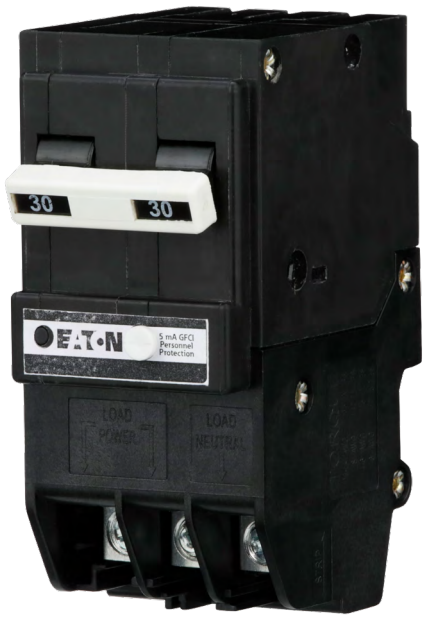
Reduce nuisance tripping with Eaton's digital BR two-pole ground fault circuit breaker



The redesign of Eaton's BR two-pole ground fault circuit breaker yields a new approach to ground fault protection that significantly reduces nuisance tripping events while improving diagnostic speed and resolution of problems. Through its microprocessor-based design, the BR two-pole ground fault circuit breaker makes decisions about leakage and responds appropriately in milliseconds, enabling the circuit breaker to disregard transient conditions that could lead to tripping.

In addition to this enhanced level of protection, the BR two-pole ground fault circuit breaker provides 12 new trip code notifications to improve the accuracy of tripping diagnosis, speeding troubleshooting and resolution time. An ideal solution for variable frequency drives (VFDs) and 240 V equipment, Eaton's BR two-pole ground fault circuit breaker also features an improved series combination interrupting rating, allowing for a more cost-efficient project bill of material.

BENEFITS AT A GLANCE

Greatly reduced tripping—Digital ground fault protection optimizes breaker response for VFDs and 240 V equipment.

Faster diagnosis and resolution—12 new codes with LED indication identify specific indicators for the source behind a tripping event.

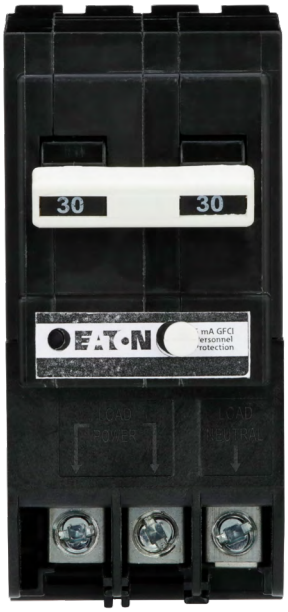
Improved series ratings—The breaker's higher series combination interrupting ratings of up to 60 A provide more cost-efficient bill of materials, most notably in multi-family jobs.

Reduced wiring costs—#3 AWG lugs lower costs through use of aluminum wiring for 60 A or #3 copper for long wire runs.

Quick and clean installation—Enables plug-on neutral equipment up to 30 A.

Increased availability—Modular construction supports increased manufacturing throughput and capacity for readily available stock.

Powering Business Worldwide



Specifications

- Length: 2 inches
- Width: 3 inches
- Depth: 4.25 inches
- Poles: Two poles
- Interrupting rating: 10 kA
- Amperage: 15–30 A and 15–60 A
- Voltage: 120/240 V
- Trip sensitivity: 5 mA (personnel) and 30 mA (equipment)

Standards and certifications

- NEC 2020 and 2023 updates to 210.8 and 422.5
- UL® 489, UL 943, UL 1053 and UL 1998
- cUL®

Industry-leading tripping diagnosis

The BR two-pole ground fault circuit breaker includes 12 new trip codes, enabling users to quickly diagnose and resolve tripping issues through easy identification of error conditions—from hardware and microprocessor malfunctions to power quality problems including overvoltage, overcurrent and ground fault issues.

Multi	6	🔴🟠🟡🟢🔵🟣	Startup Sequence
Yellow	2	🟡🟡	Digital Command Error
Yellow	3	🟡🟡🟡	Microprocessor Error
Yellow	4	🟡🟡🟡🟡	GFCI Hardware Error
Green	2	🟢🟢	Power Quality Issue
Blue	2	🔵🔵	Overvoltage
Blue	3	🔵🔵🔵	Overcurrent trip
White	2	○○	Grounded neutral fault
White	3	○○○	Low-level ground fault
White	4	○○○○	High-level ground fault
White	5	○○○○○	Cold-start ground fault
		No blink after startup	Mechanical trip (ex: short circuit)

BR two-pole ground fault circuit breaker catalog numbering selection

BR N 2 50 GF

Type designation
BR = 1-inch breaker

Neutral design
N = Pigtail neutral wire
P = Plug-on neutral

Number of poles
2 = Two-pole

Amperes
15 = 15 A
20 = 20 A
25 = 25 A
30 = 30 A
35 = 35 A
40 = 40 A
45 = 45 A
50 = 50 A
60 = 60 A

Breaker function
GF = Ground fault

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