

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.

The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

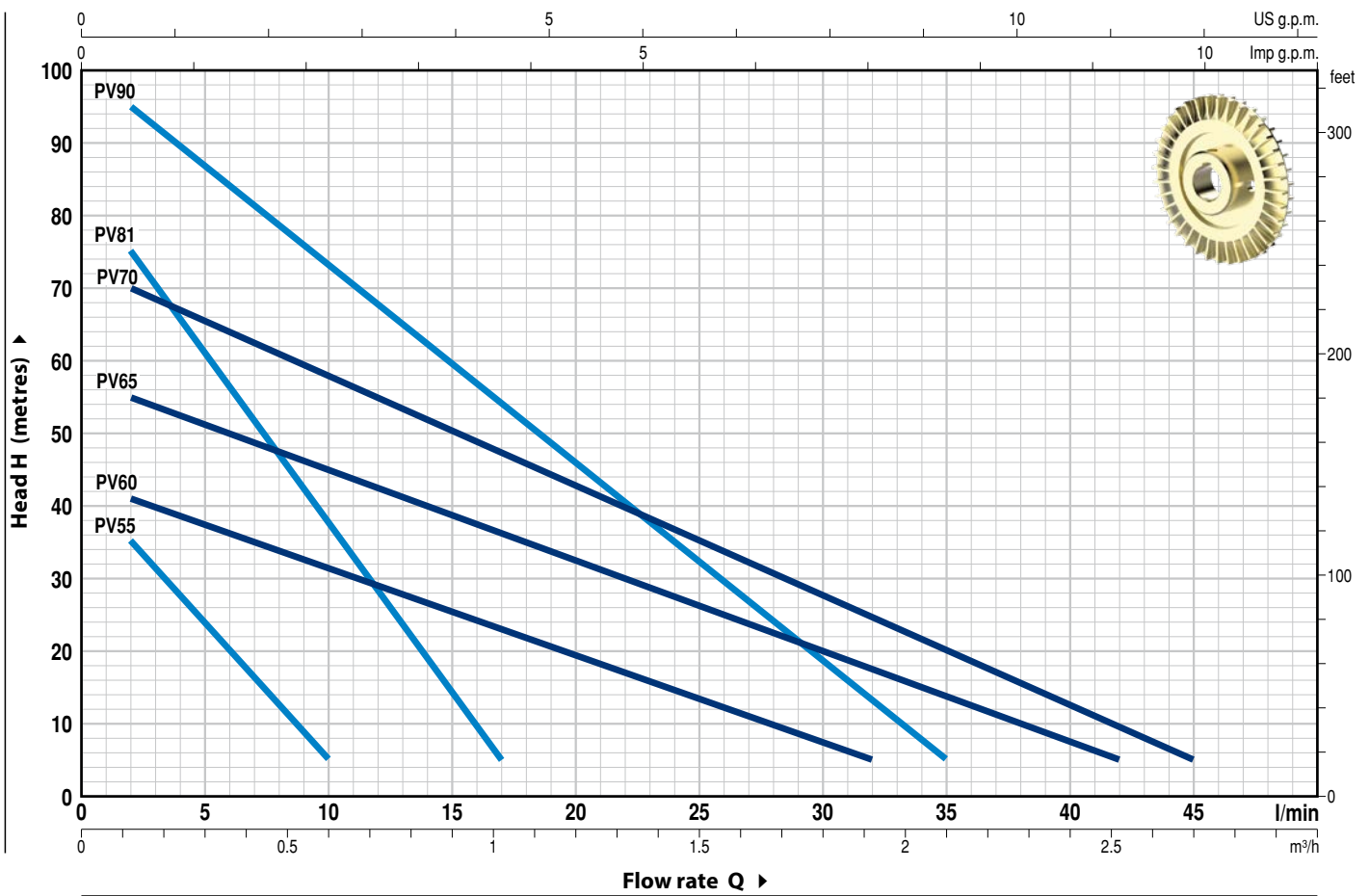
- Shaft: patent n. 0000275945 (PV55)

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 | Flow rate | | | | | | | | | | |
|--------------|-------------|-------------------------|------|-----|--------|-------------------|----|------|------|------|------|------|------|------|------|------|
| Single-phase | Three-phase | kW | HP | ▲ | | m ³ /h | 0 | 0.12 | 0.18 | 0.24 | 0.30 | 0.36 | 0.42 | 0.48 | 0.54 | 0.60 |
| | | | | | metres | l/min | 0 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Pvm 55 | PV 55 | 0.18 | 0.25 | IE3 | 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 | Flow rate | | | | | | | | | | | | | | | | |
|--------------|-------------|-------------------------|------|-----|----------|-------------------|----|------|------|------|------|------|-----|-----|------|-----|-----|-----|-----|--|--|--|
| Single-phase | Three-phase | kW | HP | ▲ | | m ³ /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 | | | |
| | | | | | H metres | l/min | 0 | 2 | 5 | 10 | 15 | 17 | 20 | 25 | 30 | 32 | 35 | 42 | 45 | | | |
| Pvm 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 | | | | | | | |
| Pvm 81 | PV 81 | 0.37 | 0.50 | | | 85 | 75 | 61 | 38 | 15 | 5 | | | | | | | | | | | |
| Pvm 65 | PV 65 | 0.60 | 0.85 | | | 58 | 55 | 51 | 45 | 39 | 36 | 32.5 | 26 | 20 | 17.5 | 14 | 5 | | | | | |
| Pvm 70 | PV 70 | 0.90 | 1.20 | | | 74 | 70 | 65.5 | 58 | 50 | 47 | 43 | 35 | 28 | 25 | 20 | 9.5 | 5 | | | | |
| Pvm 90 | PV 90 | 0.90 | 1.20 | | | 100 | 95 | 87 | 73 | 59.5 | 54 | 46 | 32 | 19 | 13 | 5 | | | | | | |

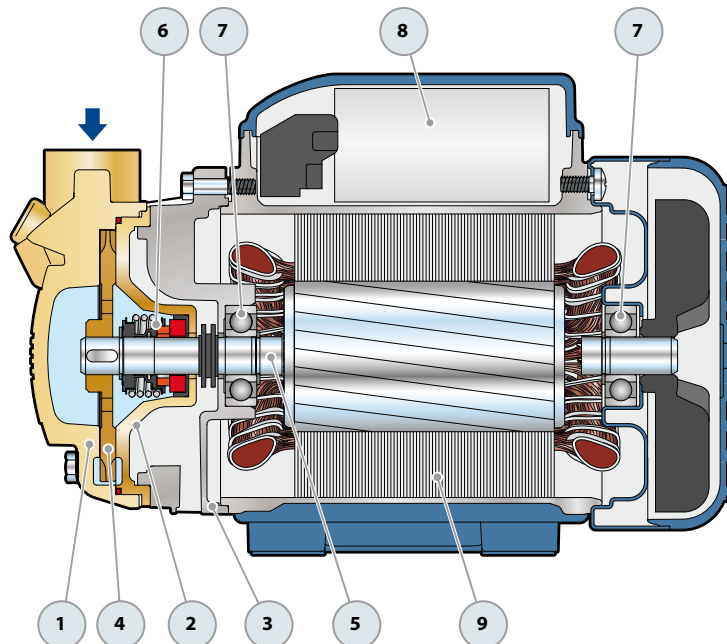
Q = Flow rate H = Total manometric head HS = Suction height

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

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

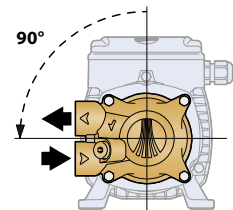
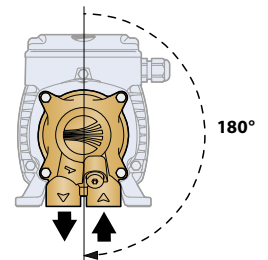
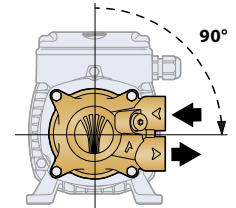
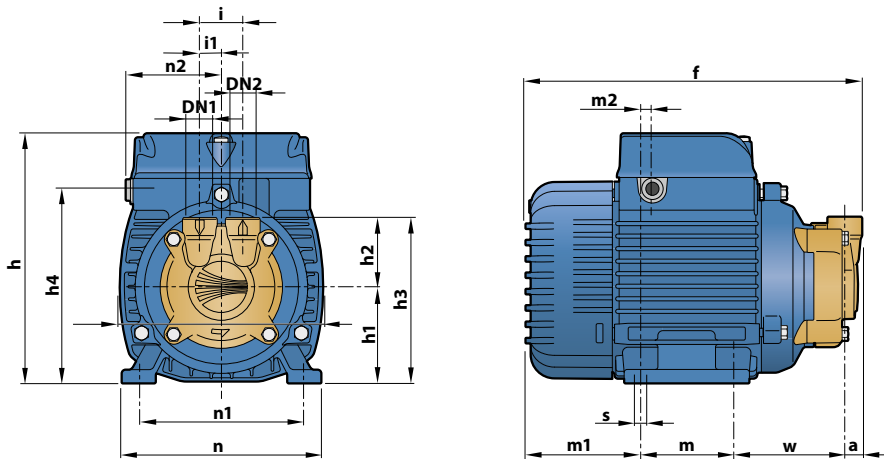
POS. COMPONENT CONSTRUCTION CHARACTERISTICS

| | | | | | | |
|---|-----------------------------|---|----------------------------|------------------------|------------------------|------------------|
| 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>(220-230 V o 240 V)</i> | | | |
| | | PVm 55 | 10 µF - 450 VL | | | |
| | | PVm 60 | 10 µF - 450 VL | | | |
| | | PVm 81 | 14 µF - 450 VL | | | |
| | | PVm 65 | 14 µF - 450 VL | | | |
| | | PVm 70 | 16 µF - 450 VL | | | |
| | | PVm 90 | 20 µF - 450 VL | | | |
| 9 | ELECTRIC MOTOR | <p>PVm: single-phase 220-230 V - 50 Hz (50/60 Hz for PVm55) with thermal overload protector incorporated into the winding.</p> <p>PV: three-phase 230/400 V - 50 Hz (50/60 Hz for PV55).</p> <p>➔ The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)</p> <p>- Insulation: class F - Protection: IP X4</p> | | | | |

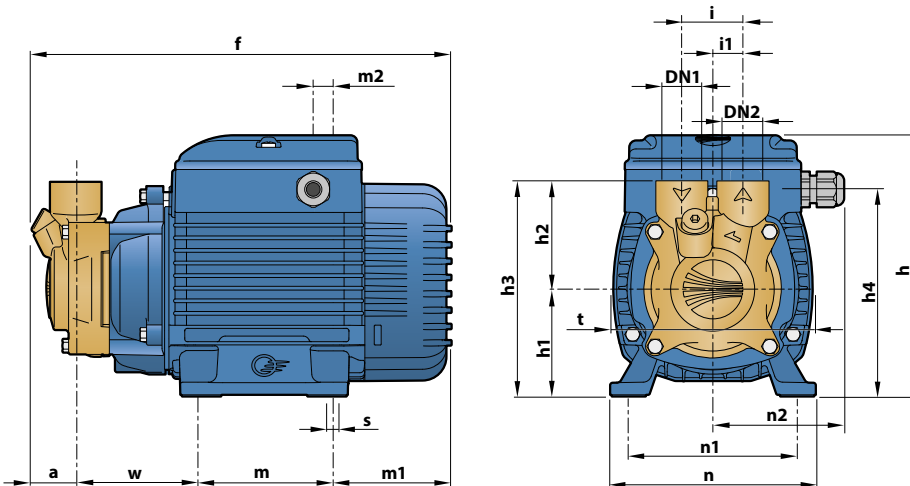


DIMENSIONS AND WEIGHT

PV 55



PV 60-81-65-70-90



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

| MODEL | | PORTS | | DIMENSIONS mm | | | | | | | | | | | | | | | | | kg | | |
|------------|-----------|-------|------|---------------|-------|------|----|----|-----|-------|----|------|----|------|------|-----|---------|------|-----|------|----|------|-----|
| Single-ph. | Three-ph. | 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 | | 65 | 65 |
| PVm 65 | PV 65 | 3/4" | 3/4" | 27 | 243.5 | 179* | 71 | 66 | 137 | 139 | 45 | 22.5 | 90 | 80.5 | 21 | 134 | 110/114 | 78 | 142 | 67 | 7 | 6.8 | 6.8 |
| PVm 70 | PV 70 | | | 26.5 | 276 | | | | | | | | | | | | | | | 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 |
| PVm 55 (50 Hz) | 1.6 A |
| PVm 55 (60 Hz) | 2.0 A |
| PVm 60 | 2.3 A |
| PVm 81 | 2.8 A |
| PVm 65 | 4.4 A |
| PVm 70 | 6.3 A |
| PVm 90 | 6.3 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 |