Magnetic Starter - 30A, 120/240V Coils

Wiring Guide
Introduction

This Magnetic Starter is a 3 phase, full voltage across the line starter with the coil factory wired for 208-240 volts (Figure B). It may also be wired for 120 volts. Check with the local power company to see if their power source is adequate for your requirements. Wiring diagrams are provided to show typical wiring schemes depending upon the pump model and desired coil voltage.

Safety Precautions

The following safety symbols are used throughout this manual to alert you to important safety hazards and precautions.

<table>
<thead>
<tr>
<th>EXPLOSIVE</th>
<th>FLAMMABLE</th>
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<tbody>
<tr>
<td>Fuels and their vapors are extremely explosive if ignited.</td>
<td>Fuels and their vapors are extremely flammable.</td>
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<table>
<thead>
<tr>
<th>ELECTRICITY</th>
<th>TURN POWER OFF</th>
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<tbody>
<tr>
<td>High voltage exists in, and is supplied to, the device. A potential shock hazard exists.</td>
<td>Live power to a device creates a potential shock hazard. Turn Off power to the device and associated accessories when servicing the unit.</td>
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**WARNING**

This magnetic starter is to be installed in systems operating near locations where highly combustible fuels or vapors may be present.

Fire or explosion resulting in serious injury or death could result if the equipment is improperly installed or modified. Serious contamination of the environment may also occur.

Read and follow all instructions in this manual, including all safety warnings.

Comply with all applicable codes including the National Electrical Code (NFPA70); the Automotive and Marine Service Station Code (NFPA30A); federal, state, and local codes; and other applicable safety codes.

**WARNING**

This magnetic starter contains high voltages which can be lethal. It is also connected to low power devices that must be kept intrinsically safe.

Do not connect the Magnetic Starter AC power supply wires at the breaker until all devices are installed.

Connecting power wires to a live circuit can cause electrical shock that may result in serious injury or death.

These starters are designed to be used with copper wire - DO NOT USE ALUMINUM WIRE!

**WARNING**

Explosive vapors or flammable liquids could be present near locations where fuels are stored or being dispensed.

The Magnetic Starter is not explosion proof. Do not install this device in a volatile, combustible, or explosive atmosphere.

An explosion or fire resulting in serious injury or death, property loss and equipment damage could occur if the Magnetic Starter is installed in a volatile, combustible, or explosive atmosphere (Class I, Division 1 or 2).
Troubleshooting the Installation

WARNING! Lockout and tag power before performing either of these two procedures.

1. If nuisance tripping occurs, check for proper heaters, loose connections, and severe arcing or pitting of contacts.
2. If the pump rotates backwards as evidenced by low pressure and flow, correct rotation by reversing any two of the three power wires to the pump.

NOTE: Coil above is wired for 230 V to pump motor, 120 V from Isotrol or dispenser switch. (Remove red wire connecting X2 to L2). Rewire red wires at coil.

NOTE: Coil above is wired for 230 V to pump motor, 230 V to dispenser switch.

LEGEND
- Overload heater
- Normally closed contact
- Normally open contact
- Screw terminal
- Wire added by installer
- Wire added by manufacturer
C
To 208/230V Supply
L1 L2 L3 N
Dispenser
NOTE: Coil above is wired for 230 V to pump motor, 120 V to dispenser switch. Rewire red wires at coil.

D
To Isotrol 120 V isolated output
L1 L2 L3

E
To Isotrol 220/240 V isolated output
L1 L2 L3

F
To 380/415V Supply
L1 L2 L3
Dispenser
NOTE: Coil above is wired for 400 V to pump motor, 230 V to dispenser switch.

G
Junction box in manifold
5-Wire electrical interlock
Extractable packer
Thermal overload protector

NOTE: Coil above is wired for 400 V to pump motor, 230 V from Isotrol or dispenser switch. (Remove red wire connecting X2 to L2). Rewire red wires at coil.
NOTE: Coil above is wired for 400 V to pump motor, 230 V from Isotrol or dispenser switch. (Remove red wire connecting X2 to L2)

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