

Features

The 455's universal range from 190-480VAC 50/60 Hz provides the versatility needed to handle global applications.

Four adjustment pots provide versatility for a variety of applications.

Both load and line-side monitoring provides contactor protection.

Diagnostic LEDs indicate trip status and provide simple troubleshooting.

Microcontroller-based circuitry provides better accuracy and higher reliability than analog designs.

Single-phase conditions are detected regardless of regenerated voltages.

Transient protection meets IEEE and IEC standards and permits operation under tough conditions.



The New Model 455s are now equipped* with an infrared LED to communicate with the handheld diagnostic tool, the Informer-MS, to display MotorSaver® data to assist in monitoring and troubleshooting the system. Motor run hours, displayed by the Informer-MS can now be reset on the Model 455**. (For more information on the Informer-MS, visit our website www.symcom.com.)

The Model 455 three-phase voltage monitor combines load and line-side monitoring to alert the user of contact failure or impending contact failure.

The line-side monitoring will protect the motor from damaging line-side conditions prior to the motor starting. With other line/load-side voltage monitors, the motor must be started before a voltage problem is detected. With the Model 455, your motor is fully protected at all times. The motor will not start if a power problem is present.

The Model 455 (190-480VAC) and the 455-575 (475-600VAC) are equipped with one SPDT 480VA @ 240VAC output relay.

The Model 455-480R (390-480VAC) is equipped with one SPDT 470VA @ 600VAC output relay.

All Model 455s feature an adjustable trip delay (2-30 seconds), restart delay (manual, 2-300 seconds), and voltage unbalance trip point (2-8%).

The status of the Model 455 can be easily identified by the four LEDs on the front of the device: Run, Undervoltage, Overvoltage, and Phasing Fault or by using the Informer-MS, which, in addition to present status, will display live voltages, last 20 faults, last 32 motor starts, and motor run hours**.

*Effective March 2006

**To reset the motor run hours in the Model 455: 1) record settings 2) remove power 3) turn all setpoint knobs to the minimum setting 4) apply power momentarily 5) remove power again 6) adjust knobs back to the desired settings 6) reapply power.

MotorSaver
SINGLE-PHASE ELECTRIC
MOTOR PROTECTOR

**455
455-575
455-480R**

**Three-Phase
Voltage Monitors**

**Engineered
Protection**

Microcontroller Based

Protects 3-Phase Motors from:

- Contact failure
- Loss of any phase (single-phasing) on the load or line side
- Low voltage
- High voltage
- Voltage unbalance
- Phase reversal
- Rapid cycling

Additional Features:

- Manual, 2-300 second variable restart delay
- 2-8% variable voltage unbalance
- 2-30 second variable trip delay
- Surface mount
- Finger-safe terminals
- UL and cUL listed
- 5-year warranty
- Made in USA



2880 North Plaza Drive • Rapid City, SD 57702
(800) 843-8848 • (605) 348-5580 • FAX (605) 348-5685
www.symcom.com • email: sales@symcominc.com

Motorsaver[®]

SINGLE-PHASE ELECTRIC MOTOR PROTECTOR

- Specifications
-
- Operating Points
-
- Special Options

455, 455-575, 455-480R Three-Phase Voltage Monitors

Specifications

3-Phase Line Voltage

455	190-480VAC
455-575	475-600VAC
455-480R	390-480VAC
Frequency	50*/60 Hz

Low Voltage (% of setpoint)

• Trip	90% ±1%
• Reset	93% ±1%

High Voltage (% of setpoint)

• Trip	110% ±1
• Reset	107% ±1%

Voltage Unbalance (NEMA)

• Trip	2-8% adjustable
• Reset	trip setting minus 1%

Trip Delay Time

• Low & High Voltage and Unbalance	2-30 seconds adjustable
• Single-phasing Faults (>25% UB)	2 seconds fixed

Restart Delay Time

• After a Fault or Complete Power Loss, Rapid Cycling delay	manual, 2-300 seconds adjustable
--	----------------------------------

Output Contact Rating (SPDT)

455, 455-575	480VA @ 240VAC Pilot Duty
	10A @ 240VAC General Purpose
455-480R	470VA @ 600VAC Pilot Duty

Standards Passed

- Electrostatic Discharge (ESD) IEC 1000-4-2, Level 3, 6kV contact, 8kV air
- Radio Frequency Immunity, Radiated .. 150 MHz, 10V/m
- Fast Transient Burst IEC 1000-4-4, Level 3, 3.5kV input power & controls
- Surge**
- IEC IEC 1000-4-5, Level 3, 4kV 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)

Repeat Accuracy

• Fixed Conditions	± 0.1%
--------------------------	--------

Power Consumption

.....	6 Watts (max.)
-------	----------------

Weight

.....	14 oz.
-------	--------

*Note: 50 Hz units will increase all delay times by 20%.

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.

