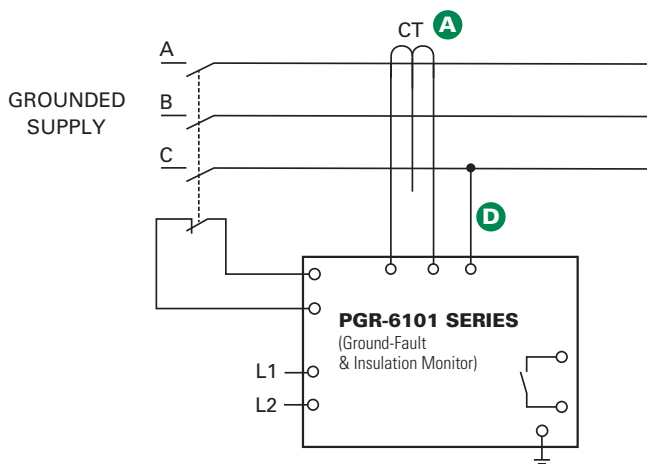


# PGR-6100 SERIES (GFR4000)

## Ground-Fault & Insulation Monitor



## Simplified Circuit Diagram



## Ordering Information

ORDERING NUMBER	CONTROL POWER
PGR-6100-120	120 Vac
PGR-6100-240 <sup>(1)</sup>	240 Vac <sup>(1)</sup>

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.

## 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.

## Features & Benefits

FEATURES	BENEFITS
<b>Adjustable GF pickup (10 mA-3 A)</b>	Trip setting provides a wide range of low-level protection and system coordination
<b>Adjustable insulation pickup (250 kΩ-2 MΩ)</b>	Customizable insulation resistance setpoints for maximum protection
<b>Adjustable time delay (50 ms-1.0 s)</b>	Adjustable trip delay for quick protection and system coordination
<b>Output contacts</b>	Two Form C output contacts for ground fault and insulation-resistance fault
<b>Analog outputs (0-1 mA)</b>	Two analog outputs indicate insulation resistance and ground-fault current
<b>CT-Loop monitoring</b>	Alarms when CT is not connected
<b>Selectable contact operating mode</b>	Selectable fail-safe or non-fail-safe operating modes allows connection to shunt or undervoltage breaker coil

## Accessories

- A** **SE-CS30 Series Ground-Fault CTs**  
Required zero-sequence current transformer specifically designed for low level detection. Flux conditioner is included to prevent saturation.
- B** **PGA-0500 Analog % Current Meter**
- C** **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.

## Specifications

### IEEE Device Numbers

**Input Voltage**  
**Dimensions**  
**Response delay**  
**Contact Operating Mode**  
**Harmonic Filtering**  
**Test Button**  
**Reset Button**  
**CT-Loop Monitoring**  
**Output Contacts**  
**Analog Output**  
**Approvals**  
**Warranty**  
**Mounting**

Ground Fault (50G/N, 51G/N),  
Ground detector (64), Alarm Relay (74)  
**See ordering information**  
H 75 mm (3"); W 100 mm (3.9"); D 115 mm (4.5")  
< 250 ms  
Selectable fail-safe or non-fail-safe  
Standard feature  
Standard feature  
Standard feature  
Standard feature  
Two Form C  
0-1 mA  
UL Listed (E183688) <sup>(1)</sup>  
5 years  
DIN, Surface