TABLE OF CONTENTS

1 FEATURES ........................................................................................................ 1

2 DESCRIPTION .................................................................................................. 1

3 INSTALLATION ................................................................................................ 1

4 TECHNICAL SPECIFICATIONS ................................................................. 4

LIST OF FIGURES

1 PGR-3100 Outline and Mounting Details ....................................................... 1

2 Connection Diagram for an Ungrounded 240- to 600-V System ....................... 2

3 Connection Diagram for Ungrounded Systems above 600 V ......................... 2

4 Connection Diagram for Resistance-Grounded System up to 600 V ................. 3

5 Connection Diagram for a Resistance-Grounded System above 600 V ............. 3

DISCLAIMER
Specifications are subject to change without notice. Littelfuse, Inc. is not liable for contingent or consequential damages, or for expenses sustained as a result of a malfunction, incorrect application, or incorrect adjustment.
This page intentionally left blank.
1. FEATURES

- Green LED’s indicate presence of voltage to ground for each phase of a power system.
  - A ground fault (or phase loss) is indicated when a set of LED’s is off.
  - LED’s are on when phase-to-ground voltage exceeds 30 Vac.
  - Redundant LED’s are used for reliability.
- Pressing LAMP TEST causes all LED’s to light.

**NOTE:** The LAMP TEST feature requires an isolated 120 Vac supply.

- Direct connection for voltages up to 600 Vac line to line.
  - Potential transformers (PT’s) are required for voltages greater than 600 Vac.
- Provides faulted-phase indication for resistance-grounded systems and ungrounded systems.

2. DESCRIPTION

The PGR-3100 is a self-powered ground-fault indication system. Presence of phase-to-ground voltage is indicated by redundant LED’s (two per phase). The respective phase LED’s are off when phase-to-ground voltage is less than 30 Vac. The PGR-3100 meets the National Electrical Code requirements for ground detectors for ungrounded alternating-current systems as defined in NEC 250.21. It also meets the Canadian Electrical Code requirements for ungrounded alternating-current systems in accordance with CEC 10-106(2).

3. INSTALLATION

Outline and panel-mounting details are shown in Fig.1.

For 208- to 600-Vac systems, connect the PGR-3100 directly to the three-phase bus. For 208- or 240-volt installations, use terminals AL, BL, and CL. For systems above 240 V and up to 600 V use terminals AH, BH, and CH. See Figs. 2 and 4.

For systems above 600 V, install PT’s as shown in Figs. 3 and 5.

Connect terminal G and chassis-bonding terminal (urrect) to ground.

For LAMP TEST connect 120 Vac supply to terminals L and G. Connection and use of LAMP TEST circuit is optional.

---

**FIGURE 1. PGR-3100 Outline and Mounting Details.**
FIGURE 2. Connection Diagram for an Ungrounded 240- to 600-V System.

FIGURE 3. Connection Diagram for Ungrounded Systems above 600 V.

NOTES:
1. USE L TERMINALS FOR SYSTEMS UP TO 240 V. USE H TERMINALS FOR SYSTEMS ABOVE 240 V UP TO 600 V.
2. CODES MAY REQUIRE INTERLOCKED DISCONNECT SWITCH
3. 120/\sqrt{3} OR 240/\sqrt{3} V PT SECONDARY
FIGURE 4. Connection Diagram for a Resistance-Grounded System up to 600 V.

FIGURE 5. Connection Diagram for Resistance-Grounded Systems above 600 V.
4. TECHNICAL SPECIFICATIONS

Phase Voltage
Input L, maximums .......................... 240 Vac to ground,
              3.5 mA
Input H, maximums .......................... 600 Vac to ground,
              4.5 mA

Lamp Test ...........................................
Isolated 120 Vac,
1 VA maximum

LED Threshold ................................. 30 Vac, minimum

Dielectric Strength ............................. 2,200 Vac, 1 minute

Shipping Weight ............................... 0.3 kg (0.8 lb.)

Dimensions:
Height ............................................. 108 mm (4.3”)
Weight ............................................. 88.9 mm (3.5”)
Depth .................................................. 54 mm (2.1”)

Environment:
Operating Temperature ..................... -40 to 60°C
Storage Temperature ......................... -55 to 80°C
Humidity ........................................ 85% Non-Condensing
Enclosure Rating .............................. IP40 (When installed
on panel)

PWB Conformal Coating ....................... MIL-1-46058 qualified
UL QMJU2 recognized

Certification ...................................... CSA, USA and Canada

UL Listed

UL Listed
# APPENDIX A

## PGR-3100 REVISION HISTORY

<table>
<thead>
<tr>
<th>MANUAL RELEASE DATE</th>
<th>MANUAL REVISION</th>
<th>PRODUCT REVISION (REVISION NUMBER ON PRODUCT LABEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 08, 2018</td>
<td>6-A-060818</td>
<td></td>
</tr>
<tr>
<td>March 09, 2012</td>
<td>6</td>
<td>03</td>
</tr>
</tbody>
</table>

## MANUAL REVISION HISTORY

**REVISION 6-A-060818**

**SECTION 1**

Format updated.

## PRODUCT REVISION HISTORY

**PRODUCT REVISION 03**