



### 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** (+45 °C for PQ 60, PQ 60-Bs)
- Max. working pressure:
  - **6.5 bar** for PQ 60-65
  - **10 bar** for PQ 70-80-81-90-100-200-300
- 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 BY DNV  
ISO 9001: QUALITY  
ISO 14001: ENVIRONMENT AND SAFETY



AN30



ПРОМТЕКТ-168

### 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

- Registered model <sup>®</sup>PQm60 n° 0001520591
- Motor bracket: patent n° IT1243605
- Registered Community Design n° 002146548

### OPTIONALS AVAILABLE ON REQUEST

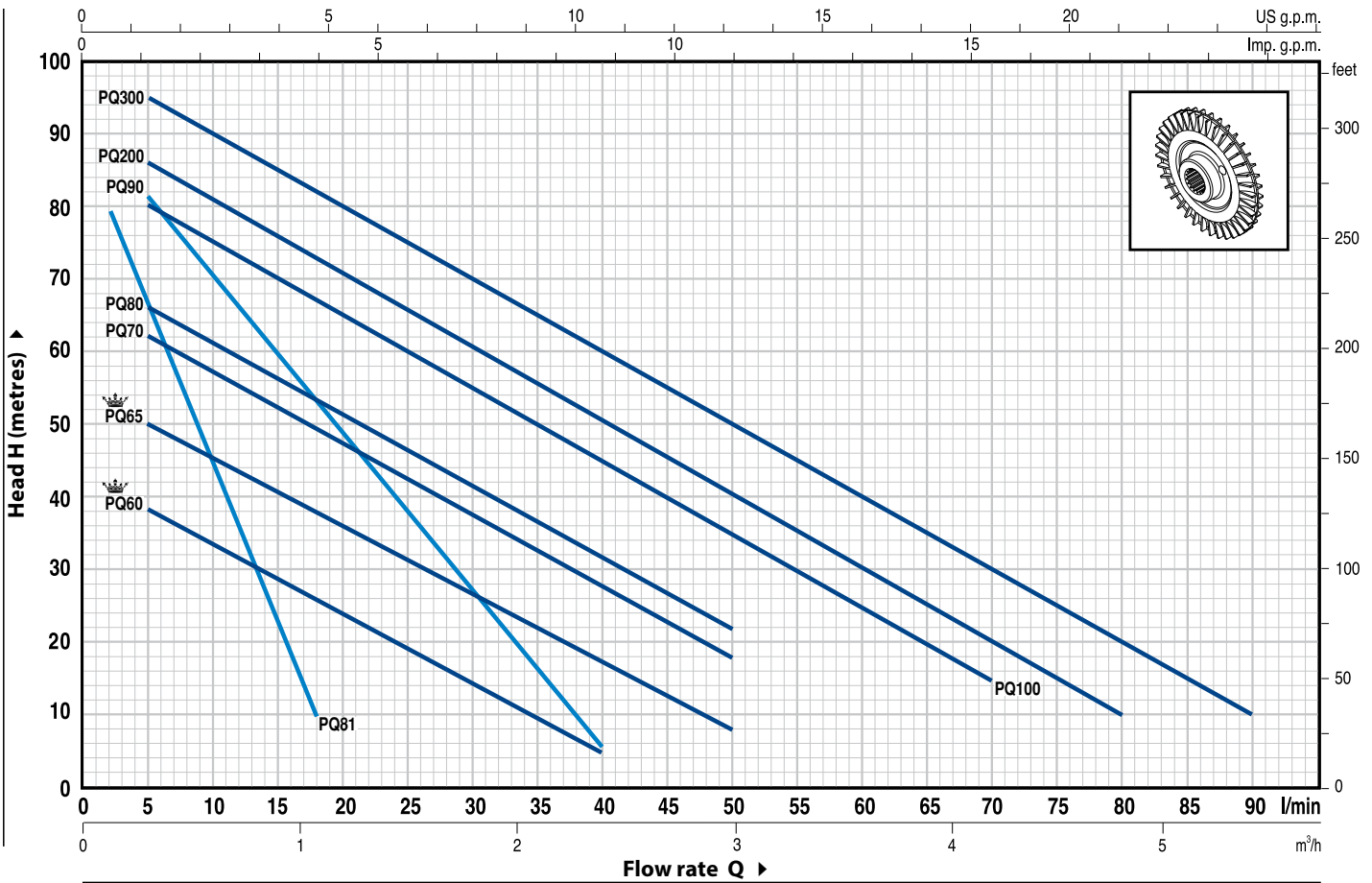
- Special mechanical seal
- EN 10088-3 - 1.4401 (AISI 316) stainless steel motor shaft
- Other voltages or 60 Hz frequency
- IP X5 class protection for PQ 70-80-90-100-200-300

### 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			
PQm 60-Bs	PQ 60-Bs	0.37	0.50		40	38	33.5	29	24	19.5	15	10	5								
PQm 65-Bs	PQ 65-Bs	0.50	0.70		55	50	45.5	40.5	36	31	27	22	17	8							

⇒ Bs= version with brass pump body

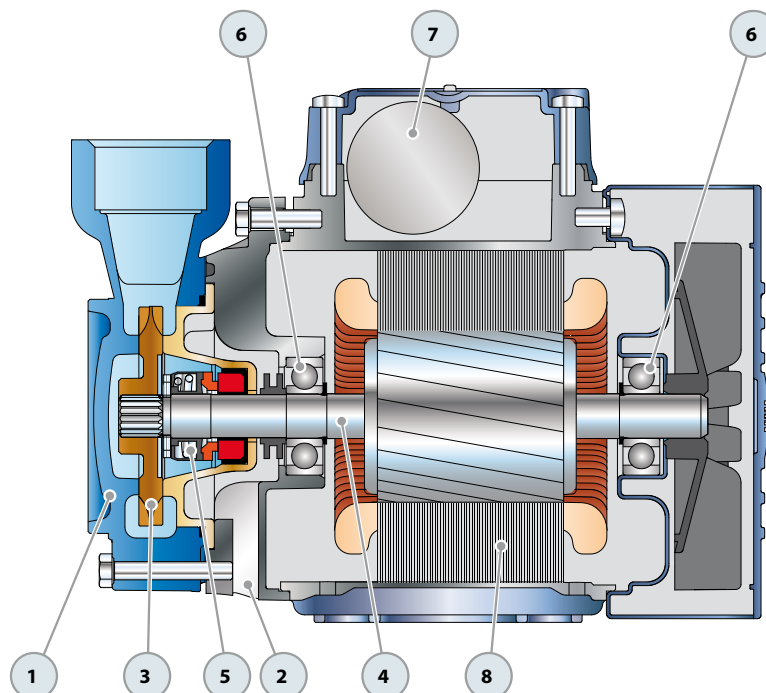
MODEL		POWER		Q	Flow rate										
Single-phase	Three-phase	kW	HP		m³/h	0	0.12	0.24	0.36	0.48	0.60	0.72	0.84	0.96	1.08
				l/min	0	2	4	6	8	10	12	14	16	18	
PQm 81	PQ 81	0.50	0.70	H metres	90	80	71	63	54	45	37	28	19	10	
PQm 81-Bs	PQ 81-Bs	0.50	0.70		90	80	71	63	54	45	37	28	19	10	

⇒ Bs= version with brass pump body

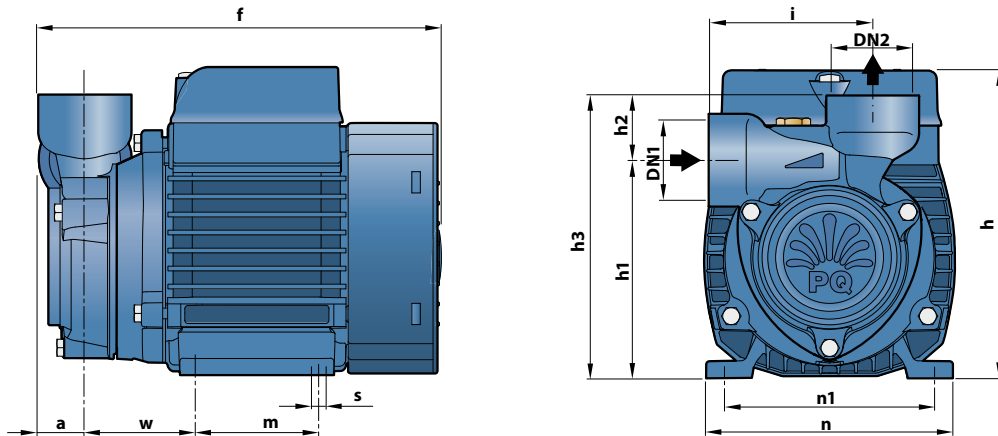
Q = Flow rate H = Total manometric head HS = Suction height

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

POS.	COMPONENT	CONSTRUCTION CHARACTERISTICS					
1	<b>PUMP BODY</b>	Cast iron (brass for PQ-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>	<b>Pump</b>	<b>Seal</b>	<b>Shaft</b>	<b>Materials</b>		
		<i>Model</i>	<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
		<b>PQ 60-65</b>	<b>AR-12</b>	<b>Ø 12 mm</b>	Ceramic	Graphite	NBR
		<b>PQ 70-80-81-90</b> <b>PQ 60Bs-65Bs-81Bs</b>	<b>MG1-12</b>	<b>Ø 12 mm</b>	Silicon carbide	Graphite	NBR
		<b>PQ 100-200-300</b>	<b>FN-14</b>	<b>Ø 14 mm</b>	Graphite	Ceramic	NBR
6	<b>BEARINGS</b>	<b>Pump</b>	<b>Model</b>				
		<b>PQ 60-65-81</b> <b>PQ 60Bs-65Bs-81Bs</b>	<b>6201 ZZ / 6201 ZZ</b>				
		<b>PQ 70-80-90</b>	<b>6203 ZZ / 6203 ZZ</b>				
		<b>PQ 100-200-300</b>	<b>6204 ZZ / 6204 ZZ</b>				
7	<b>CAPACITOR</b>	<b>Pump</b>	<b>Capacitance</b>				
		<i>Single-phase</i>	<i>(230 V or 240 V)</i>		<i>(110 V)</i>		
		<b>PQm 60 - 60Bs</b>	<b>10 µF 450 VL</b>			<b>25 µF 250 VL</b>	
		<b>PQm 65 - 65Bs</b>	<b>14 µF 450 VL</b>			<b>25 µF 250 VL</b>	
		<b>PQm 70</b>	<b>16 µF 450 VL</b>			<b>60 µF 300 VL</b>	
		<b>PQm 80</b>	<b>20 µF 450 VL</b>			<b>60 µF 300 VL</b>	
		<b>PQm 81 - 81Bs</b>	<b>14 µF 450 VL</b>			<b>25 µF 250 VL</b>	
		<b>PQm 90</b>	<b>20 µF 450 VL</b>			<b>60 µF 300 VL</b>	
		<b>PQm 100</b>	<b>31.5 µF 450 VL</b>			<b>60 µF 250 VL</b>	
		<b>PQm 200</b>	<b>45 µF 450 VL</b>			<b>80 µF 250 VL</b>	
8	<b>ELECTRIC MOTOR</b>	<b>PQm:</b> single-phase 230 V - 50 Hz with thermal overload protector built-in to the winding.					
		<b>PQ:</b> three-phase 230/400 V - 50 Hz.					
		<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~	
PQm 60°	PQ 60°	1"	1"	22	190	145	101	30	131	76	55	118	93-100	53	7	5.1	5.1	
PQm 60-Bs	PQ 60-Bs				216	152	113		143	78	80	120	100			6.7	6.2	
PQm 65	PQ 65				216	152	108		138	76	80	120	100			9.7	9.0	
PQm 65-Bs	PQ 65-Bs				255	180	121		151	83	90	138	112			9.7	9.0	
PQm 70	PQ 70				255	180	121		151	83	90	138	112			6.2	6.2	
PQm 80	PQ 80	½"	½"	18	214	152	119	22	141	71	80	120	100	56	7	6.5	6.1	
PQm 81	PQ 81				214	152	119		141	71	80	120	100	56		6.6	6.2	
PQm 81-Bs	PQ 81-Bs	¾"	¾"	22	255	180	126	27	153	84	90	138	112	62	7	9.9	8.8	
PQm 90	PQ 90				255	180	126		153	84	90	138	112	62		14.1	12.2	
PQm 100	PQ 100	1"	1"	25	318	212	140	30	170	89	100	164	125	85	9	15.2	14.1	
PQm 200	PQ 200				318	212	140		170	89	100	164	125	85		9	15.2	14.1
-	PQ 300				-	-	-		-	-	-	-	-	-		-	-	-

### ABSORPTION

MODEL	VOLTAGE (single-phase)		
	230 V	240 V	110 V
Single-phase	230 V	240 V	110 V
PQm 60° - PQm 60-Bs	2.6 A	2.4 A	5.2 A
PQm 65 - PQm 65-Bs	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 - 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° - PQ 60-Bs	2.0 A	1.15 A	-	1.9 A	1.1 A
PQ 65 - PQ 65-Bs	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
PQ 81 - PQ 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°	256	1465	1330	1330	352	1976	1819	1819
PQm 60-Bs	PQ 60-Bs	238	1240	1309	1309	306	1563	1676	1676
PQm 65	PQ 65	216	1484	1407	1299	270	1790	1752	1617
PQm 65-Bs	PQ 65-Bs	216	1484	1471	1363	243	1625	1652	1531
PQm 70	PQ 70	102	1280	1013	942	170	2040	1673	1554
PQm 80	PQ 80	102	1280	1013	942	170	2040	1673	1554
PQm 81	PQ 81	216	1484	1450	1363	270	1790	1806	1698
PQm 81-Bs	PQ 81-Bs	216	1484	1428	1342	270	1790	1779	1671
PQm 90	PQ 90	102	1280	1034	922	170	2040	1707	1520
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

