

# F1 VORTEX

## SUBMERSIBLE PUMPS



Dirty water

Domestic use

Civil use



### PERFORMANCE RANGE

- Flow rate up to **180 l/min** (10.8 m<sup>3</sup>/h)
- Head up to **9 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**
- Suction level **25 mm** above ground level
- Continuous service **S1**

### CONSTRUCTION AND SAFETY STANDARDS

The pumps are complete with:

- power cable
- float switch for single-phase versions

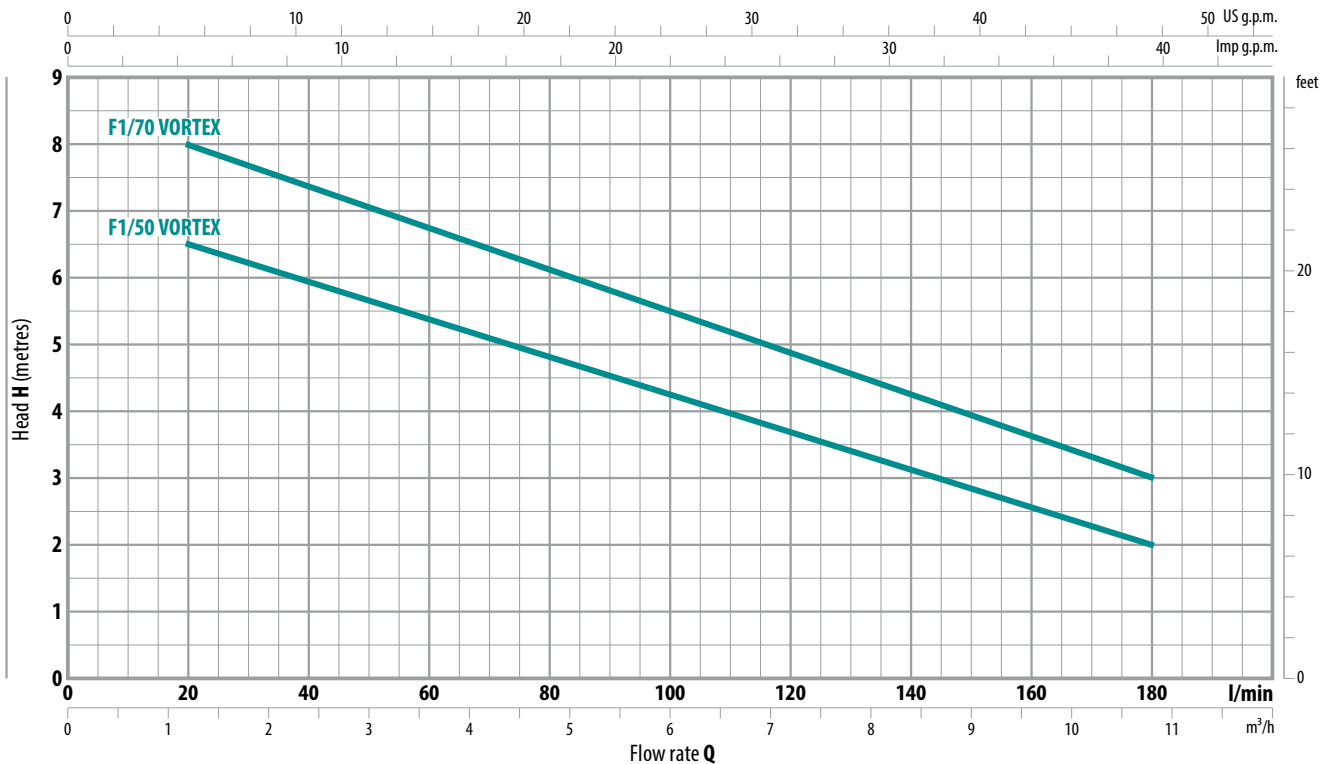
EN 60335-1  
IEC 60335-1  
CEI 61-150

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	1.2	2.4	3.6	4.8	6	7.2	8.4	9.6	10.8		
				l/min	0	20	40	60	80	100	120	140	160	180			
F1/50M VORTEX	F1/50 VORTEX	0.37	0.50	H metres	7	6.5	6	5.5	4.8	4.3	3.7	3	2.5	2			
F1/70M VORTEX	F1/70 VORTEX	0.55	0.75		9	8	7.5	6.5	6	5.5	4.7	4.2	3.5	3			

Q = Flow rate  
H = Total manometric head

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

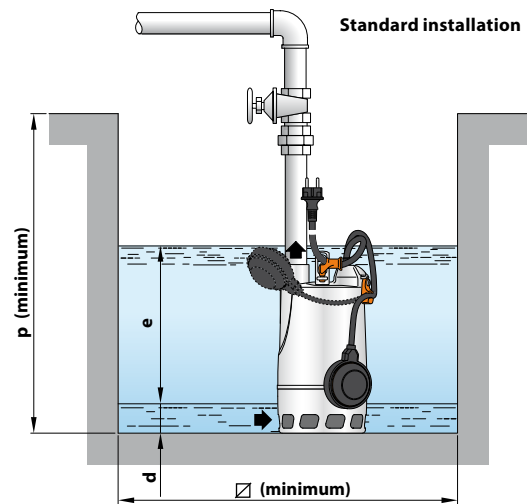
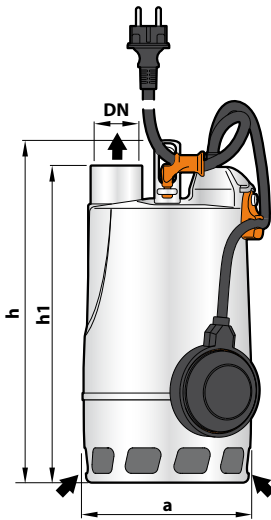
## INSTALLATION AND USE

The F1 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.

## CONSTRUCTION CHARACTERISTICS

<b>PUMP BODY</b>	Stainless steel AISI 304 with threaded port in compliance with ISO 228/1
<b>IMPELLER</b>	Stainless steel AISI 304 VORTEX type
<b>MOTOR SHAFT</b>	Stainless steel EN 10088-3 - 1.4104
<b>SHAFT WITH DOUBLE SEAL AND OIL CHAMBER</b>	Ceramic - Silicon carbide - NBR
<b>POWER CABLE</b>	H07 RN-F type 5 m long power cable (with Schuko plug for single-phase versions only)

## DIMENSIONS AND WEIGHT



MODEL		PORT DN	DIMENSIONS mm							kg	
Single-phase	Three-phase		a	h	h1	d	e	p	Ø	1~	3~
F1/50M VORTEX	F1/50 VORTEX	1¼"	147	290	278	25	variable	350	350	6.1	6.1
F1/70M VORTEX	F1/70 VORTEX			320	308					7.9	7.9

## ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
<b>Single-phase</b>			
F1/50M VORTEX	2.6 A	2.5 A	5.2 A
F1/70M VORTEX	3.2 A	3.1 A	6.4 A

MODEL	VOLTAGE			
	230 V	400 V	240 V	415 V
<b>Three-phase</b>				
F1/50 VORTEX	1.9 A	1.1 A	1.8 A	1.05 A
F1/70 VORTEX	2.6 A	1.5 A	2.5 A	1.45 A

## PALLETIZATION

MODEL		GROUPAGE n. pumps	CONTAINER n. pumps
Single-phase	Three-phase		
F1/50M VORTEX	F1/50 VORTEX	72	120
F1/70M VORTEX	F1/70 VORTEX	72	120