# 355 SERIES

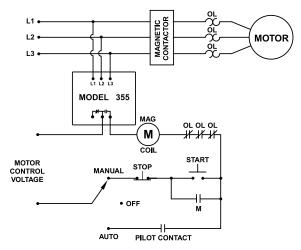
## 3-phase voltage/phase monitor



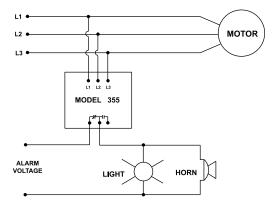


## Wiring Diagram

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, reversephase and normal conditions.

The 355200 is equipped with a heavy-duty 10A general purpose SPDT relay. The 355400 and 355600 are equipped with a 470VA @ 600VAC pilot duty SPDT relay. A high voltage (600V) DPDT relay output option is available with the 400V 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	
600V rated relay contacts available on some models	Eliminates the need for a control transformer to step voltage down to 120 - 240V for a control circuit	

#### **Ordering Information**

MODEL	LINE VOTAGE	DESCRIPTION
355200	190-240VAC	SPDT
355400	380-480VAC	SPDT
3554005	380-480VAC	DPDT
355600	475-600VAC	SPDT



# 355 SERIES

### **Specifications**

**Input Characteristics** 

Line Voltage 355200 190-240VAC 355400 380-480VAC 355600 475-600VAC

(Specify voltage range)

Frequency 50\*/60Hz

**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** 480VA at 240VAC

**General Purpose** 10A

SPDT (355400, 355600)

**Pilot Duty** 470VA @ 600VAC

**DPDT (-5 Option)** 

470VA @ 600VAC **Pilot Duty** 

#### **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 12-18AWG

**Transient Protection** 

(Internal) 2500V for 10 ms

**Safety Marks** 

UL UL508 (File #E68520)

**Dimensions H** 74.42 mm (2.93"): **W** 133.86 mm (5.27"):

#8 screws

**D** 74.93 mm (2.95")

Weight 0.94 lb. (15.04 oz., 426.38 g)

**Mounting Method** 

**Special Options** Option 5 - DPDT Relay

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