

## Features

Compact design saves precious panel space.

0.25" hole allows easy OEM mounting.

Diagnostic bicolor LED indicator light is green in normal conditions, red during trip conditions, blinking green while in restart delay mode and blinking red when reverse phased.

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

Transient protected to meet IEC 1000-4-5, ±4kv.

Detects single phase conditions regardless of regenerated voltages.



**Model 202** is an auto-ranging voltage monitor designed to protect three-phase motors regardless of size. It is used on 190-480 VAC, 50 to 60 Hz motors to prevent damage caused by single phasing, low voltage, high voltage, phase reversal, or voltage unbalance.

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 trip delay. The output relay reactivates after power line conditions return to an acceptable level for the selected amount of time (Restart Delay). The trip delay prevents nuisance tripping due to rapidly fluctuating power line conditions.

**Note:** To obtain UL listing for the MS202, use insulated 1/4" UL recognized female quick connects.

**Motorsaver**  
THREE PHASE ELECTRIC  
MOTOR PROTECTOR

## Model 202 Three Phase Voltage Monitor

•  
**Engineered  
Protection**

•  
**Microcontroller  
Based**

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

- Loss of any phase (single phasing)
- High and low voltage
- Voltage unbalance
- Phase reversal

### *Standard Features:*

- UL and cUL recognized
- 5 year warranty
- Made in USA
- Manual, 2-300 sec. variable restart delay
- Mounts on panel surface

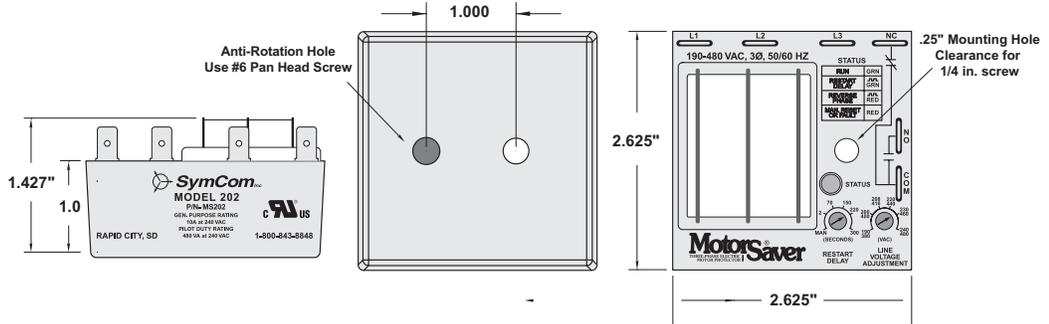
# MotorSaver<sup>®</sup>

THREE-PHASE ELECTRIC MOTOR PROTECTOR

## Model 202 Three Phase Voltage Monitor

Specifications  
•  
Operating Points

### 202 DIMENSIONS



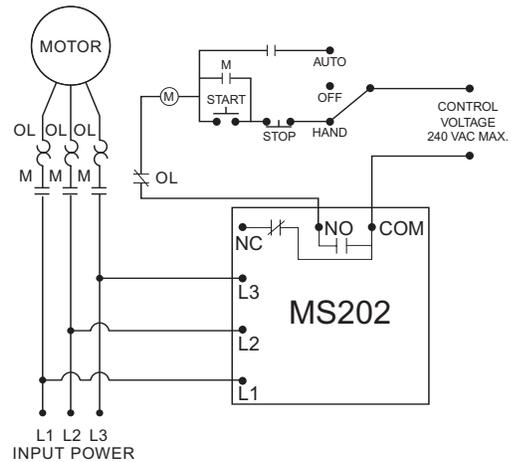
### Specifications

3-Phase Line Voltage .....	190 to 480 VAC
Frequency .....	*50 or 60 Hz
Phase Sequence .....	ABC
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	
• High and Low Voltage .....	4 seconds
• Unbalance & Phasing Faults .....	2 seconds
Restart Delay Time	
• After a Fault or Complete Power Loss .....	MAN, 2-300 sec. adjustment
Output Contact Rating (SPDT)	
• Pilot Duty .....	480 VA @ 240 VAC
• Gen. Purpose .....	10A @ 240 VAC
Transient Protection .....	IEC 1000-4-5, ±4kv
Power Consumption .....	5 Watts (Max.)
Weight .....	12 oz.
Trip & Reset Accuracy .....	± 1%
Repeatability .....	± 0.5%
Input to Output Dielectric .....	1960 Vrms min.
Termination .....	0.25" Male Quick Connect
Humidity .....	95% Relative Non Condensing
Operating Temperature .....	-40 to +70° C

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

SymCom warrants its microcontroller-based products against defects in material or workmanship for a period of five (5) 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 DIAGRAM FOR MODEL 202 WITH MOTOR CONTROL



### TYPICAL WIRING DIAGRAM FOR MODEL 202 WITH ALARM CIRCUIT

