODEL	VOLTAGE		
	Single-phase	230 V	240 V
RANGER 8/35M	3.5 A	3.4 A	7.0 A
RANGER 10/35M	4.8 A	4.6 A	9.6 A
RANGER 15/35M	7.4 A	7.1 A	-
RANGER 8/50M	3.7 A	3.5 A	7.4 A
RANGER 10/50M	5.0 A	4.8 A	10.0 A
RANGER 15/50M	7.1 A	6.8 A	-

MODEL	VOLTAGE			
	Three-phase	230 V	400 V	240 V
RANGER 8/35	3.0 A	1.7 A	2.9 A	1.65 A
RANGER 10/35	3.5 A	2.0 A	3.4 A	1.95 A
RANGER 15/35	5.2 A	3.0 A	5.0 A	2.9 A
RANGER 8/50	3.2 A	1.8 A	3.1 A	1.75 A
RANGER 10/50	3.5 A	2.0 A	3.4 A	1.95 A
RANGER 15/50	5.2 A	3.0 A	5.0 A	2.9 A

## PALLETIZATION

MODEL		GROUPAGE n. pumps	CONTAINER n. pumps
Single-phase	Three-phase		
RANGER 8/35M	RANGER 8/35	60	80
RANGER 10/35M	RANGER 10/35	60	80
RANGER 15/35M	RANGER 15/35	54	72
RANGER 8/50M	RANGER 8/50	54	72
RANGER 10/50M	RANGER 10/50	54	72
RANGER 15/50M	RANGER 15/50	54	72