ICM409

3-PHASE VOLTAHE MONITOR

INSTALLATION

1. Disconnect or turn off power.
2. Tap off the main 3-phase line voltage and run field-installed wires to the ICM409 control.
3. The field-installed wires should have 1 amp fuses (rated for the voltage being used) installed in series with the ICM409.
4. Connect the field-installed wires to the L1, L2, and L3 screw-down connections.
5. Set the DOM time delay to a minimum for testing purposes.
6. Break one line of the control circuit and connect to the COM and N.O. screw-down connections on the ICM409.
7. The N.C. connection can be used as an alarm output.
8. Reapply or reconnect power.
9. After the DOM time delay, the unit should energize and the Green (load) LED should light.
10. If the Red (status) LED is on solid, reverse any 2 line voltage wires ***at the ICM409***. ***DO NOT CHANGE THE WIRING SEQUENCE TO THE CONTACTOR OR MOTOR/COMPRESSOR***.
11. If the Red (status) LED is flashing, make sure the voltage and unbalance levels are set correctly.
12. Set all parameters according to manufacturer's specifications.

MODE OF OPERATION

Designed in a small, easy-to-mount, DIN Rail style case, the ICM409 continuously monitors the incoming line voltage for errors. When the line voltage is appropriate, the ICM409 closes a set of N.O. contacts and lights a green LED. When the incoming voltage is outside of the user-set parameters, the N.O. contacts open up and the red LED will flash a code for the particular fault present. The control will also interrogate the line voltage during the fault condition to avoid short cycling and nuisance trips due to noise.

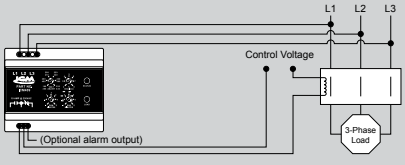
STATUS LED INDICATORS

- ***GREEN LED*** = Load ON
- ***RED LED***:
  - Solid = Phase reversal
  - 1 flash = DOM time
  - 2 flashes = Low voltage
  - 3 flashes = High voltage
  - 4 flashes = Unbalance voltage

SPECIFICATIONS

Conformal Coated Circuit: Conformal coated circuit provides use in extreme environment conditions
Connection Terminals: Screw-down terminals provide easy hookup for both line voltage and control circuit wires
Storage Temperature Range: -40°C to 85°C
Operating Frequency: 50-60 Hz
User Selectable Universal Voltage: 190-480 VAC
Power/Phase Loss Detection: Within 100 mS
Maximum Operating/Storage Relative Humidity: 95% Non-condensing
User Selectable Delay on Make (staggered start) Timer: .1 to 5 minutes
User Selectable Anti-Short Cycle (ASC)/Delay on Break Timer: .1 to 5 minutes
User Selectable Unbalance Voltage: 2 to 8% (trips after 6 seconds of unbalance condition)
Phase Reversal Detection: Detects phase reversal condition on power up
High/Low Voltage Cut-out: ± 12% – Detects within 100 mS
Relay Contact Ratings: N.C. Contacts: 10A resistive @ 250 VAC, N.O. Contacts: 10A resistive @ 250 VAC
Heavy Duty SPDT Relay Output: 10 AMP output to operate control circuitry

WIRING DIAGRAM



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