

### Pumps with peripheral impeller

 Clean water

 Industrial use



#### PERFORMANCE RANGE

- Flow rate up to **17 l/min** (1.02 m<sup>3</sup>/h)
- Head up to **80.5 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**
- 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: QUALITÀ



#### 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 hydraulic characteristics of these pump, coupled with their compactness, makes them suitable for use in industrial applications. Installation needs to be undertaken in well ventilated closed areas or anyway protected from bad weather.

#### PATENTS - TRADE MARKS - MODELS

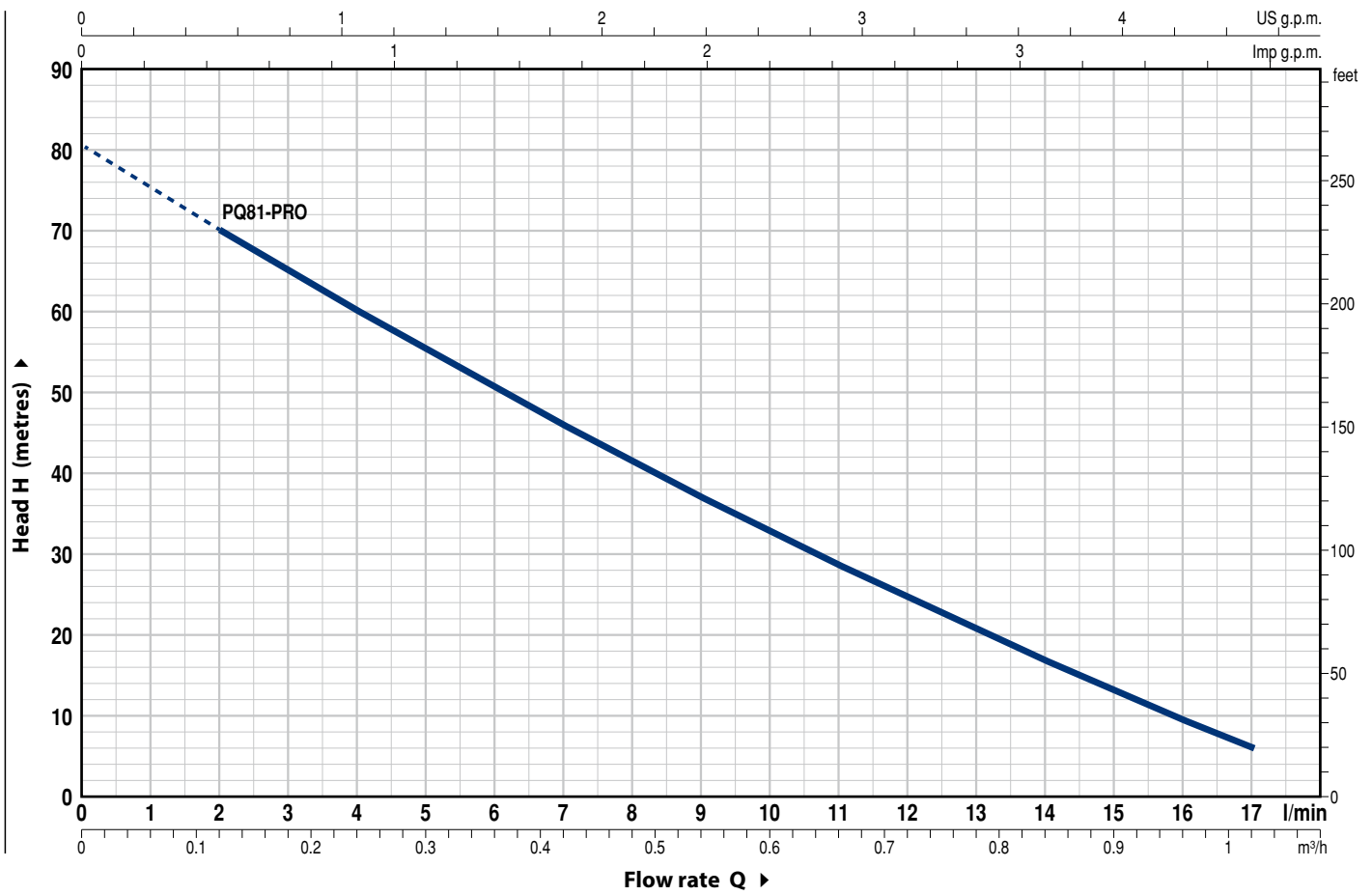
- Motor bracket: patent n. IT1243605

#### OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- EN 10088-3 - 1.4401 (AISI 316) stainless steel pump shaft
- Other voltages or 60 Hz frequency

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min<sup>-1</sup> HS= 0 m





MODEL		POWER (P <sub>2</sub> )			Q	Flow rate									
Single-phase	Three-phase	kW	HP	▲		m <sup>3</sup> /h	0	0.12	0.18	0.3	0.42	0.54	0.66	0.78	0.9
					l/min	0	2	3	5	7	9	11	13	15	17
PQm 81-PRO	PQ 81-PRO	0.45	0.60	IE3	H metres	80.5	70	65	55	46	37	28.5	20.6	13.1	6

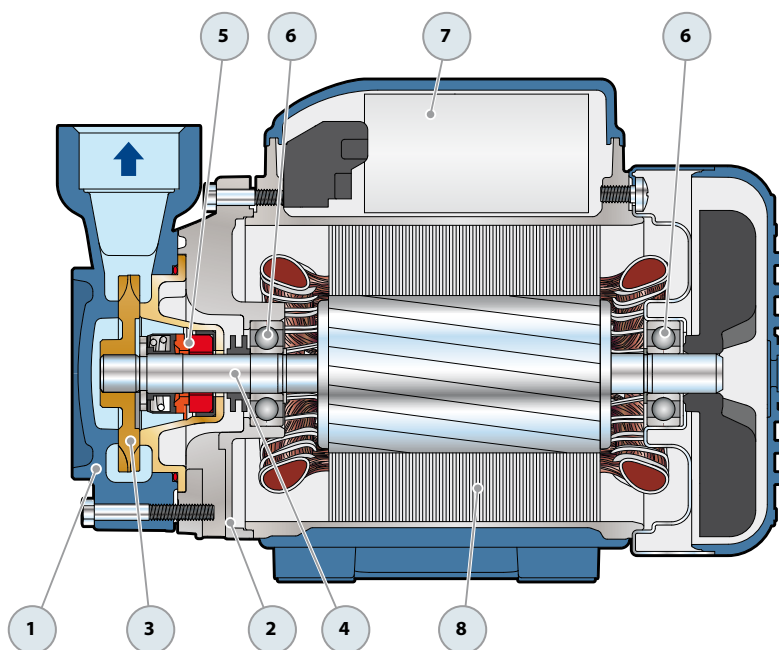
Q = Flow rate H = Total manometric head HS = Suction height

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

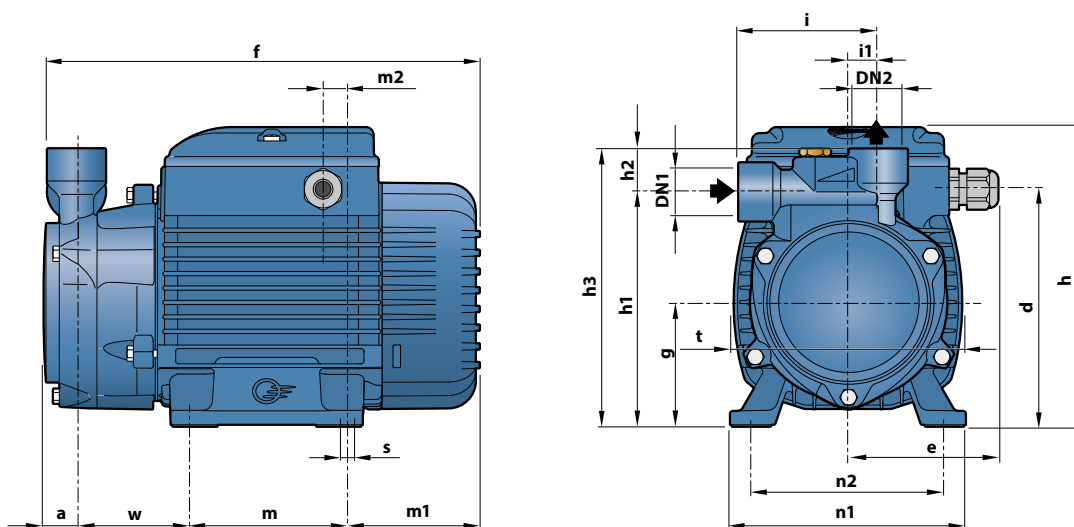
▲ Three-phase motor efficiency class (IEC 60034-30-1)

# PQ 81-PRO

POS.	COMPONENT	CONSTRUCTION CHARACTERISTICS															
1	PUMP BODY	Cast iron with an anti-block treatment and threaded ports in compliance with ISO 228/1															
2	MOTOR BRACKET	Aluminium with brass insert (patented), reduces the risk of impeller seizure															
3	IMPELLER	Brass with peripheral radial vanes															
4	MOTOR SHAFT	Stainless steel AISI 431															
5	MECHANICAL SEAL	<table border="1"> <thead> <tr> <th>Seal</th> <th>Shaft</th> <th colspan="3">Materials</th> </tr> <tr> <th>Model</th> <th>Diameter</th> <th>Stationary ring</th> <th>Rotational ring</th> <th>Elastomer</th> </tr> </thead> <tbody> <tr> <td>ST1-12</td> <td>Ø 12 mm</td> <td>Silicon carbide</td> <td>Graphite</td> <td>NBR</td> </tr> </tbody> </table>	Seal	Shaft	Materials			Model	Diameter	Stationary ring	Rotational ring	Elastomer	ST1-12	Ø 12 mm	Silicon carbide	Graphite	NBR
Seal	Shaft	Materials															
Model	Diameter	Stationary ring	Rotational ring	Elastomer													
ST1-12	Ø 12 mm	Silicon carbide	Graphite	NBR													
6	BEARINGS	6201 ZZ / 6201 ZZ															
7	CAPACITOR	EN 60252-1/A1  															
8	ELECTRIC MOTOR	<p><b>PQm-PRO:</b> single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.</p> <p><b>PQ-PRO:</b> three-phase 230/400 V - 50 Hz.</p> <p>⇒ <b>The pump is fitted with a high performance motor in class IE3 (IEC 60034-30-1)</b></p> <ul style="list-style-type: none"> <li>– Insulation: class F</li> <li>– Protection: IP X4</li> </ul>															



## DIMENSIONS AND WEIGHT



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~
PQm 81-PRO	PQ 81-PRO	½"	½"	19	120.5	77	224	63	153	119	22	141	71	15	80	69	11.5	120	100	117	55	7	6.9	6.2

## ABSORPTION

MODEL	VOLTAGE	
Single-phase	230 V	110 V
PQm 81-PRO	2.7 A	5.4 A

MODEL	VOLTAGE	
Three-phase	230 V	400 V
PQ 81-PRO	1.8 A	1.0 A

## CAPACITORS

MODEL	CAPACITANCE	
Single-phase	230 V or 240 V	110 V
PQm 81-PRO	12.5 μF - 450 VL	25 μF - 250 VL