Voltage Monitoring Relays
201A-AU Series

3-Phase Voltage/Phase Monitor



Description

The 201A-AU series is a three-phase, auto-ranging, dual-range voltage monitor that protects 190–480 V ac, 50/60 Hz motors regardless of their size. This monitor provides a user-selectable nominal voltage setpoint and will automatically select between the 200 V and 400 V range. Additional adjustment knobs allow the user to set a 1–30 second trip delay, a manual restart or 1–500 second restart delay, and a 2–8% voltage unbalance trip point. It includes advanced, single LED diagnostics where color and light patterns distinguish between faults and normal conditions. This unique microcontroller-based voltage and phase-sensing unit constantly monitors the three-phase voltages to detect harmful power line conditions. When a harmful condition is detected, the output relay is deactivated after a specified trip delay. The output relay reactivates after power line conditions return to acceptable levels for a specified restart delay time (or manual reset).

Features & Benefits

FEATURES	BENEFITS
Proprietary microcontroller-based circuitry	Constant monitoring of loss of any phase, low-voltage, high-voltage, voltage unbalance, phase reversal, harmful power line conditions
Auto-sensing wide voltage range	Automatically senses system voltage between 190–480 V ac. Saves setup time
Advanced LED diagnostics	Quick visual indicator for cause of trip
Compact design for 8-pin; DIN-rail or surface mount	Allows flexibility in panel installation
Adjustable voltage unbalance trip setting	Allows compatibility with a variety of motors and reduces nuisance tripping
Adjustable trip and restart delay settings	Prevents nuisance tripping due to rapidly fluctuating power line conditions.

Applications

- Fan motors
- Air conditioners
- Compressors
- Heat, well, and sump pumps
- Small conveyer motors

©2023 Littelfuse, Inc.
Specifications are subject to change without notice.
Revised: 07/13/2023

Specifications

Frequency	50/60 Hz
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% (5–8%) Trip setting minus 0.5% (2–4%)
Trip Delay Time	
High, Low and Unbalanced Voltage	1–30 seconds adjustable
Single-Phasing Faults	1 second fixed
Restart Delay Time	
After a Fault	Manual, 1–500 seconds adjustable
After a Complete Power Loss	Manual, 1–500 seconds adjustable
Output Characteristics	
Output Contact Rating (1-Form C)	
Pilot Duty	480 VA @ 240 V ac, B300
General Purpose	10 A @ 240 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)
Trip & Reset Accuracy	±1%
Maximum Input Power	5 W
Relative Humidity	10–95%, non-condensing per IEC 68-2-3
Terminal Torque	12 in.-lbs. (for OT08-PC socket)
Wire Gauge	12–22 AWG solid or stranded
Standards Passed	
Electrostatic Discharge	(ESD) IEC 61000-4-2, Level 3, 6 kV contact, 8 kV air
Radio Frequency Immunity, Radiated	150 MHz, 10 V/m
Fast Transient Burst	IEC 61000-4-4, Level 3, 3.5 kV input power and controls
Surge	
IEC	IEC 61000-4-5, Level 3, 4 kV line-to-line; Level 4, 4 kV line-to-ground
ANSI/IEEE	C62.41 Surge and Ring Wave Compliance to a level of 6 kV line-to-line
Hi-potential Test	Meets UL 508 (2 x rated V +1000 V for 1 min.)
Enclosure	Polycarbonate
Dimensions	**H** 44.45 mm (1.75"); **W** 60.325 mm (2.375"); **D** 104.775 mm (4.125") (with socket)
Weight	0.7 lb. (11.2 oz., 317.51 g)
Mounting Method	DIN-rail or surface mount (plug in to OT08PC socket)
Socket Available	OT08PC (UL Rating 600 V)

The 600 V socket can be surface mounted or installed on DIN Rail.

Note: Manufacturer's recommended screw terminal torque for the OT Series Octal Sockets is 12 in.-lbs..

Must use Model OT08PC socket for UL Rating!

©2023 Littelfuse, Inc.
Specifications are subject to change without notice.
Revised: 07/13/2023

Certification & Compliance

UL	UL 508 (File #E68520)

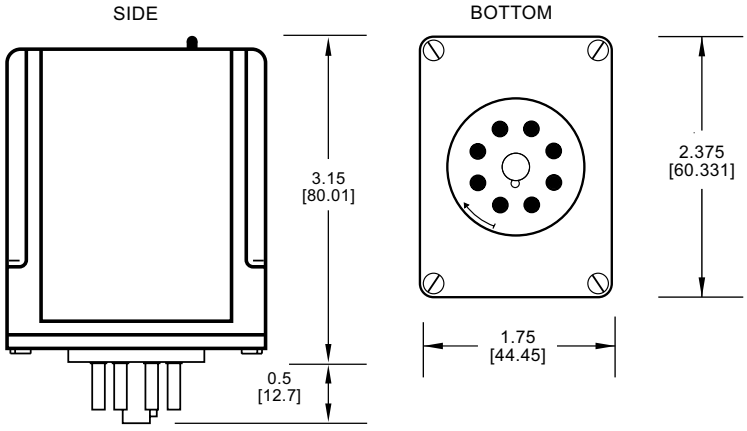
Accessories

OT08PC Octal 8-pin Socket
8-pin 35 mm DIN-rail or surface mount. Rated at 10A @ 600 V ac. Surface mounted with two #6 screws or snaps onto a 35 mm DIN rail.

Ordering Information

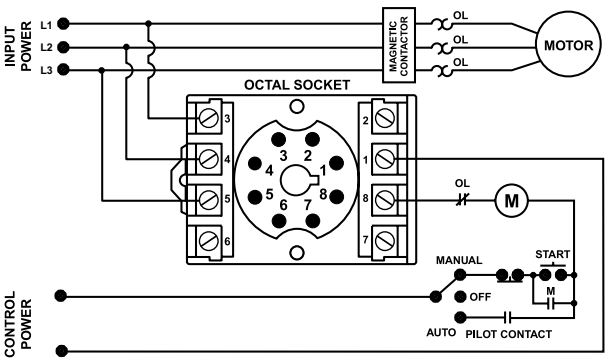
MODEL	LINE VOLTAGE	DESCRIPTION
201A-AU	190–480 V ac	DIN-rail or surface mountable
201575-AU	475–600 V ac	DIN-rail or surface mountable
201A-AU-OT	190–480 V ac	Sold with OT08PC socket
201-575-AU-OT	475–600 V ac	Sold with OT08PC socket

Dimensions Inches (mm)

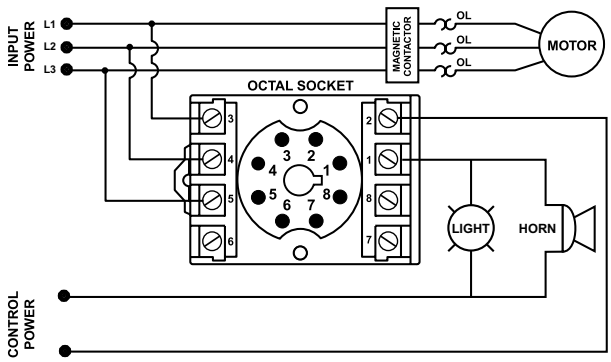


Wiring Diagram

201A-AU WITH MOTOR CONTROL



201A-AU WITH ALARM CONTROL



Disclaimer Notice – Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at **www.littelfuse.com/product-disclaimer.**

©2023 Littelfuse, Inc.
Specifications are subject to change without notice.
Revised: 07/13/2023

Voltage Monitoring Relays
201A-AU Series

3-Phase Voltage/Phase Monitor



Description

The 201A-AU series is a three-phase, auto-ranging, dual-range voltage monitor that protects 190–480 V ac, 50/60 Hz motors regardless of their size. This monitor provides a user-selectable nominal voltage setpoint and will automatically select between the 200 V and 400 V range. Additional adjustment knobs allow the user to set a 1–30 second trip delay, a manual restart or 1–500 second restart delay, and a 2–8% voltage unbalance trip point. It includes advanced, single LED diagnostics where color and light patterns distinguish between faults and normal conditions. This unique microcontroller-based voltage and phase-sensing unit constantly monitors the three-phase voltages to detect harmful power line conditions. When a harmful condition is detected, the output relay is deactivated after a specified trip delay. The output relay reactivates after power line conditions return to acceptable levels for a specified restart delay time (or manual reset).

Features & Benefits

FEATURES	BENEFITS
Proprietary microcontroller-based circuitry	Constant monitoring of loss of any phase, low-voltage, high-voltage, voltage unbalance, phase reversal, harmful power line conditions
Auto-sensing wide voltage range	Automatically senses system voltage between 190–480 V ac. Saves setup time
Advanced LED diagnostics	Quick visual indicator for cause of trip
Compact design for 8-pin; DIN-rail or surface mount	Allows flexibility in panel installation
Adjustable voltage unbalance trip setting	Allows compatibility with a variety of motors and reduces nuisance tripping
Adjustable trip and restart delay settings	Prevents nuisance tripping due to rapidly fluctuating power line conditions.

Applications

- Fan motors
- Air conditioners
- Compressors
- Heat, well, and sump pumps
- Small conveyer motors

©2023 Littelfuse, Inc.
Specifications are subject to change without notice.
Revised: 07/13/2023

Specifications

Frequency	50/60 Hz
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% (5–8%) Trip setting minus 0.5% (2–4%)
Trip Delay Time	
High, Low and Unbalanced Voltage	1–30 seconds adjustable
Single-Phasing Faults	1 second fixed
Restart Delay Time	
After a Fault	Manual, 1–500 seconds adjustable
After a Complete Power Loss	Manual, 1–500 seconds adjustable
Output Characteristics	
Output Contact Rating (1-Form C)	
Pilot Duty	480 VA @ 240 V ac, B300
General Purpose	10 A @ 240 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)
Trip & Reset Accuracy	±1%
Maximum Input Power	5 W
Relative Humidity	10–95%, non-condensing per IEC 68-2-3
Terminal Torque	12 in.-lbs. (for OT08-PC socket)
Wire Gauge	12–22 AWG solid or stranded
Standards Passed	
Electrostatic Discharge	(ESD) IEC 61000-4-2, Level 3, 6 kV contact, 8 kV air
Radio Frequency Immunity, Radiated	150 MHz, 10 V/m
Fast Transient Burst	IEC 61000-4-4, Level 3, 3.5 kV input power and controls
Surge	
IEC	IEC 61000-4-5, Level 3, 4 kV line-to-line; Level 4, 4 kV line-to-ground
ANSI/IEEE	C62.41 Surge and Ring Wave Compliance to a level of 6 kV line-to-line
Hi-potential Test	Meets UL 508 (2 x rated V +1000 V for 1 min.)
Enclosure	Polycarbonate
Dimensions	**H** 44.45 mm (1.75"); **W** 60.325 mm (2.375"); **D** 104.775 mm (4.125") (with socket)
Weight	0.7 lb. (11.2 oz., 317.51 g)
Mounting Method	DIN-rail or surface mount (plug in to OT08PC socket)
Socket Available	OT08PC (UL Rating 600 V)

The 600 V socket can be surface mounted or installed on DIN Rail.

Note: Manufacturer's recommended screw terminal torque for the OT Series Octal Sockets is 12 in.-lbs..

Must use Model OT08PC socket for UL Rating!

©2023 Littelfuse, Inc.
Specifications are subject to change without notice.
Revised: 07/13/2023

Certification & Compliance

UL	UL 508 (File #E68520)

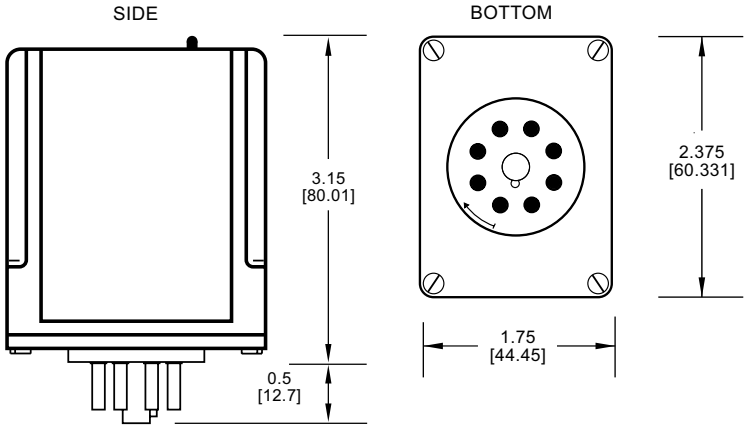
Accessories

OT08PC Octal 8-pin Socket
8-pin 35 mm DIN-rail or surface mount. Rated at 10A @ 600 V ac. Surface mounted with two #6 screws or snaps onto a 35 mm DIN rail.

Ordering Information

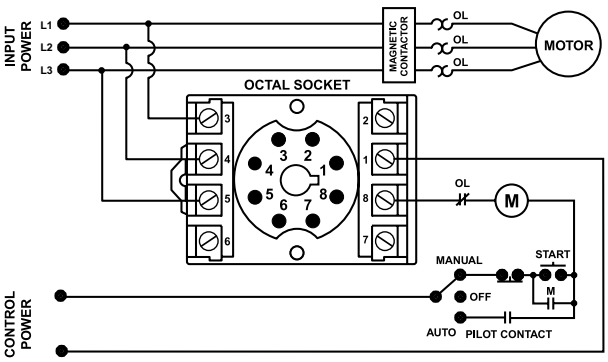
MODEL	LINE VOLTAGE	DESCRIPTION
201A-AU	190–480 V ac	DIN-rail or surface mountable
201575-AU	475–600 V ac	DIN-rail or surface mountable
201A-AU-OT	190–480 V ac	Sold with OT08PC socket
201-575-AU-OT	475–600 V ac	Sold with OT08PC socket

Dimensions Inches (mm)

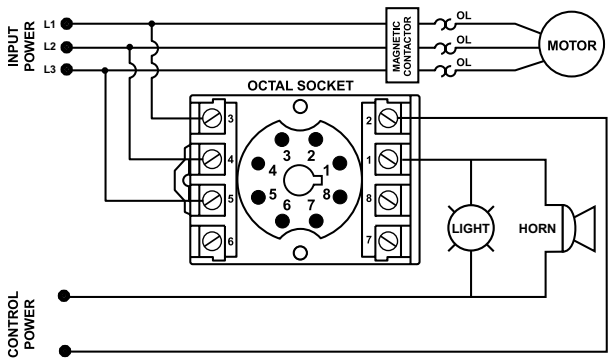


Wiring Diagram

201A-AU WITH MOTOR CONTROL



201A-AU WITH ALARM CONTROL



Disclaimer Notice – Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at **www.littelfuse.com/product-disclaimer.**

©2023 Littelfuse, Inc.
Specifications are subject to change without notice.
Revised: 07/13/2023