AC DC AC/DC MED PV

Manual EN

PowerGuard GFCI

Protection Panels for Commercial Kitchens

14.63i.REV.0 | 09.2025

BENDER

General Safety Warning

CAUTION -To prevent severe shock or electrocution, always turn the power OFF at the service panel before working with wiring.

Use this GFCI receptacle with copper or copper-clad wire. Do not use it with aluminum wire.

Must be installed in accordance with national and local electrical codes.

Do not install this GFCI receptacle on a circuit that powers life support equipment because if the GFCI trips it will shut down the equipment.

ATTENTION - Pour éviter de graves chocs électriques ou l'électrocution, couper toujours l'alimentation au panneau de service, avant de travailler sur le câblage.

Utiliser toujours cette prise de disjoncteur de fuite à la terre avec des fils de cuivre ou recouverts de cuivre. Ne pas utiliser avec des fils d'aluminium

Doit être installé selon les codes électriquesnationaux et locaux. Ne pas installer cette prise de disjoncteur de fuite à la terre dans un circuit alimentant des appareils de survie car lorsque le disjoncteur de fuite déclenche, l'appareil se ferme. PowerGuard Class A GFCI

PowerGuard Class A GFCI

This document is intended as a reference guide for installing and using a Bender PowerGuard series GFCI. This document includes installation, setup, and usage instructions. Only qualified maintenance personnel shall operate or service this equipment. These instructions should not be viewed as sufficient for those who are not otherwise qualified to operate or service this equipment. This document is intended to provide accurate information only. No responsibility is assumed by Bender for any consequences arising from improper use of this document.

Ce document est destiné à servir de guide de référence pour l'installation et l'utilisation d'un GFCI de la série Bender PowerGuard. Ce document comprend des instructions d'installation, de configuration et d'utilisation. Seul le personnel de maintenance qualifié doit faire fonctionner ou entretenir cet équipement. Ces instructions ne doivent pas être considérées comme suffisantes pour ceux qui ne sont pas autrement qualifiés pour faire fonctionner ou entretenir cet équipement. Ce document est destiné à fournir uniquement des informations précises. Aucune responsabilité n'est assumée par Bender pour les conséquences découlant d'une utilisation incorrecte de ce document.

PowerGuard Model PGDK-A-208-80-P-A

Trip Curve	6mA, Fixed (UL943 Inverse Time Curve)
1φ, 2-wire, (L1, L2)	✓
1φ, 2-wire, (L1, N)	
3φ, 4-wire, (L1, L2, L3, N)	
3φ, 3-wire, (L1, L2, L3)	✓
Splitφ, 3-wire, (L1, L2, N)	
Max Current Rating	80A
Max Input Voltage	208V (+10%)
UL Rating	UL 943 Class A
Enclosure Material	Polycarbonate
NEMA Rating / UL Type Rating	Type 4X
Height, Width, Depth	13.4" x 11.4" x 7.85"
Mounting	Wall mount
Interface	Test, Reset
Weight	
SCCR rating	

Interface

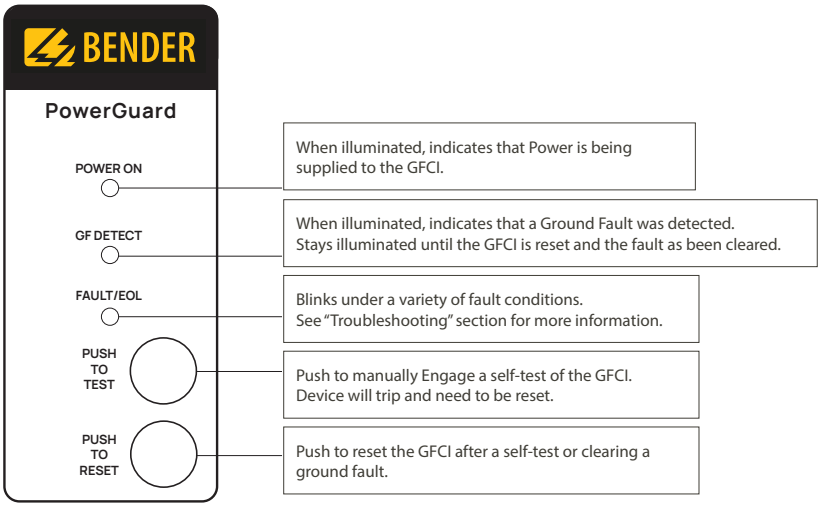

Figure 1

Installation

Mounting -

The standard enclosure for PowerGuard GFCI devices is a NEMA Type 4X polycarbonate enclosure intended to be wall mounted. To install the included mounting tabs, place the mounting tabs over the octagon bosses. Fasten them to the enclosure using the provided 1/4”-20 x 0.25” SS, countersunk Phillips drive screws (30 in-lb torque limit).

Refer to *figure 2* below for dimensions for wall mounting hole pattern. The mounting tabs are slotted to allow vertical and horizontal adjustability for the location of any mounting screws.

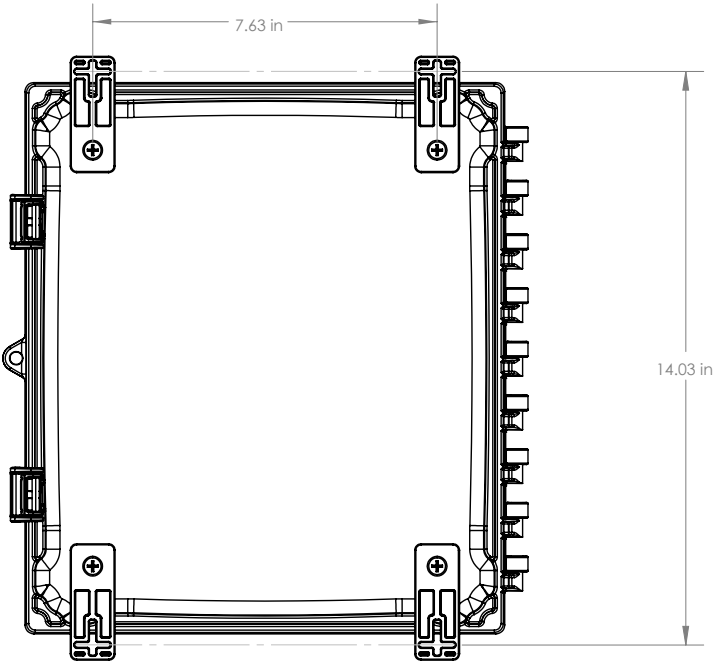

Figure 2

Wiring

⚠ HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- **Disconnect all power before servicing.**
- **The device does not guard against electric shock resulting from contact with both live circuit conductors.**
- **Observe all local, state, and national codes, standards, and regulations.**

⚠ RISQUE DE CHOC ÉLECTRIQUE, D'EXPLOSION OU D'ARC ÉLECTRIQUE

- **Déconnectez toute alimentation avant toute intervention.**
- **Respectez tous les codes, normes et règlements locaux, régionaux et nationaux.**
- **L'appareil ne protège pas contre les chocs électriques résultant d'un contact avec les deux conducteurs de circuit sous action.**

A professional electrician, licensed in accordance with local laws and regulations, must perform this installation. The enclosure must be penetrated in order to bring the line and load conductors to the protective circuit and out to the load. Bender recommends making these penetrations on the top and bottom of the enclosure in line with the internal contactor. The installer must make use of NEMA Type 4X (minimum) fittings to maintain the environmental rating of the enclosure.

1. Connect the PowerGuard GFCI in series with the protected circuits/devices. Refer to Figure 3 for the proper wiring diagram for single and 3 phase 208V wiring. Line side wiring refers to the current carrying conductors between the breaker panel and the GFCI, and load side wiring refers to the current carrying conductors between the GFCI and the protected branch circuits/devices.
2. Route the line side current carrying conductors through the CT (Current Transformer) and connect them to L1, L2, and L3 (for 3 phase circuits) of the internal contactor.
3. Connect the load side wiring to T1, T2, and T3 of the contactor.
4. Connect Earth/Ground to the Ground lug. NOTE: Do not ever route Earth/Ground/Neutral through the CT (Current Transformer).
5. Close wiring compartment door and engage latches. Use included screw to secure hasp (tabs with center hole between latches) to prevent electrical tampering after installation.
6. Press "RESET" button to initialize.

Observe the following requirements during installation:

- Use AWG 6-14 copper wire only. Use 60 °C /140 °F (minimum) rated conductors.
- Disconnect switch, branch circuit protection, and/or overload relay must be provided separately.

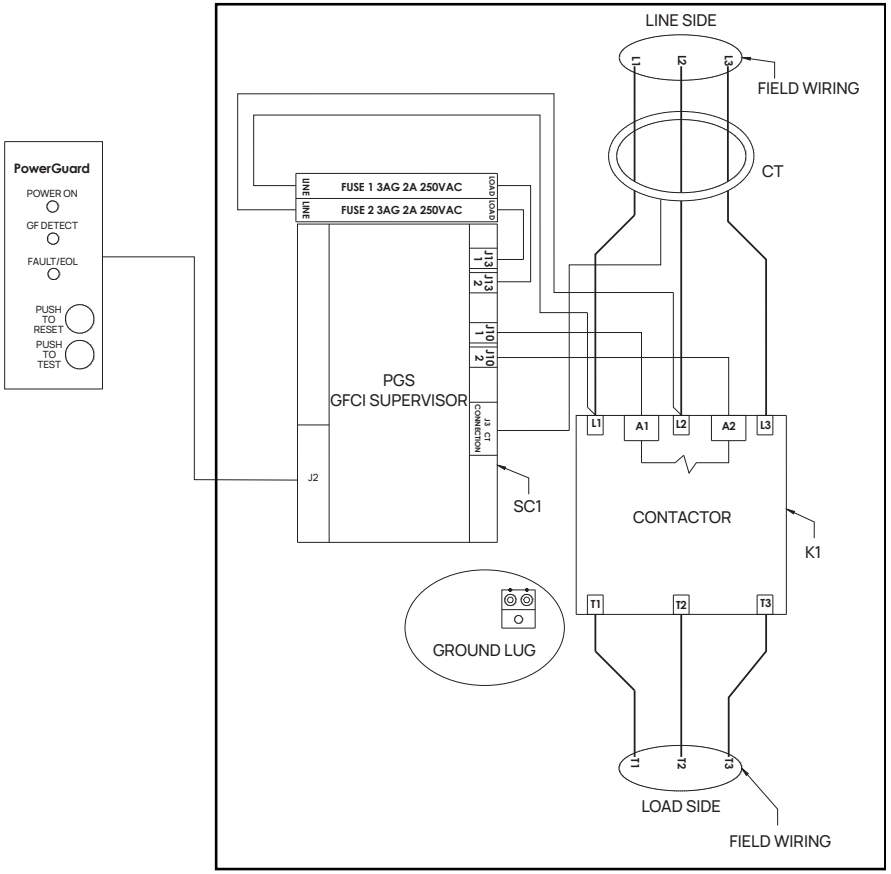
LINE SIDE
L1
L2
L3
FIELD WIRING
CT
PowerGuard
POWER ON
GF DETECT
FAULT/EOL
PUSH TO RESET
PUSH TO TEST
FUSE 1 3AG 2A 250VAC
FUSE 2 3AG 2A 250VAC
LINE
LOAD
J13 1
J13 2
J10 1
J10 2
PGS
GFCI SUPERVISOR
J3 CT CONNECTION
J2
SC1
L1
A1
L2
A2
L3
CONTACTOR
K1
T1
T2
T3
GROUND LUG
LOAD SIDE
FIELD WIRING

Figure 3

Perform Self-Test

Always perform a self test after mounting and wiring the GFCI device. Self testing should be done on a monthly basis.

Effectuez toujours un auto-test après le montage et le câblage de l'appareil GFCI. L'autodé-test devrait être effectué sur une base mensuelle.

Push the button labeled "PUSH TO TEST". The GFCI will engage a self-self test procedure and trip the contactor. Power to the load circuit will be shut off. After the test is completed, push the button labeled "PUSH TO RESET" to reset the GFCI, restore power to the load circuit and proceed with normal operation.

Troubleshooting

"TEST" and "RESET" buttons actuate upon release. Push and release, do not push and hold.

If the GFCI is not functioning, check the "POWER ON" to ensure that the GFCI is receiving power.

If the GFCI turns off power to the load after power on sequence, check the branch circuit for possible ground faults, then reset the GFCI.

If the load is not disconnected after engaging the "TEST" function or detecting a fault, shut down the circuit at the upstream breaker. Contact Bender for additional support or replacement.

If the "FAULT/EOL" Indicator is blinking, refer to Figure 4 for possible fault conditions. Contact Bender for additional support or replacement.

Condition	FAULT/ EOL LED	Output to Contract	Notes
No fault present/regular power on sequence	Blink once after power on	Contactor On	
AC power input frequency < 25Hz between 500ms - 6 minutes	Blink at 2Hz	No Change/ Contactor On	Check Power Source for issues
AC power input frequency < 25Hz for > 6 minutes	Blink at 2Hz	Contactor Off	Check Power Source for issues
Ground fault current detected > limit	Blink at 2Hz until fault no longer detected	Contactor Off	Blinking stops after trip as long as the contractor is functional
CT is disconnected before power up / reset for > 2 seconds	Blink at 2Hz	No Change/ Contactor On	CT failure or CT wiring disconnected. Contact Bender
CT is disconnected before power up / reset for > 17 minutes	Blink at 2Hz	No Change/ Contactor On	CT failure or CT wiring disconnected. Contact Bender
CT is disconnected before power up / reset for > 24 minutes	Blink at 2Hz	Contactor Off	CT failure or CT wiring disconnected. Contact Bender
Reset button stuck closed	LED off	Contactor Off	Contractor is turned off anytime the Reset button is pressed or held
Test button stuck closed & self-test passes	LED off	Contactor Off	This would be the same as instantly performing a manual test on power up
Test button pressed twice in short succession	Blink at 2Hz	Contactor Off due to first Test button press	Reset the device and test again
Test button pushed & self-test fails & < 6 minutes elapses	Blink at 2Hz	No Change/ Contactor On	Device fault or end-of-life detected. Contact Bender
Test button pushed & self-test fails & > 6 minutes elapses	Blink at 2Hz	Contactor Off	Device fault or end-of-life detected. Contact Bender

Certifications

cULus according to UL 943

Warranty

Subject to standard twenty-four (24) months after shipment by Seller to Buyer for Seller manufactured components.

Scan the QR code below for full PDF of Bender Warranty Statement:

USA: Bender Inc.

420 Eagleview Blvd.
Exton, PA 19341

Toll-Free: 800-356-4266
Phone: 610-383-9200
E-mail: info@benderinc.com
www.benderinc.com