



### INSTALLATION AND USE

The **PQA** electric pumps are designed to transfer clean water free from abrasive particles and non-corrosive liquids that do not harm the pump's components. Made from PPS with a brass impeller front cover, ensuring protection against rust and oxidation, they are suited for various industrial applications, such as cooling, air conditioning, and ironing systems.

### APPLICATION LIMITS

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

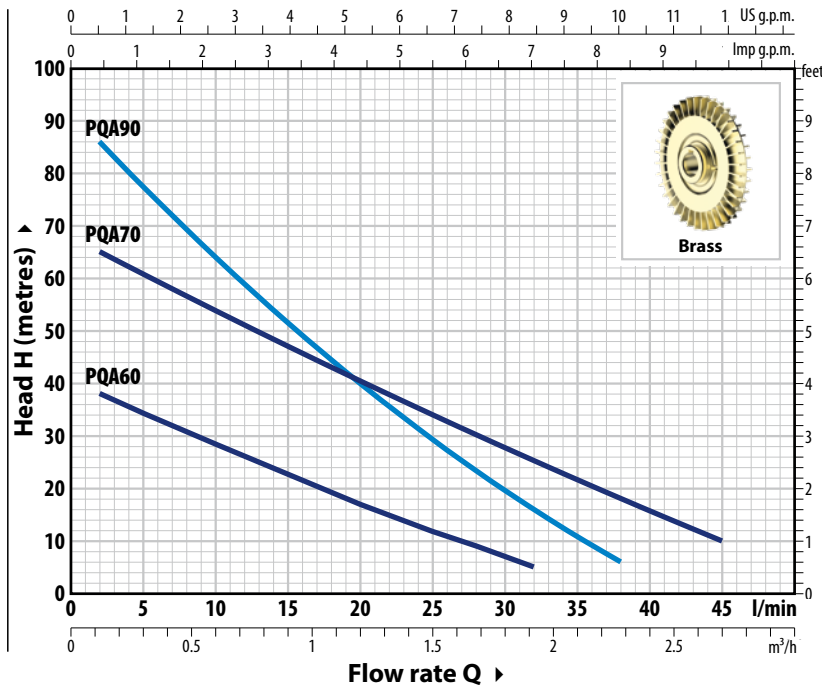
### AVAILABLE UPON REQUEST

- ✘ Mechanical seal options available
- ✘ Shaft in AISI 316 stainless steel - EN 10088-3 - 1.4401
- ✘ Protection rating IP X5 for PQA 70-90
- ✘ Different voltage requirements 60 Hz frequency

### PATENTS - TRADE MARKS - MODELS

- Motor bracket: Patent No. IT1243605
- Shaft: Patent No. 0000275945 (PQA 50)

### CURVES AND PERFORMANCE DATA – HS=0 m 50 Hz



### ABSORPTION

TYPE	VOLTAGE
<b>Single-ph.</b>	<b>230 V</b>
<b>PQAm 60</b>	2.3 A
<b>PQAm 70</b>	6.2 A
<b>PQAm 90</b>	5.6 A

TYPE	VOLTAGE	
<b>Three-ph.</b>	<b>230 V - Δ</b>	<b>400 V - 人</b>
<b>PQA 60</b>	2.0 A	1.15 A
<b>PQA 70</b>	4.2 A	2.4 A
<b>PQA 90</b>	4.2 A	2.4 A

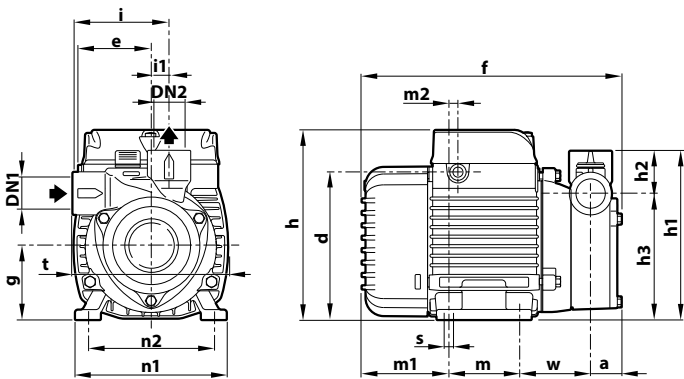
TYPE		POWER (P <sub>2</sub> )		1~3~	Q	Flow rate														
Single-phase	Three-phase	kW	HP			m <sup>3</sup> /h	0	0.12	0.3	0.6	0.9	1.2	1.5	1.68	1.8	1.92	2.28	2.46	2.7	
					l/min	0	2	5	10	15	20	25	28	30	32	38	41	45		
<b>PQAm 60</b>	<b>PQA 60</b>	0.30	0.40			40.5	38	34	28	22.5	17	11.8	8.8	6.9	5					
<b>PQAm 70</b>	<b>PQA 70</b>	0.55	0.75	IE2 IE3	H metres	68	65	61	54	47	40.5	34	30	27.5	25.3	18.1	14.6	10		
<b>PQAm 90</b>	<b>PQA 90</b>	0.75	1			92	86	78	64	51.5	40	29.5	23.4	19.6	16	6				

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

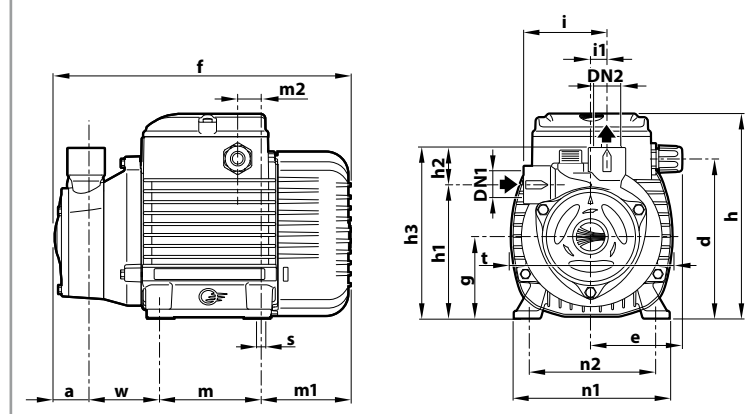
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

## DIMENSIONS AND WEIGHT

### PQA 60



### PQA 70, PQA 90



TYPE		PORTS		DIMENSIONS mm																		kg		
Single-ph.	Three-ph.	DN1	DN2	a	d	e	f	g	h	h1	h2	h3	i	i1	m	m1	m2	n1	n2	t	w	s	1~	3~
PQAm 60	PQA 60	1/2"	1/2"	23	112	55.5	196	56	145	96	33	129	72.5	13.5	55	65	8	116	97	117	53	7	4.6	4.6
PQAm 70	PQA 70			28	139	79	261	71	179	116.5	32.5	149			90	80.5	22	134	112	142	62.5		9.6	9.6
PQAm 90	PQA 90			26.5			260			121	35	156	76	16						62				9.7

## PALLET CAPACITY

TYPE		NO. OF PUMPS
Single-ph.	Three-ph.	
PQAm 60	PQA 60	238
PQAm 70	PQA 70	102
PQAm 90	PQA 90	102

## CONSTRUCTION FEATURES

<b>1 Pump body</b>	PPS, with ISO 228/1 threaded metal inserted in ports
<b>2 Cover</b>	Brass
<b>3 Motor bracket</b>	Aluminium with brass cover with front anti-locking shim function (patented)
<b>4 Impeller</b>	Brass, radial peripheral vane type
<b>5 Mechanical seal</b>	Type: <b>ST1-12</b> Materials: Silicon carbide / Graphite / NBR
<b>6 Motor shaft</b>	Stainless steel <b>AISI 431</b>
<b>7 Electric motor</b>	<p><b>PQAm:</b> single-phase 230 V - 50 Hz with winding integrated thermal motor protection.</p> <p><b>PQA:</b> three-phase 230/400 V - 50 Hz</p> <p>※ Pumps are equipped with high-efficiency motors (IEC 60034-30-1)</p> <ul style="list-style-type: none"> <li>class <b>IE2</b> for single-phase models</li> <li>class <b>IE3</b> for three-phase models</li> </ul> <ul style="list-style-type: none"> <li>– Continuous running duty <b>S1</b></li> <li>– Insulation: class F</li> <li>– Protection rating: IP X4</li> </ul>

