

## Plug-On Circuit Breakers



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## CH Circuit Breakers

## Product Description

Quick-make, quick-break switch mechanism combined with inverse time element tripping operation and trip-free handle design. Type CH circuit breakers trip to the OFF position, eliminating nuisance callbacks. The thermal-magnetic trip curve avoids nuisance tripping on mild overloads while reacting almost instantaneously to severe short-circuit conditions. Multipole breakers have internal common trip connection to operate all poles simultaneously. Handles are marked with ON-OFF indication and ampere rating of the breaker.

**Special Application Plug-On Circuit Breakers—Type CH 10 kAIC 120 Vac and 120/240 Vac**
**Branch Feeder Type Arc Fault Circuit Breakers**

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.

**Combination Type Arc Fault Circuit Breakers**

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.

**Ground Fault Circuit Breakers—Ground Fault Application Notes**

Single-pole Type CHGFIs are designed for use in two-wire, 120 Vac circuits. The diagram on **Page V1-T1-39** shows a typical wiring configuration.

Two-pole Type CHGFIs 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.

Diagrams on **Page V1-T1-39** illustrate typical wiring configurations for 120/240 Vac multiwire circuits.

The diagram on **Page V1-T1-39** 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, but are also applicable to a 120/208 Vac, three-phase, four-wire power supply. For all figures, the electrical operation of the Type CHGFI is not affected by the equipment ground.

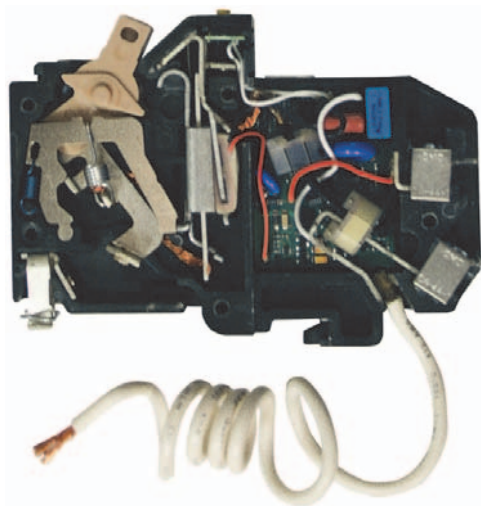
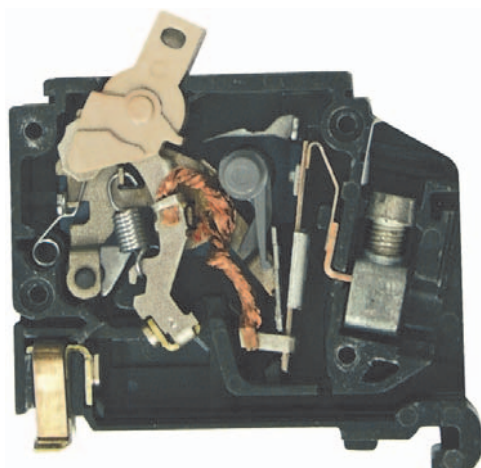
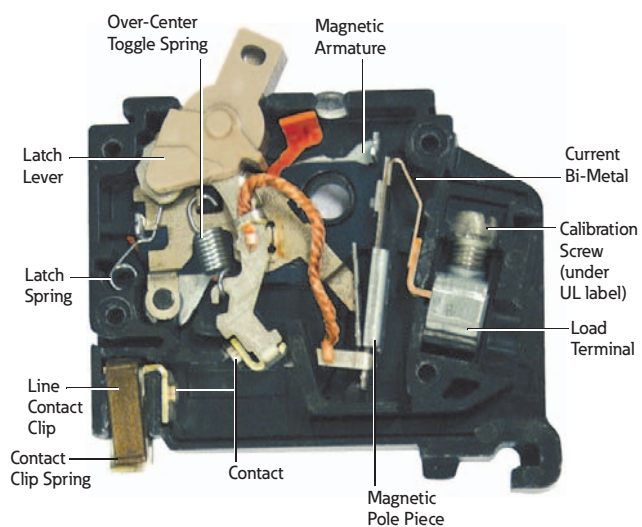
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## Loadcenters and Circuit Breakers

### Type CH Loadcenters and Circuit Breakers

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#### Features



*Plug-On Type CH Breaker*

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## Loadcenters and Circuit Breakers

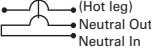
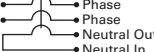
### Type CH Loadcenters and Circuit Breakers

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#### Type CHP Neutral Switching Breakers—10 kAIC, 120 Vac and 120/240 Vac



Used to open the neutral along power line(s) for applications of gas pumps.

#### 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	Two-Pole 120 Vac Common Trip Requires Two 3/4-Inch (19.1 mm) Spaces 1 per Shelf Carton Catalog Number	Three-Pole 120/240 Vac Common Trip Requires Three 3/4-Inch (19.1 mm) Spaces 1 per Shelf Carton Catalog Number
			
15	#14–8	CHP215SW ①	CHP315SW ①
20	#14–8	CHP220SW ①	CHP320SW ①



#### Type CH-M50 High Ambient Breaker

#### 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	CH115M50	CH215M50
20	(2) #14–10	CH120M50	CH220M50
25		CH125M50	CH225M50
30		CH130M50	CH230M50
35		CH135M50	CH235M50
40		CH140M50	CH240M50
45		CH145M50	CH245M50
50		CH150M50	CH250M50
60		—	CH260M50
70		—	CH270M50

#### Type CH-HM and CHP-HM High Magnetic 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	CH115HM	CH215HM
20	(2) #14–10	CH120HM	CH220HM
15	(1) #14–8	CHP115HM	CHP215HM
20	(2) #14–10	CHP120HM	CHP220HM

#### Note

① For circuit breakers with shunt trip, add ST suffix. Shunt trip requires one additional pole space, obtain pricing from **Page V1-T1-38**.