

Pedrollo PQm81-Bs

Pedrollo PQm81-Bs Peripheral Booster Water Pump Instruction Manual

Model: PQm81-Bs | 0.7HP | 110V 60Hz

1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Pedrollo PQm81-Bs peripheral booster water pump. Please read this manual thoroughly before installation and operation to ensure proper use and to prevent damage or injury. The Pedrollo PQm81-Bs is designed for pumping clean water that does not contain abrasive particles and liquids that are not chemically aggressive towards the pump's materials. Its compact design and hydraulic characteristics make it suitable for various industrial applications, including cooling systems, air conditioning systems, and ironing systems.



Figure 1: Pedrollo PQm81-Bs Peripheral Booster Water Pump. This image shows the blue-colored pump unit with its motor and pump housing, designed for surface installation.

2. SAFETY INFORMATION

WARNING: Failure to follow these safety instructions could result in electric shock, fire, serious injury, or death.

- Always disconnect the power supply before performing any installation, maintenance, or repair work on the pump.
- Ensure the electrical installation complies with all local and national electrical codes. The pump requires a 115 Volts (AC) power supply.
- The pump must be installed in a well-ventilated, closed area, protected from adverse weather conditions.
- Do not operate the pump with flammable, explosive, or corrosive liquids. Only use with clean water as specified.
- Keep children and unauthorized personnel away from the pump during operation.
- Ensure proper grounding of the pump to prevent electrical hazards.
- Never run the pump dry. Operating without liquid can cause severe damage to the pump.

3. SETUP AND INSTALLATION

3.1. Location Requirements

- Install the pump in a well-ventilated area to prevent overheating.
- The installation site must be protected from rain, direct sunlight, and freezing temperatures.
- The pump is designed for above-ground installation. Ensure a stable, level surface for mounting.

3.2. Plumbing Connections

- Connect the suction and discharge pipes securely. Use appropriate thread sealant to prevent leaks.
- Ensure that the piping system does not place undue stress on the pump connections. Support pipes independently if necessary.
- Install a foot valve with a strainer on the suction line if drawing water from a source below the pump to maintain prime and prevent debris entry.
- For optimal performance, keep suction lift as short as possible. The maximum manometric suction lift is 8 meters.

3.3. Electrical Connection

- Connect the pump to a dedicated 115 Volts (AC), 60Hz power supply.
- Ensure the circuit is protected by an appropriately sized circuit breaker or fuse.
- All electrical connections must be made by a qualified electrician and conform to local electrical codes.
- Verify proper grounding of the pump motor.

3.4. Priming the Pump

- Before initial startup, the pump casing and suction line must be completely filled with the liquid to be pumped.
- Open the priming plug (if available) or a valve on the discharge side and slowly fill the pump with water until it overflows.
- Close the priming plug/valve. The pump is now primed and ready for operation.

PQ 65-Bs, PQ 81-Bs

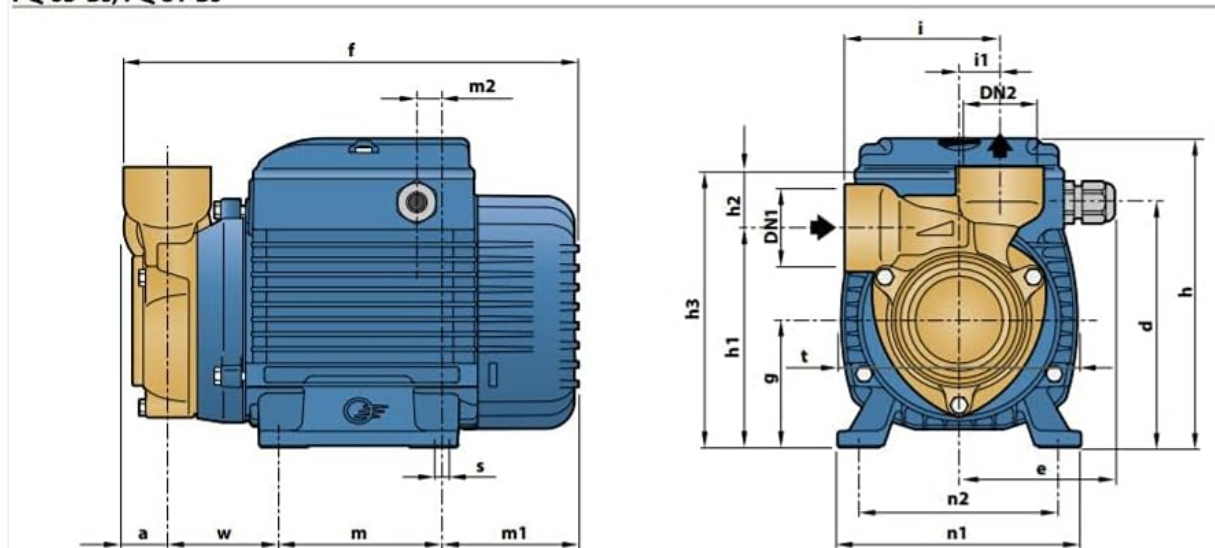


Figure 2: Pedrollo PQm81-Bs Pump Dimensions Diagram. This diagram illustrates the physical dimensions and connection points of the pump, including suction (DN1) and discharge (DN2) ports, and overall length (f), height (h), and width (n1) measurements.

4. OPERATING INSTRUCTIONS

4.1. Initial Startup

- After priming, ensure all connections are tight and there are no leaks.
- Turn on the power supply to the pump. The pump should start immediately.
- Monitor the pump for unusual noises or vibrations during the first few minutes of operation.
- Check the discharge pressure and flow rate to ensure they are within expected parameters.

4.2. Operating Conditions

- **Liquid Type:** Clean water, free from abrasive particles and non-chemically aggressive.
- **Liquid Temperature:** -10 °C to +90 °C (14 °F to 194 °F).
- **Ambient Temperature:** -10 °C to +40 °C (14 °F to 104 °F).
- **Manometric Suction Lift:** Up to 8 meters (26 feet).
- **Maximum Working Pressure:** 10 bar (145 psi).
- Avoid running the pump dry, as this can cause severe damage to the mechanical seal and other components.

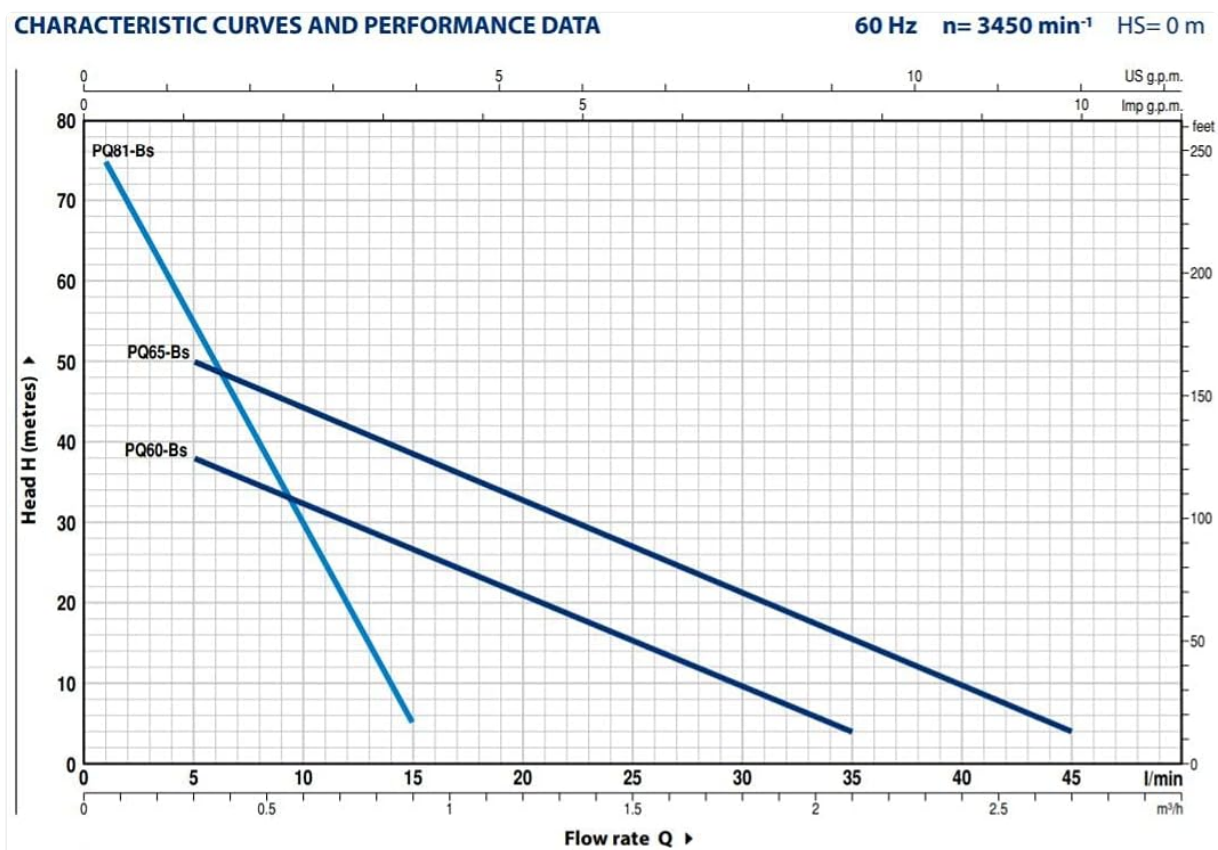


Figure 3: Pedrollo PQm81-Bs Performance Curve. This graph displays the relationship between pump head (in meters and feet) and flow rate (in l/min and US g.p.m.) for the PQm81-Bs model at 60 Hz and 3450 min^{-1} ($n=0\text{m}$), illustrating its operational characteristics.

5. MAINTENANCE

Regular maintenance ensures the longevity and efficient operation of your Pedrollo pump. Always disconnect power before performing any maintenance.

5.1. Routine Checks

- **Visual Inspection:** Periodically check for any signs of leaks, corrosion, or damage to the pump

casing, motor, and electrical connections.

- **Noise and Vibration:** Listen for unusual noises or excessive vibrations, which may indicate a problem.
- **Temperature:** Ensure the motor is not overheating. Excessive heat can indicate motor issues or improper ventilation.

5.2. Cleaning

- Keep the pump exterior clean and free from dust and debris to ensure proper cooling.
- If a foot valve with a strainer is used, periodically check and clean the strainer to prevent clogging and maintain flow.

5.3. Winterization (if applicable)

- If the pump is installed in an area subject to freezing temperatures, drain all water from the pump and piping system to prevent damage from ice expansion.
- Store the pump in a warm, dry place if it is to be out of service for an extended period during cold weather.

6. TROUBLESHOOTING

This section provides solutions to common issues. For problems not listed here or if solutions do not resolve the issue, contact qualified service personnel.

Problem	Possible Cause	Solution
Pump does not start	No power supply; Blown fuse/tripped breaker; Motor fault	Check power connection; Reset breaker/replace fuse; Consult a qualified electrician.
Pump runs but no water or low flow	Pump not primed; Suction line leak; Clogged strainer/foot valve; Air in system; Impeller damage	Re-prime the pump; Check all suction connections for leaks; Clean strainer; Bleed air from system; Inspect impeller for damage.
Excessive noise or vibration	Cavitation (air in system); Misalignment; Worn bearings; Debris in pump	Ensure pump is fully primed and suction line is sealed; Check mounting for stability; Contact service for bearing inspection; Inspect pump for foreign objects.
Pump leaks	Loose connections; Damaged seals; Cracked casing	Tighten connections; Replace seals; Contact service for casing repair/replacement.

7. SPECIFICATIONS

Technical specifications for the Pedrollo PQm81-Bs Peripheral Booster Water Pump:

Feature	Detail
Model	PQm81-Bs
Brand	Pedrollo

Feature	Detail
Power (HP)	0.7 HP
Voltage	115 Volts (AC)
Frequency	60 Hz
Liquid Type	Clean Water
Liquid Temperature Range	-10 °C to +90 °C (14 °F to 194 °F)
Ambient Temperature Range	-10 °C to +40 °C (14 °F to 104 °F)
Max. Manometric Suction Lift	8 meters (26 feet)
Max. Working Pressure	10 bar (145 psi)
Material	Stainless Steel (housing, specific components)
Installation Style	Above Ground
Product Dimensions (L x W x H)	Approximately 12 x 8 x 8 inches
Item Weight	16 pounds
UPC	722777873488


8. WARRANTY AND SUPPORT

Warranty information for your Pedrollo PQm81-Bs pump is typically provided with the product at the time of purchase. Please refer to the documentation included in the product packaging for specific warranty terms and conditions.

For technical support, spare parts, or warranty claims, please contact your authorized Pedrollo dealer or the manufacturer directly. Keep your purchase receipt and product serial number available when seeking support.






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Related Documents - PQm81-Bs



[Pedrollo PRESFLO MULTI Automatic Control Device - Technical Specifications](#)

Detailed technical specifications, installation guide, and features of the Pedrollo PRESFLO MULTI automatic electronic pressure control device for domestic water supply and pressure boosting.

 <p>PKm 60® Peripheral impeller pump</p> <p>The PKm 60® is a submersible pump with a peripheral impeller.</p> <p>It is designed for:</p> <ul style="list-style-type: none"> Domestic use Industrial use Commercial use Public works Water supply Wastewater treatment Drainage Water transfer Water supply for irrigation Water supply for livestock Water supply for sports fields Water supply for swimming pools Water supply for fountains Water supply for gardens Water supply for lawns Water supply for parks Water supply for forests Water supply for mountains Water supply for islands Water supply for remote areas Water supply for emergency situations Water supply for fire fighting Water supply for industrial processes Water supply for agricultural processes Water supply for mining processes Water supply for power generation Water supply for desalination Water supply for water treatment Water supply for water purification Water supply for water disinfection Water supply for water distribution Water supply for water collection Water supply for water storage Water supply for water transport Water supply for water treatment Water supply for water purification Water supply for water disinfection Water supply for water distribution Water supply for water collection Water supply for water storage Water supply for water transport <p>Technical specifications and performance data are provided in the accompanying document.</p>	<p>Pedrollo PKm 60® Peripheral Impeller Pump - Technical Specifications and Performance</p> <p>Detailed information on the Pedrollo PKm 60® peripheral impeller pump, including performance range, application limits, technical specifications, dimensions, and absorption data. Suitable for clean water transfer in domestic applications.</p>
 <p>STEADYPRES</p> <p>Frequency inverter for pumps</p> <p>The STEADYPRES is a frequency inverter designed for the control of electric pumps. It offers detailed instructions on installation, configuration, operation, alarm management, fault resolution, and technical data to optimize pressure and protect the pump.</p> <p>Technical specifications and performance data are provided in the accompanying document.</p>	<p>Pedrollo STEADYPRES: Variatore Elettronico di Frequenza per Pompe</p> <p>Manuale completo per il Pedrollo STEADYPRES, un inverter per il controllo di elettropompe. Offre istruzioni dettagliate su installazione, configurazione, funzionamento, gestione allarmi, risoluzione guasti e dati tecnici per ottimizzare la pressione e proteggere la pompa.</p>
 <p>TRITUS Submersible pumps with grinder</p> <p>The TRITUS submersible pumps with grinder are designed for domestic and civil wastewater management. They are equipped with a grinder to handle solid waste.</p> <p>Technical specifications and performance data are provided in the accompanying document.</p>	<p>Pedrollo TRITUS Submersible Pumps with Grinder: Technical Specifications and Applications</p> <p>Explore the technical specifications, performance curves, dimensions, and installation guidelines for Pedrollo TRITUS submersible pumps with grinders. Ideal for domestic and civil wastewater management.</p>
 <p>EP Electronic protection device</p> <p>The EP Electronic Protection Device is designed to protect pumps from dry running, overcurrent, overvoltage, and undervoltage. It is suitable for domestic use.</p> <p>Technical specifications and performance data are provided in the accompanying document.</p>	<p>Pedrollo EP Electronic Protection Device - User Manual & Datasheet</p> <p>Comprehensive guide to the Pedrollo EP Electronic Protection Device, detailing its features, technical specifications, installation, and operation. Protects pumps from dry running, overcurrent, overvoltage, and undervoltage. Suitable for domestic use.</p>
 <p>PRESFLO VARIO Automatic control device</p> <p>The PRESFLO VARIO automatic control device is designed for water supply and pressure boosting. It automatically adjusts the pump speed to maintain a constant pressure.</p> <p>Technical specifications and performance data are provided in the accompanying document.</p>	<p>Presflo Vario Automatic Control Device - Technical Specifications and Usage</p> <p>Detailed information on the Presflo Vario automatic control device by Pedrollo, including technical data, installation, product description, performance range, application limits, safety standards, and adjustment features. Suitable for water supply and pressure boosting.</p>