

RACO



Current Monitoring Relay

- MCC or Panel Mount

- Fault Latch

- Easy to use

- Form C Output Relay Contacts

- Available in five Current Monitoring Ranges

Thrust Overload Protection via Current Monitoring

Introduction

The actuator motor current monitoring relay (CMR) operates in the fail safe mode as the relay is energized when the monitoring AC motor current is normal and the actuator is within its thrust range. The relay de-energizes when the actuator motor current rises above the preset trip point, which then represents an over-thrust condition or that the control voltage has been removed. When the actuator motor current is initially applied, a time delay begins. This inhibits the over current sensor, while high inrush currents are present. The delay time is factory set and is set so the delay period is slightly longer than the inrush time of the actuator motor. If the monitored actuator motor current is above

the factory present trip point when the delay elapses, the relay de-energizes. (Figure 1) If the current drops to the normal run current of the actuator motor prior to the completion of the delay period, the relay remains energized until current rises above the trip point, which indicates an over-thrust condition. At that time the relay de-energizes and remains locked-out until the reset button is pressed or the control voltage is interrupted, and re-applied. (Figure 2). An external CT may be used to extend the range of the CMR.

Current Monitoring Relay

OPERATION

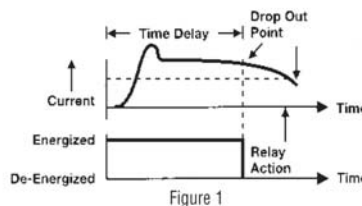


Figure 1

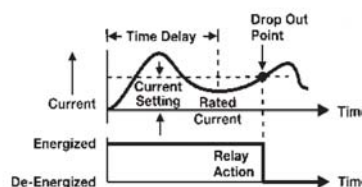
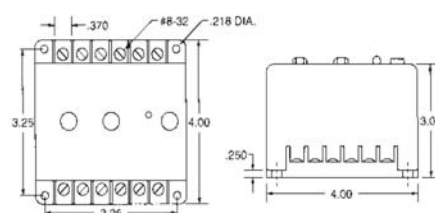


Figure 2

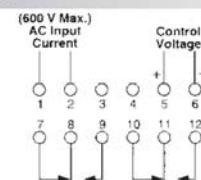
DIMENSIONS (INCHES)



SPECIFICATIONS

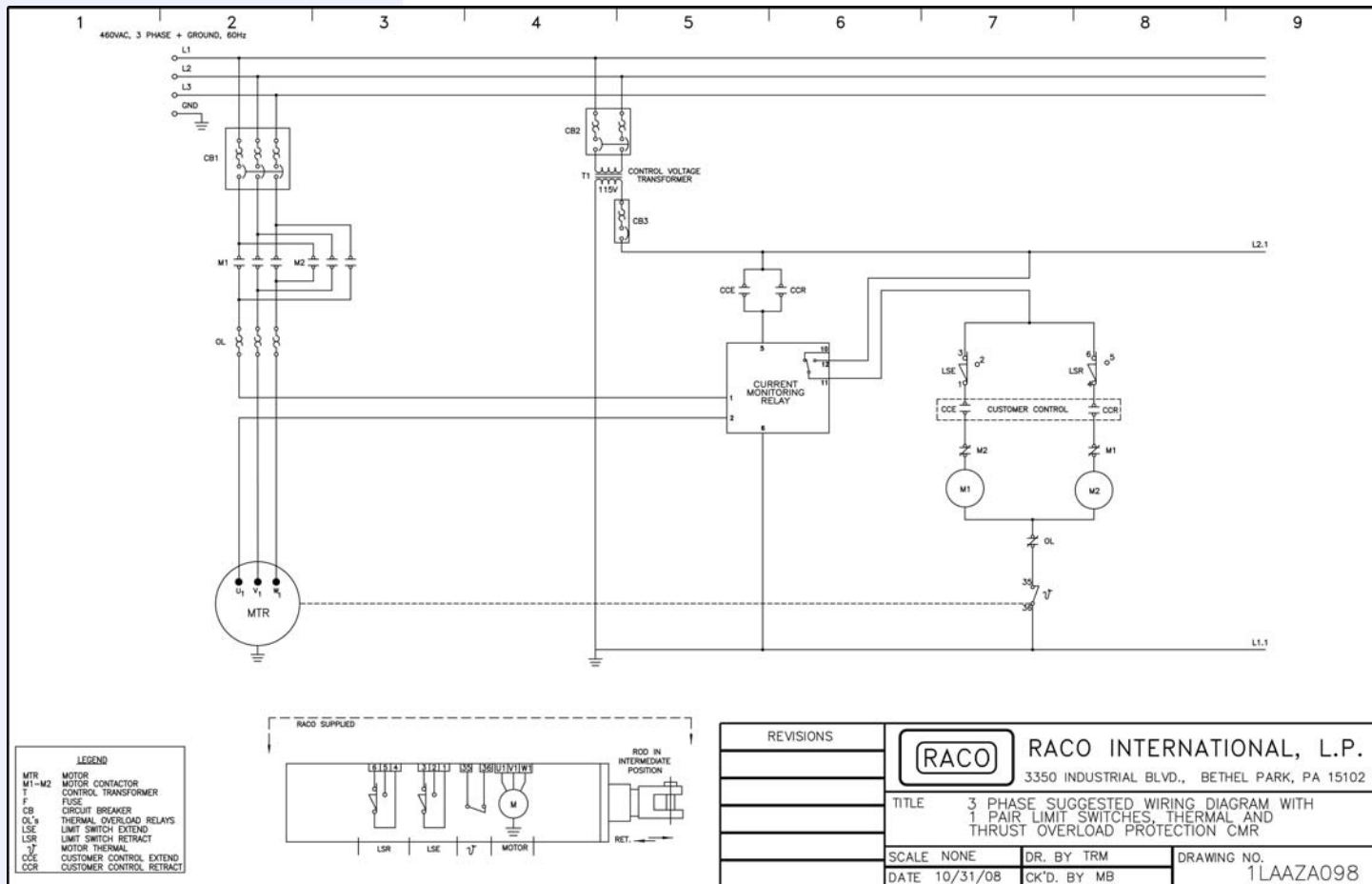
CONTROL VOLTAGE	24 or 120 VAC/VDC, 50/60 Hz	
TRIP POINTS	Pick-up	See Order Information
	Drop-out	Press Reset Button or Restore Control Voltage
OUTPUT	DPDT, 10 Amps @ 120 VAC, Resistive	
TIME DELAY	0.2 to 10 SEC, Adjustable On Motor Starting	
OPERATING TIME	50 mSEC (After Initial Delay has Timed Out)	
CURRENT WITHSTAND	20 Times Nominal for 1 Second	
ISOLATION	2500 Volts Between Input and All Other Terminals	
INDICATOR	Glows on Normal Current	
RESET	Manual, Press Button or Interrupt Control Voltage	
RESET TIME	100 mSEC After Lock-Out	
TEMPERATURE RATING	Operate	32° to 131°F (0° to +55°C)
	Storage	-49° to 185°F (-45° to +85°C)
ENCLOSURE	Lexan Surface Mounted; #8-32 Screw Terminals	
WEIGHT	11 oz.	

WIRING



Wiring Diagram

Example



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