



**GENERAL CATALOGUE**

 **PEDROLLO**<sup>®</sup>  
*... the spring of life*



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## PERFORMANCE RANGE

- Flow rate up to **90 l/min** (5.4 m<sup>3</sup>/h)
- Head up to **100 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:
  - **6 bar** for PQ 60-65
  - **10 bar** for PQ 70-80-81-90-100-200-300
- 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 hydraulic characteristics of these pumps, coupled with their compactness, makes them suitable for use in both domestic and industrial applications.

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
- Registered Italian model n° 72753

## OPTIONALS AVAILABLE ON REQUEST

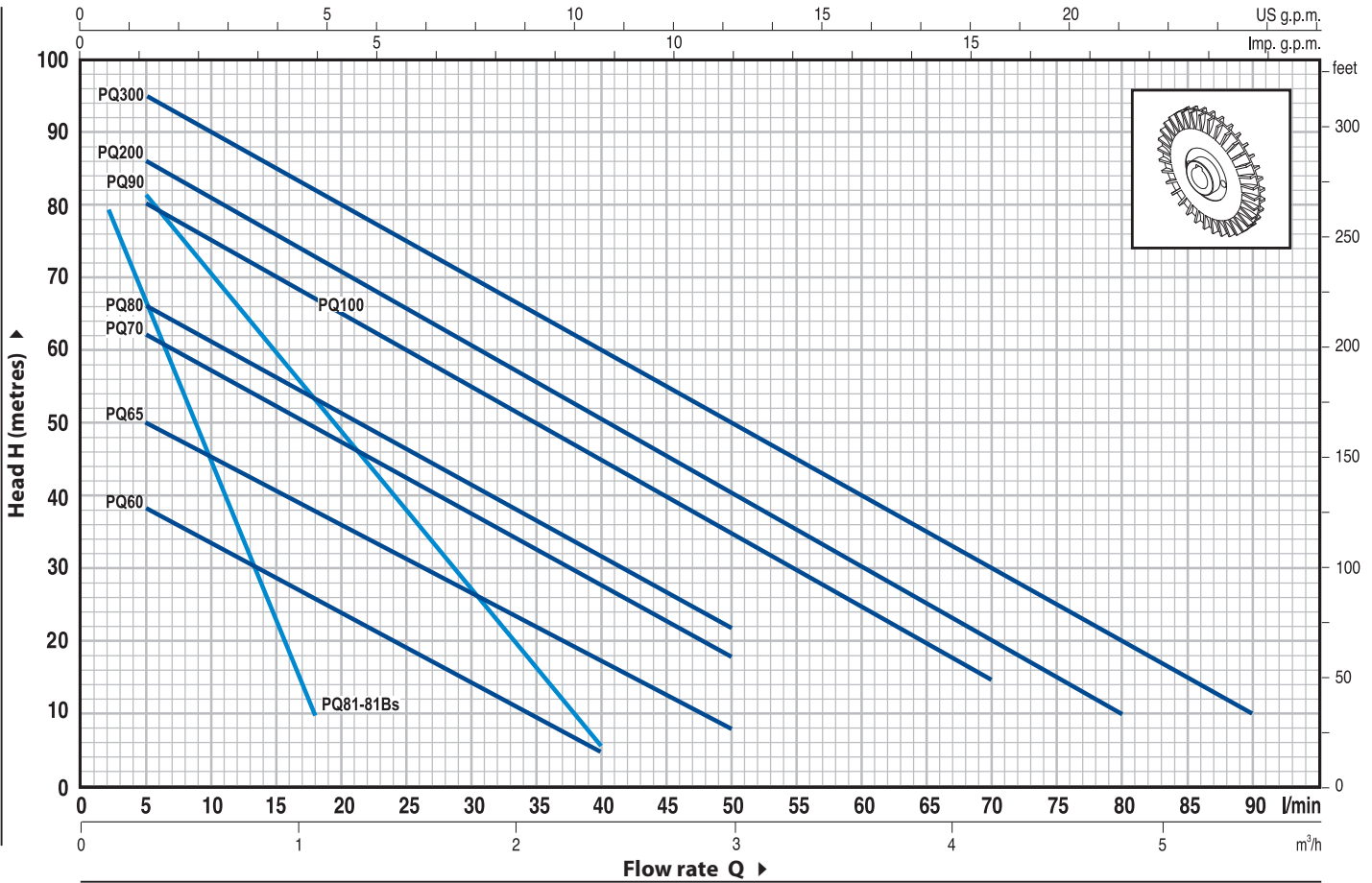
- Special mechanical seal
- EN 10088-3 - 1.4401 (AISI 316) stainless steel motor shaft
- Other voltages or 60 Hz frequency
- IP55 class protection

## 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	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	3.0	3.6	4.2	4.8	5.4		
				l/min	0	5	10	15	20	25	30	35	40	50	60	70	80	90			
PQm 60	PQ 60	0.37	0.50	H metres	40	38	33.5	29	24	19.5	15	10	5								
PQm 65	PQ 65	0.50	0.70		55	50	45.5	40.5	36	31	27	22	17	8							
PQm 70	PQ 70	0.60	0.85		65	62	57	52	47	42	37	32	27	18							
PQm 80	PQ 80	0.75	1		70	66	61	56	51	46	41	36.5	31	22							
PQm 90	PQ 90	0.75	1		90	82	71	60	49	38	27	17	5								
PQm 100	PQ 100	1.1	1.5		85	80	75	70	65	60	55	50	45	35	25	15					
PQm 200	PQ 200	1.5	2		90	86	81	76	71	65.5	60	55	50	40	30	20	10				
-	PQ 300	2.2	3		100	95	90	85	80	75	70	65	60	50	40	30	20	10			

MODEL		POWER		Q	Flow rate										
Single-phase	Three-phase	kW	HP		m³/h	0	0.12	0.24	0.36	0.48	0.60	0.72	0.84	0.96	1.08
				l/min	0	2	4	6	8	10	12	14	16	18	
PQm 81	PQ 81	0.50	0.70	H metres	90	80	71	63	54	45	37	28	19	10	
PQm 81-Bs	PQ 81-Bs	0.50	0.70		90	80	71	63	54	45	37	28	19	10	

⇒ PQ 81 Bs= version with brass pump body

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**

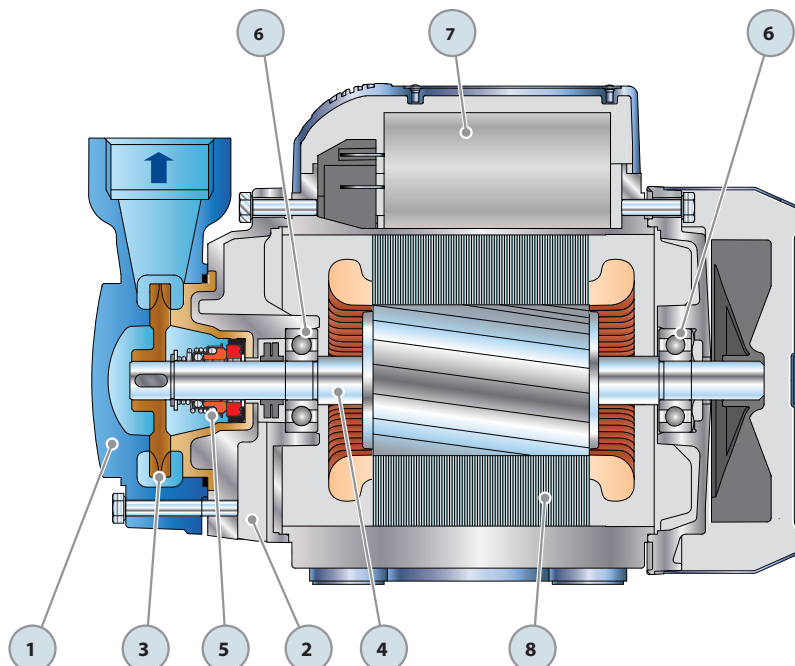
1	<b>PUMP BODY</b>	Cast iron (brass for PQ 81-Bs), complete with threaded ports in compliance with ISO 228/1
2	<b>MOTOR BRACKET</b>	Aluminium with brass insert (patented), reduces the risk of impeller seizure
3	<b>IMPELLER</b>	Brass, with peripheral radial vanes
4	<b>MOTOR SHAFT</b>	Stainless steel EN 10088-3 - 1.4104

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	AR-12	Ø 12 mm	Ceramic	Graphite	NBR
		PQ 70-80-81-81Bs-90	FN-12	Ø 12 mm	Ceramic	Graphite	NBR
		PQ 100-200-300	FN-14	Ø 14 mm	Graphite	Ceramic	NBR

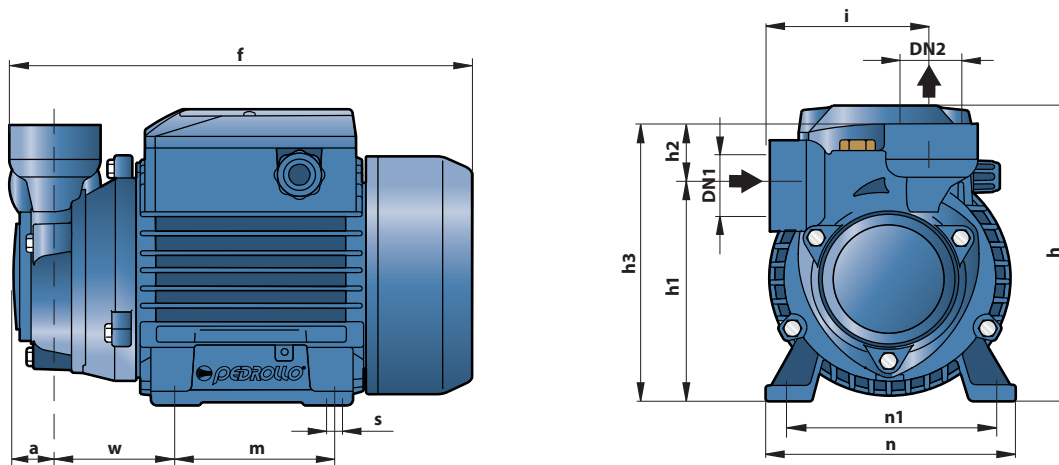
6	<b>BEARINGS</b>	<i>Pump</i>	<i>Model</i>
		PQ 60-65-81-81Bs	6201 ZZ / 6201 ZZ
		PQ 70-80-90	6203 ZZ / 6203 ZZ
		PQ 100-200-300	6204 ZZ / 6204 ZZ

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	10 µF 450 VL	25 µF 250 VL
		PQm 65	14 µF 450 VL	30 µF 250 VL
		PQm 70	16 µF 450 VL	60 µF 300 VL
		PQm 80	20 µF 450 VL	60 µF 300 VL
		PQm 81 - 81Bs	14 µF 450 VL	30 µF 250 VL
		PQm 90	20 µF 450 VL	60 µF 300 VL
		PQm 100	31.5 µF 450 VL	60 µF 250 VL
		PQm 200	45 µF 450 VL	80 µF 250 VL

**8 ELECTRIC MOTOR** PQm: single-phase 230 V - 50 Hz with thermal overload protector built-in to the winding.  
 PQ: 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~
PQm 60	PQ 60	1"	1"	22	225	152	108	30	138	78	80	120	100	55	7	5.1	5.1
PQm 65	PQ 65						113		143					57		6.6	6.1
PQm 70	PQ 70						121		151					62		9.7	9.0
PQm 80	PQ 80						126		153					62		9.7	9.0
PQm 81	PQ 81	1/2"	1/2"	18	220	152	119	23	141	71	80	120	100	58	6.6	6.2	
PQm 81-Bs	PQ 81-Bs	1/2"	1/2"	18	220	152	119	23	141	71	80	120	100	58	6.5	6.1	
PQm 90	PQ 90	3/4"	3/4"	22	255	180	126	27	153	84	90	138	112	62	9.9	8.8	
PQm 100	PQ 100	1"	1"	25	318	212	140	30	170	89	100	164	125	85	9	14.1	12.2
PQm 200	PQ 200															15.2	14.1
-	PQ 300															-	15.2

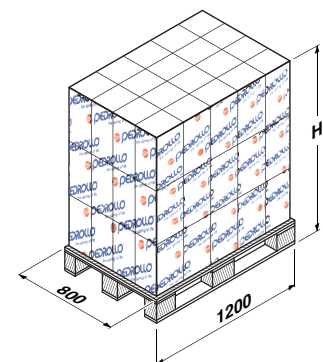
## ABSORPTION

MODEL	VOLTAGE (single-phase)		
	230 V	240 V	110 V
Single-phase	230 V	240 V	110 V
PQm 60	2.6 A	2.4 A	5.2 A
PQm 65	3.7 A	3.4 A	7.4 A
PQm 70	5.2 A	4.8 A	10.8 A
PQm 80	5.2 A	4.8 A	10.8 A
PQm 81	3.4 A	2.7 A	5.8 A
PQm 81-Bs	3.4 A	2.7 A	5.8 A
PQm 90	5.6 A	5.1 A	11.5 A
PQm 100	9.0 A	8.2 A	18.0 A
PQm 200	12.0 A	11.0 A	24.0 A

MODEL	VOLTAGE (three-phase)				
	230 V	400 V	690 V	240 V	415 V
Three-phase	230 V	400 V	690 V	240 V	415 V
PQ 60	2.0 A	1.15 A	-	1.9 A	1.1 A
PQ 65	3.0 A	1.7 A	-	2.8 A	1.6 A
PQ 70	3.8 A	2.2 A	-	3.3 A	1.9 A
PQ 80	3.8 A	2.2 A	-	3.3 A	1.9 A
PQm 81	2.2 A	1.3 A	-	2.0 A	1.15 A
PQm 81-Bs	2.2 A	1.3 A	-	2.0 A	1.15 A
PQ 90	4.2 A	2.4 A	-	3.8 A	2.2 A
PQ 100	6.3 A	3.6 A	2.05 A	5.7 A	3.3 A
PQ 200	7.6 A	4.4 A	2.5 A	7.0 A	4.0 A
PQ 300	9.3 A	5.4 A	3.15 A	8.7 A	5.0 A

## PALLETIZATION

MODEL		GROUPAGE				CONTAINER			
Single-phase	Three-phase	n° pumps	H (mm)	kg		n° pumps	H (mm)	kg	
				1~	3~			1~	3~
PQm 60	PQ 60	240	1440	1250	1250	270	1600	1400	1400
PQm 65	PQ 65	240	1440	1600	1490	270	1600	1800	1670
PQm 70	PQ 70	120	1270	1190	1100	180	1850	1770	1640
PQm 80	PQ 80	120	1280	1190	1100	180	1850	1770	1640
PQm 81	PQ 81	192	1460	1290	1210	264	1960	1760	1660
PQm 81-Bs	PQ 81-Bs	192	1460	1270	1190	264	1960	1740	1630
PQm 90	PQ 90	120	1280	1210	1080	180	1850	1800	1610
PQm 100	PQ 100	72	1510	1040	900	96	1970	1380	1190
PQm 200	PQ 200	72	1510	1120	1040	96	1970	1480	1380
-	PQ 300	72	1510	-	1120	96	1970	-	1480





## PERFORMANCE RANGE

- Flow rate up to **50 l/min** (3 m<sup>3</sup>/h)
- Head up to **180 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 **18 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 and liquids that are not chemically aggressive towards the materials from which the pump is made. The hydraulic characteristics of this pump, coupled with its compactness, make it suitable for use in the industrial applications. 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

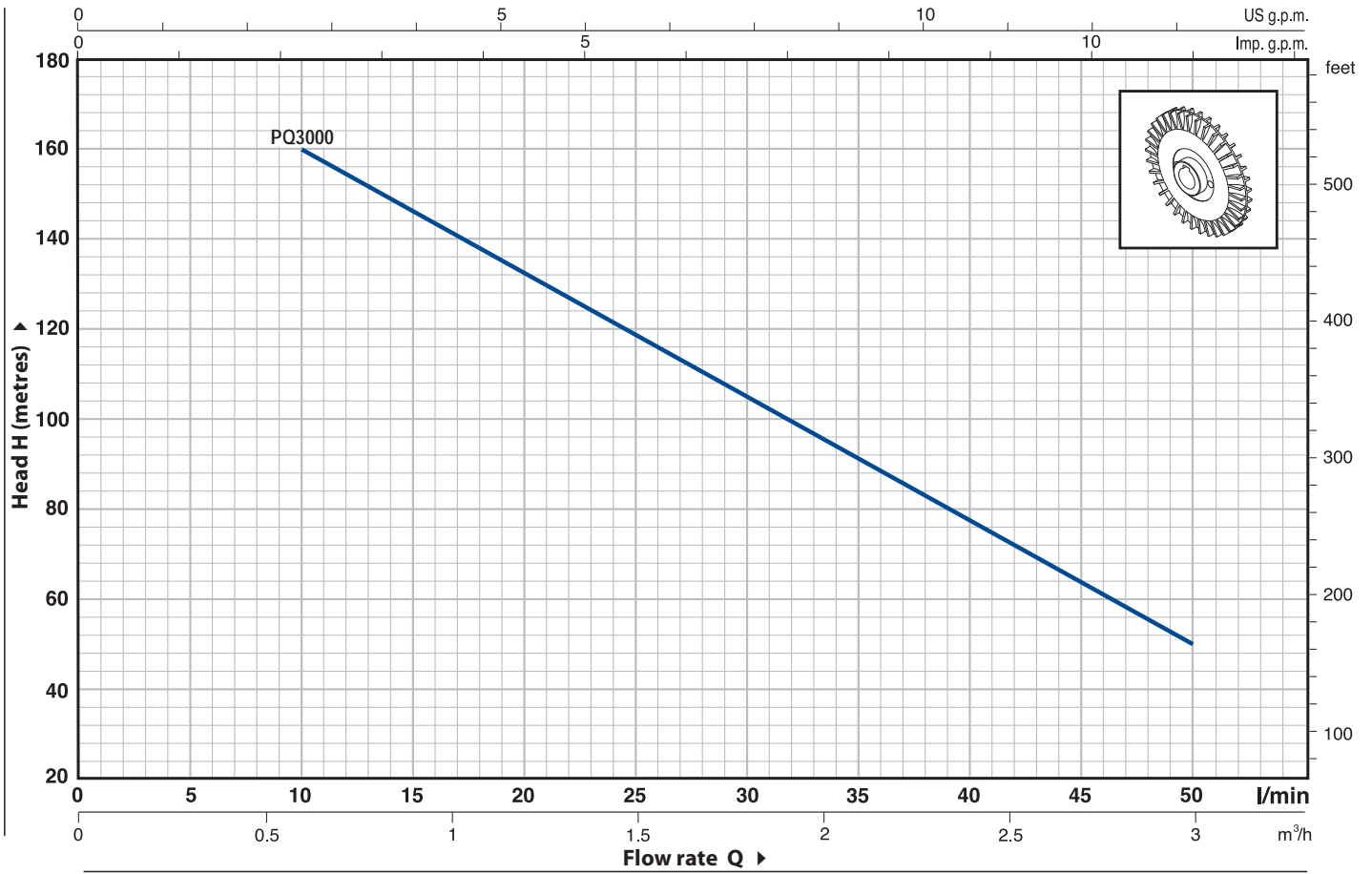
- Special mechanical seal
- EN 10088-3 - 1.4401 (AISI 316) stainless steel motor shaft
- Other voltages or 60 Hz frequency

## GUARANTEE

2 years subject to terms and conditions

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

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



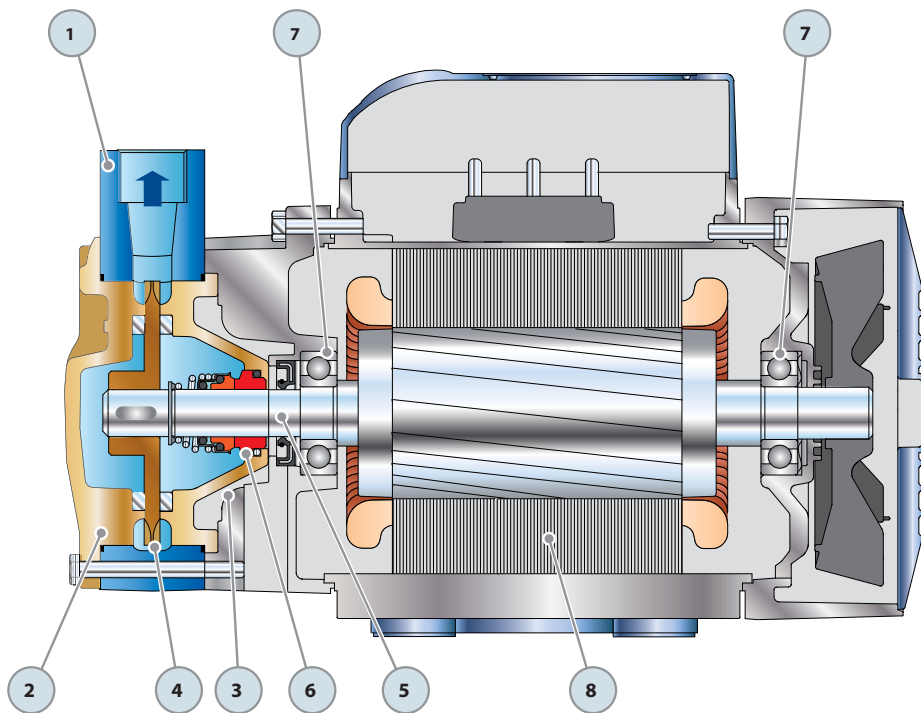
MODEL	POWER		Q	Flow rate												
	kW	HP		0	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0			
Three-phase				0	10	15	20	25	30	35	40	45	50			
<b>PQ 3000</b>	2.2	3	H metres	180	160	145	132	118	105	92	78	63.5	50			

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

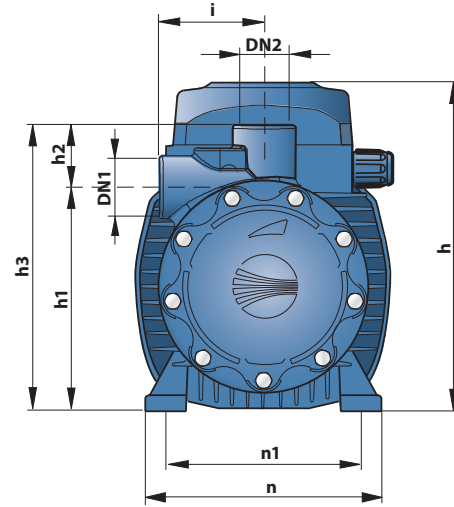
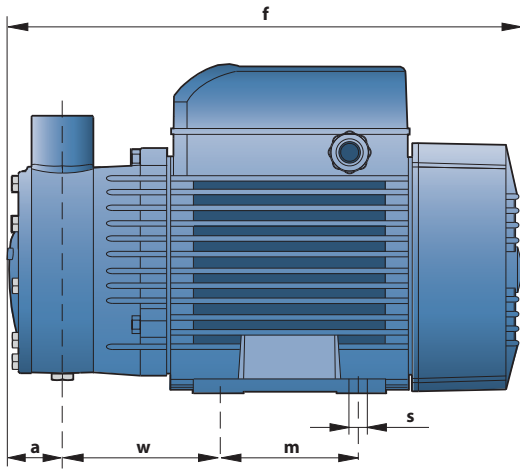
Tolerance of characteristic curves in compliance with EN ISO 9906 App. A.



POS.	COMPONENT	CONSTRUCTION CHARACTERISTICS												
1	PUMP BODY	Cast iron, complete with threaded ports in compliance with ISO 228/1												
2	BODY PLATE	Brass, with stainless steel shim disc												
3	MOTOR BRACKET	Aluminium, with brass insert and stainless steel shim disc that reduces the risk of impeller seizure												
4	IMPELLER	Bronze, with peripheral radial vanes												
5	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104												
6	MECHANICAL SEAL	<table border="1"> <thead> <tr> <th>Seal Model</th> <th>Shaft Diameter</th> <th>Stationary ring</th> <th>Rotational ring</th> <th>Materials</th> <th>Elastomer</th> </tr> </thead> <tbody> <tr> <td>FN-18 NU</td> <td>Ø 18 mm</td> <td>Graphite</td> <td>Ceramic</td> <td></td> <td>NBR</td> </tr> </tbody> </table>	Seal Model	Shaft Diameter	Stationary ring	Rotational ring	Materials	Elastomer	FN-18 NU	Ø 18 mm	Graphite	Ceramic		NBR
Seal Model	Shaft Diameter	Stationary ring	Rotational ring	Materials	Elastomer									
FN-18 NU	Ø 18 mm	Graphite	Ceramic		NBR									
7	BEARINGS	6204 ZZ - C3 / 6204 ZZ - C3												
8	ELECTRIC MOTOR	<p><b>PQ 3000:</b> three-phase 230/400 V - 50 Hz.</p> <p>→ Pump fitted with the three-phase motor option offers IE2 (IEC 60034-30) class high performance</p> <ul style="list-style-type: none"> <li>- Insulation: H class.</li> <li>- Protection: IP 55.</li> </ul>												



## DIMENSIONS AND WEIGHT



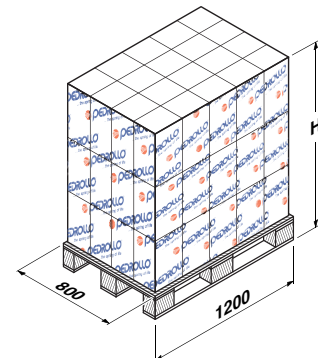
MODEL	PORTS		DIMENSIONS mm											kg		
	DN1	DN2	a	f	h	h1	h2	h3	i	m	n	n1	w		s	
Three-phase																3~
PQ 3000	¾"	¾"	34	329	212	142	38	180	65	100	164	125	97	9	<b>18.8</b>	

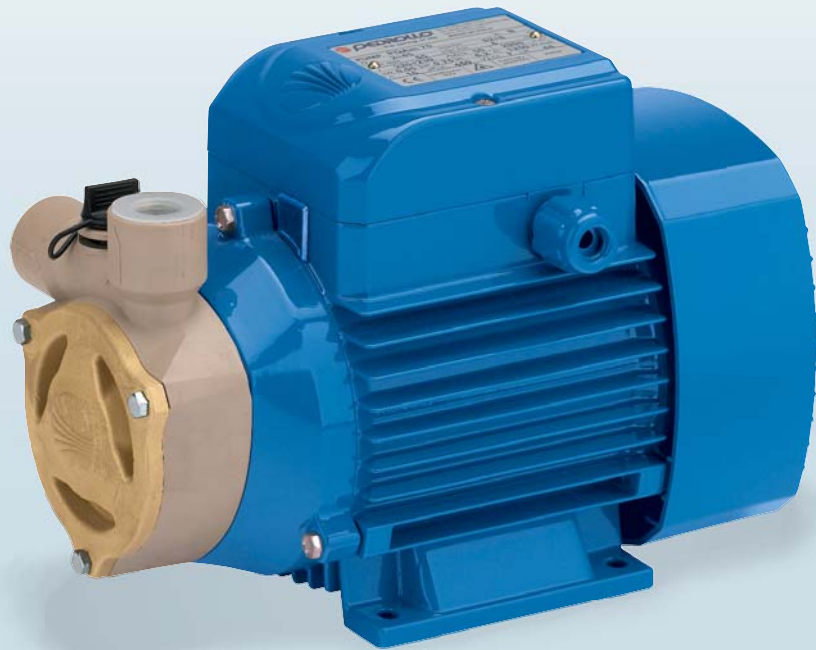
## ABSORPTION

MODEL	VOLTAGE (three-phase)			
	Three-phase	230 V	400 V	240 V
PQ 3000	<b>11.5 A</b>	<b>6.6 A</b>	<b>10.8 A</b>	<b>6.2 A</b>

## PALLETIZATION

MODEL	GROUPAGE			CONTAINER		
	n° pumps	H (mm)	kg	n° pumps	H (mm)	kg
PQ 3000	<b>72</b>	1840	1380	<b>84</b>	2114	1600





## PERFORMANCE RANGE

- Flow rate up to **50 l/min** (3 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**
- 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 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
- Registered Community Design n° 342159-001

## OPTIONALS AVAILABLE ON REQUEST

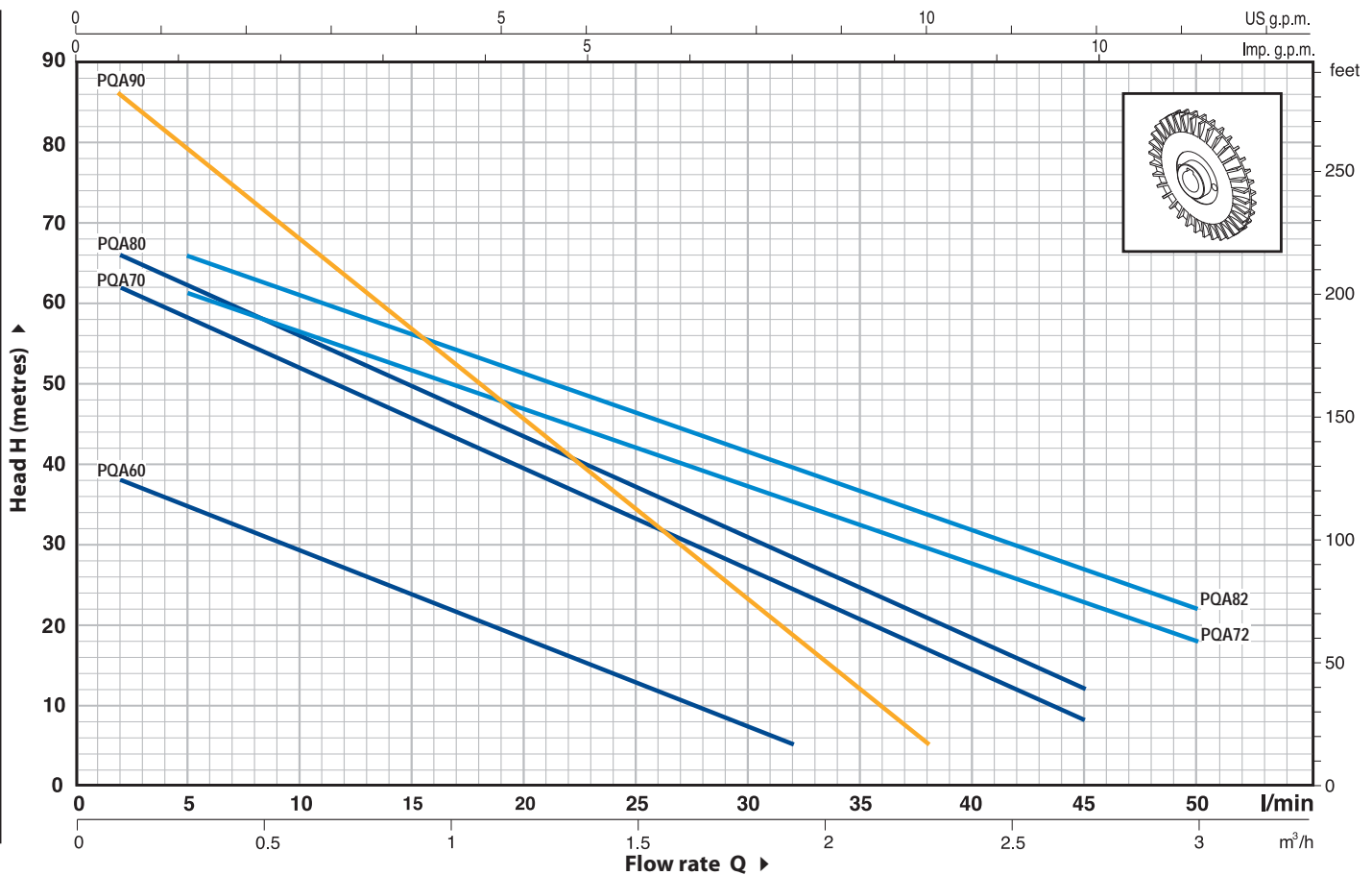
- Special mechanical seal
- EN 10088-3 - 1.4401 (AISI 316) stainless steel motor shaft
- Other voltages or 60 Hz frequency
- IP55 class protection

## GUARANTEE

2 years subject to terms and conditions

### CHARACTERISTIC CURVES AND PERFORMANCE DATA

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

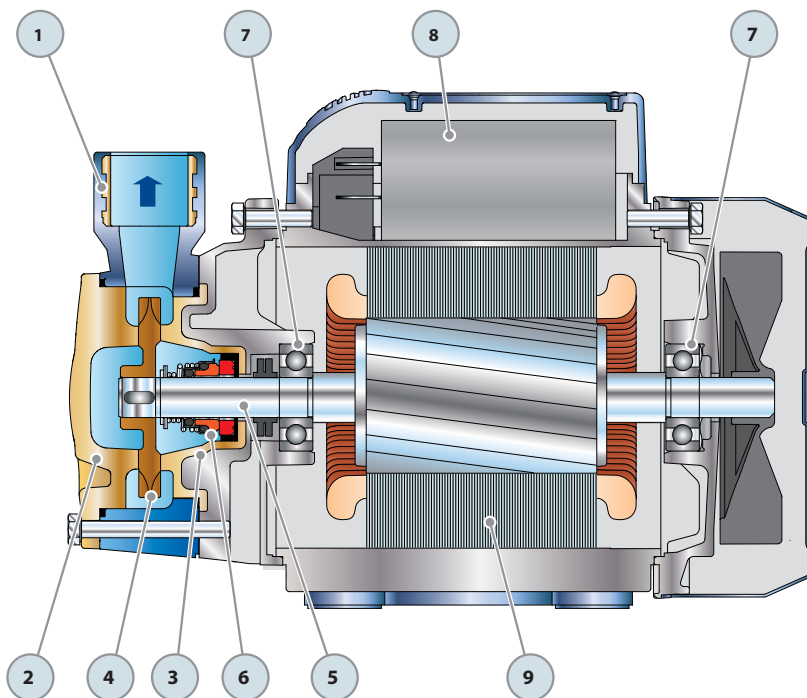


MODEL		POWER		Q	Flow rate														
Single-phase	Three-phase	kW	HP		m³/h	0	0.1	0.3	0.6	0.9	1.2	1.5	1.8	1.9	2.3	2.7	3.0		
				l/min	0	2	5	10	15	20	25	30	32	38	45	50			
PQAm 60	PQA 60	0.37	0.50	H metres	40	38	35	29	23.5	18	12.5	7	5						
PQAm 70	PQA 70	0.55	0.75		65	62	58	52	45.5	39.5	33	27	24	16.5	8				
PQAm 72	PQA 72	0.55	0.75		65	-	62	57	52	47	42	37.5	35.5	29.5	22.5	18			
PQAm 80	PQA 80	0.75	1		70	66	62	56	49.5	43	37	31	28	20.5	12				
PQAm 82	PQA 82	0.75	1		70	-	66	61	56	51	46	41.5	39.5	37.5	26.5	22			
PQAm 90	PQA 90	0.75	1		90	86	79	68	56.5	45.5	34	23	18.5	5					

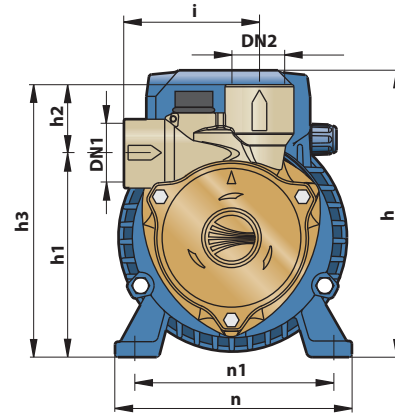
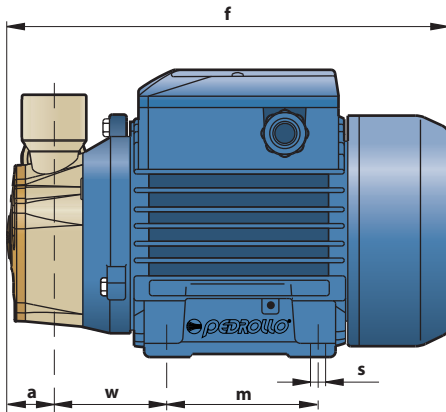
Q = Flow rate H = Total manometric head HS = Suction height

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

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	<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-12	Ø 12 mm	Ceramic	Graphite	NBR
7	BEARINGS	<i>Pump</i>	<i>Model</i>			
		PQA 60	6201 ZZ / 6201 ZZ			
		PQA 70-72-80-82-90	6203 ZZ / 6203 ZZ			
8	CAPACITOR	<i>Pump</i>	<i>Capacitance</i>			
		<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 70-72	16 µF 450 VL	60 µF 250 VL		
		PQAm 80-82	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 44.</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	226	152	103	33	136	72.5	80	120	100	55	7	<b>4.8</b>	<b>4.8</b>
PQAm 70	PQA 70						116.5	32.5	149							<b>9.4</b>	<b>8.4</b>
PQAm 72	PQA 72	1"	1"	28	258	179	121	30	151	83	90	138	112	62	7	<b>9.5</b>	<b>8.5</b>
PQAm 80	PQA 80	½"	½"				116.5	32.5	149	72.5						<b>9.4</b>	<b>8.4</b>
PQAm 82	PQA 82	1"	1"	28	258	179	121	30	151	83	90	138	112	62	7	<b>9.5</b>	<b>8.5</b>
PQAm 90	PQA 90	½"	½"				116.5	35	156	76						<b>9.5</b>	<b>8.5</b>

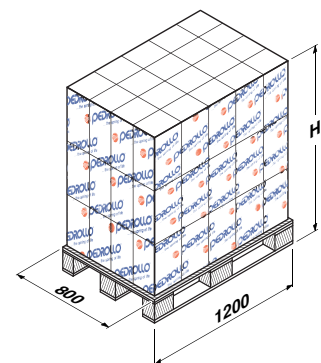
## ABSORPTION

MODEL	VOLTAGE (single-phase)		
	230 V	240 V	110 V
Single-phase			
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 72	<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 82	<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)			
	230 V	400 V	240 V	415 V
Three-phase				
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 72	<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 82	<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>192</b>	1490	940	940	<b>264</b>	1990	1290	1290
PQAm 70	PQA 70	<b>120</b>	1310	1150	1030	<b>180</b>	1900	1710	1530
PQAm 72	PQA 72	<b>120</b>	1310	1160	1040	<b>180</b>	1900	1730	1550
PQAm 80	PQA 80	<b>120</b>	1310	1150	1030	<b>180</b>	1900	1710	1530
PQAm 82	PQA 82	<b>120</b>	1310	1160	1040	<b>180</b>	1900	1730	1550
PQAm 90	PQA 90	<b>120</b>	1310	1160	1040	<b>180</b>	1900	1730	1550



# PK-PQ /Bz

Pumps with peripheral impellers and bronze pump bodies



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## 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

2 years subject to terms and conditions

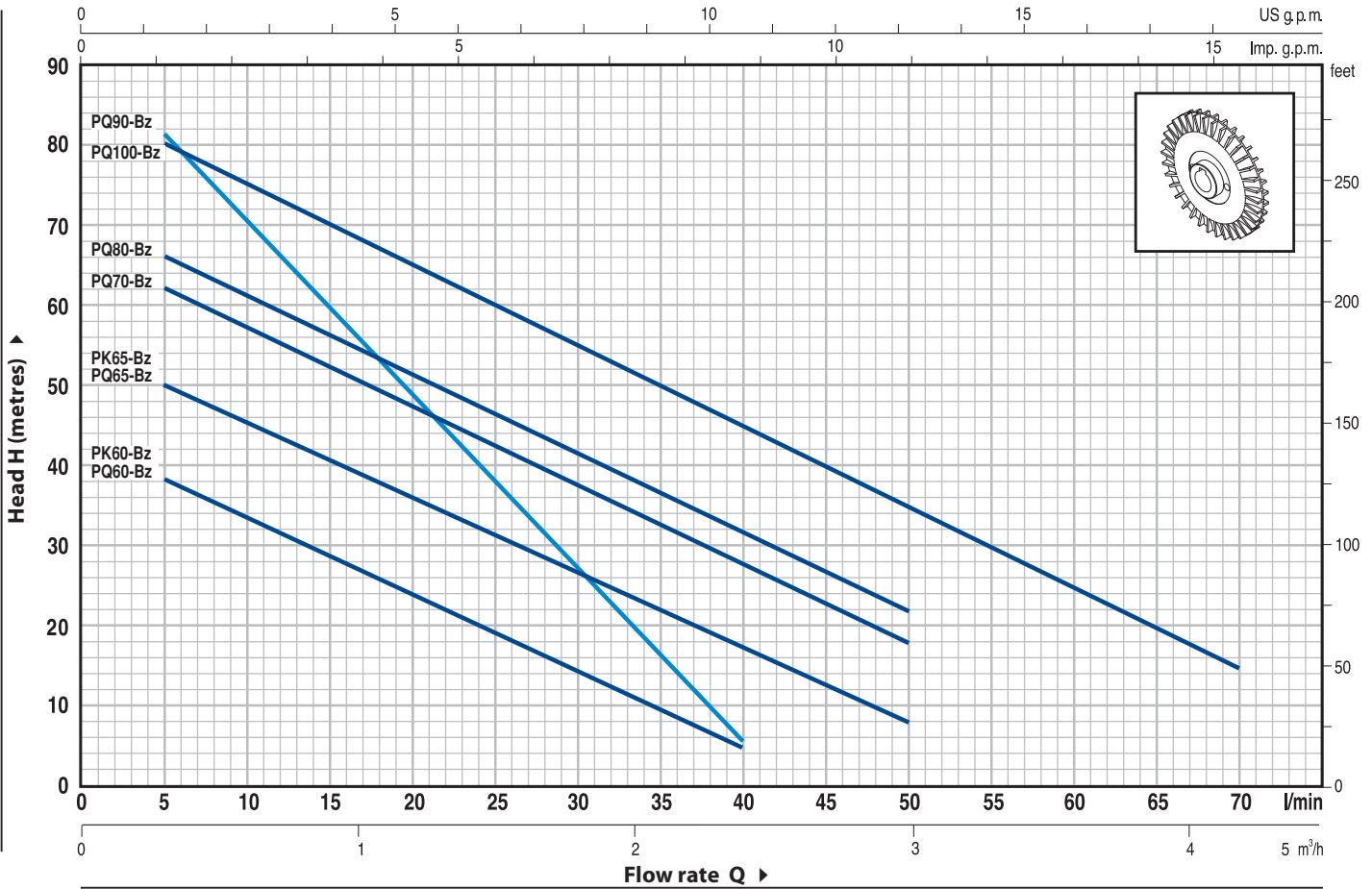
تهران، کیلومتر ۲۱ بزرگراه لشگری (جاده مخصوص کرج)، روبروی پالایشگاه نفت پارس، پلاک ۱۲ Tel: ۰۲۱-۴۸۰۰۰۰۴۹ Fax: ۰۲۱-۴۴۹۹۴۶۴۲

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## CHARACTERISTIC CURVES AND PERFORMANCE DATA

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



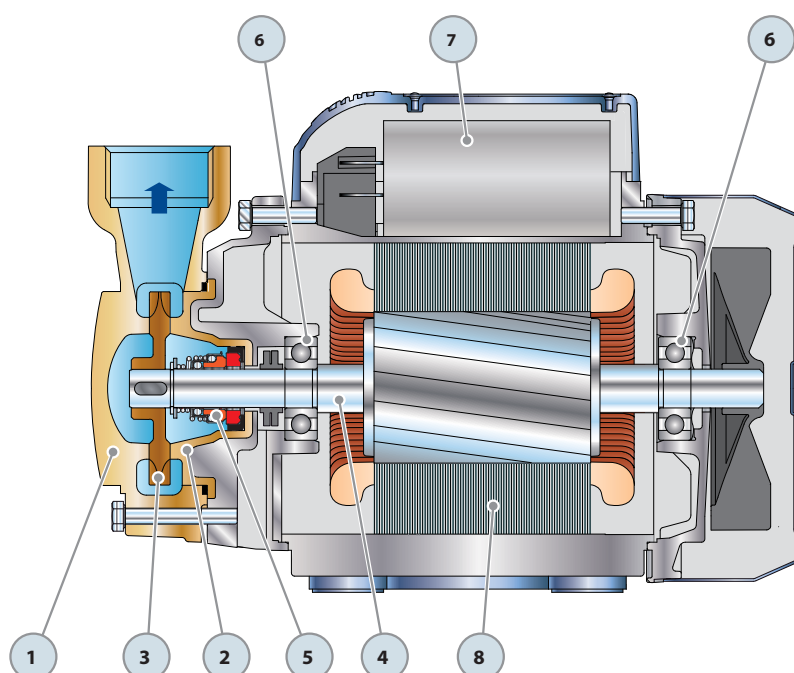
MODEL		POWER		Q	H metres															
Single-phase	Three-phase	kW	HP		0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	3.0	3.6	4.2				
				l/min	0	5	10	15	20	25	30	35	40	50	60	70				
PKm 60-Bz	PK 60-Bz	0.37	0.50	H metres	40	38	33.5	29	24	19.5	15	10	5							
PQm 60-Bz	PQ 60-Bz				55	50	45.5	40.5	36	31	27	22	17	8						
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

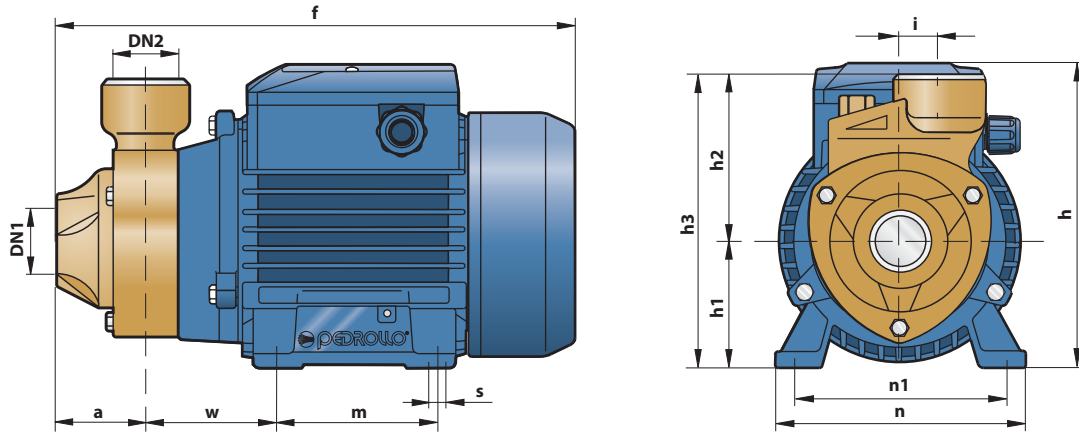
Tolerance of characteristic curves in compliance with EN ISO 9906 App. A.



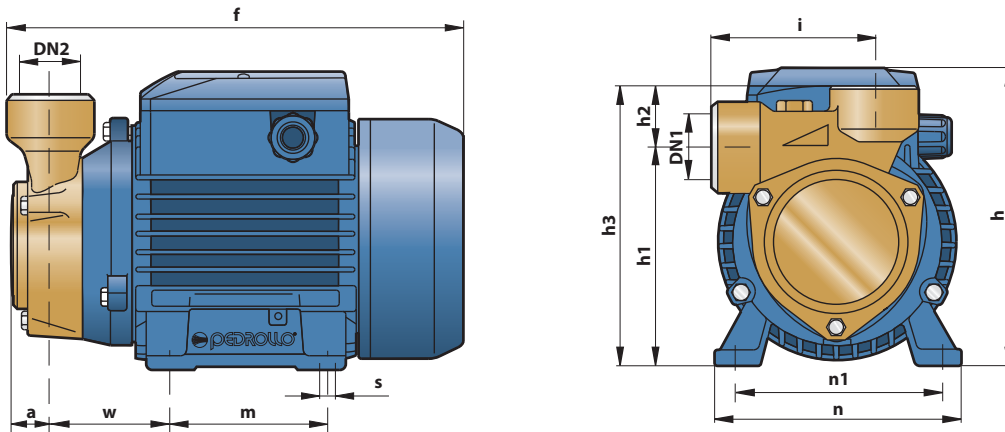
POS.	COMPONENT	CONSTRUCTION CHARACTERISTICS					
1	<b>PUMP BODY</b>	Bronze, complete with threaded ports in compliance with ISO 228/1					
2	<b>MOTOR BRACKET</b>	Aluminium with brass insert (patented), reduces the risk of impeller seizure					
3	<b>IMPELLER</b>	Brass, with peripheral radial vanes					
4	<b>MOTOR SHAFT</b>	Stainless steel AISI 316					
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.					
<p>⇒ Pumps fitted with the three-phase motor option offer IE2 (IEC 60034-30) class high performance</p> <ul style="list-style-type: none"> <li>- Insulation: F class.</li> <li>- Protection: IP 44.</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~
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



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~
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							7.0	6.5
PQm 70-Bz	PQ 70-Bz						121		151							10.0	9.1
PQm 80-Bz	PQ 80-Bz						126		153							10.0	9.1
PQm 90-Bz	PQ 90-Bz	3/4"	3/4"	25	318	212	126	27	153	84	90	138	112	62	9	10.2	9.1
PQm 100-Bz	PQ 100-Bz	1"	1"				140	30	170	89						100	164

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## 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 (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>

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
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>

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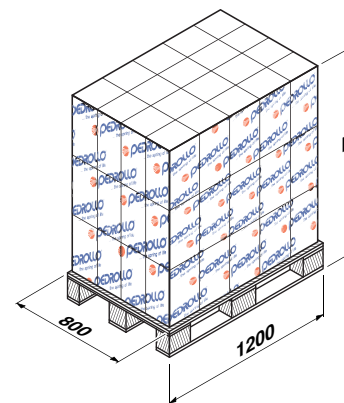
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## PALLETIZATION

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

MODEL		GROUPAGE / CONTAINER			
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





## PERFORMANCE RANGE

- Flow rate up to **40 l/min** (2.4 m<sup>3</sup>/h)
- Head up to **40 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

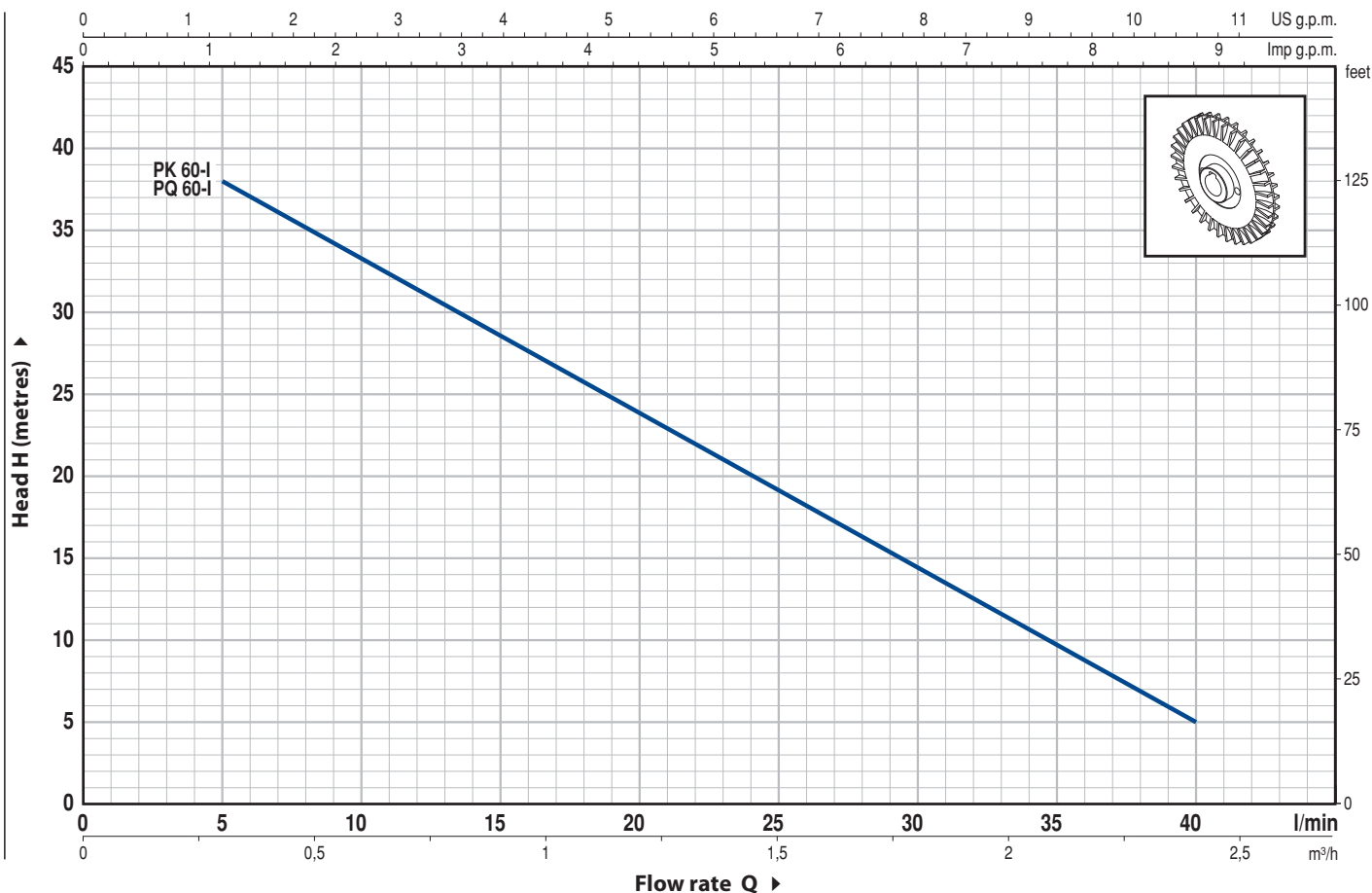
- Special mechanical seal
- Other voltages or 60 Hz frequency
- IP 55 class protection

## GUARANTEE

2 years subject to terms and conditions

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

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

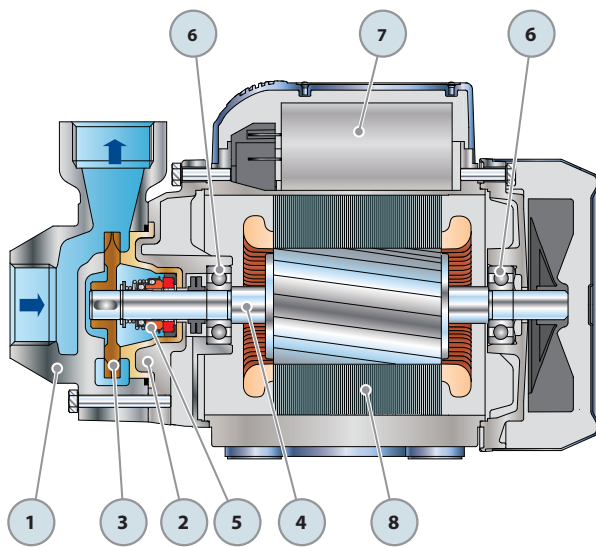


MODEL		POWER		Q										
Single-phase	Three-phase	kW	HP		m³/h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4
PKm 60-I	PK 60-I	0.37	0.50	l/min	0	5	10	15	20	25	30	35	40	
	PQm 60-I			H metres	40	38	33.5	29	24	19.5	15	10	5	

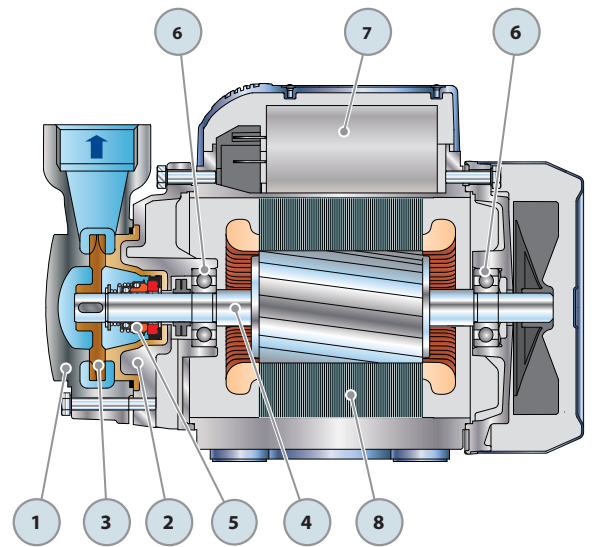
Q = Flow rate H = Total manometric head HS = Suction height

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

POS.	COMPONENT	CONSTRUCTION CHARACTERISTICS					
1	PUMP BODY	Precision cast stainless steel AISI 316, 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	<b>Pump Model</b>	<b>Seal Model</b>	<b>Shaft Diameter</b>	<b>Stationary ring</b>	<b>Rotational ring</b>	<b>Materials</b>
		PK 60-I PQ 60-I	FN-12V	Ø 12 mm	Graphite	Ceramic	Elastomer Viton
6	BEARINGS	<b>Pump Model</b>	<b>Model</b>				
		PK 60-I PQ 60-I	6201 ZZ - C3 / 6201 ZZ - C3				
7	CAPACITOR	<b>Pump Single-phase</b>	<b>Capacitance (230 V or 240 V)</b>	<b>(110 V)</b>			
		PKm 60-I PQm 60-I	10 µF 450 VL	25 µF 250 VL			
8	ELECTRIC MOTOR	<b>PKm-I PQm-I:</b> single-phase 230 V - 50 Hz with thermal overload protector built-in to the winding. <b>PK-I PQ-I:</b> 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.					

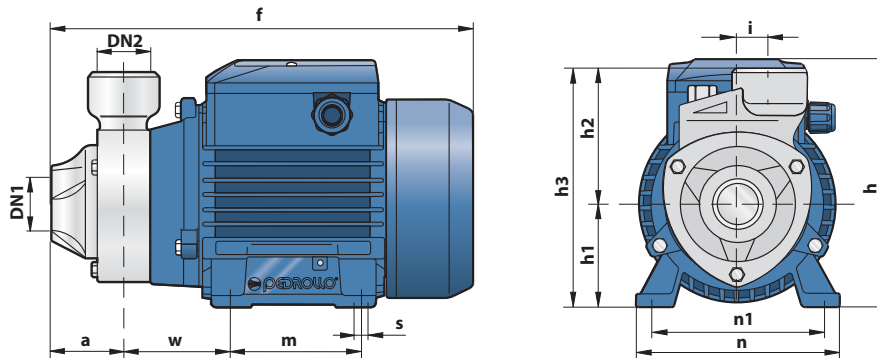


PK 60-I

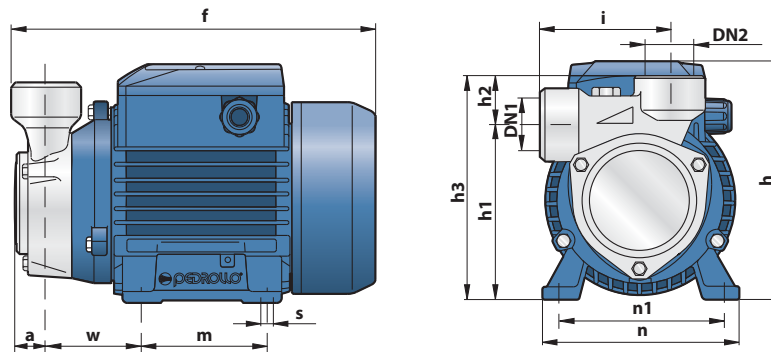


PQ 60-I

### 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-I	PK 60-I	1"	1"	42	245	152	63	75	138	20	80	120	100	55	7	5.5	5.5



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~
PQm 60-I	PQ 60-I	1"	1"	22	225	152	108	30	138	78	80	120	100	55	7	5.4	5.4

### ABSORPTION

MODEL	VOLTAGE (single-phase)		
	230 V	240 V	110 V
Single-phase	230 V	240 V	110 V
PKm 60-I	2.5 A	2.4 A	5.0 A
PQm 60-I	2.5 A	2.4 A	5.0 A

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-I	1.9 A	1.15 A	0.6 A	1.9 A	1.1 A	0.6 A
PQ 60-I	1.9 A	1.15 A	0.6 A	1.9 A	1.1 A	0.6 A

### PALLETIZATION

MODEL		GROUPAGE / CONTAINER			
Single-phase	Three-phase	n° pumps	H (mm)	kg	
				1~	3~
PKm 60-I	PK 60-I	192	1460	1080	1080
PQm 60-I	PQ 60-I	192	1460	1060	1060

