

STUART

EXVM 0500 Centrifugal Vertical Multistage Pumps

A range of 5m³/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 7m³/h and models available providing up to 96 metres head, these pumps are suitable for use in a wide range of water boosting applications.



Features

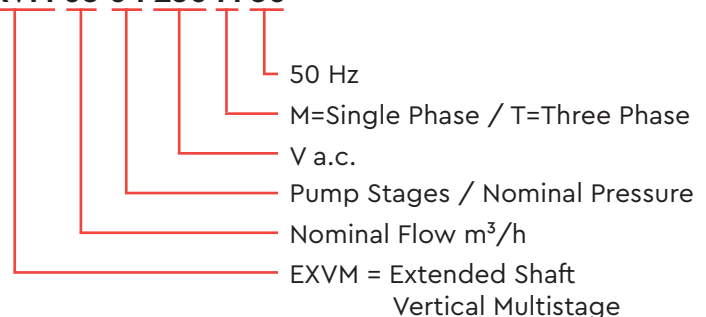
- Multistage centrifugal pump
- Flow rates up to 7 m³/h
- Heads up to 96 metres
- Single phase and three phase options
- Compact, close-coupled design
- AISI 304 stainless steel pump head housing, shaft, impellers and diffusers
- Extended life mechanical seal
- Continuously rated induction motor
- Easy maintenance
- WRAS Approved Product
- 1 year warranty

Applications

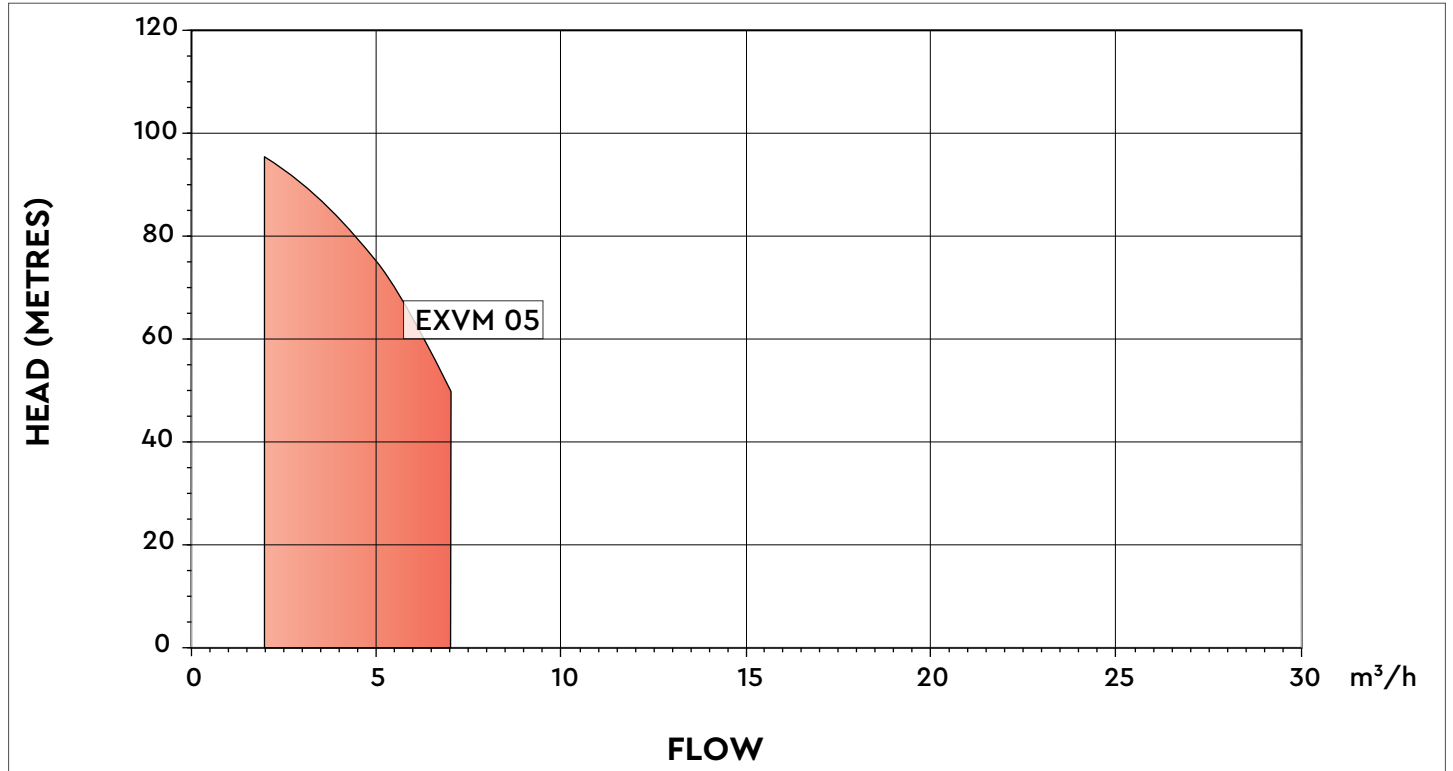
- Domestic and commercial water supply
- Industrial systems, plant and processing
- Wash down units
- Water distribution
- Irrigation and rainwater recovery
- Temperature control and air conditioning systems

Product Code

EXVM 05 04 230 M 50

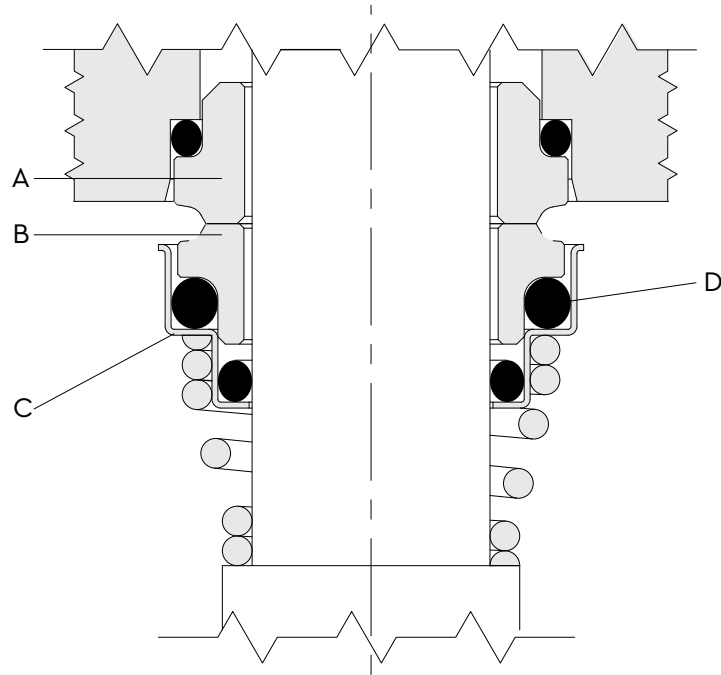


Stuart EXVM 0500 Series Performance Summary



		Q = Delivery															
l/min	0	33.3	41.7	50	58.3	66.7	75	83.3	91.7	100	116.7	133.3	150	166.7	183.3	233.3	
m³/h	0	2	2.5	3	3.5	4	4.5	5	5.5	6	7	8	9	10	11	14	
		H = Total Head (metres)															
Single Phase																	
EXVM 0502	22.8		20.8	20.2	19.6	18.8	18.0	17.0	16.0	14.7	11.6						
EXVM 0503	33.9		30.5	29.5	28.4	27.2	25.9	24.4	22.8	21.9	16.1						
EXVM 0504	45.6		41.3	40.1	38.7	37.1	35.4	33.5	31.3	28.8	22.5						
EXVM 0505	66.6		50.8	49.2	47.4	45.3	43.1	40.6	37.9	34.7	26.7						
EXVM 0506	68.2		61.4	59.5	57.2	54.7	52.0	49.0	45.7	41.9	32.3						
EXVM 0507	79.2		70.6	68.2	65.4	62.4	59.0	55.4	51.4	46.9	35.6						
EXVM 0508	91.7		83.8	81.6	78.9	75.9	72.5	68.7	64.5	59.6	47.2						
EXVM 0509	103.0		93.8	91.2	88.1	84.6	80.8	76.5	71.7	66.1	52.1						
Three Phase																	
EXVM 0502	23.0		21.0	20.4	19.7	18.9	18.1	17.2	16.1	14.9	11.8						
EXVM 0503	34.1		30.7	29.7	28.6	27.4	26.1	24.7	23.0	21.2	16.4						
EXVM 0504	45.4		40.8	39.6	38.1	36.5	34.8	32.8	30.6	28.1	21.8						
EXVM 0505	56.3		50.1	48.4	46.5	44.4	42.2	39.7	36.9	33.7	25.7						
EXVM 0506	68.2		61.6	59.8	57.7	55.3	52.7	49.9	46.6	42.9	33.4						
EXVM 0507	79.2		71.1	68.9	66.4	63.6	60.5	57.1	53.3	48.9	37.7						
EXVM 0508	92.0		84.2	81.9	79.3	76.2	72.9	69.2	65.0	60.1	47.7						
EXVM 0509	103.3		94.2	91.6	88.6	85.1	81.3	77.1	72.3	66.8	52.8						

Stuart EXVM 0500 Series Mechanical Seal Specifications



Seal Component Materials

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

Stuart EXVM 0500 Series Motor Specifications

- Asynchronous, TEFC (Totally Enclosed, Fan-Cooled)
- 2 pole
- Protection degree: IP55
- Insulation class: F
- Frequency of starts:
Max. 60 starts/hour (with min. 1 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
71	0.45	3.00	16	450	2890	5.4	69.7	0.92	1.50	0.72	1.60
71	0.55	3.50	16	450	2860	4.6	72.6	0.94	1.83	0.59	1.85
71	0.90	5.45	30	450	2875	4.8	75.3	0.93	3.00	0.47	1.67
71	1.10	6.60	30	450	2820	3.9	77.0	0.96	3.70	0.38	1.86
80	1.30	7.46	30	450	2860	4.2	80.8	0.94	4.35	0.57	1.86
80	1.50	8.56	30	450	2830	3.6	79.9	0.95	5.05	0.50	1.92
90	1.85	10.90	30	450	2760	2.8	76.6	0.96	6.40	0.39	2.40
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)

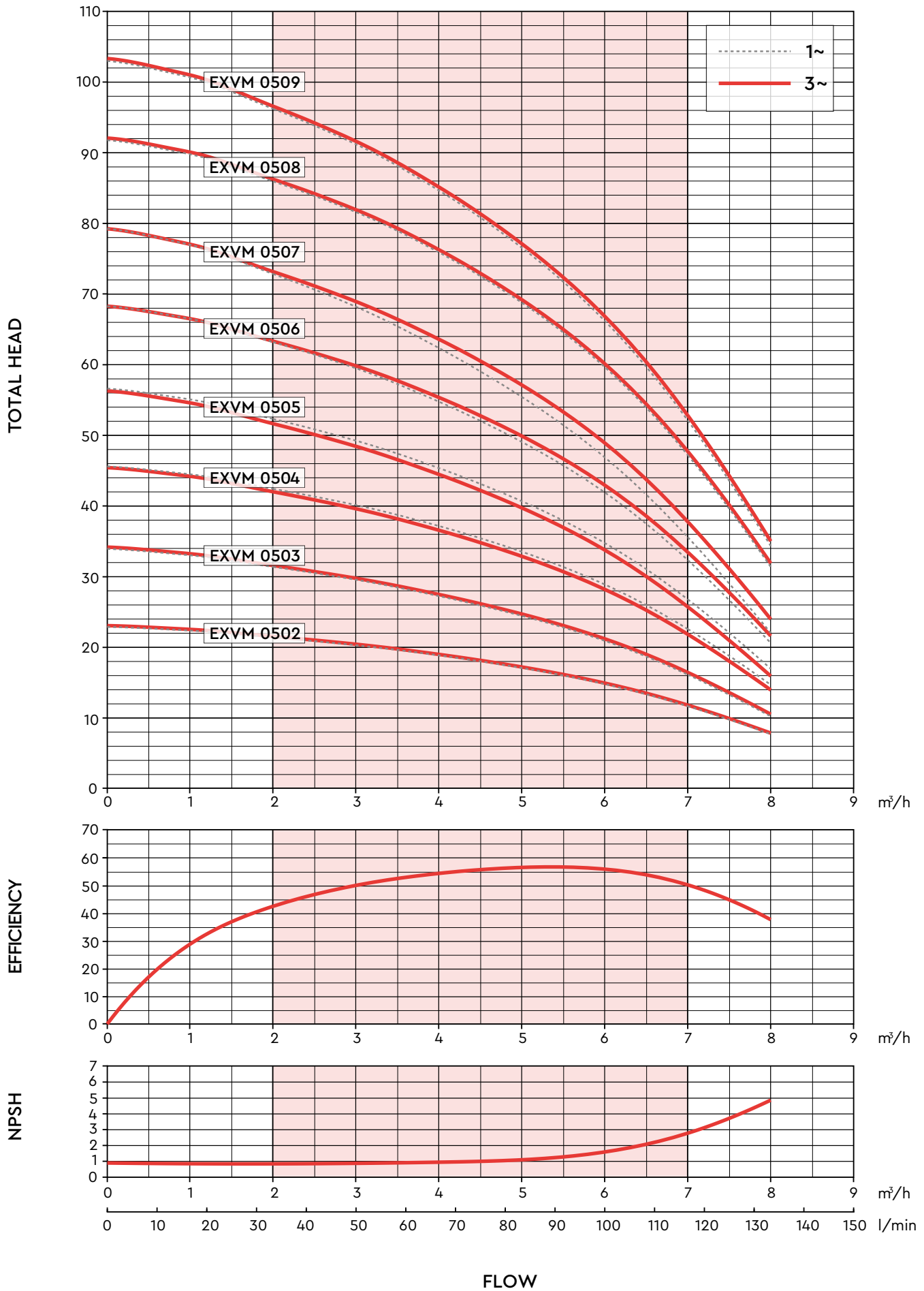
- IE3 premium efficiency motors
- IE efficiency according to IEC 60034-30-1:2014
- Electrical performance according to IEC 60034-2-1:2007
- Standard voltage 220-240 / 380-415 V \pm 5 % up to 3 kW
- Thermal protection to be provided within the starter panel

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	
0.75	80.9	81.5	79.6	-	-	-	3
1.10	82.7	84.6	84.2	-	-	-	3
1.50	84.3	85.7	85.3	-	-	-	3
2.20	86.1	86.7	85.4	-	-	-	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
71	0.75	2	50	0.83	6.8	2.6	3.6	3.7
71	1.10	2	50	0.82	5.9	3.7	3.2	3.1
80	1.50	2	50	0.79	6.8	5.1	3.2	3.2
90	2.20	2	50	0.80	9.6	7.3	4.3	4.4

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)							
0.75	2.8	1.6	-	-	2800	≤ 1000	-15 / 40	No
1.10	4.1	2.3	-	-	2840	≤ 1000	-15 / 40	
1.50	5.7	3.3	-	-	2830	≤ 1000	-15 / 40	
2.20	8.0	4.6	-	-	2880	≤ 1000	-15 / 40	

Stuart EXVM 0500 Series Performance Summary



Stuart EXVM 0500 230 M 50 Technical Specifications

EXVM 0500 230 M 50	0502	0503	0504	0505	0506	0507	0508	0509
Part No	47248	47249	47250	47251	47252	47253	47254	47255

General								
Warranty	1 Year							
Approvals	CE							
Pump type	Centrifugal Multistage							

Features								
Impeller stages	2	3	4	5	6	7	8	9
Compact, close-coupled design	✓							
Heavy duty oversized motor shaft	✓							
Easy maintenance	✓							

Performance								
Flow rate - nominal (m ³ /h)	5							
Flow rate range (m ³ /h)	2.0 - 7.0							
Maximum head - closed valve (metres)	23.0	34.0	45.5	56.5	68.5	79.5	92.0	103.0
Head range (metres)	12-21.5	16-31.5	22.5-42.5	26.7-52.5	32.5-63	35.5-73	47.7-86	52-96
Working pressure - maximum (bar)	12							

Motor								
Motor type	Induction (Manual reset thermal trip)							
Power supply (Vac/Ph/Hz)	230 V a.c. / 1 / 50 Hz							
Power - input P1 (kW)	0.59	0.81	1.10	1.32	1.53	1.74	2.35	2.59
Power - motor nominal P2 (kW)	0.45	0.55	0.90	1.10	1.30	1.50	1.85	2.20
Power - motor nominal P2 (hp)	0.6	0.7	1.2	1.5	1.7	2.0	2.5	3.0
Input current - 220-240v (A)	3.0	3.9	5.3	6.2	7.3	8.2	10.4	11.4
Efficiency (%)	69.7	72.6	75.3	77.0	80.8	79.9	76.6	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	Ceramic Alumina/Carbon Graphite/AISI 316/EPDM							

Connections								
Connection - inlet	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"
Connection - outlet	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"

Operating Conditions								
Operating ambient temperature range (°C)	-5 to +40 °C							
Liquid temperature range (°C)	-15 to +90 °C (110 °C for industrial applications)							

Dimensions								
Height (mm)	441.5	465.5	489.5	513.5	579.5	603.5	666.5	690.5
Width (mm)	212	212	212	212	219	219	226	226
Depth (mm)	220	220	220	220	220	220	220	220
Weight (Kg)	19.4	20.1	21.2	21.9	25.9	26.6	32.6	33.2

Stuart EXVM 0500 230-400 T 50 Technical Specifications

EXVM 0500 230-400 T 50	0502	0503	0504	0505	0506	0507	0508	0509
Part No	47225	47226	47227	47228	47229	47230	47231	47232

General								
Warranty	1 Year							
Approvals	CE							
Pump type	Centrifugal Multistage							

Features								
Impeller stages	2	3	4	5	6	7	8	9
Compact, close-coupled design	✓							
Heavy duty oversized motor shaft	✓							
Easy maintenance	✓							

Performance								
Flow rate - nominal (m ³ /h)	5							
Flow rate range (m ³ /h)	2.0 - 7.0							
Maximum head - closed valve (metres)	23.0	34.0	45.5	56.5	68.5	79.5	92.0	103.0
Head range (metres)	12-21.5	16-31.5	22.5-42.5	26-52	33.5-63.5	38-73	47-86	52-96
Working pressure - maximum (bar)	12							

Motor								
Motor type	Induction (thermal trip fitted by installer)							
Power supply (Vac/Ph/Hz)	230 - 400 V a.c. / 3 / 50 Hz							
Power - input P1 (kW)	0.55	0.77	0.99	1.21	1.50	1.72	2.06	2.29
Power - motor nominal P2 (kW)	0.75	0.75	1.10	1.10	1.50	1.50	2.20	2.20
Power - motor nominal P2 (hp)	1.0	1.0	1.5	1.5	2.0	2.0	3.0	3.0
Input current 220-240v (A)	2.1	2.5	3.2	3.7	5.0	5.5	6.8	7.4
Input current 380-415v (A)	1.2	1.4	1.9	2.2	2.9	3.2	3.9	4.3
Efficiency class	IE3	IE3	IE3	IE3	IE3	IE3	IE3	IE3
Efficiency 3 Phase 2/4 (%)	79.6	79.6	84.2	84.2	85.3	85.3	85.4	85.4
Efficiency 3 Phase 3/4 (%)	81.5	81.5	84.6	84.6	85.7	85.7	86.7	86.7
Efficiency 3 Phase 4/4 (%)	80.9	80.9	82.7	82.7	84.3	84.3	86.1	86.1
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	Ceramic Alumina/Carbon Graphite/AISI 316/EPDM							

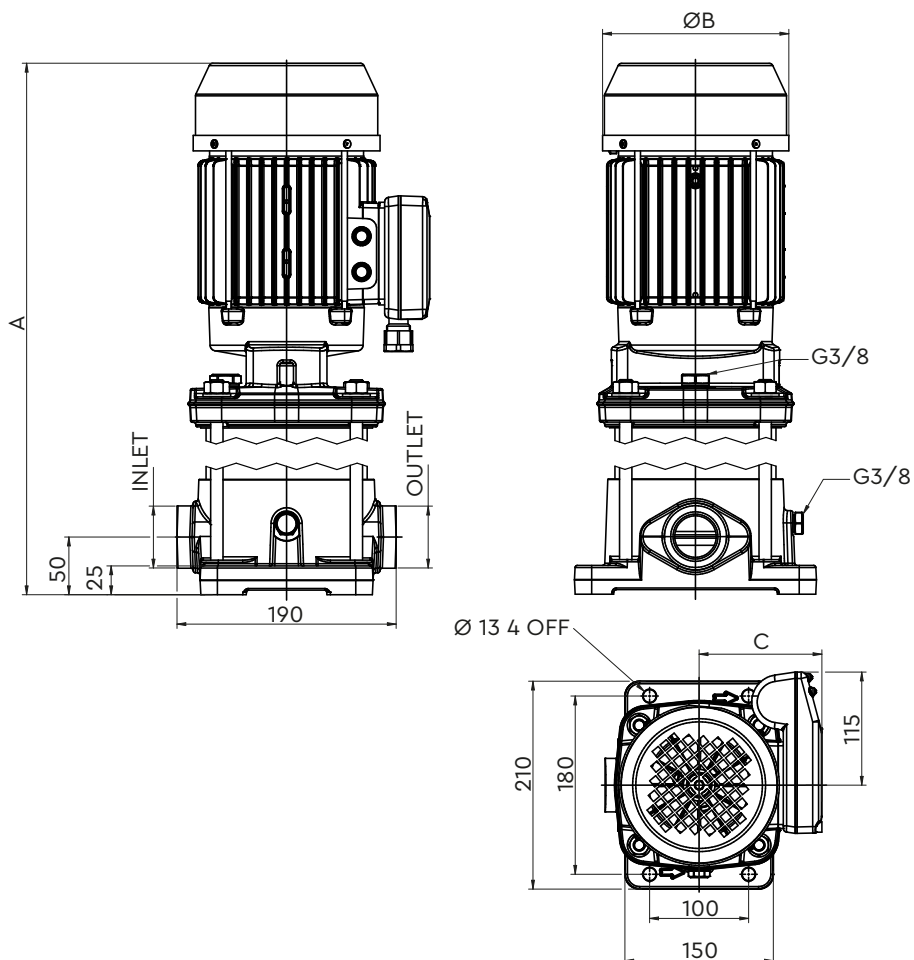
Connections								
Connection - inlet	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"
Connection - outlet	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"

Operating Conditions								
Operating ambient temperature range (°C)	-5 to +40 °C							
Liquid temperature range (°C)	-15 to +90 °C (110 °C for industrial applications)							

Dimensions								
Height (mm)	441.5	465.5	489.5	513.5	579.5	603.5	666.5	690.5
Width (mm)	212	212	212	212	219	219	226	226
Depth (mm)	210	210	210	210	210	210	210	210
Weight (Kg)	19.3	19.9	21.1	21.7	25.8	26.4	32.5	33.1

Stuart EXVM 0500 230 M 50 Dimensions

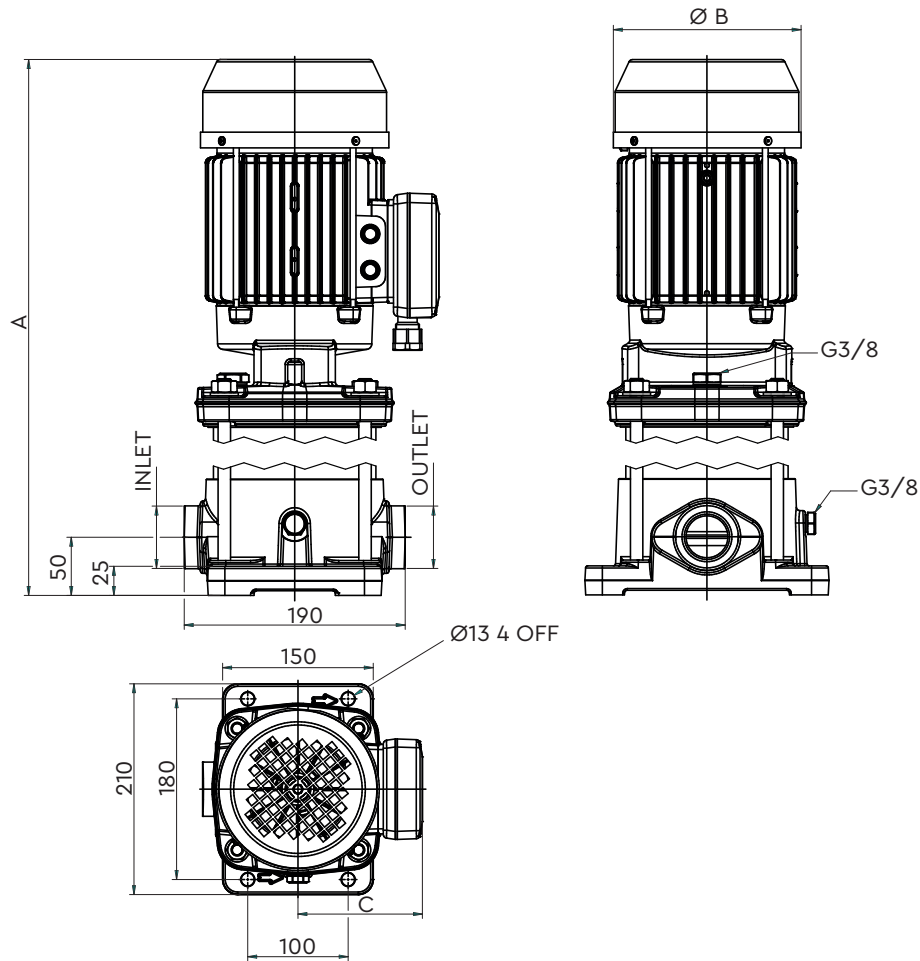
Dimensions: EXVM 0500 230 M 50



Part No	Description	Dimensions (mm)			Weight (Kg)	Inlet	Outlet
		A	Ø B	C			
47248	EXVM 0502 230 M 50	441.5	144	117	19.4	Rp 1¼"	Rp 1¼"
47249	EXVM 0503 230 M 50	465.5	144	117	20.1	Rp 1¼"	Rp 1¼"
47250	EXVM 0504 230 M 50	489.5	144	117	21.2	Rp 1¼"	Rp 1¼"
47251	EXVM 0505 230 M 50	513.5	144	117	21.9	Rp 1¼"	Rp 1¼"
47252	EXVM 0506 230 M 50	579.5	162	124	25.9	Rp 1¼"	Rp 1¼"
47253	EXVM 0507 230 M 50	603.5	162	124	26.6	Rp 1¼"	Rp 1¼"
47254	EXVM 0508 230 M 50	666.5	179	131	32.6	Rp 1¼"	Rp 1¼"
47255	EXVM 0509 230 M 50	690.5	179	131	33.2	Rp 1¼"	Rp 1¼"

Stuart EXVM 0500 230-400 T 50 Dimensions

Dimensions: EXVM 0500 230-400 T 50



Part No	Description	Dimensions (mm)			Weight (Kg)	Inlet	Outlet
		A	Ø B	C			
47225	EXVM 0502 230-400 T 50	441.5	144	117	19.3	Rp 1¼"	Rp 1¼"
47226	EXVM 0503 230-400 T 50	465.5	144	117	19.9	Rp 1¼"	Rp 1¼"
47227	EXVM 0504 230-400 T 50	489.5	144	117	21.1	Rp 1¼"	Rp 1¼"
47228	EXVM 0505 230-400 T 50	513.5	144	117	21.7	Rp 1¼"	Rp 1¼"
47229	EXVM 0506 230-400 T 50	579.5	162	124	25.8	Rp 1¼"	Rp 1¼"
47230	EXVM 0507 230-400 T 50	603.5	162	124	26.4	Rp 1¼"	Rp 1¼"
47231	EXVM 0508 230-400 T 50	666.5	179	131	32.5	Rp 1¼"	Rp 1¼"
47232	EXVM 0509 230-400 T 50	690.5	179	131	33.1	Rp 1¼"	Rp 1¼"

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

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