



### PERFORMANCE RANGE

- Flow rate up to **45 l/min** (2.7 m<sup>3</sup>/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** (+45 °C for PQA 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



### CERTIFICATIONS



### INSTALLATION AND USE

Suitable for use with clean water that does not contain abrasive particles and liquids that are not chemically aggressive towards the materials from which the pump is made.

The RYTON and brass pump body construction guarantees against the formation of rust and oxidation. As a result of these characteristics these pumps are suitable for use in industrial applications such as cooling, conditioning and boiler feed.

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

### PATENTS - TRADE MARKS - MODELS

- Motor bracket: patented n° IT1243605

### OPTIONALS AVAILABLE ON REQUEST

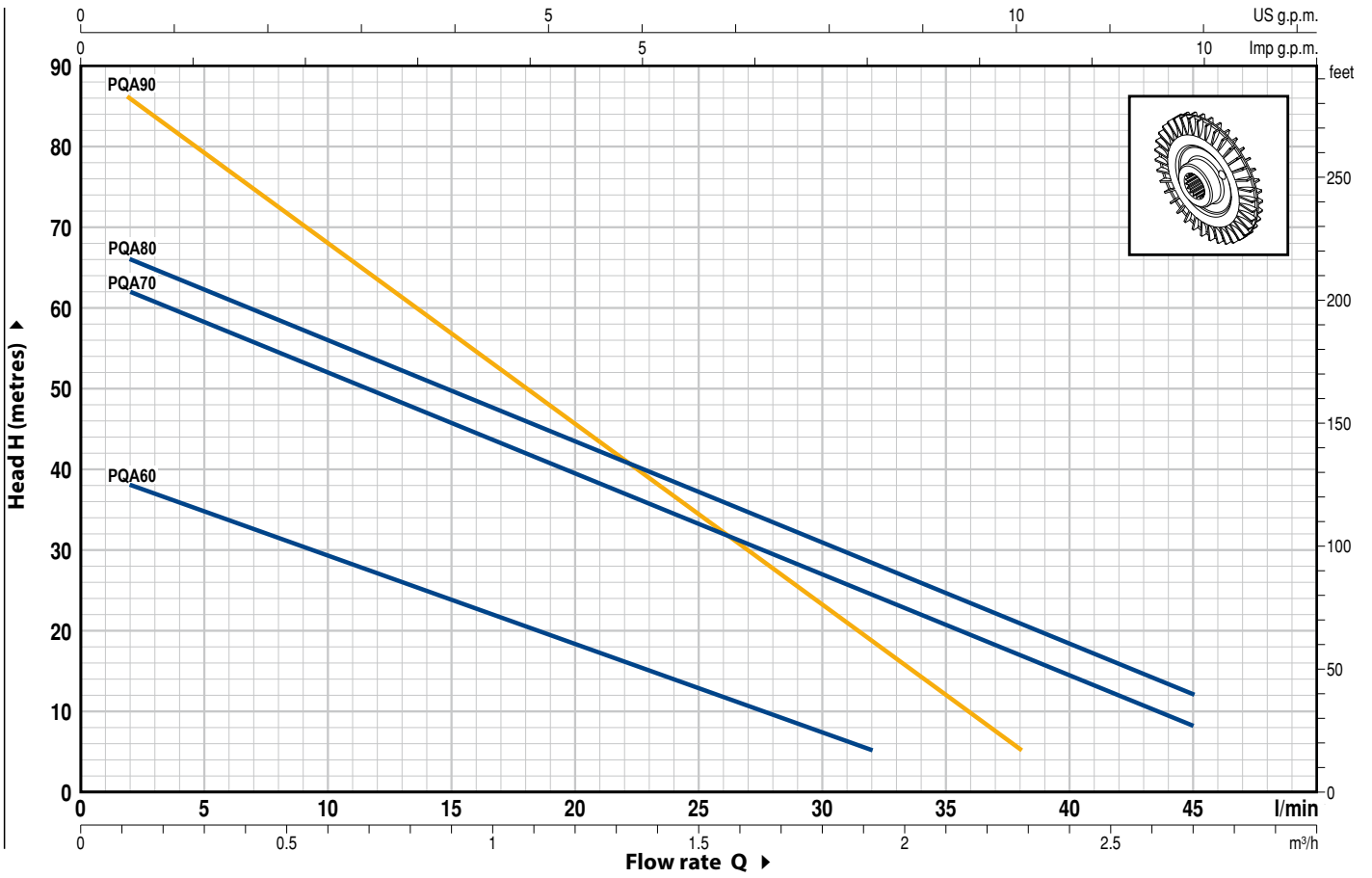
- Special mechanical seal
- EN 10088-3 - 1.4401 (AISI 316) stainless steel motor shaft
- Other voltages or 60 Hz frequency
- IP X5 class protection for PQA 70-80-90

### GUARANTEE

2 years subject to terms and conditions

**CHARACTERISTIC CURVES AND PERFORMANCE DATA**

**50 Hz n= 2900 1/min HS= 0 m**

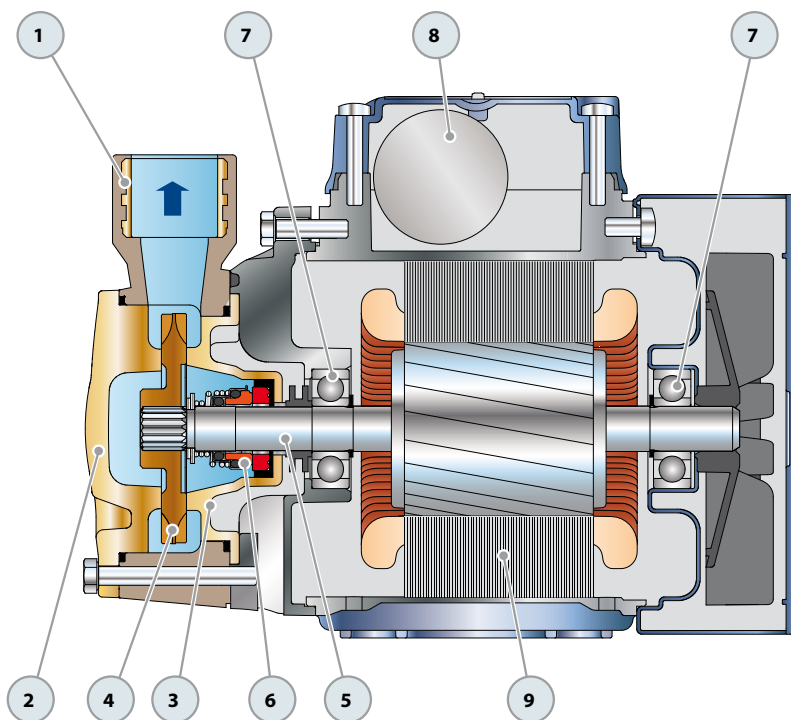


MODEL		POWER		Q	Flow rate													
Single-phase	Three-phase	kW	HP		m³/h	0	0.1	0.3	0.6	0.9	1.2	1.5	1.8	1.9	2.3	2.7		
				l/min	0	2	5	10	15	20	25	30	32	38	45			
PQAm 60	PQA 60	0.37	0.50	H metres	40	38	35	29	23.5	18	12.5	7	5					
PQAm 70	PQA 70	0.55	0.75		65	62	58	52	45.5	39.5	33	27	24	16.5	8			
PQAm 80	PQA 80	0.75	1		70	66	62	56	49.5	43	37	31	28	20.5	12			
PQAm 90	PQA 90	0.75	1		90	86	79	68	56.5	45.5	34	23	18.5	5				

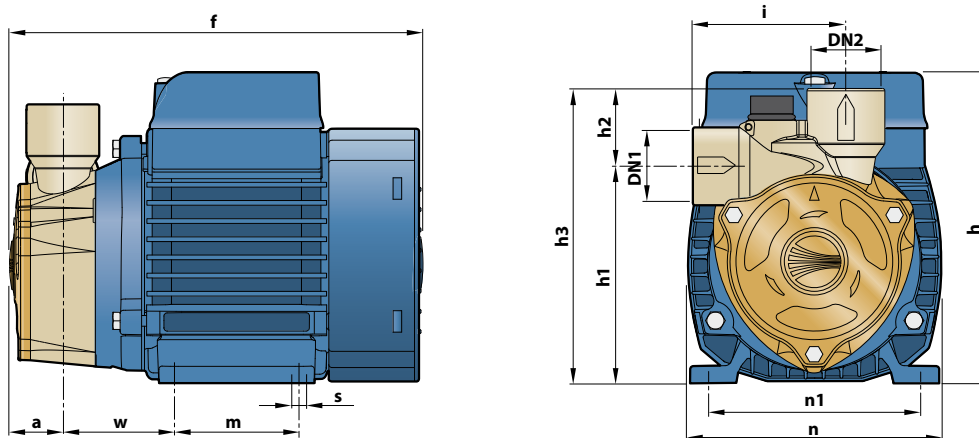
Q = Flow rate H = Total manometric head HS = Suction height

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

POS.	COMPONENT	CONSTRUCTION CHARACTERISTICS				
1	PUMP BODY	RYTON, 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 EN 10088-3 - 1.4104				
6	MECHANICAL SEAL	<b>Seal</b>	<b>Shaft</b>	<b>Materials</b>		
		<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
		MG1-12	Ø 12 mm	Silicon carbide	Graphite	NBR
7	BEARINGS	<b>Pump</b>	<b>Model</b>			
		PQA 60	6201 ZZ / 6201 ZZ			
		PQA 70-80-90	6203 ZZ / 6203 ZZ			
8	CAPACITOR	<b>Pump</b>	<b>Capacitance</b>			
		<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>		
		PQAm 60	10 µF 450 VL	25 µF 250 VL		
		PQAm 70	16 µF 450 VL	60 µF 250 VL		
		PQAm 80	20 µF 450 VL	60 µF 250 VL		
		PQAm 90	20 µF 450 VL	60 µF 250 VL		
9	ELECTRIC MOTOR	<p><b>PQAm:</b> single-phase 230 V - 50 Hz with thermal overload protector built-in to the winding.</p> <p><b>PQA:</b> three-phase 230/400 V - 50 Hz.</p> <p>➔ <b>Pumps fitted with the three-phase motor option offer IE2 (IEC 60034-30) class high performance</b></p> <ul style="list-style-type: none"> <li>- Insulation: F class.</li> <li>- Protection: IP X4.</li> </ul>				



## DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm												kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	h3	i	m	n	n1	w	s	1~	3~
PQAm 60	PQA 60	½"	½"	25	192	145	96	33	129	72.5	55	118	96	53	7	<b>4.7</b>	<b>4.7</b>
PQAm 70	PQA 70						116.5	32.5	149							<b>9.4</b>	<b>8.4</b>
PQAm 80	PQA 80	½"	½"	28	258	179	116.5	32.5	149	72.5	90	138	112	62		<b>9.4</b>	<b>8.4</b>
PQAm 90	PQA 90	½"	½"				121	35	156							76	<b>9.5</b>

## ABSORPTION

MODEL	VOLTAGE (single-phase)		
Single-phase	230 V	240 V	110 V
PQAm 60	<b>2.5 A</b>	<b>2.4 A</b>	<b>5.2 A</b>
PQAm 70	<b>6.2 A</b>	<b>5.5 A</b>	<b>10.8 A</b>
PQAm 80	<b>6.3 A</b>	<b>5.5 A</b>	<b>10.8 A</b>
PQAm 90	<b>5.6 A</b>	<b>5.1 A</b>	<b>11.5 A</b>

MODEL	VOLTAGE (three-phase)			
Three-phase	230 V	400 V	240 V	415 V
PQA 60	<b>2.0 A</b>	<b>1.15 A</b>	<b>1.9 A</b>	<b>1.1 A</b>
PQA 70	<b>4.2 A</b>	<b>2.4 A</b>	<b>3.7 A</b>	<b>2.2 A</b>
PQA 80	<b>4.2 A</b>	<b>2.4 A</b>	<b>3.7 A</b>	<b>2.2 A</b>
PQA 90	<b>4.2 A</b>	<b>2.4 A</b>	<b>3.8 A</b>	<b>2.2 A</b>

## PALLETIZATION

MODEL		GROUPAGE				CONTAINER			
Single-phase	Three-phase	n° pumps	H (mm)	kg		n° pumps	H (mm)	kg	
				1~	3~			1~	3~
PQAm 60	PQA 60	<b>238</b>	1240	1143	1143	<b>306</b>	1563	1462	1462
PQAm 70	PQA 70	<b>102</b>	1280	983	881	<b>170</b>	2040	1622	1452
PQAm 80	PQA 80	<b>102</b>	1280	983	881	<b>170</b>	2040	1622	1452
PQAm 90	PQA 90	<b>102</b>	1280	993	891	<b>170</b>	2040	1639	1469

