

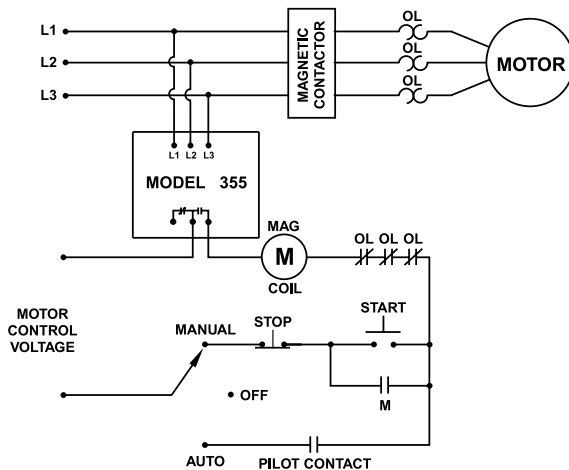
355 SERIES

3-phase voltage/phase monitor

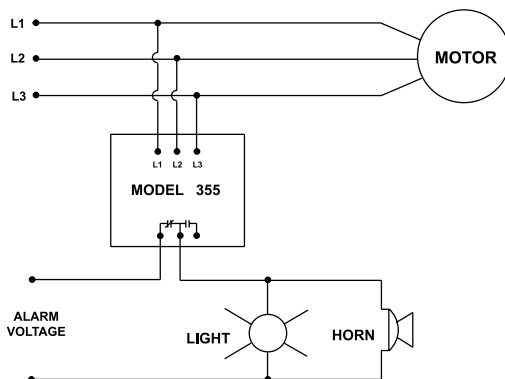


Wiring Diagram

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
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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
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Single-phasing Faults

(>25% UB)	2 seconds
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Restart Delay Time

After a Fault or Power Loss	Manual, 2–300 seconds adj.
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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)
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Storage	-40° to 80°C (-40° to 176°F)
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Repeat Accuracy

Fixed Conditions	±0.1 %
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Maximum Input Power	6 W
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Terminal

Torque	7 in.-lbs.
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Wire Size	12-18 AWG
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Transient Protection

(Internal)	2500 V for 10 ms
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Safety Marks

UL	UL 508 (File #E68520)
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Dimensions

H	74.42 mm (2.93")
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D	74.93 mm (2.95")
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Weight	0.94 lb. (15.04 oz., 426.38 g)
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Mounting Method	#8 screws
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Special Options

Option 5 - DPDT Relay

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

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