

Centrifugal pumps

High flow

- Clean water
- Agricultural use
- Industrial use



PERFORMANCE RANGE

- Flow rate up to **2200 l/min** (132 m³/h)
- Head up to **24.5 m**

APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature up to **+40 °C**
- Max. working pressure:
 - 6 bar** for HF 4
 - 10 bar** for HF 6-8-20-30
- Continuous service **S1**

INSTALLATION AND USE

Suitable for use in civil and agricultural applications. The high efficiency and continuous duty capabilities makes these pumps ideal for use in activities such as flood and spray irrigation, drawing water from lakes, rivers and wells, or for any number of different industrial applications where the characteristics of high flow rates and mid to low head are required. Installation needs to be undertaken in well ventilated closed areas or anyway protected from bad weather.

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- Other voltages or 60 Hz frequency

CONSTRUCTION AND SAFETY STANDARDS

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

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



EU REGULATION N. 547/2012

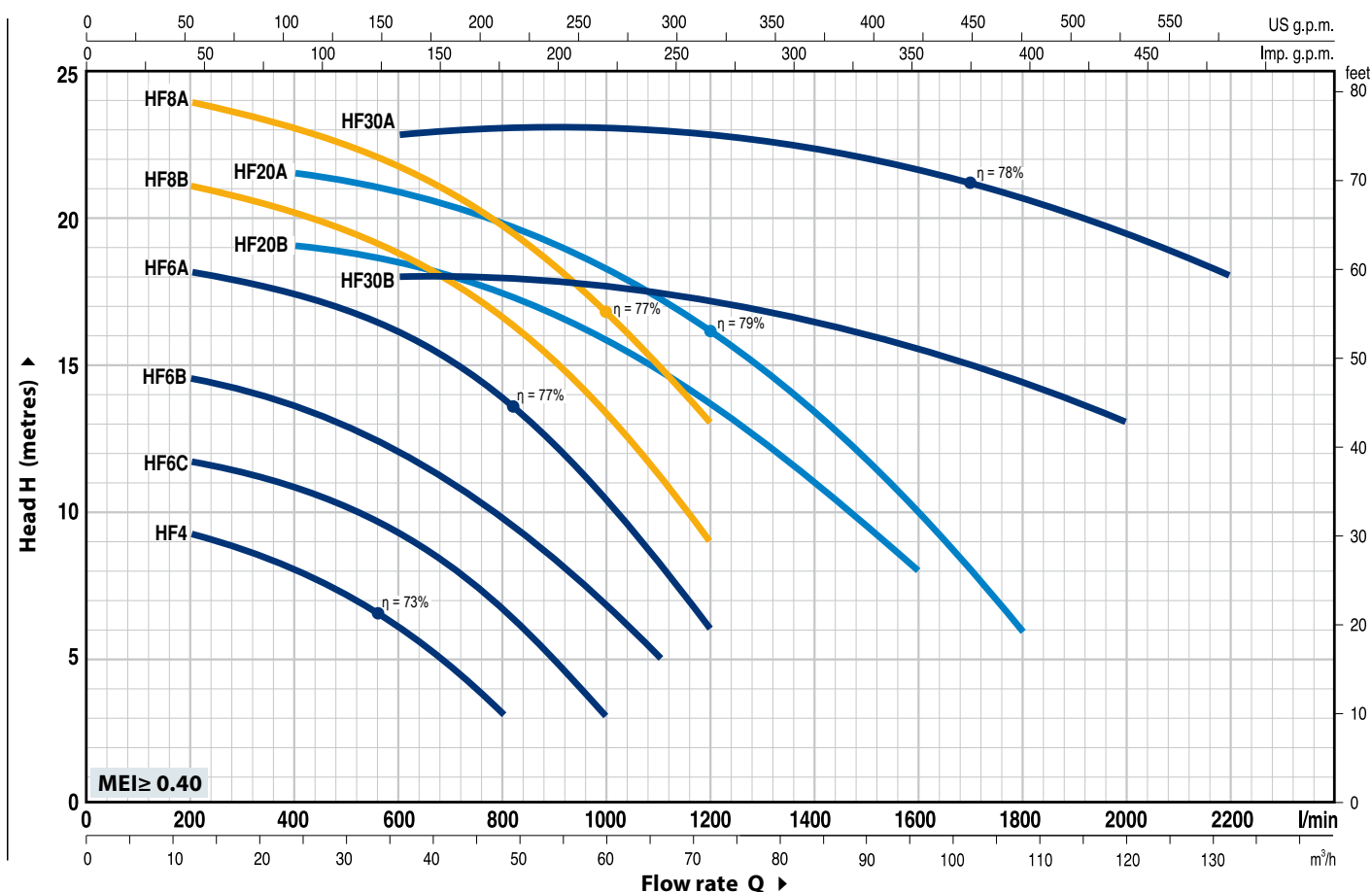
CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY



CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min⁻¹ HS= 0 m



MODEL		POWER (P ₂)			Q	m³/h																		
Single-ph.	Three-ph.	kW	HP	▲		l/min	0	12	18	24	30	36	42	48	54	60	66	72	84	96	102	108	120	132
						0	200	300	400	500	600	700	800	900	1000	1100	1200	1400	1600	1700	1800	2000	2200	
HFm 4	HF 4	0.75	1	IE3	H metres	10	9.3	8.7	8	7	6	4.7	3											
HFm 6C	HF 6C	1.1	1.5			11.9	11.7	11.3	10.7	10.2	9.2	8	6.7	5	3									
HFm 6B	HF 6B	1.5	2			14.7	14.5	14	13.5	12.8	12	11	9.7	8.2	6.7	5								
HFm 6A	HF 6A	2.2	3			18.5	18.1	17.8	17.2	16.8	16	15	13.8	12.2	10.5	8.3	6							
–	HF 8B	3	4			21.5	21	20.7	20	19.5	18.8	17.8	16.5	15	13.5	11.2	9							
–	HF 8A	4	5.5			24.5	24	23.5	23	22.5	21.8	20.8	19.5	18.3	16.8	15	13							
–	HF 20B	3	4			19	-	-	19	18.8	18.5	18	17.5	16.8	16	14.5	13.5	11	8					
–	HF 20A	4	5.5			21.5	-	-	21.5	21.3	21	20.5	19.8	19	18	17	16	13.3	10	8	6			
–	HF 30B	5.5	7.5			18	-	-	-	-	18	18	18	18	18	17.5	17	16.5	15.5	15	14.5	13		
–	HF 30A	7.5	10			23	-	-	-	-	23	23	23	23	23	23	22.5	22.5	22.5	22	21.5	21	19.5	18

Q = Flow rate H = Total manometric head HS = Suction height

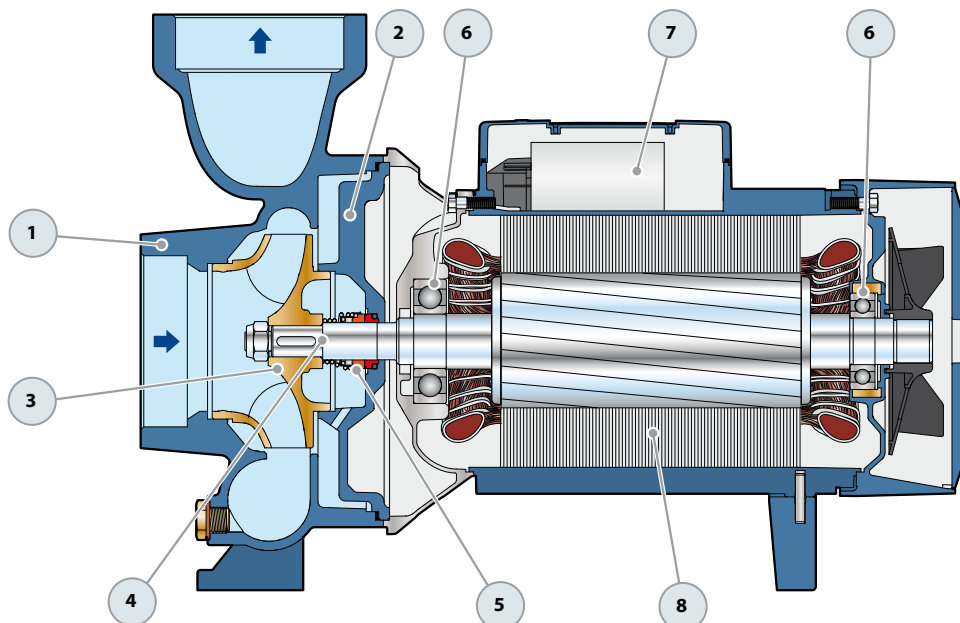
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Three-phase motor efficiency class (IEC 60034-30-1)

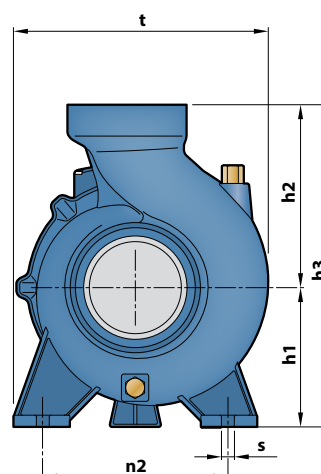
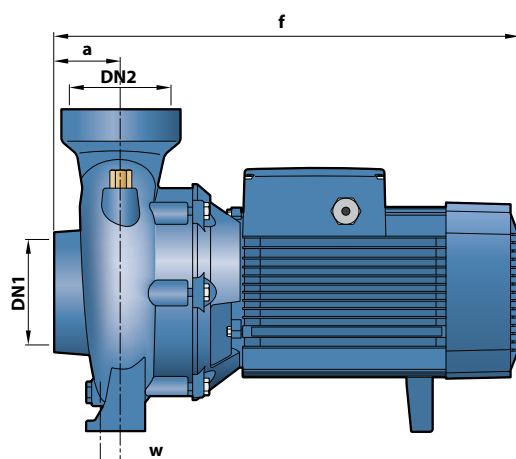
POS. COMPONENT

CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron complete with threaded ports in compliance with ISO 228/1					
2	BODY BACKPLATE	Cast iron (stainless steel AISI 304 for HF 4)					
3	IMPELLER	Brass for HF 4, HF 6, HF 8 Cast iron for HF 20, HF 30					
4	MOTOR SHAFT	Stainless steel AISI 431					
5	MECHANICAL SEAL	Pump	Seal	Shaft	Materials		
		Model	Model	Diameter	Stationary ring	Rotational ring	Elastomer
		HF 4	AR-14	Ø 14 mm	Ceramic	Graphite	NBR
		HF 6	FN-18	Ø 18 mm	Graphite	Ceramic	NBR
		HF 8, HF 20	FN-20	Ø 20 mm	Graphite	Ceramic	NBR
		HF 30	FN-24	Ø 24 mm	Graphite	Ceramic	NBR
6	BEARINGS	Pump	Model				
		HF 4	6203 ZZ / 6203 ZZ				
		HF 6	6304 ZZ / 6204 ZZ				
		HF 8B, HF 20B	6206 ZZ - C3 / 6205 ZZ				
		HF 8A, HF 20A	6306 ZZ - C3 / 6206 ZZ - C3				
		HF 30	6307 ZZ - C3 / 6206 ZZ - C3				
7	CAPACITOR	Pump	Capacitance				
		Single-phase	(230 V or 240 V)		(110 V)		
		HFm 4	20 µF - 450 VL	60 µF - 300 VL			
		HFm 6C	31.5 µF - 450 VL	60 µF - 250 VL			
		HFm 6B	45 µF - 450 VL	80 µF - 250 VL			
		HFm 6A	50 µF - 450 VL	–			
8	ELECTRIC MOTOR	HFm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding. HF: three-phase 230/400 V - 50 Hz up to 4 kW 400/690 V - 50 Hz from 5.5 to 7.5 kW. ➡ The three-phase pump is fitted with a high performance motor in class IE3 (IEC 60034-30-1) – Insulation: class F – Protection: IP X4					



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm									kg		
Single-phase	Three-phase	DN1	DN2	a	f	h1	h2	h3	t	n2	w	s	1~	3~	
HFm 4	HF 4	2½"	2½"	47	317	97	143	240	198	155	-63	10	14.3	14.3	
HFm 6C	HF 6C	3"	3"	68	411	120	193		240		5	12.5	25.5	25.4	
HFm 6B	HF 6B												26.8	26.8	
HFm 6A	HF 6A				429								29.3	29.3	
-	HF 8B	4"	4"	71	445	132	180	312	245	190	27	14	-	35.6	
-	HF 8A				465								-	41.0	
-	HF 20B				453				-				37.2		
-	HF 20A				470				-				41.0		
-	HF 30B			76,5		534	160	210	370	292			212	-	52.2
-	HF 30A													-	57.8

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
HFm 4	5.9 A	5.3 A	11.8 A
HFm 6C	8.8 A	8.0 A	17.6 A
HFm 6B	10.8 A	9.8 A	21.0 A
HFm 6A	13.5 A	13.0 A	-

MODEL	VOLTAGE					
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
HF 4	4.3 A	2.5 A	1.4 A	4.0 A	2.3 A	1.3 A
HF 6C	6.2 A	3.6 A	2.1 A	5.7 A	3.3 A	2.0 A
HF 6B	7.5 A	4.5 A	2.6 A	7.4 A	4.3 A	2.5 A
HF 6A	9.0 A	5.2 A	3.1 A	8.6 A	5.0 A	2.9 A
HF 8B	12.1 A	7.0 A	4.0 A	11.8 A	6.8 A	3.9 A
HF 8A	15.8 A	9.1 A	5.3 A	15.2 A	8.8 A	5.1 A
HF 20B	12.8 A	7.5 A	4.3 A	12.2 A	7.2 A	4.2 A
HF 20A	15.2 A	8.8 A	5.1 A	14.7 A	8.5 A	4.9 A
HF 30B	21.3 A	12.3 A	7.1 A	20.4 A	11.8 A	6.8 A
HF 30A	28.6 A	16.5 A	9.5 A	27.5 A	15.9 A	9.2 A