

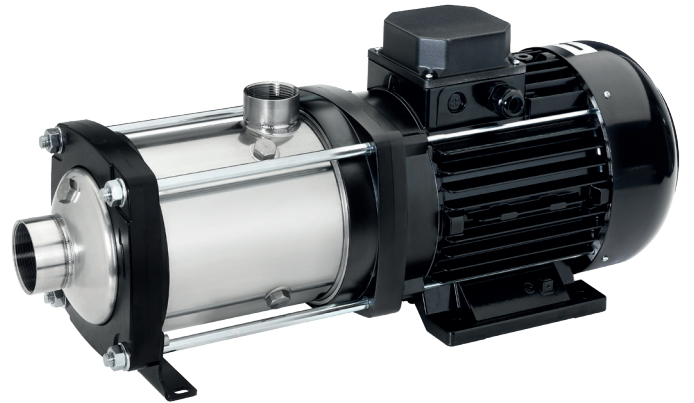
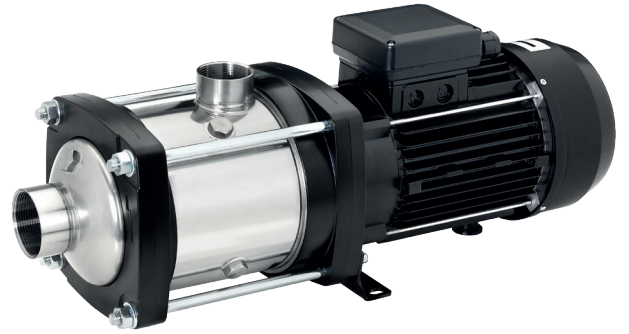
STUART

HM 2000 Centrifugal Horizontal Multistage Pumps

A range of 20m³/hour nominal flow horizontal multistage pumps featuring a compact, close-coupled design and heavy duty oversized motor shaft.

Featuring AISI 304 stainless steel pump head construction, these robust and durable pumps are available in single phase and three phase options.

Capable of flow rates up to 29m³/h and models available providing up to 72.8 metres head, these pumps are suitable for use in a wide range of water boosting applications.



Features

- Multistage centrifugal pump
- Flow rates up to 29 m³/h
- Heads up to 72.8 metres
- Single phase and three phase options
- Compact, close-coupled design
- AISI 304 stainless steel pump head housing, shaft, impellers and diffusers
- Extended life mechanical seal
- Continuously rated induction motor
- Easy maintenance
- WRAS Approved Product
- 1 year warranty

Applications

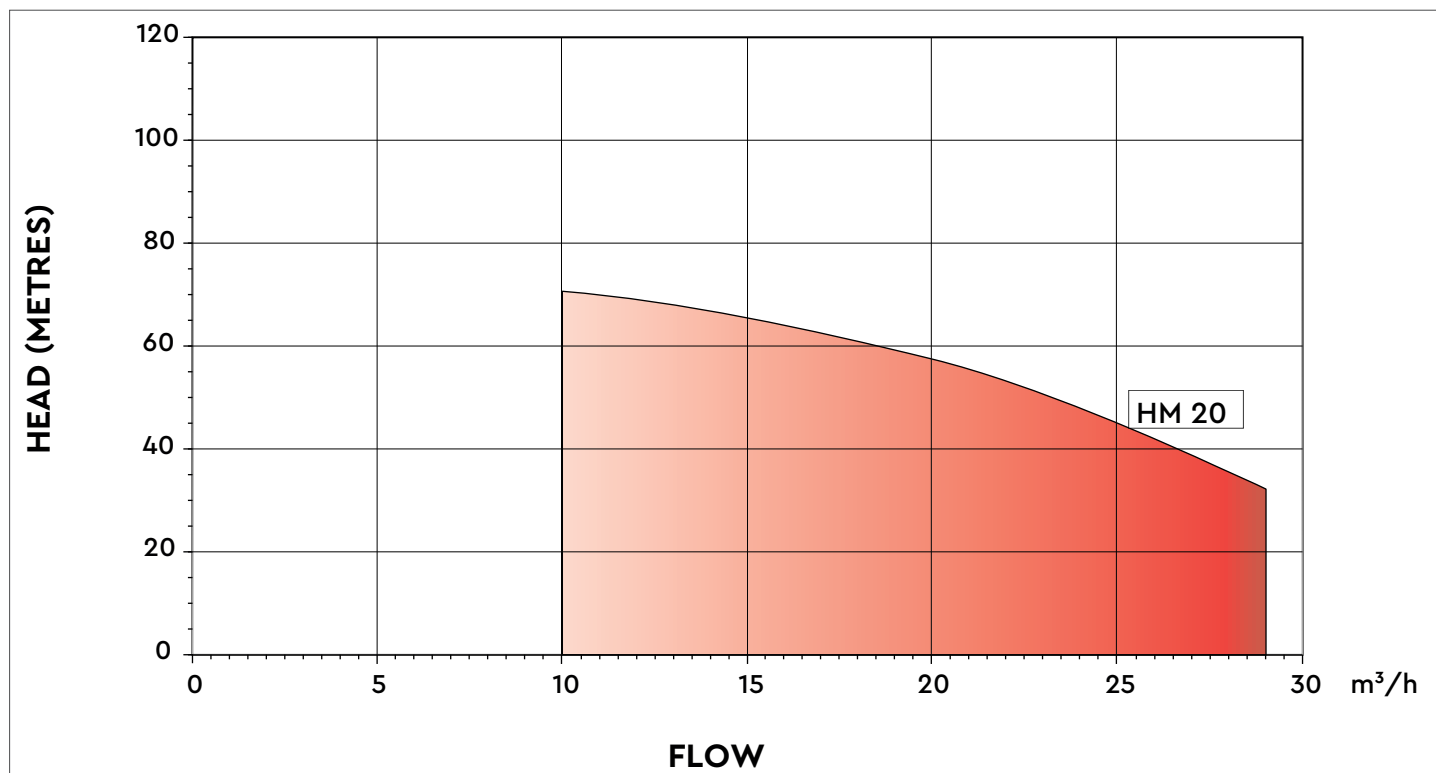
- Domestic and commercial water supply
- Industrial systems, plant and processing
- Wash down units
- Water distribution
- Irrigation and rainwater recovery
- Temperature control and air conditioning systems

Product Code

HM 20 04 230 M 50

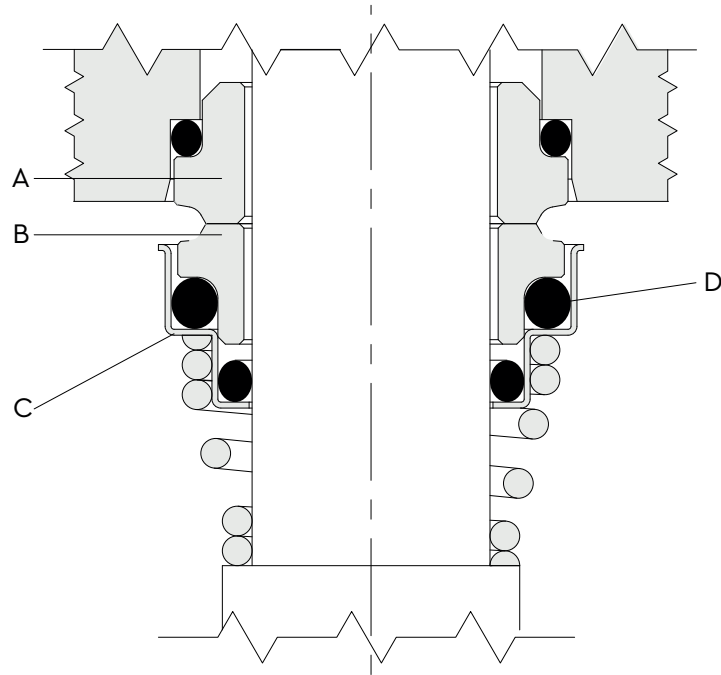
- 50 Hz
- M= Single Phase / T= Three Phase
- V a.c.
- Pump Stages / Nominal Pressure
- Nominal Flow m³/h
- HM = Horizontal Multistage

Stuart HM 2000 Series Performance Summary



	Q = Delivery																																					
l/min	0	25	33	42	50	58	67	75	83	92	100	117	133	150	167	183	233	267	300	333	367	417	467	483														
m³/h	0	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	7	8	9	10	11	14	16	18	20	22	25	28	29														
	H = Total Head (Metres)																																					
HM 2002	31.2																									28.8	28.4	27.9	27.5	26.5	25.6	24.6	23.1	21.0	17.2	12.7	11.1	
HM 2003																											43.2	42.5	41.9	41.3	39.8	38.4	36.9	34.6	31.5	25.7	19.0	16.6
HM 2004																											57.8	56.8	56.0	55.2	53.2	51.3	49.4	46.3	42.2	34.5	25.6	22.4
HM 2005																											72.8	71.7	70.6	69.7	67.3	64.9	62.6	58.9	53.9	44.3	33.2	29.2

Stuart HM 2000 Series Mechanical Seal Specifications



Seal Component Materials

Stationary Seal Face	Rotating Seal Face	Other Components	Elastomers	Temperature
A	B	C	D	
Carbon Graphite	Silicon Carbide	Stainless Steel AISI 316	EPDM	-15°C - +110°C

Stuart HM 2000 Series Motor Specifications

- Asynchronous, TEFC (Totally Enclosed, Fan-Cooled)
- 2 pole
- Protection degree: IP55
- Insulation class: F
- Frequency of starts:
Max. 60 starts/hour for motor power up to 3 kW (with min. 1 minute resting time)
Max. 30 starts/hour for motor power from 4 kW (with min. 2 minute resting time)

Single Phase Models (at 50Hz)

- Standard voltage 220–240 V \pm 5%
- Integrated thermal protection

Motor Size	P _N (kW)	Input Current	Capacitor		230V – 50Hz						
		I _N (A)	μF	V	n _N (min ⁻¹)	I _s / I _N	η%	cos φ	T _N (Nm)	T _s / T _N	T _M / T _N
90	2.20	12.60	60	450	2870	2.2	76.7	0.99	7.30	0.51	1.99

Three Phase Models (at 50Hz)

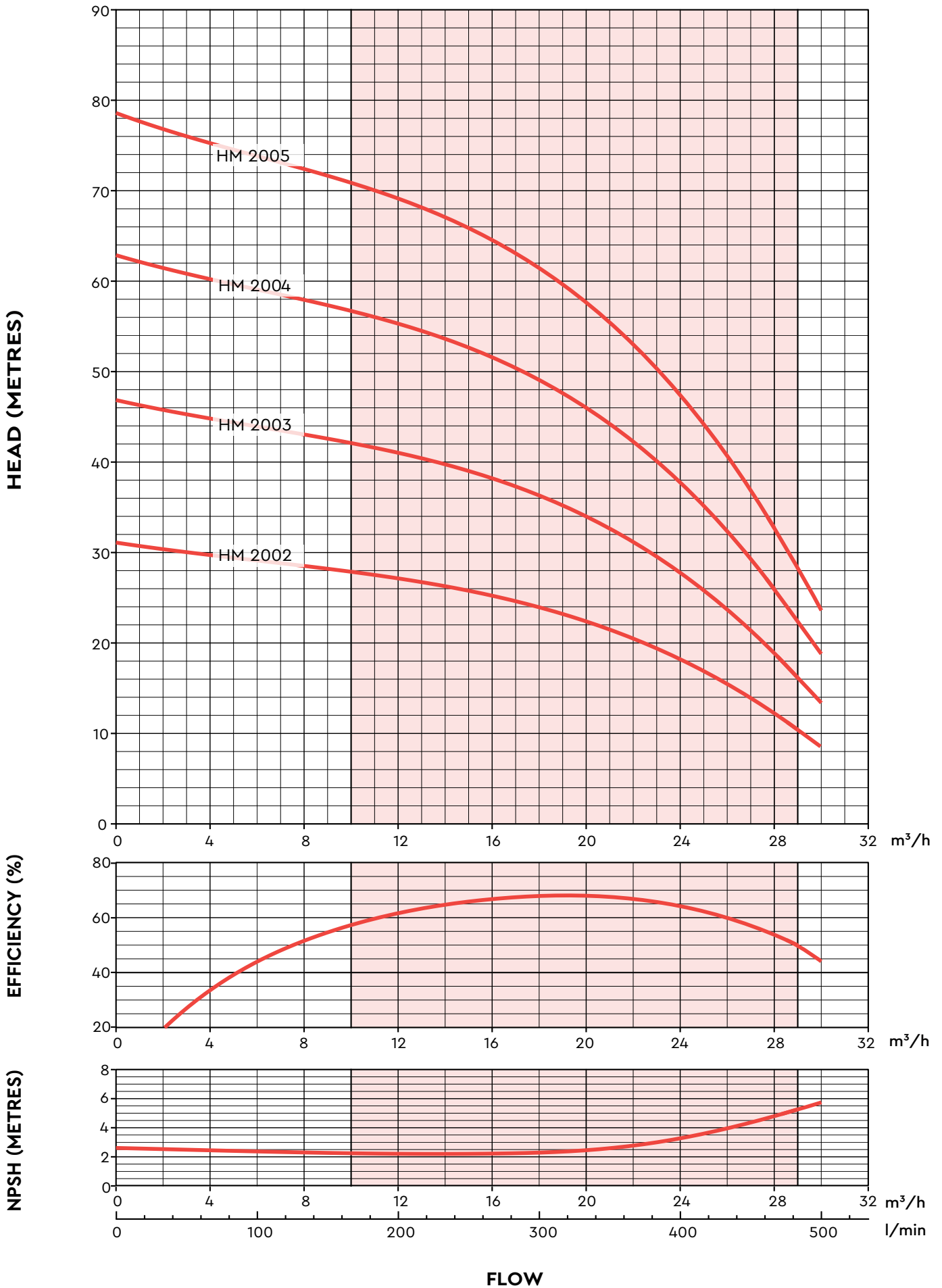
- IE3 premium efficiency motors
- IE efficiency according to IEC 60034-30-1:2014
- Electrical performance according to IEC 60034-2-1:2007
- Standard voltage:
220-240 / 380-415 V \pm 5 % up to 3 kW
380-415 / 660-690 V \pm 5 % from 4 kW
- Thermal protection to be provided within the starter panel

P _N (kW)	Efficiency $\eta_N\%$						
	Δ 230 V Y 400 V			Δ 400 V Y 690 V			IE
	4/4	3/4	2/4	4/4	3/4	2/4	
2.20	86.1	86.7	85.4	-	-	-	3
3.00	87.1	87.5	86.1	-	-	-	3
4.00	-	-	-	88.1	88.7	87.7	3
5.50	-	-	-	89.2	89.4	88.1	3

Motor Size	P _N (kW)	No Poles	f _N (Hz)	400 V 50Hz				
				cos ϕ	I _S / I _N	T _N (Nm)	T _S / T _N	T _M / T _N
90	2.20	2	50	0.80	9.6	7.3	4.3	4.4
90	3.00	2	50	0.83	9.6	9.9	4.7	4.9
100	4.00	2	50	0.85	8.1	13.2	2.8	3.0
112	5.50	2	50	0.81	8.4	8.1	4.3	4.5

P _N (kW)	Voltage U _N				n _N (min ⁻¹)	Motor Operating Conditions		
	Δ 230 V	Y 400 V	Δ 400 V	Y 690 V		Altitude Above Sea Level (m)	T _{amb} min/max (°C)	ATEX
	I _N (A)							
2.20	8.0	4.6	-	-	2880	≤ 1000	-15 / 40	No
3.00	10.4	6.0	-	-	2900	≤ 1000	-15 / 40	
4.00	-	-	7.7	4.4	2900	≤ 1000	-15 / 40	
5.50	-	-	11.0	6.4	2900	≤ 1000	-15 / 40	

Stuart HM 2000 Series Performance Summary



Stuart HM 2000 230 M 50 Technical Specifications

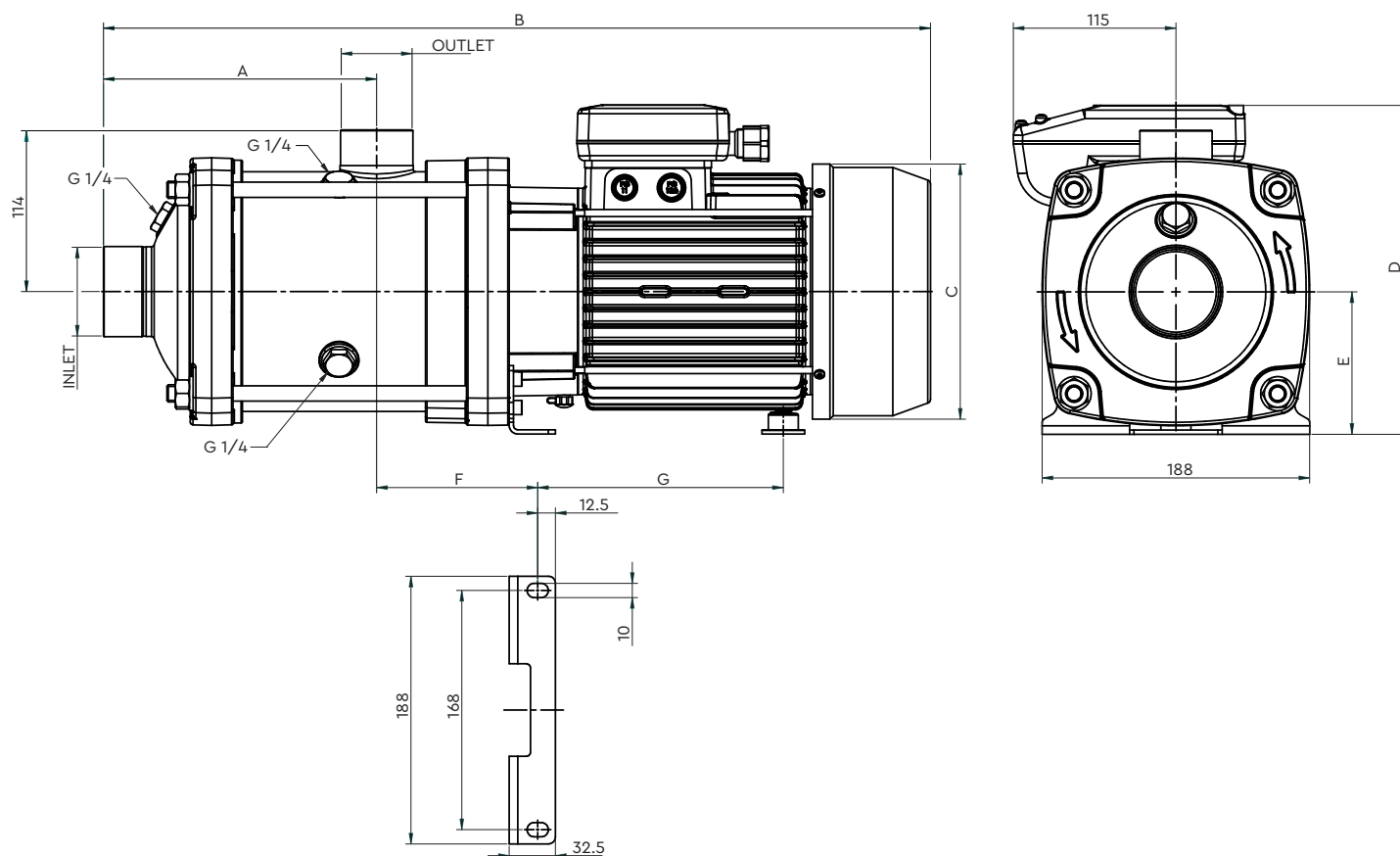
HM 2000 230 M 50	2002
Part No	46781
General	
Warranty	1 Year
Approvals	WRAS Approved Product, CE
Pump type	Centrifugal Multistage
Features	
Impeller stages	2
Compact, close-coupled design	✓
Heavy duty oversized motor shaft	✓
Easy maintenance	✓
Performance	
Flow rate – nominal (m ³ /h)	20
Flow rate range (m ³ /h)	8.0 – 29.0
Maximum head – closed valve (metres)	31.0
Head range (metres)	10.0 – 28.5
Working pressure – maximum (bar)	10
Maximum allowable amount of sand	50 g/m ³
Motor	
Motor type	Induction (Manual reset thermal trip)
Power supply (Vac/Ph/Hz)	230 V a.c. / 1 / 50 Hz
Power – input P1 (kW)	2.59
Power – motor nominal P2 (kW)	2.2
Power – motor nominal P2 (hp)	3.0
Input current – 220–240v (A)	11.4
Efficiency (%)	76.7
Insulation class	F
Duty rating	Continuous (S1)
Starts per hour	60
IP rating	IP 55
Materials	
Pump head housing	AISI 304 stainless steel
Impellers and diffusers	AISI 304 stainless steel
Pump shaft	AISI 304 stainless steel
Pump seal	Carbon Graphite/ Silicon Carbide/AISI 316/EPDM
Connections	
Connection – inlet	Rp 2"
Connection – outlet	Rp 1½"
Operating Conditions	
Operating Ambient Temperature Range (°C)	-5 °C to +40 °C
Liquid temperature range (°C)	-15 to +90 °C (110 °C for industrial applications)
Dimensions	
Height (mm)	231
Width (mm)	209
Depth (mm)	533
Weight (Kg)	25.2

Stuart HM 2000 230-400/400-690 T 50 Technical Specifications

HM 2000 230-400/400-690 T 50	2002	2003	2004	2005
Part No	46788	46789	46790	46791
General				
Warranty	1 Year			
Approvals	WRAS Approved Product, CE			
Pump type	Centrifugal Multistage			
Features				
Impeller stages	2	3	4	5
Compact, close-coupled design	✓			
Heavy duty oversized motor shaft	✓			
Easy maintenance	✓			
Performance				
Flow rate - nominal (m ³ /h)	20			
Flow rate range (m ³ /h)	8.0 - 29.0			
Maximum head - closed valve (metres)	29.0	44.0	58.5	73.0
Head range (metres)	28.5 - 31.0	43.0 - 46.5	58.0 - 62.5	72.5 - 78.5
Working pressure - maximum (bar)	10			
Maximum allowable amount of sand	50 g/m ³			
Motor				
Motor type	Induction (thermal trip fitted by installer)			
Power supply (Vac/Ph/Hz)	230 - 400 V a.c. / 3 / 50 Hz		400 - 690 V a.c. / 3 / 50 Hz	
Power - input P1 (kW)	2.29	3.43	4.53	5.69
Power - motor nominal P2 (kW)	2.2	3.0	4.0	5.5
Power - motor nominal P2 (hp)	3.0	4.0	5.4	7.4
Input current 220-240v (A)	7.4	10.3	-	-
Input current 380-415v (A)	4.3	5.9	7.7	10.3
Input current 660-690v (A)	-	-	4.4	6.0
Efficiency class	IE3	IE3	IE3	IE3
Efficiency 3 Phase 2/4 (%)	85.4	86.1	87.7	88.1
Efficiency 3 Phase 3/4 (%)	86.7	87.5	88.7	89.4
Efficiency 3 Phase 4/4 (%)	86.1	87.1	88.1	89.2
Insulation class	F			
Duty rating	Continuous (S1)			
Starts per hour	60		30	
IP rating	IP 55			
Materials				
Pump head housing	AISI 304 stainless steel			
Impellers and diffusers	AISI 304 stainless steel			
Pump shaft	AISI 304 stainless steel			
Pump seal	Carbon Graphite/ Silicon Carbide/AISI 316/EPDM			
Connections				
Connection - inlet	Rp 2"	Rp 2"	Rp 2"	Rp 2"
Connection - outlet	Rp 1½"	Rp 1½"	Rp 1½"	Rp 1½"
Operating Conditions				
Operating Ambient Temperature Range (°C)	-5 °C to +40 °C			
Liquid temperature range (°C)	-15 to +90 °C (110 °C for industrial applications)			
Dimensions				
Height (mm)	231	231	246	263
Width (mm)	188	188	188	188
Depth (mm)	532	567	622	684
Weight (Kg)	24.2	27.2	35.8	45.0

Stuart HM 2000 230 M 50 Dimensions

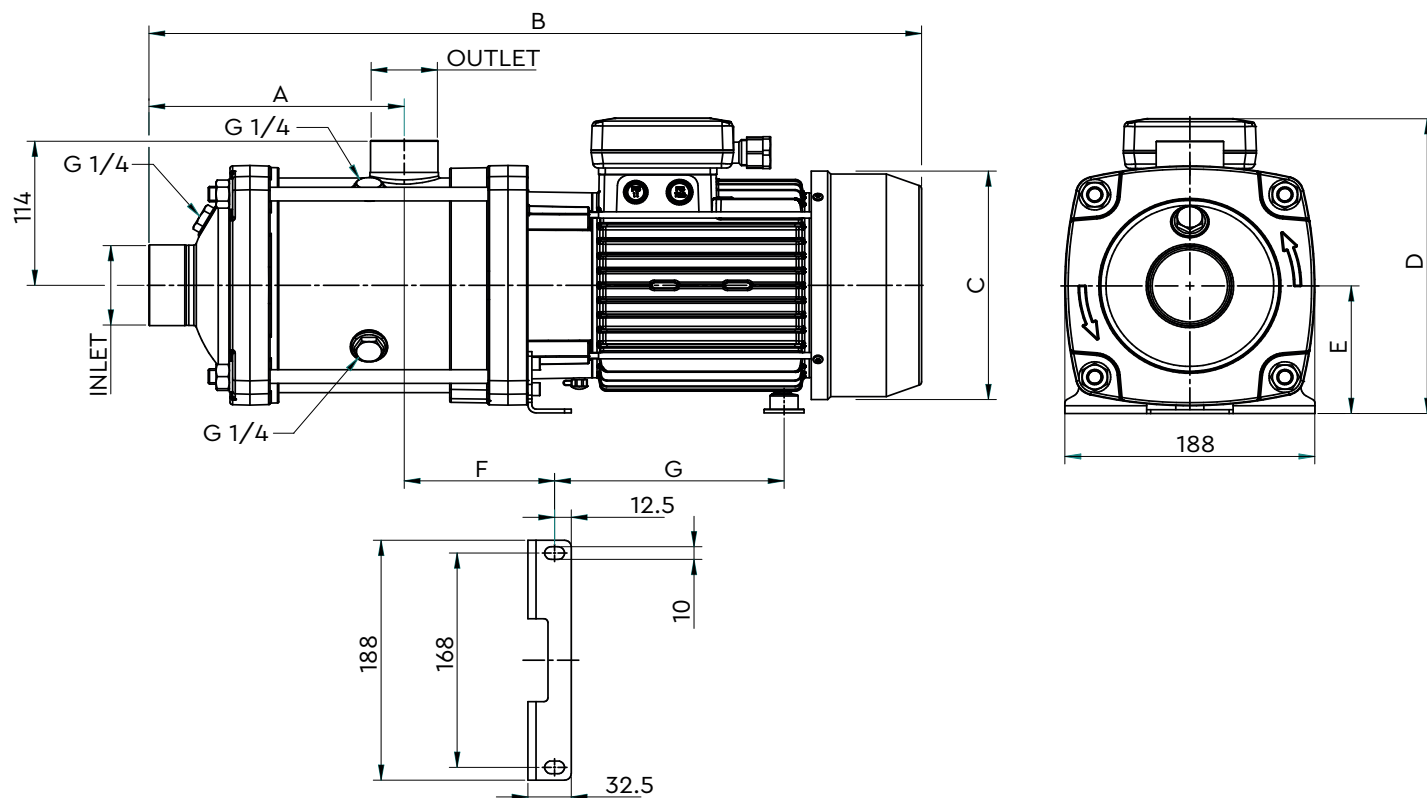
Dimensions: HM 2000 230 M 50



Part No	Description		Dimensions (mm)							Weight (Kg)	Inlet	Outlet
			A	B	C	D	E	F	G			
46781	HM 2002	230 M 50	144	533	179	231	100	113	173	25.2	Rp 2"	Rp 1½"

Stuart HM 2000 230-400/ T 50 Dimensions

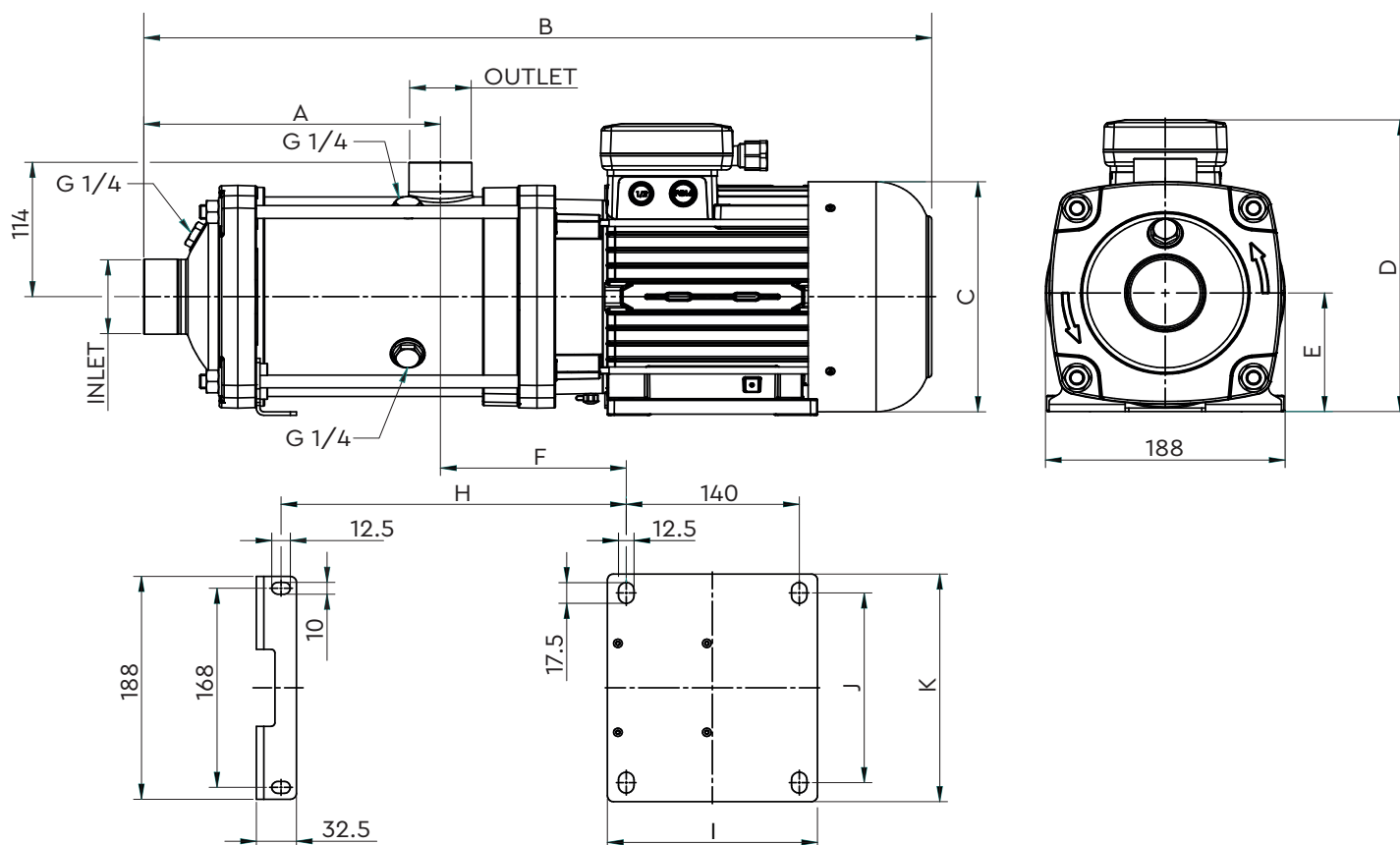
Dimensions: HM 2000 230-400/ T 50



Part No	Description	Dimensions (mm)								Weight (Kg)	Inlet	Outlet
		A	B	C	D	E	F	G				
46788	HM 2002 230-400 T 50	144	532	179	231	100	113	173	24.2	Rp 2"	Rp 1½"	
46789	HM 2003 230-400 T 50	144	567	179	231	100	113	173	27.2	Rp 2"	Rp 1½"	

Stuart HM 2000 400-690 T 50 Dimensions

Dimensions: HM 2000 400-690 T 50



Part No	Description	Dimensions (mm)										Weight (Kg)	Inlet	Outlet
		A	B	C	D	E	F	H	I	J	K			
46790	HM 2004 400-690 T 50	192	622	194	246	100	150	231	170	160	192	35.8	Rp 2"	Rp 1½"
46791	HM 2005 400-690 T 50	240	684	218	263	112	152	281	180	190	220	45.0	Rp 2"	Rp 1½"

Stuart Turner Limited reserves the right to amend specifications without notice.

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