



## AUTOMATIC TIMING & CONTROLS

DIVERSIFIED ELECTRONICS DIVISION

### PROTECTS AGAINST

- Voltage: Under/Over/Unbalance
- Current: Under/Over/Unbalance
- Single Phasing
- Phase Reversal
- Rapid Cycling
- Ground Fault (Class II)
- Motor Jams

### FEATURES

- True RMS Monitoring
- Up to 1500 Amp Loads
- 3 External Clamp-On C.T.'s
- 9 Programmable Trip Points
- 9 Programmable Alarm Points
- Programmable Trip Class (5, 10, 15, 20, 30)
- 2 RTD Lead Compensated Temperature Inputs
- Time Tagged Fault History (16 Events)
- Power-up Auto Diagnostic
- DPDT Output; SPDT Alarm Output
- Built-in Real-Time Clock
- 2 x 16 Vacuum Fluorescent Display
- No Control Voltage Required
- All English Programming (Scrolling Menu)
- RS485 Modbus RTU output

### DESCRIPTION

The MotorGuardian™ is a microprocessor based overload relay, designed to provide protection for 3-Phase AC motors. It offers a broad range of features in one compact package providing a cost effective solution for monitoring and managing motor performance. A unique feature of the The MotorGuardian™ is its ease of installation. It is provided with Clamp-On C.T.'s that can accommodate up to 1500 ampere loads. Actual motor operating conditions are accessed by the scrolling menu and viewed by a two line highly visible vacuum fluorescent display. Fault conditions are also displayed indicating the specific cause of the occurring fault.

# The MotorGuardian™

## MOTOR PERFORMANCE ANALYZER

**NEW!**

The Next Generation of  
Electronic Overload Relays

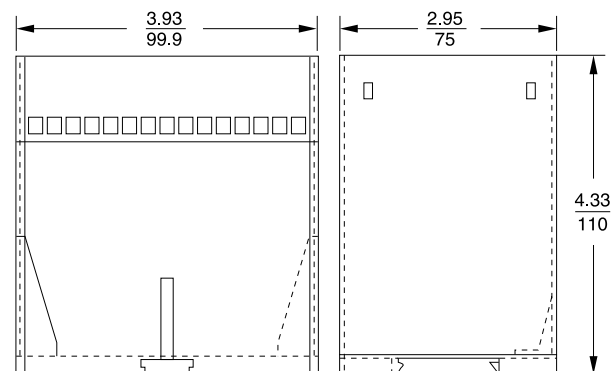


LISTED

**DIN Rail/Surface Mount**

### DIMENSIONS

INCHES  
MILLIMETERS



### SPECIFICATIONS

Input Voltage:	200-500 VAC 3-Phase (Nominal)
Frequency:	50/60 Hz
Phase Sequence:	ABC (will not operate CBA)
Output Contact:	DPDT; Form "C" 10 A @ 240 VAC
Alarm Output:	SPDT; Form "C" 10 A @ 240 VAC
Control Voltage:	None Required

### RELAY ACCURACY

Voltage:	±1%
Current:	±1%
G.F. Current	±10%
Timing	5% ±1 Second

- TIMING DELAYS**
- Restart Delay #1:

Rapid Cycle Timer;  
0-999 Sec.
- Restart Delay #2:

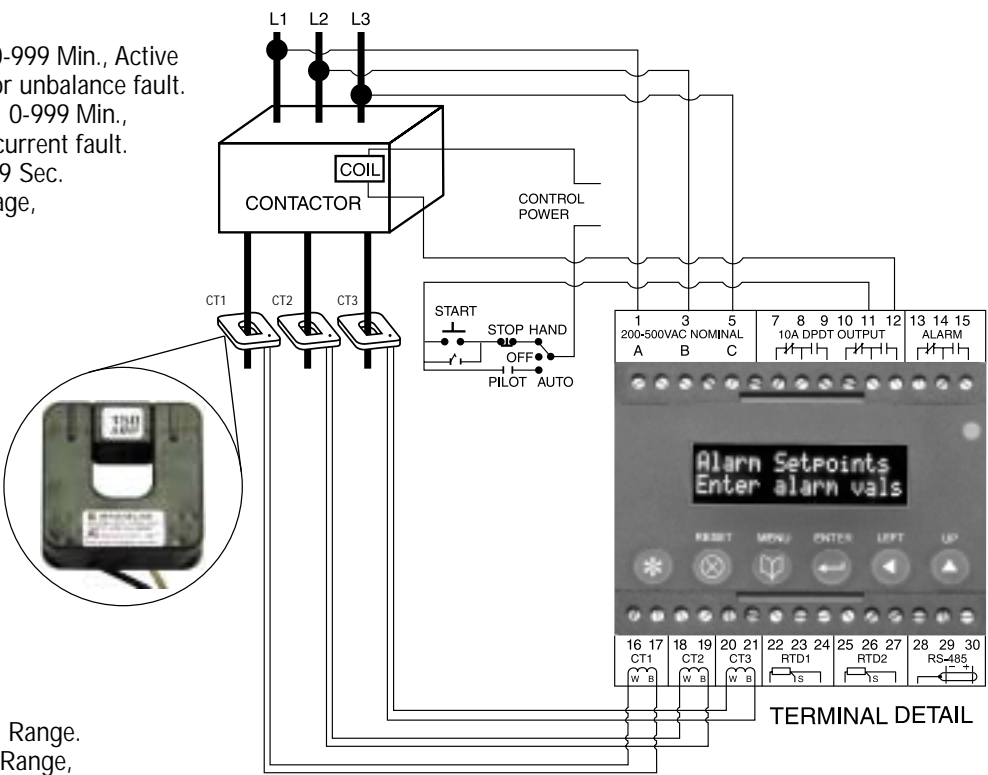
Cool Down Timer; 0-999 Min., Active  
after over current or unbalance fault.
- Restart Delay #3:

Dry Well Recovery; 0-999 Min.,  
Active after under current fault.
- Trip Delay #1:

Under Current, 0-99 Sec.
- Trip Delay #2:

Over & Under Voltage,  
0-99 Sec.

WIRING



- PROGRAMMABLE TRIP/ALARM POINTS**  
(Each setpoint can be disabled)
- Low Voltage

180-450V *RMS*
- High Voltage

220-550V *RMS*
- Voltage Unbalance

1-15%
- Current Unbalance

1-15%
- Over Current

Up to 100% of C.T. Range.  
Dependent on C.T. Range,  
FLA, and Trip Class.
- Under Current

Up to 100% of C.T. Range
- Ground Fault

3-20Amps
- Over Temp. 1

1-250°C 3-wire 100w  
Platinum Input or  
2-wire with jumper
- Over Temp. 2

1-250°C 3-wire 100w  
Platinum Input or  
2-wire with jumper
- Over Current  
Trip Class

NEMA 5, 10, 15, 20, 30;  
J jam protection can be  
enabled for all classes.

RESTART COUNTER

Auto Restart:            Number of Restarts, 0 (Manual), 1-8 or 9 (Automatic)

C.T. SPECIFICATIONS

- Accuracy:
- 1%
- Terminations:
- (2) 8ft. twisted pair, 22 AWG
- UL Approvals:
- UL Recognized (C.T. Only)
- Mounting:
- Snap Closing/Opening Feature

KIT ORDERING INFORMATION

MPA-1000- XX X

AMPS

01

15-15 A

02

15-150 A

03

150-600 A

04

600-1500 A

OPENING SIZE

A

.75" Opening

B

1.25 Opening

C

2.0" Opening

KIT Part No. Includes  
(1) MPA-1000  
(3) C.T.'s (use table code)

C.T. ORDERING INFORMATION (3 Required, 1 per Phase)

Order separately using **SCT** part numbers listed within chart or specify which using **Code** for MPA Part No. at left of chart.

Code for Part No. XX X	Full Load Amps/Phase	.75" Opening C.T. Part No.	1.25" Opening C.T. Part No.	2.0" Opening C.T. Part No.	C.T. Program Code (Full Scale Amps)
01A	1.5 - 15A	SCT-0750-015	-	-	015
02A	15 - 150A	SCT-0750-150	-	-	150
02B	15 - 150A	-	SCT-1250-150	-	150
03B	150 - 600A	-	SCT-1250-600	-	600
03C	150 - 600A	-	-	SCT-2000-600	600
04C	600 - 1500A	-	-	SCT-2000-1500	1500



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