Description
The 355 series is a 3-phase voltage monitor with adjustable trip and restart delay, adjustable voltage unbalance and multiple diagnostic lights. It is perfect for heavy-duty applications that need both protection and simple user-friendly diagnostics. Applications include pump panels, commercial HVAC, oil rigs and others.

The 355 series uses microcontroller technology to monitor incoming voltage and de-energize its output relay if power problems exist. The 355 series can protect motors from damage caused by single-phasing, high and low voltage, phase reversal and voltage unbalance. It has four diagnostic LEDs that clearly show overvoltage, undervoltage, voltage unbalance, reverse-phase and normal conditions.

The 355200 is equipped with a heavy-duty 10 A general purpose SPDT relay. The 355400 and 355600 are equipped with a 470 VA @ 600 V ac pilot duty SPDT relay. A high voltage (600 V) DPDT relay output option is available with the 400 V model.

Features & Benefits

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<tr>
<th>FEATURES</th>
<th>BENEFITS</th>
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<tr>
<td>Proprietary microcontroller based circuitry</td>
<td>Constantly monitors 3 phase voltage to protect against harmful line conditions, even before the motor is started</td>
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<td>Advanced LED indication</td>
<td>Provides diagnostics which can be used for troubleshooting and to determine relay status</td>
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<tr>
<td>Adjustable trip and restart delay settings</td>
<td>Prevent nuisance tripping due to rapidly fluctuating power line conditions and allows staggered start up of multiple motors, after a fault, to prevent a low voltage condition</td>
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<td>Combines protection and diagnostics</td>
<td>Perfect for heavy duty applications: pump panels, commercial HVAC, and oil rigs</td>
</tr>
<tr>
<td>600 V rated relay contacts available on some models</td>
<td>Eliminates the need for a control transformer to step voltage down to 120–240 V for a control circuit</td>
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Ordering Information

<table>
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<th>MODEL</th>
<th>LINE VOLTAGE</th>
<th>DESCRIPTION</th>
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<tr>
<td>355200</td>
<td>190–240 V ac</td>
<td>SPDT</td>
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<tr>
<td>355400</td>
<td>380–480 V ac</td>
<td>SPDT</td>
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<tr>
<td>3554005</td>
<td>380–480 V ac</td>
<td>DPDT</td>
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<tr>
<td>355600</td>
<td>475–600 V ac</td>
<td>SPDT</td>
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# Specifications

## Input Characteristics

**Line Voltage**
- 355200: 190–240 V ac
- 355400: 380–480 V ac
- 355600: 475–600 V ac
- (Specify voltage range)

**Frequency** 50*/60 Hz

## Functional Characteristics

**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

**Restart Delay Time After a Fault or Power Loss:**

## Output Characteristics

**Output Contact Rating**

- **SPDT (355200)**
  - Pilot Duty: 480 VA at 240 V ac
  - General Purpose: 10 A

- **SPDT (355400, 355600)**
  - Pilot Duty: 470 VA @ 600 V ac

- **DPDT (-5 Option)**
  - Pilot Duty: 470 VA @ 600 V ac

## General Characteristics

**Temperature Range**
- Operating: -40° to 70°C (-40° to 158°F)
- Storage: -40° to 80°C (-40° to 176°F)

**Repeat Accuracy**
- Fixed Conditions: ±0.1 %

**Maximum Input Power**
- 6 W

**Terminal**
- Torque: 7 in.-lbs.

**Wire Size**
- 12-18 AWG

**Transient Protection**
- (Internal): 2500 V for 10 ms

**Safety Marks**
- UL: UL 508 (File #E68520)

**Dimensions**
- **H:** 74.42 mm (2.93”)
- **W:** 133.86 mm (5.27”)
- **D:** 74.93 mm (2.95”)
- Weight: 0.94 lb. (15.04 oz., 426.38 g)

**Mounting Method**
- #8 screws

**Special Options**
- Option 5 - DPDT Relay

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