

Ground Fault Monitor

Model 601-CS-D-P1

monitors a zero-sequence CT for high accuracy ground fault protection



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).



For more information see:

See Appendix A, page 66, Figure 1 for dimensional drawing.

See Appendix B, page 73, Figure 7 for typical wiring diagrams.

Features:

- Ground fault warning (enable/delay)
- Ground fault trip (enable/trip delay)
- Ground fault motor acceleration (enable/trip delay)
- Modbus communications watchdog

Approvals:  

Auxiliary Products:

- CIO-601CS-DN-P1

Available Models:

601-CS-D-P1

Specifications

Input Characteristics		Pollution Degree	.....3
Line Voltage	.....200-480VAC	Class of Protection	.....IP20
Frequency	.....50/60Hz	Relative Humidity	.....10-95%, non-condensing per IEC 68-2-3
Motor Full Load Amp Range	.....0.5-175A (direct) 176-800A (CTs required)	Terminal Torque	.....7in.-lbs.
Input Ground Fault Current	.....0.5-10A	Standards Passed	
Output Characteristics		Electrostatic Discharge (ESD)	.....IEC 61000-4-2, Level 3, 6kV contact, 8kV air
Output Contact Rating (SPDT)		Radio Frequency Immunity, Conducted	.....IEC 61000-4-6, Level 3 10V
Pilot Duty	.....480VA @ 240VAC	Radio Frequency Immunity, Radiated	.....IEC 61000-4-3, Level 3, 10 V/m
General Purpose	.....10A @ 240VAC	Fast Transient Burst	.....IEC 61000-4-4, Level 3, 3.5kV input power
Expected Life		Short Circuit Rating	.....100kA RMS, SYM, 600VAC max.
Mechanical	.....1 x 10 ⁶ operations	Surge Immunity	
Electrical	.....1 x 10 ⁶ operations at rated load	IEC	.....IEC 61000-4-5, Level 3, 2kV line-to-line; Level 4, 4kV line-to-ground
General Characteristics		ANSI/IEEE	.....Meets UL508 (2 x rated V +1000V for 1 minute)
Ambient Temperature Range		High Potential Test	.....Meets UL508 (2 x rated V +1000V for 1 minute)
Operating	.....-20° to 70°C (-4° to 158°F)	Safety Marks	
Storage	.....-40° to 80°C (-40° to 176°F)	UL	.....UL508 (File #E68520)
Accuracy at 25° C (77° F)		CE	.....IEC 60947-1, IEC 60947-5-1
Voltage	.....±1%	Max Conductor Size (with insulation)	.....0.65"
Current	.....±3% (<175A direct)	Dimensions	.....3.05 H x 3.85 W x 5.05 D in. (77.47 x 97.79 x 128.27 mm)
GF Current	.....±3%	Weight	.....1.2 lbs. (19.2 oz., 544.31 g)
Repeatability		Mounting Method	.....Surface mount (4 - #8 screws) or DIN rail mount
Voltage	.....±0.5% of nominal voltage		
Current	.....±1% (<175A direct)		
Maximum Input Power	.....10 W		