



## **Lockout Procedure - TMC Motor Controllers May 2024**

### **A. General**

This procedure has been developed to assist anyone performing work on motor controllers or equipment activated by them. The primary hazard when working on this type of equipment is two or more power sources which need to be secured.

### **B. Compliance with This Program**

All employees who work on motor controllers, or who perform lockout of switches and breakers providing power to motor controllers, are required to comply with the restrictions and limitations imposed during the use of lockout.

Authorized personnel are required to perform lockout in accordance with this procedure. Authorized personnel in this case are electricians and HVAC technicians who have authority to turn off switches/breakers and lockout.

### **C. Sequence of Lockout – Authorized Employee**

- (1) Notify the individuals listed below that work will be performed on the motor controller and that the equipment must be shut down and locked out.
  - a. Those working in the area
  - b. Electrical Department Supervisor
  - c. HVAC Department Supervisor
- (2) Identify the location, type and magnitude of electricity used by motor controllers. Understand the hazards associated with electricity and methods to control it.

The following apply to the motor controllers:

**Electrical Hazard – Lockout (120 volts, single & 3 phase power)**  
**Electrical Hazard – Lockout (277-volt power)**  
**Electrical Hazard – Lockout (480 volts, 3 phase power)**

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- (3) Shut down the equipment using the normal procedures prescribed for the equipment. For air handlers, contact the HVAC supervisor or technicians to shut down the equipment.
- (4) Identify the electrical control panel and circuit breakers which provide power to the motor controller. Access electrical breaker near the machine and the electrical control panels for the equipment needing service.
- (5) Deactivate power by turning the breaker (s) at the machine or control panel for the control voltage (277v) and line/load voltage (480v, 3 phase) to the off position.
- (6) Using a voltmeter, check phase to ground and phase to phase to verify there is no power going out to the motor controller.
- (7) At the motor controller:
  - a) Move the "equipment control switch to the "neutral" or "off" position.
  - b) Move the disconnect/breaker or source of power to the "off" position.
- (8) The motor controller is now considered locked out. Anyone who is required to work on the motor controller may do so safely.

## **D. Restoration of Equipment to Service**

When work on the motor controller has been completed and the motor controller is to be returned to normal operational condition, the authorized employee shall perform the following:

- (1) Check area around and below the motor controller to ensure that nonessential items have been removed and that all components are operationally intact.
- (2) Check the work area to ensure that all employees have been safely positioned or removed from the area.
- (3) Verify that the disconnect at the motor controller is in the "off" position and the (HOA) are in the "neutral" or "off" position.
- (4) Remove the locks and lockout devices from the circuit breaker (s) at or around the machine.
- (5) Re-energize the motor controller by turning the disconnect to the "on" position or by contacting the HVAC Supervisor or HVAC Technicians.

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- (6) Moving the HOA to the “Hand” or “Auto” position.
- (7) Inform personnel in the area. Test the machine by turning on to ensure proper operation.
- (8) Notify affected employees (reference C (1)) that the work is complete and the equipment is ready for use.

Prepared by TMC Maintenance