

## Features

Three choices of input voltage ranges provide the versatility needed to handle global applications.

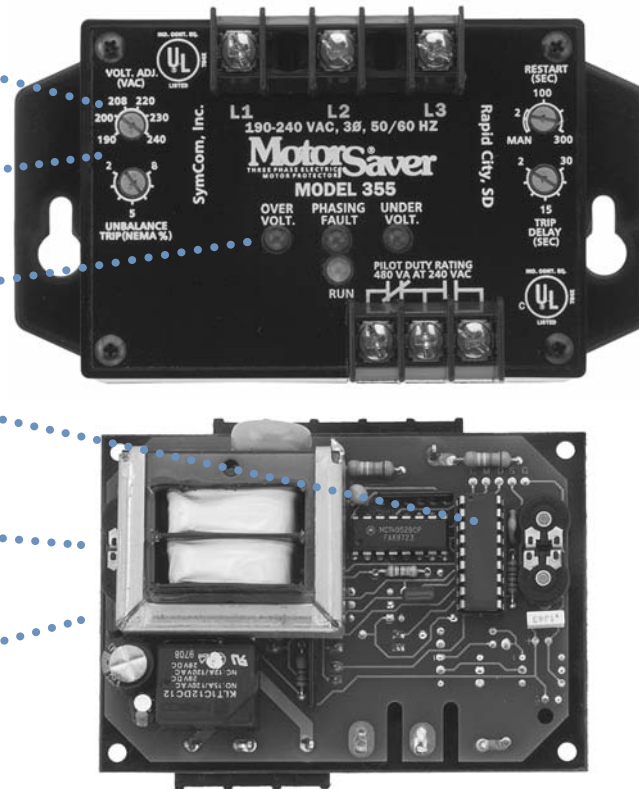
Four adjustment pots provide versatility for all kinds of applications.

Diagnostic LEDs indicate trip status and make trouble shooting a snap.

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

Transient protected to meet IEEE 587 Standards and stand up under tougher conditions.

Will detect single phase condition regardless of regenerated voltages.



**Motorsaver**  
THREE-PHASE ELECTRIC  
MOTOR PROTECTOR

## Model 355 Three Phase Voltage Monitor

Engineered  
Protection

Microcontroller  
Based

### Protects Three-Phase motors from:

- Loss of any Phase (Single Phasing)
- Low Voltage
- High Voltage
- Voltage Unbalance
- Phase Reversal

### Additional Features:

- UL and cUL listed
- 5 year Warranty
- Made in USA
- Standard Surface Mount
- Opt. Din Rail Mount
- Standard Manual - 2-300 sec. Variable Restart Delay
- Standard 2-8% Adj. Voltage Unbalance Trip Point
- Standard 2-30 sec. Trip Delay
- Optional High Current SPDT 15A Contact

**Model 355** Three Phase Voltage Monitor is perfect for heavy duty applications that need both protection and diagnostics while the motor is shut down. Applications include rural pump panels, commercial HVAC equipment, oil rigs, and rural HVAC equipment. The Model 355 is a versatile voltage monitor designed for 200, 300, 400, or 600V applications. The model 355-200 will monitor 190 to 240V input voltages, the Model 355-400 monitors 380 to 480V input voltages, and the Model 355-600 monitors 575 and 600V input voltages.

A unique microcontroller-based voltage and phase sensing circuit constantly monitors the three phase voltages to detect harmful power line conditions such as single phasing, low voltage, phase reversal, voltage unbalance, and high voltage. When a harmful condition is detected, 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 delay prevents nuisance tripping due to rapidly fluctuating power line conditions.

The Model 355-200 is equipped with one standard 480VA @ 240V (10A General Purpose) contact. The Model 355-200 can be ordered with optional 15A General Purpose contacts to switch heavier current loads.

The Model 355-400 and 355-600 are equipped with one standard 470VA @ 600V contact. The Model 355-400 and 355-600 can be ordered with the heavier 15A General Purpose contacts to switch heavier current loads.



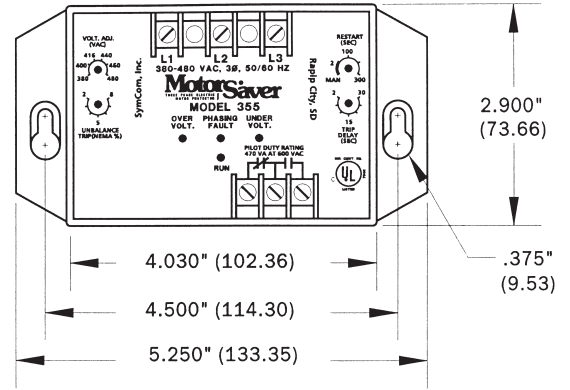
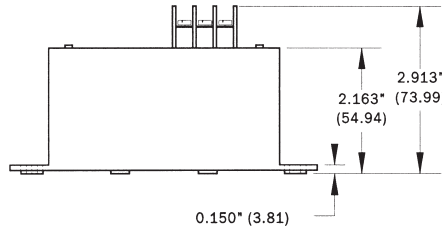
2880 North Plaza Drive • Rapid City, SD 57702  
(800) 843-8848 • (605) 348-5580 • FAX (605) 348-5685  
www.symcominc.com • email: sales@symcominc.com

# Motors<sup>®</sup>Saver

THREE-PHASE ELECTRIC MOTOR PROTECTOR

## Model 355 Three Phase Voltage Monitor

- Specifications
- Operating Points
- Special Options



### Specifications

#### 3-Phase Line Voltage

355-200.....	190 - 240 VAC
355-400.....	380 - 480 VAC
355-600.....	575 - 600 VAC

(Specify voltage range)

Frequency .....50\* or 60 Hz

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

- Trip.....90% ±1%
- Reset.....93% ±1%

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

- Trip.....110% ±1
- Reset.....107% ±1%

#### Voltage Unbalance (NEMA)

- Trip.....2 - 8% adjustable
- Reset.....Trip setting minus 1%

#### Trip Delay Time

- Low & High Voltage and Unbalance ....2 - 30 seconds adjustable
- Single Phasing Faults (>25% UB).....0.5 seconds

#### Restart Delay Time

- After a Fault or Power Loss.....Manual, 2 - 300 sec. adjustable

#### Output Contact Rating (Pilot Duty)

- SPDT .....470 VA @ 600 VAC  
(400 or 600V range)  
10A General Purpose or  
1Hp @ 240VAC (200V range)

Transient Protection (Internal) .....2500 V for 10 mSeconds

#### Repeat Accuracy

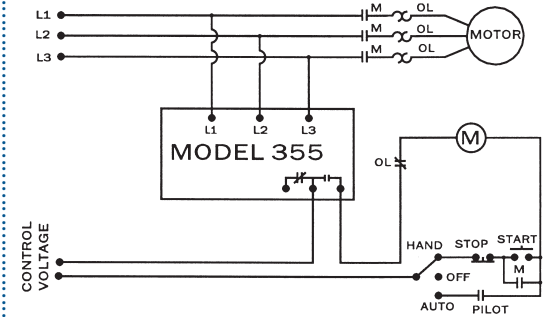
- Fixed Conditions .....±0.1%

Power Consumption .....6 Watts (Max.)

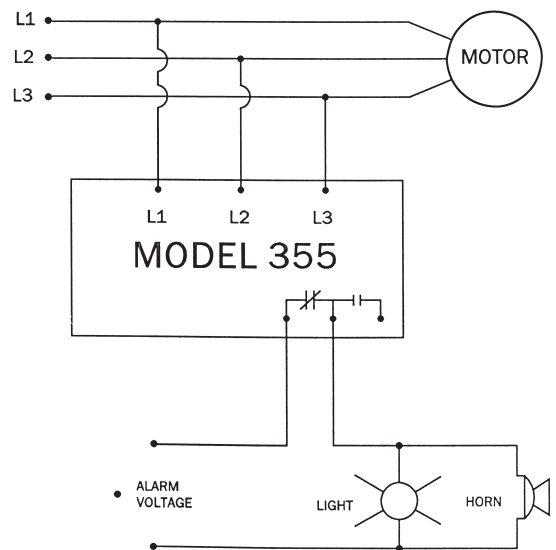
Weight .....1 lb.

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

TYPICAL WIRING DIAGRAM FOR MODEL 355 WITH MOTOR CONTROL



TYPICAL WIRING DIAGRAM FOR MODEL 355 WITH ALARM CONTROL



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.