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

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

Applications

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

<table>
<thead>
<tr>
<th>MODEL</th>
<th>LINE VOLTAGE</th>
<th>DESCRIPTION</th>
</tr>
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<tbody>
<tr>
<td>201A-AU</td>
<td>190–480 V ac</td>
<td>DIN-rail or surface mountable</td>
</tr>
<tr>
<td>201575-AU</td>
<td>475–600 V ac</td>
<td>DIN-rail or surface mountable</td>
</tr>
<tr>
<td>201A-AU-OT</td>
<td>190–480 V ac</td>
<td>Sold with OT08PC socket</td>
</tr>
<tr>
<td>201-575-AU-OT</td>
<td>475–600 V ac</td>
<td>Sold with OT08PC socket</td>
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</tbody>
</table>

Dimensions Inches (mm)

![Dimensions Diagram]

Wiring Diagram

201A-AU WITH MOTOR CONTROL

201A-AU WITH ALARM CONTROL

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