

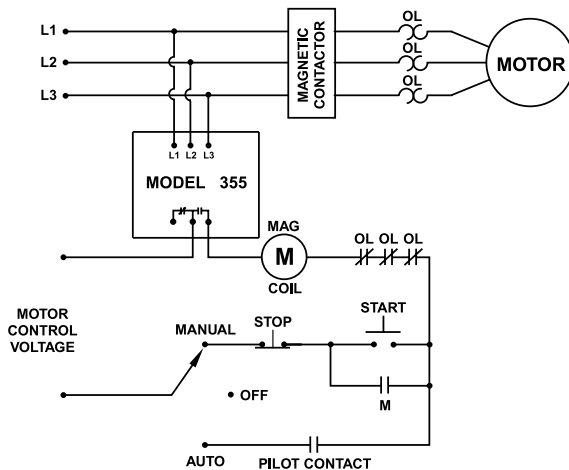
355 SERIES

3-phase voltage/phase monitor

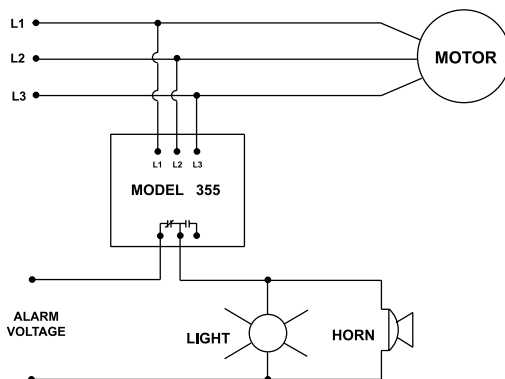


Wiring Diagram

TYPICAL WIRING DIAGRAM FOR MODEL 355 WITH MOTOR CONTROL



TYPICAL WIRING DIAGRAM FOR MODEL 355 WITH ALARM CONTROL



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

| FEATURES | BENEFITS |
|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Proprietary microcontroller based circuitry | Constantly monitors 3 phase voltage to protect against harmful line conditions, even before the motor is started |
| Advanced LED indication | Provides diagnostics which can be used for troubleshooting and to determine relay status |
| Adjustable trip and restart delay settings | 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 |
| Combines protection and diagnostics | Perfect for heavy duty applications: pump panels, commercial HVAC, and oil rigs |
| 600 V rated relay contacts available on some models | Eliminates the need for a control transformer to step voltage down to 120–240 V for a control circuit |

Ordering Information

| MODEL | LINE VOLTAGE | DESCRIPTION |
|---------|--------------|-------------|
| 355200 | 190–240 V ac | SPDT |
| 355400 | 380–480 V ac | SPDT |
| 3554005 | 380–480 V ac | DPDT |
| 355600 | 475–600 V ac | SPDT |

355 SERIES

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 Manual, 2–300 seconds adj.

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

±0.1 %

Fixed Conditions

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 %.