Dear Client,

Take the time to read the instructions carefully before using this appliance.

Thank you!

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Warnings for the safety of individuals and objects:
Carefully follow the instructions marked with the following symbols.

Keep the technical equipment out of the reach of children!

Warns that the failure to follow the directions given may cause electric shock.

Warns that the failure to follow the directions given could cause serious risk to individuals or objects.

This sign warns the operator that the failure to follow an instruction may damage the pump and/or the system.

Chapter 1 Features

WARNING: Read this manual carefully before installing the pump. Carefully store this manual. If a problem occurs, before contacting the Customer Assistance Service, please verify that the pump has been used correctly and that the cause of the problem is not imputable to its operation. Every electro-pump is carefully tested and packed during its manufacturing process. After purchasing the pump, check that it has not been damaged during transportation. If the pump is damaged, immediately inform the dealer within 8 days from the date of purchase.

Chapter 2 Limitations

The pump cannot be used for inflammable, explosive or dangerous liquids.

Verify that the electro-pump never runs without liquids.

(*) The specifications hereunder are referred to a configuration with a free and unreduced delivery mouth.

When installing, please ensure electro-pump is disconnected from electrical supply. Pumps in this series are not suitable for use in a swimming pool and the relevant cleaning and servicing operations.

To prevent possible injuries to people, avoid inserting hands into the mouth of the pump if this is connected to the mains.

Chapter 3 Installation

Avoid using the electric cable to lift or transport the pump.
Use a stainless steel or nylon rope suitable to sustain the weight, to immerse the pump.
Two slots are present for allowing the anchoring of the head of the pump.
We recommend connecting the electric cable to the delivery pipe with plastic straps, at a distance of about 3 m., when using rigid piping.
It is also advisable to fit automatic level controls to prevent the electric pump from running without liquids and a pressure gauge (suitable to pump model) to verify its performance during operation.
Install the pump at least 20 cm. from the bottom of the well to avoid taking in sand, mud, etc.
Use a delivery pipe with a diameter equivalent to that of the delivery port of the pump.
When connecting fixed installations, the outlet must be clearly visible and easily accessible.
ATTENTION!!! Delivery pipes should be connected with the utmost care. Make sure that all connections fixed by means of screws are sealed. Avoid applying excessive strength to tighten the screws of connections or of other components.
Use a teflon tape to completely seal all joints.
Chapter 4 Electrical connections

**WARNING**
Verify that the voltage and frequency of the electric pump shown on the nameplate correspond to those available on the mains.

**DANGER**
The installer must make sure that the electric system is grounded in accordance with the law in force.

**DANGER**
Make sure that the electric system has a high-sensitivity circuit breaker A >30 mA (DIN VDE 0100739).

**Overload protection**
These series pumps have a built-in thermal protection. The pump stops if an overload condition occurs. The motor restarts automatically after it has cooled down. Therefore, pump doesn't require any external protections. Electrical extension cables must have a minimum section of H07 RN-F. The plug and connections should be protected by water splash. Contact a specialized electrician.

Chapter 5 Starting the unit

**WARNING**
Use the electro-pump in the performance field listed on the nameplate.

**WARNING**
Do not operate the pump without liquids, to avoid damaging hydraulic parts and seal.

**WARNING**
Do not run the electro-pump with a completely closed delivery.

**Instructions for a safe pump start**
Connect the pipe to the "F" delivery mouth before starting the pump. Connections must be made so as to avoid losses. Before using the pump always inspect it visually (especially power cable and plug). Do not use the pump if it is damaged. If the pump is damaged, have it inspected by the specialized assistance service only. Do not move the pump using the cable or use the cable to remove the plug from the socket. Protect the plug and the power cable from heat, oil or sharp edges.

Chapter 6 Maintenance and troubleshooting

**DANGER**
Make sure the machine is disconnected from electric power supply before performing maintenance operation.

**DANGER**
The power cable must be replaced by qualified personnel only.

In ordinary conditions, these series pumps do not require any maintenance. It may be occasionally necessary to clean the filter or other hydraulic parts.

If the pump is not working:
If you are planning not to use the pump for a long period of time (i.e., one year), it is advisable to empty it completely. Rinse with clean water and store it in a dry location where it can be protected from frost.

**Cleaning the filter**
If pumped water is not perfectly clean, it may be necessary to clean the filter with a steel brush to scrape the dirt accumulated on the external surface.
It is also possible to clean the internal section of the filter. Loosen the screw that fixes the filter to the body of the electric pump and remove it. Scrape the dirt with a steel brush and rinse it with clean water. If this is not sufficient, have the hydraulic parts cleaned by an authorized centre.

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>POSSIBLE CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) THE ELECTROPUMP DOES NOT PUMP WATER, THE MOTOR DOES NOT RUN</td>
<td>1) No power.</td>
<td>1) Verify that voltage is present and that the plug has been correctly inserted.</td>
</tr>
<tr>
<td>2) Motor protection tripped.</td>
<td>2) Determine the cause of the problem and reset the switch. If the thermal switch has been enabled, wait for the system to cool down.</td>
<td></td>
</tr>
<tr>
<td>3) Defective capacitor.</td>
<td>3) Contact the Customer Assistance Service.</td>
<td></td>
</tr>
<tr>
<td>4) Suction grid blocked</td>
<td>4) Verify the cause and unblock the electropump.</td>
<td></td>
</tr>
</tbody>
</table>

2) THE MOTOR RUNS BUT THE ELECTROPUMP DOES NOT PUMP LIQUID

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>POSSIBLE CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Pump rotates in a wrong direction.</td>
<td>1) Reset the direction of rotation</td>
<td></td>
</tr>
<tr>
<td>2) Air inlet from the suction pipe.</td>
<td>2) Verify that:</td>
<td></td>
</tr>
<tr>
<td>- a) joints are sealed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- b) the fluid level has not lowered below the foot valve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Suction height above the height recommended for the unit.</td>
<td>3) Check and reduce the suction height or use a device with more suitable characteristics.</td>
<td></td>
</tr>
<tr>
<td>4) Suction grid blocked</td>
<td>4) Clean the filter</td>
<td></td>
</tr>
</tbody>
</table>

3) THE ELECTROPUMP STOPS AFTER RUNNING FOR A SHORT PERIOD OF TIME BECAUSE ONE OF THE THERMAL MOTOR CIRCUIT BREAKER TRIPS

<table>
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<tr>
<th>PROBLEM</th>
<th>POSSIBLE CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) The power supply does not conform with the data on the nameplate.</td>
<td>1) Check the voltage on the power supply cable leads.</td>
<td></td>
</tr>
<tr>
<td>2) A solid object is blocking the impellers.</td>
<td>2) Disassemble and clean the electropump.</td>
<td></td>
</tr>
<tr>
<td>3) The liquid is too thick.</td>
<td>3) Dilute the pumped fluid.</td>
<td></td>
</tr>
<tr>
<td>4) The liquid or the environment is too hot.</td>
<td>4) Remove the cause of the problem, wait for the pump to cool down and restart it.</td>
<td></td>
</tr>
</tbody>
</table>

If the problem persists despite the recommended corrective actions, contact the Customer Assistance Service.
Chapter 7 Limited warranty

This piece of equipment has been manufactured and tested to the most advanced standards. The seller guarantees its material and manufacture are in perfect order, in compliance with the legislation of the country where it has been bought. This warranty is valid as from the purchase date and shall be subject to the following conditions:

During the guarantee period, all defects which are the result of material and production flaws will be repaired free of charge. Complaints must be reported immediately after the defect is discovered.

This warranty shall be null and void if the equipment is damaged by the buyer or any third party. This warranty shall not cover damages resulting from improper treatment or use, improper start-up or storage, improper connection or installation or force majeure circumstances or any other external factor. This warranty shall not cover components subject to normal wear, such as for instance the rotor, the sliding ring seals, the diaphragms or pressure switches (for the surge tanks). All parts are manufactured to the best standards, using only first-rate materials, and are designed to last long. Wear and tear is nevertheless dependent on the kind of use, heaviness of use and maintenance frequency they are subject to. Following the directions for installation and maintenance hereunder shall definitely help to prolong the life of the wearable parts.

In the case of complaints, we reserve the right to repair or replace defective parts or to exchange the appliance. The parts which have been replaced become property of manufacturer.

Damage claims will not be accepted unless the damage is the result of gross or intentional negligence on the part of the manufacturer. No further claims are covered by the guarantee. The client must demonstrate his right to the guarantee by means of the proof of purchase. The right to the guarantee is applicable in the country in which the appliance was purchased.

Guidelines:

1. If the appliance no longer functions properly, you must first check whether there is another reason for this, such as power supply interruption or incorrect use.

2. If you ship back the defective appliance, you must include the following documents:
   - Proof of purchase
   - Description of the defects (a detailed description facilitates fast repair)

3. In case of repairs, please do not send to the Service Centers any accessory or fitting that is not part of the original components supplied with the pump.

For the right to the guarantee, reporting defects or requesting replacement parts, contact your dealer in person or by telephone.