355 SERIES

3-phase voltage/phase monitor

Description

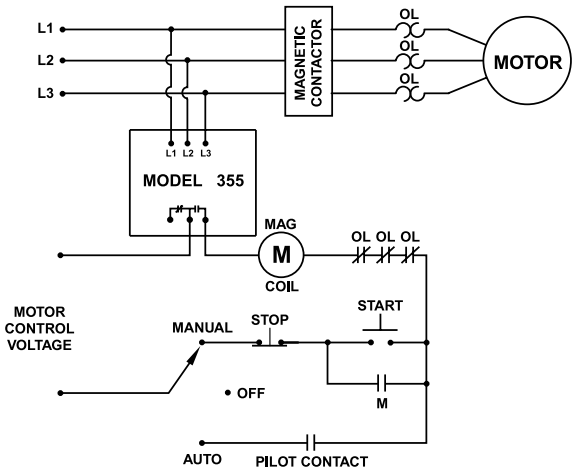
The 355 Series is a 3-phase voltage monitor with adjustable trip and restart delay, adjustable voltage unbalance and multiple diagnostic lights. It is perfect for heavy-duty applications that need both protection and simple user-friendly diagnostics. Applications include pump panels, commercial HVAC,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

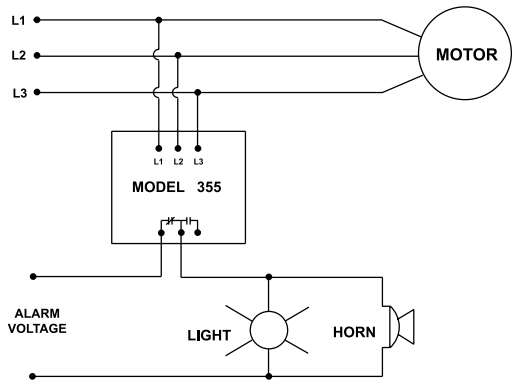
The 355200 is equipped with a heavy-duty 10A general purpose SPDT relay. The 355400 and 355600 are equipped with a 470VA @ 600VAC pilot duty SPDT relay. A high voltage (600V) DPDT relay output option is available with the 400V model.

Wiring Diagram

TYPICAL WIRING DIAGRAM FOR MODEL 355 WITH MOTOR CONTROL



TYPICAL WIRING DIAGRAM FOR MODEL 355 WITH ALARM CONTROL



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

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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)	
Pilot Duty	470VA @ 600VAC

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"); **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: 50Hz will increase all delay times by 20%.