Installation Manual

Enerwell

FULL VOLTAGE STARTER

AEWTP

V.1.0
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Abstract

INSTALLATION MANUAL

Thank you for your preference when purchasing our products.

With the help of this instruction manual you will be able to carry out a correct installation and keep your equipment in optimal operation, so we recommend that you follow the instructions included here.

Keep this manual in a safe place for future reference.

Table of Contents

1. INTRODUCTION

This manual provides all the necessary information for the installation, operation, and detailed description of the equipment. Please read it carefully before installation, startup, maintenance, or inspection. Pay special attention to the safety warnings and caution signs included. Keep this manual in a safe place for future reference.

2. SAFETY WARNINGS

CAUTION

We strongly recommend reading this manual thoroughly before proceeding with the installation and operation of these products. Installation, startup, and maintenance must be performed by qualified personnel. Failure to follow the instructions in this manual may result in equipment damage, material loss, severe personal injury, or even death.

CAUTION

This manual is intended for personnel responsible for the electrical installation, assembly, operation, and maintenance of the equipment. The responsible individual must ensure a safe environment and provide instructions and warnings regarding potential hazards to all personnel present at the site.

DANGER

Under no circumstances should the equipment be opened or handled without first disconnecting it from the power supply.

The equipment must be properly grounded before startup.

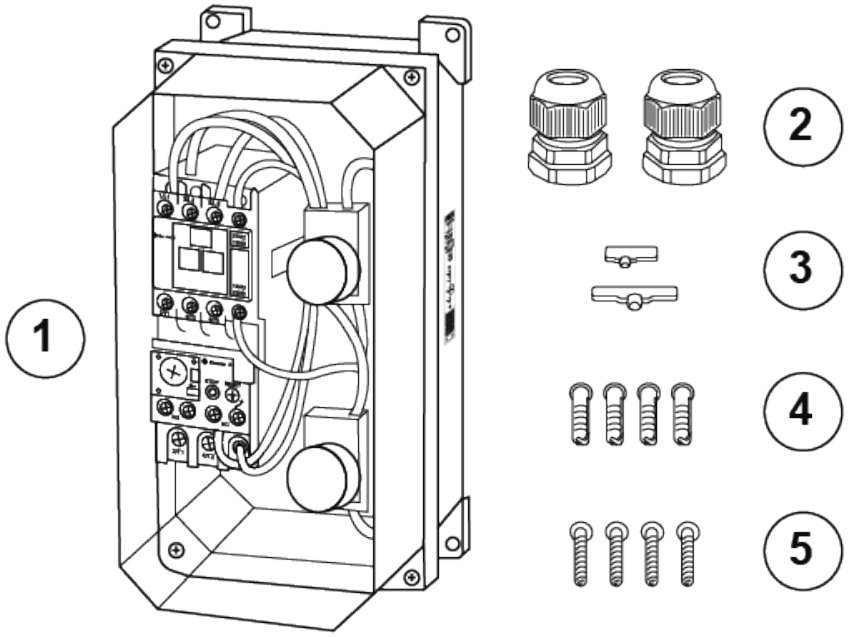
Ensure all electrical components are securely connected.

The mains voltage must be compatible with the rated operating voltage of the electrical components.

Always disconnect the power supply before performing any electrical connection.

3. PACKAGING CHECK

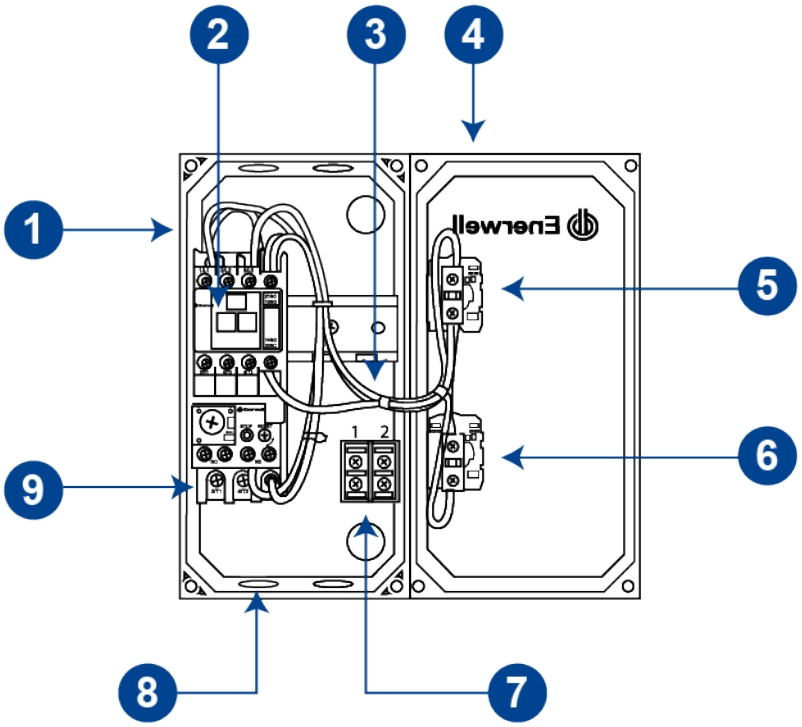
- Upon receiving the product, verify that all materials are complete, intact, and match your order.
- Inspect the product and its accessories for any damage, such as scratches, dents, or cracks.



NUMBER	DESCRIPTION	QUANTITY
1	FULL VOLTAGE STARTER	1 piece
2	PRESSACABLE GLANDS	2 pieces
3	BRACKETS	2 pieces
4	TACKETS	4 pieces
5	SCREWS	4 pieces

NOTE
If you detect any damage to the equipment, please contact your authorized dealer.

4. DESCRIPTION OF THE STARTER



POSITION	DESCRIPTION
1	PLASTIC ENCLOSURE WITH IP65 RATING
2	CONTACTOR
3	CONTROL CABLING
4	COVER
5	START BUTTON
6	STOP BUTTON
7	ADDITIONAL CONNECTIONS
8	SEMI-DIE-CUT HOLES
9	OVERLOAD RELAY

NOTE

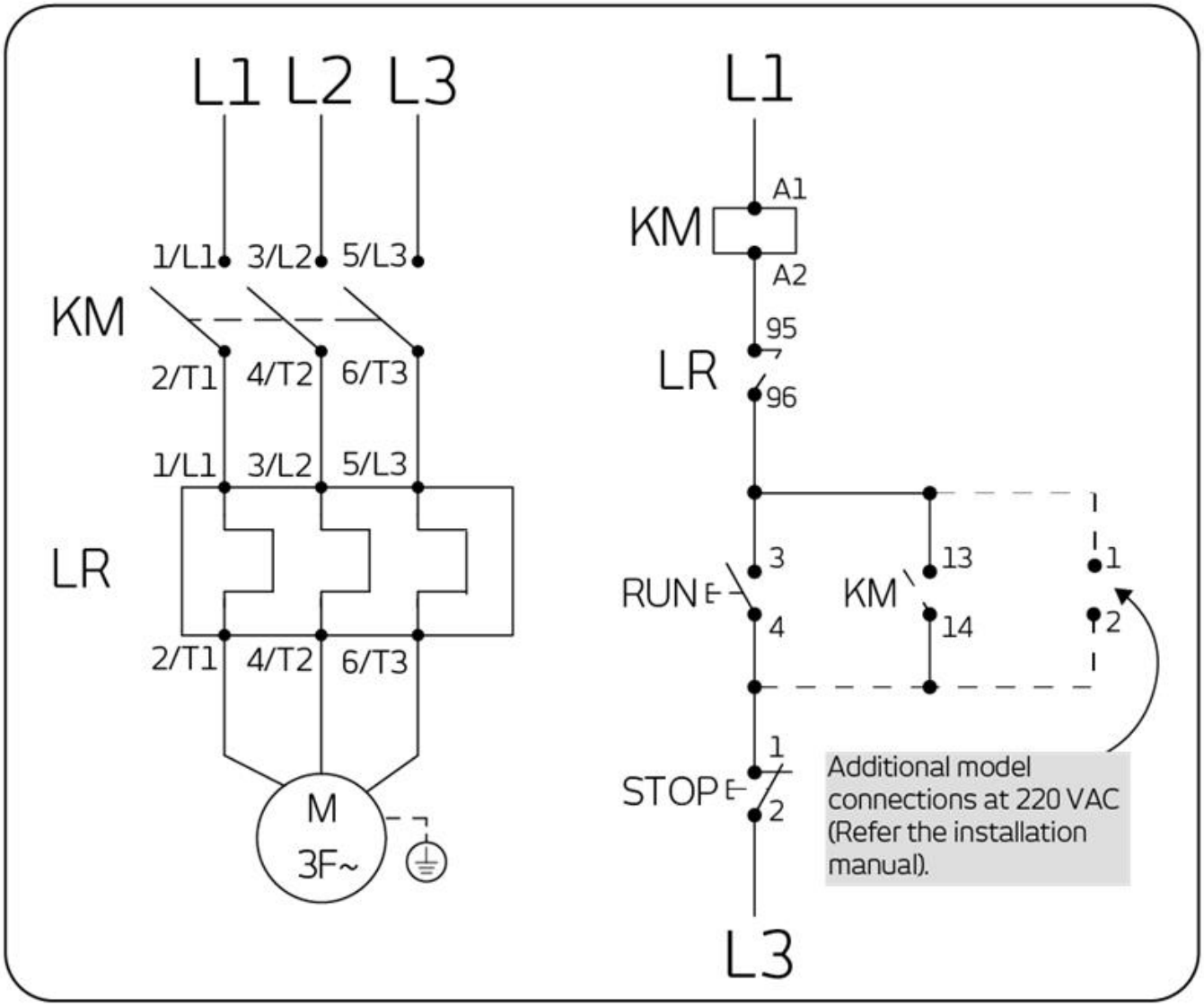
All models have additional connections, but only the 220 Vac model is ready to use them. For more information, see ADDITIONAL CONNECTIONS FOR STARTING/ STOPPING [10].

5. INSTALLATION

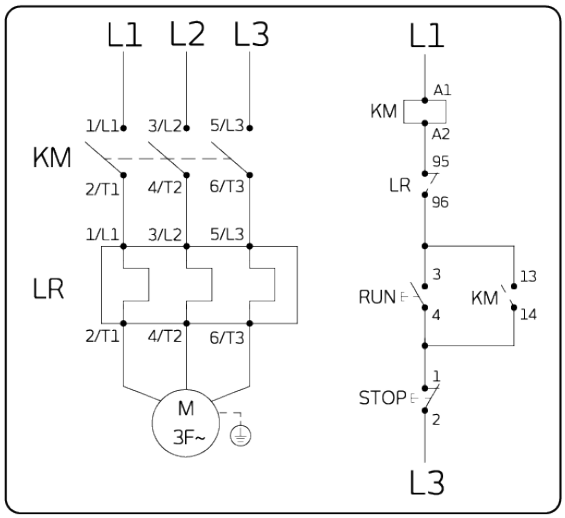
- Select a location that is protected from inclement weather, humidity, vibrations, high temperatures, and flammable materials or substances.
- The starter must be mounted on a flat surface in a vertical position, using all four attachment points to ensure stability.
- Allow sufficient space for the proper installation and connection of plumbing systems, as well as for future maintenance.
- After installing the starter, review the electrical diagram before proceeding with the connection.

5.1. ELECTRICAL DIAGRAM

220Vca FORCE AND CONTROL DIAGRAM



440 Vac FORCE AND CONTROL DIAGRAM



5.2. WIRING

The starter features semi-die cut perforations designed for connection with cable pressers or any compatible protective and cabling accessory.

CAUTION

It is recommended to use cable resins to protect the electrical cable and maintain watertightness.

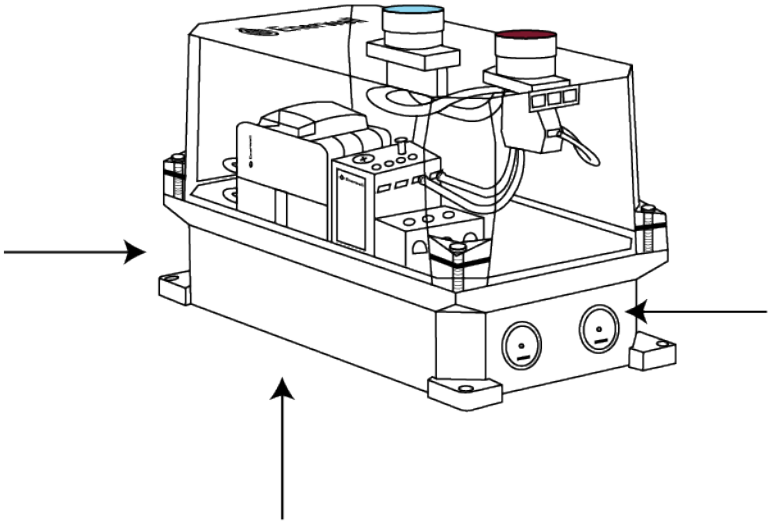
It is advisable to install a thermomagnetic switch before the starter with a capacity of at least 25% greater than that of the starter contactor, and in accordance with the voltage of your installation. This ensures that the power supply to the starter can be interrupted if necessary.

IMPORTANT

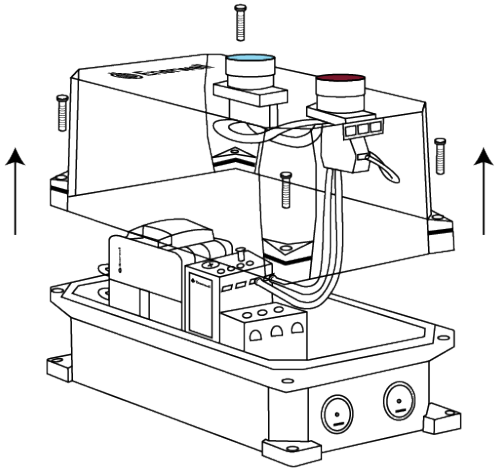
Identify and connect the power supply lines to the contactor input terminals labeled L1, L2, and L3. Choose a cable gauge that is appropriate for the load and the route.

Before connecting the motor, ensure that the maximum current is within the protection range of the starter and that the motor connection cable gauge is adequate. Once confirmed, connect the motor cables to the overload relay outputs labeled T1, T2, and T3.

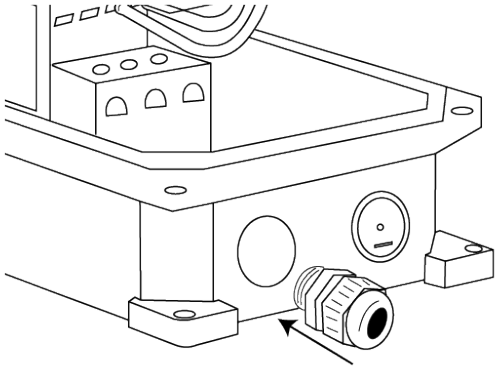
1. Based on the application needs and the installation of the cabinet, select the holes that will be used for electrical wiring.
   The plastic cabinet has a total of six semi-die-cut holes: two at the bottom, two at the top, and two at the back.



2. The plastic cabinet features a front cover fixed with four screws. To remove the cover, use a star screwdriver. Once the screws are removed, gently lift the cover.



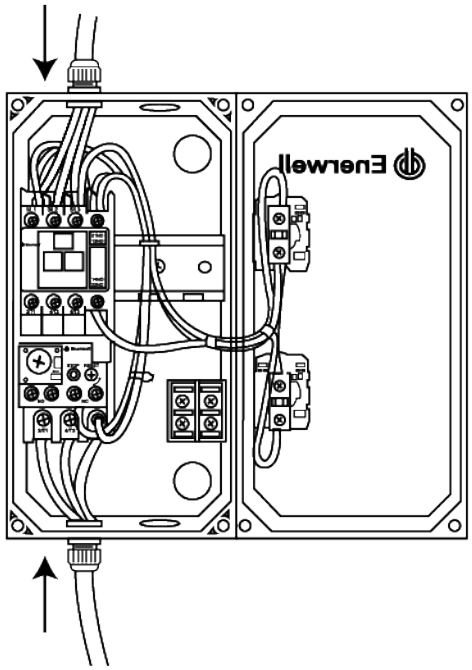
3. Install and secure the pressacable glands.



NOTE
The cabinet has two pressacable glands.

4. To perform electrical connections:
   - Identify the power cables to be connected to the contactor and the load cables to be connected to the overload relay.
   - First, ensure that the power or load cable is inserted through the gland adjustment nut. Then, pass the cable through the hole in the pressacable gland.
   - Properly connect the power and load cables using the terminals of both the contactor and the overload relay.
   - Tighten the nut on the pressacable gland to secure the cable and maintain airtightness.

Plastic cabinet wiring



NOTE
The 220 Vac model includes additional connections for external start and stop. For more information, refer to the section on external control connections. ADDITIONAL CONNECTIONS FOR START/STOP (only on 220 Vac models) [10].

5. Finally, replace the front cover and secure it to the cabinet using the four screws.

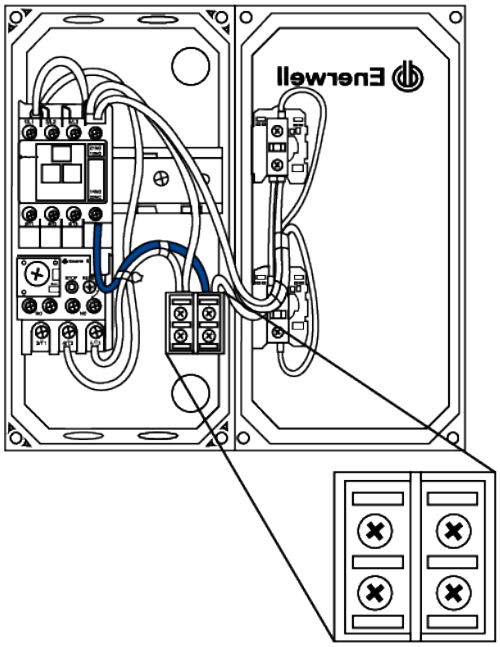
5.3. ADDITIONAL CONNECTIONS FOR START/STOP (only on 220 Vac models)

Thanks to a couple of additional connections in the starter at full voltage, it is possible to install an automatic control for starting and stopping the load connected to the starter. This can be achieved using a float, pressure switch, or any device capable of activating and interrupting the electrical energy.

The 220 Vac full voltage starter is already configured to take advantage of this function, but a simple modification to the electrical circuit is required first.

1. Identify inside the cabinet terminals 1 and 2 where the external device will be installed.

Terminals 1 and 2 for the installation of an automatic control.



WARNING
Before performing any manipulation or maintenance on the starter, be sure to disconnect the power supply.

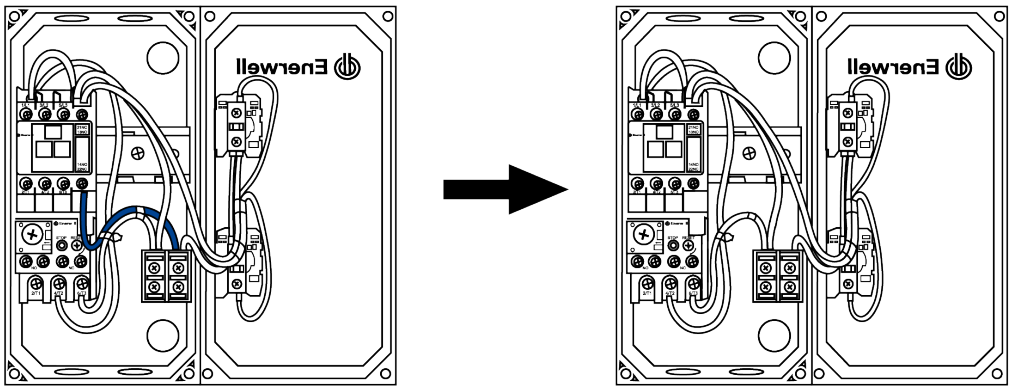
NOTE
Consider using a star-type screwdriver to adjust and unadjust the terminals and connections.

2. To install the automatic control, simply disconnect the blue cable from the contactor terminal or terminal number two of the additional connections.

IMPORTANT
It is recommended to completely remove the blue cable and store it in case you wish to revert to the original configuration.

If only the blue contactor cable is disconnected, it is recommended to isolate the end for safety reasons.

Disconnecting the blue cable.



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CAUTION

Everything mentioned in this section must be done by qualified personnel.

Keep in mind that only the cable specified in this step should be replaced.

Replacing any other cable may risk damaging the starter and the devices connected to it.

If the above applies, please refer to the electrical diagram attached to the starter or provided in this installation manual ELECTRICAL DIAGRAM [7].

6. START-UP

Before energizing, check that all the electrical connections of the starter and the motor are correct and there are no false contacts.

Using the overload relay, set the motor's current value. This value will be the indicator for activating the protection.

Once the aforementioned points have been confirmed and ensuring that the entire installation is ready to operate, energize the starter.

With the help of a voltmeter, confirm that the voltage is correct for both the starter and the load (motor pump).

Next, make sure that the top of the starter is fully attached to the bottom and that there are no obstructions or deformations that could affect the integrity of the equipment.

Pressing the green (start) button will energize the load.

Pressing the red (stop) button will interrupt the voltage to the load.

CAUTION
Do not press both buttons at the same time.

7. MAINTENANCE

It is recommended to periodically de-energize the equipment and ensure there is no voltage present. Then, perform the following steps:

Clean the surface of the starter by removing dust, dirt, and grease using a lint-free cloth, brush, or vacuum cleaner (Do not use compressed air, as it may introduce particles inside).

Avoid using aerosols or allowing petroleum-based chemicals, solvents, or paints to come into contact with the electrical connections, both inside and outside the switch.

Tighten the component terminals according to the torque values (Nm) specified for each item.

Inspect the power cable to ensure it is in good condition, with no signs of damage such as cracks, marks, or burnt copper wire.

Verify the internal components do not have marks of burns, blows, and are sufficiently fixed to the starter.