Pedrollo SKRm2

Pedrollo SKRm2 Self-Priming Centrifugal Pump Instruction Manual

Model: SKRm2

1. Introduction

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Pedrollo SKRm2 Single Phase 220V 60Hz Self-Priming Centrifugal Pump. The SKRm2 pump is designed for use with clean water and non-aggressive liquids, suitable for domestic and civil applications such as water distribution with pressure tanks and irrigation. Its self-priming capability allows it to pump water even when air is present in the suction line.
Key features of the Pedrollo SKRm2 pump include:

- **Rugged Construction:** Built with a cast iron body for durability and longevity.
- **Self-Priming Capability:** Efficiently pumps water even with air present.
- **Industrial-Grade Performance:** Delivers a maximum flow rate of 106 GPM and a head of up to 116 ft.
- **Versatile Applications:** Ideal for water distribution, irrigation, and similar uses.
- **Easy to Use:** User-friendly design requiring minimal maintenance.

2. Safety Information

Always observe basic safety precautions to reduce the risk of fire, electric shock, and personal injury. Read all instructions carefully before operating the pump.

- Ensure the pump is installed by a qualified professional in accordance with local electrical and plumbing codes.
- Verify that the power supply matches the pump's requirements (220V, 60Hz, Single Phase).
- Do not operate the pump with damaged wiring or if it has been dropped or damaged.
- Always disconnect power before performing any maintenance or service.
- Keep hands and clothing clear of moving parts.
- Do not pump flammable or corrosive liquids.

3. Setup and Installation

Proper installation is crucial for the pump's performance and longevity. Refer to the diagram below for a standard installation setup.

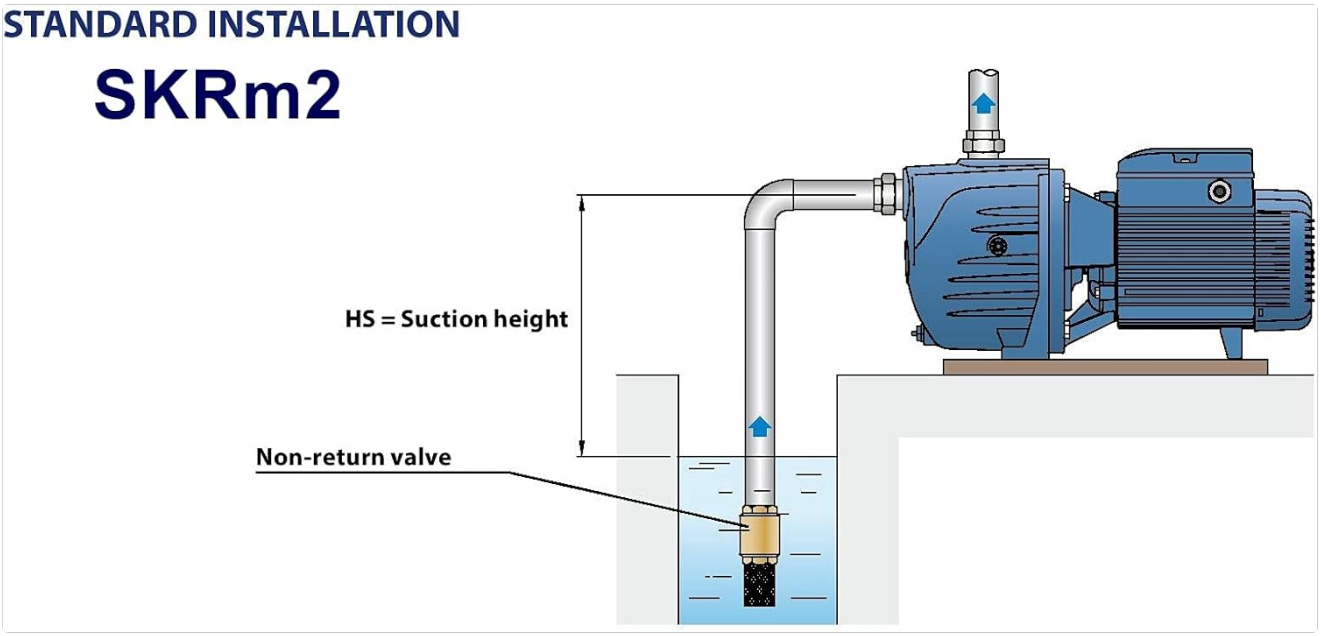

Figure 3.1: Standard Installation Diagram for SKRm2 Pump

This diagram illustrates a typical installation of the Pedrollo SKRm2 pump. It shows the pump connected to a suction line extending into a water source, with a non-return valve and a filter at the end of the suction line. The 'HS' indicates the suction height, which is the vertical distance from the pump's inlet to the water level. Proper installation ensures efficient self-priming and operation.

1. **Mounting:** Securely mount the pump on a stable, level surface to minimize vibration.
2. **Suction Line:** Connect a rigid suction pipe to the pump's inlet. Ensure the suction line is airtight to prevent air leaks, which can affect self-priming.
3. **Non-Return Valve:** Install a non-return valve (foot valve) at the end of the suction line, submerged in the water source, to prevent water from flowing back when the pump is off.
4. **Delivery Line:** Connect the delivery pipe to the pump's outlet.
5. **Electrical Connection:** Connect the pump to a dedicated 220V, 60Hz, single-phase power supply circuit protected by an appropriate circuit breaker. Consult an electrician for proper wiring.
6. **Priming:** Before initial startup, fill the pump casing completely with water through the priming port (if available) until water overflows. This assists the self-priming process.

4. Operation

Once installed and primed, the Pedrollo SKRm2 pump is ready for operation.

1. **Initial Start-up:** After priming, switch on the power supply to the pump. The pump will begin to draw water.
2. **Self-Priming:** The SKRm2 is designed to self-prime. If the pump does not draw water within a few minutes, switch it off, re-check the priming, and ensure there are no air leaks in the suction line.
3. **Continuous Operation:** Monitor the pump during operation for any unusual noises or vibrations. Ensure the pump is not running dry, as this can cause damage.
4. **Shut-down:** To stop the pump, simply switch off the power supply.

5. Performance Data

The following graph illustrates the characteristic curves and performance data for the Pedrollo SKRm2 pump at 60 Hz.

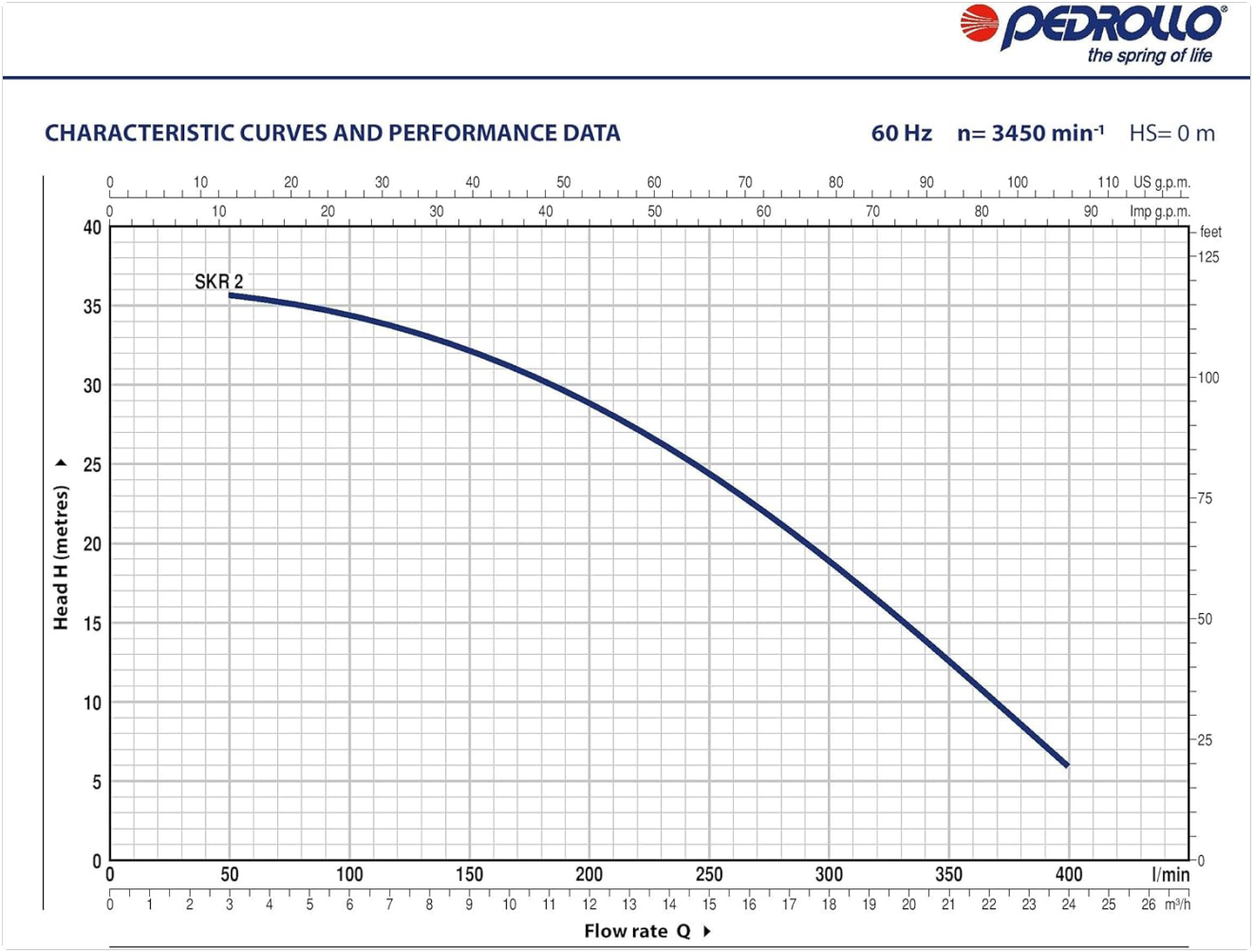

Figure 5.1: Characteristic Curves and Performance Data (60 Hz)

This graph displays the relationship between the pump's head (vertical axis, in meters and feet) and its flow rate (horizontal axis, in l/min and US g.p.m.). The curve labeled 'SKR 2' represents the performance of the Pedrollo SKRm2 model, indicating its maximum head and flow capabilities under various operating conditions at 3450 min^{-1} and HS = 0 m.

6. Maintenance

The Pedrollo SKRm2 pump is designed for minimal maintenance. Regular checks can help ensure optimal performance and extend its lifespan.

- **Regular Inspection:** Periodically inspect the pump for any signs of leaks, corrosion, or damage to the casing or wiring.
- **Cleanliness:** Keep the pump and its surroundings clean and free from debris.
- **Foot Valve/Filter:** Regularly check and clean the foot valve and filter on the suction line to prevent blockages and ensure unrestricted water flow.
- **Winterization:** In freezing conditions, drain the pump completely to prevent damage from ice expansion.
- **Professional Service:** For any complex issues or internal component checks, consult a qualified service technician.

7. Troubleshooting

This section provides solutions to common operational issues. Always disconnect power before attempting any troubleshooting steps.

- **Pump does not start:**
  - Check power supply and circuit breaker.
  - Ensure electrical connections are secure.
  - Verify motor is not seized (consult a technician).
- **Pump runs but does not deliver water:**
  - Check if the pump is properly primed.
  - Inspect the suction line for air leaks.
  - Clean the foot valve/filter for blockages.
  - Ensure the water source level is adequate.
- **Reduced flow or pressure:**
  - Check for partial blockages in suction or delivery lines.
  - Inspect the impeller for wear or debris (consult a technician).
  - Verify the pump is operating within its specified performance curve.
- **Excessive noise or vibration:**
  - Ensure the pump is securely mounted.
  - Check for cavitation (air in the suction line).
  - Inspect for worn bearings or impeller imbalance (consult a technician).

8. Technical Specifications

Specification	Value
Brand	Pedrollo
Model Number	SKRm2
Power Source	AC/DC (Single Phase 220V 60Hz)
Maximum Flow Rate	106 Gallons Per Minute (GPM)
Maximum Lifting Height (Head)	116 Feet
Material	Cast Iron
Color	Blue
Product Style	Above Ground
Number of Items	1
UPC	722777873334
ASIN	B094YMLLQJ

9. Warranty and Support

For warranty information, please refer to the documentation provided with your purchase or contact your authorized

Pedrollo dealer. For technical support or service inquiries, please reach out to Pedrollo customer service or an authorized service center.