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› Mars 21786 115-volt Lift Condensate Pump User Manual

Mars 21786

Mars 21786 115-volt Lift Condensate Pump User Manual

Model: 21786

1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Mars 21786 115-volt Lift Condensate Pump. Please read these instructions thoroughly before installation and keep them for future reference.

Product Overview

The Mars 21786 condensate pump is designed to remove condensate from air conditioning systems, high-efficiency furnaces, dehumidifiers, and other equipment that produces condensate. It features a robust design for reliable performance and ease of servicing.



Figure 1: Mars 21786 115-volt Lift Condensate Pump. This image displays the pump's blue plastic housing and various connection points for condensate lines and electrical wiring.

Key Features

- **Quick Release Check Valve:** Facilitates fast and efficient servicing without needing to remove the condensate line.
- **Integrated Safety Switch:** Can be wired to shut down equipment or activate a high-level alarm, preventing overflow.
- **Pumping Capacity:** Capable of pumping up to 125 gallons per hour.
- **Voltage:** Operates on 115 volts.

2. SAFETY INFORMATION

WARNING: To reduce the risk of electric shock, always disconnect power to the pump before performing any service or maintenance.

- Ensure the pump is installed by a qualified technician in accordance with all local electrical and plumbing codes.
- Do not operate the pump with a damaged cord or plug.
- Do not pump flammable liquids or chemicals. This pump is designed for water condensate only.
- Ensure the pump is installed on a level surface to ensure proper operation.
- Keep children and unauthorized personnel away from the pump during operation.

3. SETUP AND INSTALLATION

Proper installation is crucial for the reliable operation of your condensate pump.

3.1 Mounting the Pump

- Place the pump on a firm, level surface near the condensate source.
- Ensure there is adequate space for maintenance and ventilation.

3.2 Condensate Inlet Connection

- Connect the condensate drain line from your equipment to one of the inlet ports on the pump reservoir.
- Use appropriate tubing and clamps to ensure a watertight seal.

3.3 Discharge Line Connection

- Connect a discharge tube (typically 3/8" or 1/2" ID) to the pump's discharge outlet.
- Route the discharge line upwards to a suitable drain, ensuring it does not exceed the pump's maximum lift height (16 feet for this model).
- Avoid kinks or sharp bends in the discharge line.

3.4 Electrical Connection

- The pump requires a 115-volt, 60 Hz power supply.
- Plug the pump into a properly grounded electrical outlet.
- **Safety Switch Wiring:** The integrated safety switch has normally open (NO) and normally closed (NC) contacts.
 - For equipment shutdown: Wire the NC contacts in series with the low voltage thermostat circuit of the HVAC unit. When the water level rises too high, the switch opens, shutting down the equipment.
 - For high-level alarm: Wire the NO contacts to an external alarm system. When the water level rises too high, the switch closes, activating the alarm.

4. OPERATING INSTRUCTIONS

The Mars 21786 condensate pump operates automatically.

- Once properly installed and connected to power, the pump will activate when the condensate level in the reservoir reaches a predetermined height.
- The pump will then discharge the condensate through the discharge line until the water level drops, at which point it will automatically shut off.
- The pump is designed for continuous duty within its specified capacity of 125 gallons per hour.

Initial Test

After installation, pour a small amount of water (approximately 1-2 liters) into the pump's reservoir to verify proper operation. The pump should activate, discharge the water, and then shut off. Check for any leaks.

5. MAINTENANCE

Regular maintenance ensures optimal performance and extends the life of your condensate pump.

5.1 Cleaning the Reservoir and Float Switch

- **Frequency:** Inspect and clean every 3-6 months, or more frequently in dusty environments.

• **Procedure:**

1. Disconnect power to the pump.
2. Disconnect the inlet and discharge lines.
3. Remove the pump cover (if applicable) or access the reservoir.
4. Clean the inside of the reservoir and the float switch mechanism with a mild detergent and water. Remove any sludge, mold, or debris.
5. Rinse thoroughly and reassemble.

5.2 Quick Release Check Valve

- The quick release check valve allows for easy inspection and cleaning.
- To service, simply twist and pull the check valve assembly from the discharge outlet. Clean any debris and reinsert.

5.3 Inspecting Lines

- Periodically check inlet and discharge lines for blockages, kinks, or leaks.
- Ensure all connections are secure.

6. TROUBLESHOOTING

Before attempting any repairs, always disconnect power to the pump.

Problem	Possible Cause	Solution
Pump does not run.	No power. Float switch stuck or obstructed. Motor failure.	Check power supply and circuit breaker. Clean reservoir and float switch. Contact qualified service personnel.
Pump runs but no water discharges.	Discharge line blocked or kinked. Check valve obstructed. Inlet line blocked.	Clear discharge line. Clean quick release check valve. Clear inlet line.
Pump runs continuously.	Float switch stuck in "on" position. Leak in discharge line. Pump undersized for application.	Clean float switch and reservoir. Inspect and repair discharge line. Verify pump capacity meets system requirements.
High-level alarm activates (if wired).	Pump failure. Discharge line blockage. Excessive condensate flow.	Refer to "Pump does not run" or "Pump runs but no water discharges" solutions. Ensure condensate flow does not exceed pump capacity.

7. SPECIFICATIONS

Feature	Detail
Brand	Mars
Model Number	21786
Voltage	115 volts

Feature	Detail
Pumping Capacity	125 gallons per hour
Maximum Lift	16 feet
Material	Plastic
Color	Blue
Item Weight	2.06 kg
UPC	685744217862
ASIN	B0071N4QIG

8. WARRANTY AND SUPPORT

Specific warranty details are not provided in the product information. For warranty claims or technical support, please contact Mars customer service directly.

Manufacturer: Mars

Manufacturer Contact Information: SANDY, UT, 84070 US

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question