

## Features

Line to line voltages, average voltage, voltage unbalance, and frequency can be viewed while motor is running.

Digitally programmable for precise customization.

Last four fault memory provides instant troubleshooting diagnostics.

Eleven parameters can be programmed for maximum protection.

Compact design saves precious panel space.

Will detect single phase condition regardless of regenerated voltages.

RS485 communication port for use with computerized systems.



**Motorsaver**  
SINGLE PHASE ELECTRIC MOTOR PROTECTOR

## Model 601 Three Phase Voltage Monitor

Engineered  
Protection

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

- Single Phasing
- Phase Reversal
- Phase/Frequency shift
- Low Voltage
- High Voltage
- Voltage Unbalance
- Rapid Cycling

### **Additional Features:**

- Fully Programmable
- UL and cUL listed
- Automatic or Manual Reset
- Tamper Guard
- RS485 Communications
- Remote reset
- Surface mount or Din Rail Mount
- LED diagnostic display
- Last Four Fault Memory
- 5 year Warranty
- Made in USA

**Model 601** Three Phase Voltage Monitor is a fully programmable electronic voltage monitor designed to monitor three phase systems. It can be used as a stand alone product or the communication port can be used to form a network and monitor the motors from a laptop or desktop computer; or other control system.

When a harmful condition is detected, the MotorSaver's output relay is deactivated after the specified trip delay. The output relay reactivates after power line conditions return to an acceptable level for the programmed restart delay (RD2).

The following 11 parameters can be viewed from the three digit LED display or from a networked computer: low voltage set point, high voltage set point, voltage unbalance set point, low frequency set point, high frequency set point, trip delay for voltage/frequency faults, trip delay for single phase faults, Rapid Cycle Timer (RD1), Restart Delay after all faults (RD2), type of restart after all faults (Manual or Automatic), and RS485 address. Six parameters can be viewed as the motor is running: L1-L2 voltage, L2-L3 voltage, L1-L3 voltage, average voltage, percent voltage unbalance, and frequency.

The Model 601 can be used with an optional RS485 module allowing up to 99 Model 601, Model 777, or Model 77C units to be linked together. From the computer, an operator can control the motor, view the operating parameters, or log information. Software sold separately.



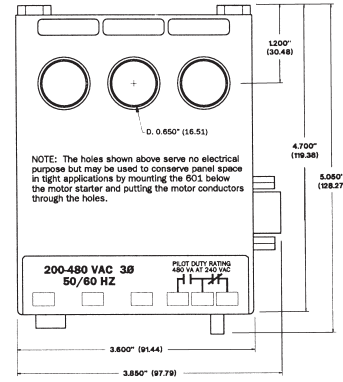
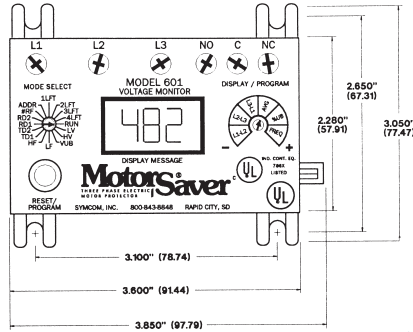
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# MotorSaver®

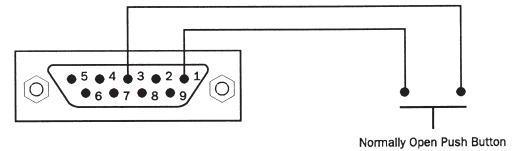
THREE-PHASE ELECTRIC MOTOR PROTECTOR

## Model 601 Three Phase Voltage Monitor

- Specifications
- Operating Points
- Special Options



### REMOTE RESET



<b>Specifications</b>	
<b>Input Voltage</b> .....	200 - 480 VAC, 3Ø (Standard) 500 - 600 VAC, 3Ø (Available)
<b>Frequency</b> .....	50 or 60 Hz

### Programmable Operating Points

- LV - Low Voltage Threshold..... 170V (450V\*) - HV Setting
- HV - High Voltage Threshold..... LV Setting - 528V (660V\*)
- VUB - Voltage Unbalance Threshold..... 2 - 15% or 999%
- LF - Low Frequency Threshold..... 35 Hz - HF Setting
- HF - High Frequency Threshold..... LF Setting - 75 Hz
- TD1 - Trip Delay for Voltage/Unbalance/Frequency Faults..... 1 - 50 seconds
- TD2 - Trip Delay for Single Phase Faults..... 1 - 50 seconds
- RD1 - Rapid Cycle Timer..... 0, 2-500 seconds
- RD2 - Restart Delay After All Faults..... 2 - 500 seconds
- #RF - Type of Restart..... "A" Automatic or "O" Manual
- ADDR - RS485 Address..... A01 - A99

### Fixed Reset Points

- Over Voltage Reset..... 97% of HV Setting
- Low Voltage Reset..... 103% of LV Setting
- Voltage Unbalance Reset..... UB Setting - 1%
- Low Frequency Reset..... LF Setting + 0.6 Hz
- High Frequency Reset..... HF Setting - 0.6 Hz

### Physical Specifications

- Output Contact Rating..... 480 VA @ 240 VAC (Standard)
- Pilot Duty) SPDT..... 470 VA @ 600 VAC (Optional\*\*)
- Transient Protection (Internal)..... 2500 V for 10 mSeconds

### Accuracy

- Voltage..... ± 1%
- Timing..... 5% ± 1 Second

### Repeatability

- Voltage..... ± 0.5%

**Temperature Range**..... 0 - 70 deg. C

**Dimensions**..... 3.0" H x 5.1" D x 3.6" W ~ **3.1" H x 5.1" D x 3.9" W\***

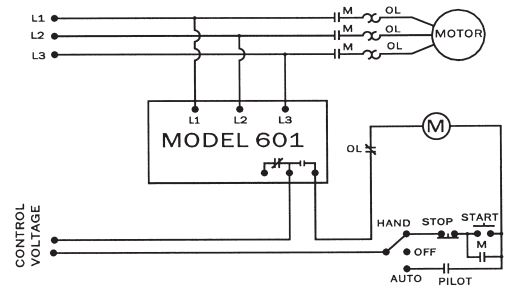
**Power Consumption**..... 5 Watts (max)

**Weight**..... 1.2 lbs.

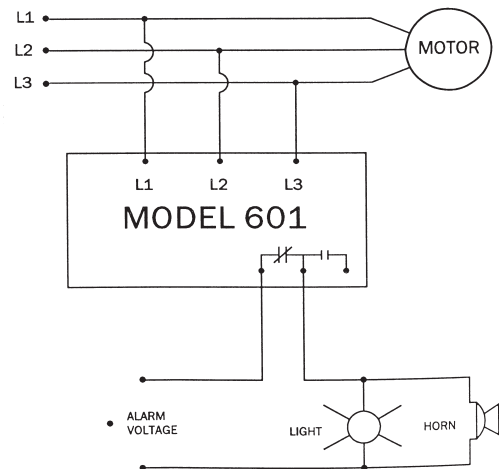
SymCom's Model 601 can be preprogrammed prior to installation by applying 120 VA to the L1 and L2 terminals.

**Order # 601-575  
601-HVR**

### TYPICAL WIRING DIAGRAM FOR MODEL 601 WITH MOTOR CONTROL



### TYPICAL WIRING DIAGRAM FOR MODEL 601 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.