

# PKS

## Self-priming pumps with peripheral impeller

 Clean water

 Domestic use



### PERFORMANCE RANGE

- Flow rate up to **50 l/min** (3.0 m<sup>3</sup>/h)
- Head up to **70 m**

### APPLICATION LIMITS

- Manometric suction lift up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+60 °C**
- Ambient temperature up to **+40 °C** (**+50 °C** for PKS 60)
- Max. working pressure:
  - **6 bar** for PKS 60, PKS 65
  - **7 bar** for PKS 80
- 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: 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.

Because of their compactness, reliability and the fact that they are easy to use, they are suitable for use in domestic applications such as the distribution of water in combination with small pressure tanks, for the irrigation of gardens and orchards, for drawing water from tanks and for all those other situations where air or gas may be present in the water to be pumped. The pump comes complete with a flap-check valve.

Installation needs to be undertaken in well ventilated closed areas or anyway protected from bad weather.

### PATENTS - TRADE MARKS - MODELS

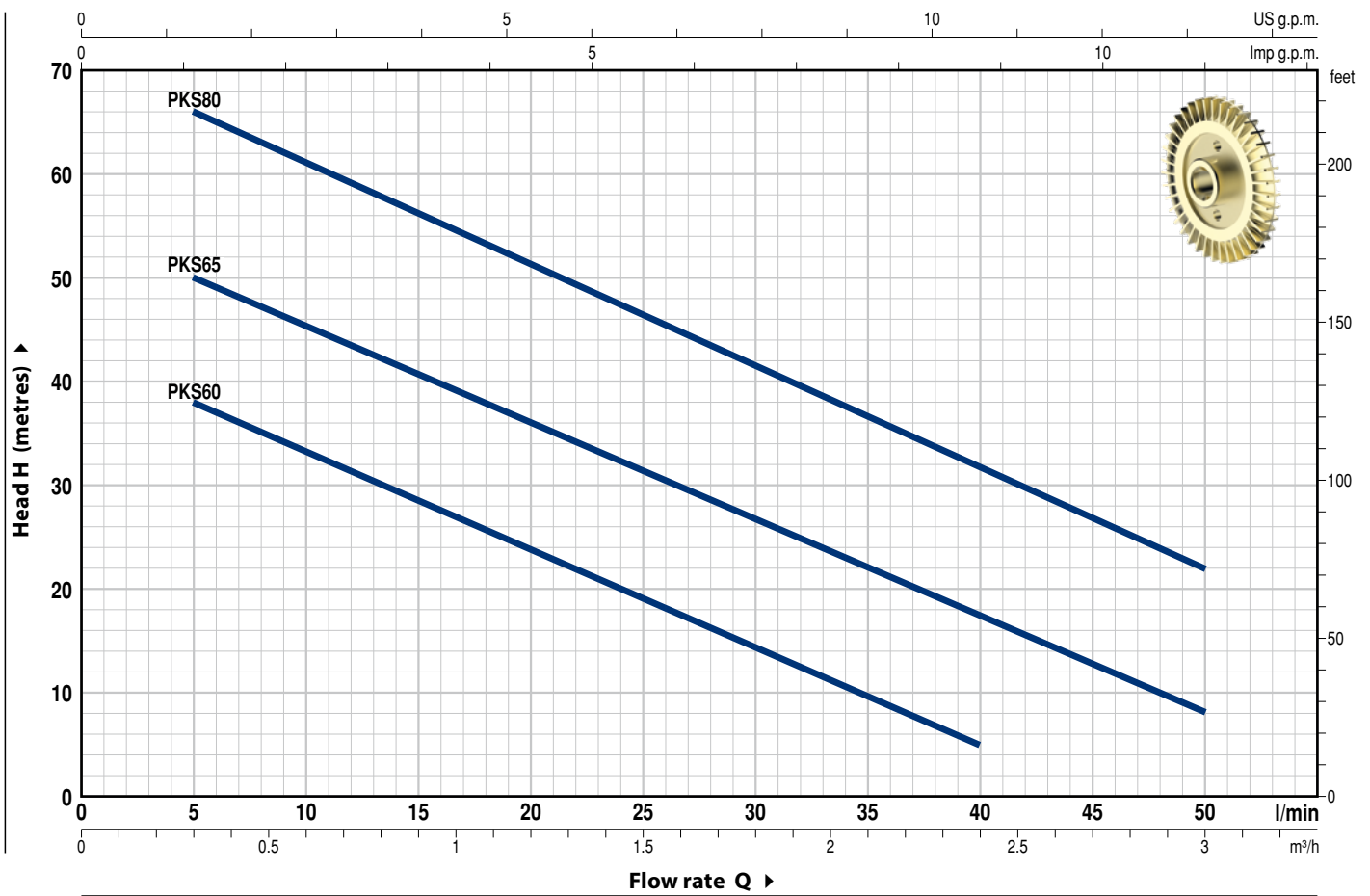
- Motor bracket: patent n. IT1243605

### OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- Other voltages or 60 Hz frequency
- IP X5 class protection for PKS 80

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

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



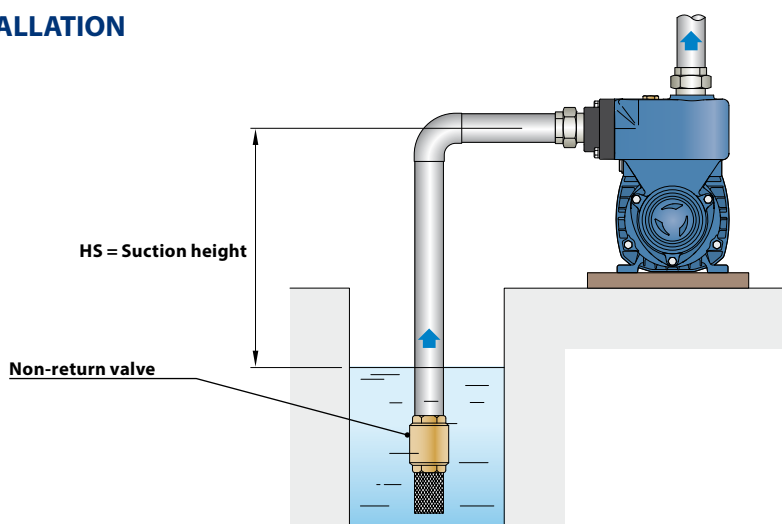
MODEL		POWER (P <sub>2</sub> )		Q	Flow rate												
Single-phase	Three-phase	kW	HP ▲		m <sup>3</sup> /h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0	
				l/min	0	5	10	15	20	25	30	35	40	45	50		
PKSm 60	PKS 60	0.37	0.50	H metres	40	38	33.5	29	24	19.5	15	10	5				
PKSm 65	PKS 65	0.55	0.75		55	50	45.5	40.5	36	31	27	22	17	12.5	8		
PKSm 80	PKS 80	0.75	1		70	66	61	56	51	46	41	36.5	31	27	22		

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



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

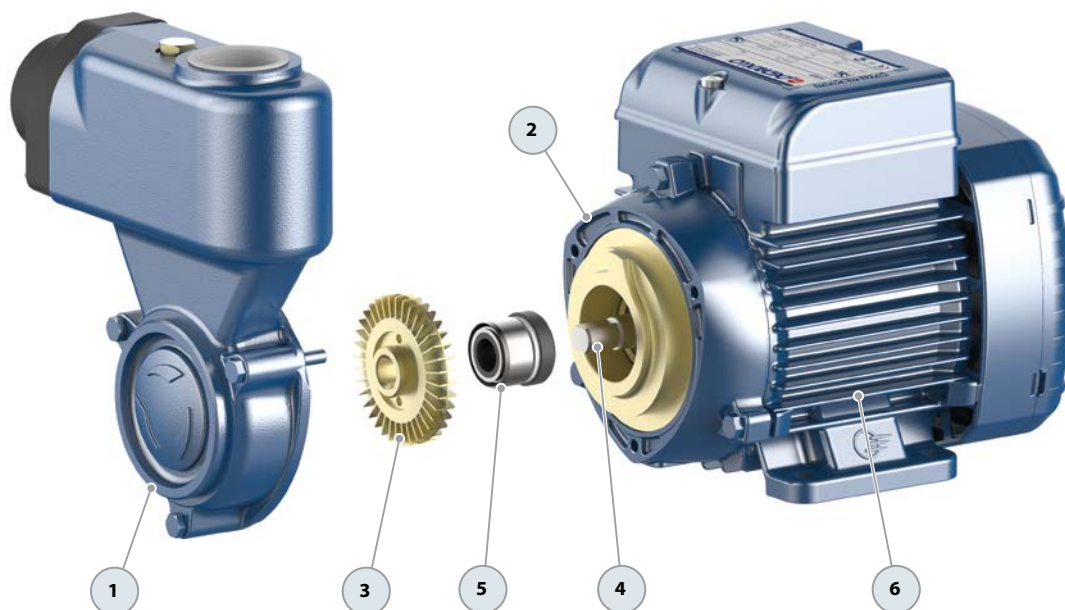
▲ Three-phase motor efficiency class (IEC 60034-30-1)

## TYPICAL INSTALLATION

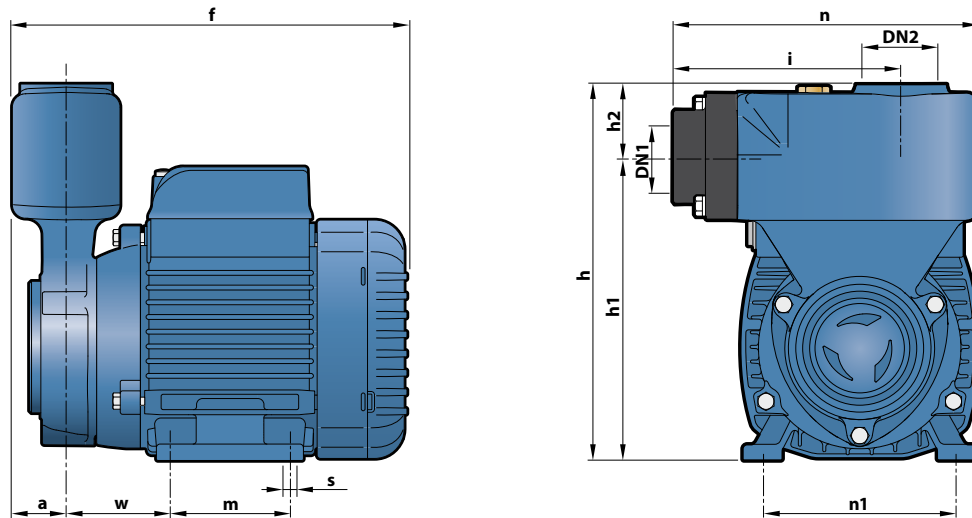


## POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	<b>PUMP BODY</b>	Cast iron with threaded ports in compliance with ISO 228/1 and a built-in flap-check valve in the suction port				
2	<b>MOTOR BRACKET</b>	Aluminium with brass insert (patented), reduces the risk of impeller seizure				
3	<b>IMPELLER</b>	Brass with peripheral radial vanes				
4	<b>MOTOR SHAFT</b>	Stainless steel AISI 431 (EN 10088-3 - 1.4104 for PKS 60, PKS 65)				
5	<b>MECHANICAL SEAL</b>	<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>
		AR-12	Ø 12 mm	Ceramic	Graphite	NBR
-	<b>BEARINGS</b>	<b>Pump</b>	<b>Model</b>			
		PKS 60-65	6201 ZZ / 6201 ZZ			
		PKS 80	6203 ZZ / 6203 ZZ			
-	<b>CAPACITOR</b>	EN 60252-1/A1				
6	<b>ELECTRIC MOTOR</b>	<p><b>PKSm:</b> single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.</p> <p><b>PKS:</b> three-phase 230/400 V - 50 Hz.</p> <p>➔ <b>The three-phase pumps are fitted with high performance motors up to P<sub>2</sub>=0.55 kW in class IE2 and from P<sub>2</sub>=0.60 kW in class IE3 (IEC 60034-30-1)</b></p> <p>- Insulation: class F</p> <p>- Protection: IP X4</p>				



## DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm											kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	i	m	n	n1	w	s	1~	3~
PKSm 60	PKS 60	1"	1"	28	196	183	149	34	110	55	148	93-100	53	7	5.6	5.6
PKSm 65	PKS 65				227	190	156			80		100			7.6	6.9
PKSm 80	PKS 80				263	198	164			90	160	112	62		10.5	10.5

## ABSORPTION

MODEL	VOLTAGE	
Single-phase	230 V	240 V
PKSm 60	2.6 A	2.5 A
PKSm 65	3.7 A	3.5 A
PKSm 80	5.2 A	4.8 A

MODEL	VOLTAGE			
Three-phase	230 V	400 V	240 V	415 V
PKS 60	2.0 A	1.15 A	1.9 A	1.1 A
PKS 65	3.0 A	1.7 A	2.8 A	1.6 A
PKS 80	3.8 A	2.2 A	3.8 A	2.2 A

## CAPACITORS

MODEL	CAPACITANCE
Single-phase	(230 V or 240 V)
PKSm 60	10 $\mu$ F - 450 VL
PKSm 65	14 $\mu$ F - 450 VL
PKSm 80	20 $\mu$ F - 450 VL

## PALLETIZATION

MODEL		GROUPAGE	CONTAINER
Single-phase	Three-phase	n. pumps	n. pumps
PKSm 60	PKS 60	224	288
PKSm 65	PKS 65	168	216
PKSm 80	PKS 80	96	144