

Plug-On Ground Fault Circuit Breakers, Type GFTCB and GFEP—10/22 kAIC, 120 Vac and 120/240 Vac

Ground Fault Application Notes

Single-pole GFTCBs are designed for use in two-wire, 120 Vac circuits. See **Page V1-T1-87** for a typical wiring configuration.

Two-pole GFTCBs are designed for use in three-wire, 120/240 Vac circuits, 120 Vac multiwire circuits employing common, neutral and two-wire, 240 Vac circuits obtained from a 120/240 Vac source.

Page V1-T1-87 shows typical wiring configurations for a 120/240 Vac multiwire circuits, and a 240 Vac, two-wire circuit. Note the “panel neutral” conductor connects to the neutral bar, even though the neutral is not included in the load circuit. This connection is necessary to supply a 120 Vac power source to the ground fault sensing circuit.

The figures are shown with a 120/240 Vac, single-phase, three-wire power source, but are also applicable to a 120/208 Vac, three-phase, four-wire power supply. For all figures, the electrical operation of the GFTCB is not affected by the equipment ground.

Non-CTL Plug-On Replacement—Circuit Breakers, Type BRD—10 kAIC, 120/240 Vac

Non-CTL 10 kAIC for Replacement Purposes Only

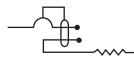
For replacement in enclosures manufactured prior to 1968 with unnotched stabs. Circuit breakers do not have rejection tab.

Plug-On Ground Fault Circuit Breakers, Type GFTCB and GFEP—10/22 kAIC, 120 Vac and 120/240 Vac

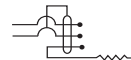
Type GFTCB Single-Pole



Type GFTCB Ground Fault Circuit Breakers—5 Milliampere—1-Inch (25.4 mm) per Pole 120 Vac or 120/240 Vac, 10 kAIC



Single-Pole 120 Vac Requires One 1-Inch (25.4 mm) Space



Two-Pole 120/240 Vac Common Trip Requires Two 1-Inch (25.4 mm) Spaces

Type GFTCB Two-Pole

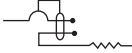



| Ampere Rating | Wire Size Range Cu/Al 60 °C or 75 °C | 1 per Shelf Carton Catalog Number ^④ | 1 per Shelf Carton Catalog Number |
|---------------|--------------------------------------|--|-----------------------------------|
| 15 | #14–4 | GFTCB115 | GFTCB215 |
| 20 | #14–4 | GFTCB120 | GFTCB220 |
| 25 | #14–4 | GFTCB125 | GFTCB225 |
| 30 | #14–4 | GFTCB130 | GFTCB230 |
| 40 | #14–4 | GFTCB140 | GFTCB240 |
| 50 | #14–4 | — | GFTCB250 ^⑤ |
| 60 | #14–6 | — | GFTCB260 |



Notes

- ① Breaker qualifies as combination arc fault, per UL 1699.
- ② Breaker qualifies as personnel protection ground fault, (5 mA) per UL 943.
- ③ Clamshell packaging available with CS modification code on the end of catalog number.
- ④ Available with bell alarm or auxiliary switch. See circuit breaker accessories on **Page V1-T1-85**.
- ⑤ For use with copper wire only.

Type GFTCBH Ground Fault Breakers—5 Milliamper— 1-Inch (25.4 mm) per Pole 120 Vac or 120/240 Vac, 22 kAIC

| Ampere Rating | Wire Size Range Cu/Al 60 °C or 75 °C |  |  |
|---------------|---|---|---|
| | | Single-Pole 120 Vac Requires One 1-Inch (25.4 mm) Space 1 per Shelf Carton Catalog Number | Two-Pole 120/240 Vac Common Trip Requires Two 1-Inch (25.4 mm) Spaces 1 per Shelf Carton Catalog Number |
| 15 | #14–4 | GFTCBH115 | GFTCBH215 |
| 20 | #14–4 | GFTCBH120 | GFTCBH220 |
| 25 | #14–4 | GFTCBH125 | GFTCBH225 |
| 30 | #14–4 | GFTCBH130 | GFTCBH230 |

Type GFEP Ground Fault Equipment Protectors—30 Milliamper— 1-Inch (25.4 mm) per Pole 120 Vac or 120/240 Vac, 10 kAIC

| Ampere Rating | Wire Size Range Cu/Al 60 °C or 75 °C |  |  |
|---------------|---|---|--|
| | | Single-Pole 120 Vac Requires One 1-Inch (25.4 mm) Space 1 per Shelf Carton Catalog Number | Two-Pole 120/240 Vac Common Trip Requires Two 1-Inch (25.4 mm) Space 1 per Shelf Carton Catalog Number |
| 15 | #14–4 | GFEP115 | GFEP215 |
| 20 | #14–4 | GFEP120 | GFEP220 |
| 25 | #14–4 | GFEP125 | GFEP225 |
| 30 | #14–4 | GFEP130 | GFEP230 |
| 40 | #14–4 | — | GFEP240 |
| 50 | #14–4 | — | GFEP250 ① |

Note

① For use with copper wire only.