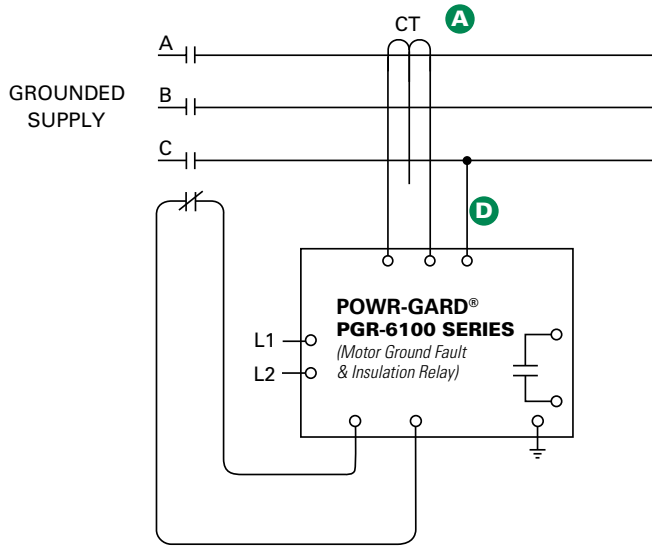
PGR-6100 SERIES

Motor Ground-Fault & Insulation Relay

Simplified Circuit Diagram



Ordering Information

CATALOG/SYSTEM NUMBER	CONTROL POWER	VOLTAGE
PGR-6100-120	120 Vac	50–60 Hz, 5 VA
PGR-6100-240	240 Vac	50–60 Hz, 5 VA

ACCESSORIES	REQUIREMENT	PAGE
PGC-5000 Series	Required	43
PGH Family	Required >1300 V	49
PGA-0500	Optional	47
PGA-0510	Optional	47

Note: For optional conformal coating please consult factory.

Description

The PGR-6100 combines the features of a ground-fault motor-protection relay and insulation monitor into one unit. It protects against ground faults, both when the motor is energized (by monitoring the ground-fault current) and de-energized (by monitoring the insulation resistance).The PGR-6100 features two separate analog outputs for optional current and ohm meters, and two separate alarm relays. It operates on one- or three-phase solidly grounded, resistance grounded and ungrounded systems up to 6 kV.

Features & Benefits

FEATURES	BENEFITS
Adjustable GF Pickup (10 mA–3 A)	Trip setting provides a wide range of low-level protection and system coordination
Adjustable Insulation Pickup (250 kΩ–2 MΩ)	Customizable insulation resistance setpoints for maximum protection
Adjustable Time Delay (50 ms–1.0 s)	Adjustable trip delay for quick protection and system coordination
Output Contacts	Two Form C output contacts for ground fault and insulation-resistance fault
Analog Outputs (0–1 mA)	Two analog outputs indicate insulation resistance and ground-fault current
CT-Loop Monitoring	Alarms when CT is not connected
Selectable Contact Operating Mode	Selectable fail-safe or non-fail-safe operating modes allows connection to shunt or undervoltage breaker coil

Accessories

A 

PGC-5000 Series Ground-Fault Transformers
Required zero-sequence current transformer specifically designed for low level detection. Flux conditioner is included to prevent saturation.

B C 

PGA-0500 Analog % Current Meter
PGA-0510 Analog Ohm Meter
Optional panel-mounted meters display ground-fault current as a percentage of the set-point and insulation resistance.

D 

PGH-Family High Tension Couplers
Required (for systems >1,300 V) PGH Family high-tension coupler must be connected between the phase conductor and the PGR-3200.

For detailed wiring diagram, see page 71.

Specifications

IEEE Device Numbers	Ground fault (50G/N, 51G/N), Ground detector (64), Alarm Relay (74)
Input Voltage	See ordering information
Dimensions	**H** 75 mm (3"); **W** 99.7 mm (3.9"); **D** 110 mm (4.3")
Response delay	< 250 ms
Contact Operating Mode	Selectable fail-safe or non-fail-safe
Harmonic Filtering	Standard feature
Test Button	Standard feature
Reset Button	Standard feature
CT-Loop Monitoring	Standard feature
Output Contacts	Two Form C
Communications	Two Analog outputs
Warranty	5 years
Mounting	DIN, Surface