

Pedrollo UPm2/4

Pedrollo UPm2/4-GE 1Hp 240V Multi-Stage Submersible Electric Water Pump User Manual

Model: UPm2/4 | Brand: Pedrollo

1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Pedrollo UPm2/4-GE Multi-Stage Submersible Electric Water Pump. Please read this manual thoroughly before installation and use, and retain it for future reference.

The Pedrollo UP series of multi-stage submersible pumps features an innovative design that prevents impellers from blocking, even after extended periods of inactivity. This design ensures high efficiency and reliability, making these pumps suitable for clean water applications in domestic, civil, and agricultural settings. Typical uses include water distribution with pressure sets, garden and allotment irrigation, and pressure boosting.

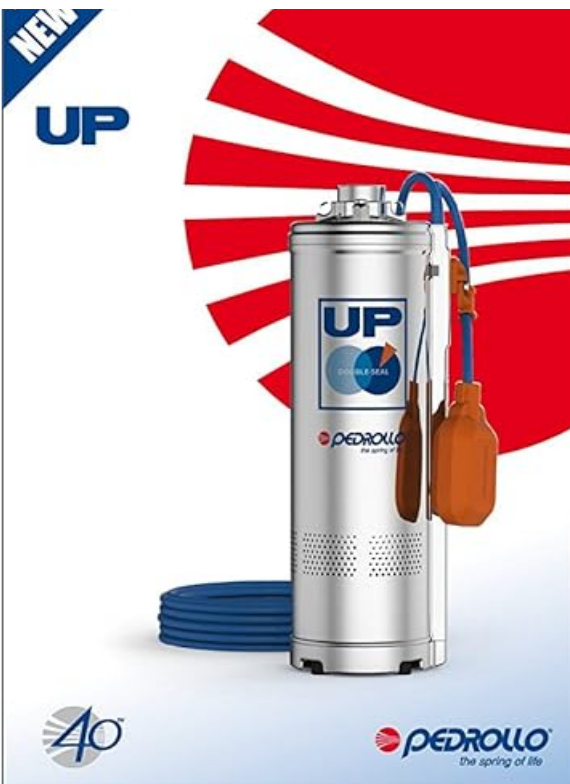
2. SAFETY INFORMATION

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

- Ensure the power supply matches the pump's voltage requirements (240V).
- Disconnect power before performing any installation, maintenance, or repair work.
- Do not operate the pump with damaged cables or if the pump itself is visibly damaged.
- The pump is designed for clean water only. Do not use it for flammable, corrosive, or abrasive liquids.
- Ensure proper grounding of the electrical system.
- Keep children and unauthorized personnel away from the pump's operating area.
- Do not lift the pump by its electrical cable. Use a rope or chain attached to the pump's lifting eye.

3. SETUP AND INSTALLATION

Proper installation is crucial for the pump's performance and longevity. Refer to the diagram below for a typical installation setup.



Multi-stage submersible pumps

Clean water
Maximum sand content 150 g/m³

NEW

TECHNICAL CHARACTERISTICS

- Independent floating impellers (patented)
- Double mechanical seals with oil chamber
- More compact in size (-20%)
- Reduced energy consumption
- Suction port raised to prevent the passage of sand, leaves and external particles which could possibly block the hydraulic part and thus limit the performances
- Version with float switch

INSTALLATION AND USE

The main feature of this newly designed range of submersible pumps is that impellers will not block even after long periods of inactivity, thanks to innovative patented technical solutions. As a result of their high efficiency and reliability they are suitable for use with clean water in domestic, civil and agricultural applications, such as the distribution of water in combination with pressure units, for the irrigation of gardens and allotments and for pressure boosting, etc.

APPLICATION LIMITS

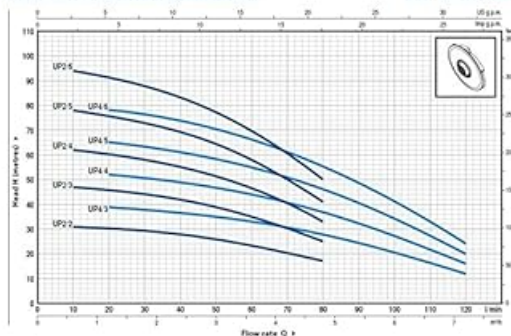
- Maximum liquid temperature +40 °C
- Maximum sand content 150 g/m³
- 25 m maximum immersion depth (with a sufficiently long power cable)
- Vertical and horizontal installation
- Continuous service S1

BREVETTI

► Patent Pending
n° PCT/IB2014/061026, n° B02015A000016, n° PCT/EP2009/059555

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 1/min



MODEL	POWER	Q	m³/h	0	0.6	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6	7.2
Single phase Three phase	kW HP	l/min	0	10	20	30	40	50	60	70	80	90	100	110	120	130
UP2.0	0.37 0.5	32	70	36.5	29.5	23.5	17.5	11.5	5.5	0	0	0	0	0	0	0
UP2.5	0.55 0.75	48	47	45.5	44	41.5	38.5	35	31.5	25	0	0	0	0	0	0
UP3.0	0.75 1	64	62	60	58	55	51	46.5	40.5	33	0	0	0	0	0	0
UP3.5	1.1 1.5	80	78	75.5	73	69	64	58	50.5	41	0	0	0	0	0	0
UP4.0	1.5 2	96	94	91	88	83	77	70	61	50	0	0	0	0	0	0
UP4.5	0.55 0.75	40	-	39	38	37	35	33	30.5	28	24.5	20.5	16.5	12	0	0
UP4.5	0.75 1	50	-	52	50.5	49	46.5	44	40.5	37	32.5	27.5	22	16	0	0
UP4.5	1.1 1.5	62	-	65	63.5	61.5	58	55	50.5	46.5	40.5	34	27.5	20	0	0
UP4.5	1.5 2	80	-	78	76	74	70	66	61	56	49	41	33	24	0	0

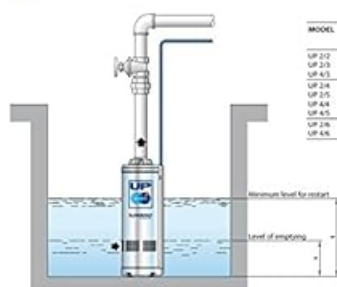
Q = Flow rate; H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3.

Domestic use Civil use Agricultural use

PEDROLLO
the spring of life

TYPICAL INSTALLATION



MODEL	LEVELS mm
UP 2/2	320
UP 2/3	320
UP 4/5	320
UP 2/4	300
UP 2/5	300
UP 4/4	300
UP 4/5	300
UP 2/6	270
UP 4/6	270

DIMENSIONS

MODEL PORT 1/2" CONNECTION mm

DN

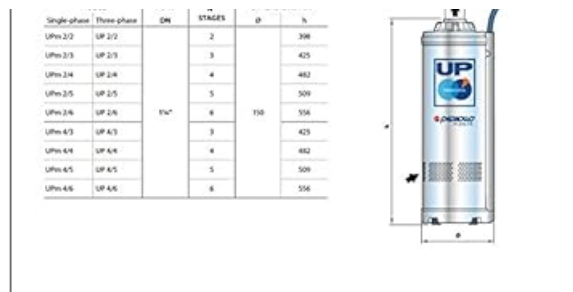


Figure 1: Typical installation diagram, performance curves, and dimensional data for Pedrollo UPm2/4-GE submersible pumps. This image illustrates how the pump should be submerged in a water source, connected to a discharge pipe, and includes technical specifications and performance characteristics.

- **Submersion:** The pump must be fully submerged in clean water. Ensure the water level is always above the pump's intake.
- **Mounting:** Secure the pump using a suitable rope or chain attached to the designated lifting point. Do not let the pump rest directly on the bottom if it's muddy or sandy.
- **Discharge Pipe:** Connect a discharge pipe of appropriate diameter to the pump's outlet. Ensure all connections are watertight.
- **Electrical Connection:** Connect the pump to a 240V power supply with proper grounding and a residual current device (RCD) for safety. Consult a qualified electrician if unsure.
- **Float Switch:** If equipped with a float switch (as shown in Figure 1), ensure it can move freely to control the pump's on/off cycles based on water level.

4. OPERATING INSTRUCTIONS

Once installed correctly, operating the Pedrollo UPm2/4-GE pump is straightforward:

- **Initial Start-up:** Ensure the pump is fully submerged and all connections are secure. Turn on the power supply. The pump will start automatically if the float switch is in the 'on' position (water level high enough).
- **Continuous Operation:** The pump is designed for continuous operation within its specified limits. Monitor the water level to prevent dry running, especially if not using a float switch.
- **Shut-down:** To stop the pump, turn off the power supply. If using a float switch, the pump will stop automatically when the water level drops below the minimum operating level.
- **Water Quality:** The pump is intended for clean water. Pumping water with excessive sediment or debris can damage the impellers and motor.

5. MAINTENANCE

Regular maintenance ensures optimal performance and extends the pump's lifespan. Always disconnect power before maintenance.

- **Cleaning:** Periodically inspect the pump's intake screen for blockages from debris. Clean as necessary.
- **Impeller Inspection:** While the pump's design resists blocking, occasional inspection of the impellers for wear or damage is recommended, especially if performance degrades. This typically requires professional service.
- **Cable Inspection:** Check the power cable for any signs of damage, cuts, or fraying. Replace immediately if damaged.
- **Winterization:** In freezing climates, remove the pump from the water source and store it in a frost-free

environment if it will not be used during winter. Drain all water from the pump and pipes.

6. TROUBLESHOOTING

If you encounter issues with your pump, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Pump does not start	No power; Float switch in 'off' position; Motor overload; Damaged cable.	Check power supply and circuit breaker; Ensure float switch is free and water level is sufficient; Reset thermal overload protector (if present); Inspect and replace cable if damaged.
Pump runs but no water or low flow	Intake blocked; Air in system; Discharge pipe blocked or kinked; Low water level; Worn impellers.	Clean intake screen; Bleed air from the system; Check and clear discharge pipe; Ensure pump is fully submerged; Contact service for impeller inspection.
Pump stops unexpectedly	Overheating; Low water level (float switch activated); Electrical fault.	Allow pump to cool; Check water level; Inspect electrical connections and power supply.

If troubleshooting steps do not resolve the issue, contact a qualified technician or Pedrollo customer support.

7. SPECIFICATIONS

The following table details the technical specifications for the Pedrollo UPm2/4-GE Multi-Stage Submersible Electric Water Pump:



Figure 2: Front view of the Pedrollo UPm2/4-GE Multi-Stage Submersible Electric Water Pump, showcasing its stainless steel body, blue power cable, and orange float switch.


Specification	Value
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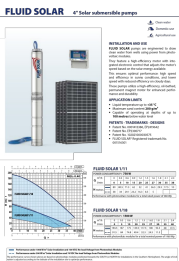
Specification	Value
Brand	Pedrollo
Model Number	UPm2/4 (48SP2120A1)
Power	1 Hp
Voltage	240 Volts
Material	Stainless Steel
Power Source	Electric Cable
Maximum Flow Rate	80 Litres per minute
Maximum Lift Height	62 Meters
ASIN	B018W45YV0

8. WARRANTY AND SUPPORT

Specific warranty details for the Pedrollo UPm2/4-GE pump are not provided in this manual. For warranty information, please refer to the documentation included with your purchase or contact the seller (cemstore) or Pedrollo directly. For technical support or service, please reach out to the authorized Pedrollo service center in your region.

Related Documents - UPm2/4

	<p>Pedrollo UP Series Multi-stage Submersible Pumps: Performance, Specifications, and Installation</p> <p>Detailed information on Pedrollo UP Series multi-stage submersible pumps, including performance range, application limits, construction details, characteristic curves, dimensions, and installation guidelines. Ideal for domestic, civil, and agricultural use.</p>
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 <p>PEDROLLO the spring of life</p> <p>TOP MULTI-TECH TOP MULTI-EVOTECH</p> <p>CE ENEC</p>	<p>Pedrollo TOP MULTI-TECH & TOP MULTI-EVOTECH Automatic Submersible Water Pumps - Operation Manual</p> <p>This document provides operational guidance for the Pedrollo TOP MULTI-TECH and TOP MULTI-EVOTECH automatic submersible multi-stage water pumps. It covers general information, operation, protections, and typical installation advice.</p>
 <p>PEDROLLO the spring of life</p> <p>TOP MULTI-TECH TOP MULTI-EVOTECH</p> <p>CE ENEC</p>	<p>Pedrollo TOP MULTI-TECH / TOP MULTI-EVOTECH Automatic Submersible Water Pump Operation Manual</p> <p>This document provides operational instructions for the Pedrollo TOP MULTI-TECH and TOP MULTI-EVOTECH automatic submersible multi-stage water pumps. It covers general information, operating principles, installation advice, and protection features for optimal performance and longevity.</p>
 <p>TOP MULTI-TECH Multi stage automatic submersible pumps</p> <p>CE</p>	<p>Pedrollo TOP MULTI-TECH Automatic Submersible Pumps: Specifications & Performance</p> <p>Detailed technical specifications, performance curves, installation guide, and features for the Pedrollo TOP MULTI-TECH series of multi-stage automatic submersible pumps, designed for clean water applications.</p>
 <p>TRITUS Elettropompe sottomeroglia con triturazione</p> <p>CE</p>	<p>Pedrollo TRITUS Submersible Pumps with Grinder: Technical Specifications and Applications</p> <p>Explore the technical specifications, performance curves, dimensions, and installation guidelines for Pedrollo TRITUS submersible pumps with grinders. Ideal for domestic and civil wastewater management.</p>
 <p>FLUID SOLAR 4" Solar submersible pumps</p> <p>CE</p>	<p>Pedrollo FLUID SOLAR 4" Solar Submersible Pumps Technical Datasheet</p> <p>Explore the Pedrollo FLUID SOLAR series of 4-inch solar submersible pumps. Engineered for efficient water extraction from wells using photovoltaic power, these pumps feature high-efficiency motors with integrated electronic control for optimal performance in varying solar conditions.</p>