Made in USA

ICM400
Three-Phase Voltage Monitor



Stop Motor Burnouts!

High performance, low cost model, front and back side protection, 7 bright fault LEDs, integral short-cycle protection, easy set up, fully adjustable features, 190 to 630 VAC...



3-Position Reset Switch, 50/60 Hz...

- *Choose from 3 easy-to-select reset modes*
  - *Full Manual, Full Automatic, Auto Front/Manual Back*

Features

- **Bright LEDs Show Modes and Identity Faults**
  - Load energized LED
  - Lockout LED
  - Back fault LED
  - Low voltage LED
  - Control voltage LED
  - Front fault LED
  - High voltage LED
- **Knob-adjustable Variables**
  - User may easily select and adjust setpoints on unit:
    - Line voltage: 190 to 600 VAC
    - Voltage unbalance: 2 to 25%
    - Delay on break period: .1 to 5 minutes
    - Fault interrogation: 1 to 15 seconds
- **Low Cost, High Performance**
  - Full line protection and fault identification without costly LCD readout
- **Integral Delay on Break Timer**
  - Knob-adjustable from .1 to 5 minutes, helps prevent rapid system recycling
- **Easy to Install and Configure**
  - Wiring diagram on unit
  - Installation and application guide included

Mode of Operation

At power up, the **ICM400** evaluates the incoming power for proper phase sequence, amplitude, and symmetry (voltage unbalance). If the three phase input at the line side connections is within user set parameters, the internal relay is energized and the load energize LED is turned on. Continuity will be across terminals 4 and 6.

If connections are made to the load side terminals, the **ICM400** will transfer monitoring over to the load side only. When a critical fault condition (phase loss or phase reversal) is present, the relay will immediately de-energize and the load energize LED will turn off. Continuity will be across terminals 4 and 5.

If a non critical fault condition (unbalance, high or low voltage) is present, the **ICM400** will ignore it for the interrogation delay time. If it is still present following the interrogation delay time, the relay will de-energize and the load energized LED will turn off. Continuity will be across terminals 4 and 5. The relay will not energize if any fault conditions exist. The integral adjustable delay on break timer will prevent short-cycling.

Specifications

Input
- ***Line Voltage:*** Universal (190-630 VAC)
- ***Frequency:*** 50/60 Hz

Output
- ***Type:*** Relay
- ***Form:*** SPDT
- ***Voltage Range:*** 240 VAC (maximum: 10 amps)
- ***Frequency:*** 50/60 Hz

Contactor Load Side (Back)
- ***Line Voltage:*** Universal (190-630 VAC)
- ***Frequency:*** 50/60 Hz
- Load side monitoring is optional

Control Operating Temperature
- ***Operating Temperature:*** -40°C to +75°C (-40°F to +167°F)
- ***Storage Temperature:*** -40°C to +85°C (-40°F to +185°F)

Phase Unbalance Protection
- ***Voltage Unbalance:*** 2 to 25% adjustable

Over/Under Protection
- ***Under:*** Fixed at ±12%
- ***Over Voltage:*** Fixed at ±12%
- ***Hysteresis:*** ±6%

Phase Loss Protection
- Phase Loss condition = <25% of nominal for any given phase. System will shut down should this condition occur.

Delay on Break Timer
- ***Control Voltage:*** 18-240 VAC
- ***Time Delay:*** .1 to 5 minutes adjustable

Fault Interrogation Delay
- ***Time Delay:*** 1 to 15 seconds adjustable
- Provides a delay between fault detection and system shutdown, eliminating nuisance trips/unnecessary shutdowns

Mechanical
- ***Mounting:*** Surface mount using (2) #8 screws
- ***Termination:*** Screw terminals
- ***Weight:*** 12 ounces (341 grams)
- ***Dimensions:*** 6.5" x 4.25" x 1.4" (16.5 x 10.8 x 3.5 cm)

Installation and Setup
- Application Guide included with unit

All features and specifications subject to change without notice.

Phone
315.233.5266

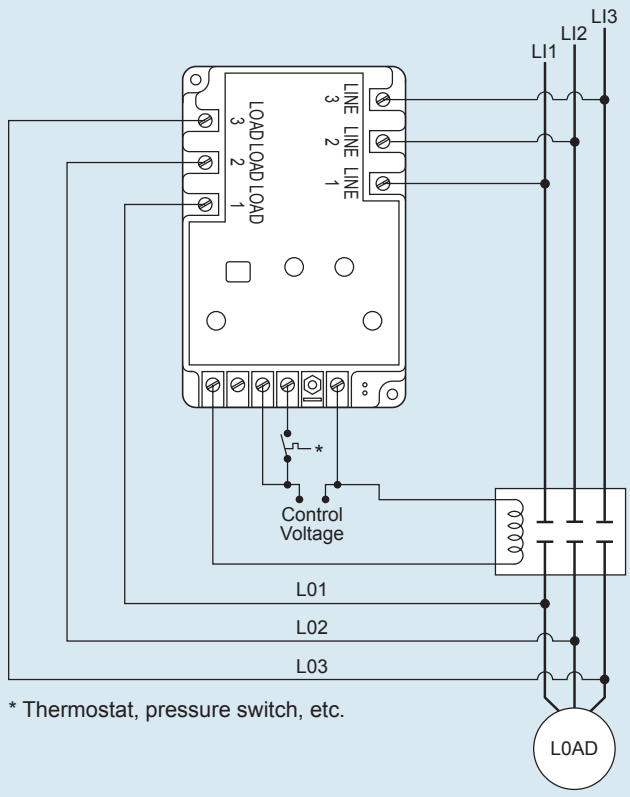
Application Assistance
800.365.5525
visit us at: www.icmcontrols.com

Fax
315.233.5276

ICM CONTROLS™

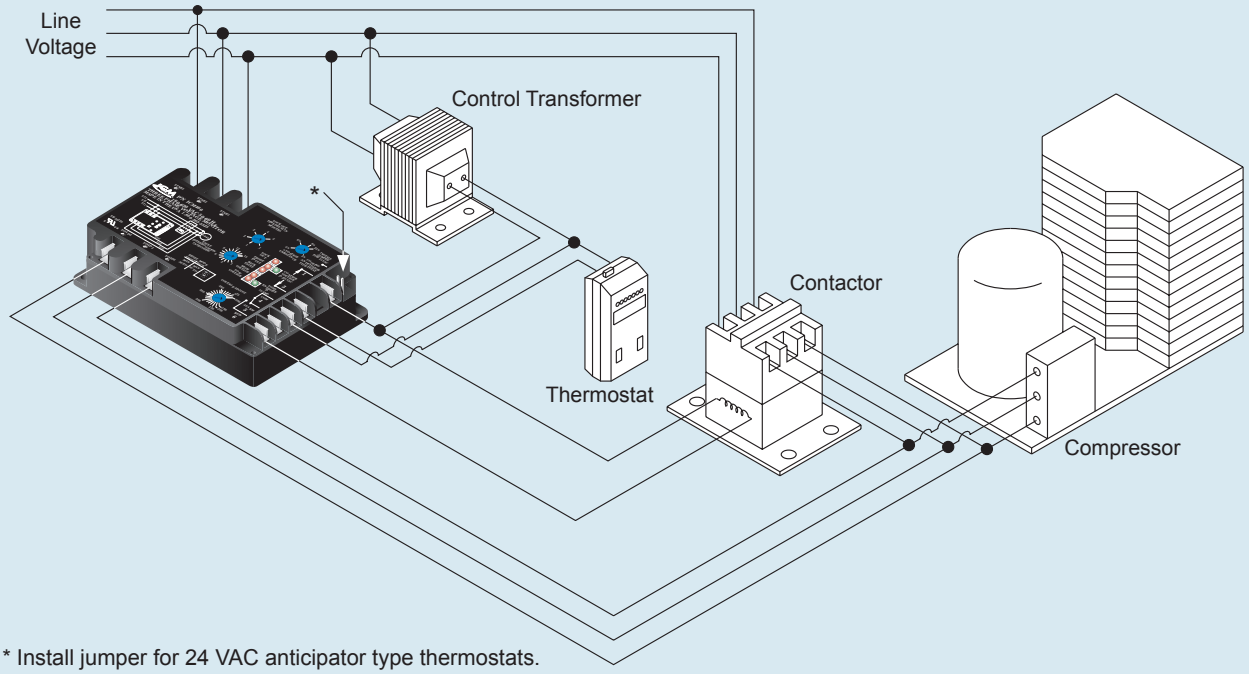
Made in USA

Wiring Diagram



* Thermostat, pressure switch, etc.

System Diagram



* Install jumper for 24 VAC anticipator type thermostats.