PQA

INDUSTRIAL USE

Pumps with peripheral impeller

Clean water

Industrial use



PQA 50 - PQA 60



PQA 70 - PQA 72 - PQA 70 - PQA 90

PERFORMANCE RANGE

- Flow rate up to **50 l/min** (3.0 m^3/h)
- Head up to **90 m**

APPLICATION LIMITS

- Manometric suction lift up to **8 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C** (**+50 °C** for PQA 50-60)
- 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

The **PQA** pumps are recommended for pumping clean water without abrasive particles and with liquids which are not chemically aggressive towards the materials with which the pump is made.
The PPS and brass pump body construction guarantees against the formation of rust and oxidation. Because of these characteristics these pumps are suitable for use in industrial applications such as cooling, air conditioning, laundries, etc.
Installation needs to be undertaken in well ventilated closed areas or anyway protected from bad weather.

PATENTS - TRADE MARKS - MODELS

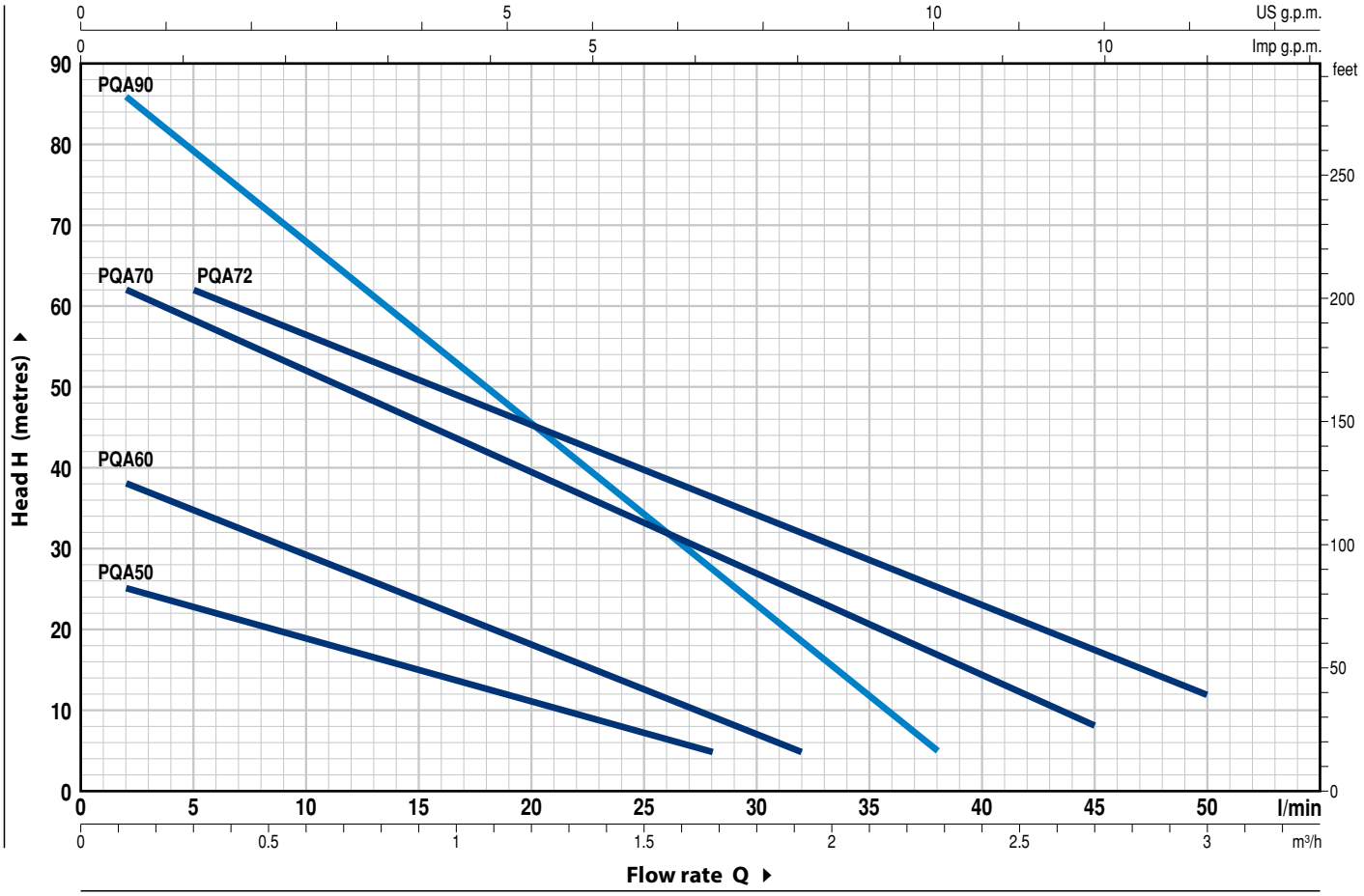
- Motor bracket: patent n. IT1243605
- Shaft: patent n. 0000275945 (PQA 50-60)

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- EN 10088-3 - 1.4401 (AISI 316) stainless steel pump shaft
- Other voltages or 60 Hz frequency
- IP X5 class protection for PQA70-90

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz **n= 2900 min^{-1}** HS= 0 m



MODEL		POWER (P2)			Q	m³/h	0	0.1	0.3	0.6	0.9	1.2	1.5	1.7	1.8	1.9	2.3	2.7	3.0
Single-phase	**Three-phase**	**kW**	**HP**	▲		l/min	**0**	**2**	**5**	**10**	**15**	**20**	**25**	**28**	**30**	**32**	**38**	**45**	**50**
PQAm 50	**PQA 50**	0.18	0.25				26	25	22	19	15	11	8	5					
PQAm 60	**PQA 60**	0.37	0.50				40	38	35	29	23.5	18	12.5	9	7	5			
PQAm 70	**PQA 70**	0.55	0.75	**IE3**	**H**	metres	65	62	58	52	45.5	39.5	33	30	27	24	17	8	
PQAm 72	**PQA 72**	0.55	0.75				65	–	62	56	51	45	40	36	34	32	25	17	12
PQAm 90	**PQA 90**	0.75	1				90	86	79	68	57	45	34	27	23	18	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)

PQA

POS.	COMPONENT	CONSTRUCTION CHARACTERISTICS
1	**PUMP BODY**	PPS complete with threaded metallic port inserts in compliance with ISO 228/1
2	**BODY PLATE**	Brass
3	**MOTOR BRACKET**	Aluminium with brass insert (patented), reduces the risk of impeller seizure
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*
PQA 50-60	**6201 ZZ / 6201 ZZ**
PQA 70-72-90	**6203 ZZ / 6203 ZZ**

8 CAPACITOR

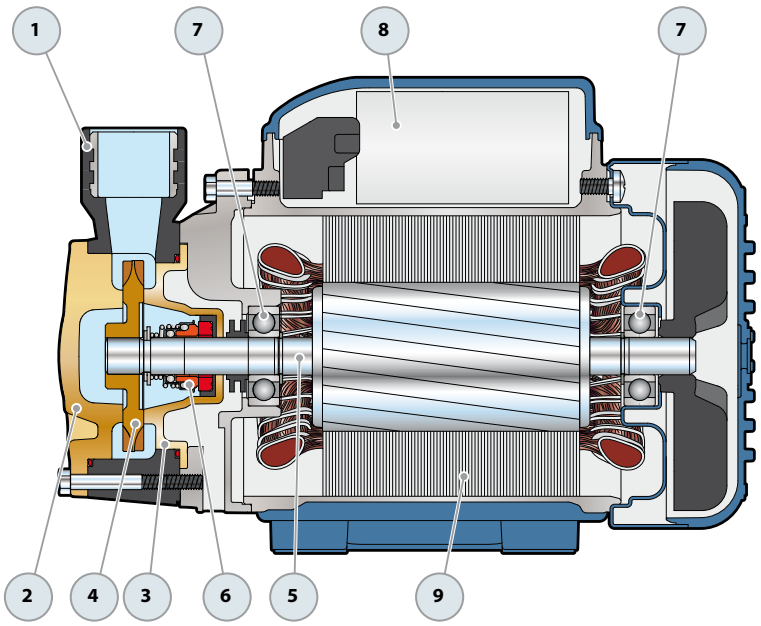
Pump	*Capacitance*	
Single-phase	***(230 V or 240 V)***	***(110 V)***
PQAm 50-60	**10** µF - 450 VL	**25** µF - 250 VL
PQAm 70-72	**16** µF - 450 VL	**60** µF - 300 VL
PQAm 90	**20** µF - 450 VL	**60** µF - 300 VL

9 ELECTRIC MOTOR

PQAm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.
PQA: three-phase 230/400 V - 50 Hz.

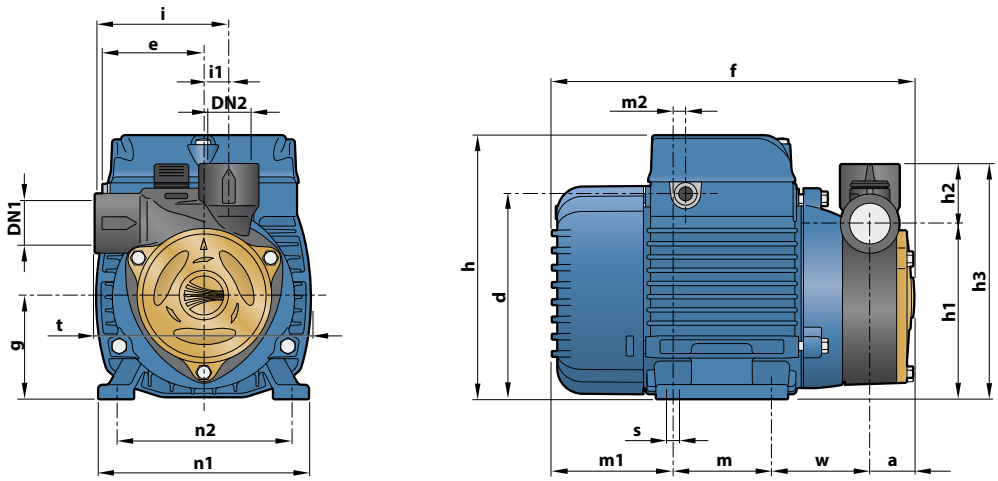
➠ **The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)**

– Insulation: class F
– Protection: IP X4

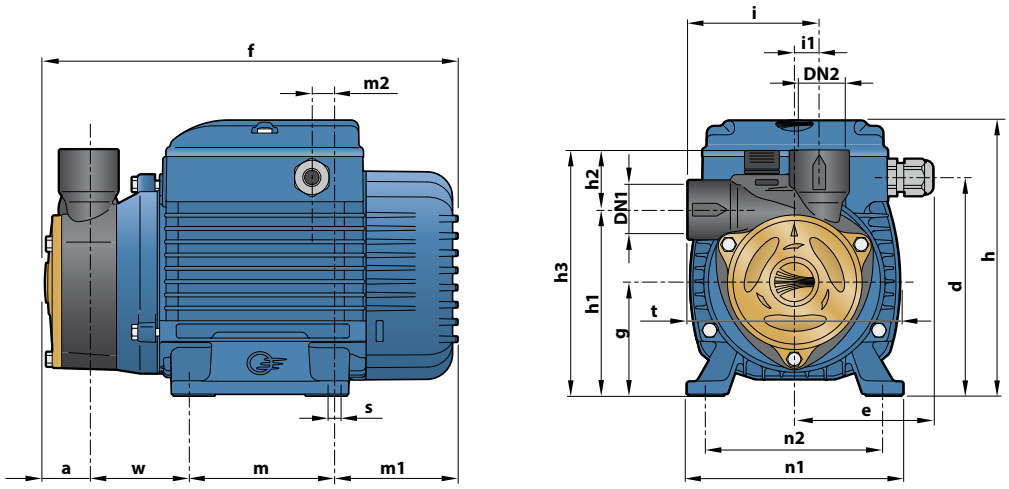


DIMENSIONS AND WEIGHT

PQA 50-60



PQA 70-72-90



MODEL		PORTS		DIMENSIONS mm																		kg	
Single-phase	**Three-phase**	**DN1**	**DN2**	a	d	e	f	g	h	h1	h2	h3	i	i1	m	m1	m2	n1	n2	t	w	s	1~	3~
PQAm 50	**PQA 50**	½"	½"	25	112	55.5	198	56	145	96	33	129	72.5	13.5	55	65	8	116	97	117	53	7	**4.7**	**4.7**
PQAm 60	**PQA 60**																						**4.7**	**4.7**
PQAm 70	**PQA 70**			28	139	79	261	71	179	116.5	32.5	149			90	80.5	22	134	112	142	62.5		**9.3**	**9.3**
PQAm 72	**PQA 72**	1"	1"							121	30	151	83	20									**9.3**	**9.3**
PQAm 90	**PQA 90**	½"	½"	26.5			260				35	156	76	16							62		**9.4**	**9.4**

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
PQAm 50	**2.1** A	**2.0** A	**4.2** A
PQAm 60	**2.5** A	**2.4** A	**5.2** A
PQAm 70	**6.2** A	**5.5** A	**12.4** A
PQAm 72	**6.2** A	**5.5** A	**12.4** A
PQAm 90	**5.6** A	**5.1** A	**11.2** A

MODEL	VOLTAGE			
Three-phase	230 V	400 V	240 V	415 V
PQA 50	**2.0** A	**1.15** A	**1.9** A	**1.1** A
PQA 60	**2.0** A	**1.15** A	**1.9** A	**1.1** A
PQA 70	**4.2** A	**2.4** A	**3.7** A	**2.2** A
PQA 72	**3.8** A	**2.2** A	**3.4** A	**2.0** A
PQA 90	**4.2** A	**2.4** A	**3.7** A	**2.2** A