

# PK-PQ /Bz

Pumps with peripheral impellers and bronze pump bodies



## PERFORMANCE RANGE

- Flow rate up to **70 l/min** (4.2 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 up to **+40 °C**
- Max. working pressure **10 bar**
- Continuous service **S1**

## CONSTRUCTION AND SAFETY STANDARDS

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 design solution of these pumps guarantees against the formation of rust and oxidation. As a result of their compact design and characteristic curves they are suitable for use in industrial applications such as cooling and conditioning, etc.

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

## PATENTS - TRADE MARKS - MODELS

- Motor bracket: patent n° IT1243605

## OPTIONALS AVAILABLE ON REQUEST

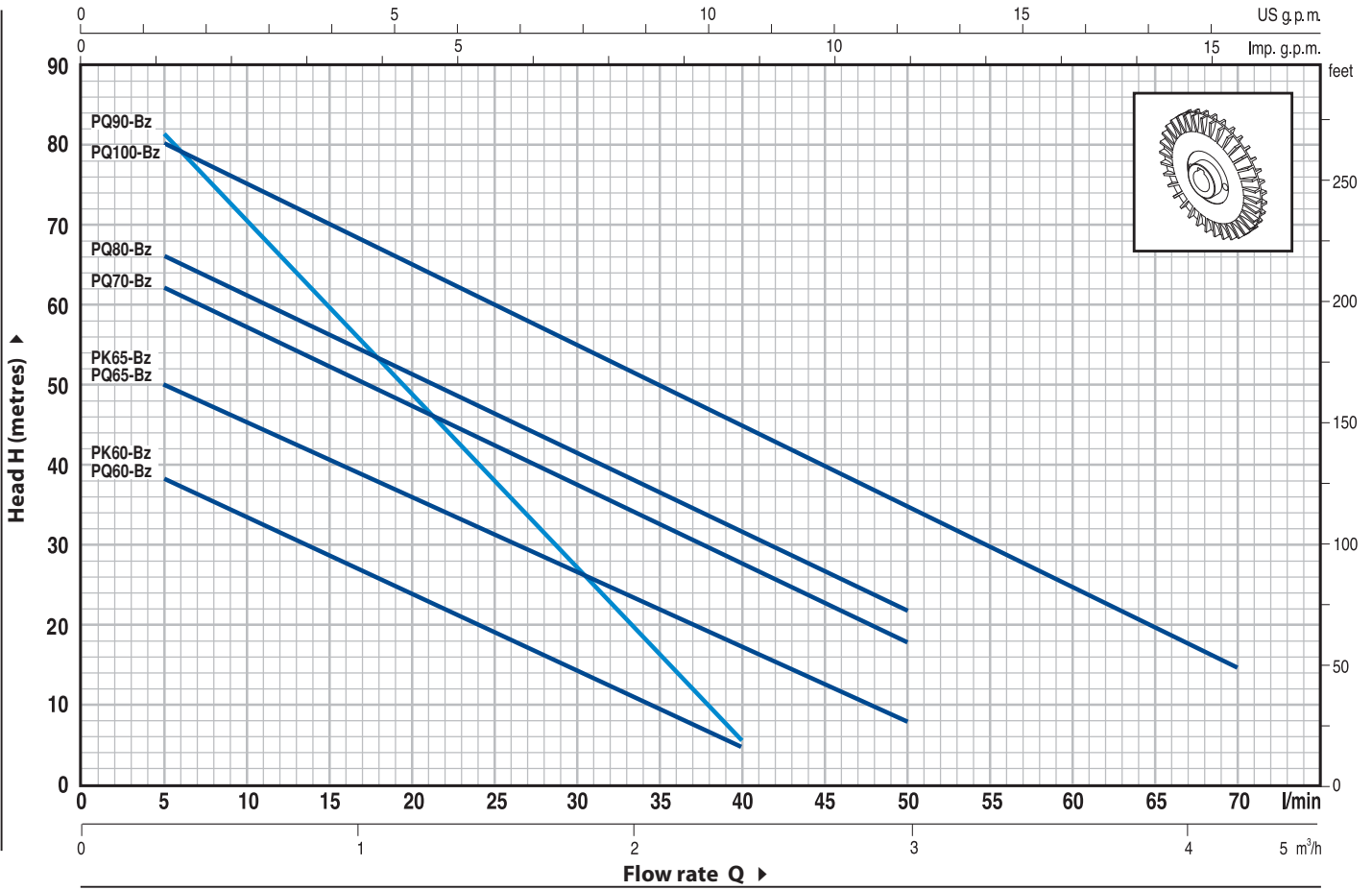
- Special mechanical seal
- Other voltages or 60 Hz frequency
- IP 55 class protection

## GUARANTEE

1 year subject to terms and conditions

**CHARACTERISTIC CURVES AND PERFORMANCE DATA**

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

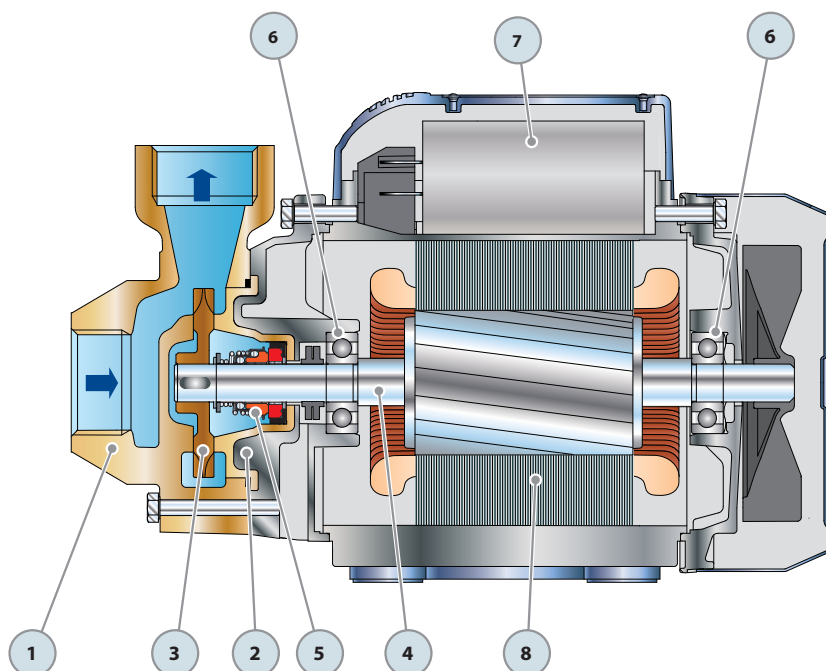


MODEL		POWER		Q	H metres															
Single-phase	Three-phase	kW	HP		0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	3.0	3.6	4.2				
				l/min	0	5	10	15	20	25	30	35	40	50	60	70				
PKm 60-Bz	PK 60-Bz	0.37	0.50	H metres	40	38	33.5	29	24	19.5	15	10	5							
PQm 60-Bz	PQ 60-Bz				55	50	45.5	40.5	36	31	27	22	17	8						
PKm 65-Bz	PK 65-Bz	0.50	0.70		65	62	57	52	47	42	37	32	27	18						
PQm 65-Bz	PQ 65-Bz				70	66	61	56	51	46	41	36.5	31	22						
PQm 70-Bz	PQ 70-Bz	0.60	0.85		90	82	71	60	49	38	27	17	5							
PQm 80-Bz	PQ 80-Bz	0.75	1		85	80	75	70	65	60	55	50	45	35	25	15				
PQm 90-Bz	PQ 90-Bz	0.75	1																	
PQm 100-Bz	PQ 100-Bz	1.1	1.5																	

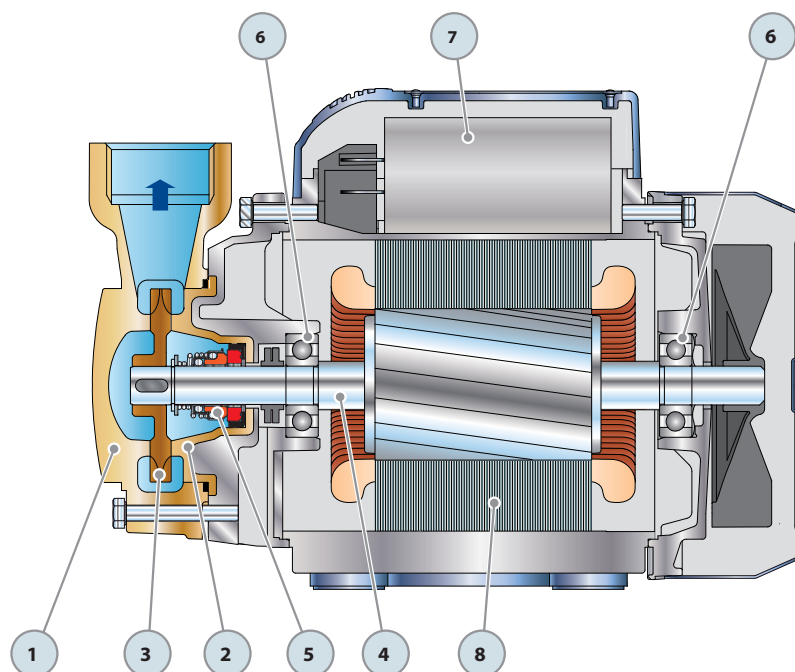
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 App. A.

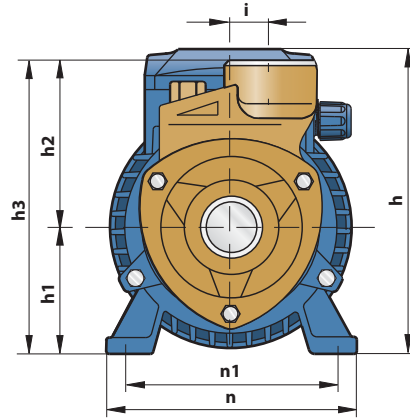
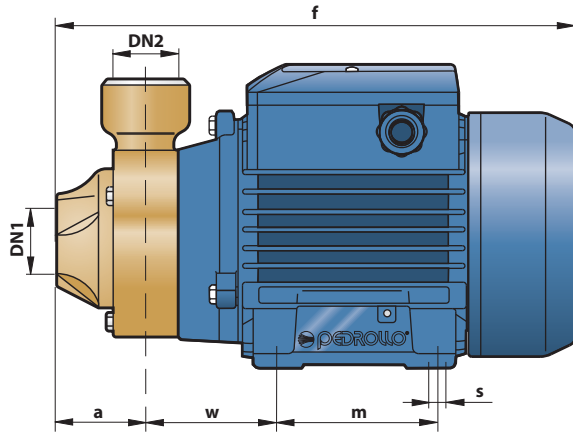
POS.	COMPONENT	CONSTRUCTION CHARACTERISTICS				
1	PUMP BODY	Bronze, complete with threaded ports in compliance with ISO 228/1				
2	MOTOR BRACKET	Aluminium with brass insert (patented), reduces the risk of impeller seizure				
3	IMPELLER	Brass, with peripheral radial vanes				
4	MOTOR SHAFT	Stainless steel AISI 316				
5	MECHANICAL SEAL	<i>Seal</i>	<i>Shaft</i>	<i>Materials</i>		
		<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
		FN-12V	Ø 12 mm	Graphite	Ceramic	Viton
6	BEARINGS	6201 ZZ - C3 / 6201 ZZ - C3				
7	CAPACITOR	<i>Pump</i>	<i>Capacitance</i>			
		<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>		
		PKm 60-Bz	10 µF 450 VL	25 µF 250 VL		
		PKm 65-Bz	14 µF 450 VL	30 µF 250 VL		
8	ELECTRIC MOTOR	<p><b>PKm-Bz:</b> single-phase 230 V - 50 Hz with thermal overload protector built-in to the winding.</p> <p><b>PK-Bz:</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 44.</li> </ul>				



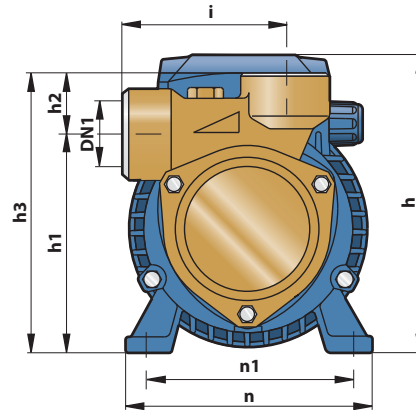
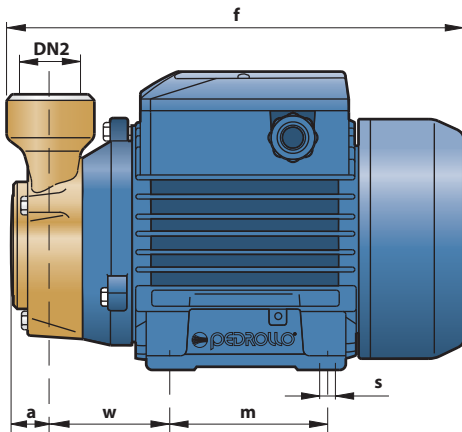
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3	<b>IMPELLER</b>	Brass, with peripheral radial vanes					
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5	<b>MECHANICAL SEAL</b>	<i>Pump</i>	<i>Seal</i>	<i>Shaft</i>	<i>Materials</i>		
		<i>Model</i>	<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
		PQ 60/65/70/80/90-Bz	FN-12V	Ø 12 mm	Graphite	Ceramic	Viton
		PQ 100-Bz	FN-14V	Ø 14 mm	Graphite	Ceramic	Viton
6	<b>BEARINGS</b>	<i>Pump</i>	<i>Model</i>				
		PQ 60/65-Bz	6201 ZZ - C3 / 6201 ZZ - C3				
		PQ 70/80/90-Bz	6203 ZZ - C3 / 6203 ZZ - C3				
		PQ 100-Bz	6204 ZZ - C3 / 6204 ZZ - C3				
7	<b>CAPACITOR</b>	<i>Pump</i>	<i>Capacitance</i>				
		<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>			
		PQm 60-Bz	10 µF 450 VL	25 µF 250 VL			
		PQm 65-Bz	14 µF 450 VL	30 µF 250 VL			
		PQm 70-Bz	16 µF 450 VL	60 µF 300 VL			
		PQm 80-Bz	20 µF 450 VL	60 µF 300 VL			
		PQm 90-Bz	20 µF 450 VL	60 µF 300 VL			
		PQm 100-Bz	31.5 µF 450 VL	60 µF 250 VL			
8	<b>ELECTRIC MOTOR</b>	PQm-Bz: single-phase 230 V - 50 Hz with thermal overload protector built-in to the winding.					
		PQ-Bz: three-phase 230/400 V - 50 Hz.					
		⇒ Pumps fitted with the three-phase motor option offer IE2 (IEC 60034-30) class high performance – Insulation: F class. – Protection: IP 44.					



## 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~
PKm 60-Bz	PK 60-Bz	1"	1"	42	243	152	63	75	138	20	80	120	100	55	7	5.7	5.7
PKm 65-Bz	PK 65-Bz			48	250			80	143							7.2	6.8



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Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	h3	i	m	n	n1	w	s	1~	3~				
PQm 60-Bz	PQ 60-Bz	1"	1"	22	225	152	108	30	138	78	80	120	100	55	7	5.5	5.5				
PQm 65-Bz	PQ 65-Bz						113		143					57		7.0	6.5				
PQm 70-Bz	PQ 70-Bz						121		151					83		90	138	112	62	10.0	9.1
PQm 80-Bz	PQ 80-Bz						126		153					84		90	138	112	62	10.0	9.1
PQm 90-Bz	PQ 90-Bz	3/4"	3/4"	25	318	212	126	27	153	84	100	164	125	85	9	10.2	9.1				
PQm 100-Bz	PQ 100-Bz	1"	1"				140	30	170	89						100	164	125	85	9	15.3

## ABSORPTION

MODEL	VOLTAGE (single-phase)		
	230 V	240 V	110 V
Single-phase	230 V	240 V	110 V
PKm 60-Bz	<b>2.6 A</b>	<b>2.5 A</b>	<b>5.0 A</b>
PKm 65-Bz	<b>3.7 A</b>	<b>3.4 A</b>	<b>7.5 A</b>

MODEL	VOLTAGE (single-phase)		
	230 V	240 V	110 V
Single-phase	230 V	240 V	110 V
PQm 60-Bz	<b>2.6 A</b>	<b>2.5 A</b>	<b>5.0 A</b>
PQm 65-Bz	<b>3.7 A</b>	<b>3.4 A</b>	<b>7.5 A</b>
PQm 70-Bz	<b>5.2 A</b>	<b>4.8 A</b>	<b>10.8 A</b>
PQm 80-Bz	<b>5.2 A</b>	<b>4.8 A</b>	<b>10.8 A</b>
PQm 90-Bz	<b>5.6 A</b>	<b>5.1 A</b>	<b>11.5 A</b>
PQm 100-Bz	<b>9.0 A</b>	<b>8.2 A</b>	<b>18.0 A</b>

MODEL	VOLTAGE (three-phase)					
	230 V	400 V	690 V	240 V	415 V	720 V
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
PK 60-Bz	<b>1.9 A</b>	<b>1.15 A</b>	<b>0.6 A</b>	<b>1.9 A</b>	<b>1.1 A</b>	<b>0.6 A</b>
PK 65-Bz	<b>2.9 A</b>	<b>1.7 A</b>	<b>0.9 A</b>	<b>2.8 A</b>	<b>1.6 A</b>	<b>0.9 A</b>

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	230 V	400 V	690 V	240 V	415 V	720 V
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
PQ 60-Bz	<b>1.9 A</b>	<b>1.15 A</b>	<b>0.6 A</b>	<b>1.9 A</b>	<b>1.1 A</b>	<b>0.6 A</b>
PQ 65-Bz	<b>2.9 A</b>	<b>1.7 A</b>	<b>0.9 A</b>	<b>2.8 A</b>	<b>1.6 A</b>	<b>0.9 A</b>
PQ 70-Bz	<b>3.8 A</b>	<b>2.2 A</b>	<b>1.3 A</b>	<b>3.3 A</b>	<b>1.9 A</b>	<b>1.1 A</b>
PQ 80-Bz	<b>3.8 A</b>	<b>2.2 A</b>	<b>1.3 A</b>	<b>3.3 A</b>	<b>1.9 A</b>	<b>1.1 A</b>
PQ 90-Bz	<b>4.2 A</b>	<b>2.4 A</b>	<b>1.4 A</b>	<b>3.8 A</b>	<b>2.2 A</b>	<b>1.3 A</b>
PQ 100-Bz	<b>6.3 A</b>	<b>3.6 A</b>	<b>2.05 A</b>	<b>5.7 A</b>	<b>3.3 A</b>	<b>1.9 A</b>

## PALLETIZATION

MODEL		GROUPAGE / CONTAINER			
Single-phase	Three-phase	n° pumps	H (mm)	kg	
				1~	3~
PKm 60-Bz	PK 60-Bz	<b>192</b>	1460	1100	1100
PKm 65-Bz	PK 65-Bz	<b>216</b>	1630	1580	1490

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Single-phase	Three-phase	n° pumps	H (mm)	kg	
				1~	3~
PQm 60-Bz	PQ 60-Bz	<b>192</b>	1460	1080	1080
PQm 65-Bz	PQ 65-Bz	<b>216</b>	1630	1530	1420
PQm 70-Bz	PQ 70-Bz	<b>120</b>	1270	1220	1110
PQm 80-Bz	PQ 80-Bz	<b>120</b>	1270	1220	1110
PQm 90-Bz	PQ 90-Bz	<b>120</b>	1280	1240	1110
PQm 100-Bz	PQ 100-Bz	<b>72</b>	1490	1120	990

