Before installing the MWH Motor Winding Heater Controller thoroughly read the user manual. To download scan the QR Code to the right or visit motortronics.com (Mobile device friendly).



Installation & Wiring

Connection diagrams illustrate typical wiring connections. Use 75° C minimum wires.

Note: All wiring must comply with local codes, regulations and ordinances.



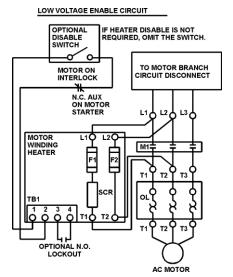
WARNING!

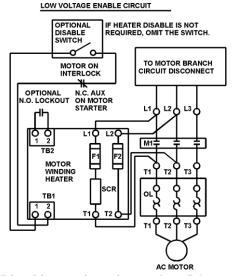
Do not service equipment with voltage applied. Unit can be the source of fatal electrical shocks.

- 1. Mount the MWH on a vertical panel with the line connection (L1, L2) at the top. Proper orientation is required to achieve proper convection cooling of the solid-state power device (SCR).
- 2. Remove the front cover of the winding heater for access to the power and control connections.
- **3**. Recommended fuse and power wire sizes for MWH:

MAXIMUM MWH AMPS	WIRE SIZE TYPE AWG	REPLACEMENT FUSE	
		F1	F2
10	14	Class T 600V 15 A	Class CC 20A Time Delay
25	8	Class T 600V 30 A	Class T 600V 70A
50	6	Class T 600V 60 A	Class T 600V 100A
80	2	Class T 600V 100 A	Class T 600V 150A

- 4. Connect L1 and L2 on the MWH to L1 and L2 on the magnetic contactor using the wire size recommended for your unit.
- **5**. Connect T1 and T2 to the load side of the magnetic contactor before the over load relay heater elements as shown below. Do not connect to the output terminals of the overload relay. Use the wire size recommended for your unit.
- 6. If your system utilizes a heater off-on switch, connect it in series with normally closed auxiliary contact on the motor starter to terminals 1 & 2 on TB1. Use AWG 16 wire for the circuit.
- 7. If your system does not utilize a heater off-on switch, connect the normally closed auxiliary contact directly to the terminals 1 & 2 on TB1. Note: The cover of the motor winding heater depicts the connection diagram (See wiring diagrams below).
- **8**. If required, connect the normally open contact from the motor overload to the overload connection as shown on the wiring diagram.
- 9. Replace the cover when all connections have been completed and checked.

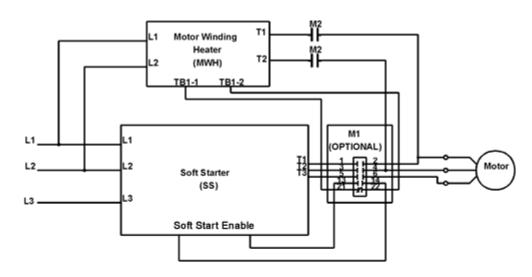


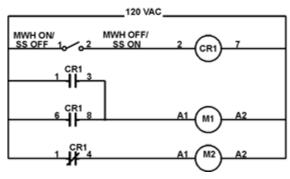


Wiring Diagram for units rated at 25 Amps

Wiring Diagram for units rated at 10, 50- and 80-Amps

- **10**. Included with each unit are two self-adhesive warning labels. Attach one warning label in a conspicuous place on the motor junction box and the other on the outside of the starter enclosure.
- 11. If the motor winding heater is to be paralleled with a soft start, the customer must provide an isolation contactor between the output of the MWH and the motor as shown in the figure below.





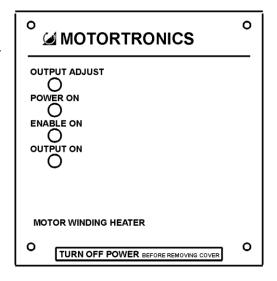
Wiring Diagram for units rated at 25 Amps

Operation & Start-up

- 1. Apply line voltage to the system. The "Power On" LED on the MWH should light. If the "Power On" LED does not light, it is an indication of a blown fuse or improper connections. Do not proceed until this is corrected.
- 2. If the motor starter is off and the "SW" circuit is closed, then the "Enable On" LED will be on. The MWH will turn on automatically in approximately 1 minute.
- **3**. The "Output On" LED will turn on when the MWH begins to apply voltage to the motor.
- **4**. The output voltage to the motor is factory set for 8% to 9% of the line voltage. (Measured with an RMS AC Voltmeter) Maximum range of this adjustment is approximately 15% of line voltage.

Note: Caution must be used when adjusting the output. Too high a setting may cause excessive heating in the motor.

- **5**. During initial start-up monitor the output current to the motor. Use a DC clamp-on ammeter. Output current must not exceed the rating of the motor winding heater unit.
- **6**. When the motor is starting the MWH automatically shuts off. It will remain off until the motor is turned off. The MWH will then turn on after approximately1 minute.



California Customers:

California Proposition 65 Warning

WARNING: this product and associated accessories may contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. For more information visit https://p65warnings.ca.gov