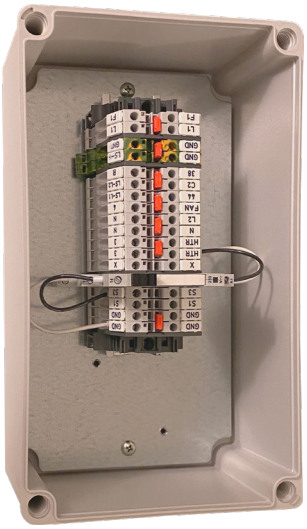
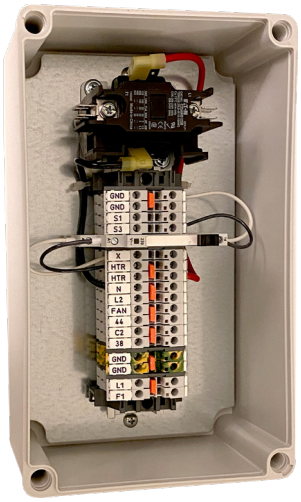
PHASEFALE

Terminal Connection Box only for
Phasefale TACmv2 Controllers



MCON-20



MCON-40

- **SAFETY GUIDE**
- **INSTALLATION**
- **WIRING GUIDES**

Revised: December 2020

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Introduction

The “MCON” Terminal Box, Designed to assist contractors with Installing a TACM Controller to a new or existing freezer. This solution Takes away the guess work, saving the contractor time and money.

The MCON can be mounted on top of the freezer box or on the side of the box, making it easy to connect the TACM controller to the evaporator. This solution eliminates wiring back to the condensing unit.

With all the terminals marked this creates a point-to-point wiring solution. Making it simple and easy to install wiring and troubleshooting.

Warranty

18 months from date of purchase or 12 months after installation date. For full warranty details visit phasefalecontrols.com

Specifications

Model: MCON-20

Input: 208-230VAC 50/60Hz

Heater Amps: **20A** 208-240 VAC 50/60Hz Resistive

Fan Amps: 20A 208-230 VAC 50/60Hz Resistive

Operating Ambient Temperature: 32°F - 104°F (0°C to 40°C)

Model: MCON-40

Input: 208-230VAC 50/60Hz

Heater Amps: **40A** 208-240 VAC 50/60Hz Resistive

Fan Amps: 20A 208-230 VAC 50/60Hz Resistive

Operating Ambient Temperature: 32°F - 104°F (0°C to 40°C)

Enclosure

Level: Waterproof IP67, NEMA 6X,

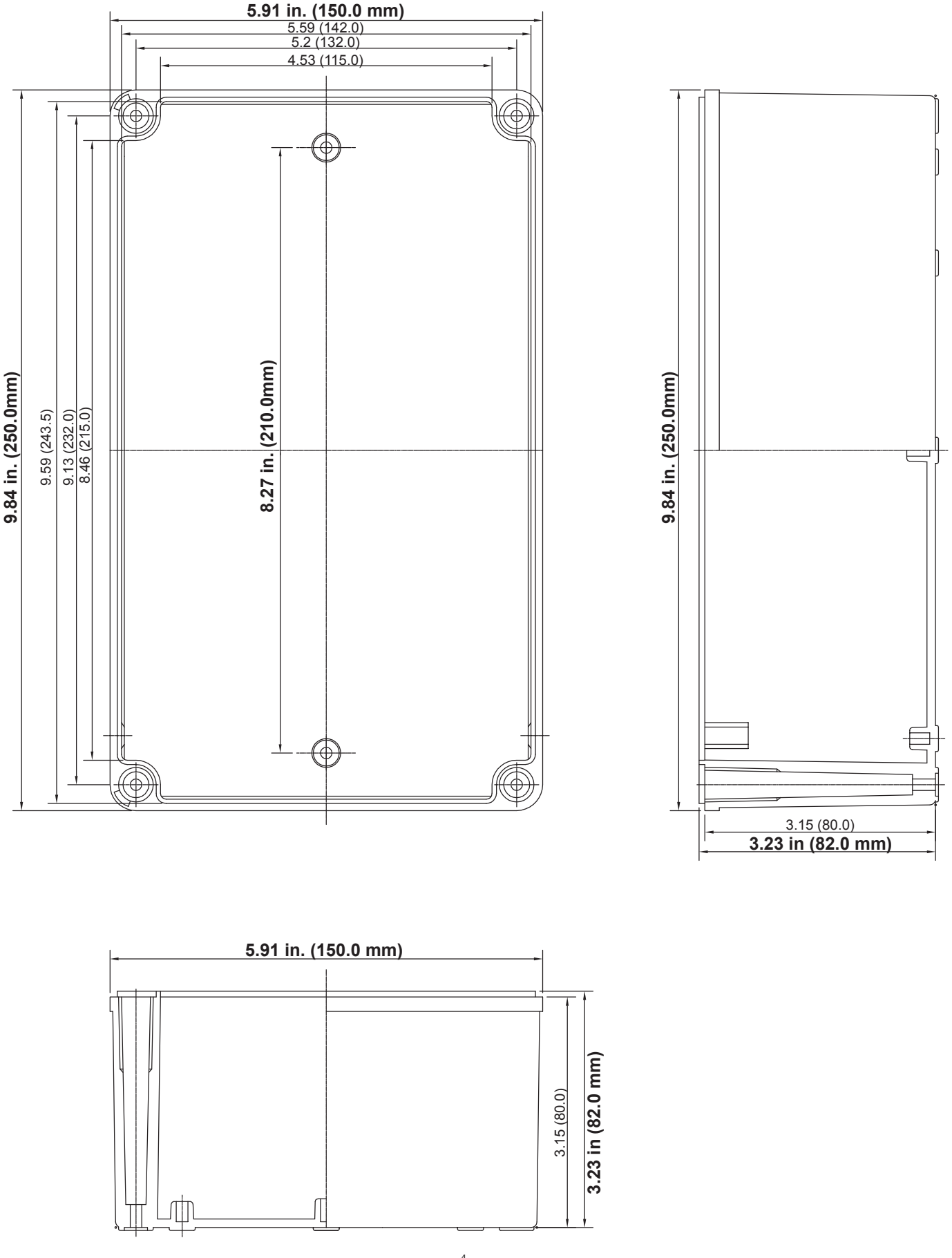
Impact test: IK08

Certification: UL508, CE, TUV, RoHS

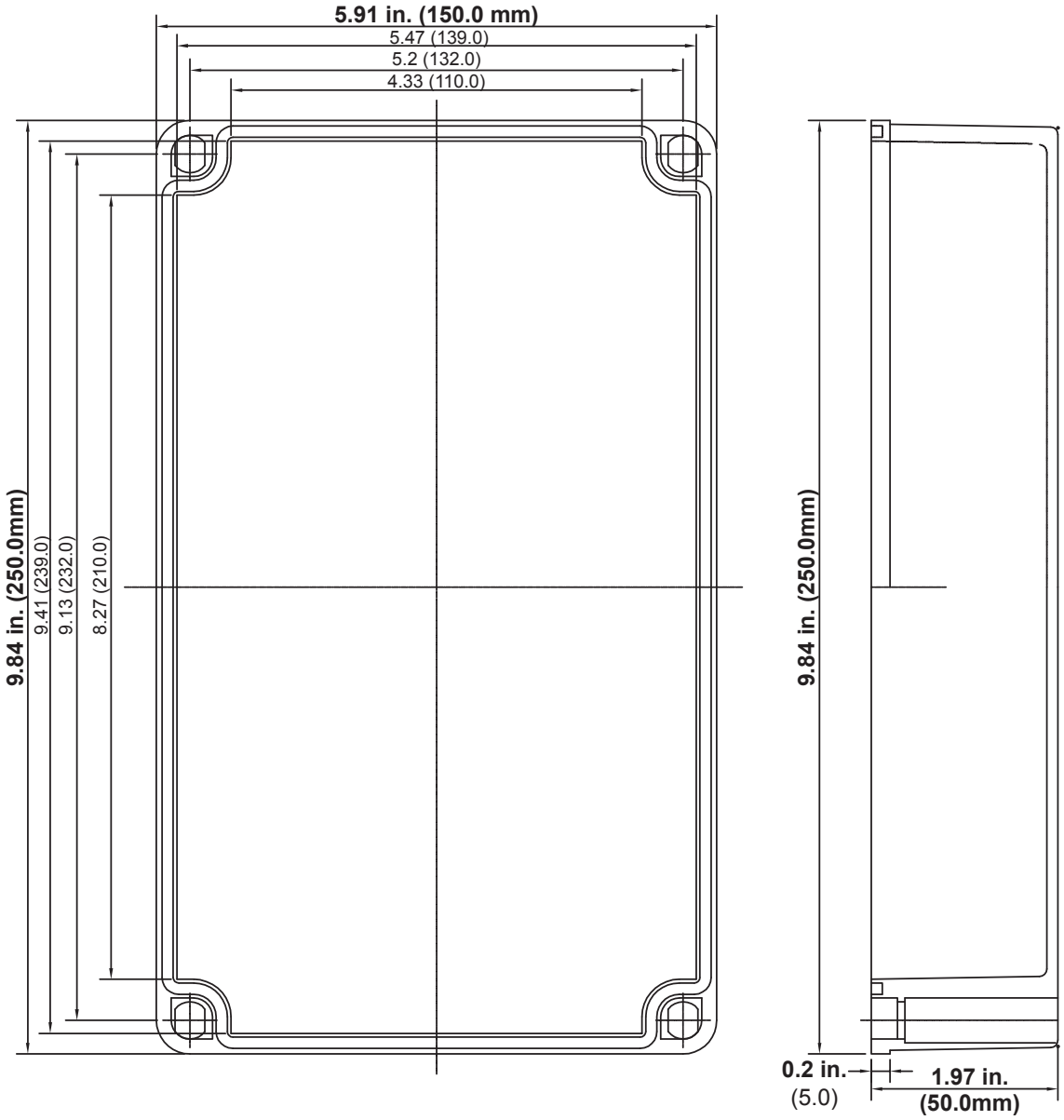
Temperature Range: Polycarbonate -40°C to 120°C (-40°F to 248°F)

UL94-V-0~5VA(Grey)

Enclosure Dimensions: Base



Enclosure Dimensions: Cover



Safety Information

The following instructions are written as a guide to qualified service personnel for proper installation, adjustment, and operation of this M-CON Terminal box. Read instructions thoroughly prior to attempting system installation and/or modification. Failure to follow the outlined instructions can result in improper installation and/or modifications, possibly resulting in fire, electrical shock, property damage, personal injury or death.

Before beginning any modification, be sure main disconnect switch is in the "off" position. Failure to do so can cause electrical shock resulting in property damage, personal injury or death. Tag disconnect with an appropriate warning tag. NOTE: There may be more than one power source.

Ensure that all field wiring complies with the equipment specifications and all relevant national and local codes.

In order to retain the manufacturer's warranty, the following provisions should be complied with when installing this unit:

(A) The supply voltage to the system must comply with the requirements

(B) The wiring equipped by the manufacturer must not be modified without the written consent of the manufacturer.

(C) All equipment shall be installed in compliance with the minimum clearances set out in the local, state and national electrical codes.

Installation Guidelines

The MCON terminal box is designed to be mounted on top of the Box or wall outside the Refrigerated Space.

The hardware and method of mounting should be sufficient to hold the weight of the enclosure.

In areas requiring water resistance, care should be taken during assembly

and installation to maintain NEMA 4 rating of enclosures.

The locations chosen should comply with the following Requirements:

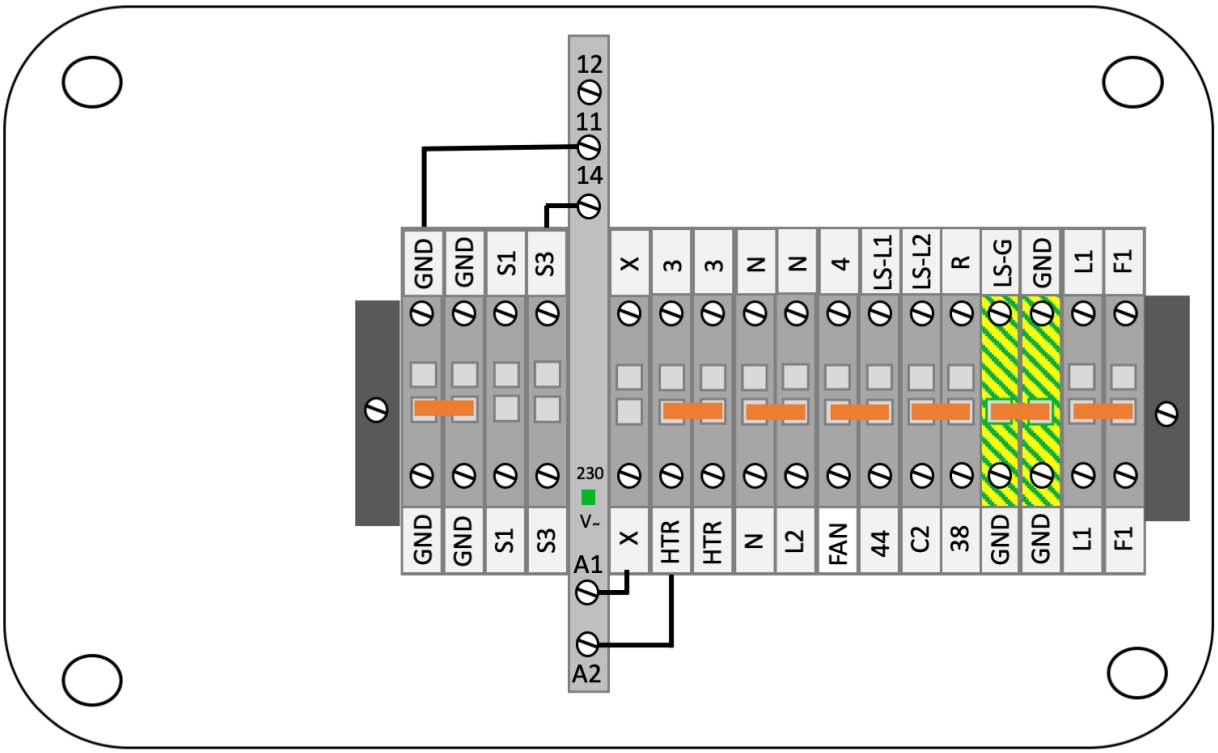
- Ambient temperature should be between 32°F and 104°F.
- Relative humidity should be less than 85%, moist environments can damage the equipment. Keep away from water, Steam and any other moisture causing environments
- Avoid installing panel near a Location that has excessive vibration.

Prestart Up

After the installation has been completed, the following should be checked, prior to the system being in service:

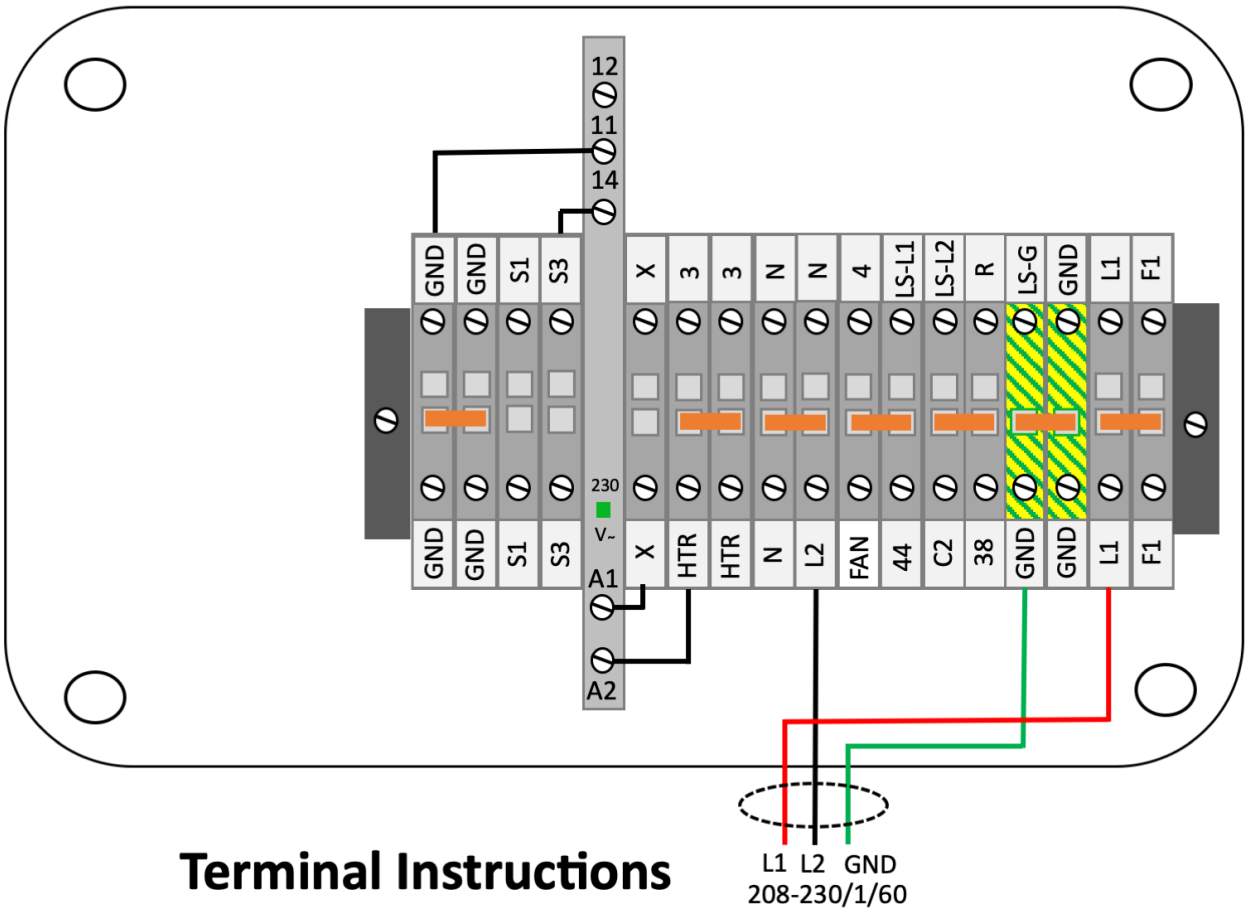
- Pre-Power Application
- Confirm the input voltage source, meets the specifications of the panel.
- Verify the field wiring follows the electrical wiring schematic
- Confirm all electrical connections. Make sure they are torqued correctly.

Legend

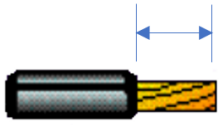


	ELV Connections
GND	**Ground From TACM ONLY**
S3	**Termination Input Voltage Free**
S1	**Room Temp Sensor Input**
	High Voltage
X	**X Terminal Termination From Evapoator**
3	**3 Terminal Defrost Heaters**
N	**N Terminal Neutral or L2**
4	**4 Terminal Fans**
LS-L1	**Liquid Solenoid L1**
LS-L2	**Liquid Solenoid L2**
R	**Relay Terminal 2 speed Relay**
LS-G	**Liquid Solenoid Ground Terminal**
GND	**Ground**
L1	**Line in**
L2	**Line in**
F1	**Power to TACM**
C2	**Fed to Liquid Solenoid From TACM**
HTR	**Fed From Heater Relay TACM**
FAN	**Feed from Fan Relay TACM**
44	**44 Terminal CM/LVCM ONLY**
38	**38 Terminal CM/LVCM ONLY**

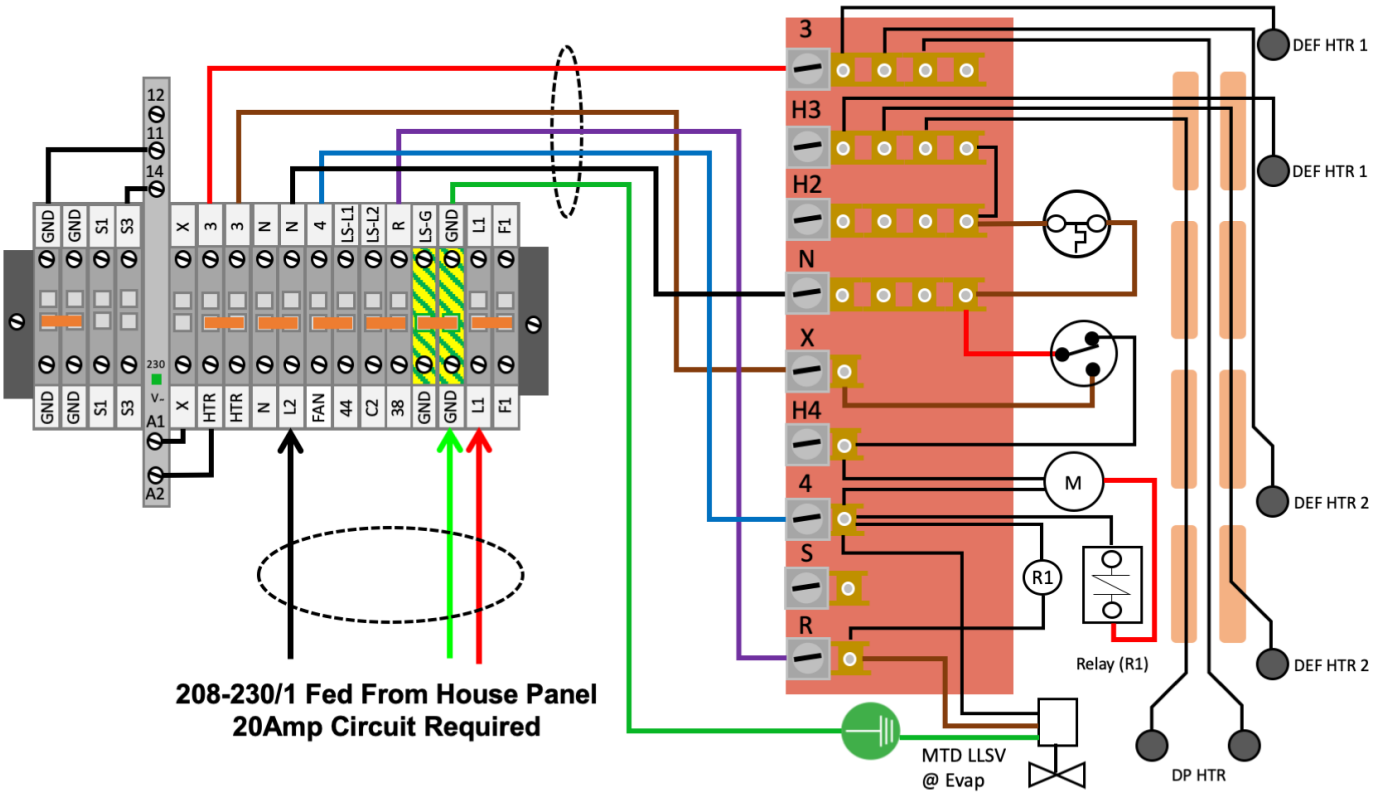
MCON-20



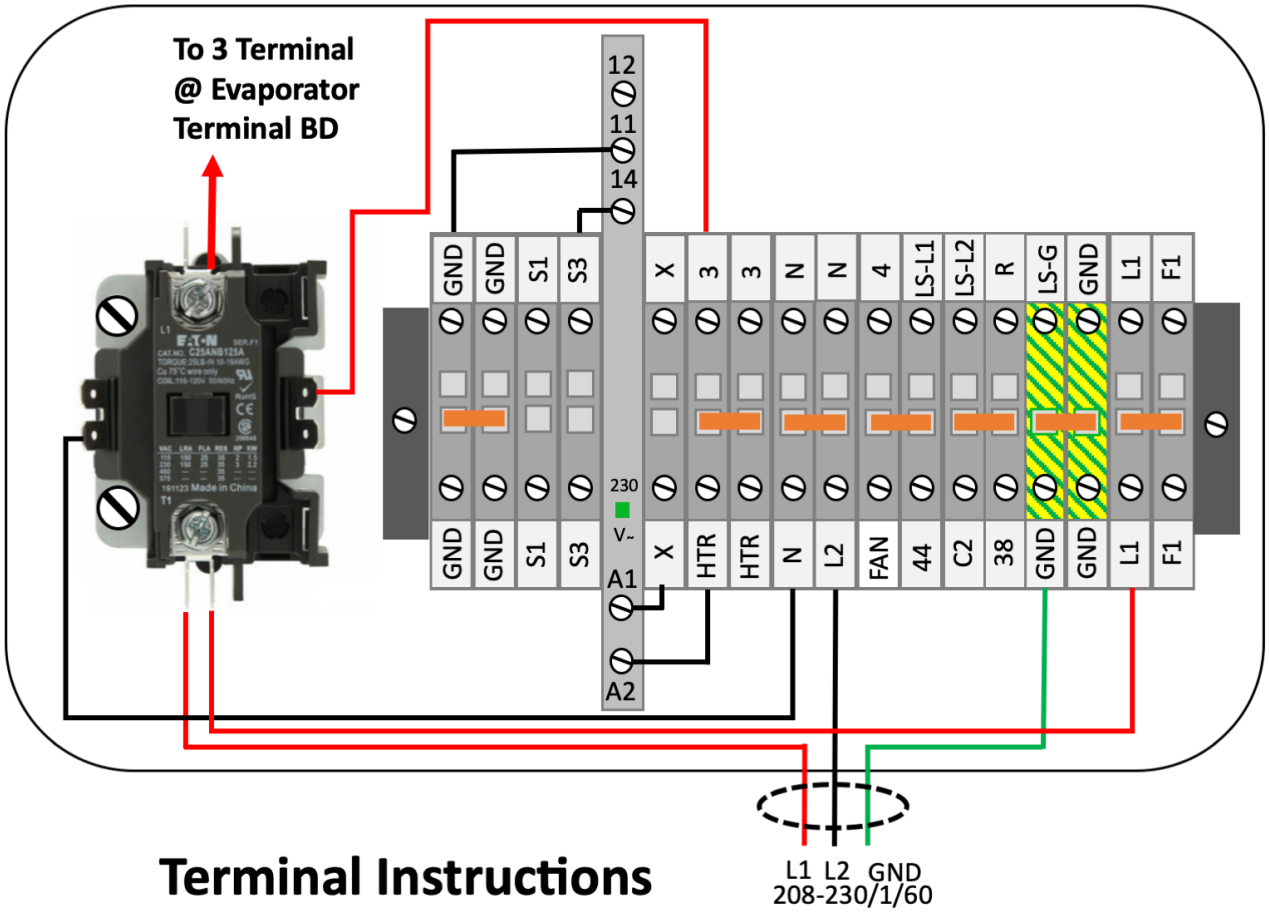
Terminal Instructions

Wire Stripping Length		10.5 mm 0.412 in
Tool		Flat Screwdriver Ø 4 mm Ø 0.157 in
Torque		0.85 Nm ± 0.15 7.52 lb.in ± 1.33

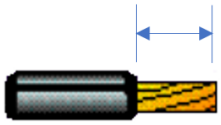
MCON-20
Typical High Voltage Connections with a Low-Profile Evaporator



MCON-40

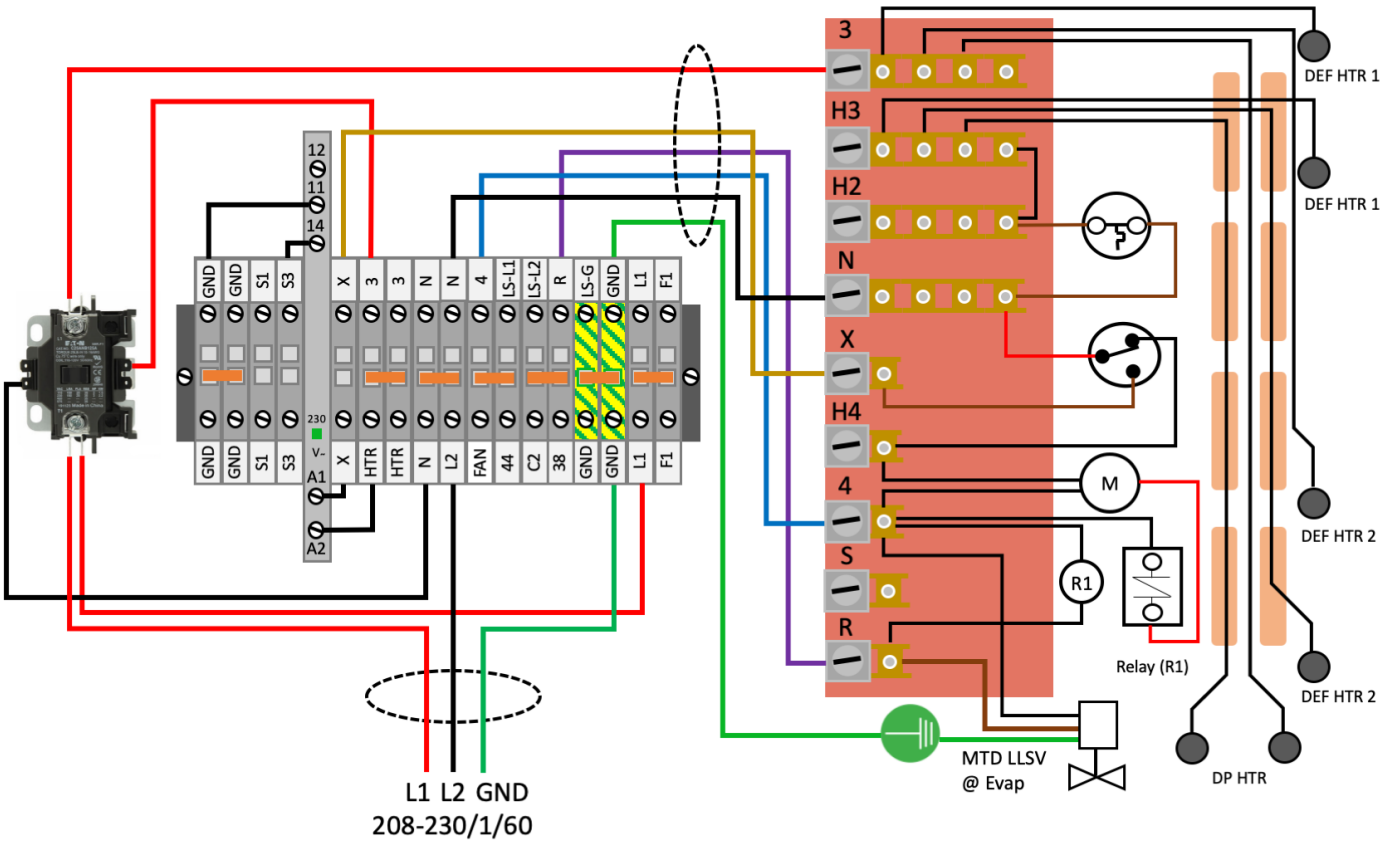


Terminal Instructions

Wire Stripping Length		10.5 mm 0.412 in
Tool		Flat Screwdriver Ø 4 mm Ø 0.157 in
Torque		0.85 Nm ± 0.15 7.52 lb.in ± 1.33

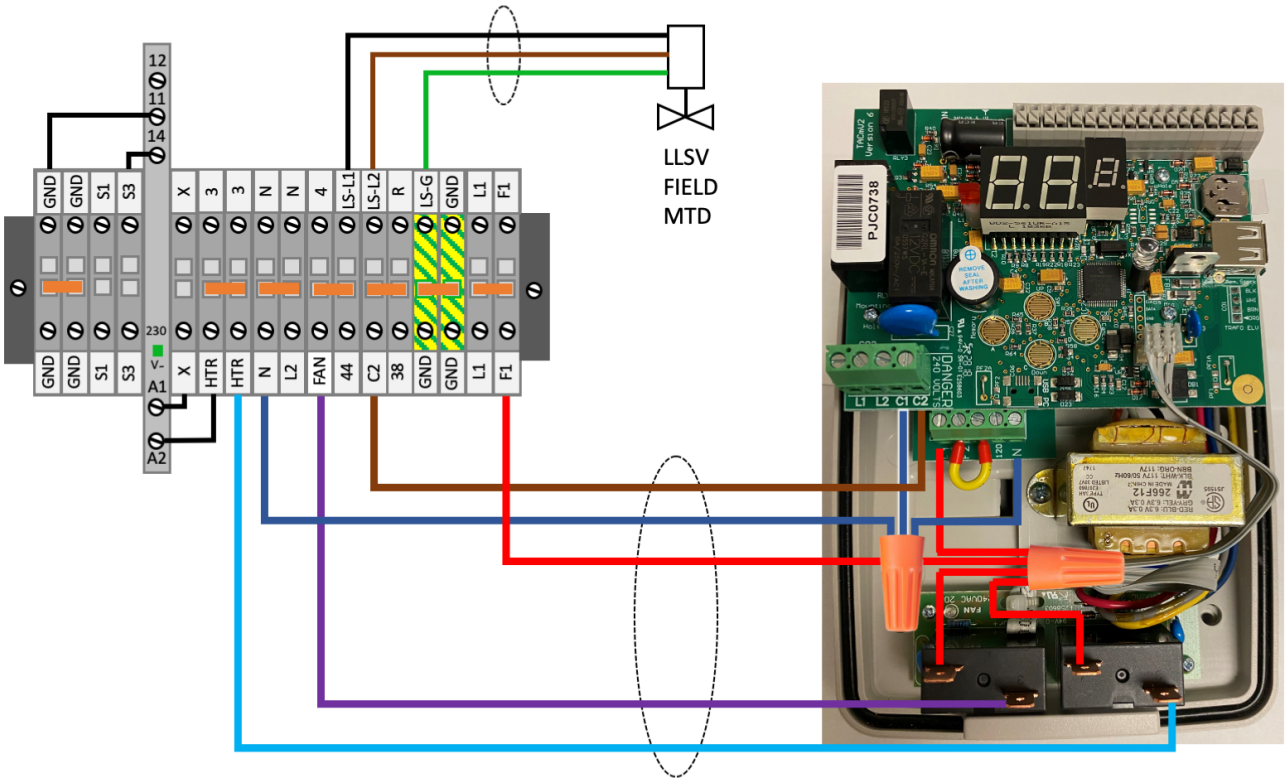
MCON-40

Typical High Voltage Connections with a Low-Profile Evaporator

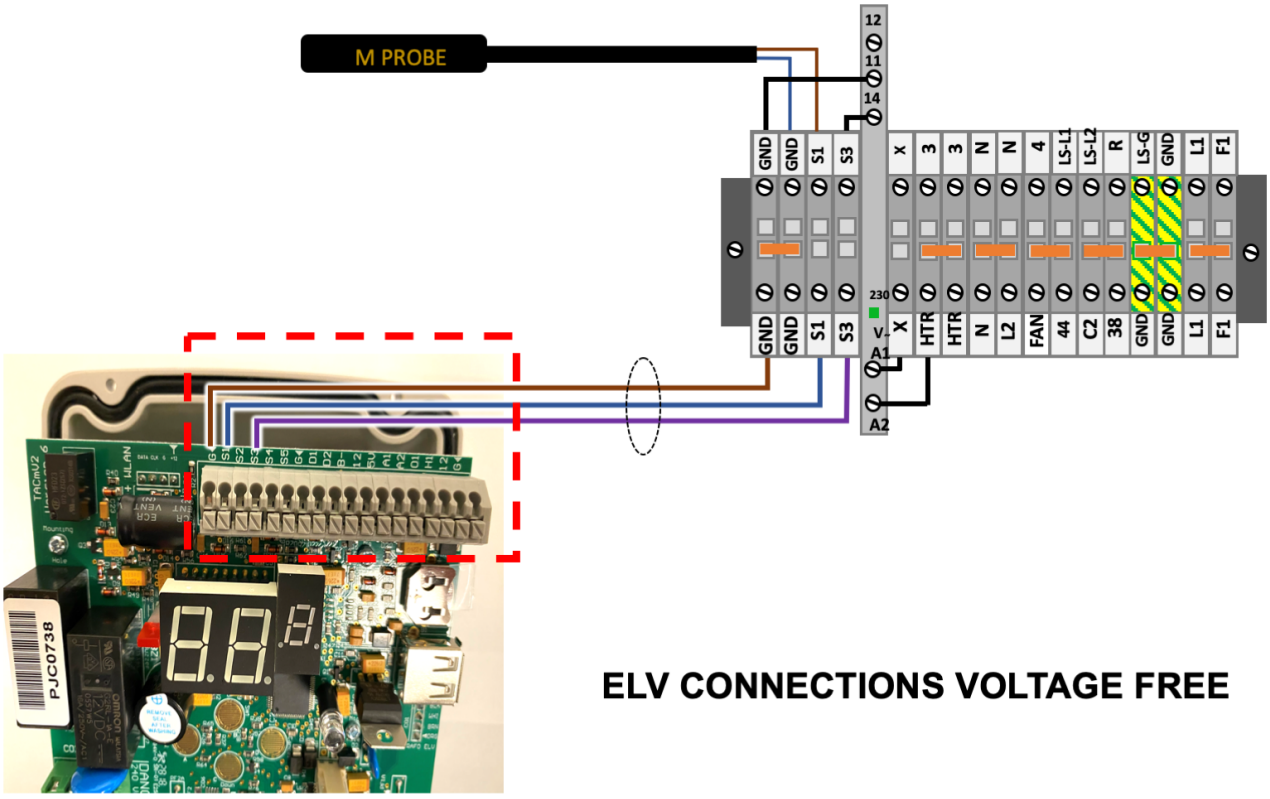


MCON-20 & MCON-40

Typical High Voltage Connections with a TACM Controller

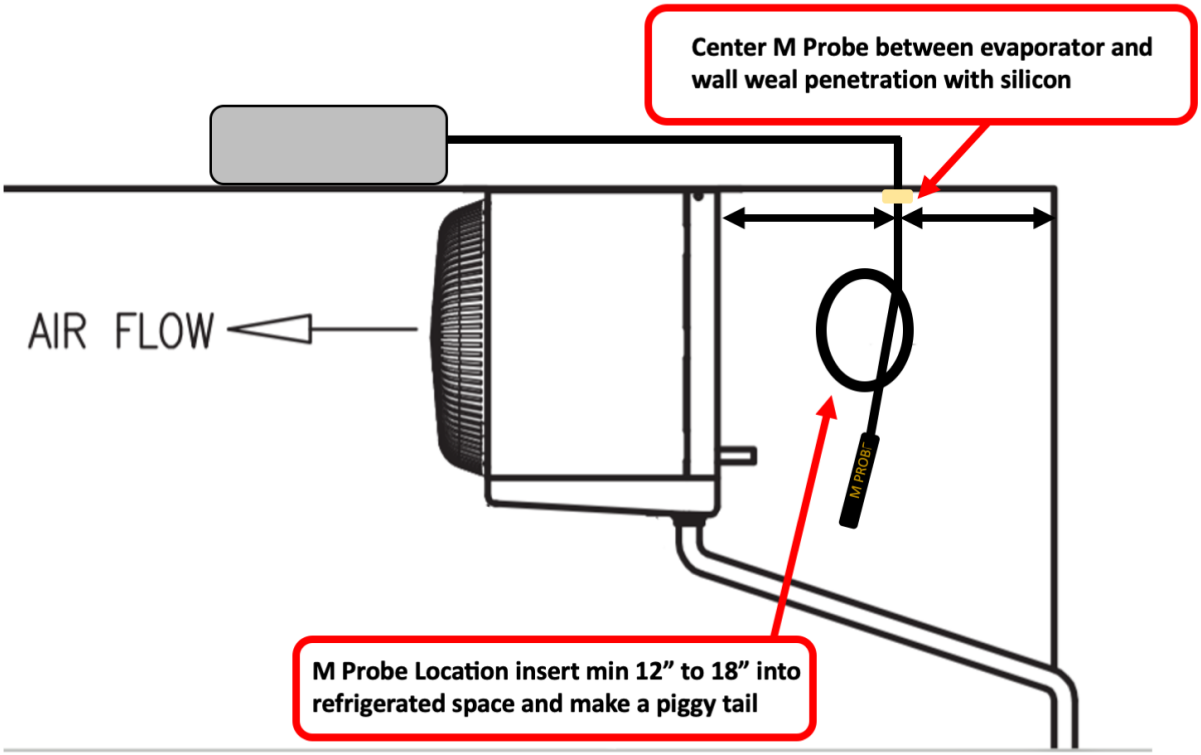


MCON-20 and **MCON-40**
Typical ELV Connections with a TACM Controller



ELV CONNECTIONS VOLTAGE FREE

M- Probe Installation



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Notes

For technical assistance call: (800) 235-1068

PhasefaleControls.com