



Plug-on neutral loadcenter

# Plug-on neutral loadcenter

Delivers a time-saving installation

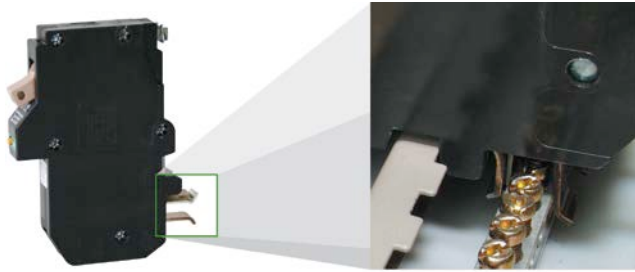
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# Plug into savings

## Combination type plug-on neutral AFCI

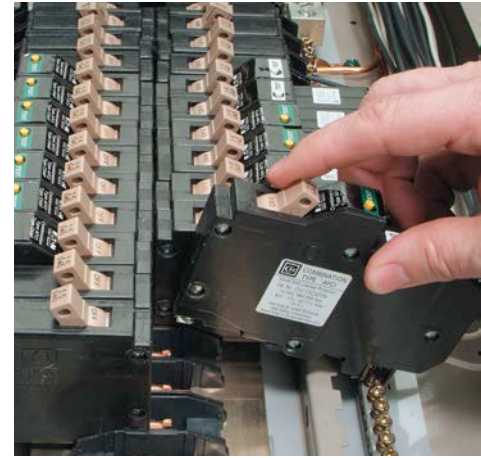
Code changes and higher safety standards are leading to more arc fault circuit interrupter (AFCI) installations. With the electrical contractor in mind, Eaton has revolutionized the way combination AFCIs are installed with the plug-on neutral line of loadcenters and breakers. This unique product solution enables the contractor to connect the breaker directly to the neutral bar, eliminating the need for wiring a pigtail.



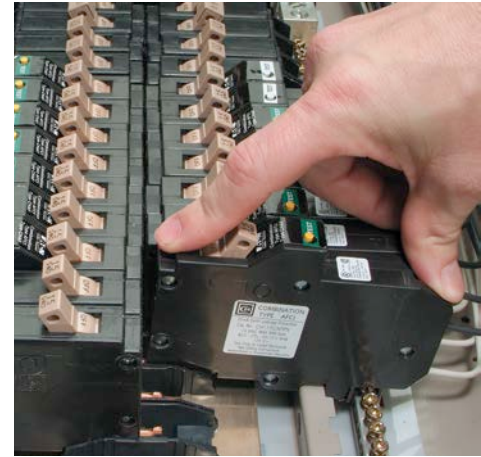
**Plug-on neutral clip**  
(Eliminates pigtail)

### Benefits include:

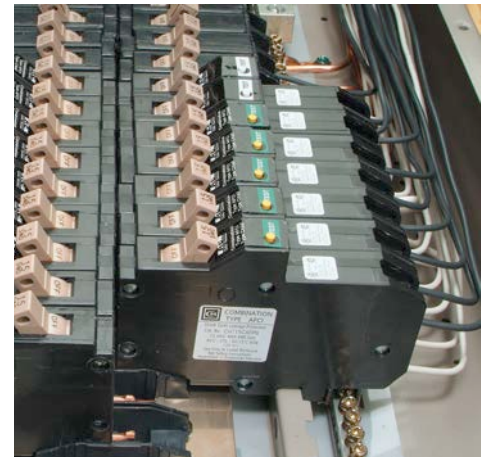
- Time savings up to 25% per AFCI installation
- Eliminates nuisance tripping due to loose pigtail connections
- Clean gutter space
- Easier troubleshooting due to less wiring
- Backed by a lifetime warranty



**Step 1: Connect breaker to the neutral bar.**



**Step 2: Snap breaker firmly to the busbar.**



**End result: Tight fit and a clean installation.**

### Combination Type CH AFCI 3/4-Inch (19.1 mm) and CHGFCI Circuit Breakers

Catalog Number	Poles	Ampere Rating	Configuration
CHFCAF115PN	Single-pole 10 kAIC	15	AFCI plug-on neutral
CHFCAF120PN	Single-pole 10 kAIC	20	AFCI plug-on neutral
CHFGF115PN	Single-pole 10 kAIC	15	GFCI plug-on neutral
CHFGF120PN	Single-pole 10 kAIC	20	GFCI plug-on neutral
CHFGF125PN	Single-pole 10 kAIC	25	GFCI plug-on neutral
CHFGF130PN	Single-pole 10 kAIC	30	GFCI plug-on neutral
CHFAFGF115PN	Single-pole 10 kAIC	15	AF/GF plug-on neutral
CHFAFGF120PN	Single-pole 10 kAIC	20	AF/GF plug-on neutral

### Main Breaker Plug-On Neutral Loadcenters

Catalog Number	Main Breaker Type	Main Ampere Rating	Maximum Number of 3/4" Poles	Enclosure Type	Wire Size Range for Main Breaker	Cover Catalog Number	Combination	Surface
CH24BPN100E	CSR 25 kAIC	100	24	Indoor	#2–300 kcmil	CH8EF	CH8ES	
CH32BPN200J	CSR 25 kAIC	200	32	Indoor	#2–300 kcmil	CH8JF	CH8JS	
CH42BPN200K	CSR 25 kAIC	200	42	Indoor	#2–300 kcmil	CH8KF	CH8KS	
CH60BPN200N	CSR 25 kAIC	200	60	Indoor	#2–300 kcmil	CH8NF	CH8NS	

### Main Lug/Convertible Plug-On Neutral Loadcenters (with Factory-Installed Main Lugs)

Catalog Number	Main Ampere Rating	Maximum Number of 3/4" Poles	Enclosure Type	Wire Size Range for Main Breaker	Cover Catalog Number	Combination	Surface
CH24NLPN125E ①	125	24	Indoor	#6–300 kcmil	CH8NLEF	CH8NLES	
CH32NLPN225J	225	32	Indoor	#6–300 kcmil	CH8NLJF	CH8NLJS	
CH42NLPN225K	225	42	Indoor	#6–300 kcmil	CH8NLKF	CH8NLKS	
CH60NLPN225N	225	60	Indoor	#6–300 kcmil	CH8NLF	—	

### Main Breaker Kits

Catalog Number	Breaker Ampere Rating	Lug Size
CSR2100	100	# 2–300 kcmil
CSR2150N	150	# 2–300 kcmil
CSR2200N	200	# 2–300 kcmil
CSR2225N	225	# 2–300 kcmil

① Maximum 125 A main device.

# Features, benefits and functions

## Extra 1.5-inch (38.1 mm) knockout for bundling

- Enables easier installation

## Commercial grade main breaker

- 25 kAIC series rated main breaker—highest in the industry

## Drywall marking on enclosure

- Indicates proper mounting depth for flush applications

## Unique sandalwood finish

- Aesthetically appealing, scratch-resistant powder coating—industry exclusive

## Silver flash-plated copper bus

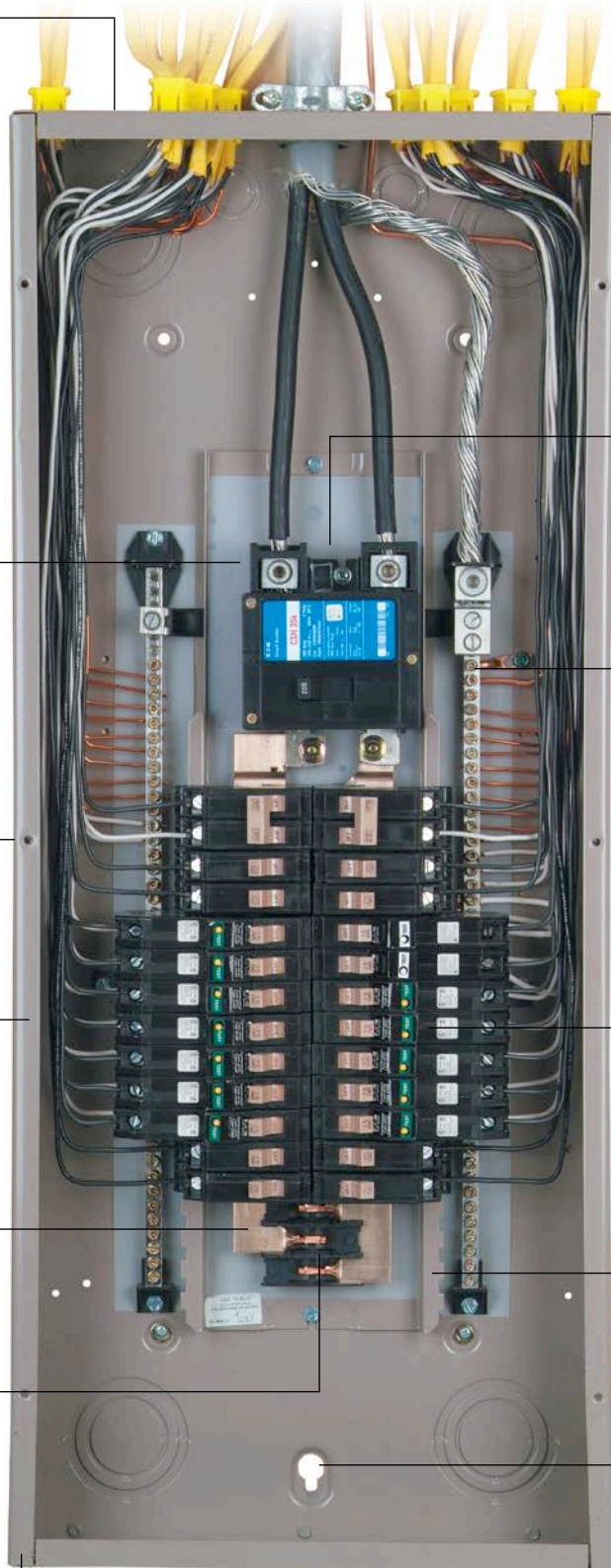
- Provides superior conductivity

## Unique stab design

- Unique design provides a tight connection to the bus

## Lifetime warranty

- Covers all CH loadcenters and circuit breakers



## Top or bottom feed

- Straight-in wiring saves labor and material
- Only one panel for either application—no modifications necessary

## Inboard neutral

- Provides direct neutral connection for breaker
- Ample additional 2/0 lugs provided—no kits necessary

## Type CHF AFCI/GFCI/thermal-magnetic breakers

- Advanced electronics effectively reduce nuisance tripping
- CHF AFCI breakers have a standard diagnostic LED indicating 1 of 7 trip codes (See back for trip code information.)
- Mechanical flag for trip indication (on thermal-magnetic AFCI and GFCI)
- All CH breakers provide industry exclusive 2-position handle with simple 1 step reset

## Steel backpan

- Reliable breaker mounting
- One-piece design provides superior stability

## Single keyhole mounting

- One keyhole at the top and bottom provides easier mounting and leveling

# Troubleshooting descriptions

## AFCI trip code

- **Thermal trip/manual disconnect**—The breaker has detected an overload, short circuit or was manually turned off (no blink pattern)
- **Series arc**—A low current arc has been detected within one of the current pathways (LED blink pattern = 1)
- **Parallel arc**—A high current arc has been detected between two conductors (LED blink pattern = 2)
- **Short delay**—An electronic backup to the short-circuit mechanism (LED blink pattern = 3)
- **Overvoltage**—Voltage of 160 V rms or greater (LED blink pattern = 4)
- **Ground fault**—Current has found an alternate path to ground (LED blink pattern = 5)
- **Self-test failure**—The breaker continually tests the internal electronics and software to ensure that the arc fault detection technology is working properly (LED blink pattern = 6)



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Printed in USA  
Publication No. BR00301006E / Z15698  
December 2014

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