

JIAYIN JYPC-7A

JIAYIN JYPC-7A Solenoid Water Pump Instruction Manual

Model: JYPC-7A

1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your JIAYIN JYPC-7A Solenoid Water Pump. Please read it thoroughly before installation and use to ensure proper function and longevity of the product. Retain this manual for future reference.

2. SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to the pump:

- **Electrical Safety:** Ensure the power supply matches the pump's voltage (AC 100-120V, 60Hz). Disconnect power before any installation, maintenance, or troubleshooting. All electrical connections should be performed by a qualified professional.
- **Liquid Compatibility:** This pump is designed for water or non-corrosive liquids only. Using corrosive liquids may damage the pump and void the warranty.
- **Temperature Limits:** Do not exceed the specified working temperatures: ambient temperature (Ta) 70°C / 158°F and medium temperature (Tf) 60°C / 140°F.
- **Installation:** Securely mount the pump to prevent vibration and movement. Ensure proper ventilation.
- **Personal Protective Equipment:** Wear appropriate personal protective equipment (e.g., safety glasses, gloves) during installation and maintenance.

3. PRODUCT OVERVIEW

The JIAYIN JYPC-7A is an electromagnetic solenoid water pump designed for various applications requiring precise liquid transfer. It features a robust plastic construction and operates on AC 100-120V power.



Figure 3.1: Front view of the JIAYIN JYPC-7A Solenoid Water Pump, showing the main body, inlet/outlet ports, and electrical connections.

Key Features:

- No rust, no clogging design.
- Operates on AC 100-120V, 60Hz, 60W.
- Flow rate of 2400 \pm 10% cc/min.
- Suitable for water or non-corrosive liquids.
- Designed for intermittent duty (ID2/1min).



Figure 3.2: Close-up view of the product label on the JIAYIN JYPC-7A pump, displaying model number, voltage, power, frequency, and working mode.

4. SPECIFICATIONS

Detailed technical specifications for the JIAYIN JYPC-7A Solenoid Water Pump:

Specification	Value
Brand	JIAYIN
Model	JYPC-7A
Type	Water Solenoid Pump
Voltage	AC 100-120V
Frequency	60Hz
Power	60W
Flow Rate	2400 ±10% cc/min
Working Pressure	0-2 bar
Working Mode	ID2/1min (Intermittent Duty)
Working Medium	Water or non-corrosive liquid
Ambient Temperature (Ta)	Max 70°C / 158°F
Medium Temperature (Tf)	Max 60°C / 140°F
Material	Plastic
Net Weight	423g / 14.9oz (approx. 15 ounces)
Product Dimensions	4.53 x 1.93 x 1.18 inches (115 x 49.6 x 30 mm)
Maximum Lifting Height	20 Centimeters

Specification	Value
Sound Level	45 Decibels
Cord Length	11.8 Inches

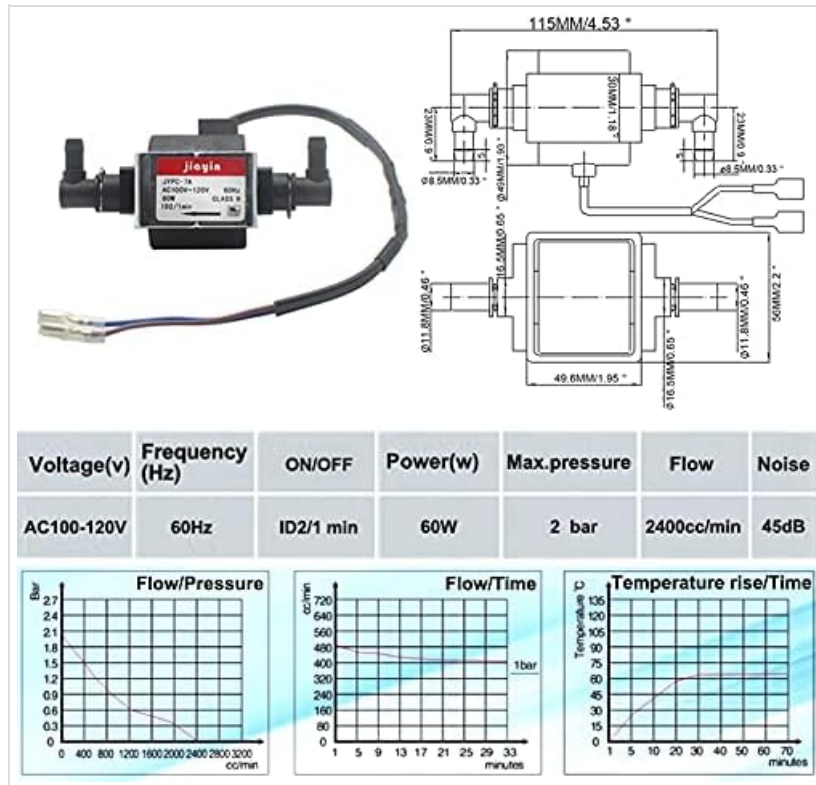


Figure 4.1: Overview of pump dimensions and performance characteristics including flow/pressure, flow/time, and temperature rise/time graphs.

5. SETUP AND INSTALLATION

Follow these steps for proper installation of the JYPC-7A pump:

- Mounting:** Securely mount the pump in a stable position. Refer to the dimensional drawings for mounting points and overall size.
- Inlet/Outlet Connections:** Connect the appropriate tubing to the pump's inlet and outlet ports. The flow direction is indicated on the pump's label (refer to Figure 3.2). For flow testing, a 17.7-inch silicon tube with an outer diameter of 0.4 inches and an inner diameter of 0.24 inches is typically connected to the water inlet port. Ensure all connections are tight to prevent leaks.
- Electrical Connection:** Connect the pump to an AC 100-120V, 60Hz power source. Ensure the wiring is correct and secure. It is recommended to use appropriate connectors and insulate all exposed wires.
- System Integration:** Integrate the pump into your system, ensuring that the liquid medium is non-corrosive and within the specified temperature limits.

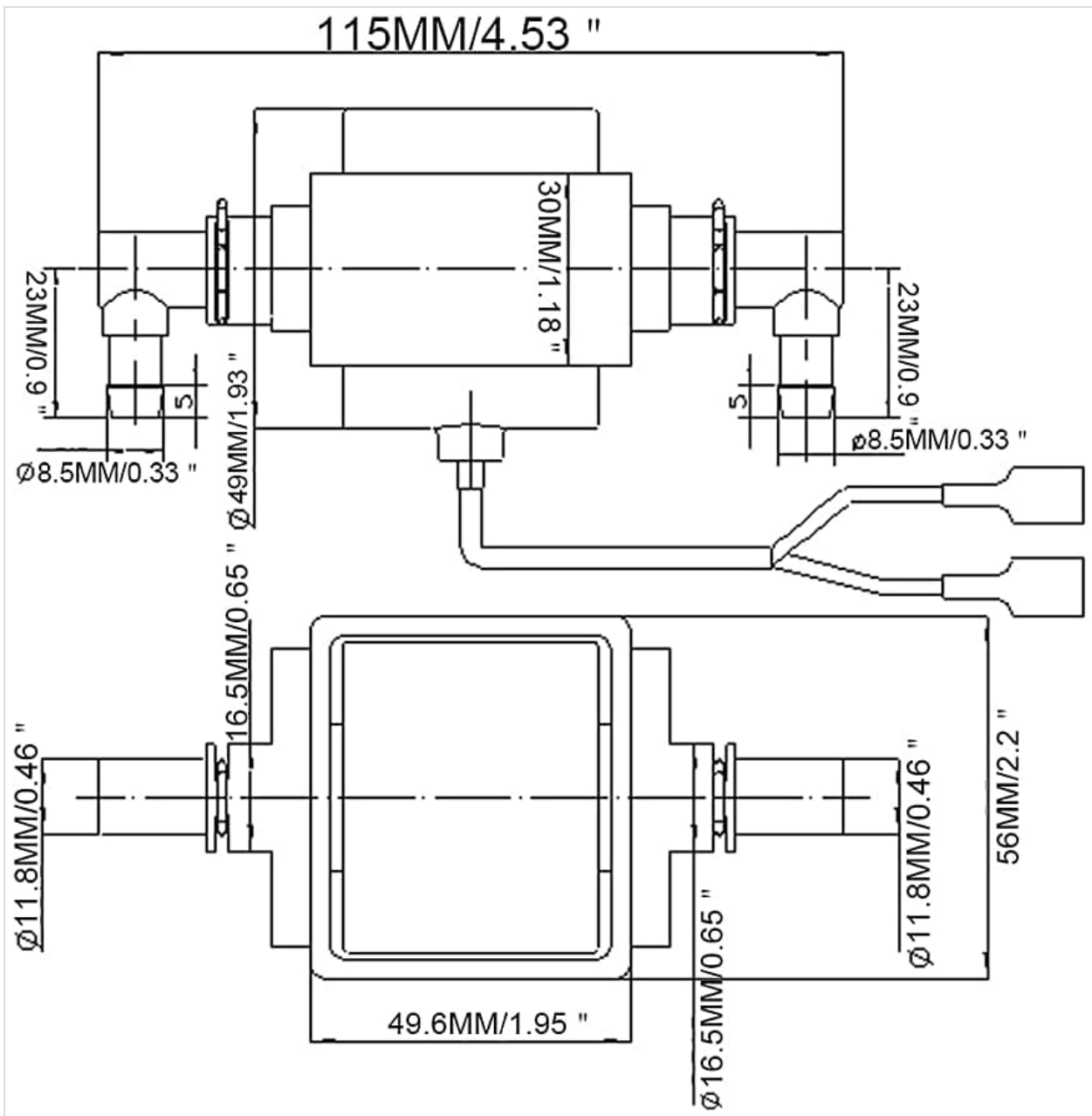


Figure 5.1: Detailed dimensional drawing of the JIAYIN JYPC-7A pump, showing measurements for installation planning.

6. OPERATION

Once installed, the JIAYIN JYPC-7A pump operates by converting electrical energy into mechanical energy to move liquid. The pump is designed for intermittent duty (ID2/1min), meaning it should operate for a maximum of 2 minutes followed by a minimum of 1 minute rest to prevent overheating and ensure optimal performance and lifespan.

- **Power On:** Apply power to the pump. The pump will begin to draw and transfer liquid.
- **Monitoring:** Observe the flow rate and pressure to ensure it meets your application requirements.
- **Duty Cycle:** Adhere strictly to the ID2/1min duty cycle. Continuous operation beyond recommended limits can lead to premature failure.
- **Liquid Level:** Ensure the liquid source does not run dry, as dry running can damage the pump. The pump is capable of drawing water from a height of 20cm within 10 seconds.

7. MAINTENANCE

The JIAYIN JYPC-7A pump is designed for low maintenance, featuring materials that resist rust and clogging. However, regular checks can help ensure its continued reliable operation:

- **Regular Inspection:** Periodically inspect the pump and connections for any signs of wear, leaks, or damage.
- **Cleanliness:** Ensure the pump and surrounding area are kept clean and free from debris that could obstruct airflow or clog the inlet/outlet.
- **Liquid Quality:** Always use clean, non-corrosive liquids to prevent internal damage and maintain performance.
- **Storage:** If storing the pump for an extended period, ensure it is drained of liquid and stored in a dry, temperate environment.

8. TROUBLESHOOTING

If you encounter issues with your JIAYIN JYPC-7A pump, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Pump does not start	No power supply Incorrect wiring Internal fault	Check power connection and circuit breaker Verify wiring against diagram Contact support if wiring is correct
Low or no flow	Clogged inlet/outlet Air in the system Insufficient liquid source Damaged impeller/valve	Inspect and clear any blockages Bleed air from the system Ensure adequate liquid supply Contact support
Excessive noise/vibration	Loose mounting Air in the system Internal obstruction	Tighten mounting screws Bleed air from the system Inspect for foreign objects (disconnect power first)
Pump overheating	Exceeding duty cycle High ambient/medium temperature Poor ventilation	Adhere to ID2/1min duty cycle Ensure operating within specified temperature limits Improve ventilation around the pump

If the problem persists after attempting these solutions, please contact customer support.

9. WARRANTY AND SUPPORT

For warranty information and customer support, please refer to the documentation provided at the time of purchase or contact your retailer. Keep your purchase receipt as proof of purchase. When contacting support, please have your product model (JYPC-7A) and purchase date available.