

EN

INSTRUCTION MANUAL



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CE

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## 1. SAFETY MEASURES

-  Before starting the pump, read this instruction booklet carefully and keep it in a safe place for future reference. The pump must only be used for the purpose for which it was designed. For safety reasons the pump must not be used by anyone under the age of 16 or by anyone who has not read and understood the present instructions booklet.
-  The power cord and floating switch must never be used to carry or move the pump. Always use the pump's handle.
-  When handling the pump, while it is connected to the electric power supply, you should avoid all contact with water.
-  Never remove the plug by pulling on the power cord.
-  Before taking any action on the pump, always remove the plug from the power socket.
-  If the power supply cord has been damaged, it must be replaced by the manufacturer or its authorized customer support service in order to avoid all risks.
-  The pump is equipped with a thermal overload safety device. In the event of any overheating of the motor, this device automatically switches off the pump. The cooling time is roughly 15 to 20 minutes, then the pump automatically comes on again. If the overload cutout is tripped, it is essential to identify and deal with the cause of the overheating. See Troubleshooting.

## 2. USE

Multi-impeller submersible pumps with built-in electronics ideal for rain water and mains irrigation systems, for pumping water from tanks, ponds and wells and other applications that require high pressure.

The pump is equipped with a built-in electronic control unit which manages its operation (pump ON/FF) and prevents damages.

The electronics protects the pump against dry running conditions:




- Priming cycle: When started, the pump will perform the following operation until it is primed: four priming trials of 30" (motor ON) with pauses of 3" (motor OFF). If there is no water, i.e. if the priming trials fail, the pump will stop for an hour before trying to prime again. If also this trial fails, there will be a 5 hours pause. Afterwards, if the lack of water persists, the pump will try to prime every 24 hours until it has picked up a prime.
- Normal Operation: If, during the pumps operation, the water supply is inferior to the minimum delivery for more than 40", the pump will go into alarm, and start a priming cycle. In this case the priming trials are made after 1, 5, and 24 hours until the pump picks up a prime.

The electronic unit also protects the pump from damages that could be caused by the blocking of the Not Return Valve (NRV). Such blockings are generally due to dirt deposits, or sand and they cause the pump to operate also if there is no water demand from the end-user. The protection function stops the pump automatically every hour; if no damage is detected the pump re-starts immediately. If the VNR is blocked the pump goes into alarm and stops. In this case the pump can be re-started only after unplugging the pump and removing the obstruction to the VNR.



The best working condition is with the pump be completely submersed in water.

Anyway the motor's cooling system allows the use at the minimum suction height for very short periods.

The pump is equipped with a stainless steel anti-deposit filter

-  The temperature of the fluid being pumped must never exceed 35° C.
-  The pump must not be used to pump salt water (unless specifically designed for the purpose), sewage, flammable, corrosive or explosive liquids (e.g. petroleum oil, petrol, thinners), grease, oils or foodstuffs.
-  Comply with the rules and regulations of the local water authority when using the pump for the supply of domestic water.

### 3. STARTING THE PUMP

-  Given the different provisions applicable to the safety of electric systems in different countries, make sure that the pump system, as concerns its intended use, is in accordance with current legislation.
-  Before starting the pump, make sure that:
  - the voltage and frequency specified on the pump's nameplate coincide with those of the available power supply;
  - there are no signs of damage to the pump or its power cord;
  - the electric connection is made in a dry place, protected against any risk of flooding;
  - the electric system is complete with a residual current circuit-breaker ( $I \Delta n \leq 30 \text{ mA}$ ) and an efficient earthing connection;
  - Any extension cords must comply with the requirements of the DIN VDE standard 0620.

### 4. RECOMMENDATIONS


To ensure the proper operation of the pump, it is important to comply with the following recommendations:

- The pump must only be used when it is immersed in water.
- The pump must be placed in a stable position inside a trap or in the lowest part of the place where it is installed.
- Periodically, it is advisable to make sure that no dirt (leaves, sand, etc.) has accumulated in the collection trap.

### MAINTENANCE AND CLEANING

It is absolutely essential to prevent any risk of the pump freezing. In the event of freezing temperatures, remove the pump from the liquid, empty it and keep it in a place where it cannot freeze. The pump must be disconnected from the mains power supply before any cleaning operation is performed. The pump is maintenance free.

## 5. TROUBLESHOOTING

 Before taking any troubleshooting action, disconnect the pump from the power supply (i.e. remove the plug from the socket). If there is any damage to the power cable or pump, any necessary repairs or replacements must be performed by the manufacturer or his authorized customer support service, or by an equally-qualified party, in order to prevent all risks.

<b>Fault</b>	<b>Possible causes</b>	<b>Solutions</b>
The motor does not start or makes no noise.	A) The motor is not powered. B) There is no water (pump in alarm mode) C) The VNR is blocked (pump in alarm mode)	A) Check the power supply B) Check the water level C) Clean the valve
The pump delivers no water.	A) The suction grid or piping are clogged. B) The impeller is worn or stuck.	A) Remove the obstruction. B) Replace the impeller or remove the obstruction.
The flow rate is too low.	A) The suction grid is partially blocked. B) The impeller or delivery pipe are partially blocked or encrusted.	A) Remove any obstructions. B) Remove any obstructions.
The pump stops running (possible intervention of the thermal overload switch).	A) The liquid to be pumped is too dense and overheats the motor. B) The water temperature is too high. C) A solid object is blocking the impeller. D) Power supply doesn't comply with the nameplate's data.	A-B-C-D) Disconnect the power cord, correct the reason for overheating; then wait until the pump is cooled, plug the cord and resume operation.

## 6. DISPOSAL

This product or its parts must be disposed of in accordance with the laws regarding the environment; Use the local, public or private, refuse collection services.

## 7. GUARANTEE

Any material or manufacturing defects will be corrected during the guarantee period established by current law in the country where the product is purchased. It is up to the manufacturer to decide whether to repair or replace any faulty parts.

The manufacturer's guarantee covers all substantial defects attributable to manufacturing or material defects, providing the product has been used correctly and in compliance with the instructions.

The guarantee becomes null and void in the event of the following:

- unauthorized attempts to repair the appliance;
- unauthorized technical changes to the appliance;
- use of non-original spare parts; manhandling;
- inappropriate use, e.g. for industrial purposes.

The guarantee does not cover:

- parts liable to rapid wear and tear.

For any action under guarantee, contact an authorized customer support service, presenting your receipt for the purchase of the product.

The manufacturer accepts no liability for any inaccuracies in the present booklet due to printing or copying errors. The manufacturer reserves the right to make any changes to the product he deems necessary or useful, without affecting its essential features.



