



# Cutler-Hammer

## Meter Breakers

Technical Data

Residential Meter Breakers  
Type CH Residential  
Type BR Residential

Supersedes Technical Data TD.31F.01.T.E  
Pages 1-28, dated August 2001

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## Residential Meter Breakers



*Residential Meter Breakers*

### Product Description

A meter breaker is service entrance equipment that consists of a single meter socket and loadcenter (circuit breaker distribution section) or meter socket and main breaker combined in one enclosure. Sometimes called Combos, All-In-Ones, Meter Centers or Meter Mains these units are increasing in popularity as the socket and load-center or main breaker are located in one location, thus providing the contractor with a labor and material savings when installing.

### Application Description

In addition to residential installations, meter breakers are equally applicable for rural service entrance, mobile homes, and construction site temporary power. Meter breakers are most often sold in the western, southwestern and southeastern United States. The popularity of meter breakers is continuing to increase as more utilities deregulate and pass the responsibility of supplying watt-hour meter sockets on to the electrical contractor.

### Application Considerations

We have the meter breaker to meet your application. Cutler-Hammer offers:

- Non-EUSERC.
- EUSERC/West Coast (Electrical Utility Service Equipment Requirements Committee).
- House Panels.
- Commercial Safety Sockets.

#### Non-EUSERC

The Cutler-Hammer line of Non-EUSERC meter breakers is designed for customers served by utilities that are not members of EUSERC.

#### EUSERC/West Coast

The Cutler-Hammer line of EUSERC approved devices adheres to the agreed upon standards. EUSERC utilities are predominately located in the western United States, but some eastern and midwestern utilities are also members. **These units can also be used in many Non-EUSERC areas.**

#### House Panels

Meter breaker device rated at 300 – 400A. Applied in EUSERC and Non-EUSERC areas.

#### Commercial Safety Sockets

Applied in EUSERC and Non-EUSERC service areas and used in commercial applications.

### Standards and Certifications

- UL Specification 414 (socket).
- UL File Number E52977.
- AEIC-EEI-NEMA Standards (MSJ-7).
- Meet EUSERC Utility requirements where noted.
- Documented Seismic Qualified — UBC and CBC Title 24.
- UL Specification 67 (panel).

### Product Specifications

- Ratings single-phase, 3-wire, 120/240V AC.
- 100 – 225 ampere main breaker and main lug types.
- 10,000 amperes rms symmetrical short circuit rating.

### Features, Benefits and Functions

- Both BR and CH type branch circuit breaker styles available.
- Meets latest NEC wire bending space requirements.
- Slotted sealing screws at hub with sealing provision provided.
- Surface units are supplied with mounting tabs.
- Semi-flush units are supplied with stucco flange.
- Meter socket ring landing will accept locking security rings.
- Overhead or underground service.
- Fifth jaw can be installed in the 3 o'clock or 9 o'clock position.
- Semi-flush with nail flange or surface mounting.
- Meter mounting and underground pull sections are utility sealable.
- Units are rated a minimum of 10 kAIC; some units are 22 kAIC.
- Numerous units supplied with center keyhole for ease of mounting.

## Product Selection

**Table 1. Combination Service Entrance Devices (Non-EUSERC)**

Ampere Rating	Bypass	Service	kAIC	Jaws	Distribution	Main	Branch Breaker Type	Dimensions & Enclosure Shape ①	Wiring		Knockout		Catalog Number
									Page	Figure	Page	Figure	
<b>Ring Style Meter Mains (no distribution section included)</b>													
100	None	OH	②	4	None	Provision ③	None	8	N/A	N/A	N/A	N/A	WMB102RN
150	None	OH/UG	10	4	None	CSR2150	None	13	13	31	18	44	MBB150BTSCR ⑦
150	None	OH/UG	22	4	None	CSR2150	None	3	7	5	15	39	CMBB150BTS ⑧⑨
200	None	OH/UG	10	4	None	CSR2200	None	13	13	31	18	44	MBB200BTSCR ⑦
200	None	OH/UG	②	4	None	Provision ④⑤⑥	None	13	13	31	18	44	MBP200BTSCR ⑦
200	None	OH/UG	②	4	None	Provision ④⑤⑥	None	3	7	5	15	39	CMBP200BTS ⑧⑨
200	None	OH/UG	22	4	None	CSR2200	None	3	7	5	15	39	CMBB200BTS ⑧⑨
<b>Ringless Meter Mains (no distribution section included)</b>													
150	None	OH/UG	10	4	None	CSR2150	None	13	13	31	18	44	MBB150BTSC ⑩
200	None	OH/UG	10	4	None	CSR2200	None	9	13	32	18	43	MBB200BTS ⑩
200	None	OH/UG	10	4	None	CSR2200	None	13	13	31	18	44	MBB200BTSC ⑩
200	None	OH/UG	②	4	None	Provision ④⑤⑥	None	9	13	32	18	43	MBP200BTS ⑩
200	Horn	OH/UG	②	5	None	Provision ④⑤⑥	None	11	13	32	18	43	MBP200SD
200	Horn	OH/UG	②	5	None	Provision ④⑤⑥	None	9	13	32	18	43	MBP200TSD
<b>Ring Style All-In-Ones (includes distribution section)</b>													
125	None	OH/UG	②	4	⑪	None — Refer to Distribution	BR	1	⑫	—	—	—	WMB1224SCN
125	None	OH/UG	②	4	⑪		BR	1	⑫	—	—	—	WMB1224SCR ⑩
125	None	OH/UG	②	4	2/4		CH	2	7	7	15	39	CMB24L125BTS ⑧⑨
150	None	OH/UG	22	4	8	CSR2150	CH	3	7	6	15	39	CMB88B150BTS ⑧⑨
150	None	UG	22	4	32/42	CSR2150	CH	7	6	2	14	37	CMB3242B150BS ⑧⑨
200	None	OH/UG	10	4	4/8	BW2200	BR	3	9	16	15	39	MB48B200BTS ⑩⑬
200	None	OH/UG	22	4	8	CSR2200	CH	3	7	6	15	39	CMB88B200BTS ⑧⑨⑬
200	None	UG	22	4	32/42	CSR2200	CH	7	6	2	14	37	CMB3242B200BS ⑧⑨
200	None	OH/UG	③	4	6 – 2 Pole	Main Lugs	BR	3	10	22	14	37	MBE1212L200BTS
200	None	OH/UG	③	4	6 – 2 Pole	Main Lugs	BR	3	10	22	14	36	MBE1212L200BTF
<b>Ringless All-In-Ones (includes distribution section)</b>													
200	None	OH/UG	10	4	8/16	BW2200	BR	10	13	33	18	43	MB816B200BTS ⑩⑬
200	None	OH/UG	10	4	8/16	BW2200	BR	10	13	33	18	43	MB816B200BTSCU ⑩⑬
200	None	OH/UG	②	4	8/16	Provision ④	BR	10	13	33	18	43	MB816P200BTS ⑩⑬
200	None	OH/UG	②	4	8/16	Provision ④	BR	10	13	33	18	43	MB816P200BTSCU ⑩⑬
200	Horn	OH/UG	②	5	8/16	Provision ④	BR	11	13	33	18	43	MB816P200STD ⑬
200	Horn	OH/UG	②	5	8/16	Provision ④	BR	10	13	33	18	43	MB816P200BTSD ⑬
200	Horn	OH/UG	②	5	8/16	Provision ④	BR	10	13	33	18	43	MB816P200BTSCUD ⑩⑬
200	None	OH/UG	10	4	12/12	CSR2000	CH	10	11	25	16	41	CMB1212B200BTS ⑩⑬
200	Horn	OH/UG	22	5	12/12	CSR2200	CH	10	11	25	16	41	CMB1212B200BTSD ⑩⑬
200	None	OH/UG	②	4	6 – 2 Pole	Main Lugs	CH	9	11	28	16	41	CMB1212L200BTS ⑩
200	Horn	OH/UG	②	5	6 – 2 Pole	Main Lugs	CH	9	11	28	16	41	CMB1212L200BTSD ⑩
200	None	OH/UG	②	4	12/12	Provision ④	CH	10	11	24	16	41	CMB1212P200BTS ⑩⑬
200	Horn	OH/UG	②	5	12/12	Provision ④	CH	10	11	24	16	41	CMB1212P200BTSD ⑩⑬
200	None	OH/UG	②	4	6 – 2 Pole	Main Lugs	BR	9	11	26	16	41	MB1212L200BTS
200	None	OH/UG	22	4	24/24	CSR2200	CH	10	11	27	18	44	CMB2424B200BTS ⑩
200	Horn	OH/UG	②	5	6 – 2 Pole	Main Lugs	BR	9	11	26	16	41	MB1212L200BTSD
200	None	OH/UG	10	4	20/40	BW2200	BR	10	13	34	18	43	MB2040B200BTS ⑩
200	None	OH/UG	②	4	20/40	Provision ④	BR	10	13	34	18	43	MB2040P200BTS ⑩
200	Horn	OH/UG	②	5	20/40	Provision ④	BR	11	13	34	18	43	MB2040P200SD
200	Horn	OH/UG	②	5	20/40	Provision ④	BR	10	13	34	18	43	MB2040P200BTSD

- ① See Table 5 on Page 5 for box details.
- ② Per installed main breaker rating.
- ③ Provision for main is provided. WMB style devices accept Main Breaker style BR, 2-Pole.
- ④ When a provision for main is provided, order one of the main breakers listed in Table 2. All panels are dual labeled to accept Types BW or CSR Main Breakers.
- ⑤ MCBK225 lug kit is needed for load side cable connection for Meter Mains. Please order separately.
- ⑥ 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.
- ⑦ Panels are specifically designed for the Georgia Power Service Territory, but may be used in any service territory that has the same design requirements.
- ⑧ Copper bus.
- ⑨ One-piece cover on utility side, Florida approved.
- ⑩ Single cover design.
- ⑪ Will accept maximum four 1-pole, two 2-pole, or two quad breakers.
- ⑫ Refer to drawing 96-5500.
- ⑬ Units come with feed-through lugs.

**Table 2. Main Breaker Selection Chart**

Maximum Ampere Rating	2-Pole Breaker Catalog Numbers		
	10 kAIC	22 kAIC	22 kAIC
125	BW2125	BWH2125	CSR2125N
150	BW2150	BWH2150	CSR2150N
200	BW2200	BWH2200	CSR2200N
Load Side Lug Kit for BW and CSR Breakers ⑭			MCBK225

⑭ 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.

**Table 3. Combination Service Entrance Devices (EUSERC)**

Ampere Rating	Bypass	Service	kAIC	Jaws	Distribution	Main	Branch Breaker Type	Dimensions & Enclosure Shape ①	Wiring		Knockout		Catalog Number	
									Page	Fig.	Page	Fig.	Surface	Flush
<b>Ring Style Meter Mains (no distribution section included)</b>														
125	None	OH/UG	②	4	2/4	MLO	BR	2	9	14	15	39, 38	MBE24L125BTS	MBE24L125BTF
125	None	OH/UG	②	4	2/4	MLO	CH	2	7	7	15	39, 38	CMBE24L125BTS ③	CMBE24L125BTF ③
150	None	OH/UG	②	4	None	BW2150	None	3	9	18	15	39, 38	MBEB150BTS	MBEB150BTF
150	None	OH/UG	②	4	None	CSR2150N	None	3	7	5	15	39, 38	CMBE150BTS ③	CMBE150BTF ③
200	None	OH/UG	②	4	None	BW2200	None	3	9	18	15	39, 38	MBEB200BTS	MBEB200BTF
200	None	OH/UG	②	4	None	CSR2200N	None	3	7	5	15	39, 38	CMBE200BTS ③	CMBE200BTF ③
200	None	OH/UG	②	4	2/4	MLO	BR	3	9	15	15	39, 38	MBE24L200BTS	MBE24L200BTF
200	None	OH/UG	②	4	2/4	MLO	CH	3	7	9	15	39, 38	CMBE24L200BTS ③	CMBE24L200BTF ③
200	None	OH/UG	②	4	None	Provision	None	3	9	18	15	39	MBEP200BTS ④	N/A

**Ring Style All-In-Ones (includes distribution section)**

100	None	OH/UG	②	4	12/24	BR2100	BR	2	7	8	15	39, 38	MBE1224B100BTS	MBE1224B100BTF
100	None	UG	②	4	14/28	BR2100	BR	4	8	12	14	37, 36	MBE1428B100BS	MBE1428B100BTF
100	None	UG	②	4	22	CH2100X	CH	5	6	3	14	37, 36	CMBE2222B100BS ③	CMBE2222B100BTF ③
100	None	OH	②	4	12/24	BR2100	BR	9	13	35	16	41, 40	MBE1224B100TS	MBE1224B100TTF ⑤
125	None	OH/UG	②	4	12/24	BR2125	BR	2	7	8	15	39, 38	MBE1224B125BTS	MBE1224B125BTF
125	None	OH	②	4	12/24	BR2125	BR	9	13	35	16	41, 40	MBE1224B125TS	MBE1224B125TTF ⑤
125	None	UG	②	4	14/28	BR2125	BR	4	8	12	14	37, 36	MBE1428B125BS	MBE1428B125BTF
125	None	UG	②	4	18/36	BR2125	BR	5	8	11	14	37, 36	MBE1836B125BS	MBE1836B125BTF
125	None	UG	②	4	22	CH2125X	CH	5	6	3	14	37, 36	CMBE2222B125BS ③	CMBE2222B125BTF ③
150	None	OH/UG	②	4	8	CSR2150N	CH	3	7	6	15	39, 38	CMBE88B150BTS ③⑥	CMBE88B150BTF ③⑥
150	None	UG	②	4	32/42	CSR2150N	CH	7	6	2	14	37, 36	CMBE3242B150BS ③	CMBE3242B150BTF ③
150	None	UG	②	4	20/40	BW2150	BR	6	8	10	14	37, 36	MBE2040B150BS	MBE2040B150BTF
150	None	OH/UG	②	4	4/8	BW2150	BR	3	9	16	15	39, 38	MBE48B150BTS	MBE48B150BTF
150	None	OH/UG	②	4	8	BW2150	BR	3	9	17	15	39, 38	MBE88B150BTS	MBE88B150BTF
200	None	OH/UG	②	4	4/8	BW2200	BR	3	9	16	15	39, 38	MBE48B200BTS ⑥	MBE48B200BTF ⑥
200	None	OH/UG	②	4	8	CSR2200N	CH	3	7	6	15	39, 38	CMBE88B200BTS ③⑥	CMBE88B200BTF ③⑥
200	None	OH/UG	②	4	8	BW2200	BR	3	9	17	15	39, 38	MBE88B200BTS	MBE88B200BTF
200	None	OH/UG	②	4	8/16	Provision	BR	10	10	19	16	41	MBE816P200TSCU ③④	N/A
200	None	OH	②	4	8/16	Provision	BR	10	10	19	16	41	MBE816P200TS ④⑥	N/A
200	None	OH	②	4	6 – 2 Pole	Main Lug	CH	9	10	23	16	41	CMBE1212L200TS ③	N/A
200	None	UG	②	4	6 – 2 Pole	Main Lug	CH	5	6	4	14	37, 36	CMBE1212L200BS ③	CMBE1212L200BTF ③
200	None	OH	②	4	6 – 2 Pole	Main Lug	BR	9	10	21	16	41	MBE1212L200TS	N/A
200	None	UG	②	4	6 – 2 Pole	Main Lug	BR	5	8	13	14	37, 36	MBE1212L200BS	MBE1212L200BTF
200	None	OH	②	4	20/40	BW2200	BR	10	10	20	16	41, 40	MBE2040B200TS	MBE2040B200TTF
200	None	UG	②	4	20/40	BW2200	BR	6	8	10	14	37, 36	MBE2040B200BS	MBE2040B200BTF
200	None	OH	②	4	20/40	Provision	BR	10	10	20	16	41, 40	MBE2040P200TS ④	MBE2040P200TTF ④⑤
200	None	UG	②	4	32/42	CSR2200N	CH	7	6	2	14	37, 36	CMBE3242B200BS ③	CMBE3242B200BTF ③
200	None	UG	②	4	40	BWH2200	BR	12	12	30	17	42	MBE4040B200BSH ⑦	N/A
200	None	UG	②	4	42	CSR2200	CH	12	12	29	17	42	CMBE4242B200BSH ③⑦	N/A
200	None	OH/UG	②	4	40	BWH2200	BR	12	12	30	17	42	MBE4040B200BTS	MBE4040B200BTF ⑤
200	None	OH/UG	②	4	42	CSR2200N	CH	12	12	29	17	42	CMBE4242B200BTS ③	CMBE4242B200BTF ③⑤
200	None	OH/UG	②	4	20/40	BW2200	BR	—	—	—	—	—	MBE2040B200BTS	MBE2040B200BTF
200	None	OH/UG	②	4	4/8	BW2200	BR	—	—	—	—	—	WMB2048SLB ⑥	N/A
225	None	OH/UG	②	4	20/40	BW2225	BR	—	—	—	—	—	MBE2040B225BTS	MBE2040B225BTF
225	None	UG	②	4	32/42	CSR2225N	CH	7	6	2	14	37, 36	CMBE3242B225BS ③	CMBE3242B225BTF ③

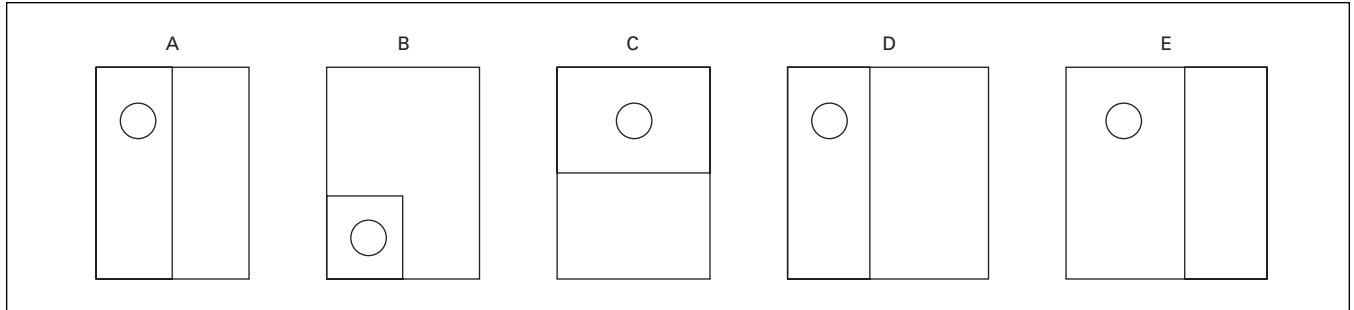
- ① See Table 5 on Page 5 for box details.
- ② Interrupting rating is dependent on the main breaker that is installed.
- ③ Unit has copper bus.
- ④ When a provision for main is provided, order one of the main breakers listed in Table 2. All panels are dual labeled to accept Types BW or CSR Main Breakers.
- ⑤ Semi-flush flange, not full stucco flange.
- ⑥ Units come with feed-through lugs.
- ⑦ Includes factory mounted 2-1/2 inch hub on bottom endwall. UG feed only.
- ⑧ Use WMB70SMK if second main kit is needed.

**Table 4. Main Breaker Selection Chart**

Maximum Ampere Rating	2-Pole Breaker Catalog Numbers		
	10 kAIC	22 kAIC	22 kAIC
125	BW2125	BWH2125	CSR2125N
150	BW2150	BWH2150	CSR2150N
200	BW2200	BWH2200	CSR2200N
Load Side Lug Kit for BW and CSR Breakers ⑨			MCKB225

- ⑨ 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.

**Box Styles**



**Figure 1. Five Different Styles (Shapes) of Product**

**Table 5. Box Dimensions**

Box Number	Dimensions in Inches (mm)			Box Style
	Height	Width	Depth	
1	12-1/2 (317.5)	14-7/16 (366.7)	4 (101.6)	A
2	23-7/8 (606.4)	14-7/16 (366.7)	5-3/8 (136.5)	A
3	28-3/8 (720.7)	14-7/16 (366.7)	5-3/8 (136.5)	A
4	34-1/8 (866.8)	14-7/16 (366.7)	5-3/8 (136.5)	B
5	36-1/8 (917.6)	14-7/16 (366.7)	5-3/8 (136.5)	B
6	43-3/8 (1101.7)	14-7/16 (366.7)	5-3/8 (136.5)	B
7	46-7/8 (1190.6)	14-7/16 (366.7)	5-3/8 (136.5)	B
8	19-3/4 (501.7)	7-1/2 (190.5)	4 (101.6)	C
9	25-3/8 (644.5)	14-7/16 (366.7)	5-3/8 (136.5)	C
10	32-3/8 (822.3)	14-7/16 (366.7)	5-3/8 (136.5)	C
11	36-5/8 (930.3)	14-7/16 (366.7)	5-3/8 (136.5)	C
12	34-3/8 (873.1)	22 (558.8)	5-3/8 (136.5)	D
13	19-3/4 (501.7)	14-7/16 (366.7)	5-3/8 (136.5)	E

**Table 6. Meter Breaker Parts**

Description	Catalog Number
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**5th Jaw Kits**

Compact and Standard Styles (MB & CMB) WMB Style	1MM5JKOP WMB5J
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**Manual Bypass Kits**

Ring Style Units Only (MB)	1MMBPM200
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**Horn Bypass Kits**

Ringless Style Units Only (MB & CMB)	1MMBPH
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**Table 7. Wire Size Chart**

Main	Wire Size Range Cu/Al 60°C or 75°C for Line Terminals
BR250 BR260 BR270	#14 – 4 kcmil #4 – 1/0 kcmil #4 – 1/0 kcmil
BR280 BR290 BR2100	#4 – 1/0 kcmil #4 – 1/0 kcmil #4 – 1/0 kcmil
BW2125 BW2150 BW2200	#2 – 300 kcmil #2 – 300 kcmil #2 – 300 kcmil
BWH2125 BWH2150 BWH2200	#2 – 300 kcmil #2 – 300 kcmil #2 – 300 kcmil
CSR2125N CSR2150N CSR2200N	#1/0 – 250 kcmil #1/0 – 250 kcmil #1/0 – 250 kcmil
125A Main Lugs 200A Main Lugs MCBK225	— — #2 – 300 kcmil

**Table 8. Wire Size is Determined by the Circuit Breaker Installed in the Enclosure. Maximum Wire Size and Ampere Rating is Determined as Follows:**

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

**Table 9. Hub Selection Chart**

Hub Size Dimensions in Inches (mm)	Catalog Number
1 (25.4) 1-1/4 (31.8) 1-1/2 (38.1)	DS100H2 DS125H2 DS150H2
2 (50.8) 2-1/2 (63.5) 3 (76.2)	DS200H2 DS250H2 DS300H2

Typical Wiring Diagrams (Residential Meter Breakers)

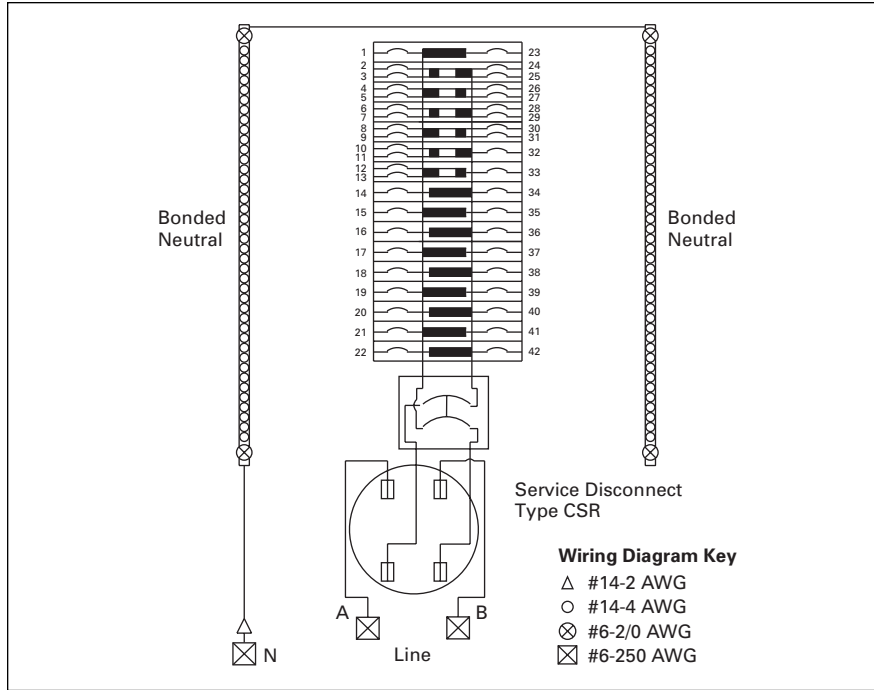


Figure 2. Catalog Numbers — CMB3242B200BS, CMBE3242B150BS, CMBE3242B150BF, CMBE3242B200BS, CMBE3242B200BF, CMBE3242B225BS, CMBE3242B225BF and CMB3242B150BS

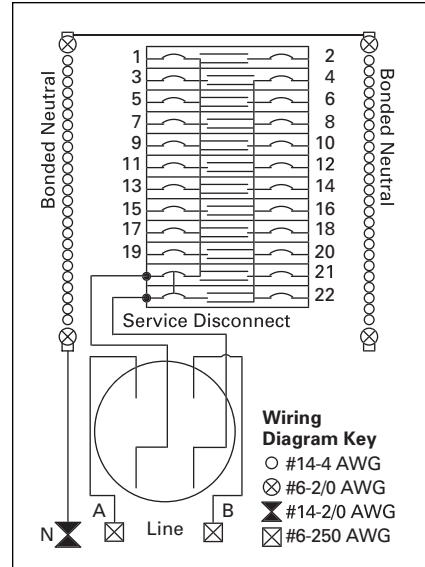


Figure 3. Catalog Numbers — CMBE2222B125BS, CMBE2222B125BF, CMBE2222B100BS and CMBE2222B100BF

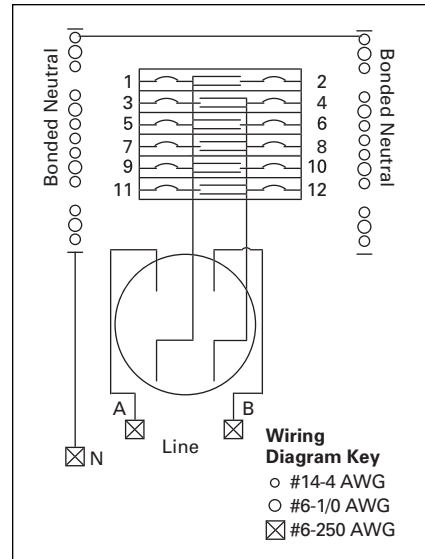
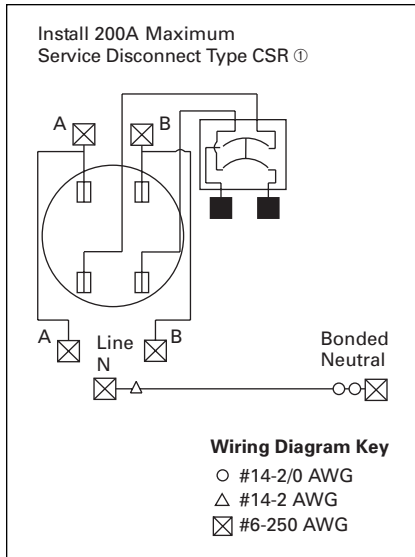


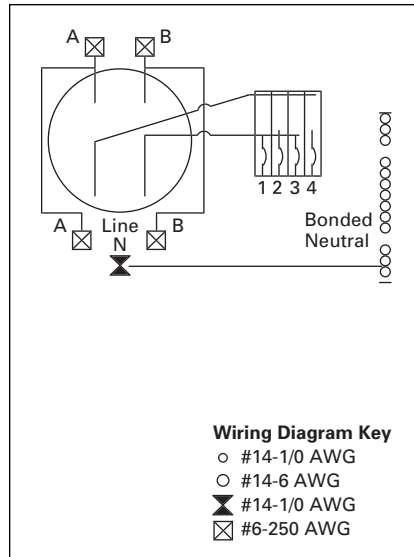
Figure 4. Catalog Numbers — CMBE1212L200BS and CMBE1212L200BF

**Typical Wiring Diagrams (Residential Meter Breakers)**

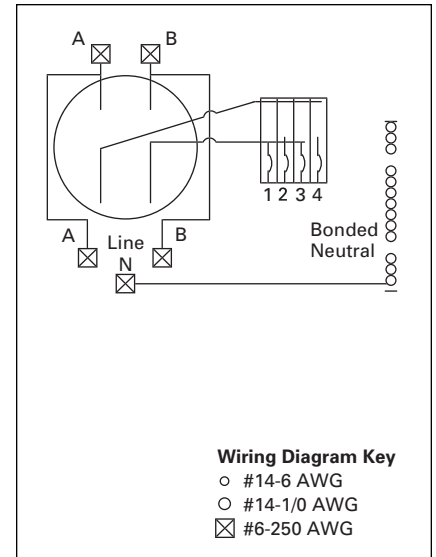


**Figure 5. Catalog Numbers —** CMBP200BTS, CMBB150BTS, CMBB200BTS, CMBE150BTF, CMBE150BTS, CMBE200BTF and CMBE200BTS

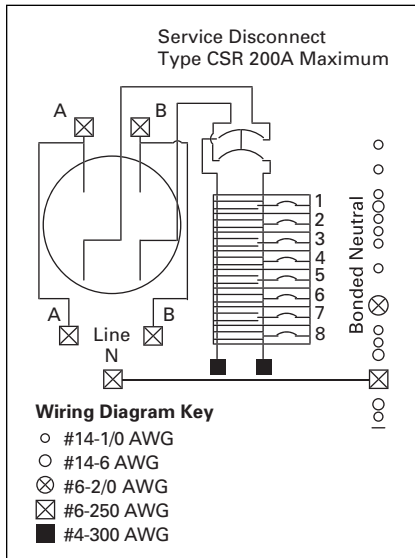
① Factory installed MCBK225 Kit for C/B load lugs.



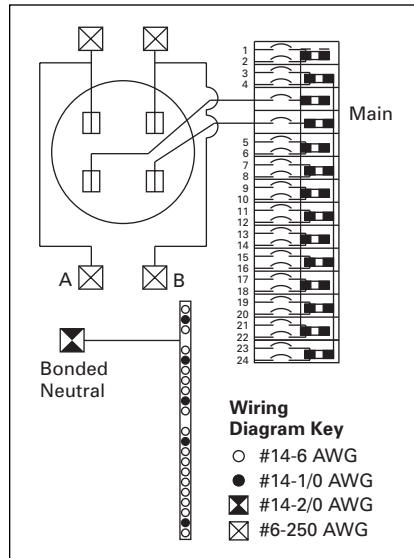
**Figure 7. Catalog Numbers —** CMBE24L125BTS, CMBE24L125BTF and CMB24L125BTS



**Figure 9. Catalog Numbers —** CMBE24L200BTS and CMBE24L200BTF



**Figure 6. Catalog Numbers —** CMBE88B200BTS, CMBE88B200BTF, CMB88B200BTS, CMB88B150BTS, CMBE88B150BTS and CMBE88B150BTF



**Figure 8. Catalog Numbers —** MBE1224B100BTS, MBE1224B100BTF, MBE1224B125BTS and MBE1224B125BTF

Typical Wiring Diagrams (Residential Meter Breakers)

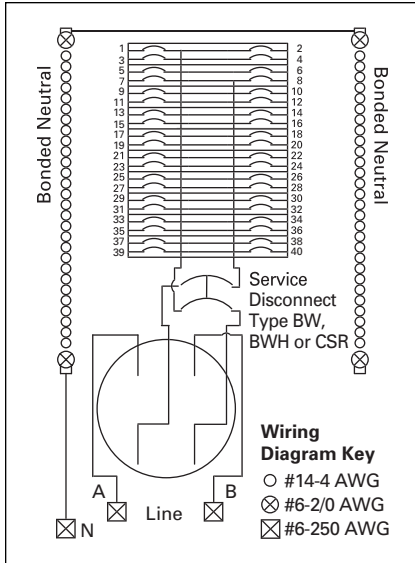


Figure 10. Catalog Numbers — MBE2040B150BS, MBE2040B150BF, MBE2040B200BS and MBE2040B200BF

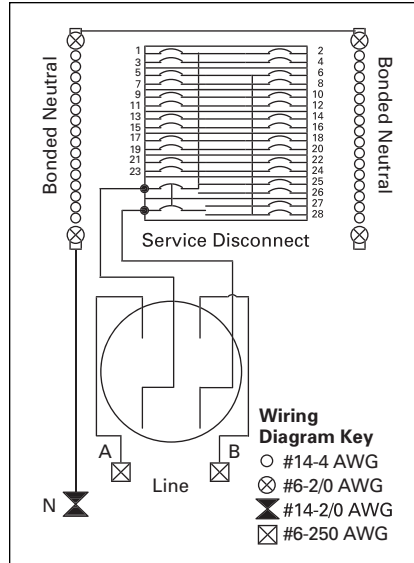


Figure 12. Catalog Numbers — MBE1428B100BS, MBE1428B100BF, MBE1428B125BS and MBE1428B125BF

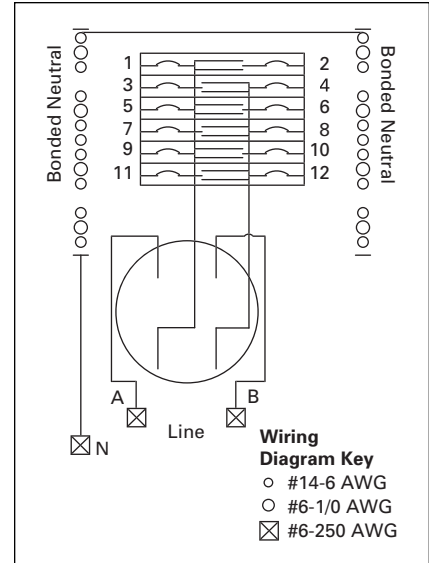


Figure 13. Catalog Numbers — MBE1212L200BS and MBE1212L200BF

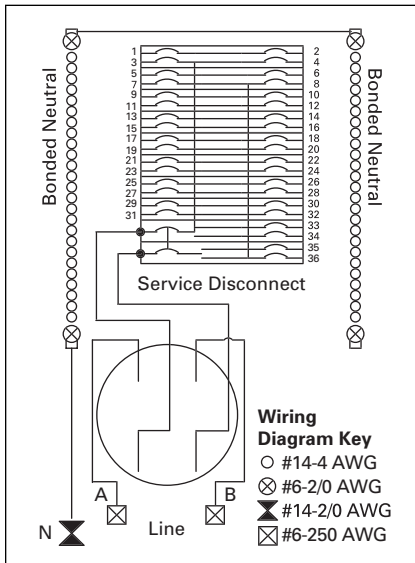
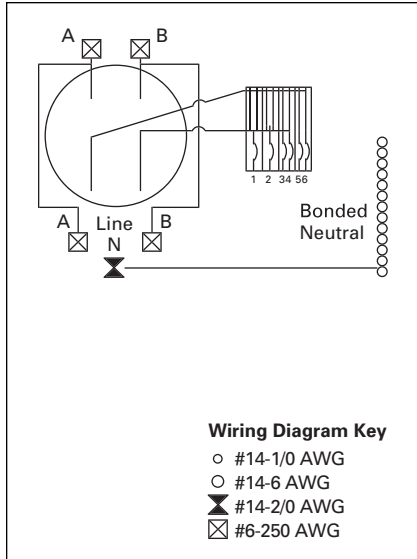


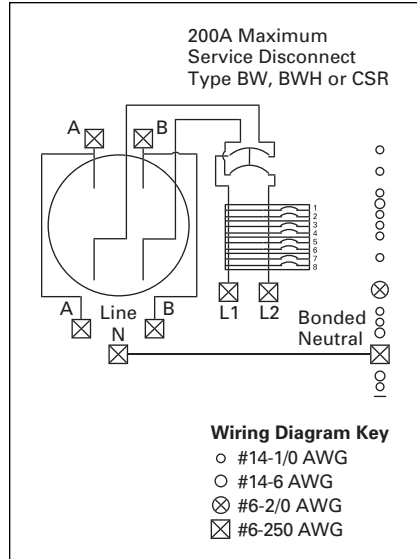
Figure 11. Catalog Numbers — MBE1836B125BS and MBE1836B125BF



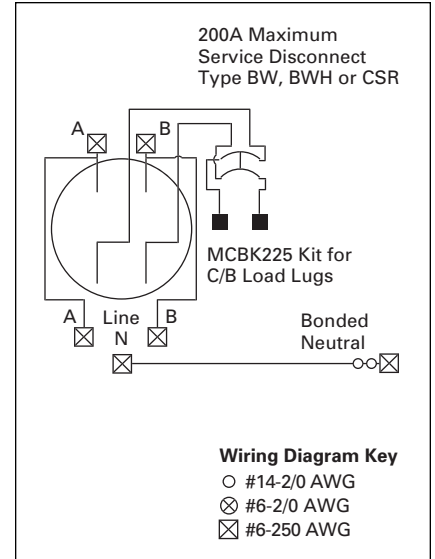
**Typical Wiring Diagrams (Residential Meter Breakers)**



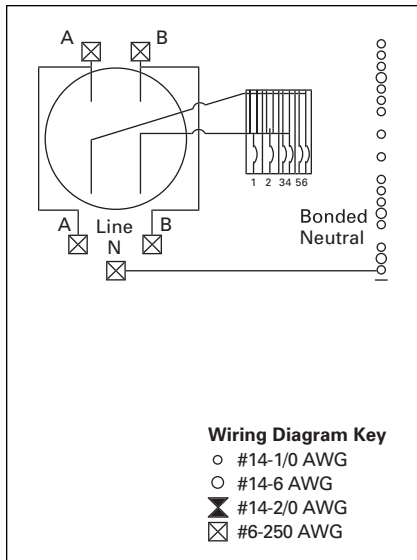
**Figure 14. Catalog Numbers — MBE24L125BTS and MBE24L125BTF**



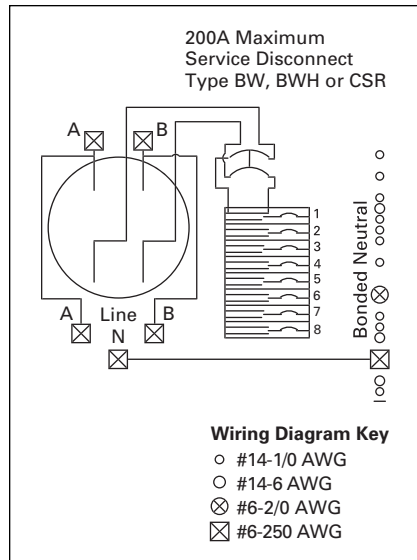
**Figure 16. Catalog Numbers — MBE48B150BTS, MBE48B150BTF, MBE48B200BTS, MBE48B200BTF and MB48B200BTS**



**Figure 18. Catalog Numbers — MBEP200BTS, MBEB200BTS, MBEB200BTF, MBEB150BTS and MBEB150BTF**



**Figure 15. Catalog Numbers — MBE24L200BTS and MBE24L200BTF**



**Figure 17. Catalog Numbers — MBE88B200BTS, MBE88B200BTF, MBE88B150BTS and MBE88B150BTF**

Typical Wiring Diagrams (Residential Meter Breakers)

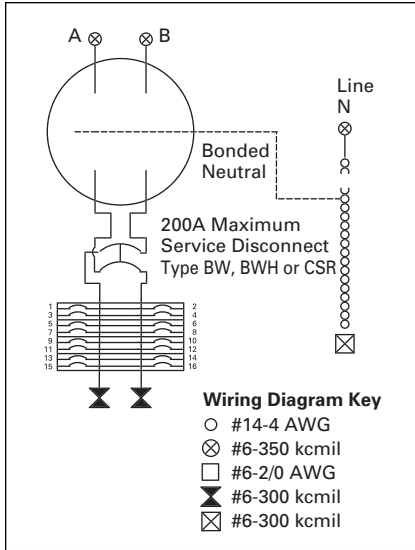


Figure 19. Catalog Numbers — MBE816P200TS and MBE16P200TSC

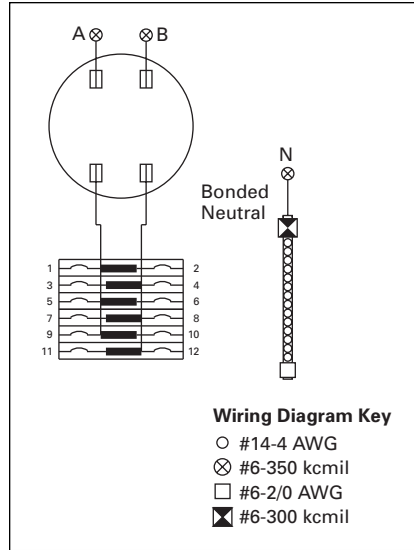


Figure 21. Catalog Number — MBE1212L200TS

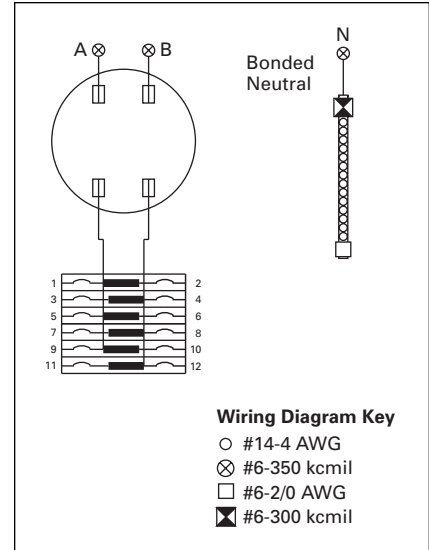


Figure 23. Catalog Number — CMBE1212L200TS

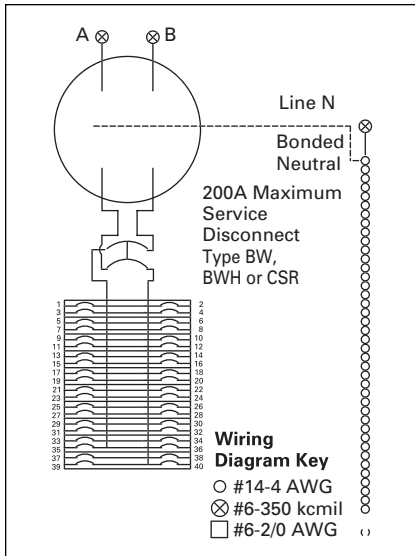


Figure 20. Catalog Numbers — MBE2040P200TS, MBE2040P200TF, MBE2040B200TS and MBE2040B200TF

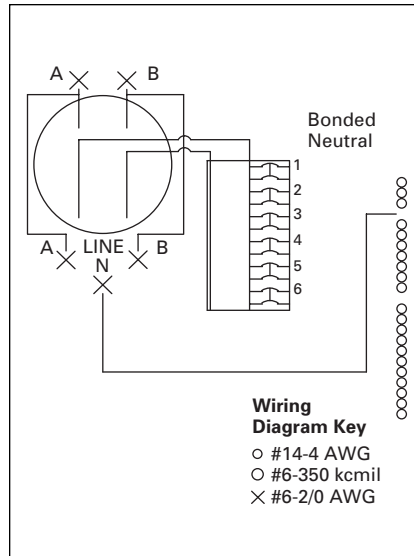


Figure 22. Catalog Numbers — MBE1212L200BTS and MBE1212L200BTF

Typical Wiring Diagrams (Residential Meter Breakers)

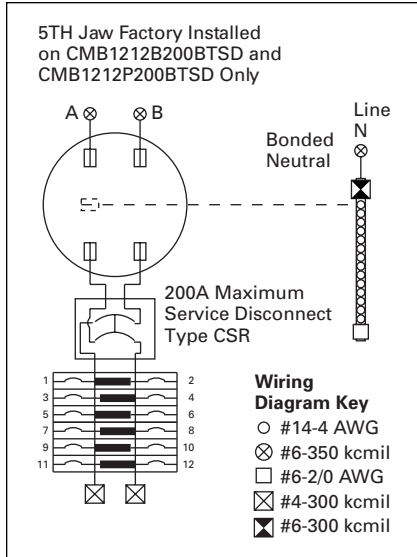


Figure 24. Catalog Numbers — CMB1212P200BTSD and CMB1212P200BTS

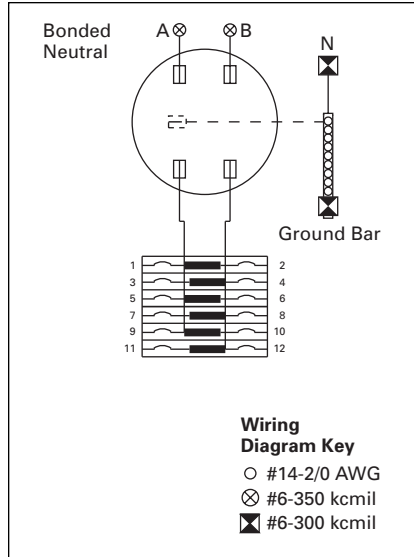


Figure 26. Catalog Numbers — MB1212L200BTS and MB1212L200BTSD

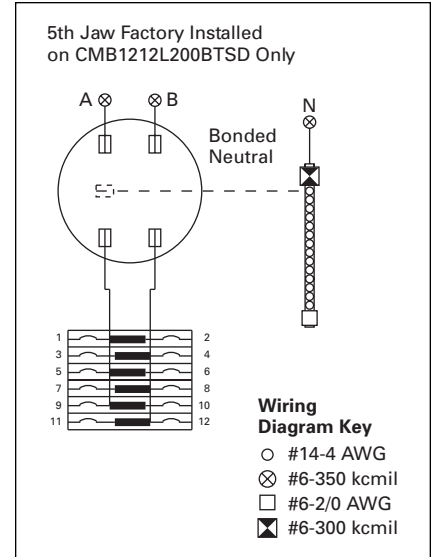


Figure 28. Catalog Numbers — CMB1212L200BTSD and CMB1212L200BTS

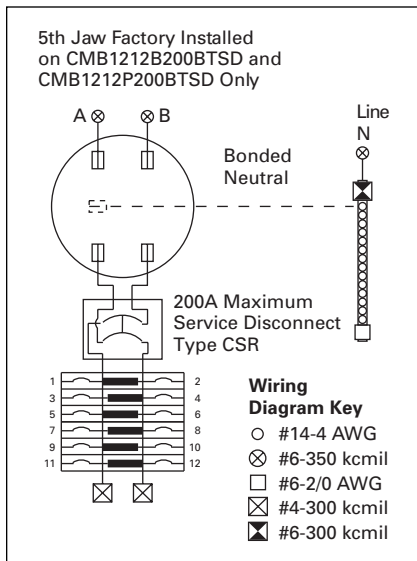


Figure 25. Catalog Numbers — CMB1212B200BTS and CMB1212B200BTSD

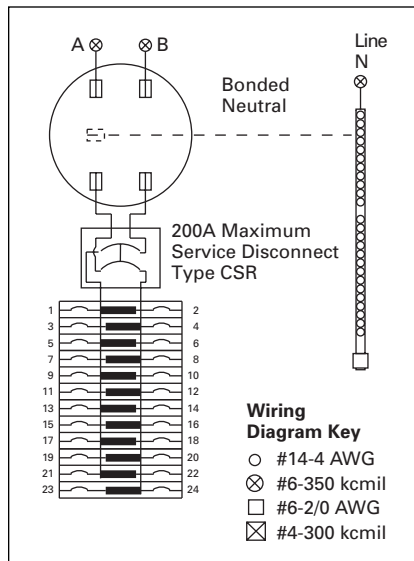


Figure 27. Catalog Number — CMB2424B200BTS

Typical Wiring Diagrams (Residential Meter Breakers)

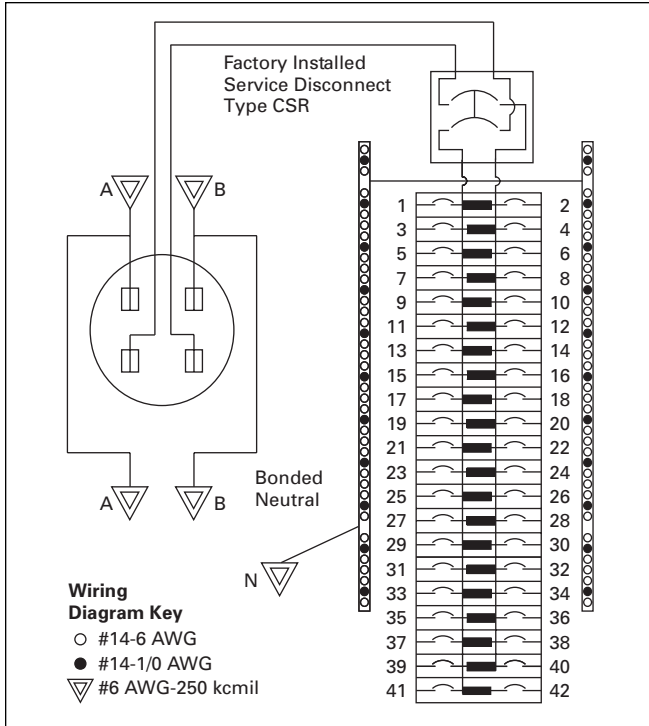


Figure 29. Catalog Numbers — CMBE4242B200BSH, CMBE4242B200BTS and CMBE4242B200BTF

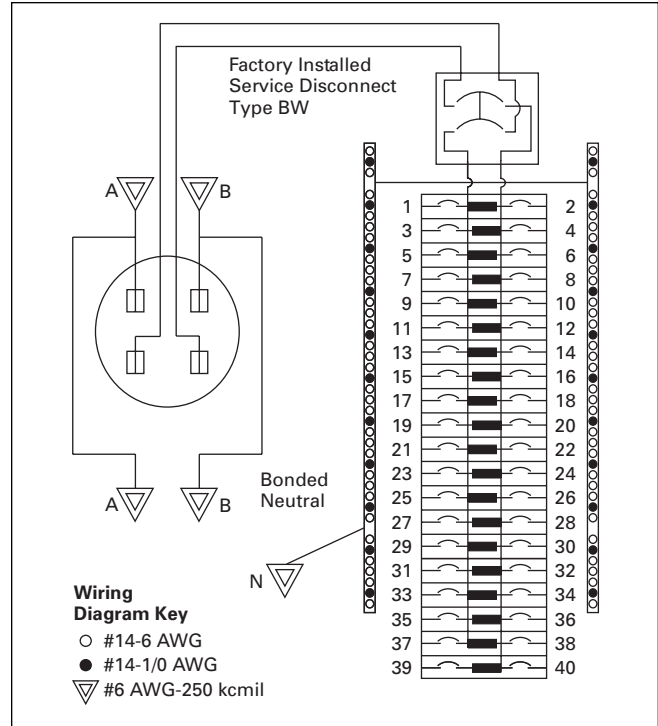
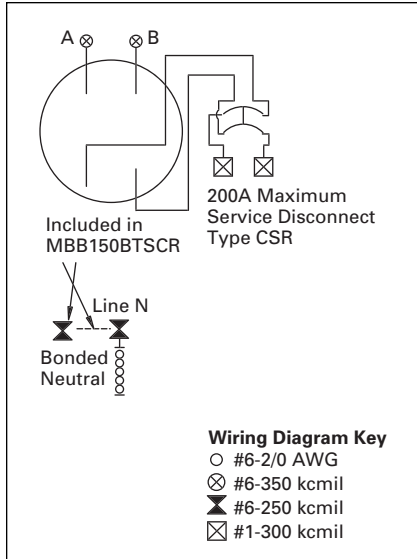
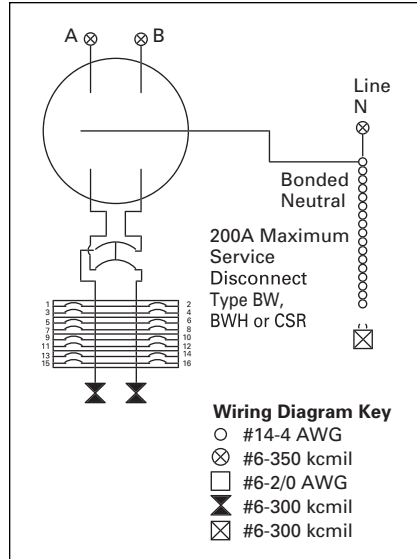


Figure 30. Catalog Numbers — MBE4040B200BTF, MBE4040B200BTS and MBE4040B200BSH

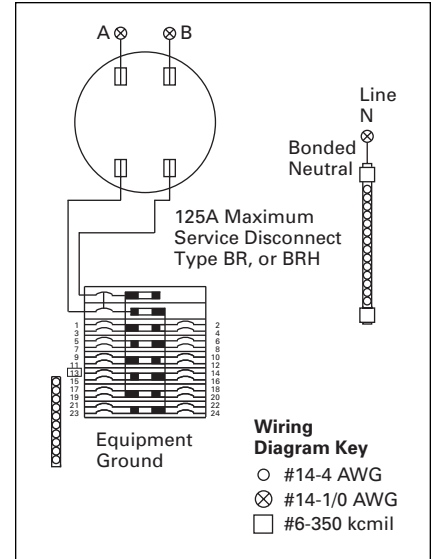
**Typical Wiring Diagrams (Non-EUSERC Meter Breaker Design)**



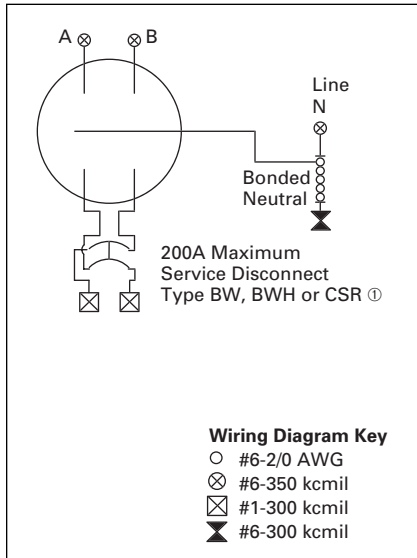
**Figure 31. Catalog Numbers — MBB150BTSC, MBB150BTSCR, MBB200BTSCR, MBP200BTSCR and MBB200BTSC**



**Figure 33. Catalog Numbers — MB816P200STD, MB816B200BTS, MB816B200BTSCU, MB816P200BTS, MB816P200BTSCU, MB816P200BTSD and MB816P200BTSCUD**

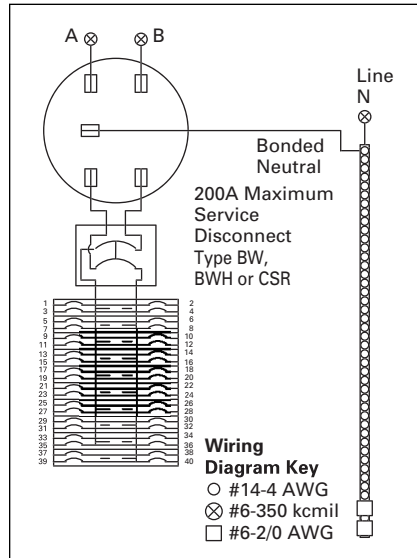


**Figure 35. Catalog Numbers — MBE1224B125TS, MBE1224B125TF, MBE1224B100TS and MBE1224B100TF**



**Figure 32. Catalog Numbers — MBP200SD, MBB200BTS, MBP200BTS and MBP200BTSD**

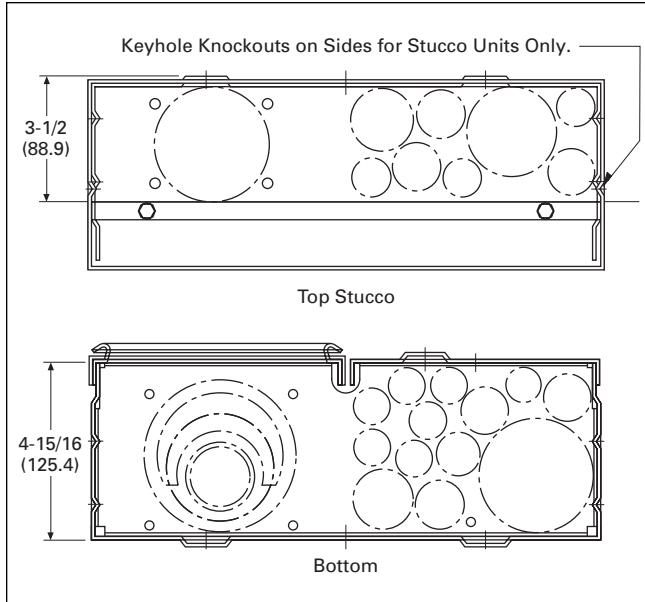
① Use MCBK225 for C/B Load Lugs.



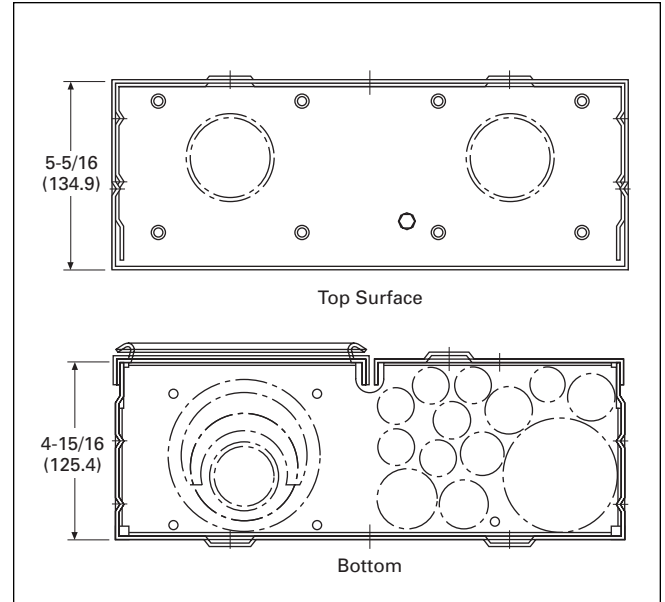
**Figure 34. Catalog Numbers — MB2040P200SD, MB2040B200BTS, MB2040P200BTS and MB2040P200BTSD**



**Dimensions and Knockouts (Residential Meter Breakers) — Dimensions in Inches (mm)**



**Figure 38. Knockouts for Stucco and Surface Units Catalog Numbers — CMBE24L200BTF, CMBE24L125BTF, CMBEB200BTF, CMBEB150BTF, CMBE88B150BTF, CMBE88B200BTF, MBE24L125BTF, MBE24L200BTF, MBE48B150BTF, MBE48B200BTF, MBE88B150BTF, MBE88B200BTF, MBEB150BTF, MBEB200BTF, MBE1224B100BTF and MBE1224B125BTF**



**Figure 39. Knockouts for Stucco and Surface Units Catalog Numbers — CMBB150BTS, CMBB200BTS, CMBE24L125BTS, CMB24L125BTS, CMBE24L200BTS, CMBEB200BTS, CMBEB150BTS, CMBE88B150BTS, CMBE88B200BTS, CMBP200BTS, MBE24L125BTS, MBE24L200BTS, MBE48B150BTS, MBE48B200BTS, MBE88B150BTS, MBE88B200BTS, MBEB150BTS, MBEB200BTS, MBEP200BTS, MBE1224B100BTS, MBE1224B125BTS, CMB88B150BTS, CMB88B200BTS and MB48B200BTS**

**Table 13. Top Endwall (Surface)**

Hub Provision
DS100H2 DS125H2 DS150H2
DS200H2 DS250H2 DS300H2 DS900AP (Adapter Plate) ①

① Use when DS H1 Type 1, 1-1/4 and 1-1/2-inch hubs are needed.

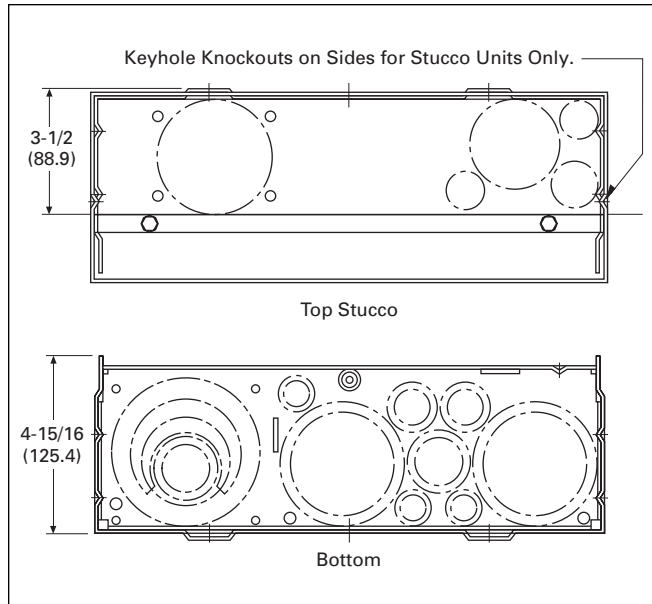
**Table 14. Top Endwall (Stucco)**

Knockout Size (Dimensions in Inches)	Quantity
1-1/4, 1-1/2, 2, 2-1/2	1
1, 1-1/4, 1-1/2	1
1/2, 3/4, 1	1
1/2, 3/4	3
1/2	3

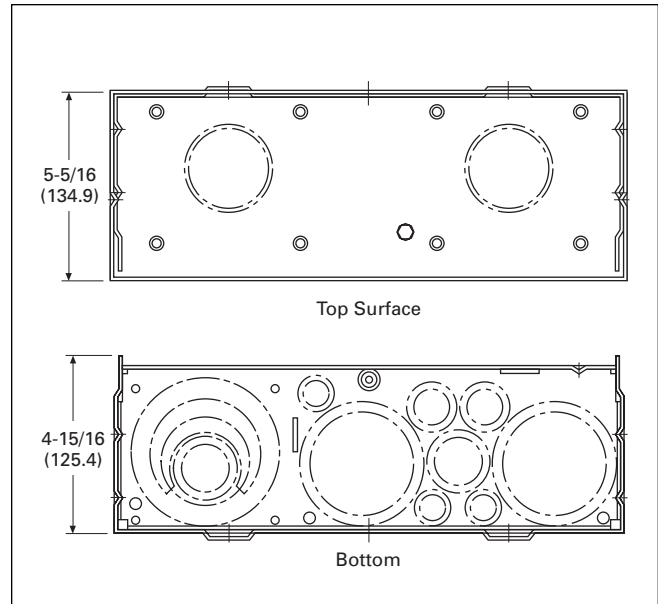
**Table 15. Bottom Endwall**

Knockout Size (Dimensions in Inches)	Quantity
1/2	7
1/2, 3/4	4
1/2, 3/4, 1	1
1, 1-1/4, 1-1/2, 2	1
1-1/4, 1-1/2, 2, 2-1/2, 3	1

**Dimensions and Knockouts (Residential Meter Breakers) — Dimensions in Inches (mm)**



**Figure 40. Knockouts for Stucco and Surface Units Catalog Numbers — MBE1224B100TF, MBE1224B125TF, MBE2040B200TF and MBE2040P200TF**



**Figure 41. Knockouts for Stucco and Surface Units Catalog Numbers — MBE1224B100TS, MBE1224B125TS, MBE816P200TS, MBE816P200TSCU, MBE2040B200TS, MBE2040P200TS, MBE1212L200TS, CMBE1212L200TS, CMB1212P200BTS, CMB1212P200BTSD, CMB1212B200BTS, CMB1212B200BTSD, MB1212L200BTS, MB1212L200BTSD, CMB1212L200BTS and CMB1212L200BTSD**

**Table 16. Top Endwall (Surface)**

Hub Provision
DS100H2 DS125H2 DS150H2
DS200H2 DS250H2 DS300H2 DS900AP (Adapter Plate) ①

① Use when DS H1 Type 1, 1-1/4 and 1-1/2-inch hubs are needed.

**Table 17. Top Endwall (Stucco)**

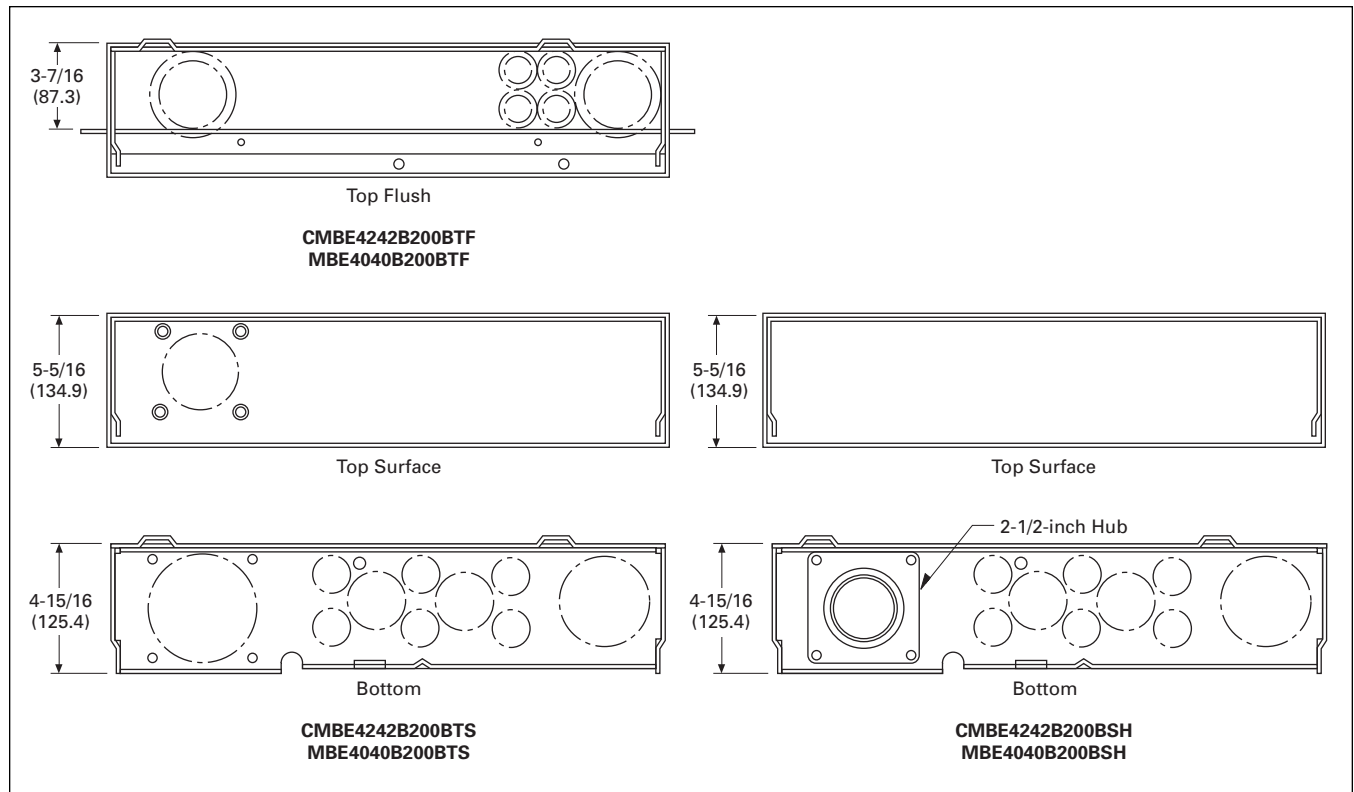
Knockout Size (Dimensions in Inches)	Quantity
1-1/4, 1-1/2, 2, 2-1/2	1
1, 1-1/4, 1-1/2	1
1/2, 3/4, 1	1
1/2, 3/4	5
1/2	7

**Table 18. Bottom Endwall**

Knockout Size (Dimensions in Inches)	Quantity
1/2	7
1/2, 3/4	4
1/2, 3/4, 1	1
1, 1-1/4, 1-1/2, 2	1
1-1/4, 1-1/2, 2, 2-1/2, 3	1



**Dimensions and Knockouts (Residential Meter Breakers) — Dimensions in Inches (mm)**



**Figure 42. Knockouts for Stucco and Surface Units**

**Table 19. Top Endwall (Surface)**

Hub Provision
DS100H2 DS125H2 DS150H2
DS200H2 DS250H2 DS300H2 DS900AP (Adapter Plate) ①

① Use when DS H1 Type 1, 1-1/4 and 1-1/2-inch hubs are needed.

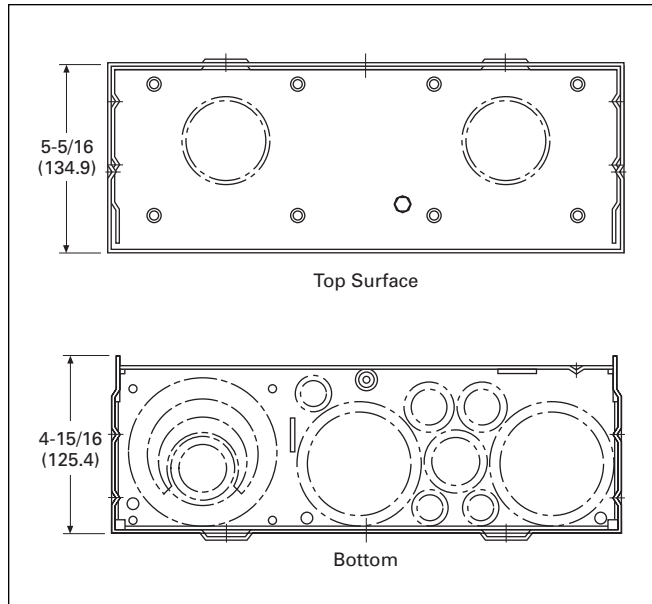
**Table 20. Top Endwall (Stucco)**

Knockout Size (Dimensions in Inches)	Quantity
1-1/4, 1-1/2, 2, 2-1/2	2
1/2, 3/4	3

**Table 21. Bottom Endwall**

Knockout Size (Dimensions in Inches)	Quantity
1/2, 3/4	6
1/2, 3/4, 1, 1-1/4	2
1, 1-1/4, 1-1/2, 2, 2-1/2	1
1, 1-1/4, 1-1/2, 2, 2-1/2, 3	1

**Dimensions and Knockouts (Non-EUSERC Meter Breaker Design) — Dimensions in Inches (mm)**

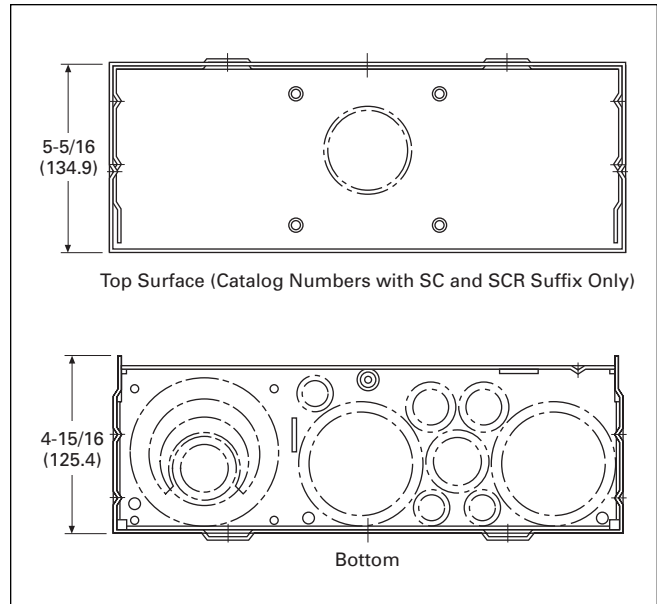


**Figure 43. Knockouts for Non-EUSERC Units Catalog Numbers — MB2040P200BTSD, MBB200BTS, MBP200BTS, MB816P200BTS, MB816P200BTSCU, MB816B200BTS, MB816P200BTSD, MB816B200BTSCU, MB816B200BTSD, MB2040P200BTS, MB2040B200BTS, MBP200BTSD, MBP200SD, MB816P200STD, MB816P200BTSCUD and MB2040P200SD**

**Table 22. Top Endwall (Surface)**

Hub Provision
DS100H2
DS125H2
DS150H2
DS200H2
DS250H2
DS300H2
DS900AP (Adapter Plate) ①

① Use when DS H1 Type 1, 1-1/4 and 1-1/2-inch hubs are needed.



**Figure 44. Knockouts for Non-EUSERC Units Catalog Numbers — CMB2424B200BTS, MBB150BTSCR, MBB200BTSCR, MBP200BTSCR, MBB150BTSC and MBB200BTSC**

**Table 23. Bottom Endwall**

Knockout Size (Dimensions in Inches)	Quantity
5/16	3
1/2	3
1/2, 3/4	2
3/4, 1	1
1-1/4, 1-1/2, 2, 2-1/2	2
1-1/2, 2, 2-1/2, 3	1

## Type CH Residential 300 Ampere and 400 Ampere "House Panels"



*Type CH Residential — 300 Ampere and 400 Ampere "House Panels"*

### Product Description

A "House Panel" is a service entrance device that consists of a meter socket and a distribution section. The unit is rated at 300 amperes or 400 amperes.

### Application Description

In addition to residential installations, a "house panel" could also be used for an apartment/condominium, clubhouse or common area.

### Features, Benefits and Functions

#### 300 Ampere and 400 Ampere "House Panels"

- Underground feed only.
- "DS\_H2" type hub provisions on bottom endwall.
- "Ring Style Units" meet EUSERC requirements.
- Plug-on 400 ampere meter socket (320 ampere continuous).
- NEMA 3R — rainproof.
- Lever bypass socket available on certain catalog numbers.
- Service entrance equipment and UL listed.
- Uses CH branch breakers.
- Box type lug kit available — HPBLK750.

## Product Selection

**Table 24. 300 – 400 Ampere "House Panels"**

Ampere Rating	Security <sup>①</sup>	Bypass	Main Breaker (Included)	Optional Main Breaker (Not Included)	Service Type	kAIC	Distribution	Wiring Diagram		Line Side Main Lugs and Neutral	Catalog Number	
								Page	Figure		Surface	Semi-Flush <sup>②</sup>
300	Ring	None <sup>③</sup>	BW2200	CH	UG	10	32/42	20	51	Landing studs for utility supplied compression lugs.	<b>CG303242S</b>	—
300	Ring	None <sup>③</sup>	BW2200	CH	UG	10	None	20	49		<b>CG30S</b>	—
300	Ringless	Lever	CSR2200N	CHB	UG	22/10	42	20	47		<b>CG304242SHL</b>	—
300	Ringless	Lever	CSR2200N	CHB	UG	22/10	None	20	45		<b>CG30SHL</b>	—
400	Ring	None <sup>③</sup>	BW2200	CH	UG	10	32/42	20	46	Landing studs for utility supplied compression lugs.	<b>CG403242S</b>	—
400	Ring	None <sup>③</sup>	BW2200	BW	UG	10	None	20	48		<b>CG40S</b>	—
400	Ring	None <sup>③</sup>	CSR2200N	CSR	UG	22/10	None	20	48		<b>CG40SH</b>	—
400	Ring	None <sup>③</sup>	CSR2200N	CSR	UG	22/10	32/42	20	46		<b>CG403242SH</b>	—
400	Ring	None <sup>③</sup>	Provision	CSR	UG	22	12	20	52		<b>CG1212P400BS<sup>④</sup></b>	—
400	Ringless	Lever	CSR2200N	CSR	UG	22/10	42	20	50		<b>CG404242SHL</b>	—
400	Ringless	Lever	CSR2200N	CSR	UG	22/10	None	20	48	<b>CG40SHL</b>	—	

① Confirm security type for individual EUSERC utility requirements.

② Semi-Flush Flange kit — **HPPR**.

③ If manual bypass is needed, order bypass kit **HPBPK**.

④ Feed-through lugs included.

Technical Data and Specifications

Typical Wiring Diagrams (Type CH Style House Panels)

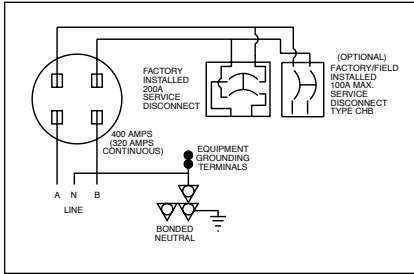


Figure 45. Type CH Wiring Diagram 1 — Catalog Number CG30SHL

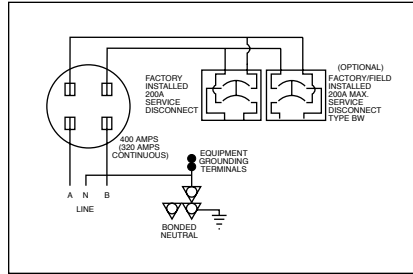


Figure 48. Type CH Wiring Diagram 4 — Catalog Numbers CG40S, CG40SH and CG40SHL

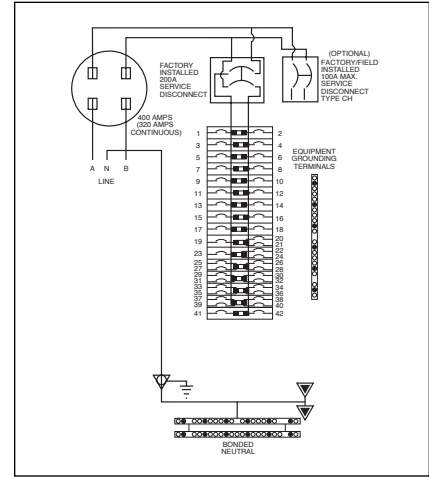


Figure 51. Type CH Wiring Diagram 7 — Catalog Number CG303242S

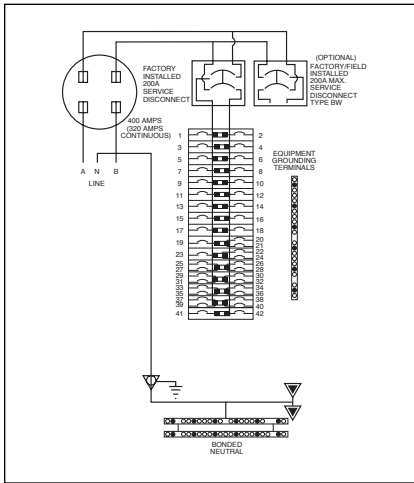


Figure 46. Type CH Wiring Diagram 2 — Catalog Numbers CG403242S and CG403242SH

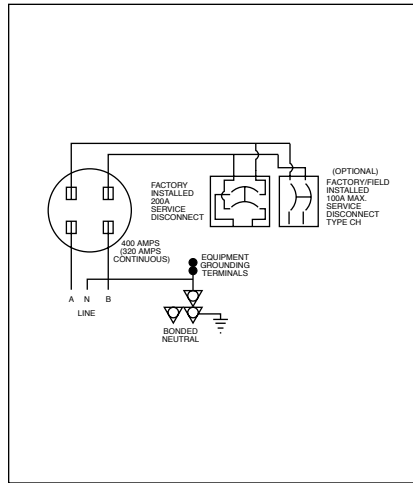


Figure 49. Type CH Wiring Diagram 5 — Catalog Number CG30S

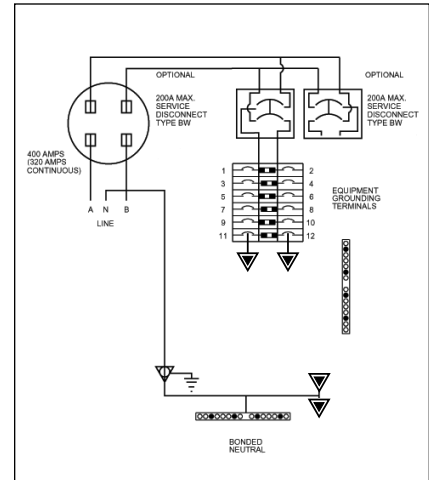


Figure 52. Type CH Wiring Diagram 8 — Catalog Number CG1212P400BS

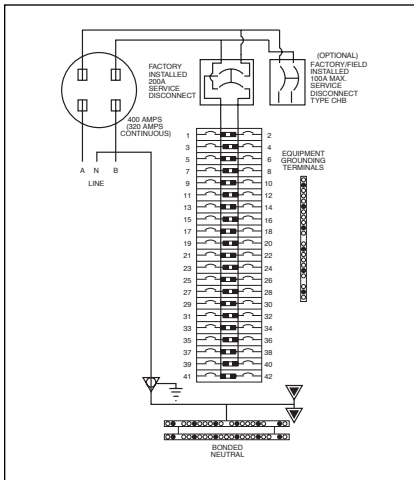


Figure 47. Type CH Wiring Diagram 3 — Catalog Number CG304242SHL

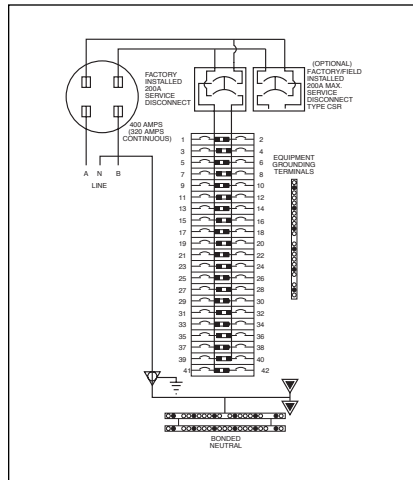


Figure 50. Type CH Wiring Diagram 6 — Catalog Number CG404242SHL

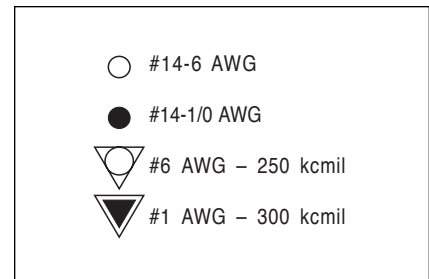
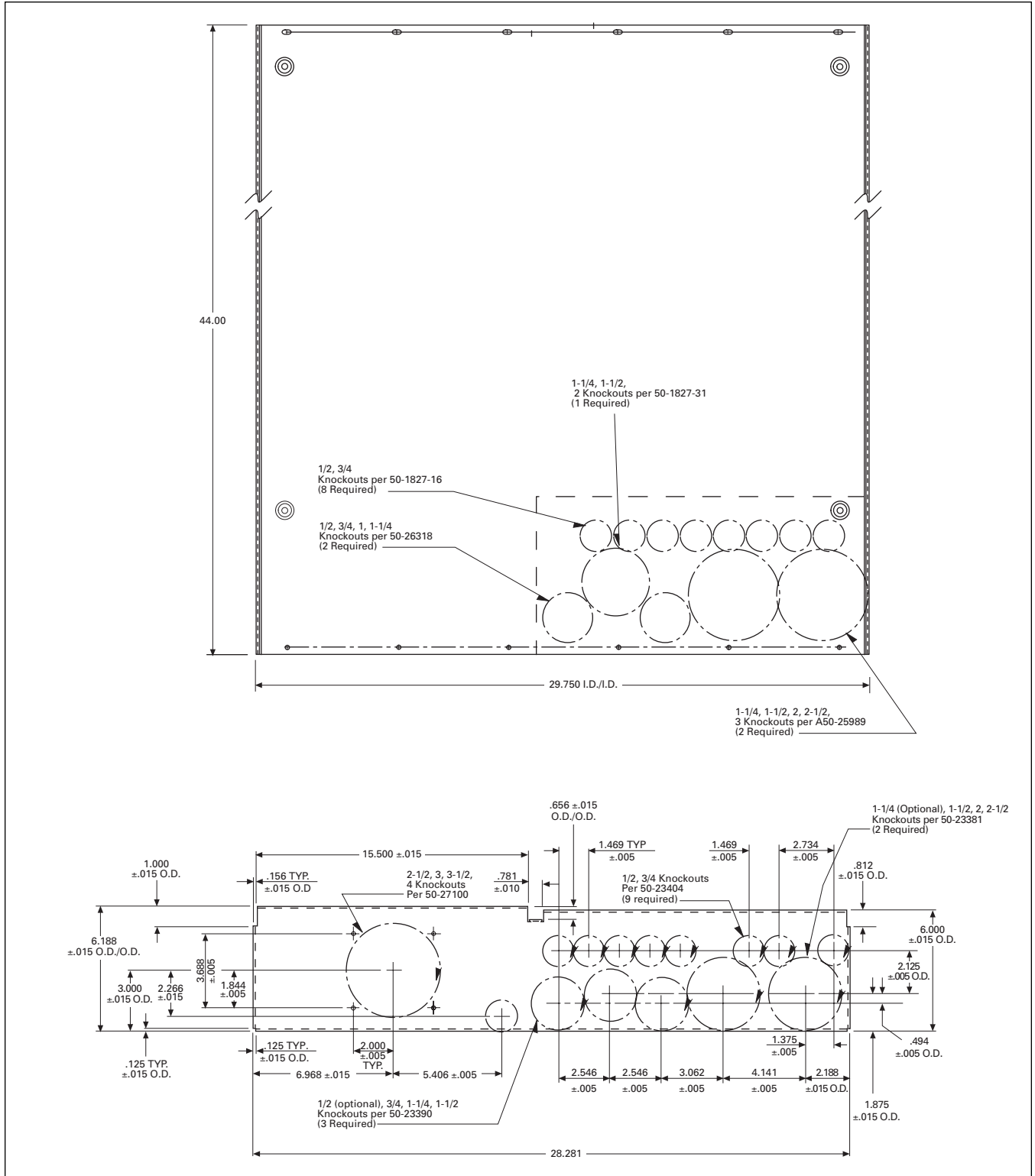


Figure 53. Type CH Wiring Diagram Key

**Dimensions and Knockouts (Type CH Style House Panels) — Dimensions in Inches**



**Figure 54. House Panel Dimensions and Knockouts**

## Type BR Residential 300 Ampere and 400 Ampere "House Panels"



Type BR Residential — 300 Ampere and 400 Ampere "House Panels"

### Product Description

A "House Panel" is a service entrance device that consists of a meter socket and a distribution section. The unit is rated at 300 amperes or 400 amperes.

### Application Description

In addition to residential installations, a "house panel" could also be used for an apartment/condominium, club-house or common area.

### Features, Benefits and Functions

#### 300 Ampere and 400 Ampere "House Panels"

- Underground feed only.
- "DS\_H2" type hub provisions on bottom endwall.
- "Ring Style Units" meet EUSERC requirements.
- Plug-on 400 ampere meter socket (320 ampere continuous).
- NEMA 3R — rainproof.
- Lever bypass socket available on certain catalog numbers.
- Service entrance equipment and UL listed.
- Uses BR branch breakers.
- Box Type lug kit available — HPBLK750.

## Product Selection

Table 25.300 – 400 Ampere "House Panels"

Ampere Rating	Security ①	Bypass	Main Breaker ②	Optional Secondary Main Breaker (Not Included)	Service Type	kAIC	Dist.	Wiring Diagram		Line Side Main Lugs and Neutral	Catalog Number	
								Page	Figure		Surface	Semi-Flush ③
300	Ring	None	BW2200	BR	UG	10	24/40	24	66	Lug landings for compression lugs	HP302440S	—
300	Ring	None	BW2200	BR	UG	10	None	23	56		HP30S	—
300	Ring	None	BWH2200	BR	UG	22	40/40	23	60		HP304040SH	—
300	Ring	Manual	BWH2200	BR	UG	22	40/40	23	60		HP304040SHA ④	—
300	Ring	Manual	BW2200	—	UG	10	None	23	56		HP30SA ④	—
300	Ring	Manual	BW2200	BR	UG	10	40/40	23	60		HP304040SA ④	—
300	Ringless	Lever	BWH2200	BRH	UG	22/10	None	23	56	HP30SHL	—	
300	Ringless	Lever	BWH2200	BRH	UG	22/10	40/40	23	59	HP304040SHL ⑤	—	
400	Ring	None	DK2400	—	UG	22/10	24/42	24	64	Lug landings for compression lugs	HP402442	—
400	Ring	None	BW2200	BW	UG	10	24/40	23	58		HP402440S	—
400	Ring	None	BWH2200	BWH	UG	22/10	40/40	23	58		HP404040SH ⑤	—
400	Ring	None	DK2400	—	UG	22/10	None	23	55		HP40	—
400	Ring	None	Provision	BW	UG	22/10	8/16	23	61	Lug landings for compression lugs	HP816P400BS ⑥	—
400	Ring	None	BW2200	BW	UG	10	None	24	67		HP40S	—
400	Ring	None	BWH2200	BWH	UG	22/10	None	24	67		HP40SH	—
400	Ring	Manual	BWH2200	BWH	UG	22	40/40	23	58	Lug landings for compression lugs	HP404040SHA ④	—
400	Ring	Manual	DK2400	—	UG	10	None	23	55		HP40A ④	—
400	Ring	Manual	BW2200	BW	UG	10	24/42	24	64		HP402442A ④	—
400	Ring	Manual	BW2200	BW	UG	10	24/40	23	58		HP402440SA ④	—
400	Ringless	None	DK2400	—	UG	22/10	24/40	23	57	Lug landings for compression lugs	HP402440B ⑦	—
400	Ringless	None	BW2200	BW	UG	10	24/40	24	63		HP402440SB ⑦	—
400	Ringless	None	BWH2200	BWH	UG	22/10	24/40	24	63		HP402440SBH ⑦	—
400	Ringless	Lever	BWH2200	BWH	UG	22/10	None	24	67		HP40SHL	—
400	Ringless	Lever	BWH2200	BWH	UG	22/10	40/40	24	65		HP404040SHL ⑤	—

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 Includes manual bypass and additional ground lug to meet Nevada Power requirements.

⑤ Secondary sub-main installed in panel.

⑥ Feed-through lugs included.

⑦ Bolt-on meter socket.

Typical Wiring Diagrams (Type BR Style House Panels)

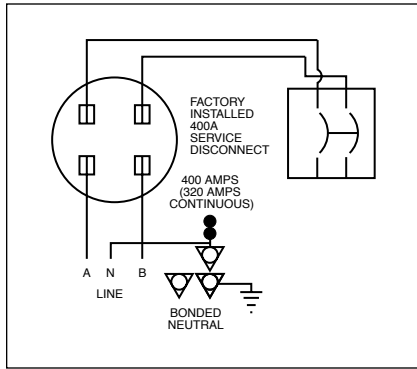


Figure 55. Type BR Wiring Diagram 1 — Catalog Numbers HP40 and HP40A

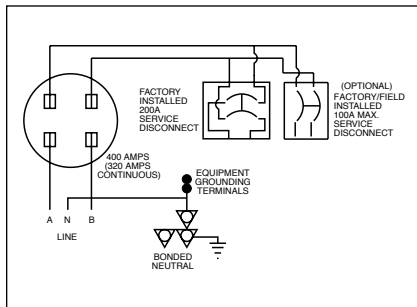


Figure 56. Type BR Wiring Diagram 2 — Catalog Numbers HP30S, HP30SA and HP30SHL

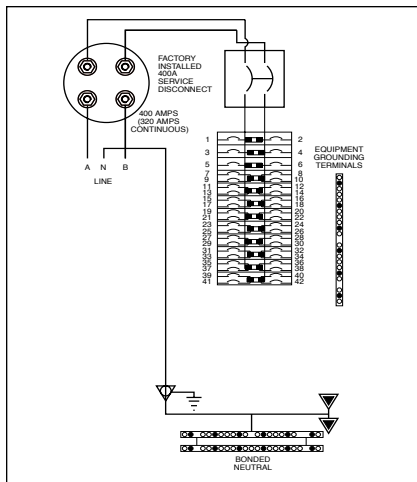


Figure 57. Type BR Wiring Diagram 3 — Catalog Number HP402440B

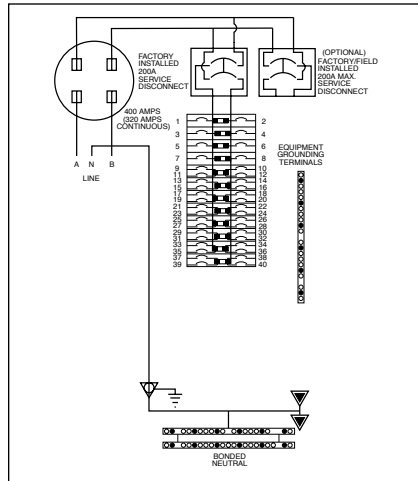


Figure 58. Type BR Wiring Diagram 4 — Catalog Numbers HP402440S, HP404040SH, HP404040SHA and HP402440SA

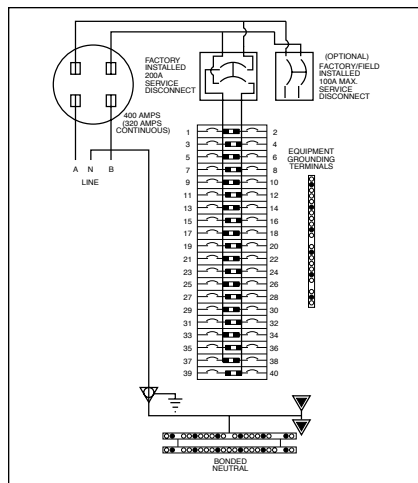


Figure 59. Type BR Wiring Diagram 5 — Catalog Number HP304040SHL

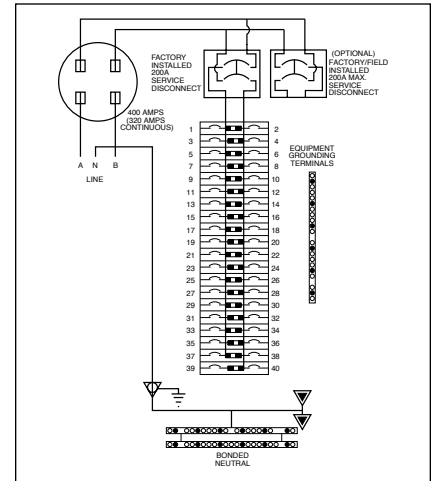


Figure 60. Type BR Wiring Diagram 6 — Catalog Numbers HP304040SH, HP304040SHA and HP304040SA

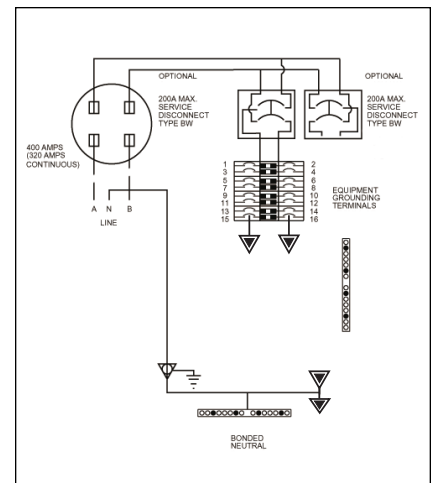


Figure 61. Type BR Wiring Diagram 7 — Catalog Number HP816P400BS

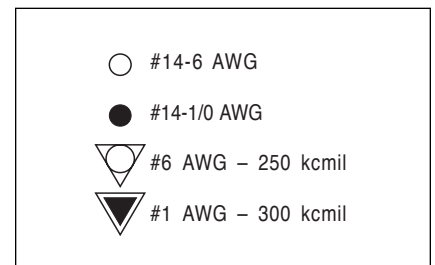


Figure 62. Type BR Wiring Diagram Key

Typical Wiring Diagrams (Type BR Style House Panels)

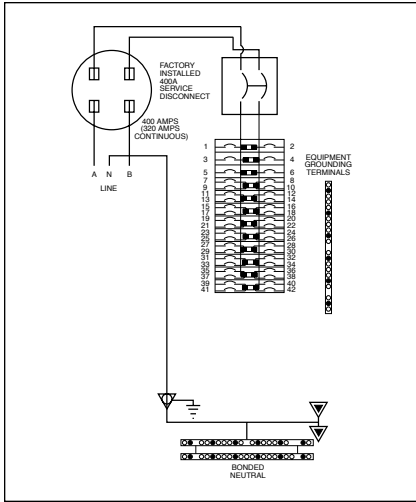


Figure 63. Type BR Wiring Diagram 8 — Catalog Numbers HP402440SB and HP402440SBH

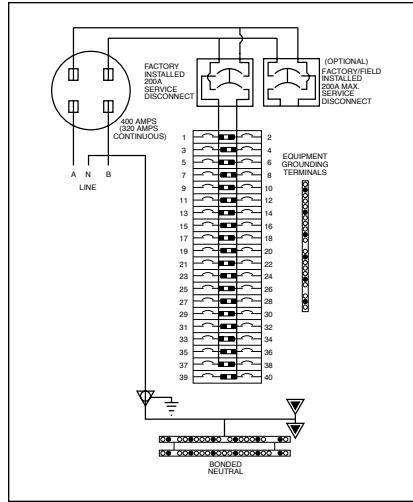


Figure 65. Type BR Wiring Diagram 10 — Catalog Number HP404040SHL

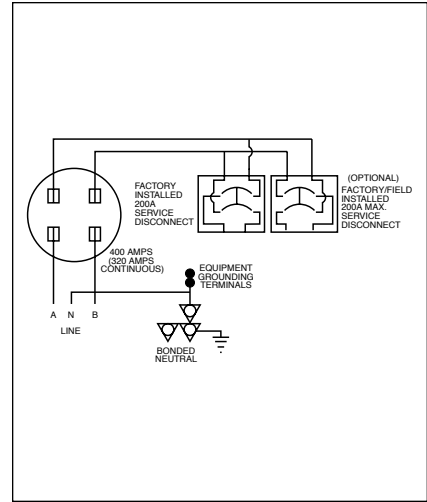


Figure 67. Type BR Wiring Diagram 12 — Catalog Numbers HP40S, HP40SH and HP40SHL

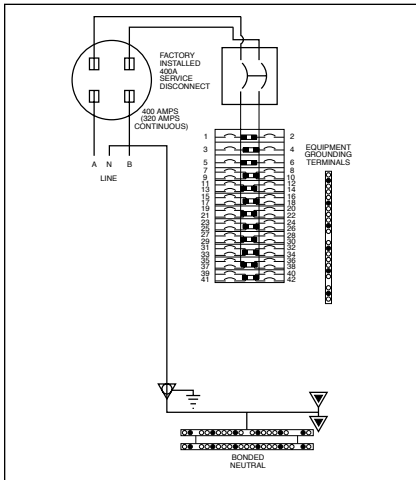


Figure 64. Type BR Wiring Diagram 9 — Catalog Number HP402442

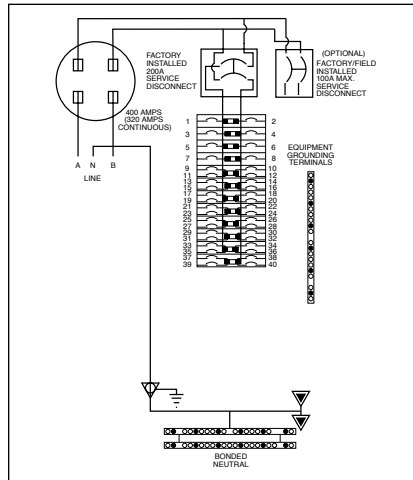


Figure 66. Type BR Wiring Diagram 11 — Catalog Number HP302440S

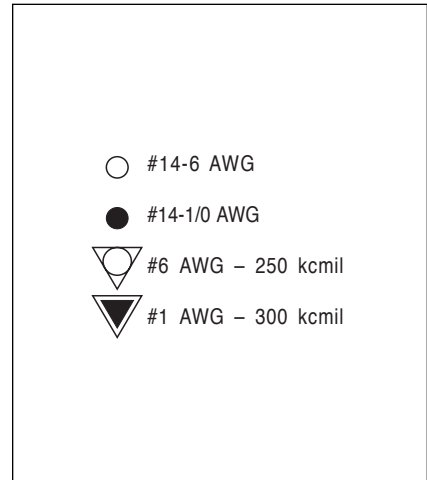
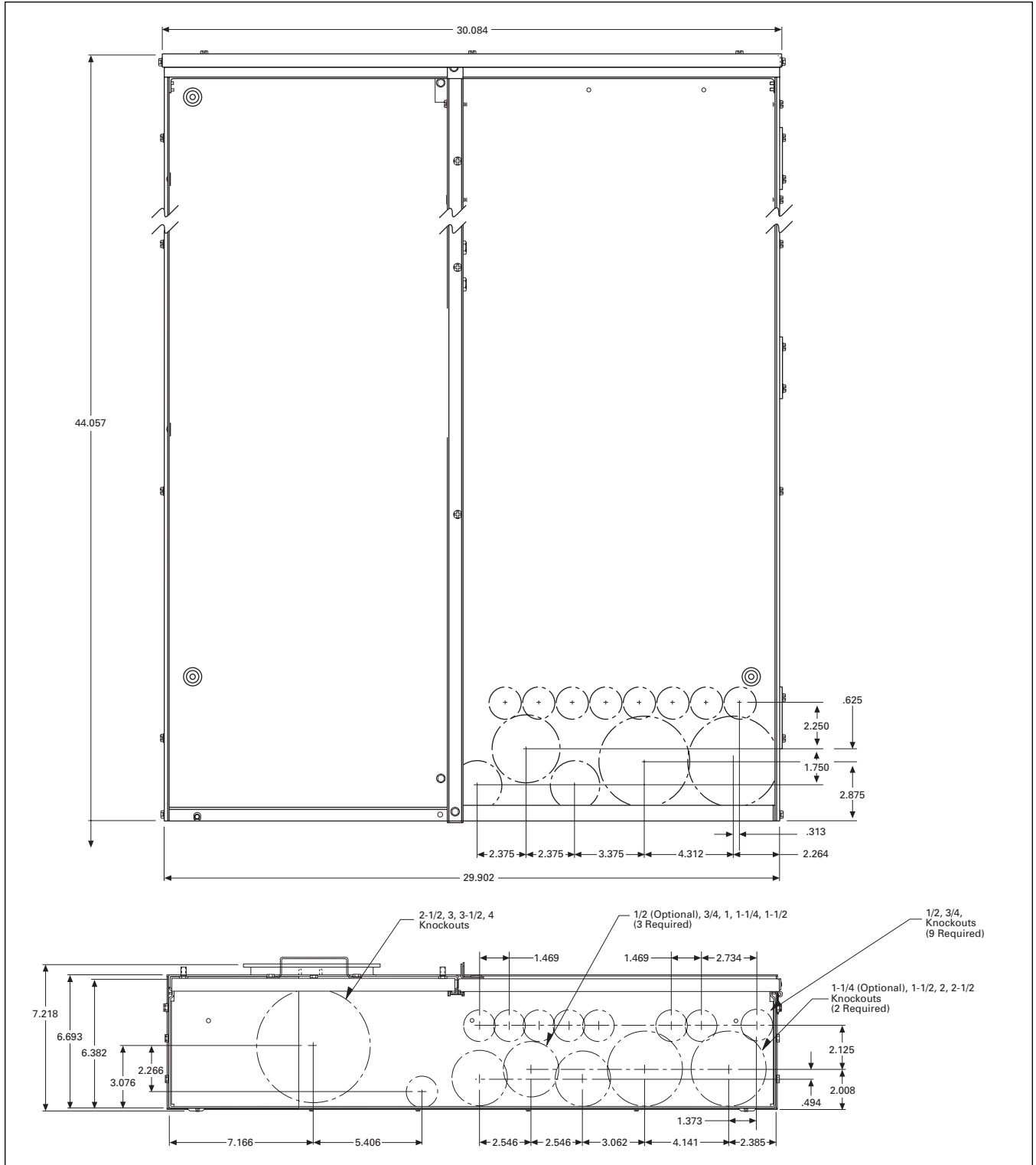


Figure 68. Type BR Wiring Diagram Key



**Dimensions and Knockouts (BR Style House Panels) — Dimensions in Inches**



**Figure 69. Type BR Meter Breaker Dimension Drawing 1**

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