

202 SERIES

3-Phase Voltage/Phase Monitor





Wiring Diagram

202 WITH MOTOR CONTROL



202 WITH ALARM CIRCUIT



Description

The 202 series is a 3-phase, auto-ranging, dual-range voltage monitor that protects 190–480 V ac, 50*/60 Hz motors regardless of size. The 202-RP (and the 202-575-RP for 475–600 V ac) monitors the phase rotation of 3-phase systems and trips on reverse-phase only. Critical applications include fan motors, scroll compressors, grinders, conveyor systems, elevators and escalators. Both products provide a user selectable nominal voltage setpoint and automatically select between the 200 V and 400 V range.

This unique microcontroller-based voltage and phase-sensing device constantly monitors the 3-phase voltages to detect harmful power line conditions. When a harmful condition is detected, the MotorSaver's output relay is deactivated after a specified trip delay. The output relay reactivates after power line conditions return to acceptable levels for a specified amount of restart delay time (or a manual reset). The 202 series includes advanced single LED diagnostics. Five different light patterns distinguish between faults and normal conditions. The status light turns green and the relay is activated when rotation is correct.

Features & Benefits

FEATURES	BENEFITS
Compact, quick mounting design	1-screw mounting saves time and space. Small footprint ideal for assembly into panels.
Proprietary microcontroller based circuitry	Constant monitoring of single-phase, low voltage, high voltage, voltage unbalance, phase reversal, harmful power line conditions.
Auto-sensing wide voltage range (202 & 202-RP	Automatically senses system voltage between 90–480 V ac. Saves setup time.
Advanced LED diagnostics	Quick visual indicator for cause of trip. LED indications include: normal operation, restart delay, reverse-phase trip, fault
Adjustable trip delay (202)	Prevent nuisance tripping due to rapidly fluctuating power line conditions.

Ordering Information

MODEL	LINE VOLTAGE	DESCRIPTION
202	190–480 V ac	Standard protection with low/high voltage trip, voltage unbalance
202-RP	190–480 V ac	Trips on reverse-phase only
202-575-RP	475–600 V ac	Designed for higher voltage systems and trips on reverse-phase only

202 SERIES



Specifications

Frequency
Functional Characteristics
Phase Sequence
Low Voltage (% of setpoint)
Trip
Reset
High Voltage (% of setpoint)
Trip
Reset
Voltage Unbalance (NEMA)
Trip
Reset
Trip Delay Time
High and Low Voltage
Unbalance & Phasing Faults
Restart Delay Time
After a Fault
After a Complete Power Loss

ABC 90 % 93 % 110 % 107 % 6 % 4.5 % 4 seconds 2 seconds

50*/60 Hz

Manual, 2–300 seconds adj. Manual, 2–300 seconds adj.

Output Characteristics Output Contact Rating (SPDT) Pilot Duty General Purpose General Characteristics

Temperature Range Trip & Reset Accuracy Repeatability Maximum Input Power Relative Humidity Transient Protection Hi-potential Test

Termination

Safety Marks UL Recognized Dimensions

Weight Mounting Method -40° to 70°C (-40° to 158°F)

480 VA @ 240 V ac

10 A @ 240 V ac

±1 % ±0.5 % 5 W 95 %, non-condensing IEC 61000-4-5, ±4 kV Meets UL 508 (2x rated V+1000 V for 1 minute) 0.25″ male quick connect

UL 508 (File #E68520) **H** 63.5 mm (2.5"); **W** 63.5 mm (2.5"); **D** 35.56 mm (1.4") 0.5 lb. (8 oz., 226.8 g) 1/4" socket head cap screw (customer supplied)

*Note: 50 Hz will increase all delay timers by 20 %. CE Pending