

601 SERIES

3-Phase Voltage & Frequency Monitor



Description

The Model 601 is a fully-programmable voltage monitor designed to protect 3-phase motors from loss of any phase (single-phasing), phase reversal, low or high voltage, voltage unbalance, low or high frequency, and rapid cycling. It can be used as a stand-alone product or networked with an RM1000, RM2000, PLC, computer or SCADA system.

When a harmful condition is detected, the 601'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).

Eleven (11) setpoints are viewable with the 3-digit LED display or from a networked device:

- low voltage
- high voltage
- voltage unbalance
- low frequency
- high frequency
- RS485 address
- 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)
- trip delay for voltage/frequency faults

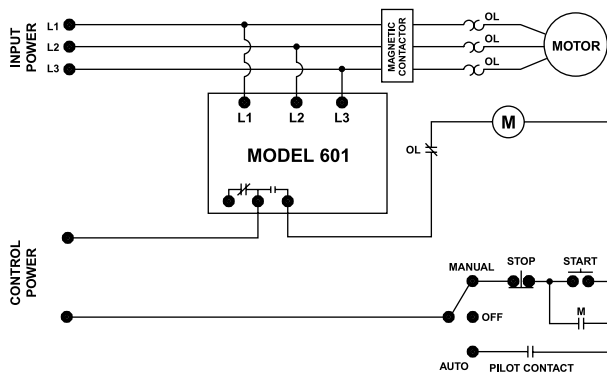
Six (6) parameters are viewable while the motor is running:

- L1-L2 voltage
- L2-L3 voltage
- L1-L3 voltage
- average voltage
- voltage unbalance (%)
- frequency

When used with the RS485MS-2W communications module, the 601 can communicate with most Modbus RTU master devices. Voltage conditions can be monitored and setpoints can be changed remotely using Solutions software, an RM1000, RM2000 or other device.

Wiring Diagram

MODEL 601 WITH MOTOR CONTROL



Ordering Information

| MODEL | LINE VOLTAGE | DESCRIPTION |
|--------|--------------|--|
| 601 | 190-480VAC | Universal 3-Phase Voltage & Frequency Monitor |
| 601575 | 500-600VAC | Used primarily in Canada and NE USA where 575V utility power services are common |

Features & Benefits

| FEATURES | BENEFITS |
|--|---|
| Built-in display | Provides real time information and diagnostics to help with troubleshooting |
| Programmable voltage and frequency settings | Allows usage on wide range of systems |
| 2 programmable restart delay timers | Program separate restart delay time for rapid cycle protection and motor cool down |
| 2 programmable trip delay timers | 1 trip delay specifically for Phase Loss/Single-Phase fault condition, 1 trip delay for all other fault conditions |
| Programmable restart control | Choose between an adjustable automatic or manual restart to best meet individual application needs |
| Flexible reset | Reset options include pushbutton on relay or remote reset with optional 777-MRSW or OL-RESET remote reset kit |
| Remote display compatibility | Increases safety through remote display of real-time data and fault history, without the need to open the cabinet. Aids with arc flash safety regulations |
| Network communications capability | Compatible with RS-485 Modbus communications module |

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Accessories



RS485MS-2W Communication Module
(for limited Modbus capabilities) Required to enable the Modbus communications function on Model 77X-type products.



RM1000 Remote Monitor
The RM1000/777 motor management system combines unsurpassed electronic motor protection and critical, user-friendly, motor monitoring for up to 16 devices.



RM2000 Remote Monitor
The RM2000/777 motor management system combines unsurpassed electronic motor protection and critical, user-friendly, motor monitoring with event storage and real-time clock for date and time stamp.



777-MRSW Manual Remote Reset Kit
Allows the 777 line of MotorSaver® and PumpSaver® products to be manually reset without opening the panel door.



OL-RESET Manual Remote Reset Kit
Allows the 777 line of MotorSaver® and PumpSaver® products to be manually reset without opening the panel door.

Specifications

Input Characteristics

Frequency 50/60Hz

Functional Characteristics

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 off

LF - Low Frequency

Threshold 35Hz - HF Setting

HF - High Frequency

Threshold LF Setting - 75Hz

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

ADDR - RS-485 Address Manual or Automatic

Fixed Reset Points

Overvoltage Reset 97% of HV Setting

Low Voltage Reset 103% of LV Setting

Voltage Unbalance Reset UB Setting -1%

Low Frequency Reset LF Setting +0.6Hz

High Frequency Reset HF Setting -0.6Hz

Output Characteristics

Output Contact Rating

Pilot Duty 480VA @ 240VAC

General Characteristics

Temperature Range -20° to 70°C (-4° to 158°F)

Accuracy

Voltage ±1%

Timing

Repeatability 5% ±1 second

Voltage

Maximum Input Power ±0.5%

Transient Protection (Internal)

Safety Marks 5 W

UL

CSA UL508 (File #E68520)

CE C22.2 No. 14 (File #46510)

Dimensions

H 77.47 mm (3.05"); **W** 97.79 mm (3.85");

D 128.27 mm (5.05")

Weight 1.2 lbs. (19.2 oz., 544.31 g)

Mounting Method Surface mount (4 - #8 screws)

or DIN rail mount

The 601 can be preprogrammed prior to installation by applying at least 120V to the L1 and L2 terminals.

*575V Model

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

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Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9