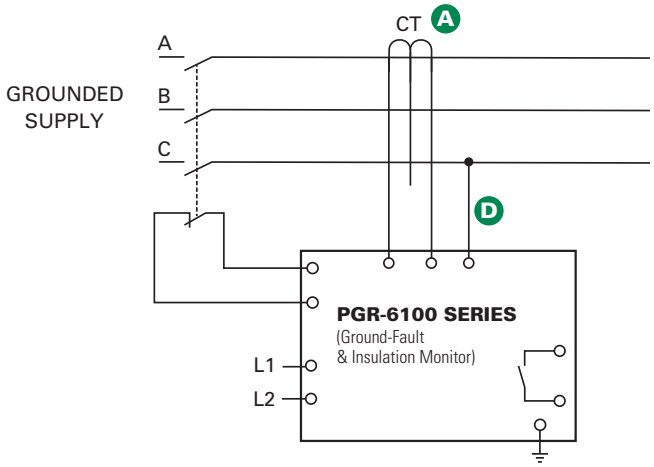
PGR-6100 SERIES (GFR4000)

Ground-Fault & Insulation Monitor

Description

The PGR-6100 combines the features of a ground-fault protection relay and insulation monitor into one unit. It protects against ground faults by monitoring insulation resistance when the motor is de-energized and by monitoring ground-fault current when the motor is energized. 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.

Simplified Circuit Diagram



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-6100.

Ordering Information

ORDERING NUMBER	CONTROL POWER
PGR-6100-120	120 Vac
PGR-6100-240[1]	240 Vac [1]

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

Note (1) - PGR-6100-240 ordering option is not UL Listed.
For optional conformal coating please consult factory.

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** 100 mm (3.9"); **D** 115 mm (4.5")
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
Analog Output	0-1 mA
Approvals	UL Listed (E183688) [1]
Warranty	5 years
Mounting	DIN, Surface