Pumps with peripheral impeller

Clean water

Industrial use



PERFORMANCE RANGE

- Flow rate up to **45 l/min** (2.7 m^3/h)
- Head up to **107 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

CE

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

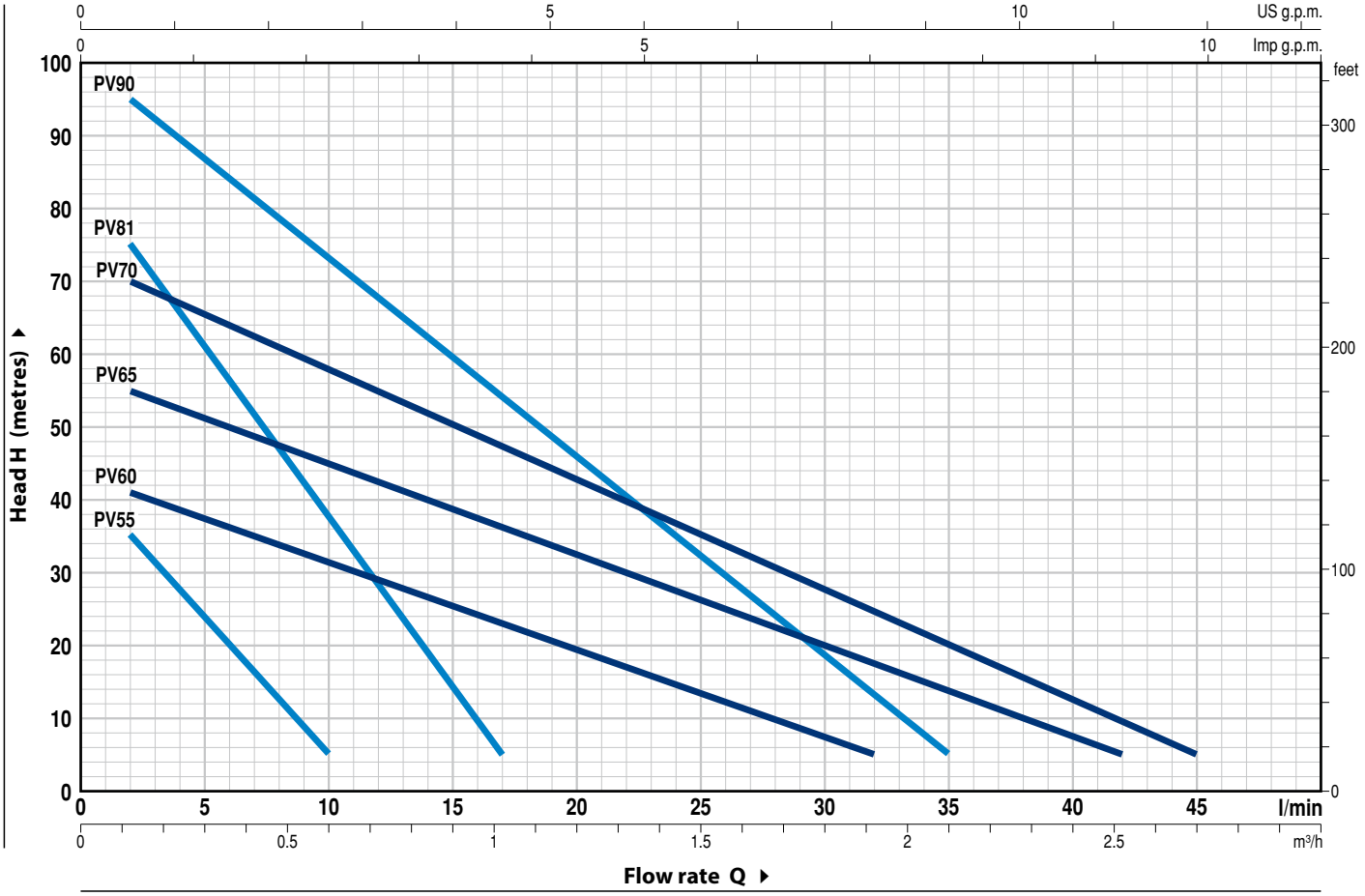
- Shaft: patent n. 0000275945 (PV55)

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 (P2)			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 (P2)			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**
PVm 60	**PV 60**	0.37	0.50				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	**IE3**	**H**	metres	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

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

Seal	*Shaft*		*Materials*	
Model	*Diameter*	*Stationary ring*	*Rotational ring*	*Elastomer*
ST1-12	**Ø 12** mm	Silicon carbide	Graphite	NBR

7 BEARINGS

Pump	*Model*
PV 55-60-65-81	**6201 ZZ / 6201 ZZ**
PV 70-90	**6203 ZZ / 6203 ZZ**

8 CAPACITOR

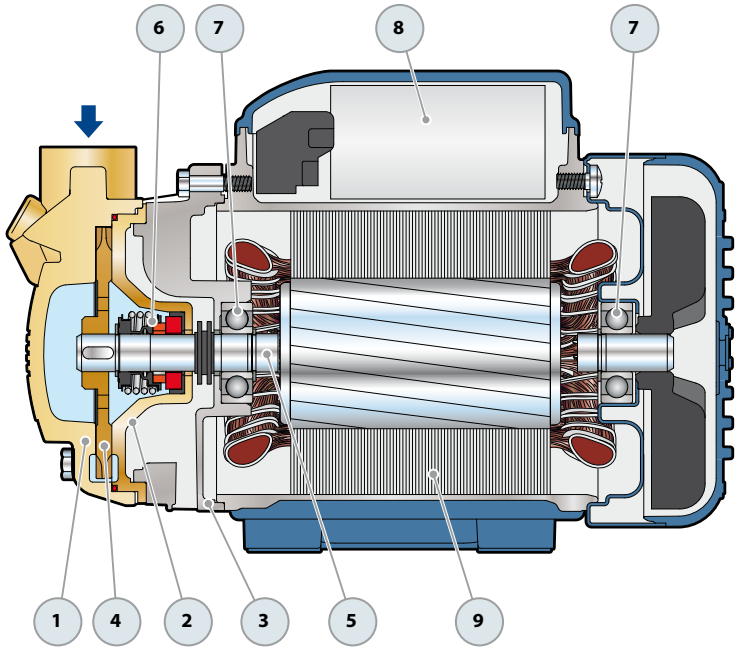
Pump	*Capacitance*	
Single-phase	*(230 V or 240 V)*	*(110 V)*
PVm 55	**10** µF - 450 VL	**25** µF - 250 VL
PVm 60	**10** µF - 450 VL	**25** µF - 250 VL
PVm 81	**14** µF - 450 VL	**25** µF - 250 VL
PVm 65	**14** µF - 450 VL	**25** µF - 250 VL
PVm 70	**25** µF - 450 VL	**60** µF - 300 VL
PVm 90	**25** 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).

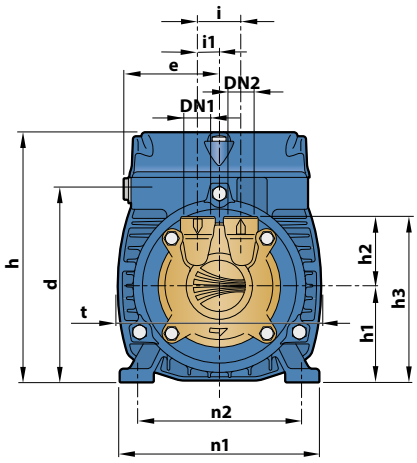
➠ **The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)**

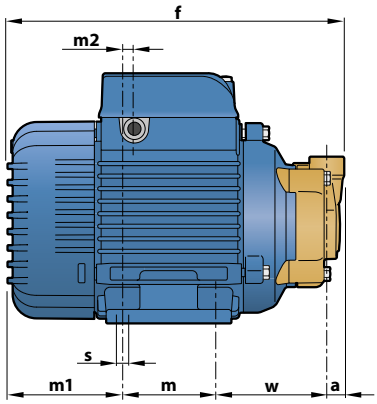
– Insulation: class F
– Protection: IP X4

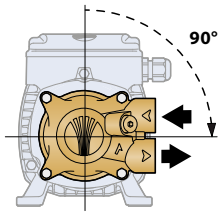


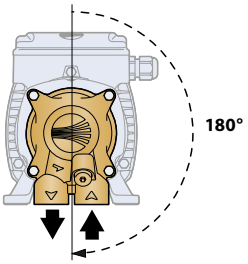
DIMENSIONS AND WEIGHT

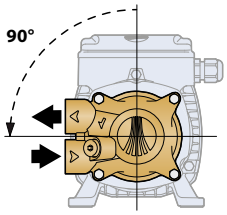
PV 55



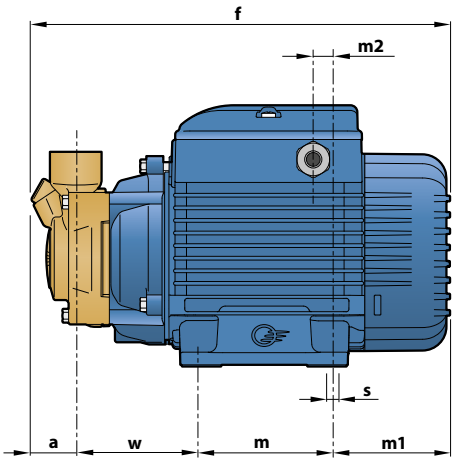


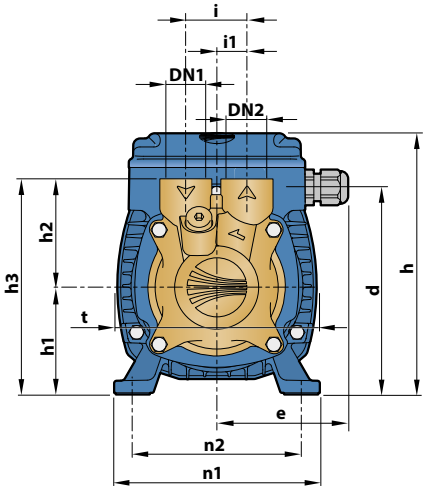






PV 60-81-65-70-90





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

MODEL		PORTS		DIMENSIONS mm																	kg	
Single-phase	**Three-phase**	**DN1**	**DN2**	a	d	e	f	h	h1	h2	h3	i	i1	m	m1	m2	n1	n2	t	w	s	1~	3~
PVm 55	**PV 55**	**¼"**	**¼"**	10.5	112	55.5	194	145	56	40	96	25	12.5	55	65.5	8	116	94/100	116	63	7	**4.4**	**4.4**
PVm 60	**PV 60**	**½"**	**½"**	26	120.5	76	243.5	152	63	62	125	35	17.5	80	69.5	11.5	120	98/102	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**	**¾"**	**¾"**	27			243.5			66	129	45	22.5							67		**6.8**	**6.8**
PVm 70	**PV 70**			26.5	139	79	276	180	71	66	137	45		90	80.5	22	134	110/114	141	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