Operation Manual Overview

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1. Product Overview

This product is a micro solenoid pump designed for water pumping applications. **It is not suitable for swimming pools, marine environments, or other special conditions.**

- **Rated Voltage**: AC 230V
- **Rated Frequency**: 50Hz
- **Maximum Power**: ⩽18W
- **Operating Mode**: Continuous duty

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2. Operating Conditions

1. **Ambient Temperature**: 0 ℃ to 60 ℃
2. **Fluid Temperature**: ⩽35 ℃ (recommended fluid: clean water at 20 ℃)
3. **Storage Temperature**: -10 ℃ to 70 ℃
4. **Insulation Class**: Class H
5. **Installation Requirements**:
    - The pump **must not be immersed in water**;
    - The water tank system should be equipped with high-grade electrical components and isolated from sources of electromagnetic vibration.

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3. Performance Parameters

Item	Specification
Flow Rate (0.7Bar back pressure)	27–36 cc/min
Maximum Pressure	2.0–4.0 Bar

Item	Specification
Vacuum	≤-0.25 Bar
Coil Temperature Rise (ambient 25℃)	≤140 K
Service Life (continuous operation)	≥500 hours
Noise (at 20 cm distance)	≤58 dBA

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4. Electrical Safety Specifications

1. **Hi-pot Test**: Withstands AC 2500V, 5 mA for 2 seconds between terminals and metal housing in cold state.
2. **Insulation Resistance**: ≥100 MΩ under DC 500V in cold state.
3. **Power Consumption**: Steady-state power ≤18W at rated voltage.
4. **Temperature Rise Test**: Coil temperature rise shall not exceed 140 K (ambient 25℃).

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5. Operation & Testing Guidelines

1. **Flow Test**:
    - Under 0.7 Bar back pressure, supply AC230V/50Hz, and measure the water output during the first minute.
2. **Pressure Test**:
    - Close the outlet valve with no air in the system; the pressure gauge should read 2.0–4.0 Bar.
3. **Temperature Rise Monitoring**:
    - After continuous operation for 1 hour, the coil temperature rise must not exceed 140 K (ambient 25℃).

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6. Warnings & Limitations

1. **For water pumping only**; not to be used with other liquids or corrosive media.
2. **Do not immerse in water**; ensure electrical parts are kept dry and isolated during installation.
3. **Not intended for swimming pools, boats, or other damp/special environments**.
4. The accompanying water tank should be designed with anti-vibration measures to avoid safety risks from electromagnetic vibration.

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7. Maintenance & Service Life

- Under standard operating conditions, the pump can operate continuously for over 500 hours.
- Periodically check insulation integrity and connection status to ensure safe operation.