VONROC GP500

VONROC Garden Pump/Hydrophoric Pump GP500 Instruction Manual

Model: GP500 | Brand: VONROC

1. Introduction

This manual provides essential information for the safe and efficient operation, installation, and maintenance of your VONROC Garden Pump/Hydrophoric Pump GP500. Please read these instructions carefully before using the pump and keep them for future reference.

The VONROC GP500 is a powerful 800W hydrophoric pump designed for various water transfer applications, including garden irrigation, and supplying water for livestock or living quarters. It features a robust design with a pressure switch for automatic operation and integrated thermal protection.

2. Safety Instructions

Always observe basic safety precautions to reduce the risk of fire, electric shock, and personal injury.

- Ensure the power supply matches the pump's specifications (240 Volts).
- Do not operate the pump with damaged cords or plugs.
- Protect the pump from freezing temperatures.
- Do not pump flammable or explosive liquids.
- Ensure proper ventilation around the pump during operation.
- Disconnect power before performing any maintenance or cleaning.
- The pump is protected from splashes (IPX4), but should not be submerged.

3. Product Overview

Familiarize yourself with the main components of your VONROC GP500 pump.

Figure 3.1: Overview of the VONROC Garden Pump GP500, showing the main pump body, motor, and integrated pressure switch.

Figure 3.2: Detailed view of the pressure switch, featuring a reset button and LED indicators for Power On, Failure, and Pump On status.

Figure 3.3: Side view of the pressure switch, highlighting the integrated pressure gauge for monitoring system pressure.

Key components include:

- **Pump Body:** Houses the impeller and water inlet/outlet.
- **Electric Motor:** Provides the power for water circulation.
- **Pressure Switch:** Automatically activates/deactivates the pump based on water pressure. Includes a pressure gauge and LED indicators.
- **Inlet/Outlet Ports:** Connections for suction and discharge hoses.
- **Power Cable:** For electrical connection.

4. Setup and Installation

Proper installation is crucial for optimal performance and longevity of your pump.

4.1 Placement

- Place the pump on a stable, level surface.
- Ensure the pump is in a dry, well-ventilated area, protected from direct sunlight and rain.
- Maintain sufficient space around the pump for air circulation and maintenance.

4.2 Connecting Hoses

Connect appropriate hoses to the inlet and outlet ports. Ensure all connections are airtight to prevent air leaks, which can affect pump performance.

Figure 4.1: Example of suction hose connection and water discharge during operation.

- **Suction Hose:** Connect a reinforced suction hose to the inlet port. For optimal suction, ensure the hose is as short and straight as possible. The pump has a maximum suction capacity of 8 meters.
- **Discharge Hose:** Connect a suitable discharge hose to the outlet port. The pump can achieve a maximum head of 40 meters.

4.3 Priming the Pump

Before first use, the pump must be primed. This involves filling the pump housing and the suction line with water to ensure proper operation.

- Unscrew the priming plug (usually located on top of the pump housing).
- Fill the pump housing completely with clean water until it overflows.
- Replace the priming plug securely.

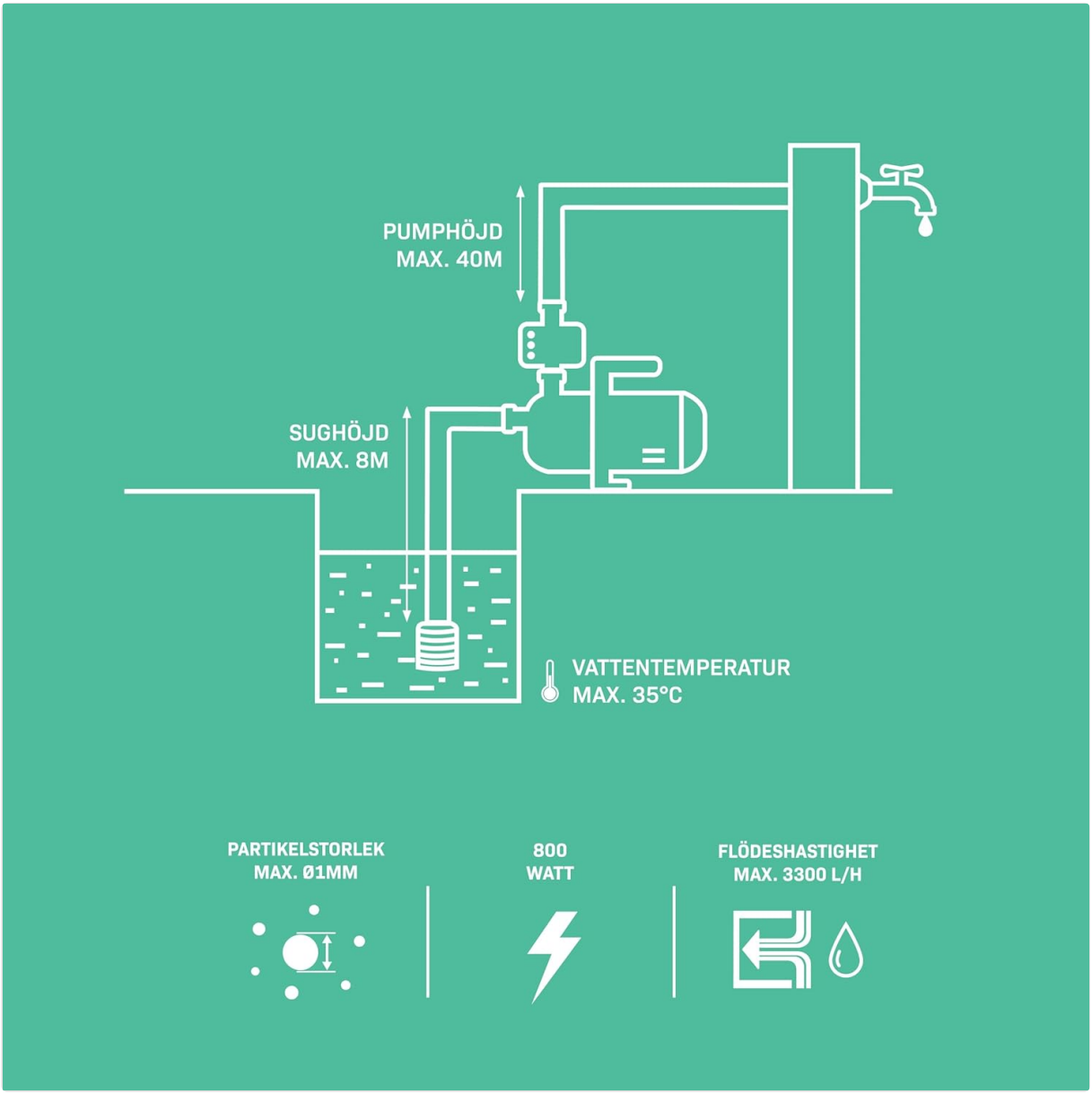

Figure 4.2: Schematic diagram illustrating typical pump installation, including suction height (max 8m), pump height (max 40m), and water temperature (max 35°C).

4.4 Electrical Connection

- Connect the pump to a grounded power outlet (240V).
- Ensure the electrical circuit is protected by a residual current device (RCD).

5. Operating Instructions

The VONROC GP500 is equipped with an intelligent pressure switch for automated operation.

5.1 Starting the Pump

- Ensure the pump is properly primed and all connections are secure.
- Plug the pump into the power outlet. The "Power On" LED on the pressure switch should illuminate.
- Open a tap or valve in your water system. As the pressure drops, the pressure switch will automatically activate the pump, and the "Pump On" LED will illuminate.

5.2 Automatic Operation

The pressure switch monitors the water pressure in your system:

- When water is drawn (e.g., a tap is opened), the pressure drops, and the pump automatically starts.
- When water drawing stops (e.g., a tap is closed), the pressure rises, and the pump automatically shuts off.

5.3 Dry Run Protection and Reset

The pressure switch includes dry run protection. If the pump runs out of water (e.g., the well runs dry), the switch will automatically shut off the pump to prevent damage. The "Failure" LED will illuminate.

- If the pump stops due to dry run, replenish the water source.
- Press the "Reset" button on the pressure switch to restart the pump.

Figure 5.1: Pressure adjustment screw on the pressure switch. Adjusting this screw can modify the cut-in pressure of the pump.

6. Maintenance

Regular maintenance ensures the longevity and efficient operation of your pump.

- **Cleaning:** Periodically clean the exterior of the pump with a damp cloth. Do not use harsh detergents or solvents.
- **Winterization:** Before freezing temperatures, drain all water from the pump and hoses to prevent damage. Store the pump in a dry, frost-free location.
- **Check Connections:** Regularly inspect all hose and electrical connections for leaks or damage.
- **Filter Cleaning:** If using a pre-filter (not included), clean it regularly to prevent clogging and maintain flow.

7. Troubleshooting

Refer to this section for common issues and their solutions.

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Pump does not start.	No power; Dry run protection activated; Motor overloaded.	Check power connection/outlet; Replenish water source and press Reset; Check for blockages or motor overheating.
Pump runs but no water flows.	Pump not primed; Air leak in suction line; Suction hose clogged or too long; Water source empty.	Prime the pump; Check all suction connections for airtightness; Clear hose/shorten; Replenish water source.
Low pressure or flow.	Partial blockage; Air in system; Worn impeller; Suction lift too high.	Check for blockages in hoses/pump; Re-prime; Contact service if impeller is suspected; Reduce suction lift.
Pump cycles on and off frequently.	Small leak in system; Pressure switch setting.	Check for leaks in pipes/fittings; Consult manual for pressure switch adjustment (if applicable).

8. Technical Specifications

Specification	Value
Model Number	GP500
Part Number	GP527AC
Power (Wattage)	800 W
Voltage	240 Volts
Maximum Flow Rate	3300 Litres Per Hour
Maximum Head (Pump Pressure)	40 meters (4 bar)
Maximum Suction Capacity	8 meters
Product Dimensions (L x W x H)	53 x 28 x 24 cm
Item Weight	8 kg
Material	Plastic, Stainless Steel
Protection Class	IPX4 (splash protected)
Max Water Temperature	35°C

9. Warranty and Support

VONROC products are designed and manufactured to high quality standards. For warranty information, technical support, or spare parts, please refer to the official VONROC website or contact your local dealer. Keep your proof of purchase for warranty claims.

VONROC develops a range of high-quality DIY tools and accessories, with products designed in the Netherlands. For more information, visit www.vonroc.com.