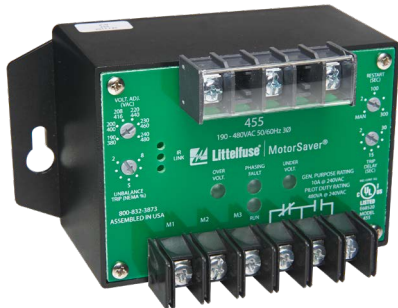


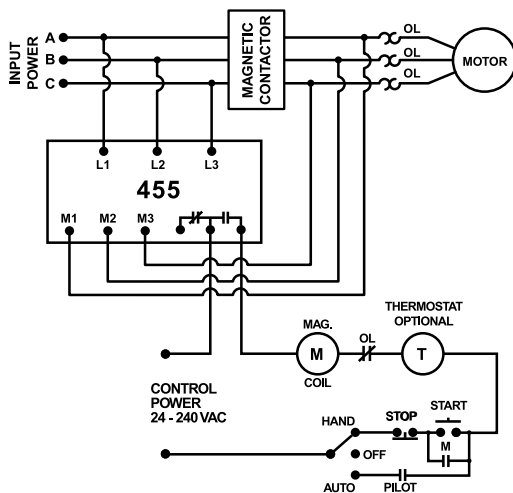
455 SERIES

3-Phase Voltage/Phase Monitor

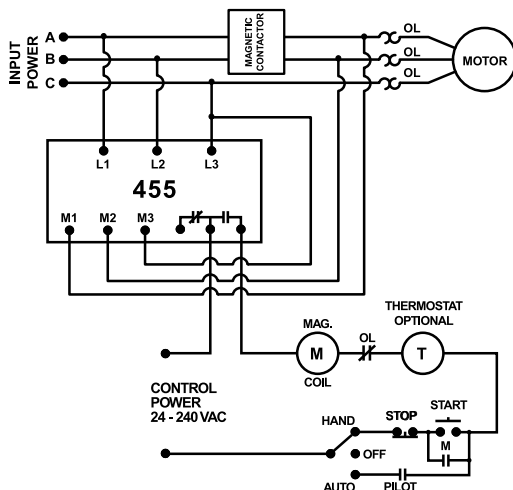


Wiring Diagram

MODEL 455 WITH MOTOR CONTROL USING A 3-POLE CONTACTOR



MODEL 455 WITH MOTOR CONTROL USING A 2-POLE CONTACTOR



Description

The 455 series are 3-phase voltage monitors that combine load and line side monitoring to offer complete protection. Monitoring the load side will alert the user of contactor failure or impending contactor failure. Line side monitoring will also protect the motor from damaging fault conditions that may be present prior to the motor starting. With other line/load side monitors, the motor must be started before a voltage fault is detected. With the 455, your motor is fully protected at all times.

The 455 series are 3-phase, dual range voltage monitors that protect 190-480 V ac, 50*/60 Hz motors, regardless of their size. It automatically selects between the 200 V and 400 V range when the user selects the nominal voltage setpoint. Other adjustments include a 2-30 second trip delay, a 2-300 second restart delay (and manual restart) and a voltage unbalance trip point of 2-8 %. The voltage monitor's circuitry is powered through the line side connections, so there is no need for separate control power, making it easy to install.

Equipped with an infrared LED, the 455 series can communicate to the optional hand-held diagnostic tool, Informer-MS to obtain valuable information such as real-time voltage, voltage unbalance on both line and load sides, motor run hours, last 20 faults, last 32 motor starts, high and low voltage trip points, voltage unbalance trip point, restart and trip delay settings, LED status and more.

Features & Benefits

FEATURES	BENEFITS
Load side monitoring of contactor	Protects motor from contactor failure or worn contacts.
Monitors contactor or starter	Prevents rapid cycling
Infrared LED Capable	Increases personnel safety line of sight monitoring using optional Informer-MS

Accessories



Informer-MS

A hand-held diagnostic tool designed for use with Littelfuse 455 equipped with an infrared LED transmitter



Informer IR Kit-36

36" infrared adapter cable attaches to the face of the unit to provide remote diagnostics without opening the panel.

Ordering Information

MODEL	LINE VOLTAGE	DESCRIPTION
455	190-480 V ac	Universal line and load side monitor
455480R	380-480 V ac	Used in high voltage applications with pilot duty 470 VA @ 600 V ac
455575	475-600 V ac	For use in Canada or NE USA where 575 V utility power services are common.

455 SERIES

Specifications

Frequency	50*/60 Hz
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 fixed
Restart Delay Time	
After a Fault	Manual, 2–300 seconds adj.
After a Complete Power Loss	Manual, 2–300 seconds adj.
After a Motor Shut-down	Manual, 2–300 seconds adj.
Output Characteristics	
Output Contact Rating (SPDT)	
Pilot Duty	480 VA @ 240 V ac
General Purpose	10 A
High Voltage Relay (-480R)	
Pilot Duty	470 VA @ 600 V ac

General Characteristics

Ambient 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)	IEC 61000-4-5;1995 ±6kV
Safety Marks	
UL	UL 508 (File #E68520)
CSA	C22.2 No. 14 (File #46510)
CE	IEC 60947-6-2
Dimensions	H 74.4 mm (2.93"); W 133.9 mm (5.27"); D 74.9 mm (2.95")
Weight	1.1 lbs. (17.6 oz., 498.95 g)
Mounting Method	#8 screws

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