

# Panelboards

## Unassembled

• Revised •  
06/28/16

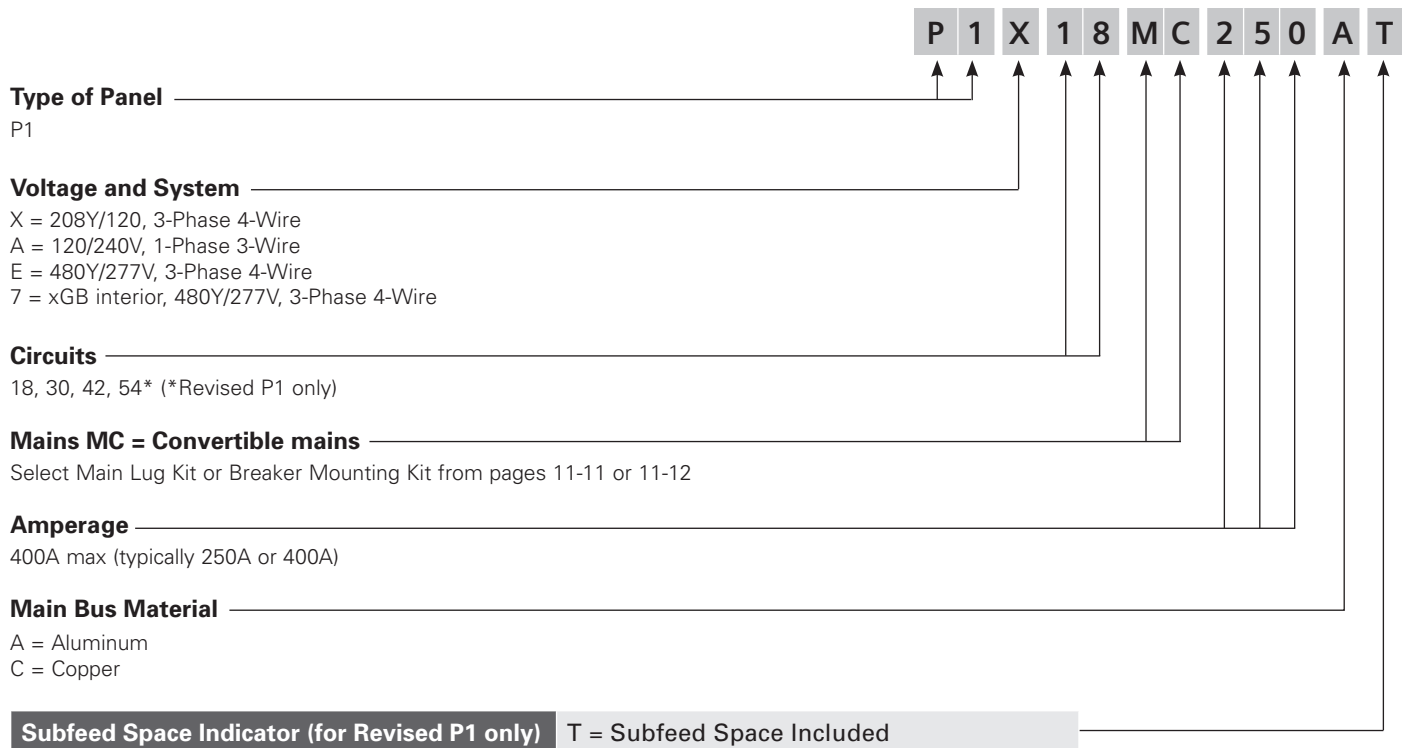
Reference

Type P1 unassembled panelboards are completely convertible from main lug to main breaker and vice-versa. Additionally, feed-thru lugs or subfeed circuit breakers up to 400 ampere can be added without increasing the box height for Revised P1 with "T" suffix, see the chart.

1. Compute total number of poles to determine interior catalog number. (Note: BL / BQD (or) xGB Main Breaker will use unit space. The total number of poles should include 2 (or) 3 poles for 1-phase (or) 3-phase mains.)
2. List catalog number and price of interior, box and front.
3. Select main lug kit or main breaker kit from appropriate tables.

- Note:** Main/Subfeed Breaker mounting kits may be ordered with or without breakers included, see page 11-11 and 11-12 for selection.
4. List required branch circuit breakers and filler plates to cover any unused positions.
  5. Select any modifications or accessories.

**Note:** Revised P1 was introduced in June 2014. All original P1 devices do not include the "Subfeed Space" Indicator. All original P1 included the Subfeed Space as standard.



**Note:** Standard bussing in P1 panels is tin plated for aluminum and copper. Standard bus is temperature rated to the maximum amperage in the panel.

### Branch Breakers

Panel Type	Voltage (Max.)	Breaker Type	Additional Information
P1, Revised P1 <sup>①</sup>	240	BL, BLH, HBL, BQD, NGB, HGB, LGB	See Page 11-13
	480 / 277	BQD, NGB, HGB, LGB,	
	600 / 347 <sup>③</sup>	BQDG <sup>②</sup> , NGB, HGB, LGB	

<sup>①</sup> Consult sales office for availability of CSA.

<sup>②</sup> See Speedfax for additional information.

<sup>③</sup> 600/347V options are not available in a UPB panel – see factory assembled section.

# Panelboards

## Distributor Stock – Type P1 Panelboards

Selection

### Pricing An Unassembled Panel

#### 400A Max. — 20" Wide x 5.75" Deep

1. Choose the appropriate Interior from the table below.
2. Choose the Main Device: Main Lugs from page 11-11, Main Breaker Kit from pages 11-11 to 11-12 and Main Breakers from Section 7.
3. Choose Branch Breakers. BL, BQD and xGB breakers from Section 7.
4. Choose Feed-Thru Lugs or Subfeed Breaker Kit from pages 11-11 to 11-12 and Subfeed Breaker from Section 7.

### Type P1 Unassembled Panelboards (Revised P1 introduced 2014)

Amps	Max. # of Poles	Original Interior Catalog Number	Revised P1 Interior Catalog Number	Box Size	Type 1 Encl.	Type 3R/12 Encl. <sup>①</sup>	Type 1 Front Surface	Type1 Front Flush
<b>Convertible Mains — 1-Phase, 3-Wire 120/240V</b>								
250	18	P1A18MC250A	P1A18MC250AT	32	B32	WP32	S32B	F32B
	30	P1A30MC250A	P1A30MC250AT	38	B38	WP38	S38B	F38B
	42	P1A42MC250A	P1A42MC250AT	44	B44	WP44	S44B	F44B
	54	P1A54MC250A	P1A54MC250AT	50	B50	WP50	S50B	F50B
400	18	P1A18MC400A	P1A30MC400AT	62	B62	WP62	S62B	F62B
	30	P1A30MC400A	P1A42MC400AT	68	B68	WP68	S68B	F68B
	42	P1A42MC400A	P1A54MC400AT	74	B74	WP74	S74B	F74B
	54	P1A54MC400A	—	—	—	—	—	—
250	18	P1A18MC250C	P1A18MC250CT	32	B32	WP32	S32B	F32B
	30	P1A30MC250C	P1A30MC250CT	38	B38	WP38	S38B	F38B
	42	P1A42MC250C	P1A42MC250CT	44	B44	WP44	S44B	F44B
	54	P1A54MC250C	P1A54MC250CT	50	B50	WP50	S50B	F50B
400	18	P1A18MC400C	P1A30MC400CT	62	B62	WP62	S62B	F62B
	30	P1A30MC400C	P1A42MC400CT	68	B68	WP68	S68B	F68B
	42	P1A42MC400C	P1A54MC400CT	74	B74	WP74	S74B	F74B
	54	P1A54MC400C	—	—	—	—	—	—

<b>Convertible Mains — 3-Phase, 4-Wire 208Y/120V</b>								
250	18	P1X18MC250A	P1X18MC250AT	32	B32	WP32	S32B	F32B
	30	P1X30MC250A	P1X30MC250AT	38	B38	WP38	S38B	F38B
	42	P1X42MC250A	P1X42MC250AT	44	B44	WP44	S44B	F44B
	54	P1X54MC250A	P1X54MC250AT	50	B50	WP50	S50B	F50B
400	18	P1X18MC400A	P1X30MC400AT	62	B62	WP62	S62B	F62B
	30	P1X30MC400A	P1X42MC400AT	68	B68	WP68	S68B	F68B
	42	P1X42MC400A	P1X54MC400AT	74	B74	WP74	S74B	F74B
	54	P1X54MC400A	—	—	—	—	—	—
250	18	P1X18MC250C	P1X18MC250CT	32	B32	WP32	S32B	F32B
	30	P1X30MC250C	P1X30MC250CT	38	B38	WP38	S38B	F38B
	42	P1X42MC250C	P1X42MC250CT	44	B44	WP44	S44B	F44B
	54	P1X54MC250C	P1X54MC250CT	50	B50	WP50	S50B	F50B
400	18	P1X18MC400C	P1X30MC400CT	62	B62	WP62	S62B	F62B
	30	P1X30MC400C	P1X42MC400CT	68	B68	WP68	S68B	F68B
	42	P1X42MC400C	P1X54MC400CT	74	B74	WP74	S74B	F74B
	54	P1X54MC400C	—	—	—	—	—	—

<b>Convertible Mains — 3-Phase, 4-Wire 480Y/277V</b>								
250	18	P1E18MC250A	P1E18MC250AT	32	B32	WP32	S32B	F32B
	30	P1E30MC250A	P1E30MC250AT	38	B38	WP38	S38B	F38B
	42	P1E42MC250A	P1E42MC250AT	44	B44	WP44	S44B	F44B
	54	P1E54MC250A	P1E54MC250AT	50	B50	WP50	S50B	F50B
400	18	P1E18MC400A	P1E30MC400AT	62	B62	WP62	S62B	F62B
	30	P1E30MC400A	P1E42MC400AT	68	B68	WP68	S68B	F68B
	42	P1E42MC400A	P1E54MC400AT	74	B74	WP74	S74B	F74B
	54	P1E54MC400A	—	—	—	—	—	—
250	18	P1E18MC250C	P1E18MC250CT	32	B32	WP32	S32B	F32B
	30	P1E30MC250C	P1E30MC250CT	38	B38	WP38	S38B	F38B
	42	P1E42MC250C	P1E42MC250CT	44	B44	WP44	S44B	F44B
	54	P1E54MC250C	P1E54MC250CT	50	B50	WP50	S50B	F50B
400	18	P1E18MC400C	P1E30MC400CT	62	B62	WP62	S62B	F62B
	30	P1E30MC400C	P1E42MC400CT	68	B68	WP68	S68B	F68B
	42	P1E42MC400C	P1E54MC400CT	74	B74	WP74	S74B	F74B
	54	P1E54MC400C	—	—	—	—	—	—

<b>Interiors for xGB Breakers — 3-Phase, 4-Wire 480Y/277V</b>								
250	18	P1718MC250A	P1718MC250AT	32	B32	WP32	S32B	F32B
	30	P1730MC250A	P1730MC250AT	38	B38	WP38	S38B	F38B
	42	P1742MC250A	P1742MC250AT	44	B44	WP44	S44B	F44B
	54	P1754MC250A	P1754MC250AT	50	B50	WP50	S50B	F50B
400	18	P1718MC400A	P1730MC400AT	62	B62	WP62	S62B	F62B
	30	P1730MC400A	P1742MC400AT	68	B68	WP68	S68B	F68B
	42	P1742MC400A	P1754MC400AT	74	B74	WP74	S74B	F74B
	54	P1754MC400A	—	—	—	—	—	—
250	18	P1718MC250C	P1718MC250CT	32	B32	WP32	S32B	F32B
	30	P1730MC250C	P1730MC250CT	38	B38	WP38	S38B	F38B
	42	P1742MC250C	P1742MC250CT	44	B44	WP44	S44B	F44B
	54	P1754MC250C	P1754MC250CT	50	B50	WP50	S50B	F50B
400	18	P1718MC400C	P1730MC400CT	62	B62	WP62	S62B	F62B
	30	P1730MC400C	P1742MC400CT	68	B68	WP68	S68B	F68B
	42	P1742MC400C	P1754MC400CT	74	B74	WP74	S74B	F74B
	54	P1754MC400C	—	—	—	—	—	—

① Front included in NEMA 3R and 3R/12 Box.



42 circuit with Back-fed Main

54 circuit 400A

# Panelboards

• Revised •  
11/10/15

## Distributor Stock – Type P1 Panelboards

Selection

### Lug Kits — Main or Feed Thru

Amp Rating	Matl.	Wire Range (includes Neutral)	Service	Original P1 Catalog No.	Revised P1 Catalog No.
250	AL	(1) #6 AWG-350 kcmil (CU or AL)	1 Phase	MLKA1	MLKA1A
			3 Phase	MLKA3	MLKA3A
	CU	(1) #6 AWG-350 kcmil (CU or AL)	1 Phase	MLKC1	MLKC1A
			3 Phase	MLKC3	MLKC3A
400	AL	(2) 1/0 - 250 kcmil or (1) #2 AWG-600 kcmil	1 Phase	4MLKA1	4MLKA1A
			3 Phase	4MLKA3	4MLKA3A
	CU	(2) 1/0 - 4/0 or (1) 1/0 - 600 kcmil	1 Phase	4MLKC1	4MLKC1A
			3 Phase	4MLKC3	4MLKC3A
400	AL	(1) AL 1/0-750 kcmil (2) AL/CU 250kcmil max. [max.(1) 600 kcmil CU wire]	1 Phase	—	4MLKA1B
			3 Phase	—	4MLKA3B

### Breaker Mounting Kits 250A Max. — Main or Subfeed w/o Breaker

Ampere Rating	Breaker Types	Service	Original P1 Catalog No.	Revised P1 Catalog No.
100A	BQD	3-Phase	MBKBC3	Use Back-fed Main Label Kit # MBKBFA <sup>Ⓢ</sup> (includes Neutral Lug, "MAIN" label and instructions)
100A	BL, BLH, HBL	1-Phase	MBKBL1	
125A	NGB, HGB, LGB	1-Phase	MBKBN1	
		3-Phase	MBKBN3	
125A	ED4, ED6, HED4, HED6	1-Phase	MBKED1	MBKED1A
		3-Phase	MBKED3	MBKED3A
225A	QJ2, QJH2, QJ2H	1-Phase	MBKQJ1	MBKQJ1A
		3-Phase	MBKQJ3	MBKQJ3A
225A <sup>Ⓢ</sup>	QR2, QRH2, HQR2, HQR2H	1-Phase	MBKQR1	MBKQR1A
		3-Phase	MBKQR3	MBKQR3A
250A	FXD6, FD6, HFD6, HFXD6	1-Phase	MBKFD1	MBKFD1A
		3-Phase	MBKFD3	MBKFD3A
400A <sup>Ⓢ</sup>	JXD2, JD6, JXD6, HJD6, HJXD6	1-Phase	MBKJD1	MBKJD1A
		3-Phase	MBKJD3	MBKJD3A

- Ⓢ 400 amp kit is for main only — not allowed for subfeed breaker.  
<sup>Ⓢ</sup> Back-fed main occupies branch space.  
<sup>Ⓢ</sup> Although QR is rated 250A, it is limited to 225A in panelboard.

### Copper Neutral Lug Kits — 250A

No. of Circuits	Description	Original P1 Catalog No.	Revised P1 Catalog No.
18	2 or 4 Branch Neutral Strips, 1 Main Neutral Lug, Hardware	CNKL18	Use 30 ckt kit
30		CNKL30	CNKL30A
42		CNKL42	CNKL42A
54, 66		—	CNKL54A

### 2/0 Neutral Lug Kits — 250A and 400A

No. of Circuits	Description	Original P1 Catalog No.	Revised P1 Catalog No.
18	2 or 4 Branch Neutral Strips, Hardware	—	Use 30 ckt kit
30		—	LNLK30A
42		—	LNLK42A
54, 66		—	LNLK54A

### 200% Neutral Lug Kits/250A

No. of Circuits	Description	Original P1 Catalog No.	Revised P1 Catalog No.
18	2 or 4 Branch Neutral Strips, 2 Main Neutral Lugs, Hardware	2NLK18	Use 30 ckt kit
30		2NLK30	2NLK30A
42		2NLK42	2NLK42A
54, 66		—	2NLK54A

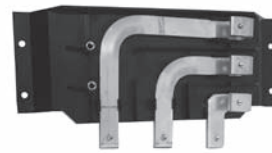
### 200% Neutral Lug Kits/400A

No. of Circuits	Description	Original P1 Catalog No.	Revised P1 Catalog No.
18	2 or 4 Branch Neutral Strips, 1 Main 600MCM Neutral Lug, Hardware	42NLK18	Use 30 ckt kit
30		42NLK30	42NLK30A
42		42NLK42	42NLK42A
54, 66		—	42NLK54A

- Ⓢ Replacement parts only.

#### NOTES:

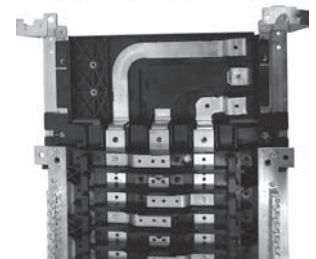
- Ⓢ Original P1 kits will not work with Revised P1 interiors if the chart shows different part numbers for each.  
<sup>Ⓢ</sup> Revised P1 kits will not work with Original P1 interiors if the chart shows different part numbers for each.



MBKQJ3A



MBKFD3A



### Miscellaneous Parts and Accessories

Catalog #	Description
BK1	Bonding Kit for 400A max. Original P1 Panels
BK1A	Bonding Kit for 400A max. Revised P1 Panels
BK2	Bonding kit for S1/S2 400 & 600
BK3	Bonding kit
IMK1	Interior Adjusting Kit
11-1824-01	Directory Card Holder
12-1110-01	Directory Card
MCHK	Metal Card Holder Kit
11-1056-01	NEMA Instruction Book
NBK03	Number Strips 1–42. Stick-on type; Use w/ P1 series Panels
NBK04	Number Strips 43–84. Stick-on type; Use w/ P1 series Panels
NBK05	Number Strips 85–126. Stick-on type; Use w/ P1 series Panels
NBK06	Number Strips 127–168. Stick-on type; Use w/ P1 series Panels
EGK	AL Ground Bus 44 Connections
ECGK	CU Ground Bus 44 Connections
IGK	Insulated AL Ground Bus
ICGK	Insulated CU Ground Bus
EWK1	End Wall Kit with Knockouts (20" W x 5.75" DP)
EWK2	End Wall Kit with Knockouts (24" W x 7.75" DP)
EBF1	NEB/HEB Filler Plate
P1SCRWS	Package of 42 breaker mounting screws for P1
DFFP1	1" Branch circuit filler plate (suitable for replacing QF3 in P1 thru P5 Panelboards and Switchboards)
P1CONBPHCU <sup>Ⓢ</sup>	Connector kit – 6 pcs. B-phase Copper
P1CONBPHAL <sup>Ⓢ</sup>	Connector kit – 6 pcs. B-phase Aluminum
P1CONACPHCU <sup>Ⓢ</sup>	Connector kit – 6 pcs. A or C-phase Copper
P1CONACPHAL <sup>Ⓢ</sup>	Connector kit – 6 pcs. A or C-phase Aluminum
MBKQRFK	P1/Revised P1 Filler for 1PH/3PH QR. Horizontal mount only.

- Ⓢ Replacement parts only.

# Panelboards

## Warehouse Stock/Unassembled – Type P1 Panelboards

Selection

### Main Breaker Mounting Kits with Breakers for P1 Panels

(250A and lower can be used as subfeed kits also)

Original P1 Catalog No. (QJ/QR type listed where applicable)	Revised P1 Catalog No. (QJ/QR type listed where applicable)	Description	Ratings		
			QJ 240V	QR 240V	480V
MBKED3100	MBKED3100A	Kit w/3-pole ED4 100A breaker	65KA		18KA
MBKED3125	MBKED3125A	Kit w/3-pole ED4 125A breaker	65KA		18KA
MBKQJ1125 / MBKQR1125	MBKQJ1125A / MBKQR1125A	Kit w/2-pole QJ2/QR2 125A breaker	10KA	10KA	—
MBKQJ1150 / MBKQR1150	MBKQJ1150A / MBKQR1150A	Kit w/2-pole QJ2/QR2 150A breaker	10KA	10KA	—
MBKQJ1175 / MBKQR1175	MBKQJ1175A / MBKQR1175A	Kit w/2-pole QJ2/QR2 175A breaker	10KA	10KA	—
MBKQJ1200 / MBKQR1200	MBKQJ1200A / MBKQR1200A	Kit w/2-pole QJ2/QR2 200A breaker	10KA	10KA	—
MBKQJ1225 / MBKQR1225	MBKQJ1225A / MBKQR1225A	Kit w/2-pole QJ2/QR2 225A breaker	10KA	10KA	—
MBKQJ3125 / MBKQR3125	MBKQJ3125A / MBKQR3125A	Kit w/3-pole QJ2/QR2 125A breaker	10KA	10KA	—
MBKQJ3150 / MBKQR3150	MBKQJ3150A / MBKQR3150A	Kit w/3-pole QJ2/QR2 150A breaker	10KA	10KA	—
MBKQJ3175 / MBKQR3175	MBKQJ3175A / MBKQR3175A	Kit w/3-pole QJ2/QR2 175A breaker	10KA	10KA	—
MBKQJ3200 / MBKQR3200	MBKQJ3200A / MBKQR3200A	Kit w/3-pole QJ2/QR2 200A breaker	10KA	10KA	—
MBKQJ3225 / MBKQR3225	MBKQJ3225A / MBKQR3225A	Kit w/3-pole QJ2/QR2 225A breaker	10KA	10KA	—
MBKQJ1125H / MBKQR1125H	MBKQJ1125HA / MBKQR1125HA	Kit w/2-pole QJ2H/QR2 125A breaker	42KA	65KA	—
MBKQJ1150H / MBKQR1150H	MBKQJ1150HA / MBKQR1150HA	Kit w/2-pole QJ2H/QR2 150A breaker	42KA	65KA	—
MBKQJ1175H / MBKQR1175H	MBKQJ1175HA / MBKQR1175HA	Kit w/2-pole QJ2H/QR2 175A breaker	42KA	65KA	—
MBKQJ1200H / MBKQR1200H	MBKQJ1200HA / MBKQR1200HA	Kit w/2-pole QJ2H/QR2 200A breaker	42KA	65KA	—
MBKQJ1225H / MBKQR1225H	MBKQJ1225HA / MBKQR1225HA	Kit w/2-pole QJ2H/QR2 225A breaker	42KA	65KA	—
MBKQJ3125H / MBKQR3125H	MBKQJ3125HA / MBKQR3125HA	Kit w/3-pole QJ2H/QR2 125A breaker	42KA	65KA	—
MBKQJ3150H / MBKQR3150H	MBKQJ3150HA / MBKQR3150HA	Kit w/3-pole QJ2H/QR2 150A breaker	42KA	65KA	—
MBKQJ3175H / MBKQR3175H	MBKQJ3175HA / MBKQR3175HA	Kit w/3-pole QJ2H/QR2 175A breaker	42KA	65KA	—
MBKQJ3200H / MBKQR3200H	MBKQJ3200HA / MBKQR3200HA	Kit w/3-pole QJ2H/QR2 200A breaker	42KA	65KA	—
MBKQJ3225H / MBKQR3225H	MBKQJ3225HA / MBKQR3225HA	Kit w/3-pole QJ2H/QR2 225A breaker	42KA	65KA	—
MBKFD3150	MBKFD3150A	Kit w/3-pole FXD6 150A breaker	65KA		35KA
MBKFD3175	MBKFD3175A	Kit w/3-pole FXD6 175A breaker	65KA		35KA
MBKFD3200	MBKFD3200A	Kit w/3-pole FXD6 200A breaker	65KA		35KA
MBKFD3225	MBKFD3225A	Kit w/3-pole FXD6 225A breaker	65KA		35KA
MBKFD3250	MBKFD3250A	Kit w/3-pole FXD6 250A breaker	65KA		35KA
MBKJD1300 <sup>Ⓞ</sup>	MBKJD1300A <sup>Ⓞ</sup>	Kit w/2-pole JXD6 300A breaker	65KA		35KA
MBKJD3300 <sup>Ⓞ</sup>	MBKJD3300A <sup>Ⓞ</sup>	Kit w/3-pole JXD6 300A breaker	65KA		35KA
MBKJD1400 <sup>Ⓞ</sup>	MBKJD1400A <sup>Ⓞ</sup>	Kit w/2-pole JXD6 400A breaker	65KA		35KA
MBKJD3400 <sup>Ⓞ</sup>	MBKJD3400A <sup>Ⓞ</sup>	Kit w/3-pole JXD6 400A breaker	65KA		35KA
MBKJD12300 <sup>Ⓞ</sup>	MBKJD12300A <sup>Ⓞ</sup>	Kit w/2-pole JXD2 300A breaker	65KA		—
MBKJD32300 <sup>Ⓞ</sup>	MBKJD32300A <sup>Ⓞ</sup>	Kit w/3-pole JXD2 300A breaker	65KA		—
MBKJD12400 <sup>Ⓞ</sup>	MBKJD12400A <sup>Ⓞ</sup>	Kit w/2-pole JXD2 400A breaker	65KA		—
MBKJD32400 <sup>Ⓞ</sup>	MBKJD32400A <sup>Ⓞ</sup>	Kit w/3-pole JXD2 400A breaker	65KA		—

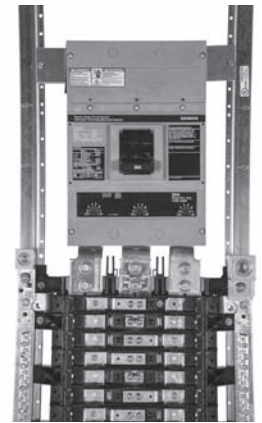
Ⓞ Kits are for Main only. New "Revised P1" kits can be used for either top feed or bottom feed.

NOTE: "Revised P1" Kits above only work for interior numbers ending in "T" or "N". Use "Original P1" kits for all others.

### Branch Breakers Selection for P1

#### Selection Guide

1. Select breaker type.
2. Select required amperage.
3. Select number of poles.
4. Select branch breaker catalog numbers.
5. Select ground bar and filler plates.  
(See replacement parts & accessories on Page 11-11.)



**300A Main installed.**  
These Revised P1 kits can now be used as top or bottom feed.

### AFCI – Combination Type Arc Fault Circuit Interrupter

Breaker Type	Ampere Rating	Catalog Number	Interrupting Ratings (kA) RMS Symmetrical Amperes		
			Volts AC		
			120	120/240	240
BAF2 1-pole	15	B115AFC	10	—	—
	20	B120AFC	10	—	—
BAFH2 1-pole	15	B115AFCH	22	—	—
	20	B120AFCH	22	—	—
HBAF2 1-pole	15	BA115AFCHH	65	—	—
	20	BA120AFCHH	65	—	—
BAF 2-pole	15	B215AFC	10	—	—
	20	B220AFC	10	—	—
BAFH 2-pole	15	B215AFCH	22	—	—
	20	B220AFCH	22	—	—

### Switching Neutrals

Breaker Type	Ampere Rating	Catalog Number	Maximum Interrupting Rating (kA)		
			120V AC	120/240V AC	240V AC
BG 2-Wire Common Trip	15	BG215■	10	—	—
	20	BG220■	10	—	—
	30	BG230■	10	—	—
BG 3-Wire Common Trip	15	BG315■	—	10	—
	20	BG320■	—	10	—
	30	BG330■	—	10	—

■ Built to order.

### AFCI – Branch Feeder Type Arc Fault Circuit Interrupter

Breaker Type	Ampere Rating	Catalog Number	Interrupting Ratings (kA) RMS Symmetrical Amperes		
			Volts AC		
			120	120/240	240
BAF2 1-pole	15	BA115AF	10	—	—
	20	BA120AF	10	—	—
BAFH2 1-pole	15	BA115AFH	22	—	—
	20	BA120AFH	22	—	—
HBAF2 1-pole	15	BA115AFHH	65	—	—
	20	BA120AFHH	65	—	—

### Dual Function AFCI/GFCI Circuit Breaker

Breaker Type	Ampere Rating	Catalog Number	Interrupting Ratings (kA) RMS Symmetrical Amperes		
			Volts AC		
			120	120/240	240
BFGA2 1-pole	15	B115DF	10	—	—
	20	B120DF	10	—	—
BFGAH2 1-pole	15	B115DFH	22	—	—
	20	B120DFH	22	—	—
HBFGA2 1-pole	15	B115DFHH	65	—	—
	20	B120DFHH	65	—	—

## Warehouse Stock/Unassembled

Selection

### Branch Breakers Selection for P1

#### Selection Guide

1. Select breaker type.
2. Select required amperage.
3. Select number of poles.
4. Select branch breaker catalog numbers.
5. Select ground bar and filler plates.  
(See replacement parts & accessories on Page 11-11.)

#### BL Branch Breakers – 10,000A IR<sup>①</sup>

Amp Rating	1-Pole 120/240V	2-Pole 120/240V	2-Pole 240V	3-Pole 240V
15	B115	B215	B215R	B315
20	B120	B220	B220R	B320
25	B125	B225	B225R	B325
30	B130	B230	B230R	B330
35	B135	B235	B235R	B335
40	B140	B240	B240R	B340
45	B145	B245	B245R	B345
50	B150	B250	B250R	B350
55	B155	—	—	—
60	B160	B260	—	B360
70	B170	B270	—	B370
80	—	B280	—	B380
90	—	B290	—	B390
100	—	B2100	—	B3100

#### BLH Branch Breakers – 22,000A IR<sup>①</sup>

Amp Rating	1-Pole 120/240V	2-Pole 120/240V	3-Pole 240V
15	B115H	B215H	B315H
20	B120H	B220H	B320H
25	B125H	B225H	B325H
30	B130H	B230H	B330H
35	B135H	B235H	B335H
40	B140H	B240H	B340H
45	B145H	B245H	B345H
50	B150H	B250H	B350H
55	B155H	—	—
60	B160H	B260H	B360H
70	B170H	B270H	B370H
80	—	B280H	B380H
90	—	B290H	B390H
100	—	B2100H	B3100H

#### HBL Branch Breakers – 65,000A IR<sup>①</sup>

Amp Rating	1-Pole 120/240V	2-Pole 120/240V	3-Pole 240V
15	B115HH	B215HH	B315HH
20	B120HH	B220HH	B320HH
30	B130HH	B230HH	B330HH
40	B140HH	B240HH	B340HH
50	B150HH	B250HH	B350HH
60	—	B260HH	B360HH
70	—	B270HH	B370HH
80	—	B280HH	B380HH
90	—	B290HH	B390HH
100	—	B2100HH	B3100HH

#### BQD Branch Breakers – 14,000A IR Max. @ 480/277 Vac / 65,000A IR max. @ 240 Vac<sup>②</sup>

Amp Rating	1-Pole 277V	2-Pole 480Y/277V	3-Pole 480Y/277V
15	BQD115	BQD215	BQD315
20	BQD120	BQD220	BQD320
25	BQD125	BQD225	BQD325
30	BQD130	BQD230	BQD330
35	BQD135	BQD235	BQD335
40	BQD140	BQD240	BQD340
45	BQD145	BQD245	BQD345
50	BQD150	BQD250	BQD350
55	BQD155	BQD255	BQD355
60	BQD160	BQD260	BQD360
70	BQD170	BQD270	BQD370
80	BQD180	BQD280	BQD380
90	BQD190	BQD290	BQD390
100	BQD1100	BQD2100	BQD3100

#### GFCI Personnel Protection (5MA)

Breaker Type	Ampere Rating	Catalog Number	Interrupting Ratings (kA) RMS Symmetrical Amperes		
			Volts AC		
			120	120/240	240
BLF2 1-Pole	15	BF115A	10	—	—
	20	BF120A	10	—	—
	30	BF130A	10	—	—
BLFB 2-Pole	15	BF215A	—	10	—
	20	BF220A	—	10	—
	30	BF230A	—	10	—
	40	BF240A	—	10	—
	50	BF250A	—	10	—
BLHF2 1-Pole	15	BF115AH	22	—	—
	20	BF120AH	22	—	—
	30	BF130AH	22	—	—
BLHFB 2-Pole	15	BF215AH■	—	22	—
	20	BF220AH	—	22	—
	30	BF230AH	—	22	—
	40	BF240AH■	—	22	—
	50	BF250AH■	—	22	—
	60	BF260AH	—	22	—
HBLF2 1-Pole	15	BF115AHH	65	—	—
	20	BF120AHH	65	—	—
	30	BF130AHH	65	—	—

#### GB Family Branch Breakers

NGB – 25,000 A IR Max. @ 480/277V AC / 100,000 A IR @ 240V AC

HGB – 35,000 A IR Max. @ 480/277V AC / 100,000 A IR @ 240V AC

LGB – 65,000 A IR Max. @ 480/277V AC / 100,000 A IR @ 240V AC

Amp Rating	1-pole 277V	2-pole 480Y/277V	3-pole 480Y/277V
15	xGB1B015B	xGB2B015B	xGB3B015B
20	xGB1B020B	xGB2B020B	xGB3B020B
25	xGB1B025B	xGB2B025B	xGB3B025B
30	xGB1B030B	xGB2B030B	xGB3B030B
35	xGB1B035B	xGB2B035B	xGB3B035B
40	xGB1B040B	xGB2B040B	xGB3B040B
45	xGB1B045B	xGB2B045B	xGB3B045B
50	xGB1B050B	xGB2B050B	xGB3B050B
60	xGB1B060B	xGB2B060B	xGB3B060B
70	xGB1B070B	xGB2B070B	xGB3B070B
80	xGB1B080B	xGB2B080B	xGB3B080B
90	xGB1B090B	xGB2B090B	xGB3B090B
100	xGB1B100B	xGB2B100B	xGB3B100B
110	xGB1B110B	xGB2B110B	xGB3B110B
125	xGB1B125B	xGB2B125B	xGB3B125B

Replace x with N, H or L depending on desired type of breaker

NOTE: 2-pole and 3-pole xGB Frame Breakers are also rated at 14,000 A IR max. for 600Y/347V AC systems. UPB interiors are only rated to 480V max. - see factory assembled section for proper interiors.

■ Built to order. Allow 8-10 weeks for delivery.

① To add shunt trip to BL breakers, see Speedfax for Breaker Accessories.

② To add shunt trip to BQD breakers, see Speedfax for Breaker Accessories.

# Panelboards

## Panelboard Replacement, Modification, and Additions

*Selection*

S1/S2 Panels—All the original P1 panel kits for 250 amp and below panels will work for 250 amp maximum S1/S2 panels.

Note: Revised P1 kits will not work with S1/S2

### 400/600 Amp S1/S2 and All SE Panels

#### Lug Kits — Main or Feed Thru

Ampere Rating	Material	Wire Range	Service	Catalog Number
125A/250A	Al/Cu	(2) 1/0–250 kcmil	1-Phase	<b>MLKA1</b>
125A/250A	Al/Cu	(2) 1/0–250 kcmil	3-Phase	<b>MLKA3</b>
400A/600A	Al/Cu	(2) #4–250 kcmil or (1) 3/0–500 kcmil	1-Phase	<b>SMLKA1</b>
400A/600A	Al/Cu	(2) #4–250 kcmil or (1) 3/0–500 kcmil	3-Phase	<b>SMLKA3</b>

#### Breaker Mounting Kits

Ampere Rating	Breaker Types	Service	Catalog Number
125A	ED2, ED4, ED6, HED4, HED6, HHED6	1-Phase	<b>SMBKED1</b>
225A	ED2, ED4, ED6, HED4, HED6, HHED6	3-Phase	<b>SMBKED3</b>
225A	QJ2, QJH2, QJH2 <sup>Ⓞ</sup>	1-Phase	<b>SMBKQJ1</b>
225A	QJ2, QJH2, QJH2 <sup>Ⓞ</sup>	3-Phase	<b>SMBKQJ3</b>
250A	FXD6, FD6, HFXD6, HFD6	1-Phase	<b>SMBKFD1</b>
250A	FXD6, FD6, HFXD6, HFD6	3-Phase	<b>SMBKFD3</b>
400A	JD6, JXD6, HJD6, HJXD6	1-Phase	<b>SMBKJD1</b>
<b>400A</b>	<b>JD6, JXD6, HJD6, HJXD6</b>	<b>3-Phase</b>	<b>SMBKJD3</b>
600A	LD6, LXD6, HLD6, HLXD6	1-Phase	<b>SMBKLD1</b>
600A	LD6, LXD6, HLD6, HLXD6	3-Phase	<b>SMBKLD3</b>

#### Neutral Kits

Ampere Rating	Description	Catalog Number
250A max.	30/42 circuit 200% neutral kit	<b>2NLK2</b>
400/600A max.	42 circuit 200% neutral kit	<b>2NLK1</b>

Other applications:

For P4/S4 and 10" deep SPP panels see page 11-56 for branch breaker mounting kits.

For P5/S5 and 12.75" deep SPP panels see page 11-70 for branch breaker mounting kits.

For P4/F1 and 10" deep FPP panels see page 11-56 for branch fusible switch mounting kits.

For P5/F2 and 12.75" deep FPP panels see page 11-70 for branch fusible switch mounting kits.

For Series 5, Series 6, CDP6 and VB 6 panels as well as FC20, FCI, FCII, SB1, SB2 and SB3 distribution switchboards, see page 12-32 for branch device mounting kits.

<sup>Ⓞ</sup> QJ mounting kit is for subfeed breakers only, not main breaker.  
The kit contains mountings for (2) breakers.

# Panelboards

## Factory Assembled

## Selection

### Catalog Numbering System

P 1 C 4 2 F X 2 5 0 A T S T

**Type of Panel** P1, P2, P3, P4, P5

**Voltage and System\***

- |  |   |
|--|---|
| C = 208Y/120 3Ø 4 W Wye AC - All                         | R = 415/240 3Ø 4 W Wye AC - All                     |
| E = 480Y/277 3Ø 4 W Wye AC - All                         | S = 440/250 3Ø 4 W Wye AC - All                     |
| D = 240 3Ø 3 W Delta AC - All                            | L = 600/347 3Ø 4 W Wye AC - All                     |
| F = 480 3Ø 3 W Delta AC - All                            | T = 230 3Ø 3 W Delta AC - All                       |
| G = 600 3Ø 3 W Delta AC - P2, P3, P4, P5                 | W = 380 3Ø 3 W Delta AC - P2, P3, P4, P5            |
| I = 347 3Ø 3 W Delta AC P2, P3, P4, P5                   | 1 = 24V DC 1-Pole Branch Only - P2, P3, P4, P5      |
| B = 240/120 3Ø 4 W Delta BØ High Leg AC - P2, P3, P4, P5 | 2 = 24V DC 2-Pole Branch Only - P2, P3, P4, P5      |
| Q = 240/120 3Ø 4 W Delta CØ High Leg AC - P2, P3, P4, P5 | 3 = 48V DC 1-Pole Branch Only - P2, P3, P4, P5      |
| A = 120/240 1Ø 3 W Grounded Neutral AC - All             | 4 = 48V DC 2-Pole Branch Only - P2, P3, P4, P5      |
| H = 120 1Ø 2 W Grounded Neutral AC - P2, P3, P4, P5      | 5 = 125V DC 1-Pole Branch Only - P2, P3, P4, P5     |
| J = 240 1Ø 2 W No Neutral AC - All                       | N = 125V DC 2-Pole Branch Only - P2, P3, P4, P5     |
| Y = 125 1Ø 2 W Grounded Neutral AC - P2, P3, P4, P5      | O = 125/250V DC 2-Pole Branch Only - P2, P3, P4, P5 |
| Z = No Longer Available                                  | P = 125/250V DC 2 & 3-Pole Branch - All             |
| K = 220/127 3Ø 4 W Wye AC - All                          | U = 120V AC 3Ø3W - All                              |
| M = 380/220 3Ø 4 W Wye AC - All                          | V = 240V 3Ø3W Grounded B Phase - P2, P3, P4, P5     |

\*For any voltage system not listed, check with sales for availability.

**Circuits** or **Enclosure Height**  
P1 – 18, 30, 42, 54, 66      P3 – 56, 62, 68, 74, 80  
P2 – 18, 30, 42, 54, 66, 78, 90      P4, P5 – 60, 75, 90

**Main Lug (ML), Main Breaker**  
(See Main Breaker Table coding below), Main Switch (MS)

**Amperage**  
100–400A = P1      250–800A = P3  
100–600A = P2      400–1200A = P4, P5

Bus Code <sup>①</sup>	Bus Material	Bus Plating	P1	P2	P3	P4	P5	
A	Temp rated Al.	Tin-Plated	•	•	•	•	•	• Indicates default for this bus type.
B	750A/sq. in. Al.	Tin-Plated	n/a	•	•	•	•	
C	Temp rated Cu.	Tin-Plated	•	n/a	n/a	n/a	n/a	
E	Temp rated Cu.	Silver-Plated	n/a	optional	optional	•	•	
F	Temp rated Cu.	Tin-Plated	n/a	•	•	n/a	n/a	
G	1000A/sq. in. Cu.	Tin-Plated	n/a	•	•	optional	optional	
H	1000A/sq. in. Cu.	Silver-Plated	n/a	optional	optional	•	•	

**Feed Location** T = Top B = Bottom

**Mounting**  
S = Surface  
F = Flush. Flush trims extend 1 1/2" beyond the base box dimensions on P1, P2 and P3 and 2" on P4 and P5 panels.

**Subfeed Space Indicator (for P1 only)** T = Subfeed Space Included N<sup>②</sup> = No Subfeed Space

### Main Breaker Coding

Code	Breaker Type	Code	Breaker Type	Code	Breaker Type	Code	Breaker Type	Code	Breaker Type	Code	Breaker Type	Code	Breaker Type	Code	Breaker Type
BL	BL	H1	HHFD6	SC	SCJD6	S2	SHLD6	SQ	SCMD6H	AD	SHND6	L2	HLK	N8	HNG
BH	BLH	H3	HHFXD6	SX	SHJD6	SL	SLD6	S5	SHMD6	SD	SHND6H	L7	NLK	N2	HNX
BR	BLR	G2	HGB	SY	SHJD6H	OJ	QJ2	S6	SHMD6H	SN	SND6	M5	HMG	N5	HNH
HB	HBL	G3	LGB	SJ	SJD6	Q2	QJ2H	SM	SMD6	AY	SND6H	M2	HMX	N9	LNG
BQ	BQD	NB	NGB	SH	SJD6H	QH	QJH2	AX	SMD6H	J6	HJG	M8	HMY	N3	LNH
B6	BQD6	CJ	CJD6	CL	CLD6	C9	CMD6	CN	CND6	J7	HJX	M6	LMG	N6	LNH
CE	CED6	6H	HHJD6	HH	HHLD6	CH	CMD6H	C6	CND6H	J5	HJY	M3	LMX	N7	NNG
E4	ED4	H9	HHJXD6	XH	HHLXD6	HM	HMD6	HN	HND6	J9	LJG	M9	LMY	N1	NNH
E6	ED6	H6	HJD6	HL	HLD6	HR	HMXD6	HT	HNXD6	J3	LJX	M4	NMG	N4	NNH
H4	HED4	H5	HJXD6	HO	HFXD6	HS	HMXD6H	HX	HNXD6H	J8	LJY	M1	NMX	QR	QR2
CF	CFD6	H7	HJXD6H	HP	HFXD6H	MD	MD6	ND	ND6	L3	LLK	M7	NMY	Q4	QRH2
FD	FD6	J6	JD6	L6	LD6	MX	MXD6	NX	NXD6	J2	NJG			Q5	HQR2
FX	FXD6	JD	JXD2	LX	LXD6	MH	MXD6H	NT	NXD6H	J1	NJX			Q6	HQR2H
HF	HFD6	JX	JXD6	LH	LXD6H	SO	SCMD6	SR	SCND6	J4	NJY			Q7	QR2-MCS
H2	HFXD6	JH	JXD6H	S1	SCLD6			ST	SCND6H						

① Standard bussing in P1, P2 and P3 panels is tin-plated for aluminum and copper. Standard bus is temperature rated to the maximum amperage in the panel.

② Not available for Revised P1 xGB interiors.

11  
PANELBOARDS

# Panelboards

## Circuit Breaker / Lighting and Distribution

*Pricing*

### Type P1

- To specify a particular panelboard; list panel catalog number, branches, modifications, and price on an Estimate Sheet. Price includes interior with provisions, box, ground bar, and trim. See Example No. 1.
- When more than 66 circuits are specified for P1 a two section panel will be required. Feed-thru lugs must be priced in one section from the modifications on pages 11-23.

*NOTE: This panel does not require Subfeed Space — indicated by "N" suffix*

Panel LPA		
1 — P1C30QR225ATSN		2540.
10-20/1	25. ea.	250.
4-30/3	140. ea.	560.
		3350.

Example No. 1 (pricing not current)

Example No. 2 is a two section panel, each having 42 circuits. Section One will contain 1-225/3 QR2 main breaker (top feed), 250A feed-thru lugs and 21" of unit space. Section Two will contain 250A main lugs only (bottom feed) and 21" of unit space. Sections will be 44" in height.

*NOTE: This panel does include Subfeed Space — indicated by "T" suffix*

Panel LPB		
1 — P1C42QR225ATST		2760.
1 — P1C42ML250ATST		1330.
1 — Feed-Thru Lugs		190.
		4280.

Example No. 2 (pricing not current)

- Standard main breakers are indicated by the 6th and 7th positions in the catalog number. If any other main breaker type is required, replace with the appropriate code from page 11-18. See Example No. 3.
- All panel modifications must be listed and priced separately.
- If the boxes are to be sized the same then each panel must have the same amount of unit space.

*NOTE: This panel does include Subfeed Space — indicated by "T" suffix*

Panel LPC		
1 — P1C42HF250CTST		3160.
HFD6 Main		1900.
42-20/1 BLH	35. ea.	1470.
Cu Bus		255.
Type 3R		860.
		7645.

Example No. 3 (pricing not current)

### Type P2

Type P2 panelboards are priced the same as Type P1 described above except for two section panels.

- When more than 42 circuits are specified for P2, a two section panel will be assumed. Main breaker codes in the 5th and 6th positions will dictate the use of feed-thru lugs. An "ML" in the fifth and sixth positions will dictate the use of subfeed lugs for 125A and 250A and feed-thru lugs for 400A and 600A.

Boxes will be sized the same for two section panels.

Base price includes all provisions. Subfeed or feed-thru lugs as required must be priced from page 11-32.

Example No. 4 is a two section panel, each having 42 circuits. Section One will contain 1-400/3 JXD6 main breaker (top feed), 225A feed-thru lugs, and 21" of unit space. Section Two will contain 400A main

lugs only (bottom feed) and 21" of unit space. Sections will be 53" in height.

### Types P3, P4 and P5

- To specify a particular panelboard, first determine voltage, system, amperage and type of main, amperage and type of branch devices, and modifications if any. (Step 1)

- List branch devices and modifications requiring space additions. List unit space requirements of each.

Note: Some units are twin mounted meaning two breakers occupy the same unit space.

Select appropriate enclosure height from selection chart on pages 11-40, 11-50, or 11-64, based on unit space requirements. (Step 2)

- Select panelboard catalog number from appropriate table based upon voltage, system, amperage and unit space requirements. (Step 3)

#### Step #1

Amperage	400
Voltage	208Y/120
System	3-phase 4-wire
Main	Main Breaker
Branches	5-125/3, 2-225/3, 1-250/3
Modification	None
Feed	Top
Mounting	Surface

#### Step #2 Unit Space Calculation

5-125/3 QR2	5" = 15"
5-225/3 QR2	5" = 5"
1-250/3 FXD6	5" = 5"
	25"
Enclosure is B275 from Selection Chart on page 11-47. (32" wide, 75" high, 10" deep).	

#### Step #3

1—P4C75JX400ATS		\$ 4210.
5-125/3 QR2	940.	4700.
2-225/3 QR2	940.	1880.
1-250/3 FXD6	2700.	2700.
		13490.

(pricing not current)