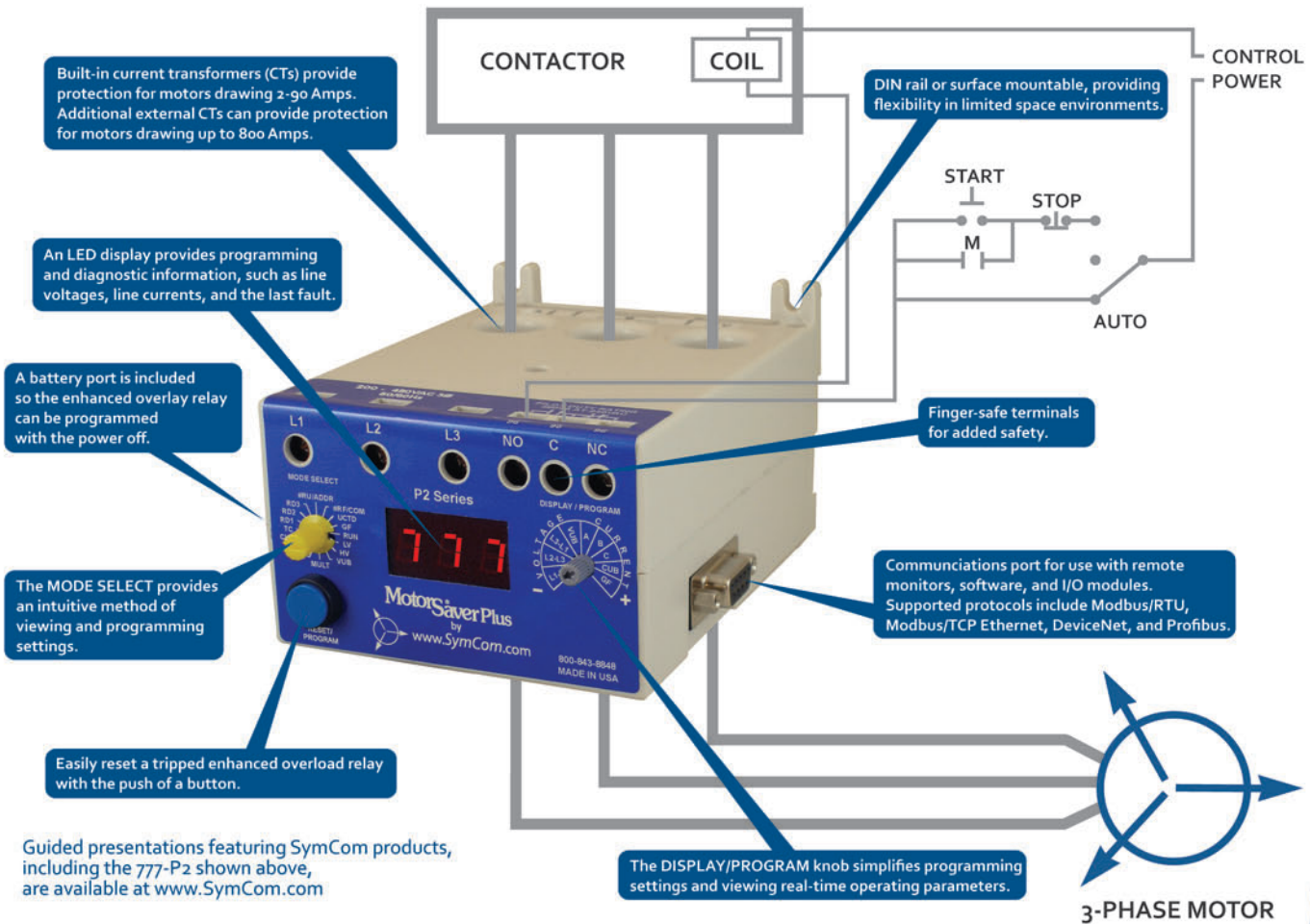


# Enhanced Overload Relays

SymCom, the industry leader in enhanced overload relays, has been in the business of motor protection for over 35 years! Why is this so? Because our products provide the broadest range of motor protection, most convenient user interface and programming, and widest variety of application specific models available in the industry. Our electronic control and protection products shield your equipment investment by reducing downtime, protecting from unexpected voltage and load problems, and reporting when a problem occurs – all of which save time and money.

Our "Enhanced Overload Relays" monitor line-side voltages to prevent starting equipment while fault conditions exist! Unlike standard thermal overload relays, which only protect against load-side faults, SymCom's 777 family of enhanced overload relays also act as "smart sensors" for incoming power lines. They protect against many voltage problems, including high voltage, low voltage, voltage unbalance, phase reversal and single-phasing.



In addition, SymCom's 777s offer the same current fault protection features as a standard thermal overload – and more. The load-side faults that the 777s protect against include overcurrent, undercurrent, current unbalance, single phasing, rapid cycling, over-power, underpower, contactor failure, and ground fault.

**Applications:** SymCom enhanced overload relays will protect nearly any single-phase or three phase motor or pump - in almost any application. Although the list is practically endless, some "typical" applications include:

## Pump protection:

- Lift Stations
- Booster Stations
- Water Wells
- Storm Water
- Chemical Injections Systems
- Oilfield Pumping
- Coal Bed Methane
- Irrigation Systems

## Industrial motor protection:

- Paper Mills
- Petro-chemical Plants
- Food Processing Plants
- Aerators
- Rock Quarries
- Cement Plants
- Industrial Fans
- HVAC Compressors
- Augers and Conveyors
- Grain Elevators

And many more!

For more information about the features, benefits and specifications of SymCom enhanced overload relays, please view our catalog or visit our website at [www.SymCom.com](http://www.SymCom.com).

**Motors Saver**  
ELECTRONIC MOTOR  
CONTROL & PROTECTION

**Pump Saver**  
ELECTRONIC PUMP  
CONTROL & PROTECTION



Proudly made in USA

Please see our website for a complete product listing as we often add new models.

SymCom offers several enhanced overload relay models with features for specialized applications. The following models are available for 777 (three-phase) series overloads and noted 77C (single-phase) series overloads:

- **-P2-**

The 777-P2 provides protection for motors from 2-800 full load amps at voltages from 200-480VAC (external CTs required above 90A). All P2 versions include network programmable features such as pre-trip alarms, and high and low power trip set points. The -P2 is backward compatible with our legacy products, as it supports both 8 bit and 16 bit Modbus memory maps. These models also provide a low-voltage programming feature by way of a 9V battery.

- **-KW/HP-P2-**

The 777-KW/HP-P2 PumpSaver monitors and trips on low power instead of low current. Monitoring low power provides a faster, more accurate means of tripping when a motor or pump is lightly loaded. It is typically used to detect dry running of submersible pumps, broken shafts, loose couplings, etc. See our Power Monitoring Product brochure for more information.

- **-LR-**

The 777-LR-P2 and 77C-LR are specifically designed for use with 1-9 full load amp motors to ease installation. The 777-LR-P2 can also be used with external CTs for 10-800 full load amps.

- **-HVR-**

The 777-HVR-P2 includes a High Voltage Relay and is designed for 340-480VAC applications (typically pumping applications) where a control power transformer is not used on a 480V system to save the cost and extra associated wiring.

- **-MV-**

The 777-MV-P2 is specifically designed for Medium Voltage applications where both PTs (potential transformers) and external CTs (current transformers) must be used. The MV units operate on 100-240VAC with a 10-800 full load amp range.

- **-575-**

The 777-575-P2 has a nominal 500-600VAC range. They are commonly used in Canada and the Northeast US where 575V utility power services are common.

- **-TS-**

The 777-TS is specifically designed for use with a Subtrol®-equipped Franklin submersible motor to detect high motor temperatures.

- **-HRG-**

The 777-HRG-P2 has a built-in zero-sequence ground fault current transformer for more accurate ground fault measurements. A typical application for this unit includes monitoring ground faults on a high resistance grounded systems with up to 90 full load amps.

- **-LR-HRG-**

The 777-LR-HRG-P2 has a connection for an external zero-sequence ground fault current transformer and requires the use of external CTs. It is designed for high resistance grounded systems with 90-800 full load amps.

- **-Accupower-**

The 777-Accupower calculates motor shaft output power (load power), which can be transmitted via a 4-20 milliamp analog output to an external motor/pump controller where precise load feedback is critical, such as with mag drive pumps. See our Power Monitoring Product brochure for more information.

- **-FT-**

The 777-FT has a linear trip feature that can be set to trip in as little as 320ms, allowing one to protect mechanical drives from breaking chains, shear pins, etc.

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