

## Pumps with Peripheral Impeller

- Clean Water
- Industrial



### PERFORMANCE RANGE

- Flow Rate up to **11 GPM** (45 l/min) (2.7 m<sup>3</sup>/h)
- Head up to **328 feet** (100 m)

### APPLICATION LIMITS

- Maximum Suction Lift up to **26 feet** (8 m)
- Liquid Temperature between **14°F** (-10°C) and **194°F** (+90°C)
- Ambient Temperature between **14°F** (-10°C) and **122°F** (+50°C)
- Maximum Working Pressure **145 psi** (10 bar)
- Continuous Duty Rating **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

### FEATURES AND BENEFITS

- Clean water that does not contain abrasive particles
- Liquids that are not chemically aggressive
- Brass pump body
- Resistant to rust

### APPLICATIONS AND MARKETS

- Industrial
- Water Distribution
- Small Pressure Tanks
- Air Conditioning
- Water Well Service
- Pressure Boosting Systems
- OEM Equipment

### PATENTS - TRADE MARKS - MODELS

- Shaft: Patent No. 0000275945 (PV55)

### OPTIONS AVAILABLE ON REQUEST

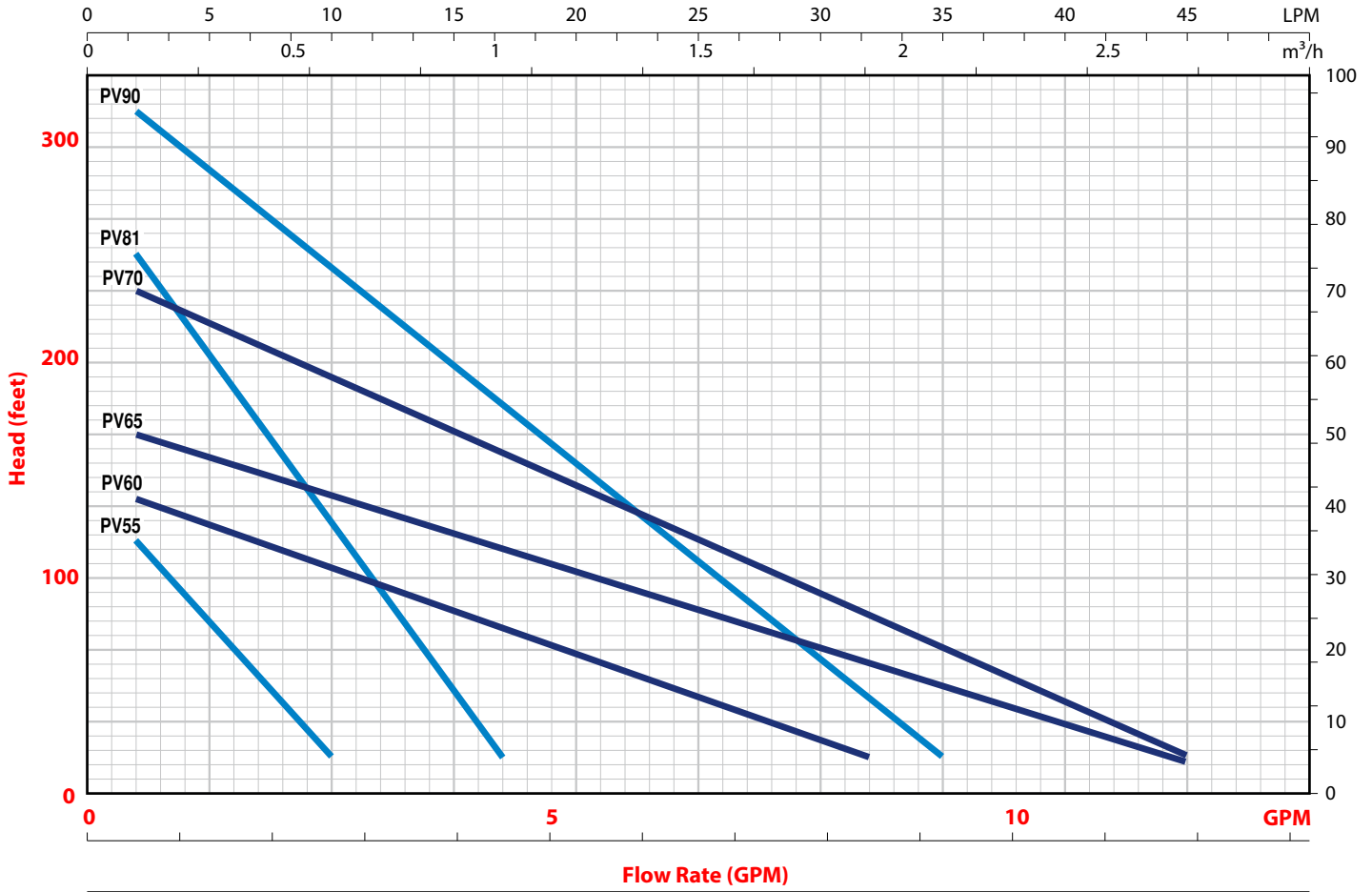
- Special mechanical seal
- Other voltages
- IP X5 class protection for PV70-90

### GUARANTEE

**2 YEARS** subject to terms and conditions

**PERFORMANCE CURVES AND DATA**

**60 Hz RPM = 3450**



MODEL NUMBER		MOTOR SIZE			FLOW	LPM	0	2	3	4	5	6	7	8	9	10
Single-phase	Three-phase	kW	HP	EFF		GPM	0	0.5	0.8	1.1	1.3	1.6	1.8	2.1	2.4	2.6
PVm 55	PV 55	0.18	0.25	IE3	HEAD (feet)	60 Hz	180.4	150.9	136.1	121.4	106.6	91.8	77.1	62.3	47.6	32.8
						50 Hz	137.8	114.8	101.7	90.2	78.7	65.6	52.5	41.0	29.5	16.4

⇒ The PVm55 and PV55 pumps are designed to work also at 60 Hz

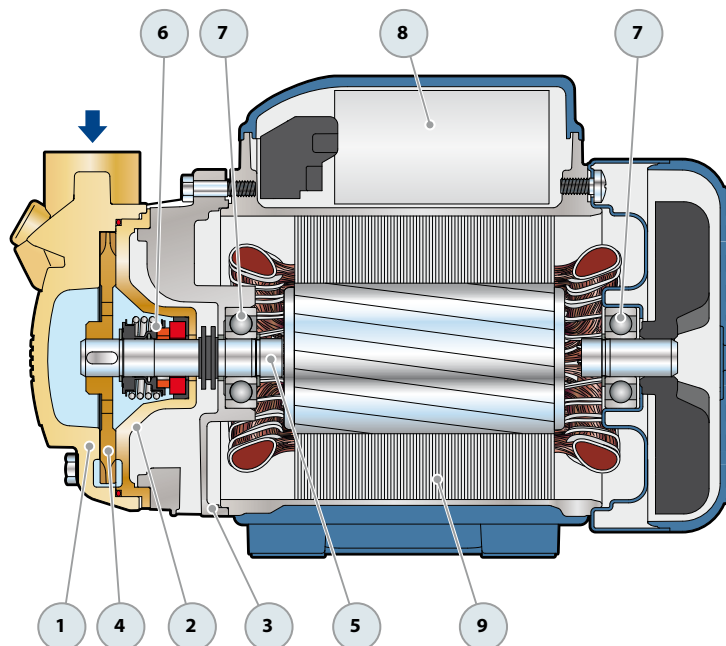
MODEL NUMBER		MOTOR SIZE			LPM	0	2	5	10	15	17	20	25	30	32	35	40	45		
Single-phase	Three-phase	kW	HP	EFF		GPM	0	0.5	1.3	2.6	3.9	4.5	5.3	6.6	7.9	8.4	9.2	10.6	11.9	
PVm 60	PV 60	0.37	0.50	IE3	HEAD (feet)	141.1	134.5	123.0	103.3	83.7	75.4	63.9	42.6	24.6	16.4					
PVm 81	PV 81	0.37	0.50			278.9	246.1	200.1	124.7	49.2	16.4									
PVm 65	PV 65	0.60	0.85			170.6	164.0	150.9	134.5	118.1	111.5	101.7	85.3	65.6	59.1	49.2	42.6	16.4		
PVm 70	PV 70	0.90	1.20			242.8	229.7	214.9	190.3	164.0	154.2	141.1	114.8	91.8	82.0	65.6	32.8	16.4		
PVm 90	PV 90	0.90	1.20			328.1	311.7	285.4	239.5	195.2	177.2	150.9	104.9	62.3	42.6	16.4				

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

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

## NO. COMPONENT CONSTRUCTION CHARACTERISTICS

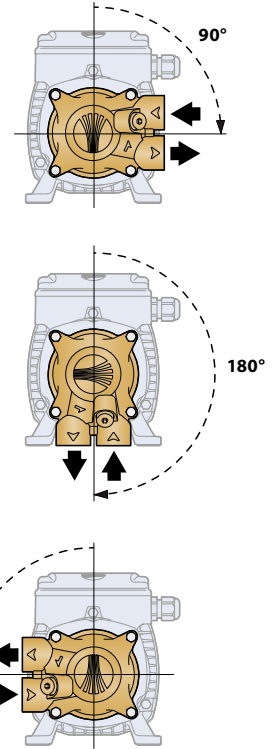
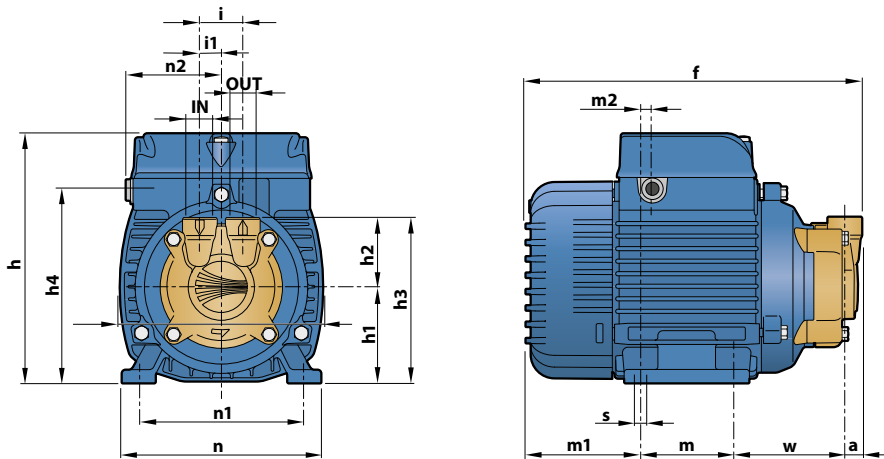
1	<b>PUMP BODY</b>	Brass complete with threaded ports in compliance with ISO 228/1				
2	<b>PUMP BODY BACK-PLATE</b>	Brass				
3	<b>MOTOR BRACKET</b>	Aluminium				
4	<b>IMPELLER</b>	Brass with peripheral radial vanes				
5	<b>MOTOR SHAFT</b>	Stainless steel AISI 431				
6	<b>MECHANICAL SEAL</b>	<i>Seal</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 0.4 in	Silicon carbide	Graphite	NBR
7	<b>BEARINGS</b>	<i>Pump</i>	<i>Model</i>			
		PV 55-60-65-81	6201 ZZ / 6201 ZZ			
		PV 70-90	6203 ZZ / 6203 ZZ			
8	<b>CAPACITOR</b>	<i>Pump</i>	<i>Capacitance</i>			
		<i>Single-phase</i>	<i>(230 V)</i>	<i>(115 V or 127 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	<b>ELECTRIC MOTOR</b>	<p><b>PVm:</b> single-phase 230 V - 60 Hz (50/60 Hz for Pvm55) with thermal overload protector incorporated into the winding.</p> <p><b>PV:</b> three-phase 220/380 V - 60 Hz or 230/460 V - 60 Hz (50/60 Hz for PV55).</p> <p>➔ <b>The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)</b></p> <ul style="list-style-type: none"> <li>- Insulation: class F</li> <li>- Protection: IP X4</li> </ul>				



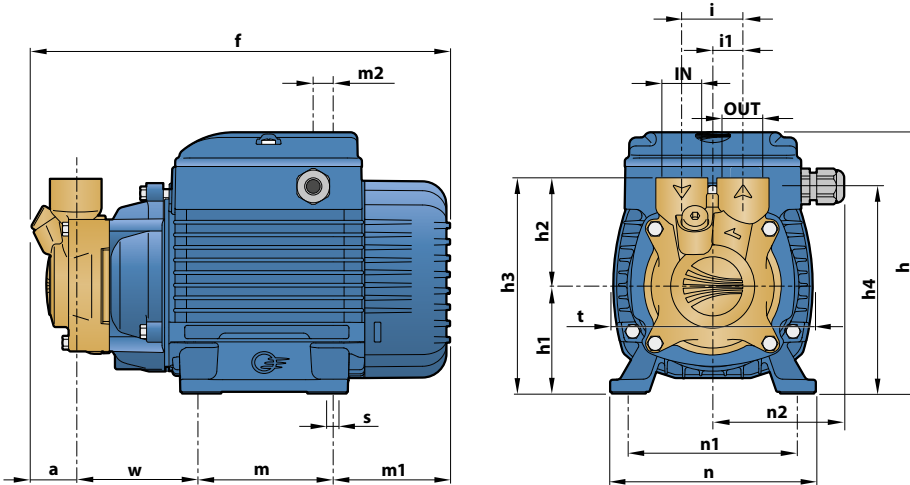
## DIMENSIONS AND WEIGHT

PV 55

On request



PV 60-81-65-70-90



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

MODEL NUMBER		PORTS		DIMENSIONS (inches)																	Lbs													
Single-phase	Three-phase	IN	OUT	a	f	h	h1	h2	h3	h4	i	i1	m	m1	m2	n	n1	n2	t	w	s	1-PH	3-PH											
PVm 55	PV 55	1/4"	1/4"	0.4	7.6	5.7	2.2	1.6	3.8	4.4	0.9	0.5	2.2	2.6	0.3	4.6	3.7/3.9	2.2	4.6	2.5	0.3	9.7	9.7											
PVm 60	PV 60	1/2"	1/2"	1.0	9.6	5.9	2.5	2.4	4.9	4.7	1.4	0.7	3.1	2.7	0.4	4.7	3.8/4.0	3.0	4.6	2.7	0.3	12.1	12.1											
PVm 81	PV 81			1.0	9.5			2.5	5.0											2.5		5.1	2.5	14.9	14.9									
PVm 65	PV 65	3/4"	3/4"	1.1	9.6	7.1 *	2.8	2.6	5.4	5.2	1.8	0.9	3.5	3.2	0.8	5.3	4.3/4.5	2.8	5.5	2.6	0.3	14.9	14.9											
PVm 70	PV 70			1.0	10.8															5.4		5.2	1.8	0.9	3.5	3.2	0.8	5.3	4.3/4.5	2.8	5.5	3.1	22.5	20.9
PVm 90	PV 90			1.1	10.8															5.4		5.2	1.8	0.9	3.5	3.2	0.8	5.3	4.3/4.5	2.8	5.5	3.0	22.0	20.5

(\*)  $h = 0.7$  in (196 mm) for single-phase versions at 115 V

## ABSORPTION

MODEL	VOLTAGE		
<b>Single-phase</b>	230 V	115 V	127 V
PVm 55 (60 Hz)	2.0 A	4.0 A	3.2 A
PVm 55 (50 Hz)	1.6 A	3.2 A	2.8 A
PVm 60	3.3 A	6.6 A	5.7 A
PVm 81	3.3 A	6.6 A	5.7 A
PVm 65	4.5 A	9.0 A	7.8 A
PVm 70	7.0 A	14.0 A	12.1 A
PVm 90	6.5 A	13.0 A	11.3 A

MODEL	VOLTAGE			
<b>Three-phase</b>	220 V	380 V	230 V	460 V
PV 55 (60 Hz)	1.7 A	1.0 A	1.7 A	1.1 A
PV 55 (50 Hz)	1.7 A	1.0 A	1.7 A	1.1 A
PV 60	2.6 A	1.5 A	2.3 A	1.3 A
PV 81	2.3 A	1.3 A	2.1 A	1.1 A
PV 65	3.1 A	1.8 A	2.7 A	1.5 A
PV 70	5.0 A	2.9 A	3.9 A	2.3 A
PV 90	4.8 A	2.8 A	3.7 A	2.1 A