Model 777-575-KW/HP-P2

SymCom's Model 777-575-KW/HP-P2 is a fully programmable electronic power monitor. It is designed to monitor and protect any 3-phase, 500-600VAC motor drawing 2-800 full load amps (external CTs are required above 90 amps). It provides unsurpassed protection from faulty voltage, underload and overload conditions. The 777-575-KW/HP-P2 can be used in a variety of 3-phase applications and features a low power trip point (adjustable on the unit) that is desirable any time the current vs. load characteristic is non-linear or has little change. In general, this applies to small slow speed motors, small centrifugal motors and fractional horsepower motors. Low power protection can be used any time in place of undercurrent protection.

The 777-575-KW/HP-P2 incorporates a 3-digit LED display that is used for programming, providing real-time operational information and displaying diagnostic codes to aid in troubleshooting a fault condition. It also displays kilowatts and horsepower on the face of the unit.

The 777-575-KW/HP-P2 can be used as a stand-alone product or used in a network to communicate with a PC, PLC, SCADA system, or SymCom's Solutions Software with the help of its built-in RS-485 communications port. The 777-575-KW/HP-P2, in conjunction with SymCom's CIO modules, supports several communication protocols including Modbus/RTU, Modbus/TCP, DeviceNet™ and Profibus. The units can also be connected to SymCom's remote monitors for a simple, cost-effective way to meet new requirements for arc-flash safety.

The unit's many features include enhanced trip classes beyond the NEMA standard trip classes. The settable trip class range is 2-60, with or without jam protection, and a secondary linear trip delay can be set with a range of 0-60 seconds. If both the trip class and linear trip delay are set, the 777-575-KW/HP-P2 will follow the faster trip time. Another feature is the automatic dry-well recovery timer that allows the unit to automatically select a restart delay based on the last cycle's run time. This allows the 777-575-KW/HP-P2 to optimize restart delay times.

The 777-575-KW/HP-P2 can be pre-programmed with a 9-volt battery prior to actual installation. This can save a lot of time during initial installations and avoid subsequent service calls when commissioning new projects.

Features:

- Protects 3-phase motors from:
  - High voltage
  - Low voltage
  - Voltage unbalance
  - Reverse-phase
  - Overcurrent
  - Underload (low power)
  - Current unbalance
  - Single-phase
  - Ground fault, Class II
- Network programmable
- Programmable with 9-volt battery prior to installation
- Automatic reset with three separate restart delay timers, or manual reset
- Tamper guard
- RS-485 communications port (communications module sold separately)
- 3-digit LED diagnostic display
- Last fault memory
- UL and ULC listed
- CE compliant
- CSA approved
- Surface or DIN rail mount
- 5-year warranty
- Made in USA

Auxiliary Products:

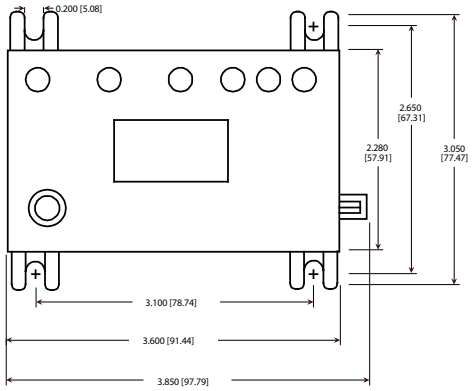
- Remote Displays (RM-1000/RM-2000)
- Communication Modules
- Remote Manual Reset Kit
- Solutions Software

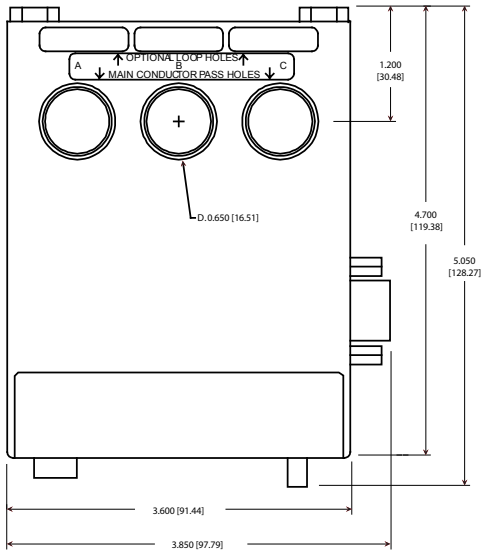
Specifications

Functional Specifications	
Programmable Operating Points	
LV-Low Voltage Threshold	450-649V
HV-High Voltage Threshold	451-660V
VUB-Voltage Unbalance Threshold	2-25% or 999 (disabled)
MULT-# of Conductors or CT Ratio (xxx:5)	1-10, 100, 150, 200, 300, 400, 500, 600, 700, 800
OC-Overcurrent Threshold	(20-100A) ÷ MULT of 80-140% of CT Primary
PWS-Power Scale	1 = 0.01–0.99kW 5 = 0.01–1.32hp 2 = 1.00–9.95kW 6 = 1.34–13.3hp 3 = 10.0–99.5kW 7 = 13.4–133hp 4 = 100–650kW 8 = 134–871hp
LP–Low Power	0.01-650kW or 0.01-871hp or 0 (off); LP setting is dependent on PWS setting. PWS must be set prior to LP being set
CUB-Current Unbalance Threshold	2–50% or 999 (disable)
TC-Overcurrent Trip Class	2-60, J2-J60, L00-L60, oFF
RD1-Rapid Cycle Timer	0-999 seconds
RD2-Restart Delay After All Faults Except Undercurrent (motor cool-down timer)	2–500 minutes
RD3-Restart Delay After Undercurrent (dry-well recovery timer)	2–500 minutes, A (Automatic)
#RU-Number of Restarts After Undercurrent	0, 1, 2, 3, 4, A (Automatic)
ADDR-RS485 Address	A01–A99
COM-Communication setting	C00-C07
#RF-Number of Restarts After All Faults Except Undercurrent	0, 1, oc1, 2, oc2, 3, oc3, 4, oc4, A, ocA (Automatic)
UCTD-Undercurrent Trip Delay **	5 seconds (default)
GF-Ground Fault Current Threshold	(3-20A) ÷ MULT or 12-40% of CT Primary or oFF
Input Characteristics	
Supply Voltage	500-600VAC
Frequency	50/60Hz
Motor Full Load Amp Range	2-20A, (looped conductors required); 20-80A (direct); 80-800A (external CTs required)
Output Characteristics	
Output Contact Rating - SPDT (Form C)	
Pilot Duty	480VA@240VAC, B300
General Purpose	10A@240VAC
Expected Life	
Mechanical	1 x 10^6 operations
Electrical	1 x 10^5 operations at rated load
General Characteristics	
Operating Temperature	
Ambient Operating	-20° to 70° C (-4° to 158° F)
Ambient Storage	-40° to 80° C (-40° to 176° F)
Accuracy at 25° C (77° F)	
Voltage	± 1%
Current	± 3% (<100A direct)
Timing	± 0.5 second
Ground Fault	± 15% (<100A)
Repeatability	
Voltage	± 0.5% of nominal voltage
Current	± 1% (<100A direct)
Maximum Input Power	10 W
Pollution Degree	3
Class of Protection	IP20
Relative Humidity	10-95%, non-condensing per IEC 68-2-3
Terminal Torque	7 in.-lbs.
Standards Passed	
Electrostatic Discharge (ESD)	IEC 61000-4-2, Level 3, 6kV contact, 8kV air
Radio Frequency Immunity (RFI), Conducted	IEC 61000-4-6, Level 3 10V
Radio Frequency Immunity (RFI), Radiated	IEC 61000-4-3, Level 3 10 V/m
Fast Transient Burst	IEC 61000-4-4, Level 3, 3.5 kV input power
Short Circuit	100kA
Surge	
IEC	61000-4-5 Level 3, 2kV line-to-line; Level 4, 4kV line-to-ground
ANSI/IEEE	C62.41 Surge and Ring Wave Compliance to a level of 6kV line-to-line
Hi-potential Test	Meets UL508 (2 x rated V + 1000V for 1 minute)
Vibration	IEC 68-2-6, 10-55Hz, 1mm peak-to-peak, 2 hours, 3 axis
Shock	IEC 68-2-27, 30g, 3 axis, 11ms duration, half-sine pulse
Safety Marks	
UL	UL508, UL1053
CE	IEC 60947-1, IEC 60947-5-1
Max Conductor Size through 777-P2	0.65" with insulation
Dimensions	3.05 H x 3.85 W x 5.05 D in. (77.47 x 97.79 x 128.27 mm)
Weight	1.2 lbs. (544.31 g)
Mounting Method	Surface mount (4 - #8 screws) or DIN Rail Mount

** Network adjustable only

Enclosure Dimensions





inches (millimeters)

How to order:

Part Number: 777-575-KW/HP-P2

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