

BR Circuit Breakers



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Circuit Breakers

Product Description

Plug-On Branch Feeder Type Arc Fault Circuit Breakers, Type BR—10 kAIC, 120 Vac and 120/240 Vac

A branch feeder type arc fault circuit interrupter is a device intended to mitigate high current arcing faults in the complete circuit, including connected cords. High current arcing faults can occur from line to neutral or line to ground. These arcing faults are in parallel with the load and produce the most energy of all arcing faults.

The branch feeder type AFCI is required in the 1999 and 2002 National Electrical Code.

The Combination Type AFCI is required in the 2005 and 2008 National Electrical Code.

Plug-On Combination Type Arc Fault Circuit Breakers, Type BR—10 kAIC, 120 Vac and 120/240 Vac

A combination type arc fault circuit interrupter is a device that includes all of the protection offered by the branch feeder AFCI (mitigation of high current arcing faults in the complete circuit, including connected cords). In addition it provides direct detection of persistent low current arcing faults down to 5 amps with associated mitigation of fire hazards in the cords connected to the outlets. High current arcing faults can occur from line to neutral or line to ground. These arcing faults are in parallel with the load and produce the most energy of all arcing faults. The current level of low current arcing faults is limited by the load.

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

Ground Fault Application Notes

Single-pole GFCBs are designed for use in two-wire, 120 Vac circuits. See **Page 83** for a typical wiring configuration.

Two-pole GFCBs 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 83 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 GFCB 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 Combination Type Arc Fault Circuit Breakers, Type BR—10 kAIC, 120 Vac and 120/240 Vac

Type BR, 1-Inch (25.4 mm) wide FIRE-GUARD Combination Type AFCI Circuit Breakers

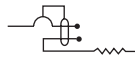
Poles	Ampere Rating	Configuration	Catalog Number
Single-pole 10 kAIC	15	AFCI	BR115CAF ① BRC115CAF
	20	AFCI	BR120CAF ① BRC120CAF
	15	AFCI	BRLH115CAF ①
Single-pole 15 kAIC	22	AFCI	BRLH120CAF ①
	15	AFCI	BR215CAF
Two-pole 10 kAIC	20	AFCI	BR220CAF

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

Type GFCB Single-Pole



Type GFCB 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
1 per Shelf Carton
Catalog Number ②



Two-Pole 120/240 Vac
Common Trip Requires Two
1-Inch (25.4 mm) Spaces
1 per Shelf Carton
Catalog Number

Type GFCB Two-Pole



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 ②	Two-Pole 120/240 Vac Common Trip Requires Two 1-Inch (25.4 mm) Spaces 1 per Shelf Carton Catalog Number
15	#14–4	GFCB115	GFCB215
20	#14–4	GFCB120	GFCB220
25	#14–4	GFCB125	GFCB225
30	#14–4	GFCB130	GFCB230
40	#14–4	GFCB140	GFCB240
50	#14–4	—	GFCB250 ③
60	#14–6	—	GFCB260

Notes

- ① Clamshell packaging available with CS modification code on the end of catalog number.
- ② Available with bell alarm or auxiliary switch. See circuit breaker accessories on **Page 81**.
- ③ For use with copper wire only.