



RANGE OF PERFORMANCE

Flow rate up to 50 l/min (3 m³/h)
Head up to 90 m

LIMITS OF USE

Manometric suction height up to 8 m
Liquid temperature up to + 90°C
Environment temperature up to + 40°C

EXECUTION AND SAFETY STANDARDS

EN 60034-1
IEC 34-1
CEI 2-3



USES AND INSTALLATIONS

They are recommended for pumping clean water without abrasive particles and liquids that are chemically non aggressive for the materials of which the pump is made. **MADE OF HIGH-PERFORMANCE TECHNOLOGY WITH FRONT COVERS ON THE BRASS IMPELLERS; THIS OFFERS A SURE GUARANTEE AGAINST RUST AND OXIDATION. DUE TO THESE CHARACTERISTICS THEY ARE RECOMMENDED FOR USE IN THE INDUSTRIAL SECTOR, FOR EXAMPLE COOLING, CONDITIONING, IRONING SYSTEMS, ETC.** The pumps must be installed in enclosed places, or at least protected against inclement weather.

GUARANTEE 2 YEARS according to our general terms of sale.

CONSTRUCTION CHARACTERISTICS

- **PUMP BODY:** high-performance technopolymer, with threaded metal insert ISO 228/1, inserted in the inlets, allowing a sure connection of the pipes without damaging the pump body.
- **PUMP BODY COVER:** brass .
- **LANTERN (patent n° 1289150):** aluminium with front shim disk in brass; eliminates blockage of the impeller after long periods of inactivity.
- **IMPELLER:** brass, of the type with radial peripheral vanes.
- **MOTOR SHAFT:** stainless steel EN 10088-3 - 1.4104.
- **MECHANICAL SEAL:** ceramic - graphite - NBR.
- **ELECTRIC MOTOR:** the pumps are coupled to a PEDROLLO electric motor with specially calculated dimensions, silent-running, closed, with external ventilation, suitable for continuous duty.
PQAm: single-phase 230 V - 50 Hz with condenser and thermal overload protector built into the winding.

PQA: three-phase 230/400 V - 50 Hz.

- **INSULATION:** class F.
- **PROTECTION:** IP 44.
- **REGISTERED MODEL**

EXECUTIONS ON REQUEST

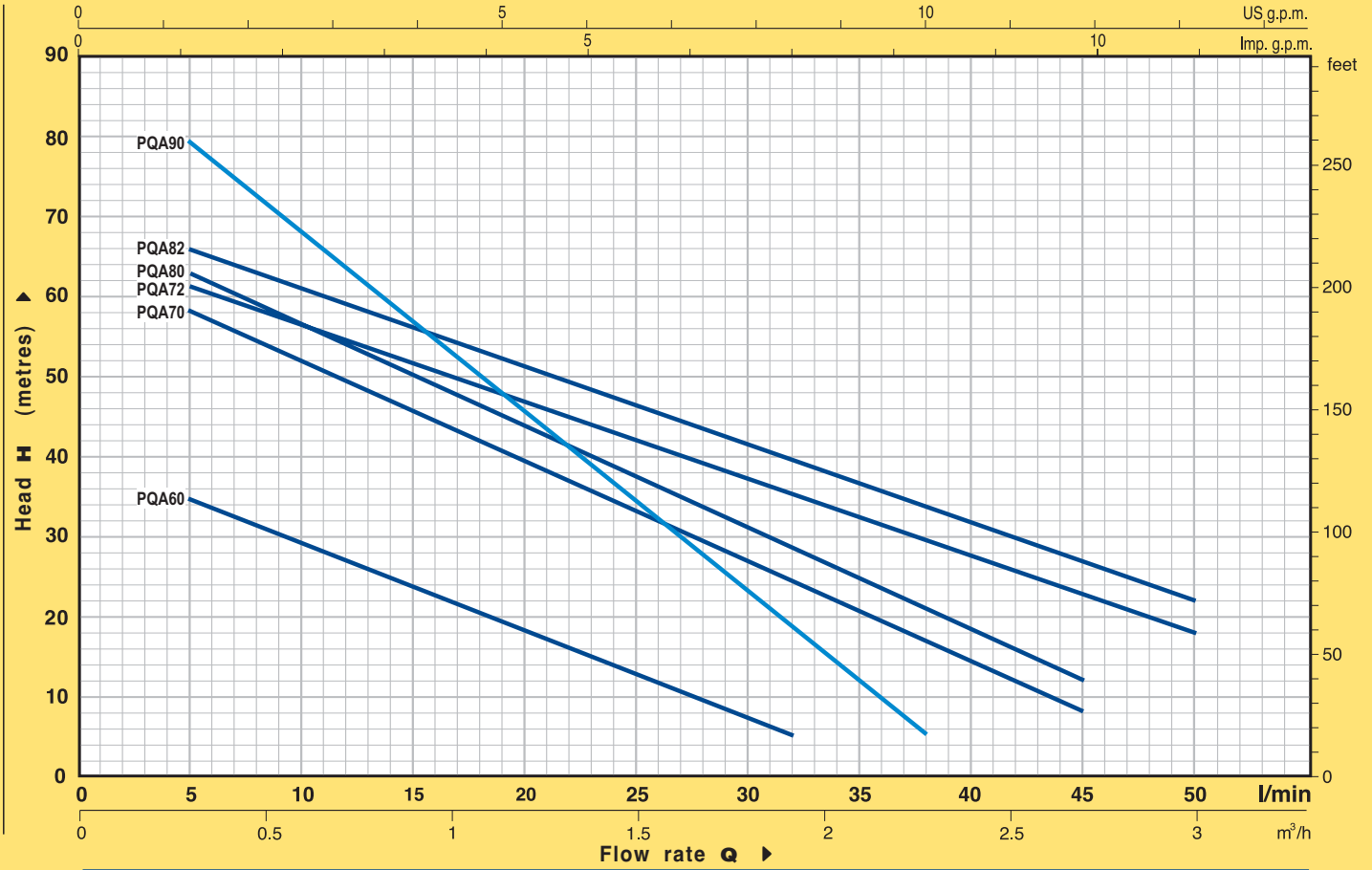
- ⇒ pump shaft in stainless steel EN 10088-3 - 1.4401 (AISI 316)
- ⇒ special mechanical seal
- ⇒ protection IP 55
- ⇒ other voltages or frequency 60 Hz



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CURVES AND PERFORMANCE DATA AT n= 2900 1/min

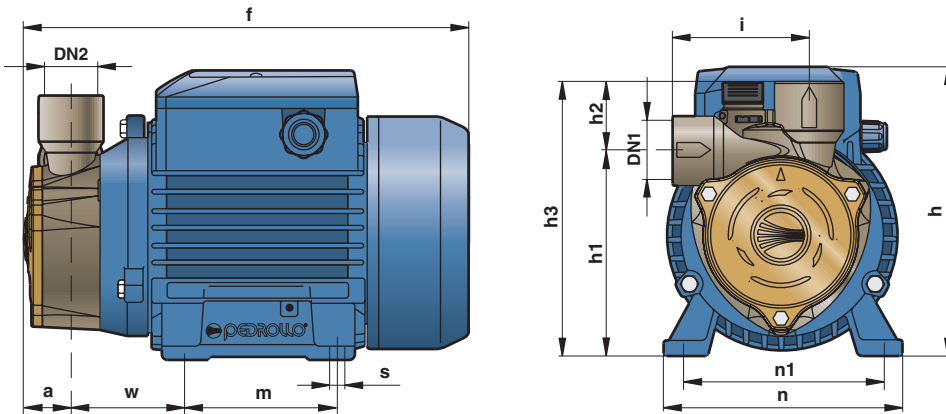


TYPE		POWER		Q	H metres												
Single-phase	Three-phase	MW	HP		m³/h	0	0.1	0.3	0.6	0.9	1.2	1.5	1.8	1.9	2.3	2.7	3.0
				l/min	0	2	5	10	15	20	25	30	32	38	45	50	
PQAm 60	PQA 60	0.37	0.50	H metres	40	38	35	29	23.5	18	12.5	7	5				
PQAm 70	PQA 70	0.55	0.75		65	62	58	52	45.5	39.5	33	27	24	16.5	8		
PQAm 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

Tolerance of the performance curves according to EN ISO 9906 App. A.

DIMENSIONS AND WEIGHTS



TYPE		INLETS		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	1/2"	1/2"	25	226	152	103	33	136	72.5	80	120	100	55	7	4.8	4.8	
PQAm 70	PQA 70	1/2"	1/2"	28	258	179	116.5	32.5	149							83	90	138
PQAm 72	PQA 72	1"	1"				121	30	151	83								
PQAm 80	PQA 80	1/2"	1/2"				116.5	32.5	149	72.5								
PQAm 82	PQA 82	1"	1"	27	257		121	30	151	83						10.5	9.5	
PQAm 90	PQA 90	1/2"	1/2"				35	156	76									



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BRIO 2000 - MT

Automatic pump controller with timer



FEATURES

The BRIO 2000M controller is designed to automate the operation of an electric pump by sensing a drop in pressure in the system (opening a tap or valve). The controller will turn off when the tap or valve is closed. The BRIO can be used in conjunction with shower pumps in installations where there is a "negative head", i.e. the shower head is above the water level in the cold storage tank, and also where the pumps are supplying several outlets at once e.g. body jets, or domestic water supplies. The BRIO comes complete with a pressure gauge, which allows the starting pressure value and system pressure to be checked. The unit will also protect the pump from dry running if the water supply should fail. The new 2004 version has a built-in timer which will automatically try to reset itself every 30 minutes in the event of a previous shut down due to a lack of water.

BRIO controllers are suitable for use in pairs to operate shower pumps on hot (max 65°C) and cold supplies, subject to the maximum electrical load (12 amps) not being exceeded,

The BRIO is designed for use on clean water. If there is the possibility of sediment, a suitable filter should be installed before the unit.

TECHNICAL DATA:

Power supply:	230v 50 or 60 Hz. Voltage tolerance +/- 10%.
Max switching current:	12 amps
Max. motor size	2 hp
Max total pressure:	10 bar
Max liquid temperature:	65°C
Operating pressure range	1 – 3.5 bar (14.5-50.6psi)
Max flow rate	80 l/min
Start flow:	2 – 2.5 Litres/min
Connections:	1" BSP male
Protection:	IP65
Pressure gauge	40mm dia 0 - 12 bar

SAFETY

Always disconnect the unit from the electric supply before carrying out any work on it. Installation should only be undertaken by qualified personnel in accordance with current regulations.

When used for swimming pools, ponds or fountains, a RCD with 30mA protection is required.

Warning: *The pipe system may be held under pressure when the pump is not running. It is recommended that a tap is opened to discharge the system before attempting any work.*

OPERATING INSTRUCTIONS

Once connected to the mains, the controller will initially start the pump for 15 seconds. The pump will next start when the pre-set cut-in pressure is reached within the pipe-work, usually by opening a tap. Note: it will also start the pump in the event of a leak in the pipe-work or a dripping tap or shower, as both of these will cause the pressure in the system to drop.

The BRIO has been designed to stop the pump after a delay of between 7 – 15 seconds when minimum flow conditions have been reached.

When used on whole-house installations we recommend the use of a small pressure vessel in the line to act as a buffer in the event of a tiny flow of water being required eg filling one glass of water. This will prevent the pump starting unnecessarily.

NOTE: *The BRIO will turn the pump off in the event of a lack of water in the suction pipe, to protect against dry-running. When this happens the RED FAILURE LED will light up. To restart the system once the water supply has been restored, push the RESET button.*

INSTALLATION

Mechanical:

The pump should be installed in accordance with manufacturer's instructions.

The BRIO controller is normally fitted directly onto the outlet of the pump although it is acceptable to fit it into the pipework anywhere between the pump and the first outlet. It is essential that the unit is fitted so that the moulded flow indication arrow matches the direction of flow of the system. The unit can be installed vertically or horizontally as required. It should not be used for any installation where the unit may be subject to more than 10 bar pressure.

The cut-in pressure of the BRIO is factory set at 1.5 bar which is suitable for the majority of applications. This pressure can be adjusted if required by removing the cover and turning the adjuster screw marked with “+” and “-” symbols. It will be necessary to adjust the setting when the highest outlet is more than 15 metres (up to a maximum of 30m) above the BRIO.

The pump pressure must be at least 0.6 bar higher than the BRIO set pressure for correct operation.

The BRIO unit incorporates a non-return valve. The installation of an additional check valve between the pump and the BRIO may cause operational problems and should be avoided whenever possible

When used with a self-priming jet pump, where the water level is below the pump, it is essential to install a foot-valve on the end of the suction pipe. Before turning on the power, fill the suction pipe and the pump with water. The unit should then start once the tap is opened.

Electrical:

Electrical installation should only be undertaken by qualified personnel in accordance with current regulations.

The BRIO power lead should be connected to a switched fused spur, fused as specified by the pump manufacturer. *The new 2004 version now has a fitted 3-pin UK plug. The supply lead is shorter with fitted eye terminals which should be connected to the pump in accordance with the manufacturer's instructions. This cable may be extended or replaced for installation remote from the pump.

For twin pump installations each pump should be installed individually and tested. The pumps should be then connected together in parallel. A connecting kit is available for use with Pedrollo pumps.

Pumps that require over 12 amps must not be switched directly used with this unit. If twin pumps are to be controlled the total current must not exceed 12 amps.

BRIO is guaranteed against defects of workmanship or materials for a period of 12 months from date of purchase provided the unit is installed and used in accordance with these instructions.

Tampering with the unit and/or removal of the serial number will immediately void the warranty.