

## Features

Adjustable restart delay can be set at manual position or anywhere between 2-300 seconds.

Universal range from 190-480 VAC 50/60 Hz provides the versatility needed to handle global applications.

Bicolor LED indicator light is green in normal conditions and red during trip conditions.

Microcontroller based provides better accuracy and higher reliability than analog designs.

Transient protected to meet IEC 1000-4-5:1995 Standards and stand up under tougher conditions.

DPDT relay provides two 10A @ 240 VAC General Purpose Relays to switch heavier loads.

Will detect single phase condition regardless of regenerated voltages.



**MotorSaver**  
SINGLE-PHASE ELECTRIC  
MOTOR PROTECTOR

## Model 250A Three Phase Voltage Monitor

•  
**Engineered  
Protection**

•  
**Microcontroller  
Based**

### *Protects 3-Phase motors from:*

- Loss of any phase (single phasing)
- Low voltage
- High voltage
- Voltage unbalance
- Phase reversal
- Rapid cycling

### *Additional Features:*

- UL and cUL listed
- 5 year warranty
- Made in USA
- Manual - 2-300 sec. variable restart delay
- Surface mount with optional DIN rail mount

**Model 250A** is an auto ranging voltage monitor designed to protect 3-phase motors regardless of size. It is used on 190-480VAC, 50 to 60 Hz motors to protect the motors from damage caused by single phasing, low voltage, phase reversal, voltage unbalance, and also high voltage. Added features include the DPDT contacts that are used to perform two functions when parameters are exceeded in addition to the standard adjustable restart delay.

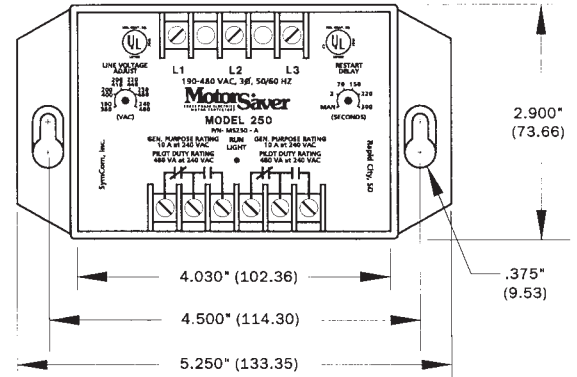
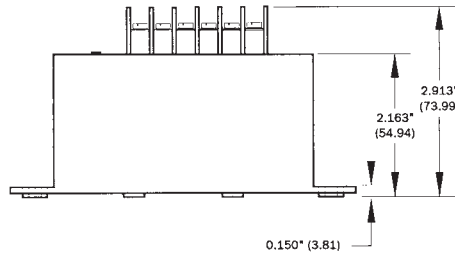
A unique microcontroller-based voltage and phase sensing circuit constantly monitors the three phase voltages to detect harmful power line conditions. When a harmful condition is detected, the MotorSaver's output relay is deactivated after a specified trip delay. The output relay reactivates after power line conditions return to an acceptable level for a specified amount of time (Restart Delay). The trip and reset delays prevent nuisance tripping due to rapidly fluctuating power line conditions.

# Motorsaver<sup>®</sup>

THREE-PHASE ELECTRIC MOTOR PROTECTOR

## Model 250A Three Phase Voltage Monitor

- Specifications
- Operating Points
- Special Options



### Specifications

3-Phase Line Voltage .....190 to 480 VAC  
 Frequency .....50 or 60 Hz

#### Low Voltage (% of set point)

- Trip .....90%
- Reset..... 93%

#### High Voltage (% of set point)

- Trip .....110%
- Reset.....107%

#### Voltage Unbalance (NEMA)

- Trip .....6%
- Reset.....4.5%

#### Trip Delay Time

- Low Voltage, High Voltage.....4 seconds
- Unbalance, Phasing Faults .....2 seconds

#### Restart Delay Time

- After a Fault or Complete Power Loss .....Adjustable 2 - 300 seconds

#### Output Contact Rating (DPDT)

- .....480 VA @ 240 VAC Pilot Duty
- .....10A @240 VAC Gen. Purpose

Transient Protection (Internal) .....IEC 1000-4-5;1995 ± 6kv

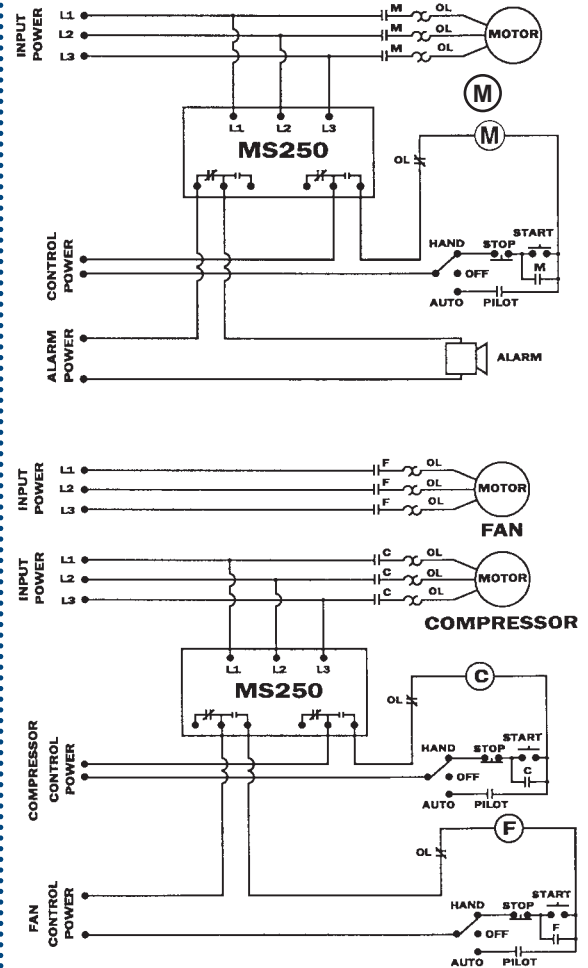
Power Consumption.....5 Watts (Max.)

Weight .....14 oz.

\*Note: 50 Hz will increase all delay timers by 20%.

SymCom warrants its microcontroller based products against defects in material or workmanship for a period of five (5) years from the date of manufacture. All other products manufactured by SymCom shall be warranted against defects in material and workmanship for a period of two (2) years from the date of manufacture. For complete information on warranty, liability, terms, returns, and cancellations, please refer to the SymCom Terms and Conditions of Sale document.

### TYPICAL WIRING DIAGRAMS FOR MODEL 250



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