

BR Circuit Breakers



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BR 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, 2008, and 2011 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 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-T1-93** 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-T1-93 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.

1.2

Loadcenters and Circuit Breakers

Type BR Loadcenters and Circuit Breakers

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Plug-on Circuit Breakers, Types BJ and BJH—10/22 kAIC, 120/240 Vac and 240 Vac

For Use in Single-Phase and Three-Phase Loadcenters—150 Amperes and Above

Type BJ



Types BJ and BJH Breakers, 1-Inch (25.4 mm) per Pole, 120/240 or 240 Vac, 10, 22 kAIC



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



Three-Pole 240 Vac
Common Trip Requires Six
1-Inch (25.4 mm) Spaces ^②
5 per Shelf Carton

Ampere Rating	10 kAIC		Wire Size Range Cu/Al 60 °C or 75 °C	22 kAIC	
	Catalog Number	Catalog Number		Catalog Number	Catalog Number
125	BJ2125	BJH2125	#2–300 kcmil	BJ3125	BJH3125
150	BJ2150	BJH2150	#2–300 kcmil	BJ3150	BJH3150
175	BJ2175	BJH2175	#2–300 kcmil	BJ3175	BJH3175
200	BJ2200	BJH2200	#2–300 kcmil	BJ3200	BJH3200
225	BJ2225	BJH2225	#2–300 kcmil	BJ3225	BJH3225

Plug-on Special Application Circuit Breakers—10 kAIC, 120 Vac, 120/240 Vac and 240 Vac

BRWH215

Water Heater Breaker



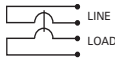
BRSN220

Switching Neutral Breaker



Special Application Circuit Breakers, 1-Inch (25.4 mm) per Pole

Water Heater Breakers



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

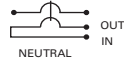
With Isolated Line Terminals
for Separately Metered
Water Heaters

5 per Shelf Carton

10 kAIC

Ampere Rating Catalog Number

Switching Neutral Breakers



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

With Switching Neutral Pole
for Gasoline Pump Applications

5 per Shelf Carton

10 kAIC

Ampere Rating Catalog Number

240 V Breakers



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

Where Voltage to
Ground is 240 Vac

5 per Shelf Carton

10 kAIC

Ampere Rating Catalog Number

Non-Automatic Molded Case Switches



Two-Pole 240 Vac
Requires Two
1-Inch (25.4 mm) Spaces

For Use as Disconnect Contains No
Magnetic or Thermal Trip Properties

5 per Shelf Carton

5 kAIC

Ampere Rating Catalog Number

15	BRWH215	15	BRSN215	#14–4	10	BR210H	—	—
20	BRWH220	20	BRSN220	#14–4	15	BR215H	—	—
30	BRWH230	25	BRSN225	#14–4	20	BR220H	—	—
—	—	30	BRSN230	#14–4	25	BR225H	—	—
—	—	—	—	#14–4	30	BR230H	—	—
—	—	—	—	#14–4	35	BR235H	—	—
—	—	—	—	#14–4	40	BR240H	—	—
—	—	—	—	#14–4	45	BR245H	—	—
—	—	—	—	#14–4	50	BR250H	50	BR250NA
—	—	—	—	#14–4	55	BR255H	—	—
—	—	—	—	#4–1/0	60	BR260H	60	BR260NA
—	—	—	—	#4–1/0	70	BR270H	—	—
—	—	—	—	#4–1/0	80	BR280H	—	—
—	—	—	—	#4–1/0	90	BR290H	—	—
—	—	—	—	#4–1/0	100	BR2100H	100	BR2100NA

Notes

^① Breaker uses two 1-inch (25.4 mm) pole spaces on left side and two 1-inch (25.4 mm) pole spaces on right side of loadcenter.

^② Breaker uses three 1-inch (25.4 mm) pole spaces on left side and three 1-inch (25.4 mm) pole spaces on right side of loadcenter.

If BJ or BJH breakers are used as a main or a back feed device, a hold-down kit is required. See **Page V1-T1-91**.