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Classified Breakers

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Product Description

Eaton UL classified Replacement Circuit Breakers are available in both 3/4-inch Type CHQ and 1-inch Type CL, single- and two-pole configurations. These breakers are classified as direct replacements by Underwriters Laboratories. In addition to a UL listing, they also come with a 15-year warranty.

Specified vs. UL Classified

Specified breakers are listed by the manufacturer of the panelboard for use in a particular panel. This doesn't mean that the panelboard manufacturer produced the specified breaker; it merely means that the panelboard manufacturer has tested the breaker in the panel. In fact, through the years, Eaton has manufactured thousands of breakers for other panelboard manufacturers.

UL classified breakers are produced by one manufacturer for use in place of the breakers specified on the panelboard. Like specified breakers, UL classified breakers have been tested in the panels for which they are approved.

Testing

Classified breakers are tested extensively in numerous General Electric®, Siemens®, Murray®, Thomas & Betts®, Square D®, and Crouse-Hinds® panels. The tests are conducted with witnesses from Underwriters Laboratories Inc. and involve short-circuit, temperature, and insertion/withdrawal applications. This level of testing ensures that the breakers meet identified standards and have been found suitable by UL for the specified purpose.

Understanding Classified Breaker Terminology

Definitions

Specified circuit breaker—each manufacturer lists the brands of circuit breakers that can be used in their panelboards. Often, manufacturers will not list competitors as specified, even though they are suitable replacements.

Classified circuit breaker—a breaker that is considered suitable, by a qualified third-party organization, for use in another manufacturer's panelboard.

Listed breaker—the listing of a circuit breaker is by an independent third party. Eaton classified breakers are listed by UL.

Labeled breaker—a breaker with a label affixed by an independent third party.

Product Selection

Type CHQ Replacement Breakers for Square D Type QO Loadcenters

10 kAIC, 120 and 120/240 Vac

CHQ120 CHQ230

Type CHQ Classified Breakers 3/4-Inch (19.1 mm) per Pole 120 or 120/240 Vac, 10 kAIC

Ampere Rating	Wire Size Range Cu/Al 60 °C or 75 °C	Single-Pole 120/240 Vac Requires One 3/4-Inch (19.1 mm) Space 10 per Shelf Carton Catalog Number	Two-Pole 120/240 Vac Common Trip Requires Two 3/4-Inch (19.1 mm) Spaces 5 per Shelf Carton Catalog Number
15	(1) #14–8 (2) #14–10	**CHQ115**	**CHQ215**
20		**CHQ120**	**CHQ220**
25		**CHQ125**	**CHQ225**
30		**CHQ130**	**CHQ230**
35		**CHQ135**	**CHQ235**
40		**CHQ140**	**CHQ240**
45		**CHQ145**	**CHQ245**
50		**CHQ150**	**CHQ250**
60		—	**CHQ260**

Type CHQ Surge Arrester

Catalog Number
CHQSA

Accessories

CHQ Breaker Accessories

Description	Catalog Number
Breaker handle lock	**CHLO**

Technical Data

Arc Fault Application Notes

An arc fault circuit interrupter is a device intended to provide protection from the effects of arc faults by recognizing characteristics unique to arcing and by functioning to de-energize the circuit when the arc fault is detected. As of January 1, 2002, the National Electrical Code (NEC) requires all branch circuits that supply 125 V, single-phase, 15 and 20 A receptacle outlets installed in dwelling unit bedrooms shall be protected by an arc fault circuit interrupter(s). This includes ceiling lighting (recessed, ceiling fans, etc.) as well as smoke detectors and all other bedroom outlets. The 2005 NEC introduced the application of the Combination Type AFCI for bedroom circuits required as of January 1, 2008. The 2008 NEC expands this application to other living areas.

Ground Fault Application Notes

Single-pole GFTCBs are designed for use in two-wire, 120 Vac circuits. Drawing on **Page V1-T1-106** shows 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.

Drawings on **Page V1-T1-106** illustrate typical wiring configurations for 120/240 Vac multiwire circuits.

Drawing on **Page V1-T1-106** depicts 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, ut 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.

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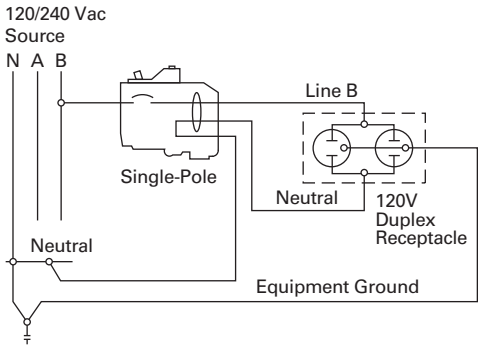
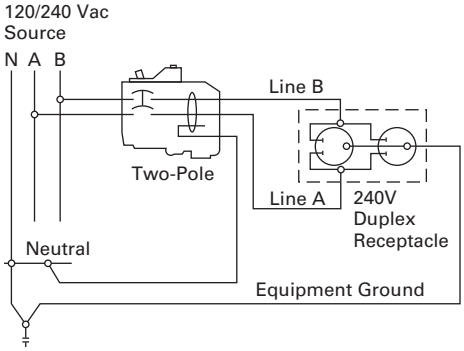
Wiring Diagrams

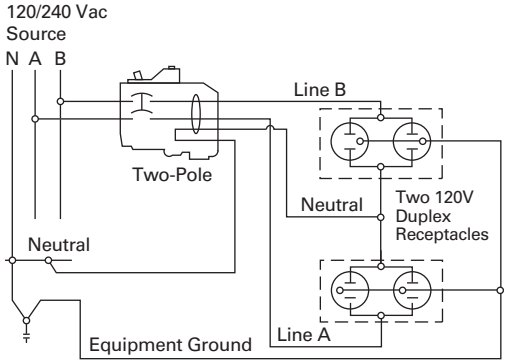
Single-Pole 120 V Load Application Sourced by 120/240 Vac



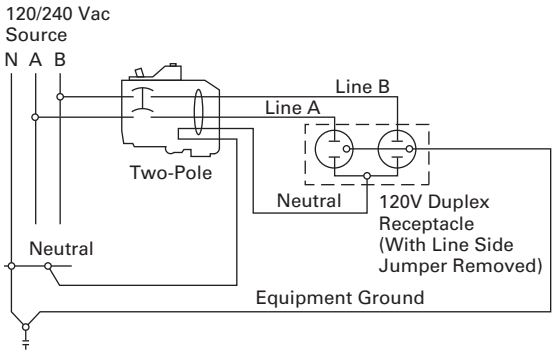
Two-Pole 240 V Load Application Sourced by 120/240 Vac



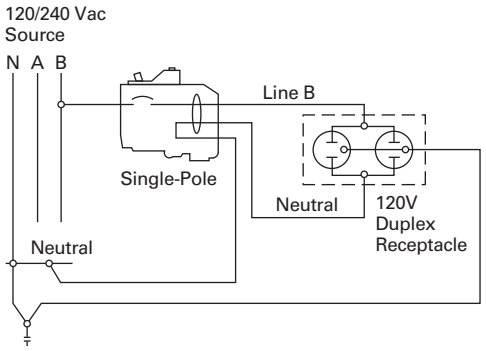
Two-Pole Shared Neutral with Multi-Duplex Receptacle Application



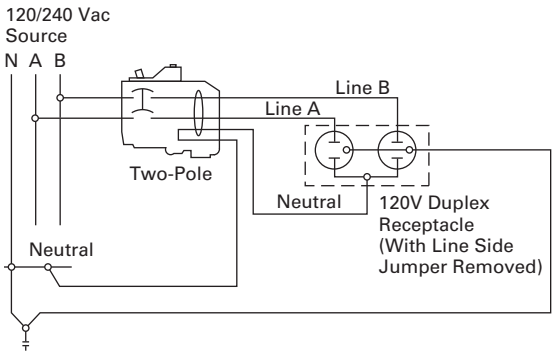
Two-Pole Shared Neutral with Duplex Receptacle Application



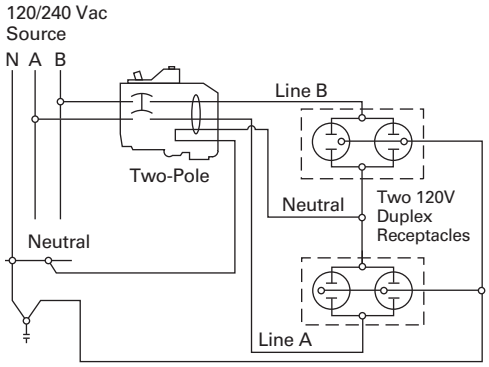
Single-Pole 120 V Duplex Receptacle Application



Two-Pole 120 V Duplex Receptacle Application



Two-Pole 120 V Multi-Duplex Receptacle Application



Two-Pole 240 V Duplex Receptacle Application