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- ✓ Enhance the homeowner’s safety, as well as the home’s contents
- ✓ Meet code and environmental requirements
- ✓ Reduce the number of shelf SKUs
- ✓ Increase your overall profitability

WHY EATON?

Eaton is a premier provider of electrical products for the retail industry. We understand our customers and what they need to stay competitive. Put our expertise to work for you!

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Retail Customer Service

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- ✓ Please have your vista customer number
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This is a source for company information, news and events, technical documents, product information, and more.

Circuit Breakers

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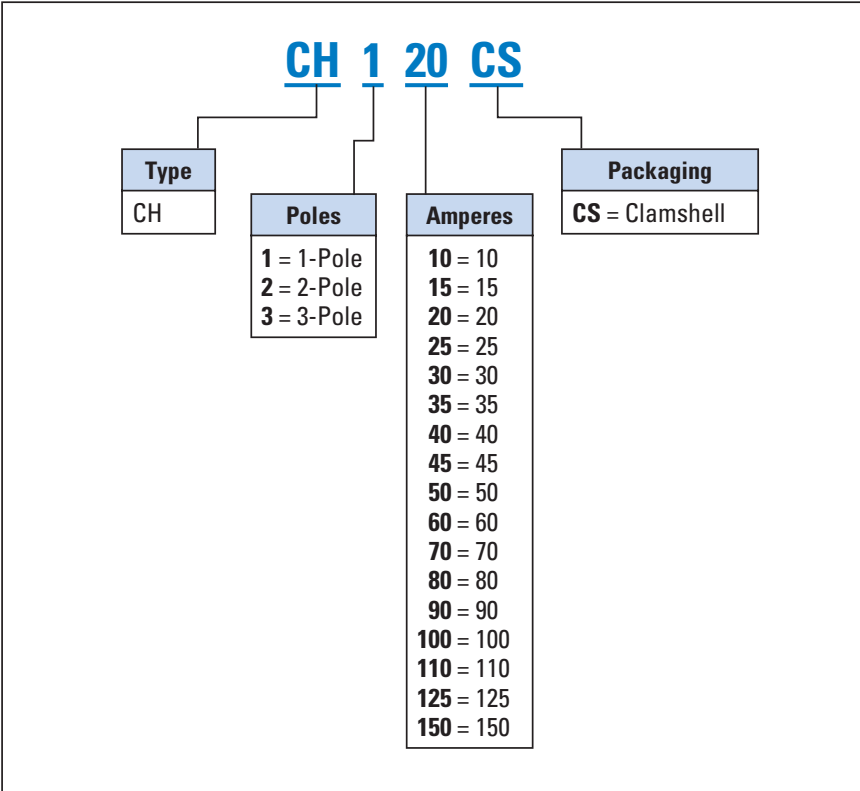
Main Breakers 1-24

Features, Functions and Benefits

- ✓ Unique sandalwood handles are marked with ON-OFF indication and ampere rating of the breaker.
- ✓ Type CH:
 - 10 to 150 amperes
 - 1-, 2- and 3-pole
 - 1- and 2-pole 120/240 V
 - 3-pole 240 V
 - 10 kAIC
- ✓ Installation flexibility.
- ✓ Solid and stranded wire can be used together.
- ✓ 15 – 60 ampere breakers marked for heating, air conditioning and refrigeration equipment application.
- ✓ Lifetime warranty.
- ✓ Meet UL® 489, CSA®, NEMA® standards, Federal Spec Classification W-C 375 b/GEN.
- ✓ 3/4-inch (19.1 mm) wide (per pole).
- ✓ Trips to off.

Catalog Numbering System

TABLE 1-1. CATALOG NUMBERING SYSTEM

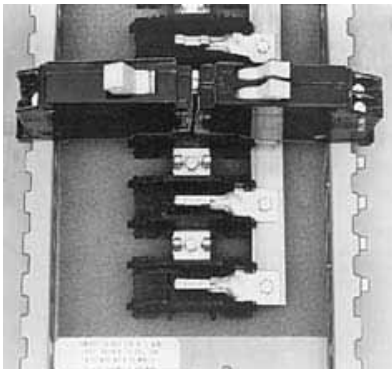


Note: For arc fault and ground fault breakers, please see appropriate section.

Type CH Circuit Breakers



Type CH Circuit Breakers



Installed Type CH Circuit Breakers

Product Description

The primary function of a circuit breaker is to protect the wire from overheating (referred to as an overload) and fault currents (referred to as short circuits). Circuit breakers replaced fuses because they can be reset.

Data Tables

TABLE 1-2. 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	1-Pole 120/240 Vac Requires One 3/4-Inch (19.1 mm) Space		2-Pole 120/240 Vac Common Trip Requires Two 3/4-Inch (19.1 mm) Spaces		3-Pole 240 Vac Common Trip Requires Three 3/4-Inch (19.1 mm) Spaces	
							
		10 per Shelf Carton		5 per Shelf Carton		5 per Shelf Carton	
		10 kAIC	UPC Code	10 kAIC	UPC Code	10 kAIC	UPC Code
		Catalog Number		Catalog Number		Catalog Number	
10	(1) #14 – 8 ①	CH110	782113906744	CH210	782113906751	CH310	782113906768
15	(2) #14 – 10 ①②	CH115 ⑦⑧	782113101620	CH215 ⑧	782113101729	CH315 ⑧	782113101996
20	(1) #14 – 6 ③	CH120 ⑦⑧	782113101644	CH220 ⑧	782113101767	CH320 ⑧	782113102023
25		CH125 ⑧	782113121420	CH225 ⑧	782113121451	CH325 ⑧	782113121482
30		CH130 ⑧	782113101668	CH230 ⑧	782113101804	CH330 ⑧	782113102054
35	#14 – 2 ① #14 – 6 ③	CH135 ⑧	782113316987	CH235 ⑧	782113312248	CH335 ⑧	782113316994
40	#10 – 1/0 ④	CH140 ⑧	782113101675	CH240 ⑧	782113101835	CH340 ⑧	782113102078
45	#14 – 2 ⑤	CH145 ⑧	782113510811	CH245 ⑧	782113317014	CH345 ⑧	782113356266
50	#3/0 ⑥	CH150 ⑧	782113101682	CH250 ⑧	782113101859	CH350 ⑧	782113102092
60		CH160 ⑧	782113871141	CH260 ⑧	782113101873	CH360 ⑧	782113102115
70		CH170	782113871158	CH270	782113101897	CH370	782113102139
80		—	—	CH280	782113312293	CH3080	782113146768
90		—	—	CH290	782113101910	CH3090	782113102399
100		—	—	CH2100	782113102375	CH3100	782113102405
110		—	—	CH2110	782113317038	—	—
125		—	—	CH2125	782113298788	—	—
150		—	—	CH2150 ⑨	782113298795	—	—

① For 1- and 2-pole breakers.

② Solid and stranded wire can be used together.

③ For 3-pole breakers.

④ 1-pole 60 – 70 amperes, 2-pole 80 – 125 amperes, 3-pole 40 – 100 amperes.

⑤ 1-pole 40 – 50 amperes, 2-pole 40 – 70 amperes.

⑥ 2-pole 150 amperes.

⑦ Switching duty rated.

⑧ HACR rated.

⑨ CH2150 requires 4-pole spaces and is not suitable for use on 3-phase panels. Not CSA certified.

TABLE 1-3. TYPE CH BREAKERS, 3/4-INCH (19.1 MM) PER POLE 120, 120/240 OR 240 VAC, 10 kAIC — CLAMSHELLS

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole 120/240 Vac Requires One 3/4-Inch (19.1 mm) Space		2-Pole 120/240 Vac Common Trip Requires Two 3/4-Inch (19.1 mm) Spaces	
					
		6 per Shelf Carton		3 per Shelf Carton	
		10 kAIC	UPC Code	10 kAIC	UPC Code
		Catalog Number		Catalog Number	
15	(1) #14 – 8 ⑩	CH115CS ⑮⑯	782114752500	CH215CS ⑰	782114752531
20	(2) #14 – 10 ⑩⑪	CH120CS ⑮⑯	782114752517	CH220CS ⑰	782114752548
30	(1) #14 – 6 ⑫	CH130CS ⑰	782114752524	CH230CS ⑰	782114752555
40	#10 – 1/0 ⑬	CH140CS	782116630585	CH240CS ⑰	782114752562
50	#14 – 2 ⑭	CH150CS	782116630592	CH250CS ⑰	782114752579
60	#3/0	—	—	CH260CS ⑰	782114752593
70		—	—	CH270CS	782116630608
80		—	—	CH280CS	782116630615
90		—	—	CH290CS	782116630622
100		—	—	CH2100CS	782116630776
110		—	—	CH2110CS	782116630783
125		—	—	CH2125CS	782116630790

⑩ For 1- and 2-pole breakers.

⑪ Solid and stranded wire can be used together.

⑫ For 3-pole breakers.

⑬ 1-pole 60 – 70 amperes, 2-pole 80 – 125 amperes, 3-pole 40 – 100 amperes.

⑭ 1-pole 40 – 50 amperes, 2-pole 40 – 70 amperes.

⑮ Switching duty rated.

⑯ HACR rated.

Accessories

TABLE 1-4. FIELD INSTALLATION KITS AND PARTS

Description	Catalog Number	UPC Code	Minimum Order Quantity
Handle Ties ①			
Handle tie bar for physically joining the handles of two adjacent 1-pole Type CH Circuit Breakers. (Molded Plastic Handle Cover)	CHHT	782113099071	25
Handle tie bar for physically joining the handles of two adjacent 1-pole Type CH Circuit Breakers. (Clamshell)	CHHTCS	782114793220	1
Handle Lockoffs ②③			
Padlockable device for locking the handle of 1-, 2- or 3-pole Type CH Circuit Breakers. (Escutcheon Mounted) ④	CHPL	782113099118	1
Padlockable device for locking the handle of 1-, 2- or 3-pole Type CH Circuit Breakers. (Clamshell)	CHPLCS	782114793251	1
Padlockable device for locking the handle of a 1-, 2- or 3-pole Type CHGFI Circuit Breaker. (Escutcheon Mounted) ④	CHPLGF	782114213629	1
Padlockable device for locking the handle of main circuit breaker Types CC and CCH into the ON or OFF position. (Screw Mounted) ⑤	CCPL	782113099415	1
Padlockable device for locking the handle of main breaker Types BW and CSR into the ON or OFF position. (Escutcheon Mounted) ④	MCBPL	782113099309	1
Handle Lockdogs ③⑥			
Device used to secure handle in ON or OFF position for 1-pole Type CH Circuit Breakers. (Handle Mounted) ⑦	CHLO	782113099088	10
Device used to secure handle in ON or OFF position for 1-pole Type CH Circuit Breakers. (Clamshell)	CHLOCS	782114793237	1
Hold-Down Kits ⑧			
Hold-down retainer kit for 1-, 2-, 3-pole Type CH Circuit Breakers. For 6 – 24 circuit 125 ampere single- and 3-phase, 12 – 42 circuit 225 ampere single-phase and 24 – 42 circuit 3-phase 225 ampere MLO Type CH Loadcenters.	CH125RB	782113099125	1
Hold-down retainer kit for 1-, 2-, 3-pole Type CH Circuit Breakers. For 6 – 24 circuit 125 ampere single- and 3-phase, 12 – 42 circuit 225 ampere single-phase and 24 – 42 circuit 3-phase 225 ampere MLO Type CH Loadcenters. (Clamshell)	CH125RBCS	782114793183	1
Hold-down retainer kit for 1-, 2-, 3-pole Type CH Circuit Breakers for 2 – 4 circuit MLO CH Loadcenters.	CH125RB24	782114344446	1
Hold-down retainer kit for 1-, 2-, 3-pole Type CH Circuit Breakers for 2 – 4 circuit MLO CH Loadcenters. (Clamshell)	CH125RB24CS	782114793190	1
Mounting Bases ⑧			
Mounting base for 2-pole Type CH Circuit Breaker — 70 ampere maximum.	CH9MB270	782113418926	1
Mechanical Interlock ⑧			
Type CH for 2-, 3- and 4-pole breakers	CHML	782114262849	10
Type CH for 2-, 3- and 4-pole breakers (Clamshell)	CHMLCS	782114793244	1
Type CH 2-pole plug-in surge arrester (Clamshell)	CHSACS	782114753408	1
Type CH sub-feed block 125 ampere, 2-pole (Clamshell)	CHSF2125CS	782114793268	1
Main Breaker Replacement Lug Kits			
CC/CCH Main Breaker Lug Kit 1 – 300 kcmil	CCL300	782113099354	1
Replacement Lug Kit for CSR/BW/BWH Main Breaker (CH Version)	MCBL300	782113099316	1

① Handle Ties: Typically used to join two similar independent single-pole breakers to form a 2-pole noncommon trip breaker.

② Handle Lockoffs: Devices that use a padlock to lock the circuit breaker’s handle in the ON or OFF position.

③ Requires one additional pole space.

④ Escutcheon Mounted: Device mounted semipermanently to the face of the circuit breaker and secured by the loadcenter deadfront.

⑤ Screw Mounted: Device permanently mounted to the face of the circuit breaker by the use of a non-removable screw.

⑥ 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.

⑦ Handle Mounted: Device mounted above or below handle using spring pressure.

⑧ Hold-Down Kits: Devices used to secure the circuit breaker to the loadcenter for back-feed main application. See NEC® Article 384-16(g).

Related Products

CTL PLUG-ON CIRCUIT BREAKERS, TYPE CHT TWIN 10,000 AMPERES INTERRUPTING CAPACITY 120/240 VAC

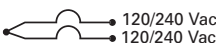
TABLE 1-5. TYPE CHT TWIN (CTL) 3/4-INCH (19.1 MM) PER POLE 120 VAC CLASS CTL 10 kAIC

All circuit breakers have rejection feature. Use only with loadcenters marked for use with CHT breakers.

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole 	
		Requires One 3/4-Inch (19.1 mm) Space	
		10 per Shelf Carton	
		10 kAIC	
		Catalog Number	UPC Code
15 – 15	#14 – 8	CHT1515 ①②	782113631530
15 – 20		CHT1520 ①②	782113631554
20 – 20		CHT2020 ①②	782113631547

- ① Switching duty rated.
② HACR rated.

TABLE 1-6. TYPE CHT TWIN (CTL) 3/4-INCH (19.1 MM) PER POLE 120 VAC CLASS CTL 10 kAIC (CLAMSHELLS)

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole 	
		Requires One 3/4-Inch (19.1 mm) Space	
		10 per Shelf Carton	
		10 kAIC	
		Catalog Number	UPC Code
15 – 15	#14 – 8	CHT1515CS ③④	782116630745
15 – 20		CHT1520CS ③④	782116630769
20 – 20		CHT2020CS ③④	782116630752

- ③ Switching duty rated.
④ HACR rated.

NON-CTL PLUG-ON REPLACEMENT CIRCUIT BREAKERS, TYPE CHNT 10,000 AMPERES INTERRUPTING CAPACITY 120/240 VAC

TABLE 1-7. TYPE CHNT 3/4-INCH (19.1 MM) PER POLE 120 VAC, NON-CTL 10 kAIC

For use as replacement in loadcenters built prior to 1968 and within the current style 2 – 8 circuit loadcenters as indicated in the loadcenter section.

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole 	
		Requires One 3/4-Inch (19.1 mm) Space	
		10 per Shelf Carton	
		10 kAIC	
		Catalog Number	UPC Code
15 – 15	#14 – 8	CHNT1515 	782114220849
15 – 20		CHNT1520 	782114220870
20 – 20		CHNT2020 	782114220863

- ⑤ Switching duty rated.
⑥ HACR rated.

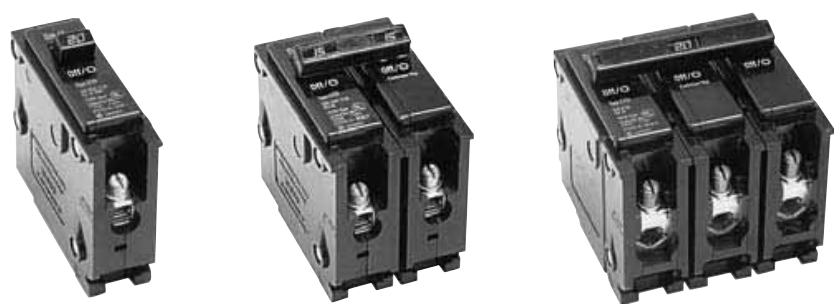
Cross-Reference

TABLE 1-8. CIRCUIT BREAKERS

CH Breakers	Square D® — QO
CH115	QO115
CH120	QO120
CH130	QO130
CH210	QO210
CH2100	QO2100
CH2125	QO2125
CH215	QO215
CH220	QO220
CH225	QO225
CH230	QO230
CH240	QO240
CH250	QO250
CH260	QO260
CH270	QO270
CH280	QO280
CH3100	QO3100
CH320	QO320
CH330	QO330
CH340	QO340
CH350	QO350
CH360	QO360
CHNT1515	—
CHNT2020	—
CHQ120	QO120
CHQ230	QO230
CHT1515	QOT1515
CHT1520	—
CHT2020	QOT2020
CHQ120	QO120
CHQ230	QO230

Note: These products are by no means equivalent but functionally similar. This is a cross-reference tool not an interchangeability chart.

Type BR Circuit Breakers



Product Description

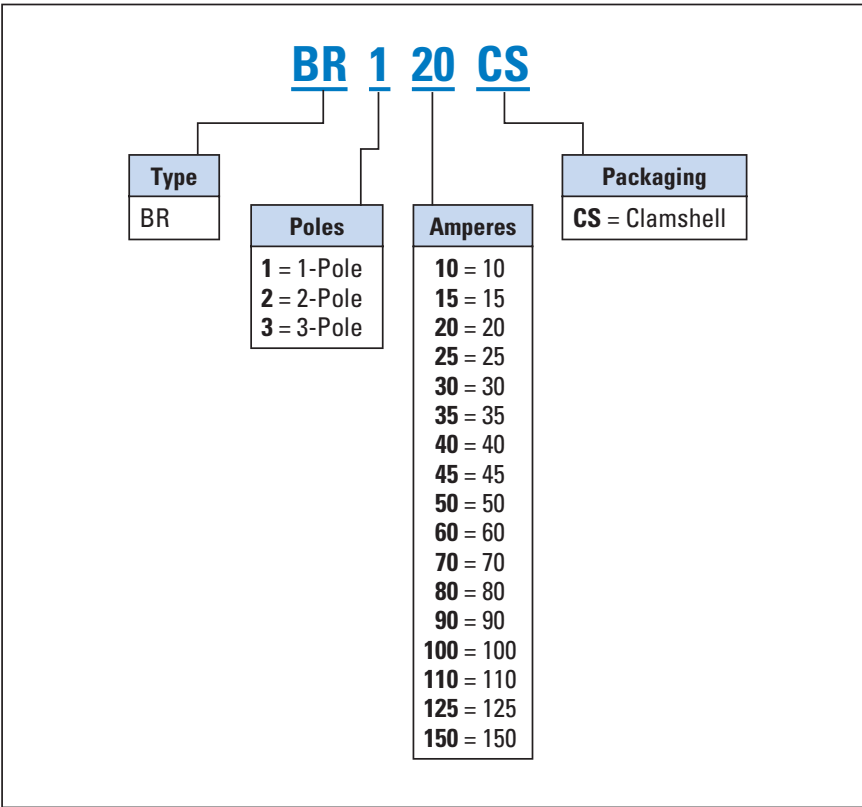
The primary function of a circuit breaker is to protect the wire from overheating (referred to as an overload) and fault currents (referred to as short circuits). Circuit breakers replaced fuses because they can be reset.

Features, Functions and Benefits

- ✓ Operated by toggle-type handle and multi-pole circuit breakers have an internal common trip mechanism.
- ✓ Handle position provides visual trip position.
- ✓ Type BR:
 - 10 to 150 amperes
 - 1-, 2- and 3-pole
 - 1- and 2-pole 120/240 V
 - 3-pole 240 V
 - 10, 22 and 42 kAIC (2 poles only)
- ✓ Type BR breakers carry listing for HCAR application.
- ✓ Meet UL 489, CSA, NEMA standards, Federal Spec Classification W-C 375 b/GEN.
- ✓ 1-inch (25.4 mm) wide (per pole).

Catalog Numbering System

TABLE 1-9. CATALOG NUMBERING SYSTEM



Note: For arc fault and ground fault breakers, please see applicable sections.

Data Tables

TABLE 1-10. TYPE BR BREAKERS, 1-INCH (25.4 MM) PER POLE 120/240, 10, 22 AND 42 kAIC

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole 120/240 Vac Requires One 1-Inch (25.4 mm) Space				2-Pole 120/240 Vac Common Trip Requires Two 1-Inch (25.4 mm) Spaces					
		10 per Shelf Carton				5 per Shelf Carton					
		10 kAIC		22 kAIC		10 kAIC		22 kAIC		42 kAIC	
		Catalog Number	UPC Code	Catalog Number	UPC Code	Catalog Number	UPC Code	Catalog Number	UPC Code	Catalog Number	UPC Code
10 15 20 25 30	#14 – 4	BR110 BR115 ①② BR120 ①② BR125 BR130	786676362009 786676362054 786676362108 786676362153 786676362207	— BRH115 BRH120 BRH125 BRH130	— 786676373050 786676373104 786676373159 786676373203	BR210 BR215 BR220 BR225 BR230	786676362757 786676362801 786676362856 786676362900 786676362955	— BRH215 BRH220 BRH225 BRH230	— 786676373456 786676373500 786676373555 786676373609	— — — — —	— — — — —
35 40 45 50	#14 – 4	BR135 BR140 — BR150	782114372081 786676362252 — 786676362306	BRH135 BRH140 BRH145 BRH150	782114372128 786676373258 782114372135 786676373302	BR235 BR240 BR245 BR250	786676374354 786676363006 786676374453 786676363051	BRH235 BRH240 BRH245 BRH250	782114372159 786676373654 782114372166 786676373708	— — — —	— — — —
55	#14 – 3	BR150	786676362306	BRH155	782114372142	BR255	782114372111	BRH255	782114372173	—	—
60 70 80 90 100 110	#4 – 1/0	BR160 BR170 — — — —	786676362351 786676362405 — — — —	BRH160 BRH170 — — — —	786676373357 786676373401 — — — —	BR260 BR270 BR280 BR290 BR2100 BR2110	786676363105 786676363150 786676363174 786676363204 786676363259 786676384278	BRH260 BRH270 BRH280 BRH290 BRH2100 BRH2110	786676373753 786676373807 782114372180 786676373852 786676373906 786676374248	BRHH260 BRHH270 BRHH280 BRHH290 BRHH2100 BRHH2110	786676382601 786676382700 786676382809 786676382908 786676376952 786676002950
125 150	#4 – 2/0	— —	— —	— —	— —	BR2125 BR2150 ③	786676367059 786676101950	BRH2125 —	786676373951 —	BRHH2125 —	786676377003 —

① 1-pole, 1-inch (25.4 mm) per pole circuit breakers are available with high magnetic setting for switching large tungsten lamp loads. Add Suffix H to catalog number.
② Switching duty rated.
③ For use as a branch circuit breaker in 400 and 600 ampere panels only.

Note: All Type BR 1-, 2- and 3-pole circuit breakers carry listing for HACR application.

TABLE 1-11. TYPE BR BREAKERS, 1-INCH (25.4 MM) PER POLE 120/240, 10, 22 AND 42 kAIC — CLAMSHELLS

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole 120/240 Vac Requires One 1-Inch (25.4 mm) Space				2-Pole 120/240 Vac Common Trip Requires Two 1-Inch (25.4 mm) Spaces					
		6 per Shelf Carton				3 per Shelf Carton					
		10 kAIC		22 kAIC		10 kAIC		22 kAIC		42 kAIC	
		Catalog Number	UPC Code	Catalog Number	UPC Code	Catalog Number	UPC Code	Catalog Number	UPC Code	Catalog Number	UPC Code
15 20 30 40	#14 – 4	BR115CS ④⑤ BR120CS ④⑤ BR130CS BR140CS	782114752708 782114752715 782114752722 782116630370	— — — —	— — — —	BR215CS BR220CS BR230CS BR240CS	782116630486 782114752746 782114752753 782114752760	— — — —	— — — —	— — — —	— — — —
50 60 70 80	#4 – 1/0	BR150CS BR160CS BR170CS —	782116630387 782116630394 782116630400 —	— — — —	— — — —	BR250CS BR260CS BR270CS BR280CS	782114752777 782114752784 782116630493 782116630509	— — — —	— — — —	— — — —	— — — —
90 100 110 125	#4 – 1/0	— BR1100CS — —	— 782116630417 — —	— — — —	— — — —	BR290CS BR2100CS BR2110CS BR2125CS	782116630516 782116630523 782116630530 782116630547	— — — —	— — — —	— — — —	— — — —
135 150	#4 – 1/0	— —	— —	— —	— —	BR2135CS BR2150CS	782116630554 782116630561	— —	— —	— —	— —

④ 1-pole, 1-inch (25.4 mm) per pole circuit breakers are available with high magnetic setting for switching large tungsten lamp loads. Add Suffix H to catalog number.
⑤ Switching duty rated.

Note: All Type BR 1-, 2- and 3-pole circuit breakers carry listing for HACR application.

Data Tables

TABLE 1-12. TYPE BR BREAKERS, 1-INCH (25.4 MM) PER POLE 240 VAC, 10,000 AND 22,000 kAIC

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	3-Pole 240 Vac Common Trip Requires Three 1-Inch (25.4 mm) Spaces			
		5 per Shelf Carton			
		10 kAIC		22 kAIC	
		Catalog Number	UPC Code	Catalog Number	UPC Code
10	#14 – 4	BR310	786676092050	—	—
15		BR315 ①	786676367707	BRH315	786676372503
20		BR320 ①	786676367752	BRH320	786676372558
25		BR325	786676000093	BRH325	786676002707
30		BR330	786676367806	BRH330	786676372602
35	#14 – 4	BR335	786676000109	BRH335	786676002714
40		BR340	786676367851	BRH340	786676372657
45		BR345	786676000116	BRH345	786676002721
50		BR350	786676367905	BRH350	786676372701
55	#14 – 3	BR355	782114375167	BRH355	786676002738
60	#4 – 1/0	BR360	786676367950	BRH360	786676372756
70		BR370	786676368001	BRH370	786676372800
80		BR380	782114103098	BRH380	786676002745
90		BR390	786676368056	BRH390	786676372855
100		BR3100	786676368094	BRH3100	786676372909

① One pole, 1-inch (25.4 mm) per pole circuit breakers are available with high magnetic setting for switching large tungsten lamp loads. Add suffix H to catalog number.

Note: All Type BR 1-, 2- and 3-pole circuit breakers carry listing for HACR application.

Accessories

TABLE 1-13. FIELD INSTALLATION KITS AND PARTS

Description	Catalog Number	UPC Code	Minimum Order Quantity
Handle Ties ①			
Handle tie bar for physically joining the handles of two adjacent 1-pole Type BR Circuit Breakers. (Metal Cylinder Pin Type)	BHT	786676375207	10
Handle tie bar for physically joining the handles of two adjacent 1-pole Type BR Circuit Breakers. (Metal Cylinder Pin Type w/ Clamshell)	BHTCS	782114793107	1
Handle tie bar for joining two independent outside poles of Types BQ and BQC Quadplex and outside poles of two Type BD Duplex Circuit Breakers.	THOW	786676092036	10
Handle tie bar for joining two independent outside poles of Types BQ and BQC Quadplex and outside poles of two Type BD Duplex Circuit Breakers (w/ Clamshell).	THOWCS	782114793435	1
Handle tie bar for joining two adjacent outside poles of Types BQ and BQC Quadplex and outside poles of two Type BD Duplex Circuit Breakers.	THS1	786676092043	10
Handle tie bar for joining two adjacent outside poles of Types BQ and BQC Quadplex and outside poles of two Type BD Duplex Circuit Breakers (w/ Clamshell).	THS1CS	782114793442	1
Handle Lockoffs ②			
Padlockable device for locking the handle of 1-, 2- or 3-pole Type BR Circuit Breakers and 1-pole of a Type BD Duplex or one independent outside pole of a Type BQ or BQC Quadplex Circuit Breakers. (Escutcheon Mounted) ③ or one independent outside pole of a Type BQ or BQC Quadplex Circuit Breakers. (Escutcheon Mounted w/ Clamshell) ③	BRLW	786676000499	10
	BRLWCS	782114793138	1
Padlockable device for locking the handle of a 1-pole Type BR Circuit Breaker. (Handle Mounted) ④	BRLW1	786676376228	10
Padlockable device for locking the handle of a 1-pole Type BR Circuit Breaker. (Handle Mounted w/ Clamshell) ④	BRLW1CS	782114793145	1
Padlockable device for locking the handle of a 2- and 3-pole Type BR Circuit Breaker. (Handle Mounted) ④	BRLW2	786676376259	10
Padlockable device for locking the handle of a 2- and 3-pole Type BR Circuit Breaker. (Handle Mounted w/ Clamshell) ④	BRLW2CS	782114793152	1
Padlockable device for locking the handle of a 1-pole Type BD Duplex, BQ or BQC Quadplex Breaker. (Handle Mounted) ④	BRDL1	786676376129	10
Padlockable device for locking the handle of the two center poles and the two outer poles of a 2-pole Types BQ and BQC Quadplex Circuit Breakers. (Escutcheon Mounted) ③	BRQLW	786676376303	10
Padlockable device for locking the handle of main circuit breaker Types CC and CHH into the ON or OFF position. (Screw Mounted) ⑤	CCPL	782113099415	1
Padlockable device for locking the handle of main breaker Types BW and BWH into the ON or OFF position. (Escutcheon Mounted) ③	MCBPL	782113099309	1

① Handle Ties: Typically used to join two similar independent single-pole breakers to form a 2-pole noncommon trip breaker.
② Handle Lockoffs: Devices that use a padlock to lock the circuit breaker’s handle in the ON or OFF position.
③ Escutcheon Mounted: Device mounted semipermanently to the face of the circuit breaker and secured by the loadcenter deadfront.
④ Handle Mounted: Device mounted directly to the handle by the use of a set screw.
⑤ Screw Mounted: Device permanently mounted to the face of the circuit breaker by the use of a non-removable screw.

Accessories

TABLE 1-13. FIELD INSTALLATION KITS AND PARTS (CONTINUED)

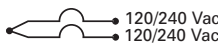
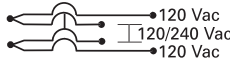
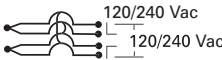
Description	Catalog Number	UPC Code	Minimum Order Quantity
Handle Lockdogs ①			
Device used to secure handle in ON or OFF position for 1-, 2-, or 3-pole Type BR Circuit Breakers and 1-pole of Type BD Duplex and one independent outside pole of Type BQ or BQC Quadplex Circuit Breakers. (Escutcheon Mounted) ②	BHLW	786676000482	10
Device used to secure handle in ON or OFF position for 1-pole Type BR Circuit Breakers. (Handle Mounted) ③	BHLW1	786676375658	10
Device used to secure handle in ON or OFF position for 2- and 3-pole Type BR Circuit Breakers. (Handle Mounted) ③	BHLW2	786676375689	10
Device used to secure handle in ON or OFF position for 1-pole Type GFCB Ground Fault Circuit Breakers. (Handle Mounted) ③	BHGW	782114797358	10
Device used to secure handle in ON or OFF position for one independent outside pole of Types BQ and BQC Quadplex or 1-pole Type BD Duplex Circuit Breakers. (Handle Mounted) ③	HLW1	786676375450	10
Hold-Down Kits ④			
Hold-down retainer kit for 3-pole Type BR Circuit Breakers in S3100 and 3100R Loadcenters only.	BRHDB	786676376402	1
Hold-down screw kit for 2-pole Type BR Circuit Breakers in single-phase MLO Loadcenters through 125 amperes.	BREQS125	786676449557	1
Hold-down screw kit for 2-pole Type BR Circuit Breakers in MLO Loadcenters 150 through 225 amperes (single-phase only).	BRHDK125	786676449502	1
Hold-down screw kit for 2-pole Types BJ and BJH Circuit Breakers in MLO Loadcenters 125 through 225 amperes.	BJHDS	786676376709	1
Hold-down screw kit for 3-pole Types BJ and BJH Circuit Breakers in MLO Loadcenters 125 through 225 amperes.	BJHDS3P	786676376754	1
Mechanical Interlocks			
Types BR for 2-, 3- and 4-pole breakers	BRML	782114383926	10
Types BR for 2-, 3- and 4-pole breakers (w/ Clamshell)	BRMLCS	782114793169	1
Sub-Feed Blocks			
125 A 2-pole sub-feed block #6 – 2/0 wire size	BRSF125	786676001762	1
125 A 2-pole sub-feed block #6 – 2/0 wire size (w/ clamshell)	BRSF125CS	782114793176	1
Surge Breaker			
Plug-on surge protector	BRSURGE	786676449403	1
Plug-on surge protector (w/ clamshell)	BRSURGECS	782114753415	1

① 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.
② Escutcheon Mounted: Device mounted semipermanently to the face of the circuit breaker and secured by the loadcenter deadfront.
③ Handle Mounted: Device mounted directly to the handle by the use of a set screw.
④ Hold-Down Kits: Devices used to secure the circuit breaker to the loadcenter for back-feed main application. See NEC Article 384-16(g).

Related Products

DUPLEX AND INDEPENDENT TRIP QUADPLEX BREAKERS

TABLE 1-14. CLASS CTL, 1-INCH (25.4 MM) PER POLE 10 KAIC — ALL CIRCUIT BREAKERS HAVE REJECTION TAB FEATURE

Type BD Duplex (UL Type BRD)			Type BQ Quadplex Independent Trip (UL Type BRD)						Type BQ Quadplex Independent Trip (UL Type BRD)			
1-Pole 			2-Pole ^① and 1-Pole ^② 						2-Pole 			
Requires One 1-Inch (25.4 mm) Space			Requires Two 1-Inch (25.4 mm) Spaces						Requires Two 1-Inch (25.4 mm) Spaces			
10 per Shelf Carton			5 per Shelf Carton						5 per Shelf Carton			
10 kAIC			10 kAIC						10 kAIC			
Ampere Rating	120 Vac	Wire Size Range Cu/Al 65°C or 75°C	120 Vac	120/240 Vac	120 Vac	Catalog Number	UPC Code	120/240 Vac			Catalog Number	UPC Code
	Ampere Rating			Ampere Rating								
	Outer Left 1-Pole		Center 2-Poles Independent Trip	Outer Right 1-Pole	Outer 2-Poles Independent Trip			Center 2-Poles Independent Trip				
10 – 10	BD1010	#14 – 4	15	20	15	BQ2202115	786676371353	15	15	BQ215215	786676370707	
15 – 15	BD1515		20	20	20	BQ2202120	786676371308	15	20	BQ215220	786676004381	
15 – 15	BD1515CS		15	30	15	BQ2302115	786676371506	15	30	BQ215230	786676004404	
15 – 20	BD1520		20	30	20	BQ2302120	786676371551	15	40	BQ215240	786676004411	
15 – 30	BD1530		15	40	15	BQ2402115	786676371605	15	50	BQ215250	786676004435	
20 – 15	BD2015		20	40	20	BQ2402120	786676371650	20	20	BQ220220	786676370752	
20 – 20	BD2020		15	50	15	BQ2502115	786676371704	20	30	BQ220230	786676370806	
20 – 20	BD2020CS		20	50	20	BQ2502120	786676371759	20	40	BQ220240	786676370851	
20 – 30	BD2030		—	—	—	—	—	20	50	BQ220250	786676370905	
25 – 25	BD2525		—	—	—	—	—	25	25	BQ225225	786676370950	
30 – 15	BD3015		—	—	—	—	—	30	30	BQ230230	786676371001	
30 – 20	BD3020		—	—	—	—	—	30	40	BQ230240	786676371056	
30 – 30	BD3030		—	—	—	—	—	30	50	BQ230250	786676371100	
30 – 40	BD3040		—	—	—	—	—	40	40	BQ240240	786676371155	
30 – 50	BD3050		—	—	—	—	—	40	50	BQ240250	786676371209	
50 – 30	BD5030		—	—	—	—	—	50	50	BQ250250	786676371254	
50 – 50	BD5050		—	—	—	—	—	—	—	—	—	—

① All Type BD Duplex and BQ Quadplex circuit breakers carry listing for HACR applications.
② All 15 and 20 ampere single poles are switch-duty rated.

Note: Type BD Duplex, BQ and BQC Quadplex (CTL) circuit breakers conform to Section 384-15 of the latest National Electrical Code. Install breaker only in panel positions that have notched bus stabs.

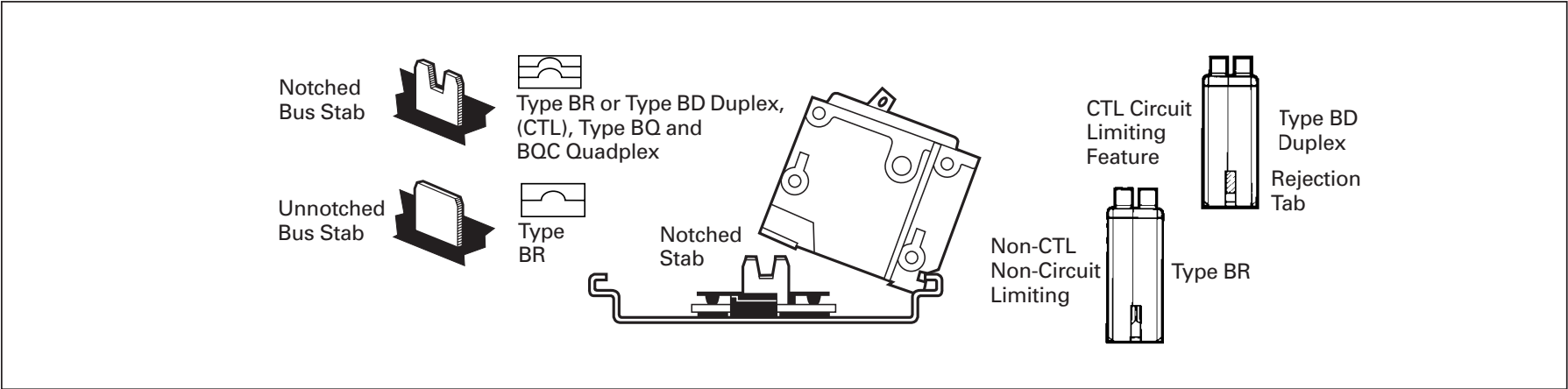
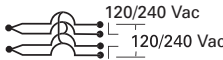
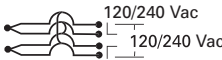


FIGURE 1-1. CTL AND NON-CTL BREAKERS

Data Tables

TABLE 1-15. CLASS NON-CTL, 1-INCH (25.4 MM) PER POLE 10 kAIC — BREAKERS DO NOT HAVE REJECTION TAB FEATURE

Type BR Duplex			Type Brand BRD Quadplex Independent Trip						Type BRD Quadplex Common Trip center and Outer Poles								
1-Pole ①						2-Pole						2-Pole					
Requires One 1-Inch (25.4 mm) Space			Requires Two 1-Inch (25.4 mm) Spaces						Requires Two 1-Inch (25.4 mm) Spaces								
10 per Shelf Carton			3 per Shelf Carton						3 per Shelf Carton								
10 kAIC			10 kAIC						10 kAIC								
120 Vac			120/240 Vac		120/240 Vac				120/240 Vac								
			Ampere Rating						Ampere Rating								
Ampere Rating	Catalog Number	UPC Code	Wire Size Range Cu/Al 65°C or 75°C	Outer 2-Poles Independent Trip	Center 2-Poles Independent Trip	Catalog Number	UPC Code	Outer 2-Poles Common Trip	Center 2-Poles Common Trip	Catalog Number	UPC Code						
15 – 15	BR1515	786676370059		15	15	BR415	786676372107	15	15	BRDC215215	786676372312						
15 – 15	BR1515CS ②	782114752791		15	15	BR420	786676372152	30	30	BRDC230230	786676372329						
15 – 20	BR1520	786676370103		20	20	BR430	786676372206	30	40	BRDC230240	786676372336						
20 – 15	BR2015	786676370202		30	30	BRD220230	786676372213	30	50	BRDC230250	786676372343						
20 – 20	BR2020	786676370257		20	30	BRD230240	786676372251	—	—	—	—						
20 – 20	BR2020CS ②	782114752807		20	30	BRD230250	786676372305	—	—	—	—						
30 – 30	BR3030	786676370301	30	40	—	—	—	—	—	—	—						

^① Non-CTL 10 kAIC for replacement purposes only. For replacement in enclosures manufactured prior to 1968 with unnotched stabs. Circuit breakers do not have rejection tab.

^② Clamshell.

Cross-Reference

TABLE 1-16. CIRCUIT BREAKERS

1-Inch Breakers (25.4 mm)

Cutler-Hammer® BR Breakers	Siemens®	GE®	Square D — HOMELINE®
BR115 BR120 BR130	Q115 Q120 Q130	THQL1115 THQL1120 THQL1130	HOM115 HOM120 —
— BR2100 BR2125	— Q2100 Q2125	— THQL21110 THQL21125	— HOM2100 HOM2125
BR215 BR220 BR225	Q215 Q220 Q225	THQL2115 THQL2120 THQL2125	HOM215 HOM220 HOM225
BR230 BR240 BR250	Q230 Q240 Q250	THQL2130 THQL2140 THQL2150	HOM230 HOM240 HOM250
BR260 BR270 BR280	Q260 Q270 Q280	THQL2160 THQL2170 THQL2180	HOM260 HOM270 —
BR3100 BR320 BR330	Q3100 Q320 Q330	THQL32100 THQL32020 THQL32030	— — —
BR340 BR350 BR360	Q340 Q350 Q360	THQL32040 THQL32050 THQL32060	— — —
BR1515 BR2020	— —	— —	— —
BD1515 BD1520 BD2020	Q1515 Q1520 Q2020	— — —	HOMT1515 HOMT1520 HOMT2020
— — BQ230240	Q120 Q230 —	TQ1120 TQ2130 —	— — —
BQ220230 BD3020	Q23020 Q2030	— —	— —

Note: These products are by no means equivalent but functionally similar. This is a cross-reference tool not an interchangeability chart.

Arc Fault Circuit Interrupters (AFCIs)



AFCI Breakers

Product Description

FIRE-GUARD™ Arc Fault Circuit Interrupter (AFCI) is a circuit breaker that provides protection from fires caused by arcing faults. Arcing faults can occur when insulation around cords, wires or cables is damaged or deteriorated. AFCIs are required in bedroom circuits for new construction per the 2005 National Electrical Code.

Features, Functions and Benefits

- ✓ Reduces the risk of electrical fires started by arcing faults.
- ✓ Meets UL 489 (standard for molded case circuit breakers), UL 1699 (standard for arc fault circuit interrupters) and either UL 1053 (standard for ground fault relaying and sensing at 30 mA) or UL 943 (ground fault circuit interrupters at 5 mA).
- ✓ Meets 1999, 2002 and 2005 National Electrical Code requirements for AFCIs.

Catalog Numbering System

TABLE 1-17. CATALOG NUMBERING SYSTEM

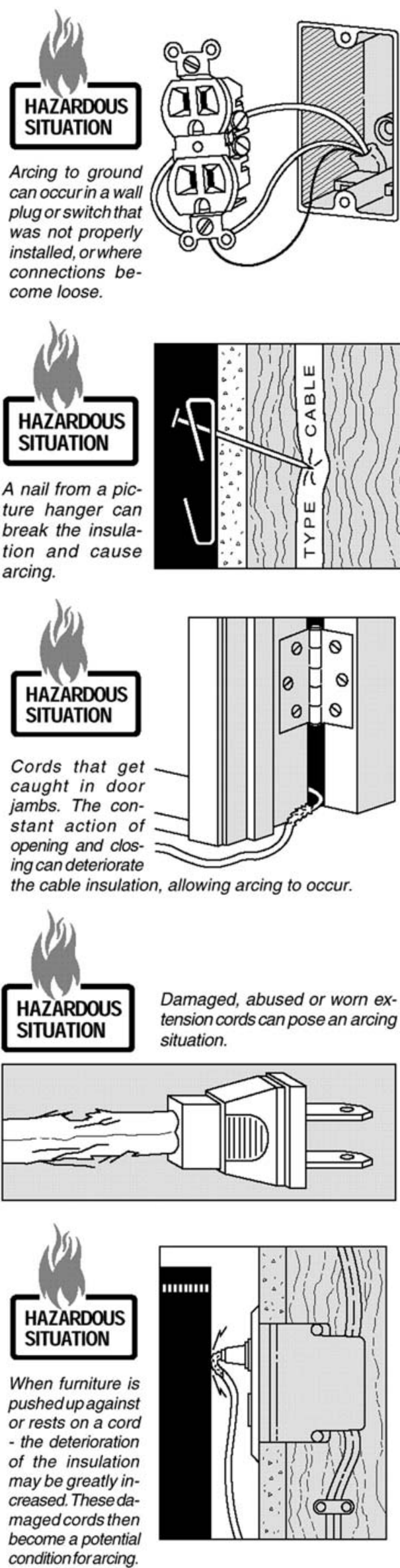
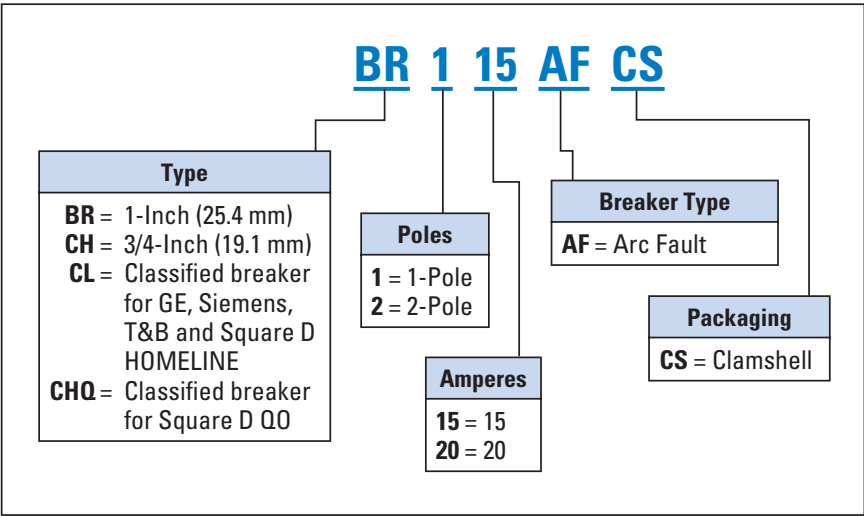


FIGURE 1-2. APPLICATION DIAGRAM

APPLICATION DIAGRAMS

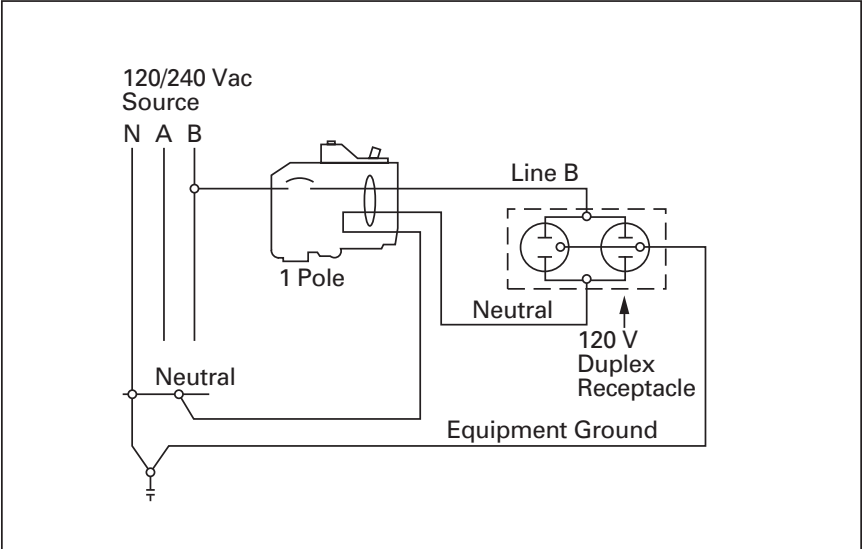


FIGURE 1-3. 1-POLE SINGLE 120 VOLT LOAD APPLICATION SOURCED BY 120/240 VAC

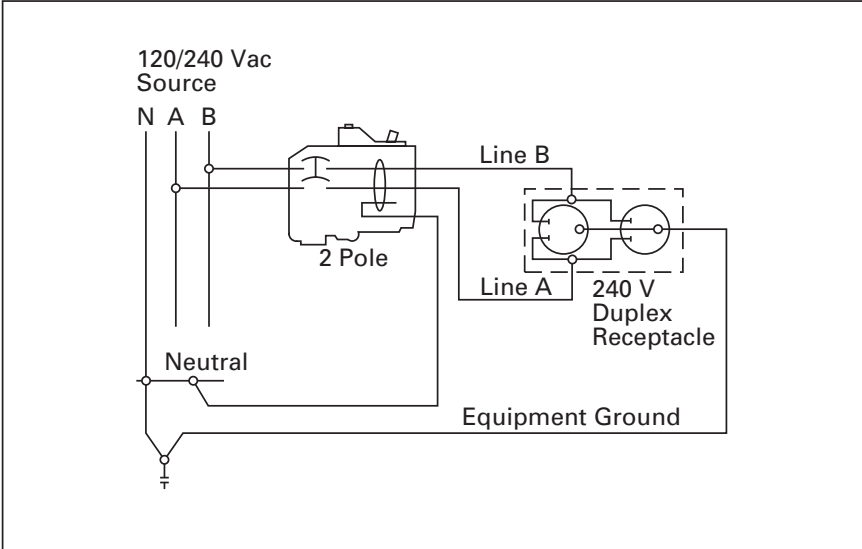


FIGURE 1-5. 2-POLE 240 VOLT LOAD APPLICATION SOURCED BY 120/240 VAC

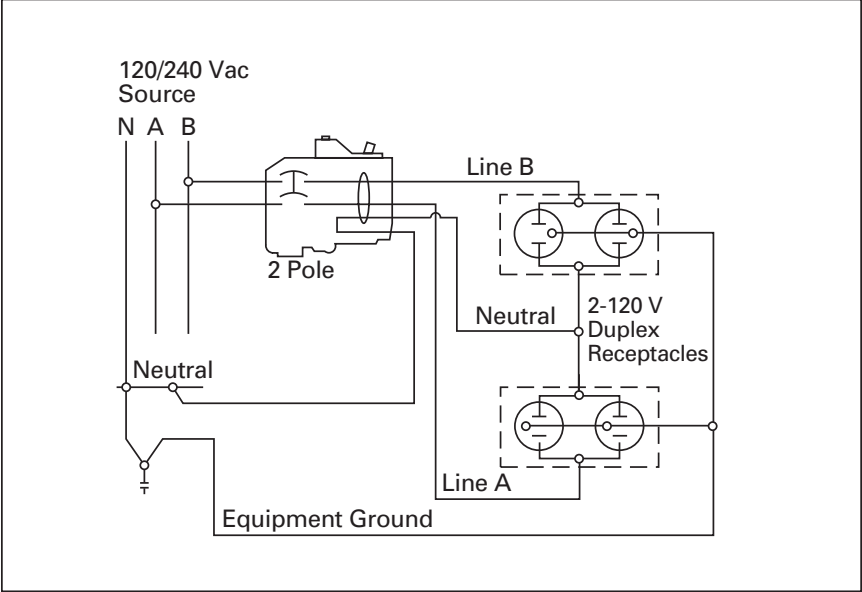


FIGURE 1-4. 1-POLE SHARED NEUTRAL WITH MULTI-DUPLEX RECEPTACLE APPLICATION

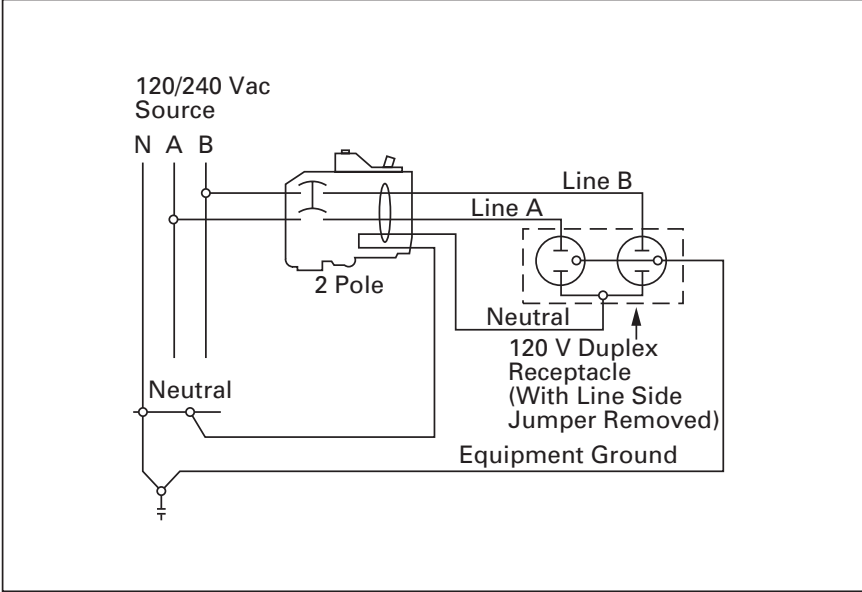


FIGURE 1-6. 2-POLE SHARED NEUTRAL WITH DUPLEX RECEPTACLE APPLICATION

Data Tables

TYPE BR LOADCENTER BREAKERS

TABLE 1-18. TYPE BR 1-INCH (25.4 MM), 10 kAIC

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole Requires One 1-Inch (25.4 mm) Space		2-Pole Requires One 1-Inch (25.4 mm) Space	
		1 per Shelf Carton		1 per Shelf Carton	
		Catalog Number	UPC Code	Catalog Number	UPC Code
15	#14-4	BR115AF	782114231494	BR215AF	782114409695
15	#14-4	BR115AFGF	782114409671	BR215AFIT	782114415566
15	#14-4	—	—	BR215AFGF	782114409725
15	#14-4	—	—	BR220AF	782114409701
15	#14-4	—	—	BR220AFIT	782114415573
15	#14-4	—	—	BR220AFGF	782114409732
20	#14-4	BR120AF	782114231500	—	—
20	#14-4	BR120AFGF	782114409688	—	—

TABLE 1-19. TYPE BR 1-INCH (25.4 MM) — CLAMSHELLS

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole Requires One 1-Inch (25.4 mm) Space		2-Pole Requires One 1-Inch (25.4 mm) Space	
		1 per Shelf Carton		1 per Shelf Carton	
		Catalog Number	UPC Code	Catalog Number	UPC Code
15	#14 – 4	BR115AFCS	782114351123	—	—
20	#14 – 4	BR120AFCS	782114351130	—	—

TYPE CH LOADCENTER BREAKERS

TABLE 1-20. TYPE CH 3/4-INCH (19.1 MM)

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole Requires One 3/4-Inch (19.1 mm) Space		2-Pole Requires One 3/4-Inch (19.1 mm) Space	
		1 per Shelf Carton		1 per Shelf Carton	
		Catalog Number	UPC Code	Catalog Number	UPC Code
15	#14-4	CH115AF	782114231470	CH215AF	782114409763
15	#14-4	CH115AFGF	782114409749	CH215AFIT	782114415580
15	#14-4	—	—	CH215AFGF	782114409787
15	#14-4	—	—	CH220AF	782114409770
15	#14-4	—	—	CH220AFIT	782114415597
15	#14-4	—	—	CH220AFGF	782114409794
20	#14-4	CH120AF	782114231487	—	—
20	#14-4	CH120AFGF	782114409756	—	—

TABLE 1-21. TYPE CH 3/4-INCH (19.1 MM) — CLAMSHELLS

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole Requires One 3/4-Inch (19.1 mm) Space		2-Pole Requires One 3/4-Inch (19.1 mm) Space	
		1 per Shelf Carton		3 per Shelf Carton	
		Catalog Number	UPC Code	Catalog Number	UPC Code
15	#14 – 4	CH115AFCS	782114351109	—	—
20	#14 – 4	CH120AFCS	782114351116	—	—

Related Products

AFCI TESTER AND CIRCUIT ANALYZER

- ✓ Catalog Number AFGFTESTER.
- ✓ UL listed tester for use with AFCI, GFCI (5 mA) and GFI (30 mA) devices.
- ✓ Verifies proper wiring in a circuit.
- ✓ Only tester with GFI function and Line-Neutral test feature.
- ✓ Comes with carrying case, lighting adapter, 2-prong adapter and alligator clips for hardwired circuits.

Ground Fault Circuit Interrupters (GFCIs)

Product Description

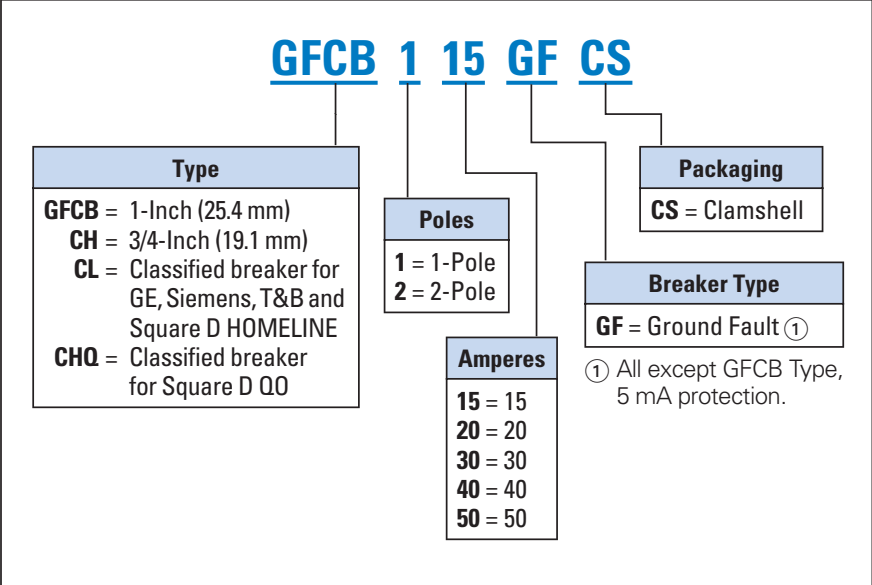
Ground Fault Circuit Interrupter (GFCI) breakers provide protection for people from hazards of electrical shock in areas where electricity may come into contact with water. GFCIs are required in any application near water such as kitchen countertops, bathrooms, swimming pools, hot tubs, outdoor receptacles, etc.

Features, Functions and Benefits

- ✓ Reduces the risk of shock and electrocution.
- ✓ Meets UL 489 (standard for molded case circuit breakers) and UL 943 (ground fault circuit interrupters at 5 mA).

Catalog Numbering System

TABLE 1-22. CATALOG NUMBERING SYSTEM



Note: GFCB for use in 1-inch Type BR loadcenters.

Data Tables

TABLE 1-23. TYPE BR 1-INCH (25.4 MM), 10 KAIC

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole Requires One 1-Inch (25.4 mm) Space		2-Pole Requires One 1-Inch (25.4 mm) Space	
		1 per Shelf Carton		1 per Shelf Carton	
		Catalog Number	UPC Code	Catalog Number	UPC Code
15	#14 – 4	GFCB115	786676368704	GFCB215	786676368933
20	#14 – 4	GFCB120	786679371206	GFCB220	786676368957
25	#14 – 4	GFCB125	786676368766	GFCB225	786676368971
30	#14 – 4	GFCB130	786676368797	GFCB230	786676368995
40	#14 – 4	GFCB140	786676008532	GFCB240	786676335461
50	#14 – 4	—	—	GFCB250	786676332507

TABLE 1-24. TYPE BR 1-INCH (25.4 MM), 10 KAIC — CLAMSHELLS

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole Requires One 1-Inch (25.4 mm) Space		2-Pole Requires One 1-Inch (25.4 mm) Space	
		1 per Shelf Carton		1 per Shelf Carton	
		Catalog Number	UPC Code	Catalog Number	UPC Code
15	#14 – 4	GFCB115CS	782114753255	GFCB215CS	782113759005
20	#14 – 4	GFCB120CS	782114753262	GFCB220CS	782114753286
30	#14 – 4	GFCB130CS	782114753279	GFCB230CS	782114753293
40	#14 – 4	GFCB140CS	782116630721	GFCB240CS	782114752869
50	#14 – 4	GFCB150CS	782116630738	GFCB250CS	782114752876

TABLE 1-25. TYPE CH 3/4-INCH (19.1 MM), 10 KAIC

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole Requires One 3/4-Inch (19.1 mm) Space		2-Pole Requires One 3/4-Inch (19.1 mm) Space	
		1 per Shelf Carton		1 per Shelf Carton	
		Catalog Number	UPC Code	Catalog Number	UPC Code
15	#14 – 6	CH115GF	782113261218	CH215GF	782113296142
20	#14 – 6	CH120GF	782113261768	CH220GF	782113296159
25	#14 – 4	CH125GF	782114022962	CH225GF	782113444833
30	#14 – 6	CH130GF	782113263878	CH230GF	782113444727
40	#14 – 4	—	—	CH240GF	782113912882
45	#14 – 4	—	—	CH245GF	782113924915
50	#14 – 6	—	—	CH250GF	782113912899

TABLE 1-26. TYPE CH 3/4-INCH (19.1 MM), 10 KAIC — CLAMSHELLS

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole Requires One 3/4-Inch (19.1 mm) Space		2-Pole Requires One 3/4-Inch (19.1 mm) Space	
		6 per Shelf Carton		3 per Shelf Carton	
		Catalog Number	UPC Code	Catalog Number	UPC Code
15	#14 – 6	CH115GFCS	782114752609	CH215GFCS	782116630639
20	#14 – 6	CH120GFCS	782114752616	CH220GFCS	782116630646
30	#14 – 6	CH130GFCS	782114752623	CH230GFCS	782116630653
40	#14 – 6	—	—	CH240GFCS	782116630660
50	—	—	—	CH250GFCS	782114752661
60	—	—	—	CH260GFCS	782116630677

APPLICATION DIAGRAMS

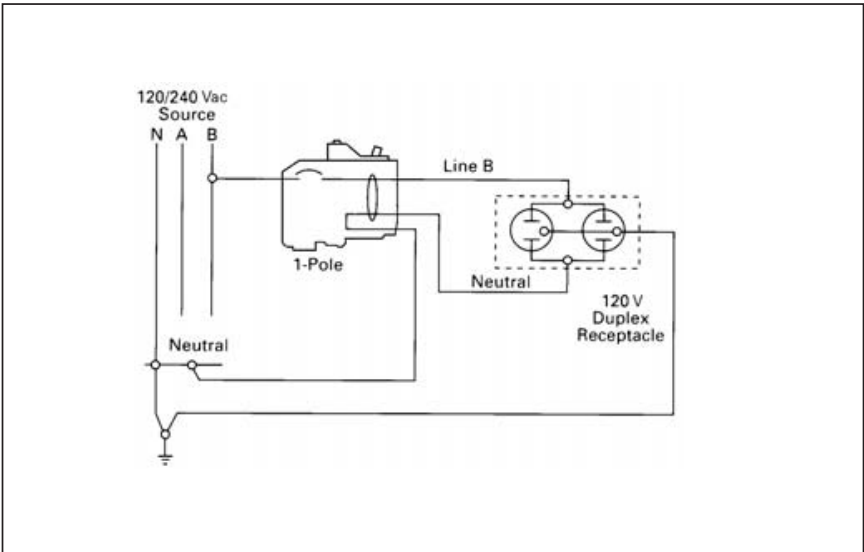


FIGURE 1-7. 1-POLE 120 VOLT DUPLEX RECEPTACLE APPLICATION

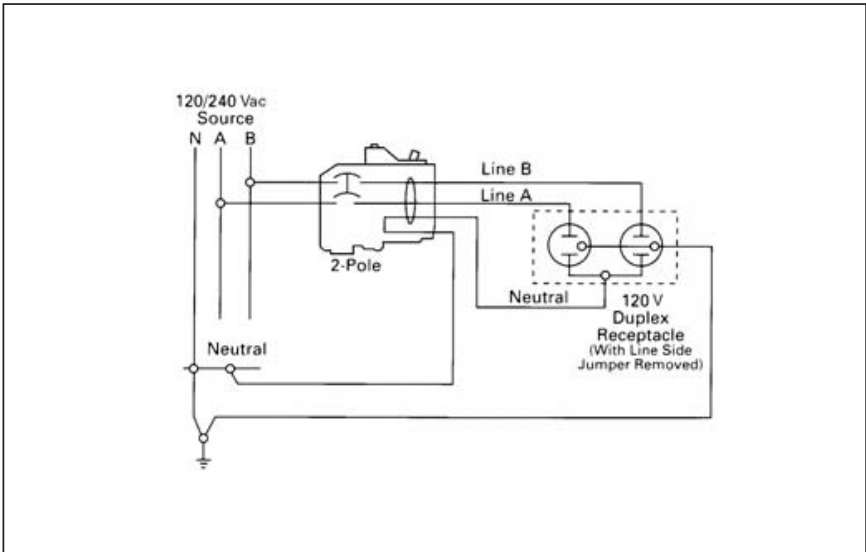


FIGURE 1-9. 2-POLE 120 VOLT DUPLEX RECEPTACLE APPLICATION

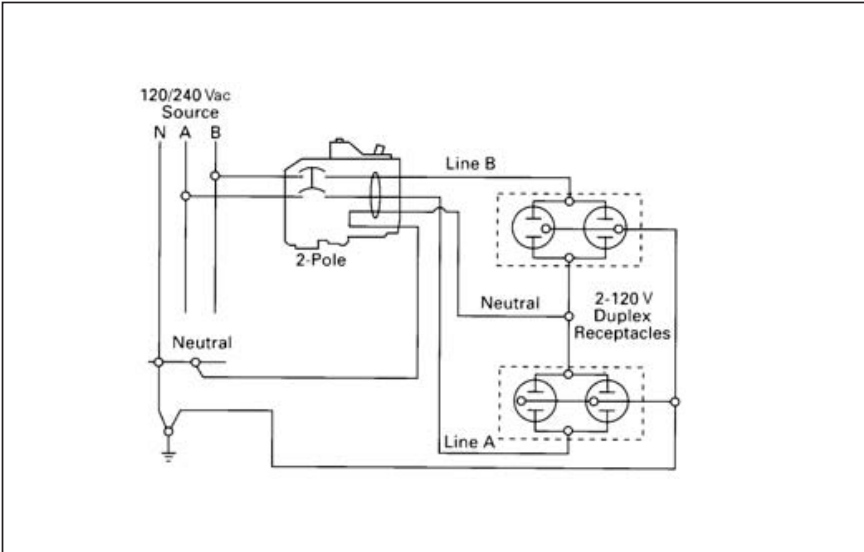


FIGURE 1-8. 2-POLE 120 VOLT MULTI-DUPLEX RECEPTACLE APPLICATION

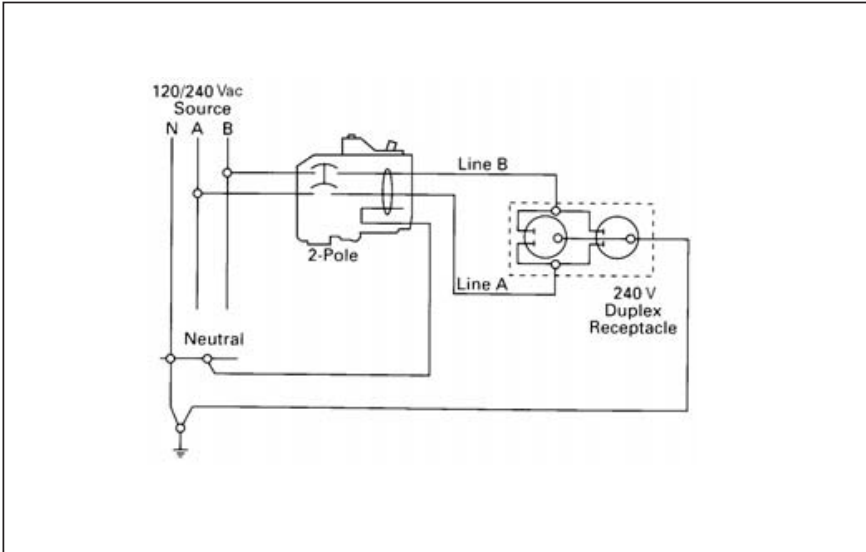


FIGURE 1-10. 2-POLE 240 VOLT DUPLEX RECEPTACLE APPLICATION

Related Products

AFCI TESTER AND CIRCUIT ANALYZER

- ✓ Catalog Number AFGFTESTER.
- ✓ UL listed tester for use with AFCI, GFCI (5 mA) and GFI (30 mA) devices.
- ✓ Verifies proper wiring in a circuit.
- ✓ Only tester with GFI function and Line-Neutral test feature.
- ✓ Comes with carrying case, lighting adapter, 2-prong adapter and alligator clips for hardwired circuits.

Did You Know?

In homes built to comply with the National Electrical Code (the Code), GFCI protection is required for most outdoor receptacles (since 1973), bathroom receptacle circuits (since 1975), garage wall outlets (since 1978), kitchen receptacles (since 1987), and all receptacles in crawl spaces and unfinished basements (since 1990).

Arc Fault/Ground Fault Analyzer

Circuit Analyzer



Circuit Analyzer

Product Description

Eaton’s Cutler-Hammer Circuit Analyzer provides accurate testing of AFCI and GFCI devices while also testing for faulty wiring conditions.

There are other testing devices on the market but this will be the only one available from an AFCI manufacturer. Eaton has more than 100 years of electrical control and power distribution experience, and a thorough understanding of what arc faults are all about. This experience with AFCI breakers led to developing a patented feature of the analyzer that will save contractors time and aggravation. It allows contractors to verify whether they have a grounded neutral simply by depressing the red Neutral Isolation test button. In this way, they will be able to determine whether they have a grounded neutral or have other neutrals connected before they leave the job site. Additionally, the Circuit Analyzer has a button that tests AFCI and two that test GFCI devices (both 40 mA and 8 mA).

Application Description

The Circuit Analyzer serves as a handy troubleshooting tool for contractors and electrical inspectors. It’s a circuit analyzer that provides accurate testing of AFCI and GFCI devices while also testing for faulty wiring conditions.

Features, Functions and Benefits

- ✓ All-in-one tester for ground fault, arc fault and faulty wiring conditions.
- ✓ Neutral Isolation Test Button is a patented feature that allows the contractor to determine whether they have a grounded neutral or have other neutrals connected before leaving the job.
- ✓ Additional test button for AFCI and two that test GFCI devices (40 mA and 8 mA).
- ✓ Only product available from an AFCI manufacturer.
- ✓ Three standard accessories enhance the usefulness of the Circuit Analyzer:
 - An alligator clip attachment to test hardwired circuits, such as smoke detectors, that lack a receptacle. The clip simply is attached to the smoke alarm’s terminals
 - An adapter (3-prong to 2-prong) for testing in older homes that lack 3-prong receptacles
 - Light socket adapter for AFCI testing when no receptacle is available. Examples are ceiling fans that contain sockets and recessed lighting
 - Additionally, the Circuit Analyzer comes with a black carrying case

Technical Data and Specifications

HOW IT WORKS

1. Plug the tester (or one of the accessories) into the receptacle, light fixture or hardwired terminals to be tested.
2. Check the wiring LEDs on the Circuit Analyzer to determine if the circuit is wired correctly.
3. If the circuit is wired correctly, then proceed to test for Neutral Isolation, Arc Fault or Ground Fault conditions, depending on the breaker or receptacle type that is on the circuit.
4. To perform these tests, press the corresponding button on the Circuit Analyzer and review the results.

TABLE 1-27. PRODUCT SELECTION

Description	Catalog Number	UPC Code
Circuit Analyzer	AFGFTESTER	782116141913

Classified Circuit Breakers



Classified Circuit Breakers

Product Description

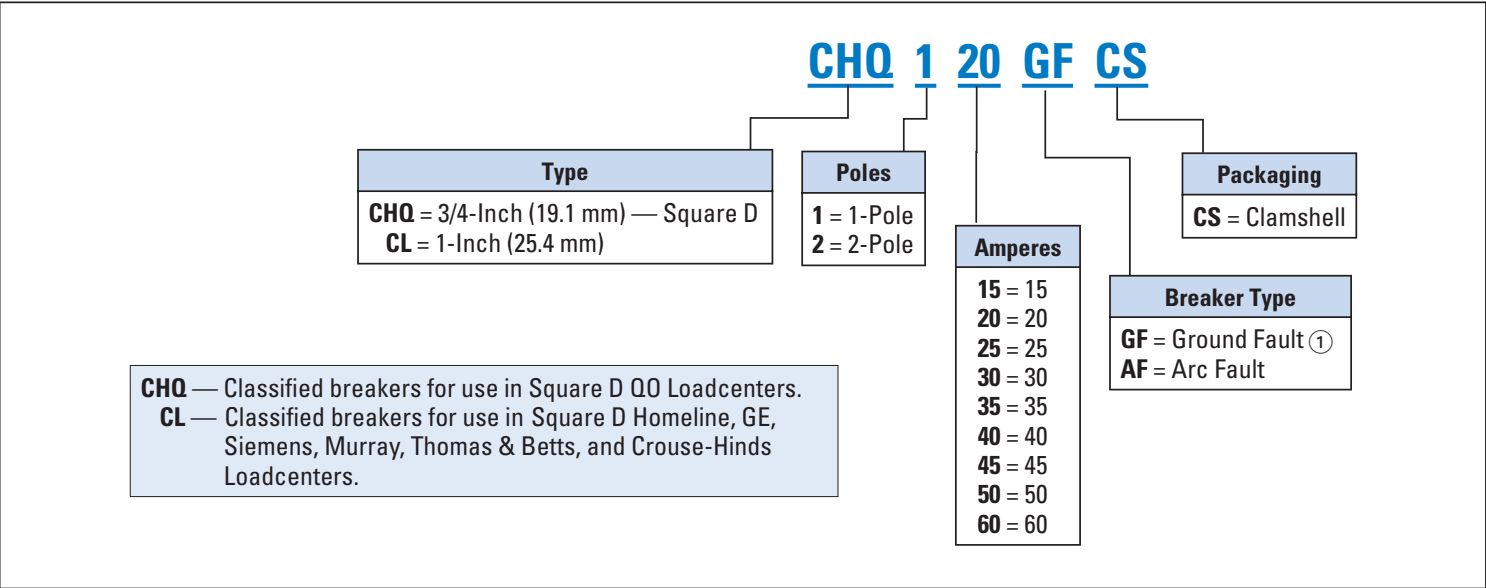
- ✓ Classified Replacement Circuit Breakers are considered suitable, by Underwriters Laboratories, for use in another manufacturers’ panelboard.
- ✓ Tested extensively in numerous GE, Square D, Siemens, Murray®, Thomas and Betts® and Crouse-Hinds® panels.
- ✓ Retailers can streamline inventory by carrying one manufacturer’s circuit breakers vs. multiple manufacturers.

Features, Functions and Benefits

- ✓ Available in both 3/4-inch Type CHQ and 1-inch Type CL, 1- and 2-pole configurations.
- ✓ 120/240 Vac.
- ✓ Classified as direct replacements by Underwriters Laboratories.
- ✓ 15-year warranty.
- ✓ Available in clamshell packaging.
- ✓ Classified arc fault and ground fault breakers available.

Catalog Numbering System

TABLE 1-28. CATALOG NUMBERING SYSTEM



① All except GFCB Type, 5 mA protection.

Data Tables

TABLE 1-29. TYPE CHQ CLASSIFIED BREAKERS 3/4-INCH (19.1 MM) PER POLE 120 OR 120/240 VAC, 10 kAIC

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole 120/240 V 		2-Pole 120/240 Vac  Common Trip	
		Requires One 3/4-Inch (19.1 mm) Space		Requires Two 3/4-Inch (19.1 mm) Spaces	
		10 per Shelf Carton		5 per Shelf Carton	
		10 kAIC		10 kAIC	
		Catalog Number	UPC Code	Catalog Number	UPC Code
15	(1) #14 – 8	CHQ115	782113010816	CHQ215	782113010892
20	(2) #14 – 10	CHQ120	782113010823	CHQ220	782113010908
25		CHQ125	782113010830	CHQ225	782113010915
30		CHQ130	782113010847	CHQ230	782113010922
35		CHQ135	782113010854	CHQ235	782113010939
40		CHQ140	782113010861	CHQ240	782113010946
45		CHQ145	782113010878	CHQ245	782113010953
50		CHQ150	782113010885	CHQ250	782113010960
60		—	—	CHQ260	782113010977

TABLE 1-30. TYPE CHQ CLASSIFIED BREAKERS 3/4-INCH (19.1 MM) PER POLE 120 OR 120/240 VAC, 10 kAIC — CLAMSHELLS

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole 120/240 Vac 		2-Pole 120/240 Vac  Common Trip	
		Requires One 3/4-Inch (19.1 mm) Space		Requires Two 3/4-Inch (19.1 mm) Spaces	
		6 per Shelf Carton		3 per Shelf Carton	
		10 kAIC		10 kAIC	
		Catalog Number	UPC Code	Catalog Number	UPC Code
15	(1) #14 – 8	CHQ115CS	782114752906	CHQ215CS	782114752937
20	(2) #14 – 10	CHQ120CS	782114752913	CHQ220CS	782114752944
30		CHQ130CS	782114752920	CHQ230CS	782114752951
40		CHQ140CS	782116630684	CHQ240CS	782114752968
50		CHQ150CS	782116630691	CHQ250CS	782114752975
60		—	—	CHQ260CS	782114752982

TABLE 1-31. TYPE CL BREAKERS, 1-INCH (25.4 MM) PER POLE

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole 120/240 V 		2-Pole 120/240 V  Common Trip	
		Requires One 1-Inch (25.4 mm) Space		Requires Two 1-Inch (25.4 mm) Spaces	
		10 per Shelf Carton		5 per Shelf Carton	
		10 kAIC		10 kAIC	
		Catalog Number	UPC Code	Catalog Number	UPC Code
15	#14 – 4	CL115	786676011549	CL215	786676011624
20		CL120	786676011556	CL220	786676011631
25		CL125	786676011563	CL225	786676011648
30		CL130	786676011570	CL230	786676011655
35		CL135	786676011587	CL235	786676011662
40		CL140	786676011594	CL240	786676011679
45		CL145	786676011600	CL245	786676011686
50		CL150	786676011617	CL250	786676011693

TABLE 1-32. TYPE CL BREAKERS, 1-INCH (25.4 MM) PER POLE — CLAMSHELLS

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole 120/240 V 		2-Pole 120/240 V  Common Trip	
		Requires One 1-Inch (25.4 mm) Space		Requires Two 1-Inch (25.4 mm) Spaces	
		6 per Shelf Carton		3 per Shelf Carton	
		10 kAIC		10 kAIC	
		Catalog Number	UPC Code	Catalog Number	UPC Code
15	#14 – 4	CL115CS	782114753026	CL215CS	782114753057
20		CL120CS	782114753033	CL220CS	782114753064
30		CL130CS	782114753040	CL230CS	782114753071
40		CL140CS	782116630431	CL240CS	782114753088
50		CL150CS	782116630448	CL250CS	782114753095

TABLE 1-33. TYPE CL CLASSIFIED LATCHING REMOTE CONTROL SMART BREAKERS™, 1-INCH (25.4 MM) PER POLE

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole 120/240 V 		2-Pole 120/240 V  Common Trip	
		Requires One 1-Inch (25.4 mm) Space		Requires Two 1-Inch (25.4 mm) Spaces	
		10 per Shelf Carton		5 per Shelf Carton	
		10 kAIC		10 kAIC	
		Catalog Number	UPC Code	Catalog Number	UPC Code
15	#14 – 4	CLRP115	782116062454	CLRP215	782116062492
20		CLRP120	782116062461	CLRP220	782116062508
25		CLRP125	782116062478	CLRP225	782116062415
30		CLRP130	782116062485	CLRP230	782116062422

ACCESSORIES

TABLE 1-34. TYPE CHQ FIELD INSTALLATION KITS AND PARTS

Description	Catalog Number	UPC Code
Type CHQ 2-Pole Plug-in Surge Arrester (Clamshell)	CHQSACS	782114753422

Data Tables

TABLE 1-35. TYPE CLASSIFIED 1-INCH (25.4 MM), 10 KAIC, GROUND FAULT

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole Requires One 1-Inch (25.4 mm) Space		2-Pole Requires One 1-Inch (25.4 mm) Space	
		1 per Shelf Carton		1 per Shelf Carton	
		Catalog Number	UPC Code	Catalog Number	UPC Code
15	#14 – 4	CL115GF	782114982150	—	—
20	#14 – 4	CL120GF	782114982167	—	—
30	#14 – 4	CL130GF	786676011570	—	—

TABLE 1-36. TYPE CLASSIFIED 1-INCH (25.4 MM), 10 KAIC, GROUND FAULT — CLAMSHELLS

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole Requires One 1-Inch (25.4 mm) Space		2-Pole Requires One 1-Inch (25.4 mm) Space	
		6 per Shelf Carton		3 per Shelf Carton	
		Catalog Number	UPC Code	Catalog Number	UPC Code
15	#14 – 4	CL115GFCS	782114753149	—	—
20	#14 – 4	CL120GFCS	782114753156	—	—
30	#14 – 4	CL130GFCS	782114982174	—	—

TABLE 1-37. TYPE CLASSIFIED 3/4-INCH (19.1 MM), 10 KAIC, GROUND FAULT

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole Requires One 3/4-Inch (19.1 mm) Space		2-Pole Requires One 3/4-Inch (19.1 mm) Space	
		1 per Shelf Carton		1 per Shelf Carton	
		Catalog Number	UPC Code	Catalog Number	UPC Code
15	#14 – 8	CHQ115GF	782114086032	—	—
20	#14 – 10	CHQ120GF	782114086049	—	—
30	#14 – 10	CHQ130GF	782114086063	—	—
50	#14 – 10	—	—	CHQ250GF	782114086186

TABLE 1-38. TYPE CLASSIFIED 3/4-INCH (19.1 MM), 10 KAIC, GROUND FAULT — CLAMSHELLS

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole Requires One 3/4-Inch (19.1 mm) Space		2-Pole Requires One 3/4-Inch (19.1 mm) Space	
		6 per Shelf Carton		3 per Shelf Carton	
		Catalog Number	UPC Code	Catalog Number	UPC Code
15	#14 – 8	CHQ115GFCS	782114752999	CHQ215GFCS	782116630806
20	#14 – 10	CHQ120GFCS	782114753002	CHQ220GFCS	782116630813
30	#14 – 10	CHQ130GFCS	782114753019	CHQ230GFCS	782116630820
40	#14 – 8	—	—	CHQ240GFCS	782116630837
50	#14 – 10	—	—	CHQ250GFCS	782116630844
60	#14 – 10	—	—	CHQ260GFCS	782116630851

TABLE 1-39. TYPE CLASSIFIED 1-INCH (25.4 MM), 10 KAIC, ARC FAULT

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole Requires One 1-Inch (25.4 mm) Space		2-Pole Requires One 1-Inch (25.4 mm) Space	
		1 per Shelf Carton		1 per Shelf Carton	
		Catalog Number	UPC Code	Catalog Number	UPC Code
15	#14 – 4	CL115AF	782113982588	—	—
20	#14 – 4	CL120AF	782113982618	—	—

TABLE 1-40. TYPE CLASSIFIED 1-INCH (25.4 MM), ARC FAULT — CLAMSHELLS

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole Requires One 1-Inch (25.4 mm) Space		2-Pole Requires One 1-Inch (25.4 mm) Space	
		6 per Shelf Carton		1 per Shelf Carton	
		Catalog Number	UPC Code	Catalog Number	UPC Code
15	#14 – 4	CL115AFCS	782114753217	—	—
20	#14 – 4	CL120AFCS	782114753224	—	—

TABLE 1-41. TYPE CLASSIFIED 3/4-INCH (19.1 MM), 10 KAIC, ARC FAULT

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole Requires One 3/4-Inch (19.1 mm) Space		2-Pole Requires One 3/4-Inch (19.1 mm) Space	
		1 per Shelf Carton		1 per Shelf Carton	
		Catalog Number	UPC Code	Catalog Number	UPC Code
15	#14 – 4	CHQ115AF	782116010622	—	—
20	#14 – 4	CHQ120AF	782116010639	—	—

TABLE 1-42. TYPE CLASSIFIED 3/4-INCH (19.1 MM) 10 KAIC, ARC FAULT — CLAMSHELLS

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole Requires One 3/4-Inch (19.1 mm) Space		2-Pole Requires One 3/4-Inch (19.1 mm) Space	
		6 per Shelf Carton		6 per Shelf Carton	
		Catalog Number	UPC Code	Catalog Number	UPC Code
15	#14 – 4	CHQ115AFCS	782116010592	—	—
20	#14 – 4	CHQ120AFCS	782116010608	—	—

Related Products

TABLE 1-43. CIRCUIT BREAKERS

3/4-Inch Breakers (19.1 mm)		1-Inch Breakers (25.4 mm)			
CH Breakers	Square D — QO	BR Breakers	Siemens	GE	Square D — HOMELINE
CH115	QO115	BR115	Q115	THQL1115	HOM115
CH120	QO120	BR120	Q120	THQL1120	HOM120
CH130	QO130	BR130	Q130	THQL1130	—
CH210	QO210	—	—	—	—
CH2100	QO2100	BR2100	Q2100	THQL21110	HOM2100
CH2125	QO2125	BR2125	Q2125	THQL21125	HOM2125
CH215	QO215	BR215	Q215	THQL2115	HOM215
CH220	QO220	BR220	Q220	THQL2120	HOM220
CH225	QO225	BR225	Q225	THQL2125	HOM225
CH230	QO230	BR230	Q230	THQL2130	HOM230
CH240	QO240	BR240	Q240	THQL2140	HOM240
CH250	QO250	BR250	Q250	THQL2150	HOM250
CH260	QO260	BR260	Q260	THQL2160	HOM260
CH270	QO270	BR270	Q270	THQL2170	HOM270
CH280	QO280	BR280	Q280	THQL2180	—
CH3100	QO3100	BR3100	Q3100	THQL32100	—
CH320	QO320	BR320	Q320	THQL32020	—
CH330	QO330	BR330	Q330	THQL32030	—
CH340	QO340	BR340	Q340	THQL32040	—
CH350	QO350	BR350	Q350	THQL32050	—
CH360	QO360	BR360	Q360	THQL32060	—
CHNT1515	—	BR1515	—	—	—
CHNT2020	—	BR2020	—	—	—
CHQ120	QO120	—	—	—	—
CHQ230	QO230	—	—	—	—
CHT1515	QOT1515	BD1515	Q1515	—	HOMT1515
CHT1520	—	BD1520	Q1520	—	HOMT1520
CHT2020	QOT2020	BD2020	Q2020	—	HOMT2020
CHQ120	QO120	—	Q120	TQ1120	—
CHQ230	QO230	—	Q230	TQ2130	—
—	—	BQ230240	—	—	—
—	—	BQ220230	Q23020	—	—
—	—	BD3020	Q2030	—	—

Note: These products are by no means equivalent but functionally similar. This is a cross-reference tool not an interchangeability chart.

TABLE 1-44. GROUND FAULT BREAKERS

3/4-Inch Breakers (19.1 mm)		1-Inch Breakers (25.4 mm)			
CH Breakers	Square D — QO	BR Breakers	Siemens	GE	Square D — HOMELINE
CH115GF	QO115GFI	GFCB115	QF115	THQL1115GF	HOM115GFI
CH120GF	QO120GFI	GFCB120	QF120	THQL1120GF	HOM120GFI
CH220GF	QO220GFI	GFCB220	QF220	THQL2120GF1	HOM220GFI
CH230GF	QO230GFI	GFCB230	QF230	THQL2130GF1	HOM230GFI
CH240GF	QO240GFI	GFCB240	QF240	THQL2140GF1	HOM240GFI
CH250GF	QO250GFI	GFCB250	QF250	THQL2150GF1	HOM250GFI
CH260GF	QO260GFI	—	QF260	—	—

Breaker Application Chart

TABLE 1-45. CH BREAKERS TO USE IN CUTLER-HAMMER, GE/SIEMENS/SQUARE D HOMELINE AND SQUARE D QO LOADCENTERS — 2-POLE CIRCUIT BREAKER APPLICATIONS

Appliance	Typical Watts	Voltage	Amperes	Gauge No. Wires w/ Ground	Circuit Breaker			
					Cutler-Hammer 1-Inch	Cutler-Hammer 3/4-Inch	GE/Siemens Square D Homeline	Square D QO
Central Air/Heat Pump	6,000	120/240	50	6/3	BR250	CH250	CL250	CHQ250
Range	12,000	120/240	50	6/3	BR250	CH250	CL250	CHQ250
Built-in Oven	4,500	120/240	30	10/3	BR230	CH230	CL230	CHQ230
Range Top	6,000	120/240	30	10/3	BR230	CH230	CL230	CHQ230
	3,300	120/240	20	12/3	BR220	CH220	CL220	CHQ220
Clothes Dryer	5,000	120/240	30	10/3	BR230	CH230	CL230	CHQ230
Water Heater	4,500	120/240	30	10/3	BR230	CH230	CL230	CHQ230

CH Main Breakers



CH Main Breaker



CH Main Breaker Loadcenter

Product Description

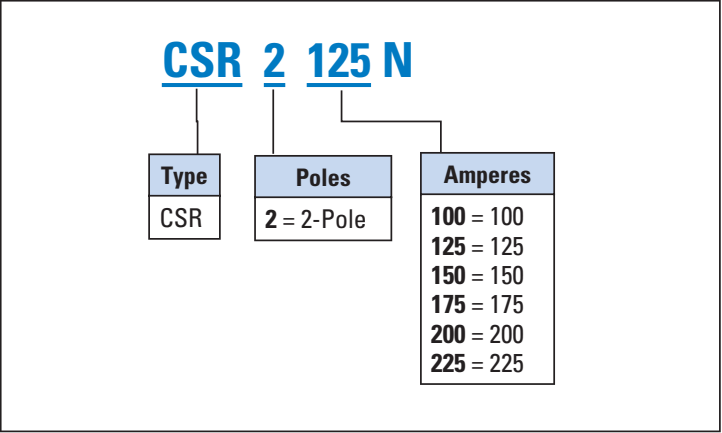
The main circuit breaker protects the entire loadcenter. It can also be used as a service disconnect. The main breaker delivers electricity to the branch circuit breakers within the loadcenter. It is either factory installed or sold separately depending on the model and application.

Features, Functions and Benefits

- ✓ Full range from 100 to 225 amperes, 120/240 volts.
- ✓ 25 kAIC, 42 kAIC and 100 kAIC available.
- ✓ Approved for service entrance.
- ✓ Include line lugs only as standard.
- ✓ 15-year warranty.
- ✓ Meet UL 489, CSA, NEMA standards, Federal Spec Classification W-C 375 b/ GEN.

Catalog Numbering System

TABLE 1-46. CATALOG NUMBERING SYSTEM



Data Tables

TABLE 1-47. TYPE CSR CIRCUIT BREAKERS 120/240 VAC — 25 kAIC FOR USE IN TYPE ECB UNIT ENCLOSURES

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C for Line Terminals	Number of Poles	Catalog Number	UPC Code
25 kAIC				
100	#2 – 300 kcmil	2	CSR2100	782116061112
125			CSR2125N	782114019733
150			CSR2150N	782113098449
175			CSR2175N	782113098456
200			CSR2200N	782113098463
225			CSR2225N	782114106242

Accessories

TABLE 1-48. SHUNT TRIPS, AUXILIARY, ALARM CONTACTS

Description		Catalog Number
Type	Volts	Suffix Adder ①
Shunt Trip		
CSR	12	SR12
CSR	24	SR24
CSR	120	SR01
Auxiliary Contact		
CSR (1) NO and (1) NC	—	AL1
CSR (2) NO and (2) NC	—	AL2
Alarm Contact		
CSR	—	CR1

① Add suffix indicated to end of breaker catalog number.

TABLE 1-49. CSR LUG TREE KIT FOR REPLACEMENT PURPOSES ONLY FOR USE IN TYPE ECB UNIT ENCLOSURES

Ampere Rating	Description	Wire Size Range Cu/Al 60°C or 75°C for Line Terminals	Catalog Number	UPC Code
225	For use on 125, 150, 175, 200 and 225 Ampere CSR Breakers	#2 – 300 kcmil	MCBK225	782114110591

Related Products

TABLE 1-50. TYPE CC CIRCUIT BREAKERS 240 VAC — 10 kAIC FOR USE IN TYPE ECC UNIT ENCLOSURES

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C for Line Terminals	Catalog Number			
		Type CC 10 kAIC	UPC Code	Type CC Hi Mag 10 kAIC	UPC Code
2-Pole					
100	#4 – 4/0	CC2100	782113386546	CC2100HM	782113828589
125		CC2125	782113266565	CC2125HM	782113828596
150		CC2150	782113266572	CC2150HM	782113828602
175	#2/0 – 300 kcmil	CC2175	782113266589	CC2175HM	782113828619
200		CC2200	782113266596	CC2200HM	782113828626
225		CC2225	782113266602	CC2225HM	782113828633
3-Pole					
100	#4 – 4/0	CC3100	782113386553	CC3100HM	782113828640
125		CC3125	782113266619	CC3125HM	782113828657
150		CC3150	782113266626	CC3150HM	782113828664
175	#2/0 – 300 kcmil	CC3175	782113266633	CC3175HM	782113828671
200		CC3200	782113266640	CC3200HM	782113828688
225		CC3225	782113266657	CC3225HM	782113828695

TABLE 1-51. SHUNT TRIPS, AUXILIARY AND ALARM CONTACTS

Description		Catalog Number
Type	Volts	Suffix Adder ②
Shunt Trip		
CC	12 dc	SR12
CC	24 dc	SR24
CC	120 ac	SR01
CC	208 ac	SR08
CC	240 ac	SR02
Auxiliary Contact		
CC (1) NO and (1) NC	—	AL1
Alarm Contact		
CSR	—	CR1

② Add suffix indicated to end of breaker catalog number.

BR Main Breakers



BR Main Breaker



BR Main Breaker Loadcenter

Product Description

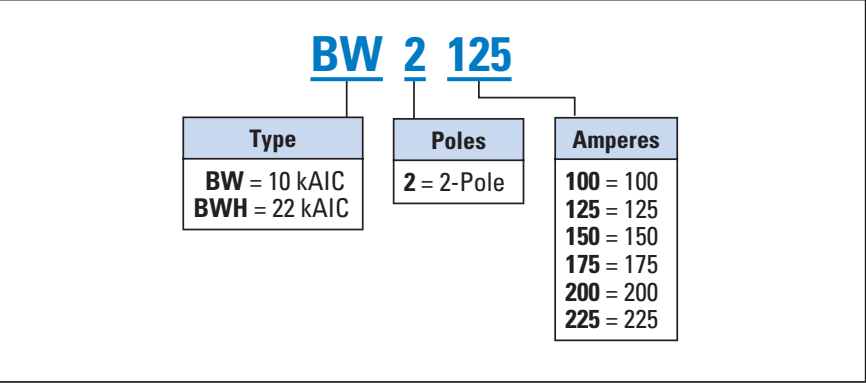
The main circuit breaker protects the entire loadcenter. It can also be used as a service disconnect. The main breaker delivers electricity to the branch circuit breakers within the loadcenter. It is either factory installed or sold separately depending on the model and application.

Features, Functions and Benefits

- ✓ Full range from 125 to 225 amperes, 120/240 volts.
- ✓ 10 kAIC and 25 kAIC available.
- ✓ Approved for service entrance.
- ✓ Five-year warranty.
- ✓ Meet UL 489, CSA, NEMA standards, Federal Spec Classification W-C 375 b/GEN.

Catalog Numbering System

TABLE 1-52. CATALOG NUMBERING SYSTEM



Note: All packaged quantities or single units.

Data Tables

TABLE 1-53. TYPES BW AND BWH CIRCUIT BREAKERS 120/240 VAC — 25 kAIC FOR USE IN TYPE ECB UNIT ENCLOSURES

Ampere Rating	Number of Poles	Wire Size Range Cu/Al 60°C or 75°C for Line Terminals	Catalog Number	UPC Code
10,000 AIC				
100	2	#2 – 300 kcmil	BW2100	782116061099
125			BW2125	786676460361
150			BW2150	786676460408
175			BW2175	786676460507
200			BW2200	786676460552
225			BW2225	786679122556
25,000 AIC				
100	2	#2 – 300 kcmil	BWH2100	782116061105
125			BWH2125	786676460439
150			BWH2150	786676460453
175			BWH2175	786676449700
200			BWH2200	786676460606
225			BWH2225	786679122563

Accessories

TABLE 1-54. SHUNT TRIPS, AUXILIARY AND ALARM CONTACTS

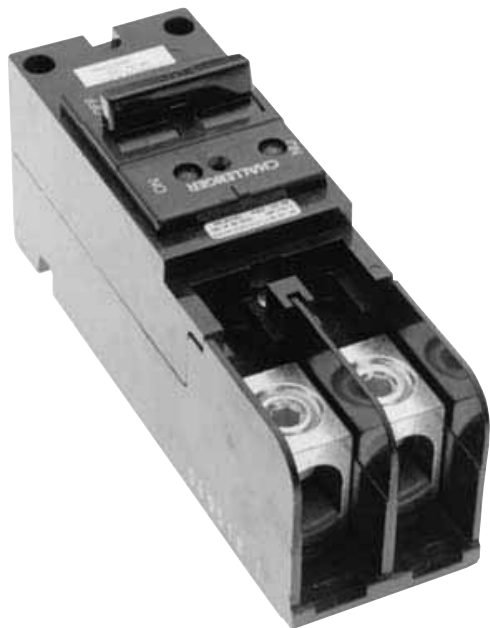
Description	Catalog Number Suffix Adder ①
Shunt Trip for Types BW/BWH	
12 Volts	SR12
24 Volts	SR24
120 Volts	SR01
Auxiliary Contact for Types BW/BWH	
(1) NO and (1) NC	AL1
(2) NO and (2) NC	AL2
Alarm Contacts for Types BW/BWH	
Types BW/BWH	CR1
Alarm Contacts for Type GFCB (1-Pole)	
Alarm Contact for GFCB (1-Pole)	W1
(1) NO and (1) NC	W2

① Add suffix indicated to end of breaker catalog number.

TABLE 1-55. BW/BWH LUG TREE KIT FOR REPLACEMENT PURPOSES ONLY FOR USE IN TYPE ECB UNIT ENCLOSURES

Ampere Rating	Description	Wire Size Range Cu/Al 60°C or 75°C for Line Terminals	Catalog Number	UPC Code
225	For use on 125, 150, 175, 200 and 225 Ampere BW and BWH Breakers	#2 – 300 kcmil	MCBK225	782114110591

BJ & BJH Main Breakers



BJ & BJH Main Breakers

Product Description

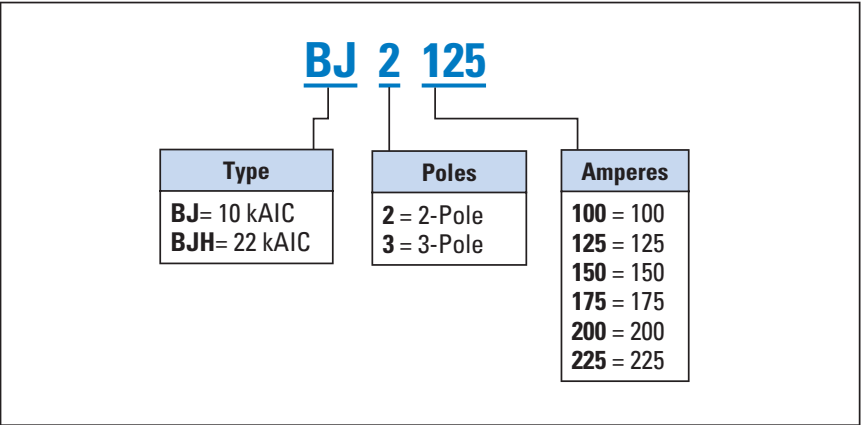
BJ breakers are replacement main circuit breakers in some older Westinghouse® and Bryant loadcenters. They are more commonly used as branch circuit breakers in current style Type BR loadcenters.

Features, Functions and Benefits

- ✓ Protects the entire main panel.
- ✓ Also can be used as a service disconnect.
- ✓ For use in single-phase and 3-phase loadcenters, 100 amperes and up.
- ✓ Full range from 100 to 225 amperes, 120/240 volts or 240 volts, 2- and 3-poles.
- ✓ 10 kAIC and 22 kAIC available.
- ✓ Five-year warranty.
- ✓ Meet UL 489, CSA, NEMA standards, Federal Spec Classification W-C 375 b/GEN.
- ✓ Plug-on circuit breaker.

Catalog Numbering System

TABLE 1-56. CATALOG NUMBERING SYSTEM



Data Tables

TABLE 1-57. TYPES BJ AND BJH BREAKERS, 1-INCH (25.4 MM) PER POLE, 120/240 OR 240 VAC, 10 AND 22 kAIC

2-Pole 120/240 Vac Common Trip Requires Four 1-Inch (25.4 mm) Spaces ①						3-Pole 240 Vac Common Trip Requires Six 1-Inch (25.4 mm) Spaces ②			
10 per Shelf Carton						5 per Shelf Carton			
10 kAIC		22 kAIC		Wire Size Range Cu/Al 60°C or 75°C		10 kAIC		22 kAIC	
Ampere Rating	Catalog Number	UPC Code	Catalog Number	UPC Code		Catalog Number	UPC Code	Catalog Number	UPC Code
100	BJ2100	782116484294	—	—	#2 – 300 kcmil	—	—	—	—
125	BJ2125	786676367004	BJH2125	786676367028		BJ3125	786676368308	BJH3125	786676367455
150	BJ2150	786676367103	BJH2150	786676367127		BJ3150	786676368353	BJH3150	786676367509
175	BJ2175	786676367158	BJH2175	786676367172		BJ3175	786676368407	BJH3175	786676367554
200	BJ2200	786676367202	BJH2200	786676367226		BJ3200	786676368452	BJH3200	786676367608
225	BJ2225	786676367257	BJH2225	786676367271		BJ3225	786676368506	BJH3225	786676367653

① Breaker uses two 1-inch (25.4 mm) pole spaces on left side and two 1-inch (25.4 mm) pole spaces on right side of loadcenter.
② Breaker uses three 1-inch (25.4 mm) pole spaces on left side and three 1-inch (25.4 mm) pole spaces on right side of loadcenter.

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Circuit Breakers

Loadcenters

CH 3/4" Single-Phase Main Breaker Loadcenters	
High Interrupting	2-4
Main Lug Only	2-6
CH 3/4" Three-Phase Loadcenters	
Main Breaker	2-8
Main Lug Only	2-9
CH 3/4" Single-Phase Convertible Loadcenters	
Indoor.	2-10
Outdoor	2-11
CH Single-Phase Main Breaker Value Packs	2-12
Enclosed Circuit Breakers and Main Breakers	2-13
CH 3/4" Loadcenter Accessories	2-15
CH 3/4" Mechanical Interlock Covers.	2-17
CH 3/4" Technical Data and Specifications	2-18
BR 1" Single-Phase Loadcenters	
Main Breaker	2-23
Main Lug Only	2-25
Main Lug Only — Non-Metallic	2-27
Copper Bus	2-27
BR 1" Three-Phase Loadcenters	
Main Breaker	2-28
Main Lug Only	2-29
BR 1" Convertible Loadcenters	
Copper Bus	2-30
BR 1" New York City Approved Loadcenters . . .	2-34
BR 1" Single-Phase Value Packs.	2-35
Enclosed Circuit Breakers and Main Breakers	2-37
BR 1" Loadcenter	
Accessories	2-39
Technical Data and Specifications	2-41
CH 3/4" Surge Loadcenters	2-44

CH Loadcenters



CH Loadcenters

Product Description

A loadcenter is called a breaker box, electrical box or even a fuse box. The main function is to take electricity supplied by the utility and distribute it throughout the home to feed lights and receptacles. Not only does the loadcenter distribute power, it also provides protection.

Warranty

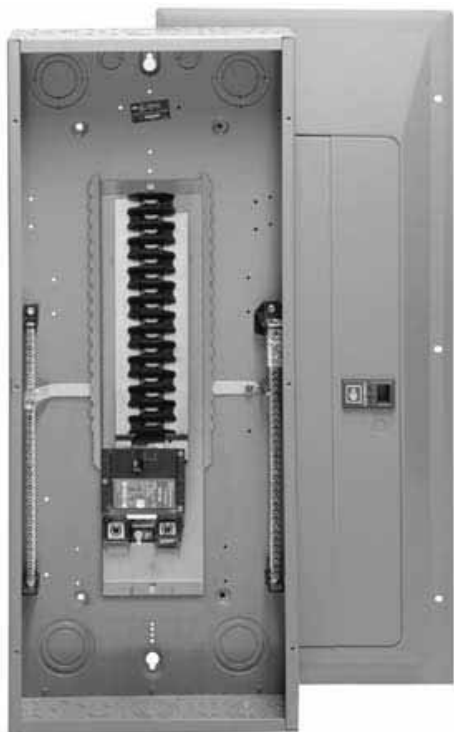
- ✓ Lifetime warranty on all CH loadcenters.
- ✓ Lifetime warranty on branch breakers.



***Single-Phase Main Circuit Breaker
Indoor Enclosure***



***Three-Phase Main Circuit Breaker
Outdoor Enclosure***



***Single-Phase Main Circuit Breaker
Bottom Feed — Indoor Enclosure***



***Cutler-Hammer Type CH
Breaker Family***



***Cutler-Hammer Type CH
Convertible Main Breaker
or Main Lug Only Family***



Separately Packaged Covers

Features, Benefits and Functions

Extra 1.5-inch (38.1 mm) Knockout for Bundling

Provides for easier installation, less installation time.

Top or Bottom Feed

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

Commercial Grade Main Breaker

- 25 kAIC series rated main breaker in 150 and 200 ampere loadcenters.
- 42 and 100 kAIC series ratings available.

Drywall Marking on Enclosure

Indicates proper mounting depth for flush applications.

Single-Piece Silver Flash-Plated Copper Bus

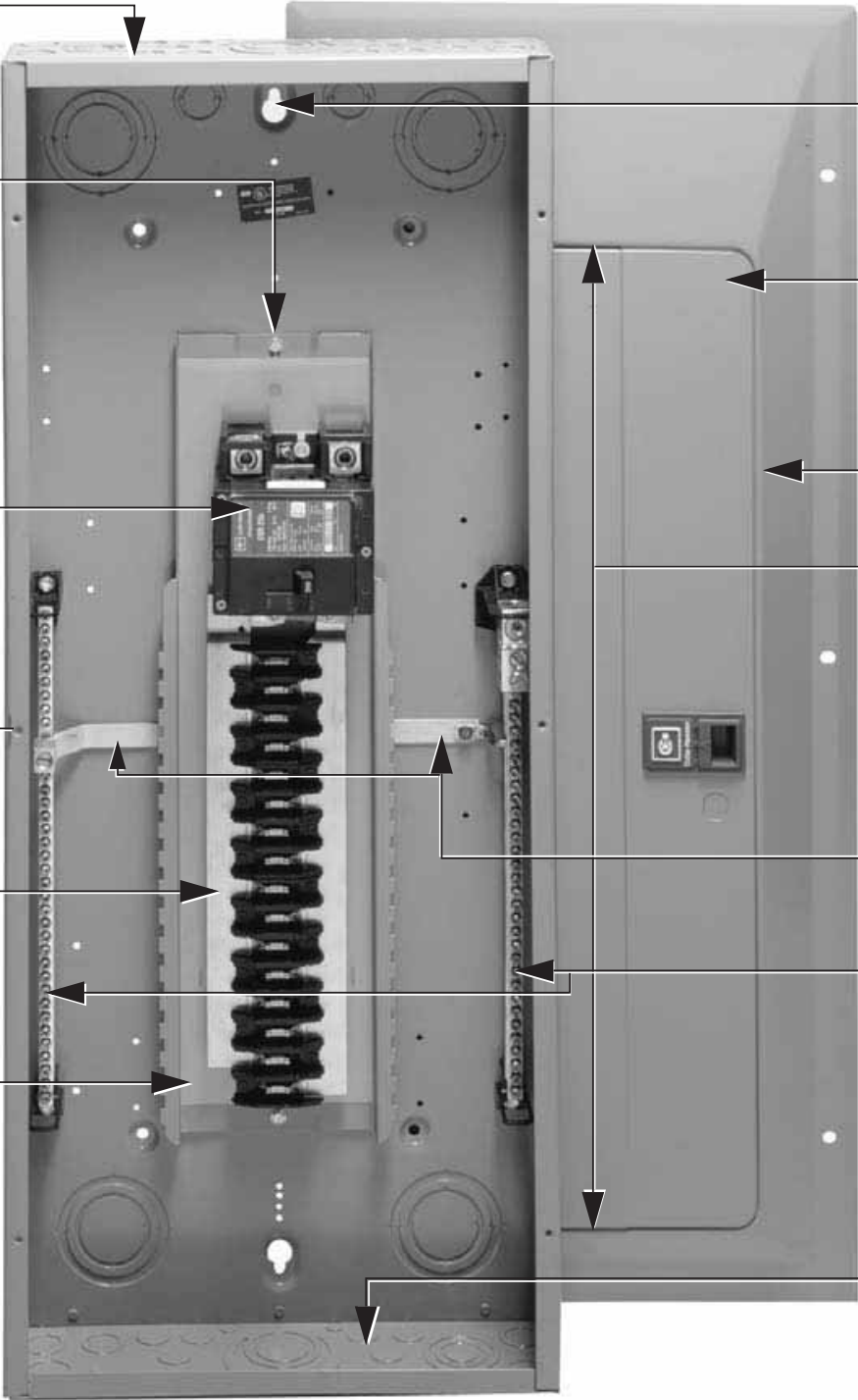
Provides superior conductivity throughout the entire product line.

Steel Backpan

- Provides positive, reliable breaker mounting.
- Single-piece designed for stability.

Convertible Styles Available

- Uses field-installable main breaker or main lug kits.
- Flexible inventory — same breaker is used in loadcenter and circuit breaker enclosures.



Single Keyhole Mounting

Just one keyhole at top and bottom for easier mounting and leveling.

Unique Sandalwood Finish

Immediately recognizable, aesthetically appealing, scratch resistant powder coating.

Separately Packaged Covers

- Full line of “true” surface and combination covers.
- Built-in flush leveling feature.
- Choice of circuit identification by breaker labels or circuit directory.

Neutral Design (For styles as indicated)

- Bonding strap is easily removable for sub-panel applications providing a ground and neutral.
- Factory bonded for service entrance applications providing a split neutral.
- Ample additional 2/0 lugs provided; no kits necessary.
- 200% size neutral.

Improved Endwall Knockouts

Larger KOs are balanced to enhance installed appearance and to ease use of existing wiring.

Type CH Loadcenter

2

Loadcenters

EATON CORPORATION Cutler-Hammer Retail Solutions Book — 1-877-932-9322 — Loadcenters — ©Copyright 2005

2-3

Catalog Numbering System

TABLE 2-1. LOADCENTERS 100 – 225 AMPERES AND 12 – 42 CIRCUITS
CATALOG NUMBERING SYSTEM

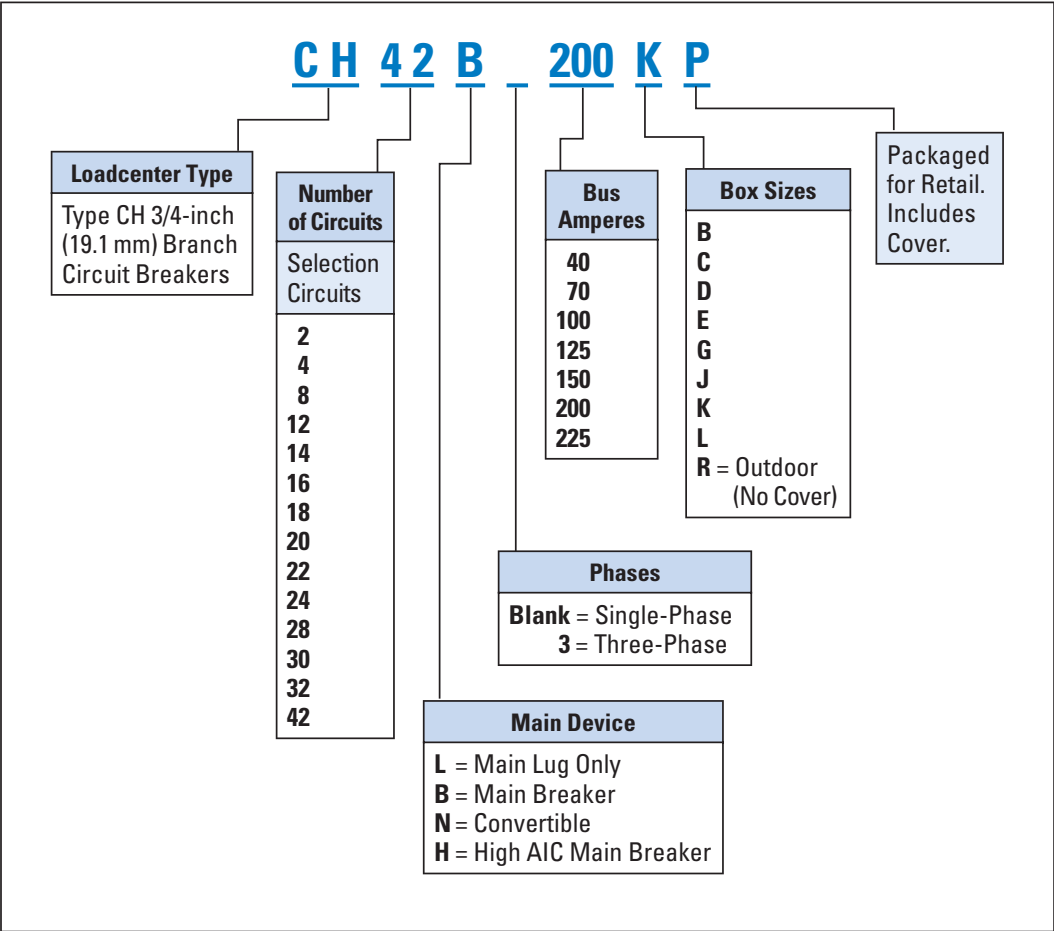
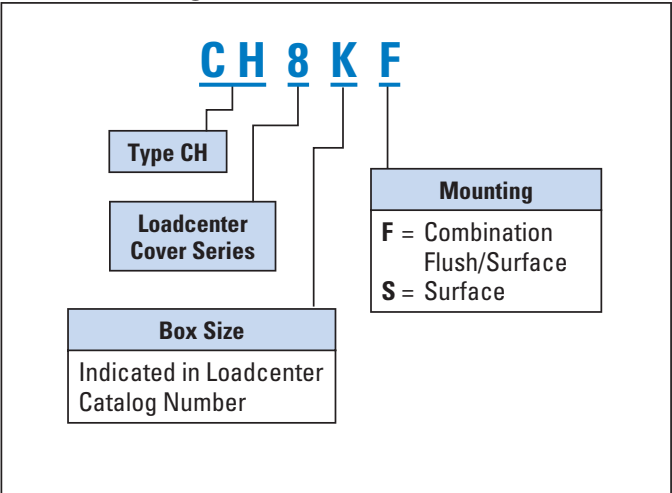


TABLE 2-2. INDOOR COVERS ORDERED SEPARATELY ①



① For catalog numbers not ending with a “P”.

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

Data Tables

SINGLE-PHASE — MAIN CIRCUIT BREAKER LOADCENTERS — 10,000/22,000/25,000 AMPERES INTERRUPTING CAPACITY

TABLE 2-3. SINGLE-PHASE 3-WIRE — 120/240 VAC — FACTORY BONDED SPLIT NEUTRAL

Main Breaker Type	Main Ampere Rating	Maximum Number 3/4-Inch (19.1 mm)		Encl. Type	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Breaker	Loadcenter ②③		Loadcenter Cover			
									Combination ④		Surface	
									Catalog Number	UPC Code	Catalog Number	UPC Code
CH 10 kAIC	100	22	22	Indoor	C	#6 – 1/0	CH22B100CP ⑤	782114007648	Included	—	—	—
	125	22	22	Indoor	C		CH22B125C ⑤	782113097633	CH8CF	782113098876	CH8CS	782113098869
CSR 25 kAIC ⑥	150	32	32	Indoor	J	#2 – 300 kcmil	CH32B150JP ⑤	782114007655	Included	—	—	—
	200	32	32	Indoor	J		CH32B200JP ⑤	782114007662	Included	—	—	—
		42	42	Indoor	K		CH42B200KP ⑤	782114007679	Included	—	—	—

② All main circuit breaker loadcenters are listed for use as service entrance equipment.
③ Loadcenters are factory bonded for service entrance applications. Remove bonding strap for separate neutral and ground bars for sub-feed applications.
④ Combination style covers may be used in surface or flush applications.
⑤ Indoor loadcenters can be top or bottom fed by rotating the enclosure and trim – 180 degrees.
⑥ 25 kAIC series combination rating is obtained when Types CH, CHT and CHP branch breakers are used with CSR main.
P Suffix = Specifically packaged for retail sales.

Dimensions for boxes on Pages 2-18 – 2-19.

SINGLE-PHASE — MAIN CIRCUIT BREAKER LOADCENTERS — 10,000/22,000/25,000 AMPERES INTERRUPTING CAPACITY

TABLE 2-4. SINGLE-PHASE 3-WIRE — 120/240 VAC — INSULATED/BONDABLE NEUTRAL

Main Breaker Type	Main Ampere Rating	Maximum Number 3/4-Inch (19.1 mm)		Encl. Type	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Breaker	Loadcenter ①		Loadcenter Cover			
		Space	Poles				Catalog Number	UPC Code	Combination ②		Surface	
									Catalog Number	UPC Code	Catalog Number	UPC Code
CH 10 kAIC	100	14	14	Indoor	B	#6 – 1/0	CH14B100BP ③	782114007631	Included	—	Included	—
		14	14	Outdoor	B		CH14B100R ④	782113097435	—	—	—	—
		18	18	Indoor	C		CH18B100C ③	782113097565	CH8CF	782113098876	CH8CS	782113098869
		18	18	Outdoor	C		CH18B100R ④	782113097558	—	—	—	—
		22	22	Outdoor	C		CH22B100R ④	782113097626	—	—	—	—
		30	30	Indoor	D		CH30B100D ③	782113097794	CH8DF	782113098890	CH8DS	782113098883
		30	30	Outdoor	D		CH30B100R ④	782113097824	—	—	—	—
	125	22	22	Outdoor	C	#6 – 1/0	CH22B125R ④	782113097640	—	—	—	—
		30	30	Indoor	D		CH30B125D ③	782113097831	CH8DF	782113098890	CH8DS	782113098883
		30	30	Outdoor	D		CH30B125R ④	782113317069	—	—	—	—
CSR 25 kAIC ⑥	150	8	8	Outdoor	E	#2 – 300 kcmil	CH8B150RF ④⑤	782113098425	—	—	—	—
		24	24	Indoor	E		CH24B150E ③	782113097756	CH8EF	782113098913	CH8ES	782113098906
		24	24	Outdoor	E		CH24B150R ④	782113097763	—	—	—	—
		32	32	Outdoor	J		CH32B150R ④	782113098098	—	—	—	—
	200	8	8	Outdoor	E	#2 – 300 kcmil	CH8B200RFP ④⑤	782114007686	Included	—	—	—
		24	24	Indoor	E		CH24B200E ③	782113097770	CH8EF	782113098913	CH8ES	782113098906
		24	24	Outdoor	E		CH24B200R ④	782113097787	—	—	—	—
		32	32	Outdoor	J		CH32B200R ④	782113098135	—	—	—	—
		42	42	Outdoor	K		CH42B200R ④	782113098227	—	—	—	—
	225	32	32	Indoor	J	#2 – 300 kcmil	CH32B225J ③	782114262856	CH8JF	782113098951	CH8JS	782113098944
		32	32	Outdoor	J		CH32B225R ④	782113098159	—	—	—	—
		42	32	Indoor	K		CH42B225K ③	782114227473	CH8KF	782113098975	CH8KS	782113098968
		42	32	Outdoor	K		CH42B225R ④	782113098395	—	—	—	—

① All main circuit breaker loadcenters are listed for use as service entrance equipment.
② Combination style covers may be used in surface or flush applications.
③ Indoor loadcenters can be top or bottom fed by rotating the enclosure and trim – 180 degrees.
④ Rainproof panels are furnished with hub closure plates.
⑤ Panel includes #4 – 300 kcmil feed-through lugs.
⑥ 25 kAIC series combination rating is obtained when Types CH, CHT and CHP branch breakers are used with CSR main.
P Suffix = Specifically packaged for retail sales.

TABLE 2-4. SINGLE-PHASE 3-WIRE — 120/240 VAC — INSULATED/BONDABLE NEUTRAL (CONTINUED)

Main Breaker Type	Main Ampere Rating	Maximum Number 3/4-Inch (19.1 mm)		Encl. Type	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Breaker	Commercial Loadcenter ⑦		Loadcenter Cover			
									Flush		Surface	
									Catalog Number	UPC Code	Catalog Number	UPC Code
LD 10 kAIC	300	42	42	Indoor	PM	(2) 400 – 500 kcmil	CH42PM300	782113218113	CH7PMF ⑧	782113218588	CH7PMS	782113218571
	400	42	42	Indoor	PM	(2) 400 – 500 kcmil	CH42PM400	782113218304	CH7PMF ⑧	782113218588	CH7PMS	782113218571

⑦ All main circuit breaker loadcenters are listed for use as service entrance equipment.
⑧ This cover is for flush applications only (not combination).
P Suffix = Specifically packaged for retail sales and comes with a combination cover that can be used for surface or flush mount applications.

Dimensions for boxes on Pages 2-18 – 2-19.

SINGLE-PHASE — MAIN CIRCUIT BREAKER LOADCENTERS 42,000/100,000 AMPERES INTERRUPTING CAPACITY

TABLE 2-5. SINGLE-PHASE 3-WIRE — 120/240 VAC — INSULATED/BONDABLE NEUTRAL

Main Breaker Type	Main Ampere Rating	Maximum Number 3/4-Inch (19.1 mm)		Encl. Type	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Breaker	Loadcenter ①		Loadcenter Cover			
							Catalog Number	UPC Code	Combination ②		Surface	
		Space	Poles						Catalog Number	UPC Code	Catalog Number	UPC Code
CHB4 42 kAIC ③	100	20	20	Indoor	C	#6 – 1/0	CH20H100C ④	782113097589	CH8CF	782113098876	CH8CS	782113098869
		20	20	Outdoor	C		CH20H100R ⑤	782113097596	—	—	—	—
		28	28	Indoor	D		CH28H100D ④	782113097800	CH8DF	782113098890	CH8DS	782113098883
		28	28	Outdoor	D		CH28H100R ⑤	782113097817	—	—	—	—
	125	28	28	Indoor	D	#6 – 1/0	CH28H125D ④	782113097848	CH8DF	782113098890	CH8DS	782113098883
		28	28	Outdoor	D		CH28H125R ⑤	782113097855	—	—	—	—
CHH 100 kAIC ⑥	150	32	32	Indoor	L	#2/0 – 300 kcmil	CH32H150L	782113098067	CH8LF	782113098999	CH8LS	782113098982
		32	32	Outdoor	L		CH32H150R ⑤	782113098074	—	—	—	—
	200	32	32	Indoor	L	#2/0 – 300 kcmil	CH32H200L	782113098104	CH8LF	782113098999	CH8LS	782113098982
		32	32	Outdoor	L		CH32H200R ⑤	782113098111	—	—	—	—
		42	42	Indoor	L		CH42H200L	782113098197	CH8LF	782113098999	CH8LS	782113098982
		42	42	Outdoor	L		CH42H200R ⑤	782113098203	—	—	—	—
	225	42	42	Indoor	L	#2/0 – 300 kcmil	CH42H225L	782113098364	CH8LF	782113098999	CH8LS	782113098982
		42	42	Outdoor	L		CH42H225R ⑤	782113098371	—	—	—	—

- ① All main circuit breaker loadcenters are listed for use as service entrance equipment.
② Combination style covers may be used in surface or flush applications.
③ Series rated for 42 kAIC with all CH, CHT and CHP breakers.
④ Indoor loadcenters can be top or bottom fed by rotating the enclosure and trim – 180 degrees.
⑤ Rainproof panels are furnished with hub closure plates.
⑥ Series rated for 100 kAIC with all CH, CHT and CHP breakers.

SINGLE-PHASE — MAIN LUG LOADCENTERS

TABLE 2-6. SINGLE-PHASE 3-WIRE — 120/240 VAC — INSULATED/BONDABLE NEUTRAL

Main Ampere Rating	Maximum Number 3/4-Inch (19.1 mm)		Enclosure Type	Type of Trim (Included)	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Lugs	Loadcenter	
	Space	Poles					Catalog Number	UPC Code
40	2	4 ⑦	Indoor	Surface no Door	5	#14 – 6	CH2L40SP ⑧	782114190418
	2	4 ⑦	Outdoor	—	5R		CH2L40RP ⑧⑨	782114190425
	2	4 ⑦	Indoor	Flush no Door	5		CH2L40FP ⑧	782114190401
70	2	4 ⑦	Indoor	Surface no Door	5	#14 – 2	CH2L70SP ⑧	782114190449
	2	4 ⑦	Outdoor	—	5R		CH2L70RP ⑧⑨	782114190456
	2	4 ⑦	Indoor	Flush no Door	5		CH2L70FP ⑧	782114190432
125	2	4 ⑦	Indoor	Surface no Door	6	#14 – 1/0	CH2L125SP ⑧	782114190470
	2	4 ⑦	Outdoor	—	6R		CH2L125RP ⑧⑨	782114190487
	2	4 ⑦	Indoor	Flush no Door	6		CH2L125FP ⑧	782114294444
	4	8 ⑦	Indoor	Surface no Door	7	#14 – 1/0	CH4L125SP ⑩	782114190500
	4	8 ⑦	Outdoor	—	7R		CH4L125RP ⑨⑩	782114190517
	4	8 ⑦	Indoor	Flush no Door	7		CH4L125FP ⑩	782114190494
	8	16 ⑦	Indoor	Surface no Door	7	#6 – 1/0	CH8L125SP ⑪	782114190531
	8	16 ⑦	Outdoor	—	7R		CH8L125RP ⑨⑪	782114190548
	8	16 ⑦	Indoor	Flush no Door	7		CH8L125FP ⑪	782114190524

- ⑦ Requires the use of CHNT breakers.
⑧ 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 (see Article 408-34 of the NEC®).
⑨ Rainproof panels are furnished with hub closure plates.
⑩ 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 (see Article 408.34 of the NEC).
⑪ 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 (see Article 408.34 of the NEC).
P Suffix = Specifically packaged for retail sales.

Dimensions for boxes on Pages 2-18 – 2-19.

SINGLE-PHASE — MAIN LUG LOADCENTERS 42,000/100,000 AMPERES INTERRUPTING CAPACITY

TABLE 2-7. SINGLE-PHASE 3-WIRE — 120/240 VAC — INSULATED/BONDABLE NEUTRAL

Main Ampere Rating	Maximum Number 3/4-Inch (19.1 mm)			Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Breaker	Loadcenter		Loadcenter Cover			
	Space	Poles	Encl. Type			Catalog Number ①	UPC Code	Combination		Surface	
								Catalog Number	UPC Code	Catalog Number	UPC Code
125	12	12	Indoor	B	#6 – 2/0	CH12L125BP ③④	782114007822	Included	—	—	—
	12	12	Outdoor	B		CH12L125RP ③④⑤	782114007839	Included	—	—	—
	16	16	Indoor	B		CH16L125B ③④	782113097473	CH8BF	782113098852	CH8BS	782113098845
	16	16	Outdoor	B		CH16L125R ③④⑤	782113097480	—	—	—	—
	20	20	Indoor	C		CH20L125C ③④	782113097572	CH8CF	782113098876	CH8CS	782113098869
	20	20	Outdoor	C		CH20L125R ③④⑤	782113097602	—	—	—	—
	24	24	Indoor	C		CH24L125CP ③④	782114007860	Included	—	—	—
	24	24	Outdoor	C		CH24L125RP ③④⑤	782114007877	—	—	—	—
150	24	24	Indoor	D	#4 – 300 kcmil	CH24L150D ③④	782113097718	CH8DF	782113098890	CH8DS	782113098883
	24	24	Outdoor	D		CH24L150R ③⑤⑥	782113097725	—	—	—	—
	32	32	Indoor	D		CH32L150D ③④	782113098029	CH8DF	782113098890	CH8DS	782113098883
	32	32	Outdoor	D		CH32L150R ③⑤⑥	782113098050	—	—	—	—
200	12	12	Indoor	D	#4 – 300 kcmil	CH12L200D ③④	782113097398	CH8DF	782113098890	CH8DS	782113098883
	12	12	Outdoor	D		CH12L200R ③⑤⑥	782113097404	—	—	—	—
	16	16	Indoor	D		CH16L200D ③④	782113097497	CH8DF	782113098890	CH8DS	782113098883
	16	16	Outdoor	D		CH16L200R ③⑤⑥	782113097503	—	—	—	—
225	24	24	Indoor	D	#4 – 300 kcmil	CH24L225D ③④	782113097732	CH8DF	782113098890	CH8DS	782113098883
	24	24	Outdoor	D		CH24L225R ③⑤⑥	782113097749	—	—	—	—
	32	32	Indoor	D		CH32L225DP ③④	782114107768	Included	—	—	—
	32	32	Outdoor	D		CH32L225R ③⑤⑥	782113098043	—	—	—	—
	42	42	Indoor	G		CH42L225GP ⑥⑦	782114007945	Included	—	—	—
	42	42	Outdoor	G		CH42L225RP ⑤⑥⑦	782114007952	—	—	—	—
400	42	42	Indoor	P	(2) 1/0 – 300 kcmil (1) 750 kcmil	CH42PL400 ⑧	782113342948	CH7PF ⑨	782113218564	CH7PS	782113218557

① Includes factory-installed ground bar.
② Requires the use of CHT breakers.
③ Ground bar GBK14 is installed.
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. Suitable for use as service equipment when not more than six disconnecting means are provided and when not used as a lighting and appliance panelboard (see Article 408.34 of the NEC).
⑤ Rainproof panels are furnished with hub closure plates.
⑥ 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.
⑦ Ground bar GBK21 is installed.
⑧ 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.
⑨ This cover is for flush application only (not combination).
P Suffix = Specifically packaged for retail sales and comes with a combination cover that can be used for surface or flush mount applications.

Dimensions for boxes on Pages 2-18 – 2-19.

3-PHASE — MAIN CIRCUIT BREAKER LOADCENTERS 10,000/100,000 AMPERES INTERRUPTING CAPACITY

TABLE 2-8. 3-PHASE 4-WIRE — 208Y/120 VAC OR 240 VAC INSULATED/BONDABLE NEUTRAL

Main Breaker Type	Main Ampere Rating	Maximum Number 3/4-Inch (19.1 mm)		Encl. Type	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Breaker	Loadcenter ①		Loadcenter Cover				
		Space	Poles				Catalog Number	UPC Code	Combination		Surface		
									Catalog Number	UPC Code	Catalog Number	UPC Code	
CC 10 kAIC	150	30	30	Indoor	L	#1 – 4/0	CH30B3150L	782113097947	CH8LF	782113098999	CH8LS	782113098982	
		30	30	Outdoor	L		CH30B3150R ②	782113097954	—	—	—	—	
	200	30	30	Indoor	L		#2/0 – 300 kcmil	CH30B3200L	782113097961	CH8LF	782113098999	CH8LS	782113098982
		30	30	Outdoor	L			CH30B3200R ②	782113097992	—	—	—	—
		42	42	Indoor	L			CH42B3200L	782113098265	CH8LF	782113098999	CH8LS	782113098982
		42	42	Outdoor	L			CH42B3200R ②	782113098296	—	—	—	—
	225	30	30	Indoor	L			CH30B3225L	782113098005	CH8LF	782113098999	CH8LS	782113098982
		30	30	Outdoor	L			CH30B3225R ②	782113098012	—	—	—	—
		42	42	Indoor	L			CH42B3225L	782113098302	CH8LF	782113098999	CH8LS	782113098982
		42	42	Outdoor	L			CH42B3225R ②	782113098333	—	—	—	—
LD 10 kAIC	300	42	42	Indoor	PM	(2) 3/0 – 350 kcmil	CH424PM300	782113218311	CH7PMF ③	782113218588	CH7PMS	782113218571	
	400	42	42	Indoor	PM	(2) 3/0 – 350 kcmil	CH424PM400	782113218328	CH7PMF ③	782113218588	CH7PMS	782113218571	
CHH 100 kAIC ④	200	30	30	Indoor	L	#2/0 – 300 kcmil	CH30H3200L	782113097978	CH8LF	782113098999	CH8LS	782113098982	
		30	30	Outdoor	L		CH30H3200R ②	782113097985	—	—	—	—	
		42	42	Indoor	L		CH42H3200L	782113098272	CH8LF	782113098999	CH8LS	782113098982	
		42	42	Outdoor	L		CH42H3200R ②	782113098289	—	—	—	—	
	225	42	42	Indoor	L			CH42H3225L	782113098319	CH8LF	782113098999	CH8LS	782113098982
		42	42	Outdoor	L			CH42H3225R ②	782113098326	—	—	—	—

① All main circuit breaker loadcenters are listed for use as service entrance equipment.
② Rainproof loadcenters are furnished with hub closure plates.
③ This cover for flush application only (not combination).
④ 100 kAIC series combination rating is obtained when Types CH and CHP branch breakers are used with CHH main.

Dimensions for boxes on Pages 2-18 – 2-19.

3-PHASE — MAIN LUG LOADCENTERS

TABLE 2-9. 3-PHASE 4-WIRE — 208Y/120 VAC OR 240 VAC INSULATED/BONDABLE NEUTRAL

Main Ampere Rating	Maximum Number 3/4-Inch (19.1 mm)		Encl. Type	Box Size	Type of Trim Included	Wire Size Range Cu/Al 60°C or 75°C for Main Breaker	Loadcenter		Loadcenter Cover			
	Space	Poles					Catalog Number	UPC Code	Combination		Surface	
									Catalog Number	UPC Code	Catalog Number	UPC Code
125	6	12 ①	Indoor	7	Surface ②	#14 – 1/0	CH6L3125SP ③	782114229231	—	—	—	—
	6	12 ①	Outdoor	7R	—		CH6L3125RP ③	782114229255	—	—	—	—
	6	12 ①	Indoor	7	Flush ②		CH6L3125FP ③	782114229248	—	—	—	—
125	12	12	Indoor	B	—	#14 – 1/0	CH12L3125B ④⑤⑥	782113097350	CH8BF	782113098852	CH8BS	782113098845
	12	12	Outdoor	B	—		CH12L3125R ④⑤⑥	782113097367	—	—	—	—
	18	18	Indoor	C	—		CH18L3125C ④⑤	782113097534	CH8CF	782113098876	CH8CS	782113098869
	18	18	Outdoor	C	—		CH18L3125R ④⑤⑥	782113097541	—	—	—	—
	24	24	Indoor	C	—		CH24L3125C ④⑤	782113097657	CH8CF	782113098876	CH8CS	782113098869
	24	24	Outdoor	C	—		CH24L3125R ④⑤⑥	782113097664	—	—	—	—
150	30	30	Indoor	D	—	#4 – 300 kcmil	CH30L3150D ④⑤	782113097909	CH8DF	782113098890	CH8DS	782113098883
	30	30	Outdoor	D	—		CH30L3150R ④⑥⑦	782113097916	—	—	—	—
225	24	24	Indoor	D	—	#4 – 300 kcmil	CH24L3225D ④⑤	782113097671	CH8DF	782113098890	CH8DS	782113098883
	24	24	Outdoor	D	—		CH24L3225R ④⑥⑦	782113097688	—	—	—	—
	30	30	Indoor	D	—		CH30L3225D ④⑤	782113097923	CH8DF	782113098890	CH8DS	782113098883
	30	30	Outdoor	D	—		CH30L3225R ④⑥⑦	782113097930	—	—	—	—
	42	42	Indoor	G	—		CH42L3225G ⑦⑧	782113098241	CH8GF	782113098937	CH8GS	782113098920
	42	42	Outdoor	G	—		CH42L3225R ⑥⑦⑧	782113098258	—	—	—	—
400	42	42	Indoor	P	—	(2) 1/0 – 300 kcmil (1) 750 kcmil	CH424PL400 ⑨	782113342955	CH7PF ⑩	782113218564	CH7PS	782113218557

① Requires the use of CHNT breakers.

② No door.

③ 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 (see Article 408-34 of the NEC).

④ Ground bar GBK14 is installed.

⑤ 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. 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 (see Article 408-34 of the NEC).

⑥ Rainproof panels are furnished with hub closure plates.

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 kit catalog number CH125RB.

⑧ Ground bar 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 must be a type CHB.
The breaker cannot be a Type CH.

⑩ This cover is for flush application only (not combination).

P Suffix = Specifically packaged for retail sales.

Dimensions for boxes on Pages 2-18 – 2-19.

CONVERTIBLE LOADCENTERS MAIN BREAKER OR MAIN LUG CENTER — BASE UNITS AND MAIN DEVICES 10,000/25,000 AMPERES INTERRUPTING CAPACITY — COMPLETE ASSEMBLY CONSISTS OF: LOADCENTER, COVER, AND EITHER MAIN BREAKER KIT OR MAIN LUG KIT

Note: Interrupting rating depends on main circuit breaker selected.

TABLE 2-10. INDOOR — SINGLE-PHASE 3-WIRE — 120/240 V — FACTORY BONDED SPLIT NEUTRAL — TOP OR BOTTOM FEED

Max. Main Ampere Rating	Max. Number of Single Poles	Box Size	Loadcenter Box and Panel			Loadcenter Cover				
						Combination		Surface		kAIC Rating
			Catalog Number ^{①②}	UPC Code	Wire Size Range Cu/Al 60°C or 75°C	Catalog Number	UPC Code	Catalog Number	UPC Code	
125	22	C	CH22N125C	782113098494	#10 – 1/0	CH8CF	782113098876	CH8CS	782113098869	10
200	32	J	CH32N200J	782113098500	#4 – 300 kcmil	CH8JF	782113098951	CH8JS	782113098944	25
225	42	K	CH42N225K	782113098517	#4 – 300 kcmil	CH8KF	782113098975	CH8KS	782113098968	25

① Panel does not include main. Order main breaker or main lug kit separately.
 ② Loadcenters are factory bonded for service entrance applications. Remove bonding strap for separate neutral and ground bars for sub-feed applications.

TABLE 2-11. MAIN LUG/MAIN BREAKER KIT

Max. Main Ampere Rating	Max. Number of Single Poles	Main Lug Kit			Main Breaker Kit		
		Catalog Number	UPC Code	Wire Size Range Cu/Al 60°C or 75°C	Catalog Number	UPC Code	kAIC Rating
125	22	CHL125N	782113098579	#10 –1/0	CH2100N CH2125N	782113098555 782113098562	10
200	32	CHL225N	782113098555	#2 – 300 kcmil	CSR2125N ^{③④} CSR2150N ^{③④} CSR2175N ^{③④} CSR2200N ^{③④}	782114019733 782113098449 782113098456 782113098463	25
225	42	CHL225N	782114019733	#2 – 300 kcmil	CSR2125N ^{③④} CSR2150N ^{③④} CSR2175N ^{③④} CSR2200N ^{③④} CSR2225N ^{③④}	782114019733 782113098449 782113098456 782113098463 782114106242	25

③ 25 kAIC series combination rating is obtained when Types CH, CHT and CHP branch breakers are used with CSR main.
 ④ CSR breakers include line lugs only as standard.

Dimensions for boxes on Pages 2-18 – 2-19.

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Loadcenters

CONVERTIBLE LOADCENTERS MAIN BREAKER OR MAIN LUG CENTER — BASE UNITS AND MAIN DEVICES 10,000/25,000 AMPERES INTERRUPTING CAPACITY — COMPLETE ASSEMBLY CONSISTS OF: LOADCENTER, COVER, AND EITHER MAIN BREAKER KIT OR MAIN LUG KIT

TABLE 2-12. OUTDOOR — SINGLE-PHASE 3-WIRE — 120/240 V — INSULATED/BONDABLE NEUTRAL

Maximum Main Ampere Rating	Maximum Number of Single Poles	Box Size	Loadcenter Box and Panel		Main Lug Kit			Main Breaker Kit			
			Catalog Number ①	UPC Code	Wire Size Range Cu/Al 60°C or 75°C	Catalog Number	UPC Code	Wire Size Range Cu/Al 60°C or 75°C	Catalog Number	UPC Code	kAIC Rating
200	8	E	CH8N200RF ②③	782113098418	#4 – 300 kcmil	CHL225N	782113098487	#2 – 300 kcmil	CSR2125N CSR2150N CSR2175N CSR2200N	782114019733 782113098449 782113098456 782113098463	25
125	22	C	CH22N125R ②	782113098524	#10 – 1/0	CHL125N	782113098579	#10 – 1/0	CH2100N CH2125N	782113098555 782113098562	10
200	32	J	CH32N200R ②	782113098531	#4 – 300 kcmil	CHL225N	782113098487	#2 – 300 kcmil	CSR2125N ④⑤ CSR2150N ④⑤ CSR2175N ④⑤ CSR2200N ④⑤	782114019733 782113098449 782113098456 782113098463	25
225	42	K	CH42N225R ②	782113098548	#4 – 300 kcmil	CHL225N	782113098487	#2 – 300 kcmil	CSR2125N ④⑤ CSR2150N ④⑤ CSR2175N ④⑤ CSR2200N ④⑤ CSR2225N ④⑤	782114019733 782113098449 782113098456 782113098463 782114106242	25

① Panel does not include main. Order main breaker or main lug kit separately.
② Rainproof panels are furnished with hub closure plates.
③ Includes feed-through lugs for both phase and neutral conductors.
④ 25 kAIC series combination rating is obtained when Types CH, CHT and CHP branch breakers are used with CSR main.
⑤ SR breakers include line lugs only as standard.

Dimensions for boxes on Pages 2-18 – 2-19.

VALUE PACKS

TABLE 2-13. VALUE PACKS — SINGLE-PHASE — INDOOR — MAIN CIRCUIT BREAKER LOADCENTERS — COMBINATION COVER AND BREAKERS INCLUDED SINGLE-PHASE 3-WIRE — 120/240 VAC — FACTORY BONDED SPLIT NEUTRAL

Main Breaker Type	Maximum Main Ampere Rating	Maximum Number 3/4-Inch (19.1 mm) Single Poles	Box Size	Wire Range Size	Breakers Included	Loadcenter	
						Catalog Number	UPC Code
CH 10 kAIC	100	22	C	#6 – 1/0	5-CH120 & 1-CH230	CH22B100V	782114290255
CSR 25 kAIC	200 200	32 42	J K	#2 – 300 kcmil		CH32B200V CH42B200V	782114290262 782114810880

Dimensions for boxes on Pages 2-18 – 2-19.

CIRCUIT BREAKER UNIT ENCLOSURES 10,000/25,000 AMPERES INTERRUPTING CAPACITY



TABLE 2-14. CIRCUIT BREAKER UNIT ENCLOSURES

Main Ampere Rating	Circuit Breaker Type	Wire Size Range Cu/Al 60°C or 75°C	Unit Enclosure				Unit Enclosure			
			Encl. Type	Flush Cover		Surface Cover		Encl. Type	Rainproof NEMA Type 3R	
				Catalog Number	UPC Code	Catalog Number	UPC Code		Catalog Number	UPC Code
Type ECB Circuit Breaker Unit Enclosures — Order Type CSR Circuit Breaker Separately (Unit Enclosure Includes Lug Tree Kit) Single-Phase 3-Wire — 240 Vac Maximum										
225	CSR 25 kAIC	①	Indoor	ECB225F ②③	782113098753	ECB225S ②③	782113098746	Outdoor	ECB225R ②③④	782113098760
Type ECB Circuit Breaker Unit Enclosures — Includes Factory Installed CSR Circuit Breaker Single-Phase 3-Wire — 240 Vac Maximum										
150	CSR2150N 25 kAIC	①	—	—	—	—	—	Outdoor	ECB150RB ③④⑤	782114225240
200	CSR2200N 25 kAIC		—	—	—	—	—	Outdoor	ECB200RB ③④⑥	782114225257
Type ECC Circuit Breaker Unit Enclosures — Order Type CC Circuit Breakers Separately Single-Phase 3-Wire/3-Phase 4-Wire — 240 Vac Maximum										
225	CC 10 kAIC	①	Indoor	ECC225F ②③	782114225196	ECC225S ②③	782114225202	Outdoor	ECC225R ②③④	782114225219

- ① Wire size is determined by the circuit breaker installed in enclosure. Maximum wire size and ampere rating is determined by table below.
② Order circuit breaker separately.
③ One ground lug accepting (1) #14 – #2 is factory installed. Also, there are pre-drilled holes to accept a GBK5 ground bar.
④ Rainproof panels are furnished with hub closures plates.
⑤ CSR2150N factory-installed circuit breaker.
⑥ CSR2200N factory-installed circuit breaker.

Maximum Ampere Rating	Wire/Application	Maximum Wire Size
200	Aluminum – Standard	250 kcmil
225	Aluminum – Service Entrance	250 kcmil
225	Copper – Standard and Service Entrance	250 kcmil

CIRCUIT BREAKER UNIT ENCLOSURES
10,000/25,000 AMPERES INTERRUPTING CAPACITY

TABLE 2-15. TYPE CSR CIRCUIT BREAKERS 120/240 VAC — 25 kAIC FOR USE IN TYPE ECB UNIT ENCLOSURES

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C for Line Terminals	2-Pole Breakers	
		25 kAIC	
		Catalog Number	UPC Code
125	#2 – 300 kcmil	CSR2125N	782114019733
150		CSR2150N	782113098449
175		CSR2175N	782113098456
200		CSR2200N	782113098463
225		CSR2225N	782114106242

TABLE 2-16. CSR LUG TREE KIT FOR REPLACEMENT PURPOSES ONLY — FOR USE IN TYPE ECB UNIT ENCLOSURES

Ampere Rating	Description	Wire Size Range Cu/Al 60°C or 75°C for Line Terminals	Catalog Number	UPC Code
225	For use on 125,150, 175, 200 and 225 Ampere CSR Breakers	#2 – 300 kcmil	MCBK225	782114110591

TABLE 2-17. TYPE CC CIRCUIT BREAKERS 240 VAC — 10 kAIC FOR USE IN TYPE ECC UNIT ENCLOSURES

		Type CC 10 kAIC		Type CC Hi-Mag 10 kAIC	
Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C for Line Terminals	Catalog Number	UPC Code	Catalog Number	UPC Code
2-Pole					
100	#4 – 4/0	CC2100	782113386546	CC2100HM	782113828589
125		CC2125	782113266565	CC2125HM	782113828596
150		CC2150	782113266572	CC2150HM	782113828602
175	#2/0 – 300 kcmil	CC2175	782113266589	CC2175HM	782113828619
200		CC2200	782113266596	CC2200HM	782113828626
225		CC2225	782113266602	CC2225HM	782113828633
3-Pole					
100	#4 – 4/0	CC3100	782113386553	CC3100HM	782113828640
125		CC3125	782113266619	CC3125HM	782113828657
150		CC3150	782113266626	CC3150HM	782113828664
175	#2/0 – 300 kcmil	CC3175	782113266633	CC3175HM	782113828671
200		CC3200	782113266640	CC3200HM	782113828688
225		CC3225	782113266657	CC3225HM	782113828695

TABLE 2-18. MAIN BREAKER KITS

Ampere Rating	Catalog Number	UPC Code
225	CSH2225N	782113099774
200	CSH2200N	782113099767
150	CSH2150N	782113099743
100	CSH2100N	782116318889

Accessories

LOADCENTER ACCESSORIES

TABLE 2-19. FIELD INSTALLATION KITS AND PARTS

Number of Poles	Ampere Rating	No. of 1-Inch (25.4 mm) Spaces Needed	Wire Size Range Cu/Al 60°C or 75°C	Ordering Qty. ①	Catalog Number	UPC Code
Sub-Feed Lug Blocks						
2	125	2	#1/0 Maximum	1	CHSF2125	782113099132
3	125	3	#1/0 Maximum		CHSF3125	782113099149
Neutral/Ground Lug Add-on Neutral or Ground Lug			#2/0 Maximum #3/0 Maximum 300 kcmil Maximum	1	NL20 NL30 NL300	782113099156 782113099163 782113099170
Filler Plates — 3/4-Inch (19.1 mm) Circuit Breaker Space (comes in a bag of 5 filler plates)				5	CHFPF	786676000437
Door Lock — 12 through 42 Circuits, and 100 through 225 A				1	TDL	782113099040
Sandlewood Spray Paint				1	SPCSW	782113098784
ANSI-61 Light Gray Touchup Paint for Outdoor Loadcenters				1	SPC61	782113098777
Isolated Neutral Assembly (Computer Circuits)				1	BINA	782113099439
Circuit Directory — Adhesive Backed				10	TCD	782113099019
Cover Screws				25	LCCS	782113099583
Cover Replacement Latch 14.31 Inch (363.6 mm) Wide Loadcenters Only				1	CHRLS	782113099255
Circuit Marking Strip (next to breakers)				10	CHMS	782113099729
Circuit Identification Label (preprinted breaker labels)				25	CHBL	782113099712
Series Rated Caution Label				25	SRL	782113099002
Branch Circuit Numbering Strip				20	CHNS	782114090091

① Must be purchased in multiples of ordering quantities indicated.

TABLE 2-20. FIELD INSTALLATION RAINPROOF CONDUIT HUBS ②

Description	Conduit Size Inches (mm)	Catalog Number	UPC Code
Group 1 — For use with 70, 100 and 125 Ampere MLO and MCB Loadcenters and Circuit Breaker Enclosures	.75 (19.1)	DS075H1P	786676805001
	1.00 (25.4)	DS100H1P	786676805056
	1.25 (31.8)	DS125H1P	786676805100
	1.50 (38.1)	DS150H1P	786676805155
	2.00 (50.8)	DS200H1P	786676805209
Group 2 — For use with 150, 200 and 225 Ampere MLO and MCB Loadcenters and Circuit Breaker Enclosure	2.00 (50.8)	DS200H2P	786676462068
	2.50 (63.5)	DS250H2P	786676000505
	3.00 (76.2)	DS300H2P	786676000529
Adapter Kit — Allows Installing a Group 1 Hub on Devices Arranged for Group 2 Hubs	—	DS900AP	782113099422
Group 1 — Small Blank Hub Closure Plate	—	CS900CP1	782114014394
Group 2 — Large Blank Hub Closure Plate	—	CS900CP2	782114014400

② Ordering quantity for all catalog numbers is one. Must be purchased in multiples.

TABLE 2-21. CLAMSHELL ACCESSORIES

Description	Catalog Number	UPC Code
Field Installation Kits and Parts		
Main or Sub-Feed Lug Block	CHSF2125CS	782114793268
Filler Plates	CHFPFCS	782114793213
Cover Screws	LCCSCS	782114793428
Circuit Identification Labels	CHBLCS	782114793206
Rainproof Conduit Hubs		
Type 1 Hub	DS075H1CS	782114793275
Type 1 Hub	DS100H1CS	782114793282
Type 1 Hub	DS125H1CS	782114793299
Type 1 Hub	DS150H1CS	782114793305
Type 2 Hub	DS200H2CS	782114793312



LOADCENTER ACCESSORIES

TABLE 2-22. GROUND BAR KITS

Description (See Legend)	Length Inches (mm)	Ordering Quantity	Catalog Number	UPC Code
	2.54 (64.5)	1	GBK5P ^①	786676460804
	3.59 (91.2)	1	GBK520 ^①	782114014356
	4.29 (109.0)	1	GBK10P ^①	782114462058
	5.34 (135.6)	1	GBK1020 ^①	782114014554
	4.61 (117.1)	1	GBK13 ^①	782114220610
	5.69 (144.5)	1	GBK14P ^①	786676461153
	6.74 (171.2)	1	GBK1420 ^①	782113099576
	8.14 (206.8)	1	GBK21P ^①	786676461252
	9.19 (233.4)	1	GBK2120 ^①	782113099552
	5.78 (146.8)	1	BRGBK39512 ^{②③}	786676449359
	1.84 (46.7)	1	GB4NMP ^④	786676378031

- ① Distance between mounting holes is 1.75 inches (44.5 mm).
② For single- and 3-phase 400 and 600 ampere applications.
③ Distance between mounting holes is 2.34 inches (59.5 mm).
④ For non-metallic enclosures. Snaps into molded base.

Ground Bar Legend

- (3) #14 – #10 Cu/Al or (1) #14 – #4 Cu/Al
- (1) #6 – 2/0 Cu/Al
- ▣ (1) #14 – #6 Cu/Al or (2) #14 – #12 Cu/Al
- ▢ (1) 1/8 – 14 or (3) #10 – 12 Cu/Al
- ◐ (1) #14 – 1/0 Cu/Al or (3) #14 – #10 Cu/Al
- ◑ (1) #6 – 14 Cu/Al or (2) #1/0 – 14 Cu/Al
- Mounting Hole

TABLE 2-23. CLAMSHELL ACCESSORIES

Description	Catalog Number	UPC Code
Ground Bar Kit	GBK5CS	782114793411
Ground Bar Kit	GBK520CS	782114793404
Ground Bar Kit	GBK10CS	782114793343
Ground Bar Kit	GBK1020CS	782114793336
Ground Bar Kit	GBK13CS	782114793350
Ground Bar Kit	GBK14CS	782114793374
Ground Bar Kit	GBK21CS	782114793398



GBK14



BRGBK39512

Related Products

MECHANICAL INTERLOCK COVERS

Covers mechanically interlock two breakers designed for use with a portable generator. 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.



CH8BRM Type A



CH8EFM Type B

TABLE 2-24. MECHANICAL INTERLOCKS

Type	Fits Loadcenter Catalog Numbers	Mechanical Interlock Panel Cover			
		Flush		Surface	
		Catalog Number	UPC Code	Catalog Number	UPC Code
A	CH12L125B, CH16L125B, CH12L3125B, CH14B100B	CH8BFM	782113099590	CH8BSM	782113099606
	CH20L125C, CH24L125C, CH18L3125C, CH24L3125C, CH22B100C, CH22N100C	CH8CFM	782113099613	CH8CSM	782113099620
	CH24L150D, CH32L150D, CH24L3225D, CH30L3150D	CH8DFM	782113099644	CH8DSM	782113099637
	CH42L225G, CH42L3225G	CH8GFM	782113099675	CH8GSM	782113099682
	Inner Cover of Box B Raintight Inner Cover of Box C Raintight	— —	— —	CH8BRM CH8CRM	782113099651 782113099668
B	CH24B150E, CH24B200E	CH8EFM	782114799390	CH8ESM	782114799406
	CH32B150J, CH32B200J, CH3242B200J, CH32N200J, CH32B225J	CH8JFM	782114799413	CH8JSM	782114799420
	CH42B200K, CH42N200K, CH42B225K	CH8KFM	782114799437	CH8KSM	782114799444
	CHPC32B150L, CHPC32B200L, CHPC32N200L	CHPC8B32LFM	782114799451	—	—
	CHPC42B150L, CHPC42B200L, CHPC42N200L	CHPC8B42LFM	782114799468	—	—

TABLE 2-25. COVERS

Decorator Cover		For Use with CH Loadcenter Cover	
Catalog Number	UPC Code	Catalog Number	UPC Code
CH8KDNB	782114155424	CH8BF	782113098852
CH8KDNC	782114155417	CH8CF	782113098876
CH8KDND	782114155431	CH8DF/EF	782113098890/ 782113098913
CH8KDNJ	782114155400	CH8GF/JF	782113098937/ 782113098951
CH8KDNK	782114155394	CH8KF	782113098975

DECORATOR COVERS



Now you see it...



Now you don't!

NOW YOU SEE IT...NOW YOU DON'T!

- ✓ For easy use with CH Loadcenters mounted in living space.
- ✓ Easily wallpapered or painted to match any decor.
- ✓ Patented Loadcenter accessory — exclusively from Eaton.

Technical Data and Specifications

RESIDENTIAL/COMMERCIAL/UNIT ENCLOSURE — BOX SIZES

TABLE 2-26. RESIDENTIAL LOADCENTERS

Box Size	Dimensions in Inches			Dimensions in mm		
	Height	Width	Depth	Height	Width	Depth
NEMA Type 1 Indoor						
5	9.50	4.50	3.13	241.3	114.3	79.4
6	11.38	6.88	3.39	288.9	174.6	86.1
7	13.00	11.00	3.69	330.2	279.4	93.7
B	16.75	14.31	3.88	425.5	363.5	98.4
C	21.00	14.31	3.88	533.4	363.5	98.4
D	29.13	14.31	3.88	739.8	363.5	98.4
E	29.13	14.31	3.88	739.8	363.5	98.4
G	34.13	14.31	3.88	866.8	363.5	98.4
J	34.13	14.31	3.88	866.8	363.5	98.4
K	37.00	14.31	3.88	939.8	363.5	98.4
L	39.00	14.31	3.88	990.6	363.5	98.4

NEMA Type 3R Outdoor

5R	9.50	4.50	3.13	241.3	114.3	79.4
6R	11.75	6.50	4.50	298.5	165.1	114.3
7R	13.00	11.00	3.69	330.2	279.4	93.7
B	16.75	14.31	5.19	425.5	363.5	131.8
C	21.00	14.31	5.19	533.4	363.5	131.8
D	29.13	14.31	5.19	739.8	363.5	131.8
E	29.13	14.31	5.19	739.8	363.5	131.8
G	34.13	14.31	5.19	866.8	363.5	131.8
J	34.13	14.31	5.19	866.8	363.5	131.8
K	37.00	14.31	5.19	939.8	363.5	131.8
L	39.00	14.31	5.19	990.6	363.5	131.8

TABLE 2-27. COMMERCIAL LOADCENTERS

Box Size	Dimensions in Inches			Dimensions in mm		
	Height	Width	Depth	Height	Width	Depth
NEMA Type 1 Indoor						
P	54.38	21.00	6.00	1381.1	533.4	152.4
PM	62.63	21.00	6.00	1590.7	533.4	152.4

TABLE 2-28. TYPES ECB AND ECC UNIT ENCLOSURES

Dimensions in Inches			Dimensions in mm		
Height	Width	Depth	Height	Width	Depth
NEMA Type 1 Indoor					
23.25	8.88	4.50	590.6	225.4	114.3
NEMA Type 3R Outdoor					
23.69	9.31	5.44	601.7	236.5	138.1

Note: Box sizes do not include covers/fronts.

RESIDENTIAL LOADCENTER KNOCKOUT DIMENSIONS IN INCHES (MM)

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

TABLE 2-29. KNOCKOUTS FOR BOX SIZES 5, 6, 7, 5R, 6R, 7R

Code	Diameter in Inches				Diameter in mm			
A	.50	—	—	—	12.7	—	—	—
B	.50	.75	—	—	12.7	19.1	—	—
C	.50	.75	1.00	—	12.7	19.1	25.4	—
D	.50	.75	1.00	1.25	12.7	19.1	25.4	31.8
E	.75	1.00	1.25	—	19.1	25.4	31.8	—
F	.75	1.00	1.25	1.50	19.1	25.4	31.8	38.1
G	1.00	1.25	1.50	—	25.4	31.8	38.1	—
H	1.00	1.25	1.50	2.00	25.4	31.8	38.1	50.8
I	1.25	1.50	2.00	—	31.8	38.1	50.8	—

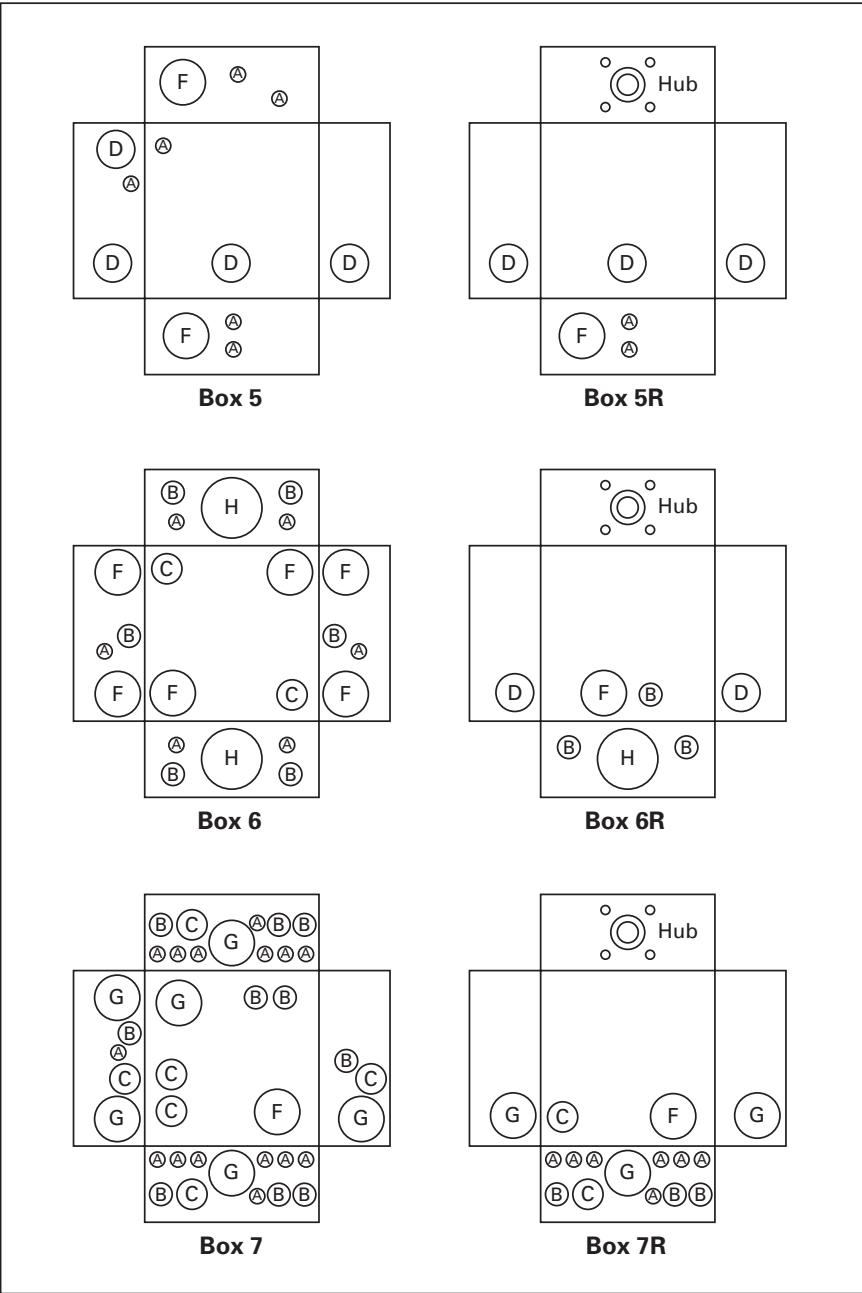


FIGURE 2-1. KNOCKOUT POSITIONS

RESIDENTIAL AND COMMERCIAL LOADCENTER KNOCKOUT DIMENSIONS IN INCHES (MM)

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

TABLE 2-30. KNOCKOUTS FOR BOX SIZES 8, 8R, P, PM, B, C, D, E, G, J, K, L AND OUTDOOR BOXES 12-42 CKT

Code	Diameter in Inches					Diameter in mm				
a	.75	—	—	—	—	19.1	—	—	—	—
b	.50	.75	—	—	—	12.7	19.1	—	—	—
c	.50	—	—	—	—	12.7	—	—	—	—
d	1.00	1.25	1.50	2.00	2.50	25.4	31.8	38.1	50.8	63.5
e	1.25	1.50	2.00	2.50	—	31.8	38.1	50.8	63.5	—
f	.75	1.25	1.50	2.00	—	19.1	31.8	38.1	50.8	—
g	.50	.75	1.00	—	—	12.7	19.1	25.4	—	—
h	1.50	2.00	2.50	—	—	38.1	50.8	63.5	—	—
i	.50	.75	1.00	1.25	1.50	12.7	19.1	25.4	31.8	38.1
j	1.00	1.25	1.50	—	—	25.4	31.8	38.1	—	—
k	1.25	1.50	2.00	—	—	31.8	38.1	50.8	—	—
m	.75	1.00	1.25	1.50	2.00	19.1	25.4	31.8	38.1	50.8
n	.75	1.00	1.25	1.50	—	19.1	25.4	31.8	38.1	—
p	2.00	2.50	—	—	—	50.8	63.5	—	—	—

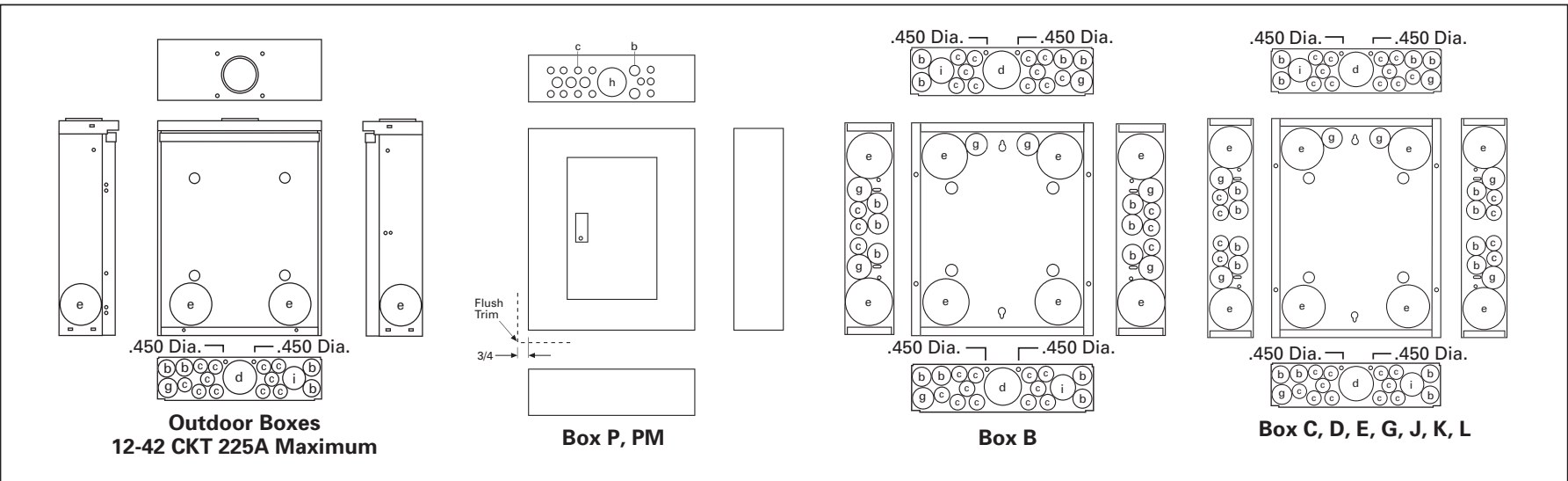


FIGURE 2-2. KNOCKOUT DIAGRAM

TABLE 2-31. TYPE ECB AND ECC UNIT ENCLOSURE KNOCKOUT

Code	Diameter in Inches					Diameter in mm				
NEMA Type 1 Indoor (Flush and Surface Trims)										
A	.50	—	—	—	—	12.7	—	—	—	—
B	1.25	1.50	1.75	2.00	2.50	31.8	38.1	44.5	50.8	63.5
NEMA Type 3R Outdoor										
A	.50	—	—	—	—	12.7	—	—	—	—
B	1.25	1.50	1.75	2.00	2.50	31.8	38.1	44.5	50.8	63.5

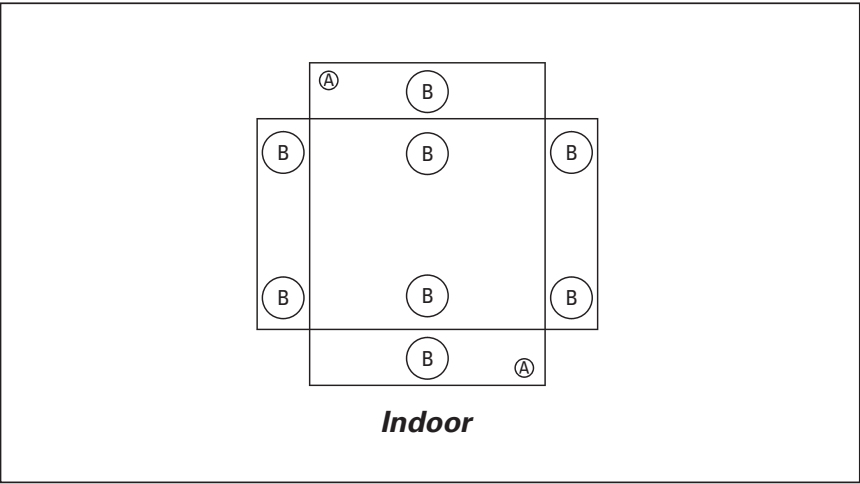


FIGURE 2-3. NEMA TYPE 1

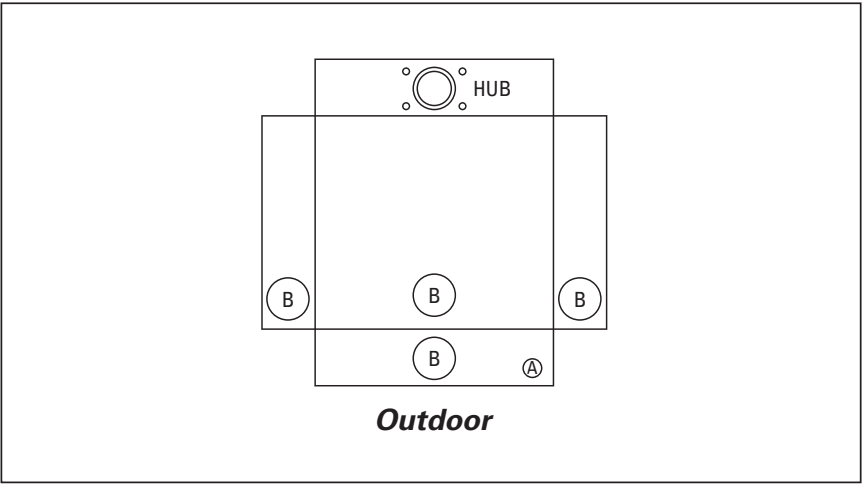


FIGURE 2-4. NEMA TYPE 3R

BR Loadcenters

Product Description

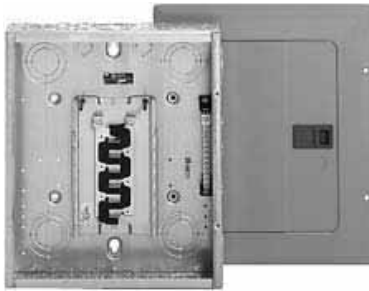
A loadcenter is called a breaker box, electrical box or even a fuse box. The main function is to take electricity supplied by the utility and distribute it throughout the home to feed lights and receptacles. Not only does the loadcenter distribute power, it also provides protection.

Warranty

- ✓ Ten years on loadcenters.
- ✓ Ten years on branch circuit breakers.



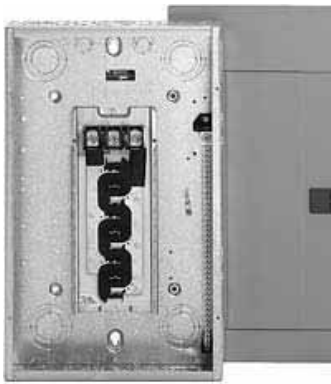
*Single-Phase Main
Circuit Breaker —
Top or Bottom Feed*



Single-Phase — Main Lugs



*Three-Phase Main Circuit
Breaker*



Single-Phase — Main Lugs



*Three-Phase Main Circuit
Breaker — Commercial*



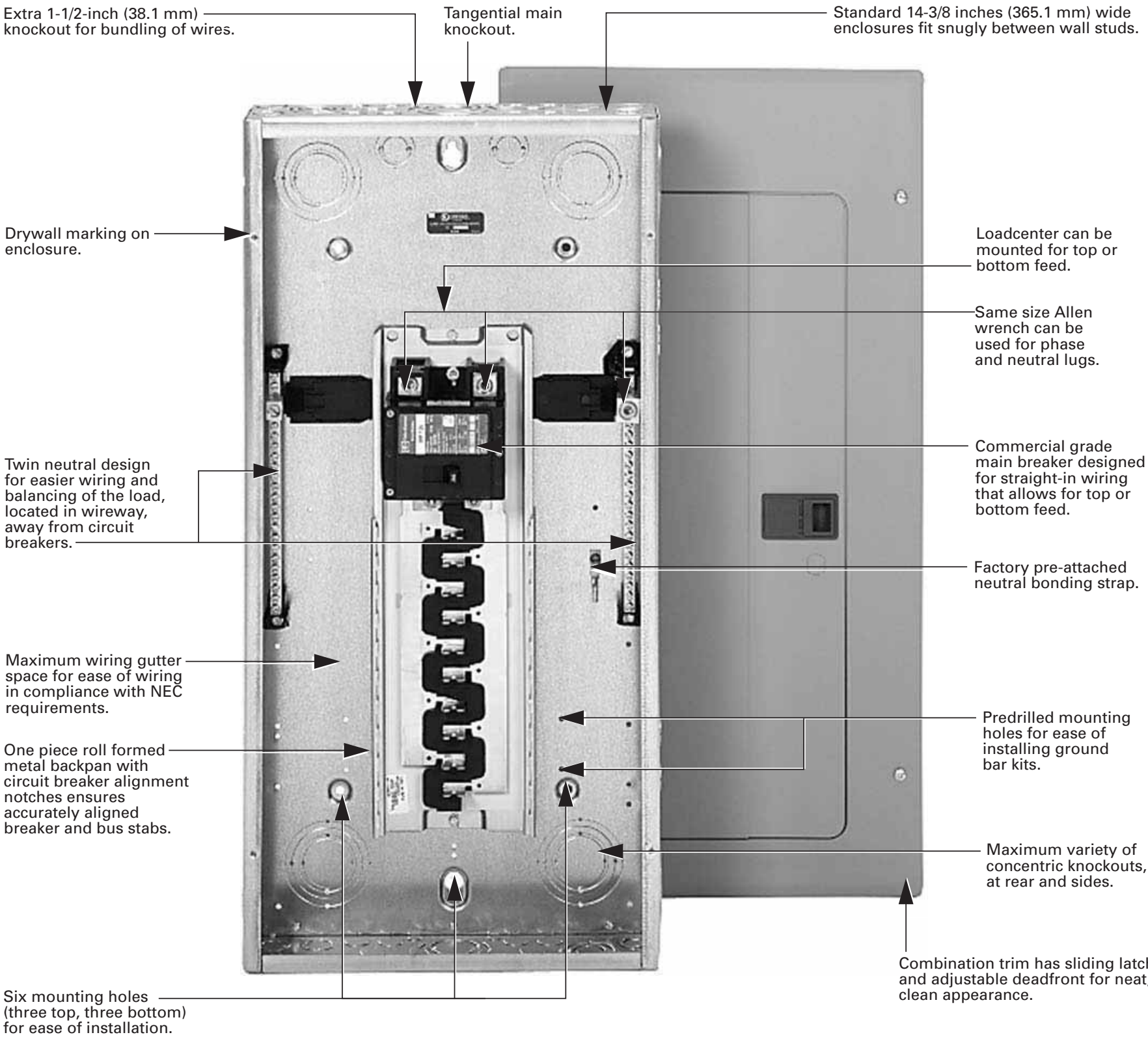
*Convertible Main Breaker or
Main Lug Only*



*Circuit Breaker Unit
Enclosures Outdoor*

Features, Functions and Benefits

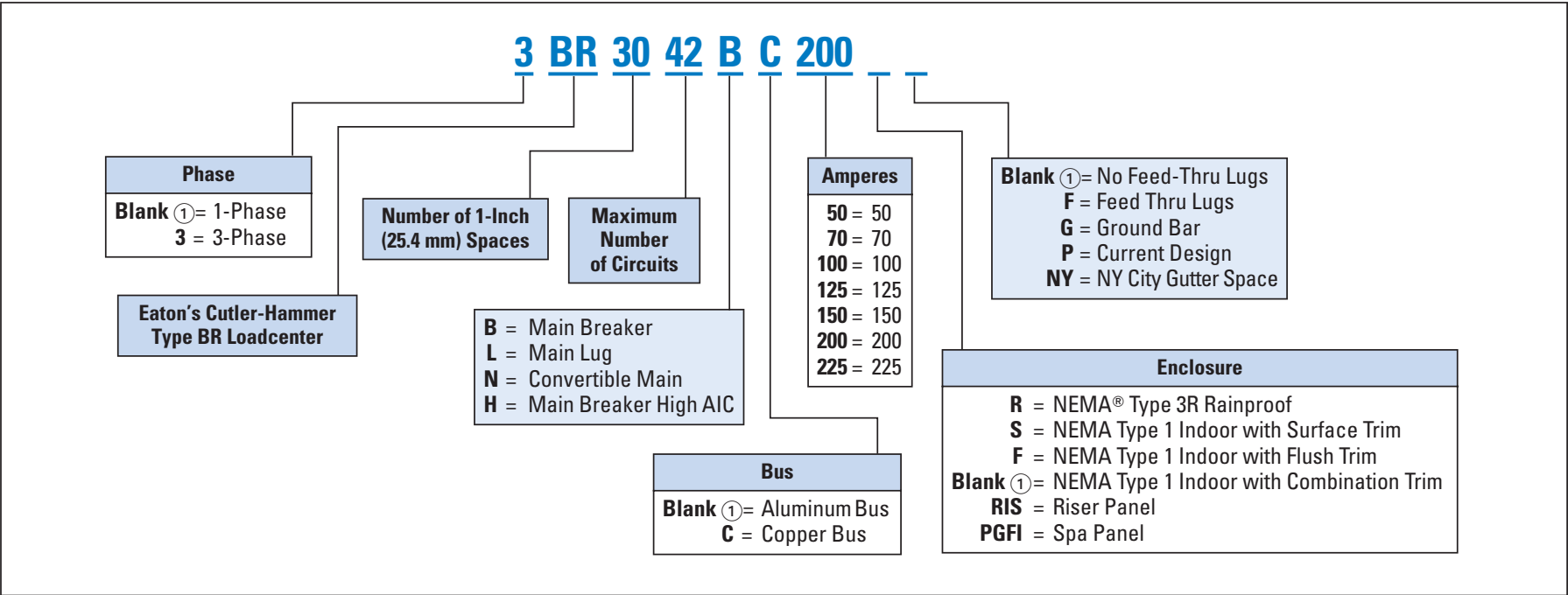
Uses 1-inch (25.4 mm) BR breakers.



BR2040B200

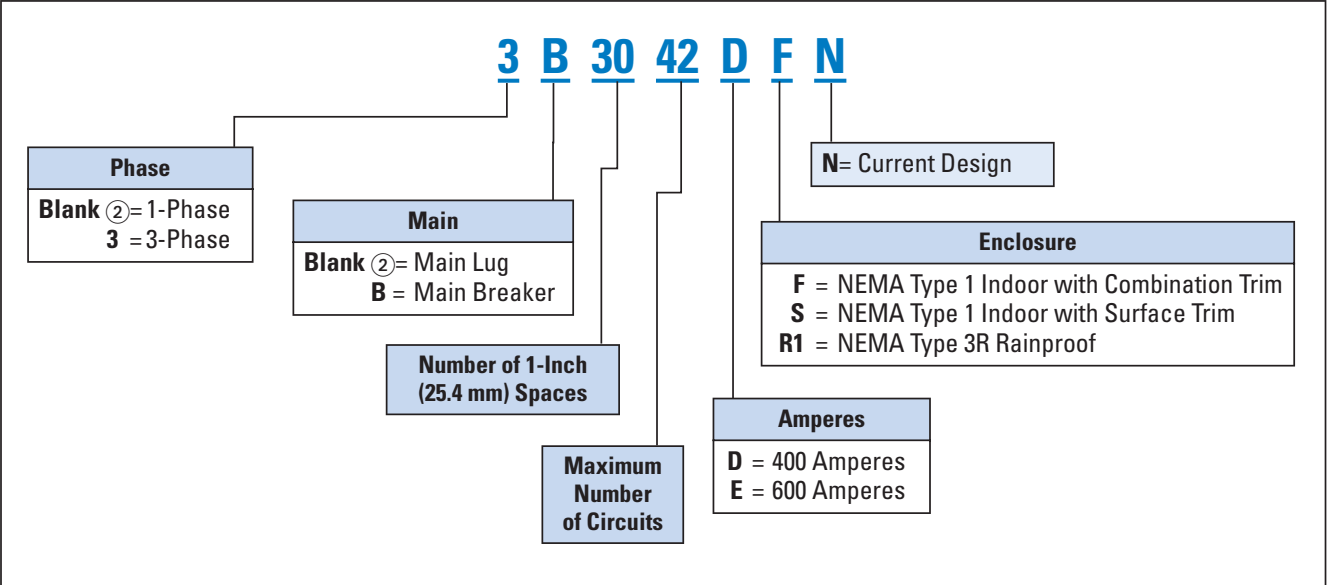
Catalog Numbering System

TABLE 2-32. SINGLE- AND THREE-PHASE THROUGH 225 AMPERES CATALOG NUMBERING SYSTEM



① No character space used.

TABLE 2-33. SINGLE- AND THREE-PHASE 400 AMPERES THROUGH 600 AMPERES CATALOG NUMBERING SYSTEM



② No character space used.

Example No. 1:
BR1224L125G

Single-Phase Cutler-Hammer Type BR Loadcenter Rated at 125 Amperes with Main Lugs, 12 Spaces Allowing 24 Poles, Indoor Combination Enclosure, Aluminum Bus and Ground Bar.

Example No. 2:
BR24L70RP

Single-Phase Cutler-Hammer Type BR Loadcenter Rated at 70 Amperes with Main Lugs, 2 Spaces Allowing 4 Poles, Rainproof Enclosure with Aluminum Bus.

Example No. 3:
3B4242EFN

3-Phase Cutler-Hammer Type BR Loadcenter Rated at 600 Amperes with Main Breaker, 42 Spaces Allowing 42 Poles, Indoor Combination Enclosure.

Data Tables

SINGLE-PHASE — MAIN CIRCUIT BREAKER LOADCENTERS 10,000/22,000 AMPERES INTERRUPTING CAPACITY

TABLE 2-34. SINGLE-PHASE 3-WIRE — 120/240 VAC — INSULATED/BONDABLE NEUTRAL

Main Breaker Type	Main Ampere Rating	Maximum Number 1-Inch (25.4 mm)		Enclosure Type	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Breaker	Loadcenter with Combination ^① or NEMA Type 3R Cover ^②	
		Spaces	Poles				Catalog Number	UPC Code
BR 10 kAIC	100	8	16	Indoor	B1	#4 – 1/0 ^③	BR816B100	786676443456
		10	20	Surface	A1		BR1020B100S11 ^④	782114993514
		10	20	Flush	A1		BR1020B100F11 ^④	782116125494
		10	20	Outdoor	B2R		BR1020B100RFP ^{⑤⑥}	786676443708
		12	20	Indoor	B2		BR1220B100	786676443753
		12	24	Outdoor	B2R		BR1224B100R ^⑥	786676443951
		16	20	Indoor	C1		BR1620B100	786676444002
		16	24	Indoor	C1		BR1624B100	786676444057
		16	24	Outdoor	C1R		BR1624B100R ^⑥	786676444101
		20	20	Indoor	C2		BR2020B100	786676444156
		20	24	Outdoor	C3R		BR2024B100R ^⑥	786676444354
	125	16	24	Indoor	C1	#4 – 2/0	BR1624B125	786676444408
		20	24	Indoor	C1		BR2024B125	786676444453
		20	24	Outdoor	C3R		BR2024B125R ^⑥	786676444507
BW 10 kAIC	150	8	16	Outdoor	C3R	#2 – 300 kcmil	BR816B150RF ^{⑤⑥}	786676444552
		16	30	Indoor	C4		BR1630B150	786676444705
		20	30	Indoor	C4		BR2030B150	786676444903
		20	30	Outdoor	D1R		BR2030B150R ^⑥	786676444958
		20	40	Indoor	D1		BR2040B150	786676001038
		20	40	Outdoor	D1R		BR2040B150R ^⑥	786676483209
		24	30	Indoor	G1		BR2430B150	786676445009
		30	30	Indoor	G1		BR3030B150	786676445054
		30	30	Outdoor	G1R		BR3030B150R ^⑥	786676445108
		30	40	Indoor	G1		BR3040B150	786676445979
	200	4	8	Outdoor	8R	#2 – 300 kcmil	BR48B200RFP ^{⑤⑦⑧}	786676000512
		8	16	Outdoor	C3R		BR816B200RF ^{⑤⑥}	786676445153
		16	32	Indoor	C4		BR1632B200	786676445351
		20	40	Indoor	D1		BR2040B200	786676445559
		20	40	Outdoor	D1R		BR2040B200R ^⑥	786676445757
		24	40	Indoor	G1		BR2440B200	786676445856
		30	40	Indoor	G1		BR3040B200	786676445955
		30	40	Outdoor	G1R		BR3040B200R ^⑥	786676446051
		40	40	Indoor	L1		BR4040B200	786676446150
		40	40	Outdoor	L1R		BR4040B200R ^⑥	786676446303
	225	42	42	Indoor	L2	#1 – 250 kcmil	BR4242B225	786676446402
		42	42	Outdoor	L2R		BR4242B225R ^⑥	786676446457

① Combination style covers may be used in surface or flush applications.

② All main circuit breaker loadcenters are listed for use as service entrance equipment and are shipped with a neutral bonding strap preattached. The maximum rating of the panel is the main circuit breaker rating when used as service entrance equipment.

③ Wire range size for BR1020B100SP is #6 – 1 Al/Cu. Available in flush.

④ Loadcenters are 11.75 inches (293.8 mm) wide and 13.00 inches (330.2 mm) high for retrofit applications.

⑤ Includes through-feed lugs for both phase and neutral conductors.

⑥ Rainproof panels are furnished with hub closure plates.

⑦ DS200H1 hub is included with loadcenter.

⑧ Neutral is bonded – suitable for service entrance only – can not be converted for sub-feed application.

P Suffix = Specifically packaged for retail sales.

Dimensions for boxes on Pages 2-41 – 2-43.

SINGLE-PHASE — MAIN CIRCUIT BREAKER LOADCENTERS 10,000/22,000 AMPERES INTERRUPTING CAPACITY

TABLE 2-35. SINGLE-PHASE, 3-WIRE — 120/240 VAC

Main Breaker Type	Main Ampere Rating	Maximum Number 1-Inch (25.4 mm)		Enclosure Type	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Breaker	Commercial Loadcenter ①②	
							With Flush or NEMA Type 3R Cover	
		Spaces	Poles				Catalog Number	UPC Code
DK ③	300	42	42	Indoor	24	(2) #3/0 – 250 kcmil	BR304242F	786676001076
	400	42 42	42 42	Indoor Outdoor	24 47	(2) #3/0 – 250 kcmil	B4242DFN B4242DR1N ⑤	786676316026 786676316071
LA ④	600	42	42	Indoor	24	(2) #3/0 – 500 kcmil	B4242EFN	786676316170

① The maximum rating of the panel is the main circuit breaker rating when used as service entrance equipment.
② Door lock and key included with loadcenter.
③ Type DK main circuit breaker is rated 65 kAIC at 240 Vac and allows a 22 kAIC series rating on the panel when Types BR, BD and BJ branch circuit breakers are used.
④ Type LA main circuit breaker is rated 42 kAIC at 240 Vac. Type LA circuit breaker **is not** series rated with Types BR, BD and BJ branch circuit breakers.
⑤ Rainproof panels are furnished with hub closure plates.
P Suffix = Specifically packaged for retail sales.

SINGLE-PHASE — MAIN CIRCUIT BREAKER LOADCENTERS 22,000/25,000 AMPERES INTERRUPTING CAPACITY

TABLE 2-36. SINGLE-PHASE 3-WIRE — 120/240 VAC — INSULATED/BONDABLE NEUTRAL

Main Breaker Type	Main Ampere Rating	Maximum Number 1-Inch (25.4 mm)		Enclosure Type	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Breaker	Loadcenter with Combination Cover ⑥	
		Spaces	Poles				Catalog Number	UPC Code
BRH 22 kAIC	100	20	24	Indoor	C2	#2/0 – 300 kcmil	BR2024H100 ⑦	786676444309
BWH ⑧ 25 kAIC	150	20	30	Indoor	C4	#2/0 – 300 kcmil	BR2030H150 ⑧	786676444859
	200	20	40	Indoor	D1	#2/0 – 300 kcmil	BR2040H200 ⑧	786676445504
		30 40	40 40	Indoor Indoor	G1 L1		BR3040H200 ⑧ BR4040H200 ⑧	786676445900 786676446105

⑥ All main circuit breaker loadcenters are listed for use as service entrance equipment and are shipped with neutral bonding strap preattached. The maximum rating of the panel is the main circuit breaker rating when used as service entrance equipment.
⑦ 22 kAIC series combination rating is obtained when Types BD, BR, BQ, BQC and GFCB 10 kAIC branch breakers are used in series with Type BRH main breaker.
⑧ 25 kAIC series combination rating is obtained when Types BD, BR, BQ, BQC and GFCB 10 kAIC branch circuit breakers are used in series with Type BWH main breaker.

Dimensions for boxes on Pages 2-41 – 2-43.

SINGLE-PHASE — MAIN LUG LOADCENTERS

TABLE 2-37. SINGLE-PHASE 3-WIRE — 120/240 VAC — INSULATED/BONDABLE NEUTRAL

Main Ampere Rating	Maximum Number 1-Inch (25.4 mm)		Enclosure Type	Type of Trim	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Lugs	Loadcenter	
	Spaces	Poles					Catalog Number	UPC Code
70	2	4	Indoor	Surface no Door	5	#8 – #2	BR24L70SP ^①	786676001670
	2	4	Indoor	Surface no Door	5		BR24L70SGP ^{①②}	786676001946
	2	4	Outdoor	—	5R		BR24L70RP ^{①③}	786676001618
	2	4	Indoor	Flush no Door	5		BR24L70FP ^①	786676001847
	2	4	Indoor	Flush no Door	5		BR24L70FGP ^{①②}	786676001939
125	2	4	Indoor	Surface no Door	6	#14 – 1/0	BR24L125SP ^{①②}	786676002271
	2	4	Outdoor	—	6R		BR24L125RP ^{①③}	786676001502
	2	4	Indoor	Flush no Door	6		BR24L125FP ^①	786676002264
	4	8	Indoor	Surface no Door	7	#14 – 1/0	BR48L125SP ^④	786676001236
	4	8	Indoor	Surface no Door	7		BR48L125SGP ^{②④}	786676001991
	4	8	Outdoor	—	7R		BR48L125RP ^{③④}	786676001205
	4	8	Indoor	Flush no Door	7		BR48L125FP ^④	786676001717
	4	8	Indoor	Flush with Door	7		BR48L125FDP ^④	786676002288
	4	8	Indoor	Flush with Door	7		BR48L125FGP ^{②④}	786676001984
	6	12	Indoor	Surface no Door	7	#14 – #1	BR612L125SP ^⑤	786676002035
	6	12	Indoor	Surface no Door	7		BR612L125SGP ^{⑤⑥}	786676002059
	6	12	Indoor	Surface with Door	7		BR612L125SDP ^⑤	786676001304
	6	12	Indoor	Surface with Door	7		BR612L125SDGP ^{⑤⑥}	786676002097
	6	12	Outdoor	—	7R		BR612L125RP ^{③⑥}	786676001359
	6	12	Indoor	Flush no Door	7		BR612L125FP ^⑥	786676002028
	6	12	Indoor	Flush no Door	7		BR612L125FGP ^{⑤⑥⑦}	786676002042
	6	12	Indoor	Flush with Door	7		BR612L125FDP ^⑤	786676001311
	6	12	Indoor	Flush with Door	7		BR612L125FDGP ^{⑤⑥⑦}	786676002080
	8	16	Indoor	Surface no Door	7	#14 – #1	BR816L125SP ^⑤	786676002127
	8	16	Indoor	Surface no Door	7		BR816L125SGP ^{⑤⑧}	786676002141
	8	16	Indoor	Surface with Door	7		BR816L125SDP ^⑤	786676001427
	8	16	Indoor	Surface with Door	7		BR816LC125SDP ^{⑤⑨}	786676002301
	8	16	Indoor	Surface with Door	7		BR816L125SDGP ^{⑤⑧}	786676002189
	8	16	Outdoor	—	7R		BR816L125RP ^{③⑤}	786676001472
	8	16	Indoor	Flush no Door	7		BR816L125FP ^⑤	786676002110
	8	16	Indoor	Flush no Door	7		BR816L125FGP ^{⑤⑦⑧}	786676002134
	8	16	Indoor	Flush with Door	7		BR816L125FDP ^⑤	786676001434
	8	16	Indoor	Flush with Door	7		BR816LC125FDP ^{⑤⑨}	786676002295
	8	16	Indoor	Flush with Door	7		BR816L125FDGP ^{⑤⑦⑧}	786676002172

① 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 (see Article 408-34 of the NEC).

② Ground bar GBK5 is installed.

③ Rainproof panels are furnished with hub closure plates.

④ 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 (see Article 408-34 of the NEC).

⑤ 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 (see Article 408-34 of the NEC).

⑥ Ground bar GBK10 is installed.

⑦ CSA and UL approved.

⑧ Ground bar GBK14 is installed.

⑨ Copper bus is included.

P Suffix = Specifically packaged for retail sales.

Dimensions for boxes on Pages 2-41 – 2-43.

SINGLE-PHASE — MAIN LUG LOADCENTERS, CONTINUED

TABLE 2-38. SINGLE-PHASE 3-WIRE — 120/240 VAC — INSULATED/BONDABLE

Main Ampere Rating	Maximum Number 1-Inch (25.4 mm)		Enclosure Type	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Lugs	Loadcenter with Combination or NEMA Type 3R Cover	
	Spaces	Poles				Catalog Number	UPC Code
125	12	12	Indoor	B1	#6 – 2/0	BR1212L125 ^{①②③④}	786676446501
	12	24	Indoor	B1		BR1224L125 ^{①③④}	786676446556
	12	24	Indoor	B1		BR1224L125G ^{①③④⑤}	786676446600
	12	24	Indoor	B1		BR1224L125DG ^{①③④⑥}	786676000628
	12	24	Outdoor	B1R		BR1224L125R ^{①④⑦}	786676446709
	16	24	Indoor	B2		BR1624L125 ^{①③⑧}	786676446754
	16	24	Indoor	B2		BR1624L125G ^{①③⑧}	786676446808
	16	24	Outdoor	B2R		BR1624L125R ^{①⑦}	786676446853
	20	24	Indoor	C1		BR2024L125 ^{①③}	786676446907
	20	24	Indoor	C1		BR2024L125G ^{①③⑨}	786676446952
	20	24	Outdoor	C1R		BR2024L125R ^{①⑦}	786676447058
	24	24	Indoor	C2		BR2424L125 ^{①③}	786676447102
	24	24	Indoor	C2		BR2424L125G ^{①③⑨}	786676001199
150	16	30	Indoor	C2	#1 – 300 kcmil	BR1630L150 ^{③⑩}	786676447157
	20	30	Indoor	C2		BR2030L150 ^{③⑩}	786676447201
200	8	16	Outdoor	B2R	#1 – 300 kcmil	BR816L200RF ^{④⑦⑪}	786676447256
	12	24	Indoor	B2		BR1224L200 ^{③④⑩}	786676447300
	12	24	Outdoor	B2R		BR1224L200R ^{④⑦⑩}	786676447355
	20	40	Indoor	C2		BR2040L200 ^④	786676447454
	20	40	Outdoor	C3R		BR2040L200R ^{⑦⑩}	786676447553
	24	40	Indoor	C4		BR2440L200 ^{③⑩}	786676447607
	30	40	Indoor	D1		BR3040L200 ^{④⑩}	786676447652
	30	40	Outdoor	D1R		BR3040L200R ^{⑦⑩}	786676447706
	40	40	Indoor	G1		BR4040L200 ^{③⑩}	786676447751
	40	40	Outdoor	G1R		BR4040L200R ^{⑦⑩}	786676447805
225	42	42	Indoor	L1	#1 – 300 kcmil	BR4242L225 ^⑨	786676447850
	42	42	Outdoor	L1R		BR4242L225R ^⑦	786676447904

① Has notch for BREQS125 hold-down kit.
② Single, movable neutral is provided.
③ Combination cover style.
④ 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 (see Article 408-34 of the NEC).
⑤ Ground bar GBK8 installed.
⑥ Ground bars GBK5 and GBK520 installed.
⑦ Rainproof panels are furnished with hub closure plates.
⑧ Ground bar GBK10 installed
⑨ Ground bar GBK1220 installed.
⑩ Has notch for BRHDK125 hold-down kit.
⑪ Includes through-feed lugs for both phase and neutral conductors.
P Suffix = Specifically packaged for retail sales.

TABLE 2-39. SINGLE-PHASE 3-WIRE — 120/240 VAC — INSULATED/BONDABLE

Main Ampere Rating	Maximum Number 1-Inch (25.4 mm)		Enclosure Type	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Lugs	Commercial Loadcenter ⑫⑬			
	Spaces	Poles				With Flush or NEMA Type 3R Cover		With Surface Cover	
						Catalog Number	UPC Code	Catalog Number	UPC Code
400	12	24	Indoor	19	(1) #4/0 – 750 kcmil	—	—	1224DSN ⑭	786676305006
	12	24	Outdoor	42	or	1224DRIN ⑭⑮	786676310581	—	—
	24	42	Indoor	20	(2) #3/0 – 400 kcmil	—	—	2442DSN	786676305563
	42	42	Indoor	22		4242DFN	786676305983	4242DSN	786676306003
	42	42	Outdoor	46		4242DRIN ⑮	786676310680	—	—
600	42	42	Indoor	22	(2) #2 – 500 kcmil	—	—	4242ESN	786676306041

⑫ Has notch for BRHDK125 hold-down kit.
⑬ Ground bar GBK8 installed.
⑭ 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 (see Article 408-34 of the NEC).
⑮ Rainproof panels are furnished with hub closure plates.
P Suffix = Specifically packaged for retail sales.

Dimensions for boxes on Pages 2-41 – 2-43.

SINGLE-PHASE — MAIN LUG LOADCENTERS, NON-METALLIC

TABLE 2-40. SINGLE-PHASE 3-WIRE — 120/240 VAC — INSULATED/BONDABLE NEUTRAL

Main Ampere Rating	Maximum Number 1-Inch (25.4 mm)		Enclosure Type	Type of Trim	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Lugs	Loadcenter	
	Spaces	Poles					Catalog Number	UPC Code
40 ①	②	②	Indoor	Flush No Door	2 2	②	TT120FLGNM ②③ TT120SLGNM ②③	786676369855 786676369886
60	2	4	Indoor	Flush No Door	2	#14 – 2	2460FNM	786676369701
	2	4	Indoor	Surface No Door	2		2460SNM	786676369763
	2	4	Indoor	Flush No Door	2		2460FGNM ③	786676369732
	2	4	Indoor	Surface No Door	2		2460SGNM ③	786676369794
	2	4	Outdoor	—	2R		2460RNM	786676369824

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 (see Article 408-34 of the NEC).

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.

P Suffix = Specifically packaged for retail sales.

Dimensions for boxes on Pages 2-41 – 2-43.

3-PHASE — MAIN CIRCUIT BREAKER LOADCENTERS 10,000/22,000/100,000 AMPERES INTERRUPTING CAPACITY

TABLE 2-41. 3-PHASE 4-WIRE — 208Y/120 VAC OR 240 VAC INSULATED/BONDABLE NEUTRAL

Main Breaker Type	Main Ampere Rating	Maximum Number 1-Inch (25.4 mm)		Encl. Type	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Breaker	Loadcenter ①			
							With Combination or NEMA Type 3R Cover		With Surface Cover	
		Spaces	Poles				Catalog Number	UPC Code	Catalog Number	UPC Code
BR 10 kAIC	100	12	24	Indoor	C1	#4 – 1/0	3BR1224B100	786676440103	3BR1224B100S	786676443951
		12	24	Outdoor	C1R		3BR1224B100R ②	786676440158	—	—
CC 10 kAIC	125	30	42	Indoor	L1	#1 – 2/0	3BR3042B125	786676440257	3BR3042B125S	786676440301
		150	30	42	Indoor	L1	#1 – 3/0	3BR3042B150	786676440455	3BR3042B150S
	200		30	42	Outdoor	L1R		3BR3042B150R ②	786676440509	—
		30	42	Indoor	L1	#1 – 250 kcmil	3BR3042B200	786676440707	3BR3042B200S	786676440806
		30	42	Outdoor	L1R		3BR3042B200R ②	786676440752	—	—
		42	42	Indoor	L2		3BR4242B200	786676441001	3BR4242B200S	786676441100
	42	42	Outdoor	L2R		3BR4242B200R ②	786676441056	—	—	
	225	42	42	Indoor	L2	#1 – 300 kcmil	3BR4242B225	786676441254	3BR4242B225S	786676441353
		42	42	Outdoor	L2R		3BR4242B225R ②	786676441308	—	—
DK ③ 22 kAIC	400	42	42	Indoor	24	(2) #3/0 – 250 kcmil	3B4242DFN ④	786676317191	3B4242DSN ④	786676317214
		42	42	Outdoor	47		3B4242DR1N ②④	786676317221	—	—
LD ⑤	600	42	42	Indoor	24	(2) #3/0 – 500 kcmil	3B4242EFN ④	786676317238	3B4242ESN ④	786676317245
BRH 22 kAIC ⑥	100	12	24	Indoor	C1	#4 – 1/0	3BR1224H100 ⑦	786676440004	3BR1224H100S	786676440059
CHH 100 kAIC ⑧	150	30	42	Indoor	L1	#1 – 250 kcmil	3BR3042H150 ⑦	786676440356	3BR3042H150S	786676440400
CHH 100 kAIC ⑧	200	30	42	Indoor	L1	#1 – 250 kcmil	3BR3042H200 ⑦	786676440608	3BR3042H200S	786676440653
		42	42	Indoor	L2		3BR4242H200 ⑦	786676440905	3BR4242H200S	786676440950

① All main circuit breaker loadcenters are listed for use as service entrance equipment and are shipped with a neutral bonding strap pre-attached (commercial loadcenters do not have a pre-attached bonding strip). The maximum main rating of the panel is the main circuit breaker rating when used as service entrance equipment.

② Door lock and key included with loadcenter.

③ Type DK main circuit breaker is rated 65 kAIC at 240 Vac and allows a 22 kAIC series rating on the loadcenter when Types BR, BD and BJ branch circuit breakers are used.

④ Commercial loadcenter.

⑤ The LD main circuit breaker is rated 65 kAIC at 240 Vac. Type LD circuit breaker **is not** series rated with Types BR, BD and BJ branch circuit breakers.

⑥ 22 kAIC series combination rating is obtained when Types BD, BR, BQ, BQC and GFCB branch breakers are used with BRH main.

⑦ Loadcenter with combination cover only.

⑧ 100 kAIC series combination rating is obtained when Types BD, BR, BQ, BQC and GFCB branch breakers are used with CHH main.

Dimensions for boxes on Pages 2-41 – 2-43.

3-PHASE — MAIN LUG LOADCENTERS

TABLE 2-42. 3-PHASE 4-WIRE — 208Y/120 VAC OR 240 VAC INSULATED/BONDABLE NEUTRAL

Main Ampere Rating	Maximum Number 1-Inch (25.4 mm)		Encl. Type	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Lugs	Loadcenter			
						With Combination or NEMA Type 3R Cover		With Surface Cover	
	Spaces	Poles				Catalog Number	UPC Code	Catalog Number	UPC Code
100	3	3	Indoor	9	#14 – 1/0	—	—	3BR3L100S	786849164799
	3	3	Outdoor	9R		3BR3L100R ①	786849164805	—	—
125	12	24	Indoor	C1	#6 – 2/0	3BR1224L125 ②③	786676441407	3BR1224L125S ②③	786676441506
	12	24	Outdoor	C1R		3BR1224L125R ①②③	786676441452	—	—
150	18	36	Indoor	D1	#1 – 300 kcmil	3BR1836L150 ③④	786676441551	3BR1836L150S ③	786676441650
	18	36	Outdoor	D1R		3BR1836L150R ①③④	786676441605	—	—
	24	42	Indoor	D1		3BR2442L150	786676441704	3BR2442L150S	786676441803
	24	42	Outdoor	D1R		3BR2442L150R ①	786676441759	—	—
200	12	24	Indoor	C4	#1 – 300 kcmil	3BR1224L200 ③	786676441858	3BR1224L200S ③	786676442008
	12	24	Outdoor	C3R		3BR1224L200R ①③	786676441902	—	—
	18	36	Indoor	C4		3BR1836L200 ③	786676442053	3BR1836L200S ③	786676442152
	18	36	Outdoor	C3R		3BR1836L200R ①③	786676442107	—	—
	24	42	Indoor	G1		3BR2442L200	786676442206	3BR2442L200S	786676442251
	30	42	Indoor	G1		3BR3042L200	786676442305	3BR3042L200S	786676442404
	30	42	Outdoor	G1R		3BR3042L200R ①	786676442350	—	—
	42	42	Indoor	L1		3BR4242L200	786676442503	3BR4242L200S	786676442602
	42	42	Outdoor	L1R		3BR4242L200R ①	786676442558	—	—
225	42	42	Indoor	L1	#1 – 300 kcmil	3BR4242L225	786676442756	3BR4242L225S	786676442855
	42	42	Outdoor	L1R		3BR4242L225R ①	786676442800	—	—
400	18	36	Indoor	19	(1) #4/0 – 750 kcmil or (2) #3/0 – 400 kcmil	31836DFN ③④⑤⑥	786676306782	31836DSN ③④⑤	786676306805
	18	36	Outdoor	43		31836DR1N ①③④⑤⑥	786676311335	—	—
	24	42	Indoor	38		—	—	32442DSN ④⑤	786676308274
	42	42	Indoor	22		34242DFN ④⑤⑥	786676308526	34242DSN ④⑤	786676308571
	42	42	Outdoor	46		34242DR1N ①④⑤⑥	786676311533	—	—
600	42	42	Indoor	22	(2) #2 – 500 kcmil	34242EFN ④⑤⑥	786676308625	34242ESN ④⑤	786676308670

① Rainproof loadcenters are furnished with hub closure plates.
② Has notch for BREQS125 hold-down kit.
③ 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 (see Article 408-34 of the NEC).
④ Door lock and key included with loadcenter.
⑤ Commercial loadcenter.
⑥ With Flush or NEMA Type 3R cover. Not combination.

Dimensions for boxes on Pages 2-41 – 2-43.

CONVERTIBLE LOADCENTERS MAIN BREAKER OR MAIN LUG CENTER — BASE UNITS AND MAIN DEVICES 10,000/22,000/25,000 AMPERES INTERRUPTING CAPACITY ① — COMPLETE ASSEMBLY CONSISTS OF: LOADCENTER AND EITHER MAIN BREAKER KIT OR MAIN LUG KIT

Base Units

TABLE 2-43. SINGLE-PHASE 3-WIRE — 120/240 VAC — INSULATED/BONDABLE NEUTRAL

Main Ampere Rating ②	Maximum Number 1-Inch (25.4 mm)		Enclosure Type	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main	Loadcenter with Combination or NEMA Type 3R Cover ③	
	Spaces	Poles				Catalog Number	UPC Code
125	12	24	Indoor	B2	See main breaker and main lug kit tables.	BR1224N125 ④⑤	786676447959
	12	24	Outdoor	B2R		BR1224N125R ④⑥⑦	786676448000
	16	24	Indoor	C1		BR1624N125 ④⑥	786676448154
	16	24	Outdoor	C1R		BR1624N125R ④⑥	786676448208
	20	24	Indoor	C2		BR2024N125 ④	786676448253
	20	24	Outdoor	C3R		BR2024N125R ④⑥	786676448307
200	8	16	Outdoor	C3R		BR816N200RF ⑥⑧⑨	786676448451
	12	24	Indoor	C4		BR1224N200 ⑦⑨	786676448505
	12	24	Outdoor	C3R		BR1224N200R ⑥⑦⑨	786676448550
	16	32	Indoor	C4		BR1632N200 ⑨	786676448604
	20	40	Indoor	D1		BR2040N200 ⑨	786676448659
	20	40	Outdoor	D1R		BR2040N200R ⑥⑨	786676448703
	24	40	Indoor	G1		BR2440N200	786676008822
	30	40	Indoor	G1		BR3040N200 ⑨	786676448857
	30	40	Outdoor	G1R		BR3040N200R ⑥⑨	786676448901
	40	40	Indoor	L1		BR4040N200 ⑨	786676449007
	40	40	Outdoor	L1R		BR4040N200R ⑥⑨	786676449052

- ① Interrupting rating depends on main circuit breaker selected.
- ② The maximum rating of the loadcenter is the main circuit breaker rating when used as service entrance equipment.
- ③ 100, 125 and 200 ampere Convertible base unit catalog numbers include interior, box and cover only. Main devices and accessories must be ordered separately for field installation. All Convertible base units are listed as suitable for use as service entrance equipment when used per Article 384 of the NEC.
- ④ BREQS125 hold-down screw comes with loadcenter for back-fed Types BR and BRH main circuit breakers.
- ⑤ Convertible to maximum of 100 ampere main circuit breaker and 125 ampere main lug.
- ⑥ Rainproof loadcenters are furnished with hub closure plates.
- ⑦ 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 (see Article 408-34 of the NEC).
- ⑧ Includes feed-through lugs for both phase and neutral conductors.
- ⑨ No hold-down provisions for back-fed Types BR and BRH main circuit breakers.

TABLE 2-44. 3-PHASE 4-WIRE — 208Y/120 VAC OR 240 VAC INSULATED/BONDABLE NEUTRAL

Main Ampere Rating ⑩	Maximum Number 1-Inch (25.4 mm)		Encl. Type	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main	Loadcenter ⑪			
						With Combination or NEMA Type 3R Cover		With Surface Cover	
	Spaces	Poles				Catalog Number	UPC Code	Catalog Number	UPC Code
100	30	30	Indoor	D1	See main breaker and main lug kit tables (Page 2-31).	3BR3030N100 ⑫	786676442909	3BR3030N100S ⑫	786676443005
125	12	24	Indoor	C1		3BR1224N125 ⑫⑬⑭	786676443159	3BR1224N125S ⑫⑬⑭	786676443258

- ⑩ The maximum rating of the loadcenter is the main circuit breaker rating when used as service entrance equipment.
- ⑪ 100, 125 and 200 ampere Convertible base unit catalog numbers include interior, box and cover only. Main devices and accessories must be ordered separately for field installation. All Convertible base units are listed as suitable for use as service entrance equipment when used per Article 384 of the NEC.
- ⑫ BREQS125 hold-down screw comes with loadcenter for back-fed Types BR and BRH main circuit breakers.
- ⑬ Convertible to maximum of 100 ampere main circuit breaker and 125 ampere main lug.
- ⑭ 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 (see Article 408-34 of the NEC).

Dimensions for boxes on Pages 2-41 – 2-43.

MAIN DEVICES

TABLE 2-45. 2- AND 3-POLE MAIN CIRCUIT BREAKERS; 120/240 VAC OR 208Y/120 VAC OR 240 VAC

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C for Main Breaker	10 kAIC		22/25 kAIC ①	
		Catalog Number	UPC Code	Catalog Number	UPC Code
2-Pole					
100	#4 – 1/0	BR2100	786676363259	BRH2100	786676373906
110	#4 – 1/0	BR2110	786676384278	BRH2110	786676374248
125	#4 – 2/0	BR2125	786676367059	BRH2125	786676373951
125	#2 – 300 kcmil	BW2125	786676460361	BWH2125	786676460439
150	#2 – 300 kcmil	BW2150	786676460408	BWH2150	786676460453
175	#2 – 300 kcmil	BW2175	786676460507	BWH2175	786676449700
200	#2 – 300 kcmil	BW2200	786676460552	BWH2200	786676460606
3-Pole					
100	#1	BR3100	786676368094	BRH3100	786676372909

① Series combination rating with Types BD, BR, BQ, BQC and GFCB is 22 kAIC with BRH main and 25 kAIC with BWH main.

TABLE 2-46. 2- AND 3-POLE MAIN LUG KITS 120/240 VAC OR 208Y/120 VAC OR 240 VAC

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C for Main Lugs	Catalog Number	UPC Code
2-Pole			
125	#6 – 2/0	BRSF125 ②	786676001762
150	#1 – 300 kcmil	BRL200	786676460101
175	#1 – 300 kcmil	BRL200	786676460101
200	#1 – 300 kcmil	BRL200	786676460101
3-Pole			
150	#6 – 3/0	3BRSF150	786676001786

② Accessory clamshell number BRF125CS clamshell available.

Main Circuit Breaker with Accessory
Example: BW22005R01
(Put description with catalog number on order.)

MAIN CIRCUIT BREAKER/MAIN LUG/CONVERTIBLE LOADCENTERS — WITH COPPER BUS
10,000/22,000/25,000 AMPERES INTERRUPTING CAPACITY

TABLE 2-47. MAIN CIRCUIT BREAKER — SINGLE-PHASE 3-WIRE — 120/240 VAC — INSULATED/BONDABLE NEUTRAL

Main Breaker Type	Main Ampere Rating	Maximum Number 1-Inch (25.4 mm)		Enclosure Type	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Breaker	Loadcenter with Combination Cover ①	
		Spaces	Poles				Catalog Number	UPC Code
BR 10 kAIC	100	20	20	Indoor	C2	#4 – 1/0	BR2020BC100	782114867044
	100	30	30	Indoor	D1		BR3030BC100	786676001175
BW 10 kAIC	150	30	30	Indoor	G1	#2 – 300 kcmil #2 – 300 kcmil	BR3030BC150	782114867051
	200	20	40	Indoor	D1		BR2040BC200	782114867037
	200	30	40	Indoor	G1		BR3040BC200	782114867020
	200	40	40	Indoor	L1		BR4040BC200	782114867013
BRH 22 kAIC	100	30	30	Indoor	D1	#4 – 1/0	BR3030HC100	786676001182

① All main circuit breaker loadcenters are listed for use as service entrance equipment and are shipped with a neutral bonding strap preattached. The maximum main rating of the loadcenter is the main breaker rating when used as service entrance equipment.

Note: All main circuit breaker loadcenters are listed for use as service entrance equipment. Loadcenters are factory bonded for service entrance applications. Remove bonding strap for separate neutral and ground bars for sub-feed applications.

TABLE 2-48. MAIN LUG — SINGLE-PHASE 3-WIRE — 120/240 VAC — SINGLE NEUTRAL

Main Ampere Rating	Maximum Number 1-Inch (25.4 mm)		Enclosure Type	Type of Trim	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Lugs	Loadcenter	
	Spaces	Poles					Catalog Number	UPC Code
125	8	16	Indoor	Surface w/door	7	#14 – 1	BR816LC125SDP	786676002301
	8	16	Indoor	Flush w/door	7		BR816LC125FDP	786676002295

TABLE 2-49. MAIN CIRCUIT BREAKER — 3-PHASE 4-WIRE — 208Y/120 VAC OR 240 VAC — INSULATED/BONDABLE NEUTRAL

Main Breaker Type	Main Ampere Rating	Maximum Number 1-Inch (25.4 mm)		Enclosure Type	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Breaker	Loadcenter with Combination or NEMA Type 3R Cover ②	
		Spaces	Poles				Catalog Number	UPC Code
BW 10 kAIC	200	30	42	Indoor	L1	#1/0 – 250 kcmil	3BR3042BC200	786676440851
		42	42	Indoor	L2		3BR4242BC200	786676441155
		42	42	Outdoor	L2R		3BR4242BC200R ③	786676441209

② All main circuit breaker loadcenters are listed for use as service entrance equipment and are shipped with a neutral bonding strap preattached. The maximum main rating of the loadcenter is the main breaker rating when used as service entrance equipment.

③ Rainproof loadcenters are furnished with hub closure plates.

TABLE 2-50. MAIN LUG — 3-PHASE 4-WIRE — 208Y/120 VAC OR 240 VAC — INSULATED/BONDABLE NEUTRAL

Main Ampere Rating	Maximum Number 1-Inch (25.4 mm)		Enclosure Type	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Lugs	Loadcenter with Combination or NEMA Type 3R Cover	
	Spaces	Poles				Catalog Number	UPC Code
200	30	42	Indoor	G1	#1/0 – 300 kcmil	3BR3042LC200	786676442459
	42	42	Indoor	L1		3BR4242LC200	786676442657
	42	42	Outdoor	L1R		3BR4242LC200R ④	786676442701

④ Rainproof loadcenters are furnished with hub closure plates.

Dimensions for boxes on Pages 2-41 – 2-43.

MAIN CIRCUIT BREAKER/MAIN LUG/CONVERTIBLE LOADCENTERS — WITH COPPER BUS
10,000/22,000/25,000 AMPERES INTERRUPTING CAPACITY

TABLE 2-51. CONVERTIBLE — SINGLE-PHASE 3-WIRE — 120/240 VAC — INSULATED/BONDABLE NEUTRAL

Main Ampere Rating	Maximum Number 1-Inch (25.4 mm)		Enclosure Type	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main	Loadcenter with Combination or NEMA Type 3R Cover ^{①②}	
	Spaces	Poles				Catalog Number	UPC Code
125 10/22 kAIC ^③	12	24	Indoor	B2	See main breaker and main lug kit tables (Page 2-31).	BR1224NC125 ^{④⑤}	786676448055
	12	24	Outdoor	B2R		BR1224NC125R ^{④⑤⑥}	786676448109
	20	24	Indoor	C2		BR2024NC125 ^④	786676448352
	20	24	Outdoor	C3R		BR2024NC125R ^{④⑥}	786676448406
200 10/25 kAIC ^③	20	40	Indoor	D1		BR2040NC200	786676448758
	20	40	Outdoor	D1R		BR2040NC200R ^⑥	786676448802
	30	40	Indoor	G1		BR3040NC200	786676448956
	30	40	Outdoor	G1R		BR3040NC200R ^⑥	786676001090
	40	40	Indoor	L1		BR4040NC200	786676449106
	40	40	Outdoor	L1R		BR4040NC200R ^⑥	786676449151

- ① All main circuit breaker loadcenters are listed for use as service entrance equipment and are shipped with a neutral bonding strap preattached. The maximum main rating of the loadcenter is the main breaker rating when used as service entrance equipment.
- ② 100, 125 and 200 ampere Convertible base unit catalog numbers include interior, box and cover only. Accessories must also be ordered separately for field installation. All Convertible base units are listed as suitable for use as service entrance equipment when used per Article 384 of the NEC.
- ③ Interrupting rating depends on main circuit breaker selected.
- ④ Hold-down screw BREQS125 comes with loadcenter for back-fed Types BR and BRH main circuit breakers.
- ⑤ 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 (see Article 408-34 of the NEC).
- ⑥ Rainproof loadcenters are furnished with hub closure plates.

TABLE 2-52. CONVERTIBLE — 3-PHASE 4-WIRE — 208Y/120 VAC OR 240 VAC — INSULATED/BONDABLE NEUTRAL

Main Ampere Rating	Maximum Number 1-Inch (25.4 mm)		Enclosure Type	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main	Loadcenter with Combination or NEMA Type 3R Cover ^{⑦⑧}	
	Spaces	Poles				Catalog Number	UPC Code
100 10/22 kAIC ^⑨	30	30	Indoor	D1	See main breaker and main lug kit tables (Page 2-31).	3BR3030NC100 ^⑩	786676443050
	30	30	Outdoor	D1R		3BR3030NC100R ^{⑩⑪}	786676443104
125 10/22 kAIC ^⑨	12	24	Indoor	C1		3BR1224NC125 ^{⑩⑫⑬}	786676443302
	12	24	Outdoor	C1R		3BR1224NC125R ^{⑩⑪⑫⑬}	786676443357

- ⑦ All main circuit breaker loadcenters are listed for use as service entrance equipment and are shipped with a neutral bonding strap preattached. The maximum main rating of the loadcenter is the main breaker rating when used as service entrance equipment.
- ⑧ 100, 125 and 200 ampere Convertible base unit catalog numbers include interior, box and cover only. Accessories must also be ordered separately for field installation. All Convertible base units are listed as suitable for use as service entrance equipment when used per Article 384 of the NEC.
- ⑨ Interrupting rating depends on main circuit breaker selected.
- ⑩ Hold-down screw BREQS125 comes with loadcenter for back-fed Types BR and BRH main circuit breakers.
- ⑪ Rainproof loadcenters are furnished with hub closure plates.
- ⑫ Convertible to maximum of 100 ampere main breaker and 125 ampere main lug.
- ⑬ 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 (see Article 408-34 of the NEC).

Dimensions for boxes on Pages 2-41 – 2-43.

COMMERCIAL LOADCENTERS — INDOOR ENCLOSURES MAIN CIRCUIT BREAKER, MAIN LUG AND CONVERTIBLE, SINGLE-PHASE AND THREE-PHASE

TABLE 2-53. SINGLE-PHASE MAIN CIRCUIT BREAKER — FACTORY INSTALLED

Main Breaker Type	Main Ampere Rating	Maximum Number 1-Inch (25.4 mm)		Encl. Type	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Breaker	Loadcenter Catalog Number	UPC Code	Flush Loadcenter Cover		Surface Loadcenter Cover	
		Spaces	Circuits						Catalog Number	UPC Code	Catalog Number	UPC Code

Single-Phase 3-Wire — 120/240 Vac Insulated/Bondable Neutral

CC 10 kAIC	200	42	42	Indoor	A	#1 – 300 kcmil	BR4242B200NY ^①	782114885734	3BR42FTNY	782114801222	3BR42STNY	782114801239
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① Approved for 150 ampere and up for residential services in New York City.

TABLE 2-54. SINGLE-PHASE MAIN LUGS — FACTORY INSTALLED

Main Lug Ampere Rating	Maximum Number 1-Inch (25.4 mm)		Encl. Type	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Breaker	Loadcenter Catalog Number	UPC Code	Flush Loadcenter Cover		Surface Loadcenter Cover	
	Spaces	Circuits						Catalog Number	UPC Code	Catalog Number	UPC Code

Single-Phase 3-Wire — 120/240 Vac Insulated/Bondable Neutral

225	42	42	Indoor	A	#1 – 300 kcmil	BR4242L225NY ^②	782114826546	3BR42FTNY	782114801222	3BR42STNY	782114801239
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② Approved for 150 ampere and up for residential services in New York City.

TABLE 2-55. THREE-PHASE CONVERTIBLE LOADCENTERS

Main Ampere Rating	Maximum Number 1-Inch (25.4 mm)		Encl. Type	Box Size	Wire Size Range Cu/Al 60°C or 75°C for Main Breaker	Loadcenter Catalog Number	UPC Code	Flush Loadcenter Cover		Surface Loadcenter Cover	
	Spaces	Circuits						Catalog Number	UPC Code	Catalog Number	UPC Code

3-Phase 4-Wire — 120/240 Vac Insulated/Bondable Neutral

225	42	42	Indoor	B	#1 – 300 kcmil	3BR4242N225NY ^{③④}	782114790243	3BR42FTNY	782114801222	3BR42STNY	782114801239
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③ Approved for 150 ampere and up for residential services in New York City.

④ Order main device from Table 2-56 and Table 2-57 below.

TABLE 2-56. THREE-PHASE MAIN BREAKER KITS

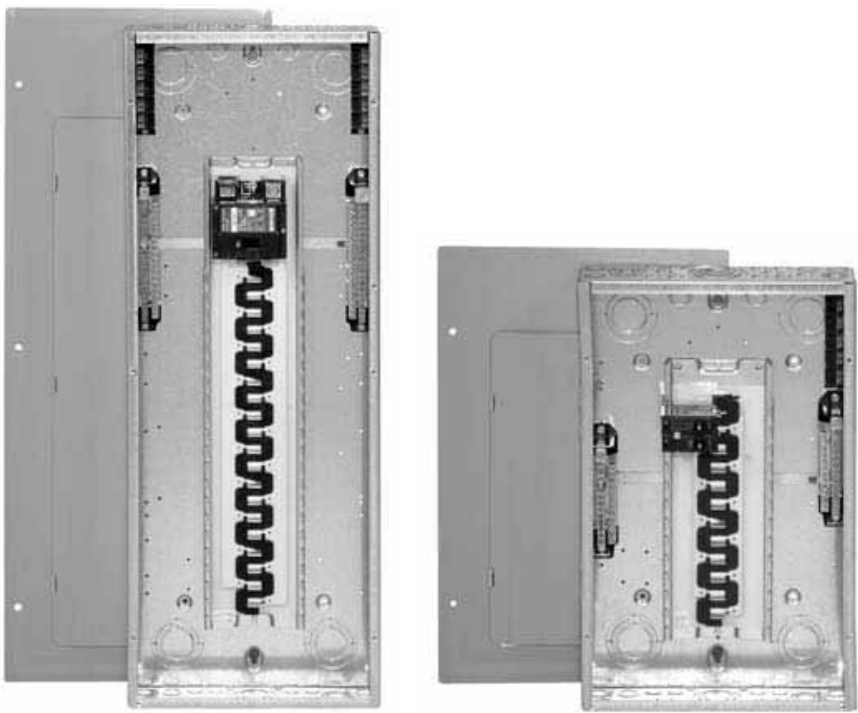
Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	Main Breaker Kit 10 kAIC	UPC Code
150	#4 – 4/0	CC3150N	782114652060
175	#2/0 – 300 kcmil	CC3175N	782114652077
200		CC3200N	782114652084
225		CC3225N	782114652091

TABLE 2-57. THREE-PHASE MAIN LUGS KIT

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	Main Lugs Kit	UPC Code
225	#2/0 – 300 kcmil	3BRL225	782114790250

Dimensions for boxes on Pages 2-41 – 2-43.

BR Renovation Loadcenter Value Packs



BR Renovation Loadcenters

Product Description

- ✓ Available in 10, 20, 30 and 40 circuit main breaker styles.
- ✓ Designed to replace existing loadcenters and fuse boxes.
- ✓ Type BR loadcenter packaged with circuit breakers.
- ✓ Factory-installed 5-circuit terminal block(s).
- ✓ Twin-stacked neutral design.

Features, Functions & Benefits

- ✓ Factory-installed terminal block(s) allows installer to terminate existing short wires without using wire nuts or junction boxes.
- ✓ Twin-stacked neutrals are mounted up high in the loadcenter, which allows for all neutral and ground wires to be terminated in the top half of the loadcenter.
- ✓ Specifically designed for the service contractor — this is the ONLY renovation line in the industry.
- ✓ Single-pole and two-pole breakers included.
- ✓ 10-year warranty on loadcenter and breakers.

TABLE 2-58. PRODUCT SELECTION

Main Breaker Type	Description	Wire Size Range	Number of 5-Circuit Terminal Blocks	Single-Pole Breakers	Two-Pole Breakers	Catalog Number	UPC Code
BR 10 kAIC	Single-Phase 100 Ampere 10 k Main Breaker 10/20 Circuit Surface-Mount Box is 11.75" Wide x 13" Tall	#6 – 1/0	0	(2) BR115	(1) BR230	BR1020B100S11RN	782116417070
	Single-Phase 100 Ampere 10 k Main Breaker 10/20 Circuit Flush-Mount Box is 11.75" Wide x 13" Tall		0	(2) BR115	(1) BR230	BR1020B100F11RN	782116417087
BW 10 kAIC	Single-Phase 100 Ampere 10 kAIC Main Breaker 20/20 Circuit	#2 – 300 kcmil	1	(5) BR120	(1) BR230	BR2020B100RN	782116417094
	Single-Phase 200 Ampere 10 kAIC Main Breaker 30/40 Circuit		2	(5) BR115 (5) BR120	(1) BR230 (1) BR250	BR3040B200RN	782116417100
	Single-Phase 200 Ampere 10 kAIC Main Breaker 40/40 Circuit		2	(6) BR115 (6) BR120	(1) BR230 (1) BR250	BR4040B200RN	782116417117

Note: Indoor enclosure type.

Cutler-Hammer Quick-ProSM



All you need to know to save time and make more money. Specified on certain Cutler-Hammer products, the Quick-Pro symbol allows for immediate recognition of products that are designed for straightforward installation. When you see Quick-Pro, you know you can install quickly — sometimes up to 50% less than the usual installation time — and move onto your next job.

Data Tables

TABLE 2-59. VALUE PACKS — SINGLE-PHASE — INDOOR — MAIN CIRCUIT BREAKER LOADCENTERS — COMBINATION COVER AND BREAKERS INCLUDED SINGLE-PHASE, 3-WIRE — 120/240 VAC — FACTORY BONDED SPLIT NEUTRAL — ALUMINUM BUS

Main Breaker Type	Maximum Main Ampere Rating	Maximum Number 1-Inch (25.4 mm)		Wire Size Range	Breakers Included	Loadcenter	
		Spaces	Circuits			Catalog Number	UPC Code
BR 10 kAIC	100	20	20	#6 – 1/0	5-BR120 & 1 BR230 6-BR120, 6-BR115, 1-BR230 & 1-BR250	BR2020B100V BR2020B100V4	786676444255 782113491646
BW 10 kAIC	150	30	30	#1 – 300 kcmil	10-BR120 & 1-BR230	BR3030B150V2	782114894446
	200	20	40	— —	5-BR120 & 1-BR230 5-BD2020 & 1-BR230	BR2040B200V BR2040B200V3	786676445702 782114894453
		30	40	— — —	5-BR120 & 1 BR230 10-BR120 & 1-BR230 6-BR120, 6-BR115, 1-BR230 & 1-BR250	BR3040B200V BR3040B200V2 BR3040B200V4	786676001106 782114894460 782113491653
		40	40	— —	5-BR120 & 1 BR230 10-BR120 & 1-BR230	BR4040B200V BR4040B200V2	786676446204 782114894484

TABLE 2-60. VALUE PACKS — SINGLE-PHASE — INDOOR — MAIN CIRCUIT BREAKER LOADCENTERS — COMBINATION COVER AND BREAKERS INCLUDED — SINGLE-PHASE, 3-WIRE — 120/240 VAC — FACTORY BONDED SPLIT NEUTRAL — COPPER BUS

Main Breaker Type	Maximum Main Ampere Rating	Maximum Number 1-Inch (25.4 mm)		Wire Range Size	Breakers Included	Loadcenter	
		Spaces	Circuits			Catalog Number	UPC Code
BR 10 kAIC	100	20 30	20 30	#6 – 1/0	5-BR120 & 1-BR230	BR2020BC100V BR3030BC100V	782113491639 782113491639
BW 10 kAIC	200	30 40	40 40	#1 – 300 kcmil	5-BR120, 1-BR230 & 2-BR120AF 5-BR120, 1-BR230 & 2-BR120AF	BR3040BC200VA BR4040BC200VA	782116103690 782116103706
BW 10 kAIC	200	30 30	40 40	#1 – 300 kcmil	10-BR120, 1-BR230 5-BR120, 1-BR230 & 2-BR115AF	BR3040BC200V2 BR3040BC200VA15	782116484379 782116123285
BW 10 kAIC	200	40 40	40 40	#1 – 300 kcmil	5-BR120, 1-BR230 & 2-BR115AF 10-BR120 & 1-BR230	BR4040BC200VA15 BR4040BC200V2	782116123292 782116484386

TABLE 2-61. VALUE PACKS — SINGLE-PHASE — OUTDOOR — MAIN CIRCUIT BREAKER LOADCENTERS — BREAKERS INCLUDED — SINGLE-PHASE, 3-WIRE — 120/240 VAC — INSULATED/BONDABLE NEUTRAL — ALUMINUM BUS

Main Breaker Type	Maximum Main Ampere Rating	Maximum Number 1-Inch (25.4 mm)		Wire Range Size	Breakers Included	Loadcenter	
		Spaces	Circuits			Catalog Number	UPC Code
BR 10 kAIC	100	20	24	#6 – 1/0	5-BR120 & 1 BR230	BR2024B100RV	786676002219
BW 10 kAIC	200	30	40	#1 – 300 kcmil	5-BR120 & 1 BR230	BR3040B200RV	786676002226

TABLE 2-62. VALUE PACKS — SINGLE-PHASE — INDOOR — MAIN LUG LOADCENTERS — BREAKERS INCLUDED — SINGLE-PHASE, 3-WIRE — 120/240 VAC — INSULATED/BONDABLE NEUTRAL — ALUMINUM BUS

Main Breaker Type	Maximum Main Ampere Rating	Maximum Number 1-Inch (25.4 mm)		Wire Range Size	Breakers Included	Loadcenter	
		Spaces	Circuits			Catalog Number	UPC Code
BW 10 kAIC	200	30	40	#1 – 300 kcmil	10-BR120 & 1-BR230	BR3040L200V2	782114894477

SINGLE-PHASE AND 3-PHASE — CIRCUIT BREAKER UNIT ENCLOSURES — 10,000/25,000 AMPERES INTERRUPTING CAPACITY



TABLE 2-63. CIRCUIT BREAKER UNIT ENCLOSURES — UNIT ENCLOSURE INCLUDES LUG TREE KIT

Circuit Breaker Type	Wire Size Range Cu/Al 60°C or 75°C	Main Ampere Rating	Unit Enclosure Catalog Number					Unit Enclosure Catalog Number		
			Encl. Type	Flush Cover		Surface Cover		Encl. Type	Rainproof NEMA Type 3R	
				Catalog Number	UPC Code	Catalog Number	UPC Code		Catalog Number	UPC Code
Type ECB Circuit Breaker Unit Enclosures — Factory-Installed Main Breaker										
BW/BR 10 kAIC	①	100 150 200	—	—	—	—	—	Outdoor	BR2100BRP RCC150SEBP RCC200SEBP	786676001687 782114105344 782114105337
Type ECB Circuit Breaker Unit Enclosures — Order Types BW and BWH Circuit Breakers Separately Single-Phase 3-Wire — 240 Vac Maximum										
BW 10 kAIC	①	225	Indoor	ECB225F ②③	782113098753	ECB225S ②③	782113098746	Outdoor	ECB225R ②③④	782113098760
BWH 25 kAIC										
Type ECC Circuit Breaker Unit Enclosures — Order Type CC Circuit Breakers Separately Single-Phase 3-Wire/3-Phase 4-Wire — 240 Vac Maximum										
CC 10 kAIC	①	225	Indoor	ECC225F ②③	782114225196	ECC225S ②③	782114225202	Outdoor	ECC225R ②③④	782114225219

- ① Wire size is determined by the circuit breaker installed in enclosure. See table below.
- ② Order circuit breaker separately.
- ③ One ground lug accepting (1) #14 – #2 is factory installed. Also, there are pre-drilled holes to accept a GBK5 ground bar.
- ④ Rainproof enclosures are furnished with hub closure plates.

TABLE 2-64. MAXIMUM WIRE SIZE

Maximum Ampere Rating	Wire/Application	Maximum Wire Size
200	Aluminum – Standard	250 kcmil
225	Aluminum – Service Entrance	250 kcmil
225	Copper – Standard and Service Entrance	250 kcmil

SINGLE-PHASE AND 3-PHASE — CIRCUIT BREAKER UNIT ENCLOSURES — 10,000/25,000 AMPERES INTERRUPTING CAPACITY

TABLE 2-65. TYPES BW AND BWH CIRCUIT BREAKERS — 120/240 VAC — 10 AND 25 kAIC FOR USE IN TYPE ECB UNIT ENCLOSURES

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C for Line Terminals	2-Pole Breakers			
		10 kAIC		25 kAIC	
		Catalog Number	UPC Code	Catalog Number	UPC Code
125	#2 – 300 kcmil	BW2125	786676460408	BWH2125	786676460439
150		BW2150	786676460507	BWH2150	786676460453
175		BW2175	786676460552	BWH2175	786676449700
200		BW2200	786679122556	BWH2200	786676460606
225		BW2225	786679122556	BWH2225	786679122563

TABLE 2-66. BW/BWH LUG TREE KIT — FOR REPLACEMENT PURPOSES ONLY FOR USE IN TYPE CCM UNIT ENCLOSURES

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C for Line Terminals	Description	Catalog Number	UPC Code
225	#2 – 300 kcmil	For use on 125, 150, 175, 200 and 225 Ampere BW and BWH Breakers	MCBK225	782114110591

TABLE 2-67. TYPE CC CIRCUIT BREAKERS — 240 VAC — 10 kAIC FOR USE IN TYPE ECC UNIT ENCLOSURES

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C for Line Terminals	Type CC 10 kAIC		Type CC Hi-Mag 10 kAIC	
		Catalog Number	UPC Code	Catalog Number	UPC Code
2-Pole					
100 125 150	#4 – 4/0	CC2100	782113386546	CC2100HM	782113828589
		CC2125	782113266565	CC2125HM	782113828596
		CC2150	782113266572	CC2150HM	782113828602
175 200 225	#2/0 – 300 kcmil	CC2175	782113266589	CC2175HM	782113828619
		CC2200	782113266596	CC2200HM	782113828626
		CC2225	782113266602	CC2225HM	782113828633
3-Pole					
100 125 150	#4 – 4/0	CC3100	782113386553	CC3100HM	782113828640
		CC3125	782113266619	CC3125HM	782113828657
		CC3150	782113266626	CC3150HM	782113828664
175 200 225	#2/0 – 300 kcmil	CC3175	782113266633	CC3175HM	782113828671
		CC3200	782113266640	CC3200HM	782113828688
		CC3225	782113266657	CC3225HM	782113828695

Loadcenter Options and Accessories

TABLE 2-68. FIELD INSTALLATION KITS AND PARTS

Number of Poles	Ampere Rating	No. of 1-Inch (25.4 mm) Spaces Needed	Wire Size Range Cu/Al 60°C or 75°C	Ordering Qty. ①	Catalog Number	UPC Code
Main and Sub-Feed Lug Blocks						
2	125	4	#8 – 2/0	1	BRSF125	786676001762
	150	4	#8 – 2/0	1	BRSF150	786676001779
	225	4	#2 – 300 kcmil	1	BRS225	786676461405
3	150	6	#8 – 2/0	1	3BRSF150	786676001786
	225	6	#2 – 300 kcmil	1	3BRS225	786676461504
Main Lugs — 2-Pole, 200 Ampere Stud Mounted (Includes Deadfront Filler Plate)			#1 – 300 kcmil	1	BRL200	786676460101
Neutral/Ground Lug Add-On Neutral or Ground Lug			#2/0 Maximum	1	NL20	782113099156
			#3/0 Maximum	1	NL30	782113099163
			300 kcmil Maximum	1	NL300	782113099170
Filler Plates: 1-Inch (25.4 mm) Circuit Breaker Space BW Main Circuit Breaker Space (with Hardware)				25	BRFP	786676461603
				1	BWFP	782114127384
Door Lock —12 through 42 Circuits, and 100 through 225 Amperes				1	TDL	782113099040
Door Lock — 4 through 8 Circuits, 125 Amperes				1	CH9FL	782113101224
ANSI-61 Light Gray Touchup Paint for Current Loadcenters				1	SPC61	782113098777
Isolated Neutral Assembly (Computer Circuits)				1	BINA	782113099439
Circuit Directory — Adhesive Backed				10	TCD	782113099019
Cover Screws				25	LCCS	782113099583
Cover Replacement Latch (Gray) 14.31 (363.5 mm) Wide — Loadcenters Only				1	BRRL	786676461757
Circuit Marking Strip (Next to Breaker)				10	BRMS	786676101509
Circuit Identification Label (Preprinted Breaker Labels)				25	CHBL	782113099712
Series Rated Caution Label				25	SRL	782113099002
Bonding Strip with Screw				1	BSSUSE	782114127339

① Must be purchased in multiples of ordering quantities indicated.

TABLE 2-69. FIELD INSTALLATION RAINPROOF CONDUIT HUBS ②

Description	Conduit Size Inches (mm)	Catalog Number	UPC Code
Group 1 — For use with 70, 100 and 125 Ampere MLO and MCB Loadcenters and Circuit Breaker Enclosures and the following 150 and 200 Ampere Panels: BR816B150RF, BR816B200RF	0.75 (19.1)	DS075H1P	786676805001
	1.00 (25.4)	DS100H1P	786676805056
	1.25 (31.8)	DS125H1P	786676805100
	1.50 (38.1)	DS150H1P	786676805155
	2.00 (50.8)	DS200H1P	786676805209
Group 2 — For use with 150, 200 and 225 Ampere MLO and MCB Loadcenters and Circuit Breaker Enclosures except for the following 200 Ampere Loadcenters: BR48B200RF	2.00 (50.8)	DS200H2P	786676462068
	2.50 (63.5)	DS250H2P	786676000505
	3.00 (76.2)	DS300H2P	786676000529
Type R1H Conduit Hubs for 400 and 600 Ampere Loadcenters and New York City Loadcenters	2.00 (50.8)	R1H200	786676201254
	2.50 (63.5)	R1H250	786676201261
	3.00 (76.2)	R1H300	786676201278
Type H Conduit Hubs for Loadcenters PL0724R and S3100RN	0.75 (19.1)	RH75P	786676213257
	1.00 (25.4)	RH100P	786676213356
	1.25 (31.8)	RH125P	786676213455
	1.50 (38.1)	RH150P	786676213554
	2.00 (50.8)	RH200P	786676213653
Adapter Kit — Allows Installing a Group 1 Hub on Devices Arranged for Group 2 Hubs Group 1 Small Blank Hub Plate with Bump Group 2 Large Blank Hub Plate with Bump	—	DS900AP	782113099422
	—	DS900CP1	782114014394
	—	DS900CP2	782114014400

② Ordering quantity [for all catalog numbers is one. Must be purchased in multiples.

TABLE 2-70. CLAMSHELL ACCESSORIES

Description	Catalog Number	UPC Code	Description	Catalog Number	UPC Code
Field Installation Kits and Parts			Rainproof Conduit Hubs		
Main or Sub-Feed Lug Block	BRSF125CS	782114793176	Type 1 Hub	DS075H1CS	782114793275
Filler Plates	BRFPCS	782114793121	Type 1 Hub	DS100H1CS	782114793282
Cover Screws	LCCSCS	782114793428	Type 1 Hub	DS125H1CS	782114793299
Circuit Identification Labels	CHBLCS	782114793206	Type 1 Hub	DS150H1CS	782114793305
—	—	—	Type 2 Hub	DS200H2CS	782114793312



BRSF125



3BRS225



BRL200



TDL



DS300H2

Loadcenter Options and Accessories

TABLE 2-71. GROUND BAR KITS

Description (See Legend)	Length Inches (mm)	Ordering Quantity	Catalog Number	UPC Code
	2.54 (64.5)	1	GBK5P ^①	786676460804
	3.59 (91.2)	1	GBK520 ^①	782114014356
	4.29 (109.0)	1	GBK10P ^①	782114462058
	5.34 (135.6)	1	GBK1020 ^①	782114014554
	4.61 (117.1)	1	GBK13 ^①	782114220610
	5.69 (144.5)	1	GBK14P ^①	786676461153
	6.74 (171.2)	1	GBK1420 ^①	782113099576
	8.14 (206.8)	1	GBK21P ^①	786676461252
	9.19 (233.4)	1	GBK2120 ^①	782113099552
	5.78 (146.8)	1	BRGBK39512 ^{②③}	786676449359
	1.84 (46.7)	1	GB4NMP ^④	786676378031

- ① Distance between mounting holes is 1.75 inches (44.5 mm).
② For 1- and 3-phase 400 and 600 ampere applications.
③ Distance between mounting holes is 2.34 inches (59.5 mm).
④ For non-metallic enclosures. Snaps into molded base.

Ground Bar Legend

- (3) #14 – #10 Cu/Al or (1) #14 – #4 Cu/Al
- (1) #6 – 2/0 Cu/Al
- ▣ (1) #14 – #6 Cu/Al or (2) #14 – #12 Cu/Al
- ▢ (1) 1/8 – 14 or (3) #10 – 12 Cu/Al
- ◐ (1) #14 – 1/0 Cu/Al or (3) #14 – #10 Cu/Al
- ◑ (1) #6 – 14 Cu/Al or (2) #1/0 – 14 Cu/Al
- Mounting Hole

TABLE 2-72. CLAMSHELL ACCESSORIES

Description	Catalog Number	UPC Code
Ground Bar Kit	GBK5CS	782114793411
Ground Bar Kit	GBK520CS	782114793404
Ground Bar Kit	GBK10CS	782114793343
Ground Bar Kit	GBK1020CS	782114793336
Ground Bar Kit	GBK13CS	782114793350
Ground Bar Kit	GBK14CS	782114793374
Ground Bar Kit	GBK21CS	782114793398



GBK14



BRGBK39512

Technical Data and Specifications

RESIDENTIAL/COMMERCIAL/
NEW YORK CITY LOADCENTERS,
UNIT ENCLOSURES — BOX SIZES

Note: Box sizes do not include covers/fronts.

TABLE 2-73. RESIDENTIAL LOADCENTERS — NEMA TYPE 1 INDOOR

Box Size	Dimensions in Inches			Dimensions in mm		
	Height	Width	Depth	Height	Width	Depth
A1	15.00	11.25	3.75	381.0	285.8	95.3
B1	16.75	14.31	3.88	425.5	363.5	98.4
B2	18.75	14.31	3.88	476.3	363.5	98.4
C1	21.00	14.31	3.88	533.4	363.5	98.4
C2	23.00	14.31	3.88	584.2	363.5	98.4
C4	27.00	14.31	3.88	685.8	363.5	98.4
D1	29.13	14.31	3.88	739.8	363.5	98.4
G1	34.13	14.31	3.88	866.8	363.5	98.4
L1	39.00	14.31	3.88	990.6	363.5	98.4
L2	45.00	14.31	3.88	1143.0	363.5	98.4
2	8.63	5.00	3.50	219.1	127.0	88.9
3	9.44	4.50	3.00	239.7	114.3	76.2
4	13.00	11.00	3.56	330.2	279.4	90.5
5	9.44	4.50	3.00	239.7	114.3	76.2
6	12.00	6.88	4.50	304.8	174.6	114.3
7	13.00	11.00	3.56	330.2	279.4	90.5
9	14.50	6.50	3.50	368.3	165.1	88.9

TABLE 2-74. RESIDENTIAL LOADCENTERS — NEMA TYPE 3R OUTDOOR

Box Size	Dimensions in Inches			Dimensions in mm		
	Height	Width	Depth	Height	Width	Depth
B1R	16.75	14.31	5.19	425.5	363.5	131.8
B2R	18.75	14.31	5.19	476.3	363.5	131.8
C3R	25.00	14.31	5.19	635.0	363.5	131.8
D1R	29.13	14.31	5.19	739.8	363.5	131.8
G1R	34.13	14.31	5.19	866.8	363.5	131.8
L1R	39.00	14.31	5.19	990.6	363.5	131.8
L2R	45.00	14.31	5.19	1143.0	363.5	131.8
2R	8.63	5.00	3.50	219.1	127.0	88.9
3R	9.44	4.50	3.00	239.7	114.3	76.2
4R	13.00	11.00	3.56	330.2	279.4	90.5
5R	9.44	4.50	3.00	239.7	114.3	76.2
6R	11.75	6.50	4.50	298.5	165.1	114.3
7R	13.00	11.00	3.56	330.2	279.4	90.5
8R	27.00	10.50	4.75	685.8	266.7	120.7
9R	14.25	6.50	4.00	362.0	165.1	101.6
C1R	21.00	14.31	5.19	533.4	363.5	131.8

TABLE 2-75. COMMERCIAL LOADCENTERS — NEMA TYPE 1 INDOOR

Box Size	Dimensions in Inches			Dimensions in mm		
	Height	Width	Depth	Height	Width	Depth
19	44.00	16.16	6.25	1117.6	410.4	158.8
20	44.00	16.16	6.25	1117.6	410.4	158.8
22	54.00	16.22	6.31	1371.6	412.0	160.3
24	66.50	16.22	6.31	1689.1	412.0	160.3

TABLE 2-76. COMMERCIAL LOADCENTERS — NEMA TYPE 3R OUTDOOR

Box Size	Dimensions in Inches			Dimensions in mm		
	Height	Width	Depth	Height	Width	Depth
42	38.00	16.31	6.38	965.2	414.3	161.9
43	44.00	16.31	6.38	1117.6	414.3	161.9
46	54.00	16.31	6.38	1371.6	414.3	161.9
47	66.56	16.31	6.38	1690.7	414.3	161.9

TABLE 2-77. NEW YORK CITY LOADCENTERS — NEMA TYPE 1 INDOOR

Box Size	Dimensions in Inches			Dimensions in mm		
	Height	Width	Depth	Height	Width	Depth
A	38.00	18.13	5.00	965.2	460.4	127.0
B	44.00	18.13	5.00	1117.6	460.4	127.0
C	66.50	18.13	6.25	1689.1	460.4	158.8

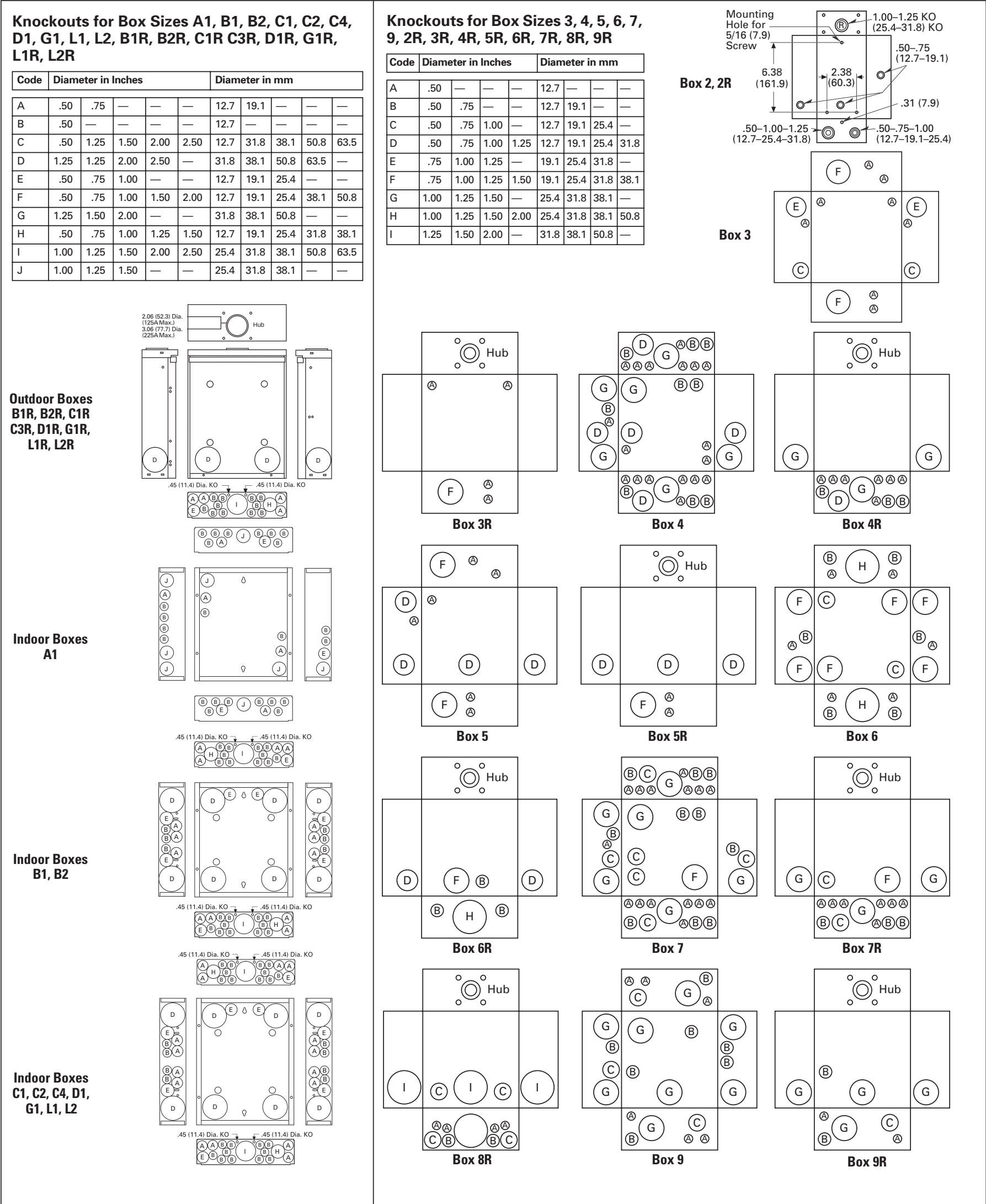
TABLE 2-78. TYPES ECB AND ECC UNIT ENCLOSURES — NEMA TYPE 1 INDOOR

Dimensions in Inches			Dimensions in mm		
Height	Width	Depth	Height	Width	Depth
23.25	8.88	4.50	590.6	225.4	114.3

TABLE 2-79. TYPES ECB AND ECC UNIT ENCLOSURES — NEMA TYPE 3R OUTDOOR

Dimensions in Inches			Dimensions in mm		
Height	Width	Depth	Height	Width	Depth
23.68	9.31	5.44	601.7	236.5	138.1

RESIDENTIAL LOADCENTER KNOCKOUTS — DIMENSIONS IN INCHES (MM)



COMMERCIAL LOADCENTER KNOCKOUTS

TABLE 2-80. NEMA TYPE 1 INDOOR COMMERCIAL ENCLOSURES KNOCKOUTS FOR BOX SIZES 19, 20, 22, 24

Code	Diameter in Inches				Diameter in mm			
A	.50	—	—	—	12.7	—	—	—
B	.50	.75	—	—	12.7	19.1	—	—
C	.75	1.00	1.50	—	19.1	25.4	38.1	—
D	1.50	2.00	2.50	3.00	38.1	50.8	63.5	76.2
E	2.00	2.50	3.00	—	50.8	63.5	76.2	—
F	2.50	3.00	3.50	—	63.5	76.2	88.9	—

TABLE 2-81. NEMA TYPE 3R OUTDOOR COMMERCIAL ENCLOSURES KNOCKOUTS FOR BOX SIZES 42, 43, 46, 47

Code	Diameter in Inches				Diameter in mm			
A	.50	—	—	—	12.7	—	—	—
B	.50	.75	—	—	12.7	19.1	—	—
C	.75	1.00	1.25	—	19.1	25.4	31.8	—
D	1.50	2.00	2.50	—	38.1	50.8	63.5	—
E	2.00	2.50	3.00	—	50.8	63.5	76.2	—
F	2.50	3.00	3.50	—	63.5	76.2	88.9	—
G	1.25	1.50	2.00	2.50	31.8	38.1	50.8	63.5
H	3.25 Sq.	—	—	—	82.6 Sq.	—	—	—

TABLE 2-82. UNIT ENCLOSURE KNOCKOUTS, TYPES ECB AND ECC KNOCKOUTS

Code	Diameter in Inches					Diameter in mm				
NEMA Type 1 Indoor (Flush and Surface Trims)										
A	.50	—	—	—	—	12.7	—	—	—	—
B	1.25	1.50	1.75	2.00	2.50	31.8	38.1	44.5	50.8	63.5
NEMA Type 3R Outdoor										
A	.50	—	—	—	—	12.7	—	—	—	—
B	1.25	1.50	1.75	2.00	2.50	31.8	38.1	44.5	50.8	63.5

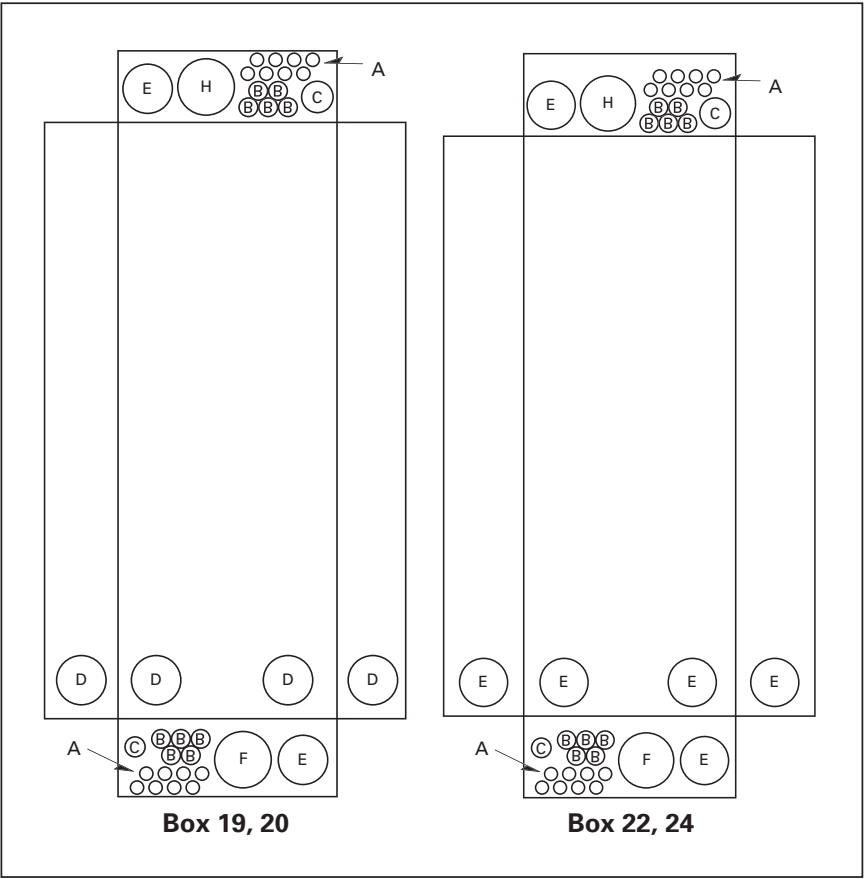


FIGURE 2-6. INDOOR COMMERCIAL ENCLOSURES

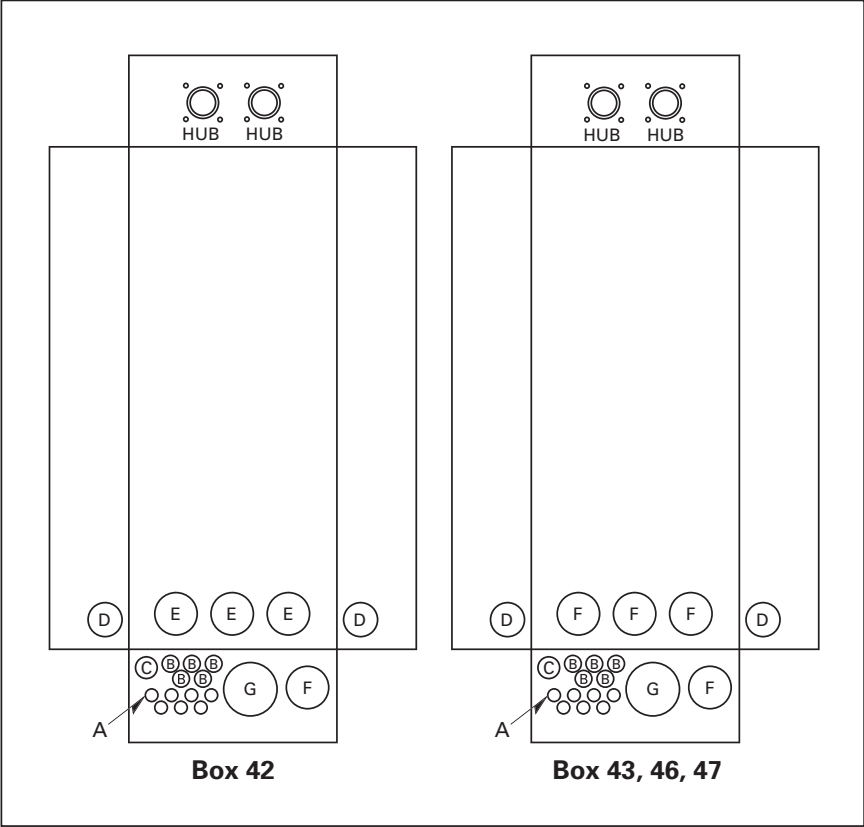


FIGURE 2-7. OUTDOOR COMMERCIAL ENCLOSURES

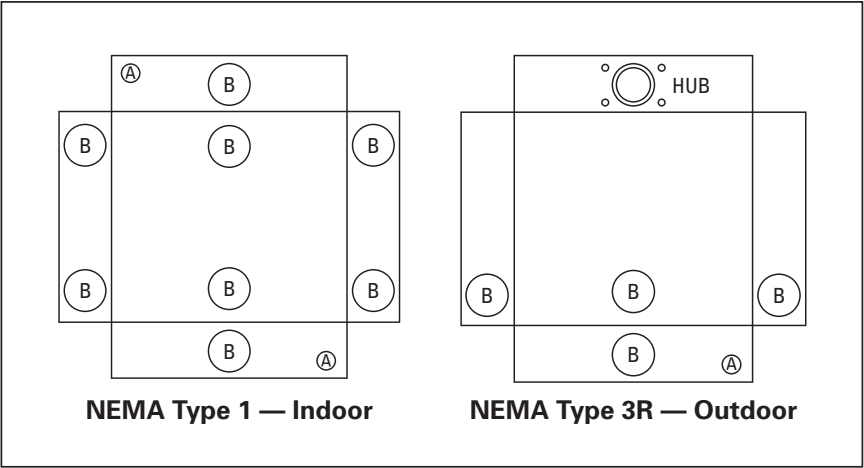
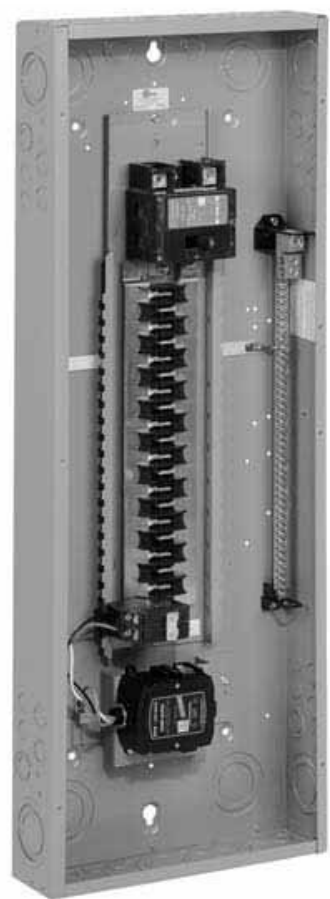


FIGURE 2-8. UNIT ENCLOSURE KNOCKOUTS

Surge Loadcenters



New Surge Loadcenter



CHSPULTRA

Product Description

The Type CH Surge Loadcenter includes a factory-mounted and wired surge suppressor device. There is a knockout in the cover which allows the user to view the status indication lights on the surge suppressor. The CH Surge Loadcenter reduces the force of power line surges to an acceptable level for surge strips to handle.

Features, Functions and Benefits

LOADCENTER

- ✓ 35 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 SUPPRESSOR (CHSPULTRA)

- ✓ Total joules: 3,500 joules.
- ✓ Maximum surge current: 175,000 amperes .
- ✓ Per phase (L-N/L-G) Surge Current: 75,000 amperes.
- ✓ Warranty: Lifetime.
- ✓ Connected equipment warranty: \$5,000.

Cutler-Hammer Quick-ProSM



All you need to know to save time and make more money. Specified on certain Cutler-Hammer products, the Quick-Pro symbol allows for immediate recognition of products that are designed for straightforward installation. When you see Quick-Pro, you know you can install quickly — sometimes up to 50% less than the usual installation time — and move onto your next job.

Data Tables

TABLE 2-83. SINGLE-PHASE MAIN CIRCUIT BREAKER LOADCENTERS WITH FACTORY INSTALLED SURGE SUPPRESSION — INDOOR SINGLE-PHASE 3-WIRE — 120/240 VAC — FACTORY BONDED SPLIT NEUTRAL

Main Breaker Type	Maximum Main Ampere Rating	Maximum Number 3/4-Inch (19.1 mm) Single Poles	Box Size ②	Wire Range Size	Loadcenter		Loadcenter Cover			
					Catalog Number	UPC Code	Combination ①		Surface	
							Catalog Number	UPC Code	Catalog Number	UPC Code
CSH 35 kAIC	100	24	E	#6 – 4/0	CHSUR24B100E	782116200054	CHSUR8EF	782116200221	CHSUR8ES	782116200269
		32	K		CHSUR32B100K	782116200078	CHSUR8KF	782116200238	CHSUR8KS	782116200276
	150	32	K	#2 – 300 kcmil	CHSUR32B150K	782116200085	CHSUR8KF	782116200238	CHSUR8KS	782116200276
	200	32	K		CHSUR32B200K	782116200108	CHSUR8KF	782116200238	CHSUR8KS	782116200276
	200	42	L		CHSUR42B200L2	782116320196	CHSUR8LF	782116200245	CHSUR8LS	782116200283

① Combination style covers may be used for surface or flush mount applications.

② See Page 2-18 for dimensions.

TABLE 2-84. SINGLE-PHASE MAIN LUG LOADCENTERS WITH FACTORY INSTALLED SURGE SUPPRESSION — INDOOR SINGLE-PHASE 3-WIRE — 120/240 VAC — TWIN NEUTRAL — FACTORY INSTALLED GROUND BAR

Maximum Main Ampere Rating	Maximum Number 3/4-Inch (19.1 mm) Single Poles	Box Size ④	Wire Range Size	Loadcenter		Loadcenter Cover			
				Catalog Number	UPC Code	Combination ③		Surface	
						Catalog Number	UPC Code	Catalog Number	UPC Code
125	24	E	#6 – 2/0	CHSUR24L125E	782116200061	CHSUR8EF	782116200221	CHSUR8ES	782116200269
225	32	K	#2 – 300 kcmil	CHSUR32L225K	782116200092	CHSUR8KF	782116200238	CHSUR8KS	782116200276
	42	L		CHSUR42L225L2	782116320202	CHSUR8LF	782116200245	CHSUR8LS	782116200283

③ Combination style covers may be used for surface or flush mount applications.

④ See Page 2-18 for dimensions.

TABLE 2-85. SINGLE-PHASE CONVERTIBLE LOADCENTERS WITH FACTORY INSTALLED SURGE SUPPRESSION — INDOOR SINGLE-PHASE 3-WIRE — 120/240 VAC — TWIN NEUTRAL — FACTORY INSTALLED GROUND BAR

Maximum Main Ampere Rating	Maximum Number 3/4-Inch (19.1 mm) Single Poles	Box Size ⑥	Wire Range Size	Loadcenter		Loadcenter Cover			
				Catalog Number	UPC Code	Combination ⑤		Surface	
						Catalog Number	UPC Code	Catalog Number	UPC Code
225	32	K	#2 – 300 kcmil	CHSUR32N225K	782116200115	CHSUR8KF	782116200238	CHSUR8KS	782116200276
	42	L		CHSUR42N225L	782116320004	CHSUR8LF	782116200245	CHSUR8LS	782116200283

⑤ Combination style covers may be used for surface or flush mount applications.

⑥ See Page 2-18 for dimensions.

TABLE 2-86. SINGLE-PHASE MAIN CIRCUIT BREAKER LOADCENTERS WITH FIELD INSTALLATION PROVISION FOR SURGE SUPPRESSION — INDOOR SINGLE-PHASE 3-WIRE — 120/240 VAC — FACTORY BONDED SPLIT NEUTRAL

Main Breaker Type	Maximum Main Ampere Rating	Maximum Number 3/4-Inch (19.1 mm) Single Poles	Box Size ⑧	Wire Range Size	Loadcenter		Loadcenter Cover			
					Catalog Number	UPC Code	Combination ⑦		Surface	
							Catalog Number	UPC Code	Catalog Number	UPC Code
CSH 35 kAIC	100	24	E	#6 – 4/0	CHEC24B100E	782116200139	CHSUR8EF	782116200221	CHSUR8ES	782116200269
		32	K		CHEC32B100K	782116200153	CHSUR8KF	782116200238	CHSUR8KS	782116200276
	150	32	K	#2 – 300 kcmil	CHEC32B150K	782116200160	CHSUR8KF	782116200238	CHSUR8KS	782116200276
	200	32	K		CHEC32B200K	782116200252	CHSUR8KF	782116200238	CHSUR8KS	782116200276
	200	42	L		CHEC42B200L	782116200184	CHSUR8LF	782116200245	CHSUR8LS	782116200283

⑦ Combination style covers may be used for surface or flush mount applications.

⑧ See Page 2-18 for dimensions.

Data Tables

TABLE 2-87. SINGLE-PHASE MAIN LUG LOADCENTERS WITH FIELD INSTALLATION PROVISION FOR SURGE SUPPRESSION — INDOOR SINGLE-PHASE 3-WIRE — 120/240 VAC — TWIN NEUTRAL — FACTORY INSTALLED GROUND BAR

Maximum Main Ampere Rating	Maximum Number 3/4-Inch (19.1 mm) Single Poles	Box Size ②	Wire Range Size	Loadcenter		Loadcenter Cover			
				Catalog Number	UPC Code	Combination ①		Surface	
						Catalog Number	UPC Code	Catalog Number	UPC Code
125	24	E	#6 – 2/0	CHEC24L125E	782116200146	CHSUR8EF	782116200221	CHSUR8ES	782116200269
225	32	K	#2 – 300 kcmil	CHEC32L225K	782116200177	CHSUR8KF	782116200238	CHSUR8KS	782116200276
	42	L		CHEC42L225L	782116200191	CHSUR8LF	782116200245	CHSUR8LS	782116200283

① Combination style covers may be used for surface or flush mount applications.

② See **Page 2-18** for dimensions.

TABLE 2-88. SINGLE-PHASE CONVERTIBLE LOADCENTERS WITH FIELD INSTALLATION PROVISION FOR SURGE SUPPRESSION — INDOOR SINGLE-PHASE 3-WIRE — 120/240 VAC — TWIN NEUTRAL — FACTORY INSTALLED GROUND BAR

Maximum Main Ampere Rating	Maximum Number 3/4-Inch (19.1 mm) Single Poles	Box Size ④	Wire Range Size	Loadcenter		Loadcenter Cover			
				Catalog Number	UPC Code	Combination ③		Surface	
						Catalog Number	UPC Code	Catalog Number	UPC Code
225	32	K	#2 – 300 kcmil	CHEC32N225K	782116200207	CHSUR8KF	782116200238	CHSUR8KS	782116200276
	42	L		CHEC42N225L	782116200214	CHSUR8LF	782116200245	CHSUR8LS	782116200283

③ Combination style covers may be used for surface or flush mount applications.

④ See **Page 2-18** for dimensions.

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Meter Breakers

CH and BR Meter Mains — Non-EUSERC	3-3
CH and BR Meter Breaker — Non-EUSERC	3-3
CH and BR Meter Breaker — EUSERC	3-5
BR EUSERC - All-In-One – 7” Deep	3-5
300 and 400 Ampere House Panels	3-6
Meter Breaker Accessories	3-9
Meter Breaker Technical Data and Dimensions . . .	3-10



Residential Meter Breakers and Non-EUSERC Panel

Product Description

A meter breaker combines two products into one: a single meter socket and a loadcenter, a.k.a. the circuit breaker box. Sometimes these units are called all-in-ones or combo units. Certain utilities will specify a meter breaker instead of a meter socket and load-center. The meter breaker is used where electricity enters a home or dwelling. The utility attaches a meter in the socket to measure power consumption. The loadcenter portion is used to distribute the power throughout the home using various circuits.

Features, Functions and Benefits

- ✓ Variety of designs to meet local utility specifications.
- ✓ Meets NEC® wire bending space requirements.
- ✓ Commercial grade main breaker.
- ✓ Overhead or underground service.
- ✓ Raised interior with built-in wireway for easier installation.
- ✓ 100 – 225 amperes.
- ✓ Warranty:
 - CH style — 20-year warranty
 - BR style — 10-year warranty
- ✓ UL® listed.

Catalog Numbering System

TABLE 3-1. CATALOG NUMBERING SYSTEM (APPLIES TO NEW DESIGNS ONLY)

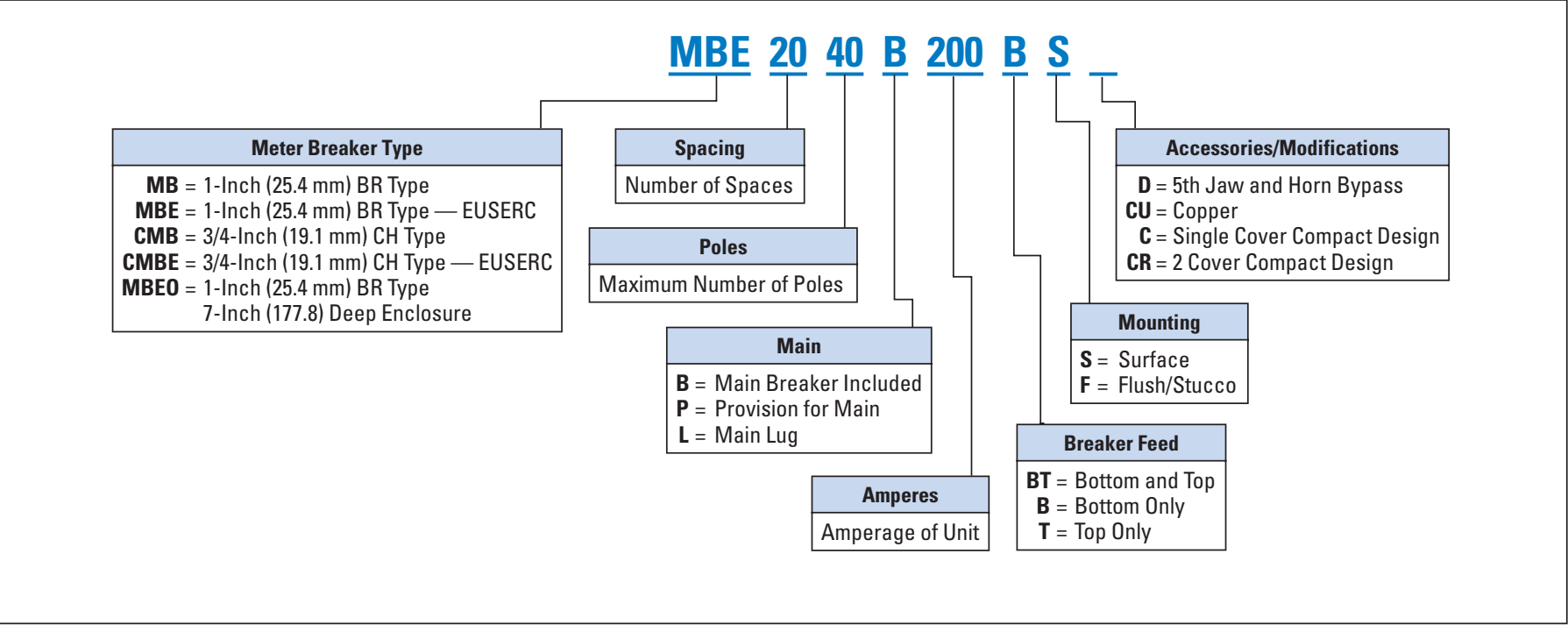
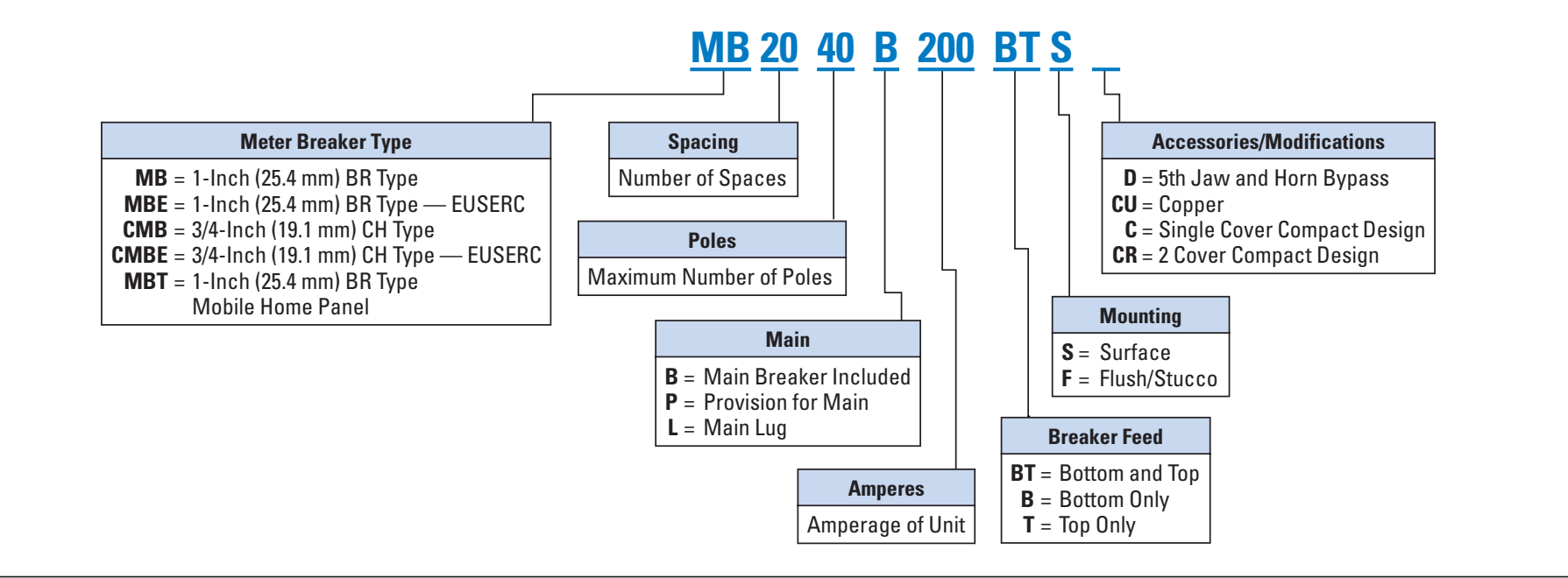


TABLE 3-2. CATALOG NUMBERING SYSTEM (APPLIES TO NEW DESIGNS ONLY)



Product Selection

TABLE 3-3. COMBINATION SERVICE ENTRANCE DEVICES — NON-EUSERC

Ampere Rating	Bypass	Service	kAIC	Jaws	Distribution	Main	Branch Breaker Type	Catalog Number	UPC Code
Ring Style Meter Mains (no distribution section included)									
100	None	OH	①	4	None	Provision ②	None	WMB102RN	786676258272
150	None	OH/UG	10	4	None	CSR2150	None	MBB150BTSCR ⑥	782114860137
150	None	OH/UG	22	4	None	CSR2150	None	CMBB150BTS ⑦⑧	782113601809
200	None	OH/UG	10	4	None	CSR2200	None	MBB200BTSCR ⑥	782114860144
200	None	OH/UG	①	4	None	Provision ③④⑤	None	CMBP200BTS ⑦⑧	782114987889
200	None	OH/UG	22	4	None	CSR2200	None	CMBB200BTS ⑦⑧	782114872505
Ringless Meter Mains (no distribution section included)									
150	None	OH/UG	10	4	None	CSR2150	None	MBB150BTSC ⑨	782114860175
200	None	OH/UG	10	4	None	CSR2200	None	MBB200BTS ⑧	782114860199
200	None	OH/UG	10	4	None	CSR2200	None	MBB200BTSC ⑨	782114860182
150	None	OH/UG	10	4	None	CSR2125	None	MBB150BTS	782116073252
200	None	OH/UG	①	4	None	Provision ③④⑤	None	MBP200BTS ⑧	782114860151
200	Horn	OH/UG	①	5	None	Provision ③④⑤	None	MBP200SD	782114668887
200	Horn	OH/UG	①	5	None	Provision ③④⑤	None	MBP200BTSD	782114887707
100	Horn	OH/UG	10	5	None	Provision	None	CHMMB100BTS	782113682006
150	Horn	OH/UG	10	5	None	BWH2150	None	CHMMB150BTS	782113682013
200	Horn	OH/UG	10	5	None	BWH2200	None	CHMMB200BTS	782113682020
Puerto Rican Meter Breaker Units									
100	None	OH	10	4	None	BR2100	None	SMB120G ⑩	782114375846
100	None	OH	10	4	None	BR2100	None	SMB120AL ⑪	782114375815
100	None	OH/UG	10	4	None	BR2100	None	SMB12UOG ⑩	782114375853
100	None	OH/UG	10	4	None	BR2100	None	SMB12UOAL ⑪	782114375808

① Per installed main breaker rating.

② Provision for main is provided. WMB style devices accept Main Breaker style BR, 2-Pole.

③ All panels are dual labeled to accept Types BW or CSR Main Breakers.

④ **MCBK225** lug kit is needed for load side cable connection for Meter Mains. Please order separately.

⑤ When a provision for main is provided, order one of the main breakers listed in this table. All panels are dual labeled to accept Types BW, BWH and CSR Main Breakers.

⑥ Panels are specifically designed for the Georgia Power Service Territory, but may be used in any service territory that has the same design requirements.

⑦ Copper bus.

⑧ One-piece cover on utility side, Florida approved.

⑨ Single cover design.

⑩ Galvanized steel enclosure.

⑪ Aluminum enclosure.

Wiring diagrams and dimensional information on Pages 3-10 – 3-26.

Product Selection

TABLE 3-3. COMBINATION SERVICE ENTRANCE DEVICES — NON-EUSERC (CONTINUED)

Ampere Rating	Bypass	Service	kAIC	Jaws	Distribution	Main	Branch Breaker Type	Catalog Number	UPC Code
Ring Style All-in-Ones (includes distribution section)									
125	None	OH/UG	①	4	②	None — Refer to Distribution	BR	WMB1224SCN CMB24L125BTS ④⑤	786676258456
125	None	OH/UG	①	4	2/4		CH		782114872512
150	None	OH/UG	22	4	8	CSR2150	CH	CMB88B150BTS ④⑤	782114872482
150	None	UG	22	4	32/42	CSR2150	CH	CMB3242B150BS ④⑤	782114872536
200	None	OH/UG	10	4	4/8	BW2200	BR	MB48B200BTS ⑤⑥	782114872499
200	None	OH/UG	22	4	8	CSR2200	CH	CMB88B200BTS ④⑤⑥	782114872475
200	None	UG	22	4	32/42	CSR2200	CH	CMB3242B200BS ④⑤	782114872529
200	None	OH/UG	22	—	42/42	—	CH	CMB4242B200BTS	782114872543
200	None	OH/UG	10	4	4/8	BW2200	BR	MBER48B200BTS ⑥	782116077373
200	None	OH/UG	22	4	8/8	CSR2200N	CH	CMBER88B200BTS ⑥	782116077380
150	None	OH/UG	10	4	4/8	BW2150	BR	MBER48B150BTS ⑥	782116197682
150	None	OH/UG	22	4	8/8	CSR2150N	CH	CMBER88B150BTS ⑥	782116197699
Ringless All-in-Ones (includes distribution section)									
200	None	OH/UG	10	4	8/16	BW2200	BR	MB816B200BTS ⑤⑥	782114858615
200	None	OH/UG	10	4	8/16	BW2200	BR	MB816B200BTSV ⑤⑥⑦	782116094851
200	None	OH/UG	10	4	8/16	BW2200	BR	MB816B200BTSCU ④⑤⑥	782114858622
200	None	OH/UG	①	4	8/16	Provision ③	BR	MB816P200BTS ⑤⑥	782114860076
200	None	OH/UG	①	4	8/16	Provision ③	BR	MB816P200BTSCU ④⑤⑥	782114860083
200	Horn	OH/UG	①	5	8/16	Provision ③	BR	MB816P200STD ⑥	782114668894
200	Horn	OH/UG	①	5	8/16	Provision ③	BR	MB816P200BTSD ⑥	782114887714
200	None	OH/UG	10	4	12/12	CSR2000	CH	CMB1212B200BTS ④⑤⑥	782114858561
200	None	OH/UG	①	4	6 – 2 Pole	Main Lugs	CH	CMB1212L200BTS ④⑥	782114848753
200	None	OH/UG	①	4	12/12	Provision ③	CH	CMB1212P200BTS ④⑤⑥	782114858554
200	Horn	OH/UG	①	5	12/12	Provision ③	CH	CMB1212P200BTSD ④⑥	782114858592
200	None	OH/UG	①	4	6 – 2 Pole	Main Lugs	BR	MB1212L200BTS ⑥	782114849019
200	None	OH/UG	22	4	24/24	CSR2200	CH	CMB2424B200BTS ⑤	782114987896
200	None	OH/UG	10	4	20/40	BW2200	BR	MB2040B200BTS ⑤	782114858639
200	None	OH/UG	①	4	20/40	Provision ③	BR	MB2040P200BTS ⑤	782114860090
200	Horn	OH/UG	①	5	20/40	Provision ③	BR	MB2040P200SD	782114668900
200	Horn	OH/UG	10	5	20/40	BW2200	BR	MB2040B200SD	782116287727
150	Horn	OH/UG	10	5	20/40	BW2150	BR	MB2040B150SD	782116199631
200	Lever	OH/UG	10	5	None	CSR2200	None	CMBXB200BTS	782116142347
200	Lever	OH/UG	10	5	12/12	CSR2200	CH	CMBX1212B200BTS ⑥	782116142354
200	Lever	OH/UG	10	5	32/42	CSR2200	CH	CMBX3242B200BTS	782116142361
200	Lever	OH/UG	10	5	None	Provision	None	CMBXP200BTS	782116128884
200	Lever	OH/UG	10	5	12/12	Provision	CH	CMBX1212P200BTS ⑥	782116128891
200	Lever	OH/UG	10	5	32/42	Provision	CH	CMBX3242P200BTS	782116128907
200	None	OH/UG	①	4	4/8	Provision	BR	MBT48P200BTS ⑥	782116484324
200	None	OH/UG	22	4	4/8	BWH2200	BR	MBT48B200BTS ⑥	782116157372

① Per installed main breaker rating.
② Will accept maximum four 1-pole, two 2-pole, or two quad breakers.
③ All panels are dual labeled to accept Types BW or CSR Main Breakers.
④ Copper bus.
⑤ One-piece cover on utility side, Florida approved.
⑥ Units come with feed-through lugs.
⑦ Value pack includes breakers 5-BR115 and 1-BR230.

Wiring diagrams and dimensional information on Pages 3-10 – 3-26.

TABLE 3-4. MAIN BREAKER SELECTION CHART

Maximum Ampere Rating	2-Pole Breaker Catalog Numbers		
	10 kAIC	22 kAIC	22 kAIC
100	BW2100	BWH2100	CSR2125N
125	BW2125	BWH2125	CSR2150N
150	BW2150	BWH2150	CSR2200N
200	BW2200	BWH2200	—
Load Side Lug Kit for BW and CSR Breakers ⑧			MCBK225

⑧ When a provision for main is provided, order one of the main breakers listed in this table. All panels are dual labeled to accept Types BW, BWH and CSR Main Breakers.

Product Selection

TABLE 3-5. COMBINATION SERVICE ENTRANCE DEVICES (EUSERC)

Ampere Rating	Bypass	Service	kAIC	Jaws	Distri- bution	Main	Branch Breaker Type	Catalog Number		Catalog Number	
								Surface	UPC Code	Flush	UPC Code
Ring Style Meter Mains (no distribution section included)											
125 125	None None	OH/UG OH/UG	① ①	4 4	2/4 2/4	MLO MLO	BR CH	MBE24L125BTS CMBE24L125BTS ②	782114849156 782114848845	MBE24L125BTF —	782114849149 —
150 200 200	None None None	OH/UG OH/UG OH/UG	22 10 22	4 4 4	None None None	CSR2150N BW2200 CSR2200N	None None None	CMBEB150BTS ② MBEB200BTS CMBEB200BTS ②	782114849286 782114849279 782114849002	— MBEB200BTF —	— 782114849262 —
200 200	None None	OH/UG OH/UG	① ①	4 4	2/4 2/4	MLO MLO	BR CH	MBE24L200BTS CMBE24L200BTS ②	782114849170 782114848852	MBE24L200BTF —	782114849163 —
Ring Style All-in-Ones (includes distribution section)											
100 100 100	None None None	OH/UG UG OH	10 10 10	4 4 4	12/24 14/28 12/24	BR2100 BR2100 BR2100	BR BR BR	MBE1224B100BTS MBE1428B100BS MBE1224B100TS	782114890790 782114849064 782114872574	MBE1224B100BTF MBE1428B100BF —	782114890806 782114849057 —
125 125 125	None None None	OH/UG OH UG	10 10 10	4 4 4	12/24 12/24 18/36	BR2125 BR2125 BR2125	BR BR BR	MBE1224B125BTS MBE1224B125TS —	782114890813 782114872550 —	MBE1224B125BTF — MBE1836B125BF	782114890820 — 782114849095
150 150 150	None None None	OH/UG UG UG	22 22 10	4 4 4	8 32/42 20/40	CSR2150N CSR2150N BW2150	CH CH BR	CMBE88B150BTS ②③ CMBE3242B150BS ② —	782114848968 782114848883 —	CMBE88B150BTF ②③ — MBE2040B150BF ⑤	782114848951 — 782114865293
150 150	None None	OH/UG OH/UG	22 10	4 4	20/40 4/8	BW2150 BW2150	BR BR	MBE2040B150BTS ⑤ MBE48B150BTS	782116015849 782114865262	— —	— —
200 200 200	None None None	OH/UG OH/UG OH/UG	10 22 10	4 4 4	4/8 8 8	BW2200 CSR2200N BW2200	BR CH BR	MBE48B200BTS ③ CMBE88B200BTS ②③ MBE88B200BTS	782114849217 782114848982 782114849255	MBE48B200BTF ③ CMBE88B200BTF ②③ —	782114849200 782114848975 —
200 200 200	None None None	OH UG OH/UG	① ① ①	4 4 4	8/16 6 – 2 Pole 6 – 2 Pole	Provision Main Lug Main Lug	BR CH BR	MBE816P200TS ③④ CMBE1212L200BS ② MBE1212L200BTS	782114849231 782114848777 782113493749	— MBE1212L200BTF —	— 782113493756 —
200 200 200	None None None	OH UG OH/UG	10 10 22	4 4 4	20/40 20/40 20/40	BW2200 BW2200 BWH2200	BR BR BR	MBE2040B200TS ⑤ MBE2040B200BS ⑤ MBE2040BH200BTS ⑤	782114887684 782114849118 782116073924	MBE2040B200TF ⑤ MBE2040B200BF ⑤ —	782114887691 782114849101 —
200 200 200	None None None	OH/UG UG UG	22 22 22	4 4 4	20/40 30/42 32/42	BWH2200 BW2200 CSR2200N	BR BR CH	MBE2040BH200BTF ⑤ — CMBE3242B200BS ②	782116073931 — 782114848906	— MBE3042B200BF CMBE3242B200BF ②	— 782113554686 782114848890
200 200 200	None None None	UG OH/UG OH/UG	22 22 22	4 4 4	40 40 42	BWH2200 BWH2200 CSR2200N	BR BR CH	MBE4040B200BSH ⑥ MBE4040B200BTS CMBE4242B200BTS ②	782114867068 782114849194 782114869222	— MBE4040B200BTF ⑦ —	— 782114881767 —
200 200 200	None None None	OH/UG OH/UG OH/UG	10 10 10	4 4 4	20/40 20/40 4/8	BW2200 BW2200 BW2200	BR BR BR	MBE2040B200BTS ⑤ MBE2040B200BTSV ⑤⑧ MBER48B200BTS ⑨	782114883594 782116094844 782116077373	MBE2040B200BTF ⑤ — —	782114883587 — —
200 225 225 225	None None None None	OH/UG OH/UG UG UG	22 10 22 22	4 4 4 4	8/8 20/40 30/42 32/42	CSR2200N BW2225 BW2225 CSR2225N	CH BR BR CH	CMBER88B200BTS ⑨ MBE2040B225BTS ⑤ — CMBE3242B225BS ②	782116077380 782114883617 — 782114848920	— MBE2040B225BTF ⑤ MBE3042B225BF CMBE3242B225BF ②	— 782114883600 782113554891 782114848913

① Interrupting rating is dependent on the main breaker that is installed.
② Unit has copper bus.
③ Units come with feed-through lugs.
④ All panels are dual labeled to accept Types BW or CSR Main Breakers.
⑤ Please use RH-Type hubs on top end wall for overhead feed.
⑥ Includes factory mounted 2.50 inch hub on bottom endwall. UG feed only.
⑦ Semi-flush flange, not full stucco flange.
⑧ Value pack includes breakers 2-BD115, 2-BR115 and 1-BR230.
⑨ Ranch panel includes provision for second main up to 70 A wired in parallel.

Wiring diagrams and dimensional information on Pages 3-10 – 3-26.

TABLE 3-6. MAIN BREAKER SELECTION CHART

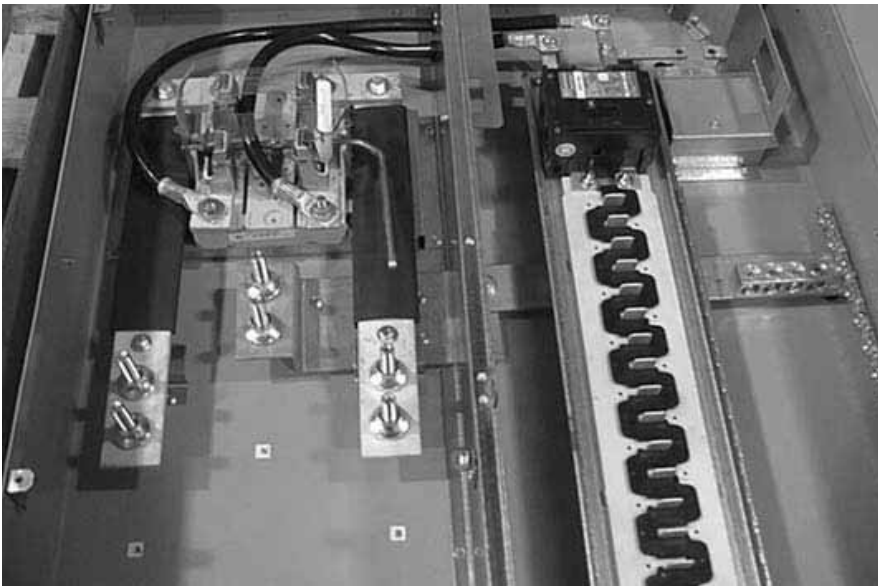
Maximum Ampere Rating	2-Pole Breaker Catalog Numbers		
	10 kAIC	22 kAIC	22 kAIC
125 150 200	BW2125 BW2150 BW2200	BWH2125 BWH2150 BWH2200	CSR2125N CSR2150N CSR2200N
Load Side Lug Kit for BW and CSR Breakers ⑩			MCBK225

⑩ When a provision for main is provided, order one of the main breakers listed in this table. All panels are dual labeled to accept Types BW, BWH and CSR Main Breakers.

House Panels



House Panel



House Panel Interior

Product Description

A recently redesigned Cutler-Hammer® House Panel by Eaton Corporation offers a faster, easier and safer installation. These 400 ampere units are ideal for larger homes in North America that require meter breakers.

Coming in both CH and BR styles, these service entrance devices consist of a meter socket and a distribution section. In response to contractor feedback, these panels have been redesigned with a focus on flexibility, simplified wiring, and an overall ease of installation.

All units come standard with a 22 kAIC main breaker. Previously, the panels were designed as bottom-exit only. Now the load conductors can exit the top, bottom, side or back for greater application and installation flexibility.

Additionally, Cutler-Hammer House Panels can be used for apartments, condominiums, clubhouses or common areas.

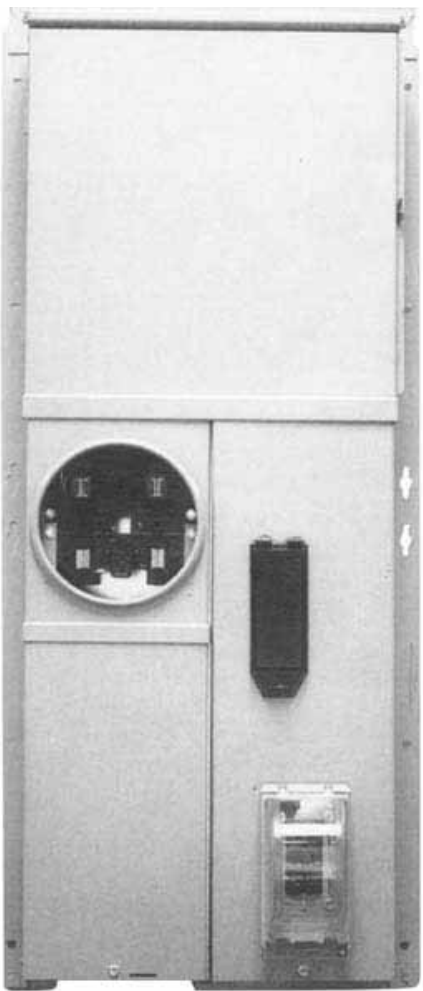
Features, Benefits and Functions

- ✓ Ring style units meet EUSERC requirements.
- ✓ NEMA 3R rainproof.
- ✓ Rated for service entrance equipment.
- ✓ UL listed.
- ✓ Lever bypass socket available on certain catalog numbers.
- ✓ Pin type door hinges.
- ✓ Socket to distribution section is connected via insulated cable for safety.
- ✓ Second main space can accept 100 to 200 amperes BW, BWH or CSR breakers, or accept a plug-on kit for breakers less than 100 amperes.

NEW ACCESSORIES

- ✓ Top-feed gutter kit to ease top-fed installation.
- ✓ Re-engineered, adjustable flush mount kit for a cleaner installation.
- ✓ 100 ampere second main breaker kit.
- ✓ New 750 kcmil box type lug kit.

West Coast All-in-One Design



MBED3042B200BF

FEATURES, BENEFITS AND FUNCTIONS

- ✓ Semi-flush mounting. 7-inch design ideal for stucco homes.
- ✓ Endwall knockouts are easily accessible for future wiring without damaging stucco.
- ✓ Prevent water and moisture penetration by gasketing and chanting of hood.
- ✓ Knockout in back of case for mounting car-charging receptacle in garage (meets future electric car requirements).
- ✓ Outboard split neutral for easy wiring.
- ✓ Raised interior with built-in wireway for easier wiring.
- ✓ Commercial grade main breaker.
- ✓ Value-added kits available:
 - Surge kit — for adding integral surge to the panel
 - Receptacle kit — add 20 A duplex GFI
 - 30 ampere TT-30 receptacle
 - 50 ampere 14-50R receptacle
 - Hub adapter plate

PRODUCT SELECTION

TABLE 3-7. 7-INCH DEEP METER BREAKER

Ampere Rating	Bypass	Service	kAIC	Jaws	Distribution	Main	Branch Breaker Type	Dimensions in Inches (mm)			Catalog Number	Factory Installed Kits	UPC Code
								Height	Width	Depth	Flush		
Standard Design													
100	None	UG	10	4	18/36	BW2100	BR	38.00 (965.2)	14.19 (360.4)	7.00 (177.8)	MBED1836B100BF	—	782116149735
125	None	UG	10	4	18/36	BW2125	BR	38.00 (965.2)	14.19 (360.4)	7.00 (177.8)	MBED1836B125BF	—	782116149742
200	None	UG	10	4	20/40	BW2200	BR	38.00 (965.2)	14.19 (360.4)	7.00 (177.8)	MBED2040B200BF	—	782116137374
225	None	UG	10	4	20/40	BW2225	BR	38.00 (965.2)	14.19 (360.4)	7.00 (177.8)	MBED2040B225BF	—	782116137381
200	None	UG	10	4	30/42	BW2200	BR	42.50 (1079.5)	14.19 (360.4)	7.00 (177.8)	MBED3042B200BF	—	782116149711
200 ^①	None	UG	10	4	20/40	BW2200	BR	42.50 (1079.5)	14.19 (360.4)	7.00 (177.8)	MBED2040B200BFN	—	782116347834
225	None	UG	10	4	30/42	BW2225	BR	42.50 (1079.5)	14.19 (360.4)	7.00 (177.8)	MBED3042B225BF	—	782116149728

① Main Breaker Bus connected to 20/40 distribution. Main and Disconnect in same compartment.

ACCESSORIES

TABLE 3-8. ACCESSORIES

Description	Catalog Number	UPC Code
Field-Mounted Surge Kit	MBEDSURGE	782116151141
Hub Adapter Plate	MBEDADPT	782116167937
Field-Mounted 20 A GFI Receptacle Kit for 125 Ampere All-in-One	MBED125RCK20GFI	782116151189
Field-Mounted 30 A TT-30 Receptacle Kit for 125 Ampere All-in-One	MBED125RCK30A	782116151196
Field-Mounted 50 A 14-50R Receptacle Kit for 125 Ampere All-in-One	MBED125RCK50A	782116151202
Field-Mounted 20 A GFI Receptacle Kit for 200 Ampere All-in-One	MBED200RCK20GFI	782116151158
Field-Mounted 30 A TT-30 Receptacle Kit for 200 Ampere All-in-One	MBED200RCK30A	782116151165
Field-Mounted 50 A 14-50R Receptacle Kit for 200 Ampere All-in-One	MBED200RCK50A	782116151172

Wiring diagrams and dimensional information on Pages 3-10 – 3-26.

Data Tables

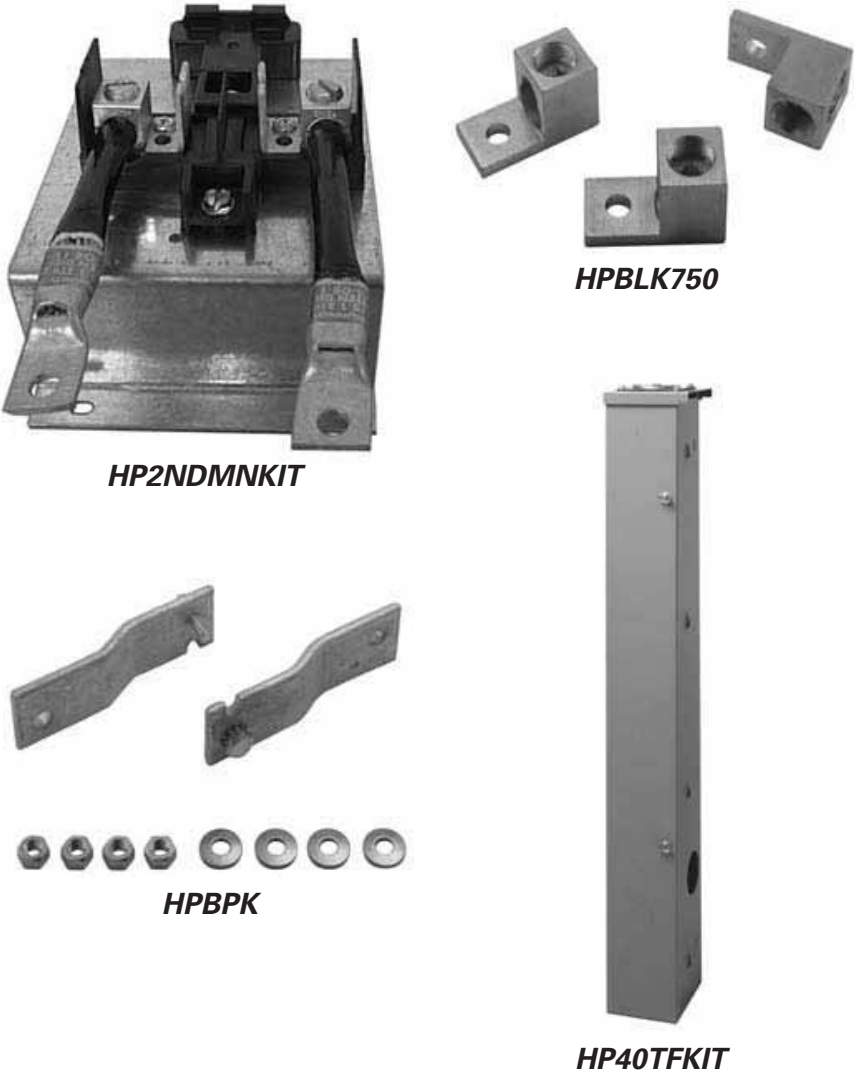
TABLE 3-9. 400 AMPERE HOUSE PANELS

Ampere Rating	Security ^①	Bypass ^②	Main Breaker	Optional Secondary Main Breaker (Not Included)	Service Type	kAIC	Dist.	Line Side Main Lugs and Neutral	Semi-Flush Catalog Number ^③	UPC Code	Surface Catalog Number	UPC Code
400	Ringless	None	CSR2200N	CSR	UG	22	32/42	Lug landings for compression lugs	—	—	CG403242SH	782114231814
400	Ring	None	CSR2200N	CSR	UG	22	12/12		—	—	CG1212P400BS ^⑤	782114895085
400	Ring	Manual	BWH2200	BW/BWH	UG	22	None		—	—	HP40SHA	782116060108
400	Ring	Manual	BWH2200	BW/BWH	UG	22	40/40		—	—	HP404040SHA ^⑥	782113533766
400	Ringless	None	DK2400	None	UG	22	24/40		—	—	HP402440B ^⑦	786676883122
400	Ringless	None	BWH2200	BW/BWH	UG	22	24/40		—	—	HP402440SBH ^⑦	786676092005
400	Ring	None	DK2400	None	UG	22	None		—	782116341269	HP40	786676883306
400	Ring	None	BWH2200	BW/BWH	UG	22	None		—		HP40SH	782114212882
400	Ring	None	DK2400	None	UG	22	24/42		—		HP402442	786676000567
400	Ring	None	BWH2200	BW/BWH	UG	22	40/40		HP404040SHF ^④		HP404040SH ^④	782114868713
400	Ring	None	BWH2200	BW/BWH	UG	22	8/16		—		HP816P400BS ^⑤	782114895078
400	Ringless	Lever	CSR2200N	CSR	UG	22	12/12		—	—	CG1212P400BSL ^⑤	782116110414
400	Ringless	Lever	CSR2200N	CSR	UG	22	42/42		—		CG4042SHL	782114105825
400	Ringless	Lever	BWH2200	BW/BWH	UG	22	None		—		HP40SHL	782114105856
400	Ringless	Lever	BWH2200	BW/BWH	UG	22	40/40		—		HP404040SHL ^④	782114105863
400	Ringless	Lever	BWH2200	BW/BWH	UG	22	8/16		—		HP816P400BSL ^⑤	782116080250

- ① Confirm security type for individual EUSERC utility requirements.
- ② Included in all of the following devices.
- ③ If unit needs to be semi-flush, order accessory item catalog number **HPPR** to convert **all** surface mounting devices to semi-flush mounting.
- ④ Secondary sub-main installed in panel.
- ⑤ Feed-through lugs included.
- ⑥ Includes manual bypass and additional ground lug to meet Nevada Power requirements.
- ⑦ Bolt-on meter socket.

TABLE 3-10. HOUSE PANEL ACCESSORIES

Description	Catalog Number	UPC Code
Top Feed Kit	HP40TFKIT	782113959412
750 kcmil Lug Kit	HPBLK750	782113683317
Manual Bypass Kit	HPBPK	782114413241
Flush Mount Kit	HPPR	782114231821
100 Ampere 2nd Main Kit (Type BR Branch)	HP2NDMNKIT	782116049356
100 Ampere 2nd Main Kit (Type CH Branch)	CH2NDMNKIT	782116049363



Wiring diagrams and dimensional information on Pages 3-10 – 3-26.

Accessories

TABLE 3-11. METER BREAKER PARTS

Description	Catalog Number	UPC Code
5th Jaw Kits		
Compact and Standard Styles (MB & CMB)	MB5JAWKIT	782116347803
WMB Style	WMB5J	786676258173
Manual Bypass Kits		
Ring Style Units Only (MB)	1MMBPM200	782114380314
Horn Bypass Kits		
Ringless Style Units Only (MB & CMB)	MBHBPKIT	782116347797

TABLE 3-12. DS HUB SELECTION CHART

Hub Size Dimensions in Inches (mm)	Catalog Number	UPC Code
Type DS		
1.00 (25.4)	DS100H2	782114987858
1.25 (31.8)	DS125H2	782114987865
1.50 (38.1)	DS150H2	782114987872
2.00 (50.8)	DS200H2	782113109961
2.00 (50.8)	DS200H2CS ①	782114793312
2.50 (63.5)	DS250H2	782113109978
3.00 (76.2)	DS300H2	782113342276
Type RH ②		
0.75 (19.1)	RH75P	786676213257
1.00 (25.4)	RH100P	786676213356
1.25 (31.8)	RH125P	786676213455
1.50 (38.1)	RH150P	786676213554
2.00 (50.8)	RH200P	786676213653

① Clamshell packaged hub.
② RH Type hubs to be used with the MBE2040 units only.

Wiring diagrams and dimensional information on Pages 3-10 – 3-26.

Typical Wiring Diagrams (Residential Meter Breakers)

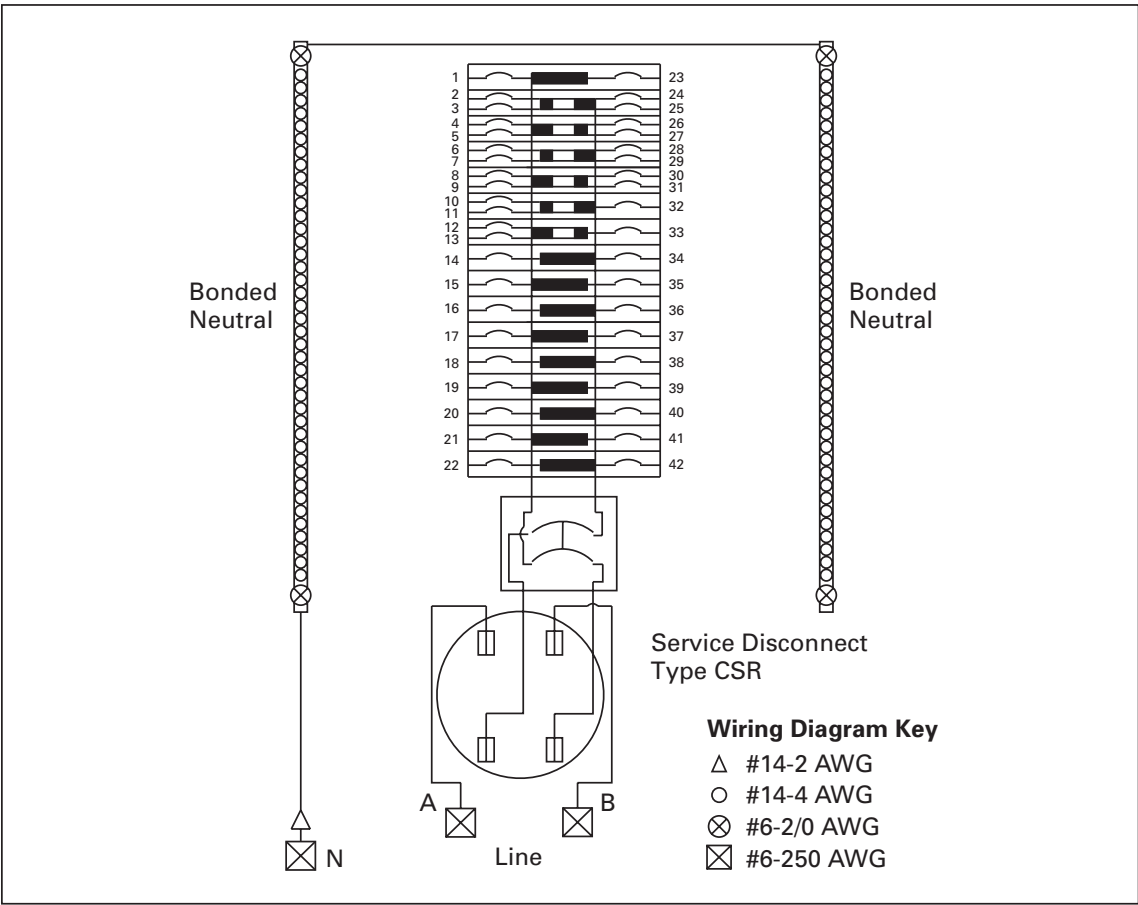


FIGURE 3-1. CATALOG NUMBERS — CMB3242B200BS, CMBE3242B150BS, CMBE3242B200BS, CMBE3242B200BF, CMBE3242B225BS, CMBE3242B225BF AND CMB3242B150BS

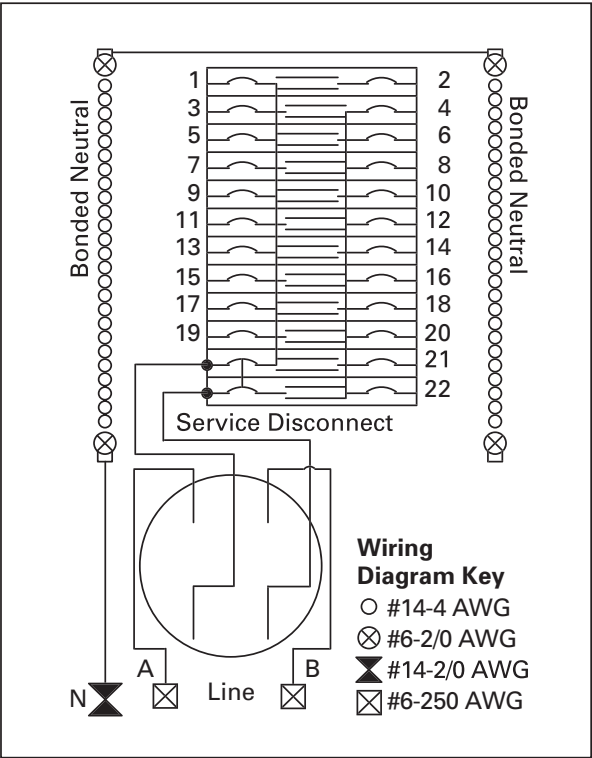


FIGURE 3-2. CATALOG NUMBERS —

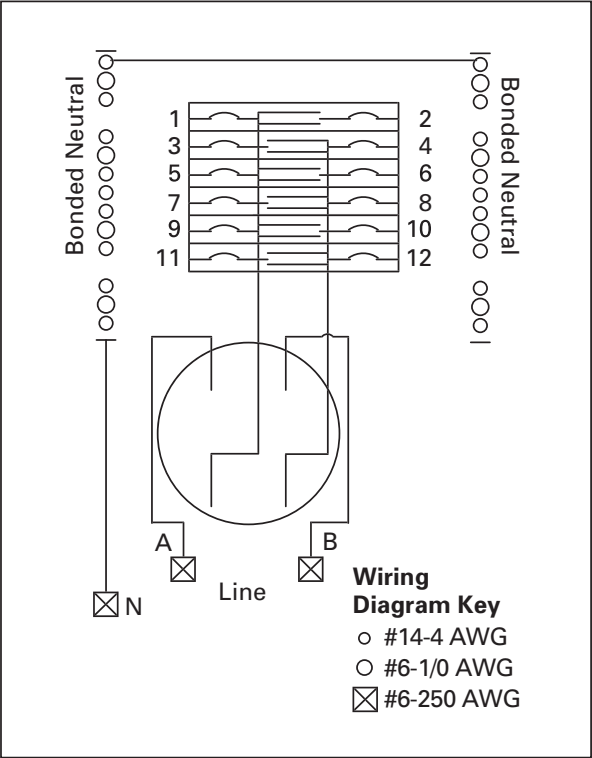


FIGURE 3-3. CATALOG NUMBER — CMBE1212L200BS

TYPICAL WIRING DIAGRAMS (RESIDENTIAL METER BREAKERS)

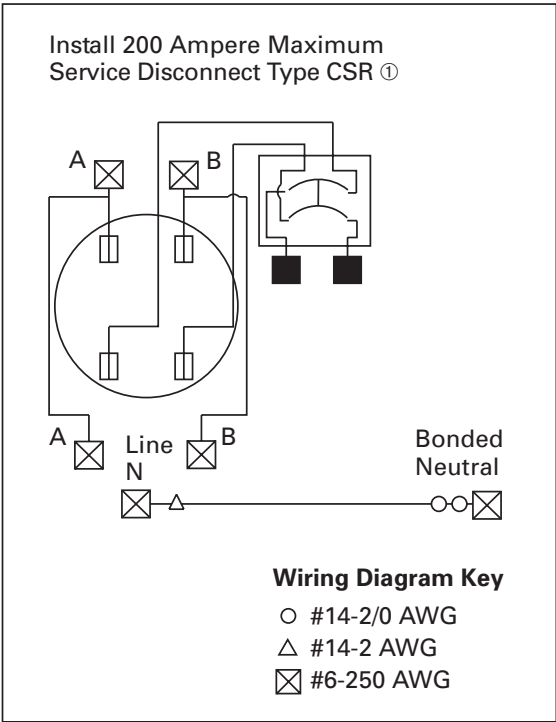


FIGURE 3-4. CATALOG NUMBERS —
CMBP200BTS, CMBB150BTS,
CMBB200BTS, CMBEB150BTS AND
CMBEB200BTS
① Factory installed MCBK225 Kit for C/B load lugs.

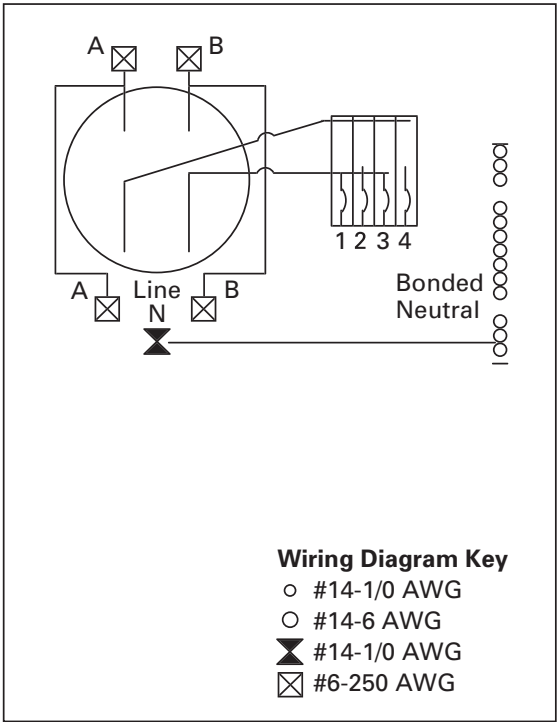


FIGURE 3-6. CATALOG NUMBERS —
CMBE24L125BTS AND CMB24L125BTS

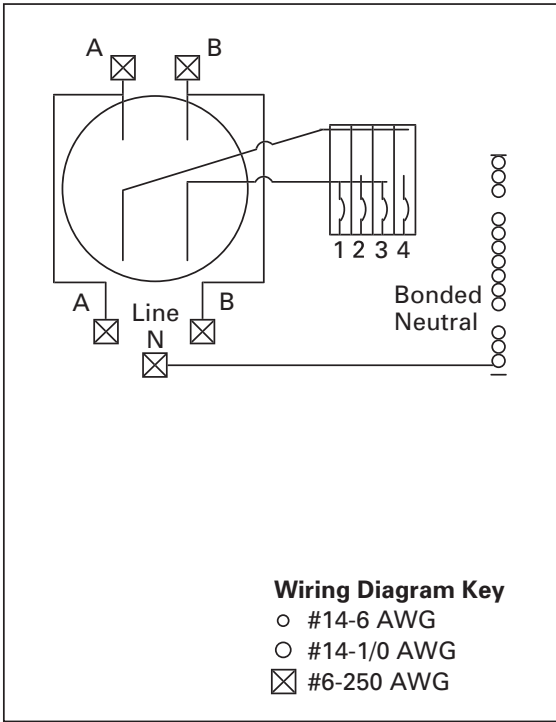


FIGURE 3-8. CATALOG NUMBER —
CMBE24L200BTS

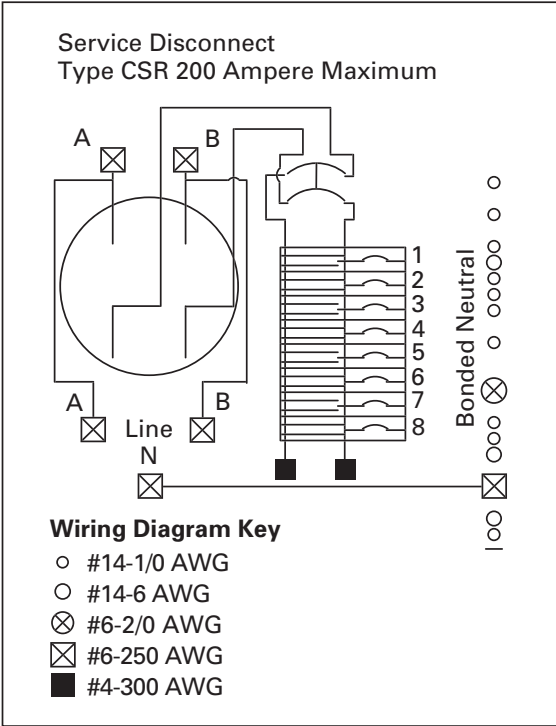


FIGURE 3-5. CATALOG NUMBERS —
CMBE88B200BTS, CMBE88B200BTF,
CMB88B200BTS, CMB88B150BTS,
CMBE88B150BTS AND CMBE88B150BTF

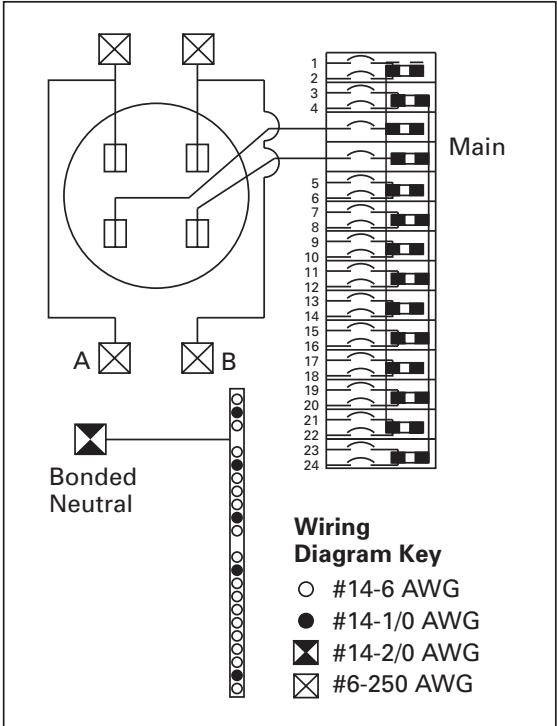


FIGURE 3-7. CATALOG NUMBERS —
MBE1224B100BTS, MBE1224B100BTF,
MBE1224B125BTS AND MBE1224B125BTF

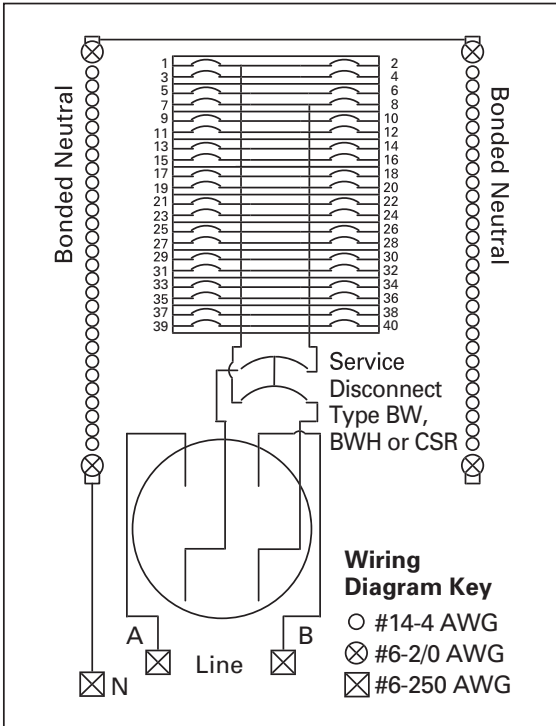


FIGURE 3-9. CATALOG NUMBERS —
MBE2040B150BF, MBE2040B200BS AND
MBE2040B200BF

TYPICAL WIRING DIAGRAMS (RESIDENTIAL METER BREAKERS)

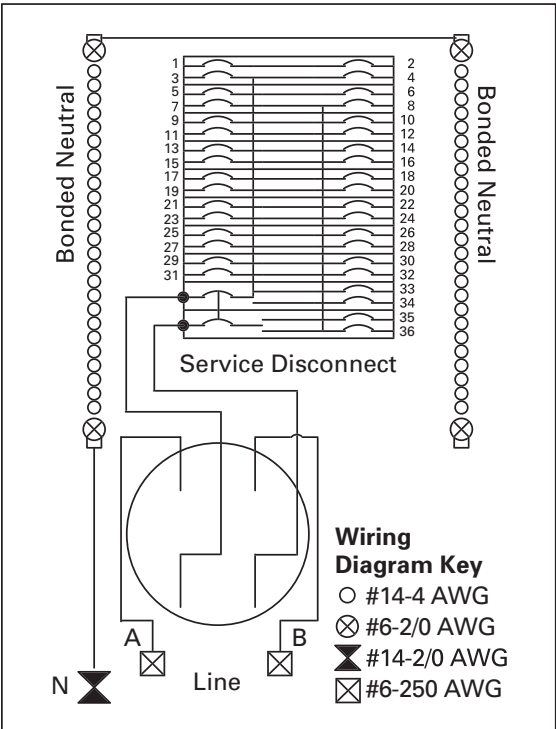


FIGURE 3-10. CATALOG NUMBER — MBE1836B125BF

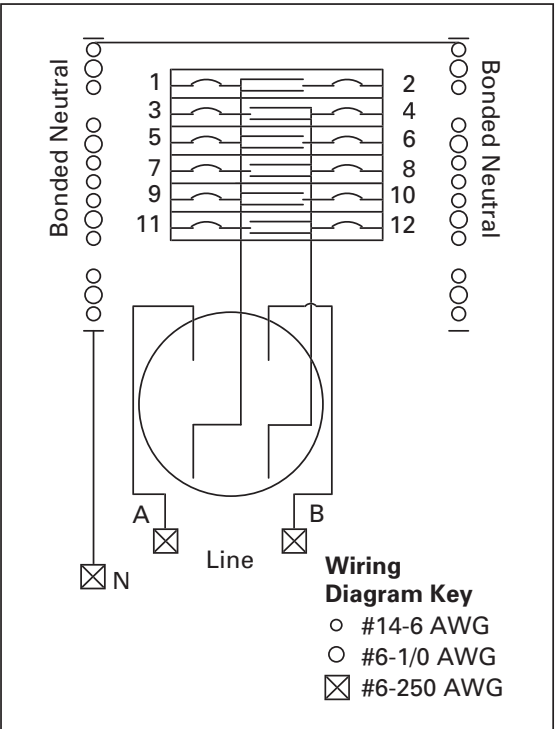


FIGURE 3-12. CATALOG NUMBERS —

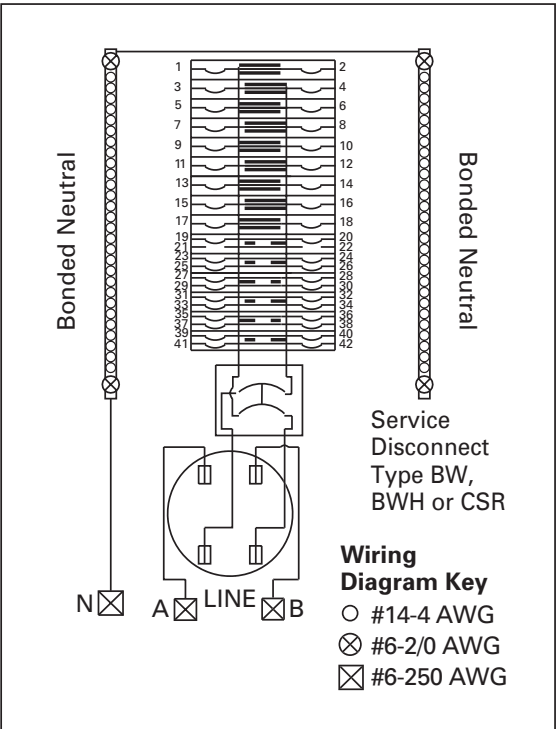


FIGURE 3-14. CATALOG NUMBER — MBE3042B200BF

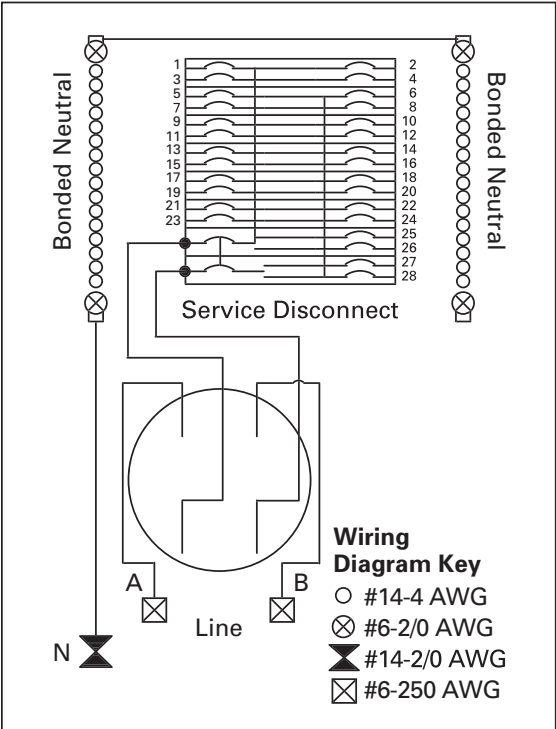


FIGURE 3-11. CATALOG NUMBERS — MBE1428B100BS AND MBE1428B100BF

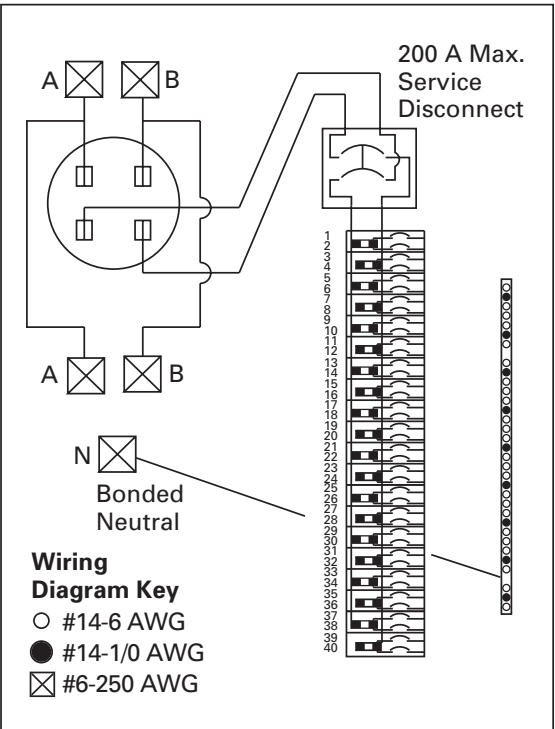


FIGURE 3-13. CATALOG NUMBERS — MBE2040B200BTS, MBE2040B150BTS, MBE2040BH200BTS AND MBE2040B200BTF

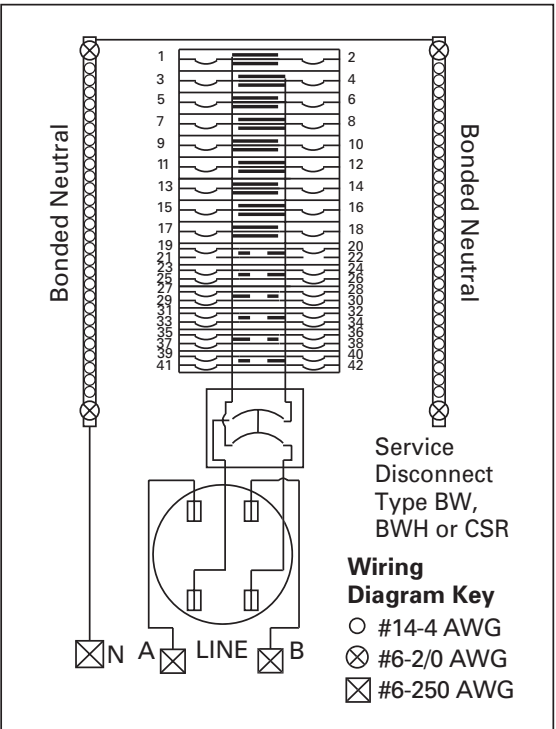


FIGURE 3-15. CATALOG NUMBER — MBE3042B225BF

TYPICAL WIRING DIAGRAMS (RESIDENTIAL METER BREAKERS)

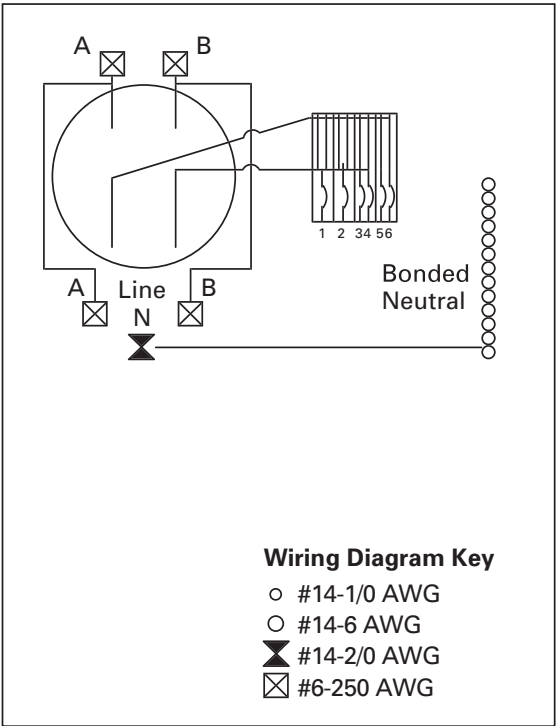


FIGURE 3-16. CATALOG NUMBERS — MBE24L125BTS AND MBE24L125BTF

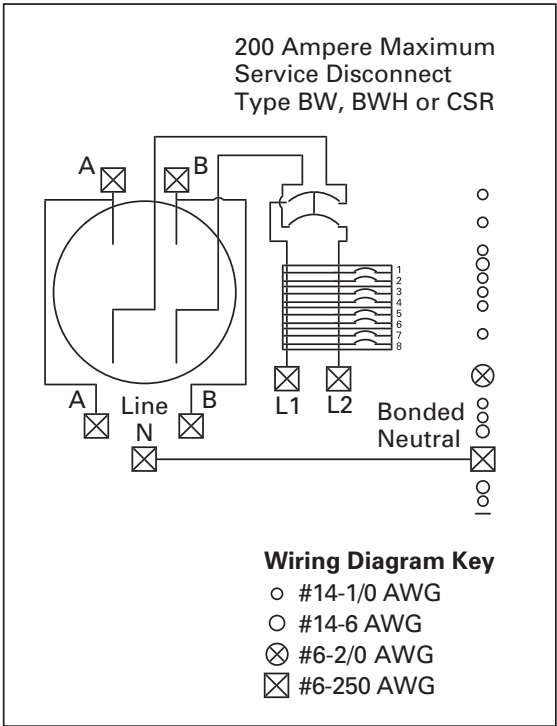


FIGURE 3-18. CATALOG NUMBERS — MBE48B150BTS, MBE48B200BTS, MBE48B200BTF AND MB48B200BTS

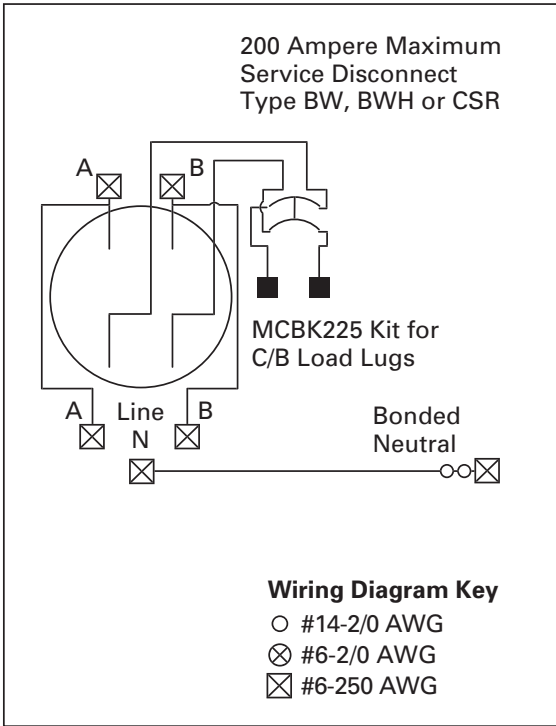


FIGURE 3-20. CATALOG NUMBERS — MBEB200BTS AND MBEB200BTF

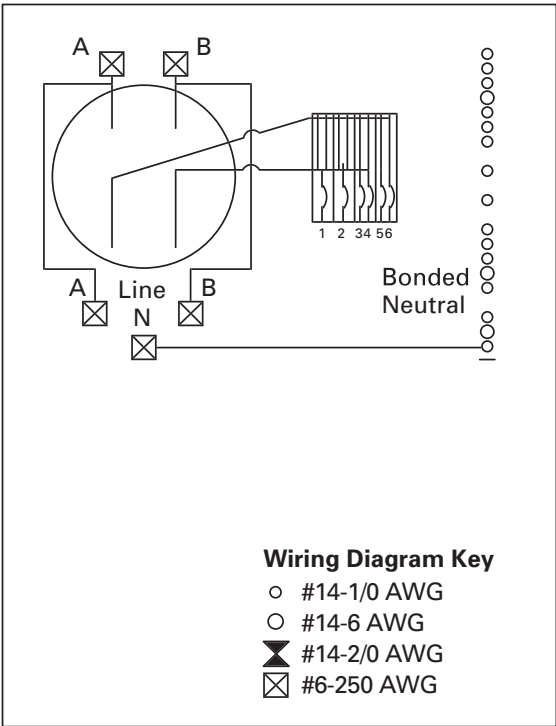


FIGURE 3-17. CATALOG NUMBERS — MBE24L200BTS AND MBE24L200BTF

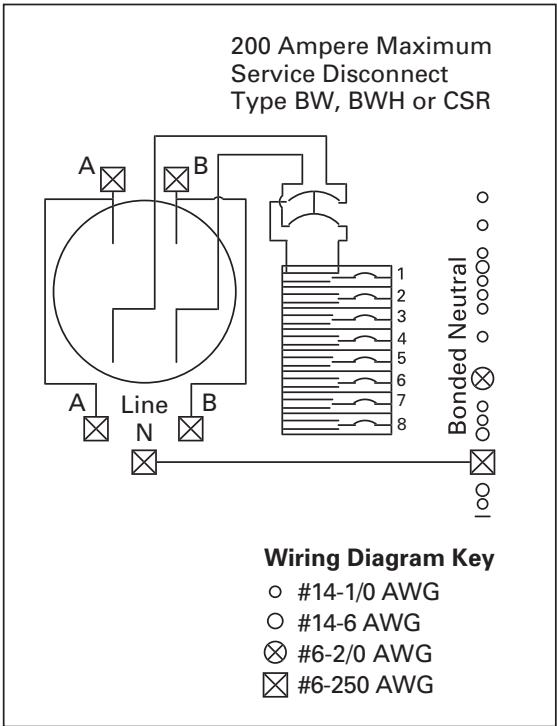


FIGURE 3-19. CATALOG NUMBER — MBE88B200BTS

TYPICAL WIRING DIAGRAMS (RESIDENTIAL METER BREAKERS)

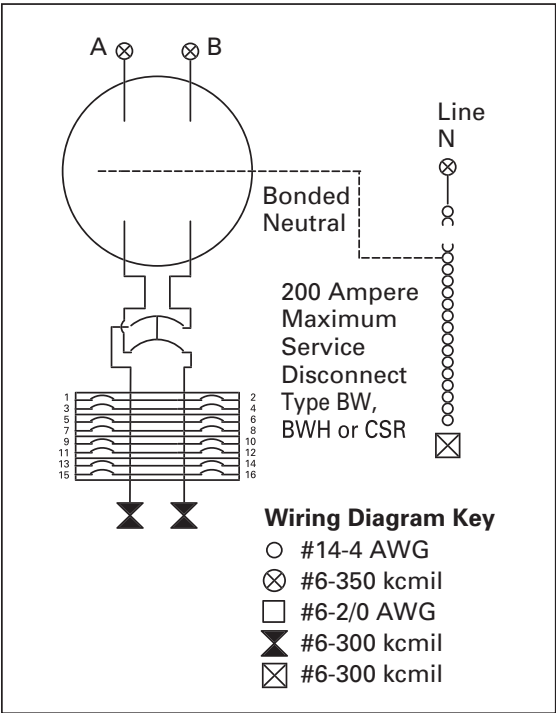


FIGURE 3-21. CATALOG NUMBERS — MBE816P200TS AND MBE816P200TSCU

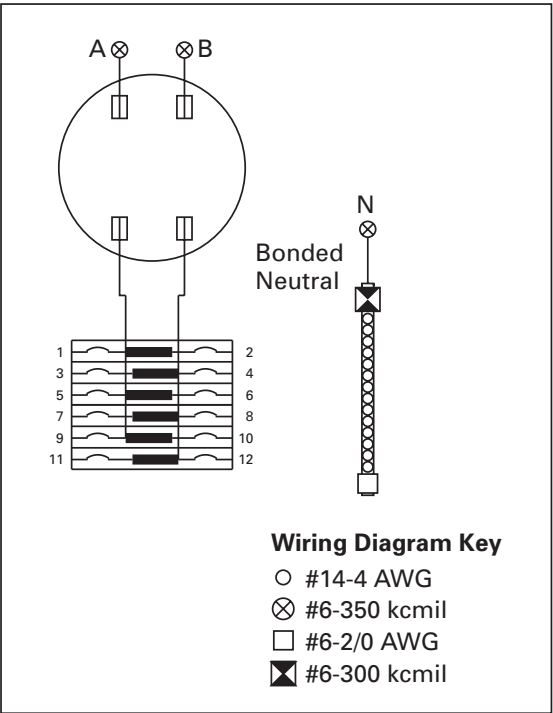


FIGURE 3-23. CATALOG NUMBER — MBE1212L200BTS

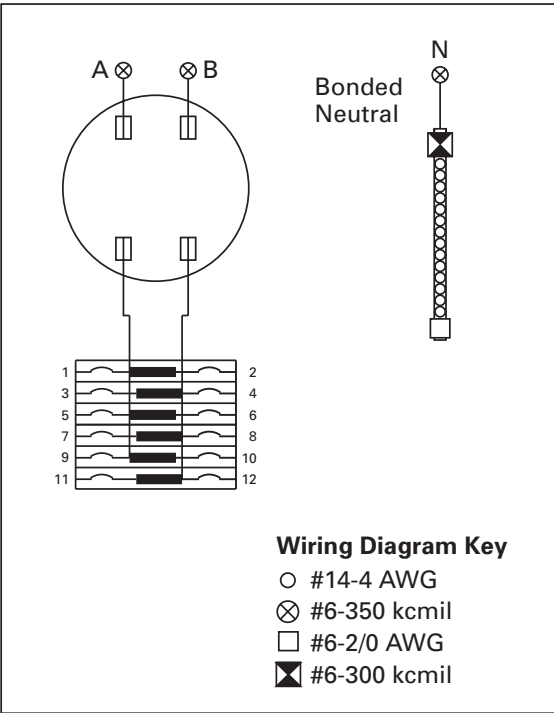


FIGURE 3-25. CATALOG NUMBER —

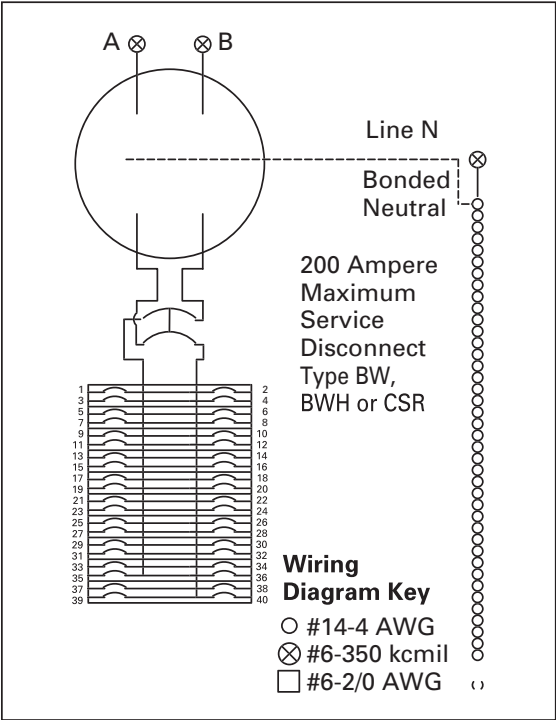


FIGURE 3-22. CATALOG NUMBERS — MBE2040B200TS AND MBE2040B200TF

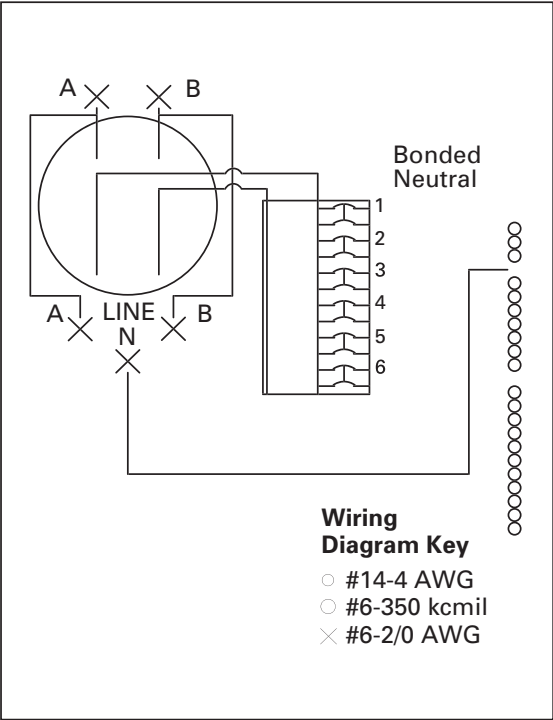


FIGURE 3-24. CATALOG NUMBER — MBE1212L200BTS

TYPICAL WIRING DIAGRAMS (RESIDENTIAL METER BREAKERS)

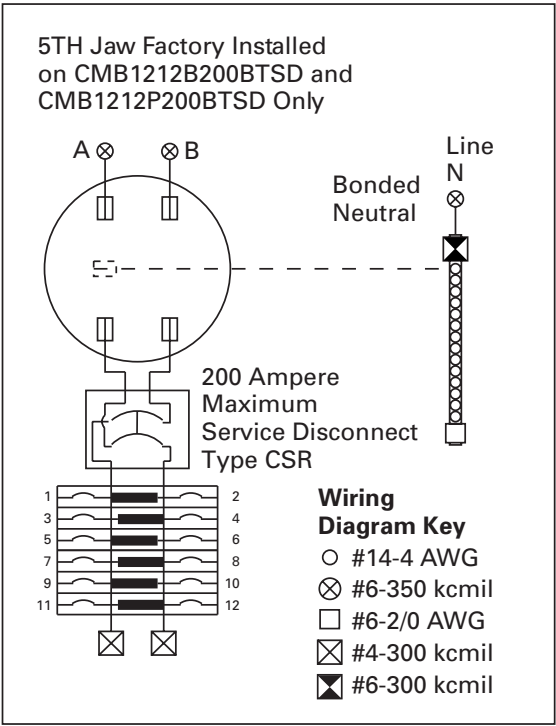


FIGURE 3-26. CATALOG NUMBERS — CMB1212P200BTSD AND CMB1212P200BTS

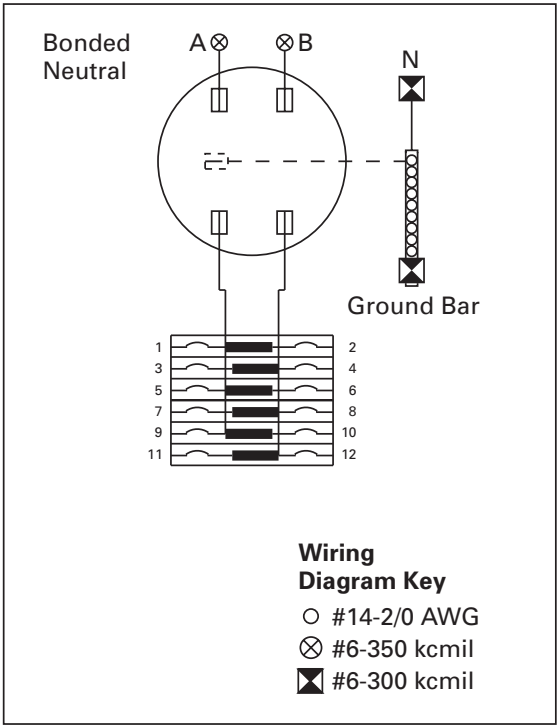


FIGURE 3-28. CATALOG NUMBER — MB1212L200BTS

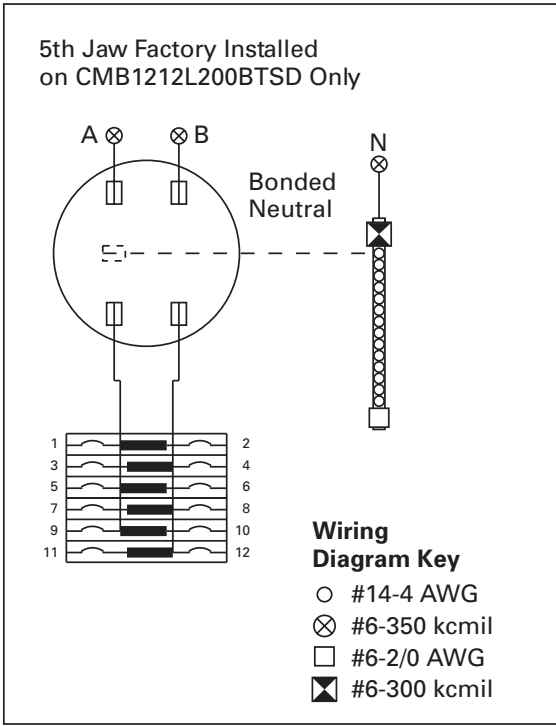


FIGURE 3-30. CATALOG NUMBER — CMB1212L200BTS

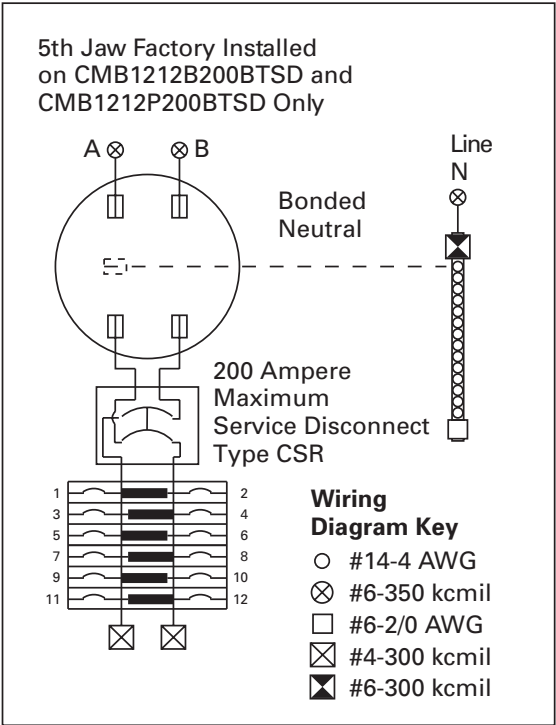


FIGURE 3-27. CATALOG NUMBER — CMB1212B200BTS

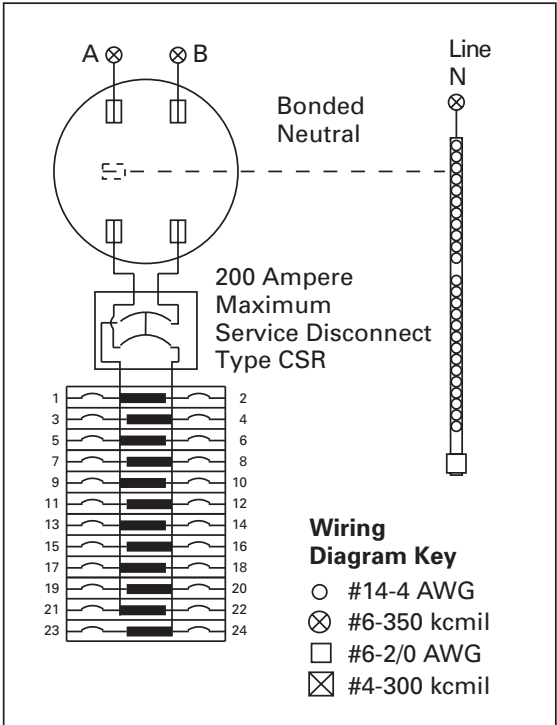


FIGURE 3-29. CATALOG NUMBER — CMB2424B200BTS

TYPICAL WIRING DIAGRAMS (RESIDENTIAL METER BREAKERS)

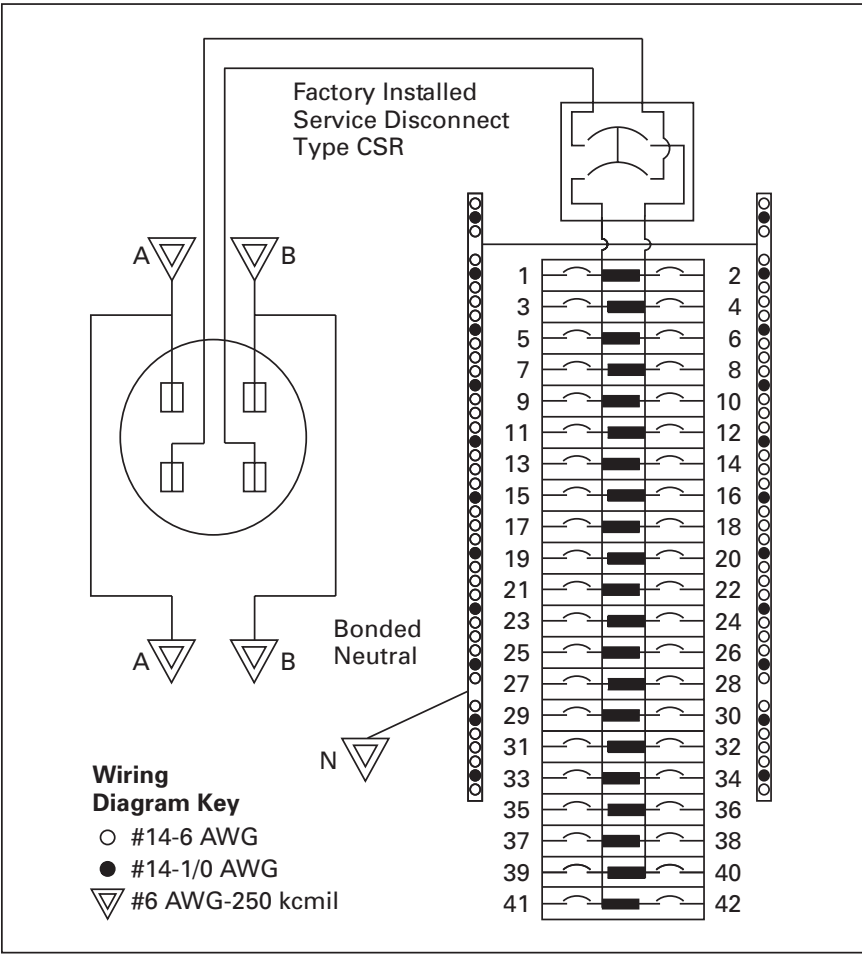


FIGURE 3-31. CATALOG NUMBER — CMBE4242B200BTS

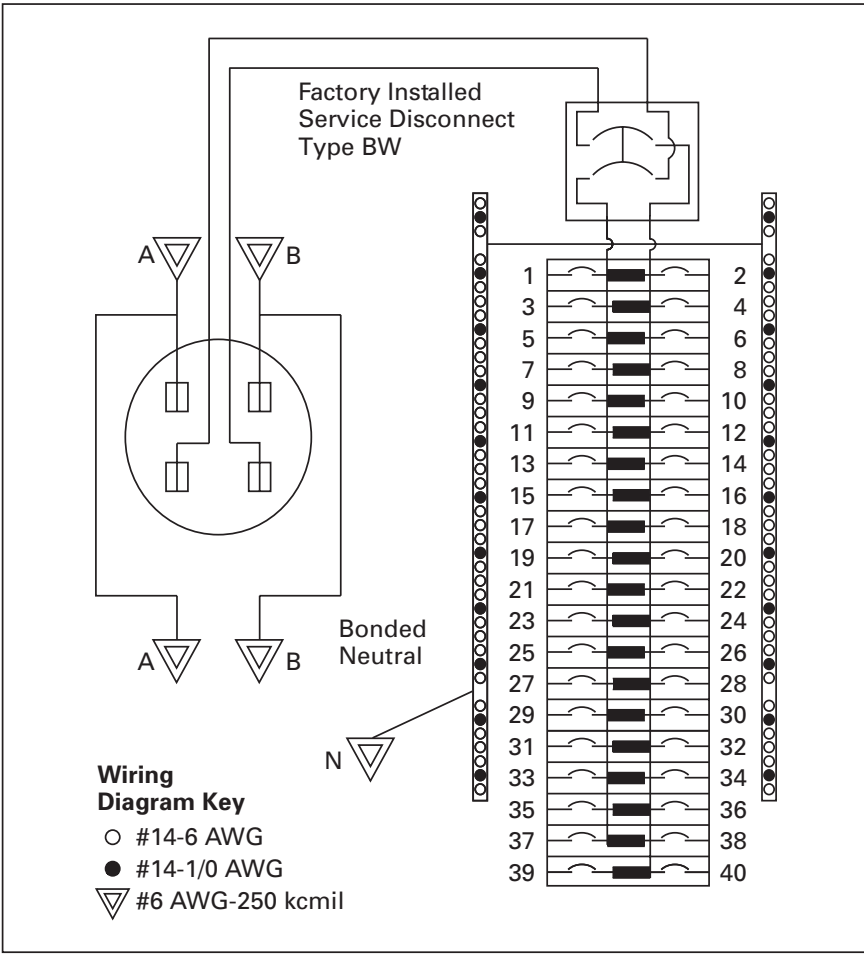


FIGURE 3-32. CATALOG NUMBERS — MBE4040B200BTS AND MBE4040B200BSH

TYPICAL WIRING DIAGRAMS (NON-EUSERC METER BREAKER DESIGN)

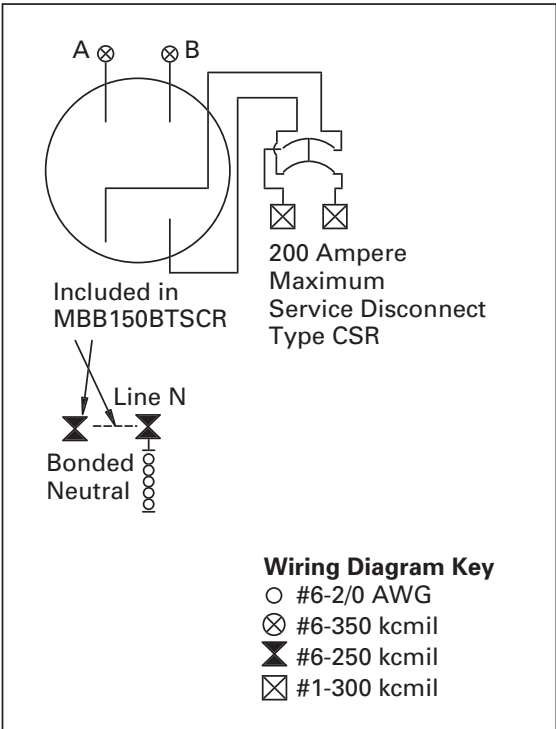


FIGURE 3-33. CATALOG NUMBERS — MBB150BTSC, MBB150BTSCR, MBB200BTSCR AND MBB200BTSC

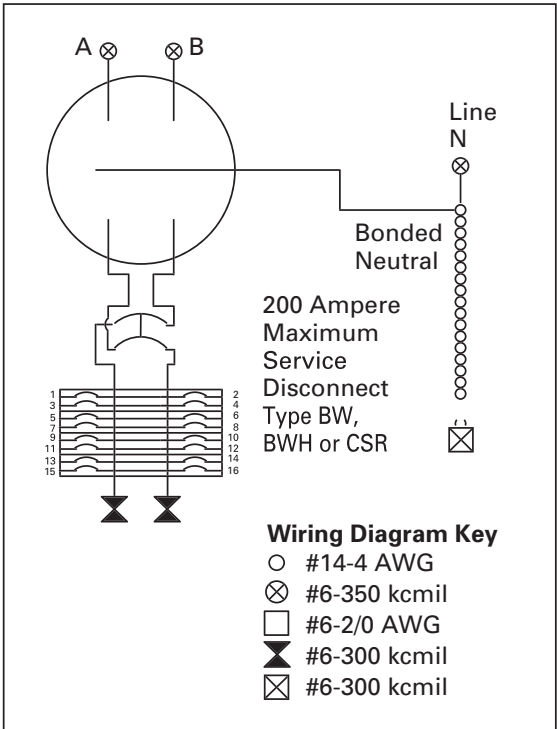


FIGURE 3-35. CATALOG NUMBERS — MB816P200STD, MB816B200BTS, MB816B200BTSCU, MB816P200BTS, MB816P200BTSCU AND MB816P200BTSD

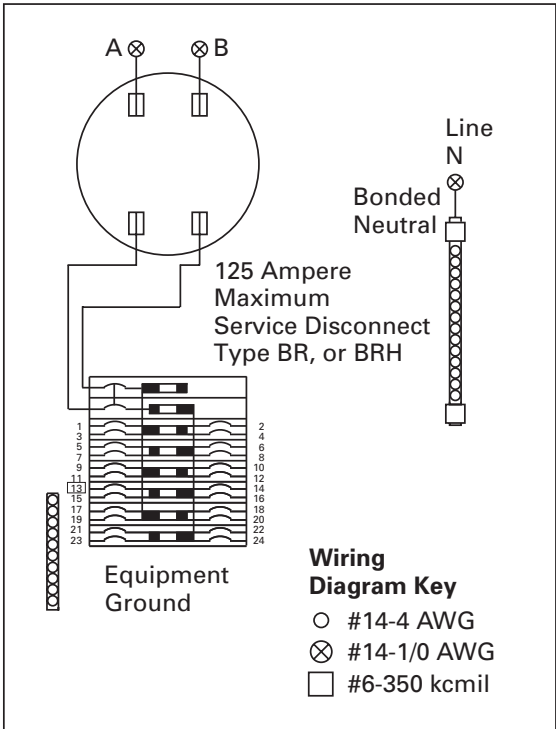


FIGURE 3-37. CATALOG NUMBERS — MBE1224B125TS AND MBE1224B100TS

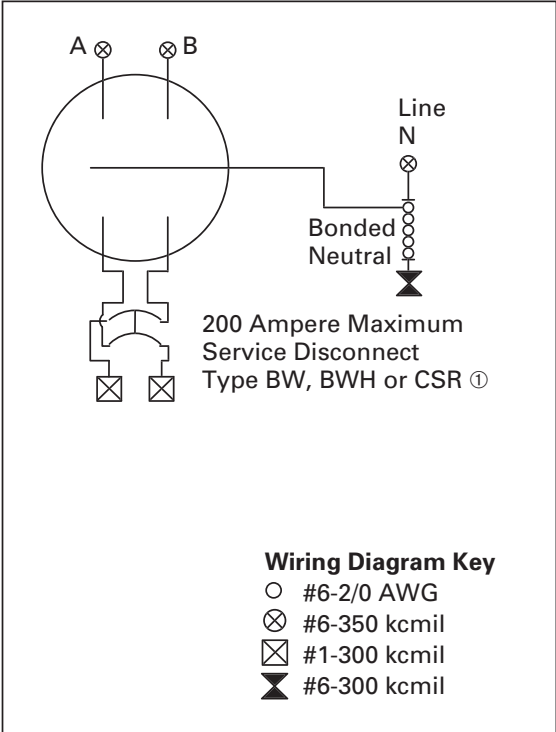


FIGURE 3-34. CATALOG NUMBERS — MBB150BTS, MBP200SD, MBB200BTS, MBP200BTS AND MBP200BTSD
① Use MCBK225 for C/B Load Lugs.

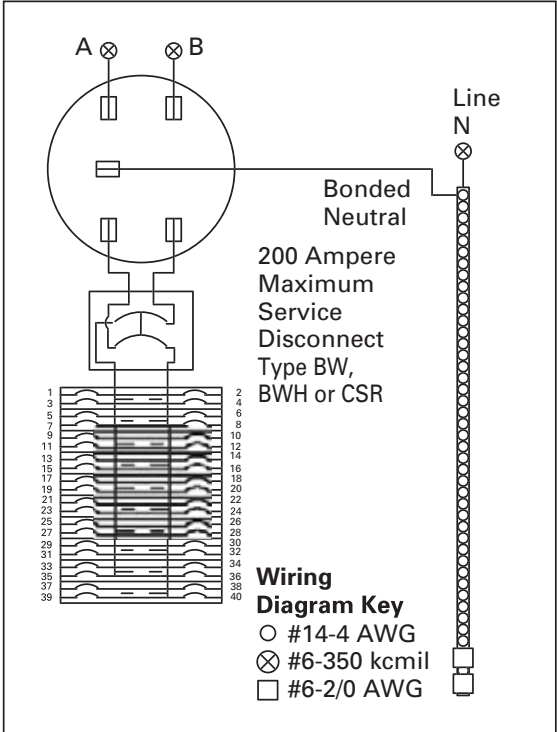


FIGURE 3-36. CATALOG NUMBERS — MB2040P200SD, MB2040B200BTS, MB2040P200BTS, MB2040B150SD AND MB2040B200SD

DIMENSIONS AND KNOCKOUTS (RESIDENTIAL METER BREAKERS) —
DIMENSIONS IN INCHES (MM)

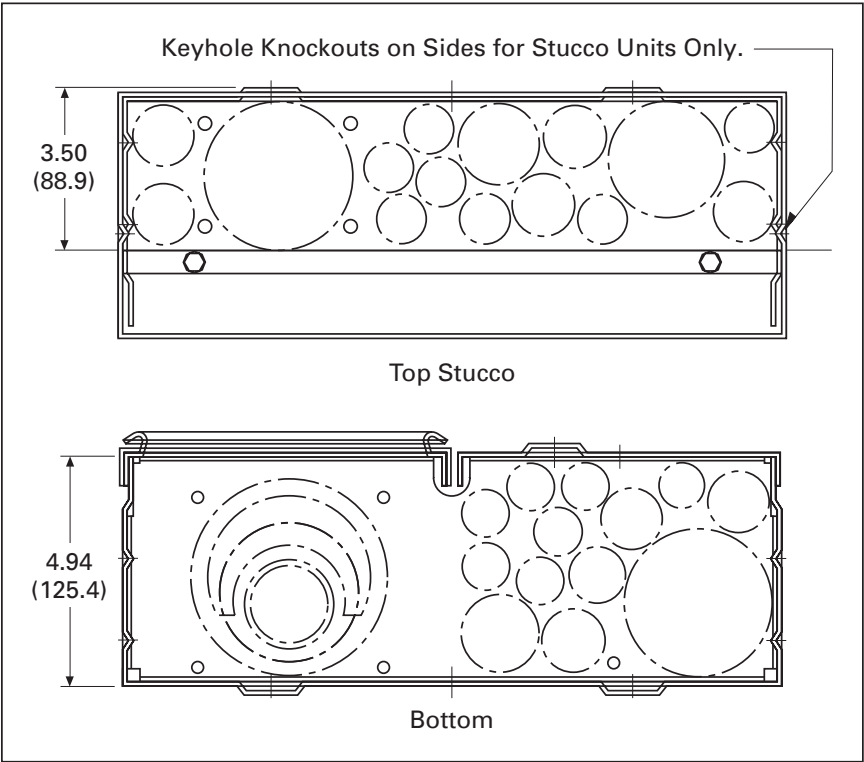


FIGURE 3-38. KNOCKOUTS FOR STUCCO AND SURFACE UNITS
CATALOG NUMBERS — CMBE3242B200BF, CMBE3242B225BF,
MBE2040B200BF, MBE2040B150BF, MBE1428B100BF,
MBE1212L200BTF, MBE1836B125BF AND MBE1212L200BTS

TABLE 3-13. TOP ENDWALL (SURFACE)

Hub Provision Catalog Number	UPC Code
DS100H2	782114987858
DS125H2	782114987865
DS150H2	782114987872
DS200H2	782113109961
DS250H2	782113109978
DS300H2	782113342276
DS900AP (Adapter Plate if using DS__H1 hubs only) ①	782113099422

① Use when DS H1 Type 1, 1.25 and 1.50-inch hubs are needed.

TABLE 3-14. TOP ENDWALL (STUCCO)

Knockout Size Dimensions in Inches (mm)	Quantity
1.25, 1.50, 2.00, 2.50 (31.8, 38.1, 50.8, 63.5)	1
1.00, 1.25, 1.50 (25.4, 31.8, 38.1)	1
.50, .75, 1.00 (12.7, 19.1, 25.4)	1
.50, .75 (12.7, 19.1)	5
.50 (12.7)	7

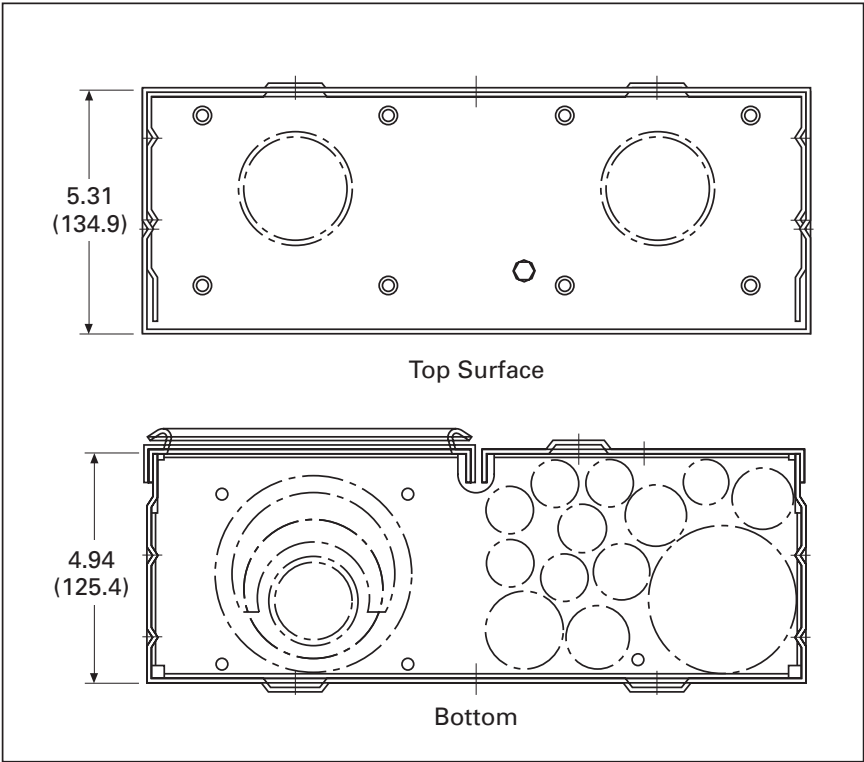


FIGURE 3-39. KNOCKOUTS FOR STUCCO AND SURFACE UNITS
CATALOG NUMBERS — CMBE3242B150BS, CMBE3242B200BS,
CMBE3242B225BS, CMBE1212L200BS, MBE2040B200BS,
MBE1428B100BS, MBE1212L200BTS, CMB3242B150BS AND
CMB3242B200BS

TABLE 3-15. BOTTOM ENDWALL

Knockout Size Dimensions in Inches (mm)	Quantity
.50 (12.7)	7
.50, .75 (12.7, 19.1)	4
.50, .75, 1.00 (12.7, 19.1, 25.4)	1
1.00, 1.25, 1.50, 2.00 (25.4, 31.8, 38.1, 50.8)	1
1.25, 1.50, 2.00, 2.50, 3.00 (31.8, 38.1, 50.8, 63.5, 76.2)	1

DIMENSIONS AND KNOCKOUTS (RESIDENTIAL METER BREAKERS) —
DIMENSIONS IN INCHES (MM)

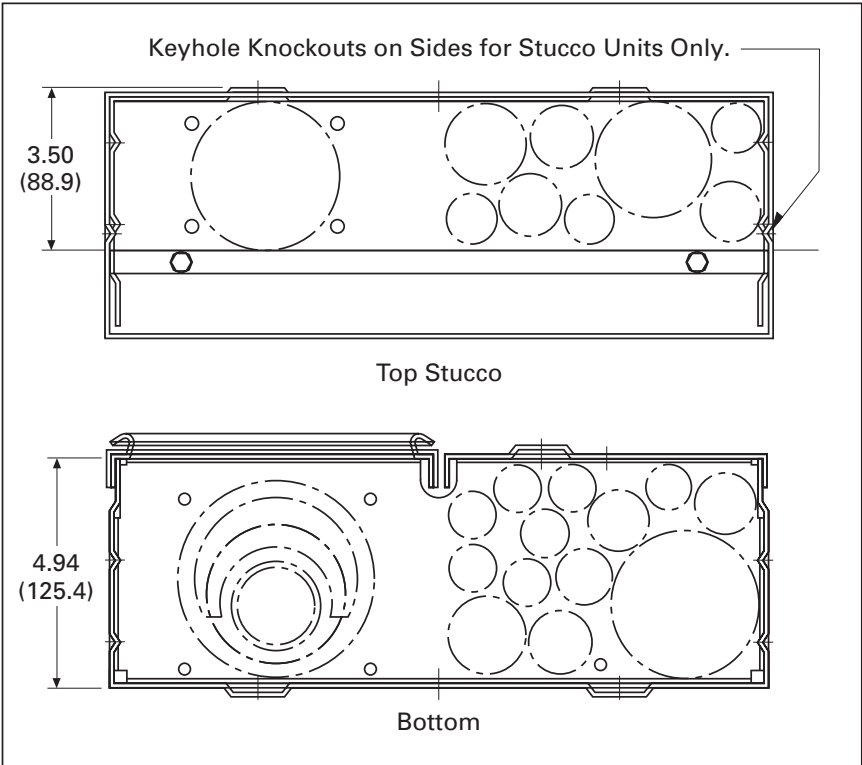


FIGURE 3-40. KNOCKOUTS FOR STUCCO AND SURFACE UNITS
CATALOG NUMBERS — CMBE88B150BTF, CMBE88B200BTF, MBE24L125BTF, MBE24L200BTF, MBE48B200BTF, MBEB200BTF, MBE1224B100BTF AND MBE1224B125BTF

TABLE 3-16. TOP ENDWALL (SURFACE)

Hub Provision Catalog Number	UPC Code
DS100H2	782114987858
DS125H2	782114987865
DS150H2	782114987872
DS200H2	782113109961
DS250H2	782113109978
DS300H2	782113342276
DS900AP (Adapter Plate) ①	782113099422

① Use when DS H1 Type 1, 1.25 and 1.50-inch hubs are needed.

TABLE 3-17. TOP ENDWALL (STUCCO)

Knockout Size Dimensions in Inches (mm)	Quantity
1.25, 1.50, 2.00, 2.50 (31.8, 38.1, 50.8, 63.5)	1
1.00, 1.25, 1.50 (25.4, 31.8, 38.1)	1
.50, .75, 1.00 (12.7, 19.1, 25.4)	1
.50, .75 (12.7, 19.1)	3
.50 (12.7)	3

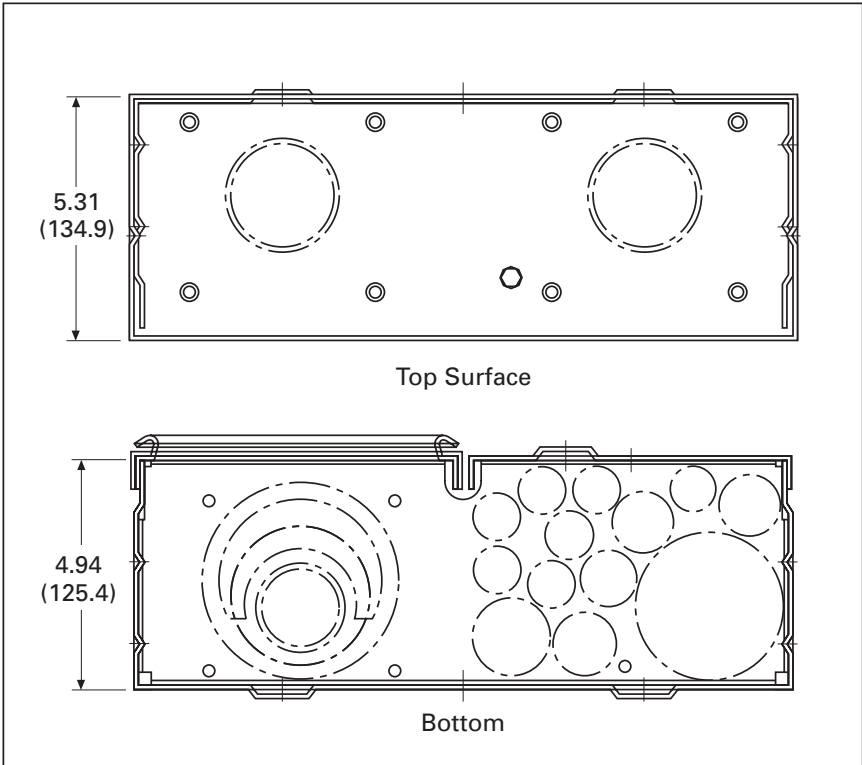


FIGURE 3-41. KNOCKOUTS FOR STUCCO AND SURFACE UNITS
CATALOG NUMBERS — CMBB150BTS, CMBB200BTS, CMBP200BTS, CMBE24L125BTS, CMB24L125BTS, CMBE24L200BTS, CMBEB200BTS, CMBEB150BTS, CMBE88B150BTS, CMBP200BTS, CMBE88B200BTS, MBE24L125BTS, MBE24L200BTS, MBE48B150BTS, MBE48B200BTS, MBE88B200BTS, MBEB200BTS, MBE1224B100BTS, MBE1224B125BTS, CMB88B150BTS, CMB88B200BTS AND MB48B200BTS

TABLE 3-18. BOTTOM ENDWALL

Knockout Size Dimensions in Inches (mm)	Quantity
.50 (12.7)	7
.50, .75 (12.7, 19.1)	4
.50, .75, 1.00 (12.7, 19.1, 25.4)	1
1.00, 1.25, 1.50, 2.00 (25.4, 31.8, 38.1, 50.8)	1
1.25, 1.50, 2.00, 2.50, 3.00 (31.8, 38.1, 50.8, 63.5, 76.2)	1

DIMENSIONS AND KNOCKOUTS (RESIDENTIAL METER BREAKERS) —
DIMENSIONS IN INCHES (MM)

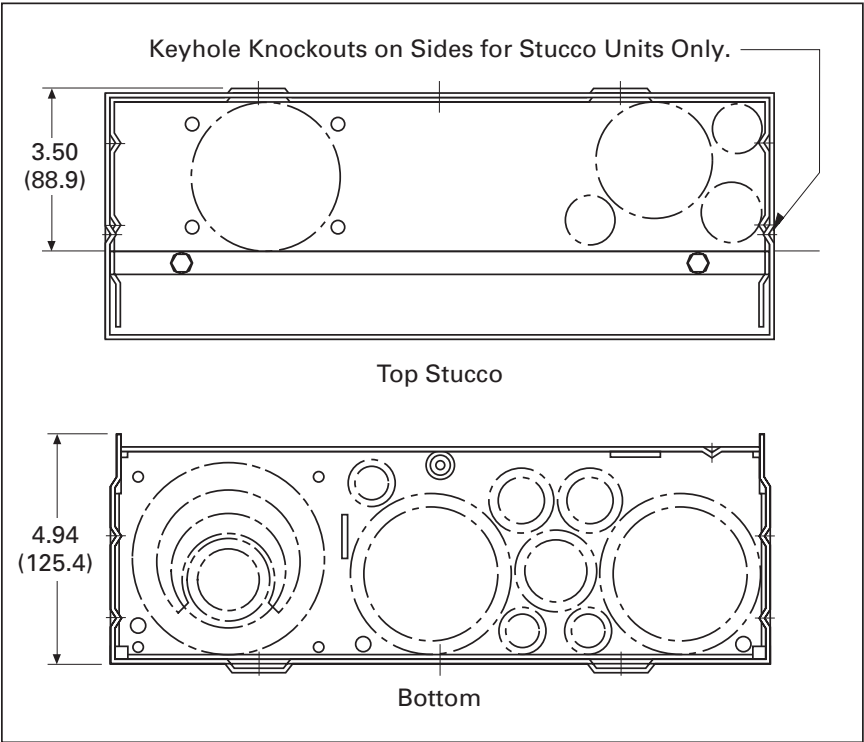


FIGURE 3-42. KNOCKOUTS FOR STUCCO AND SURFACE UNITS
CATALOG NUMBER — MBE2040B200TF

TABLE 3-19. TOP ENDWALL (SURFACE)

Hub Provision Catalog Number	UPC Code
DS100H2	782114987858
DS125H2	782114987865
DS150H2	782114987872
DS200H2	782113109961
DS250H2	782113109978
DS300H2	782113342276
DS900AP (Adapter Plate) ①	782113099422

① Use when DS H1 Type 1, 1.25 and 1.50-inch hubs are needed.

TABLE 3-20. TOP ENDWALL (STUCCO)

Knockout Size Dimensions in Inches (mm)	Quantity
1.25, 1.50, 2.00, 2.50 (31.8, 38.1, 50.8, 63.5)	1
1.00, 1.25, 1.50 (25.4, 31.8, 38.1)	1
.50, .75, 1.00 (12.7, 19.1, 25.4)	1
.50, .75 (12.7, 19.1)	3
.50 (12.7)	3

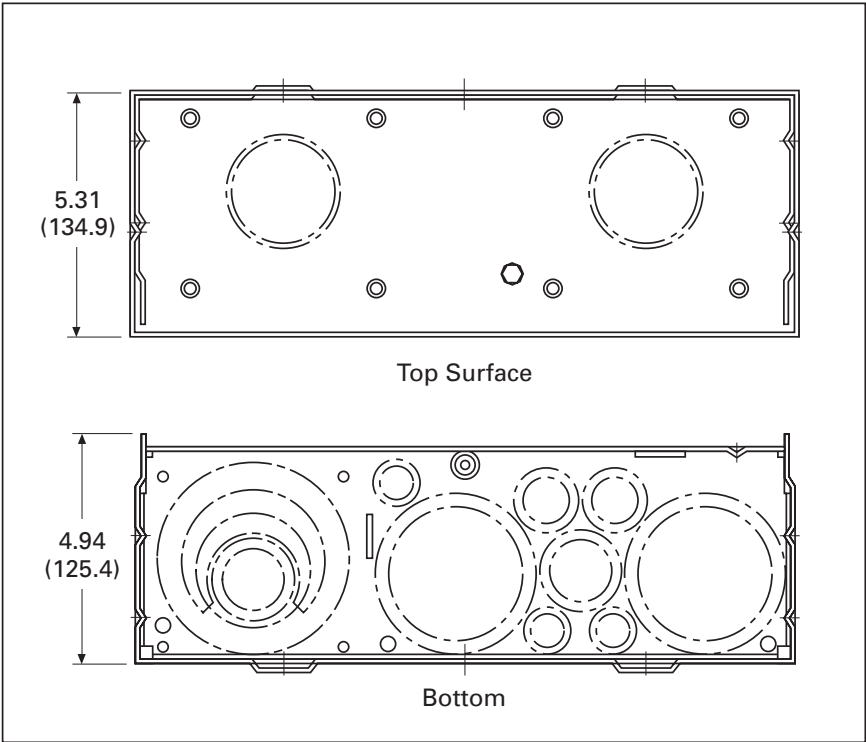


FIGURE 3-43. KNOCKOUTS FOR STUCCO AND SURFACE UNITS
CATALOG NUMBERS — MBE1224B100TS, MBE1224B125TS,
MBE816P200TS, MBE816P200TSCU, MBE2040B200TS,
CMB1212P200BTS, CMB1212P200BTSD, CMB1212B200BTS,
MB1212L200BTS AND CMB1212L200BTS

TABLE 3-21. BOTTOM ENDWALL

Knockout Size Dimensions in Inches (mm)	Quantity
.50 (12.7)	7
.50, .75 (12.7, 19.1)	4
.50, .75, 1.00 (12.7, 19.1, 25.4)	1
1.00, 1.25, 1.50, 2.00 (25.4, 31.8, 38.1, 50.8)	1
1.25, 1.50, 2.00, 2.50, 3.00 (31.8, 38.1, 50.8, 63.5, 76.2)	1

DIMENSIONS AND KNOCKOUTS (RESIDENTIAL METER BREAKERS) —
DIMENSIONS IN INCHES (MM)

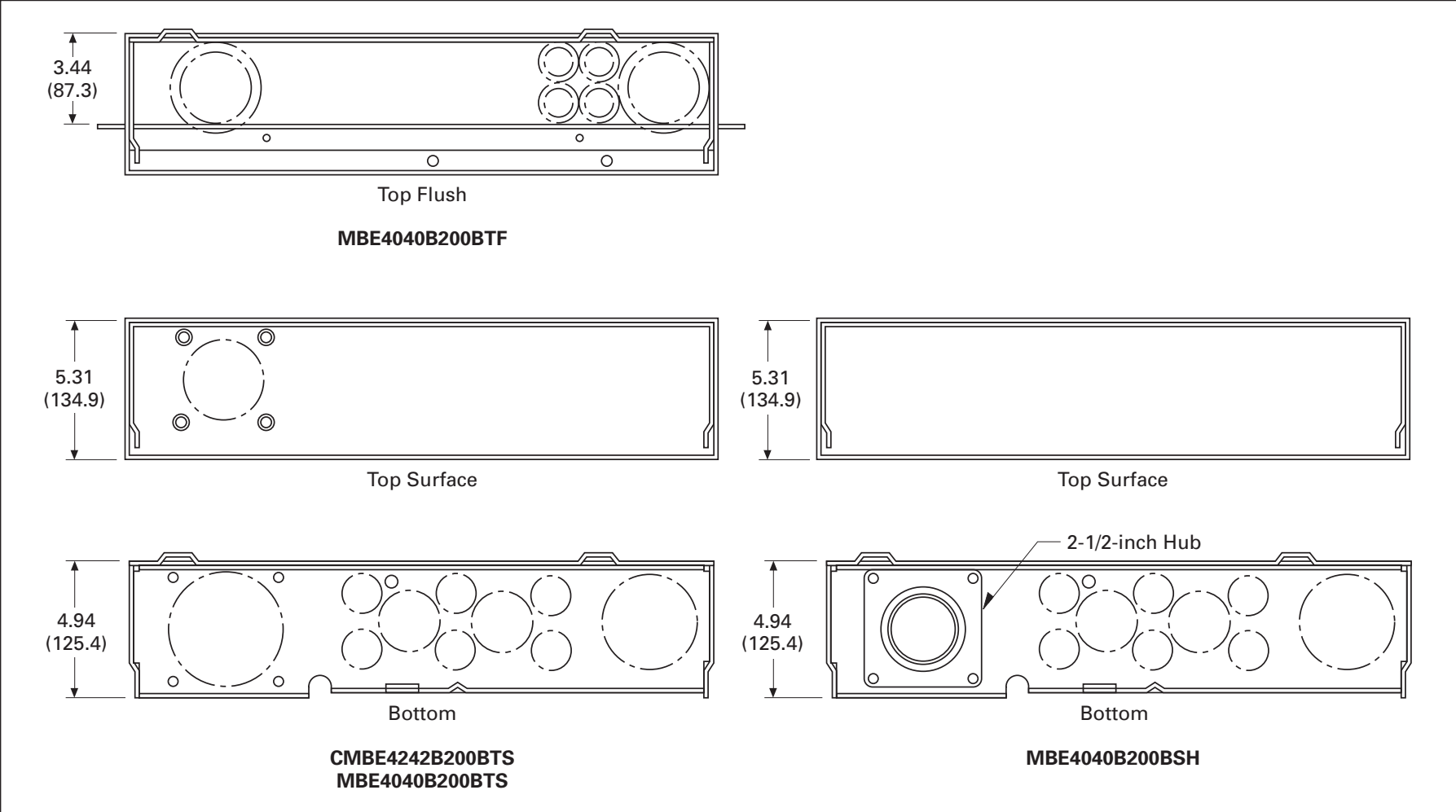


FIGURE 3-44. KNOCKOUTS FOR STUCCO AND SURFACE UNITS

TABLE 3-22. TOP ENDWALL (SURFACE)

Hub Provision Catalog Number	UPC Code
DS100H2	782114987858
DS125H2	782114987865
DS150H2	782114987872
DS200H2	782113109961
DS250H2	782113109978
DS300H2	782113342276
DS900AP (Adapter Plate) ①	782113099422

① Use when DS H1 Type 1, 1.25 and 1.50-inch hubs are needed.

TABLE 3-23. TOP ENDWALL (STUCCO)

Knockout Size Dimensions in Inches (mm)	Quantity
1.25, 1.50, 2.00, 2.50 (31.8, 38.1, 50.8, 63.5)	2
.50, .75 (12.7, 19.1)	3

TABLE 3-24. BOTTOM ENDWALL

Knockout Size Dimensions in Inches (mm)	Quantity
.50, .75 (12.7, 19.1)	6
.50, .75, 1, 1.25 (12.7, 19.1, 25.4, 31.8)	2
1.00, 1.25, 1.50, 2.00, 2.50 (25.4, 31.8, 38.1, 50.8, 63.5)	1
1.00, 1.25, 1.50, 2.00, 2.50, 3.00 (25.4, 31.8, 38.1, 50.8, 63.5, 76.2)	1

DIMENSIONS AND KNOCKOUTS (NON-EUSERC METER BREAKER DESIGN) —
DIMENSIONS IN INCHES (MM)

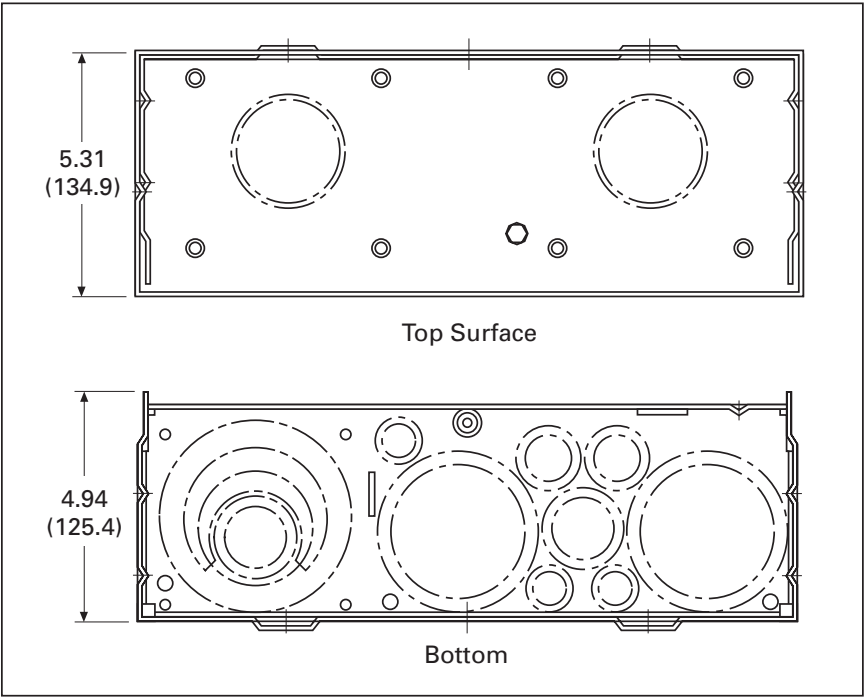


FIGURE 3-45. KNOCKOUTS FOR NON-EUSERC UNITS
CATALOG NUMBERS — MBB150BTS, MBB200BTS, MBP200BTS, MB816P200BTS, MB816P200BTSCU, MB816P200BTSD, MB816B200BTS, MB816B200BTSCU, MB2040P200BTS, MB2040B200BTS, MBP200BTSD, MBP200SD, MB816P200STD, MB2040B150SD, MB2040B200SD AND MB2040P200SD

TABLE 3-25. TOP ENDWALL (SURFACE)

Hub Provision Catalog Number	UPC Code
DS100H2	782114987858
DS125H2	782114987865
DS150H2	782114987872
DS200H2	782113109961
DS250H2	782113109978
DS300H2	782113342276
DS900AP (Adapter Plate) ①	782113099422

① Use when DS H1 Type 1, 1.25 and 1.50-inch hubs are needed.

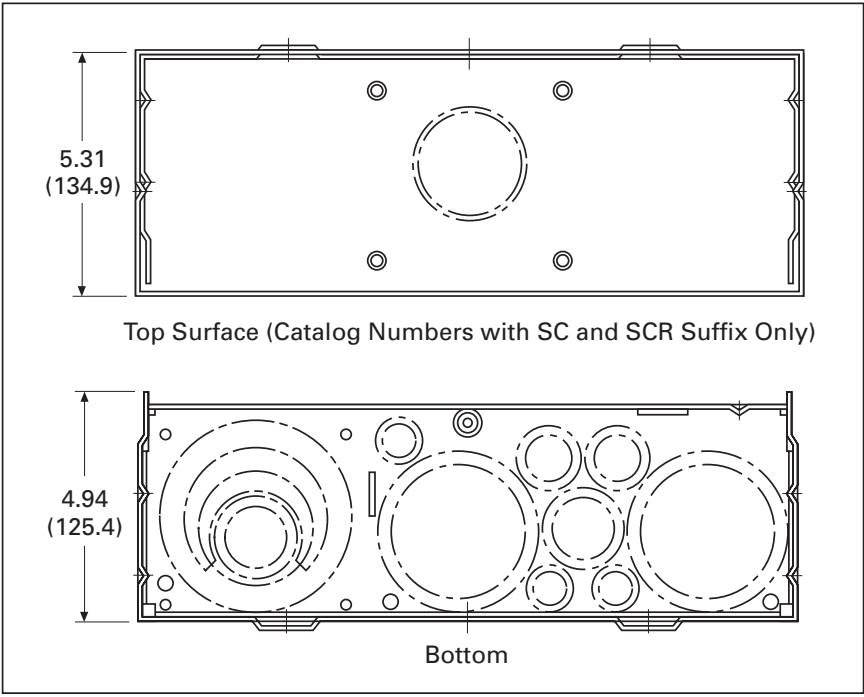


FIGURE 3-46. KNOCKOUTS FOR NON-EUSERC UNITS
CATALOG NUMBERS — CMB2424B200BTS, MBB150BTSCR, MBB200BTSCR, MBB150BTSC AND MBB200BTSC

TABLE 3-26. BOTTOM ENDWALL

Knockout Size Dimensions in Inches (mm)	Quantity
.31 (7.9)	3
.50 (12.7)	3
.50, .75 (12.7, 19.1)	2
.75, 1.00 (12.7, 25.4)	1
1.25, 1.50, 2.00, 2.50 (19.1, 38.1, 50.8, 63.5)	2
1.50, 2.00, 2.50, 3.00 (38.1, 50.8, 63.5, 76.2)	1

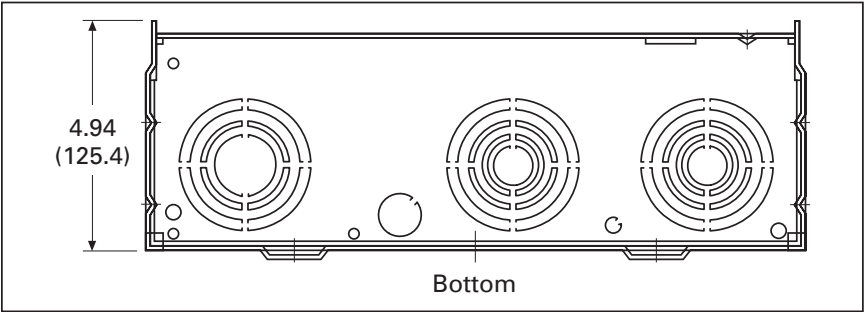


FIGURE 3-47. KNOCKOUTS FOR NON-EUSERC UNITS
CATALOG NUMBER — CHMMB100BTS

TABLE 3-27. BOTTOM ENDWALL

Knockout Size Dimensions in Inches (mm)	Quantity
.31 (7.9)	1
.50 (12.7)	1
.50, .75, 1.00, 1.25, 1.50, 2.00, 2.50 (12.7, 19.1, 25.4, 31.8, 38.1, 50.8, 63.5)	2
1.00, 1.25, 1.50, 2.00, 2.50 (25.4, 31.8, 38.1, 50.8, 63.5)	1

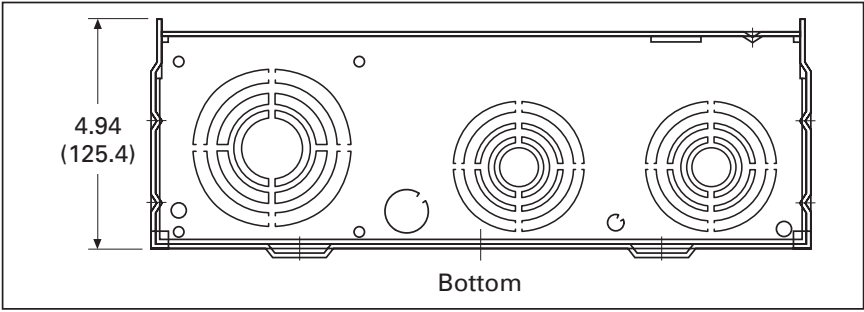


FIGURE 3-48. KNOCKOUTS FOR NON-EUSERC UNITS
CATALOG NUMBERS — CHMMB150BTS AND CHMMB200BTS

TABLE 3-28. BOTTOM ENDWALL

Knockout Size Dimensions in Inches (mm)	Quantity
.31 (7.9)	1
.50 (12.7)	1
.50, .75, 1.00, 1.25, 1.50, 2.00, 2.50 (12.7, 19.1, 25.4, 31.8, 38.1, 50.8, 63.5)	2
1.00, 1.25, 1.50, 2.00, 2.50, 3.00 (25.4, 31.8, 38.1, 50.8, 63.5, 76.2)	1

Technical Data and Specifications — House Panels

TYPICAL WIRING DIAGRAMS (TYPE CH STYLE HOUSE PANELS)

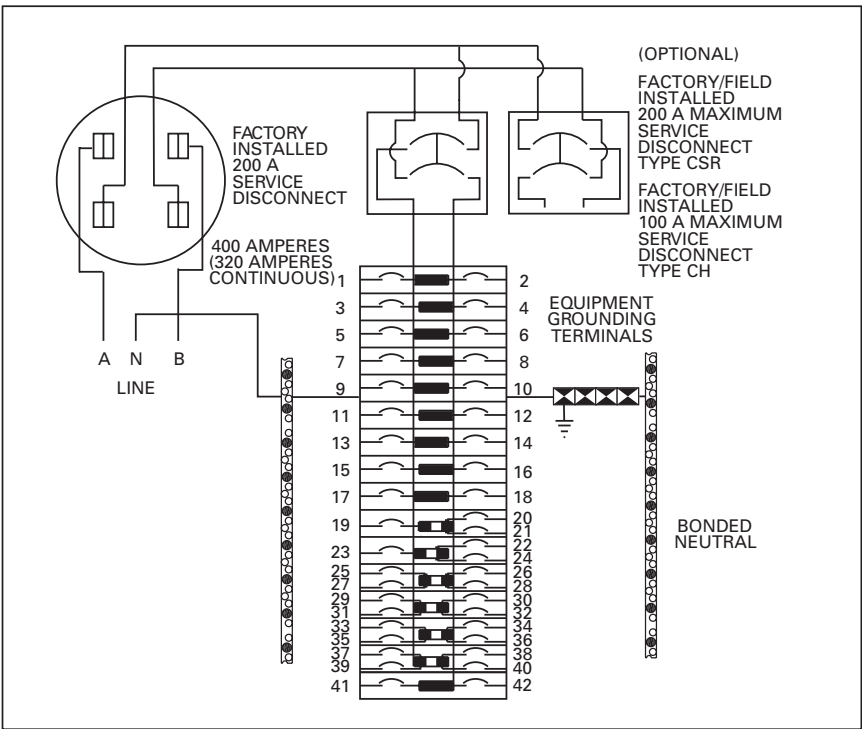


FIGURE 3-49. TYPE CH WIRING DIAGRAM 1 —
CATALOG NUMBER CG403242SH

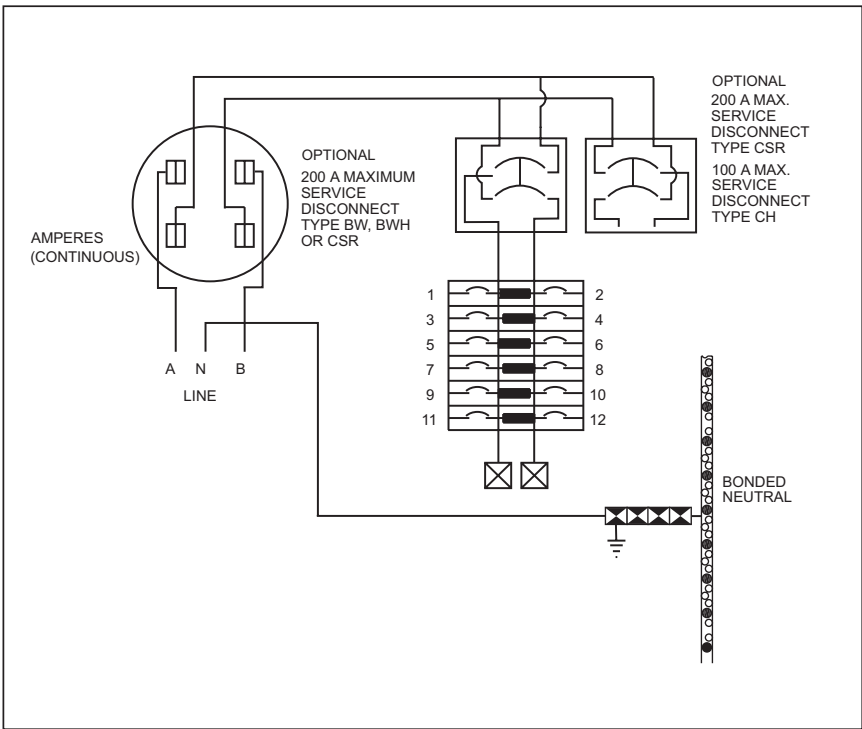


FIGURE 3-51. TYPE CH WIRING DIAGRAM 3 —
CATALOG NUMBER CG1212P400BS

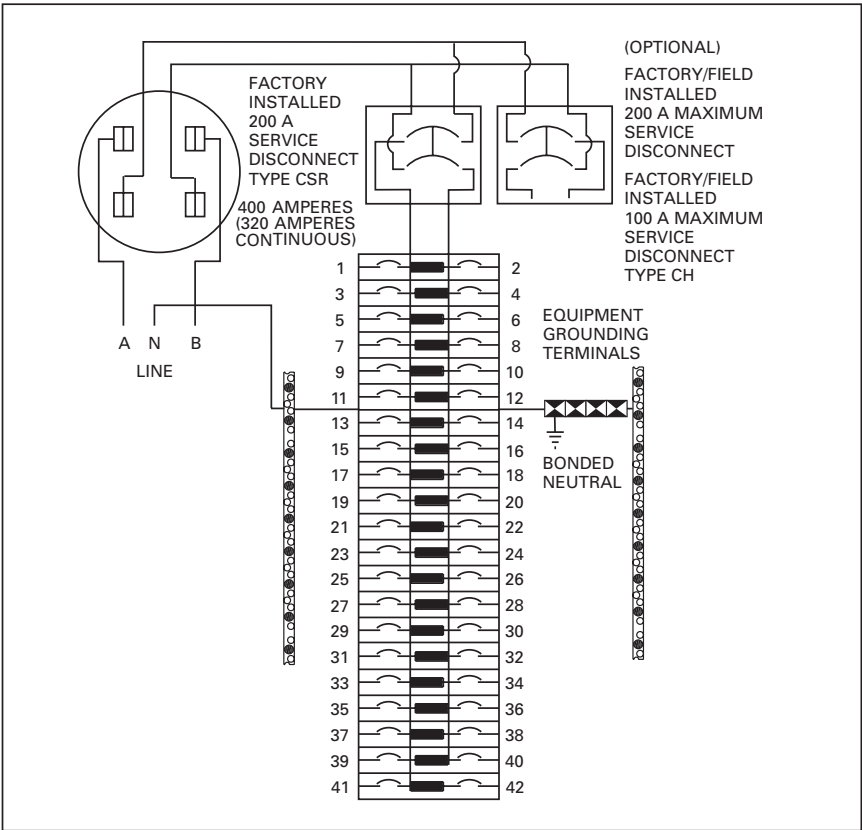


FIGURE 3-50. TYPE CH WIRING DIAGRAM 2 —
CATALOG NUMBER CG4042SHL

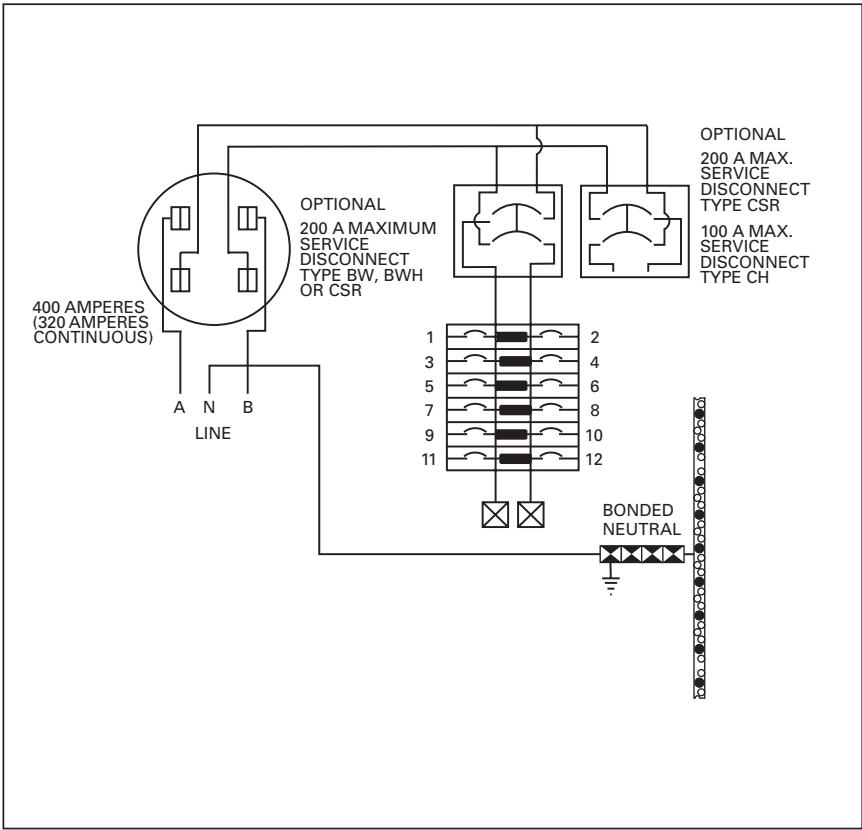


FIGURE 3-52. TYPE CH WIRING DIAGRAM 4 —
CATALOG NUMBER CG1212P400BSL

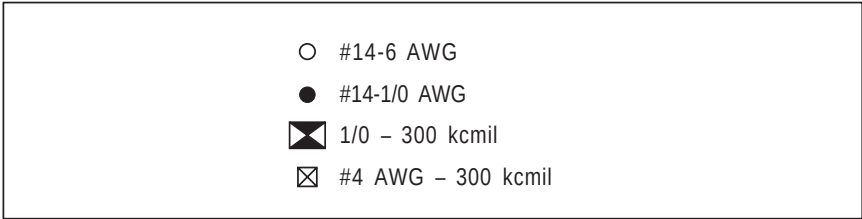


FIGURE 3-53. TYPE CH WIRING DIAGRAM KEY

DIMENSIONS AND KNOCKOUTS (TYPE CH STYLE HOUSE PANELS) — DIMENSIONS IN INCHES

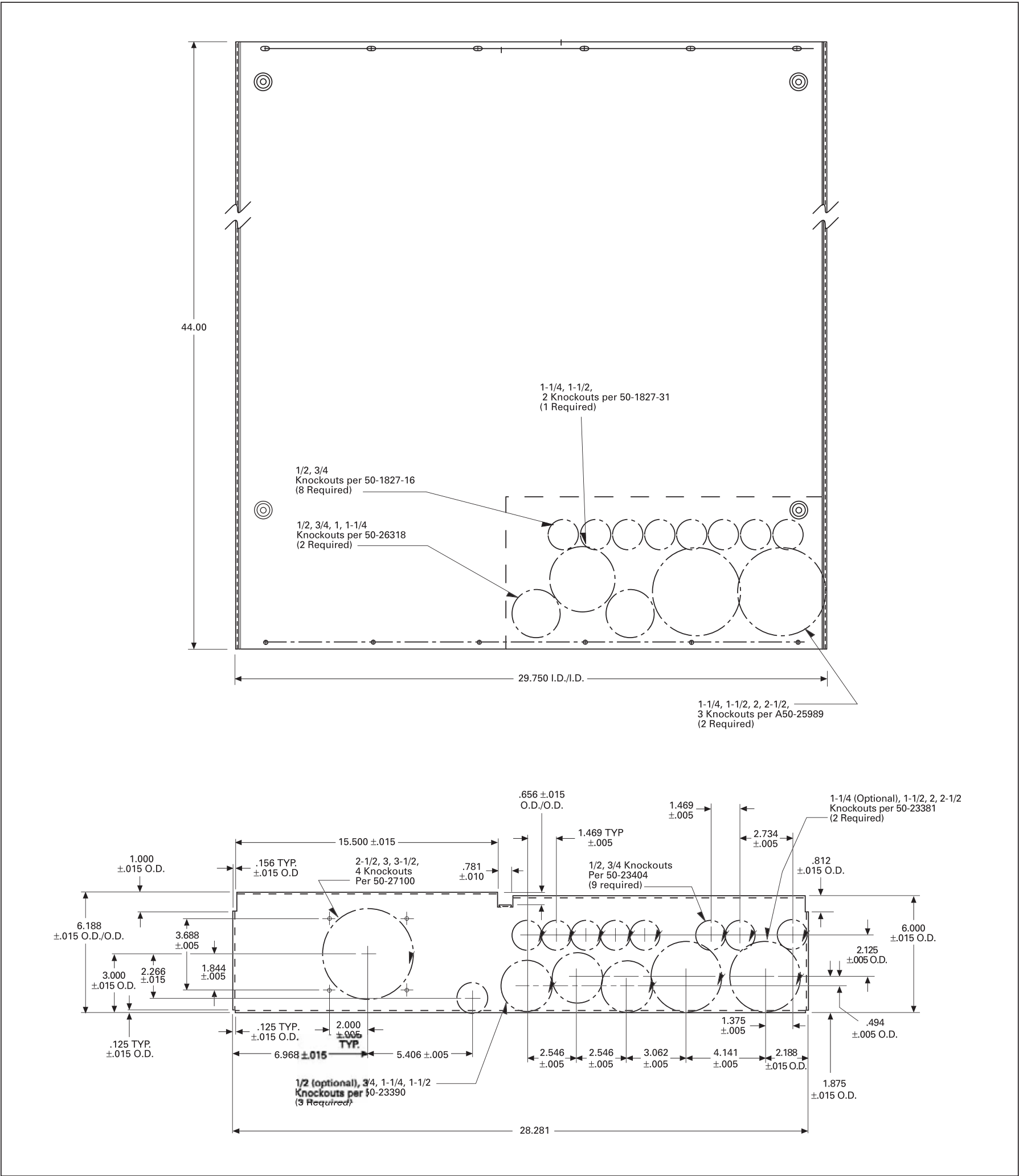


FIGURE 3-54. HOUSE PANEL DIMENSIONS AND KNOCKOUTS

TYPICAL WIRING DIAGRAMS (TYPE BR STYLE HOUSE PANELS)

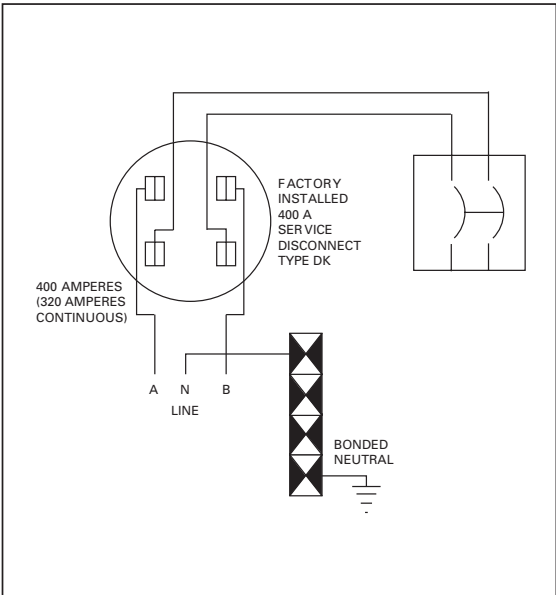


FIGURE 3-55. TYPE BR WIRING DIAGRAM 1 — CATALOG NUMBER HP40

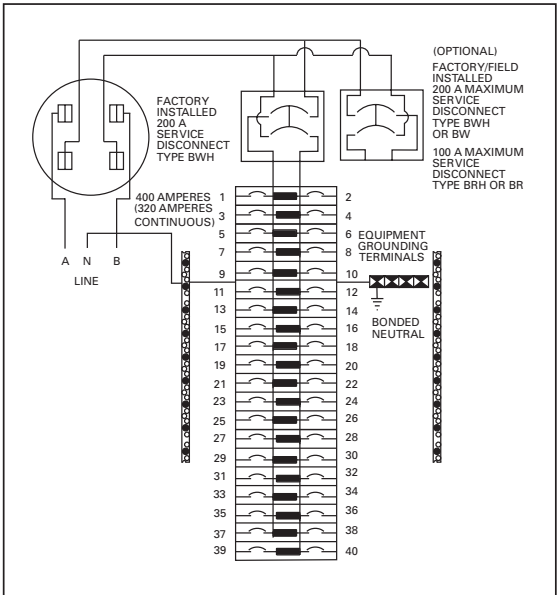


FIGURE 3-57. TYPE BR WIRING DIAGRAM 3 — CATALOG NUMBER HP404040SH

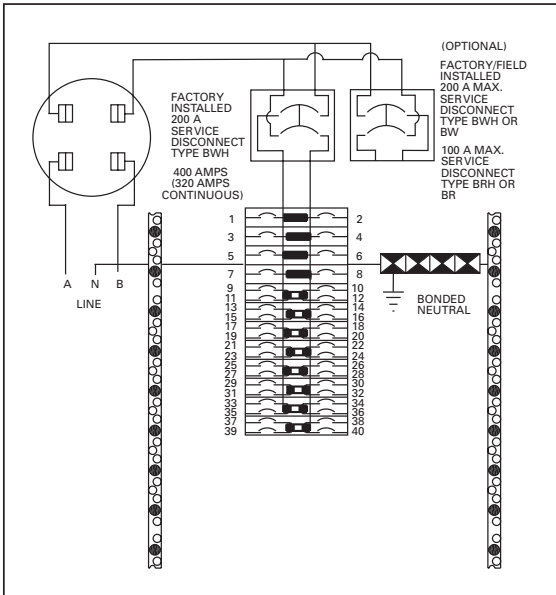


FIGURE 3-59. TYPE BR WIRING DIAGRAM 5 — CATALOG NUMBER HP402440SBH

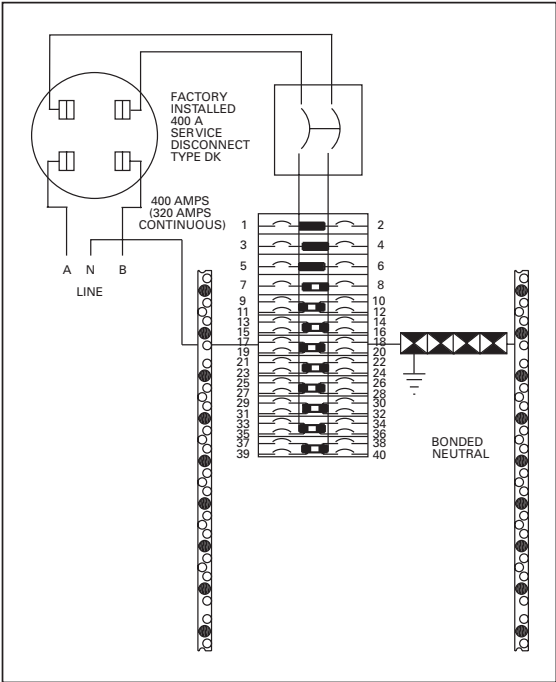


FIGURE 3-56. TYPE BR WIRING DIAGRAM 2 — CATALOG NUMBER HP402440B

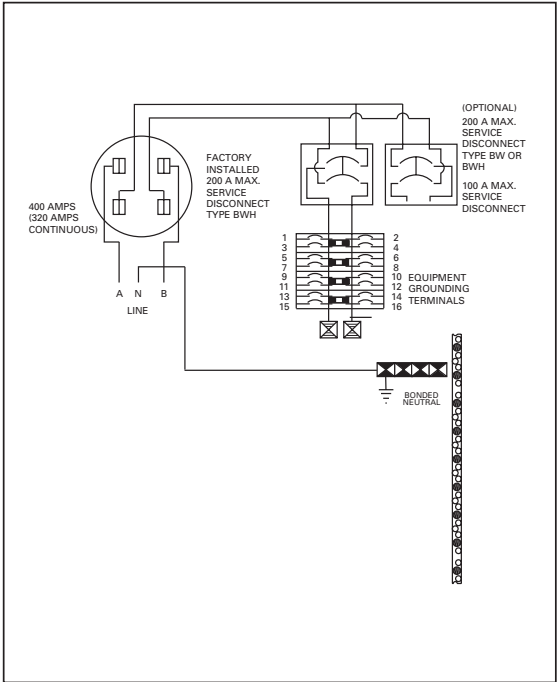


FIGURE 3-58. TYPE BR WIRING DIAGRAM 4 — CATALOG NUMBER HP816P400BS

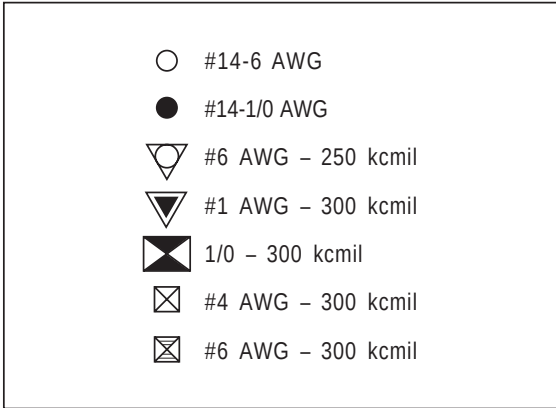


FIGURE 3-60. TYPE BR WIRING DIAGRAM KEY

3 Meter Breakers



3-26 **EATON CORPORATION Cutler-Hammer** Retail Solutions Book — 1-877-932-9322 — **Meter Breakers** — Effective August 200

Metering

Meter Sockets

Single Position
(Ring, Ringless and Lever Bypass). 4-5

Multiple Position —
Without Tenant Main Breakers 4-6

Accessories 4-7

Meter Packs — (All-in-Ones) Aluminum Bus . . . 4-10

Metering Mains

Main Terminal Box 4-12

Main Circuit Breaker 4-13

Main Circuit Breaker — EUSERC Approved. . . 4-14

Main Fusible Switch 4-15

Underground Pull Box 4-16

Bolted Pressure Switch 4-16

Residential Meter Stacks —
Single- and Three-Phase

800 A — Ring, Ringless, and Ringless
with Horn Bypass — Aluminum Bus 4-17

800 A — Ring, Ringless, and Ringless
with Horn Bypass — Copper Bus. 4-18

1200 A — Ring, Ringless, and Ringless
with Horn Bypass — Copper Bus. 4-19

Commercial Meter Stacks

Three-Phase In — Single-Phase Out 4-20

Three-Phase In — Three-Phase Out 4-21

EUSERC Approved 4-22

Tenant Main Breakers 4-23

Metering Accessories 4-24

Meter Sockets



Meter Sockets

Product Description

A meter socket is used where the electricity enters a home. The electric utility meter fits in the socket to measure power consumption.

Features, Functions and Benefits

- ✓ Variety of designs to meet local utility specifications.
- ✓ Interchangeable hubs.
- ✓ Notched wire saddle — grips for good wire connectivity.
- ✓ Anti-pry rivets on cover for security.
- ✓ Limited 1-year warranty.
- ✓ UL® listed.

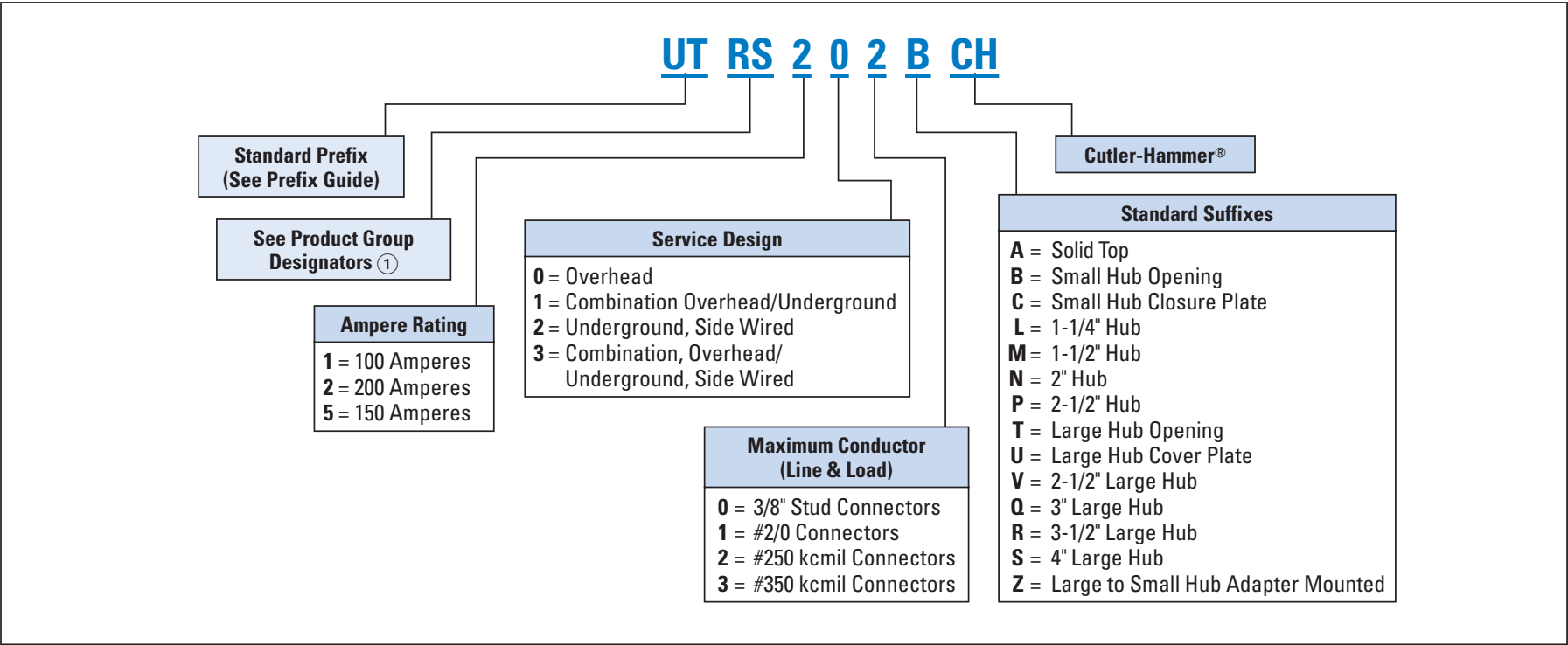
Also available are regional-specific meter socket catalogs identifying products approved by local utilities in each of these markets. These can be found on www.EatonElectrical.com.

TABLE 4-1. REGIONAL-SPECIFIC METER SOCKET CATALOGS

Region	Publication Number
North & South Carolina	TD00505007E
Chicago	TD00505001E
Florida	TD00505002E
Iowa, Kansas, Missouri & Oklahoma	TD00505003E
New York City	TD00505004E
Ohio	TD00505005E
Pennsylvania	TD00505006E
Texas	TD00505012E
Upstate New York	TD00505008E
Wisconsin & Minnesota	TD00505013E

Catalog Numbering System

TABLE 4-2. “RS” GROUP CATALOG NUMBERING SYSTEM



^① “RS” Group = Residential Service, Single Position.

Note: Some sockets that are built for specific utilities have their own unique catalog numbers. These can be found on the utility selection pages.

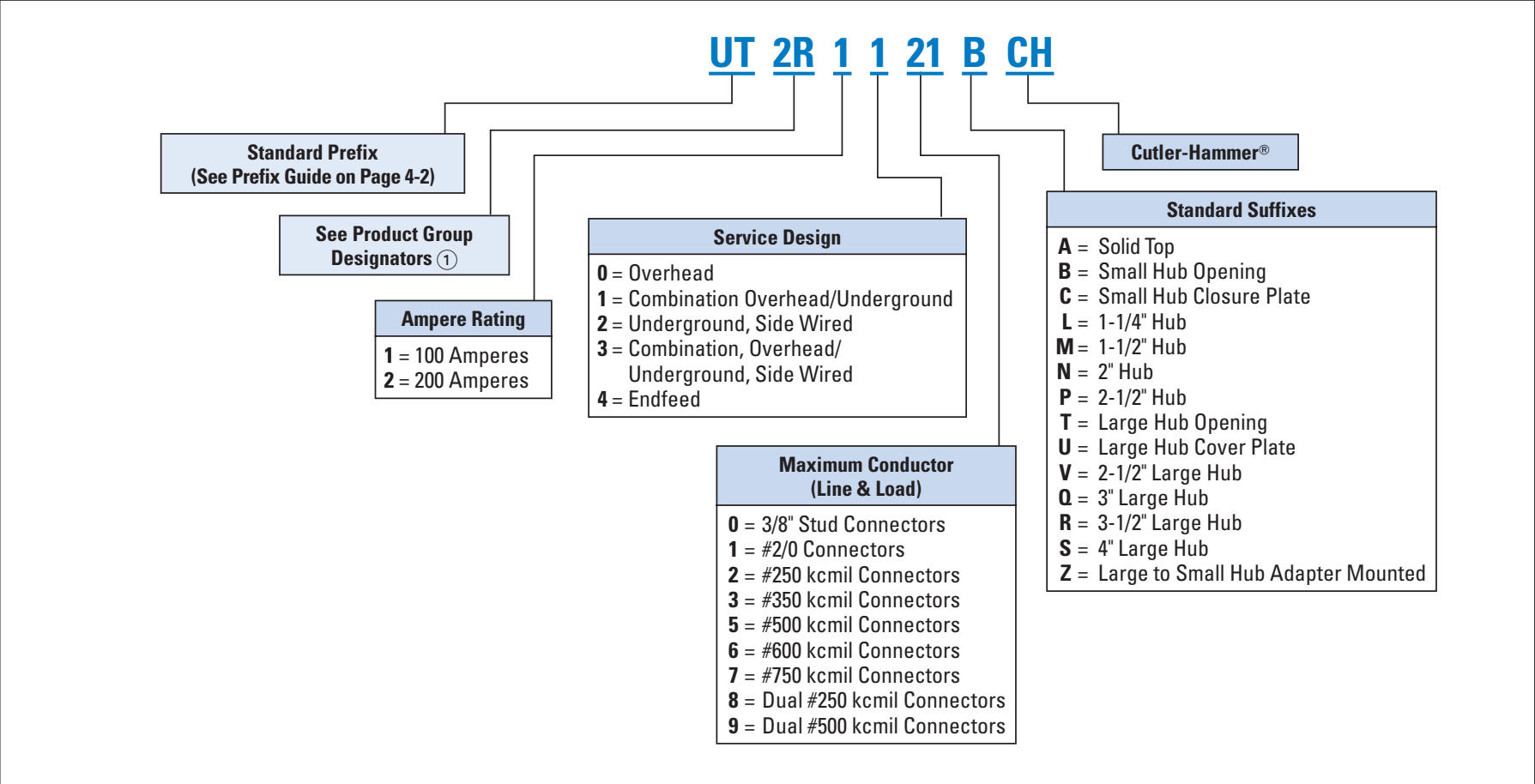
Meter Socket “Prefix” Guide

A	Aluminum enclosure
B	Barrel lock provision, for an exposed INNER-TITE® or Brooks barrel lock; unit includes an internal lock receiver bracket.
F	Barrel lock with guard provision, for a lock guard INNER-TITE or Brooks barrel lock; unit includes an internal lock receiver bracket.
G	Grounded fifth terminal (9 o’clock position)
H	Horn bypass
I	Inhibitor installed in wire connectors
M	Temporary meter cover (waxed cardboard)
N	No sealing ring (applies only to ring style sockets)
R	Ring style socket
S	Aluminum screw type sealing ring (applies only to ring style sockets)
T	Grounding connector (#14 – #2 Cu) for Tri-Plex ground
TT	Two (2) grounding connectors (#14 – #2 Cu) for Quad-Plex ground
U	UL (Underwriters Laboratories) labeled
Z	5/16” Hex head connector screw in place of slotted (100 amperes only)

Note: The “U” prefix is always used first, followed by other prefixes required in alphabetical order.

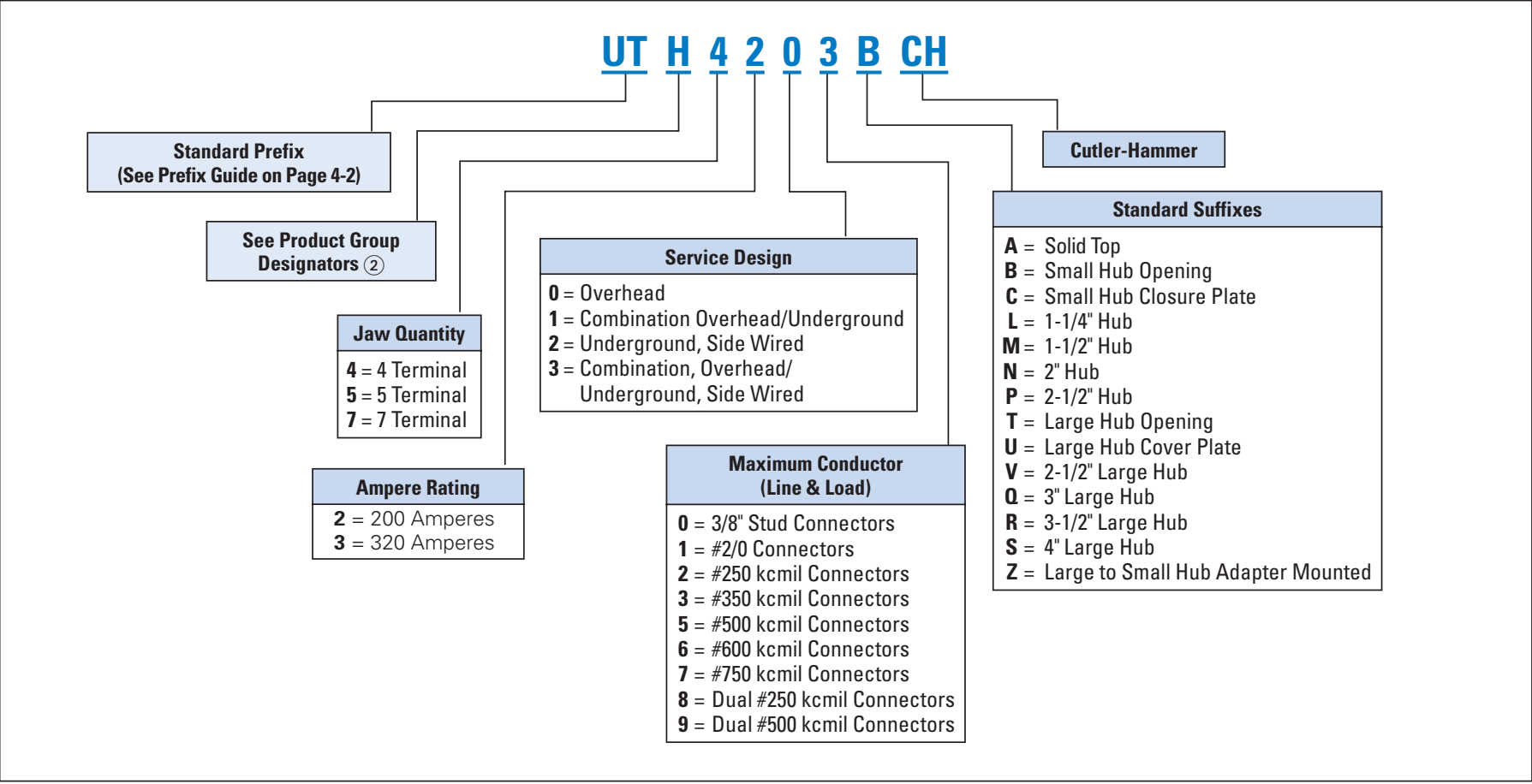
Catalog Numbering System

TABLE 4-3. "2R-6R" AND "2H-6H" GROUP CATALOG NUMBERING SYSTEM



① "2R-6R" Group = Residential Service, Multiple Position.
"2H-6H" Group = Commercial or Residential Service, Multiple Position (lever bypass).

TABLE 4-4. "H" GROUP CATALOG NUMBERING SYSTEM



② "H" Group = Commercial or Residential Service, Single Position (lever bypass).

Knockout Drawings

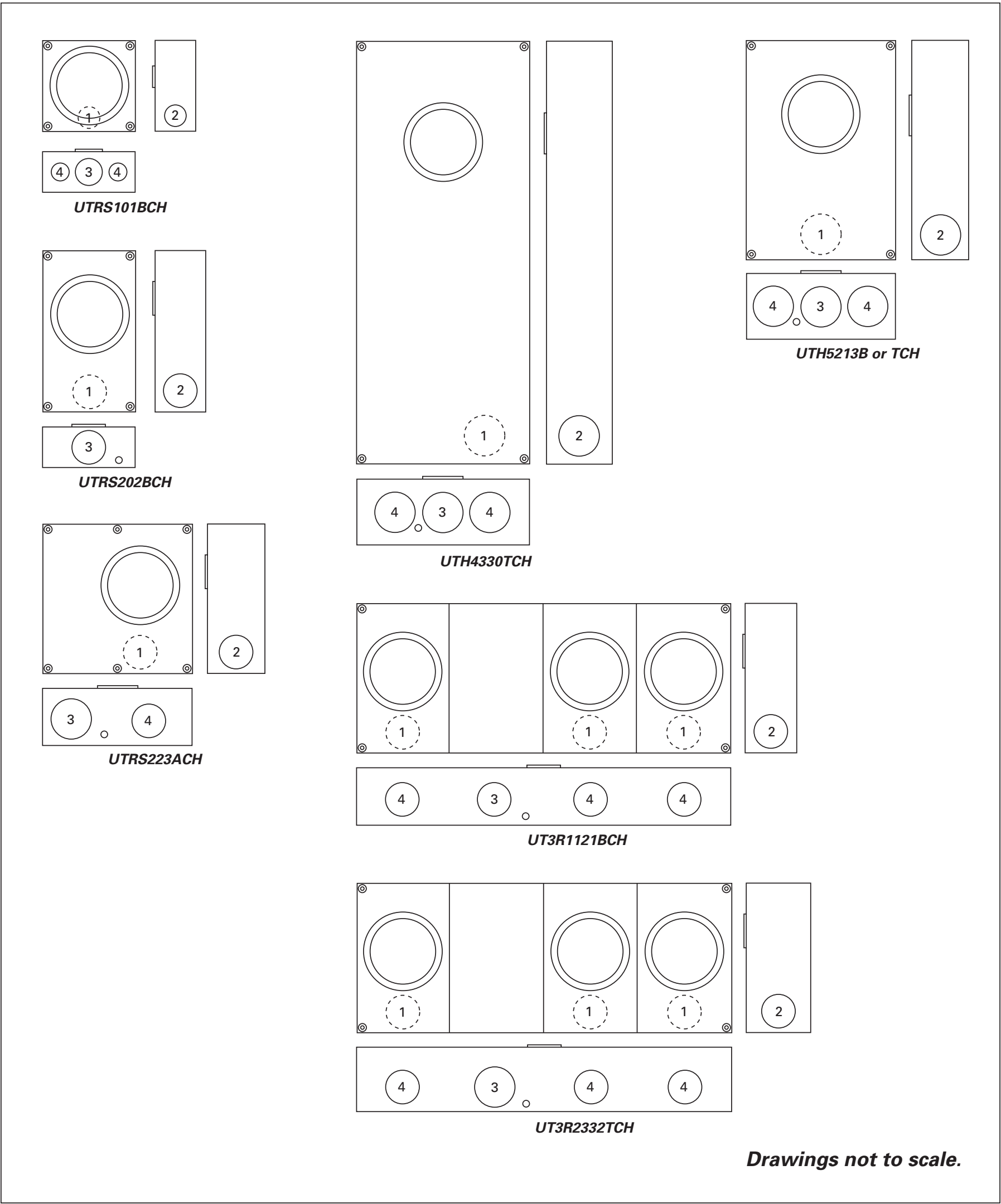


FIGURE 4-1. KNOCKOUT DRAWINGS

Dimensions for boxes on Pages 4-29.

Data Tables

RESIDENTIAL METER SOCKETS — RINGLESS TYPE COVER

TABLE 4-5. SINGLE METER SOCKETS — DIMENSIONS IN INCHES

Ampere Rating	Jaws	Positions	Service	Bypass	Connections		Height	Width	Depth	Opening, Hub or Closure Plate	Catalog Number	UPC Code
					Line	Load						
Residential Ringless Type Cover												
125	4	—	OH/UG	—	#8 – 2/0	#8 – 2/0	10.88	8.00	3.50	Hub Opening	UTRS101BCH	782113685168
125	4	—	OH/UG	—	#8 – 2/0	#8 – 2/0	10.88	8.00	3.50	1 1/4" Hub	UTRS101LCH	782116016242
125	4	—	OH/UG	Horn	#8 – 2/0	#8 – 2/0	10.88	8.00	3.50	Hub Opening	UHTRS101BCH	782114007556
125	5	—	OH/UG	Horn	#8 – 2/0	#8 – 2/0	10.88	8.00	3.50	Hub Opening	UGHTRS101BCH	782113890623
150	4	—	OH/UG	—	#8 – 250 kcmil	#8 – 250 kcmil	14.00	8.00	4.38	Hub Opening	UTRS502BCH	782113684024
150	4	—	OH/UG	—	#8 – 250 kcmil	#8 – 250 kcmil	14.00	8.00	4.38	Closure Plate	UTRS502CCH	782113729732
200	4	—	OH	—	#8 – 250 kcmil	#8 – 250 kcmil	14.00	8.00	4.38	Hub Opening	UTRS202BCH	782113685144
200	4	—	OH	Horn	#8 – 250 kcmil	#8 – 250 kcmil	14.00	8.00	4.38	Hub Opening	UHTRS202BCH	782114582626
200	4	—	OH	—	#8 – 250 kcmil	#8 – 250 kcmil	14.00	8.00	4.38	2" Hub	UTRS202NCH	782114110607
200	4	—	OH/UG	—	#6 – 350 kcmil	#6 – 350 kcmil	15.00	11.00	4.38	Hub Opening	UTRS213BCH	782113685182
200	4	—	OH/UG	—	#6 – 350 kcmil	#6 – 350 kcmil	15.00	11.00	4.38	Closure Plate	UTRS213CCH	782114631058
200	4	—	OH/UG	Horn	#6 – 350 kcmil	#6 – 350 kcmil	15.00	11.00	4.38	Hub Opening	UHTRS213BCH	782116016389
200	4	—	OH/UG	Horn	#6 – 350 kcmil	#6 – 350 kcmil	15.00	11.00	4.38	Closure Plate	UHTRS213CCH	782114007563
200	5	—	OH/UG	Horn	#6 – 350 kcmil	#6 – 350 kcmil	15.00	11.00	4.38	Hub Opening	UGHTRS213BCH	782113890616
200	5	—	OH/UG	Horn	#6 – 350 kcmil	#6 – 350 kcmil	15.00	11.00	4.38	Closure Plate	UGHTRS213CCH	782116016433
200	4	—	UG	—	#6 – 350 kcmil	#6 – 350 kcmil	13.00	13.00	4.94	Solid Top	UTRS223ACH	782114103524
200	4	—	UG	Horn	#6 – 350 kcmil	#6 – 350 kcmil	13.00	13.00	4.94	Solid Top	UHTRS223ACH	782114113905
200	5	—	UG	Horn	#6 – 350 kcmil	#6 – 350 kcmil	13.00	13.00	4.94	Solid Top	UGHTRS223ACH	782113890647
200	4	—	OH/UG	Horn	#6 – 350 kcmil	#6 – 350 kcmil	20.00	13.00	4.94	Closure Plate	UHTRS233CCH	782116168613
Residential Ring Type Cover												
125	4	—	OH/UG	—	#8 – 2/0	#8 – 2/0	10.88	8.00	3.50	Hub Opening	URTRS101BCH	782114114346
125	4	—	OH/UG	—	#8 – 2/0	#8 – 2/0	14.00	11.00	4.38	Hub Opening	URTRS111BCH	782116136520
125	4	—	OH/UG	—	#8 – 2/0	#8 – 2/0	10.88	8.00	3.50	Hub Opening	UNRRS101BEUSCH ①	782113683928
125	4	—	OH/UG	—	#8 – 2/0	#8 – 2/0	14.00	11.00	4.38	Hub Opening	UNRRS111BEUSCH ①	782113683935
200	4	—	OH	—	#8 – 250 kcmil	#8 – 250 kcmil	14.00	8.00	4.38	Hub Opening	URTRS202BCH	782114114339
200	4	—	OH	—	#8 – 250 kcmil	#8 – 250 kcmil	14.00	8.00	4.38	2" Hub	URTRS202NEUSCH	782116103324
200	4	—	OH	—	#8 – 250 kcmil	#8 – 250 kcmil	14.00	8.00	4.38	Hub Opening	UNRRS202BEUSCH ①	782113683959
200	4	—	OH/UG	—	#6 – 350 kcmil	#6 – 350 kcmil	15.00	11.00	4.38	Hub Opening	URTRS213BCH	782114114322
200	4	—	OH/UG	—	#6 – 350 kcmil	#6 – 350 kcmil	15.00	11.00	4.38	Closure Plate	URTRS213CEUSCH	782116124329
200	4	—	OH/UG	—	#6 – 350 kcmil	#6 – 350 kcmil	15.00	11.00	4.38	2" Hub	URTRS213NEUSCH	782116103317
200	4	—	UG	—	#6 – 350 kcmil	#6 – 350 kcmil	15.00	11.00	4.38	Hub Opening	UNRRS213AEUSCH ①	782113928630
200	4	—	OH/UG	—	#6 – 350 kcmil	#6 – 350 kcmil	15.00	11.00	4.38	Hub Opening	UNRRS213BEUSCH ①	782113928647
200	4	—	OH/UG	—	#6 – 350 kcmil	#6 – 350 kcmil	15.00	11.00	4.38	Closure Plate	UNRRS213CEUSCH ①	782113683966
Residential/Commercial Lever Bypass												
200	4	—	OH	Lever	#6 – 350 kcmil	#6 – 350 kcmil	19.00	10.50	4.94	Hub Opening	UTH4203BCH	782114840313
200	5	—	OH	Lever	#6 – 350 kcmil	#6 – 350 kcmil	19.00	10.50	4.94	Hub Opening	UTH5203BCH	782116109449
200	5	—	OH	Lever	#6 – 350 kcmil	#6 – 350 kcmil	19.00	10.50	4.94	Hub Opening	UTH7203TCH	782116109470
200	4	—	OH/UG	Lever	#6 – 350 kcmil	#6 – 350 kcmil	19.00	13.00	4.94	Closure Plate	UTH4213CCH	782113685038
200	5	—	OH/UG	Lever	#6 – 350 kcmil	#6 – 350 kcmil	19.00	13.00	4.94	Closure Plate	UTH5213CCH	782116106660
200	7	—	OH/UG	Lever	#6 – 350 kcmil	#6 – 350 kcmil	19.00	13.00	4.94	Closure Plate	UTH7213UCH	782116016600
320	4	—	OH	Lever	3/8" Studs	3/8" Studs	19.00	10.50	4.94	Hub Opening	UTH4300TCH	782113715445
320	5	—	OH	Lever	3/8" Studs	3/8" Studs	19.00	10.50	4.94	Hub Opening	UTH5300TCH	782116144679
320	7	—	OH	Lever	3/8" Studs	3/8" Studs	19.00	10.50	4.94	Hub Opening	UTH7300TCH	782116094875
320	4	—	OH/UG	Lever	3/8" Studs	3/8" Studs	19.00	13.00	4.94	Closure Plate	UTH4330UCH	782116003778
320	5	—	OH/UG	Lever	3/8" Studs	3/8" Studs	19.00	13.00	4.94	Closure Plate	UTH5330UCH	782116096381
320	7	—	OH/UG	Lever	3/8" Studs	3/8" Studs	19.00	13.00	4.94	Closure Plate	UTH7330UCH	782116016686

① Does not include the ring. Ring to be provided by local utility.

Note: This is only a sample of products available. Meter sockets are specified by local utilities. See **Table 4-1** Regional-specific Meter Socket Catalogs. Check with the department manager for catalog numbers specific to your area or visit www.EatonElectrical.com for more information.

RESIDENTIAL METER SOCKETS — RINGLESS TYPE COVER

TABLE 4-5. SINGLE METER SOCKETS — DIMENSIONS IN INCHES (CONTINUED)

Ampere Rating	Jaws	Positions	Service	Bypass	Connections		Height	Width	Depth	Opening, Hub or Closure Plate	Catalog Number	UPC Code
					Line	Load						
Horizontal Design — Multi-Position Ringless												
100	4	2	OH/UG	—	#6 – 250 kcmil	#8 – 2/0	14.13	24.31	4.50	Hub Opening	UT2R1121BCH	782116016532
100	4	3	OH/UG	—	#6 – 250 kcmil	#8 – 2/0	14.13	32.47	4.50	Hub Opening	UT3R1121BCH	782116094615
100	4	4	OH/UG	—	#6 – 250 kcmil	#8 – 2/0	14.13	40.63	4.50	Hub Opening	UT4R1121BCH	782116094639
100	4	5	OH/UG	—	#6 – 250 kcmil	#8 – 2/0	14.13	48.78	4.50	Hub Opening	UT5R1121BCH	782116094646
100	4	6	OH/UG	—	#6 – 350 kcmil	#8 – 2/0	14.13	56.94	4.50	Hub Opening	UT6R1131BCH	782116094653
100	4	2	OH/UG	Horn	#6 – 250 kcmil	#8 – 2/0	14.13	24.31	4.50	Hub Opening	UHT2R1121BCH	782116007769
100	4	3	OH/UG	Horn	#6 – 250 kcmil	#8 – 2/0	14.13	32.47	4.50	Hub Opening	UHT3R1121BCH	782116007783
100	4	4	OH/UG	Horn	#6 – 250 kcmil	#8 – 2/0	14.13	40.63	4.50	Hub Opening	UHT4R1121BCH	782116007806
100	4	5	OH/UG	Horn	#6 – 250 kcmil	#8 – 2/0	14.13	48.78	4.50	Hub Opening	UHT5R1121BCH	782116007820
100	4	6	OH/UG	Horn	#6 – 350 kcmil	#8 – 2/0	14.13	56.94	4.50	Hub Opening	UHT6R1131BCH	782116007844
200	4	2	OH/UG	—	#6 – 350 kcmil	#8 – 250 kcmil	14.13	24.31	5.38	Hub Opening	UT2R2332TCH	782116064083
200	4	3	OH/UG	—	#6 – 350 kcmil	#8 – 250 kcmil	14.13	32.47	5.38	Hub Opening	UT3R2332TCH	782116036011
200	4	4	OH/UG	—	1/0 – 500 kcmil	#8 – 250 kcmil	14.13	40.63	5.38	Hub Opening	UT4R2352TCH	782116016693
200	4	5	OH/UG	—	1/0 – 500 kcmil	#8 – 250 kcmil	14.13	54.78	5.38	Hub Opening	UT5R2392TTCH	782116104642
200	4	6	OH/UG	—	1/0 – 500 kcmil	#8 – 250 kcmil	14.13	62.94	5.38	Hub Opening	UT6R2392TTCH	782116104659
200	4	2	OH/UG	Horn	#6 – 350 kcmil	#8 – 250 kcmil	14.13	24.31	5.38	Hub Opening	UHT2R2332TCH	782113922621
200	4	3	OH/UG	Horn	#6 – 350 kcmil	#8 – 250 kcmil	14.13	32.47	5.38	Hub Opening	UHT3R2332TCH	782113923093
200	4	4	OH/UG	Horn	1/0 – 500 kcmil	#8 – 250 kcmil	14.13	40.63	5.38	Hub Opening	UHT4R2352TCH	782116007813
200	4	5	OH/UG	Horn	1/0 – 500 kcmil	#8 – 250 kcmil	14.13	54.78	5.38	Hub Opening	UHT5R2392TTCH	782116073979
200	4	6	OH/UG	Horn	1/0 – 500 kcmil	#8 – 250 kcmil	14.13	62.94	5.38	Hub Opening	UHT6R2392TTCH	782116073986
200	5	2	OH/UG	Lever	1/0 – 500 kcmil	#6 – 350 kcmil	23.56	32.78	6.00	Hub Opening	UT2H52353TCH	782116143986
200	5	3	OH/UG	Lever	1/0 – 500 kcmil	#6 – 350 kcmil	23.56	43.91	6.00	Hub Opening	UT3H52353TCH	782116143993
200	5	4	OH/UG	Lever	1/0 – 500 kcmil	#6 – 350 kcmil	23.56	61.03	6.00	Hub Opening	UT4H52393TTCH	782116144006
200	5	5	OH/UG	Lever	1/0 – 500 kcmil	#6 – 350 kcmil	23.56	72.16	6.00	Hub Opening	UT5H52393TTCH	782116144013
200	5	6	OH/UG	Lever	1/0 – 500 kcmil	#6 – 350 kcmil	23.56	83.28	6.00	Hub Opening	UT6H52393TTCH	782116144020

Note: This is only a sample of products available. Meter sockets are specified by local utilities. Check with the department manager for catalog numbers specific to your area or visit www.EatonElectrical.com for more information.

Accessories

TABLE 4-6. CUTLER-HAMMER METER SOCKET ACCESSORIES

Description	Cutler-Hammer Catalog Number	UPC Code
1.00-Inch Hub	ARP00003CH1	782114004081
1.25-Inch Hub	ARP00004CH12	782114004098
1.50-Inch Hub	ARP00005CH15	782114004104
2.00-Inch Hub — Small Opening	ARP00006CH2	782114004111
2.50-Inch Hub — Small Opening	ARP00007CH25	782114004128
2.00-Inch Hub — Large Opening	ARP00017CH2	782113950822
2.50-Inch Hub — Large Opening	ARP00018CH25	782116029754
3.00-Inch Hub — Large Opening	ARP00019CH3	782114117255
4.00-Inch Hub — Large Opening	ARP00021CH4	782114117262
Small Hub Closure Plate	ARP00002CHB	782114004074
Small Hub Closure Plate — Aluminum	ARP00008CH	782116029891
Large Hub Closure Plate	ARP00016CHB	782114117279
Hub Adapter Plate — Large to Small	ARP00015CHAP	782113945552
Replacement — Plug-in Fifth Terminal (R and RS Models Only)	ARP00035CHJ	782114004135
Replacement Block Assembly for 100 A Sockets — 2/0 Maximum	ARP00039CH	782116036868
Replacement Block Assembly for 200 A Sockets — 350 Maximum	ARP00048CH	782116036851
Replacement Block Assembly for 150 A Sockets — 250 Maximum	ARP00354CH	782116036875
#4 — 600 kcmil Lug	ARP00129CH	782116015931
#6 — 350 kcmil Dual Lug	ARP00427CH	782116044955
#6 — 350 kcmil Lug	ARP00119CH	782116072354

TABLE 4-7. CLAMSHELL ACCESSORIES

Description	Cutler-Hammer Catalog Number	UPC Code
Small Hub Closure Plate	ARP00002CHBCS	782116036363
1.00-Inch Hub	ARP00003CH1CS	782116036387
1.25-Inch Hub	ARP00004CH12CS	782116036394
1.50-Inch Hub	ARP00005CH15CS	782116036400
2.00-Inch Hub — Small Opening	ARP00006CH2CS	782116036417
2.50-Inch Hub — Small Opening	ARP00007CH25CS	782116036370

Related Products

- ✓ Loadcenters
- ✓ Surge Protection
- ✓ Circuit Breakers

Group Metering



Group Metering

Product Description

Group metering, also known as multiple metering, is used where electric utility power enters a commercial building or multi-family residence. The product consists of some type of main device along with multiple meter sockets in one unit or in several connected units. The multiple meters allow the utility to measure power consumption for each tenant of the building. This type of metering equipment is commonly used at apartment complexes and strip malls.

Features, Functions and Benefits

- ✓ Available as main breaker, fusible switches or terminal boxes.
- ✓ Ring or ringless.
- ✓ Clip-tight™ socket.
- ✓ One piece vertical bus bar.
- ✓ Easy installation.
- ✓ Limited 1-year warranty.
- ✓ UL listed.

Catalog Numbering System

TABLE 4-8. METER PACK CATALOG NUMBERING SYSTEM

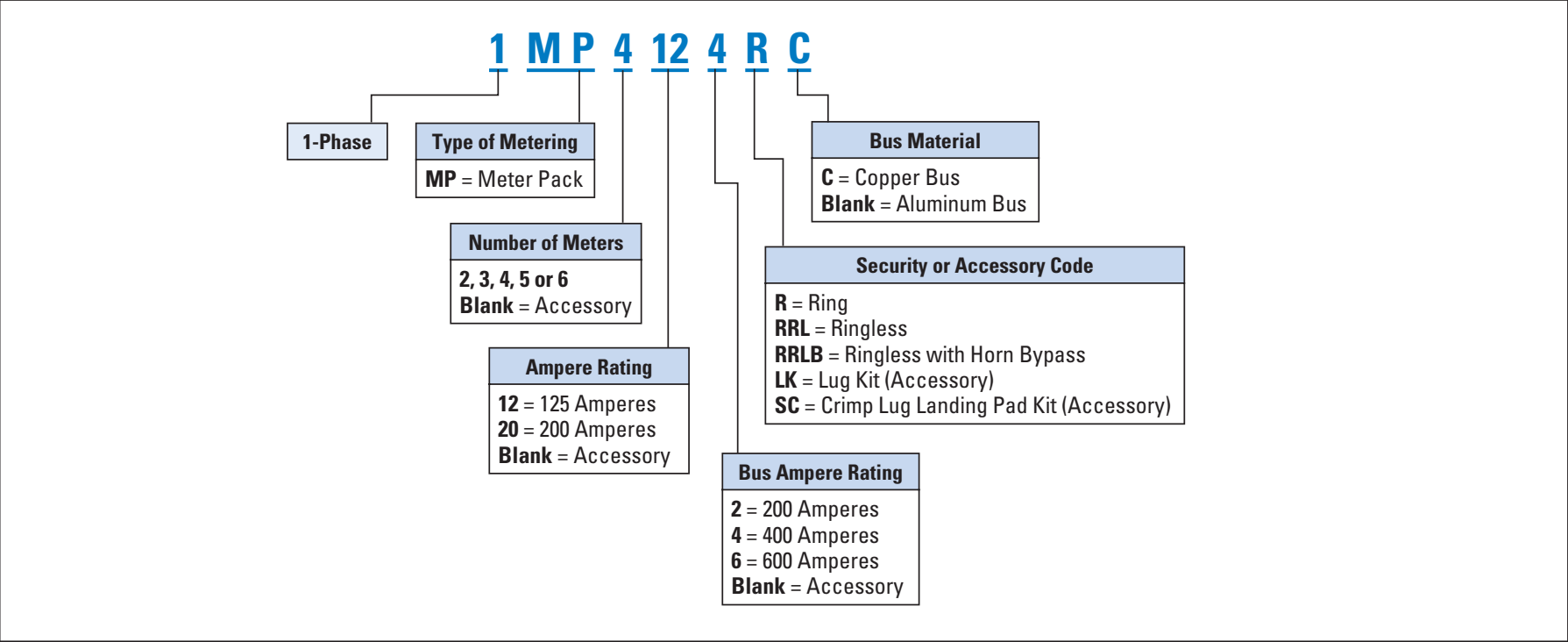


TABLE 4-9. MAIN SERVICE MODULES CATALOG NUMBERING SYSTEM

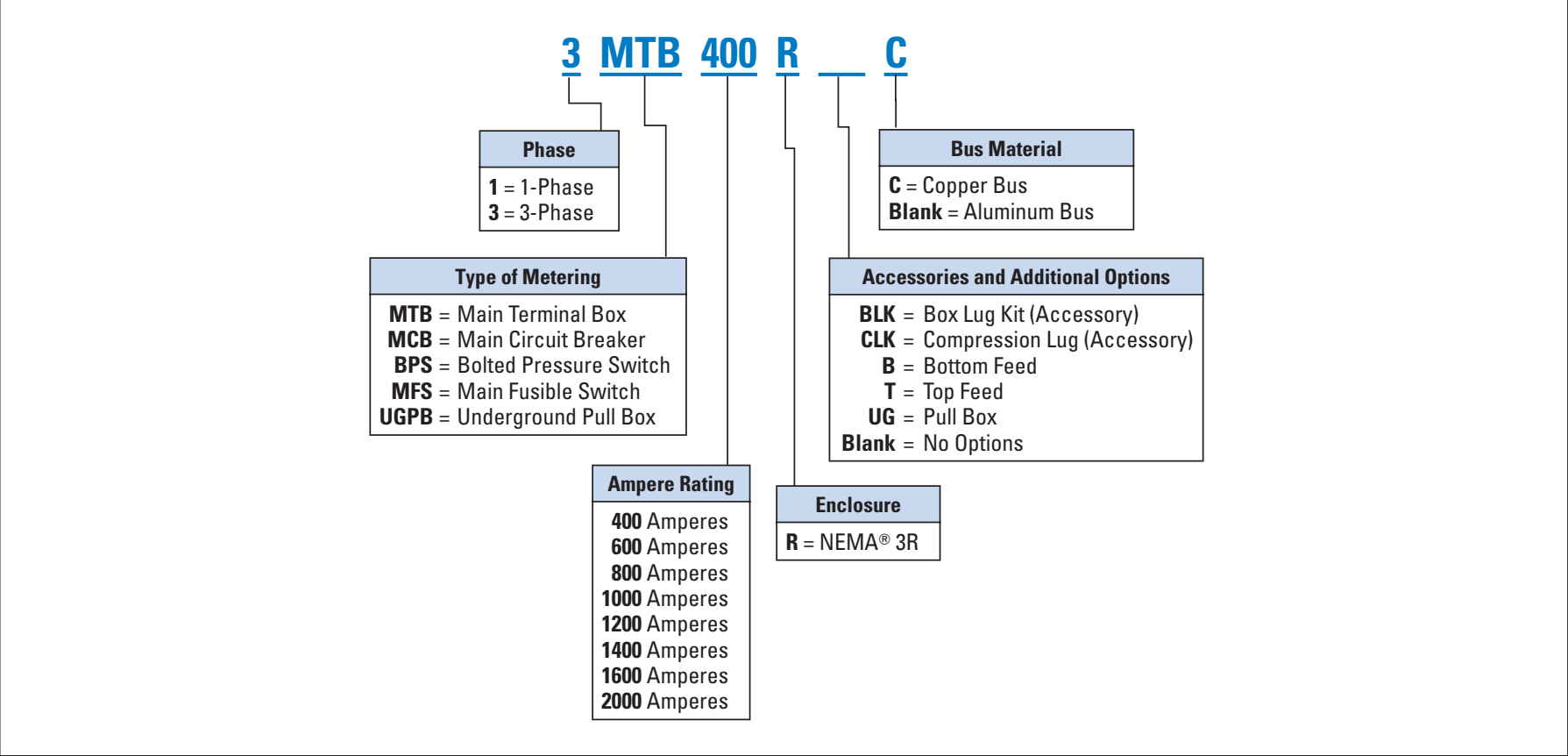
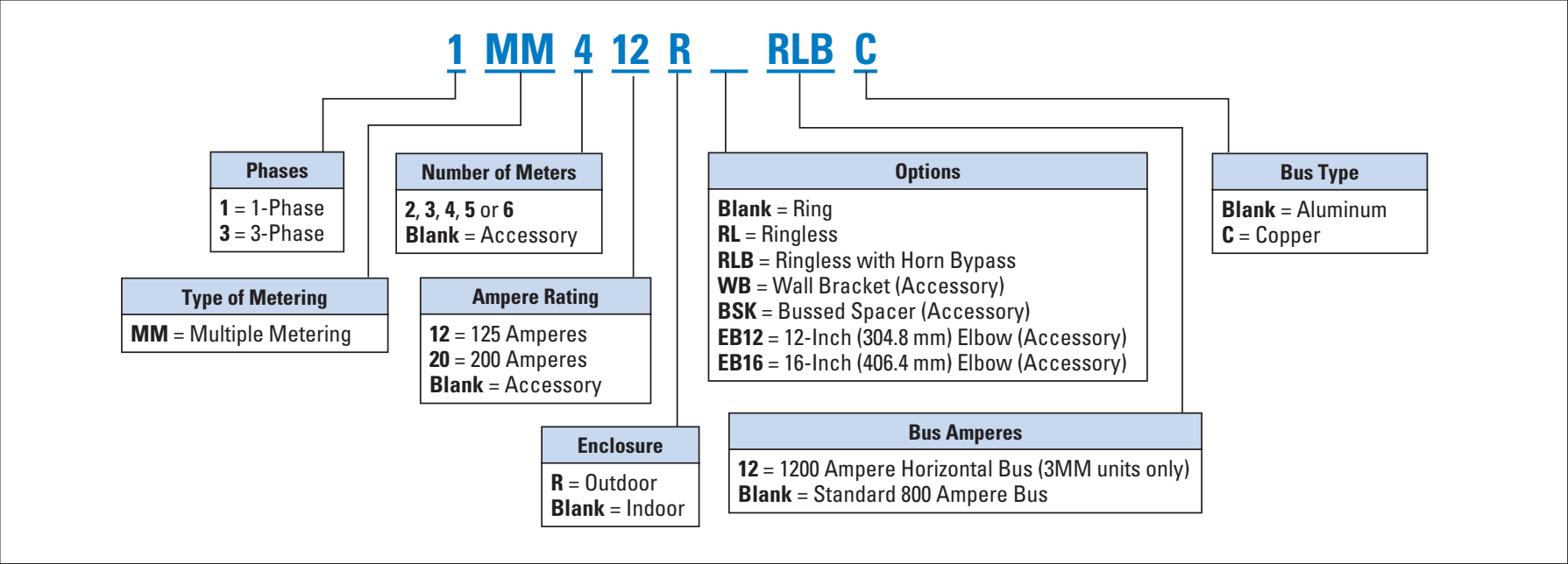


TABLE 4-10. RESIDENTIAL METER STACKS CATALOG NUMBERING SYSTEM



Data Tables

TABLE 4-11. METER PACKS — ALUMINUM BUS

Socket Ampere Rating	Number of Meter Sockets	Bus Ampacity	Main Tenant Breaker Type	Catalog Number	UPC Code	Semi-flush Flange Kit Catalog Number	UPC Code
Ring Style Meter Socket Covers ①							
125 ②	2 ④	200	Plug-on Type	1MP2122R ⑤⑥	786849052379	1MPSFK1	786849054069
	3	400	BR_	1MP3124R	786849052386	1MPSFK2	786849054076
	4	400	BRH_	1MP4124R	786849052393	1MPSFK2	786849054076
	5 ④	600	BRHH_	1MP5126R	786849052409	1MPSFK3	786849054083
	6 ④	600	—	1MP6126R	786849052416	1MPSFK3	786849054083
200 ③	2	400	Bolt-on Type	1MP2204R	786849052423	1MPSFK4	786849054090
	3	600	CC2_X	1MP3206R	786849052430	1MPSFK5	786849054106
	4	600	CHH2_H2X	1MP4206R	786849052447	1MPSFK5	786849054106
	5	600	CHH2_H4X	1MP5206R	786849052454	1MPSFK6	786849054113
	6	600	CHH_X	1MP6206R	786849052461	1MPSFK6	786849054113
Ringless Style Meter Socket Covers ⑦							
125	2	200	Plug-on Type	1MP2122RRL ⑤⑥	786849052478	1MPSFK1	786849054069
	3	400	BR_	1MP3124RRL	786849052485	1MPSFK2	786849054076
	4	400	BRH_	1MP4124RRL	786849052492	1MPSFK2	786849054076
	5	600	BRHH_	1MP5126RRL	786849052508	1MPSFK3	786849054083
	6	600	—	1MP6126RRL	786849052515	1MPSFK3	786849054083
200	2	400	Bolt-on Type	1MP2204RRL	786849052522	1MPSFK4	786849054090
	3	600	CC2_X	1MP3206RRL	786849052539	1MPSFK5	786849054106
	4	600	CHH2_H2X	1MP4206RRL	786849052546	1MPSFK5	786849054106
	5	600	CHH2_H4X	1MP5206RRL	786849052553	1MPSFK6	786849054113
	6	600	CHH_X	1MP6206RRL	786849052560	1MPSFK6	786849054113
Ringless Style Covers with Horn Bypass ⑦							
125	2	200	Plug-on Type	1MP2122RRLB ⑤⑥	786849052577	1MPSFK1	786849054069
	3	400	BR_	1MP3124RRLB	786849052584	1MPSFK2	786849054076
	4	400	BRH_	1MP4124RRLB	786849052591	1MPSFK2	786849054076
	5	600	BRHH_	1MP5126RRLB	786849052607	1MPSFK3	786849054083
	6	600	—	1MP6126RRLB	786849052720	1MPSFK3	786849054083
200	2	400	Bolt-on Type	1MP2204RRLB	786849052737	1MPSFK4	786849054090
	3	600	CC2_X	1MP3206RRLB	786849052744	1MPSFK5	786849054106
	4	600	CHH2_H2X	1MP4206RRLB	786849052751	1MPSFK5	786849054106
	5	600	CHH2_H4X	1MP5206RRLB	786849052768	1MPSFK6	786849054113
	6	600	CHH_X	1MP6206RRLB	786849052775	1MPSFK6	786849054113

① Ring Style Meter Packs do not come with fifth jaw. Order **1MM5KJ** if needed.
② To change in field from ring to ringless — order **1MMRC125**.
③ To change in field from ring to ringless — order **1MMRC200**.
④ To change from ring to ringless covers, the top socket only in 2, 5 and 6 socket designs — order **1MMRC125T**. Top socket only — other sockets see ⑥.
⑤ Main lugs included. #6 – 300 kcmil. (Optional lugs are not available.)
⑥ Bottom feed only.
⑦ Fifth jaw factory installed at 9 o’clock position.

Data Tables

TABLE 4-12. METER PACKS — COPPER BUS

Socket Ampere Rating	Number of Meter Sockets	Bus Ampacity	Main Tenant Breaker Type	Catalog Number	UPC Code	Semi-flush Flange Kit Catalog Number	UPC Code
Ring Style Meter Socket Covers ①							
125 ②	2	200	Plug-on Type	1MP2122RC	782116008902	1MPSFK1	786849054069
	3	400	Plug-on Type	1MP3124RC	782114990087	1MPSFK2	786849054076
	4	400	BR_	1MP4124RC	782114990162	1MPSFK2	786849054076
	5 ④	600	BRH_	1MP5126RC	782114990247	1MPSFK3	786849054083
	6 ④	600	BRHH_	1MP6126RC	782114990308	1MPSFK3	786849054083
200 ③	2	400	Bolt-on Type	1MP2204RC	782114990056	1MPSFK4	786849054090
	3	600	CC2_X	1MP3206RC	782114990131	1MPSFK5	786849054106
	4	600	CHH2_H2X	1MP4206RC	782114990209	1MPSFK5	786849054106
	5	600	CHH2_H4X	1MP5206RC	782114990278	1MPSFK6	786849054113
	6	600	CHH_X	1MP6206RC	782114990346	1MPSFK6	786849054113
Ringless Style Meter Socket Covers ⑤							
125	2	200	Plug-on Type	1MP2122RRLC	782116008919	1MPSFK1	786849054069
	3	400	Plug-on Type	1MP3124RRLC	782114990117	1MPSFK2	786849054076
	4	400	BR_	1MP4124RRLC	782114990193	1MPSFK2	786849054076
	5	600	BRH_	1MP5126RRLC	782114990261	1MPSFK3	786849054083
	6	600	BRHH_	1MP6126RRLC	782114990322	1MPSFK3	786849054083
200	2	400	Bolt-on Type	1MP2204RRLC	782114990070	1MPSFK4	786849054090
	3	600	CC2_X	1MP3206RRLC	782114990155	1MPSFK5	786849054106
	4	600	CHH2_H2X	1MP4206RRLC	782114990230	1MPSFK5	786849054106
	5	600	CHH2_H4X	1MP5206RRLC	782114990292	1MPSFK6	786849054113
	6	600	CHH_X	1MP6206RRLC	782114990360	1MPSFK6	786849054113
Ringless Style Covers with Horn Bypass ⑤							
125	2	200	Plug-on Type	1MP2122RRLBC	782116010301	1MPSFK1	786849054069
	3	400	Plug-on Type	1MP3124RRLBC	782114990094	1MPSFK2	786849054076
	4	400	BR_	1MP4124RRLBC	782114990186	1MPSFK2	786849054076
	5	600	BRH_	1MP5126RRLBC	782114990254	1MPSFK3	786849054083
	6	600	BRHH_	1MP6126RRLBC	782114990315	1MPSFK3	786849054083
200	2	400	Bolt-on Type	1MP2204RRLBC	782114990063	1MPSFK4	786849054090
	3	600	CC2_X	1MP3206RRLBC	782114990148	1MPSFK5	786849054106
	4	600	CHH2_H2X	1MP4206RRLBC	782114990223	1MPSFK5	786849054106
	5	600	CHH2_H4X	1MP5206RRLBC	782114990285	1MPSFK6	786849054113
	6	600	CHH_X	1MP6206RRLBC	782114990353	1MPSFK6	786849054113

- ① Ring Style Meter Packs do not come with fifth jaw. Order 1MM5KJ if needed.
- ② To change in field from ring to ringless — order 1MMRC125.
- ③ To change in field from ring to ringless — order 1MMRC200.
- ④ To change in field from ring to ringless covers, the top socket only in 5 to 6 socket design — order 1MMRC125T.
Top socket only — other sockets see ②.
- ⑤ Fifth jaw factory installed at 9 o'clock position.

TABLE 4-13. MAIN LUG KIT SELECTION — FIELD INSTALLED KITS FOR EITHER 400 OR 600 AMPERE MAIN BUS

Line Lug and Wire Sizes Order Separately and Field Install	Line Lug Kit Catalog Number Each Kit Comes With 3 Lugs, Two Lines and a Neutral	UPC Code
(1) #6 – 600 kcmil or (2) 2/0 – 250 kcmil	1MPLK1	786849054120
(2) 250 – 500 kcmil	1MPLK3	786849054137
(3) #4 – 300 kcmil	1MPLK4 ⑥	786849054144
(1) 750 kcmil	1MPLK2 ⑦	786849054151
Crimp lug landing pad 250 – 750 kcmil	1MPSC1 ⑥	786849054168

- ⑥ This kit comes with three pads for two lines and neutral. Each pad will accept one or two crimp lugs.
Cannot be used on 1MP2122R, RL and RLB EUSERC underground termination.
- ⑦ This lug is not UL listed.



Data Tables

TABLE 4-14. MAIN TERMINAL BOX

Ampere Rating	Line Side Lug and Wire Sizes — Included	System Voltage			
		120/240 Vac 1-Phase, 3-Wire		120/208 Vac 3-Phase, 4-Wire	
		Catalog Number	UPC Code	Catalog Number	UPC Code
Aluminum Bus					
400	(1) #6 – 600 or (2) 1/0 – 250 kcmil	⑦	—	3MTB400R	786849053086
600	(2) 250 – 500 kcmil ②	⑦	—	3MTB600R	786849053093
800	(4) 250 – 500 kcmil ③⑤	1MTB800R	786849053055	3MTB800R	786849053109
1200 ①	(4) 250 – 500 kcmil ④⑤	1MTB1200R	786849053062	3MTB1200R	782116007899
1600 ①	(6) 500 kcmil ⑥	1MTB1600RC	782114733677	3MTB1600RC	782114733684
Copper Bus					
400	(1) #6 – 600 or (2) 1/0 – 250 kcmil	⑦	—	3MTB400RC	782114556139
600	(2) 250 – 500 kcmil ②	⑦	—	3MTB600RC	782114556146
800	(4) 250 – 500 kcmil ③⑤	1MTB800RC	782114990384	3MTB800RC	782114556153
1200 ①	(4) 250 – 500 kcmil ④⑤	1MTB1200RC	782114990377	3MTB1200RC	782114632178
1600 ①	(6) 500 kcmil ⑥	1MTB1600RC	782114733677	3MTB1600RC	782114733684

① 120 ampere main devices must be center fed when installing 800 ampere residential meter stacks. 1600 ampere main devices must be center fed when installing 800 – 1200 ampere residential and commercial meter stacks.

② For compression lug landing kits for 600 ampere units, order **3MTB600CLK**. Kit includes lug landings for 3-phases and neutral.

③ For 800 ampere units, to obtain (4) 1/0 – 300 kcmil or (2) 1/0 – 750 kcmil cables per phase — order catalog number **3MTB800BLK**, one lug kit per main terminal box ordered.

④ For 1200 ampere units, to obtain (6) 1/0 – 300 kcmil or (3) 750 kcmil cables per phase — order catalog number **3MTB1200BLK**, one lug kit per main terminal box ordered.

⑤ For 800 ampere and 1200 ampere units, for compression lug landing kits, order **3MTB1200CLK**. Kit includes lug landings for 3-phases and neutral.

⑥ For 1600 ampere units, to obtain (4) 750 kcmil cables per phase — order catalog number **3MTB1600BLK**, one lug kit per main terminal box ordered. For a 1600 ampere compression lug landing kit, order catalog number **3MTB1600CLK**.

⑦ Use 3-phase.

Data Tables

TABLE 4-15. MAIN CIRCUIT BREAKER

Main Ampere Rating	Main Circuit Breaker Type	Feed	kAIC	Line Side Lug and Wire Sizes. Lugs Included with Main Breaker ①	System Voltage			
					120/240 Vac 1-Phase, 3-Wire		120/208 Vac 3-Phase, 4-Wire	
					Catalog Number	UPC Code	Catalog Number	UPC Code
Aluminum Bus								
250	KD HKD	Bottom Bottom	65 100	(2) 3/0 – 250 kcmil or (1) 2/0 – 500 kcmil (2) 3/0 – 250 kcmil or (1) 2/0 – 500 kcmil	1MCB250R 1MHCB250R	786849000929 786849000943	3MCB250R 3MHCB250R	786849000936 786849000950
300	KD HKD	Bottom Bottom	65 100	(2) 3/0 – 250 kcmil or (1) 2/0 – 500 kcmil (2) 3/0 – 250 kcmil or (1) 2/0 – 500 kcmil	1MCB300R 1MHCB300R	786849000967 786849000981	3MCB300R 3MHCB300R	786849000974 786849000998
350	KD HKD	Bottom Bottom	65 100	(2) 3/0 – 250 kcmil or (1) 2/0 – 500 kcmil (2) 3/0 – 250 kcmil or (1) 2/0 – 500 kcmil	1MCB350R 1MHCB350R	786849020002 786849020026	3MCB350R 3MHCB350R	786849020019 786849020033
400	KD HKD	Bottom Bottom	65 100	(2) 3/0 – 250 kcmil or (1) 2/0 – 500 kcmil (2) 3/0 – 250 kcmil or (1) 2/0 – 500 kcmil	1MCB400R ② 1MHCB400R ②	786849053192 782116008063	3MCB400R ② 3MHCB400R ②	786849053246 782116008247
500	LD HLD	Bottom Bottom	65 100	(2) 400 – 500 kcmil (2) 400 – 500 kcmil	1MCB500R 1MHCB500R	786849020040 786849020064	3MCB500R 3MHCB500R	786849020057 786849020071
600	LD HLD	Bottom Bottom	65 100	(2) 400 – 500 kcmil (2) 400 – 500 kcmil	1MCB600R ② 1MHCB600R ②	786849053208 782116008070	3MCB600R ② 3MHCB600R ②	786849053253 782116008254
700	MDL HMDL	Bottom Bottom	65 100	(3) 3/0 – 400 kcmil (3) 3/0 – 400 kcmil	1MCB700R 1MHCB700R	786849020088 786849020101	3MCB700R 3MHCB700R	786849020095 786849020118
800	MDL HMDL	Bottom Bottom	65 100	(3) 3/0 – 400 kcmil (3) 3/0 – 400 kcmil	1MCB800R ② 1MHCB800R ②	786849053215 782116008087	3MCB800R ② 3MHCB800R ②	786849053260 782116008261
900	ND HND	Bottom Bottom	65 100	(4) 4/0 – 500 kcmil ③ (4) 4/0 – 500 kcmil ③	1MCB900R ④ 1MHCB900R ④	786849020125 786849020149	3MCB900R ④ 3MHCB900R ④	786849020132 786849020156
1000	ND HND	Bottom Bottom	65 100	(4) 4/0 – 500 kcmil ③ (4) 4/0 – 500 kcmil ③	1MCB1000R ②④ 1MHCB1000R ②④	786849083229 782116008094	3MCB1000R ②④ 3MHCB1000R ②④	782116008278 782116008285
1200	ND HND	Bottom Bottom	65 100	(4) 4/0 – 500 kcmil ③ (4) 4/0 – 500 kcmil ③	1MCB1200R ②④ 1MHCB1200R ②④	786849053239 782116008100	3MCB1200R ②④ 3MHCB1200R ②④	782116008292 782116008308
1400	RD RD	Bottom Top	100 100	(4) 500 – 1000 kcmil ⑤ (4) 500 – 1000 kcmil ⑤	1MCB1400RBC ④⑥ 1MCB1400RT ⑦	782114989630 782116006298	3MCB1400RBC ④⑥ 3MCB1400RT ⑦	782114990445 782116008421
1600	RD RD	Bottom Top	100 100	(4) 500 – 1000 kcmil ⑤ (4) 500 – 1000 kcmil ⑤	1MCB1600RBC ⑥⑦ 1MCB1600RT ⑦	782114989647 782116006250	3MCB1600RBC ⑥⑦ 3MCB1600RT ⑦	782114890929 782116008445
2000	RD RD	Bottom Top	100 100	(6) #2 – 600 kcmil (6) #2 – 600 kcmil	1MCB2000RBC ⑥⑧ 1MCB2000RT ⑧	782114989784 782116006274	3MCB2000RBC ⑥⑧ 3MCB2000RT ⑧	782114990452 782116008469
Copper Bus								
400 400	KD HKD	Bottom Bottom	65 100	(2) 3/0 – 250 kcmil or (1) 2/0-500 kcmil 2/0–500 kcmil	1MCB400RC ② 1MHCB400RC ②	782114989678 782114838815	3MCB400RC ② 3MHCB400RC ②	782114990469 782114838860
600 600	LD HLD	Bottom Bottom	65 100	(2) 300 – 500 kcmil (2) 300 – 500 kcmil	1MCB600RC ② 1MHCB600RC ②	782114989685 782114838822	3MCB600RC ② 3MHCB600RC ②	782114990483 782114838877
800 800	MDL HMDL	Bottom Bottom	65 100	(3) 3/0 – 400 kcmil (3) 3/0 – 400 kcmil	1MCB800RC ② 1MHCB800RC ②	782114989692 782114838839	3MCB800RC ② 3MHCB800RC ②	782114990506 782114838884
1000 1000	ND ND	Bottom Bottom	65 100	(4) 4/0 – 500 kcmil ③ (4) 4/0 – 500 kcmil ③	1MCB1000RC ②④ 1MHCB1000RC ②④	782114989616 782114838846	3MCB1000RC ②④ 3MHCB1000RC ②④	782114990421 782114838891
1200 1200	ND HND	Bottom Bottom	65 100	(4) 4/0 – 500 kcmil ③ (4) 4/0 – 500 kcmil ③	1MCB1200RC ②④ 1MHCB1200RC ②④	782114989623 782114838853	3MCB1200RC ②④ 3MHCB1200RC ②④	782114990438 782114838907

① If additional neutral lugs are needed, order **1MCB1200NLK** [(3) 1/0 – 750 kcmil or (6) 1/0 – 300 kcmil].

② Add CL to end of catalog number for compression lug pads (includes lug pads for lines and neutral).

③ If (3) 500 – 750 kcmil are needed, order **TA1201NB1**. Order one kit per pole.

④ Main devices with a rating greater than 800 ampere can be used with 800 ampere residential modular stacks but only as a center fed main.

⑤ If (6) #2 – 600 kcmil lugs are needed, order **TA2000RD**. Catalog number includes terminals and hardware for 3 poles. If neutral is needed, order **TA2000N**.

⑥ Copper bus.

⑦ Main devices with a rating greater than 1200 amperes can be used with residential and commercial modular metering stacks but only as a center fed main.

⑧ Only to be used in center feed applications with 1200 ampere meter stacks. Not to be used with 800 ampere stacks.

Data Tables

TABLE 4-16. MAIN CIRCUIT BREAKER — ALUMINUM BUS (EUSERC APPROVED)

Main Ampere Rating	Main Circuit Breaker Type	Feed	kAIC	Line Side Lug and Wire Sizes Lugs Included with Main Breaker ①	System Voltage			
					120/240 Vac Single-Phase, 3-Wire		120/208 Vac 3-Phase, 4-Wire	
					Catalog Number	UPC Code	Catalog Number	UPC Code
400	KD HKD	Bottom Bottom	65	(2) 3/0 – 250 kcmil or (1) 2/0 – 500 kcmil	1MCBE400R	782116136599	3MCBE400R	782116136605
			100	(2) 3/0 – 250 kcmil or (1) 2/0 – 500 kcmil	1MHCBE400R	782116136674	3MHCBE400R	782116136681
600	LD HLD	Bottom Bottom	65	(2) 400 – 500 kcmil	1MCBE600R	782116136612	3MCBE600R	782116136629
			100	(2) 400 – 500 kcmil	1MHCBE600R	782116136698	3MHCBE600R	782116136704
800	MDL HMDL	Bottom Bottom	65	(3) 3/0 – 400 kcmil	1MCBE800R	782116136636	3MCBE800R	782116136643
			100	(3) 3/0 – 400 kcmil	1MHCBE800R	782116136711	3MHCBE800R	782116136728
1200	ND HND	Bottom Bottom	65	(4) 4/0 – 500 kcmil	1MCBE1200R	782116136650	3MCBE1200R	782116136667
			100	(4) 4/0 – 500 kcmil	1MHCBE1200R	782116136735	3MHCBE1200R	782116136742

① If additional neutral lugs are needed, order **1MCB1200NLK** [(3) 1/0 – 750 kcmil or (6) 1/0 – 300 kcmil].

Data Tables

TABLE 4-17. MAIN FUSIBLE SWITCHES

Ampere Rating	Feed	Class Fuse Clips (Fuses Not Included)	Line Side Box Lugs and Wire Sizes (Included with Switch)	System Voltage			
				120/240 Vac 1-Phase, 3-Wire		120/208 Vac 3-Phase, 4-Wire	
				Catalog Number	UPC Code	Catalog Number	UPC Code
Aluminum Bus							
400	Bottom Top	T ①	(2) 1/0 – 300 kcmil or (1) 750 kcmil ④	1MFS400RB	786849053604	3MFS400RB	786849053635
		T ①	(2) 1/0 – 300 kcmil or (1) 750 kcmil ⑤	1MFS400RT	786849053666	3MFS400RT	782116007950
600	Bottom Top	T ②	(2) #2 – 600 kcmil ④	1MFS600RB	786849053611	3MFS600RB	786849053642
		T ②	(2) #2 – 600 kcmil ⑤	1MFS600RT	786849053673	3MFS600RT	782116007967
800	Bottom Top	T ③	(4) 3/0 – 750 kcmil ④	1MFS800RB	786849053628	3MFS800RB	786849053659
		T ③	(4) 3/0 – 750 kcmil ⑤	1MFS800RT	782116007943	3MFS800RT	782116007974
1200	Bottom	T ③	(4) #2 – 600 kcmil	1MFS1200RB	782114396100	3MFS1200RB	782114396117
Copper Bus							
400	Bottom Top	T ①	(2) 1/0 – 300 kcmil or (1) 750 kcmil ④	1MFS400RBC	782114989739	3MFS400RBC	782114990544
		T ①	(2) 1/0 – 300 kcmil or (1) 750 kcmil ⑤	1MFS400RTC	782114989746	3MFS400RTC	782114990551
600	Bottom Top	T ②	(2) #2 – 600 kcmil ④	1MFS600RBC	782114989760	3MFS600RBC	782114990575
		T ②	(2) #2 – 600 kcmil ⑤	1MFS600RTC	782114989777	3MFS600RTC	782114990582
800	Bottom Top	T ③	(4) 3/0 – 750 kcmil ④	1MFS800RBC	782114989807	3MFS800RBC	782114990605
		T ③	(4) 3/0 – 750 kcmil ⑤	1MFS800RTC	782114989814	3MFS800RTC	782114990612
1200	Bottom	T ③	(4) #2 – 600 kcmil	1MFS1200RBC	782114989715	3MFS1200RBC	782114990520

① If Class H fuse clips are needed, use catalog number **WCG3HK400** (order one per phase).
If Class R fuse clips are needed, order catalog number **DS56FK** in addition to **WCG3HK400**.
In order to go from T to R, the device must first be converted to H. All kits are field installable and each **DS56FK** kit will convert 3 poles.

② If Class H fuse clips are needed, use catalog number **WCG3HK600** (order one per phase).
If Class R fuse clips are needed, order catalog number **DS66FK** in addition to **WCG3HK600**.
In order to go from T to R, the device must first be converted to H. All kits are field installable and each **DS66FK** kit will convert 3 poles.

③ Class T fuse clips provided are field convertible to Class L by repositioning. No kit is needed.

④ If compression lugs are being used, order **3MFS800CLK**. This compression lug kit includes four pads (3 poles and neutral).

⑤ If compression lugs are being used, order **3MFS800CLKT**. This compression lug kit includes four pads (3 poles and neutral).

TABLE 4-18. MAIN FUSIBLE SWITCH WITH PULL BOX

Ampere Rating	Feed	Class Fuse Clips (Fuses Not Included) ⑥	Line Side Box Lugs and Wire Sizes (Included with Switch) ⑦	System Voltage			
				120/240 Vac 1-Phase, 3-Wire		120/208 Vac 3-Phase, 4-Wire	
				Catalog Number	UPC Code	Catalog Number	UPC Code
Aluminum Bus							
400	Bottom	T	(2) 1/0 – 300 or (1) 750 kcmil ⑦	1MFS400RUG	786849053727	3MFS400RUG	786849053758
600	Bottom	T	(2) #2 – 600 kcmil ⑦	1MFS600RUG	786849053734	3MFS600RUG	786849053765
800	Bottom	T	(4) 3/0 – 750 kcmil ⑦	1MFS800RUG	786849053741	3MFS800RUG	782116008001
1200	Bottom	T	(4) #2 – 600 kcmil ⑦	1MFS1200RUG	782114396124	3MFS1200RUG	782114396131
Copper Bus							
400	Bottom	T	(2) 1/0 – 300 or (1) 750 kcmil ⑦	1MFS400RUGC	782114989753	3MFS400RUGC	782114990568
600	Bottom	T	(2) #2 – 600 kcmil ⑦	1MFS600RUGC	782114989791	3MFS600RUGC	782114990599
800	Bottom	T	(4) 3/0 – 750 kcmil ⑦	1MFS800RUGC	782114989821	3MFS800RUGC	782114990629
1200	Bottom	T	(4) #2 – 600 kcmil ⑦	1MFS1200RUGC	782114989722	3MFS1200RUGC	782114990537

⑥ Class T fuse clips are provided. Class L is not available on MFS with pull box units.

⑦ Pull box section includes landing studs for line side compression lugs. Wire sizes refer to fusible switch line side connection.

Data Tables

TABLE 4-19. PULL BOX

Ampere Rating	Feed	Line Side Lug Information	Load Side Lug Information for Cable Connection to Main Disconnect	System Voltage			
				120/240 Vac 1-Phase, 3-Wire		120/208 Vac 3-Phase, 4-Wire	
				Catalog Number	UPC Code	Catalog Number	UPC Code

Aluminum Bus

400	Bottom	Pull box section includes landing studs for line side compression lugs.	1/0 – 750 kcmil or (2) 1/0 – 300 kcmil	1UGPB400R	782116008018	3UGPB400R	782116008032
800	Bottom		(2) 1/0 – 750 kcmil or (4) 1/0 – 300 kcmil	1UGPB800R	782116008025	3UGPB800R	782116008049
1200	Bottom		(4) #2 – 600 kcmil	1UGPB1200R	786849053154	3UGPB1200R	782116008056

Copper Bus

400	Bottom	Pull box section includes landing studs for line side compression lugs.	1/0 – 750 kcmil or (2) 1/0–300 kcmil	1UGPB400RC	782114990407	3UGPB400RC	782114990919
800	Bottom		(2) 1/0 – 750 kcmil or (4) 1/0 – 300 kcmil	1UGPB800RC	782114990414	3UGPB800RC	782114990933
1200	Bottom		(4) #2 – 600 kcmil	1UGPB1200RC	782114990391	3UGPB1200RC	782114990902

TABLE 4-20. MAIN BOLTED PRESSURE CONTACT SWITCHES

Ampere Rating	Feed	Class Fuse Clips (Fuses Not Included)	Line Side Box Lugs and Wire Sizes (Order Separately) ①	System Voltage			
				120/240 Vac 1-Phase, 3-Wire		120/208 Vac 3-Phase, 4-Wire	
				Catalog Number	UPC Code	Catalog Number	UPC Code
1200	Bottom Top	L	(4) #4 – 600 kcmil	1BPS1200RB	782114350836	3BPS1200RB	782114350867
		L	(4) #4 – 600 kcmil	1BPS1200RT	782114350843	3BPS1200RT	782114350874
1600	Bottom Top	L	(4) #4 – 600 kcmil	②	—	3BPS1600RB	782114350881
		L	(4) #4 – 600 kcmil	②	—	3BPS1600RT	782114350898
2000	Bottom Top	L	(6) #4 – 600 kcmil	②	—	3BPS2000RB	782114350904
		L	(4) #4 – 600 kcmil	②	—	3BPS2000RT	782114350911

① 1200 ampere lug kit — **WCG3BL6012**. 2000 ampere lug kit — **WCG3BL6020**.

② Use 3-phase.

Data Tables

RESIDENTIAL METER STACKS

TABLE 4-21. 800 AMPERE ALUMINUM BUS

Amperes Per Meter Socket	Number of Meter Sockets	Bus Ampacity	Enclosure Type ①	Main Tenant Breaker Type	1-Phase Horizontal Bus (3 Horizontal Bus Bars — A, B, and Neutral) ②		3-Phase Horizontal Bus (4 Horizontal Bus Bars — A, B, C and Neutral)	
					Catalog Number	UPC Code	Catalog Number	UPC Code
Ring Style Meter Socket Covers								
125 ③	2 ④	800	Indoor/Outdoor	Plug-on Type	⑥	—	3MM212R	786849051969
	3 ④	800	Indoor/Outdoor	BR_	1MM312R	786849051891	3MM312R	786849051976
	4	800	Indoor/Outdoor	BRH_	1MM412R	786849051907	3MM412R	786849051983
	5	800	Indoor/Outdoor	BRHH_	1MM512R	786849051914	3MM512R	786849051990
	6	800	Indoor/Outdoor	—	1MM612R	782116007271	3MM612R	786849052331
200 ⑤	2	800	Outdoor	Bolt-on Type	⑥	—	3MM220R	786849052010
	3	800	Outdoor	CC2_X, CHH2_H2X	1MM320R	786849051945	3MM320R	786849052027
	4	800	Outdoor	CHH2_H4X, CHH2_X	1MM420R	786849051952	3MM420R	786849052034
Ringless Style Meter Socket Covers								
125	2	800	Outdoor	Plug-on Type	⑥	—	3MM212RRL	786849052133
	3	800	Outdoor	BR_	1MM312RRL	786849052065	3MM312RRL	786849052140
	4	800	Outdoor	BRH_	1MM412RRL	786849052072	3MM412RRL	786849052157
	5	800	Outdoor	BRHH_	1MM512RRL	786849052089	3MM512RRL	786849052164
	6	800	Outdoor	—	1MM612RRL	782116007288	3MM612RRL	786849052171
200	2	800	Outdoor	Bolt-on Type	⑥	—	3MM220RRL	786849052188
	3	800	Outdoor	CC2_X, CHH2_H2X	1MM320RRL	786849052119	3MM320RRL	786849052195
	4	800	Outdoor	CHH2_H4X, CHH2_X	1MM420RRL	786849052126	3MM420RRL	786849052201
Ringless Style Covers with Horn Bypass								
125	2	800	Outdoor	Plug-on Type	⑥	—	3MM212RRLB	786849052294
	3	800	Outdoor	BR_	1MM312RRLB	786849052225	3MM312RRLB	786849052300
	4	800	Outdoor	BRH_	1MM412RRLB	786849052232	3MM412RRLB	786849052317
	5	800	Outdoor	BRHH_	1MM512RRLB	786849052249	3MM512RRLB	786849052324
	6	800	Outdoor	—	1MM612RRLB	782116007295	3MM612RRLB	786849996468
200	2	800	Outdoor	Bolt-on Type	⑥	—	3MM220RRLB	786849052348
	3	800	Outdoor	CC2_X, CHH2_H2X	1MM320RRLB	786849052270	3MM320RRLB	786849052256
	4	800	Outdoor	CHH2_H4X, CHH2_X	1MM420RRLB	786849052287	3MM420RRLB	786849052362

① For indoor applications where a top endwall with knockouts is needed, order (1) of part number **MM12N1WLK** for each 125 ampere stack or **MM20N1WLK** for each 200 ampere stack.

② 1MM units do not come with 5th jaw.

③ To change in field from ring to ringless — order **1MMRC125**.

④ To change in field from ring to ringless, the top socket in 125 ampere, 2- and 3-high stacks use **1MMRC125T**. Top socket only — other sockets see ③.

⑤ To change in field from ring to ringless — order **1MMRC200**.

⑥ Use 3-phase.

Data Tables

RESIDENTIAL METER STACKS

TABLE 4-22. 800 AMPERE COPPER BUS

Amperes Per Meter Socket	Number of Meter Sockets	Bus Ampacity	Enclosure Type ①	Main Tenant Breaker Type	1-Phase Horizontal Bus (3 Horizontal Bus Bars — A, B and Neutral) ②		3-Phase Horizontal Bus (4 Horizontal Bus Bars — A, B, C and Neutral)	
					Catalog Number	UPC Code	Catalog Number	UPC Code
Ring Style Meter Socket Covers								
125 ③	2 ④	800	Outdoor	Plug-on Type	⑥	—	3MM212RC	782114990667
	3 ④	800	Outdoor	BR_	1MM312RC	782114989869	3MM312RC	782114990728
	4	800	Outdoor	BRH_	1MM412RC	782114989920	3MM412RC	782114990780
	5	800	Outdoor	BRHH_	1MM512RC	782114989982	3MM512RC	782114990841
	6	800	Outdoor	—	1MM612RC	782114990025	3MM612RC	782114990872
200 ⑤	2	800	Outdoor	Bolt-on Type	⑥	—	3MM220RC	782114990698
	3	800	Outdoor	CC2_X, CHH2_H2X	1MM320RC	782114989890	3MM320RC	782114990759
	4	800	Outdoor	H4X, CHH2_X	1MM420RC	782114989951	3MM420RC	782114990810
Ringless Style Meter Socket Covers								
125	2	800	Outdoor	Plug-on Type	⑥	—	3MM212RRLC	782114990681
	3	800	Outdoor	BR_	1MM312RRLC	782114989883	3MM312RRLC	782114990742
	4	800	Outdoor	BRH_	1MM412RRLC	782114989944	3MM412RRLC	782114990803
	5	800	Outdoor	BRHH_	1MM512RRLC	782114990018	3MM512RRLC	782114990865
	6	800	Outdoor	—	1MM612RRLC	782114990049	3MM612RRLC	782114990896
200	2	800	Outdoor	Bolt-on Type	⑥	—	3MM220RRLC	782114990711
	3	800	Outdoor	CC2_X, CHH2_H2X	1MM320RRLC	782114989913	3MM320RRLC	782114990773
	4	800	Outdoor	H4X, CHH2_X	1MM420RRLC	782114989975	3MM420RRLC	782114990834
Ringless Style Covers with Horn Bypass								
125	2	800	Outdoor	Plug-on Type	⑥	—	3MM212RRLBC	782114990674
	3	800	Outdoor	BR_	1MM312RRLBC	782114989876	3MM312RRLBC	782114990735
	4	800	Outdoor	BRH_	1MM412RRLBC	782114989937	3MM412RRLBC	782114990797
	5	800	Outdoor	BRHH_	1MM512RRLBC	782114990001	3MM512RRLBC	782114990858
	6	800	Outdoor	—	1MM612RRLBC	782114990032	3MM612RRLBC	782114990889
200	2	800	Outdoor	Bolt-on Type	⑥	—	3MM220RRLBC	782114990704
	3	800	Outdoor	CC2_X, CHH2_H2X	1MM320RRLBC	782114989906	3MM320RRLBC	782114990766
	4	800	Outdoor	H4X, CHH2_X	1MM420RRLBC	782114989968	3MM420RRLBC	782114990827

① For indoor applications where a top endwall with knockouts is needed, order (1) of part number **MM12N1WLK** for each 125 ampere stack or **MM20N1WLK** for each 200 ampere stack.

② 1MM units do not come with 5th jaw.

③ To change in field from ring to ringless — order **1MMRC125**.

④ To change in field from ring to ringless, the top socket in 125 ampere, 2- and 3-high stacks use **1MMRC125T**. Top socket only — other sockets see ③.

⑤ To change in field from ring to ringless — order **1MMRC200**.

⑥ Use 3-phase.

Data Tables

RESIDENTIAL METER STACKS

TABLE 4-23. 1200 AMPERE HORIZONTAL BUS — COPPER

Amperes Per Meter Socket	Number of Meter Sockets	Bus Ampacity	Enclosure Type ①	Main Tenant Breaker Type	3-Phase Horizontal Bus (4 Horizontal Bus Bars — A, B, C and Neutral)	
					Catalog Number	UPC Code
Ring Style Meter Socket Covers						
125 ②	2 ③	1200	Indoor/Outdoor	Plug-on Type	3MM212R12	782114733714
	3 ③	1200	Indoor/Outdoor	BR_	3MM312R12	782114733721
	4	1200	Indoor/Outdoor	BRH_	3MM412R12	782114733738
	5	1200	Indoor/Outdoor	BRHH_	3MM512R12	782114733745
	6	1200	Indoor/Outdoor	—	3MM612R12	782114733752
200 ④	2	1200	Outdoor	Bolt-on Type	3MM220R12	782114733769
	3	1200	Outdoor	CC2_X, CHH2_H2X	3MM320R12	782114733776
	4	1200	Outdoor	CHH2_H4X, CHH2_X	3MM420R12	782114733783
Ringless Style Meter Socket Covers (5th Jaw at 9 o'clock Standard — Field Adjustable to 3 or 6 o'clock)						
125	2	1200	Outdoor	Plug-on Type	3MM212R12RL	782114786215
	3	1200	Outdoor	BR_	3MM312R12RL	782114786222
	4	1200	Outdoor	BRH_	3MM412R12RL	782114786239
	5	1200	Outdoor	BRHH_	3MM512R12RL	782114786246
	6	1200	Outdoor	—	3MM612R12RL	782114786253
200	2	1200	Outdoor	Bolt-on Type	3MM220R12RL	782114786260
	3	1200	Outdoor	CC2_X, CHH2_H2X	3MM320R12RL	782114786277
	4	1200	Outdoor	CHH2_H4X, CHH2_X	3MM420R12RL	782114786284
Ringless Style Covers with Horn Bypass (5th Jaw at 9 o'clock Standard — Field Adjustable to 3 or 6 o'clock)						
125	2	1200	Outdoor	Plug-on Type	3MM212R12RLB	782114786291
	3	1200	Outdoor	BR_	3MM312R12RLB	782114786307
	4	1200	Outdoor	BRH_	3MM412R12RLB	782114786314
	5	1200	Outdoor	BRHH_	3MM512R12RLB	782114786321
	6	1200	Outdoor	—	3MM612R12RLB	782114786338
200	2	1200	Outdoor	Bolt-on Type	3MM220R12RLB	782114786345
	3	1200	Outdoor	CC2_X, CHH2_H2X	3MM320R12RLB	782114786352
	4	1200	Outdoor	CHH2_H4X, CHH2_X	3MM420R12RLB	782114786369

① For indoor applications where a top endwall with knockouts is needed, order (1) of part number **MM12N1WLK** for each 125 ampere stack or **MM20N1WLK** for each 200 ampere stack.

② To change in field from ring to ringless — order **1MMRC125**.

③ To change in field from ring to ringless, the top socket in 125 ampere, 2- and 3-high stacks use **1MMRC125T**. Top socket only — other sockets see ②.

④ To change in field from ring to ringless — order **1MMRC200**.

35MM, SINGLE-PHASE COMMERCIAL METER STACK MODULES

- ✓

Each socket is a 5 terminal block with lever bypass and jaw release.
- ✓

Ringless covers.
- ✓

Provision for 2-pole main tenant breakers (circuit breakers not included).
- ✓

Phase balancing kits are included with three high and four high modules. Each individual socket can be phase balanced in the field to the desired lines (A-B, B-C, or A-C). Comes from factory as A-B.
- ✓

Indoor/outdoor construction.

✓

Main tenant feeders can exit top, bottom, or back.

✓

If being used in outdoor application and exiting the top, mount Myer type hubs on rainproof cap.

✓

Short circuit ratings up to 100 ampere rms symmetrical depending upon the kAIC rating of installed main tenant circuit breakers and main device.

✓

Copper horizontal bus supplied as standard.

✓

Non-EUSERC areas.

TABLE 4-24. 35MM — SINGLE-PHASE COMMERCIAL METER STACK MODULES

System Voltage	Ampere Rating Per Meter Socket	Number of Meter Sockets	Bus Ampacity	Number of Jaws Per Meter Socket	Main Tenant Breaker Type)	Catalog Number ①	UPC Code
120/240 volt, Single-phase, 3-wire systems and 208Y/120 volt network metering (Not suitable for use on 3-phase, 4-wire Delta systems)	225	1	1200	5	Bolt-on Type EHD2_② CC2_X CHH2_H2X CHH2_H4X CHH2_X	35MM120R12	786849052959
		2	1200	5		35MM220R12	786849052966
		3	1200	5		35MM320R12	786849052973
		4	1200	5		35MM420R12	786849052980
	400	1	1200	5	400 Ampere K-Frame Included	35MM140R1240 ③ 35MM140HR1240 ④	782114754467 782113935362
	400	2	1200	5	400 Ampere K-Frame Included	35MM240R1240	782116107858
	400 Continuous	1	1200	5	400 Ampere L-Frame Included	35MM140R1240K ⑤	782116303823
	400 Continuous	1	1200	5	400 Ampere L-Frame Included	35MM140HR1240K ⑥	782116303830

① Add NJ suffix for New Jersey “NJUA” approved units.
② EHD main tenant breakers require one 37MMCBK kit per breaker.
③ Unit is bottom exit only.
④ Rated at 100 kAIC.
⑤ Rated at 25 kAIC.
⑥ Rated at 35 kAIC.

37MM, THREE-PHASE COMMERCIAL METER STACK MODULES

- ✓ Each socket is a 7 terminal block with lever bypass and jaw release.

✓ Ringless covers.

✓ Provision for 3-pole main tenant breakers (circuit breakers not included).

✓ Indoor/outdoor construction.

✓ Main tenant breakers can exit top, bottom, or back.
- ✓ If being used in outdoor application and exiting the top, mount Myer type hubs on rainproof cap.

✓ Short circuit ratings up to 100 ampere rms symmetrical depending upon the kAIC rating of installed main tenant circuit breakers and main device.

✓ Copper horizontal bus supplied as standard.

✓ Non-EUSERC areas.

TABLE 4-25. 37MM — THREE-PHASE COMMERCIAL METER STACK MODULES

System Voltage	Ampere Rating Per Meter Socket	Number of Meter Sockets	Bus Ampacity	Number of Jaws Per Meter Socket ①	Main Tenant Breaker Type	Catalog Number	UPC Code
208Y/120 volt, 3-phase, 4-wire 240/120 volt, 3-phase, 4-wire Delta (B-Phase is high leg)	225	1	1200	7	Bolt-on Type	37MM120R12 ③	786849052881
		2	1200	7	EHD3_ ②	37MM220R12 ③	786849052898
		3	1200	7	CC3_X	37MM320R12 ③	786849052904
		4	1200	7	CHH3_H2X	37MM420R12 ③	786849052911
	400	1	1200	7	CHH3_H4X CHH3_	37MM140R12 ④	786849052928
	400	1	1200	7	400 Ampere K-Frame Included	37MM140R1240 ⑤	782114754450
						37MM140HR1240 ⑥	782113935379
	400	2	1200	7	400 Ampere K-Frame Included	37MM240R1240	782116107865
	400 Continuous	1	1200	7	400 Ampere L-Frame Included	37MM140R1240K ⑦	782116303847
	400 Continuous	1	1200	7	400 Ampere L-Frame Included	37MM140HR1240K ⑧	782116303854

① If a socket in a 37MM meter stack module needs to be single-phase, order **37MM1CK**. This will convert the 3-phase socket to single-phase.

② EHD main tenant breakers require one **37MMCBK** kit per breaker.

③ Add NJ suffix for New Jersey “NJUA” approved units.

④ 320 ampere continuous rated socket with provisions for two main tenant breakers.

⑤ Unit is bottom exit only.

⑥ Rated at 100 kAIC.

⑦ Rated at 25 kAIC.

⑧ Rated at 35 kAIC.

35SS, SINGLE-PHASE COMMERCIAL METER STACK MODULES

- ✓

Sockets include EUSERC required test-bypass-disconnect feature.
- ✓

Ring type covers.
- ✓

Single-phase units have provisions for 2-pole main tenant breakers.
- ✓

When applying 35SS (single-phase) stacks on 208Y/120 volt, 3-phase, 4-wire and 240/120 volt, 3-phase, 4-wire delta systems, refer to suffixes for proper phase balancing. Each meter stack module is phase balanced at the plant (A-B, B-C, or A-C) and cannot be field modified.
- ✓

Indoor/outdoor construction.
- ✓

Main tenant breakers can exit top, bottom or back. Removable blank plates are supplied for customer punched service cable exits. If being used in outdoor application and exiting the top, mount Myer type hubs on rainproof cap.
- ✓

Short circuit ratings up to 100A rms symmetrical depending upon the kAIC rating of installed main tenant circuit breakers and main device.
- ✓

Copper horizontal bus supplied as standard.

TABLE 4-26. 35SS — SINGLE-PHASE COMMERCIAL METER STACK MODULES

System Voltage	Ampere Rating Per Meter Socket	Number of Meter Sockets	Bus Ampacity	Number of Jaws Per Meter Socket	Main Tenant Breaker Type	Catalog Number	UPC Code
120/240 volt, Single-phase, 3-wire systems and 208Y/120 volt network metering (Not suitable for use on 3-phase, 4-wire Delta systems)	225	1	1200	5	Bolt-on Type EHD2_① CC2_X CHH2_H2X CHH2_H4X CHH2_X	35SS120RAB ②	786849053000
						35SS120RAC ②	786849053017
						35SS120RBC ②	786849053024
		2	1200	5		35SS220RAB ②	782114055045
						35SS220RAC ②	782114055052
						35SS220RBC ②	782114055069
		3	1200	5		35SS320RAB ②	782114055076
						35SS320RAC ②	782114055083
						35SS320RBC ②	782114055090

① EHD main tenant breakers require one 37MMCBK kit per breaker.
② Last 2 digits of catalog number indicate phase balancing (AB indicates all sockets in this stack are connected to phases A and B only).

37SS, THREE-PHASE COMMERCIAL METER STACK MODULES

- ✓

Sockets include EUSERC required test-bypass-disconnect feature.
- ✓

Ring type covers.
- ✓

Three-phase units have provisions for 3-pole main tenant breaker.
- ✓

Copper horizontal bus supplied as standard.

TABLE 4-27. 37SS — THREE-PHASE COMMERCIAL METER STACK MODULES

System Voltage	Ampere Rating Per Meter Socket	Number of Meter Sockets	Bus Ampacity	Number of Jaws Per Meter Socket	Main Tenant Breaker Type	Catalog Number	UPC Code
208Y/120 volt, 3-phase, 4-wire 240/120 volt, 3-phase, 4-wire Delta (B-Phase is high leg)	225	1	1200	7	Bolt-on Type EHD3_③ CC3_X CHH3_H2X CHH3_H4X CHH3_	37SS120R	786849052997
		2	1200	7		37SS220R	782114055106
		3	1200	7		37SS320R	782114055113

③ EHD main tenant breakers require one 37MMCBK kit per breaker.

Accessories

TABLE 4-28. 1MP, 1MM AND 3MM MAIN TENANT CIRCUIT BREAKERS

Number of Poles	Main Tenant Circuit Breaker Ampere Rating	Catalog Number								
		10 kAIC	UPC Code	22 kAIC	UPC Code	25 kAIC	UPC Code	42 kAIC	UPC Code	100 kAIC

Plug-on type circuit breakers used with 1MP, 1MM and 3MM 125 ampere modular metering stacks.

2	60	BR260	786676363105	BRH260	786676373753	—	—	BRHH260	786676382601	—	—
2	70	BR270	786676363150	BRH270	786676373807	—	—	BRHH270	786676382700	—	—
2	80	BR280	786676363174	BRH280	782114372180	—	—	BRHH280	786676382809	—	—
2	90	BR290	786676363204	BRH290	786676373852	—	—	BRHH290	786676382908	—	—
2	100	BR2100	786676363259	BRH2100	786676373906	—	—	BRHH2100	786676376952	—	—
2	110	BR2110	786676384278	BRH2110	786676374248	—	—	BRHH2110	786676002950	—	—
2	125	BR2125	786676367059	BRH2125	786676373951	—	—	BRHH2125	786676377003	—	—

Bolt-on type circuit breakers used with 1MP, 1MM and 3MM 200 ampere modular metering stacks.

2	60	—	—	—	—	CHH2060H2X	782113032719	CHH2060H4X	782113032634	CHH2060X	782113032559
2	70	—	—	—	—	CHH2070H2X	782113032726	CHH2070H4X	782113032641	CHH2070X	782113032566
2	80	—	—	—	—	CHH2080H2X	782113032733	CHH2080H4X	782113032658	CHH2080X	782113032573
2	90	—	—	—	—	CHH2090H2X	782113032740	CHH2090H4X	782113032665	CHH2090X	782113032580
2	100	CC2100X	782113031897	—	—	CHH2100H2X	782113032016	CHH2100H4X	782113032139	CHH2100X	782113032252
2	125	CC2125X	782113031903	—	—	CHH2125H2X	782113032023	CHH2125H4X	782113032146	CHH2125X	782113032269
2	150	CC2150X	782113031910	—	—	CHH2150H2X	782113032030	CHH2150H4X	782113032153	CHH2150X	782113032276
2	175	CC2175X	782113031927	—	—	CHH2175H2X	782113032047	CHH2175H4X	782113032160	CHH2175X	782113032283
2	200	CC2200X	782113031934	—	—	CHH2200H2X	782113032092	CHH2200H4X	782113032177	CHH2200X	782113032290

Accessories

TABLE 4-29. ACCESSORIES FOR 1MP, 1MM AND 3MM MODULAR METERING STACKS

Description	Application	Catalog Number	UPC Code
Fifth Jaw Kit	Bolted onto neutral in the 3, 6 or 9 o'clock position. Typically used on network metering systems (3-phase in/ single-phase out) or when specified by utility company.	1MM5JK	782114380284
Isolated Fifth Jaw Kit	Connects to the neutral with an insulated wire.	1MM5JKOP	782116007882
Manual Bypass Kit (Ring Style Socket Only)	For use with 125 ampere sockets only. (Not top socket.)	1MMBPM125	782114380307
	For use with 200 ampere sockets only. (Not top socket.)	1MMBPM200	782114380314
	This kit only to be used for top position of 2- and 3-high 125 ampere 1MM and 3MM stacks and of 2-, 3-, 5- and 6-position 125 ampere 1MP packs.	1MMBPM125T	782114380321
	Top 200 ampere socket.	1MMBPM200T	782114631713
Horn Bypass	Used only on ringless cover stacks, kits can be installed on 125 ampere or 200 ampere sockets. Note: For 1MP2122RRL use:	1MMBPH WCG8HB	782114380338 782113031828
Meter Bypass Jumper	Installed on 125 ampere or 200 ampere sockets. Jumpers are plugged into jaws. Order Lexan® cover plate with bypass jumpers to prevent access to meter socket once energized. (Not UL listed.)	1MMBPJ	786849054441
Lexan Blank Cover	Circular cover mounted on ring or ringless devices preventing access to meter socket while meter is not in place. Includes 4 plastic tabs which plug into each jaw.	1MMPCP	786849055059
	Same as 1MMPCP minus the tabs located in the back to plug into jaws. This device to be used while meter bypass jumpers are in place (1MMBPJ).	1MMACP	782116006373
Blank Meter Socket Cover	Used for 125 ampere stacks. Fits bottom socket only. Kit replaces existing meter cover preventing access to meter socket. Includes hasp for seal.	1MMBC125B	786849054427
	Used on 200 ampere stacks. Fits bottom socket only. Kit replaces existing meter cover preventing access to meter socket. Includes hasp for seal.	1MMBC200B	786849054434
Wall Mounting Rail	Rails are 4 feet (1219.2 mm) in length. Bolted on wall for stacks, packs and mains to be hung.	1MMWB	786849054243
Bussed Spacer	Bussed spacer 1200 ampere 4-inch (101.6 mm). Required when stacks are mounted on right-hand side in EUSERC areas. (Copper)	3MMBSK	786849054052
Bus Duct Riser/ Meter Center Connection	Available in 400, 600, 800 ampere Main Fusible units only. Contact Product Line for details.	—	—
Indoor Corner Elbow (Copper)	12-inch (304.8 mm) indoor corner elbow, 1200 ampere, 3-phase, 4-wire for use with 1MM and 3MM only. Do not use with 35MM, 37MM, 35SS or 37SS stacks.	3MMEB12	786849054038
Indoor Corner Elbow (Copper)	16-inch (406.4 mm) indoor corner elbow, 1200 ampere, 3-phase, 4-wire for use with 1MM, 3MM, 35MM, 37MM, 35SS and 37SS.	3MMEB16	786849054045
Barrier	Barrier for individual sockets.	1MMBK	786849054311
Meter Jumper and Cover	Combination meter jumper and cover (200 ampere maximum). Used to jumper line and load jaws as well as cover meter socket preventing exposure to current carrying parts.	1MMJCK	786849054366
Lug Block	125 ampere 2-pole lug block assembly.	BRSF125	786676001762
Sealing Ring	Standard (included with packs and stacks). ①	1MMSR2	786849054557
	Stainless steel screw type.	1MMSR1	786849054540
	Stainless steel snap type.	1MMSR4	786849054571
	Aluminum screw type with locking provisions.	1MMSR5	786849054588
Top Endwall	125 ampere, NEMA 1 top end wall with knockouts for 1MM and 3MM meter stacks.	MM12N1WLK	782114794319
	200 ampere, NEMA 1 top end wall for 1MM, 3MM meter stacks.	MM20N1WLK	782114801253

① Aluminum snap type.



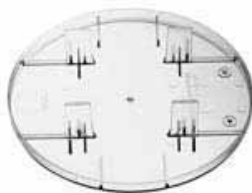
Fifth Jaw Kit



Manual Bypass Kit



Horn Bypass Kit



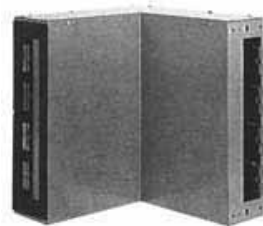
Lexan Blank Cover



Wall Mounting Rail



Bussed Spacer



Indoor Corner Elbow



Standard Sealing Ring

Accessories

TABLE 4-30. 1MP, 1MM AND 3MM REPLACEMENT PARTS

Description	Application	Catalog Number	UPC Code
Ringless Cover (Can install this to go from ring to ringless)	Installed on 125 ampere socket for ringless security.	1MMRC125	786849054496
	Installed on 200 ampere socket for ringless security.	1MMRC200	786849054502
	For use with top position of 125 ampere, 2 and 3 position, 1MM and 3MM stacks and 2, 5 and 6 position 1MP packs.	1MMRC125T	786849054519
Ring Cover	Installed on 125 ampere socket for ring security.	1MMCP1	786849054373
	Installed on 200 ampere socket for ring security.	1MMCP2	786849054380
	Top socket ring cover 125 amperes.	1MMCP1T	782114858943
	Top socket ring cover 200 amperes.	1MMCP2T	782114858950
Tenant Breaker Hinged Cover	125 ampere cover.	1MMBC1	786849054298
	200 ampere cover.	1MMBC2	786849054304
Meter Socket ①	125 and 200 amperes.	1MMMS	782116008513

① Meter Packs **1MP2122RRL** and **1MP2122RRLB** use different meter sockets, see Renewal Parts listing **RP.32A.01A.T.E** for details.

Note: See **RP.32A.01A.T.E** for a complete Renewal Parts listing.



Ringless Cover



Ring Cover



Tenant Breaker Cover



Meter Socket

Accessories

TABLE 4-31. ACCESSORIES FOR 35MM AND 37MM MODULAR METERING STACKS

Description	Application	Catalog Number	UPC Code
Wall Mounting Rail	Rails are 4 feet (1219.2 mm) in length. Bolted on wall for stacks, packs, and mains to be hung.	1MMWB	786849054243
Indoor Corner Elbow (Copper)	16-inch (406.4 mm) indoor corner elbow, 1200 ampere, 3-phase, 4-wire for use with 1MM, 3MM, 35MM, 37MM, 35SS and 37SS.	3MMEB16	786849054045
Handle Insulator	Each meter block includes a lever bypass. This kit includes the sleeve which slides onto the lever handle.	37MMHC	786849054212
Barrel Lock Bracket Kit	Needed when using barrel lock security.	37MMBLK	786849054182
Totalizing Jumper Kit	Used if one socket is to meter two tenant feeds. When ordering jumper kit, should also order a plastic cover plate (1MMPCP) preventing access to live parts on unused socket.	37MMTJK	786849054267
EHD Breaker Mounting Kit	Bolt-on breaker provisions are set up to accept CC/ CHH breaker styles. If an EHD breaker is needed, each breaker requires one mounting kit.	37MMCBK	786849054274
Blank Cover Kit	Kit replaces meter cover preventing access to socket.	37MMCK ^①	786849054175
		37MMCKA ^②	782116058051
Barrier	Barrier for individual sockets.	37MMBK	786849054199
3-Phase to Single-Phase Conversion Kit	This kit will convert one 3-phase meter socket (37MM devices) to a single-phase socket. Only needed if phasing A-C or C-B. If single-phase socket is to be phased A-B, kit is not required for field conversion. (Must use 3-phase breaker.)	37MM1CK	786849054229
Bus Duct Riser/Meter Center Connection	Available in 400, 600, 800 ampere Main Fusible units and 400, 600, 800, 1000, 1200 main circuit breaker. Contact product line for details.	—	—

① For all units made 10/2002 and earlier.
② For all units made after 11/2002.

TABLE 4-32. REPLACEMENT PARTS

Description	Application	Catalog Number	UPC Code
35MM Replacement Meter Socket	To replace meter socket with lever bypass and jaw release.	MSLMSA1	782114633823
37MM Replacement Meter Socket	To replace meter socket with lever bypass and jaw release.	MSLMSA2	782114633830
35SS Replacement Meter Socket	To replace meter socket with test bypass disconnect feature.	MSTMSA1	782114633915
37SS Replacement Meter Socket	To replace meter socket with test bypass disconnect feature.	MSTMSA2	782114633922
Meter Cover Assembly	To replace ringless cover over the meter.	MSTMCVR1	782114633557
Meter Cover Assembly with NJ Latch	To replace ringless cover over the meter. Includes New Jersey latch requirement.	37MMSKNJ	786849054250
Tenant Breaker Hinged Cover	To replace cover over tenant breakers.	1MMBC2	786849054304

Note: See **RP.32A.01.T.E** for a complete Renewal Parts listing.

Related Products

✓ Main Circuit Breakers.



Barrel Lock Bracket Kit



Totalizing Jumper Kit



EHD Breaker Mounting Kit



Blank Cover Kit



3-Phase to Single-Phase Conversion Kit



35MM Replacement Meter Socket



35SS Replacement Meter Socket



Meter Cover Assembly

Group Metering

MAIN SERVICE MODULES — DIMENSIONS IN INCHES (MM)

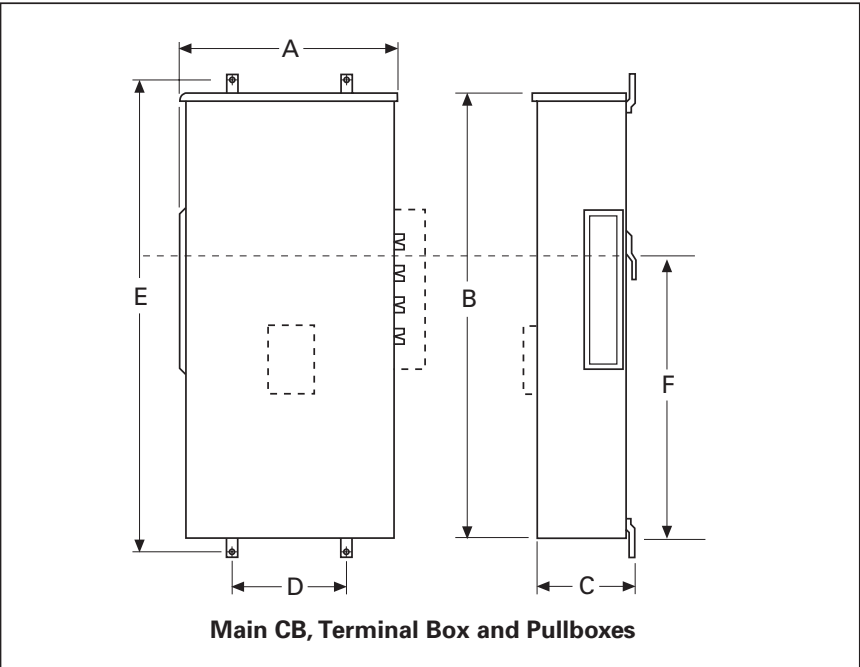


FIGURE 4-2. MAIN CIRCUIT BREAKERS, TERMINAL BOXES AND PULL BOXES

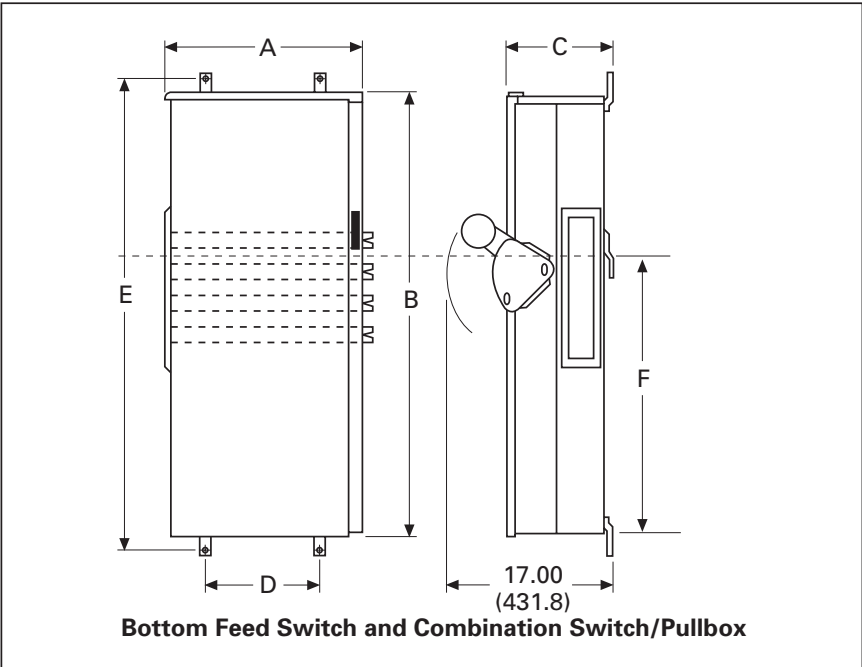


FIGURE 4-4. BOTTOM FEED FUSIBLE SWITCH AND COMBINATION FUSIBLE SWITCH WITH PULL BOX

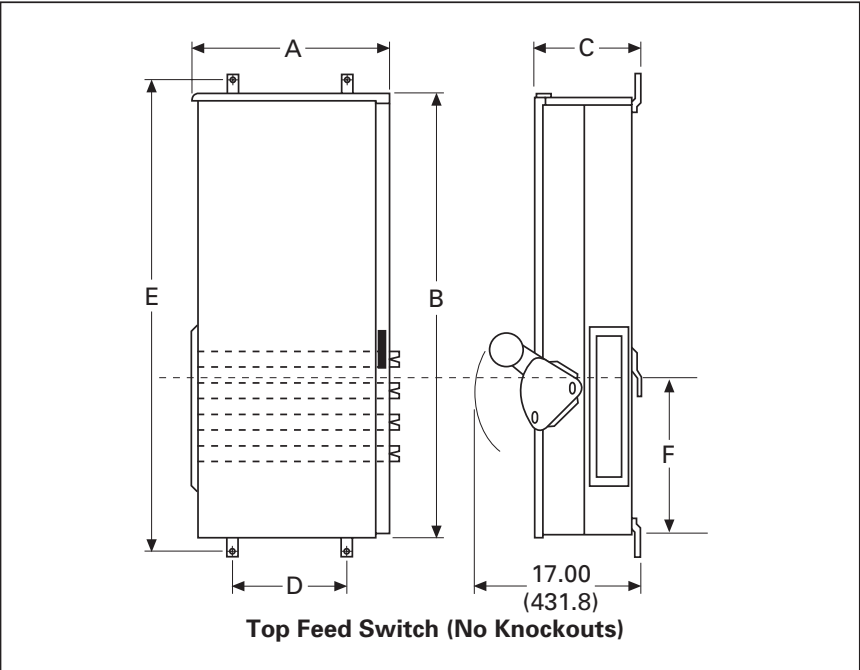


FIGURE 4-3. TOP FEED FUSIBLE SWITCH

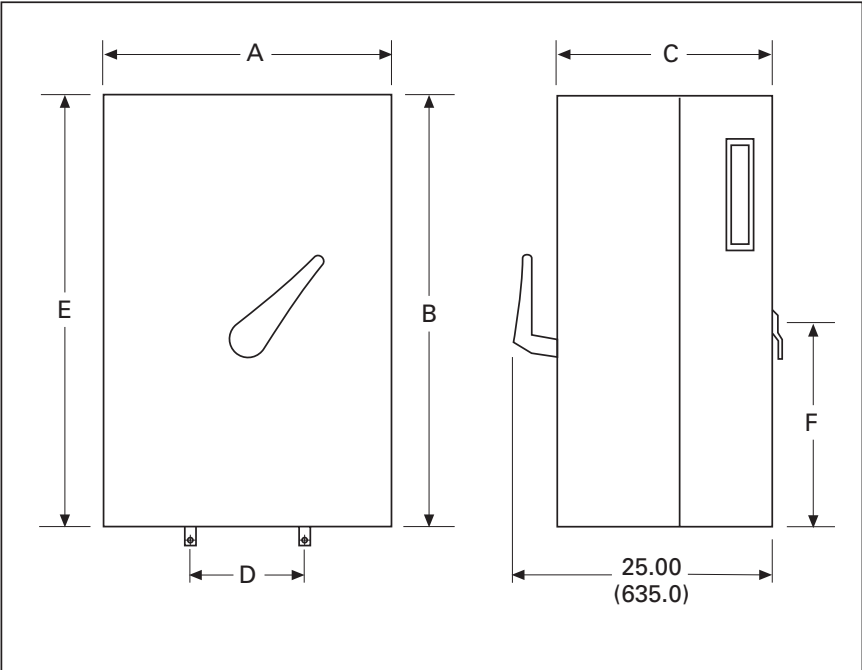


FIGURE 4-5. BOLTED PRESSURE SWITCH

MAIN SERVICE MODULES — DIMENSIONS IN INCHES (MM)

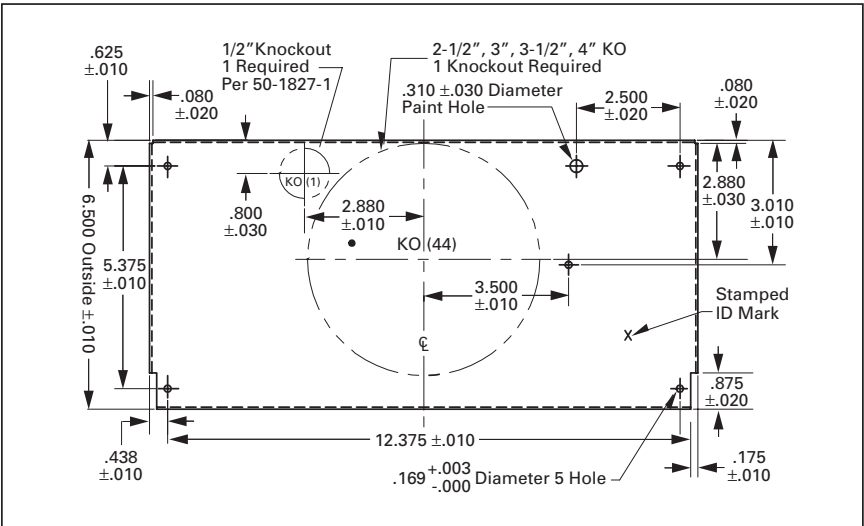


FIGURE 4-6. KNOCKOUT 1

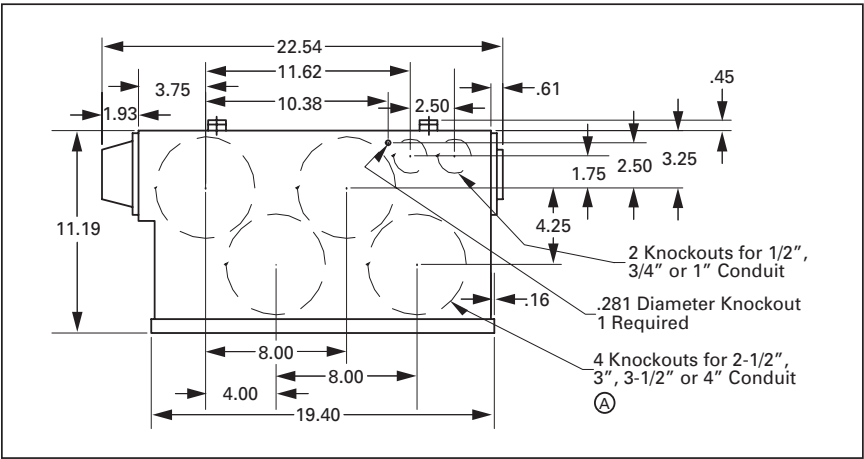


FIGURE 4-7. KNOCKOUT 2

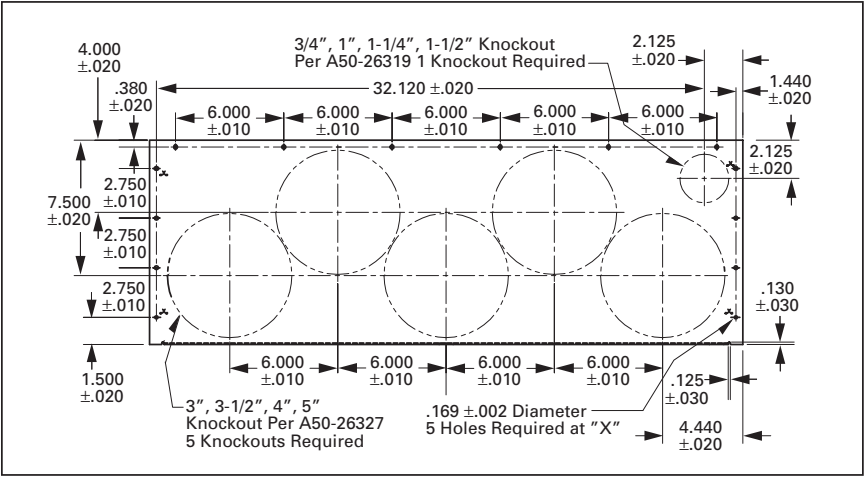


FIGURE 4-8. KNOCKOUT 3

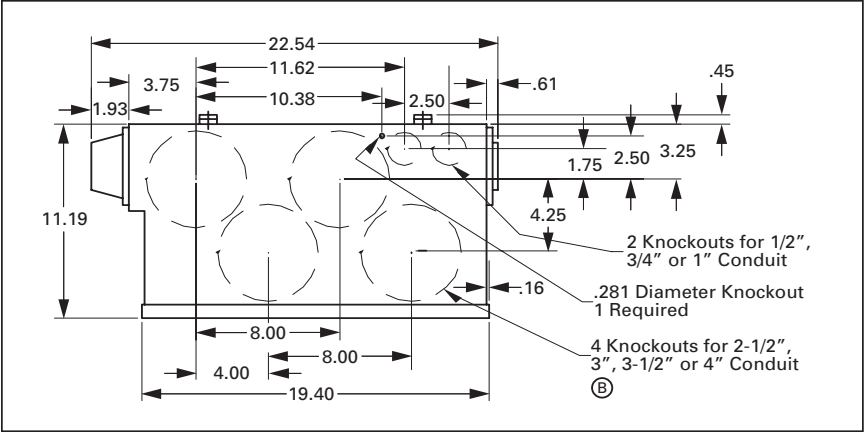


FIGURE 4-9. KNOCKOUT 4

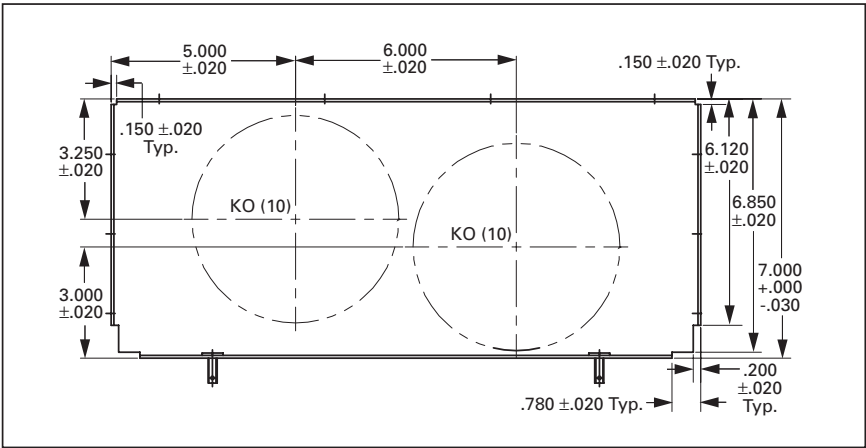


FIGURE 4-10. KNOCKOUT 5

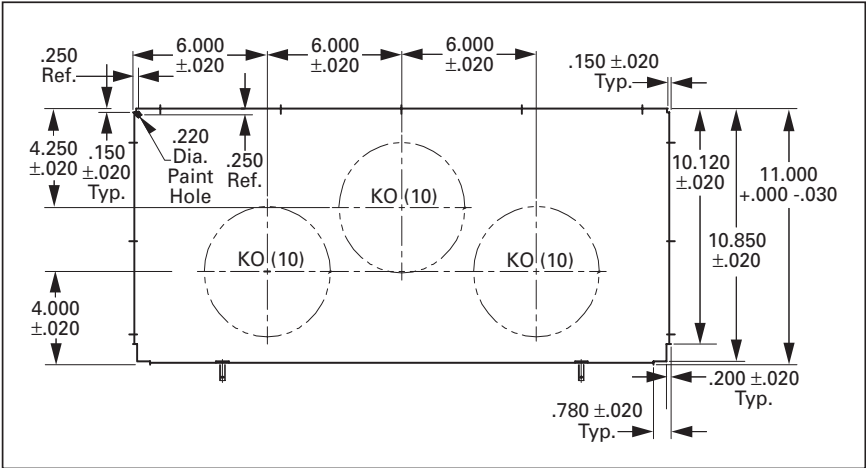


FIGURE 4-11. KNOCKOUT 6

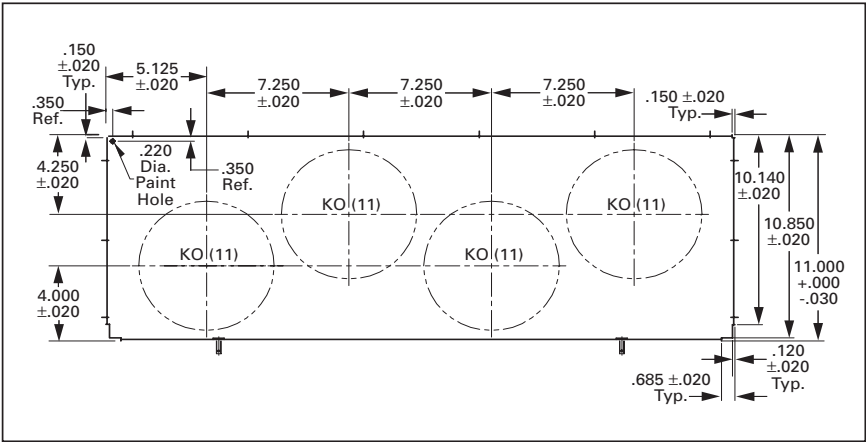


FIGURE 4-12. KNOCKOUT 7

MAIN FUSIBLE SWITCHES — DIMENSIONS IN INCHES (MM)

TABLE 4-33. APPROXIMATE DIMENSIONS (NOT TO BE USED FOR CONSTRUCTION PURPOSES)

Main Device	Width	Height	Depth	Mounting		Center Line of Wall Mounting Bracket	Knockouts in Bottom Endwalls Except No KOs for Top Feed Switch or Bolted Pressure Switch Conduit Diameter		Knockout Drawing
	A	B	C	D	E	F	Inches	mm	
Terminal Box 400 and 600 Ampere	13.50 (342.9)	48.75 (1238.3)	7.00 (177.8)	—	54.00 (1371.6)	30.63 (777.9)	(1) 2.50, 3.00, 3.50, 4.00 (1) .50	(1) 63.5, 76.2, 88.9, 101.6 (1) 12.7	1
800 and 1200 Ampere	20.00 (508.0)	47.63 (1209.8)	11.75 (298.5)	12.00 (304.8)	51.50 (1308.1)	30.63 (777.9)	(2) .50, .75, 1.00 (4) 2.00, 2.50, 3.00, 3.50, 4.00	(2) 12.1, 19.1, 25.4 (4) 50.8, 63.5, 76.2, 88.9, 101.6	2
1600 Ampere	32.88 (835.2)	52.13 (1324.1)	11.75 (298.5)	16.00 (406.4)	56.25 (1428.8)	31.63 (803.4)	(1) .75, 1.00, 1.25, 1.50 (5) 3.00, 3.50, 4.00, 5.00	(1) 19.1, 25.4, 31.8, 38.1 (5) 76.2, 88.9, 101.6, 127.0	3
Main Circuit Breaker with Box Lugs 400 – 1200 Ampere	20.00 (508.0)	47.63 (1209.8)	11.75 (298.5)	12.00 (304.8)	51.50 (1308.1)	30.63 (777.9)	(2) .50, .75, 1.00 (4) 2.00, 2.50, 3.00, 3.50, 4.00	(2) 12.7, 19.1, 25.4 (4) 50.8, 63.5, 76.2, 88.9, 101.6	2
Main Circuit Breaker with Box Lugs 1400 – 2000 Ampere	24.88 (632.0)	57.13 (1451.0)	14.88 (378.0)	16.00 (406.4)	57.13 (1451.0)	44.00 (1117.6)	—	—	—
Main Circuit Breaker with Compression Lugs 400 – 1200 Ampere	20.00 (508.0)	61.00 (1549.4)	11.75 (298.5)	12.00 (304.8)	65.00 (1651.0)	44.00 (1117.6)	(2) .50, .75, 1.00 (4) 2.00, 2.50, 3.00, 3.50, 4.00	(2) 12.7, 19.1, 25.4 (4) 50.8, 63.5, 76.2, 88.9, 101.60	2
Main Fusible Switch — Bottom Feed	20.00 (508.0)	47.63 (1209.8)	11.75 (298.5)	12.00 (304.8)	51.50 (1308.1)	30.63 (777.9)	(2) .50, .75, 1.00 (4) 2.00, 2.50, 3.00, 3.50, 4.00	(2) 12.7, 19.1, 25.4 (4) 50.8, 63.5, 76.2, 88.9, 101.6	2
Main Fusible Switch — Top Feed	20.00 (508.0)	47.63 (1209.8)	11.75 (298.5)	12.00 (304.8)	51.50 (1308.1)	18.13 (460.4)	(2) .50, .75, 1.00 (4) 2.00, 2.50, 3.00, 3.50, 4.00	(2) 12.7, 19.1, 25.4 (4) 50.8, 63.5, 76.2, 88.9, 101.6	2
Main Fusible Switch — 1200 Ampere	33.50 (850.9)	52.75 (1339.9)	11.88 (301.8)	16.00 (406.4)	56.25 (1428.8)	30.75 (781.1)	(5) 3.50, 4.00, 5.00 (1) .75, 1.00, 1.25, 1.50	(5) 88.9, 101.6, 127.0 (1) 19.1, 25.4, 31.8, 38.1	4
Bolted Pressure Switch	36.50 (927.1)	66.50 (1689.1)	19.50 (495.3)	28.00 (711.2)	60.00 (1524.0)	30.63 (777.9)	—	—	—
Main Fusible Switch with Pull Box 400 Ampere	20.00 (508.0)	61.00 (1549.4)	11.75 (298.5)	12.00 (304.8)	65.00 (1651.0)	44.00 (1117.6)	(2) .50, .75, 1.00 (4) 2.00, 2.50, 3.00, 3.50, 4.00	(2) 12.7, 19.1, 25.4 (4) 50.8, 63.5, 76.2, 88.9, 101.6	2
600 and 800 Ampere (Single-Phase)	20.00 (508.0)	61.00 (1549.4)	11.75 (298.5)	12.00 (304.8)	65.00 (1651.0)	44.00 (1117.6)	(2) .50, .75, 1.00 (4) 2.00, 2.50, 3.00, 3.50, 4.00	(2) 12.7, 19.1, 25.4 (4) 50.8, 63.5, 76.2, 88.9, 101.6	2
600 and 800 Ampere (3-Phase)	25.00 (635.0)	61.00 (1549.4)	11.75 (298.5)	12.00 (304.8)	65.00 (1651.0)	44.00 (1117.6)	(2) .50, .75, 1.00 (4) 2.00, 2.50, 3.00, 3.50, 4.00	(2) 12.7, 19.1, 25.4 (4) 50.8, 63.5, 76.2, 88.9, 101.6	5
1200 Ampere	33.50 (850.9)	61.50 (1562.1)	11.88 (301.8)	16.00 (406.4)	65.25 (1657.4)	48.00 (1219.2)	(5) 3.50, 4.00, 5.00 (1) .75, 1.00, 1.25, 1.50	(5) 88.9, 101.6, 127.0 (1) 19.1, 25.4, 31.8, 38.1	4

MAIN FUSIBLE SWITCHES — DIMENSIONS IN INCHES (MM)

Table 4-33. APPROXIMATE DIMENSIONS (NOT TO BE USED FOR CONSTRUCTION PURPOSES) — CONTINUED

Main Device	Width	Height	Depth	Mounting		Center Line of Wall Mounting Bracket	Knockouts in Bottom Endwalls Except No KOs for Top Feed Switch or Bolted Pressure Switch Conduit Diameter		Knockout Drawing
	A	B	C	D	E	F	Inches	mm	
Main Circuit Breaker with Pull Box 400 Ampere	20.01 (508.2)	60.44 (1535.2)	11.14 (283.0)	12.00 (304.8)	65.11 (1653.8)	39.75 (1009.6)	(4) 2.50, 3.00, 3.50, 4.00	(4) 63.5, 76.2, 88.9, 101.6	2
800 Ampere	24.88 (632.0)	60.94 (1547.9)	11.14 (283.0)	17.00 (431.8)	64.88 (1648.0)	39.81 (1011.2)	(4) 2.50, 3.00, 3.50, 4.00	(4) 63.5, 76.2, 88.9, 101.6	2
1200 Ampere	33.00 (838.2)	61.14 (1553.0)	11.32 (287.5)	16.00 (46.4)	65.25 (1657.4)	43.56 (1106.4)	(4) 2.50, 3.00, 3.50, 4.00	(4) 63.5, 76.2, 88.9, 101.6	4
Pull Box 400 Ampere	16.38 (416.1)	44.88 (1140.0)	7.88 (200.2)	8.00 (203.2)	45.75 (1162.1)	28.63 (727.2)	(2) 4.00	101.6	6
800 Ampere	24.38 (619.3)	46.88 (1190.8)	11.88 (301.8)	12.00 (304.8)	47.75 (1212.9)	32.25 (819.2)	(3) 4.00	101.6	7
1200 Ampere	32.50 (825.5)	56.88 (1444.8)	12.00 (304.8)	17.75 (450.9)	57.75 (1466.9)	42.25 (1073.2)	(4) 5.00	127.0	8
EUSERC Bussed Pull Section 400 and 800 Ampere (Single-Phase)	20.13 (511.3)	61 (1549.4)	11.25 (285.8)	12.00 (304.8)	64.88 (1648.0)	44.00 (1117.6)	(4) 2.50, 3.00, 3.50, 4.00	(4) 63.5, 76.2, 88.9, 101.6	5
400 and 800 Ampere (3-Phase)	25.13 (638.3)	61 (1549.4)	11.88 (301.8)	17.0 (431.8)	64.88 (1648.0)	44.00 (1117.6)	(4) 2.50, 3.00, 3.50, 4.00	(4) 63.5, 76.2, 88.9, 101.6	6

Residential Meter Stacks

DIMENSIONS AND KNOCKOUTS (IN INCHES) — MODULAR METERING STACKS — ALUMINUM AND COPPER

Note: Dimensions Apply to 800 and 1200 Ampere Horizontal Bus.

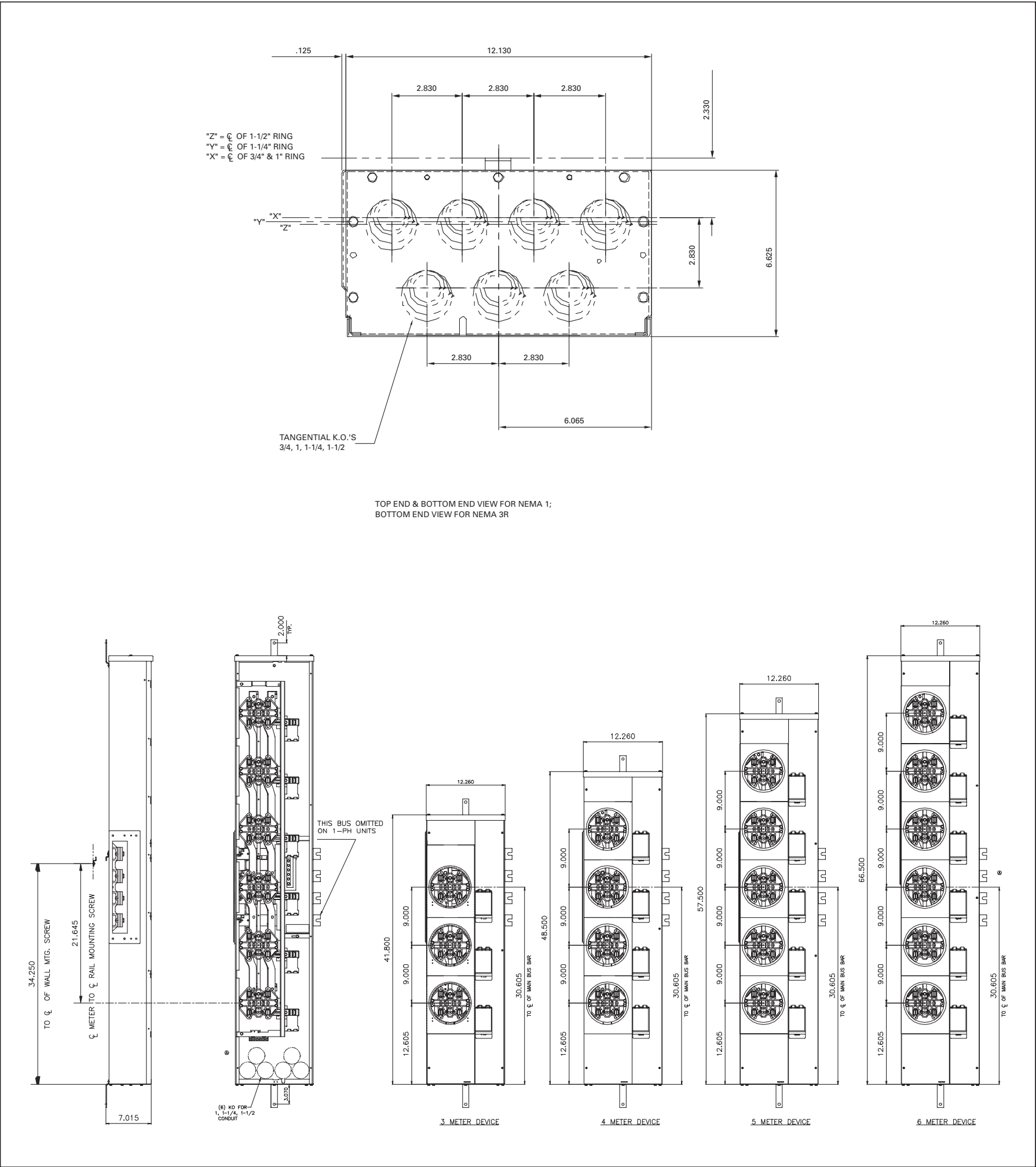


FIGURE 4-13. 1MM, 3MM, 125 AMPERES

DIMENSIONS AND KNOCKOUTS (IN INCHES) — MODULAR METERING STACKS — ALUMINUM AND COPPER

Note: Dimensions Apply to 800 and 1200 Ampere Horizontal Bus.

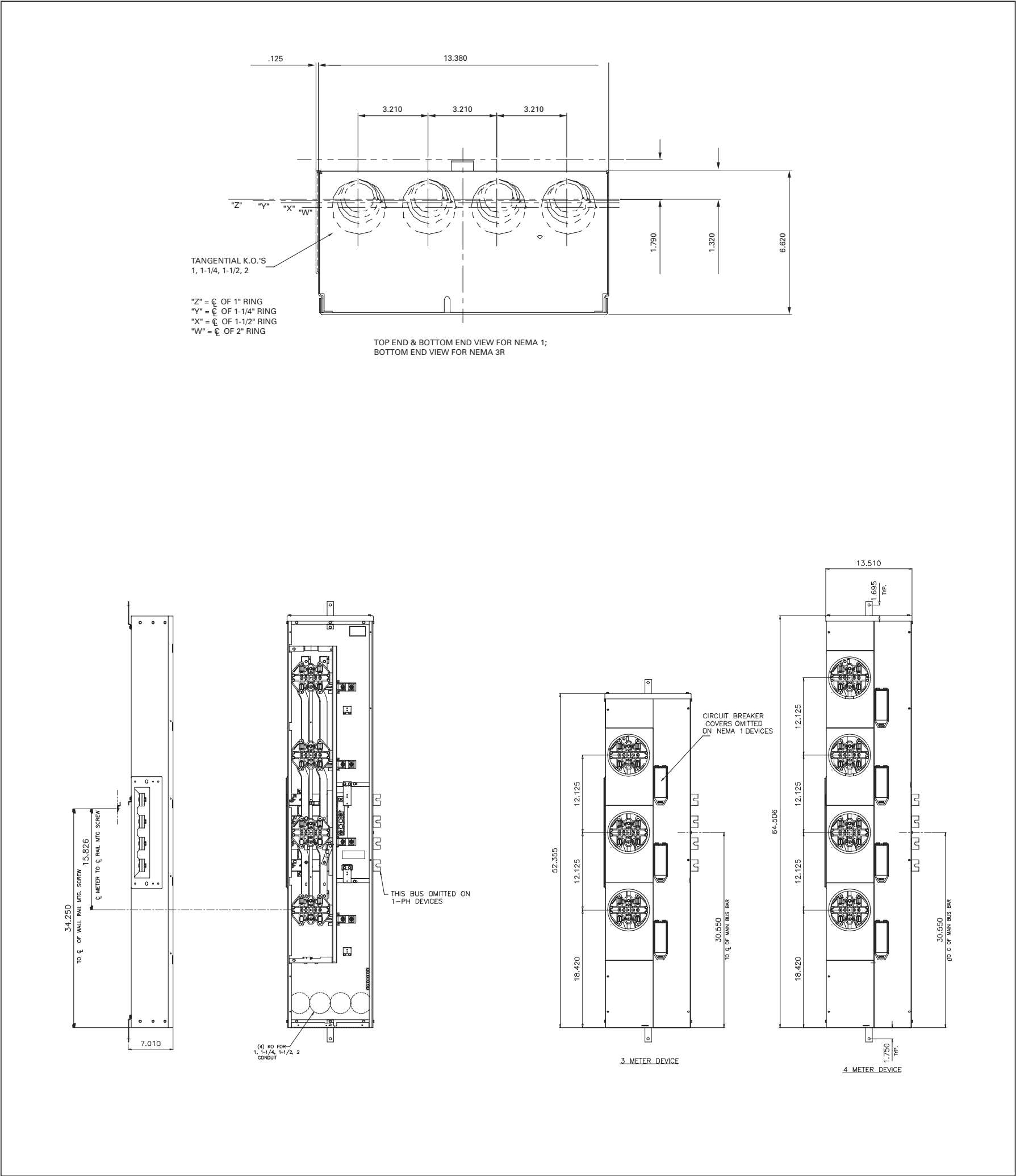


FIGURE 4-14. 1MM, 3MM, 125 AMPERES

COMMERCIAL STACKS (35MM, 37MM, 35SS AND 37SS) — DIMENSIONS IN INCHES (MM)

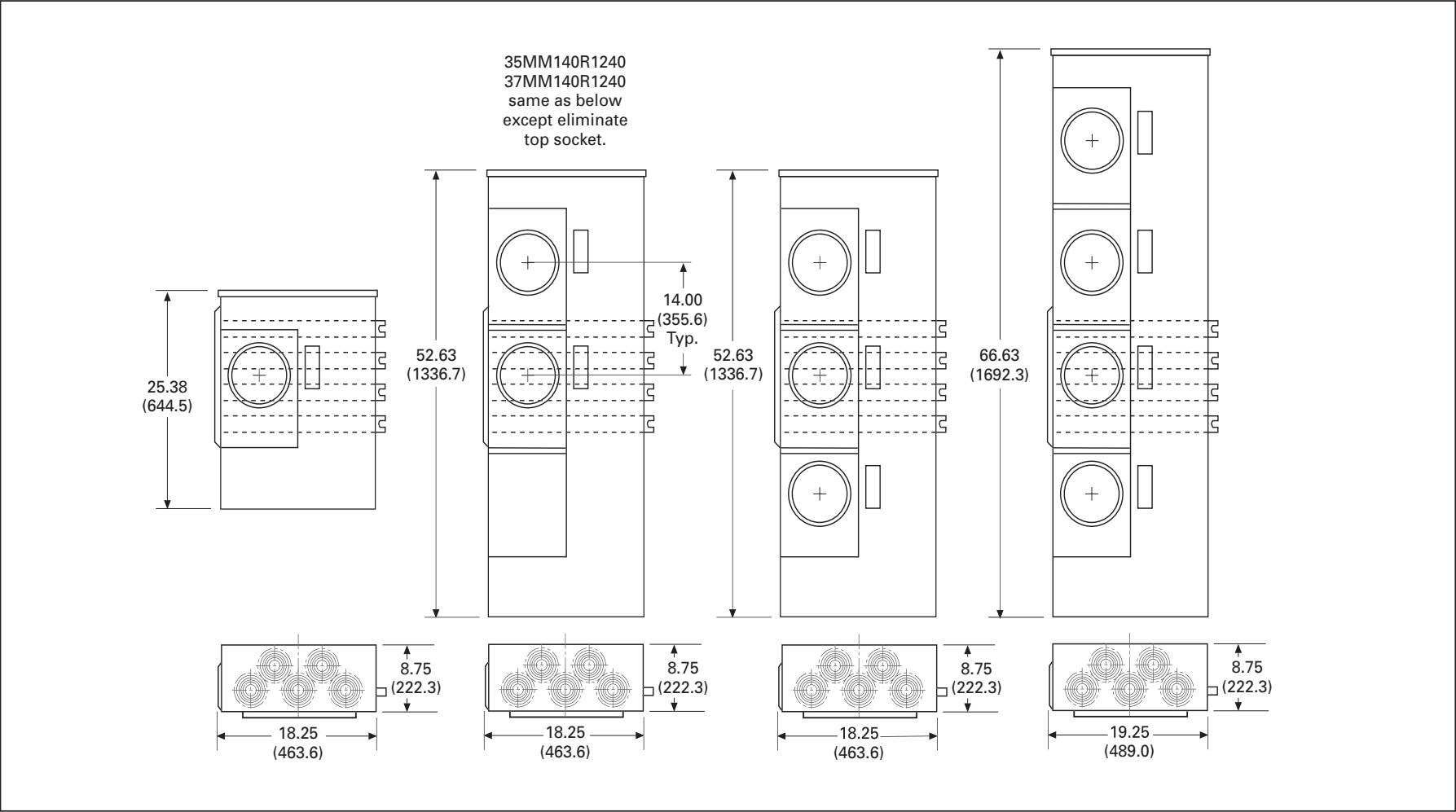


FIGURE 4-15. 35MM AND 37MM

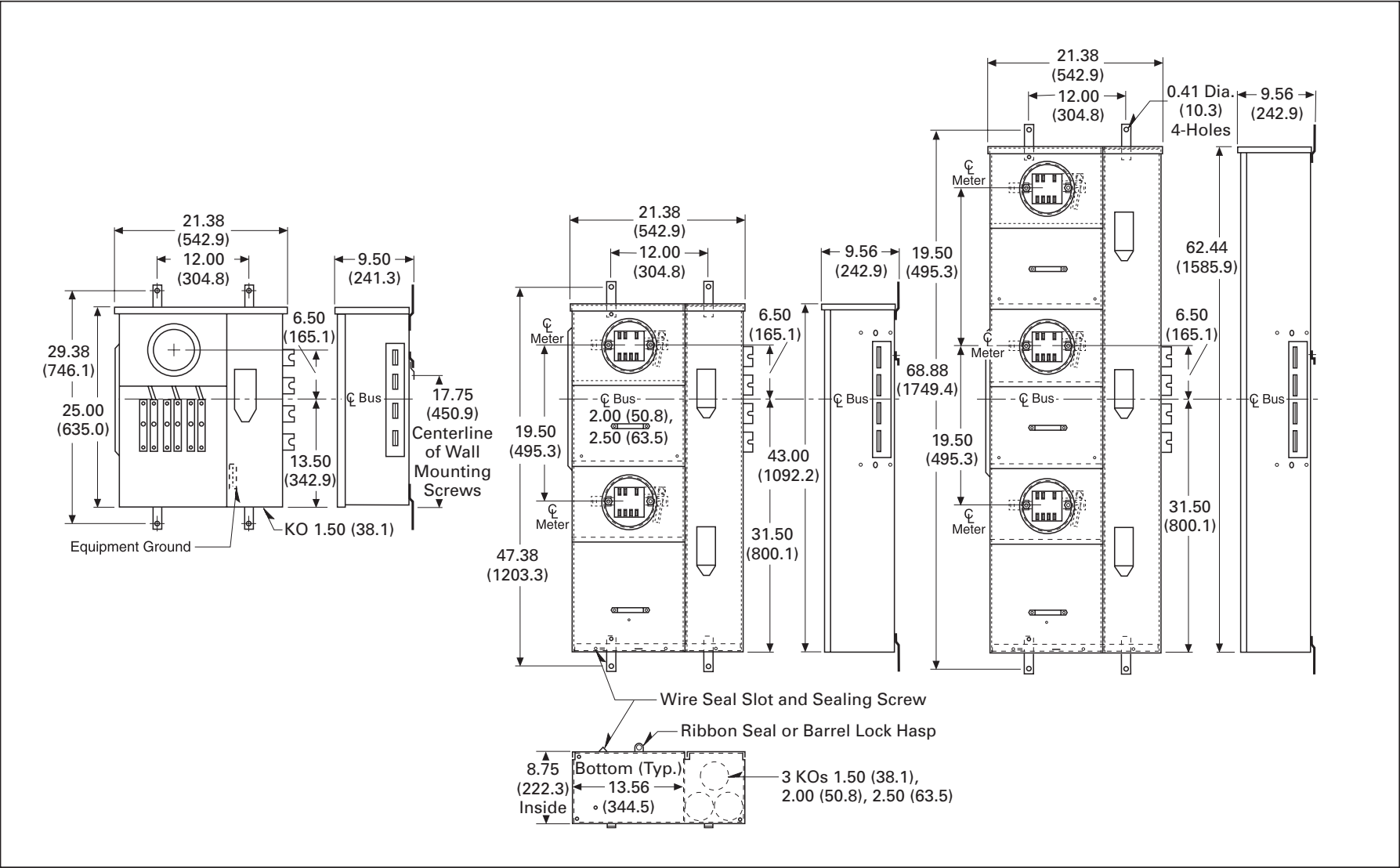


FIGURE 4-16. 35SS AND 37SS

GENERAL LAYOUT — DIMENSIONS IN INCHES (MM)

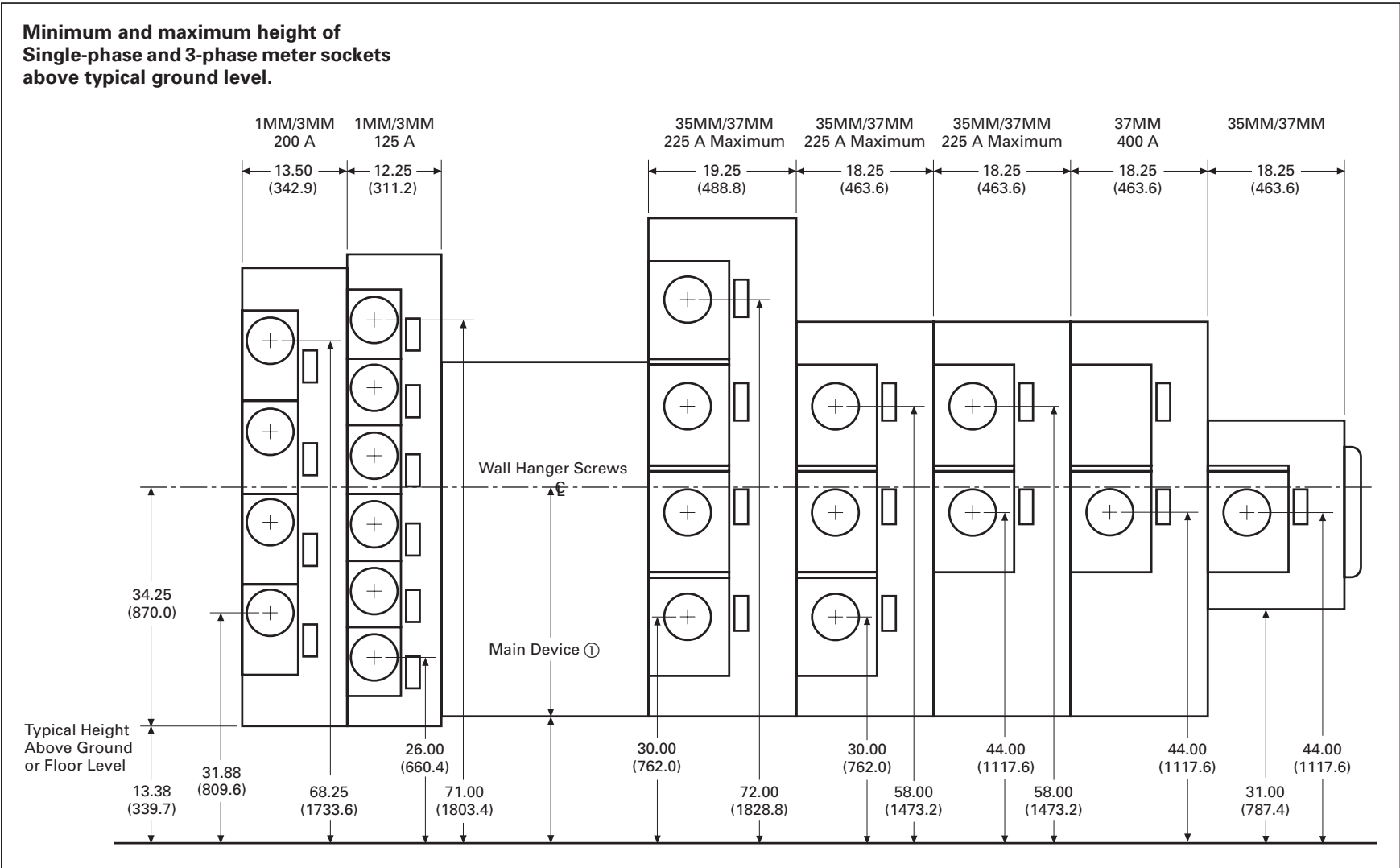
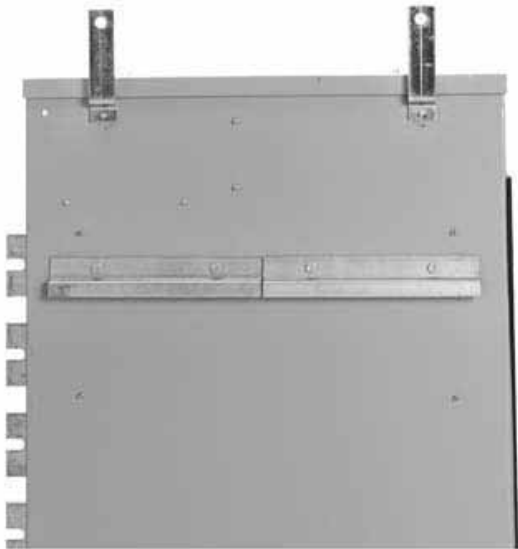


FIGURE 4-17. GENERAL LAYOUT
 ① Not a constant value. Dimension changes depending on main device chosen. See **Pages 4-29** and **4-30** for specific dimensions.

MOUNTING FEATURES



Mounting Features

A standard mounting rail and factory-installed swing away feet, speed up and simplify installation.

APPLICATION DESCRIPTION

When main tenant breakers are installed in Eaton’s Cutler-Hammer modular metering stack per **Table 4-34**, the branch breakers installed in Cutler-Hammer downstream panel rated 10,000 AIC or greater are protected to the listed series AIC rating. Refer to the downstream panel marking for the proper series combination short circuit ratings.

Replacement or additional breakers shall be of the same manufacture and type and shall have an interrupting rating equal to or greater than the interrupting rating of any main tenant breaker installed.

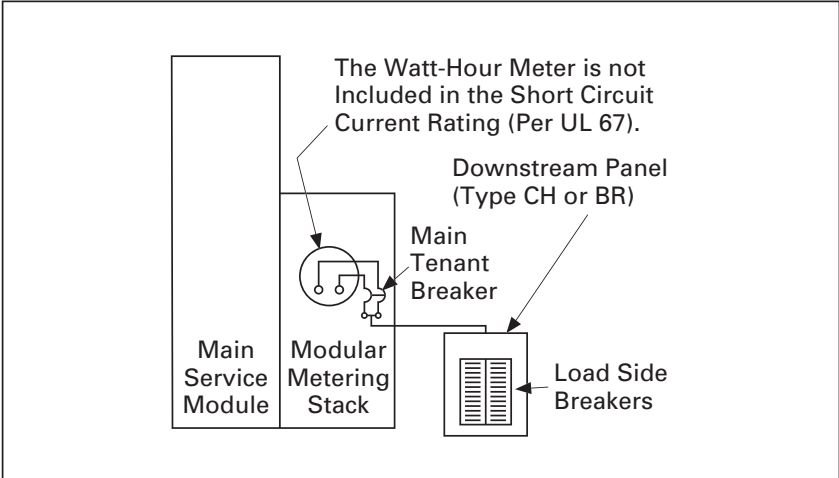


FIGURE 4-18. SERIES COMBINATION SHORT CIRCUIT RATINGS

UL is a federally registered trademark of Underwriters Laboratories Inc. Cutler-Hammer is a federally registered trademark of Eaton Corporation. NEMA is the registered trademark and service mark of the National Electrical Manufacturers Association. Lexan is a registered trademark of General Electric Co., USA. INNER-TITE is a registered trademark of Inner-Tite Corp.

TABLE 4-34. SERIES COMBINATION SHORT CIRCUIT RATINGS — 240 VAC

Main Module Overcurrent Device Breaker Type or Class Fuse	Meter Module Tenant Feeder Breaker Type 1MM, 3MM, 35MM, 37MM, 35SS, 37SS or Loadcenter Main Breaker	Tenant Feeder Breaker Short Circuit Rating	Loadcenter Branch Breaker (1-, 2- or 3-Pole)	System AIC Rating 120/240 Vac Maximum
None	None	—	BD, BR, BRD, BQ, BQC, GFCB, CH, CHT, CH3, CH-GFCI	10,000
Without Main Disconnect. Cable Tap Box Type 1MTB_, 3MTB_	BR_, CC_, BW_	10,000		10,000
	BRH_	22,000		22,000
	BWH_, CHH_H2	25,000		25,000
	BRHH_, CHH_H4	42,000		42,000
	CHH	100,000		100,000
Main Switch Module Type 1MFS_, 3MFS_ with Class T Fuse, 400 Ampere Maximum	BRH	22,000	CH, CHT, CH3, CH-GFCI	42,000
Main Switch Module Type 1MFS_, 3MFS_ with Class T Fuse, 600 Ampere Maximum	BRH_	22,000	BD, BR, BRD, BQ, BQC, GFCB	100,000
	BRHH	42,000	CH, CHT, CH3, CH-GFCI	42,000
Main Switch Module Type 1MFS_, 3MFS_ with Class T Fuse, 800 Ampere Maximum	BR_, CC_, BW_	10,000	BD, BR, BRD, BQ, BQC, GFCB, CH, CHT, CH3, CH-GFCI	10,000
	BRH_	22,000		22,000
	BRH_	22,000	BD, BR, BRD, BQ, BQC, GFCB	100,000 ①
	BWH_, CHH_H2	25,000	BD, BR, BRD, BQ, BQC, GFCB, CH, CHT, CH3, CH-GFCI	25,000
	BRHH_, CHH_H4	42,000		42,000
	BRHH_, CHH_H4	42,000	BD, BR, BRD, BQ, BQC, GFCB	100,000 ①
	CHH_	100,000	BD, BR, BRD, BQ, BQC, GFCB, CH, CHT, CH3, CH-GFCI	100,000
Main Switch Module Type 1MFS_, 3MFS_ with Class T Fuse, 1200 Ampere Maximum	BRHH	42,000	BD, BR, BRD, BQ, BQC, GFCB, CH, CHT, CH3, CH-GFCI	100,000
Main Switch Module Type 1BPS_, 3BPS_ with Class L Fuse, 1200 – 1600 Amperes	BR_, CC_, BW_	10,000	BD, BR, BRD, BQ, BQC, GFCB, CH, CHT, CH3, CH-GFCI	10,000
	BRH_	22,000		22,000
	BWH_, CHH_H2	25,000		25,000
	BRHH_, CHH_H4	42,000		42,000
	CHH_	100,000		100,000
Main Breaker Module Type 1MCB_, 3MCB_ with LC, LD, LSE (600 Ampere Maximum) MC, MA, MDL (800 Ampere Maximum)	BR_, CC_, BW_	10,000	BD, BR, BRD, BQ, BQC, GFCB, CH, CHT, CH3, CH-GFCI	10,000
	BRH_	22,000		22,000
	BWH_, CHH_H2	25,000		25,000
	BRHH_, CHH_H4	42,000		42,000
Main Breaker Module Type 1MCB_, 3MCB_ with ND 1200 Ampere Maximum	CHH_	100,000	BD, BR, BRD, BQ, BQC, GFCB, CH, CHT, CH3, CH-GFCI	100,000
	BRHH_	42,000	BD, BR, BRD, BQ, BQC, GFCB	65,000
Main Breaker Module Type 1MCB_, 3MCB_ with LHE, HLD, LDC (600 Ampere Maximum) HMDL (800 Ampere Maximum) NBY, HND, NDC (1200 Ampere Maximum)	BR_, CC_, BW_	10,000	BD, BR, BRD, BQ, BQC, GFCB, CH, CHT, CH3, CH-GFCI	10,000
	BRH_	22,000		22,000
	BWH_, CHH_H2	25,000		25,000
	BWH_, CHH_H4	42,000		42,000
	CHH_	100,000		100,000

① 100,000 with Class T fuse, 600 ampere maximum.

Power Outlet Panels

Surface Mount

Un-metered, Metered Ring Style, Metered Ringless, Metered Ring Style Bottom Fed **5-6**

Metered Ringless Bottom Fed **5-7**

Pedestal Mount — Un-metered, Metered Ring Style, Metered Ringless. **5-7**

Back-to-Back Pedestal Mount — Un-metered, Metered Ring Style and Metered Ringless. . . . **5-8**

Mobile Home Pedestals — Ring and Ringless . . . **5-8**

Power Outlet Panel Accessories **5-9**

Power Outlet Panel Dimensions. **5-11**



Power Outlet Panels

Product Description

Eaton’s Cutler-Hammer® Power Outlet Panel (POP) is a device designed for outdoor service to meet temporary power requirements at construction sites and recreational vehicle parks. Construction sites and RV parks need to provide a safe and reliable means for users to access electricity. POPs provide the outlets for electrical access.

Features, Functions and Benefits

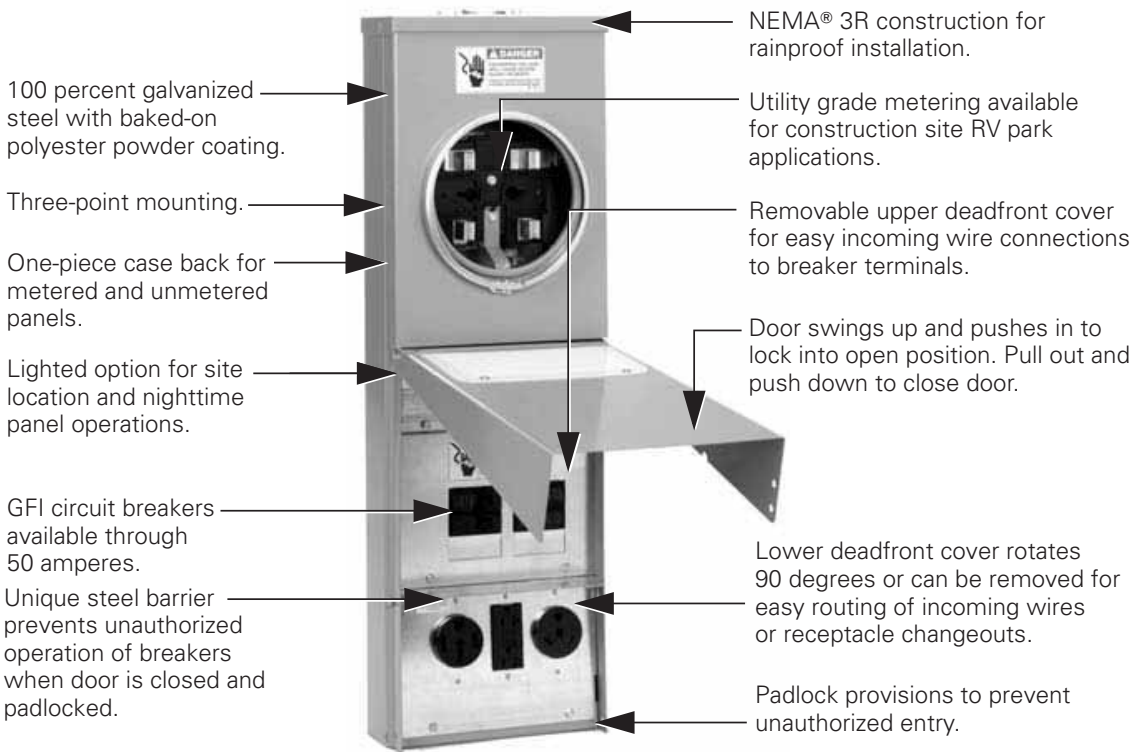
- ✓ Unit arrives assembled, prewired, factory tested to UL® 231 and ready to install.
- ✓ Available in three mounting styles: surface, pedestal and back-to-back.
- ✓ Available in three metering styles: unmetered, metered ring type and metered ringless type.
- ✓ Padlockable doors with or without plugs connected, preventing power theft, vandalism or unauthorized breaker operation.
- ✓ Exclusive time-saving design features: Removable upper deadfront cover, providing easy connection of incoming wire to the lugs; lower deadfront cover rotates 90 degrees for easy routing of incoming wire.
- ✓ Rugged, heavy-duty 100% galvanized-steel enclosure with special coating that provides extra durability and longer life.
- ✓ Door swings open and stays open for easy interior access and convenience during installation.
- ✓ Suitable for service entrance applications.
- ✓ Variety of accessories available.

Cutler-Hammer Quick-ProSM



All you need to know to save time and make more money. Specified on certain Cutler-Hammer products, the Quick-Pro symbol allows for immediate recognition of products that are designed for straightforward installation. When you see Quick-Pro, you know you can install quickly — sometimes up to 50% less than the usual installation time — and move onto your next job.

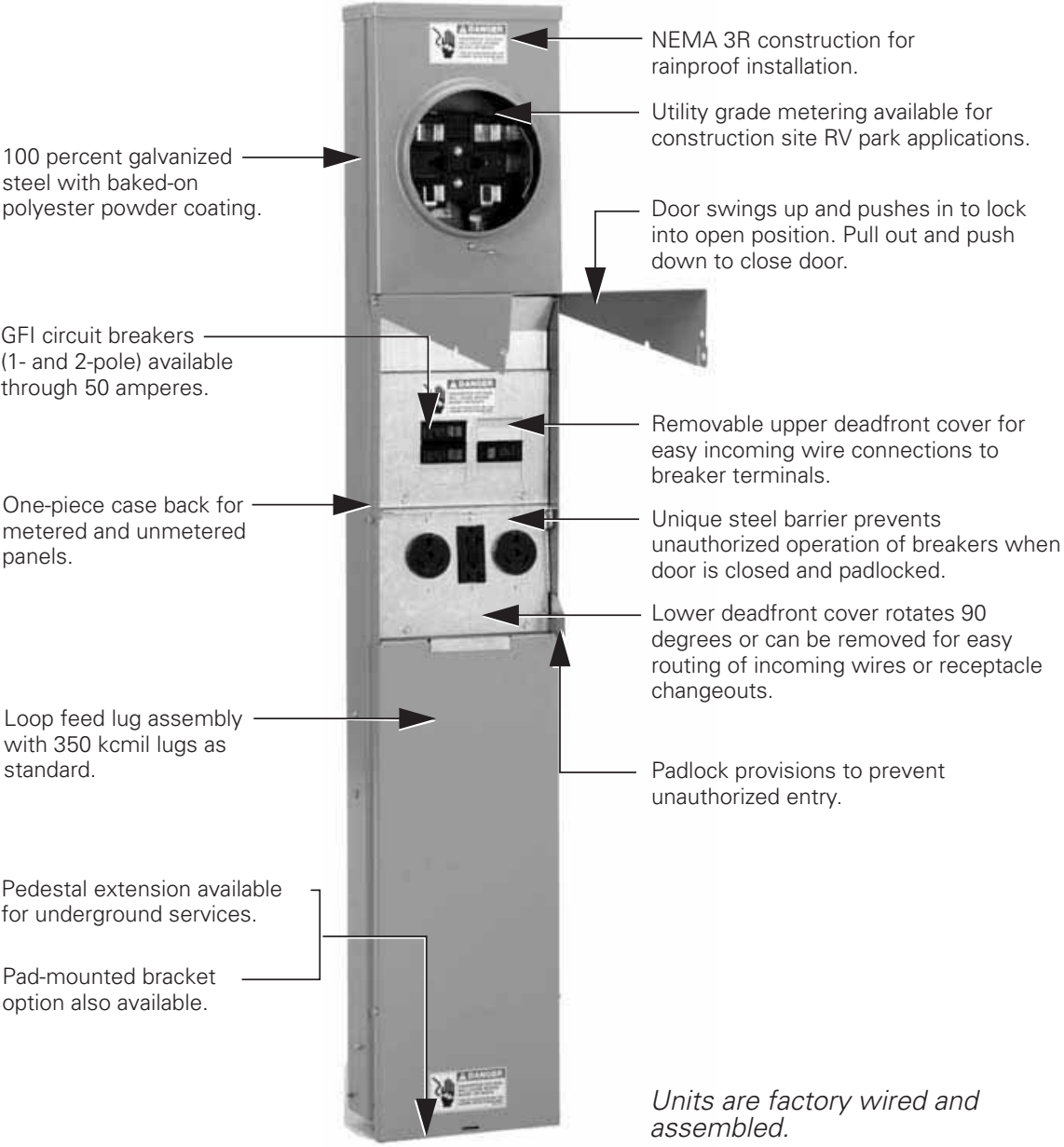
SURFACE
UNITS



Metered units available (with meter on top or bottom).

Units are factory wired and assembled.

PEDESTAL
UNITS



Units are factory wired and assembled.

**SURFACE
UNITS**

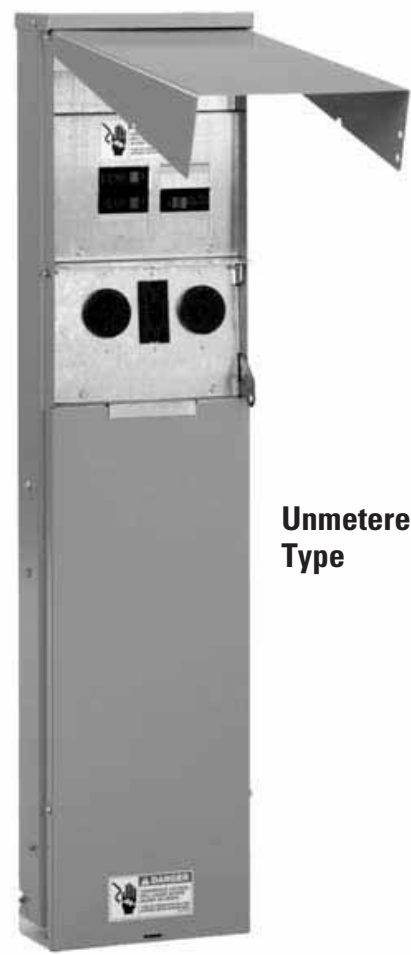


**Unmetered
Type**



**Metered Ring
or Ringless**

**PEDESTAL
UNITS**



**Unmetered
Type**



**Metered
Ringless Type**



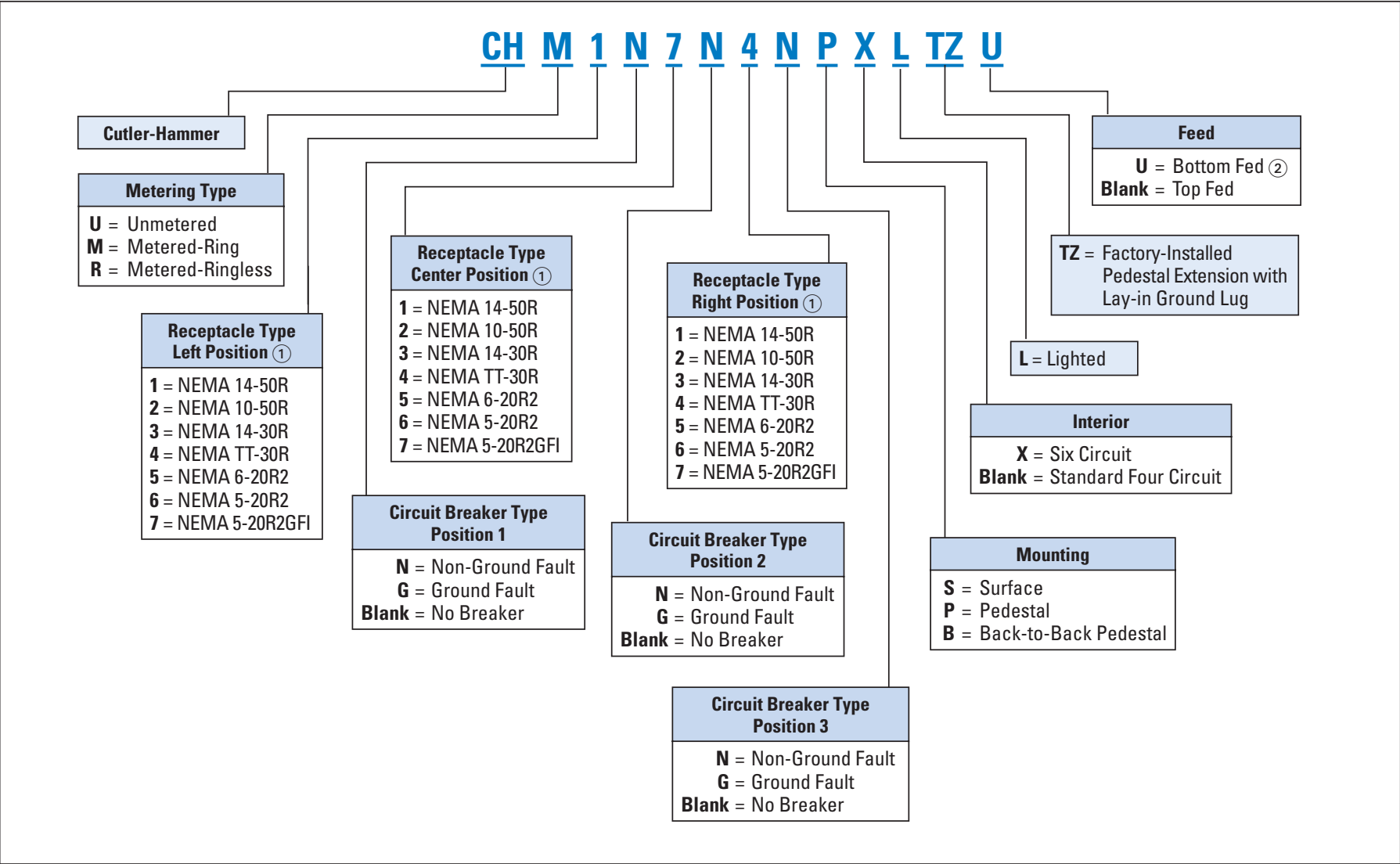
**Metered
Ring Type**

Application Photos



Catalog Numbering System

TABLE 5-1. CATALOG NUMBERING SYSTEM



① For receptacle configurations, see **Table 5-2** below. Twist lock receptacles are not listed in **Table 5-2**, as not all receptacle combinations are valid even though one can create a catalog number above. Contact Eaton for a quote on twist lock receptacles and custom breaker/receptacle configurations.

② Only available with metered surface mount units.

TABLE 5-2. RECEPTACLE CONFIGURATION

1		50 ampere, 125/250 volt 3-pole, 4-wire, NEMA 14-50R		20 ampere, 250 volt, 2-pole, 3-wire, NEMA 6-20R2
		2-pole 50 ampere breaker		2-pole 20 ampere breaker
2		50 ampere, 125/250 volt 2-pole, 3-wire, NEMA 10-50R		20 ampere, 125 volt, 2-pole, 3-wire, NEMA 5-20R2
		2-pole 50 ampere breaker		1-pole 20 ampere breaker
3		30 ampere, 125/250 volt 3-pole, 4-wire, NEMA 14-30R		20 ampere, 125 volt, 2-pole, 3-wire, NEMA 5-20R2GFI
		2-pole 30 ampere breaker		1-pole 20 ampere breaker
4		30 ampere, 125 volt 2-pole, 3-wire, NEMA TT-30R		
		1-pole 30 ampere breaker		

Data Tables

TABLE 5-3. SURFACE TYPE

Ampere Series	Receptacle Description			Breaker Description			Catalog Number	UPC Code
	Position			1st	2nd	3rd		
	Left	Center	Right					
Unmetered								
20/20/20	5-20R2	5-20R2	6-20R2	GFI	GFI	GFI	CHU6G6G5GS	782114203927
20/20/20	5-20R2GFI	5-20R2GFI	6-20R2	Non-GFI	Non-GFI	Non-GFI	CHU7N7N5NS	782114203941
20/20/20	5-20R2GFI	5-20R2GFI	6-20R2	Non-GFI	Non-GFI	GFI	CHU7N7N5GS	782114215753
50/20/30	14-50R	5-20R2GFI	TT-30R	Non-GFI	Non-GFI	Non-GFI	CHU1N7N4NS	782114203828
50/20/30	14-50R	5-20R2GFI	5-20R2GFI	GFI	Non-GFI	Non-GFI	CHU1G7N7NS	782114215722
30/20	TT-30R	5-20R2GFI	—	Non-GFI	Non-GFI	—	CHU4N7NS	782114203743
20/20	5-20R2GFI	5-20R2GFI	—	Non-GFI	Non-GFI	—	CHU7N7NS	782114203774
50/20	14-50R	5-20R2GFI	—	GFI	Non-GFI	—	CHU1G7NS	782114215685
50/20	14-50R	5-20R2GFI	—	Non-GFI	Non-GFI	—	CHU1N7NS	782114203705
50/20/50	14-50R	5-20R2GFI	14-50R	Non-GFI	Non-GFI	Non-GFI	CHU1N7N1NSX ①	782114203811
50	14-50R	—	—	Non-GFI	—	—	CHU1NS	782114203668
50/20	10-50R	5-20R2GFI	—	GFI	Non-GFI	—	CHU2G7NS	782114215692
30/30/20	TT-30R	5-20R2GFI	TT-30R	Non-GFI	Non-GFI	Non-GFI	CHU4N7N4NS	782114203903
50/20	10-50R	5-20R2GFI	—	Non-GFI	Non-GFI	—	CHU2N7NS	782114203729
30	TT-30R	—	—	Non-GFI	—	—	CHU4NS	782114203675
Metered — Ring								
50/20/20	14-50R	5-20R2GFI	5-20R2GFI	GFI	Non-GFI	Non-GFI	CHM1G7N7NS	782114215586
20/20	5-20R2GFI	5-20R2GFI	—	Non-GFI	Non-GFI	—	CHM7N7NS	782114202838
20/20/20	5-20R2GFI	5-20R2GFI	6-20R2	Non-GFI	Non-GFI	GFI	CHM7N7N5GS	782114215616
20/20/20	5-20R2GFI	5-20R2GFI	6-20R2	Non-GFI	Non-GFI	Non-GFI	CHM7N7N5NS	782114203002
50/30/20	14-50R	5-20R2GFI	TT-30R	Non-GFI	Non-GFI	Non-GFI	CHM1N7N4NS	782114202883
50/20	14-50R	5-20R2GFI	—	Non-GFI	Non-GFI	—	CHM1N7NS	782114202777
20/20	6-20R2	5-20R2GFI	—	Non-GFI	Non-GFI	—	CHM5N7NS	782114215630
Metered — Ringless								
50/20	14-50R	5-20R2GFI	—	GFI	Non-GFI	—	CHR1G7NS	782114219072
20/20	5-20R2GFI	5-20R2GFI	—	Non-GFI	Non-GFI	—	CHR7N7NS	782114203293
50/20/20	14-50R	5-20R2GFI	5-20R2GFI	GFI	Non-GFI	Non-GFI	CHR1G7N7NS	782114239834
50/20	10-50R	5-20R2GFI	—	GFI	Non-GFI	—	CHR2G7NS	782114239827
50/20	14-50R	5-20R2GFI	—	Non-GFI	Non-GFI	—	CHR1N7NS	782114203248
20/20/20	5-20R2GFI	5-20R2GFI	5-20R2GFI	Non-GFI	Non-GFI	Non-GFI	CHR7N7N7NS	782114203477
30/20/20	14-30R	5-20R2GFI	5-20R2GFI	Non-GFI	Non-GFI	Non-GFI	CHR3N7N7NS	782114203415
50/30/20	14-50R	5-20R2GFI	TT-30R	Non-GFI	Non-GFI	Non-GFI	CHR1N7N4NS	782114203347
Metered — Ring — Bottom Fed								
20/20	5-20R2GFI	5-20R2GFI	—	Non-GFI	Non-GFI	—	CHM7N7NSU	782116153275
20/20/20	5-20R2GFI	5-20R2GFI	6-20R2	Non-GFI	Non-GFI	GFI	CHM7N7N5GSU	782116153305
50/20/20	14-50R	5-20R2GFI	5-20R2GFI	GFI	Non-GFI	Non-GFI	CHM1G7N7NSU	782116153299

① The “X” suffix indicates that a six circuit interior is provided, instead of the standard four circuit interior.

Note: For receptacle and circuit breaker configurations, please contact your local Eaton salesperson.

Note: Contact your local Eaton sales office for configurations not listed.

Data Tables

TABLE 5-3. SURFACE TYPE (CONTINUED)

Ampere Series	Receptacle Description			Breaker Description			Catalog Number	UPC Code
	Position			1st	2nd	3rd		
	Left	Center	Right					
Metered — Ringless — Bottom Fed								
20/20	5-20R2GFI	5-20R2GFI	—	Non-GFI	Non-GFI	—	CHR7N7NSU	782116153268
50/20	14-50R	5-20R2GFI	—	GFI	Non-GFI	—	CHR1G7NSU	782116153282
50/20	10-50R	5-20R2GFI	—	GFI	Non-GFI	—	CHR2G7NSU	782116153381
20/20/20	5-20R2GFI	5-20R2GFI	6-20R2	Non-GFI	Non-GFI	GFI	CHR7N7N5GSU	782116153312
20/20/20	5-20R2GFI	5-20R2GFI	6-20R2	Non-GFI	Non-GFI	Non-GFI	CHR7N7N5NSU	782116153329
20/20/20	5-20R2GFI	5-20R2GFI	5-20R2GFI	Non-GFI	Non-GFI	Non-GFI	CHR7N7N7NSU	782116153374
30/20/20	14-30R	5-20R2GFI	5-20R2GFI	Non-GFI	Non-GFI	Non-GFI	CHR3N7N7NSU	782116153336
30/20/20	14-30R	5-20R2GFI	5-20R2GFI	GFI	Non-GFI	Non-GFI	CHR3G7N7NSU	782116153343
50/20/20	14-50R	5-20R2GFI	5-20R2GFI	GFI	Non-GFI	Non-GFI	CHR1G7N7NSU	782116153367
50/20/30	14-50R	5-20R2GFI	TT-30R	Non-GFI	Non-GFI	Non-GFI	CHR1N7N4NSU	782116153350

Note: For receptacle and circuit breaker configurations, please contact your local Eaton salesperson.

Note: Contact your local Eaton sales office for configurations not listed.

TABLE 5-4. PEDESTAL TYPE

Ampere Series	Receptacle Description			Breaker Description			Catalog Number	UPC Code
	Position			1st	2nd	3rd		
	Left	Center	Right					
Unmetered								
50/30/20	14-50R	5-20R2GFI	TT-30R	Non-GFI	Non-GFI	Non-GFI	CHU1N7N4NP CHU4N7NP	782114203194
30/20	TT-30R	5-20R2GFI	—	Non-GFI	Non-GFI	—		782114203170
50/30/20	14-50R	5-20R2GFI	TT-30R	Non-GFI	Non-GFI	Non-GFI	CHU1N7N4NPTZ CHU4N7N4NP	782114342886
30/30/20	TT-30R	5-20R2GFI	TT-30R	Non-GFI	Non-GFI	Non-GFI		782114203217
Metered — Ring								
50/30/20	14-50R	5-20R2GFI	TT-30R	Non-GFI	Non-GFI	Non-GFI	CHM1N7N4NP CHM1N7NP	782114203040
50/20	14-50R	5-20R2GFI	—	Non-GFI	Non-GFI	—		782114223154
Metered — Ringless								
50/30/20	14-50R	5-20R2GFI	TT-30R	Non-GFI	Non-GFI	Non-GFI	CHR1N7N4NP	782114203101

Note: For receptacle and circuit breaker configurations, please contact your local Eaton salesperson.

Note: Contact your local Eaton sales office for configurations not listed.

Data Tables

TABLE 5-5. BACK-TO-BACK PEDESTAL TYPE

Ampere Series	Receptacle Description			Breaker Description			Catalog Number ①	UPC Code
	Position			1st	2nd	3rd		
	Left	Center	Right					
Unmetered ②								
30/30/20	TT-30R	5-20R2GFI	TT-30R	Non-GFI	Non-GFI	Non-GFI	CHU4N7N4NB	782114203644
Metered — Ring ②								
30/20	TT-30R	5-20R2GFI	—	Non-GFI	Non-GFI	—	CHM4N7NB	782114203484
50/30/20	14-50R	5-20R2GFI	TT-30R	Non-GFI	Non-GFI	Non-GFI	CHM1N7N4NB	782114203507
Metered — Ringless ②								
50/30/20	14-50R	5-20R2GFI	TT-30R	Non-GFI	Non-GFI	Non-GFI	CHR1N7N4NBTZ	782114332498

^① Consult Power Outlet Estimator on Eaton intranet for additional combinations. Contact your local Eaton salesperson.
^② The pedestal back-to-back units have receptacles and circuit breakers as shown for each panel and share one common pedestal with loop feed lugs.

Note: For receptacle and circuit breaker configurations, please contact your local Eaton salesperson.

Note: Contact your local Eaton sales office for configurations not listed.

TABLE 5-6. MOBILE HOME PANELS ^③

Amperes	Security	Interior	Main	Branch Breakers	Mounting	Receptacles	Catalog Number	UPC Code
100	Ring	4/8	BR2100	BR	Pedestal	None	MHM100P	782114981689
100	Ring	4/8	BR2100	BR	Back-to-Back	None	MHM100B	782114981696
100	Ringless	4/8	BR2100	BR	Pedestal	None	MHR100P	782114981702
100	Ringless	4/8	BR2100	BR	Back-to-Back	None	MHR100B	782114981719
150	Ring	8/16	BWH2150	BR	Pedestal	None	MHM150P	782116175352
150	Ring	8/16	BWH2150	BR	Back-to-Back	None	MHM150B	782116175345
150	Ringless	8/16	BWH2150	BR	Pedestal	None	MHR150P	782116164752
150	Ringless	8/16	BWH2150	BR	Back-to-Back	None	MHR150B	782116164745
200	Ring	8/16	BWH2200	BR	Pedestal	None	MHM200P	782114981726
200	Ring	8/16	BWH2200	BR	Back-to-Back	None	MHM200B	782114981733
200	Ringless	8/16	BWH2200	BR	Pedestal	None	MHR200P	782114981740
200	Ringless	8/16	BWH2200	BR	Back-to-Back	None	MHR200B	782114981757
200	Ringless	8/16	BWH2200	BR	Pedestal	Qty 1 14-50R Qty 2 TT-30R	MHM200P1N4N4N	782114981764

^③ Pedestal Extension included with Mobile Home Panels.

Accessories

TABLE 5-7. ACCESSORIES AND REPLACEMENT PARTS

Description	Catalog Number	UPC Code
Accessories		
Underground Pedestal Extension Stainless Steel Underground Pedestal Extension Pad-Mount Bracket	CHPEEXT CHPEEXTSS CHPAEXT	782114202739 782114221303 782114202746
Cable TV and Telephone Bracket	CHTELTV	782114202753
Rainproof Conduit Hub 0.75 Inch (19.1 mm) Rainproof Conduit Hub 1.00 Inch (25.4 mm) Rainproof Conduit Hub 1.25 Inch (31.8 mm) Rainproof Conduit Hub 1.50 Inch (38.1 mm)	DS075H1 DS100H1 DS125H1 DS150H1	782113109916 782113109923 782113109930 782113109947
Fluorescent Light Kit — Converts Power Outlet Panel to Lighted Unit, must also order CHOUTCVRL .	CHFLGTKIT	782114634240
Replacement Parts		
Replacement Meter Socket ^① Replacement Meter Socket ^② Replacement Meter Socket — 1 Block Assembly Per Kit ^③	CHPOPMS CHPOPMSN ARP00039CH	782114819999 782116127283 782116036868
5th Jaw Kit ^④ 5th Jaw Kit ^③ Bonding Strap and Mounting Hardware	1MM5JKOP ARP00035CHJ CHBONDST	782116007882 782114004135 782114219263
Horn Bypass — 1 Lug Cap Per Kit; 4 Kits Required Per Device ^③ Horn Bypass — 1 Kit Required Per Device ^④	ARP00777CH 1MMBPH	782114612840 782114380338
Inner Lens for Lighted Power Outlet Panels Loop Feed Lug Assembly for Single Pedestal Loop Feed Lug Assembly for Back-to-Back Pedestal	CHINLENS CHLOOPFDP CHLOOPFDB	782114219270 782114219287 782114219294
Blank Lower Deadfront Cover Lower Deadfront Cover with Duplex Receptacle Opening Lower Deadfront Cover with Duplex, Duplex Receptacle Opening	CHLDFCVR CHLDFCVR1 CHLDFCVR2	782114219300 782114219317 782114219324
Lower Deadfront Cover with Duplex, Duplex, Duplex Receptacle Opening Lower Deadfront Cover with Rectangle Receptacle Opening Lower Deadfront Cover with Rectangle, Rectangle Receptacle Opening	CHLDFCVR3 CHLDFCVR4 CHLDFCVR5	782114219331 782114219348 782114219355
Lower Deadfront Cover with Rectangle, Rectangle, Rectangle Receptacle Opening Lower Deadfront Cover with Duplex, Rectangle Receptacle Opening Lower Deadfront Cover with Duplex, Rectangle, Duplex Receptacle Opening	CHLDFCVR6 CHLDFCVR7 CHLDFCVR8	782114219362 782114219379 782114219386
Lower Deadfront Cover with Rectangle, Rectangle, Duplex Receptacle Opening Lower Deadfront Cover with Round Receptacle Opening Lower Deadfront Cover with Round, Round Receptacle Opening	CHLDFCVR9 CHLDFCVR10 CHLDFCVR11	782114219393 782114219409 782114221280
Lower Deadfront Cover with Round, Duplex Receptacle Opening Lower Deadfront Cover with Round, Duplex, Duplex Receptacle Opening Lower Deadfront Cover with Round, Duplex, Round Receptacle Opening	CHLDFCVR12 CHLDFCVR13 CHLDFCVR14	782114221297 782114219423 782114219430
Lower Deadfront Cover with Round, Rectangle Receptacle Opening Lower Deadfront Cover with Round, Rectangle, Rectangle Receptacle Opening Lower Deadfront Cover with Round, Rectangle, Round Receptacle Opening	CHLDFCVR15 CHLDFCVR16 CHLDFCVR17	782114219447 782114219454 782114219461
Lower Deadfront Cover with Round, Rectangle, Duplex Receptacle Opening Upper Deadfront Cover with Six Breaker Twistouts Upper Deadfront Cover with Provisions for Lighted Option	CHLDFCVR18 CHUDFCVR CHUDFCVRL	782114220795 782114219478 782114219485
Power Head Outer Cover Power Head Outer Cover with Lens	CHOUTCVR CHOUTCVRL	782114219492 782114219508
6-Hole Neutral Assembly with 2/0 Lug 7-Hole Neutral Assembly with 2/0 Lug 5-Hole Ground Bar Kit 10-Hole Ground Bar Kit	CHNEUT CHNEUT1 GBK5 GBK10	782114219515 782114221808 782113099064 782114014561
Replacement Meter Cover — Ring Type Replacement Meter Cover — Ringless ^① Replacement Meter Cover — Ringless ^② Replacement Meter Cover — Ringless ^③	CHPOPRMC CHPOPRLMC CHPOPRLMCN CHPOPRLMCN2	782114838471 782114838488 782116127290 782116641914

^① For power outlet panels manufactured before 12/1/02.
^② For power outlet panels manufactured after 12/1/02.
^③ For power outlet panels with a date code ending in L.
^④ For power outlet panels with a date code not ending in L.



Mobile Home Panel Deadfronts

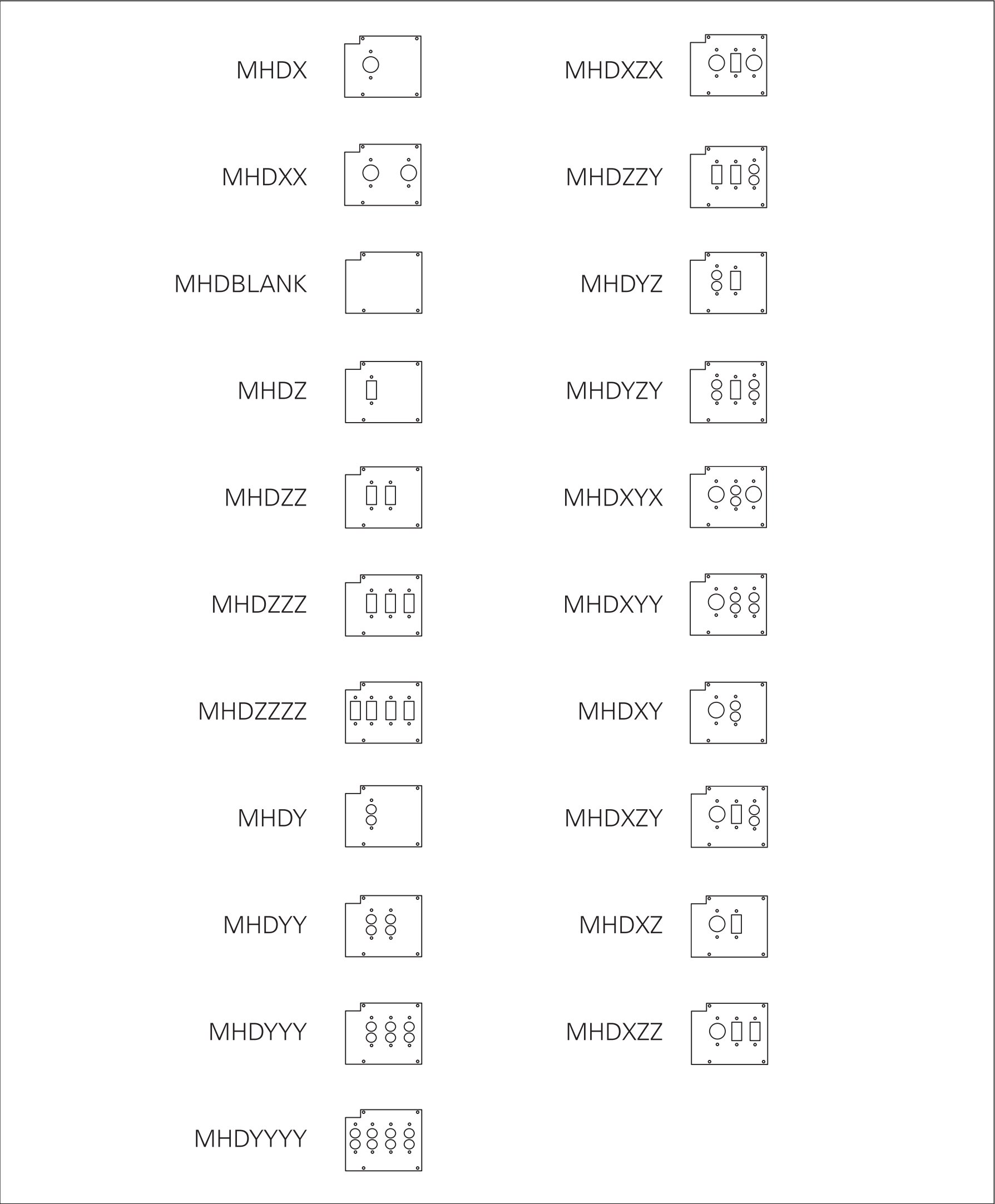


FIGURE 5-1. AVAILABLE RECEPTACLE DEADFRONT KITS — RECEPTACLES AND BREAKERS NOT INCLUDED

DIMENSIONAL DRAWINGS

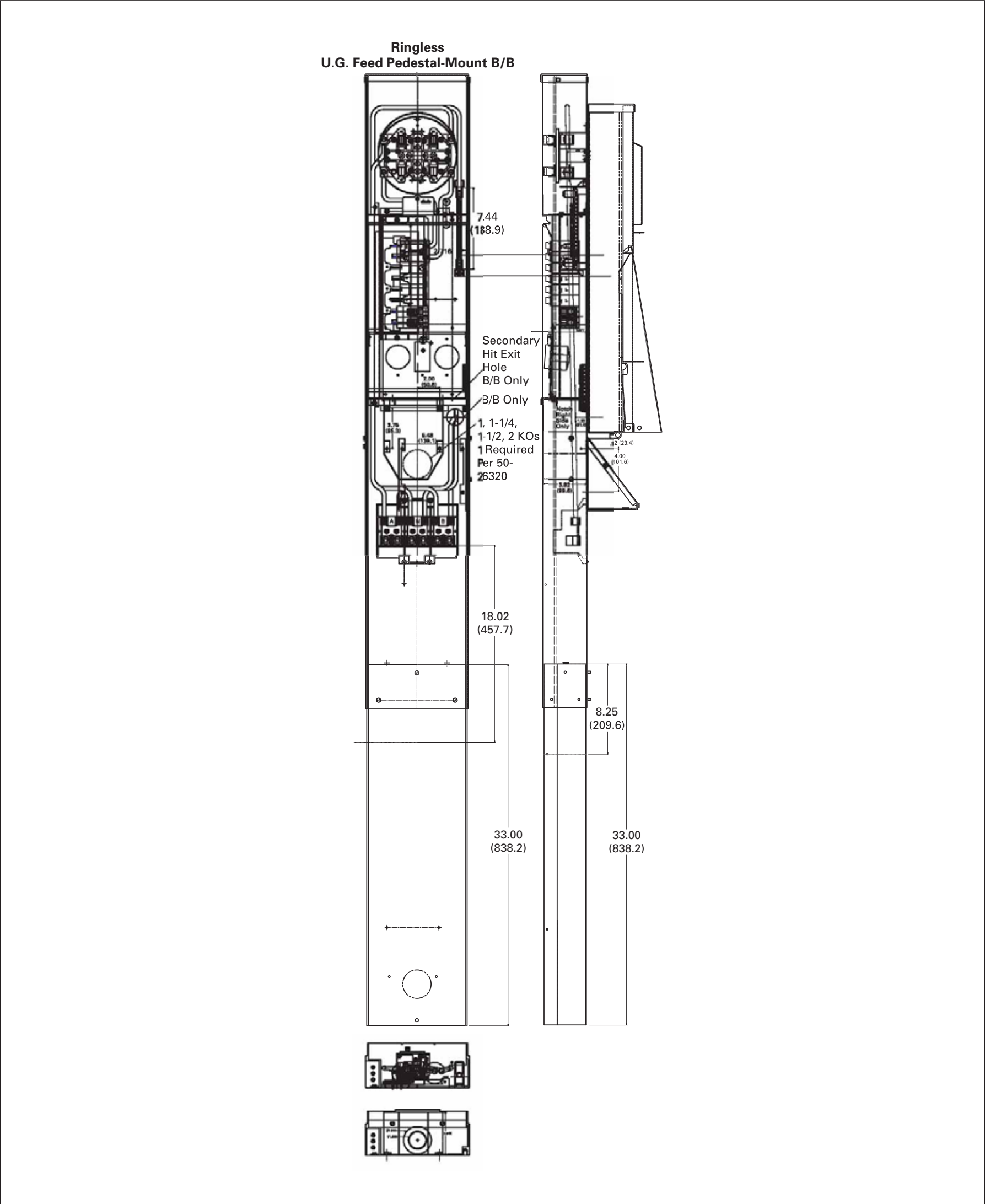


FIGURE 5-2. 100 AMPERES BACK-TO-BACK

DIMENSIONAL DRAWINGS

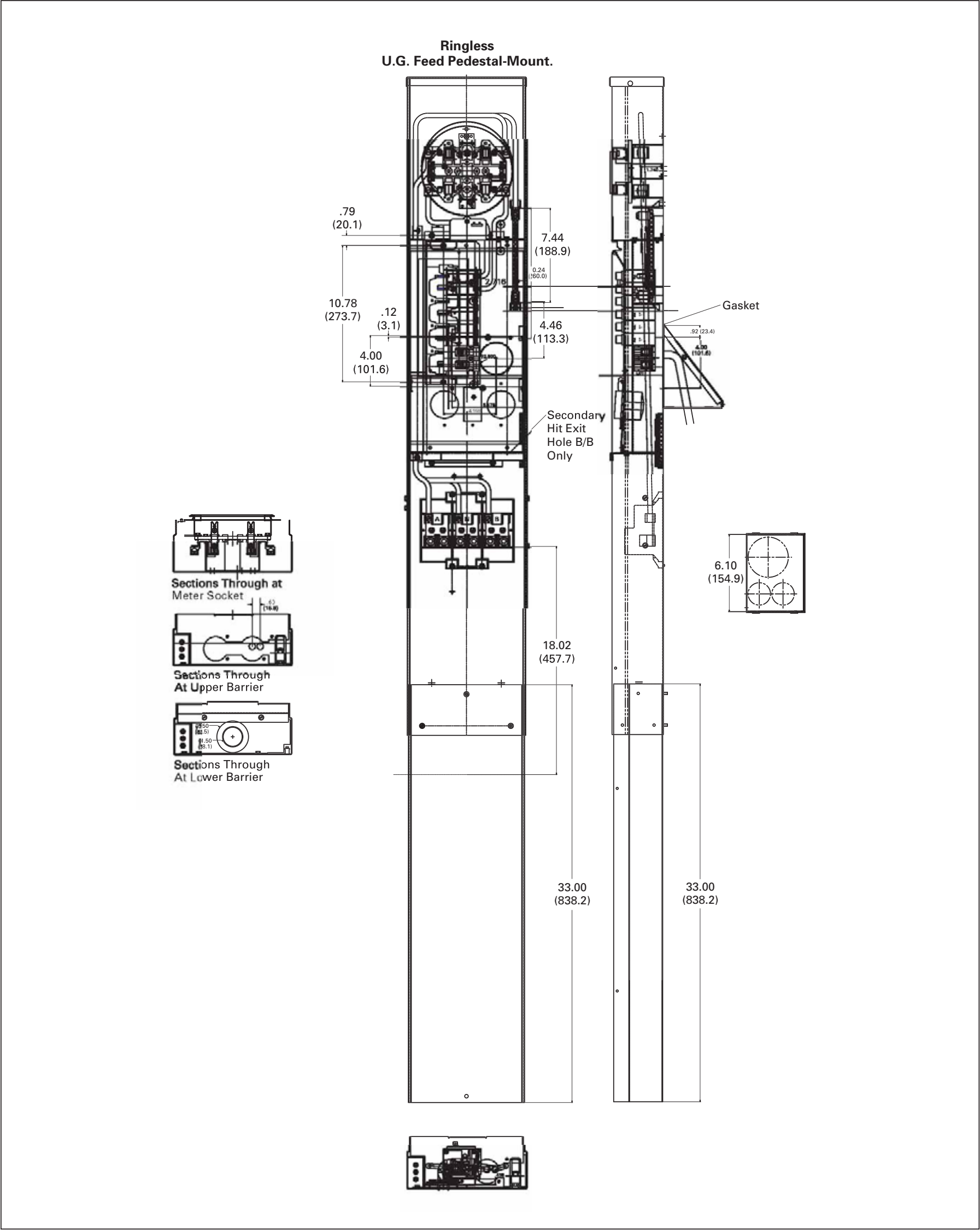


FIGURE 5-3. 100 AMPERE PEDESTAL

DIMENSIONAL DRAWINGS

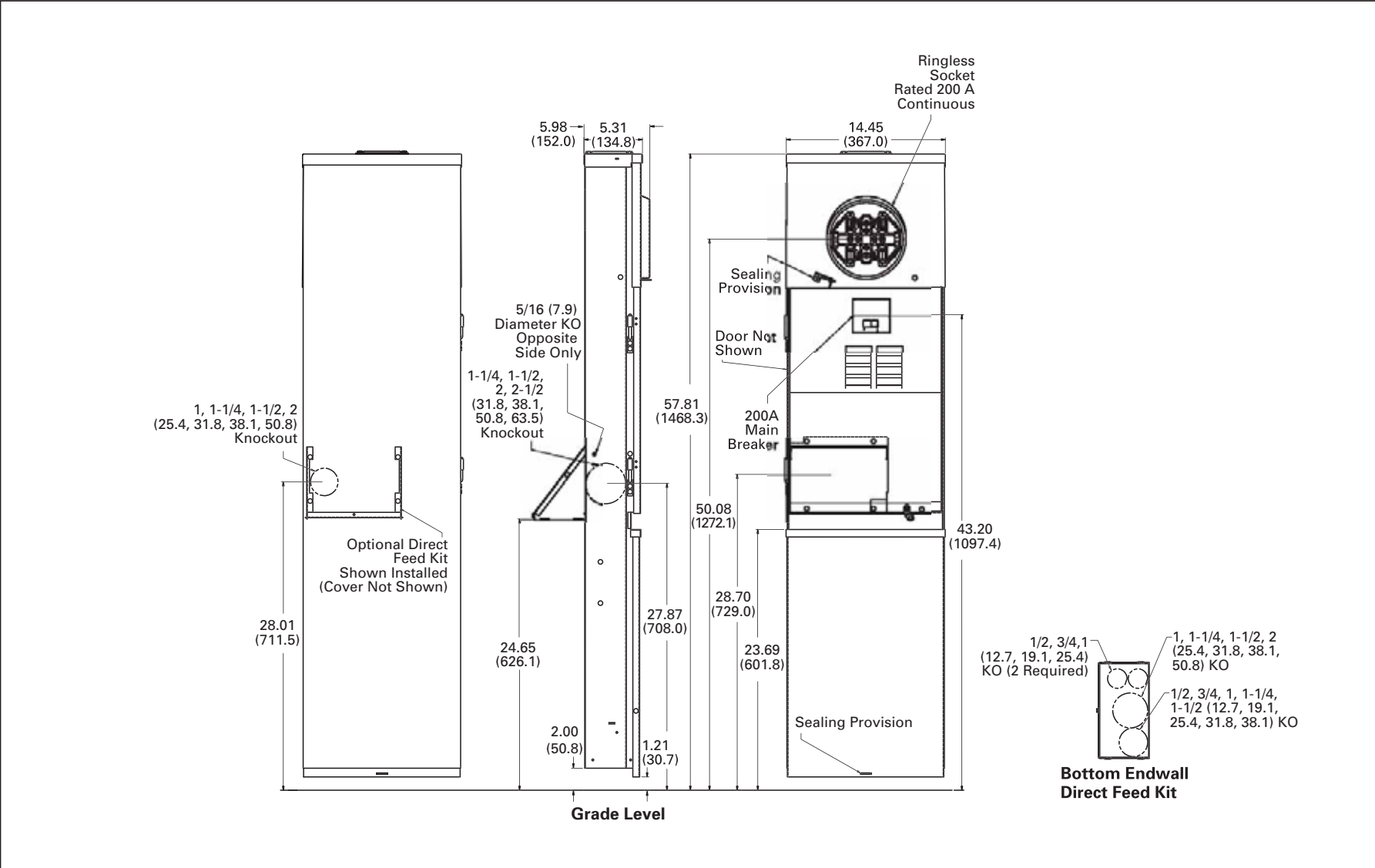


FIGURE 5-4. MOBILE HOME PANEL — RINGLESS SECURITY — PEDESTAL MOUNTING

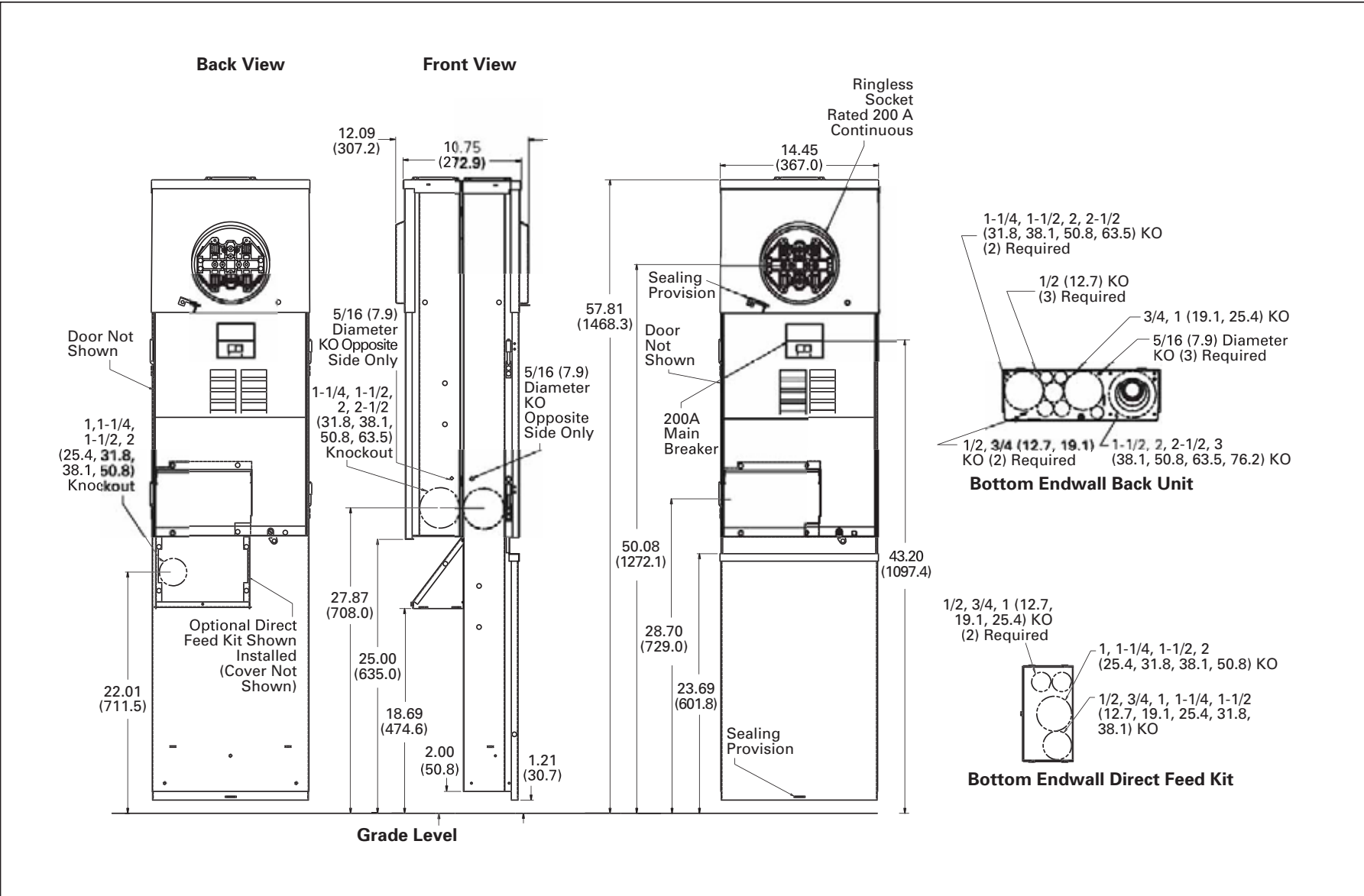


FIGURE 5-5. MOBILE HOME PANEL — RINGLESS SECURITY — BACK-TO-BACK MOUNTING

DIMENSIONAL DRAWINGS

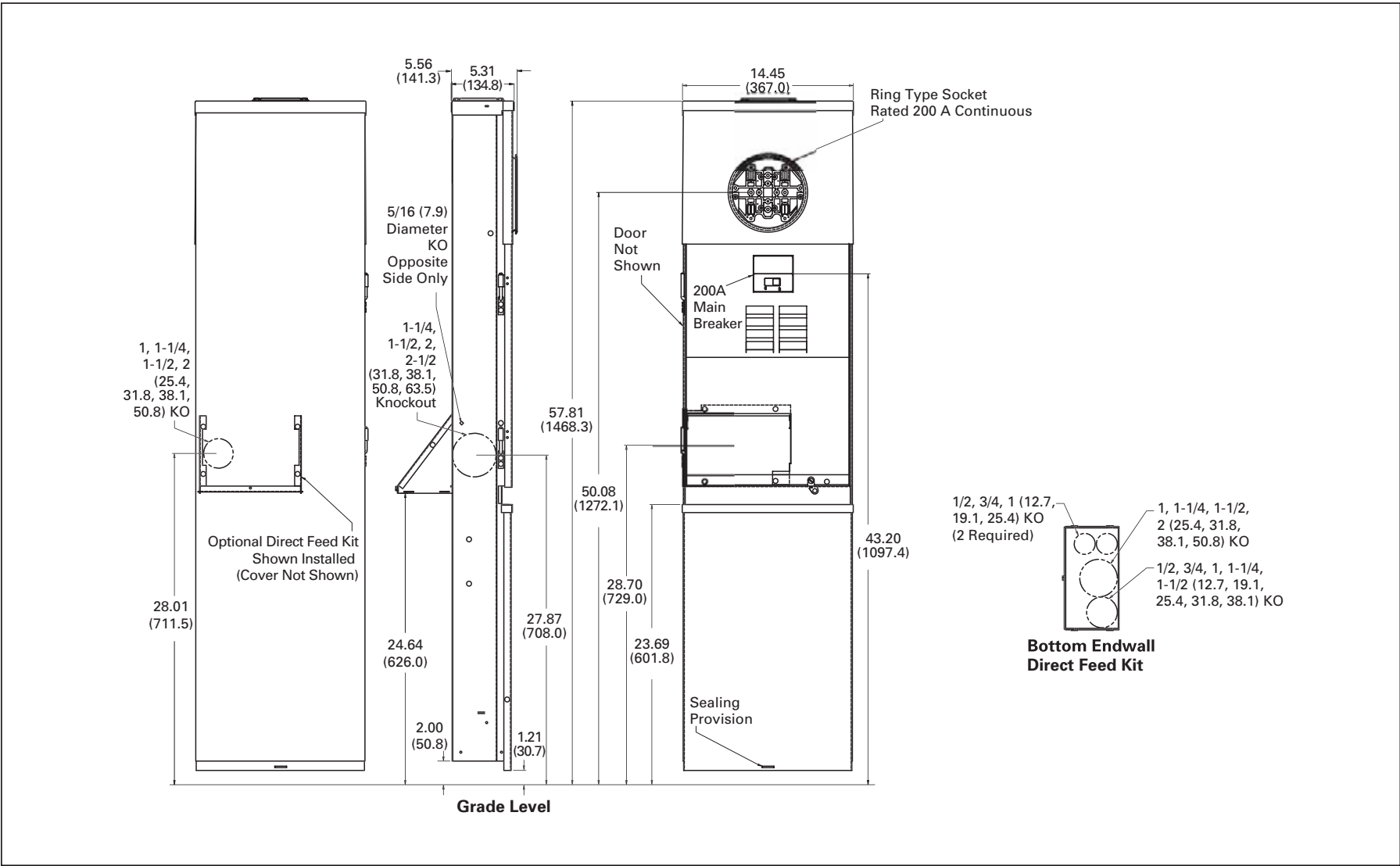


FIGURE 5-6. MOBILE HOME PANEL — RING SECURITY — PEDESTAL MOUNTING

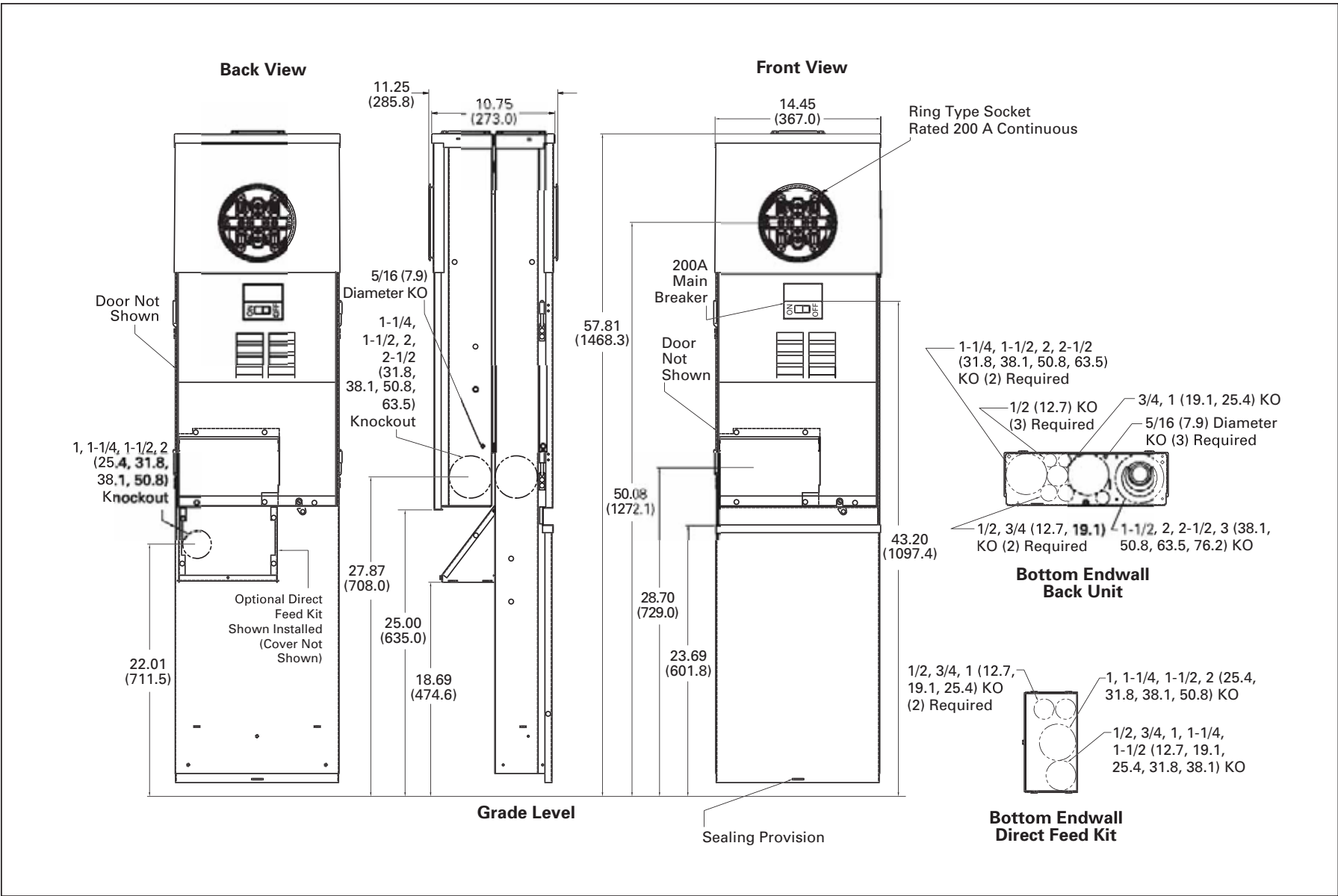


FIGURE 5-7. MOBILE HOME PANEL — RING SECURITY — BACK-TO-BACK MOUNTING

DIMENSIONS IN INCHES (MM) — METERED UNITS (RING AND RINGLESS)

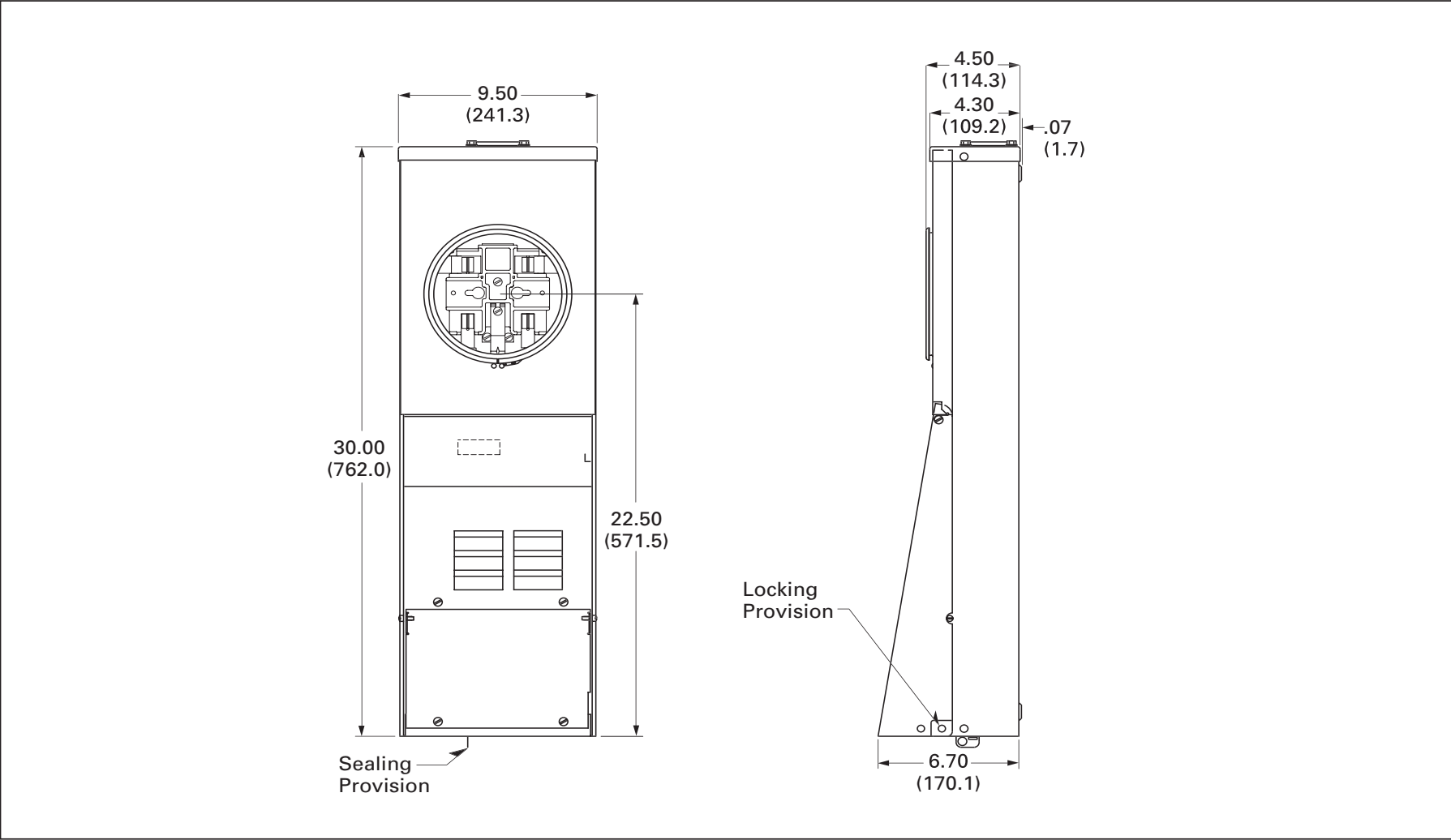


FIGURE 5-8. METERED SURFACE TYPE

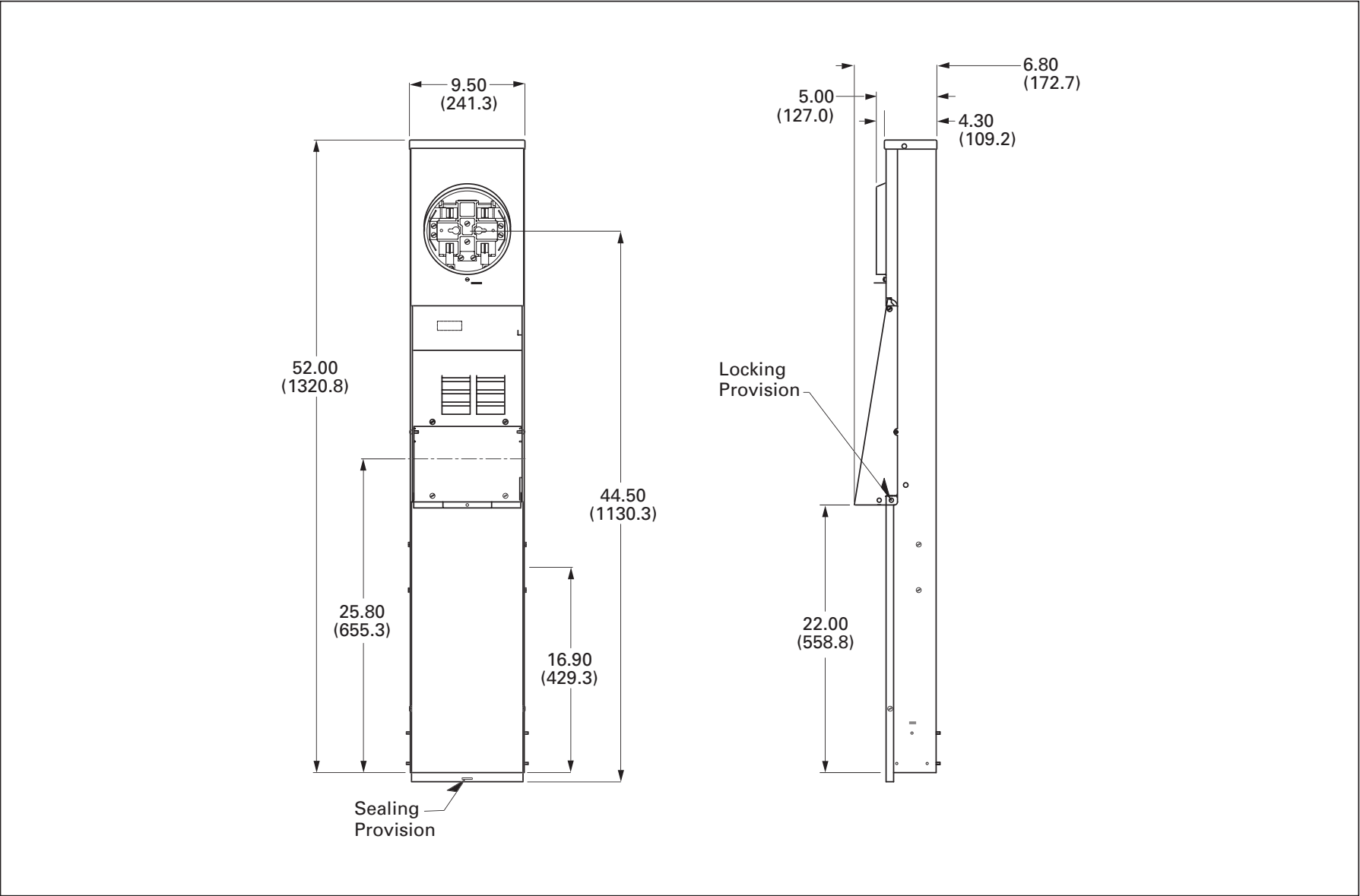


FIGURE 5-9. METERED PEDESTAL TYPE

DIMENSIONS IN INCHES (MM) — METERED UNITS (RING AND RINGLESS)

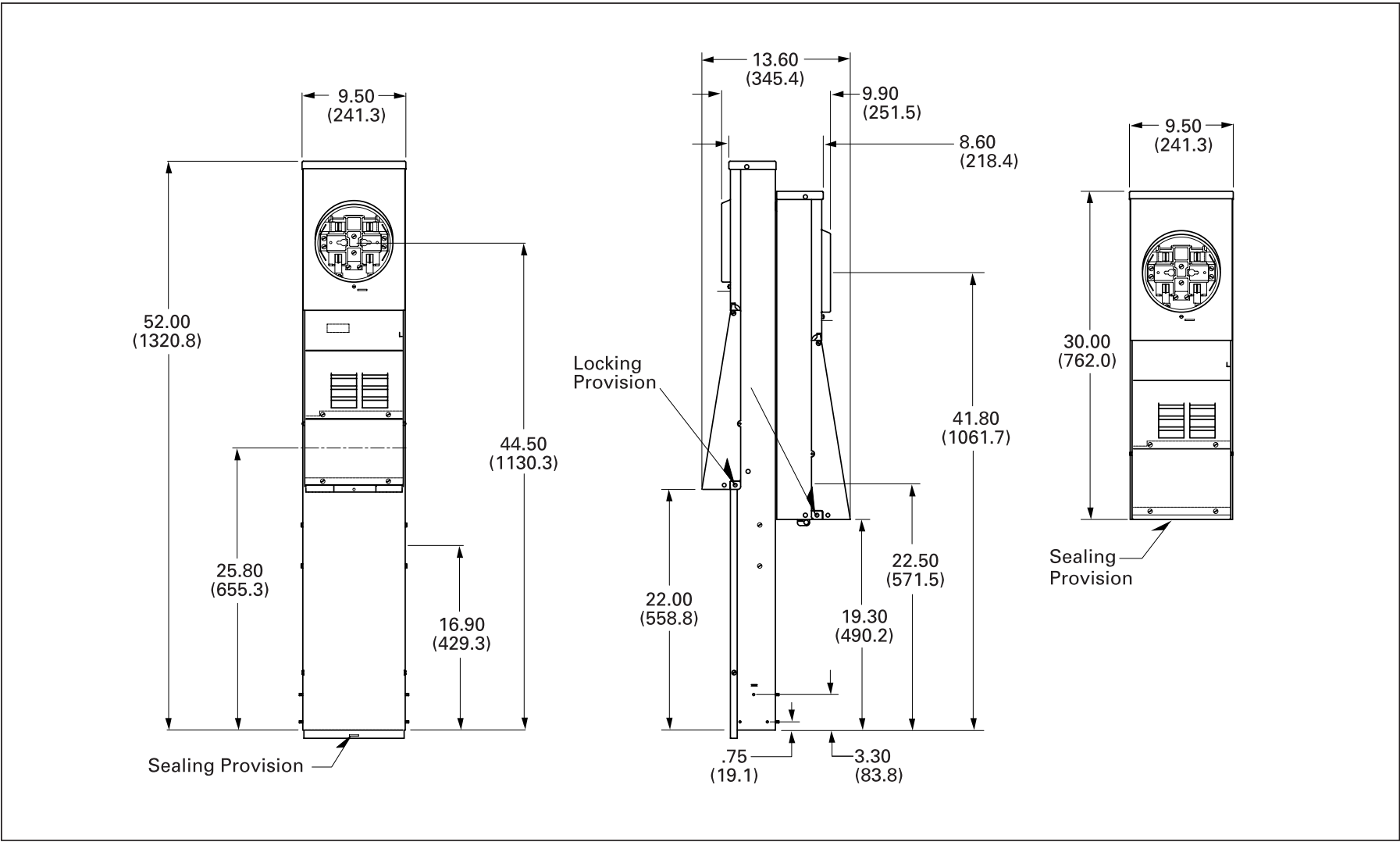


FIGURE 5-10. METERED BACK-TO-BACK PEDESTAL TYPE

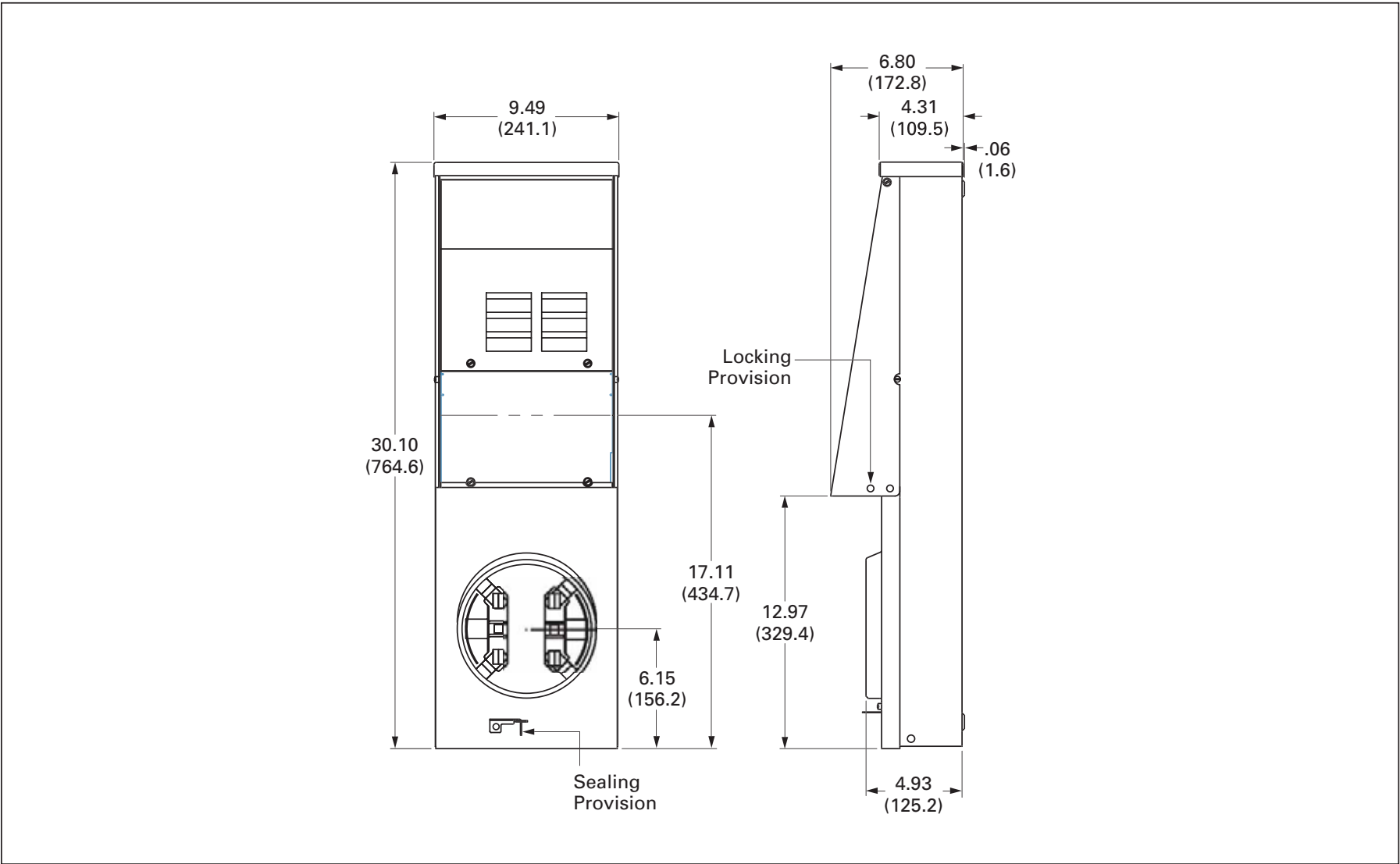


FIGURE 5-11. BOTTOM FED TYPE

DIMENSIONS IN INCHES (MM) — UNMETERED UNITS

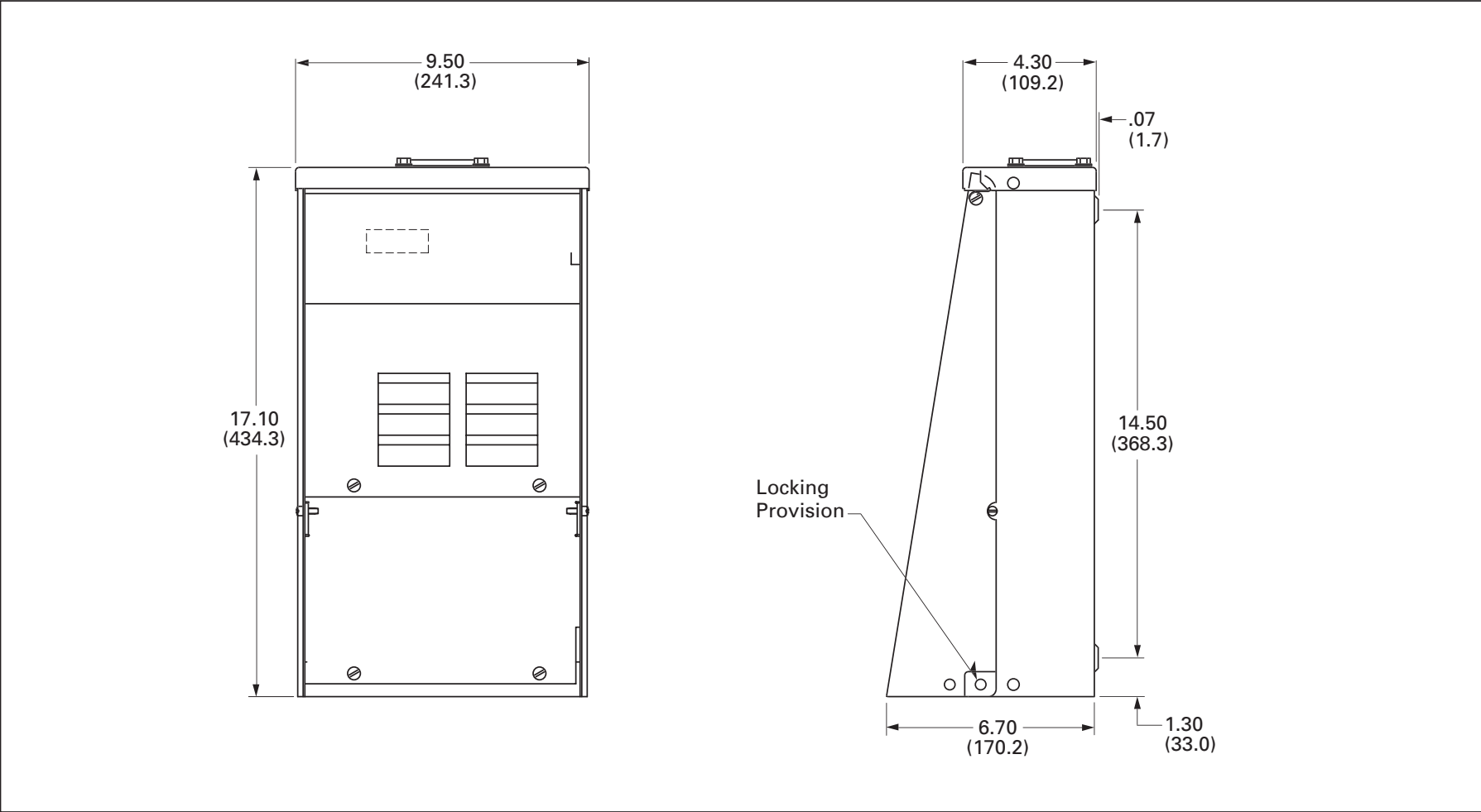


FIGURE 5-12. UNMETERED SURFACE TYPE

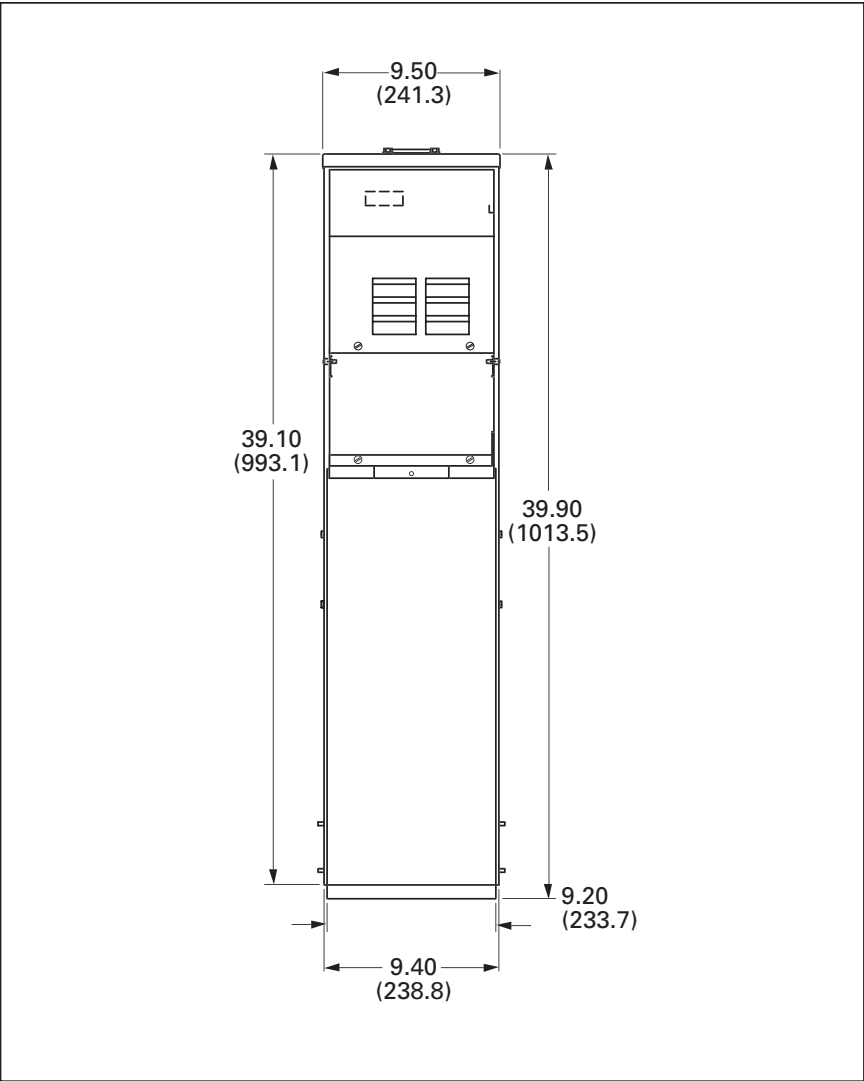


FIGURE 5-13. UNMETERED PEDESTAL TYPE

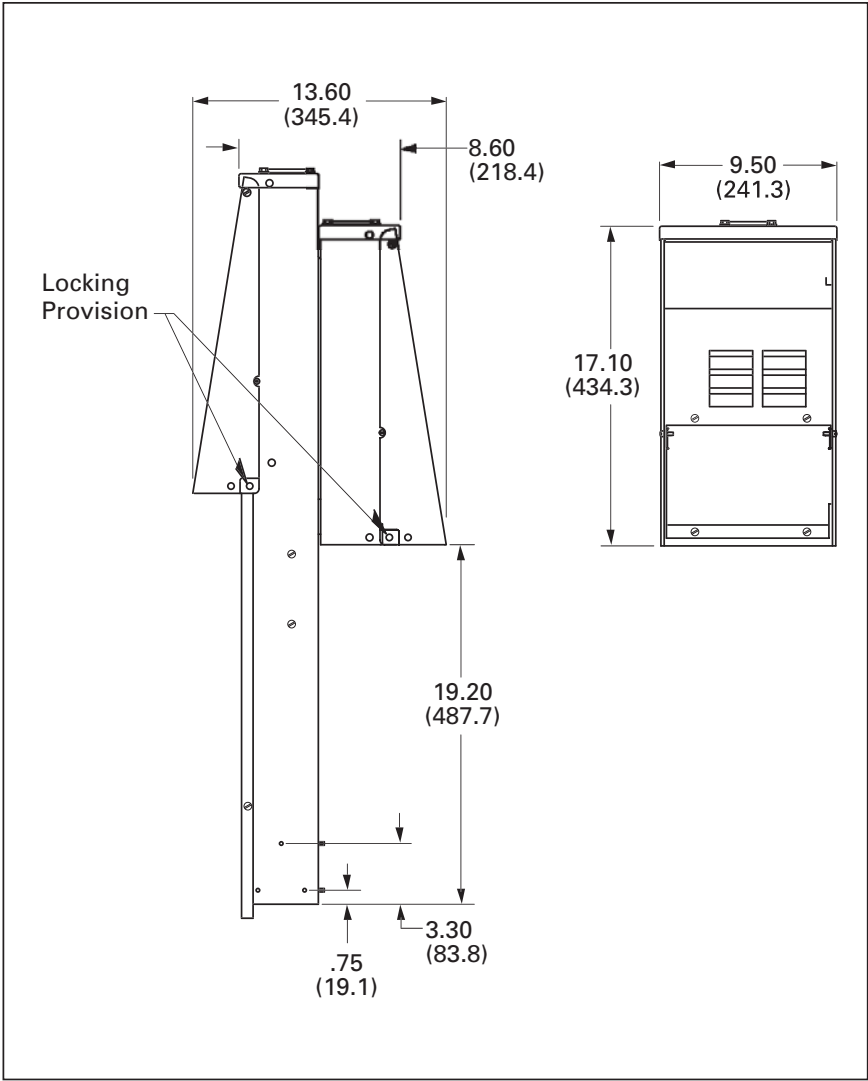


FIGURE 5-14. UNMETERED BACK-TO-BACK PEDESTAL TYPE

Cutler-Hammer is a federally registered trademark of Eaton Corporation. NEMA is the registered trademark and service mark of the National Electrical Manufacturers Association.



Power Outlet Panels

Disconnects

Spa Panels 6-1

Air Conditioner Disconnects

Metallic and Non-Metallic 6-5

With Ground Fault Receptacle. 6-6

With Whips 6-6

Three-Phase. 6-6

Cross-Reference 6-6

General-Duty

Fused Safety Switch — 120/240 V 6-10

Non-fused Safety Switch — 120/240 V 6-11

Heavy-Duty

Fusible Safety Switch — 240 V 6-12

Fusible Safety Switch — 600 V 6-13

Non-fusible Safety Switch – 600 V 6-14

Non-fusible and Fusible Double Throw Safety Switch — 240 V. 6-15

Non-fusible and Fusible Double Throw Safety Switch — 600 V. 6-16

Safety Switch Accessories 6-18

Safety Switch Cross-Reference 6-21

Spa Panels



Spa Panels

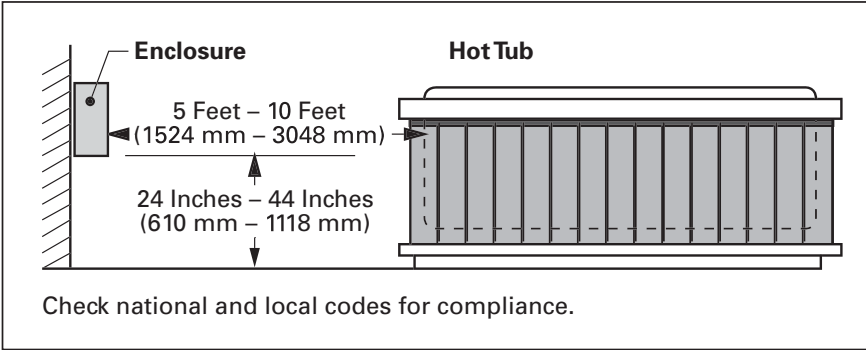


FIGURE 6-1. HOT TUB DIAGRAM

Product Description

A spa panel is a factory-assembled “combination” unit that provides ground fault protection, as well as a convenient way to turn spa pumps on and off. The National Electrical Code® 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 spa. Now you can have both in one simple device and protect your family and friends from serious shock or electrocution.

Features, Functions and Benefits

- ✓ Unit arrives assembled, prewired, factory tested and ready to install.
- ✓ Preinstalled neutral and ground bars.
- ✓ Comes with a 4-circuit interior that allows for two extra 120 volt circuits for convenience receptacles or lighting (Type CH only).
- ✓ Padlockable doors to prevent unauthorized entry.
- ✓ A push-to-test button to ensure the ground fault breaker is working.
- ✓ Door swings open and stays open for easy interior access.

Catalog Numbering System

TABLE 6-1. CATALOG NUMBERING SYSTEM

Type	Amperes	Unit Type
CH = .75-Inch (19.1 mm) BR = 1-Inch (25.4 mm)	30 = 30 40 = 40 50 = 50 60 = 60	SPA = Spa Panel

Cutler-Hammer Quick-ProSM



All you need to know to save time and make more money. Specified on certain Cutler-Hammer products, the Quick-Pro symbol allows for immediate recognition of products that are designed for straightforward installation. When you see Quick-Pro, you know you can install quickly — sometimes up to 50% less than the usual installation time — and move onto your next job.

Data Tables

TABLE 6-2. PRODUCT SELECTION

Main Ampere Rating	Circuit Breaker Included	Enclosure Type	Trim Type Included	Box Size ①	Wire Size Range Cu/Al 60°C or 75°C for Main Lugs	Catalog Number	UPC Code
30	CH230GF	Outdoor	—	6R	#14 – 2 kcmil	CH30SPA	782116141890
40	CH240GF	Outdoor	—	6R	#14 – 2 kcmil	CH40SPA	782116056583
50	CH250GF	Outdoor	—	6R	#14 – 2 kcmil	CH50SPA	782116056590
40	GFCB240	Outdoor	—	5R	#8 – 2 kcmil	BR40SPA ②	786679138045
50	GFCB250	Outdoor	—	5R	#8 – 2 kcmil	BR50SPA ②	782114555866
60	CH260GF	Outdoor	—	6R	#14 – 2 kcmil	CH60SPA	782116056606

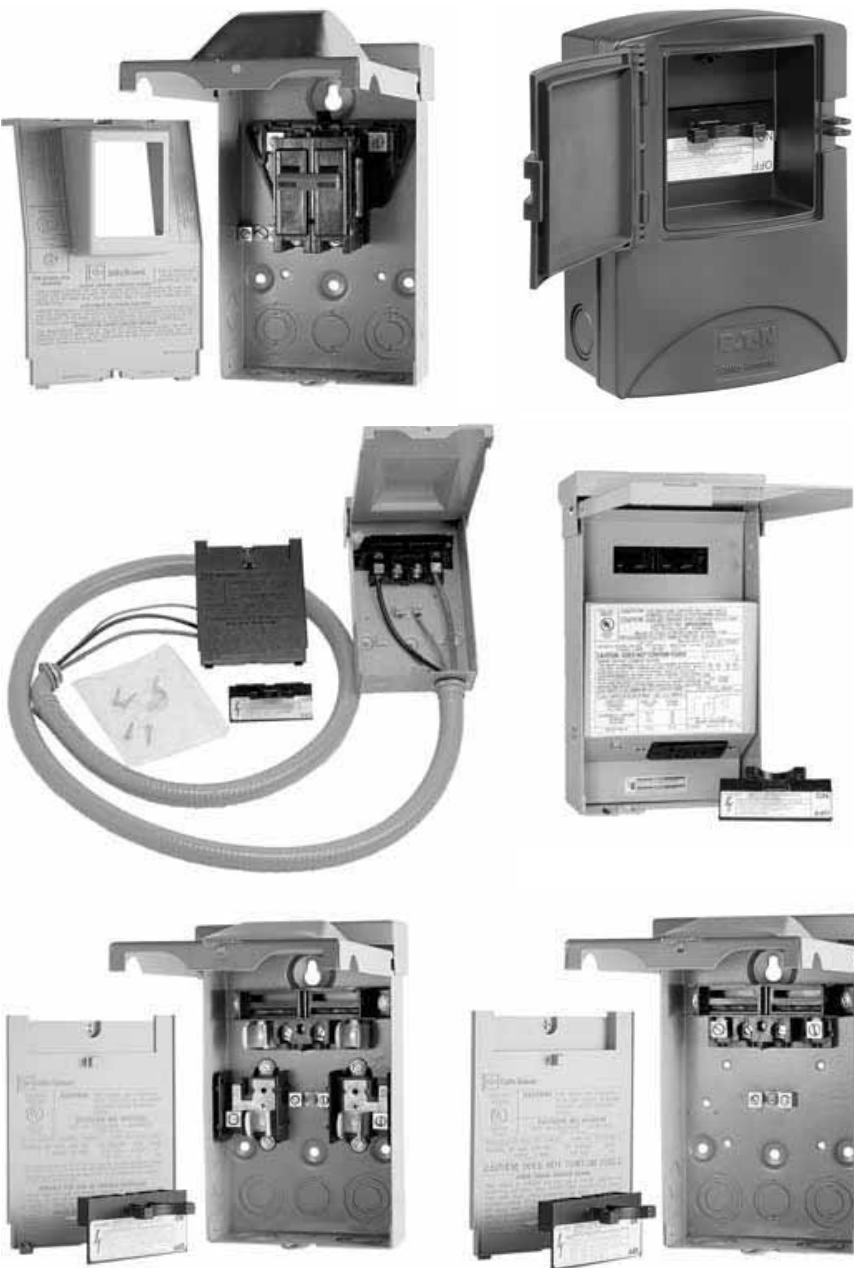
① See Loadcenters Section, **Page 2-18** for dimensions.
② Contains only a two circuit interior while all others contain a four circuit interior.

Cross-Reference

TABLE 6-3. CROSS-REFERENCE SELECTION

Description	Cutler-Hammer®	Square D®	GE® (Midwest)
Single-phase, 4 circuit CH loadcenter with 30 ampere 2-pole ground fault breaker factory installed.	CH30SPA	—	—
Single-phase, 4 circuit CH loadcenter with 40 ampere 2-pole ground fault breaker factory installed.	CH40SPA	—	—
Single-phase, 4 circuit CH loadcenter with 50 ampere 2-pole ground fault breaker factory installed.	CH50SPA	QOE250GFINM	TL412R250GF
Single-phase, 4 circuit CH loadcenter with 60 ampere 2-pole ground fault breaker factory installed.	CH60SPA	—	TL412R260GF
Single-phase, 2 circuit BR loadcenter with 50 ampere 2-pole ground fault breaker factory installed.	BR50SPA	HOME250SPA	TL412R250GF

Air Conditioner Disconnects



Installation

Product Description

An Air Conditioner Disconnect (ACD) is a disconnect located between a loadcenter (distribution panel) and air conditioner. The Cutler-Hammer ACD by Eaton provides an installer or repair personnel with a visible disconnection means when performing maintenance. ACDs are also known as disconnects, pullouts or air conditioner switches.

Features, Functions and Benefits

- ✓ Provides visible means of disconnect.
- ✓ Easy to install.
- ✓ Fused or non-fused.
- ✓ Single-phase or 3-phase.
- ✓ UL® listed, File No. E5239.
- ✓ Separate CSA® approved unit.

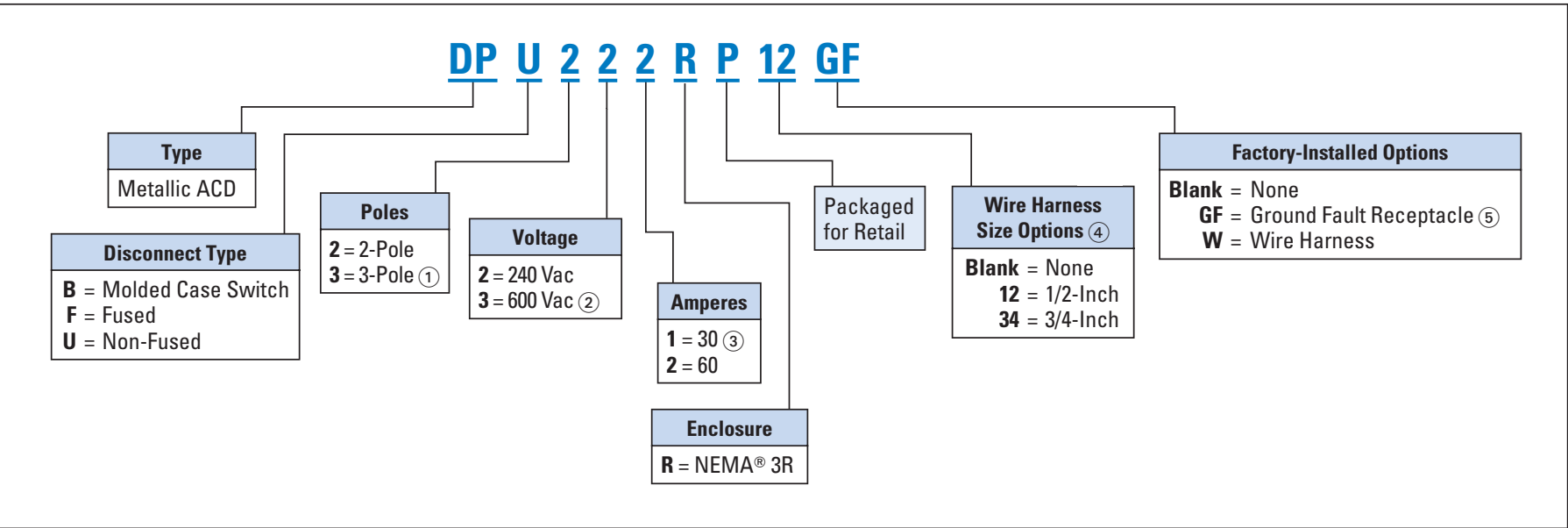
Cutler-Hammer Quick-ProSM



All you need to know to save time and make more money. Specified on certain Cutler-Hammer products, the Quick-Pro symbol allows for immediate recognition of products that are designed for straightforward installation. When you see Quick-Pro, you know you can install quickly — sometimes up to 50% less than the usual installation time — and move onto your next job.

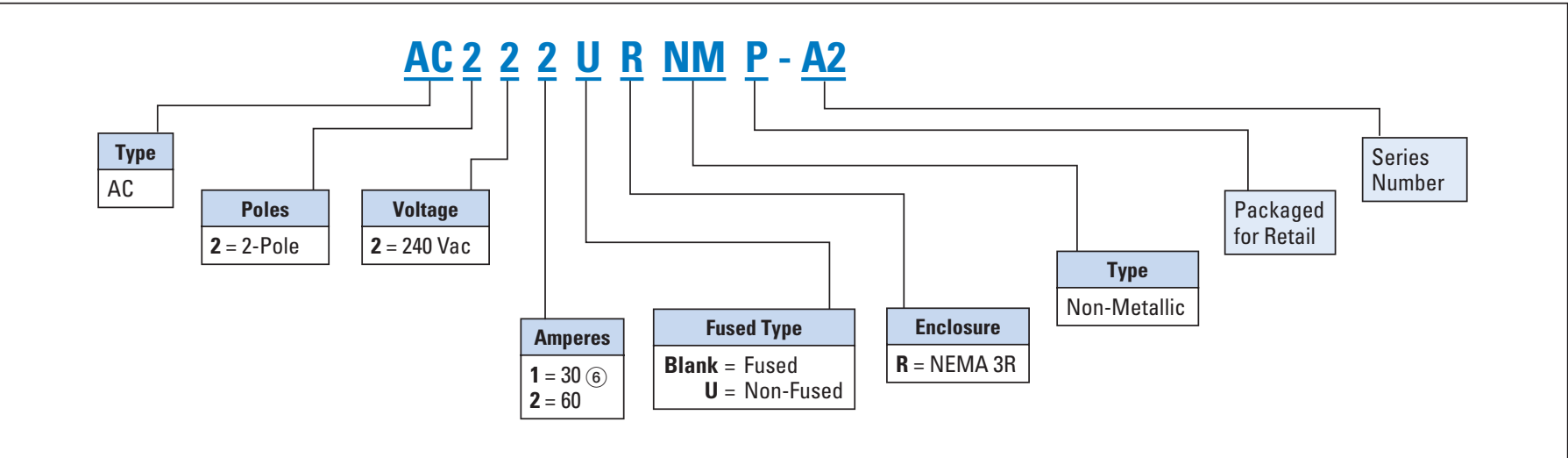
Catalog Numbering System

TABLE 6-4. METALLIC ACDS — CATALOG NUMBERING SYSTEM



- ① Available only on non-fused units.
- ② Available only on non-fused, 3-pole units.
- ③ Available only on fused units.
- ④ Available only on non-fused, 60 ampere units.
- ⑤ Available only on non-fused, 60 ampere and fused 30 or 60 ampere units.

TABLE 6-5. NON-METALLIC ACDS — CATALOG NUMBERING SYSTEM



- ⑥ Available only on non-fused units.

Data Tables

TABLE 6-6. DIMENSIONS AND SHIPPING CARTON INFORMATION

Description	Dimensions in Inches (mm)			Catalog Number	UPC Code
	Height	Width	Depth		
Metallic/Galvanized Steel Enclosure					
30 A Fused	8.70 (220.9)	5.40 (137.2)	3.15 (80.0)	DPF221RP	782114103210
60 A Fused	8.70 (220.9)	5.40 (137.2)	3.15 (80.0)	DPF222RP	782114103227
60 A Non-Fused	8.70 (220.9)	5.40 (137.2)	3.15 (80.0)	DPU222RP	782114103234
60 A Molded Case Switch	8.60 (218.4)	5.30 (134.6)	3.74 (95.0)	DPB222RP	782114208250
Nonmetallic/Polycarbonate Enclosure					
30 A Fused	8.63 (219.0)	5.00 (127.0)	3.50 (88.9)	AC221RNMP-A2	786676405904
60 A Fused	8.63 (219.0)	5.00 (127.0)	3.50 (88.9)	AC222RNMP-A2	786676405959
60 A Non-Fused	8.63 (219.0)	5.00 (127.0)	3.50 (88.9)	AC222URNMP-A2	786676406086
60 A Molded Case Switch	8.63 (219.0)	5.00 (127.0)	3.50 (88.9)	B60NARNMP-A2	786676030175

TABLE 6-7. MOLDED CASE SWITCH

Main Ampere Rating	Maximum hp Rating		Wire Size Range Cu/Al 60°C or 75°C	Catalog Number	UPC Code
	120 V	240 V			
Galvanized Steel					
60	—	10	#14 – 3	DPB222RP	782114208250
Non-Metallic					
60	—	10	#14 – 2	B60NARNMP-A2	786676030175

TABLE 6-8. NON-FUSED PULLOUTS

Main Ampere Rating	Maximum hp Rating		Wire Size Range Cu/Al 60°C or 75°C	Catalog Number	UPC Code
	120 V	240 V			
Galvanized Steel					
60	3	10	#14 – 3	DPU222RP ①	782114103234
Non-Metallic					
60	3	10	#14 – 2	AC222URNMP-A2 ①	786676406154

① For replacement pullout head, order part number 96-3258-4.

TABLE 6-9. FUSED PULLOUTS

Main Ampere Rating	Maximum hp Rating		Wire Size Range Cu/Al 60°C or 75°C	Catalog Number	UPC Code
	120 V	240 V			
Galvanized Steel					
30	1-1/2	3	#14 – 3	DPF221RP ②	782114103210
60	3	10	#14 – 3	DPF222RP ②	782114103227
Non-Metallic					
30 ③	1-1/2	3	#14 – 2	AC221RNMP-A2 ②	786676406208
60 ③	3	10	#14 – 2	AC222RNMP-A2 ②	786676406253

② For replacement pullout head, order part number 96-3258-4.
③ To obtain a Service Entrance Rating, the addition of GB4NM (Ground Bar Kit) is required.

Data Tables

TABLE 6-10. ACD WITH GROUND FAULT RECEPTACLE

Main Ampere Rating	Maximum hp Rating		Wire Size Range Cu/Al 60°C or 75°C	Catalog Number	UPC Code
	120 V	240 V			
Non-Fused Pullouts					
60	3	10	#14 – 3	DPU222RGF	782116080212
Fused Pullouts					
30	3	10	#14 – 3	DPF221RGF	782116343508
60	3	10	#14 – 3	DPF222RGF	782116343515
GFCI Receptacle ①					
20	—	—	#12	—	—

① Included in above.

TABLE 6-12. ACD WITH WHIP SPECIFICATIONS

Whip Diameter	Hot Wire Size	Ground Wire Size	Flexible Conduit Length	Non-Metallic Fittings	Catalog Number	UPC Code
1/2 Inch	#10	#10	6 ft. (1.8 m)	1 – 90°, 1 – Straight	DPU222R12W	782116107520
3/4 Inch	#8	#10	6 ft. (1.8 m)	1 – 90°, 1 – Straight	DPU222R34W	782116107537

Cross-Reference

TABLE 6-13. CROSS-REFERENCE

Description	Cutler-Hammer Catalog Number	UPC Code	Catalog Number				
			Square D®	GE® (Midwest)	Siemens® (Murray®)	Milbank	Thomas & Betts®
Metallic/Galvanized Steel Enclosure							
30 A Fused	DPF221R	782113926865	FP221R	TF30R	WFFS2030	U3803	ACM221
60 A Fused	DPF222R	782114166932	FP222R	TF60R	WFS2060	U3806	ACM222
60 A Non-Fused	DPU222R	782113926858	UFP222R	TFN60R	WNF & WNFS2060	U3800	ACM222NF
60 A Non-Fused Compact Design	DPU222R	782113926858	—	—	WNFC2060	—	ACP0222NF
60 A Molded Case Switch	DPB222R	782114205686	QO200TR	TNA60R1	WBQS2060	—	ACM2620NA
60 A Non-Fused with GF Receptacle ②	DPU222RGF	782116080212	—	TFN60RGFR	—	U3822-20GR	—
30 A Fused with GF Receptacle ②	DPF221RGF	782116343508	—	—	—	—	—
60 A Fused with GF Receptacle ②	DPF222RGF	782116343515	—	—	—	—	—
60 A Non-Fused ②③	DPU222R12W	782116107520	—	—	—	—	—
60 A Non-Fused ②④	DPU222R34W	782116107537	—	—	—	—	—
60 A 3-Phase 600 V Molded Case Switch	DPU362R	782116175956	—	—	—	—	—
Non-Metallic/Polycarbonate Enclosure							
30 A Fused	AC221RNMP-A2	786676406208	FP221RNM	TPF30R	—	—	ACP221
60 A Fused	AC222RNMP-A2	786676406253	FP222RNM	TPF60R	—	—	ACP222
60 A Non-Fused	AC222URNMP-A2	786676406154	UFP222RNM	TPN60R1	—	—	ACP222NF
60 A Molded Case Switch	B60NARNMP-A2	786676030175	QO200TRNM	TPNA60R1	—	—	ACP260NA

② Cutler-Hammer Quick-Pro designated item.

③ With 1/2-inch wire harness.

④ With 3/4-inch wire harness.

TABLE 6-11. THREE-PHASE ACD

Main Ampere Rating	Maximum hp Rating		Wire Size Range Cu/Al 60° C or 75° C	Catalog Number	UPC Code
	120 V	240 V			
60	10	15	#14 – 3	DPU362R	782116175956

Safety Switches

Product Description

SAFETY SWITCH

A safety switch is used to open or close an electrical circuit. Non-fusible safety switches provide a means to manually connect or disconnect the equipment from the power source. Fusible safety switches provide a means to manually open and close a circuit and overcurrent protection by using customer-installed fuses. Safety switches are also commonly referred to as a disconnect switch or simply a disconnect.

DOUBLE THROW SAFETY SWITCH

A double throw safety switch is sometimes referred to as a transfer switch. It performs the same function as a safety switch by opening or closing a circuit; however, its primary use is to transfer service from a normal power source to an alternate source (i.e., a residential generator) or to switch from one load circuit to another.

Features, Functions and Benefits

- ✓ 120/240, 240 or 600 volts.
- ✓ Easy to install.
- ✓ Ample wiring space.
- ✓ Padlockable.
- ✓ UL listed.



***DP221NGB Plug Fuse Safety Switch,
30 Amperes, 120/240 Volts***



***DG322URB General-Duty, Non-Fusible Safety Switch,
60 Amperes, 240 Volts***



***DT224URK-NPS General-Duty, Non-Fusible Double
Throw Emergency Power Safety Switch, 200
Amperes, 120/240 Volts***

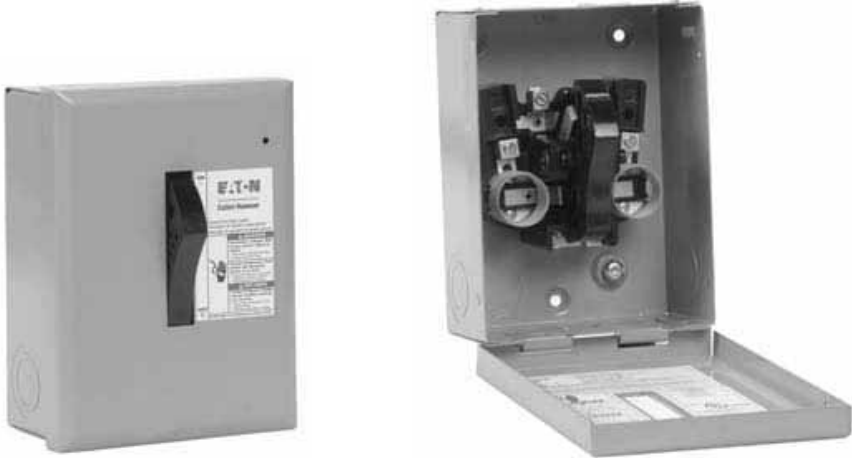


***DH362UGK Heavy-Duty, Non-Fusible Safety Switch,
60 Amperes, 600 Volts***

Safety Switches



DG321NRB General-Duty, Cartridge Fuse Safety Switch, 30 Amperes, 120/240 Volts



DP221NGB



DT223URH-N General-Duty, Non-Fusible Double Throw Emergency Power Safety Switch, 100 Amperes, 120/240 Volts



DT224URK-NPS



DG324NGK



DH362NGK Heavy-Duty, Fusible Safety Switch, 60 Amperes, 600 Volts



DT363URK Heavy-Duty, Non-Fusible Double Throw Emergency Power Safety Switch, 100 Amperes, 600 Volts

Applications

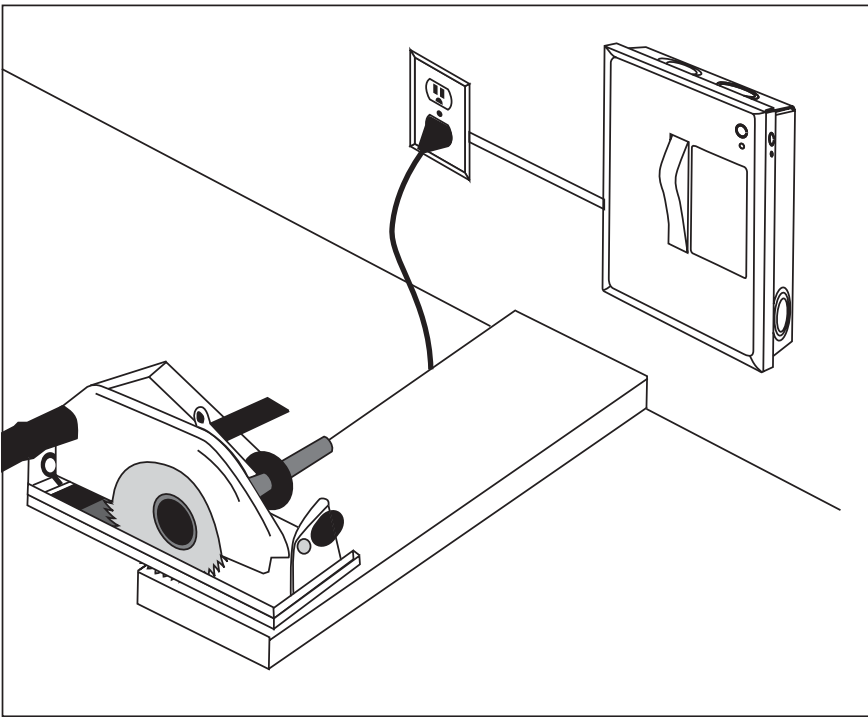


FIGURE 6-2. HOUSEHOLD WORKBENCH APPLICATION

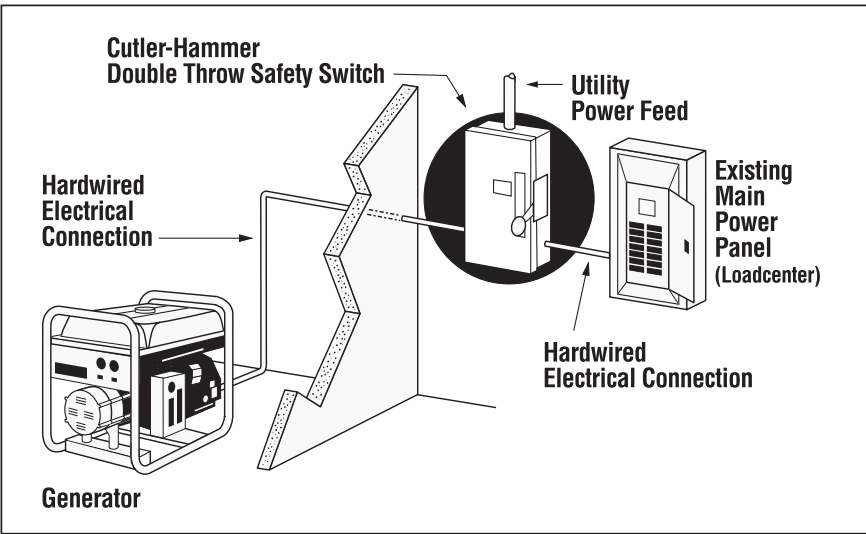


FIGURE 6-3. RESIDENTIAL GENERATOR APPLICATION WITH MANUALLY OPERATED DOUBLE THROW SAFETY SWITCH

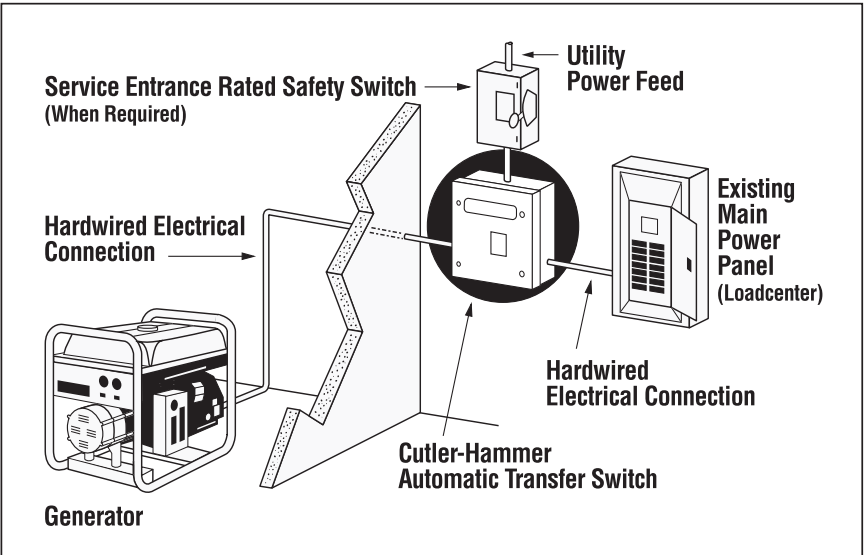


FIGURE 6-4. RESIDENTIAL GENERATOR APPLICATION WITH AUTOMATIC TRANSFER SWITCH AND SERVICE ENTRANCE RATED SAFETY SWITCH

Catalog Numbering System

TABLE 6-14. SAFETY SWITCH CATALOG NUMBERING SYSTEM

		DG		2	2	1	N	R	B		
Switch Type		Poles/Blades		Voltage		Amperes		NEMA Enclosure Ratings		Series	
DP = General-Duty/Plug Fuse DG = General-Duty/Cartridge Fuse DH = Heavy-Duty DT = Double Throw		1 = 1-Pole 2 = 2-Pole 3 = 3-Pole 4 = 4-Pole		1 = 120 Vac 2 = 240 Vac 6 = 600 Vac		1 = 30 2 = 60 3 = 100 4 = 200 5 = 400 6 = 600 7 = 800 8 = 1200		G = NEMA 1 R = NEMA 3R D = NEMA 12 W = NEMA 4X Corrosion Resistant (304 Grade Stainless Steel)		K = Design (All General-Duty Switches Above 200 Amperes and All Heavy-Duty Switches Incorporate K-Series Switch Design Features Listed Below) B = Design General-Duty (30 – 100 Amperes) H = General-Duty Double Throw Switch (Compact Design 30 – 100 Amperes)	
								Fusible/Non-Fusible or Neutral			
								F = Fusible without Neutral U = Non-Fusible N = Fusible with Neutral			

Data Tables

120/240 VAC GENERAL-DUTY, FUSIBLE, SINGLE THROW

Specifications

- ✓ 30 – 600 amperes.

✓ Suitable for service entrance applications unless otherwise noted.

✓ Horsepower rated.
- ✓ Bolt-on hub provision. Provided for general-duty switches in a NEMA 3R enclosure.

✓ UL listed File No. E5239. Meets UL 98 for enclosed switches and NEMA Std. KS-1.

TABLE 6-15. 120/240 VAC GENERAL-DUTY, FUSIBLE, SINGLE THROW

Ampere Rating	Fuse Type Provision	Maximum Horsepower Ratings ①				NEMA 1 Enclosure Indoor		NEMA 3R Enclosure Rainproof	
		1-Phase ac		3-Phase ac	dc	Catalog Number	UPC Code	Catalog Number	UPC Code
		120 Volt	240 Volt	240 Volt	250 Volt				
Fusible — Plug Type ②									
2-Wire (One Blade, One Fuse, S/N) — 120 Vac									
30	Plug (Type S, T or W)	1/2 – 2	—	—	—	DP111NGB	782113140827	—	—
3-Wire (Two Blades, Two Fuses, S/N) — 120/240 Vac									
30	Plug (Type S, T or W)	1/2 – 2	1-1/2 – 3	—	—	DP221NGB	782113140841	Use cartridge-type fuse catalog number DG221NRB	—
Fusible — Cartridge Type									
2-Pole 2-Wire (Two Blades, Two Fuses) — 240 Vac									
30	—	—	1-1/2 – 3	3 – 7-1/2	—	③	—	③	—
60	—	—	3 – 10	7-1/2 – 15	—	③	—	③	—
100	—	—	7-1/2 – 15	15 – 30	—	③	—	③	—
200	—	—	15	25 – 60	—	③	—	③	—
400	H	—	—	50 – 125	—	DG225FGK ④	782114001943	DG225FRK ④	782114001950
600	H	—	—	75 – 200	—	DG226FGK ④	782114001967	DG226FRK ④	782114001974
3-Wire (Two Blades, Two Fuses, S/N) — 120/240 Vac									
30	H	—	1-1/2 – 3	3 – 7-1/2 ⑤	—	DG221NGB	782113120171	DG221NRB	782113120317
60	H	—	3 – 10	7-1/2 – 15 ⑤	—	DG222NGB	782113144214	DG222NRB	782113144221
100	H	—	7-1/2 – 15	15 – 30 ⑤	—	DG223NGB	782113144245	DG223NRB	782113144252
200	H	—	15	25 – 60 ⑤	—	DG224NGK	782113213491	DG224NRK	782113213507
400	H	—	—	50 – 125 ⑤	50	DG225NGK	782113589497	DG225NRK	782113589503
600	H	—	—	75 – 200 ⑤	—	DG226NGK	782113589558	DG226NRK	782113589565

① Maximum hp ratings apply only when dual element time delay fuses are used.

② These switches do not have an interlock which prevents door from being opened when switch is in the ON position.

③ Use 3-wire catalog numbers below.

④ Solid neutral bars are not included. Order separately from Table 6-27 on Page 6-18.

⑤ Grounded B phase rating, UL listed.

Note: All general-duty safety switches are individually packaged.

Note: Accessories are limited in scope on general-duty safety switches. In addition, clear line shields are available as an accessory on 200 – 600 ampere general-duty switches.

Catalog Numbers: 200 A = 70-7759-11, 400 A = 70-8063-8, 600 A = 70-8064-8.

Note: Plug fuse safety switches are not suitable for service entrance use.

120/240 VAC GENERAL-DUTY, FUSIBLE, SINGLE THROW

TABLE 6-16. 120/240 VAC GENERAL-DUTY, FUSIBLE, SINGLE THROW

		Maximum Horsepower Ratings ①				NEMA 1 Enclosure Indoor		NEMA 3R Enclosure Rainproof	
		1-Phase ac		3-Phase ac	dc				
Ampere Rating	Fuse Type Provision	120 Volt	240 Volt	240 Volt	250 Volt	Catalog Number	UPC Code	Catalog Number	UPC Code
3-Pole 3-Wire (Three Blades, Three Fuses) — 240 Vac									
30	—	—	—	—	—	②	—	②	—
60	—	—	—	—	—	②	—	②	—
100	—	—	—	—	—	②	—	②	—
200	—	—	—	—	—	②	—	②	—
400	H	—	—	50 – 125	—	DG325FGK ③	782113589510	DG325FRK ③	782113589527
600	H	—	—	75 – 200	—	DG326FGK ③	782113589572	DG326FRK ③	782113589589
4-Wire (Three Blades, Three Fuses, S/N) — 120/240 Vac									
30	H	—	1-1/2 – 3	3 – 7-1/2	—	DG321NGB	782113120201	DG321NRB	782113120348
60	H	—	3 – 10	7-1/2 – 15	—	DG322NGB	782113144283	DG322NRB	782113144290
100	H	—	7-1/2 – 15	15 – 30	—	DG323NGB	782113144344	DG323NRB	782113144351
200	H	—	15	25 – 60	—	DG324NGK	782113213538	DG324NRK	782113213545
400	H	—	—	50 – 125	—	DG325NGK	782113639208	DG325NRK	782113639215
600	H	—	—	75 – 200	—	DG326NGK	782113639222	DG326NRK	782113639239

① Maximum hp ratings apply only when dual element time delay fuses are used.
② Use 4-wire catalog numbers below.
③ Solid neutral bars are not included. Order separately from Table 6-27 on Page 6-18.

120/240 VAC GENERAL-DUTY, NON-FUSIBLE, SINGLE THROW

TABLE 6-17. 120/240 VAC GENERAL-DUTY, NON-FUSIBLE, SINGLE THROW

	Maximum Horsepower Ratings				NEMA 1 Enclosure Indoor		NEMA 3R Enclosure Rainproof	
	1-Phase ac		3-Phase ac	dc				
Ampere Rating	120 Volt	240 Volt	240 Volt	250 Volt	Catalog Number	UPC Code	Catalog Number	UPC Code
Non-Fusible — 2-Pole 2-Wire (Two Blades) — 240 Vac								
30	2	3	—	—	DG221UGB ④	782113120102	DG221URB ④	782113120232
60	3	10	—	—	DG222UGB ④	782114731130	DG222URB ④	782113144238
100	—	15	—	—	DG223UGB ④	782114731147	DG223URB ④	782114731154
200	—	—	—	—	④⑤	—	④⑤	—
3-Pole 3-Wire (Three Blades) — 240 Vac								
30	2	3	7-1/2	—	DG321UGB ④	782113120140	DG321URB ④	782113120287
60	3	10	15	—	DG322UGB ④	782113144306	DG322URB ④	782113144313
100	—	15	30	—	DG323UGB ④	782113144368	DG323URB ④	782113144375
200	—	15	60	—	DG324UGK ④	782113213552	DG324URK ④	782113213576
400	—	—	125	—	DG325UGK ⑥	782113589534	DG325URK ⑥	782113589541
600	—	—	200	—	DG326UGK ⑥	782113589596	DG326URK ⑥	782113589602

④ **WARNING!** Switch is not approved for service entrance unless a neutral kit is installed.
⑤ Use 3-wire catalog numbers below.
⑥ Drilled to accept field installed neutral kits.

Note: All general-duty safety switches are individually packaged.
Note: Accessories are limited in scope on general-duty safety switches. In addition, clear line shields are available as an accessory on 200 – 600 ampere general-duty switches.
Catalog Numbers: 200 A = 70-7759-11, 400 A = 70-8063-8, 600 A = 70-8064-8.

240 VAC HEAVY-DUTY, FUSIBLE, SINGLE THROW

Specifications

- ✓ 30 – 1200 amperes.
- ✓ Horsepower rated.
- ✓ Suitable for service entrance use, except 4-pole switches.
- ✓ UL listed File No. E5239.

TABLE 6-18. FUSIBLE

Ampere Rating	Fuse Type Provision	Maximum Horsepower Ratings				Catalog Number								
		ac				dc 250 V	NEMA 1 Enclosure Indoor	UPC Code	NEMA 3R Enclosure Rainproof	UPC Code	NEMA 12 Enclosure Industrial, Dust-tight	UPC Code	NEMA 4X Enclosure Corrosion Resistant, Stainless Steel	UPC Code
		Standard Fuse		Time Delay										
		1-Phase	3-Phase	1-Phase	3-Phase									

2-Pole — 240 Vac, 250 Vdc (Suitable for Service Entrance Use with a Neutral or Ground Lug Kit Installed)															
30	H	—	—	—	—	—	DH221FGK	782114370322	②	—	②	—	②	—	—
60	—	—	—	—	—	—	②	—	②	—	②	—	②	or ④	—
100	—	—	—	—	—	—	②	—	②	—	②	—	④	—	—
200	—	—	—	—	—	—	②	—	②	—	②	—	④	—	—
400	H	—	50 ①	—	125 ①	50	DH225FGK	782113207018	②	DH225FRK	782114001981	DH225FDK ③	782113207094	④	—
600	H	—	75 ①	—	200 ①	—	DH226FGK	782113207360	—	DH226FRK	782114001998	DH226FDK ③	782113207445	④	—
800	L	—	100 ①	—	—	—	DH227FGK	782113589657	—	—	—	DH227FDK ③	782113589763	④	—

3-Wire (Two Blades, Two Fuses, S/N) — 240 Vac, 250 Vdc															
30	H	1-1/2	3 ⑤	3	7-1/2 ⑤	5	DH221NGK	782113205342	DH221NRK	782113205359	DH221NDK ③	782113205397	DH221NWK	782113205403	—
60	H	3	7-1/2 ⑤	10	15 ⑤	10	DH222NGK	782113205779	DH222NRK	782113205793	DH222NDK ③	782113205861	DH222NWK	782113205885	—
100	H	7-1/2	15 ⑤	15	30 ⑤	20	DH223NGK	782113206226	DH223NRK	782113206233	DH223NDK ③	782113206295	DH223NWK	782113206301	—
200	H	15	25 ⑤	15	60 ⑤	40	DH224NGK	782113206646	DH224NRK	782113206653	DH224NDK ③	782113206707	DH224NWK	782113206714	—
400	H	—	50 ⑤	—	125 ⑤	50	DH225NGK	782113207025	DH225NRK	782113207032	DH225NDK ③	782113207117	DH225NWK	782114375198	—
600	H	—	75 ⑤	—	200 ⑤	—	DH226NGK	782113207377	DH226NRK	782113207384	DH226NDK ③	782113207469	DH226NWK	782114371220	—
800	L	—	100 ⑤	—	—	—	DH227NGK	782113589664	DH227NRK	782113589671	DH227NDK ③	782113589787	DH227NWK	782113589770	—

3-Pole — 240 Vac, 250 Vdc (Suitable for Service Entrance Use with a Neutral or Ground Lug Kit Installed)															
30	H	1-1/2	3	—	7-1/2	—	DH321FGK	782113208510	DH321FRK	782113208497	DH321FDK ③	782113205410	DH321FWK	782113205427	—
60	H	3	7-1/2	—	15	—	DH322FGK	782113205809	DH322FRK	782113205816	DH322FDK ③	782113205908	DH322FWK	782113205915	—
100	H	7-1/2	15	—	30	20	DH323FGK	782113206240	DH323FRK	782113206257	DH323FDK ③	782113206318	④	—	—
200	H	15	25	—	60	40	DH324FGK	782113206660	DH324FRK	782113206677	DH324FDK ③	782113206721	DH324FWK	782113206738	—
400	H	—	50	—	125	50	DH325FGK	782113207049	DH325FRK	782113207056	DH325FDK ③	782113207148	DH325FWK	782114357224	—
600	H	—	75	—	200	—	DH326FGK	782113207391	DH326FRK	782113207407	DH326FDK ③	782113207483	DH326FWK	782114357286	—
800	L	—	100	—	250	—	DH327FGK	782113589701	DH327FRK	782113589718	DH327FDK ③	782113589824	DH327FWK	782114357330	—
1200	L	—	—	—	—	—	DH328FGK	782114312872	DH328FRK	782114312988	DH328FDK	782116120932	DH328FWK	782116120956	—

4-Wire (Three Blades, Three Fuses, S/N) — 240 Vac, 250 Vdc															
30	H	—	3	—	7-1/2	—	DH321NGK	782113208503	DH321NRK	782113205373	DH321NDK ③	782113205434	DH321NWK	782113205441	—
60	H	—	7-1/2	—	15	—	DH322NGK	782113205823	DH322NRK	782113205830	DH322NDK ③	782113205922	DH322NWK	782113205939	—
100	H	—	15	—	30	20	DH323NGK	782113206264	DH323NRK	782113206271	DH323NDK ③	782113206332	DH323NWK	782113206349	—
200	H	—	25	—	60	—	DH324NGK	782113206684	DH324NRK	782113206691	DH324NDK ③	782113206745	DH324NWK	782113206752	—
400	H	—	50	—	125	50	DH325NGK	782113207063	DH325NRK	782113207070	DH325NDK ③	782113207162	DH325NWK	782114375181	—
600	H	—	75	—	200	—	DH326NGK	782113207414	DH326NRK	782113207421	DH326NDK ③	782113207506	DH326NWK	782114375211	—
800	L	—	100	—	—	—	DH327NGK	782113639246	DH327NRK	782113639253	③ ④	—	④	—	—
1200	L	—	—	—	—	—	DH328NGK	782114312896	DH328NRK	782114313008	DH328NDK	782116120949	DH328NWK	782116120963	—

4-Pole — 240 Vac, 250 Vdc		2-Phase	3-Phase	2-Phase	3-Phase										
30	H	3	3	10	7-1/2	5	DH421FGK	782113205380	③	—	DH421FDK ③	782113205458	④	—	—
60	H	7-1/2	7-1/2	20	15	10	DH422FGK	782113205847	③	—	DH422FDK ③	782113205946	④	—	—
100	H	15	15	30	30	20	DH423FGK	782113206288	③	—	DH423FDK ③	782113206356	④	—	—
200	H	30	25	50	60	40	DH424FGK	782114121306	③	—	DH424FDK ③	782113206769	④	—	—
400	H	50	50	—	125	50	DH425FGK	782113952192	③ ④	—	③ ④	—	④	—	—
600	H	—	75	—	200	—	DH426FGK	782113207438	③ ④	—	③ ④	—	④	—	—

① Horsepower ratings apply only when neutral is field installed and switch is used on a grounded B phase system.

② Use 3-pole catalog numbers below.

③ NEMA 12 enclosures (30 – 800 amperes) can be field modified to meet NEMA 3R rainproof requirements when a factory provided drain hole is opened.

④ Contact the Safety Switch Flex Center (1-888-329-9272) for availability of this product.

⑤ Grounded B phase ratings, UL listed.

Note: 30 ampere heavy-duty switches with Type J fuse provisions are available from the factory only.

600 VAC HEAVY-DUTY, FUSIBLE, SINGLE THROW

Specifications

- ✓ 30 – 1200 amperes.
- ✓ Horsepower rated.
- ✓ Suitable for service entrance use, except 1200 ampere on 480Y/277 or 600Y/347 grounded wye systems, per NEC® 215-10 and 230-95, and 4-pole switches.
- ✓ UL listed File No. E5239.

TABLE 6-19. FUSIBLE 277/480 – 600 VOLTS

Ampere Rating	Fuse Class Provision	Maximum Horsepower Ratings with Time Delay Fuses						Catalog Number							
		1-Phase ac		3-Phase ac		dc		NEMA 1 Enclosure Indoor	UPC Code	NEMA 3R Enclosure Rainproof	UPC Code	NEMA 12 Enclosure Industrial, Dust-tight	UPC Code	NEMA 4X Enclosure Corrosion Resistant, Stainless Steel	UPC Code
		480 V	600 V	480 V	600 V	250 V	600 V								

2-Pole — 480 Vac — 600 Vac or dc ①
(Suitable for Service Entrance Use with a Neutral or Ground Lug Kit Installed)

30	H	7-1/2	10	—	—	—	15	DH261FGK	782113205465	③	—	DH261FDK ④	782113205564	DH261FWK	782113205588
60	H	20	25	—	—	—	25	DH262FGK	782113205960	③	—	DH262FDK ④	782113206097	② or ③	—
100	H	30	40	—	—	20	—	DH263FGK	782113206363	③	—	DH263FDK ④	782113206523	② or ③	—
200	H	50	50	—	—	—	50	DH264FGK	782113206776	③	—	DH264FDK ④	782113206844	DH264FWK	782113206868
400	H	—	—	—	—	50	—	DH265FGK	782113207186	③	—	DH265FDK ④	782113207292	② or ③	—
600	H	—	—	—	—	—	—	DH266FGK	782113207537	③	—	DH266FDK ④	782113589626	② or ③	—
800	L	—	—	—	—	—	—	DH267FGK	782113589688	③	—	DH267FDK ④	782113589794	② or ③	—
1200	L	—	—	—	—	—	—	②	—	③	—	②	—	②	—

3-Pole — 480 Vac — 600 Vac, 250 Vdc
(Suitable for Service Entrance Use with a Neutral or Ground Lug Kit Installed)

30	H	7-1/2	10	15	20	—	—	DH361FGK	782113205489	DH361FRK	782113205496	DH361FDK ④	782113205595	DH361FWK	782113205618
60	H	20	25	30	50	—	—	DH362FGK	782113205977	DH362FRK	782113205991	DH362FDK ④	782113206141	DH362FWK	782113206165
100	H	30	40	60	75	—	—	DH363FGK	782113206417	DH363FRK	782113206424	DH363FDK ④	782113206554	DH363FWK	782113206585
200	H	50	50	125	150	—	—	DH364FGK	782113206783	DH364FRK	782113206790	DH364FDK ④	782113206875	DH364FWK	782113206905
400	H	—	—	250	350	—	—	DH365FGK	782113207209	DH365FRK	782113207216	DH365FDK ④	782113207315	DH365FWK	782114357378
600	H	—	—	400	500	—	—	DH366FGK	782113207551	DH366FRK	782113207568	DH366FDK ④	782113207636	DH366FWK	782114357491
800	L	—	—	500	500	—	—	DH367FGK	782113589725	DH367FRK	782113589732	DH367FDK ④	782113589848	DH367FWK	782114357606
1200	L	—	—	500	500	—	—	DH368FGK	782114312919	DH368FRK	782114313022	DH368FDK	782116120970	DH368FWK	782116121007

4-Wire (Three Blades, 3-Fuses, S/N) 480 Vac— 600 Vac, 250 Vdc

30	H	7-1/2	10	15	20	—	—	DH361NGK	782113205526	DH361NRK	782113205533	DH361NDK ④	782113205731	DH361NWK	782113211770
60	H	20	25	30	50	—	—	DH362NGK	782113206035	DH362NRK	782113206059	DH362NDK ④	782113206189	DH362NWK	782113206196
100	H	30	40	60	75	—	—	DH363NGK	782113206486	DH363NRK	782113206493	DH363NDK ④	782113206592	DH363NWK	782113206608
200	H	50	50	125	150	—	—	DH364NGK	782113206820	DH364NRK	782113206837	DH364NDK ④	782113206912	DH364NWK	782113206929
400	H	—	—	250	350	—	—	DH365NGK	782113207247	DH365NRK	782113207261	DH365NDK ④	782113207346	DH365NWK	782114357415
600	H	—	—	400	500	—	—	DH366NGK	782113207599	DH366NRK	782113207605	DH366NDK ④	782113207667	DH366NWK	782114357538
800	L	—	—	500	500	—	—	DH367NGK	782113639260	DH367NRK	782113639277	② ④	—	②	—
1200	L	—	—	500	500	—	—	DH368NGK	782114312933	DH368NRK	782114313046	DH368NDK	782116120987	DH368NWK	782116121014

4-Pole — 2-Phase ac 3-Phase ac
480 Vac—
600 Vac,
250 Vdc

30	H	20	25	15	20	—	—	DH461FGK	782113205540	④	—	② ④	—	②	—
60	H	40	50	30	50	—	—	DH462FGK	782113206066	④	—	② ④	—	②	—
100	H	50	50	60	75	—	—	DH463FGK	782113206509	④	—	DH463FDK ④	782113206615	②	—
200	H	—	—	125	150	40	—	DH464FGK	782114121313	④	—	DH464FDK ④	782113206981	②	—
400	H	—	—	250	350	50	—	DH465FGK	782113952208	② ④	—	② ④	—	②	—
600	H	—	—	400	500	—	—	DH466FGK	782113952222	② ④	—	② ④	—	②	—
800	L	—	—	500	500	—	—	②	—	② ④	—	② ④	—	②	—

① dc rating for 400 – 800 ampere switches is 250 volts.
② Contact the Safety Switch Flex Center (1-888-329-9272) for availability of this product.
③ Use 3-pole catalog numbers below.
④ NEMA 12 enclosures (30 – 800 amperes) can be field modified to meet NEMA 3R rainproof requirements when a factory provided drain hole is opened.
⑤ Use 3-pole catalog numbers below.

Note: 30 ampere heavy-duty switches with Type J fuse provisions are available from the factory only.

600 VAC HEAVY-DUTY, NON-FUSIBLE, SINGLE THROW

Specifications

- ✓ 30 – 1200 amperes.
- ✓ Horsepower rated.
- ✓ Suitable for service entrance use, except 1200 ampere on 480Y/277 or 600Y/347 grounded wye systems, per NEC 215-10 and 230-95, and 4-pole switches.
- ✓ UL listed File No. E5239.

TABLE 6-20. NON-FUSIBLE 277/480 – 600 VOLTS

Ampere Rating	Maximum Horsepower Ratings								Catalog Number							
	1-Phase ac			3-Phase ac			dc		NEMA 1 Enclosure Indoor	UPC Code	NEMA 3R Enclosure Rainproof	UPC Code	NEMA 12 Enclosure Industrial, Dust-tight	UPC Code	NEMA 4X Enclosure Corrosion Resistant, Stainless Steel	UPC Code
	240 V	480 V	600 V	240 V	480 V	600 V	250 V	600 V								

2-Pole — 480 Vac — 600 Vac or dc ①
(Suitable for Service Entrance Use with a Neutral or Ground Lug Kit Installed)

30	3	7-1/2	10	—	—	—	—	15	DH261UGK	782113205472	③	—	DH261UDK ④	782113205571	③	—
60	10	20	25	—	—	—	—	25	DH262UGK	782114858844	③	—	DH262UDK ④	782113206110	③ or ②	—
100	20	30	40	—	—	—	20	25	DH263UGK	782113206394	③	—	DH263UDK ④	782113206530	③ or ②	—
200	15	50	50	—	—	—	—	50	—	—	③	—	DH264UDK ④	782113206851	③ or ②	—
400	—	—	—	—	—	—	50	—	DH265UGK	782113207193	③	—	DH265UDK ④	782113207308	③ or ②	—
600	—	—	—	—	—	—	—	—	DH266UGK	782113207544	③	—	DH266UDK ④	782113589633	③ or ②	—
800	—	—	—	—	—	—	—	—	DH267UGK	782113589695	③	—	DH267UDK ④	782113589800	③ or ②	—
1200	—	—	—	—	—	—	—	—	②	—	③	—	②	—	②	—

3-Pole — 480 Vac — 600 Vac, 250 Vdc
(Suitable for Service Entrance Use with a Neutral or Ground Lug Kit Installed)

30	3	7-1/2	10	10	20	30	5	—	DH361UGK	782113205502	DH361URK	782113205519	DH361UDK ④	782113205601	DH361UWK	782113205724
60	10	20	25	20	50	60	10	—	DH362UGK	782113206004	DH362URK	782113206028	DH362UDK ④	782113206158	DH362UWK	782113206172
100	20	40	50	40	75	100	20	—	DH363UGK	782113206455	DH363URK	782113206479	DH363UDK ④	782113206561	DH363UWK	782113206578
200	15	50	50	60	125	150	40	—	DH364UGK	782113206806	DH364URK	782113206813	DH364UDK ④	782113206882	DH364UWK	782113206899
400	—	—	—	125	250	350	50	—	DH365UGK	782113207223	DH365URK	782113207230	DH365UDK ④	782113207322	DH365UWK	782114366110
600	—	—	—	200	400	500	—	—	DH366UGK	782113207575	DH366URK	782113207582	DH366UDK ④	782113207643	DH366UWK	782114357576
800	—	—	—	—	500	500	—	—	DH367UGK	782113589749	DH367URK	782113589756	DH367UDK ④	782113589862	DH367UWK	782114357651
1200	—	—	—	—	500	500	—	—	DH368UGK	782114312964	DH368URK	782114313077	DH368UDK	782116120994	DH368UWK	782116121021

4-Pole/
480 Vac/
600 Vac,
250 Vdc

2-Phase ac

3-Phase ac

30	10	20	25	10	20	30	5	—	DH461UGK	782113205557	④	—	DH461UDK ④	782113205748	DH461UWK	782113713366
60	20	40	50	20	50	60	10	—	DH462UGK	782113206080	④	—	DH462UDK ④	782113206202	②	—
100	40	50	50	40	75	100	20	—	DH463UGK	782113206516	④	—	DH463UDK ④	782113206622	②	—
200	50	50	50	60	125	150	40	—	DH464UGK	782114121320	④	—	DH464UDK ④	782113207001	②	—
400	50	—	—	125	250	350	50	—	DH465UGK	782113952215	②④	—	②④	—	②	—
600	—	—	—	200	400	500	—	—	DH466UGK	782113952239	②④	—	②④	—	②	—
800	—	—	—	—	—	—	—	②	—	—	②④	—	②④	—	②	—

① dc rating for 400 – 800 ampere switches is 250 volts.
② Contact the Safety Switch Flex Center (1-888-329-9272) for availability of this product.
③ Use 3-pole catalog numbers below.
④ NEMA 12 enclosures (30 – 800 amperes) can be field modified to meet NEMA 3R rainproof requirements when a factory provided drain hole is opened.

240 VAC HEAVY-DUTY, FUSIBLE, NON-FUSIBLE, DOUBLE THROW

Specifications

- ✓ 30 – 800 amperes.

✓ Horsepower rated.

✓ Suitable for service entrance use with neutral or ground lug kit installed.
- ✓ Suitable for use as a manually operated switch per 2002 NEC Article 702.

✓ Fusible and non-fusible.

✓ UL listed File No. E5239.

TABLE 6-21. FUSIBLE

Ampere Rating Main and Standby	Fuse Class Provision	Maximum Horsepower Ratings with Time Delay Fuses							Catalog Number			
		1-Phase ac			3-Phase ac			dc 250 V	NEMA 1 Enclosure Indoor	UPC Code	NEMA 3R Enclosure Rainproof	UPC Code
		240 V	480 V	600 V	240 V	480 V	600 V					
2-Pole — 240 Vac — 250 Vdc												
200	H	15	—	—	—	—	—	40	DT224FGK	782113614007	DT224FRK	782113614014
3-Pole — 240 Vac — 250 Vdc												
30	H	3	—	—	7-1/2	—	—	5	DT321FGK	782113426280	DT321FRK	782113426297
60	H	10	—	—	15	—	—	10	DT322FGK	782113426303	DT322FRK	782113426310
100	H	15	—	—	30	—	—	20	DT323FGK	782113426327	DT323FRK	782113426334
200	H	15	—	—	60	—	—	40	DT324FGK	782113614021	DT324FRK	782113614038
400	H	—	—	—	125	—	—	50	DT325FGK	782113725758	DT325FRK	782114215821
600 ①	T	—	—	—	50	—	—	50	DT326FGK	782113725765	DT326FRK	782114733639

① Only available for use with fast acting fuses. Standard hp rating is shown.

TABLE 6-22. NON-FUSIBLE

Ampere Rating Main and Standby	Maximum Horsepower Ratings							Catalog Number			
	1-Phase ac			3-Phase ac				NEMA 1 Enclosure Indoor	UPC Code	NEMA 3R Enclosure Rainproof	UPC Code
	240 V	480 V	600 V	240 V	480 V	600 V	dc 250 V				
Non-Fusible 2-Pole — 240 Vac — 250 Vdc											
30	3	—	—	—	—	—	5	DT221UGK	782113439990	④	—
60	10	—	—	—	—	—	10	DT222UGK	782113440002	④	—
100	20	—	—	—	—	—	20	DT223UGK	782113440019	④	—
200	15	—	—	—	—	—	40	DT224UGK	782113613932	DT224URK	782113713380
400	—	—	—	—	—	—	50	DT225UGK	782113738253	DT225URK	782113752280
600	—	—	—	—	—	—	—	DT226UGK	782113738284	④	—
Non-Fusible 3-Pole — 240 Vac — 250 Vdc											
30	3	—	—	10	—	—	5	DT321UGK	782113440026	④	—
60	10	—	—	20	—	—	10	DT322UGK	782113440033	④	—
100	20	—	—	40	—	—	20	DT323UGK	782113440040	DT323URK	782113757032
200	15	—	—	60	—	—	40	DT324UGK	782113613963	DT324URK	782113638874
400	—	—	—	125	—	—	50	DT325UGK	782113696423	DT325URK	782116153466
600	—	—	—	125	—	—	50	DT326UGK	782113696454	④	—
800	—	—	—	125	—	—	50	DT327UGK ②③	782113696485	④	—
800	—	—	—	125	—	—	50	DT327UGK-N	782114176900	④	—

② **WARNING!** Switch is not approved for service entrance.

③ Field-installable neutral kit is not available. If a neutral is required, order the catalog number shown in the table with “N” suffix.

④ Contact the Safety Switch Flex Center (1-888-329-9272) for availability of this product.

600 VAC HEAVY-DUTY, FUSIBLE, NON-FUSIBLE, DOUBLE THROW

TABLE 6-23. FUSIBLE

Ampere Rating Main and Standby	Fuse Class Provision	Maximum Horsepower Ratings with Time Delay Fuses					Catalog Number							
		1-Phase ac		3-Phase ac		dc	NEMA 1 Enclosure Indoor	UPC Code	NEMA 3R Enclosure Rainproof	UPC Code	NEMA 12 Enclosure Industrial, Dust-tight	UPC Code	NEMA 4X Enclosure Corrosion Resistant, Stainless Steel	UPC Code
		480 V	600 V	480 V	600 V	250 V								
		3-Pole — 600 Vac — 250 Vdc												
30	H	7-1/2	10	15	20	—	DT361FGK	782113426341	①	—	①	—	DT361FWK	782114358085
60	H	20	25	30	50	—	DT362FGK	782113426372	①	—	①	—	DT362FWK	782114344460
100	H	30	40	60	75	—	DT363FGK	782113426402	DT363FRK	782113701011	①	—	DT363FWK	782114358047
200	H	50	50	125	150	40	DT364FGK	782113614045	DT364FRK	782113614052	①	—	DT364FWK	782114264584
400	T	—	—	250	350	50	DT365FGK	782113725772	DT365FRK	782114140635	①	—	DT365FWK	782114344484

① Contact the Safety Switch Flex Center (1-888-329-9272) for availability of this product.

TABLE 6-24. NON-FUSIBLE

Ampere Rating Main and Standby	Maximum Horsepower Ratings					Catalog Number							
	480 V	600 V	480 V	600 V	250 V	NEMA 1 Enclosure Indoor	UPC Code	NEMA 3R Enclosure Rainproof	UPC Code	NEMA 12 Enclosure Industrial, Dust-tight	UPC Code	NEMA 4X Enclosure Corrosion Resistant, Stainless Steel	UPC Code
2-Pole — 600 Vac — 250 Vdc													
30	7-1/2	10	—	—	5	DT261UGK	782113426259	③	—	—	—	—	—
60	20	25	—	—	10	DT262UGK	782113426266	③	—	—	—	—	—
100	40	50	—	—	20	DT263UGK	782113426273	③	—	—	—	—	—
200	50	50	—	—	40	DT264UGK ②	782113613949	DT264URK ②	782113613956	—	—	—	—
400	—	—	—	—	50	DT265UGK	782113738260	DT265URK	782113738277	—	—	—	—
600	—	—	—	—	50	DT266UGK	782113741147	DT266URK	782113738291	—	—	—	—
3-Pole — 600 Vac — 250 Vdc													
30	7-1/2	10	20	30	5	DT361UGK	782113426358	DT361URK	782113426365	DT361UDK ⑥	782113740812	DT361UWK	782113747941
60	20	25	50	60	10	DT362UGK	782113426389	DT362URK	782113426396	DT362UDK ⑥	782113740829	DT362UWK	782113747958
100	40	50	75	100	20	DT363UGK	782113426419	DT363URK	782113426426	DT363UDK ⑥	782113740836	DT363UWK	782113747965
200	50	50	125	150	40	DT364UGK	782113613970	DT364URK	782113613987	DT364UDK ⑥	782113774367	DT364UWK	782113865621
400	—	—	250	350	50	DT365UGK	782113696430	DT365URK	782113696447	DT365UDK ⑦	782113916224	DT365UWK	782114140642
600	—	—	250	350	50	DT366UGK	782113696461	DT366URK	782113696478	③ ⑥	—	③	—
800	—	—	250	350	50	DT367UGK ④ ⑤	782113696492	DT367URK ④ ⑤	782113696508	③ ⑥	—	③	—
800	—	—	250	350	50	DT367UGK-N	782114176894	DT367URK-N	782114792117	③ ⑥	—	③	—
4-Pole — 600 Vac — 250 Vdc ②													
30	7-1/2	10	20	30	5	③	—	DT461URK	782113620626	③	—	③	—
60	20	25	50	60	10	③	—	DT462URK	782113620633	③	—	③	—
100	40	50	75	100	20	③	—	DT463URK	782113620640	③	—	③	—
200	—	50	125	150	40	DT464UGK	782113613994	DT464URK	782113638881	③	—	③	—
400	—	—	250	350	50	DT465UGK	782113949314	DT465URK	782113949321	③	—	③	—
600	—	—	250	350	50	DT466UGK	782113960678	DT466URK	782113949345	③	—	③	—
800	—	—	250	350	50	DT467UGK	782113949352	DT467URK	782113949369	③	—	③	—
6-Pole — 600 Vac — 250 Vdc ②													
30	7-1/2	10	15	30	5	③	—	DT661URK	782113573755	③	—	③	—
60	20	25	50	60	10	③	—	DT662URK	782113573854	③	—	③	—
100	40	50	75	100	20	③	—	DT663URK	782113573762	③	—	③	—

② Rated 600 Vdc, 50 hp in addition to ratings shown in table.

③ Contact the Safety Switch Flex Center (1-888-329-9272) for availability of this product.

④ **WARNING!** Switch is not approved for service entrance.

⑤ **Field installable neutral kit is not available. If a neutral is required, order the catalog number shown in the table with “N” suffix.**

⑥ NEMA 12 enclosures (30 – 800 amperes) can be field modified to meet NEMA 3R rainproof requirements when a factory provided drain hole is opened.

⑦ Also available in 240 Vac catalog number DT325UDK.

240 VAC GENERAL-DUTY, NON-FUSIBLE, COMPACT DESIGN, DOUBLE THROW

Specifications

- ✓ 30 – 100 amperes.
- ✓ Suitable for service entrance use with neutral kit installed.
- ✓ Suitable for use as a manually operated switch per 2002 NEC Article 702.
- ✓ Non-fusible.
- ✓ UL listed File No. E5239.

TABLE 6-25. NON-FUSIBLE

Ampere Rating Main and Standby	NEMA 3R Enclosure Rainproof	UPC Code
	Catalog Number	
Non-Fusible 2-Pole — 240 Vac		
30	DT221URH	782114886793
60	DT222URH	782114886809
100	DT223URH	782114886816
Non-Fusible 2-Pole, 3-Wire — 240 Vac — Solid Neutral		
30	DT221URH-N	782114886823
60	DT222URH-N	782114886830
100	DT223URH-N	782114886854

240 VAC GENERAL-DUTY, NON-FUSIBLE, DOUBLE THROW

Specifications

- ✓ 30 – 400 amperes.
- ✓ Horsepower rated.
- ✓ Suitable for service entrance use with neutral kit installed.
- ✓ Suitable for use as a manually operated switch per 2002 NEC Article 702.
- ✓ Quick-make, quick-break operating mechanism.
- ✓ UL listed File No. E5239.

TABLE 6-26. 240 VAC GENERAL-DUTY, NON-FUSIBLE, DOUBLE THROW

Ampere Rating Main and Standby	Maximum Horsepower Ratings with Time Delay Fuses							NEMA 3R Enclosure Rainproof	UPC Code
	1-Phase ac			3-Phase ac			dc		
	240 V	480 V	600 V	240 V	480 V	600 V	250 V	Catalog Number	
Non-Fusible 2-Pole — 240 Vac — 250 Vdc									
30	3	—	—	—	—	—	5	DT221URKPS	782114224380
60	10	—	—	—	—	—	10	DT222URKPS	782114224373
100	20	—	—	—	—	—	20	DT223URKPS	782114223970
200	15	—	—	—	—	—	40	DT224URKPS	782114223956
400	—	—	—	—	—	—	50	DT225URKPS	782114223963
Non-Fusible 2-Pole, 3-Wire — 240 Vac — 250 Vdc, Solid Neutral									
30	3	—	—	—	—	—	5	DT221URK-NPS	782114495810
60	10	—	—	—	—	—	10	DT222URK-NPS	782114495827
100	20	—	—	—	—	—	20	DT223URK-NPS	782114495834
200	15	—	—	—	—	—	40	DT224URK-NPS	782114229262
400	—	—	—	—	—	—	50	DT225URK-NPS	782114229279

Accessories

TABLE 6-27. SAFETY SWITCHES — ACCESSORIES

Description	Catalog Number	UPC Code
Neutral Kits/Ground Kits		
30 Ampere DG	DG030NB	782114731178
60 – 100 Ampere DG	DG100NB	782114731185
200 Ampere DG, DH (NEMA 1, 3R Enclosures)	DG200NK	782113213583
30 – 60 Ampere DH	DH030NK	782113253251
100 Ampere DH	DH100NK	782113253268
200 Ampere DH (NEMA 4X, 12 Enclosures)	DH200NK	782113253275
400 Ampere DG, DH	DS400NK	782113208206
600 Ampere DG, DH	DS600NK	782113208213
400 – 600 Ampere Fusible DT, 800 – 1200 Ampere DH	DS800NK	782113584621
30 – 100 Ampere DT	DT100NK	782113445717
200 Ampere DT	DT200NK	782113617619
400 Ampere Non-Fusible DT	DT400NK	782113774961
600 Ampere Non-Fusible DT	DT600NK	782113774978
Ground Lug Kits		
30 – 100 Ampere DG	DG030GB	782114496053
30 – 100 Ampere DH, DT ①	DS100GK	782113324609
200 Ampere DG, DH, DT	DS200GK	782113381206
400 – 600 A DG, 400 – 1200 A DH, 400 – 800 A DT	DS468GK	782113552033
Switching Neutral Bonding Kits		
30 – 100 Ampere DT, 3-Pole, 4-Pole Non-Fusible	DT100BK	782116153411
200 Ampere DT, 3-Pole, 4-Pole Non-Fusible	DT200BK	782116153428
400 Ampere DT, 3-Pole, 4-Pole Non-Fusible	DT400BK	782116153435
600 Ampere DT, 3-Pole, 4-Pole Non-Fusible	DT600BK	782116153442
800 Ampere DT, 3-Pole, 4-Pole Non-Fusible	DT800BK	782116153459
Control Pole Kit (for 2-Pole, 3-Pole Switches, Non-Fusible)		
400 – 600 A DG, 30 – 1200 A DH, 30 – 800 A DT	DS16CP	782113392127
Auxiliary Contact Kits		
All Switches (except 30 – 100 Ampere DG) 1NO/1NC	DS200EK1	782113208121
All Switches (except 30 – 100 Ampere DG) 2NO/2NC	DS200EK2	782113208145
Copper Lug Kits		
30 Ampere DH, DT ②	DS16CL	782113207995
60 Ampere DH, DT ②	DS16CL	782113207995
100 Ampere DH, DT ②	DS36CL	782113208084
200 Ampere DH ②	DS46CL	782113208091
400 Ampere DH (NEMA 4, 4X, 12 Enclosures) ③	DS56CL	782113208107
600 – 800 Ampere DH (NEMA 4, 4X, 12 Enclosures) ③	DS66CL	782113208114
Crimp Lug Pad Kit (NEMA 4, 4X, 12 Enclosures)		
400 – 600 Ampere DH ②	DS56CK	782113552057
800 Ampere DH ③	DS76CK	782113552064
400 – 800 Ampere Neutral DH ④	DS800CNK	782113690193

① Ground bar kit is not listed on device publications.

② Order one kit for 3 poles.

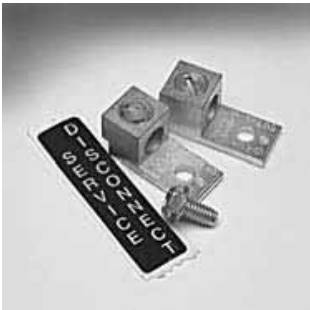
③ Order one kit for each pole.

④ Order one kit per switch.

Note: A factory-installed ground lug is supplied on all NEMA 4, 4X and 12 safety switches, as well as all 400 ampere and higher NEMA 1 and 3R safety switches. A factory-installed ground lug is also supplied on all Heavy-Duty NEMA 1 and 3R 30 – 200 ampere switches that do NOT have factory-installed neutral.



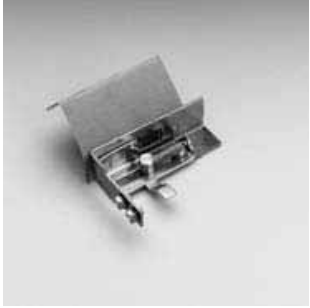
DH030NK



DS200GK



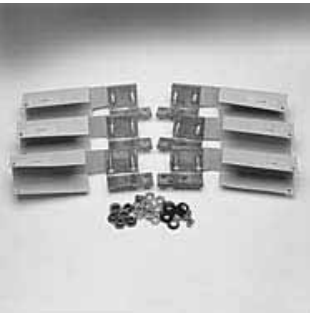
DS16CP



DS200EK1



DS36CL



DS56CK

Accessories

Table 6-27. SAFETY SWITCHES — ACCESSORIES (CONTINUED)

Description	Catalog Number	UPC Code
Fuse Puller Kits 30 – 60 Ampere DH ① 30 – 60 Ampere DH ② 100 Ampere DH ① 200 Ampere DH ①	DS30FP DS60FP DS100FP DS200FP	782113730424 782113730431 782113730448 782113730455
“J” Fuse Adapter Kits 60 Ampere 240 Volt DH ① 60 Ampere DT and Receptacle Switches ① 400 Ampere 600 Volt DT ③ 600 Ampere 240 – 600 Volt DH only ④	DS22JK DS26JK DT400JK DS600JK	782113207773 782113207780 782113774985 782113110912
“R” Fuse Adapter Kits ① 30 Ampere DG 100 Ampere DG 30 Ampere 240 Volt DH, DT 30 A 600 Volt DH, DT, 60 A 240 Volt DH, DT, 60 A DG 60 Ampere 600 Volt DH, DT 100 Ampere 240 – 600 Volt DH, DT 200 Ampere 240 – 600 Volt DH, DT, 200 A DG 400 Ampere 240 – 600 Volt DH, 240 Volt DT, 400 A DG 600 Ampere 240 – 600 Volt DH, 600 Ampere DG	DG030RB DG100RB DS12FK DS16FK DS26FK DS36FK DS46FK DS56FK DS66FK	782114496046 782114731161 782113207681 782113207698 782113207704 782113209678 782113207728 782113207735 782113207742
“T” Fuse Adapter Kits 200 Ampere 240 Volt DH ① 200 Ampere 600 Volt DH ① 400 Ampere 240 Volt DG, DH ④ 400 Ampere 600 Volt DH ④ 600 Ampere 240 Volt DG, DH ④ 600 Ampere 600 Volt DH ④ 800 Ampere 240 Volt DH ④ 800 Ampere 600 Volt DH ④	DS426TK DS466TK DS526TK DS566TK DS626TK DS666TK DS726TK DS766TK	782113207810 782113207896 782113207872 782113207902 782113207889 782113207919 782113536453 782113536460
Hookstick Handle	DH800HSH	782114112984
Lubricating Grease for Safety Switch Blades and Contacts (Each kit contains three 30 cc tubes of lubricating grease.)	DSLUBEKIT	782113691404

- ① Order one kit for 3 poles.
- ② Receptacle switches.
- ③ Order one kit for 6 poles.
- ④ Order one kit for each pole.

Note: A factory-installed ground lug is supplied on all NEMA 4, 4X and 12 safety switches, as well as all 400 ampere and higher NEMA 1 and 3R safety switches. A factory-installed ground lug is also supplied on all Heavy-Duty NEMA 1 and 3R 30 – 200 ampere switches that do NOT have factory-installed neutral.



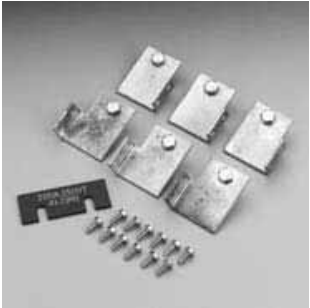
DS60FP



DS12FK



DS22JK



DS426TK

ACCESSORIES, HUBS, LUG DATA

TABLE 6-28. PLATE TYPE HUBS

For NEMA 3R Enclosures (Up to 200 Amperes)

Group 1 General-Duty, Heavy-Duty, Double Throw Through 100 A				Group 2 General-Duty, Heavy-Duty, Double Throw — 200 A			
Conduit Size		Catalog Number	UPC Code	Conduit Size		Catalog Number	UPC Code
Inches	mm			Inches	mm		
0.75	19.1	DS075H1	782113109916	2.00	50.8	DS200H2	782113109961
1.00	25.4	DS100H1	782113109923	2.50	63.5	DS250H2	782113109978
1.25	31.8	DS125H1	782113109930	3.00	76.2	DS300H2	782113342276
1.50	38.1	DS150H1	782113109947	—	—	—	—
2.00	50.8	DS200H1	782113109954	—	—	—	—

Catalog Number **DS900AP** Adapter Kit — Permits Installation of Group 1 Hubs on 200 Ampere Type General-Duty, Heavy-Duty and Double Throw Switches

TABLE 6-29. MYERS TYPE HUBS

NEMA 3R (400 Amperes and Above)
NEMA 4, 4X (Stainless Steel), 12

Conduit Size		Catalog Number	UPC Code
Inches	mm		
0.50	12.7	DS050MH	782113120508
0.75	19.1	DS075MH	782113110981
1.00	25.4	DS100MH	782113111001
1.25	31.8	DS125MH	782113111025
1.50	38.1	DS150MH	782113111049
2.00	50.8	DS200MH	782113120522
2.50	63.5	DS250MH	782113111070
3.00	76.2	DS300MH	782113111094
3.50	88.9	DS350MH	782113111117
4.00	101.6	DS400MH	782113111131
5.00	127.0	DS500MH	782113111155

Note: Contact the Flex Center at **1-888-329-9272** for information on hubs for non-metallic NEMA 4X switches.



DS075H1

TABLE 6-30. STANDARD LUG CAPACITIES

Description	Minimum Wire Size	Maximum Wire Size	Wire Type
30 Ampere DP	#14 #12	#10 #10	Cu OR Al
30 Ampere DG 30 Ampere DH, DT	#14 #14	#6 #2	Cu/Al Cu/Al
60 Ampere DG 60 Ampere DH, DT	#14 #14	#1/0 #2	Cu/Al Cu/Al
100 Ampere DG ① 100 Ampere DH, DT	#14 #14	#1/0 #1/0	Cu/Al Cu/Al
200 Ampere DG, DT 200 A DH Type 1 and 3R 200 A DH Type 4 and 12	#6 #6 #6	250 kcmil 250 kcmil 300 kcmil	Cu/Al Cu/Al Cu/Al
400 Ampere DG, DH, DT	(2) #1/0 (1) #1/0	(2) 300 kcmil (1) 750 kcmil	Cu/Al OR Cu/Al
600 A DG, DH, Fusible DT	(1) #2 (1) #1/0	(1) 600 kcmil (1) 750 kcmil	Cu/Al AND Cu/Al
600 A Non-Fusible DT	(2) #250	(2) 500 kcmil	Cu/Al
800 Ampere DH 800 Ampere DT	(4) #1/0 (3) #250	(4) 750 kcmil (3) 500 kcmil	Cu/Al Cu/Al
1200 Ampere DH	(4) #1/0	(4) 750 kcmil	Cu/Al

Copper-Bodied Lugs

30 Ampere Cu	#14	#6	Cu
60 Ampere Cu	#14	#4	Cu
100 Ampere Cu	#6	#1/0	Cu
200 Ampere Cu	#6	250 kcmil	Cu
400 Ampere Cu	#1/0	500 kcmil	Cu
600 Ampere Cu	(2) #1/0	(2) 500 kcmil	Cu

① The maximum size aluminum or copper-clad aluminum wire allowable for applications where the conductor enters or leaves the enclosure through the wall opposite its terminal is #1 gauge.

Note: Although certain lug capacities are larger than required, only minimum wire bending space is provided per the requirements noted in NEC Tables 373-6 (a) and (b) for respective ampere ratings.

Related Products

Air-Conditioning Disconnects

Cross-Reference

GENERAL-DUTY SAFETY SWITCHES

TABLE 6-31. GENERAL-DUTY

Ampere Rating	Catalog Number			
	Cutler-Hammer®	General Electric®	Siemens®	Square D®
Plug Fuse, 1-Pole, 2-Wire, 120 Vac, NEMA 1				
30	DP111NGB	TPF130	LF111N	D211N
Plug Fuse, 2-Pole, 3-Wire, 240 Vac, NEMA 1				
30	DP221NGB	TPF230	LF211N	D211N
Fusible, 2-Pole, 3-Wire, 240 Vac, NEMA 1				
30	DG221NGB	TG3221	GF221N	D221N
60	DG222NGB	TG3222	GF222N	D222N
100	DG223NGB	TG3223	GF223N	D223N
200	DG224NGK	TG3224	GF224N	D224N
400	DG225NGK	TG3225	GF225N	D225N
600	DG226NGK	TG3226	GF226N	D226N
Fusible, 3-Pole, 3-Wire, 240 Vac, NEMA 1				
30	DG321NGB	TG4321	GF321N	D321N
60	DG322NGB	TG4322	GF322N	D322N
100	DG323NGB	TG4323	GF323N	D323N
200	DG324NGK	TG4324	GF324N	D324N
400	DG325FGK	TG3325	GF325N	D325N
600	DG326FGK	TG3326	GF326N	D326N
Fusible, 3-Pole, 4-Wire, 240 Vac, NEMA 1				
30	DG321NGB	TG4321	GF321N	D321N
60	DG322NGB	TG4322	GF322N	D322N
100	DG323NGB	TG4323	GF323N	D323N
200	DG324NGK	TG4324	GF324N	D324N
400	DG325NGK	TG4325	GF325N	D325N
600	DG326NGK	TG4326	GF326N	D326N
Non-Fusible, 2-Pole, 2-Wire, 240 Vac, NEMA 1				
30	DG221UGB	TGN3321	N/A	N/A
60	DG222UGB	TGN3322	N/A	QO260NATS
100	DG223UGB	TGN3323	N/A	QO2000NS
200	DG324UGK	TGN3324	N/A	DU324
400	DG325UGK	TGN3325	N/A	DU325
600	DG326UGK	TGN3326	N/A	DU326
Non-Fusible, 3-Pole, 3-Wire, 240 Vac, NEMA 1				
30	DG321UGB	TGN3321	GNF321	DU321
60	DG322UGB	TGN3322	GNF322	DU322
100	DG323UGB	TGN3323	GNF323	DU323
200	DG324UGK	TGN3324	GNF324	DU324
400	DG325UGK	TGN3325	GNF325	DU325
600	DG326UGK	TGN3326	GNF326	DU326

Note: Always verify the number of poles and wires required since catalog numbers may appear in multiple tables.

GENERAL-DUTY (CONTINUED)

Ampere Rating	Catalog Number			
	Cutler-Hammer	General Electric	Siemens	Square D
Fusible, 2-Pole, 3-Wire, 240 Vac, NEMA 3R				
30	DG221NRB	TG3221R	GF221NR	D221NRB
60	DG222NRB	TG3222R	GF222NR	D222NRB
100	DG223NRB	TG3223R	GF223NR	D223NRB
200	DG224NRK	TG3224R	GF224NR	D224NRB
400	DG225NRK	TG3225R	GF225NR	D225NR
600	DG226NRK	TG3226R	GF226NR	D226NR
Fusible, 3-Pole, 3-Wire, 240 Vac, NEMA 3R				
30	DG321NRB	TG4321R	GF321NR	D321NRB
60	DG322NRB	TG4322R	GF322NR	D322NRB
100	DG323NRB	TG4323R	GF323NR	D323NRB
200	DG324NRK	TG4324R	GF324NR	D324NRB
400	DG325FRK	TG3325R	GF325NR	D325NR
600	DG326FRK	TG3326R	GF326NR	D326NR
Fusible, 3-Pole, 4-Wire, 240 Vac, NEMA 3R				
30	DG321NRB	TG4321R	GF321NR	D321NRB
60	DG322NRB	TG4322R	GF322NR	D322NRB
100	DG323NRB	TG4323R	GF323NR	D323NRB
200	DG324NRK	TG4324R	GF324NR	D324NRB
400	DG325NRK	TG3325R ①	GF325NR	D325NR
600	DG326NRK	TG3326R ①	GF326NR	D326NR
Non-Fusible, 2-Pole, 2-Wire, 240 Vac, NEMA 3R				
30	DG221URB	TGN3321R	GNF321R	DU221RB
60	DG222URB	TGN3322R	GNF322R	DU222RB
100	DG223URB	TGN3323R	GNF323R	QO2000NRB
200	DG324URK	TGN3324R	GNF324R	DU324RB
Non-Fusible, 3-Pole, 3-Wire, 240 Vac, NEMA 3R				
30	DG321URB	TGN3321R	GNF321R	DU321RB
60	DG322URB	TGN3322R	GNF322R	DU322RB
100	DG323URB	TGN3323R	GNF323R	DU323RB
200	DG324URK	TGN3324R	GNF324R	DU324RB
400	DG325URK	N/A	N/A	N/A
600	DG326URK	N/A	N/A	N/A

① Separate neutral kit required.

Note: Always verify the number of poles and wires required since catalog numbers may appear in multiple tables.

HEAVY-DUTY SAFETY SWITCHES

TABLE 6-32. HEAVY-DUTY

Ampere Rating	Catalog Number			
	Cutler-Hammer	General Electric	Siemens	Square D

Fusible, 2-Pole, 2-Wire, 240 Vac, NEMA 1

30	DH221FGK	TH3221	N/A	H221N
60	DH222NGK	TH3222	N/A	H222N
100	DH223NGK	TH3223	N/A	H223N
200	DH224NGK	TH3224	N/A	H224N
400	DH225FGK	TH3225	N/A	H225
600	DH226FGK	TH3226	N/A	H226
800	DH227FGK	TC72267	N/A	H227
1200	DH328FGK	TC72268	N/A	H228

Fusible, 2-Pole, 3-Wire, 240 Vac, NEMA 1

30	DH221NGK	TH3221	HF221N	H221N
60	DH222NGK	TH3222	HF222N	H222N
100	DH223NGK	TH3223	HF223N	H223N
200	DH224NGK	TH3224	HF224N	H224N
400	DH225NGK	TH3225	HF225N	H225N
600	DH226NGK	TH3226	HF226N	H226N
800	DH227NGK	TC72267 ①	HF227N	H227N
1200	DH328NGK	TC72268 ①	HF228N	H228N

Fusible, 3-Pole, 3-Wire, 240 Vac, NEMA 1

30	DH321FGK	TH4321	N/A	H321N
60	DH322FGK	TH4322	N/A	H322N
100	DH323FGK	TH4323	N/A	H323N
200	DH324FGK	TH4324	N/A	H324N
400	DH325FGK	TH3325	N/A	H325
600	DH326FGK	TH3326	N/A	H326
800	DH327FGK	TC72367	N/A	H327
1200	DH328FGK	TC72368	N/A	H328

Fusible, 3-Pole, 4-Wire, 240 Vac, NEMA 1

30	DH321NGK	TH4321	HF321N	H321N
60	DH322NGK	TH4322	HF322N	H322N
100	DH323NGK	TH4323	HF323N	H323N
200	DH324NGK	TH4324	HF324N	H324N
400	DH325NGK	TH4325	HF325N	H325N
600	DH326NGK	TH4326	HF326N	H326N
800	DH327NGK	TC72367 ①	HF327N	H327N
1200	DH328NGK	TC72368 ①	HF328N	H328N

Fusible, 4-Pole, 4-Wire, 240 Vac, NEMA 1

30	DH421FGK	N/A	F421	H461 ②
60	DH422FGK	N/A	F422	H462 ②
100	DH423FGK	N/A	F423	H463 ②
200	DH424FGK	N/A	F424	H464 ②
400	DH425FGK	N/A	F425	H465 ②
600	DH426FGK	N/A	F426	H466 ②

Non-Fusible, 3-Pole, 3-Wire, 240 Volt/600 Vac, NEMA 1

30	DH361UGK	THN3361	HNF361	HU361
60	DH362UGK	THN3362	HNF362	HU362
100	DH363UGK	THN3363	HNF363	HU363
200	DH364UGK	THN3364	HNF364	HU364
400	DH365UGK	THN3365	HNF365	HU365
600	DH366UGK	THN3366	HNF366	HU366
800	DH367UGK	TC36367	HNF367	HU367
1200	DH368UGK	TC36368	HNF368	HU368

① Separate neutral kit required.

② 600 volt switch.

Note: Always verify the number of poles and wires required since catalog numbers may appear in multiple tables.

HEAVY-DUTY (CONTINUED)

Ampere Rating	Catalog Number			
	Cutler-Hammer	General Electric	Siemens	Square D

Fusible, 2-Pole, 2-Wire, 240 Vac, NEMA 3R

30	DH221NRK	TH3221R	N/A	H221NRB
60	DH222NRK	TH3222R	N/A	H222NRB
100	DH223NRK	TH3223R	N/A	H223NRB
200	DH224NRK	TH3224R	N/A	H224NRB
400	DH225FRK	TH3225R	N/A	H225R
600	DH226FRK	TH3226R	N/A	H226R
800	DH227NRK	TC72267R	N/A	H227R
1200	DH328FRK	TC72268R	N/A	H228R

Fusible, 2-Pole, 3-Wire, 240 Vac, NEMA 3R

30	DH221NRK	TH3221R	HF221NR	H221NRB
60	DH222NRK	TH3222R	HF222NR	H222NRB
100	DH223NRK	TH3223R	HF223NR	H223NRB
200	DH224NRK	TH3224R	HF224NR	H224NRB
400	DH225NRK	TH3225R	HF225NR	H225NR
600	DH226NRK	TH3226R	HF226NR	H226NR
800	DH227NRK	TC72267R ③	HF227NR	H227NR
1200	DH328NRK	TC72268R ③	HF228NR	H228NR

Fusible, 3-Pole, 3-Wire, 240 Vac, NEMA 3R

30	DH321FRK	TH4321R	N/A	H321NRB
60	DH322FRK	TH4322R	N/A	H322NRB
100	DH323FRK	TH4323R	N/A	H323NRB
200	DH324FRK	TH4324R	N/A	H324NRB
400	DH325FRK	TH3325R	N/A	H325NR
600	DH326FRK	TH3326R	N/A	H326NR
800	DH327FRK	TC72367R	N/A	H327NR
1200	DH328FRK	TC72368R	N/A	H328NR

Fusible, 3-Pole, 4-Wire, 240 Vac, NEMA 3R

30	DH321NRK	TH4321R	HF321NR	H321NRB
60	DH322NRK	TH4322R	HF322NR	H322NRB
100	DH323NRK	TH4323R	HF323NR	H323NRB
200	DH324NRK	TH4324R	HF324NR	H324NRB
400	DH325NRK	TH3325R ③	HF325NR	H325R
600	DH326NRK	TH3326R ③	HF326NR	H326R
800	DH327NRK	TC72367R ③	HF327NR	H327R
1200	DH328NRK	TC72368R ③	HF328NR	H328R

Non-Fusible, 3-Pole, 3-Wire, 240 Volt/600 Vac, NEMA 3R

30	DH361URK	THN3361R	HNF361R	HU361RB
60	DH362URK	THN3362R	HNF362R	HU362RB
100	DH363URK	THN3363R	HNF363R	HU363RB
200	DH364URK	THN3364R	HNF364R	HU364RB
400	DH365URK	THN3365R	HNF365R	HU365R
600	DH366URK	THN3366R	HNF366R	HU366R
800	DH367URK	N/A	HNF367R	HU367R
1200	DH368URK	N/A	HNF368R	HU368R

Fusible, 2-Pole, 2-Wire, 240 Vac, NEMA 4/4X

30	DH221NWK	TH2221SS	HF221S	H221DS
60	DH222NWK	TH2222SS	HF222S	H222DS
100	DH223NWK	TH3223SS	HF223S	H223DS
200	DH224NWK	TH3224SS	HF224S	H224DS
400	DH225FWK	TH3225SS	HF325S	H225DS
600	DH226FWK	TH3226SS	HF326S	H226DS

③ Separate neutral kit required.

HEAVY-DUTY SAFETY SWITCHES

TABLE 6-32. HEAVY-DUTY (CONTINUED)

Ampere Rating	Catalog Number			
	Cutler-Hammer	General Electric	Siemens	Square D
Fusible, 2-Pole, 3-Wire 240 Vac, NEMA 4/4X				
30	DH221NWK	TH3221SS	HF321S ①	H221DS ①
60	DH222NWK	TH3222SS	HF322S ①	H222DS ①
100	DH223NWK	TH3223SS	HF323S ①	H223DS ①
200	DH224NWK	TH3224SS	HF324S ①	H224DS ①
400	DH225NWK	TH3225SS	HF325S ①	H225NDS
600	DH226NWK	TH3226SS	HF326S ①	H226NDS
800	DH227NWK	N/A	HF327S ①	N/A
Fusible, 3-Pole, 3-Wire, 240 Vac, NEMA 4/4X				
30	DH321FWK	TH3321SS	HF321S	H321DS
60	DH322FWK	TH3322SS	HF322S	H322DS
100	DH323NWK	TH4323SS	HF323S	H323DS
200	DH324NWK	TH4324SS	HF324S	H324DS
400	DH325FWK	TH4325SS	HF325S	H325DS
600	DH326FWK	TH4326SS	HF326S	H326DS
800	DH327FWK	N/A	HF327S	N/A
Fusible, 3-Pole, 4-Wire, 240 Vac, NEMA 4/4X				
30	DH321NWK	TH4321SS	HF321S ①	H321DS ①
60	DH322NWK	TH4322SS	HF322S ①	H322DS ①
100	DH323NWK	TH4323SS	HF323S ①	H323DS ①
200	DH324NWK	TH4324SS	HF324S ①	H324DS ①
400	DH325NWK	TH4325SS	HF325S ①	H325NDS
600	DH326NWK	TH4326SS	HF326S ①	H326NDS
Fusible, 2-Pole, 2-Wire, 240 Vac, NEMA 12				
30	DH221NDK	TH2221J	HF221J	H221AWK
60	DH222NDK	TH2222J	HF222J	H222AWK
100	DH223NDK	TH3223J	HF223J	H223AWK
200	DH224NDK	TH3224J	HF224J	H224AWK
400	DH225FDK	TH3225J	HF325J	H225AWK
600	DH226FDK	TH3226J	HF326J	H226AWK
800	DH227FDK	N/A	HF327J	H227AWK
1200	N/A	N/A	N/A	H228AWK
Fusible, 2-Pole, 3-Wire, 240 Vac, NEMA 12				
30	DH221NDK	TH3221J	HF221J ①	H221AWK
60	DH222NDK	TH3222J	HF222J ①	H222AWK
100	DH223NDK	TH3223J	HF223J ①	H223AWK
200	DH224NDK	TH3224J	HF224J ①	H224AWK
400	DH225NDK	TH3225J	HF325J ①	H225NAWK
600	DH226NDK	TH3226J	HF326J ①	H226NAWK
800	DH227NDK	N/A	HF327J ①	H227NAW
1200	N/A	N/A	N/A	H228NAWK
Fusible, 3-Pole, 3-Wire, 240 Vac, NEMA 12				
30	DH321FDK	TH3321J	HF321J	H321AWK
60	DH322FDK	TH3322J	HF322J	H322AWK
100	DH323FDK	TH4323J	HF323J	H323AWK
200	DH324FDK	TH4324J	HF324J	H324AWK
400	DH325FDK	TH4325J	HF325J	H325AWK
600	DH326FDK	TH4326J	HF326J	H326AWK
800	DH327FDK	N/A	HF327J	H327AWK
1200	N/A	N/A	N/A	H328AWK

① Separate neutral kit required.

Note: Always verify the number of poles and wires required since catalog numbers may appear in multiple tables.

HEAVY-DUTY (CONTINUED)

Ampere Rating	Catalog Number			
	Cutler-Hammer	General Electric	Siemens	Square D
Fusible, 3-Pole, 4-Wire, 240 Vac, NEMA 12				
30	DH321NDK	TH4321J	HF321J ②	H321AWK ②
60	DH322NDK	TH4322J	HF322J ②	H322AWK ②
100	DH323NDK	TH4323J	HF323J ②	H323AWK ②
200	DH324NDK	TH4324J	HF324J ②	H324AWK ②
400	DH325NDK	TH4325J	HF325J ②	H325NAWK
600	DH326NDK	TH4326J	HF326J ②	H326NAWK
800	N/A	N/A	HF327J ②	H327NAWK
1200	N/A	N/A	N/A	H328NAWK
Fusible, 4-Pole, 4-Wire, 240 Vac, NEMA 12				
30	DH421FDK	N/A	N/A	N/A
60	DH422FDK	N/A	N/A	N/A
100	DH423FDK	N/A	N/A	N/A
200	DH424FDK	N/A	N/A	N/A
Fusible, 2-Pole, 2-Wire, 600 Vac, NEMA 1				
30	DH261FGK	TH2261DC	HF261	H361
60	DH262FGK	TH2262DC	HF262	H362
100	DH263FGK	TH2263DC	HF263	H363
200	DH264FGK	N/A	N/A	H364
400	DH265FGK	N/A	HF265	H265
600	DH266FGK	N/A	HF266	H266
800	DH267FGK	N/A	N/A	H267
1200	N/A	N/A	N/A	H268
Fusible, 3-Pole, 3-Wire, 600 Vac, NEMA 1				
30	DH361FGK	TH3361	HF361	H361
60	DH362FGK	TH3362	HF362	H362
100	DH363FGK	TH3363	HF363	H363
200	DH364FGK	TH3364	HF364	H364
400	DH365FGK	TH3365	HF365	H365
600	DH366FGK	TH3366	HF366	H366
800	DH367FGK	TC72367	HF367	H367
1200	DH368FGK	TC72368	HF368	H368
Fusible, 3-Pole, 4-Wire, 600 Vac, NEMA 1				
30	DH361NGK	TH3361 ②	HF361N	H361N
60	DH362NGK	TH3362 ②	HF362N	H362N
100	DH363NGK	TH3363 ②	HF363N	H363N
200	DH364NGK	TH3364 ②	HF364N	H364N
400	DH365NGK	TH3365 ②	HF365N	H365N
600	DH366NGK	TH3366 ②	HF366N	H366N
800	DH367NGK	TC72367 ②	HF367N	H367N
1200	DH368NGK	TC72368 ②	HF368 ②	H368N
Fusible, 4-Pole, 4-Wire, 600 Vac, NEMA 1				
30	DH461FGK	TH6661	N/A	H461
60	DH462FGK	TH6662	N/A	H462
100	DH463FGK	TH6663	N/A	H463
200	DH464FGK	TH6664	N/A	H464
400	DH465FGK	N/A	N/A	H465
600	DH466FGK	N/A	N/A	H466

② Separate neutral kit required.

Note: Always verify the number of poles and wires required since catalog numbers may appear in multiple tables.

HEAVY-DUTY SAFETY SWITCHES

TABLE 6-32. HEAVY-DUTY (CONTINUED)

Ampere Rating	Catalog Number			
	Cutler-Hammer	General Electric	Siemens	Square D
Non-Fusible, 2-Pole, 2-Wire, 600 Vac, NEMA 1				
30	DH261UGK	THN2261DC	HNF261	HU361
60	DH362UGK	THN2262DC	HNF262	HU362
100	DH263UGK	THN2263DC	HNF263	HU363
200	DH364UGK	N/A	N/A	HU364
400	DH265UGK	N/A	HNF265	HU265
600	DH266UGK	N/A	HNF266	HU266
800	DH267UGK	N/A	N/A	HU267
1200	N/A	N/A	N/A	HU268
Non-Fusible, 4-Pole, 4-Wire, 600 Vac, NEMA 1				
30	DH461UGK	THN6661	N/A	HU461
60	DH462UGK	THN6662	N/A	HU462
100	DH463UGK	THN6663	N/A	HU463
200	DH464UGK	THN6664	N/A	HU464
400	DH465UGK	N/A	N/A	HU465
600	DH466UGK	N/A	N/A	HU466
Fusible, 2-Pole, 2-Wire, 600 Vac, NEMA 3R				
30	DH361FRK	TH2261RDC	HF261R	H361RB
60	DH362FRK	TH2262RDC	HF262R	H362RB
100	DH363FRK	TH2263RDC	HF263R	H363RB
200	DH364FRK	N/A	N/A	H364RB
400	DH365FRK	N/A	N/A	H265R
600	DH366FRK	N/A	HF265R	H266R
800	DH367FRK	N/A	HF266R	H267R
1200	DH368FRK	N/A	N/A	H268R
Fusible, 3-Pole, 3-Wire, 600 Vac, NEMA 3R				
30	DH361FRK	TH3361R	HF361R	H361RB
60	DH362FRK	TH3362R	HF362R	H362RB
100	DH363FRK	TH3363R	HF363R	H363RB
200	DH364FRK	TH3364R	HF364R	H364RB
400	DH365FRK	TH3365R	HF365R	H365R
600	DH366FRK	TH3366R	HF366R	H366R
800	DH367FRK	TC72367R	HF367R	H367R
1200	DH368FRK	TC72368R	HF368R	H368R
Fusible, 3-Pole, 4-Wire, 600 Vac, NEMA 3R				
30	DH361NRK	TH3361R ^①	HF361NR	H361NRB
60	DH362NRK	TH3362R ^①	HF362NR	H362NRB
100	DH363NRK	TH3363R ^①	HF363NR	H363NRB
200	DH364NRK	TH3364R ^①	HF364NR	H364NRB
400	DH365NRK	TH3365R ^①	HF365NR	H365NR
600	DH366NRK	TH3366R ^①	HF366NR	H366NR
800	DH367NRK	TC72367R ^①	HF367NR	H367NR
1200	DH368NRK	TC72368R ^①	HF368R	H368NR
Non-Fusible, 2-Pole, 2-Wire, 600 Vac, NEMA 3R				
30	DH361URK	THN2261RDC	HNF261R	HU361RB
60	DH362URK	THN2262RDC	HNF262R	HU362RB
100	DH363URK	THN2263RDC	HNF263R	HU363RB
200	DH364URK	N/A	N/A	HU364RB
400	DH365URK	N/A	HNF265R	HU265R
600	DH366URK	N/A	HNF266R	HU266R
800	DH367URK	N/A	N/A	HU267R
1200	DH368URK	N/A	N/A	HU268R

① Separate neutral kit required.

Note: Always verify the number of poles and wires required since catalog numbers may appear in multiple tables.

HEAVY-DUTY (CONTINUED)

Ampere Rating	Catalog Number			
	Cutler-Hammer	General Electric	Siemens	Square D
Non-Fusible, 4-Pole, 4-Wire, 600 Vac, NEMA 3R				
30	DH461UDK	THN6661	N/A	N/A
60	DH462UDK	THN6662	N/A	N/A
100	DH463UDK	THN6663	N/A	N/A
200	DH464UDK	THN6664	N/A	N/A
Fusible, 2-Pole, 2-Wire, 600 Vac, NEMA 4/4X Stainless Steel				
30	DH261FWK	TH2261SSDC	HF261S	H361DS
60	DH362FWK	TH2262SSDC	HF262S	H362DS
100	DH363FWK	TH2263SSDC	HF263S	H363DS
200	DH264FWK	N/A	N/A	H364DS
400	DH365FWK	N/A	HF265S	H265DS
600	DH366FWK	N/A	HF266S	H266DS
800	DH367FWK	N/A	N/A	N/A
Fusible, 3-Pole, 3-Wire, 600 Vac, NEMA 4/4X Stainless Steel				
30	DH361FWK	TH3361SS	HF361S	H361DS
60	DH362FWK	TH3362SS	HF362S	H362DS
100	DH363FWK	TH3363SS	HF363S	H363DS
200	DH364FWK	TH3364SS	HF364S	H364DS
400	DH365FWK	TH3365SS	HF365S	H365DS
600	DH366FWK	TH3366SS	HF366S	H366DS
800	DH367FWK	N/A	HF367S	N/A
Fusible, 3-Pole, 4-Wire, 600 Vac, NEMA 4/4X Stainless Steel				
30	DH361NWK	TH3361SS ^②	HF361S ^②	H361DS ^②
60	DH362NWK	TH3362SS ^②	HF362S ^②	H362DS ^②
100	DH363NWK	TH3363SS ^②	HF363S ^②	H363DS ^②
200	DH364NWK	TH3364SS ^②	HF364S ^②	H364NDS
400	DH365NWK	TH3365SS ^②	HF365S ^②	H365NDS
600	DH366NWK	TH3366SS ^②	HF366S ^②	H366NDS
Non-Fusible, 2-Pole, 2-Wire, 600 Vac, NEMA 4/4X Stainless Steel				
30	DH361UWK	THN2261SSDC	HNF261S	HU361DS
60	DH362UWK	THN2262SSDC	HNF262S	HU362DS
100	DH363UWK	THN2263SSDC	HNF263S	HU363DS
200	DH364UWK	N/A	N/A	HU364DS
400	DH365UWK	N/A	HNF265S	HU265DS
600	DH366UWK	N/A	HNF266S	HU266DS
800	DH367UWK	N/A	N/A	N/A
Non-Fusible, 3-Pole, 3-Wire, 600 Vac, NEMA 4/4X Stainless Steel				
30	DH361UWK	THN3361SS	HNF361S	HU361DS
60	DH362UWK	THN3362SS	HNF362S	HU362DS
100	DH363UWK	THN3363SS	HNF363S	HU363DS
200	DH364UWK	THN3364SS	HNF364S	HU364DS
400	DH365UWK	THN3365SS	HNF365S	HU365DS
600	DH366UWK	THN3366SS	HNF366S	HU366DS
800	DH367UWK	N/A	HNF367S	N/A
Non-Fusible, 4-Pole, 4-Wire, 600 Vac, NEMA 4/4X Stainless Steel				
30	DH461UWK	N/A	N/A	HU461DS
60	N/A	N/A	N/A	HU462DS
100	N/A	N/A	N/A	HU463DS
200	N/A	N/A	N/A	HU464DS

② Separate neutral kit required.

Note: Always verify the number of poles and wires required since catalog numbers may appear in multiple tables.

HEAVY-DUTY SAFETY SWITCHES

TABLE 6-32. HEAVY-DUTY (CONTINUED)

Ampere Rating	Catalog Number			
	Cutler-Hammer	General Electric	Siemens	Square D
Fusible, 2-Pole, 2-Wire, 600 Vac, NEMA 12				
30	DH261FDK	TH2261JDC	HF261J	H361AWK
60	DH262FDK	TH2262JDC	HF262J	H362AWK
100	DH263FDK	TH2263JDC	HF263J	H363AWK
200	DH264FDK	N/A	N/A	H364AWK
400	DH265FDK	N/A	HF265J	H265AWK
600	DH266FDK	N/A	HF266J	H266AWK
800	DH267FDK	N/A	N/A	H267AWK
1200	N/A	N/A	N/A	H268AWK
Fusible, 3-Pole, 3-Wire, 600 Vac, NEMA 12				
30	DH361FDK	TH3361J	HF361J	H361AWK
60	DH362FDK	TH3362J	HF362J	H362AWK
100	DH363FDK	TH3363J	HF363J	H363AWK
200	DH364FDK	TH3364J	HF364J	H364AWK
400	DH365FDK	TH3365J	HF365J	H365AWK
600	DH366FDK	TH3366J	HF366J	H366AWK
800	DH367FDK	N/A	HF367J	H367AWK
1200	N/A	N/A	N/A	H368AWK
Fusible, 3-Pole, 4-Wire, 600 Vac, NEMA 12				
30	DH361NDK	THN3361J ^①	HF361J ^①	H361AWK ^①
60	DH362NDK	THN3362J ^①	HF362J ^①	H362AWK ^①
100	DH363NDK	THN3363J ^①	HF363J ^①	H363AWK ^①
200	DH364NDK	THN3364J ^①	HF364J ^①	H364NAWK
400	DH365NDK	THN3365J ^①	HF365J ^①	H365NAWK
600	DH366NDK	THN3366J ^①	HF366J ^①	H366NAWK
800	DH367NDK	N/A	HF367J ^①	H367NAWK
1200	N/A	N/A	N/A	H368NAWK
Fusible, 4-Pole, 4-Wire, 600 Vac, NEMA 12				
30	N/A	TH6661	N/A	H461AWK
60	N/A	TH6662	N/A	H462AWK
100	DH463FDK	TH6663	N/A	H463AWK
200	DH464FDK	TH6664	N/A	H464AWK
400	N/A	N/A	N/A	H465AWK

① Separate neutral kit required.

Note: Always verify the number of poles and wires required since catalog numbers may appear in multiple tables.

HEAVY-DUTY (CONTINUED)

Ampere Rating	Catalog Number			
	Cutler-Hammer	General Electric	Siemens	Square D
Fusible, 4-Pole, 4-Wire, 600 Vac, NEMA 12				
30	N/A	TH6661	N/A	H461AWK
60	N/A	TH6662	N/A	H462AWK
100	DH463FDK	TH6663	N/A	H463AWK
200	DH464FDK	TH6664	N/A	H464AWK
400	N/A	N/A	N/A	H465AWK
Non-Fusible, 2-Pole, 2-Wire, 600 Vac, NEMA 12				
30	DH261UDK	THN2261JDC	HNF261J	HU361AWK
60	DH262UDK	THN2262JDC	HNF262J	HU362AWK
100	DH263UDK	THN2263JDC	HNF263J	HU363AWK
200	DH264UDK	N/A	N/A	HU364AWK
400	DH265UDK	N/A	HNF265J	HU265AWK
600	DH266UDK	N/A	HNF266J	HU266AWK
800	DH267UDK	N/A	N/A	HU267AWK
1200	N/A	N/A	N/A	HU268AWK
Non-Fusible, 3-Pole, 3-Wire, 600 Vac, NEMA 12				
30	DH361UDK	THN3361J	HNF361J	HU361AWK
60	DH362UDK	THN3362J	HNF362J	HU362AWK
100	DH363UDK	THN3363J	HNF363J	HU363AWK
200	DH364UDK	THN3364J	HNF364J	HU364AWK
400	DH365UDK	THN3365J	HNF365J	HU365AWK
600	DH366UDK	THN3366J	HNF366J	HU366AWK
800	DH367UDK	N/A	HNF367J	HU367AWK
1200	N/A	N/A	N/A	HU368AWK
Non-Fusible, 4-Pole, 4-Wire, 600 Vac, NEMA 12				
30	DH461UDK	THN6661	N/A	HU461AWK
60	DH462UDK	THN6662	N/A	HU462AWK
100	DH463UDK	THN6663	N/A	HU463AWK
200	DH464UDK	THN6664	N/A	HU464AWK
400	N/A	N/A	N/A	HU465AWK

Note: Always verify the number of poles and wires required since catalog numbers may appear in multiple tables.

DOUBLE-THROW SAFETY SWITCHES

TABLE 6-33. DOUBLE THROW

Ampere Rating	Catalog Number			
	Cutler-Hammer	General Electric	Siemens	Square D
Fusible, 2-Pole, 2-Wire, 240 Vac, NEMA 1				
30	DT321FGK	TDT3321	N/A	N/A
60	DT322FGK	TDT3322	N/A	N/A
100	DT323FGK	TDT3323	N/A	DT223
200	DT224FGK	TDT3324	DTF224	DT224
400	DT325FGK	TDT3325	N/A	N/A
600	DT326FGK	TDT3326	N/A	N/A
Fusible, 3-Pole, 3-Wire, 240 Vac, NEMA 1				
30	DT321FGK	TDT3321	DTF321	DT321
60	DT322FGK	TDT3322	DTF322	DT322
100	DT323FGK	TDT3323	DTF323	DT323
200	DT324FGK	TDT3324	DTF324	DT324
400	DT325FGK	TDT3325	DTF325	N/A
600	DT326FGK	TDT3326	DTF326	N/A
Non-Fusible, 2-Pole, 2-Wire, 240 Vac, NEMA 1				
30	DT221UGK	N/A	DTNF221	92251
60	DT222UGK	N/A	DTNF222	DTU222
100	DT223UGK	N/A	DTNF223	DTU223
200	DT224UGK	N/A	DTNF224	DTU224
400	DT225UGK	N/A	DTNF225	92255
600	DT226UGK	N/A	DTNF226	N/A
800	DT327UGK	N/A	N/A	N/A
Non-Fusible, 3-Pole, 3-Wire, 240 Vac, NEMA 1				
30	DT321UGK	TC35321	DTNF321	DTU321
60	DT322UGK	TC35322	DTNF322	DTU322
100	DT323UGK	TC35323	DTNF323	DTU323
200	DT324UGK	TC35324	DTNF324	DTU324
400	DT325UGK	TC35325	DTNF325	92355
600	DT326UGK	TC35326	DTNF326	92356
800	DT327UGK	N/A	DTNF327	N/A
Fusible, 3-Pole, 3-Wire, 600 Vac, NEMA 1				
30	DT361FGK	TDT3361	DTNF361	DT361
60	DT362FGK	TDT3362	DTNF362	DT362
100	DT363FGK	TDT3363	DTNF363	DT363
200	DT364FGK	TDT3364	DTNF364	DT364
400	DT365FGK	TDT3365	DTNF365	N/A
600	N/A	N/A	N/A	N/A
Non-Fusible, 2-Pole, 2-Wire, 600 Vac, NEMA 1				
30	DT261UGK	N/A	DTNF261	N/A
60	DT262UGK	N/A	DTNF262	82342
100	DT263UGK	N/A	DTNF263	82343
200	DT264UGK	N/A	DTNF264	82344
400	DT265UGK	N/A	DTNF265	92345
600	DT266UGK	N/A	DTNF266	92346
Non-Fusible, 3-Pole, 3-Wire, 600 Vac, NEMA 1				
30	DT361UGK	TC35361	DTNF361	DTU361
60	DT362UGK	TC35362	DTNF362	DTU362
100	DT363UGK	TC35363	DTNF363	DTU363
200	DT364UGK	TC35364	DTNF364	DTU364
400	DT365UGK	TC35365	DTNF365	92345
600	DT366UGK	TC35366	DTNF366	92346
800	DT367UGK	N/A	DTNF367	N/A
1200	N/A	N/A	N/A	N/A

DOUBLE THROW (CONTINUED)

Ampere Rating	Catalog Number			
	Cutler-Hammer	General Electric	Siemens	Square D
Non-Fusible, 4-Pole, 4-Wire, 600 Vac, NEMA 1				
30	N/A	N/A	N/A	N/A
60	N/A	N/A	N/A	DTU462
100	N/A	N/A	N/A	DTU463
200	DT464UGK	N/A	NF454DTK	DTU464
400	DT465UGK	N/A	NF455DTK	92445
600	DT466UGK	N/A	NF456DTK	92446
800	DT467UGK	N/A	NF457DTK	N/A
Fusible, 2-Pole, 2-Wire, 240 Vac, NEMA 3R				
30	DT321FRK	TDT3321R	N/A	N/A
60	DT322FRK	TDT3322R	N/A	N/A
100	DT323FRK	TDT3323R	N/A	DT223RB
200	DT224FRK	TDT3324R	DTF224R	DT224RB
Fusible, 3-Pole, 3-Wire, 240 Vac, NEMA 3R				
30	DT321FRK	TDT3321R	N/A	DT321RB
60	DT322FRK	TDT3322R	N/A	DT322RB
100	DT323FRK	TDT3323R	N/A	DT323RB
200	DT324FRK	TDT3324R	N/A	DT324RB
400	DT325FRK	N/A	FR325DTK	N/A
600	DT326FRK	N/A	FR326DTK	N/A
Non-Fusible, 2-Pole, 2-Wire, 240 Vac, NEMA 3R				
30	N/A	N/A	N/A	N/A
60	N/A	N/A	N/A	N/A
100	DT323URK	N/A	N/A	DTU223RB
200	DT224URK	N/A	DTNF224R	DTU224RB
400	DT225URK	N/A	DTNF225R	92255R
Non-Fusible, 3-Pole, 3-Wire, 240 Vac, NEMA 3R				
30	N/A	N/A	N/A	N/A
60	N/A	N/A	N/A	N/A
100	DT323URK	N/A	DTNF323R	DTU323RB
200	DT324URK	N/A	DTNF324R	DTU324RB
400	N/A	N/A	N/A	92355R
600	N/A	N/A	N/A	92356R
Fusible, 3-Pole, 3-Wire, 600 Vac, NEMA 3R				
30	N/A	N/A	N/A	DT361RB
60	N/A	N/A	N/A	DT362RB
100	DT363FRK	N/A	DTF363R	DT363RB
200	DT364FRK	N/A	DTF364R	DT364RB
400	DT365FRK	N/A	FR355DTK	N/A
Non-Fusible, 2-Pole, 2-Wire, 600 Vac, NEMA 3R				
30	N/A	N/A	N/A	N/A
60	N/A	N/A	N/A	82342RB
100	N/A	N/A	N/A	82343RB
200	DT264URK	N/A	DTNF264R	82344RB
400	DT265URK	N/A	DTNF265R	92345RB
600	DT266URK	N/A	NFR256DTK	92346RB
Non-Fusible, 3-Pole, 3-Wire, 600 Vac, NEMA 3R				
30	DT361URK	N/A	DTNF361R	DTU361RB
60	DT362URK	N/A	DTNF362R	DTU362RB
100	DT363URK	N/A	DTNF363R	DTU363RB
200	DT364URK	N/A	DTNF364R	DTU364RB
400	DT365URK	N/A	DTNF365R	92345RB
600	DT366URK	N/A	DTNF366R	92346RB
800	DT367URK	N/A	DTNF367R	N/A

DOUBLE-THROW SAFETY SWITCHES

TABLE 6-33. DOUBLE THROW (CONTINUED)

Ampere Rating	Catalog Number			
	Cutler-Hammer	General Electric	Siemens	Square D
Non-Fusible, 4-Pole, 4-Wire, 600 Vac, NEMA 3R				
30	DT461URK	N/A	NFR451DTK	N/A
60	DT462URK	N/A	NFR452DTK	92442RB
100	DT463URK	N/A	NFR453DTK	92443RB
200	DT464URK	N/A	NFR454DTK	92444RB
400	DT465URK	N/A	NFR455DTK	92445R
600	DT466URK	N/A	NFR456DTK	92446R
800	DT467URK	N/A	NFR457DTK	N/A
Non-Fusible, 6-Pole, 6-Wire, 600 Vac, NEMA 3R				
30	DT661URK	N/A	NFR651DTK	N/A
60	DT662URK	N/A	NFR652DTK	N/A
100	DT663URK	N/A	NFR653DTK	N/A
Non-Fusible, 2-Pole, 2-Wire, 240 Vac, NEMA 12				
30	DT361UDK	N/A	DTNF361J	H92251
60	DT362UDK	N/A	DTNF362J	H82252
100	DT363UDK	N/A	DTNF363J	H82253
200	DT364UDK	N/A	DTNF364J	H82254
400	DT365UDK	N/A	DTNF365J	H92255
Non-Fusible, 3-Pole, 3-Wire, 240 Vac, NEMA 12				
30	DT361UDK	N/A	DTNF361J	H92351
60	DT362UDK	N/A	DTNF362J	DTU362AWK
100	DT363UDK	N/A	DTNF363J	DTU363AWK
200	DT364UDK	N/A	DTNF364J	DTU364AWK
400	DT365UDK	N/A	DTNF365J	H92355
600	N/A	N/A	N/A	H92356
Non-Fusible, 4-Pole, 4-Wire, 240 Vac, NEMA 12				
30	N/A	N/A	N/A	H92451
60	N/A	N/A	N/A	DTU462AWK
100	N/A	N/A	N/A	DTU463AWK
200	N/A	N/A	N/A	DTU464AWK
400	N/A	N/A	N/A	H92455
600	N/A	N/A	N/A	H92456
Non-Fusible, 2-Pole, 2-Wire, 600 Vac, NEMA 12				
30	DT361UDK	N/A	DTNF361J	N/A
60	DT362UDK	N/A	DTNF362J	H82342
100	DT363UDK	N/A	DTNF363J	H82343
200	DT364UDK	N/A	DTNF364J	H82344
400	DT365UDK	N/A	DTNF365J	H92345
600	N/A	N/A	N/A	H92346
Non-Fusible, 3-Pole, 3-Wire, 600 Vac, NEMA 12				
30	DT361UDK	N/A	DTNF361J	N/A
60	DT362UDK	N/A	DTNF362J	DTU362AWK
100	DT363UDK	N/A	DTNF363J	DTU363AWK
200	DT364UDK	N/A	DTNF364J	DTU364AWK
400	DT365UDK	N/A	DTNF365J	H92345
600	N/A	N/A	N/A	H92346

Note: Always verify the number of poles and wires required since catalog numbers may appear in multiple tables.

DOUBLE THROW (CONTINUED)

Ampere Rating	Catalog Number			
	Cutler-Hammer	General Electric	Siemens	Square D
Non-Fusible, 4-Pole, 4-Wire, 600 Vac, NEMA 12				
30	N/A	N/A	N/A	N/A
60	N/A	N/A	N/A	DTU462AWK
100	N/A	N/A	N/A	DTU463AWK
200	N/A	N/A	N/A	DTU464AWK
400	N/A	N/A	N/A	H92445
600	N/A	N/A	N/A	H92446
Non-Fusible, 2-Pole, 2-Wire, 600 Vac, NEMA 4X				
30	DT361UWK	N/A	DTNF361S	N/A
60	DT362UWK	N/A	DTNF362S	82342DS
100	DT363UWK	N/A	DTNF363S	82343DS
200	DT364UWK	N/A	DTNF364S	82344DS
400	DT365UWK	N/A	DTNF365S	N/A
Non-Fusible, 3-Pole, 3-Wire, 600 Vac, NEMA 4X				
30	DT361UWK	N/A	DTNF361S	N/A
60	DT362UWK	N/A	DTNF362S	DTU362DS
100	DT363UWK	N/A	DTNF363S	DTU363DS
200	DT364UWK	N/A	DTNF364S	DTU364DS
400	DT365UWK	N/A	DTNF365S	N/A
Non-Fusible, 4-Pole, 4-Wire, 600 Vac, NEMA 4X				
30	N/A	N/A	N/A	N/A
60	N/A	N/A	N/A	DTU462DS
100	N/A	N/A	N/A	DTU463DS
200	N/A	N/A	N/A	DTU464DS
Fusible, 3-Pole, 3-Wire, 600 Vac, NEMA 4X				
30	DT361FWK	N/A	F351SSDTK	N/A
60	DT362FWK	N/A	F352SSDTK	N/A
100	DT363FWK	N/A	F353SSDTK	N/A
200	DT364FWK	N/A	F354SSDTK	N/A
400	DT365FWK	N/A	F355SSDTK	N/A

Note: Always verify the number of poles and wires required since catalog numbers may appear in multiple tables

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Pressure Switches



Pressure Switch

Product Description

The water pump pressure switch is used to operate a water pump in commercial, residential and agricultural applications. The pressure switch opens or closes electrical contacts in response to pressure changes to maintain the pressure in your water system. This helps to ensure a smooth delivery of water into your house. The pressure switch can be used on all types of pumps.

Features, Functions and Benefits

- ✓ Pressure ratings: 20 – 40 PSI (pounds per-square inch), 30 – 50 PSI, 40 – 60 PSI.
- ✓ Adjustable cut-in and cut-out pressure.
- ✓ Easy installation.

SPECIFICATIONS

UL® listed and CSA® certified.

WARRANTY

Three-year product warranty.



Applications

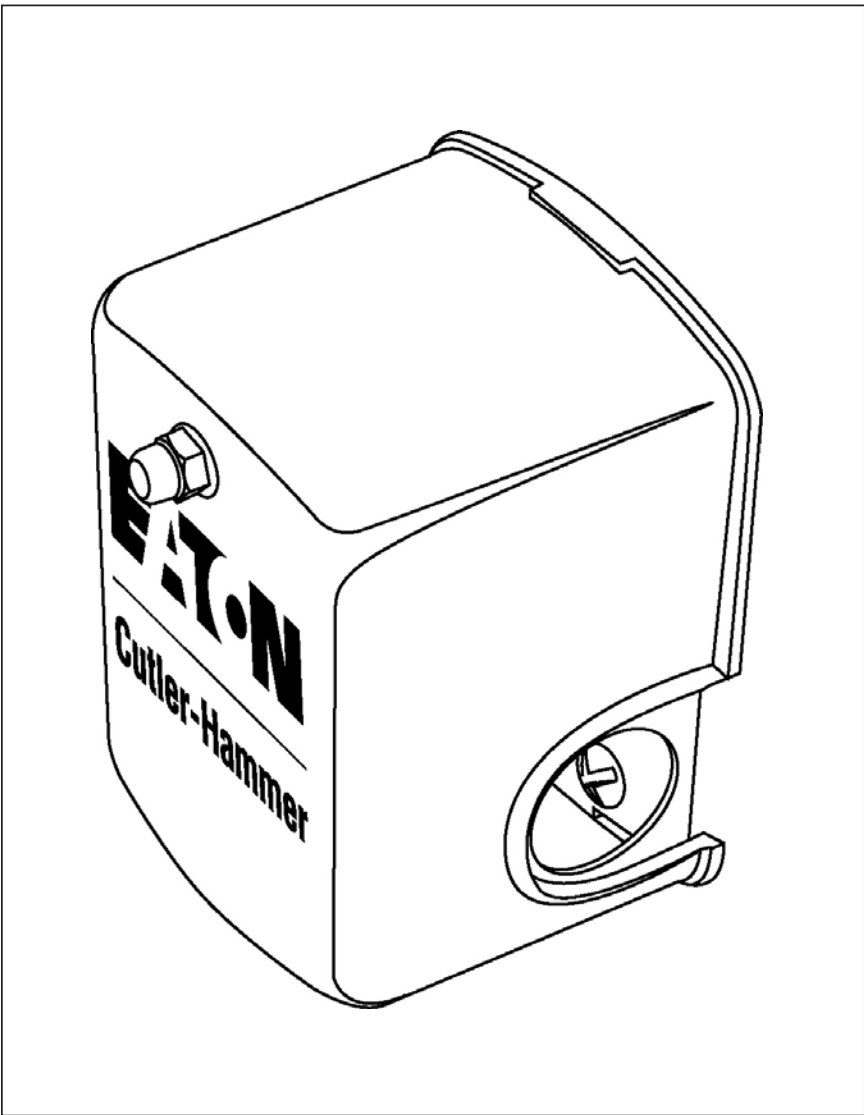


FIGURE 7-1. PRESSURE SWITCH

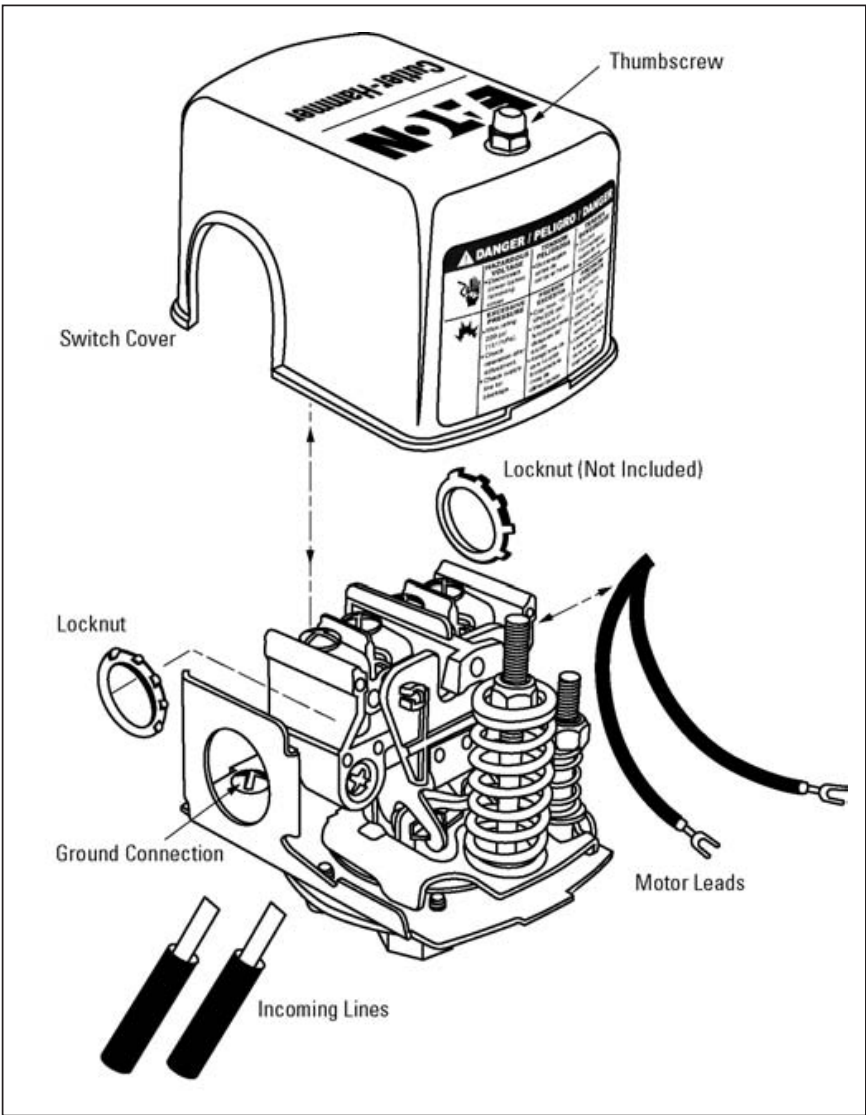


FIGURE 7-2. PRESSURE SWITCH ASSEMBLY

Catalog Numbering System

TABLE 7-1. CATALOG NUMBERING SYSTEM

CH WPS 2040 D P			
Manufacturer	Type	PSI	Accessories
Cutler-Hammer	Water Pressure Switch	2040 = 20 – 40 3050 = 30 – 50 4060 = 40 – 60	Blank = None L= Low Pressure Cut-off ① P= Pulsation Plug ②
		Contacts Action	
		Diaphragm Actuated	

① Available on 2040, 3050 models.
② Available only on 2040 models.

Data Tables

TABLE 7-2. PRODUCT SELECTION

Description	Enclosure	Catalog Number	UPC Code
20-40 PSI Pressure Switch	NEMA® 1	CHWPS2040D	782116159208
20-40 PSI w/ Pulsation Plug	NEMA 1	CHWPS2040DP	782116183869
20-40 PSI w/ Low Pressure Cut-off	NEMA 1	CHWPS2040DL	782116183852
30-50 PSI Pressure Switch	NEMA 1	CHWPS3050D	782116159215
30-50 PSI w/ Low Pressure Cut-off	NEMA 1	CHWPS3050DL	782116336869
40-60 PSI Pressure Switch	NEMA 1	CHWPS4060D	782116159222

PULSATION PLUG (20 – 40 PSI PRESSURE SWITCH ONLY)

Pulsation plug reduces water surges to the switch that would cause the switch to go on and off rapidly every pulse it received. This prevents your pump from cycling on and off which shortens the pump motor life.

LOW PRESSURE CUT-OFF (20 – 40 & 30 – 50 PSI PRESSURE SWITCHES ONLY)

Low pressure cut-off prevents pump from burning up due to lack of water in the well. Will shut down the switch if the pressure drops to 10 PSI below the turn on pressure.

RATINGS

TABLE 7-3. 2-POLE HORSEPOWER RATINGS

Phase	Vac	Amperes	hp
Single	115	20	1.5
Single	230	12	2.0

Cross-Reference

TABLE 7-4. PRESSURE SWITCH CROSS-REFERENCE

Description	Cutler-Hammer Catalog Number	UPC Code	Square D®	Flotec®	Water Ace®	Furnas®
20/40 Standard Pressure Switch	CHWPS2040D	782116159208	9013FSG2J20	—	15767A510	69WA4Z2040
30/50 Standard Pressure Switch	CHWPS3050D	782116159215	9013FSG2J21	TC2151	15760A501	69WA4
40/60 Standard Pressure Switch	CHWPS4060D	782116159222	9013FSG2J24	TC2153	—	69WA4Z4060
20/40 Pressure Switch w/ Pulsation Plug	CHWPS2040DP	782116183869	9013FSG2J20P	—	—	69WA4Z2040B
20/40 Pressure Switch w/ Low Pressure Cut-off	CHWPS2040DL	782116183852	9013FSG2J20M4	—	—	69WEC
30/50 Pressure Switch w/ Low Pressure Cut-off	CHWPS2050DL	782116336869	9013FSG2J21M4	FP217-1140	19180A501	—

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Surge Protection



Product Description

A surge protector is a device that protects electronics in your home from voltage surges caused by various sources. The most common causes are lightning, utility grid switching, other users on the power line, and internal surges from air conditioner and power tools. The best way to protect your home electronics against these power surges is to apply surge protection where service is brought into the house (load-center or breaker panel) and to also apply protection with a surge strip at the point-of-use.

Features, Functions and Benefits

STAGE 1 PROTECTION — CHSP SERIES (LOADCENTER OR BREAKER PANEL)

- ✓ Reduces voltage surges to an acceptable level for appliances and surge strips.
- ✓ Available in Micro, Max and Ultra Series for different levels of protection.
- ✓ Optional protection for Telephone / Cable / Ethernet (computer networks).
- ✓ May be ordered factory installed in loadcenter or breaker box.
- ✓ Lifetime product warranty.

STAGE 2 PROTECTION — SURGE STRIP SERIES (AT POINT-OF-USE)

- ✓ Recommended for sensitive electronic loads like computers or entertainment centers.
- ✓ Available in Micro, Max and Ultra Series for different levels of protection.
- ✓ One to 10 outlets.
- ✓ Heavy-duty construction series available.
- ✓ Lifetime product warranty.

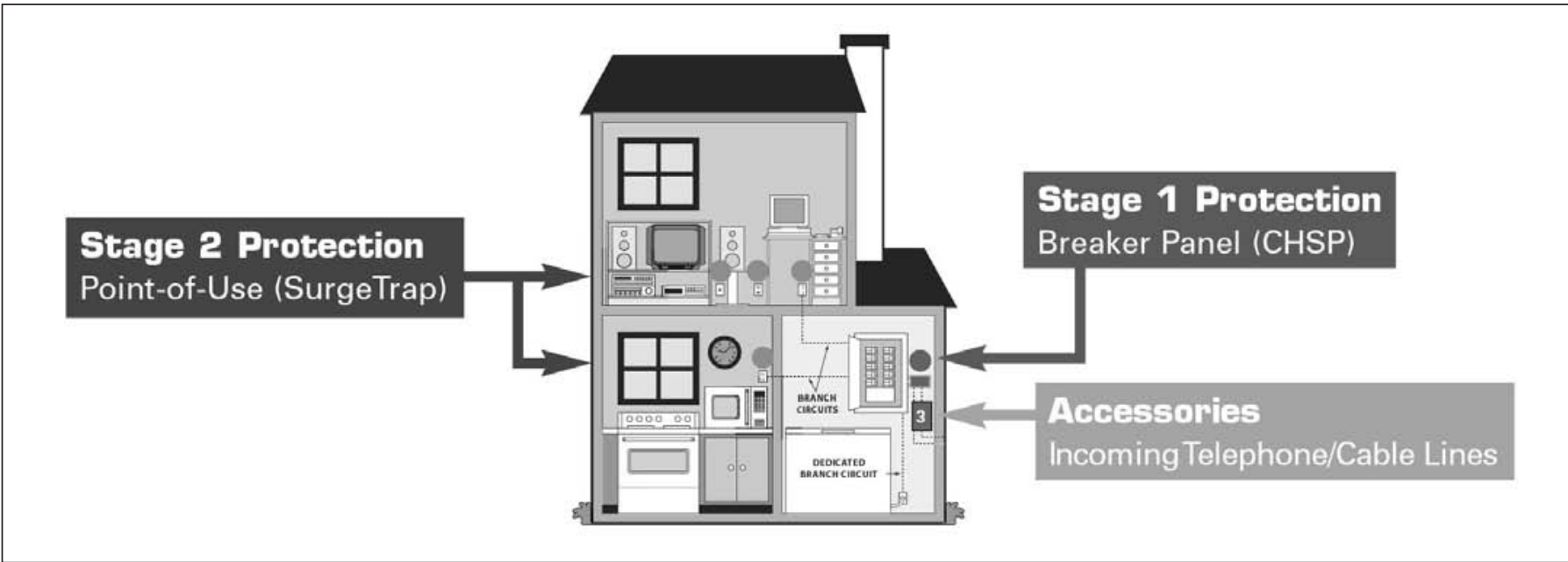


FIGURE 8-1. STAGE 1 AND STAGE 2 — HOME SURGE PROTECTION

Data Tables

STAGE 1 —
CHSP SERIES

Products for breaker panel.

ac Power

Catalog Number

Protection Levels and Application

Total Joules

Maximum Surge Current

Per Phase (L-N/L-G) Surge Current

Product Warranty.....

Connected Equipment Warranty

Installation/Enclosure

CHSPMICRO

Basic surge protection for appliances

750 Joules

37,500 Amps ①

20,000 Amps

Lifetime

\$25,000

Indoor/Outdoor Enclosure
Flushmount Kit Available

CHSPMAX

Standard surge protection for major appliances and home electronics

1,500 Joules

75,000 Amps ①

50,000 Amps

Lifetime

\$50,000

Indoor/Outdoor Enclosure
Flushmount Kit Available

CHSPULTRA

Ultimate surge protection for major appliances, home electronics, computers/home office and entertainment systems

3,500 Joules

175,000 Amps ①

75,000 Amps

Lifetime

\$75,000

Indoor/Outdoor Enclosure
Flushmount Kit Available

CHSPCHSR4P

Standard 3-way protection (ac power, phone, cable) for all home electronic equipment

3,500 Joules

175,000 Amps ①

75,000 Amps

Lifetime

\$75,000

Indoor/Outdoor Enclosure
Flushmount Kit Available

STAGE 2 —
SURGE STRIP SERIES

Products for point-of-use.

Your final step in surge protection

Protection Levels and Application

Total Joules

Maximun Surge Current

Features

Product Warranty.....

Connected Equipment Warranty

Catalog Number

ac Power + Telephone/Modem

ac Power + Cable TV

ac Power + Telephone/Modem + Cable TV + DBS Satellite

ac Power (Only)

Entry level protection for computers and other electronic equipment

600 – 900 Joules

48,000 – 72,000 Amps ①

1 and 6 Outlet; Wallmount

Lifetime

\$50,000

SGXMICRONET1
SGXMICRONET6
SGXMICROTV6
—
SGXMICROAC6

Mid level protection for computers, printers and other electronic equipment

1,800 Joules

81,000 Amps ①

7 Outlet; 6' Power Cord; Transformer Spacing

Lifetime

\$75,000

SGXMAXNET
SGXMAXTV
—
SGXMAXAC

Advanced protection for computers, printers and other electronic equipment

3,150 Joules

112,000 Amps ①

8 and 10 Outlet; 6' Power Cord, Transformer Spacing

Lifetime

\$150,000

SGXULTNET
SGXULTTV
SGXULT3WAY
—
SGXULTAC

Heavy duty protection for the job site and home construction

750 Joules

19,500 Amps ①

6 and 8 Outlet, Metal Heavy Duty; Cord Management System, Transformer Spacing

Lifetime

N/A

SGXCONST6
SGXCONST8

1

MICRO Level
Standard Protection

2

MAX Level
Enhanced Protection

3

ULTRA Level
Industry's Best Protection

For detailed warranty information, refer to product packaging.

① Maximum surge rating is the sum of all modes of protection

FIGURE 8-2. CHSP (STAGE 1) AND SURGE STRIP (STAGE 2) SERIES

TABLE 8-1. PRODUCT SELECTION

Type	Catalog Number	UPC Code	Type	Catalog Number	UPC Code	Catalog Number	UPC Code
Whole House	CHSPMICRO	782114795828	Surge Strip	SGXMICRONET1	782116077243	SGXULTNET	782114300138
	CHSPMAX	782114795835		SGXMICRONET6	782116077267	SGXULTTV	782114300145
	CHSPULTRA	782114795842		SGXMICROTV6	782116077274	SGXULT3WAY	782114665732
	CHSPCHSR4P	782114795859		SGXMICROAC6	782116077250	SGXULTAC	782114300121
				SGXMAXNET	782114300077	SGXCONST6	782116077281
				SGXMAXTV	782114300114	SGXCONST8	782116077298
				SGXMAXAC	782114300091	—	—

8-2

EATON CORPORATION Cutler-Hammer Retail Solutions Book — 1-877-932-9322 — Surge Protection — Effective August 2005

Accessories

- ✓ **SurgeTel (DHW4PT)** — Stage 1 protection for telephone, modem and DSL services.
- ✓ **SurgeCable (DCXCAB2)** — Stage 1 protection for cable TV, satellite and cable modem services.
- ✓ **SurgeEthernet (DRJ45D30R)** — Stage 1 protection for home computer networks (RJ45 connectors).
- ✓ **Flushmount Kit (CHSPFMKIT)** — Cover for CHSP surge protectors when used on finished wall.
- ✓ **Power Strips** (no surge protection):
 - **PSXVAL6AC3** — 6 outlet, 3 ft. cord
 - **PSXVAL6AC4** — 6 outlet, 4 ft. cord
 - **PSXVAL6AC8** — 6 outlet, 8 ft. cord

Related Products

TABLE 8-2. SURGE PANELS AVAILABLE WITH FACTORY-INSTALLED WHOLE-HOME SURGE PROTECTION

Description	Catalog Number	UPC Code
Main Breaker Design		
100 Ampere Loadcenter; 24 Circuits; Main Breaker; Factory-Installed CHSP Ultra (175,000 Ampere Maximum Surge Current)	CHSUR24B100E	782116200054
100 Ampere Loadcenter; 32 Circuits; Main Breaker; Factory-Installed CHSP Ultra (175,000 Ampere Maximum Surge Current)	CHSUR32B100K	782116200078
150 Ampere Loadcenter; 32 Circuits; Main Breaker; Factory-Installed CHSP Ultra (175,000 Ampere Maximum Surge Current)	CHSUR32B150K	782116200085
200 Ampere Loadcenter; 32 Circuits; Main Breaker; Factory-Installed CHSP Ultra (175,000 Ampere Maximum Surge Current)	CHSUR32B200K	782116200108
200 Ampere Loadcenter; 42 Circuits; Main Breaker; Factory-Installed CHSP Ultra (175,000 Ampere Maximum Surge Current)	CHSUR42B200L2	782116320196
Main Lug Only Loadcenter		
125 Ampere Loadcenter; 24 Circuits; Main Lug; Factory-Installed CHSP Ultra (175,000 Ampere Maximum Surge Current)	CHSUR24L125E	782116200061
225 Ampere Loadcenter; 32 Circuits; Main Lug; Factory-Installed CHSP Ultra (175,000 Ampere Maximum Surge Current)	CHSUR32L225K	782116200092
225 Ampere Loadcenter; 42 Circuits; Main Lug; Factory-Installed CHSP Ultra (175,000 Ampere Maximum Surge Current)	CHSUR42L225L2	782116320202
“Surge Ready” Panels		
100 Ampere CH Surge Provision Loadcenter; 24 Circuits; Main Breaker	CHEC24B100E	782116200139
100 Ampere CH Surge Provision Loadcenter; 32 Circuits; Main Breaker	CHEC32B100K	782116200153
150 Ampere CH Surge Provision Loadcenter; 32 Circuits; Main Breaker	CHEC32B150K	782116200160
200 Ampere CH Surge Provision Loadcenter; 32 Circuits; Main Breaker	CHEC32B200K	782116200252
200 Ampere CH Surge Provision Loadcenter; 42 Circuits; Main Breaker	CHEC42B200L	782116200184
125 Ampere CH Surge Provision Loadcenter; 24 Circuits; Main Lug Only	CHEC24L125E	782116200146
225 Ampere CH Surge Provision Loadcenter; 32 Circuits; Main Lug Only	CHEC32L225K	782116200177
225 Ampere CH Surge Provision Loadcenter; 42 Circuits; Main Lug Only	CHEC42L225L	782116200191

How Much Can You Afford to Lose?

Homeowners often underestimate, or ignore, their investment in electrical and electronic equipment... an investment which could be wiped out by an unchecked voltage surge.

The cost of replacing electronic equipment in an average home is \$8,000. Add a few extra items and the cost can rise dramatically — up to \$20,000 for sophisticated entertainment systems and home offices.

Where does your home fall on the list? Pick the spot on the chart to the right that best represents your home. It will show your approximate level of investment and risk, without considering compensation, if any, from homeowner’s insurance.

“Silence the surge” with Eaton’s Cutler-Hammer® residential surge protection products.

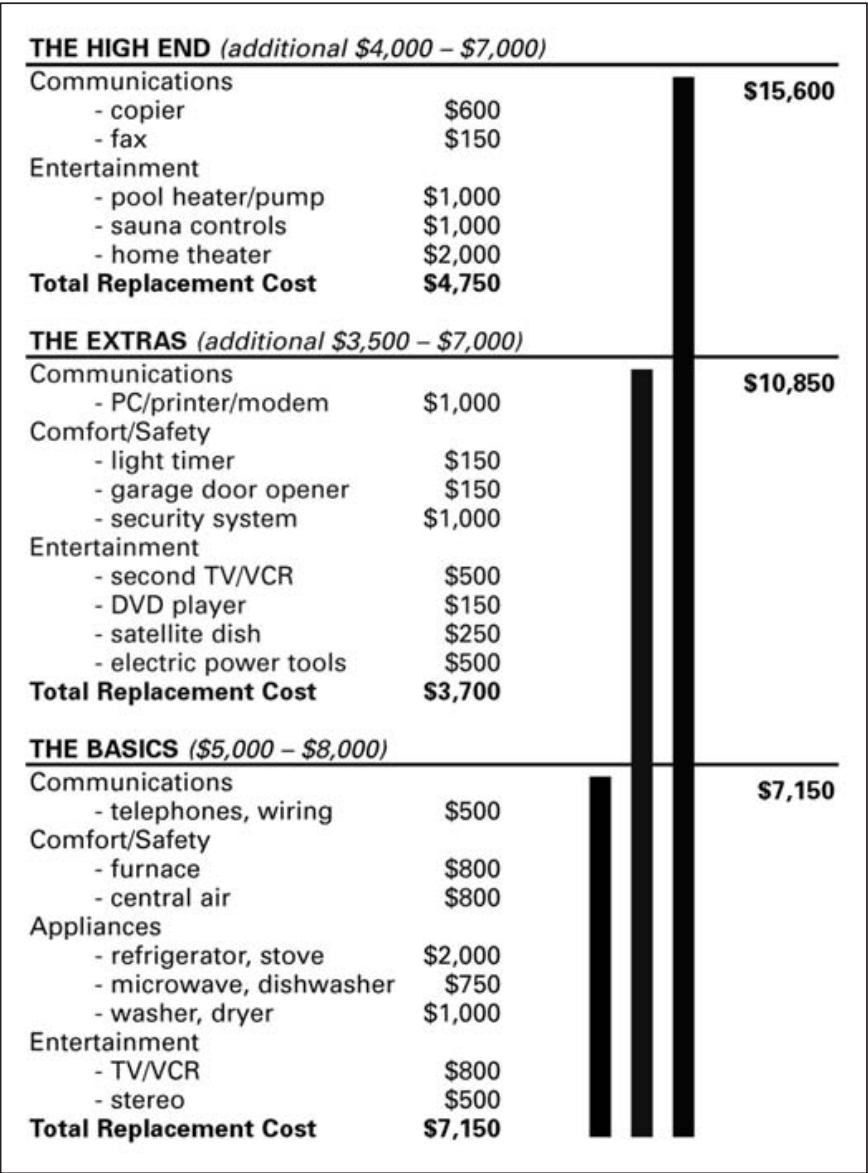


FIGURE 8-3. ESTIMATED EQUIPMENT REPLACEMENT COSTS

Cutler-Hammer is a federally registered trademark of Eaton Corporation.

Emergency Power Solutions

Size Your Generator Guide	9-2
Portable Generators	9-3
Standby Generators	9-3
Manual Generator Panels	9-4
Automatic Generator Panels	9-4
Generator Accessories	9-7

Generators



Generators

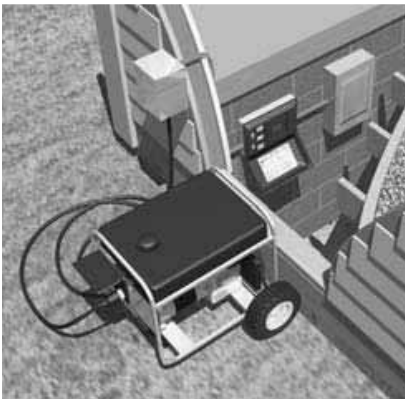


FIGURE 9-1. PORTABLE SYSTEM — INSTALLATION DIAGRAM

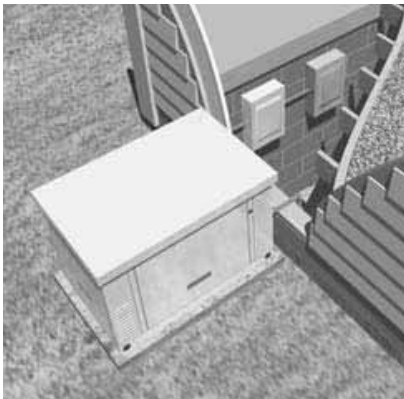


FIGURE 9-2. STANDBY SYSTEM — INSTALLATION DIAGRAM

Product Description

A generator is a device designed to provide substitute electrical power to a residence in the event of a utility power outage or other emergency. There are two basic types of generators: portable and standby. A portable generator is a wheeled unit that requires you to roll the generator outside, start it up, and hook it up to a power inlet box. Power is then transferred manually from the main line to the generator. One of the clear advantages with an automatic standby generator system is that the unit turns itself on and off automatically without you ever having to leave the safety of your home.

Features, Functions and Benefits

PORTABLE GENERATORS

- ✓ Reliable, convenient and versatile to use.
- ✓ Connects up to six essential household circuits.
- ✓ Provides up to 12 hours of uninterrupted run time (at 1/2 load).
- ✓ Manual power transfer.
- ✓ Fold-down handle.
- ✓ Available in 3250, 5500 and 7000 watt ratings.

STANDBY GENERATORS

- ✓ The ultimate in convenience and power.
- ✓ Fully-automatic operation.
- ✓ Extra quiet operation.
- ✓ Powered by natural gas or liquid propane.
- ✓ All-weather protection and durability.
- ✓ Built-in diagnostic center that relays performance messages.
- ✓ Available with Air Cooled Engine from 7000 – 12,000 watts.

Data Tables

When selecting the essential circuits that will be switched to “Backup Power,” it is important that the sum of the combined circuit loads does not exceed the wattage/ampere capacity of the generator. Add up the total wattage of all electrical devices to be connected at one time. This total should NOT be greater than the generator’s wattage capacity.

TABLE 9-1. CIRCUIT SELECTION — SIZING YOUR GENERATOR

Device	Running Watts ①
Air Conditioner (12,000 Btu)	1700
Air Conditioner (24,000 Btu)	3800
Air Conditioner (40,000 Btu)	6000
Battery Charger (20 Amp)	500
Circular Saw (6-1/2-inch)	800 – 1000
Clothes Dryer (Electric)	5750
Clothes Dryer (Gas)	700
Clothes Washer	1150
Coffee Maker	1750
Compressor (1 hp)	2000
Compressor (1/2 hp)	1400
Compressor (3/4 hp)	1800
Curling Iron	700
Dehumidifier	650
Electric Blanket	400
Electric Range (per element)	1500
Electric Skillet	1250
Freezer	700
Furnace Fan (3/5 hp)	875
Garage Door Opener	500 – 750
Hair Dryer	1200
Hand Drill	250 – 1100
Iron	1200
Jet Pump	800
Light Bulb	100
Microwave Oven	700 – 1000
Milk Cooler	1100
Oil Burner on Furnace	300
Oil Fired Space Heater (140,000 Btu)	400
Oil Fired Space Heater (30,000 Btu)	150
Oil Fired Space Heater (85,000 Btu)	225
Radio	50 – 200
Refrigerator	700
Slow Cooker	200
Submersible Pump (1 hp)	2000
Submersible Pump (1/2 hp)	1500
Submersible Pump (1-1/2 hp)	2800
Sump Pump	800 – 1050
Table Saw (10-inch)	1750 – 2000
Television	200 – 500
Toaster	1000 – 1650



Refrigerator/
Freezer (800 W)



Television (500 W)



Computer (800 W)



Sump Pump
(800 W)



Lighting (60 W)



Water Pump (100 W)



Heating/
Air Conditioning
(800 – 4500 W)

- ① To help you with your selection of essential circuits, please consider the following:
- The rated wattage of lights can be taken from light bulbs. The rated wattage of tools, appliances and motors can usually be found on a data plate or decal affixed to the device.
 - If the appliance, tool or motor does not give wattage, multiply 120 volts times the ampere rating to determine watts (volts x amps = watts).
 - Some electric motors (induction types) require about three times more watts of power for starting than for running. This surge lasts for only a few seconds. Be sure you allow for this high starting wattage when selecting electrical devices that will be energized by the backup power system:
 - Figure the watts required to start the largest motor.
 - Add that to the total running watts of all other connected loads.

Data Tables

TABLE 9-2. PORTABLE GENERATORS

Rated Watts	Starting Watts	Engine	Run Time	Warranty	Features	Part Number
3250 Watt Portable Generator						
3250	4,550	6.5 hp Briggs & Stratton OHV Engine	Up to 2.7 hrs. (at 1/2 Load)	Two-Year Limited Warranty	• 3 Convenient Outlets • Manual Start • Ideal for Work/Tool Power or Recreational Use	1653CH
5500 Watt Portable Generator						
5500	8,500	10 hp Briggs & Stratton OHV Engine	Up to 13 hrs. (at 1/2 Load)	Two-Year Limited Warranty	• 5 Convenient Outlets • Easy Start (Manual) • Basic Power to Run Essential Items During a Power Outage	1654CH
7000 Watt Portable Generator						
7000	12,250	15 hp Briggs & Stratton OHV Engine	Up to 8 hrs. (at 1/2 Load)	Two-Year Limited Warranty	• 6 Convenient Outlets • Electric Start • Enough Power to Keep You Comfortable During a Power Outage	1894CH

If you purchase a portable generator, you will also need to purchase the following:

- ✓ Manual transfer switch or emergency generator panel.
- ✓ Power inlet box.
- ✓ Power cord.

TABLE 9-3. STANDBY GENERATORS

Feature	Model Number		
	CHGEN7000	CHGEN10000	CHGEN12000
Running Watts			
Liquid Propane	7,000	10,000	12,000
Natural Gas	6,000	9,000	11,000
Starting Watts			
Liquid Propane	10,500	12,500	15,000
Natural Gas	9,000	11,250	13,750
Operation	Fully Automatic	Fully Automatic	Fully Automatic
Run Time	Continuous based on fuel supply	Continuous based on fuel supply	Continuous based on fuel supply
Engine Brand	Briggs & Stratton	Briggs & Stratton	Briggs & Stratton
Engine	504 cc ELS	570 cc Vanguard	627 cc Vanguard
Engine Type	OHV	OHV V-Twin	OHV V-Twin
RPM	3600	3600	3600
Sound Rating	77 dB	70 dB	69 dB
System Exerciser	Every 7 days	Every 7 days	Every 7 days
Remote Status	Yes	Yes	Yes
Diagnostic Alerts	4 Functions	7 Functions	7 Functions
Dimensions	30.5 x 22 x 32.5	40 x 22 x 23	40 x 22 x 23
Weight	280 lbs.	379 lbs.	379 lbs.
Warranty	2 Years	3 Years/1500 Hrs.	3 Years/1500 Hrs.

If you purchase a standby generator, you will also need to purchase the following:

- ✓ Automatic transfer switch.

Optional Cold Weather Accessories for Standby Generators

- ✓ Battery heater — Catalog Number **1915CH**.
- ✓ Engine oil warmer — Catalog Number **1916CH**.

Related Products

TRANSFER SWITCHES

A transfer switch is required to transfer power from utility power to generator power. Transfer switch selection will vary based on the generator type and can be found on **Page 9-5** of this catalog.

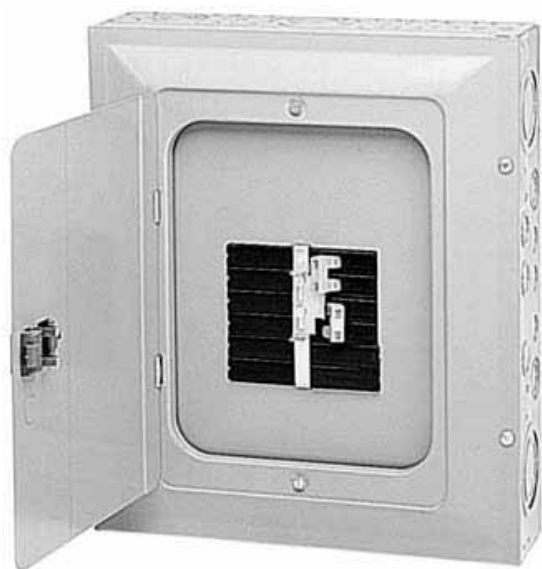
Extra Stuff

A power outage is more than an inconvenience. It could cost you thousands of dollars.

- ✓ Loss of heat (even gas furnaces have electric fans) could send families to motels and restaurants.
- ✓ Basements flood when sump pumps have no power.
- ✓ Food spoils when freezer and refrigerator are out.

Your home, and what’s inside it, is the biggest and most important investment you will ever make. So why leave it all to chance?

Transfer Switches



Manual Transfer Switch



Emergency Generator Panel



Automatic Transfer Switch

Product Description

When your normal power source has been interrupted, a transfer switch is used to transfer your homes circuits to generator power. Transfer switch selection varies depending on the needs of the homeowner and the type of generator. Manual transfer switches are typically used with portable generators. With this type of switch, the homeowner must transfer power manually each time the utility power is interrupted. Automatic transfer switches monitor utility and generator voltages and will automatically connect to the appropriate source. When the power goes out, the transfer switch automatically senses the power disruption, signals the generator to turn on, and transfers power from utility to standby power for the duration of the power outage. When utility power is restored, the switch senses that power has returned, shuts down the generator and resumes monitoring.

Features, Functions and Benefits

MANUAL TRANSFER SWITCHES

- ✓ For use with portable generators.
- ✓ Hardwired connection to Power Inlet Box (sold separately).
- ✓ Accepts Cutler-Hammer® Type CH and CHNT Breakers (sold separately).
- ✓ Sturdy copper bus loadcenter construction for long service life.
- ✓ Mechanically interlocked to prevent paralleling of normal and emergency power source.

EMERGENCY GENERATOR PANELS

- ✓ For use with portable generators.
- ✓ Plug-in generator connection.
- ✓ All circuit breakers are included — switching duty rated.
- ✓ Includes dual wattmeters for load balancing.
- ✓ Mechanically interlocked main disconnects prevent paralleling of normal and emergency power source.

AUTOMATIC TRANSFER SWITCHES

- ✓ For use with standby generators.
- ✓ Fully automatic.
- ✓ “Whole house” transfer (100 and 200 amperes).
- ✓ Computer friendly.
- ✓ Electrically interlocked to prevent paralleling of normal and emergency power source.
- ✓ Designed exclusively for use with Eaton’s Cutler-Hammer brand Home Standby Generators.

Data Tables

TABLE 9-4. SELECTION OF MANUAL TRANSFER SWITCHES AND GENERATOR PANELS FOR USE WITH PORTABLE GENERATORS

Enclosure Type	Watts	Number of Circuits	Ampere Rating	Main/ Emergency Rating	Feeder Breakers	Included Accessories	Catalog Number	UPC Code
Manual Transfer Switch								
NEMA® 3R	5,000	4 – 8	30	Provision	Provision	None	CH48GEN3060R	782114511794
NEMA 1	10,000	8 – 16	60	Provision	Provision	None	CH816GEN6060	782114511800
Emergency Generator Panel								
NEMA 1	5,000	6	20	60/20 A	5 – 1P 15 1 – 1P 20	None	CH6EGEN2060	782114556948
NEMA 3R	5,000	6	20	60/20 A	5 – 1P 15 1 – 1P 20	None	CH6EGEN2060R	782114606414
NEMA 1	5,000	6	20	60/20 A	5 – 1P 15 1 – 1P 20	2-Pole Surge Protector	CH6EGEN2060SUR	782114556931
NEMA 3R	5,000	6	20	60/20 A	5 – 1P 15 1 – 1P 20	2-Pole Surge Protector	CH6EGEN2060RSU	782114627983
NEMA 1	7,500	10	30	60/30 A	6 – 1P 15 2 – 1P 20 1 2P 30	None	CH10EGEN3060	782114556962
NEMA 3R	7,500	10	30	60/30 A	6 – 1P 15 2 – 1P 20 1 2P 30	None	CH10EGEN3060R	782114606421
NEMA 1	7,500	10	30	60/30 A	7 – 1P 15 2 – 1P 20 1 2P 30	2-Pole Surge Protector	CH10EGEN3060SUR	782114556955
NEMA 3R	7,500	10	30	60/30 A	7 – 1P 15 2 – 1P 20 1 2P 30	2-Pole Surge Protector	CH10EGEN3060RSU	782114627990

TABLE 9-5. SELECTION OF TRANSFER SWITCHES FOR USE WITH STANDBY GENERATORS

Description	Models			
	CHGEN50ATS	CHGEN50ATSR	CHGEN100ATSR	CHGEN200ATSR
Switch Type	NEMA® 1/Indoor	NEMA 3R/Indoor or Outdoor	NEMA 3R/Indoor or Outdoor	NEMA 3R/Indoor or Outdoor
Circuits	10	10	All	All
Amperes	50	50	100	200
Poles	2	2	2	2
Frequency	50/60	50/60	50/60	50/60
Dimensions (L x W x H) in Inches (mm)	4.00 x 14.25 x 21.00 (101.6 x 362.0 x 533.4)	6.00 x 14.50 x 21.00 (152.4 x 368.3 x 533.4)	6.00 x 12.00 x 16.00 (152.4 x 304.8 x 406.4)	7.00 x 16.00 x 22.00 (177.8 x 406.4 x 558.8)
Weight in lbs. (kg)	25 (11)	29 (13)	21 (10)	34 (15)

Applications

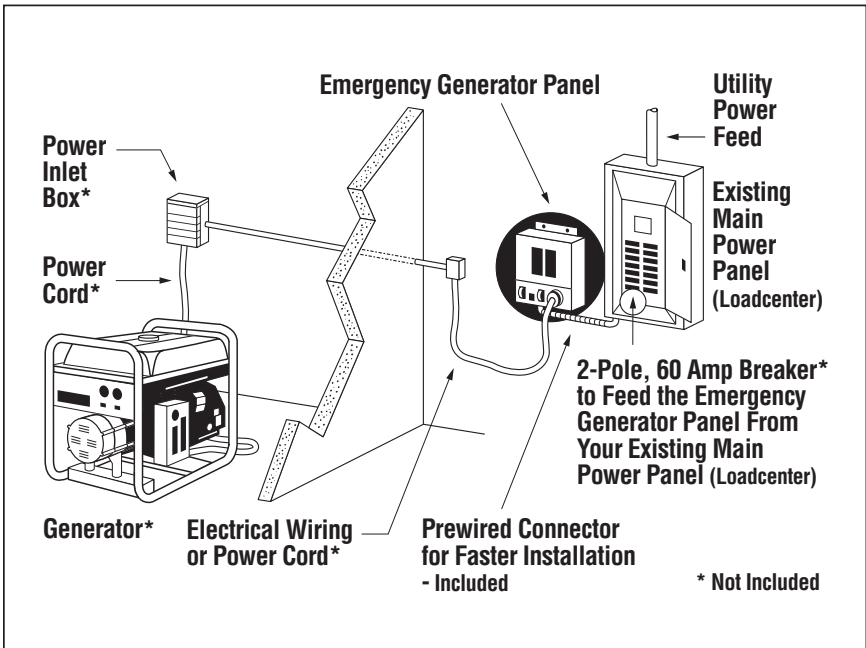


FIGURE 9-3. RESIDENTIAL GENERATOR APPLICATION WITH MANUALLY OPERATED DOUBLE THROW SAFETY SWITCH

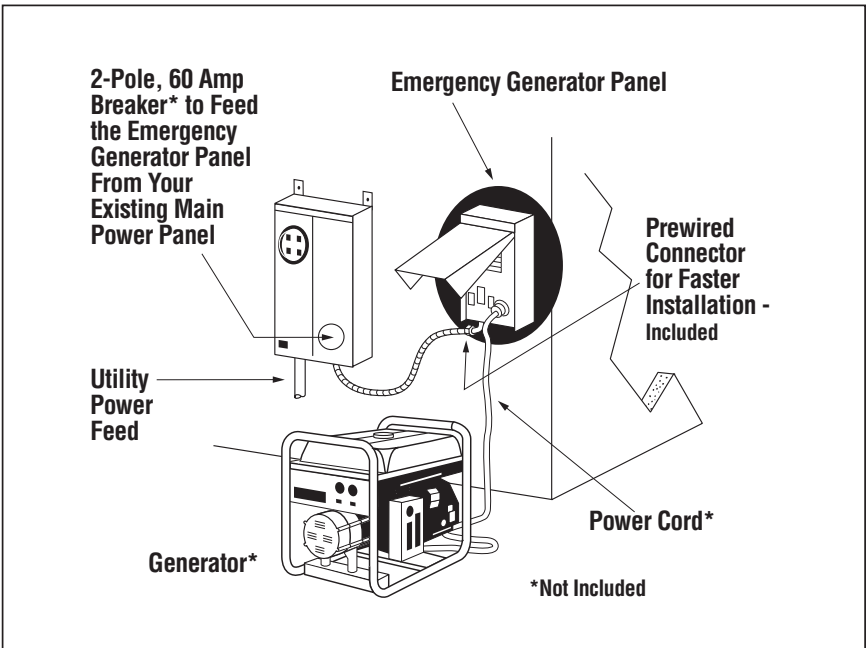


FIGURE 9-4. RESIDENTIAL GENERATOR APPLICATION WITH AUTOMATIC TRANSFER SWITCH AND SERVICE ENTRANCE RATED SAFETY SWITCH

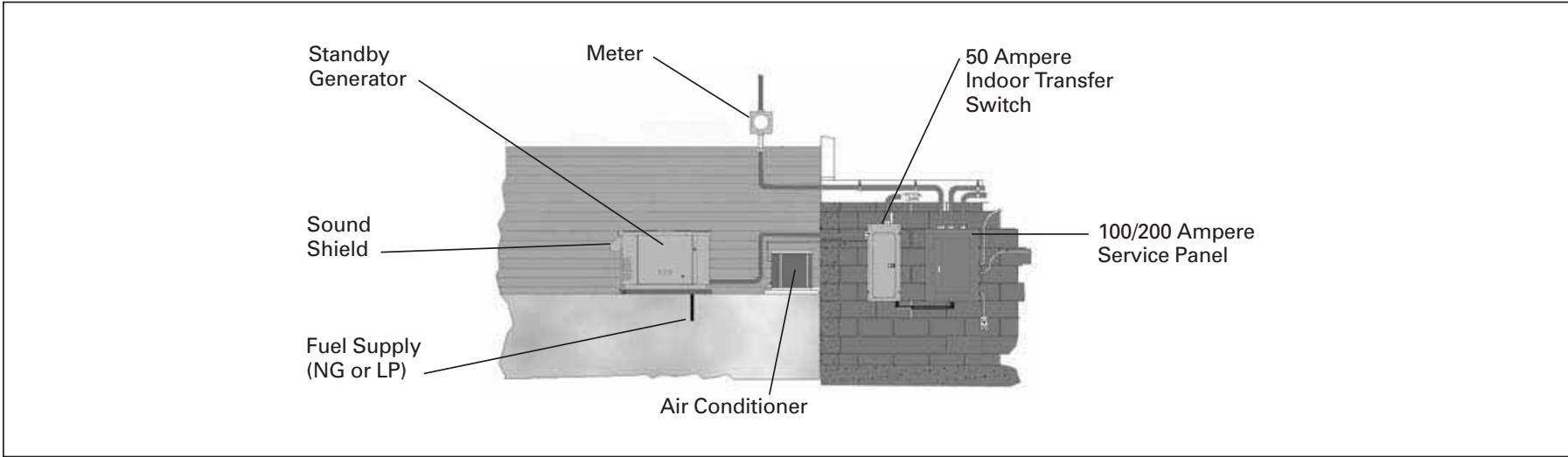


FIGURE 9-5. CHGEN50ATS & CHGEN50ATSR

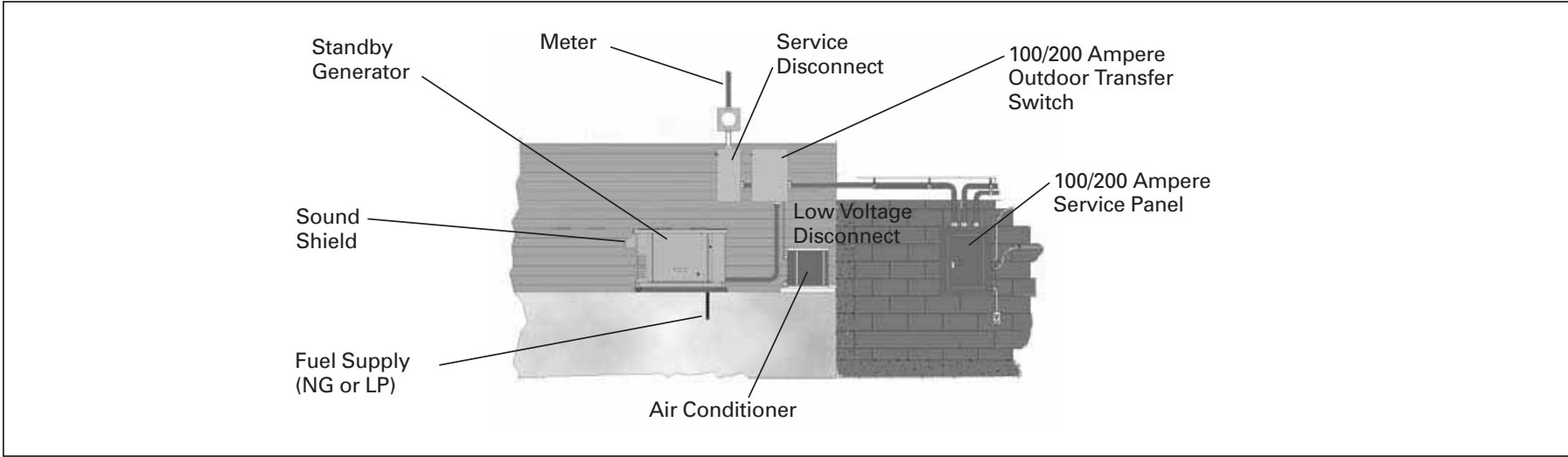


FIGURE 9-6. CHGEN100ATS & CHGEN200ATSR

Accessories

TABLE 9-6. ACCESSORIES FOR MANUAL TRANSFER SWITCHES AND EMERGENCY POWER GENERATOR PANELS

Description	Ampere Rating	Catalog Number	UPC Code
Flange Kit for Flush Mount Applications ①	—	CHEGENFKIT	782114606438
10-Foot (3.05 m) Power Cord	20	CH6EGEN10CORD	782114606452
10-Foot (3.05 m) Power Cord	30	CH10EGEN10CORD	782114606506
25-Foot (7.62 m) Power Cord	20	CH6EGEN25CORD	782114606469
25-Foot (7.62 m) Power Cord	30	CH10EGEN25CORD	782114606513
Power Inlet Box	20	CH6EGENPIB	782114606483
Power Inlet Box	30	CH10EGENPIB	782114606537

① For use with Emergency Generator Panel Only.

Related Products

GENERATORS

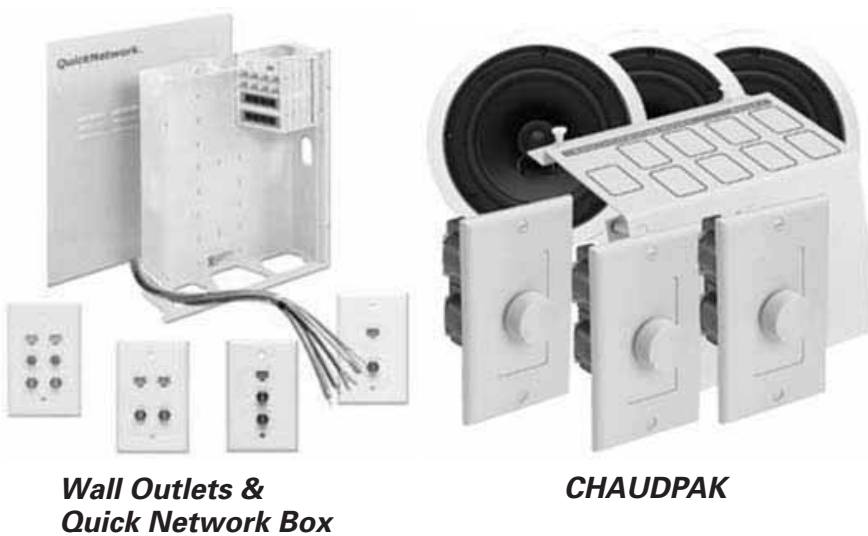
See **Pages 9-1** through **9-3** of this section.

Briggs & Stratton is a registered trademark of Briggs & Stratton Corporation. Cutler-Hammer is a federally registered trademark of Eaton Corporation. NEMA is the registered trademark and service mark of the National Electrical Manufacturers Association.



Structured Wiring

Entry Level Network Panels	10-3
Distribution Network Panels	10-3
Networking Modules	10-4
Entertainment System Components	10-7
Speakers	10-8
Home Automation Systems and Components. . .	10-9
Networking	
Housings and Covers.	10-10
Panel Inserts	10-11
Receptacles	10-12
Accessories and Patch Cords	10-14



Product Description

Structured wiring is a simple, affordable way to wire a home for state-of-the-art communications, entertainment and security now and for many years to come. The basic concept is that all telephone, television, satellite, coaxial, audio and data communications cables are wired in a star topology (home run) to each room in the home and terminate at a central distribution panel. This distribution panel allows flexibility for future modifications and/or additions to keep pace with a homeowner's lifestyle and needs. Structured wiring can also be used as a central hub to interconnect a security system, home automation, HVAC and load control providing a complete system to increase the security, comfort and convenience for a homeowner.

Features, Functions and Benefits

- ✓ Telephone.
- ✓ High-speed Internet.
- ✓ Computer networks.
- ✓ Web-safe Internet router.
- ✓ Whole-house sound.
- ✓ Satellite/cable TV.

WIRED FOR THE FUTURE

Preparing a home for the next generation of technology doesn't have to be an ordeal, it just takes creative wiring. This house demonstrates some of the ways appliances and electronics can work together using StructuredWiringSolutions™ from Eaton's electrical business, which is the first of its kind to bundle cables, distribute them through the house and tie them into a central panel.

Satellite dish and cable TV feeds come into the house through a common point to the distribution panel. From there, you can redirect TV signals to any room in the house. If telephone service one day uses coaxial cable, or if TV signals are sent over phone lines, there will be no need to rewire because the consolidated outlets have connections for both types of wiring.

A video camera monitors the playroom. As your needs change, the same outlet can be used to deliver a TV signal or tie into a computer network.

A programmable thermostat can be accessed via telephone or computer remotely, indicating a broken air-conditioning or heating system. While on the road, you can adjust the settings from a telephone if you have a computer and modem.

The television in the master bedroom can display a signal from the VCR or DVD located in the family room. Outdoor cameras can also be displayed from the yard and front door.

Computers in your home can be networked together allowing you to share files, drives or a dial-up or high speed Internet line. All computers can now print to a common printer or import scans from a common scanner.

Any television can be used to see the baby in the nursery. Using coaxial cable running through the house, a camera in the baby's room will broadcast a picture that can be viewed by a TV. Checking on the baby is as easy as changing the channel.

The security system protects you and your loved ones from harm.

A video camera on the porch sends a picture to all the televisions. Use the telephone to talk to the visitor over an intercom and enter a code to unlock the door.

Whole-house audio provides music anywhere you want soothing background music. And, you control the volume in each room.

The home automation system allows you to sit down with the family, press one button and have the TV turn on, the DVD player start playing, the lights dim down and set the volume or the home theater system to the perfect level.

The newest appliances, such as refrigerators and washing machines, will have built-in chips so they can "talk" to your home computer.

The structured wiring distribution panel is the hub for distributing telephone, cable, security and other services. Outlets in each room are connected with the services by patch cords, built for flexibility. Instead of rewiring every time you move a television that has cable access, you just move a patch cord in the panel each time you want to make a change. No need to rewire.

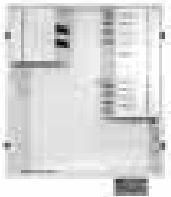
FIGURE 10-1. A HOME WITH STRUCTURED WIRING SOLUTIONS GIVES YOU READY CONTROL OF THE LATEST IN COMPUTING, AUDIO, VIDEO AND COMMUNICATIONS. WITH THE RIGHT COMPONENTS, YOUR DREAM HOME IS READY FOR TODAY'S WORLD AND TOMORROW'S ADVANCEMENTS. YOUR VALUE IS ENSURED...AND SO IS YOUR PEACE OF MIND.

Data Tables

TABLE 10-1. ENTRY-LEVEL NETWORKS

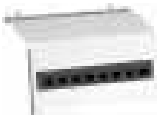
Part Number	UPC Code	Product Description
CHAN100 	782116136285	Perfect for apartments, condos or even entry level homes. This distribution panel distributes four incoming telephone lines to six locations, punchdown, and one incoming coax signal to four locations, passive. Installation is easy and a stylish three-gang wall plate cover provides a professional looking finish.
CHAN100P	782116299591	Same as CHAN100 , except punchdown for telephone is doubled for 11 locations and there is no coax distribution. Perfect for commercial and resi applications for phone only, or for six phone locations and/or six computer locations.
CHQND200 	782116136179	Perfect for apartments, condos or even entry level homes. This 6" x 14-1/2" distribution panel distributes one incoming coax signal to four locations with two pass-throughs for satellite, eight RJ45 connectors for telephone distribution. Also includes one RJ31X jack. Has room for one expansion module. Includes cover. *110 outlet not included.
CHQND200P	782116136193	Same as CHAN200 , except punchdown for telephone.
CHQND2008	782116136230	Perfect for apartments, condos or even entry level homes. This 6" x 14-1/2" distribution panel distributes one incoming coax signal to eight locations with two pass-throughs for satellite, eight RJ45 connectors for telephone distribution. Also includes one RJ31X jack. Has room for one expansion module. Includes cover. *110 outlet not included.
CHQND200P8	782116136209	Same as CHAN2008 , except punchdown for telephone.
CHQND2008A	782116136223	Perfect for apartments, condos or even entry level homes. This 6" x 14-1/2" distribution panel distributes one incoming coax signal to eight locations, with bi-directional 12 dB amplification, two pass-throughs for satellite, eight RJ45 connectors for telephone distribution. Also includes one RJ31X jack. Has room for one expansion module. Includes cover. *110 outlet not included. Must be powered with nearby wall outlet. Comes with transformer.
CHQND200P8A	782116136216	Same as CHAN2008A , except punchdown for telephone.

TABLE 10-2. DISTRIBUTION PANELS QUICKNETWORK SERIES

Part Number	UPC Code	Product Description
CHSWPAK1 	782113533704	QuickNetwork Panel. Services up to eight telephone locations and eight TV locations. 1 in, 8 out coax (TV) distribution module with two pass-through connections for DBS satellite. 4-line to 8 location telephone module (CAT5 rated, RJ45 w/ RJ31X connector) four expansion bays. Built-in 110 V power outlet. 18" install can and cover. 19 lbs.
CHSWPAK1P 	782116136186	QuickNetwork Panel. Same features as CHSWPAK1, except with punchdown style connector on telephone module instead of RJ45 connectors. 19 lbs.
CHSWPAK2 	782113533711	Entertainment Upgrade Package. Services up to eight telephone locations and eight TV locations. 5 in, 8 out coax (TV) distribution module with four pass-through connections for DBS satellite, 20 dB bi-directional amplifier and surge suppression. 4-line to 8 location telephone module (CAT5 rated, RJ45 w/ RJ31X connector). Two expansion bays. Built-in 110 V power outlet. 18" install can and cover. 19 lbs.
CHSWPAK4 	782113533735	Education and Home Office Upgrade Package. Comes standard with two patching modules that allow 12 coax connections and 12 CAT5e connections to be professionally terminated, and connected by patch cording to the phone, video or computer service modules. Six CAT5 patch cords, and six RG6-rated coax patch cords are included. System also includes one 5 in, 8 out coax (TV) distribution module with four pass-throughs, surge suppression and 20 dB bi-directional amplifier; one 4 line to 12 location telephone module (CAT5 rated, RJ45) with surge suppression, RJ31X security system connection, and a connection for a PBX/KSU; four expansion bays; one 4 port, 10 / 100 auto switching cable / DSL Firewall Internet Router; Built-in 110 V power outlet; 36" install can and cover. 37 lbs.

Data Tables

TABLE 10-3. MODULES FOR QUICKNETWORK SERIES PANELS

Part Number	UPC Code	Product Description
 CHMDT124P	782113533599	12 Port, 4 Line Telephone Module. Twelve RJ45 ports (CAT5 rated) support four incoming phone lines with speeds up to 100 Mbps. Includes two Amphenol connectors for interface to a Key System Unit (KSU) or PBX. The Amphenol connectors include a shorting block for compatibility with Plain Old Telephone (POTS) lines. Includes surge suppression and one RJ31X port. 12". 2.5 lbs.
 CHMDT412100	782113726625	12 Port, 4 Line Punchdown Telephone Module. The 12/4 punchdown Telephone Module has 12 110 punchdown blocks which distribute four incoming lines to 12 locations. 6" form factor. 1 lb.
 CHMDT122P	782116009411	12 Port, 2 Line Telephone Module. This 12 location, two line, RJ11 harmonica-style twisted pair module is used for connecting and distributing voice at speeds up to 10 Mbps. Includes 12 RJ11 ports, supports two incoming telephone lines, and includes an Amphenol connector for interface with a telephone Key System Unit (KSU) or PBX. The Amphenol connector includes a shorting block for compatibility with Plain Old Telephones (POTS) lines. Includes surge suppression. 12" form factor. 1.8 lbs.
 CHMDT083P	782116031481	8 Port, 3 Line Telephone Hub. This eight location, three line, RJ11 harmonica-style twisted pair module is designed to work with Panasonic Key Service Units (KSUs) that require a three-pair connection rather than a two-pair connection. Note: A shorting block is not provided with this module. Can not be used with Plain Old Telephones (POTS). 0.6 lbs. 6" form factor.
 CHMDT8RJ	782113533612	8 Port, 4 Line Telephone Module. Eight RJ45 ports support four incoming phone lines. One RJ31X port for security. 6" form factor. 1.0 lb.
 CHMDT416100	782116150380	16 Port, 4 Line Telephone Module. 16 RJ45 ports support four incoming phone lines. One RJ31X port for security. 6" form factor. 1.25 lbs.
 CHMDC4T8RJ	782113965864	Combo 4 x 8 Coax/Phone Distribution Module (with RJ45 patch connectors). Distributes one incoming coax TV line to four locations (plus two pass-through) and four telephone lines to eight locations. Includes an RJ31X connection. 6" form factor. 1.1 lbs.
 CHMDX48300	782113965857	Combo 4 x 8 Coax/Phone Distribution Module (with 110 punchdown connectors). Distributes one incoming coax TV line to four locations (plus two pass-through) and four telephone lines to eight locations. 6" form factor. 1.2 lbs.
 CHMDC8T8RJ	782113533537	Combo 8 x 8 Passive Coax/Phone Distribution Module (with RJ45 patch connectors). Distributes one incoming coax TV line to eight locations (plus two pass-through) and four telephone lines to eight locations. Includes an RJ31X connection. 6" form factor. 1.2 lbs.
 CHMDX88200	782113680705	Combo 8 x 8 Active Coax/Phone Distribution Module (with RJ45 patch connectors). Distributes one incoming coax TV line to eight locations with built-in amplification (plus two pass-throughs) and four telephone lines to eight locations. Includes an RJ31X connection. 6" form factor. 1.2 lbs.
 CHMDX88300	782113533520	Combo 8 x 8 Passive Coax/Phone Distribution Module (with 110 punchdown connectors). Distributes one incoming coax TV line to eight locations (plus two pass-through) and four telephone lines to eight locations. 6" form factor. 1.2 lbs.
 CHMDX88400	782116031498	Combo 8 x 8 Active Coax/Phone Distribution Module (with 110 punchdown connectors). Distributes one incoming coax TV line to eight locations with built-in amplification (plus two pass-throughs) and four telephone lines to eight locations. Includes an RJ31X connection. 6" form factor.

Data Tables

TABLE 10-3. MODULES FOR QUICKNETWORK SERIES PANELS (CONTINUED)

Part Number	UPC Code	Product Description
 CHMDC104	782113965871	1 x 4 Coax Module. 1 in, 4 out coax module with four pass-through connectors. 6" form factor. 1.0 lb.
 CHMDC108	782113534336	1 x 8 Coax Module. 1 in, 8 out coax module with two pass-through connectors. 6" form factor. 1.3 lbs.
 CHMDC108200	782116126262	1 x 8 Amplified Coax Module. 1 in, 8 out coax module with 12 dB bi-directional amplifier and two pass-through connectors. 6" form factor. 2.4 lbs.
 CHMDC408	782113533506	5 x 8 Coax Module. 5 in, 8 out coax module with 20 dB bi-directional amplifier, surge protection, and four pass-through connectors, and four inputs for modulated signals. 12" form factor. 3 lbs.
 CHMDC412	782113533513	5 x 12 Coax Module. 5 in, 12 out coax module with 20 dB bi-directional amplifier, surge protection, and four pass-through connectors, and four inputs for modulated signals. 12" form factor. 3.5 lbs.
 CHMDC416	782113965888	5 x 16 Coax Module. 5 in, 16 out coax module with 20 dB bi-directional amplifier, surge protection, with one direct and four inputs for modulated signals. 12" form factor. 3.6 lbs.
 CHMDB100	782116031467	Expansion Bay Blank. This blank is used to cover open areas or conceal wires that are running through the QuickNetwork distribution panel. 6" form factor.
CHMDPB	782113533575	Blank Patch Module. Use this blank patch module to custom design a zone. The blank patch module accepts any configuration of CAT5e, RG6 coax or fiber optic inserts. Labeling areas allow you to identify the connections and what rooms they represent. 6" form factor.
 CHMDP2	782116009404	2-Zone Patch Module. 12 connection ports (two CAT5, two coax, and two fiber optic connections per zone). 6" form factor. 0.8 lbs. Use only when terminating fiber optic connections.
 CHMDP3	782113533568	3-Zone Patch Module. 12 connection ports (two CAT5 and two coax per zone). 6" form factor. 0.8 lbs. Allows for many room locations (wall plates) to be terminated cleanly and professionally without having to add expensive service modules. Active wall plates can be patch corded to data, voice or video modules as needed without complication or added expense. Outlet locations can be permanently labeled for easy consumer plug n' play, and changing applications and life styles.
 CHMDDS4	782113533544	4-Location DBS Distribution Module. Provides distribution of a dual LNB DBS Digital Satellite Dish signal to four locations through a single coax cable without modulation. Each TV location must be connected to a separate DBS receiver where desired. 6" form factor. 1.7 lbs.

Data Tables

TABLE 10-3. MODULES FOR QUICKNETWORK SERIES PANELS (CONTINUED)

Part Number	UPC Code	Product Description
CHMDDS8100	782116031474	8-Location High Definition Satellite TV Distribution Module
 CHMDAD86	782113533483	8-Location Audio Distribution Module. The Audio Distribution Module allows an audio signal to be distributed to eight stereo or 16 mono speaker locations. 6" form factor. 1 lb.
 CHMDMD03	782113920894	Triple Channel Modulator Module. Used for creating in-home television channels for viewing from any TV in the home. Signals from three different audio/video sources such as TV, VCR, DVD, DBS, satellite TV and security cameras may be identified and displayed by any television. 6" form factor. 2.1 lbs.
CHMDSG100	782116049318	Universal Security System Module. Accepts the following security system boards; Electronic Lines 3208 gold, Caddx NX8, Vista 15P, First Alert FA148CP, DSC 1555, DSC 832.
CHMDSC100	782116049325	Non-Locking Cover for the Security System
CHMDSC200	782116049332	Locking Cover for the Security System
 CHMDFDS	782113967462	Door Station Module. This module allows the homeowner to speak to visitors at a front door or entry using existing telephones. Includes one door station speaker. 6" form factor. 2.1 lbs.
 CHMDFDSR	782116009398	Door Station Module with Door Lock Release. Same as MDFDS, plus a door lock release feature that permits the homeowner to release electric door locks via telephone, allowing visitors to enter. Includes one door station speaker. 6" form factor.
 CHFDS100	782116009053	Door Station Speaker. Each door station module can support one additional speaker location.
 CHMDEN108	782113965895	8 Port, 10/100Base-T Ethernet Switch Module. Used to create a Local Area Network (LAN) by connecting up to eight computers, printers, scanners, fax machines, etc. Supports data transfer speeds up to 100 Mbps. Stackable, bridgeable. 12" form factor. Can be added to a router (CHMDENR100) to create 10 routed data ports.
 CHMDEN105	782116009381	5 Port, 10/100Base-T Ethernet Switch Module. Used to create a Local Area Network (LAN) by connecting up to five computers, printers, scanners, fax machines, etc. Supports data transfer speeds up to 100 Mbps. Stackable, bridgeable. 12" form factor. Can be added to a router (CHMDENR100) to create seven routed data ports.
 CHMDENR100	782116126965	DSL or Cable Router with 4 Port 10/100M Fast Ethernet Switch. Built-in NAT Firewall. 6" form factor.

Data Tables

TABLE 10-4. ENTERTAINMENT SYSTEM COMPONENTS

Part Number	UPC Code	Product Description
 CHMDADZ600	782116153084	A-Bus Audio Distribution Module (6" form factor). For use in QuickNetwork panels. The Zone 6 Audio Distribution Module distributes CAT5 audio to six locations. Can be cascaded to one or two additional modules for 12 or 18 locations.
 CHHBADZ600	782116153091	A-Bus Audio Distribution Hub (12" form factor). For use in SuperPro Distribution panels. The Zone 6 Audio Distribution Hub distributes CAT5 audio to six locations. Can be cascaded to one or two additional hubs for 12 or 18 locations.
 CHAUDZ200A	782116153114	A-Bus Volume Control (Almond). The volume control is the down line amplifier that converts the distributed audio signal back to an analog signal that is then distributed over speaker wire to in-wall/ceiling speakers.
CHAUDZ200W	782116153107	A-Bus Volume Control (White)
 CHAUDZ300A	782116153138	A-Bus Volume Control with “IR” Input Option (Almond). The IR allows the entertainment center's wireless remote to be used in rooms that have this feature.
CHAUDZ300W	782116153121	A-Bus Volume Control with “R” Input Option (White)
 CHAUDZ700A	782116153169	A-Bus Local Input Plate (Almond). Allows a local source that will override the main hub input.
CHAUDZ700W	782116153152	A-Bus Local Input Plate (White). Allows a local source that will override the main hub input.
 CHAUDZ500	782116153145	A-Bus Component Interface Unit. The CHAUDZ500 is used when the customer’s amplifier does not have an A-Bus CAT5e output built in. RCA connectors are run from the amplifier to the CHAUDZ500, and then a CAT5e homerun is made to the CHMDADZ600 in the main distribution panel.
 CHAUDPAK	782113533469	"Whole-House" Audio Package. Services up to eight stereo or 16 mono speaker locations. For use in QuickNetwork panels. System includes three 75-Watt Volume Controls, three Speakers (set of 2) In-Ceiling and one Audio Distribution Module; 6" form factor. 26 lbs. This is an analog distribution system for a low-cost background sound, distributed audio system.
 CHHBAD8	782116009107	8-Location Audio Distribution Hub. For use in Pro, SuperPro, and Hotwired eight panels. The Audio Distribution Hub allows an audio signal to be distributed to eight stereo or 16 mono speaker locations. This is an analog distribution system for a low-cost background sound, distributed audio system.
 CHMDAD86	782113533483	8-Location Audio Distribution Module (6" form factor). For use in QuickNetwork panels. The Audio Distribution Module allows an audio signal to be distributed to eight stereo or 16 mono speaker locations. This is an analog distribution system for a low-cost background sound, distributed audio system.
 CHAUD75VC	782113533445	75-Watt Volume Control (White) for analog audio systems.
CHAUD75VCA	782116142941	75-Watt Volume Control (Almond) for analog audio systems.
 CHAUD35VC	782116008964	35-Watt Volume Control (White) for analog audio systems.

Data Tables

TABLE 10-4. ENTERTAINMENT SYSTEM COMPONENTS (CONTINUED)

Part Number	UPC Code	Product Description
CHAUDW65 	782113965901	Speakers (set of 2), In-Wall, 6.5" Poly Woofer, .75" Tweeter. Surround sound capable. Suitable for all audio systems.
CHAUDC65 	782113533452	Speakers (set of 2), In-Ceiling, 6.5" Poly Woofer, 1" Swivel Tweeter. Surround sound capable. Suitable for all audio systems.
CHAUD055B 	782113965925	Speakers (set of 2), Outdoor, 5.5" Poly Woofer, .75" Tweeter, Black. Surround sound capable. Suitable for all audio systems.
CHAUD055W	782113965918	Speakers (set of 2), Outdoor, Same as above in White. Suitable for all audio systems.

Data Tables

TABLE 10-5. AUTOMATION SYSTEMS AND COMPONENTS

Part Number	UPC Code	Product Description
CHMDHC100 	782116341511	Home Automation Control Module. For QuickNetwork Panels. Comprehensive control of lights, appliances, heating/cooling, telephone, fire and security features.
CHHBHC100 	782116009091	Home Automation Control Hub. For Pro and SuperPro Panels. Comprehensive control of lights, appliances, heating/cooling, telephone, fire and security features.
CHOFS10A07	782116009442	4 Relay Module. 4 separate relays convert voltage outputs to Form C relay contacts. LED indicators show which relays are energized.
CHOFS10A097	782116009459	2-Way X-10 Transceiver Kit. Use with Control Module (MDHA) or Control Hub (HBHA) to inject X-10 signals onto powerline.
CHOFS10A11	782116009466	2-Way Voice Module Kit. Allows for two-way voice communication between premises and central station after an alarm event, or to announce alarms inside the premises using built-in voice capabilities. Listen/Talk features accessible from any touch tone phone. Can be used as internal paging/intercom system.
CHOFS1101A	782116009473	Programmable Energy Saver Module. Used to override existing thermostats for setback control, and for sensing and controlling other temperatures, such as attic fans, garage fans, greenhouses, basements etc. Works as a freeze sensor, causing the controller to dial out in the event of a furnace failure.
CHOFS11A009	782116106110	LCD Surface Mount Console. For use with MDHA or HBHA Home Automation Control Module or Hub. 48-character backlit LCD display with menu operation, backlit keys, selectable keyclick, beeper functions and viewing angle. Surface mount.
CHOFS11A002	782116009510	LCD Flush Mount Console. For use with MDHA or HBHA Home Automation Control Module or Hub. 48-character backlit LCD display with menu operation, backlit keys, selectable keyclick, beeper functions and viewing angle. Painted aluminum back box mounts in wall. Face of console snaps into back box for professional, built-in appearance.
CHOFS14A00	782116009558	Outdoor Temperature Sensor. Mounts in an outdoor location to send temperature to Control Module or Hub.
CHOFS21A052	782116009565	Controller Serial Cable. Connects personal computer to Control Module/Hub. DB-9F connector.
CHOFS22A001	782116009572	16-Zone Expansion Module. Adds 16 zones and eight voltage outputs with overload protection and reset.
CHOFS13A001	782116009534	Single-Stage Communicating Thermostat. For single-stage heating and cooling system, gas or electric heat.
CHOFS13A003	782116009541	Single-Stage Communicating Heat Pump Thermostat. For single-stage heat pump.
CHOFS1106W	782116009497	Upload/Download End User Software. For Windows® 95/98/NT.

Data Tables

TABLE 10-6. HOUSINGS, CANS, COVERS

Part Number	UPC Code	Product Description
CHQND6	782116136247	QuickNetwork 6" Install Can with 110 V Power and Cover (Metal)
CHQN18	782113533667	QuickNetwork 18" Install Can with 110 V Power and Cover (Metal)
CHQN24	782113533674	QuickNetwork 24" Install Can with 110 V Power and Cover (Metal)
CHQN36	782113533681	QuickNetwork 36" Install Can with 110 V Power and Cover (Metal)
CHQN48	782113726779	QuickNetwork 48" Install Can with 110 V Power and Cover (Metal)
CHQNIC18	782116009763	QuickNetwork 18" Install Can with 110 V Power
CHQNIC24	782116009770	QuickNetwork 24" Install Can with 110 V Power
CHQNIC36	782116009787	QuickNetwork 36" Install Can with 110 V Power
CHQNIC48	782116009794	QuickNetwork 48" Install Can with 110 V Power
CHQNCC18C	782116009695	QuickNetwork Cover for QNIC-18 (Clear Plastic)
CHQNCC24C	782116009718	QuickNetwork Cover for QNIC-24 (Clear Plastic)
CHQNCC36C	782116009732	QuickNetwork Cover for QNIC-36 (Clear Plastic)
CHQNCC48C	782116009756	QuickNetwork Cover for QNIC-48 (Clear Plastic)
CHQNCC18	782116009688	QuickNetwork Cover for QNIC-18 (Metal)
CHQNCC24	782116009701	QuickNetwork Cover for QNIC-24 (Metal)
CHQNCC36	782116009725	QuickNetwork Cover for QNIC-36 (Metal)
CHQNCC48	782116009749	QuickNetwork Cover for QNIC-48 (Metal)
CHGRM100	782116031450	3-Pack Grommet Package for QuickNetwork Enclosure Knockouts

Data Tables

TABLE 10-7. PANEL INSERTS

Part Number	UPC Code	Product Description
CHBLNY 	782116009008	Blank Inserts for Distribution Panel (Yellow). Sold in 12 pack.
CHBLNR	782116008988	Blank Inserts for Distribution Panel (Red). Sold in 12 pack.
CHBLNB	782116008971	Blank Inserts for Distribution Panel (Blue). Sold in 12 pack.
CHBLNW	782116008995	Blank Inserts for Distribution Panel (White). Sold in 12 pack.
CHMLFN 	782116009428	ST Fiber Optic Connectors for Distribution Panel. Sold in 12 pack.
CHMLCN 	782113533636	RG6 Coax Connectors for Distribution Panel. Sold in 12 pack.
CHML5N 	782113533629	RJ45, CAT5e Rated Connectors for Distribution Panel. Sold in 12 pack.
CHBZ5N 	782116009015	CAT5e Bezels for Distribution Panel (Blue). Sold in 12 pack.
CHQNS100	782116153398	Panel Door Clips. Sold in 10 pack.
CHQNS150	782116126941	Panel Door Screws. Sold in 10 pack.
CHRIV100	782116103126	Rivet Grommet/Plunger (White). For holding modules into QuickNetwork cans. Sold in 20 pack.
CHIIDT 	782116009336	Icons for CAT5 Inserts. Computer/Data Icon, wheel of 16. These are snap-in data labels for the distribution bezels in the SuperPro series and the MDP3 modules.
CHIITP 	782116009343	Icons for CAT5 Inserts. Telephone/Voice Icon, wheel of 16. These are the snap-in telephone labels for the distribution bezels in the SuperPro series and the MDP3 modules.

Data Tables

TABLE 10-8. RECEPTACLES AND MULTIMEDIA WALL OUTLETS

Part Number	UPC Code	Product Description
CHREC101CW 	782116126712	1 Port Wall Outlet: 1 Coax TV connection (RG6) White color
CHREC101CA	782116126729	1 Port Wall Outlet. Same as CHREC101CW above except in almond color.
CHREC101CI	782116126736	1 Port Wall Outlet. Same as CHREC101CW above except in ivory color.
CHREC101TW 	782116126743	1 Port Wall Outlet: 1 RJ11 telephone connection (CAT3 rated) White color
CHREC101TA	782116126750	1Port Wall Outlet. Same as CHREC101TW above except in almond color.
CHREC101TI	782116126767	1 Port Wall Outlet. Same as CHREC101TW above except in ivory color.
CHREC101THW 	782116126774	1 Port Wall Hanging Outlet: 1 RJ11 telephone connection (CAT3 rated) White color
CHREC101THA	782116126781	1 Port Wall Outlet. Same as CHREC101THW above except in almond color.
CHREC101THI	782116126798	1 Port Wall Outlet. Same as CHREC101THW above except in ivory color.
CHREC101T5W 	782116126804	1 Port Wall Outlet: 1 RJ45 Telephone/Data connection (CAT5e rated) White color
CHREC101T5A	782116126811	1 Port Wall Outlet. Same as CHREC101T5W above except in almond color.
CHREC101T5I	782116126828	1 Port Wall Outlet. Same as CHREC101T5W above except in ivory color.
CHREC102W 	782116126835	2 Port Multimedia Wall Outlet. Telephone/Data connection (CAT5e) 1 Coax TV connection (RG6) White color
CHREC102A	782116126842	2 Port Multimedia Wall Outlet. Same as CHREC102W above except in almond color.
CHREC102I	782116126859	2 Port Wall Outlet. Same as CHREC102W above except in ivory color.
CHREC103W 	782116126866	3 Port Multimedia Wall Outlet. 1 Telephone/Data connection (CAT5e) 2 Coax TV connections (RG6) White color
CHREC103A	782116126873	3 Port Multimedia Wall Outlet. Same as CHREC103W above except in almond color.
CHREC103I	782116126880	3 Port Wall Outlet. Same as CHREC103W above except in ivory color.
CHREC104W 	782116126897	4 Port Multimedia Wall Outlet. 2 Telephone/Data connections (CAT5e) 2 Coax TV connections (RG6) White color
CHREC104A	782116126903	4 Port Multimedia Wall Outlet. Same as CHREC104W above except in almond color.
CHREC104I	782116126910	4 Port Wall Outlet. Same as CHREC104W above except in ivory color.
CHREC106W 	782116126927	6 Port Multimedia Wall Outlet. 2 Telephone/Data connections (CAT5e) 2 Blanks (may be populated with CAT5e, Coax, or Fiber Optic connectors) 2 Coax TV connections (RG6) White color
CHREC106A	782116126439	6 Port Multimedia Wall Outlet. Same as CHREC106W above except in almond color.
CHREC106I	782116126972	6 Port Wall Outlet. Same as CHREC106W above except in ivory color.

Data Tables

TABLE 10-9. BLANK RECEPTACLES AND RECEPTACLE INSERTS (SOLD IN 10 PACKS)

Part Number	UPC Code	Product Description
CHREC201W	782116126446	1 Port Blank Receptacle (White). (Blank face plates.)
		
CHREC201A	782116126453	1 Port Blank Receptacle (Almond). (Blank face plates.)
CHREC201I	782116126460	1 Port Blank Receptacle (Ivory). (Blank face plates.)
CHREC202W	782116126477	2 Port Blank Receptacle (White). (Blank face plates.)
		
CHREC202A	782116126484	2 Port Blank Receptacle (Almond). (Blank face plates.)
CHREC202I	782116126491	2 Port Blank Receptacle (Ivory). (Blank face plates.)
CHREC203W	782116126507	3 Port Blank Receptacle (White). (Blank face plates.)
		
CHREC203A	782116126514	3 Port Blank Receptacle (Almond). (Blank face plates.)
CHREC203I	782116126521	3 Port Blank Receptacle (Ivory). (Blank face plates.)
CHREC204W	782116126538	4 Port Blank Receptacle (White). (Blank face plates.)
		
CHREC204A	782116126545	4 Port Blank Receptacle (Almond). (Blank face plates.)
CHREC204I	782116126552	4 Port Blank Receptacle (Ivory). (Blank face plates.)
CHREC206W	782116126569	6 Port Blank Receptacle (White). (Blank face plates.)
		
CHREC206A	782116126576	6 Port Blank Receptacle (Almond). (Blank face plates.)
CHREC206I	782116126583	6 Port Blank Receptacle (Ivory). (Blank face plates.)
CHINSBLRW	782116126590	Blank Insert for Receptacles (White)
CHINSBLRA	782116126606	Blank Insert for Receptacles (Almond)
CHINSBLRI	782116126613	Blank Insert for Receptacles (Ivory)
CHINSC5RW	782116126620	CAT5e Insert for Receptacles (White)
CHINSC5RA	782116126637	CAT5e Insert for Receptacles (Almond)
CHINSC5RI	782116126644	CAT5e Insert for Receptacles (Ivory)
CHINSCXRW	782116126651	RG6 Coax Inserts for Receptacles (White)
CHINSCXRA	782116126668	RG6 Coax Inserts for Receptacles (Almond)
CHINSCXRI	782116126675	RG6 Coax Inserts for Receptacles (Ivory)
CHINSFORW	782116126682	ST Fiber Optic Inserts for Receptacles (White)
CHINSFORA	782116126699	ST Fiber Optic Inserts for Receptacles (Almond)
CHINSFORI	782116126705	ST Fiber Optic Inserts for Receptacles (Ivory)

Accessories

TABLE 10-10. PATCH CORDS AND MISCELLANEOUS

Part Number	UPC Code	Product Description
CHPCT21	782116009633	2 Pair, CAT3 Telephone Patch Cord (8 inches)
CHPCT22	782116009640	2 Pair, CAT3 Telephone Patch Cord (24 inches)
CHPCT2	782116009626	2 Pair, CAT3 Telephone Patch Cord (36 inches)
CHPCT41	782116009664	4 Pair, CAT5e Telephone Patch Cord (8 inches)
CHPCT42	782113533650	4 Pair, CAT5e Telephone Patch Cord (24 inches)
CHPCT4	782116009657	4 Pair, CAT5e Telephone Patch Cord (36 inches)
CHPCCXM	782116009589	RG6-rated Mini Digital Cable (8 inches)
CHPCCXM1	782116009596	RG6-rated Mini Digital Cable (14 inches)
CHPCCXM2	782113533643	RG6-rated Mini Digital Cable (24 inches)
CHPCCXM3	782116009602	RG6-rated Mini Digital Cable (36 inches)
CHPCFO	782116009619	ST Fiber Optic Patch Cord (36 inches)
CHMOD01	782113965932	Single Channel Modulator. Used for creating an in-home television channel for viewing from any TV in the home. A signal from audio/video sources such as TV, VCR, DVD, DBS, satellite TV, and security cameras may be identified and displayed by any television. 
CHMOD03	782116009435	Triple Channel Modulator. Attach to a home entertainment center for creating an in-home television channel for viewing from any TV in the home. A single signal from audio/video sources such as TV, VCR, DVD, or satellite TV may be identified and displayed by any television. For multi-room video distribution, a separate Triple Channel Modulator (part Number MDMD or HBMD) must be installed in the distribution panel. 
CHLB01	782113533476	Telephone Line Breakout Module. This module can be hung from an RJ45 wall plate to break out and put lines 1 – 4 on individual center pairs so that all four lines in the RJ45 jack are connectable to a standard RJ11 wired device. 

TABLE 10-11. WIRE

Part Number	UPC Code	Product Description
CHHYD8	782116009329	8 Leg, 3 Line KSU Hydra for connecting to KSU.
CHHYD12	782116009312	12 Leg, 2 Line KSU Hydra for connecting to KSU.

TABLE 10-12. POWER SUPPLIES

Part Number	UPC Code	Product Description
CHPSV110	782116009671	110 power supply for all coax hubs and modules (HBC-408, HBC-412, HBC-416, MDC-408, MDC-412, MDC-416).

Windows is a registered trademark of Microsoft Corporation.

Terms & Conditions

All terms and conditions are per your current vendor buying agreement. If there is no vendor buying agreement, then terms and conditions will be in accordance to the Eaton Electrical, Inc. selling policy 25000. The most recent version, at the time of printing this catalog, is on the following pages for your reference.

Terms and Conditions of Sale

The Terms and Conditions of Sale set forth herein, and any supplements which may be attached hereto, constitute the full and final expression of the contract for the sale of products or services (hereinafter referred to as Product(s) or Services by Eaton Electrical Inc. (hereinafter referred to as Seller) to the Buyer, and supersedes all prior quotations, purchase orders, correspondence or communications whether written or oral between the Seller and the Buyer. Notwithstanding any contrary language in the Buyer's purchase order, correspondence or other form of acknowledgment, Buyer shall be bound by these Terms and Conditions of Sale when it sends a purchase order or otherwise indicates acceptance of this contract, or when it accepts delivery from Seller of the Products or Services. **THE CONTRACT FOR SALE OF THE PRODUCTS OR SERVICES IS EXPRESSLY LIMITED TO THE TERMS AND CONDITIONS OF SALE STATED HEREIN. ANY ADDITIONAL OR DIFFERENT TERMS PROPOSED BY BUYER ARE REJECTED UNLESS EXPRESSLY AGREED TO IN WRITING BY SELLER.** No contract shall exist except as herein provided.

COMPLETE AGREEMENT

No amendment or modification hereto nor any statement, representation or warranty not contained herein shall be binding on the Seller unless made in writing by an authorized representative of the Seller. Prior dealings, usage of the trade or a course of performance shall not be relevant to determine the meaning of this contract even though the accepting or acquiescing party had knowledge of the nature of the performance and opportunity for objection.

QUOTATIONS

Written quotations are valid for 30 days from its date unless otherwise stated in the quotation or terminated sooner by notice.

Verbal quotations, unless accepted, expire the same day they are made.

A complete signed order must be received by Seller within 20 calendar days of notification of award, otherwise the price and shipment will be subject to re-negotiation.

TERMINATION AND CANCELLATION

Any order may be terminated by the Buyer only by written notice and upon payment of reasonable termination charges, including all costs plus profit.

Seller shall have the right to cancel any order at any time by written notice if Buyer breaches any of the terms hereof, becomes the subject of any proceeding under state or federal law for the relief of debtors, or otherwise becomes insolvent or bankrupt, generally does not pay its debts as they become due or makes an assignment for the benefit of creditors.

PRICES

All prices are subject to change without notice. In the event of a price change, the effective date of the change will be the date of the new price or discount sheet, letter or telegram. All quotations made or orders accepted after the effective date will be on the new basis. For existing orders, the price of the unshipped portion of an order will be the price in effect at time of shipment.

PRICE POLICY — PRODUCTS AND SERVICES

When prices are quoted as firm for quoted shipment, they are firm provided the following conditions are met:

- 1. The order is released with complete engineering details.
- 2. Shipment of Products are made, and Services purchased are provided within the quoted lead-time.
- 3. When drawings for approval are required for any Products, the drawings applicable to those Products must be returned within 30^① calendar days from the date of the original mailing of the drawings by Seller. The return drawings must be released for manufacture and shipment and must be marked "APPROVED" or "APPROVED AS NOTED." Drawing re-submittals which are required for any other reason than to correct Seller errors will not extend the 30-day period.

^① 60 days for orders through contractors to allow time for their review and approval before and after transmitting them to their customers.

If the Buyer initiates or in any way causes delays in shipment, provision of Services or return of approval drawings beyond the periods stated above, the price of the Products or Services will be increased 1 % per month or fraction thereof up to a maximum of 18 months from the date of the Buyer's order. For delays resulting in shipment or provision of Services beyond 18 months from the date of the Buyer's order, the price must be renegotiated.

PRICE POLICY — BLS

Refer to Price Policy 25-050.

MINIMUM BILLING

Orders less than \$1,000 will be assessed a shipping and handling charge of 5% of the price of the order, with a minimum charge of \$25.00 unless noted differently on Product discount sheets.

TAXES

The price does not include any taxes. Buyer shall be responsible for the payment of all taxes applicable to, or arising from the transaction, the Products, its sale, value, or use, or any Services performed in connection therewith regardless of the person or entity actually taxed.

Terms of Payment

PRODUCTS

Acceptance of all orders is subject to the Buyer meeting Seller's credit requirements. Terms of payment are subject to change for failure to meet such requirements. Seller reserves the right at any time to demand full or partial payment before proceeding with a contract of sale as a result of changes in the financial condition of the Buyer. Terms of Payment are either Net 30 days from the date of invoice of each shipment or carry a cash discount based on Product type. Specific payment terms for Products are outlined in the applicable Product discount schedules.

SERVICES

Terms of payment are net within 30 days from date of invoice for orders amounting to less than \$50,000.00.

Terms of payment for orders exceeding \$50,000.00 shall be made according to the following:

- 1. Twenty percent (20%) of order value with the purchase order payable 30 days from date of invoice.
- 2. Eighty percent (80%) of order value in equal monthly payments over the performance period payable 30 days from date of invoice.

Except for work performed (i) under a firm fixed price basis or (ii) pursuant to terms of a previously priced existing contract between Seller and Buyer, invoices for work performed by Seller shall have added and noted on each invoice a charge of 3% (over and above the price of the work) which is related to Seller compliance with present and proposed environmental, health and safety regulations associated with prescribed requirements covering hazardous materials management and employee training, communications, personal protective equipment, documentation and record keeping associated therewith.

ADEQUATE ASSURANCES

If, in the judgment of Seller, the financial condition of the Buyer, at any time during the period of the contract, does not justify the terms of payment specified, Seller may require full or partial payment in advance.

DELAYED PAYMENT

If payments are not made in accordance with these terms, a service charge will, without prejudice to the right of Seller to immediate payment, be added in an amount equal to the lower of 1.5% per month or fraction thereof or the highest legal rate on the unpaid balance.

FREIGHT

Freight policy will be listed on the Product discount sheets, or at option of Seller, one of the following freight terms will be quoted.

F.O.B. — P/S — FRT./PPD. AND INVOICED

Automatic Transfer Switches and Renewal Parts, and Electronic Operator Interface Products are sold F.O.B. point of shipment freight prepaid and invoiced to the Buyer.

F.O.B. — P/S — FRT./PPD. AND ALLOWED

All other Products sold are delivered F.O.B. point of shipment, freight prepaid and included in the price.

F.O.B. DESTINATION — FRT./PPD. AND ALLOWED

At Buyer's option, Seller will deliver the Products F.O.B. destination freight prepaid and 2% will be added to the net price.

The term "freight prepaid" means that freight charges will be prepaid to the accessible common carrier delivery point nearest the destination for shipments within the United States and Puerto Rico unless noted differently on the Product discount sheets. For any other destination, contact Seller's representative.

SHIPMENT AND ROUTING

Seller shall select the point of origin or shipment, the method of transportation and the routing of the shipment.

If the Buyer specifies a special mode of transportation, routing or delivery requirement, Buyer shall pay all special freight and handling charges.

When freight is included in the price, no allowance will be made in lieu of transportation if the Buyer accepts shipment at factory, warehouse or freight station, or otherwise supplies its own transportation.

RISK OF LOSS

Risk of loss or damage to the Products shall pass to Buyer at the F.O.B. point.

CONCEALED DAMAGE

Except in the event of F.O.B. destination shipments, Seller will not participate in any settlement of claims for concealed damage.

When shipment has been made on an F.O.B. destination basis, the Buyer must unpack immediately and, if damage is discovered, must:

1. Not move the Products from the point of examination.
2. Retain shipping container and packing material.
3. Notify the carrier in writing of any apparent damage.
4. Notify Seller representative within 72 hours of delivery.
5. Send Seller a copy of the carrier's inspection report.

WITNESS TESTS/CUSTOMER INSPECTION

Standard factory tests may be witnessed by the Buyer at Seller's factory for an additional charge calculated at the rate of \$2,500 per day (not to exceed eight (8) hours) per Product type. Buyer may final inspect Products at the Seller's factory for \$500 per day per Product type.

Witness tests will add one (1) week to the scheduled shipping date. Seller will notify Buyer fourteen (14) calendar days prior to scheduled witness testing or inspection. In the event Buyer is unable to attend, the Parties shall mutually agree on a rescheduled date. However, Seller reserves the right to deem the witness tests waived with the right to ship and invoice Products.

HELD ORDERS

For any order held, delayed or rescheduled at the request of the Buyer, Seller may, at its sole option (1) require payment to be based on any reasonable basis, including but not limited to the contract price, and any additional expenses, or cost resulting from such a delay; (2) store Products at the sole cost and risk of loss of the Buyer; and/or (3) charge to the Buyer those prices under the applicable price policy. Any order so held delayed or rescheduled beyond twelve (12) months will be treated as a Buyer termination.

DRAWING APPROVAL

Seller will design the Products in line with, in Seller's judgment, good commercial practice. If at drawing approval Buyer makes changes outside of the design as covered in their specifications, Seller will then be paid reasonable charges and allowed a commensurate delay in shipping date based on the changes made.

DRAWING RE-SUBMITTAL

When Seller agrees to do so in its quotation, Seller shall provide Buyer with the first set of factory customer approval drawing(s) at Seller's expense. The customer approval drawing(s) will be delivered at the quoted delivery date. If Buyer requests drawing changes or additions after the initial factory customer approval drawing(s) have been submitted by Seller, the Seller, at its option, may assess Buyer drawing charges. Factory customer approval drawing changes required due to misinterpretation by Seller will be at Seller's expense. Approval drawings generated by Bid Manager™ are excluded from this provision.

Warranty

WARRANTY FOR PRODUCTS

Seller warrants that the Products manufactured by it will conform to Seller’s applicable specifications and be free from failure due to defects in workmanship and material for one (1) year from the date of installation of the Product or eighteen (18) months from the date of shipment of the Product, whichever occurs first.

In the event any Product fails to comply with the foregoing warranty Seller will, at its option, either (a) repair or replace the defective Product, or defective part or component thereof, F.O.B. Seller’s facility freight prepaid, or (b) credit Buyer for the purchase price of the Product. All warranty claims shall be made in writing.

Seller requires all non-conforming Products be returned at Seller’s expense for evaluation unless specifically stated otherwise in writing by Seller.

This warranty does not cover failure or damage due to storage, installation, operation or maintenance not in conformance with Seller's recommendations and industry standard practice or due to accident, misuse, abuse or negligence. This warranty does not cover reimbursement for labor, gaining access, removal, installation, temporary power or any other expenses, which may be incurred in connection with repair or replacement.

This warranty does not apply to equipment not manufactured by Seller. Seller limits itself to extending the same warranty it receives from the supplier.

EXTENDED WARRANTY FOR PRODUCTS

If requested by the Buyer and specifically accepted in writing by Seller, the foregoing standard warranty for Products will be extended from the date of shipment for the period and price indicated below:

- ✓ 24 months — 2% of Contract Price
- ✓ 30 months — 3% of Contract Price
- ✓ 36 months — 4% of Contract Price

SPECIAL WARRANTY (IN AND OUT) FOR PRODUCTS

If requested by the Buyer and specifically accepted in writing by Seller, Seller will, during the warranty period for Products, at an additional cost of 2% of the contract price, be responsible for the direct cost of:

1. Removing the Product from the installed location.
2. Transportation to the repair facility and return to the site.
3. Reinstallation on site.

The total liability of Seller for this Special Warranty for Products is limited to 50% of the contract price of the particular Product being repaired and excludes expenses for removing adjacent apparatus, walls, piping, structures, temporary service, etc.

WARRANTY FOR SERVICES

Seller warrants that the Services performed by it hereunder will be performed in accordance with generally accepted professional standards.

The Services, which do not so conform, shall be corrected by Seller upon notification in writing by the Buyer within one (1) year after completion of the Services.

Unless otherwise agreed to in writing by Seller, Seller assumes no responsibility with respect to the suitability of the Buyer’s, or its customer’s, equipment or with respect to any latent defects in equipment not supplied by Seller. This warranty does not cover damage to Buyer’s, or its customer’s, equipment, components or parts resulting in whole or in part from improper maintenance or operation or from their deteriorated condition. Buyer will, at its cost, provide Seller with unobstructed access to the defective Services, as well as adequate free working space in the immediate vicinity of the defective Services and such facilities and systems, including, without limitation, docks, cranes and utility disconnects and connects, as may be necessary in order that Seller may perform its warranty obligations. The conducting of any tests shall be mutually agreed upon and Seller shall be notified of, and may be present at, all tests that may be made.

WARRANTY FOR POWER SYSTEMS STUDIES

Seller warrants that any power systems studies performed by it will conform to generally accepted professional standards. Any portion of the study, which does not so conform, shall be corrected by Seller upon notification in writing by the Buyer within six (6) months after completion of the study. All warranty work shall be performed in a single shift straight time basis Monday through Friday. In the event that the study requires correction of warranty items on an overtime schedule, the premium portion of such overtime shall be for the Buyer’s account.

LIMITATION ON WARRANTIES FOR PRODUCTS, SERVICES AND POWER SYSTEMS STUDIES

THE FOREGOING WARRANTIES ARE EXCLUSIVE EXCEPT FOR WARRANTY OF TITLE. SELLER DISCLAIMS ALL OTHER WARRANTIES INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

CORRECTION OF NON-CONFORMITIES IN THE MANNER AND FOR THE PERIOD OF TIME PROVIDED ABOVE SHALL CONSTITUTE SELLER’S SOLE LIABILITY AND BUYER’S EXCLUSIVE REMEDY FOR FAILURE OF SELLER TO MEET ITS WARRANTY OBLIGATIONS, WHETHER CLAIMS OF THE BUYER ARE BASED IN CONTRACT, IN TORT (INCLUDING NEGLIGENCE OR STRICT LIABILITY), OR OTHERWISE.

ASBESTOS

Federal Law requires that building or facility owners identify the presence, location and quantity of asbestos containing material (hereinafter “ACM”) at work sites. Seller is not licensed to abate ACM. Accordingly, for any contract which includes the provision of Services, prior to (i) commencement of work at any site under a specific Purchase Order, (ii) a change in the work scope of any Purchase Order, the Buyer will certify that the work area associated with the Seller’s scope of work includes the handling of Class II ACM, including but not limited to generator wedges and high temperature gaskets which include asbestos materials. The Buyer shall, at its expense, conduct abatement should the removal, handling, modification or reinstallation, or some or all of them, of said Class II ACM be likely to generate airborne asbestos fibers; and should such abatement affect the cost of or time of performance of the work then Seller shall be entitled to an equitable adjustment in the schedule, price and other pertinent affected provisions of the contract.

COMPLIANCE WITH NUCLEAR REGULATION

Seller’s Products are sold as commercial grade Products not intended for application in facilities or activities licensed by the United States Nuclear Regulatory Commission for atomic purposes. Further certification will be required for use of the Products in any safety-related application in any nuclear facility licensed by the U.S. Nuclear Regulatory Commission.

RETURNING PRODUCTS

Authorization and shipping instructions for the return of any Products must be obtained from Seller before returning the Products. When return is occasioned due to Seller error, full credit including all transportation charges will be allowed.

PRODUCT NOTICES

Buyer shall provide the user (including its employees) of the Products with all Seller supplied Product notices, warnings, instructions, recommendations, and similar materials.

FORCE MAJEURE

Seller shall not be liable for failure to perform or delay in performance due to fire, flood, strike or other labor difficulty, act of God, act of any governmental authority or of the Buyer, riot, embargo, fuel or energy shortage, car shortage, wrecks or delays in transportation, or due to any other cause beyond Seller’s reasonable control. In the event of delay in performance due to any such cause, the date of delivery or time for completion will be extended by a period of time reasonably necessary to overcome the effect of such delay.

LIQUIDATED DAMAGES

Contracts which include liquidated damage clauses for failure to meet shipping or job completion promises are not acceptable or binding on Seller, unless such clauses are specifically accepted in writing by an authorized representative of the Seller at its headquarters office.

PATENT INFRINGEMENT

Seller will defend or, at its option, settle any suit or proceeding brought against Buyer, or Buyer’s customers, to the extent it is based upon a claim that any Product or part thereof, manufactured by Seller or its subsidiaries and furnished hereunder, infringes any United States patent, other than a claim of infringement based upon use of a Product or part thereof in a process, provided Seller is notified in reasonable time and given authority, information and assistance (at Seller’s expense) for the defense of same. Seller shall pay all legal and court costs and expenses and court-assessed damages awarded therein against Buyer resulting from or incident to such suit or proceeding. In addition to the foregoing, if at any time Seller determines there is a substantial question of infringement of any United States patent, and the use of such Product is or may be enjoined, Seller may, at its option and expense: either (a) procure for Buyer the right to continue using and selling the Product; (b) replace the Product with non-infringing apparatus; (c) modify the Product so it becomes non-infringing; or (d) as a last resort, remove the Product and refund the purchase price, equitably adjusted for use and obsolescence. In no case does Seller agree to pay any recovery based upon its Buyer’s savings or profit through use of Seller’s Products whether the use be special or ordinary. The foregoing states the entire liability of Seller for patent infringement.

The preceding paragraph does not apply to any claim of infringement based upon: (a) any modification made to a Product other than by Seller; (b) any design and/or specifications of Buyer to which a Product was manufactured; or (c) the use or combination of Product with other products where the Product does not itself infringe. As to the above-identified claim situations where the preceding paragraph does not apply, Buyer shall defend and hold Seller harmless in the same manner and to the extent as Seller’s obligations described in the preceding paragraph. Buyer shall be responsible for obtaining (at Buyer’s expense) all license rights required for Seller to be able to use software products in the possession of Buyer where such use is required in order to perform any Service for Buyer.

With respect to a Product or part thereof not manufactured by Seller or its subsidiaries, Seller will attempt to obtain for Buyer, from the supplier(s), the patent indemnification protection normally provided by the supplier(s) to customers.

COMPLIANCE WITH OSHA

Seller offers no warranty and makes no representation that its Products comply with the provisions or standards of the Occupational Safety and Health Act of 1970, or any regulation issued thereunder. In no event shall Seller be liable for any loss, damage, fines, penalty or expenses arising under said Act.

LIMITATION OF LIABILITY

THE REMEDIES OF THE BUYER SET FORTH IN THIS CONTRACT ARE EXCLUSIVE AND ARE ITS SOLE REMEDIES FOR ANY FAILURE OF SELLER TO COMPLY WITH ITS OBLIGATIONS HEREUNDER.

NOTWITHSTANDING ANY PROVISION IN THIS CONTRACT TO THE CONTRARY, IN NO EVENT SHALL SELLER BE LIABLE IN CONTRACT, IN TORT (INCLUDING NEGLIGENCE OR STRICT LIABILITY) OR OTHERWISE FOR DAMAGE TO PROPERTY OR EQUIPMENT OTHER THAN PRODUCTS SOLD HEREUNDER, LOSS OF PROFITS OR REVENUE, LOSS OF USE OF PRODUCTS, COST OF CAPITAL, CLAIMS OF CUSTOMERS OF THE BUYER OR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES WHATSOEVER, REGARDLESS OF WHETHER SUCH POTENTIAL DAMAGES ARE FORESEEABLE OR IF SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

THE TOTAL CUMULATIVE LIABILITY OF SELLER ARISING FROM OR RELATED TO THIS CONTRACT WHETHER THE CLAIMS ARE BASED IN CONTRACT, IN TORT (INCLUDING NEGLIGENCE OR STRICT LIABILITY) OR OTHERWISE, SHALL NOT EXCEED THE PRICE OF THE PRODUCT OR SERVICES ON WHICH SUCH LIABILITY IS BASED.

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