

The Model 777-P1 can be used on any three-phase motor operating on 190-480VAC (500-600VAC for -575 models) systems drawing 2-800 amps (external CTs required for >90FLA systems). Applications include conveyor systems, HVAC equipment, saws, grinders, pumps and other three-phase electric motors. The -LR designator indicates that these units are to be used on motors drawing 1-9FLA.

New features on the 777-P1 series of products included:

New Trip Classes: NEMA standard trip classes are 5,10,15,20 and 30. Now, the 777-P1 offers trip classes from 2-30. These additional "non-standard" trip classes allow the unit to follow a trip curve between the standard trip classes. Also, there are J(xx) settings, for jam protection from J02-J30.

Linear Over Current Trip Delay: A trip delay timer, which will trip the overload if the motor current exceeds the OC set point for the amount of time set. This setting can be set for any time between 0-60 seconds (L00-L60) or Off.

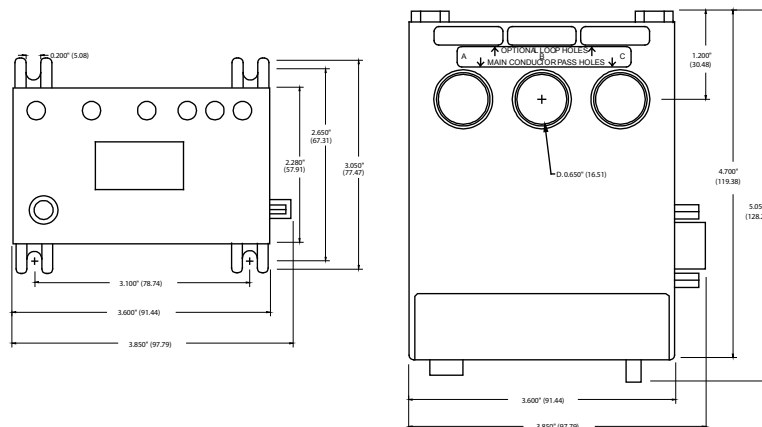
******Note****** If both trip class and linear trip delay settings are programmed, the 777-P1 will follow the faster trip time. E.g., TC is set to J15 and L20, and the amperage is 200% of the OC setting. Following the NEMA trip class curve, the 777-P will trip off in approximately 100 seconds. Thus, the 777-P will follow the linear setting, because it is faster, and trip off in 20 seconds.

Automatic Dry-Well Recovery Calculator: The 777-P1 units also have an automatic Dry-Well Recovery Timer that allows the unit to automatically select a restart delay based on the run time of the last run cycle. In general, a longer run time produces a shorter restart delay and a shorter run time produces a longer restart delay. This feature allows the 777-P1 to optimize running and reset times automatically.

Network Alarms: The 777-P1 has the ability to set High and Low Network Alarms for voltage and current settings. When the voltage or current level passes the low or high network setpoint, the network will set off an alarm, warning of a pending fault. This feature is useful for preventative maintenance and also for fluctuating power conditions.

Advanced Network Programmable Features: The 777-P1 series units have many advanced network capable features.

The 777-P1 units can also be used with the new CIO modules produced by SymCom for all types of communication. The models CIO-MB (Modbus), CIO-DN (DeviceNet®), CIO-777-PR (Profibus) and CIO-EN (Ethernet - Modbus TCP) modules work with all SymCom 777-P1 models. With this versatility, the SymCom 777-P1 can be used for all your three-phase protection needs.



Specifications

Functional Specifications	
Programmable Operating Points LV-Low Voltage Threshold HV-High Voltage Threshold VUB-Voltage Unbalance Threshold MULT-# of Conductors or CT Ratio (xxx:5) OC-Overcurrent Threshold UC-Undercurrent Threshold CUB-Current Unbalance Threshold TC-Overcurrent Trip Class and Linear Overcurrent Trip Delay RD1-Rapid-cycle Timer RD2-Restart Delay after all faults except undercurrent (motor cool-down timer) RD3-Restart Delay after undercurrent (dry-well recovery timer) #RU- Number of restarts after all undercurrent ADDR-RS485 Address #RF-Number of restarts after all faults except undercurrent UCTD-Undercurrent Trip Delay GF-Ground Fault Current Threshold	170-524V (450-649V*) 172-528V (451-660V*) 2-15% or 999 (disabled) 1-10, 100, 150, 200, 300, 400, 500, 600, 700, 800 (20-100A) ÷ MULT of 80-140% of CT Primary; (** 2-10A) (0, 10-98A) ÷ MULT or 40-140% of CT Primary (** 0, 1-9.8A) 2-25% or 999 (disabled) 02-30, J02-J30; L00-L60 or OFF 0-500 seconds (standard) 2-500 minutes (standard) 2-500 minutes (standard), A (automatic) 0, 1, 2, 3, 4, A (automatic) A01-A99 0, 1, oc1, 2, oc2, 3, oc3, 4, oc4, A, ocA (automatic) 2-255 seconds (standard) (3-20A) ÷ MULT or 12-80% of CT Primary or OFF (**[0.3-2A] ÷ MULT or OFF)
Input Characteristics	
Supply Voltage 777-P, 777-LR-P 777-575-P Frequency Motor Full Load Amp Range 777-LR-P	190-480VAC 500-600VAC 50/60Hz 2-25A, (looped conductors required); 25-90A (direct); 80-800A (external CTs required) 1-2.5A (one conductor loop required); 2.5-9 (direct)
Output Characteristics	
Output Contact Rating - SPDT (Form C) Pilot Duty General Purpose Expected Life Mechanical Electrical	480VA@240VAC 10A@240VAC 1 x 10 ⁶ operations 1 x 10 ⁵ operations at rated load
General Characteristics	
Operating Temperature Ambient Operating Ambient Storage Accuracy Voltage Current Timing Power Repeatability Voltage Current Power Consumption Pollution Degree Class of Protection Relative Humidity Terminal Torque Standards Passed Electrostatic Discharge (ESD) Radio Frequency Immunity (RFI), Conducted Radio Frequency Immunity (RFI), Radiated Fast Transient Burst Short Circuit Surge IEC ANSI/IEEE Hi-potential Test Vibration Shock Safety Marks UL CE Max Conductor Size through 777-P Dimensions Weight Mounting Method	-20° to 70° C (-4° to 158° F) -40° to 80° C (-40° to 176° F) ± 1% ± 3% (<100A direct) ± 15% 5% ± 1 second ± 0.5% of nominal voltage ± 1% (<100A direct) 10 Watts (max.) 3 IP20, NEMA 1 10-95%, non-condensing per IEC 68-2-3 7 in.-lbs. IEC 1000-4-2, Level 3, 6kV contact, 8kV air IEC 1000-4-6, Level 3 10V IEC 1000-4-3, Level 3 10 V/m IEC 1000-4-4, Level 3, 3.5 kV input power 1000-4-5 Level 3, 2kV line-to-line; Level 4, 4kV line-to-ground C62.41 Surge and Ring Wave Compliance to a level of 6kV line-to-line Meets UL508 (2 x rated V + 1000V for 1 minute) IEC 68-2-6, 10-55Hz, 1mm peak-to-peak, 2 hours, 3 axis IEC 68-2-27, 30g, 3 axis, 11ms duration, half-sine pulse UL508, UL1053 IEC 60947-1, IEC 60947-5-1 0.65" with insulation 3.0" H x 5.1" D x 3.6" W 1.2 lbs. Surface mount (4 - #8 screws) or DIN Rail Mount

* 575 Model; ** -LR Model

How to order:

777-P1
 777-LR-P1
 777-575-P1



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