

OLONETO 30KW Single-Phase

OLONETO 30KW Single-Phase Hydraulic Generator User Manual

1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your OLONETO 30KW Single-Phase Hydraulic Generator. Please read this manual thoroughly before using the generator to ensure proper function and to prevent damage or injury. This generator is designed for off-grid power solutions, providing reliable electricity from a water source.

2. SAFETY INSTRUCTIONS

Always prioritize safety when working with electrical and hydraulic equipment. Failure to follow these instructions may result in serious injury, death, or property damage.

- **Electrical Safety:** Ensure all electrical connections are made by a qualified electrician. Disconnect power before performing any maintenance or inspection.
- **Water Pressure:** Be aware of high water pressure during installation and operation. Ensure all pipes and connections are secure to prevent leaks.
- **Grounding:** Properly ground the generator to prevent electrical shock.
- **Ventilation:** Ensure adequate ventilation around the generator to prevent overheating.
- **Moving Parts:** Keep hands, clothing, and tools clear of moving parts during operation.
- **Emergency Shut-off:** Familiarize yourself with the emergency shut-off procedures.
- **Children and Pets:** Keep children and pets away from the generator at all times.

3. PRODUCT OVERVIEW

The OLONETO 30KW Single-Phase Hydraulic Generator is a robust, double-jet brushless unit designed for efficient hydroelectric power generation. It features automatic voltage stabilization and leakage protection for enhanced safety and reliability.



Figure 3.1: Front view of the OLONETO 30KW Single-Phase Hydraulic Generator. This image displays the main body of the generator, including the robust housing and the water inlet flange.



Figure 3.2: Side view of the OLONETO 30KW Single-Phase Hydraulic Generator, showing the integrated control panel. The control panel houses essential electrical components and user interfaces for operation.

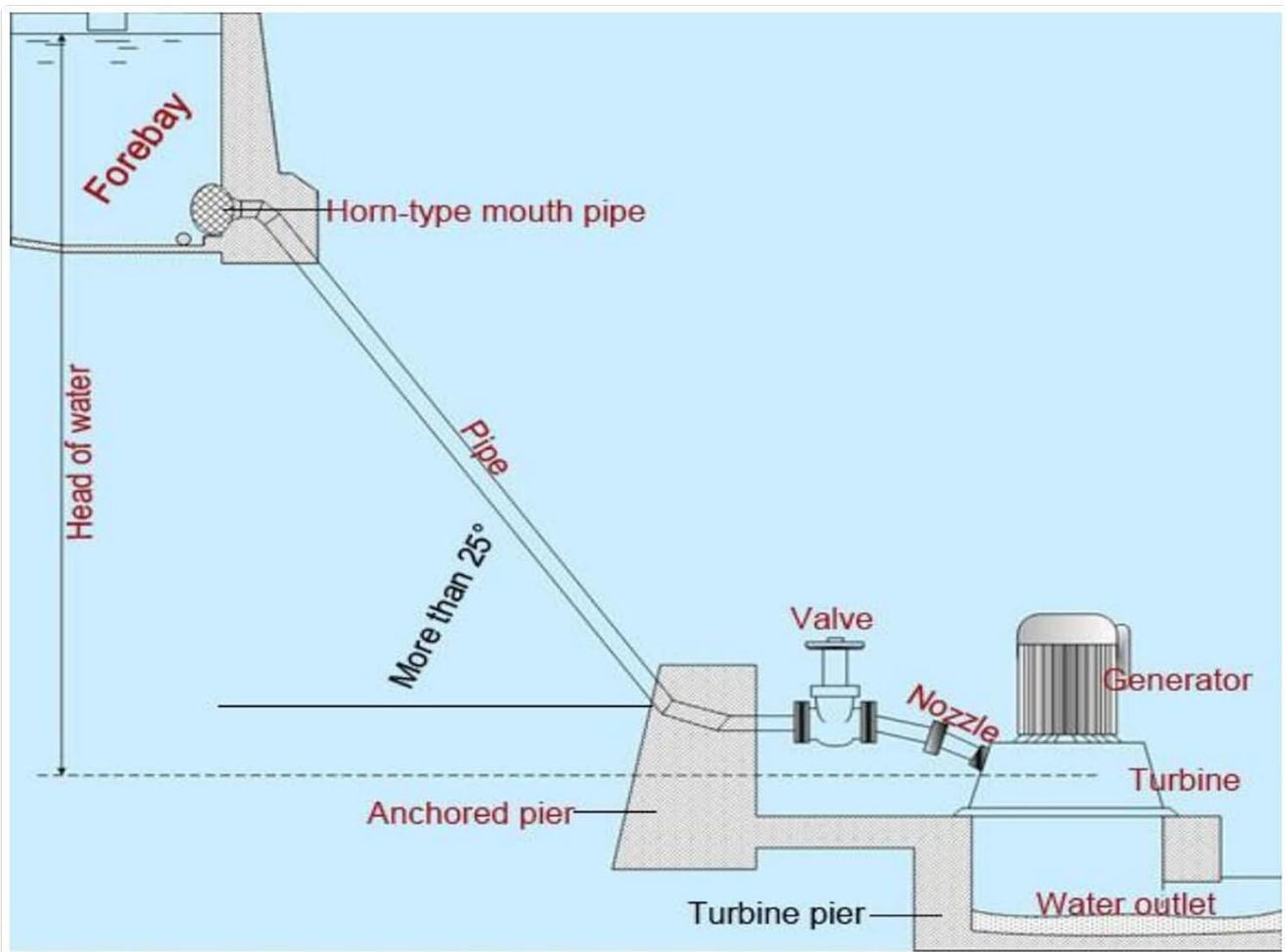


Figure 3.3: Rear view of the OLONETO 30KW Single-Phase Hydraulic Generator. This perspective highlights the water outlet and the overall compact design of the unit.

4. SETUP AND INSTALLATION

Proper installation is critical for the performance and longevity of your hydraulic generator. Consult with a professional for site assessment and installation planning.



Figure 4.1: Schematic diagram illustrating a typical hydraulic generator installation. This diagram shows the forebay, pipe, valve, nozzle, turbine, generator, and water outlet, along with recommended head of water and pipe angle (more than 25 degrees).

Installation Steps:

1. **Site Selection:** Choose a location with sufficient water head (25-60m for 30KW) and flow (0.08m³/s). The generator should be placed on a stable, level surface, ideally on a turbine pier as shown in Figure 4.1.
2. **Water Intake:** Install a horn-type mouth pipe in the forebay to draw water. Ensure it is free from debris.
3. **Pipe Installation:** Connect a robust pipe from the forebay to the generator. Maintain an angle of more than 25 degrees for optimal water flow. Secure the pipe with anchored piers.
4. **Valve and Nozzle:** Install a control valve and nozzle before the turbine inlet. The valve allows for flow adjustment.
5. **Generator Placement:** Position the generator securely on its foundation, ensuring it is level and stable.
6. **Water Outlet:** Ensure the water outlet from the turbine is clear and directs water away efficiently.
7. **Electrical Connections:** Connect the generator to your electrical system. For the 30KW single-phase model, this involves 230V AC connections. Ensure proper grounding and leakage protection are in place.
8. **Initial Inspection:** Before starting, double-check all connections (water and electrical) for tightness and

correctness.

5. OPERATING INSTRUCTIONS

Follow these steps for safe and effective operation of your OLONETO Hydraulic Generator.

- 1. Pre-Start Check:** Verify that all water valves are closed and electrical connections are secure.
- 2. Open Water Valve:** Slowly open the main water valve to allow water to flow through the pipe and into the turbine.
- 3. Monitor Generator:** Observe the generator as it starts to rotate. The automatic voltage stabilization system will regulate the output.
- 4. Load Connection:** Once the generator reaches stable operation and voltage, you can connect your electrical load.
- 5. Adjust Flow (if necessary):** If the output is not as expected, you may adjust the water flow via the intake valve to fine-tune performance.
- 6. Shut Down:** To shut down, first disconnect the electrical load, then slowly close the main water valve until water flow stops completely.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your hydraulic generator.

- Daily Checks:** Visually inspect for any leaks, unusual noises, or vibrations. Check the control panel indicators.
- Weekly Checks:** Inspect the water intake for debris and clear any blockages. Check pipe connections for tightness.
- Monthly Checks:** Inspect electrical connections for corrosion or looseness. Clean the exterior of the generator.
- Annual Service:** Have a qualified technician inspect the turbine, generator bearings, and electrical components. Check the integrity of the anti-corrosive housing.
- Lubrication:** Follow manufacturer guidelines for lubricating any moving parts, if applicable.

7. TROUBLESHOOTING

This section provides solutions for common issues you might encounter.

Problem	Possible Cause	Solution
No power output	Insufficient water flow/head; Electrical connection issue; Generator fault	Check water supply and valve position; Inspect electrical wiring; Consult a technician.
Low power output	Partial blockage in water pipe; Insufficient water flow; Turbine wear	Clear blockages; Increase water flow if possible; Inspect turbine for wear.
Unusual noise/vibration	Loose mounting; Bearing wear; Debris in turbine	Tighten mounting bolts; Inspect bearings; Shut down and check for debris.
Overheating	Lack of ventilation; Overload; Internal fault	Ensure proper ventilation; Reduce electrical load; Contact support.

8. TECHNICAL SPECIFICATIONS

Specifications for the OLONETO 30KW Single-Phase Hydraulic Generator.

Feature	Specification
Rated Operating Power Generation	30 KW
Generator Type	Double-jet Brushless Hydraulic Generator
Voltage	Single-phase 230V AC
Generator Magnet	Copper wire coil (excitation)
Flow Rate	0.08 m³/s
Lift (Water Head)	25-60 m
Speed	1500 rpm
Frequency	50HZ/60HZ
Current Rating	72.2 A
Special Features	Automatic Voltage Stabilization, Leakage Protection, Super Quiet
Product Weight	235 kg (approx. 30000 g)
Dimensions (L x W x H)	102 x 63 x 94 cm

9. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please contact your authorized OLONETO dealer or the point of purchase. Keep your purchase receipt and product serial number handy for faster service.

Return Policy: This product typically includes a 30-day return/replacement policy from the date of purchase. Please refer to your specific purchase terms for details.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

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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