

Eaton Type CH Convertible Family



Contents

Description

Page

Overview

Standards and Certifications	V1-T1-3
Catalog Number Selection	V1-T1-5
Product Selection	V1-T1-7
CH Specialty Products	V1-T1-14
CH Loadcenter Options and Accessories	V1-T1-18
CH Circuit Breakers	V1-T1-33

Overview

Product Description

Loadcenters are enclosures specifically designed to house the branch circuit breakers and wiring required to distribute power to individual circuits. They contain either a main breaker when used at the service entrance point or a main lug when used as a sub-panel to add circuits to existing service. The main breaker protects the main entire panel and can be used as a service disconnect. The branch breakers protect the wires leading to individual electrical loads such as fixtures and outlets.

CH Plug-on Neutral Loadcenter

The CH Plug-on Neutral portfolio offers a unique design that offers improved safety, ease of installation and leaves the end result with a clean and professional look and feel.

Features, Benefits and Functions

Loadcenter Construction

Eaton's Type CH loadcenters feature silver flash plated copper bus in all interiors. Stabs are rated 200 A throughout the CH line. Therefore, the sum of the handle ratings connected to any one stab is limited to 200 A maximum. NEMA® 1 boxes are manufactured from cold-rolled 16-gauge sheet steel. Raintight boxes are manufactured from galvanized steel. All boxes and trims are finished using an electrostatic powder coat, baked urethane sandalwood paint process.

Neutrals

Eaton Type CH loadcenters feature three types of neutrals:

Insulated/Bondable Split Neutral

Panels are supplied with split insulated neutrals with an insulated cross strap. For service entrance applications, the neutral must be bonded by using the bonding strap supplied with the panel. For non-service entrance (sub-panel) applications, the panel may be installed with the bonding strap not connected to the neutral. Separate ground bars must be used on non-service entrance panels.

Inboard Plug-on Neutral

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.

Insulated/Bondable Single Neutral

Panels are supplied with a single insulated neutral. For service entrance applications, all that is required to bond the neutral is to loosen the bonding screw and the neutral screw directly beside it, insert the bonding strap into the neutral bar, and re-tighten both connections. The single neutral can be moved by the contractor to the other side of the panel, if desired. When used as a service entrance panel, unused neutral connections may be used for the termination of equipment grounds. For non-service entrance (sub-panel) applications, the panel may

be installed with the bonding strap not connected to the neutral. Separate ground bars must be used on non-service entrance panels.

Grounds

In service entrance applications where the neutral is bonded, unused neutral holes may be used for terminating ground conductors. In sub-feed panels, the neutral must be isolated (non-bonded), and ground wires must be terminated on a separate ground bar. All CH Main Lug Only Plug-on Neutral loadcenters come with a factory-installed ground bar.

The insulated/bondable single/split neutral panels have sufficient terminations for both ground and neutral conductors. The insulated/bondable single split neutral panels are supplied with a separate factory-installed ground bar if the catalog number contains a "G." If not, a separate ground bar should be installed. Insulated/bondable single neutral panels are supplied without a ground bar (unless otherwise noted), and ground bar kits, if needed, must be purchased separately.

Neutral and Ground Terminals

The standard terminals on grounds and neutrals are rated to accept (3) #14–#10 Cu/Al or (1) #14–4 wires. For larger cables, add-on neutral lugs may be ordered from the Accessories.

Note: NEC® allows only one current-carrying conductor per hole on neutrals unless otherwise noted.

Bottom-Fed Loadcenters

When the power cable is brought into the loadcenter from below the panel; then the main lug panels, and single-phase, 225 A and below, loadcenters can be rotated 180 degrees to allow straight-in wiring of power cables to the main terminals. Because the CSR main circuit breaker handle operates horizontally, the orientation of the main circuit breaker handle is consistent with the requirements of NEC Article 240.81.

Gutter Splicing

Loadcenters are not UL® listed as wiring troughs. Therefore, gutter splicing of riser cables to tap off to the main device is not permitted. Refer to NEC Article 373.8.

Fire Rating

Due to the numerous openings in both loadcenter boxes and trims, they should not be mounted in firewalls. There is no approval method for sealing the enclosures for this application.

Date Code

The date of manufacture of each loadcenter is printed on the outside of the carton as well as inside the loadcenter. On the carton, the date code is printed on the end carton label. In the loadcenter, the date code is located on the small white label located on the right side wall (with the main device on top).

The date code is in the following format: F # # # &. The “F” is the numeric code for the Lincoln, IL plant, and the three numbers are the year and week of manufacture, e.g., 023. The “&” sign at the end signifies the decade of the 2000s. The “!” at the end signifies the decade of the 2010s. Therefore, the date code F023& would indicate that the product was manufactured in the 23rd week of 2000. The 1980s are represented by a “+” sign and the 1990s are represented by a “=” at the end of the code.

Plug-on Type CH Breakers

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. CHF breakers include a ‘trip flag’ to differentiate between a tripped breaker and one that has been turned off. 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. Type CH breakers meet UL Standard 489, NEMA standards, and Federal Spec Classification W-C 375 b/Gen. They are UL listed under File Number E11713, E8741, E3624 and E51287; and CSA® certified file number LR87196, except Type CHT breakers.

Type CH Circuit Breaker Ratings

Single- and double-pole CH breakers rated 15 and 20 A have low instantaneous magnetic trip levels. The 15 and 20 A breakers with “HM” suffix have high magnetic trip settings recommended for circuits with inherently high inrush currents. All Type CH breakers are marked for heating, air conditioning and refrigeration (HACR) equipment application. Single-pole 15–20 A breakers are also suitable for switching duty (SWD). Shunt trip coils operate on 120 Vac and require one additional pole space per breaker.

Standards and Certifications**UL Listings**

All Eaton Type CH loadcenters are listed under the UL 67 certification in file E8741.



1.1

Loadcenters and Circuit Breakers

Type CH Loadcenters and Circuit Breakers

1

Type CH Loadcenter

Optimized Knockouts

- Provide additional access and allow for easier removal improving installation times

Top or Bottom Feed

- Straight-in wiring saves labor and material
- One panel for either top or bottom applications

Smooth Case Edges

- Provide a more professional look and feel

2/0 Lug

- Easily removable and can be installed in any location on the neutral bar

Commercial-Grade Main Breaker

- 25 kAIC series rated main breaker in 150 A–225 A loadcenters. 35, 42 and 100 kAIC series ratings are available
- Optional convertible design—reduces inventory requirements

Full-Length Neutral Bars

- Offer flexibility of placing electronic breakers at any space within the panel
- Offer easy installation of neutral connection time and labor savings

Inboard Neutral

- Increases gutter space to allow for the installation of conductors

One-Piece Silver-Flashed Copper Bus

- Provides superior conductivity, corrosion resistance and durability

Drywall Offsets

- (located on both sides of enclosure)
- Allow for faster installation using predetermined self-leveling tabs

Steel Backpan

- Provides solid and reliable breaker mounting—single-piece design for stability and durability

“Tangential” Center Knockout

- Easier installation for conduit applications

Unique Sandalwood Finish

- Aesthetically appealing, scratch-resistant powder coating

Full-Length Neutral Bars

- Offer flexibility of placing electronic breakers at any space within the panel
- Allow for easy installation of neutral wire connection

Plug-on Neutral

- Eliminates the pigtail connection, providing time and labor savings
- Provides a professional installation

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
- 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

Cover Features not Shown:

Improved Cover Twistouts

- Easier to remove twistouts

Embossed Cover Circuit Numbers

- Durable circuit numbering with added marking for twin breakers

Cover Keyhole Hanging Feature

- Provide easier cover installation by allowing quick hanging of cover regardless of panel orientation

Rigid Center Cover Spine

- Provides strengthened center spine when the twistouts are removed

Single Keyhole Mounting

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

Warranty

The minimum warranty for residential loadcenters, breakers and surge protective devices shall be as follows:

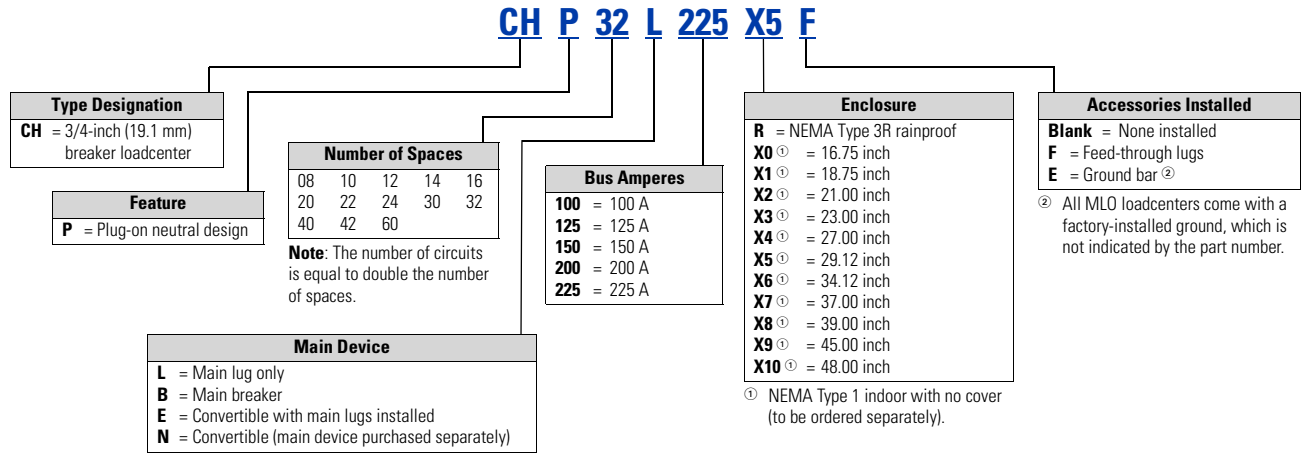
- Lifetime loadcenter warranty

- Lifetime warranty on CH circuit breakers
- Lifetime warranty on CHSPT2ULTRA including \$75,000 connected equipment warranty

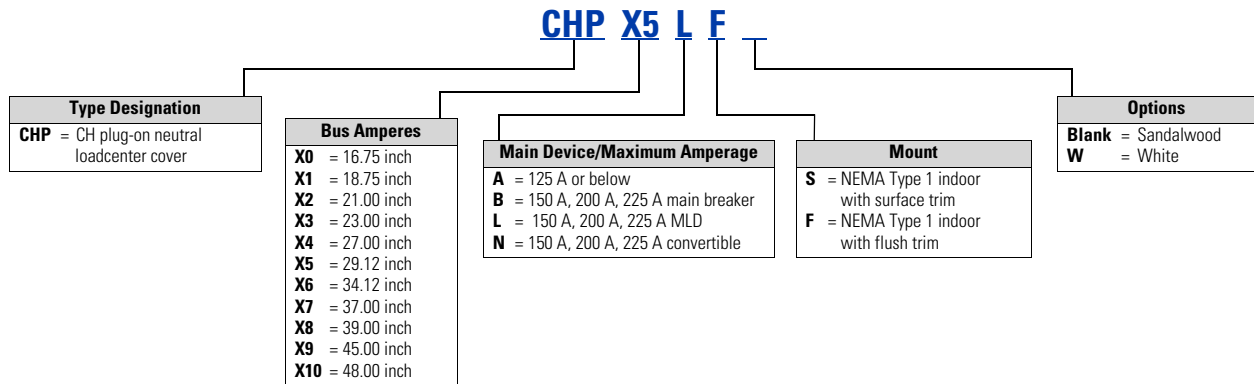
- 1-year warranty on plug-in surge protective device (CHSA)

Catalog Number Selection

CH Plug-on Neutral Loadcenters



CH Plug-on Neutral Covers (Ordered Separately)



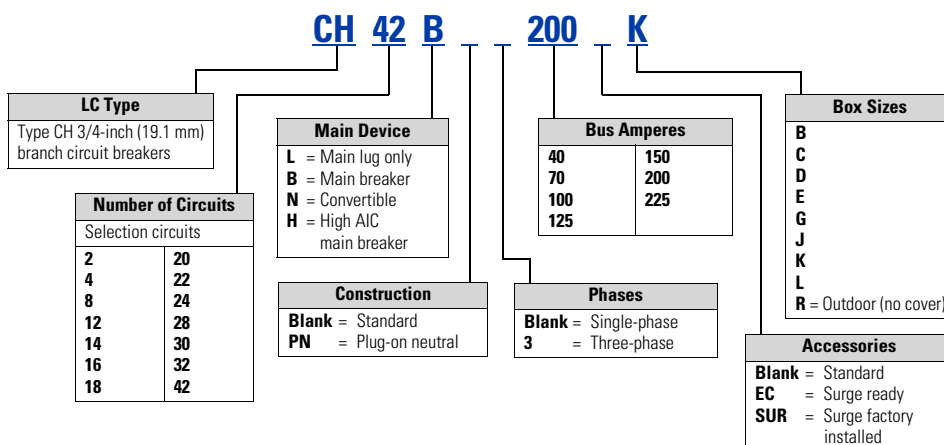
1.1

Loadcenters and Circuit Breakers

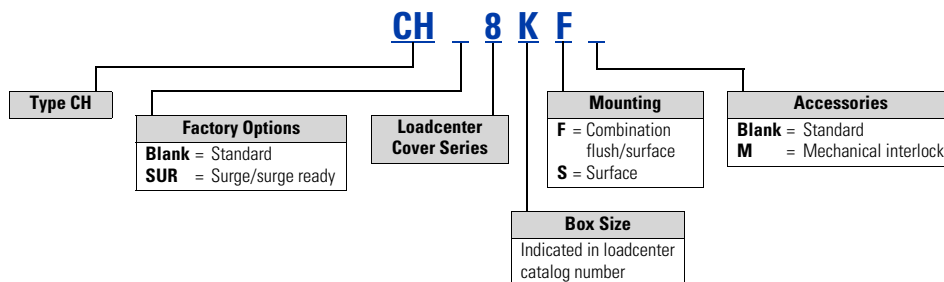
Type CH Loadcenters and Circuit Breakers

1

CH Legacy Loadcenters



CH Legacy Indoor Covers (Ordered Separately)



Note: All combinations are not valid, refer to the catalog section.

Product Selection

Single-Phase—Main Circuit Breaker Loadcenters—10/25 kAIC

CHP30B125X5



Single-Phase Three-Wire—120/240 Vac—Insulated/Bondable Split Neutral

Main Breaker Type	Main Ampere Rating	Maximum Number 3/4-Inch (19.1 mm) of Spaces	Maximum Number 3/4-Inch (19.1 mm) of Poles	Enclosure Type	Box Size	Wire Size Range Cu/Al 60 °C or 75 °C for Main Breaker	Loadcenter ^{①②} Catalog Number	Combination ^③	Surface
CH 10 kAIC	100	14	28	Indoor	X1	#6–1/0	CHP14B100X1 ^{④⑤}	CHPX1AF ^⑤	CHPX1AS ^⑤
		14	28	Outdoor	X0R	#6–1/0	CHP14B100R ^⑥	—	—
		18	36	Indoor	X2	#6–1/0	CHP18B100X2 ^{④⑤}	CHPX2AF ^⑤	CHPX2AS ^⑤
		22	44	Indoor	X2	#6–1/0	CHP22B100X2 ^{④⑤}	CHPX2AF ^⑤	CHPX2AS ^⑤
		22	44	Outdoor	X2R	#6–1/0	CHP22B100R ^⑥	—	—
		30	60	Indoor	X5	#6–1/0	CHP30B100X5 ^{④⑤}	CHPX5AF ^⑤	CHPX5AS ^⑤
		30	60	Outdoor	X5R	#6–1/0	CHP30B100R ^⑥	—	—
	125	22	44	Indoor	X2	#6–1/0	CHP22B125X2 ^{④⑤}	CHPX2AF ^⑤	CHPX2AS ^⑤
		22	44	Outdoor	X2R	#6–1/0	CHP22B125R ^⑥	—	—
		30	60	Indoor	X5	#6–1/0	CHP30B125X5 ^{④⑤}	CHPX5AF ^⑤	CHPX5AS ^⑤
		30	60	Outdoor	X5R	#6–1/0	CHP30B125R ^⑥	—	—
CSR 25 kAIC	150	24	48	Indoor	X5	#2–300 kcmil	CHP24B150X5 ^{④⑤}	CHPX5BF ^⑤	CHPX5BS ^⑤
		24	48	Outdoor	X5R	#2–300 kcmil	CHP24B150R ^⑥	—	—
		32	64	Indoor	X6	#2–300 kcmil	CHP32B150X6 ^{④⑤}	CHPX6BF ^⑤	CHPX6BS ^⑤
		32	64	Outdoor	X6R	#2–300 kcmil	CHP32B150R ^⑥	—	—
	200	8	16	Outdoor	X5R	#2–300 kcmil	CHP08B200RF ^⑦	—	—
		24	48	Indoor	X5	#2–300 kcmil	CHP24B200X5 ^{④⑤}	CHPX5BF ^⑤	CHPX5BS ^⑤
		24	48	Outdoor	X5R	#2–300 kcmil	CHP24B200R ^⑥	—	—
		32	64	Indoor	X6	#2–300 kcmil	CHP32B200X6 ^{④⑤}	CHPX6BF ^⑤	CHPX6BS ^⑤
		32	64	Outdoor	X6R	#2–300 kcmil	CHP32B200R ^⑥	—	—
		42	84	Indoor	X7	#2–300 kcmil	CHP42B200X7 ^{④⑤}	CHPX7BF ^⑤	CHPX7BS ^⑤
		42	84	Outdoor	X7R	#2–300 kcmil	CHP42B200R ^⑥	—	—
		60	120	Indoor	X9	#2–300 kcmil	CHP60B200X9 ^{④⑤}	CHPX9BF ^⑤	—
		225	32	Outdoor	X6R	#2–300 kcmil	CHP32B225R ^⑥	—	—
			42	Indoor	X7	#2–300 kcmil	CHP42B225X7 ^{④⑤}	CHPX7BF ^⑤	CHPX7BS ^⑤
			42	Outdoor	X7R	#2–300 kcmil	CHP42B225R ^⑥	—	—
			60	Indoor	X9	#2–300 kcmil	CHP60B225X9 ^{④⑤}	CHPX9BF ^⑤	—
	300	42	84	Indoor	PM	(2) 3/0–250 kcmil	CHP42PM300	CH7PMF ^⑧	CH7PMS
		400	42	Indoor	PM	(2) 3/0–250 kcmil	CHP42PM400	CH7PMF ^⑧	CH7PMS

Notes

- ① All main circuit breaker loadcenters are listed for use as service entrance equipment.
 ② Ground bar kits priced separately. See **Page V1-T1-24**.
 ③ Combination style covers may be used in surface or flush applications.
 ④ Can be top or bottom fed by rotating the enclosure and trim 180 degrees.
 ⑤ Plug-on Neutral style loadcenter.
 ⑥ Rainproof panels are furnished with hub closure plates. For rainproof hubs, refer to **Page V1-T1-23**.
 ⑦ Panel includes #2–300 kcmil feed-through lugs.
 ⑧ This cover is for flush applications only (not combination).

Box sizes **Pages V1-T1-29** and **V1-T1-30**.

1.1

Loadcenters and Circuit Breakers

Type CH Loadcenters and Circuit Breakers

1

Single-Phase—Main Lug Loadcenters—Small Space

Single-Phase Three-Wire—120/240 Vac—Insulated/Bondable Single Neutral

	Main Ampere Rating	Maximum Number 3/4-Inch (19.1 mm) Space	Poles	Enclosure Type	Type of Trim (Included)	Box Size	Wire Size Range Cu/Al 60 °C or 75 °C for Main Lugs	Loadcenter Catalog Number ^①
Surface Outdoor 	40	2	4 1	Indoor	Surface (no door)	5	#14–6	CH2L40SP ^{②③}
		2	4 1	Outdoor	—	5R	#14–6	CH2L40RP ^{②③④}
		2	4 1	Indoor	Flush (no door)	5	#14–6	CH2L40FP ^{②③}
Flush Outdoor 	70	2	4 1	Indoor	Surface (no door)	5	#14–2	CH2L70SP ^{②③}
		2	4 1	Outdoor	—	5R	#14–2	CH2L70RP ^{②③④}
		2	4 1	Indoor	Flush (no door)	5	#14–2	CH2L70FP ^{②③}
Surface (No Door) 	125	2	4 1	Indoor	Surface (no door)	6	#14–1/0	CH2L125SP ^{②③}
		2	4 1	Outdoor	—	6R	#14–1/0	CH2L125RP ^{②③④}
		2	2	Outdoor	—	—	#14–1/0	CH2L125RSE2P ^{④⑤⑥}
		2	4 1	Indoor	Flush (no door)	6	#14–1/0	CH2L125FP ^{②③}
		4	8 1	Indoor	Surface (no door)	7	#14–1/0	CH4L125SP ^{②⑦}
		4	8 1	Outdoor	—	7R	#14–1/0	CH4L125RP ^{②④⑦}
		4	8 1	Indoor	Flush (no door)	7	#14–1/0	CH4L125FP ^{②⑦}
		6	12 1	Outdoor	—	6R	#14–1/0	CH6L125R ^{②⑥⑦}
		8	16 1	Indoor	Surface (no door)	7	#6–1/0	CH8L125SP ^{②⑦}
		8	16 1	Outdoor	—	7R	#6–1/0	CH8L125RP ^{②⑥⑦}
Flush (No Door) 		8	16 1	Indoor	Flush (no door)	7	#6–1/0	CH8L125FP ^{②⑧}
Outdoor 								

Notes

- ① Requires the use of Type CHT breakers.
- ② Ground bar kits priced separately, see **Page V1-T1-24**.
 - For 2/4 and 6/12 circuit loadcenters, use Type GBK5 or GBK520 ground bar
 - For 4/8 and 8/16 circuit loadcenters, use Type GBK10 ground bar
 - Ground bars mount to the left side wall of the enclosure for the 4/8, 6/12 and 8/16 circuit loadcenters
- ③ Suitable for use as service equipment when not more than two service disconnecting mains are provided or when not used as a lighting and appliance panelboard.
- ④ Rainproof panels are furnished with hub closure plates. For rainproof hubs, refer to **Page V1-T1-23**.
- ⑤ For use as service entrance applications only.
- ⑥ Neutral/ground holes (6) #14–6 and (3) #14–2/0 AWG Cu/Al.
- ⑦ Suitable for use as service equipment when not more than two service disconnecting mains are provided or when not more than six service disconnecting mains are provided and when not used as a lighting and appliance panelboard.
- ⑧ Suitable for use as service equipment when a main breaker is used or when not more than six service disconnecting mains are provided and when not used as a lighting and appliance panelboard.

Box sizes **Pages V1-T1-29** and **V1-T1-31**.

Single-Phase—Main Lug Loadcenters

CHP32L225X5



Single-Phase Three-Wire—120/240 Vac—Insulated/Bondable Split Neutral—Factory-Installed Ground Bar

Main Ampere Rating	Maximum Number 3/4-Inch (19.1 mm) Spaces	Maximum Number 3/4-Inch (19.1 mm) Poles	Enclosure Type	Box Size	Wire Size Range Cu/Al 60 °C or 75 °C for Main Breaker	Loadcenter Catalog Number	Loadcenter Cover Catalog Number Flush	Surface
125	12	24	Indoor	X0	#6–2/0	CHP12L125X0 ^①	CHPX0AF	CHPX0AS
	12	24	Outdoor	X0R	#6–2/0	CHP12L125R ^{①②}	—	—
	16	32	Indoor	X1	#6–2/0	CHP16L125X1 ^①	CHPX1AF	CHPX1AS
	16	32	Outdoor	X0R	#6–2/0	CHP16L125R ^{①②}	—	—
	20	40	Indoor	X2	#6–2/0	CHP20L125X2 ^①	CHPX2AF	CHPX2AS
	20	40	Outdoor	X2R	#6–2/0	CHP20L125R ^{①②}	—	—
	24	48	Indoor	X2	#6–2/0	CHP24L125X2 ^①	CHPX2AF	CHPX2AS
	24	48	Outdoor	X2R	#6–2/0	CHP24L125R ^{①②}	—	—
150	24	48	Indoor	X5	#4–300 kcmil	CHP24L150X5 ^{①③}	CHPX5LF	CHPX5LS
	32	64	Indoor	X5	#4–300 kcmil	CHP32L150X5 ^{①③}	CHPX5LF	CHPX5LS
200	12	24	Outdoor	X5R	#4–300 kcmil	CHP12L200R ^{②④}	—	—
	16	32	Indoor	X5	#4–300 kcmil	CHP16L200X5 ^{①③}	CHPX5LF	CHPX5LS
	16	32	Outdoor	X5R	#4–300 kcmil	CHP16L200R ^{②④}	—	—
225	24	48	Indoor	X5	#4–300 kcmil	CHP24L225X5 ^{①③}	CHPX5LF	CHPX5LS
	24	48	Outdoor	X5R	#4–300 kcmil	CHP24L225R ^{②④}	—	—
	32	64	Indoor	X5	#4–300 kcmil	CHP32L225X5 ^{①③}	CHPX5LF	CHPX5LS
	32	64	Outdoor	X5R	#4–300 kcmil	CHP32L225R ^{②④}	—	—
	42	84	Indoor	X6	#4–300 kcmil	CHP42L225X6 ^{①③}	CHPX6LF	CHPX6LS
	42	84	Outdoor	X6R	#4–300 kcmil	CHP42L225R ^{②④}	—	—
400	42	84	Indoor	P	(2) 1/0–300 kcmil (1) 750 kcmil	CHP42PL400 ^⑤	CH7PF ^⑥	CH7PS

Notes

- ① Suitable for use as service equipment when not more than six disconnecting means are provided.
- ② Rainproof panels are furnished with hub closure plates. For rainproof hubs, refer to **Page V1-T1-23**.
- ③ Suitable for use as service equipment when a circuit breaker is used as a main breaker.
The main breaker is backfed and requires hold-down bracket kit catalog number **CHPHD**.
- ④ Suitable for use as service equipment when a circuit breaker is used as a main breaker.
The main breaker is backfed and requires hold-down bracket kit catalog number **CH125RB**.
- ⑤ Suitable for use as service equipment when a circuit breaker is used as a main breaker.
The main breaker is backfed and must be a Type **CHB**.
The breaker cannot be a Type CH.
- ⑥ This cover is for flush application only (not combination).

Box sizes **Pages V1-T1-29** and **V1-T1-31**.

1.1

Loadcenters and Circuit Breakers

Type CH Loadcenters and Circuit Breakers

1

Convertible Loadcenters MCB or MLO—Base Units and Main Devices—10/25/35 kAIC

Complete assembly consists of: loadcenter, cover, and either main breaker kit or main lug kit.

Indoor—Single-Phase—Three-Wire—120/240 V—Insulated/Bondable Split Neutral—Top or Bottom Feed

Maximum Main Ampere Rating	Maximum Number of 3/4 Inch Spaces	Maximum Number of 3/4 Inch Poles	Enclosure Type	Box Size	Loadcenter Box and Panel Catalog Number ^{①②}	Loadcenter Cover Catalog Number ^③		Main Lug Kit ^④ Catalog Number	Main Breaker Kit ^④	
						Combination	Surface		Catalog Number	Catalog Number
125	22	44	Indoor	X2	CHP22N125X2 ^⑤	CHPX2AF	CHPX2AS	CHSF2125 ^⑥	CH2100	—
									CH2125	—
225	32	64	Indoor	X6	CHP32N225X6	CHPX6NF	CHPX6NS	CHPL225 ^⑥	CSR2125N ^⑦	CSH2125N ^⑧
									CSR2150N ^⑦	CSH2150N ^⑧
									CSR2175N ^⑦	CSH2175N ^⑧
									CSR2200N ^⑦	CSH2200N ^⑧
									CSR2225N ^⑦	CSH2225N ^⑧
225	42	84	Indoor	X7	CHP42N225X7	CHPX7NF	CHPX7NS	CHPL225 ^⑥	CSR2125N ^⑦	CSH2125N ^⑧
									CSR2150N ^⑦	CSH2150N ^⑧
									CSR2175N ^⑦	CSH2175N ^⑧
									CSR2200N ^⑦	CSH2200N ^⑧
									CSR2225N ^⑦	CSH2225N ^⑧

Indoor—Single-Phase—Three-Wire—120/240 V—Insulated/Bondable Split Neutral—Top or Bottom Feed—Main Lugs Installed

Maximum Main Ampere Rating	Maximum Number of 3/4 Inch Spaces	Maximum Number of 3/4 Inch Poles	Enclosure Type	Box Size	Loadcenter Box and Panel Catalog Number ^②	Loadcenter Cover Catalog Number ^③		Main Lug Kit Catalog Number	Main Breaker Kit	
						Combination	Surface		Catalog Number	Catalog Number
225	32	64	Indoor	X6	CHP32E225X6	CHPX6NF	CHPX6NS	Factory installed CHPL225 ^⑥	CSR2125N ^⑦	CSH2125N ^⑧
									CSR2150N ^⑦	CSH2150N ^⑧
									CSR2175N ^⑦	CSH2175N ^⑧
									CSR2200N ^⑦	CSH2200N ^⑧
									CSR2225N ^⑦	CSH2225N ^⑧
225	42	84	Indoor	X7	CHP42E225X7	CHPX7NF	CHPX7NS	Factory installed CHPL225 ^⑥	CSR2125N ^⑦	CSH2125N ^⑧
									CSR2150N ^⑦	CSH2150N ^⑧
									CSR2175N ^⑦	CSH2175N ^⑧
									CSR2200N ^⑦	CSH2200N ^⑧
									CSR2225N ^⑦	CSH2225N ^⑧
225	60	120	Indoor	X9	CHP60E225X9	CHPX9NF	CHPX9NS	Factory installed CHPL225 ^⑥	CSR2125N ^⑦	CSH2125N ^⑧
									CSR2150N ^⑦	CSH2150N ^⑧
									CSR2175N ^⑦	CSH2175N ^⑧
									CSR2200N ^⑦	CSH2200N ^⑧
									CSR2225N ^⑦	CSH2225N ^⑧

Notes

① Panel does not include main. Order main breaker or main lug kit separately.

② Interrupting rating depends on main selected.

③ Panel does not include cover. Order cover assembly separately.

④ See V1-T1-19 for lug sizes.

⑤ Hold-down kit included.

⑥ 10 kAIC series combination rating is obtained when Types CH, CHT and CHP branch breakers are used with CH main or MLO.

⑦ 25 kAIC series combination rating is obtained when Types CH, CHT and CHP branch breakers are used with CSR main.

⑧ 35 kAIC series combination rating is obtained when Types CH, CHT and CHP branch breakers are used with CSH main.

Note: See V1-T1-19 for wire sizes and kAIC ratings.

Outdoor—Single-Phase—Three-Wire—120/240 V—Insulated/Bondable Split Neutral (Unless Otherwise Noted)

Maximum Main Ampere Rating	Maximum Number of Single Poles	Box Size	Loadcenter Box and Panel Catalog Number ^{①②}	Main Lug Kit Wire Size	Catalog Number	Main Breaker Kit kAIC Rating	Wire Size	Catalog Number	Catalog Number
125	22	X2R	CHP22N125R ^③	#10–1/0	CHL125N	10	#10–1/0	CH2100N ^⑦	—
								CH2125N ^⑦	—
200	8	X5R	CHP08N200RF ^{③④⑤}	#4–300 kcmil	CHL225N	25/35 ^⑥	#2–300 kcmil	CSR2125N	CSH2125N
								CSR2150N	CSH2150N
								CSR2175N	CSH2175N
								CSR2200N	CSH2200N
200	32	X6R	CHP32N200R ^③	#4–300 kcmil	CHL225N	25/35 ^⑥	#2–300 kcmil	CSR2125N	CSH2125N ^⑧
								CSR2150N	CSH2150N ^⑧
								CSR2175N	CSH2175N ^⑧
								CSR2200N	CSH2200N ^⑧
225	42	X7R	CHP42N225R ^③	#4–300 kcmil	CHL225N	25/35 ^⑥	#2–300 kcmil	CSR2125N	CSH2125N ^⑧
								CSR2150N	CSH2150N ^⑧
								CSR2175N	CSH2175N ^⑧
								CSR2200N	CSH2200N ^⑧
								CSR2225N	CSH2225N ^⑧

Notes

- ^① Panel does not include main. Order main breaker or main lug kit separately.
^② Interrupting rating depends on main circuit breaker selected.
^③ Rainproof panels are furnished with hub closure plates. For rainproof hubs, refer to **Page V1-T1-23**.
^④ Includes feed-through lugs for both phase and neutral conductors.
^⑤ Insulated/bondable single neutral.
^⑥ If 35 kAIC is required, use CSH breaker.
^⑦ Hold-down kit included.
^⑧ 35 kAIC series combination rating is obtained when Types CH, CHT and CHP branch breakers are used with CSH main.

Three-Phase—Main Circuit Breaker Loadcenters—10 kAIC

CH42B3200L

**Three-Phase Four-Wire—208Y/120 Vac or 240 Vac Insulated/Bondable Split Neutral**

Main Breaker Type	Main Ampere Rating	Maximum Number 3/4-Inch (19.1 mm) Poles	Enclosure Type	Box Size	Wire Size Range Cu/Al 60 °C or 75 °C for Main Breaker	Loadcenter ^{①②} Catalog Number	Loadcenter Cover Catalog Number Combination	Surface
CC 10 kAIC	150	30	Indoor	L	#1–4/0	CH30B3150L	CH8LF	CH8LS
		30	Indoor	L	#2/0–300 kcmil	CH30B3200L	CH8LF	CH8LS
	200	30	Outdoor	L	#2/0–300 kcmil	CH30B3200R ^③	—	—
		42	Indoor	L	#2/0–300 kcmil	CH42B3200L	CH8LF	CH8LS
		42	Outdoor	L	#2/0–300 kcmil	CH42B3200R ^③	—	—
	225	30	Indoor	L	#2/0–300 kcmil	CH30B3225L	CH8LF	CH8LS
		30	Outdoor	L	#2/0–300 kcmil	CH30B3225R ^③	—	—
		42	Indoor	L	#2/0–300 kcmil	CH42B3225L	CH8LF	CH8LS
		42	Outdoor	L	#2/0–300 kcmil	CH42B3225R ^③	—	—
	400	42	Indoor	PM	(2) 3/0–350 kcmil	CH424PM400	CH7PMF ^④	CH7PMS

^① All main circuit breaker loadcenters are listed for use as service entrance equipment.

^② Ground bar kits priced separately. For ground bar kits, see **Page V1-T1-24**.

^③ Rainproof loadcenters are furnished with hub closure plates. For rainproof hubs, refer to **Page V1-T1-23**.

^④ This cover for flush application only (not combination).

Three-Phase—Main Lug Loadcenters**Three-Phase Four-Wire—208Y/120 Vac or 240 Vac Insulated/Bondable Split Neutral (Unless Otherwise Noted)**

Main Ampere Rating	Number of 3/4-Inch (19.1 mm) Spaces	Maximum Number of Poles	Enclosure Type	Type of Trim Included	Box Size	Wire Size Range Cu/Al 60 °C or 75 °C for Main Lugs	Loadcenter Catalog Number	Loadcenter Cover Catalog Number Combination	Single
125	6	12 ①	Indoor	Surface, no door	7	#14–1/0	CH6L3125SP ②③④	—	—
	6	12 ①	Outdoor	—	7R	#14–1/0	CH6L3125RP ②③④⑤	—	—
	6	12 ①	Indoor	Flush, no door	7	#14–1/0	CH6L3125FP ②③④	—	—
	12	12	Indoor	—	B	#6–2/0	CH12L3125B ⑥⑦	CH8BF	CH8BS
	12	12	Outdoor	—	B	#6–2/0	CH12L3125R ⑥⑦⑧	—	—
	18	18	Indoor	—	C	#6–2/0	CH18L3125C ⑥⑦	CH8CF	CH8CS
	18	18	Outdoor	—	C	#6–2/0	CH18L3125R ⑥⑦⑧	—	—
	24	24	Indoor	—	C	#6–2/0	CH24L3125C ⑥⑦	CH8CF	CH8CS
150	24	24	Outdoor	—	C	#6–2/0	CH24L3125R ⑥⑦⑧	—	—
	30	30	Indoor	—	D	#4–300 kcmil	CH30L3150D ⑥⑦	CH8DF	CH8DS
225	24	24	Indoor	—	D	#4–300 kcmil	CH24L3225D ⑥⑦	CH8DF	CH8DS
	24	24	Outdoor	—	D	#4–300 kcmil	CH24L3225R ⑥⑦⑧⑨	—	—
	30	30	Indoor	—	D	#4–300 kcmil	CH30L3225D ⑥⑦	CH8DF	CH8DS
	30	30	Outdoor	—	D	#4–300 kcmil	CH30L3225R ⑥⑦⑧⑨	—	—
	42	42	Indoor	—	G	#4–300 kcmil	CH42L3225G ⑥⑩	CH8GF	CH8GS
	42	42	Outdoor	—	G	#4–300 kcmil	CH42L3225R ⑥⑦⑧⑨	—	—
400	42	42	Indoor	—	P	(2) 1/0–300 kcmil (1) 750 kcmil	CH424PL400 ⑩⑪	CH7PF ⑫	CH7PS

Notes

- ① Requires the use of Type CHT breakers.
- ② Suitable for use as service equipment when not more than two service disconnecting means are provided or when not more than six service disconnecting means are provided and when not used as a lighting and appliance panelboard.
- ③ Ground bar kits priced separately, see **Page V1-T1-24**.
– Use GBK10 ground bar
– Ground bars mount to the left side wall of the enclosure.
- ④ Insulated/bondable single neutral.
- ⑤ Rainproof loadcenters are furnished with hub closure plates. For rainproof hubs, refer to **Page V1-T1-23**.
- ⑥ Ground bar Type GBK14 is installed.
- ⑦ Suitable for use as service equipment when a circuit breaker is used as a main breaker. The main breaker is backfed and requires hold-down bracket kit catalog number Type **CH125RB**. Suitable for use as service equipment when not more than six service disconnecting means are provided and when not used as a lighting and appliance panelboard.
- ⑧ Ground bar Type GBK21 is installed.
- ⑨ Suitable for use as service equipment when a circuit breaker is used as a main breaker. The main breaker is backfed and requires hold-down kit catalog number Type **CH125RB**.
- ⑩ For ground bar kits, see **Page V1-T1-24**.
- ⑪ Suitable for use as service equipment when a circuit breaker is used as a main breaker. The main breaker is backfed and must be a Type CHB.
The breaker cannot be a Type CH.
- ⑫ This cover for flush application only (not combination).

Box sizes **Pages V1-T1-29** and **V1-T1-31**.

Spa Panels



Contents

Description

	Page
Overview	V1-T1-2
CH Specialty Products	
Spa Panels	
Surge Panel.	V1-T1-15
CH Loadcenter Options and Accessories	V1-T1-18
CH Circuit Breakers	V1-T1-33

CH Specialty Products

Spa Panels

Product Description

Eaton's CH Spa Panels are premium factory-assembled "combination" units that provide ground fault protection, as well as a convenient way to turn spa pumps on and off. The NEC requires that all pool and spa pumps be protected by a ground fault interrupter and a disconnect switch mounted within 10 feet of the tub or the spa.

Features

- Two extra circuits for additional loads (120 V single-pole breakers only)
- Limited lifetime warranty
- UL Listed
- Tough powder-coated galvanized steel enclosure
- Factory-installed two-pole ground fault circuit interrupter (GFCI)

Product Selection

CH Spa Panel



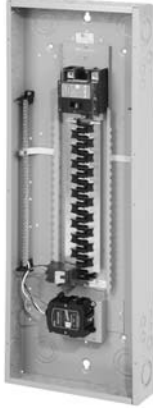
Single-Phase Three-Wire—120/240 Vac Insulated/Bondable Neutral—Factory-Installed Ground Bar

Main Ampere Rating	Circuit Breaker Included	Enclosure Type	Type of Trim Included	Box Size	Wire Size Range Cu/Al 60 °C or 75 °C for Main Lugs	Catalog Number
30	CHN230GF	Outdoor	—	5R	#14–1/0	CHSPA30 ^①
40	CHN240GF	Outdoor	—	5R	#14–1/0	CHSPA40 ^②
50	CHN250GF	Outdoor	—	5R	#14–1/0	CHSPA50 ^③
60	CHN260GF	Outdoor	—	5R	#14–1/0	CHSPA60 ^④

Notes

- ① Includes a CHN230GF breaker, factory installed, and two extra circuits for convenience.
- ② Includes a CHN240GF breaker, factory installed, and two extra circuits for convenience.
- ③ Includes a CHN250GF breaker, factory installed, and two extra circuits for convenience.
- ④ Includes a CHN260GF breaker, factory installed, and two extra circuits for convenience.

Surge Panel



Contents

Description**Page**

Overview	V1-T1-2
CH Specialty Products	
Spa Panels	V1-T1-14
Surge Panel	
CH Loadcenter Options and Accessories	V1-T1-18
CH Circuit Breakers	V1-T1-33

Surge Panel

Product Description

Eaton's Type CH Surge Loadcenter includes a factory-mounted and wired surge suppressor device. There is a knockout in the cover that allows the user to view the status indication lights on the surge suppressor. The CH Surge Loadcenter reduces the surge current, helping protect sensitive home electronic equipment.

Save labor by installing a factory-mounted surge protective device.

Factory-Installed Surge Protection

- Includes a CHSPT2ULTRA and a two-pole 50 A circuit breaker
- Increases the effectiveness of surge protection due to reduced lead length
- A modified deadfront allows for easy viewing of indicating lights

Surge Ready

- Provides a mounting provision for CHSPT2ULTRA
- A modified deadfront allows for easy viewing of indicating lights

Product Selection**Surge Installed Loadcenters**

Ampere Rating	Type	Number of Circuits	Loadcenter Catalog Number	Loadcenter Cover Catalog Number Combination	Surface
225	Convertible	42	CHSUR42N225L ^①	CHSUR8LF	CHSUR8LS
225	Convertible ^②	42	CHSUR42L225L2 ^①	CHSUR8LF	CHSUR8LS
200	Main breaker	42	CHSUR42B200L2 ^①	CHSUR8LF	CHSUR8LS
225	Convertible	32	CHSUR32N225K ^①	CHSUR8KF	CHSUR8KS
225	Convertible ^②	32	CHSUR32L225K ^①	CHSUR8KF	CHSUR8KS
200	Main breaker	32	CHSUR32B200K ^①	CHSUR8KF	CHSUR8KS
150	Main breaker	32	CHSUR32B150K ^①	CHSUR8KF	CHSUR8KS
100	Main breaker	32	CHSUR32B100K ^①	CHSUR8KF	CHSUR8KS
125	Convertible ^②	24	CHSUR24L125E ^①	CHSUR8EF	CHSUR8ES
100	Main breaker	24	CHSUR24B100E ^①	CHSUR8EF	CHSUR8ES

Notes

- ^① Order cover separately.
^② With main lugs installed.

Surge Ready Loadcenters (provision only, CHSPT2ULTRA and breaker not included)

Ampere Rating	Type	Number of Circuits	Loadcenter Catalog Number ^①	Loadcenter Cover Combination	Catalog Number Surface
225	Convertible	42	CHEC42N225L	CHSUR8LF	CHSUR8LS
225	Convertible ^②	42	CHEC42L225L	CHSUR8LF	CHSUR8LS
200	Main breaker	42	CHEC42B200L	CHSUR8LF	CHSUR8LS
225	Convertible ^②	32	CHEC32L225K	CHSUR8KF	CHSUR8KS
225	Convertible	32	CHEC32N225K	CHSUR8KF	CHSUR8KS
225	Convertible	32	CHEC32N225R ^③	—	—
200	Main breaker	32	CHEC32B200K	CHSUR8KF	CHSUR8KS
150	Main breaker	32	CHEC32B150K	CHSUR8KF	CHSUR8KS
100	Main breaker	32	CHEC32B100K	CHSUR8KF	CHSUR8KS
125	Convertible ^②	24	CHEC24L125E	CHSUR8EF	CHSUR8ES
100	Main breaker	24	CHEC24B100E	CHSUR8EF	CHSUR8ES

Technical Data and Specifications**Ratings**

- Loadcenter
 - 25 kAIC main breaker, main lug only and convertible main breaker/main lug
 - Factory installed or provision for field-installed surge suppressor
 - Top or bottom feed
- Surge protective device (CHSPT2ULTRA)
 - Nominal discharge current: 20 kA (I_n)
 - Surge current capacity per phase: 108 kA
 - Warranty: \$75,000 connected equipment ^④
 - For further product ratings, see Volume 1, Tab 2.1 Surge Protection

Notes

- ^① Order cover separately.
- ^② With main lugs installed.
- ^③ Rainproof loadcenters are furnished with hub closure plates. For rainproof hubs, refer to **Page V1-T1-23**.
- ^④ For warranty details, visit www.eaton.com/surgetrap.

Non-Metallic Loadcenter**Single-Phase—Main Lug Loadcenters, Non-Metallic****2460SNM****Single-Phase Three-Wire—120/240 Vac—Insulated/Bondable Neutral**

Main Ampere Rating	Number of 1-Inch (25.4 mm) Spaces	Maximum Number of Circuits	Enclosure Type	Trim Type	Box Size	Wire Size Range Cu/Al 60 °C or 75 °C for Main Lugs	Loadcenter Catalog Number
40 ^①	2	4	Indoor	Flush (no door)	2	^②	TT120FLGNM ^{②③}
	2	4	Indoor	Surface (no door)	2		TT120SLGNM ^{②③}
60	2	4	Indoor	Flush (no door)	2	#14–2	2460FNM
	2	4	Indoor	Surface (no door)	2		2460SNM
	2	4	Indoor	Flush (no door)	2		2460FGNM ^③
	2	4	Indoor	Surface (no door)	2		2460SGNM ^③
	2	4	Outdoor	—	—		2460RNM-A2

Notes

- ^① Suitable for use as service equipment when not more than six main disconnecting means are provided and when not used as a lighting and appliance panelboard.
- ^② This device has no main lugs. A Type BR or BD breaker is required to be backfed to supply power to branch breakers. This device is single-phase 120 Vac only. With the use of three Type BR breakers, there are two branch circuits available. With the use of three Type BD breakers, there are five branch circuits available.
- ^③ Includes GB4NM ground bar.

Options and Accessories—Mechanical Interlocks



Contents

Description

Page

Overview	V1-T1-2
CH Specialty Products	
Spa Panels	V1-T1-14
Surge Panel	V1-T1-15
CH Loadcenter Options and Accessories	
Technical Data and Specifications	V1-T1-26
Dimensions	V1-T1-29
CH Circuit Breakers	V1-T1-33

CH Loadcenter Options and Accessories

Product Selection

Plug-on Neutral Installation and Parts

Description	Ordering Quantity ^①	Catalog Number
Bonding kit for bonding the neutral bus to the loadcenter	1	BONDKITP
Cover replacement latch—indoor loadcenters (brown)	1	LATCHPS
Cover replacement latch—indoor loadcenters (white)	1	LATCHPW
Door replacement latch—outdoor loadcenters	1	CH3RLATCH
Replacement main lugs for 200 A/225 A MLO or convertible panels (#1–300 kcmil)	1	CHPL225
Incoming 2/0 neutral lug	1	NLP20
Incoming 300 kcmil neutral lug	1	NLP300
Screws used to mount loadcenter cover	25	LCCS
Screws used to mount loadcenter cover (white)	25	LCCSW
Spray paint—12 oz can (white)	1	SPCWH
Series rating caution label	25	SRL
Circuit directory (2) 42 Ckt cards, (2) adhesive plastic sleeves	12	CKTDIR
Circuit directory—adhesive backed	10	TCD
Keyed door lock for loadcenter trim door	1	TDL
Terminal insulator kit—Type CSR, CSH, BW, BWH mains	10	TICSR300
Terminal insulator kit—Type CH, BR, BRH, BRHH, BRX mains	10	TIMCB3/0
5 circuit terminal block for renovation	1	RN5TB
Retaining bracket for backfed main breaker—CH	1	CHPHD
Mechanical interlock kit for CH loadcenters with backfed main breaker	1	CHPMIKCH
Mechanical interlock kit for CH loadcenters with Type CSR main breaker	1	CHPMIKCSR
3/4-inch filler plates for branch breakers slot in CH loadcenter	25	CHFP
Multipack—3/4-inch filler plates for branch breakers slot in CH loadcenter (5 pieces)	1	CHFPF
Blank deadfront directory marking strip	10	CHMS
CSR main breaker filler plate (sandalwood)	1	CSRFPF
Spray paint—12 oz can (sandalwood)	1	SPCSW

Note

^① Must be purchased in multiples of ordering quantities indicated.

CHSF2125**CHSF3125****CHFP****TDL****BINA****Legacy Field Installation and Parts**

Description	Ordering Quantity ^①	Catalog Number
Sub-feed lug blocks—two-pole, 125 A, 3/4-inch (19.1 mm) spaces needed	1	CHSF2125 ^②
Sub-feed lug blocks—three-pole, 125 A, 3/4-inch (19.1 mm) spaces needed	1	CHSF3125
Neutral/ground lug—add-on neutral or ground lug	1	NL20
	1	NL30
	1	NL300
Filler plates—3/4-inch (19.1 mm) space circuit breaker space	25	CHFP
CSR main circuit breaker filler plate (with hardware)	1	CSRFP
Door lock—12–42 circuits, and 100–225 A	1	TDL
Sandalwood spray paint	1	SPCSW
ANSI-61 light gray touchup paint for outdoor loadcenters	1	SPC61
Isolated neutral assembly (computer circuits)	1	BINA
Circuit directory—adhesive backed	10	TCD
Cover screws	25	LCCS
Cover replacement latch 14-5/16 inch (363.55 mm) wide loadcenters only	1	CHRLS
Circuit marking strip (next to breakers)	10	CHMS
Circuit identification label (preprinted breaker labels next to breakers)	25	CHBL
Series rated caution label	25	SRL
Branch circuit numbering strip	20	CHNS
Bonding strap with screw	1	BSSUSE
CH plug-on neutral ground bonding strap	1	BSCHPON

Main Breaker Kits

Maximum Main Ampere Rating	Wire Size	Catalog Number		
		10 kAIC	25 kAIC	35 kAIC
100	#10–1/0	CH2100	—	—
125	#10–1/0	CH2125	—	—
125	#2–300 kcmil	—	CSR2125N	CSH2125N
150	#2–300 kcmil	—	CSR2150N	CSH2150N
175	#2–300 kcmil	—	CSR2175N	CSH2175N
200	#2–300 kcmil	—	CSR2200N	CSH2200N
225	#2–300 kcmil	—	CSR2225N	CSH2225N

Main Lug Kits

Maximum Main Ampere Rating	Wire Size	Catalog Number
125	#10–1/0	CHSF2125
225	#4–300 kcmil	CHL225N ^③
225	#4–300 kcmil	CHPL225

Notes

- ① Must be purchased in multiples of ordering quantities indicated.
 ② CHSF2125 is also used as 125 A main lug kit for convertible loadcenters.
 ③ Used on legacy panels only.

1.1

Loadcenters and Circuit Breakers

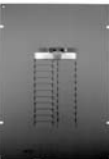
Type CH Loadcenters and Circuit Breakers

1

Mechanical Interlock Covers

Covers mechanically interlock two breakers. Type A covers interlock two CH breakers mounted across from one another. Type B covers interlock a main Type CSR breaker with a Type CH.

Mechanical Interlocks

	Type	Fits Loadcenter Catalog Numbers	Mechanical Interlock Trim/Deadfront Catalog Numbers Flush	Catalog Numbers Surface	Field-Installable Interlock Kit
CH8BRM Type A 	A	CH12L125B	CH8BFM	CH8BSM	—
		CH16L125B			
		CH12L3125B			
		CH14B100B			
		CH20L125C	CH8CFM	CH8CSM	—
		CH24L125C			
		CH18L3125C			
		CH24L3125C			
		CH22B100C			
		CH22N100C			
		CH24L150D	CH8DFM	CH8DSM	—
		CH32L150D			
		CH24L3225D			
		CH30L3150D			
		CH42L225G	CH8GFM	CH8GSM	—
		CH42L3225G			
		Inner cover of Box B raintight	—	CH8BRM	—
		Inner cover of Box C raintight	—	CH8CRM	—
Indoor					
CHMIKCSR Type B 	B	CH24B150E	—	—	CHMIKCSR
		CH24B200E			
		CH24BPN200E			
		CH32B150J			
		CH32B200J			
		CH3242B200J			
		CH32BPN200J			
		CH32N200J			
		CH32B225J			
		CH42B200K			
		CH42N200K			
		CH42BPN200K			
		CH42B225K			
		CH60BPN200N			

CH8EFM Type B



Mechanical Interlocks, continued

Type	Fits Loadcenter Catalog Numbers	Mechanical Interlock Trim/Deadfront Catalog Numbers	
		Flush Surface	
Outdoor			
B	CH8B150RF	CH3RDF7M	—
	CH8B200RF		
	CH8N200RF		
	CH12B200RF		
	CH24B150R		
	CH24B200R		
	CH32B150R	CH3RDF9M	—
	CH32B200R		
	CH32N200R		
	CH32B225R		
	CH42B200R	CH3RDF10M	—
	CH42N200R		
	CH42B225R		
Next Generation Power Center			
B	CHPC32B150L	CHPC8B32LFM	—
	CHPC32B200L		
	CHPC32N200L		
	CHPC42B150L	CHPC8B42LFM	—
	CHPC42B200L		
	CHPC42N200L		
	CHPC32B125TR	CH3RDF15M	—
	CHPC32B150TR		
	CHPC32B200TR		
	CHPC32N200TR		
	CHPC42B150TR	CH3RDF16M	—
	CHPC42B200TR		
	CHPC42N200TR		
	CHPC32B150TR	CH3RDF17M	—
	CHPC32B200TR		
	CHPC42B200BR	CH3RDF18M	—
Vintage ^①			
	CH20JJM200	CH7JFREPLM	—
	CH24JJM150		
	CH30JJM150		
	CH30JJM200		
	CH30JJM150H		
	CH3040JJMM200		
	CH304JJM150		
	CH304JJM200		
	CH304JJM200H		
	CH30KKM225	CH7KKFREPLM	—
	CH40KKM200H		
	CH40KKM225		
	CH40KKM200H		
	CH40KKM225H		
	CH304KKM200		
	CH304KKM200H		
	CH304LLM225	CH7LLFREPLM	—
	CH424LLM225H		

Note

^① If vintage part number does not match exactly, the cover may not fit. Simple variations such as an “N” at the end of the part number contain minor design variations that will prevent our cover from working with that particular loadcenter.

PON Mechanical Interlock Kits**CHPMIKCSR****Loadcenter Catalog Numbers for CHPMIKCSR** ^①

Indoor	Raintight
CHP32B150	CHP08B200RF
CHP32B200	CHP08N200RF
CHP42B200	CHP24B150R
CHPX5BF, BS	CHP24B200R
CHPX6BF, BS	CHP32B150R
CHPX6NF, NS	CHP32B200R
CHPX7BF, BS	CHP32B225R
CHPX7NF, NS	CHP32N200R
CHPX9BF	CHP42B200R
CHPX9NF	CHP42B225R
	CHP42N225R

CHPMIKCH**Loadcenter Catalog Numbers for CHPMIKCH** ^①

Indoor	Raintight
CHP14B100	CHP14B100R
CHP22B100	CHP18B100R
CHPX0AF, AS	CHP22B100R
CHPX1AF, AS	CHP22B125R
CHPX2AF, AS	CHP22N125R
CHPX5AF, AS	CHP30B100R
	CHP30B125R

Note

^① Hold-down kit for generator breaker not included. Order CHPHD hold-down kit separately.

PON Rainproof Conduit Hub**DS100H1****Field Installation Rainproof Conduit Hubs**

Description	Conduit Size Inches (mm)	Ordering Quantity ^①	Catalog Number
Group 1—for use with 70, 100 and 125 A MLO and MCB loadcenters and circuit breaker enclosures	0.75 (19.1)	1	DS075H1
	1.00 (25.4)	1	DS100H1
	1.25 (31.8)	1	DS125H1
	1.50 (38.1)	1	DS150H1
	2.00 (50.8)	1	DS200H1
Group 2—for use with 150, 200 and 225 A MLO and MCB loadcenters and circuit breaker enclosures	2.00 (50.8)	1	DS200H2
	2.50 (63.5)	1	DS250H2
	3.00 (76.2)	1	DS300H2
Adapter kit—allows installing a Group 1 hub on devices arranged for Group 2 hubs	—	1	DS900AP
Group 1—small blank hub closure plate	—	1	DS900CP1
Group 2—large blank hub closure plate	—	1	DS900CP2

Note

^① Must be purchased in multiples of ordering quantities indicated.

GBKP1420



Plug-on Neutral Ground Bar Kits

Description (See Legend)	Length Inches (mm)	Ordering Quantity ^①	Catalog Number
●○○○○○●○○○○○	4.05	1	GBKP10 ^②
●○○○○○●○○○○○■	5.05	1	GBKP1020 ^②
●○○○○○●○○○○○	4.05	1	GBKP10P ^{②③}
●○○○○○●○○○○○○○○○	5.39	1	GBKP14 ^②
●○○○○○●○○○○○○○○○■	6.39	1	GBKP1420 ^②
●○○○○○●○○○○○○○○○	5.39	1	GBKP14P ^{②③}
●○○○○○●○○○○○○○○○○○○○	7.72	1	GBKP21 ^②
●○○○○○●○○○○○○○○○○○○○■	8.72	1	GBKP2120 ^②
●○○○○○●○○○○○○○○○○○○○	7.72	1	GBKP21P ^{②③}
●○○○○○●	2.39	1	GBKP5 ^②
●○○○○○●■	3.39	1	GBKP520 ^②
●○○○○○●	2.39	1	GBKP5P ^{②③}

Ground Bar Legend

- = (3) #14–#10 Cu/Al or (1) #14–#4 Cu/Al
 ■ = (1) #6–2/0 Cu/Al
 ● = Mounting hole

GBK14



Legacy Ground Bar Kits

Description (See Legend)	Length Inches (mm)	Ordering Quantity ^①	Catalog Number
●○○○○○●	2.54 (64.5)	1	GBK5 ^④
●○○○○○●■	3.59 (91.2)	1	GBK520 ^④
●○○○○○●○○○○○○○	4.29 (109.0)	1	GBK10 ^④
●○○○○○●○○○○○○○■	5.34 (135.6)	1	GBK1020 ^④
●○○○○○●○○○○○○○○○	5.69 (144.5)	1	GBK14 ^④
●○○○○○●○○○○○○○○○■	6.74 (171.2)	1	GBK1420 ^④
●○○○○○●○○○○○○○○○○○○○	8.14 (206.8)	1	GBK21 ^④
●○○○○○●○○○○○○○○○○○○○■	9.19 (233.4)	1	GBK2120 ^④

Ground Bar Legend

- = (3) #14–#10 Cu/Al or (1) #14–#4 Cu/Al
 ■ = (1) #6–2/0 Cu/Al
 □ = (1) 1/0–14 or (3) #10–12 Cu/Al
 ○ = (1) #14–1/0 Cu/Al or (3) #14–#10 Cu/Al
 ● = Mounting hole

Notes

- ① Must be purchased in multiples of ordering quantities indicated.
 ② Distance between mounting holes is 2 inches (50.8 mm).
 ③ Individually packaged.
 ④ Distance between mounting holes is 1-3/4 inches (44.5 mm).

Legacy Grounded “B” Phase Adapters

Maximum Amperes	Three-Phase Loadcenter Types of Panels	Kit Catalog Number ^①
125	12–32 circuit main lug	CHGRD1
225	Main lug and CHH main breaker panels	CHGRD2
	CC main CB panels	CHGRD3

Legacy Neutral Bar Accessories

Description	Catalog Number ^①
Replacement neutral for all B and C type boxes	CHN125C
Replacement neutral for all D type boxes	CHN125D
Replacement neutral for all E, G, J, K and L type boxes	CHN225L
Isolated neutral assembly (computer circuits)	BINA

Loadcenter Goof Collars

Don't let an ugly drywall problem ruin a beautiful electrical installation.

Eaton's Goof Collar is designed to cover gaps between the finished drywall and loadcenter enclosure. This is often necessary when upgrading the electrical service and the drywall surrounding the panel is damaged. The collar allows 2 inches of overhang beyond the standard flush trim.

**Before****After****CH Goof Collars**

Inches (mm)		Catalog Number	
Height	Width	BR Box Size	Goof Collar
21.00 (533.4)	19.00 (482.6)	X0	CHPX0GC2119
23.00 (584.2)	19.00 (482.6)	X1	CHPX1GC2319
25.00 (635.0)	19.00 (482.6)	X2	CHPX2GC2519
34.00 (863.6)	19.00 (482.6)	X5	CHPX5GC3419
39.00 (965.2)	19.00 (482.6)	X6	CHPX6GC3919
41.00 (1041.4)	19.00 (482.6)	X7	CHPX7GC4119
48.00 (1219.2)	19.00 (482.6)	X9	CHPX9GC4819

Note

^① Cannot be used in Safety Breaker Panels. Classic Plus Panels only.

Please contact the Lincoln Flex Center for any configurations not listed.

Technical Data and Specifications**General**

- A. The Contractor shall furnish and install loadcenters incorporating circuit breakers of the number, rating and type as specified herein and as shown on the contract drawings.
- B. The loadcenter and all components shall be designed, manufactured and tested in accordance with the latest applicable standards of UL and NEMA including:
 - 1. UL 67—standards for panelboards
 - 2. UL 50—standards for cabinets and boxes
 - 3. UL 489—standards for molded case circuit breakers
 - 4. Federal Spec Classification W-C 375
 - 5. UL 1699—all fault interrupting

Qualifications

- A. The manufacturer of the loadcenter shall be the manufacturer of the circuit breaker within the loadcenter. All breakers shall be full size.
- B. For the equipment specified herein, the manufacturer shall be ISO® 9000 certified.
- C. The manufacturer of this equipment shall have produced similar electrical equipment for a minimum period of seven (7) years.

Manufacturers

- A. Eaton

Ratings

- A. Loadcenters shall be rated for 240 Vac and shall have short-circuit ratings as shown on the drawings or as herein scheduled, but not less than 10,000 A rms symmetrical.
- B. Breakers shall be full size and a minimum of 125 A frame. Breakers 10 –125 A trip size shall take up the same pole spacing.
- C. Loadcenters shall be labeled with a UL short-circuit rating. When series ratings are applied with integral or remote devices, a label shall be provided. Series ratings shall cover all trip ratings of installed frames. It shall state the conditions of the UL series ratings including:
 - 1. Size and type of upstream device
 - 2. Branch devices that can be used
 - 3. UL series short-circuit rating

Construction

- A. All interiors, with the exception of the branch circuit breakers, shall be completely factory assembled with main breakers, main lugs or no main device.
- B. Interiors shall be so designed that circuit breakers can be replaced without disturbing adjacent units and without removing the main bus connectors and shall be so designed that circuits may be changed without machining, drilling or tapping.
- C. Physical means must be provided to prevent the installation of more overcurrent devices than that number for which the enclosure was designed. Full size breakers are required.

Bus

- A. Busbars for the main and cross connectors shall be of silver flash plated copper construction in accordance with UL standards. Bussing shall be braced to 65 kAIC.
- B. Neutral bussing shall have a suitable lug for each outgoing feeder requiring a neutral connection of same ampacity as branch.

Wiring/Termination

- A. All wire connectors and terminals shall be of the anti-turn solderless type and suitable for copper or aluminum wire of the sizes indicated. All connectors shall meet the "Requirements for Wire Connectors and Soldering Lugs" UL 486B.
- B. All loadcenters where marked shall be suitable for use with 60/75 °C rated wire.

Circuit Breakers

- A. Circuit breakers shall be molded case type, 3/4-inch (19.1 mm) wide per pole. Multipole circuit breakers shall be of a stack pole design to provide electrical phase isolation and have an internal common trip.
- B. Each pole of the circuit breaker will have inverse time delay overload and instantaneous short-circuit protection by means of both thermal and magnetic sensors. Circuit breakers shall be quick-make/quick-break.
- C. The circuit breaker calibration shall not be affected by environmental changes in relative humidity. Breakers shall be calibrated after assembly.
- D. All circuit breakers shall be operated by a toggle-type handle and multipole circuit breakers shall have an internal common trip mechanism. The circuit breakers shall incorporate trip mechanisms that are mechanically trip-free from the handle. The handle position shall provide good visual trip indication.
- E. Contacts shall be of non-welding silver alloy.
- F. All branch breaker handles shall be of a different color than the case of the breaker.
- G. All terminals shall be listed for use with copper or aluminum conductors. Terminals shall be of the box lug design. The terminals shall meet UL 486B requirements and shall be suitable for use with either 60 °C or 75 °C wire.
- H. Breakers shall be SWD rated and/or HACR rated as required.
- I. Arc fault interrupting circuit breakers (AFCI) shall be provided on all 15 and 20 A single-phase 120/240 Vac circuits except those indicated as remote-controlled breakers. AFCI breakers shall be "Classified for mitigating the effects of arcing faults," or conforming to UL Standard 1699 and as defined by per Article 210.12 Section A of the NEC.

Enclosures

- A. Loadcenters shall have NEMA 1 general purpose or NEMA 3R rainproof enclosures as indicated on the drawings and shall be surface or flush mounted except where noted.
- B. For indoor applications, enclosures shall be rated NEMA 1. Enclosures shall be manufactured from cold-rolled code-gauge sheet steel having multiple knockouts and painted per paint specification. For outdoor applications, enclosures shall be rated NEMA 3R. Enclosures shall be manufactured from galvanized steel which shall be painted as specified. Enclosures shall be of sufficient size to meet or exceed NEC wire bending space.
- C. The cover shall have an easy adjustment feature for flush applications.
- D. Boxes shall be factory assembled into a single rigid structure.
- E. Provide circuit breaker marking labels and directories.

Finish

- A. Boxes and trims shall be finished with a high scratch-resistant aesthetically pleasing finish. The finish shall be polyurethane coating electrostatically applied to a thickness of 1.8 to 2 mils.

All loadcenters shall be provided with provisions for accepting a paintable or wall paperable decorator accessory cover. Where loadcenters are installed in living areas, provide manufacturer designed and tested decorator cover kits.

CH Loadcenters

Description

Service

Single-phase, three-wire, 120/240 Vac
Three-phase, three-wire, 240 V corner grounded delta

Three-phase, four-wire, 208Y/120 Vac
Three-phase, three-wire, 240 Vac delta

Short-Circuit Current Rating

10 kAIC: All single- and three-phase loadcenters 40–400 A, 2–42 circuits except when series ratings are applied
25 kAIC: All factory-installed main breakers single-phase loadcenters rated 150–225 A using Type CSR main breakers

35 kAIC available on convertible units using CSH main breaker

42 and 100 kAIC are available on some styles: single-phase and three-phase ^①

Main Breaker/Main Lug Loadcenters

Single-phase
Main breaker: 100, 125, 150, 200, 225, 400 A
Main lugs: 40, 70, 125, 150, 200, 225, 400 A

Three-phase
Main breaker: 150, 200, 225, 300, 400 A
Main lugs: 125, 150, 200, 225, 400 A

Convertible Loadcenters

Main breaker or main lugs: single-phase up to 225 A

Branch Breakers

Type CH: 10–150 A. Single-, two- and three-pole.
Selected amperages available in shunt trip, HACR and switching duty
Ground fault circuit interrupters: 15–60 A
Type CH-HID: 15–30 A. Single-, two- and three-pole
CH-HM high magnetic
CH-M50 high ambient

Type CH-AFCI arc fault circuit interrupter

Type CHP: 10–125 A. Single-, two- and three-pole, three-position commercial trip
Selected amperages available in HACR switching duty
Type CHP-HID: 15–30 A. Single-, two- and three-pole
Type CHP-GFCI: 15–30 A. Single-pole ground fault breakers

Enclosures

NEMA Type 1 indoor

NEMA Type 3R outdoor

Loadcenter and Breaker Accessories

Branch circuit breaker:

Auxiliary components
Hold-down kits
Handle ties
Lockoffs
Lockdogs

Complete line of ground bar kits 5, 10, 14 and 21 circuits, some with additional #2/0 lugs
Each terminal will accommodate: (3) #14–#10 Cu/Al or (1) #14–#4 Cu/Al
Sub-feed lugs 125, 150 A—two- and three-pole
Shunt trips
Universal rainproof conduit hubs Group One: 3/4, 1, 1-1/4, 1-1/2, 2 inches (19.1, 25.4, 31.8, 38.1, 50.8 mm)
Group Two: 2, 2-1/2, 3 inches (50.8, 63.5, 76.2 mm)
Adapter plate

Bussing

Silver flash plated copper bus is a standard feature

CH Series Short Circuit Ratings

Main Module Overcurrent Device Breaker Type or Class Fuse	System AIC Rating at 240 Vac Maximum	Meter Module Tenant Feeder Breaker or Loadcenter Main Breaker	Tenant Feeder Breaker Short-Circuit Rating	Loadcenter Branch Breaker (Single-, Two- or Three-Pole) ^②
None	10,000	None	N/A	^③
	100,000	T fuse (400 A Max)	100,000	CH ^④ , CHFAF, CHFGF
Without Main Disconnect	10,000	BR, CC, BW, CCV, CH, CHF	10,000	^③
Cable Tap Box Family	22,000	BRH	22,000	^③
Type 1MTB, 3MTB	22,000	QBHW	22,000	CH, CHF, CHFAFGF, CHFGFT, CHFAF
Main Switch Module Family	25,000	CSR ^⑤ , BWH ^⑤	25,000	CH, CHF, CHT, CHFAF, CHFGF
Type 1MFS, 3MFS Type 1BS, 3BPS	25,000	CCVH	42,000	CH, CHF, CHFGFT, CHFAF
Main Breaker Module Family	42,000	BRHH, CVS	65,000	^③
Type 1MCB, 3MCB	65,000	BRX, CV, ED, GHB	65,000	^③
	65,000	KD	100,000	^③
	100,000	CVH	100,000	^③
Main Breaker Module Family	65,000	BRHX	22,000	^③
Type 1MCB, 3MCB, RGH 2000 A, NGS 1200 A, MDL 800 A, LGS/LD 600 A, KD 400 A	100,000	BRHX	22,000	^③
Main Switch Module Family Type 1MFS, 3MFS				
with Class T fuse 600 A maximum	100,000	BRH	22,000	^③
with Class T fuse 1200 A maximum	100,000	BRHH, CVS	42,000	^③

Notes

- ^① For 100 kAIC systems the main needs to be rated to 100 kAIC.
^② Breakers in this column may not fit in this loadcenter, see breaker info to left.
^③ Also includes these branch breakers: CH, CHF, CHT, CHFAFGF, CHFGFT, CHFAF.
^④ CH: 70 A maximum.
^⑤ CSR and BWH: 200 A maximum.

Dimensions

Approximate Dimensions in Inches (mm)

Residential/Commercial/Unit Enclosure—Box Sizes**Note:** Box sizes do not include covers/fronts.**CH Plug-on Neutral Residential Loadcenters**

Box Size	Height	Width	Depth
NEMA Type 1 Indoor			
X0	16.75 (425.5)	14.30 (363.2)	3.13 (79.4)
X1	18.75 (476.3)	14.30 (363.2)	3.39 (86.1)
X2	21.00 (533.4)	14.30 (363.2)	3.69 (93.7)
X3	23.00 (584.2)	14.30 (363.2)	3.88 (98.4)
X4	27.00 (685.8)	14.30 (363.2)	3.88 (98.4)
X5	29.13 (739.9)	14.30 (363.2)	3.88 (98.4)
X6	34.13 (866.9)	14.30 (363.2)	3.88 (98.4)
X7	37.00 (939.8)	14.30 (363.2)	3.88 (98.4)
X8	39.00 (990.6)	14.30 (363.2)	3.88 (98.4)
X9	45.00 (1143.0)	14.30 (363.2)	3.88 (98.4)
X10	48.38 (1228.9)	14.30 (363.2)	3.88 (98.4)
NEMA Type 3R Outdoor			
X0R	16.75 (425.5)	14.31 (363.5)	5.19 (131.8)
X2R	21.00 (533.4)	14.31 (363.5)	5.19 (131.8)
X11R	25.00 (635.0)	14.31 (363.5)	5.19 (131.8)
X5R	29.13 (739.8)	14.31 (363.5)	5.19 (131.8)
X6R	34.13 (866.8)	14.31 (363.5)	5.19 (131.8)
X7R	37.00 (939.8)	14.31 (363.5)	5.19 (131.8)
X8R	39.00 (990.6)	14.31 (363.5)	5.19 (131.8)
X10R	48.00 (1219.2)	14.31 (363.5)	5.19 (131.8)

Legacy CH Residential Loadcenters

Box Size	Height	Width	Depth
NEMA Type 1 Indoor			
5	9.50 (241.3)	4.50 (114.3)	3.13 (79.4)
6	11.38 (288.9)	6.88 (174.6)	3.39 (86.1)
7	13.00 (330.2)	11.00 (279.4)	3.69 (93.7)
B	16.75 (425.5)	14.31 (363.5)	3.88 (98.4)
C	21.00 (533.4)	14.31 (363.5)	3.88 (98.4)
D	29.13 (739.8)	14.31 (363.5)	3.88 (98.4)
E	29.13 (739.8)	14.31 (363.5)	3.88 (98.4)
G	34.13 (866.8)	14.31 (363.5)	3.88 (98.4)
J	34.13 (866.8)	14.31 (363.5)	3.88 (98.4)
K	37.00 (939.8)	14.31 (363.5)	3.88 (98.4)
L	39.00 (990.6)	14.31 (363.5)	3.88 (98.4)
N	45.00 (1143.0)	14.31 (363.5)	3.88 (98.4)
NEMA Type 3R Outdoor			
5R	9.50 (241.3)	4.50 (114.3)	3.13 (79.4)
6R	11.75 (298.5)	6.50 (165.1)	4.50 (114.3)
7R	13.00 (330.2)	11.00 (279.4)	3.69 (93.7)
B	16.75 (425.5)	14.31 (363.5)	5.19 (131.8)
C	21.00 (533.4)	14.31 (363.5)	5.19 (131.8)
D	29.13 (739.8)	14.31 (363.5)	5.19 (131.8)
E	29.13 (739.8)	14.31 (363.5)	5.19 (131.8)
G	34.13 (866.8)	14.31 (363.5)	5.19 (131.8)
J	34.13 (866.8)	14.31 (363.5)	5.19 (131.8)
K	37.00 (939.8)	14.31 (363.5)	5.19 (131.8)
L	39.00 (990.6)	14.31 (363.5)	5.19 (131.8)

Legacy Commercial Loadcenters

Box Size	Height	Width	Depth
NEMA Type 1 Indoor			
P	54.38 (1381.1)	21.00 (533.4)	6.00 (152.4)
PM	62.63 (1590.7)	21.00 (533.4)	6.00 (152.4)

Types ECB and ECC Unit Enclosures

Height	Width	Depth
NEMA Type 1 Indoor		
23.25 (590.6)	8.88 (225.4)	4.50 (114.3)
NEMA Type 3R Outdoor		
23.69 (601.7)	9.31 (236.5)	5.44 (138.1)

1.1 Loadcenters and Circuit Breakers

Type CH Loadcenters and Circuit Breakers

1

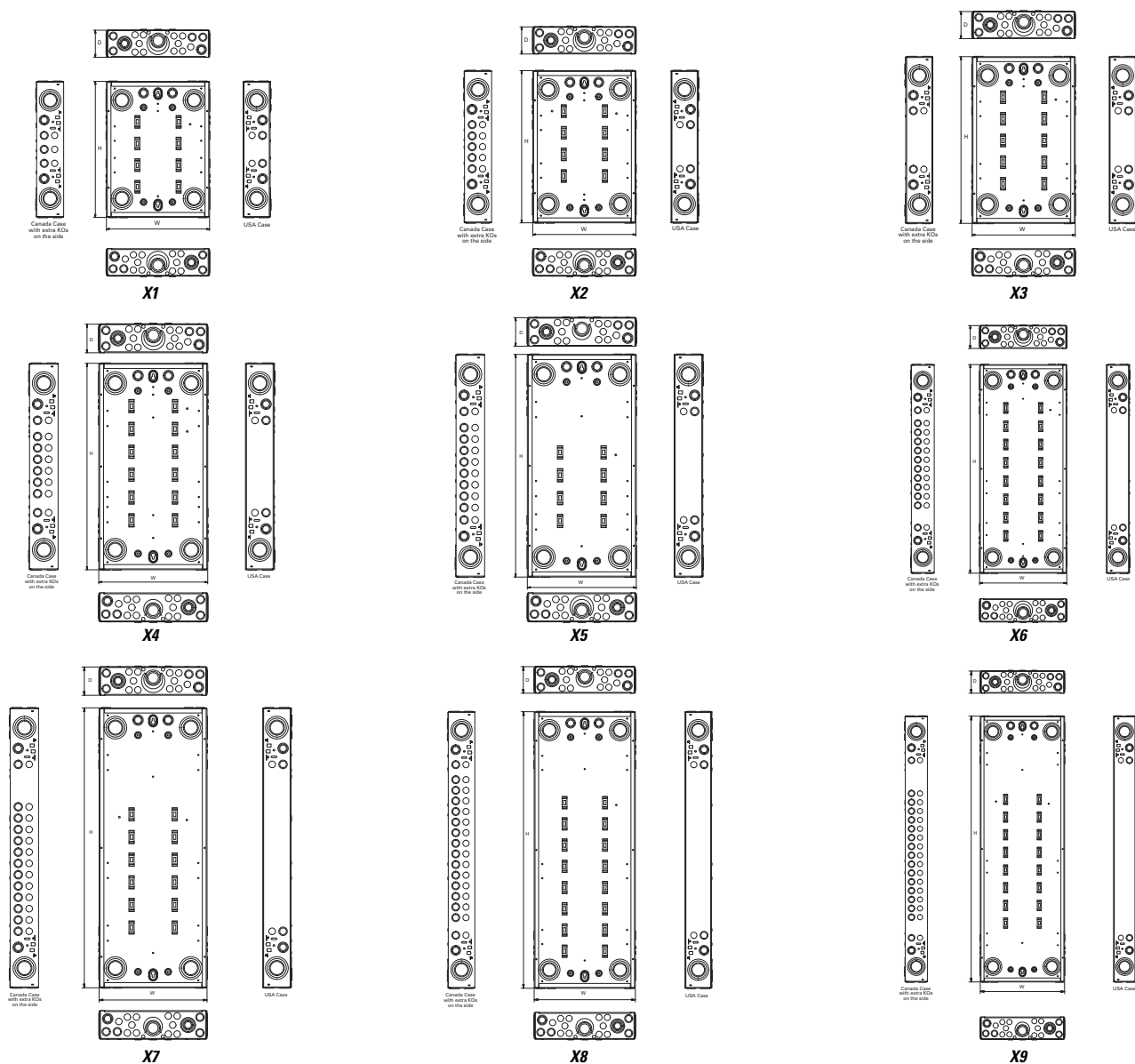
Approximate Dimensions in Inches (mm)

Plug-on Neutral Loadcenter

Box Sizes for X1–X9

Box Size	Height	Width	Depth
X1	18.90 (480.1)	14.30 (363.2)	3.80 (96.5)
X2	21.10 (535.9)	14.30 (363.2)	3.80 (96.5)
X3	23.10 (586.7)	14.30 (363.2)	3.80 (96.5)
X4	27.10 (688.3)	14.30 (363.2)	3.80 (96.5)
X5	29.20 (741.7)	14.30 (363.2)	3.80 (96.5)
X6	34.20 (868.7)	14.30 (363.2)	3.80 (96.5)
X7	37.10 (942.3)	14.30 (363.2)	3.80 (96.5)
X8	39.10 (993.1)	14.30 (363.2)	3.80 (96.5)
X9	45.10 (1145.5)	14.30 (363.2)	3.80 (96.5)

Knockout Positions



Approximate Dimensions in Inches (mm)

Residential Loadcenter Knockout

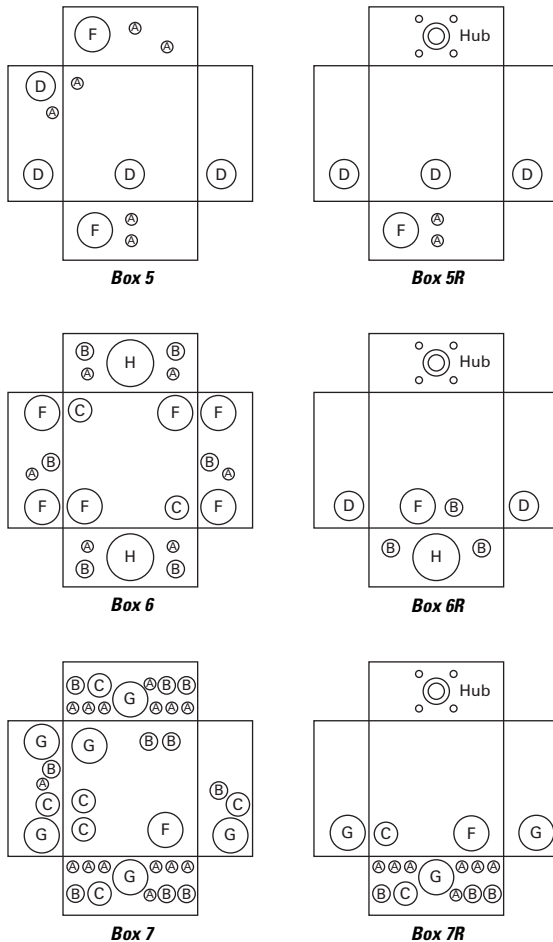
Residential NEMA Type 1 Indoor and NEMA Type 3R Outdoor Enclosures.

Knockouts for Box Sizes 5, 6, 7, 5R, 6R, 7R

Code	Diameter	Additional KO	Additional KO	Additional KO
A	0.50 (12.7)	—	—	—
B	0.50 (12.7)	0.75 (19.1)	—	—
C	0.50 (12.7)	0.75 (19.1)	1.00 (25.4)	—
D	0.50 (12.7)	0.75 (19.1)	1.00 (25.4)	1.25 (31.8)
E	0.75 (19.1)	1.00 (25.4)	1.25 (31.8)	—
F	0.75 (19.1)	1.00 (25.4)	1.25 (31.8)	1.50 (38.1)
G	1.00 (25.4)	1.25 (31.8)	1.50 (38.1)	—
H	1.00 (25.4)	1.25 (31.8)	1.50 (38.1)	2.00 (50.8)
I	1.25 (31.8)	1.50 (38.1)	2.00 (50.8)	—

Note: Additional KOs are placed concentrically.

Knockout Positions



Residential and Commercial Loadcenter Knockout

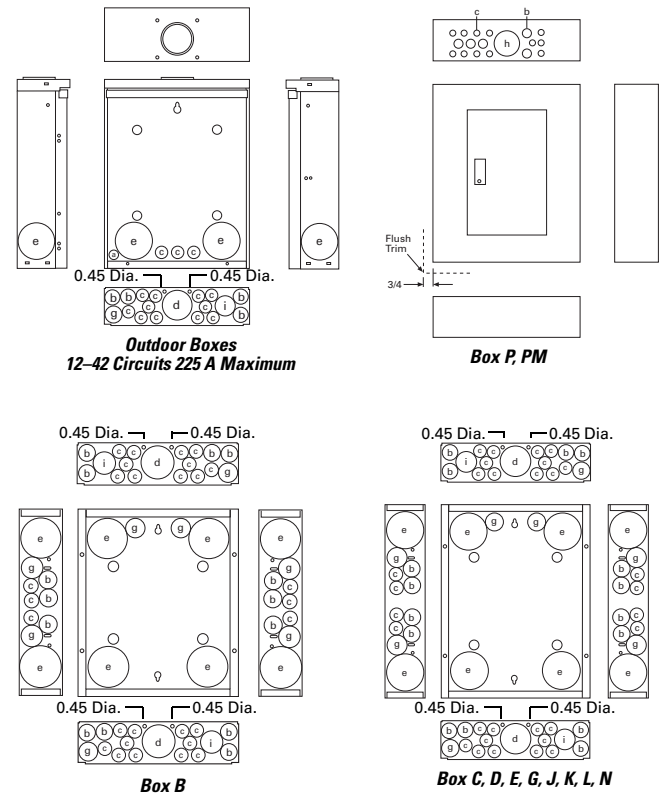
Residential NEMA Type 1 indoor and NEMA Type 3R outdoor enclosures.

Knockouts for Box Sizes 8, 8R, P, PM, B, C, D, E, G, J, K, L, N and Outdoor Boxes 12–60 Circuits

Code	Diameter	Additional KO	Additional KO	Additional KO	Additional KO
a	0.75 (19.1)	—	—	—	—
b	0.50 (12.7)	0.75 (19.1)	—	—	—
c	0.50 (12.7)	—	—	—	—
d	1.00 (25.4)	1.25 (31.8)	1.50 (38.1)	2.00 (50.8)	2.50 (63.5)
e	1.25 (31.8)	1.50 (38.1)	2.00 (50.8)	2.50 (63.5)	—
f	0.75 (19.1)	1.25 (31.8)	1.50 (38.1)	2.00 (50.8)	—
g	0.50 (12.7)	0.75 (19.1)	1.00 (25.4)	—	—
h	1.50 (38.1)	2.00 (50.8)	2.50 (63.5)	—	—
i	0.50 (12.7)	0.75 (19.1)	1.00 (25.4)	1.25 (31.8)	1.50 (38.1)
j	1.00 (25.4)	1.25 (31.8)	1.50 (38.1)	—	—
k	1.25 (31.8)	1.50 (38.1)	2.00 (50.8)	—	—
m	0.75 (19.1)	1.00 (25.4)	1.25 (31.8)	1.50 (38.1)	2.00 (50.8)
n	0.75 (19.1)	1.00 (25.4)	1.25 (31.8)	1.50 (38.1)	—
p	2.00 (50.8)	2.50 (63.5)	—	—	—

Note: Additional KOs are placed concentrically.

Knockout Diagram



1.1

Loadcenters and Circuit Breakers

Type CH Loadcenters and Circuit Breakers

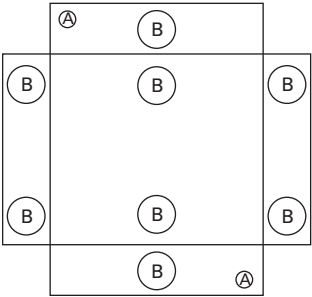
1

Type ECB and ECC Unit Enclosure Knockout

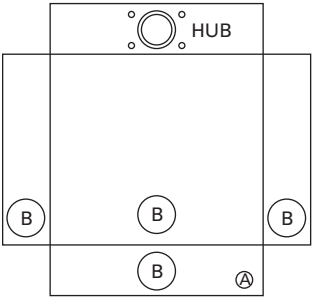
Code	Diameter	Additional KO	Additional KO	Additional KO	Additional KO
NEMA Type 1 Indoor (Flush and Surface Trims)					
A	0.50 (12.7)	—	—	—	—
B	1.25 (31.8)	1.50 (38.1)	1.75 (44.5)	2.00 (50.8)	2.50 (63.5)
NEMA Type 3R Outdoor					
A	0.50 (12.7)	—	—	—	—
B	1.25 (31.8)	1.50 (38.1)	1.75 (44.5)	2.00 (50.8)	2.50 (63.5)

Note: Additional KOs are placed concentrically.

NEMA Type 1—Indoor



NEMA Type 3R—Outdoor



Plug-on Circuit Breakers



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 CHF family also includes a trip flag to differentiate between a trip and the breaker being turned off. 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 all subsequent editions of the National Electrical Code.

Combination Type Arc Fault Circuit Breakers

A combination type arc fault circuit interrupter is a device that offers 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 A 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-T1-41 shows a typical wiring configuration.

Contents

Description

Description	Page
Overview	V1-T1-2
CH Specialty Products	V1-T1-14
CH Loadcenter Options and Accessories	V1-T1-18
CH Circuit Breakers	
Product Selection	V1-T1-34
Options and Accessories	V1-T1-40
Technical Data and Specifications	V1-T1-41
Wiring Diagrams	V1-T1-41

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.

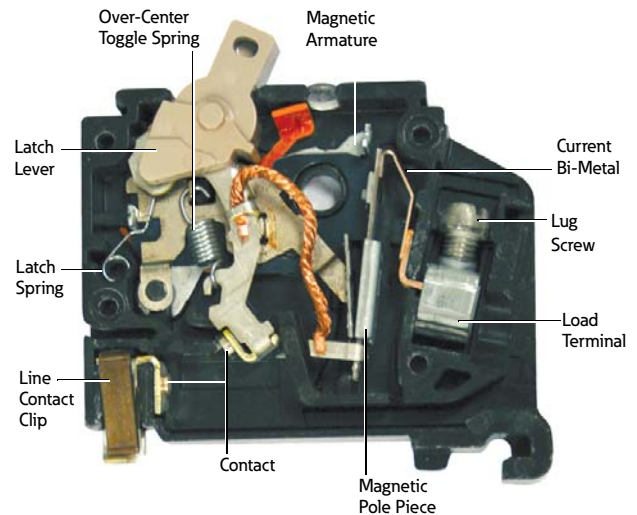
Diagrams on Page V1-T1-41 illustrate typical wiring configurations for 120/240 Vac multiwire circuits.

The diagram on Page V1-T1-41 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.

Features



Product Selection

10 kAIC, 120 Vac, 120/240 Vac and 240 Vac

Type CH Plug-on
Circuit Breakers

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

Ampere Rating	Wire Size Range Cu/Al 60 °C or 75 °C	Catalog Number		
		Single-Pole 120/240 Vac Requires One 3/4-Inch (19.1 mm) Space 10 per Shelf Carton	Two-Pole 120/240 Vac Common Trip Requires Two 3/4-Inch (19.1 mm) Spaces 5 per Shelf Carton	Three-Pole 240 Vac Common Trip Requires Three 3/4-Inch (19.1 mm) Spaces 5 per Shelf Carton
10	(1) #14–8 ①	CH110	CH210	CH310
15	(2) #14–10 ①② (1) #14–6 ③	CH115 ⑤⑥	CH215 ⑥	CH315 ⑥
20		CH120 ⑤⑥	CH220 ⑥	CH320 ⑥
25		CH125 ⑥	CH225 ⑥	CH325 ⑥
30		CH130 ⑥	CH230 ⑥	CH330 ⑥
35	#14–2 ① #14–6 ③	CH135 ⑥	CH235 ⑥	CH335 ⑥
40	#10–1/0 ④	CH140 ⑥	CH240 ⑥	CH340 ⑥
45	#14–2 #3/0	CH145 ⑥	CH245 ⑥	CH345 ⑥
50		CH150 ⑥	CH250 ⑥	CH350 ⑥
60		CH160	CH260	CH360
70		CH170	CH270	CH370
80		—	CH280	CH3080
90		—	CH290	CH3090
100		—	CH2100	CH3100
110		—	CH2110	—
125		—	CH2125	—

Type CH Plug-on
Circuit Breakers

CHF Breakers with Mechanical Trip Flag

Ampere Rating	Wire Size Range Cu/Al 60 °C or 75 °C	Catalog Number	
		Single-Pole 120/240 Vac Requires One 3/4-Inch (19.1 mm) Space 10 per Shelf Carton	Two-Pole 120/240 Vac Common Trip Requires Two 3/4-Inch (19.1 mm) Spaces 5 per Shelf Carton
10	(1) #14–8 ①	CHF110	CHF210
15	(2) #14–10 ①②	CHF115 ⑤⑥	CHF215 ⑥
20		CHF120 ⑤⑥	CHF220 ⑥
25		CHF125 ⑥	CHF225 ⑥
30		CHF130 ⑥	CHF230 ⑥
35	#14–2 ①	CHF135 ⑥	CHF235 ⑥
40	#14–4 ④	CHF140 ⑥	CHF240 ⑥
45		CHF145 ⑥	CHF245 ⑥
50		CHF150 ⑥	CHF250 ⑥

Notes

- ① For single- and two-pole breakers.
- ② Solid and stranded wire can be used together.
- ③ For three-pole breakers.
- ④ Single-pole and two-pole 40–50 A.
- ⑤ Switching duty rated.
- ⑥ HACR rated.

For factory-installed options, refer to **Page V1-T1-40**.

Type CH AF/GF, Single-Pole Circuit Breaker**Type CH AFCI Single-Pole Circuit Breaker****Dual Function Arc Fault/Ground Fault 3/4-Inch (19.1 mm) Wide Circuit Breakers, Type CH, 120 Vac, 10 kAIC ^{①②}**

Poles	Ampere Rating	Configuration	Catalog Number
Single-pole 10 kAIC	15	Dual function AFCI/GFCI, pigtail neutral	CHFN115DF
	20	Dual function AFCI/GFCI, pigtail neutral	CHFN120DF
Single-pole, plug-on neutral 10 kAIC	15	Dual function AFCI/GFCI, plug-on neutral	CHFP115DF
	20	Dual function AFCI/GFCI, plug-on neutral	CHFP120DF

Plug-on Branch Feeder Type Arc Fault Circuit Breakers, Type CH, 120 Vac and 120/240 Vac, 10 kAIC**Type CH AFCI Single-Pole Circuit Breaker****Combination Type CH AFCI 3/4-Inch (19.1 mm) Wide Circuit Breakers**

Poles	Ampere Rating	Configuration	Catalog Number
Single-pole 10 kAIC	15	Combination AFCI, pigtail neutral	CHFN115AF
	20	Combination AFCI, pigtail neutral	CHFN120AF
	15	Combination AFCI, plug-on neutral	CHFP115AF
	20	Combination AFCI, plug-on neutral	CHFP120AF
Two-pole 10 kAIC	15	Combination AFCI, pigtail neutral	CHN215CAF ^③
	20	Combination AFCI, pigtail neutral	CHN220CAF ^③

Notes

① Breaker qualifies as combination arc fault, per UL 1699.

② Breaker qualifies as personnel protection ground fault, (5 mA) per UL 943.

③ "CHN" two-pole breakers are redesigned to fit into the plug-on neutral loadcenter without interfering with the neutral bar.

Common trip refers to two-pole 240 V load application sourced by 120/240 Vac (see diagram on **Page V1-T1-41**).

Independent trip refers to two-pole multi-wire, home run or shared neutral circuits (see diagrams on **Page V1-T1-41**).

1.1

Loadcenters and Circuit Breakers

Type CH Loadcenters and Circuit Breakers

1

Plug-on Ground Fault Circuit Breakers, Type CH, 120 Vac and 120/240 Vac, 10 kAIC

Type CH Single-Pole



Type CH Ground Fault Circuit Breakers (5 mA) 3/4-Inch (19.1 mm) per Pole, 120 Vac or 120/240 Vac, 10 kAIC

Ampere Rating	Wire Size Range Cu/Al 60 °C or 75 °C ^①	Catalog Number—1 per Shelf Carton		
		Single-Pole 120 Vac, Pigtail Neutral Requires One 3/4-Inch (19.1 mm) Space	Single-Pole 120 Vac, Plug-on Neutral Requires One 3/4-Inch (19.1 mm) Space	Two-Pole 120/240 Vac Common Trip Requires Two 3/4-Inch (19.1 mm) Spaces
15	#14–6	CHFN115GF	CHFP115GF	CHN215GF ^②
20	#14–6	CHFN120GF	CHFP120GF	CHN220GF ^②
25	#14–6	CHFN125GF	—	CHN225GF ^②
30	#14–6	CHFN130GF	—	CHN230GF ^②
35	#14–6	—	—	CHN235GF ^②
40	#14–6	—	—	CHN240GF ^②
45	#14–6	—	—	CHN245GF ^②
50	#14–6	—	—	CHN250GF ^②
60	#14–6 ^①	—	—	CHN260GF ^②

Type CH Two-Pole



Type CH Ground Fault Equipment Protectors (30 mA) 3/4-Inch (19.1 mm) per Pole, 120 Vac or 120/240 Vac, 10 kAIC

Ampere Rating	Wire Size Range Cu/Al 60 °C or 75 °C ^①	Catalog Number—1 per Shelf Carton	
		Single-Pole 120 Vac Requires One 3/4-Inch (19.1 mm) Space	Two-Pole 120/240 Vac Common Trip Requires Two 3/4-Inch (19.1 mm) Spaces
15	#14–6	CHFEP115	CH215EPD
20	#14–6	CHFEP120	CH220EPD
25	#14–6	CHFEP125	CH225EPD
30	#14–6	CHFEP130	CH230EPD
40	#14–6	—	CH240EPD
50	#14–6	—	CH250EPD
60	#14–6 ^①	—	CH260EPD

Type CH Switching Neutral Breakers, 120 Vac and 120/240 Vac, 10 kAIC

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

CH220SW



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

Ampere Rating	Wire Size Range Cu/Al 60 °C or 75 °C	Catalog Number—1 per Shelf Carton	
		Two-Pole 120 Vac Common Trip Requires Two 3/4-Inch (19.1 mm) Spaces	Three-Pole 120/240 Vac Common Trip Requires Three 3/4-Inch (19.1 mm) Spaces
15	#14–8	CH215SW ^③	CH315SW ^④
20	#14–8	CH220SW ^③	CH320SW ^④
30	#14–8	CH230SW ^③	CH330SW ^④
40	#14–8	CH240SW ^③	CH340SW ^④
50	#14–8	CH250SW ^③	CH350SW ^④

Notes

- ^① 60 A breaker listed for 75 °C Cu wire only.
- ^② "CHN" two-pole breakers are redesigned to fit into the plug-on neutral loadcenter without interfering with the neutral bar.
- ^③ For circuit breakers with shunt trip, add ST suffix. Shunt trip requires one additional pole space.
- ^④ Switching duty rated.

Type CH-HID Circuit Breakers, 120 Vac, 120/240 Vac and 240 Vac, 10 kAIC

Suitable for use in circuits for fluorescent and high intensity discharge lighting. Also suitable for HACR applications.

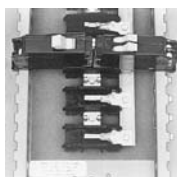
3/4-Inch (19.1 mm) per Pole, 120 Vac, 120/240 Vac and 240 Vac, 10 kAIC

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 240 Vac Common Trip Requires Two 3/4-Inch (19.1 mm) Spaces 5 per Shelf Carton Catalog Number	Three-Pole 240 Vac Common Trip Requires Three 3/4-Inch (19.1 mm) Spaces 5 per Shelf Carton Catalog Number
				
15	#14–8	CH115HID	CH215HID ^①	CH315HID
20	#14–8	CH120HID	CH220HID	CH320HID
30	#14–8	CH130HID	CH230HID	CH330HID

Type CHT Twin Universal CTL and Non-CTL Plug-on Circuit Breakers, 120 Vac, 10 kAIC

Suitable for CTL and non-CTL CH loadcenters.

Type CH and CHT
Circuit Breakers
Mounted in Twin
Breaker Panel



Twin (CTL) 3/4-Inch (19.1 mm) per Pole, 120 Vac Class CTL, 10 kAIC

Ampere Rating	Wire Size Range Cu/Al 60 °C or 75 °C	Single-Pole Requires One 3/4-Inch (19.1 mm) Space 10 per Shelf Carton Catalog Number
		 120 Vac 120 Vac
15–15	#14–8	CHT1515 ^{②③}
15–20	#14–8	CHT1520 ^{②③}
20–20	#14–8	CHT2020 ^{②③}

Notes

- ① CH215HID is rated for 120/240 V.
- ② Switching duty rated.
- ③ HACR rated.

1.1

Loadcenters and Circuit Breakers

Type CH Loadcenters and Circuit Breakers

1

Type CHP Commercial Breakers, 120 Vac, 120/240 Vac and 240 Vac, 10 kAIC

Note: CHP breakers feature ON, OFF and TRIP positions for commercial applications. **Please note that these are not plug-on neutral circuit breakers.**

3/4-Inch (19.1 mm) per Pole, 120 Vac, 120/240 Vac and 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	Three-Pole 240 Vac Common Trip Requires Three 3/4-Inch (19.1 mm) Spaces 5 per Shelf Carton Catalog Number
				
10	(1) #14–8 ①	CHP110	CHP210	CHP310
15	(2) #14–10 ①② (1) #14–6 ③	CHP115 ⑥⑦	CHP215 ⑦	CHP315 ⑦
20		CHP120 ⑥⑦	CHP220 ⑦	CHP320 ⑦
25		CHP125 ⑦	CHP225 ⑦	CHP325 ⑦
30		CHP130 ⑦	CHP230 ⑦	CHP330 ⑦
35	#14–2 ① #14–6 ③	CHP135 ⑦	CHP235 ⑦	CHP335 ⑦
40	#10–1/0 ④	CHP140 ⑦	CHP240 ⑦	CHP340 ⑦
45	#14–2 ⑤	CHP145 ⑦	CHP245 ⑦	CHP345 ⑦
50		CHP150 ⑦	CHP250 ⑦	CHP350 ⑦
60		CHP160 ⑦	CHP260 ⑦	CHP360 ⑦
70		CHP170	CHP270	CHP370
80		—	CHP280	—
90		—	CHP290	—
100		—	CHP2100	CHP3100
110		—	CHP2110	—
125		—	CHP2125	—

Notes

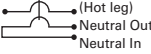
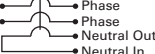
- ① For single- and two-pole breakers.
- ② Solid and stranded wire can be used together.
- ③ For three-pole breakers.
- ④ Single-pole 60–70 A, two-pole 80–125 A, three-pole 40–100 A.
- ⑤ Single-pole 40–50 A, two-pole 40–70 A.
- ⑥ Switching duty rated.
- ⑦ HACR rated.

CHP breakers offer on-off and trip positions for commercial applications.

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

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

3/4-Inch (19.1 mm) per Pole, 120 Vac and 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 Vac and 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 Vac 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-T1-40**.

Options and Accessories

Field Installation Kits and Parts

CHHT



CHPL



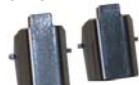
CHPLGF



MCBPL



CHLO



CH125RB



CH9MB270



CHML



Description

Ordering
Quantity ^①Catalog
NumberHandle Ties ^②

Handle tie bar for physically joining the handles of two adjacent single-pole Type CH circuit breakers (molded plastic handle cover)

25

CHHT

Padlockable device for locking the handle of CH AFGF, CAF and GFT breakers into the ON or OFF position.

25

CHFAFGFLOFF

Handle Lockoffs ^{③④}Padlockable device for locking the handle of single-, two- or three-pole Type CH circuit breakers (escutcheon mounted) ^⑤

1

CHPL

Padlockable device for locking the handle of a single-pole Type CHGFI circuit breaker (escutcheon mounted) ^⑥

1

CHPLGF

Padlockable bracket for locking the handle of two-, three- and four-pole Type CH circuit breakers

10

CHPLOFF

Padlockable device for locking the handle of main circuit breaker Types CC and CCH into the ON or OFF position (screw mounted) ^⑥

1

CCPL

Padlockable device for locking the handle of main breaker Types BW and CSR into the ON or OFF position (escutcheon mounted) ^⑤

1

MCBPL

Handle Lockdogs ^{④⑦}Device used to secure handle in ON or OFF position for single-pole Type CH circuit breakers (handle mounted) ^⑧

10

CHLO

Hold-Down Kits ^⑨

Hold-down retainer kit for single-, two-, three-pole Type CH circuit breakers. For 6–24 circuit 125 A single- and three-phase, 12–42 circuit single-phase 225 A and 24–42 circuit three-phase 225 A MLO Type CH loadcenters

1

CH125RB

Hold-down retainer kit for single-, two-, three-pole Type CH circuit breakers for 2–4 circuit MLO CH loadcenters

1

CH125RB24

Mounting Bases

Mounting base for two-pole Type CH circuit breaker—70 A maximum

1

CH9MB270

Main Breaker Lug Kits

Types CC and CCH main breaker lug kit (2) 300 kcmil

1

CCL300

Type CSR main breaker lug kit (2) 300 kcmil

1

MCBL300

Mechanical Interlocks

Type CH for two-, three- and four-pole breakers

10

CHML ^⑩

Shunt Trip Options

Description Type	Volts	Catalog Number Suffix Adder ^⑪
CSR	12 DC	SR12
CSR	24 DC	SR24
CSR	120 AC	SR01
CH	120 AC	ST ^④
CC	12 DC	SR12
CC	24 DC	SR24
CC	120 AC	SR01
CC	208 AC	SR08
CC	240 AC	SR02

Notes

- ① Must be purchased in multiples of ordering quantities indicated.
- ② Handle ties: typically used to join two similar independent single-pole breakers to form a two-pole noncommon trip breaker.
- ③ Handle lockoffs: devices that use a padlock to lock the circuit breaker's handle in the ON or OFF position.
- ④ Requires one additional pole space.
- ⑤ Escutcheon mounted: device mounted semipermanently to the face of the circuit breaker and secured by the loadcenter deadfront.
- ⑥ Screw mounted: device permanently mounted to the face of the circuit breaker by the use of a non-removable screw.
- ⑦ Handle lockdogs: devices that are used to secure a circuit breaker's handle in the ON or OFF position. Handle lockdogs are not padlockable devices.
- ⑧ Handle mounted: device mounted above or below handle using spring pressure.
- ⑨ Hold-down kits: devices used to secure the circuit breaker to the loadcenter for back-feed main application. See NEC Article 408.36(D).
- ⑩ CHML not suitable to transfer emergency power.
- ⑪ Add suffix indicated to end of breaker catalog number.

Handle Position Changeability Chart

Handle Lockoff and Lockdog Types	To Change Handle Position from ON to OFF or OFF to ON You Must...		
	Remove Padlock	Remove Device	Remove Loadcenter Deadfront
Lockoff escutcheon mounted	Remove	—	—
Lockoff screw mounted	Remove	—	—
Lockdog handle mounted	N/A	Remove	—

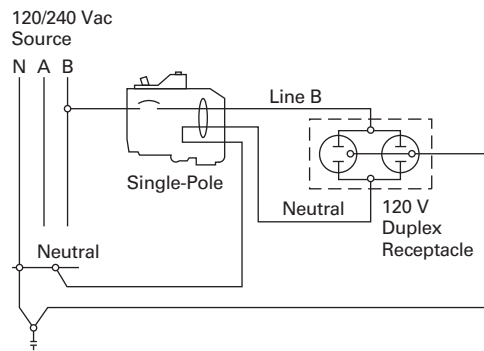
Technical Data and Specifications

Ratings

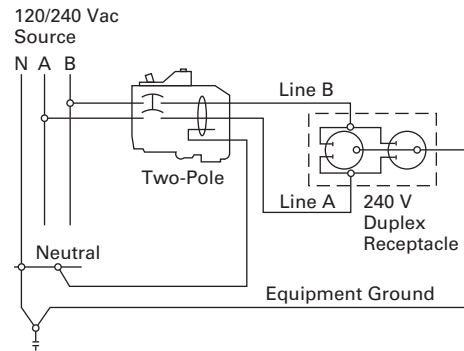
Single- and two-pole CH breakers rated 15 A and 20 A have low instantaneous magnetic trip levels. The 15 A and 20 A breakers with “HM” suffix have high magnetic trip settings recommended for circuits with inherently high inrush currents. All Type CH breakers are marked for heating, air conditioning and refrigeration (HACR) equipment application. Single-pole 15–20 A breakers are also suitable for switching duty (SWD). Shunt trip coils operate on 120 Vac and require one additional pole space per breaker.

Wiring Diagrams

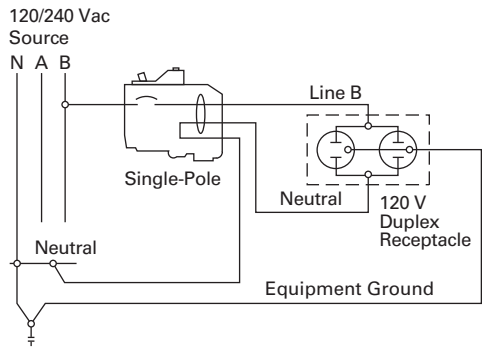
Typical Single-Pole



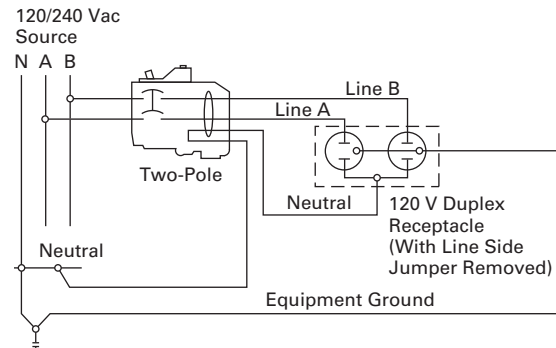
Two-Pole, 240 V Load Application Sourced by 120/240 Vac



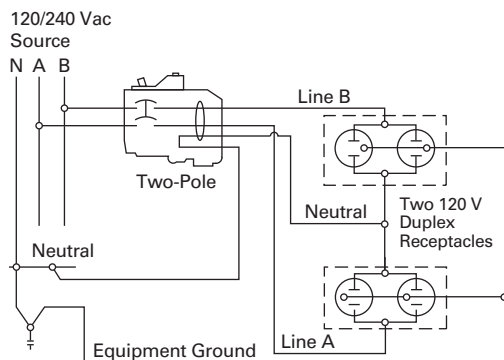
Single-Pole, 120 V Load Application Sourced by 120/240 Vac



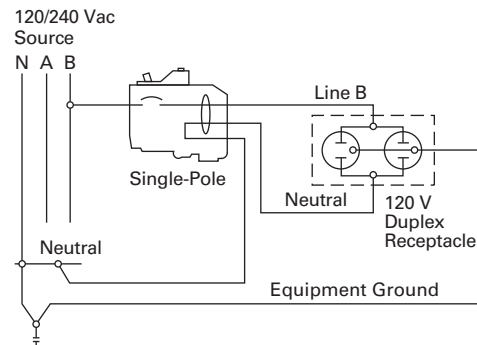
Two-Pole, Shared Neutral with Duplex Receptacle Application



Two-Pole, Shared Neutral with Multi-Duplex Receptacle Application



Single-Pole, 120 V Duplex Receptacle Application

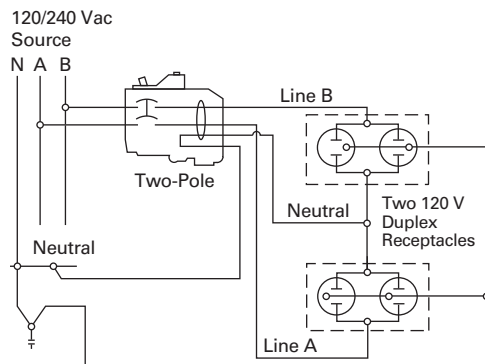


1.1

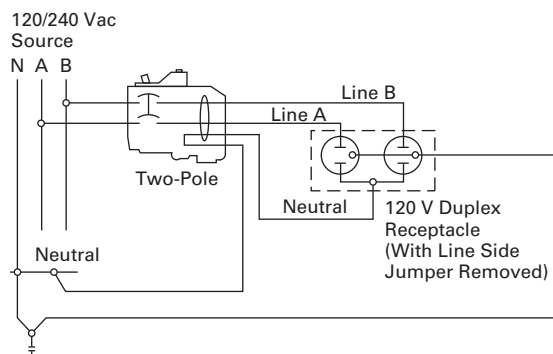
Loadcenters and Circuit Breakers

Type CH Loadcenters and Circuit Breakers

1 Two-Pole, 120 V Multi-Duplex Receptacle Application



Two-Pole, 120 V Duplex Receptacle Application



Two-Pole, 240 V Duplex Receptacle Application

