EBERTH WP1-4TP1100

EBERTH 4-inch Deep Well Submersible Water Pump 1100W

Model: WP1-4TP1100 - Instruction Manual

1. Safety Information

Read this manual carefully before installation, operation, or maintenance. Failure to follow these instructions may result in electric shock, fire, serious injury, or property damage. Keep this manual for future reference.

- Always disconnect the pump from the power supply before performing any work on it.
- Ensure the electrical installation complies with local and national regulations.
- The pump is designed for pumping clear water. Do not use it for flammable, corrosive, or explosive liquids.
- Do not operate the pump dry. Ensure it is fully submerged before starting.
- Use only the provided control box and ensure it is installed in a dry, protected location.
- Secure the pump with a safety rope during installation and removal to prevent it from falling into the well.

2. Product Overview

The EBERTH 4-inch deep well submersible pump is a robust and efficient solution for extracting groundwater. Constructed from durable stainless steel, it is designed for long-term underwater operation in wells with a minimum bore diameter of 11 cm (4.3 inches).

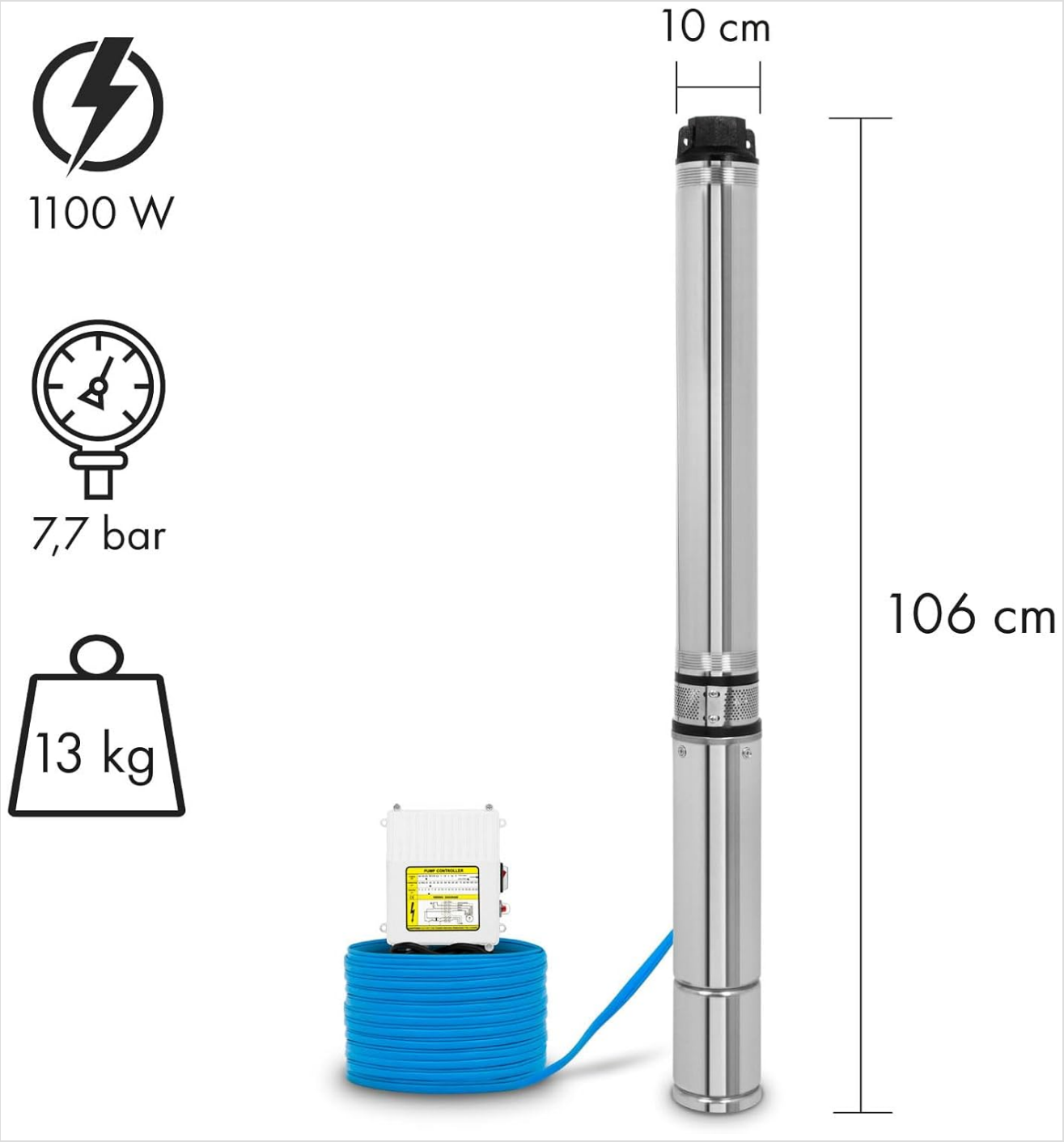

Image 2.1: EBERTH 1100W Deep Well Pump showing its overall dimensions (10cm diameter, 106cm length), 1100W power, 7.7 bar pressure, and 13 kg weight.

Key Features:

- **Powerful Motor:** Equipped with an 1100W electric motor for efficient water extraction.
- **Durable Construction:** Stainless steel casing ensures corrosion resistance and long service life.
- **Integrated Filter:** Prevents dirt particles from entering the pump, ensuring clear water output.
- **High Delivery Height:** Capable of pumping water from significant depths, with a maximum delivery height of up to 74 meters.
- **Long Power Cable:** Includes a 20-meter electrical cable for flexible installation.

Image 2.2: The EBERTH deep well pump partially submerged, illustrating its intended use for underwater operation.

3. Setup and Installation

Proper installation is crucial for the pump's performance and longevity. Follow these steps carefully.

3.1 Components Check

Before installation, ensure all components are present and undamaged:

- Deep well pump
- Control box
- 20m electrical cable (pre-attached)
- Safety rope (not included, but highly recommended)
- Discharge pipe (not included)

3.2 Installation Steps

1. **Prepare the Well:** Ensure the well bore has a minimum diameter of 11 cm (4.3 inches) and is free of debris.
2. **Attach Safety Rope:** Securely attach a strong, non-corrosive safety rope to the designated eyelets on the pump's top connection. This rope will bear the pump's weight and prevent it from falling.

Image 3.1: Close-up of the pump's top connection, showing the threaded outlet and cable entry point.

3. **Connect Discharge Pipe:** Connect a suitable discharge pipe (e.g., PVC or PE pipe) to the pump's threaded outlet. Ensure a watertight seal using thread sealant or tape.
4. **Lower the Pump:** Carefully lower the pump into the well using the safety rope. Ensure the pump remains vertical and does not get stuck. The pump should be submerged at least 1 meter below the lowest expected water level and at least 1 meter above the bottom of the well to avoid drawing in sediment.

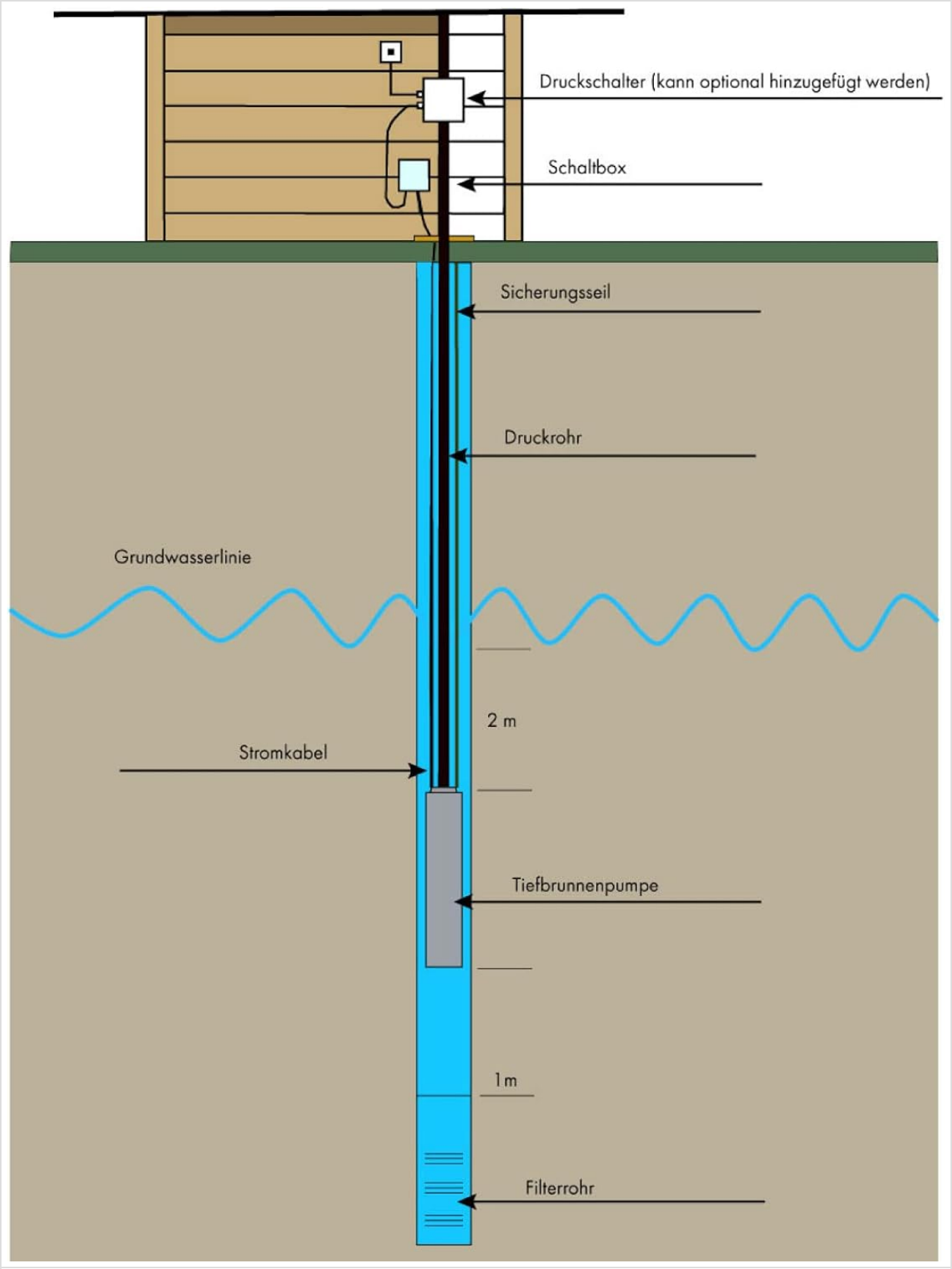

Image 3.2: A person carefully lowering the deep well pump into a well opening, secured by a rope.

5. **Secure the Cable and Pipe:** Secure the electrical cable and discharge pipe to the safety rope at regular intervals (e.g., every 2-3 meters) using cable ties or clamps to prevent strain on the pump connections.
6. **Install Control Box:** Mount the control box in a dry, easily accessible location, protected from direct weather exposure.

Image 3.3: The EBERTH deep well pump control box, featuring an on/off switch and a wiring diagram for electrical connections.

7. **Electrical Connection:** Connect the pump's electrical cable to the control box according to the wiring diagram provided on the control box. Ensure all connections are secure and insulated. Connect the control box to a grounded power supply (230V, 50Hz).
8. **Final Check:** Double-check all connections, ensuring the pump is properly submerged and secured.

Image 3.4: Schematic diagram illustrating the typical installation of a deep well pump, showing the pump submerged, safety rope, pressure pipe, electrical cable, and control box connected to a power source.

4. Operating Instructions

4.1 Initial Startup

1. Ensure the pump is fully submerged in water.
2. Turn on the power supply to the control box.
3. Switch the pump ON using the switch on the control box.
4. Allow the pump to run for a few minutes to purge any air from the system. Water flow should become steady.

4.2 Normal Operation

The pump is designed for continuous operation within its specified limits. Monitor the water level in the well to prevent dry running. For applications like irrigation, the pump can supply water to sprinklers or hoses.

Image 4.1: A sprinkler system watering a lawn, demonstrating a common application for the pump's water supply.

Image 4.2: A hand holding a hose nozzle, watering garden plants, illustrating another use for the pumped water.

5. Maintenance

Regular maintenance ensures optimal performance and extends the pump's lifespan.

5.1 General Inspection

- Periodically check the electrical cable for any signs of damage or wear.
- Inspect the discharge pipe and connections for leaks.
- Ensure the control box is clean and dry.

5.2 Cleaning the Filter

The pump features an integrated impurity filter. If you notice a decrease in flow rate, the filter may need cleaning.

1. Disconnect the pump from the power supply.
2. Carefully retrieve the pump from the well using the safety rope.
3. Locate the filter section (perforated area) on the pump body.

Image 5.1: Close-up of the pump's perforated filter section, designed to prevent impurities from entering the pump mechanism.

4. Clean any accumulated debris from the filter using a brush and clean water.
5. Re-lower the pump into the well and reconnect the power.

5.3 Winterization (for cold climates)

If the pump is installed in an area subject to freezing temperatures and will not be used during winter:

- Disconnect power to the pump.
- Remove the pump from the well.
- Drain all water from the pump and discharge pipe.
- Store the pump in a dry, frost-free location.

6. Troubleshooting

Before attempting any repairs, always disconnect the pump from the power supply.

Problem	Possible Cause	Solution
Pump does not start	No power supply Faulty control box Motor overload protection tripped	Check power connection and circuit breaker Inspect control box wiring Reset motor protection (if applicable)
Low or no water flow	Water level too low Clogged filter Air in the system Damaged impeller/pump components	Check well water level Clean pump filter (see Section 5.2) Allow pump to run to purge air Contact qualified service personnel
Pump runs but no water	Pump not fully submerged Discharge pipe leak Check valve issue	Ensure pump is adequately submerged Inspect discharge pipe for leaks Check or replace check valve
Excessive noise/vibration	Pump not properly secured Foreign object in pump Worn bearings	Ensure safety rope is taut and pump is stable Remove pump and inspect for obstructions Contact qualified service personnel

7. Technical Specifications

Specification	Value
Model	WP1-4TP1100

Specification	Value
Power	1100 Watts
Voltage	230 Volts
Max Flow Rate	140 Litres per minute
Max Delivery Height	74 meters
Dimensions (L x W x H)	10 x 10 x 106 cm
Weight	13 Kilograms
Material	Stainless Steel
Cable Length	20 meters
Min. Well Diameter	11 cm (4 inches)

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Leistung in Daten

Modell	Leistung		Nenndrehzahl n = 2850 U/min mit 4"- Gewinde								
220-230V 50Hz	KW= Kilo-watt	PS= Pfer-de-stärke	Q =Gesamt-fördermenge	m³/h	0	1,2	2,4	3,6	4,8	6	7,2	8,4
				L/ min	0	20	40	60	80	100	120	140
WP1-4TP370	0,37	0,5	Gesamtförderhöhe in Metern		33	31	28	26	23	18	12	6
WP1-4TP550	0,55	0,75			46	43	40	37	33	26	17	8
WP1-4TP750	0,75	1			59	56	51	47	42	33	22	10
WP1-4TP1100	1,1	1,5			79	74	68	63	56	44	30	14
WP1-4TP2200	2,2	3			118	112	103	95	85	67	45	20

Image 7.1: Performance data table showing flow rates (m³/h and L/min) at various total delivery heights for different EBERTH deep well pump models, including the 1100W model.

8. Warranty and Support

EBERTH products are designed for quality and reliability. In the event of a defect, EBERTH offers repair services.

8.1 Repair Service

Defective devices are repaired quickly and reliably at our service center in Germany. Repaired units are returned to the customer free of charge.

8.2 Contact Information

For support, warranty claims, or spare parts inquiries, please contact your retailer or visit the official EBERTH website for customer service details.