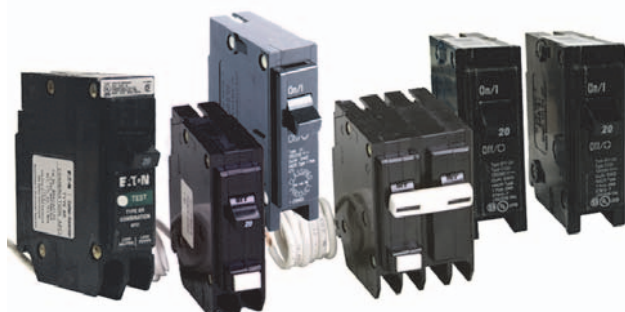


## BR Circuit Breakers



## 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.

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## Description

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**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 V1-T1-80** 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 V1-T1-80** 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.

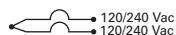
### Non-CTL Plug-On Replacement—Circuit Breakers, Type BRD—10 kAIC, 120/240 Vac

BR2020

### Class Non-CTL, 1-Inch (25.4 mm) per Pole 10 kAIC—Breakers Do Not Have Rejection Tab Feature



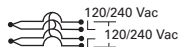
#### Type BR Duplex



Single-Pole Requires One  
1-Inch (25.4 mm) Space  
10 per Shelf Carton

120 Vac			Wire Size Range Cu/Al 65°C or 75°C	120/240 Vac		
Ampere Rating	Catalog Number			Ampere Rating	Center Two-Pole Independent Trip	Catalog Number
15–15	BR1515	#14–4		15	15	BR415
15–20	BR1520	#14–4		20	20	BR420
20–15	BR2015	#14–4		30	30	BR430
20–20	BR2020	#14–4		20	30	BRD220230
30–30	BR3030	#14–4		30	40	BRD230240
30–50	BR3050	#14–4		30	50	BRD230250

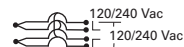
#### Type Brand BRD Quadplex Independent Trip



Two-Pole Requires Two  
1-Inch (25.4 mm) Spaces  
5 per Shelf Carton

120 Vac			Wire Size Range Cu/Al 65°C or 75°C	120/240 Vac		
Ampere Rating	Catalog Number			Ampere Rating	Center Two-Pole Independent Trip	Catalog Number
15–15	BR1515	#14–4		15	15	BR415
15–20	BR1520	#14–4		20	20	BR420
20–15	BR2015	#14–4		30	30	BR430
20–20	BR2020	#14–4		20	30	BRD220230
30–30	BR3030	#14–4		30	40	BRD230240
30–50	BR3050	#14–4		30	50	BRD230250

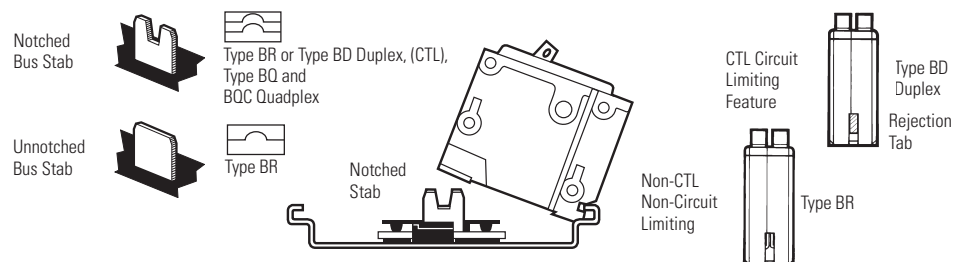
#### Type BRD Quadplex Common Trip Center and Outer Poles



Two-Pole Requires Two  
1-Inch (25.4 mm) Spaces  
5 per Shelf Carton

120/240 Vac			Wire Size Range Cu/Al 65°C or 75°C	120/240 Vac		
Ampere Rating	Catalog Number			Ampere Rating	Center Two-Pole Common Trip	Catalog Number
15–15	BR1515	#14–4		15	15	BRDC215215
15–20	BR1520	#14–4		20	20	BRDC230230
20–15	BR2015	#14–4		30	40	BRDC230240
20–20	BR2020	#14–4		20	50	BRDC230250
30–30	BR3030	#14–4		30	—	—
30–50	BR3050	#14–4		30	—	—

### CTL and Non-CTL Breakers



#### Note

Type BD Duplex, BQ and BQC Quadplex circuit breakers can be installed in Circuit Limiting (CTL) listed BR loadcenters. Type BR twin breakers can be installed in Non-CTL BR loadcenters.