

Pumps with peripheral impeller

 Clean water

 Industrial use



PERFORMANCE RANGE

- Flow rate up to **45 l/min** (2.7 m³/h)
- Head up to **100 m**

APPLICATION LIMITS

- Manometric suction lift up to **8 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+50 °C**
- Max. working pressure **10 bar**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

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

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



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY



INSTALLATION AND USE

Suitable for use with clean water that does not contain abrasive particles and with liquids that are not chemically aggressive towards the materials from which the pump is made. The design features of these particularly compact brass pumps provide a guarantee against rust and oxidation; they are therefore recommended for industrial applications such as cooling and air conditioning.

Installation needs to be undertaken in well ventilated closed areas or anyway protected from bad weather.

PATENTS - TRADE MARKS - MODELS

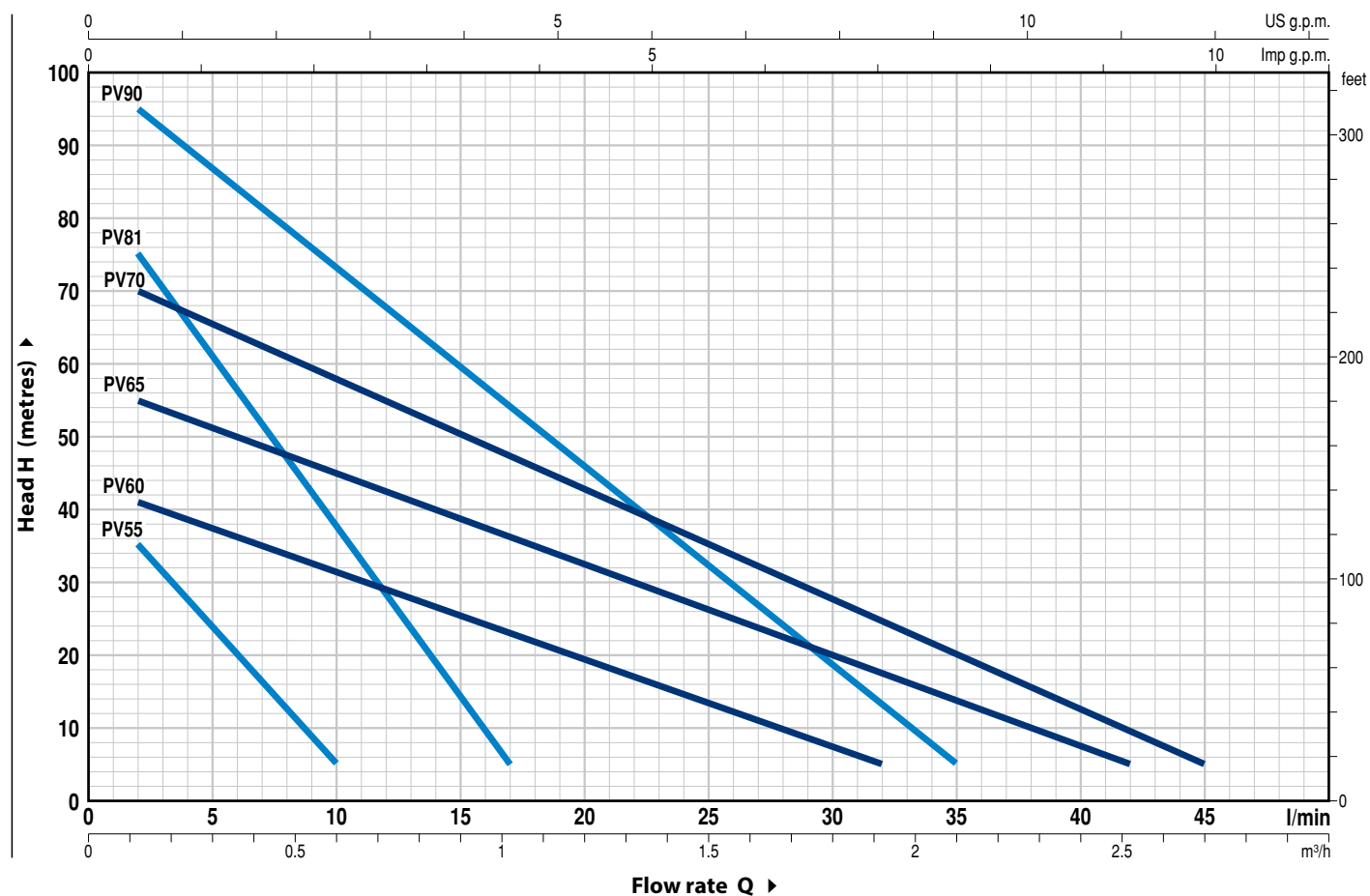
- Shaft: patent n. 0000275945 (PV55)

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- Other voltages or 60 Hz frequency
- IP X5 class protection for PV70-90

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min⁻¹ HS= 0 m



MODEL		POWER (P ₂)			Q	m³/h	0	0.12	0.18	0.24	0.30	0.36	0.42	0.48	0.54	0.60
Single-phase	Three-phase	kW	HP	▲		l/min	0	2	3	4	5	6	7	8	9	10
PVM 55	PV 55	0.18	0.25	IE3	H metres	50 Hz	42	35	31	27.5	24	20	16	12.5	9	5
						60 Hz	55	46	41.5	37	32.5	28	23.5	19	14.5	10

⇒ The PVM55 and PV55 pumps are designed to work also at 60 Hz

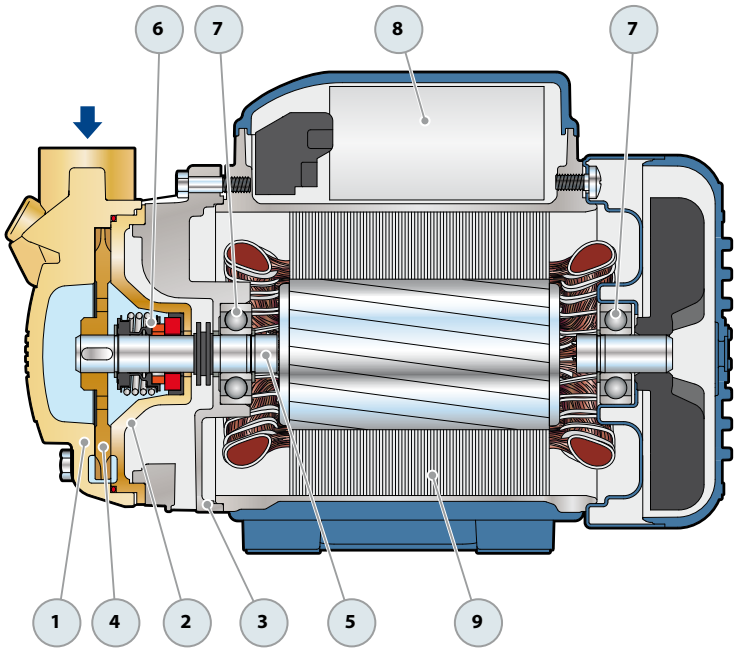
MODEL		POWER (P ₂)			Q	m³/h	0	0.12	0.30	0.60	0.90	1.02	1.2	1.5	1.8	1.9	2.1	2.5	2.7
Single-phase	Three-phase	kW	HP	▲		l/min	0	2	5	10	15	17	20	25	30	32	35	42	45
PV _m 60	PV 60	0.37	0.50	IE3	H metres	43	41	37.5	31.5	25.5	23	19.5	13	7.5	5				
PV _m 81	PV 81	0.37	0.50			85	75	61	38	15	5								
PV _m 65	PV 65	0.60	0.85			58	55	51	45	39	36	32.5	26	20	17.5	14	5		
PV _m 70	PV 70	0.90	1.20			74	70	65.5	58	50	47	43	35	28	25	20	9.5	5	
PV _m 90	PV 90	0.90	1.20			100	95	87	73	59.5	54	46	32	19	13	5			

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

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

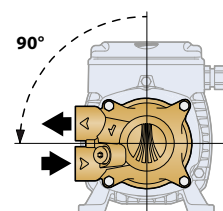
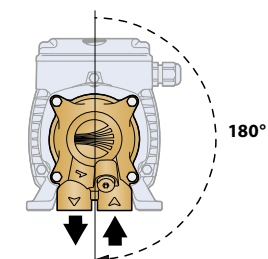
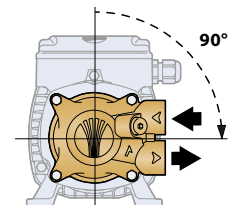
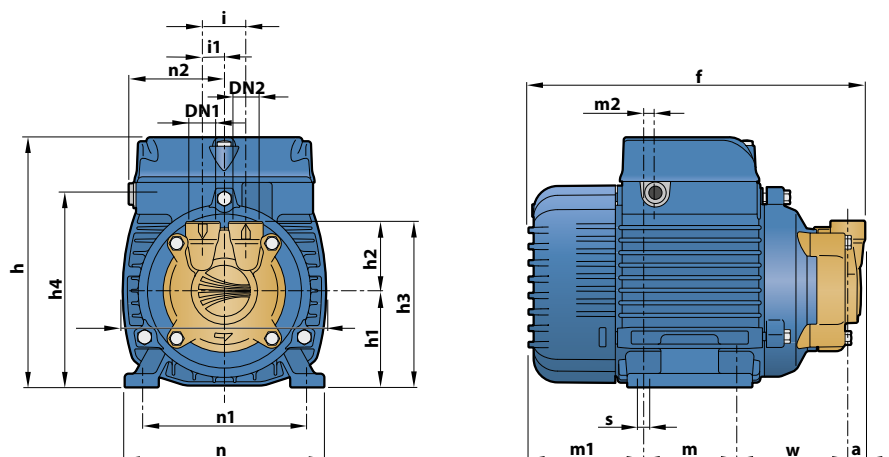
▲ Three-phase motor efficiency class (IEC 60034-30-1)

POS. COMPONENT		CONSTRUCTION CHARACTERISTICS				
1	PUMP BODY	Brass complete with threaded ports in compliance with ISO 228/1				
2	PUMP BODY BACK-PLATE	Brass				
3	MOTOR BRACKET	Aluminium				
4	IMPELLER	Brass with peripheral radial vanes				
5	MOTOR SHAFT	Stainless steel AISI 431				
6	MECHANICAL SEAL	<i>Seal</i>	<i>Shaft</i>	<i>Materials</i>		
		<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
		ST1-12	Ø 12 mm	Silicon carbide	Graphite	NBR
7	BEARINGS	<i>Pump</i>	<i>Model</i>			
		PV 55-60-65-81	6201 ZZ / 6201 ZZ			
		PV 70-90	6203 ZZ / 6203 ZZ			
8	CAPACITOR	<i>Pump</i>	<i>Capacitance</i>			
		<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>		
		PVm 55	10 µF - 450 VL	25 µF - 250 VL		
		PVm 60	10 µF - 450 VL	25 µF - 250 VL		
		PVm 81	14 µF - 450 VL	25 µF - 250 VL		
		PVm 65	14 µF - 450 VL	25 µF - 250 VL		
		PVm 70	25 µF - 450 VL	60 µF - 300 VL		
		PVm 90	25 µF - 450 VL	60 µF - 300 VL		
9	ELECTRIC MOTOR	PVm: single-phase 230 V - 50 Hz (50/60 Hz for PVm55) with thermal overload protector incorporated into the winding.				
		PV: three-phase 230/400 V - 50 Hz (50/60 Hz for PV55).				
		➡ The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)				
		– Insulation: class F – Protection: IP X4				



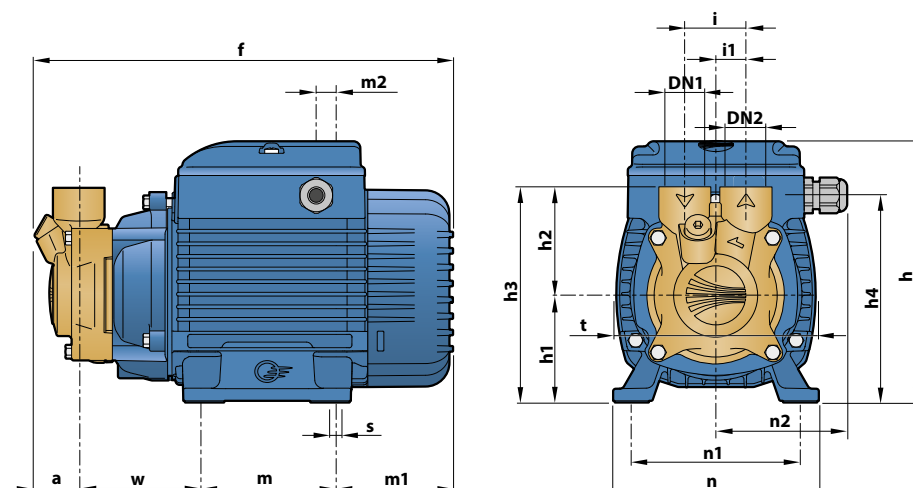
DIMENSIONS AND WEIGHT

PV 55



When rotating the pump body it is also necessary to rotate the pump body back-plate

PV 60-81-65-70-90



MODEL		PORTS		DIMENSIONS mm																		kg		
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	h3	h4	i	i1	m	m1	m2	n	n1	n2	t	w	s	1~	3~	
PVm 55	PV 55	1/4"	1/4"	10.5	194	145	56	40	96	112	25	12.5	55	65.5	8	116	94/100	55.5	116	63	7	4.4	4.4	
PVm 60	PV 60	1/2"	1/2"	26	243.5	152	63	62	125	120.5	35	17.5	80	69.5	11.5	120	98/102	76.5	116	68	7	5.5	5.5	
PVm 81	PV 81			26.5	241			65	128											65		6.8	6.8	
PVm 65	PV 65	27	243.5	129	45			22.5	90											80.5		22	134	110/114
PVm 70	PV 70	3/4"	3/4"			26.5	276			180 *	71	66	137	132	79	10.2	9.5							
PVm 90	PV 90					28	275								76.5	10.0	9.3							

(*) h=196 mm for single-phase versions at 110 V

ABSORPTION

MODEL	VOLTAGE	
Single-phase	230 V	230 V
PVm 55 (50 Hz)	1.6 A	3.2 A
PVm 55 (60 Hz)	2.0 A	4.0 A
PVm 60	2.3 A	4.6 A
PVm 81	2.8 A	5.6 A
PVm 65	4.4 A	8.8 A
PVm 70	6.3 A	12.6 A
PVm 90	6.3 A	12.6 A

MODEL	VOLTAGE	
Three-phase	230 V	400 V
PV 55 (50 Hz)	1.7 A	1.0 A
PV 55 (60 Hz)		
PV 60	2.1 A	1.2 A
PV 81	2.1 A	1.2 A
PV 65	2.6 A	1.5 A
PV 70	4.2 A	2.4 A
PV 90	4.2 A	2.4 A