Description

The 601-CS-D-P1 3-phase power monitor is a fully programmable electronic power monitor designed to monitor 3-phase systems. The 601-CS-D-P1 has a single relay that can be configured as a general purpose network output or to trip on ground faults. The 601-CS-D-P1 monitors ground fault current, phase currents, phase voltages, power factor and frequency. The RS485MS-2W communications module allows the 601-CS-D-P1 to communicate using the Modbus RTU protocol. The Modbus connection can be used to monitor power parameters, setup the device or control the fault relay. A DeviceNet™ communications I/O module (CIO-601CS-DN-P1) is available as well. This CIO module only works with the 601-CS-D-P1 unit. It is used for sending the information from the 601-CS-D-P1 over a DeviceNet™ network. It also provides I/O capabilities and the ability to set the parameters of the 601-CS-D-P1.

Note: This product must be used with an external Zero-Sequence CT for proper operation (not included).

Features & Benefits

<table>
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<tr>
<th>FEATURES</th>
<th>BENEFITS</th>
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<tbody>
<tr>
<td>Built-in display</td>
<td>Visual indication for programming and viewing real-time parameters for nominal voltage, voltage unbalance, current, current unbalance, ground fault warning, ground fault trip, and ground fault motor acceleration</td>
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<td>15 Programmable parameters to control the device operation</td>
<td>Allows the user to customize the protection required for their system</td>
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<td>2 programmable trip delay timers</td>
<td>Program separate trip delay time for motor acceleration and ground fault</td>
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<td>Network communications capability</td>
<td>Compatible with Modbus RTU and DeviceNet™ protocols with the use of separate communications module</td>
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Accessories

**CIO-601CS-DN-P1 Module**

Convenient, cost-effective DeviceNet™ interface device capable of providing discrete control and monitoring of motor starters, drives and other devices over a DeviceNet™ network.
### Specifications

#### Input Characteristics
- **Line Voltage**: 200-480VAC
- **Frequency**: 50/60Hz
- **Motor Full Load Amp Range**: 0.5-175A (direct) 176-800A (CTs required)
- **Input Ground Fault Current**: 0.5-10A

#### Output Characteristics
- **Output Contact Rating (SPDT)**: 480VA @ 240VAC
- **General Duty**: 10A @ 240VAC
- **Expected Life**: 1 x 10^6 operations
- **Mechanical**: 1 x 10^6 operations at rated load

#### General Characteristics
- **Ambient Temperature Range**: Operating: -20° to 70°C (-4° to 158°F), Storage: -40° to 80°C (-40° to 176°F)
- **Accuracy at 25° C (77° F)**: Voltage: +/-1%, Current: +/-3% (<175A direct), GF Current: +/-3%
- **Repeatability**: Voltage: +/-0.5% of nominal voltage, Current: +/-1% (<175A direct)
- **Maximum Input Power**: 10 W
- **Pollution Degree**: 3
- **Class of Protection**: IP20
- **Relative Humidity**: 10-95%, non-condensing per IEC 68-2-3
- **Terminal Torque**: 7in.-lbs.

#### Standards Passed
- **Electrostatic Discharge (ESD)**: IEC 61000-4-2, Level 3, 6kV contact, 8kV air
- **Radio Frequency Immunity, Conducted**: IEC 61000-4-6, Level 3 10V
- **Radio Frequency Immunity, Radiated**: IEC 61000-4-3, Level 3, 3.5kV input power
- **Fast Transient Burst**: IEC 61000-4-4, Level 3, 3.5kV input power
- **Short Circuit Rating**: 100kA rms, SYM, 600VAC max.
- **Surge Immunity IEC**: IEC 61000-4-5, Level 3, 2kV line-to-line; Level 4, 4kV line-to-ground
- **ANSI/IEEE C62.41 Surge and Ring Wave Compliance to a level of 6kV line-to-line**: Meets UL508 (2 x rated V +1000V for 1 minute)
- **High Potential Test**: UL508 (File #E68520), IEC 60947-1, IEC 60947-5-1
- **Max Conductor Size (with insulation)**: 0.65"
- **Dimensions**: 
  - **H**: 77.47 mm (3.05""); **W**: 97.79 mm (3.85""); **D**: 128.27 mm (5.05"")
  - **Weight**: 1.2 lbs. (19.2 oz., 544.31 g)
  - **Mounting Method**: Surface mount (4 - #8 screws) or DIN rail mount

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Rev: 1-A-062716