

# Panelboards

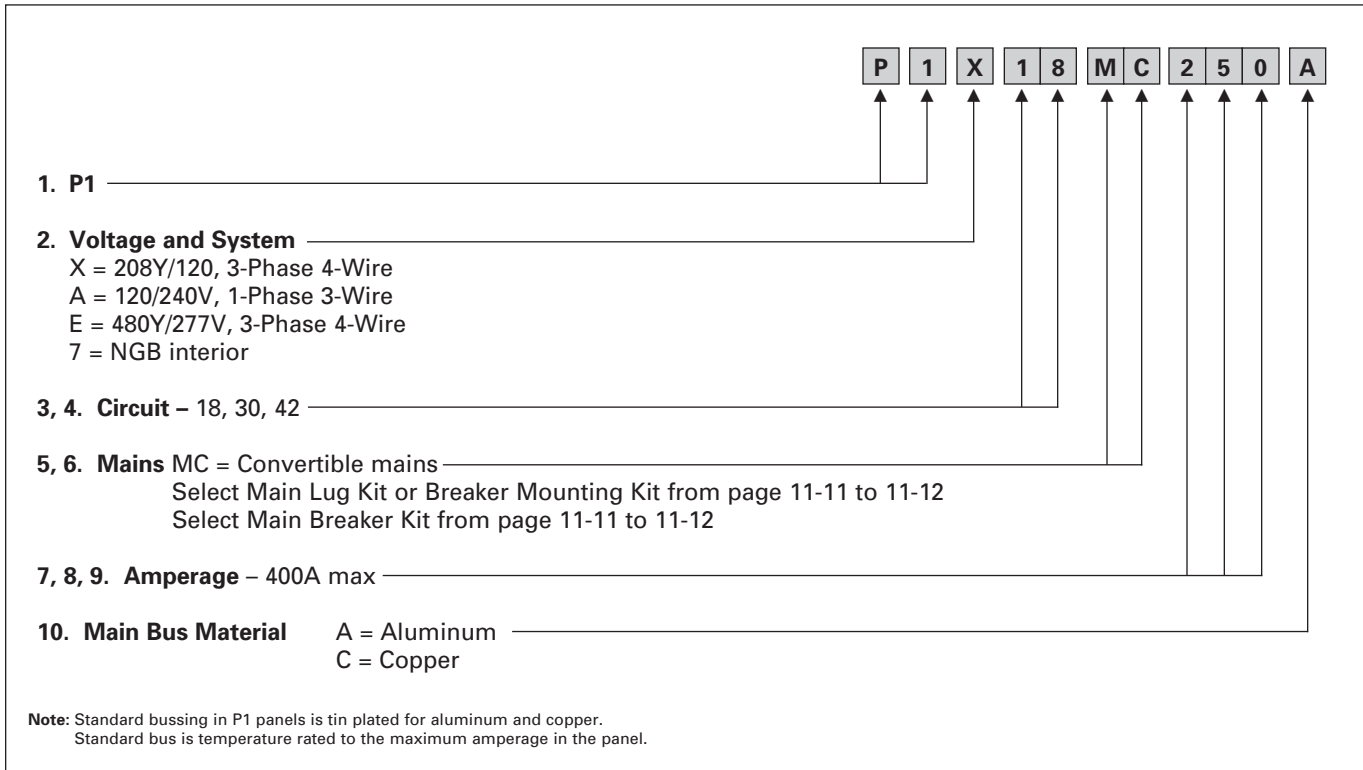
## Unassembled

Reference

### Catalog Numbering System

Type P1 unassembled panelboards are completely convertible from main lug to main breaker and vice-versa. Additionally feed-thru lugs, or a subfeed circuit breaker up to 400 amperes can be added without increasing the box height. Follow these easy steps to select and price the proper P1 panel from stock:

1. Compute total number of poles to determine interior catalog number.
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.



### Branch Breakers

Panel Type	Voltage (Max.)	Breaker Type	Speedfax Page
P1	240	BI, BLH, HBL, BQD, NGB	See section 7
	480/277	BQD, NGB	
	600/347	BQD	

# Panelboards

## Distributor Stock

*Selection*

### Pricing An Unassembled Panel

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

1. Choose the appropriate Interior from the table below.
2. Choose and price the Main Device: Main Lugs from pages 11-11, Main Breaker Kit from page 11-13 and Main Breakers from Section 7.

3. Choose and price Branch Breakers. BL, BOD and NGB breakers from Section 7.
4. Choose and price Feed-Thru Lugs or Subfeed Breaker Feed-Thru Lugs from page 11-11, Subfeed Breaker Kit from page 11-11, and Subfeed Breaker from Section 7.

### Type P1 Unassembled Panelboards

Interiors Only—Less Branch Breakers			Boxes			Fronts	
Amperes Rating Mains	Max. No of Poles	Interiors	Height (inches)	Type 1	Type 3R/12 <sup>Ⓞ</sup>	Surface	Flush
<b>Convertible Mains — 1-Phase, 3-Wire</b>							
<b>120 / 240V</b>							
250	18	P1A18MC250A	32	B32	WP32	S32B	F32B
	30	P1A30MC250A	38	B38	WP38	S38B	F38B
	42	P1A42MC250A	44	B44	WP44	S44B	F44B
400	18	P1A18MC400A	56	B56	WP56	S56B	F56B
	30	P1A30MC400A	62	B62	WP62	S62B	F62B
	42	P1A42MC400A	68	B68	WP68	S68B	F68B
250	18	P1A18MC250C	32	B32	WP32	S32B	F32B
	30	P1A30MC250C	38	B38	WP38	S38B	F38B
	42	P1A42MC250C	44	B44	WP44	S44B	F44B
400	18	P1A18MC400C	56	B56	WP56	S56B	F56B
	30	P1A30MC400C	62	B62	WP62	S62B	F62B
	42	P1A42MC400C	68	B68	WP68	S68B	F68B
<b>Convertible Mains — 3-Phase, 4-Wire</b>							
<b>208Y / 120V</b>							
250	18	P1X18MC250A	32	B32	WP32	S32B	F32B
	30	P1X30MC250A	38	B38	WP38	S38B	F38B
	42	P1X42MC250A	44	B44	WP44	S44B	F44B
400	18	P1X18MC400A	56	B56	WP56	S56B	F56B
	30	P1X30MC400A	62	B62	WP62	S62B	F62B
	42	P1X42MC400A	68	B68	WP68	S68B	F68B
250	18	P1X18MC250C	32	B32	WP32	S32B	F32B
	30	P1X30MC250C	38	B38	WP38	S38B	F38B
	42	P1X42MC250C	44	B44	WP44	S44B	F44B
400	18	P1X18MC400C	56	B56	WP56	S56B	F56B
	30	P1X30MC400C	62	B62	WP62	S62B	F62B
	42	P1X42MC400C	68	B68	WP68	S68B	F68B
<b>Convertible Mains — 3-Phase, 4-Wire</b>							
<b>480Y / 277V</b>							
250	18	P1E18MC250A	32	B32	WP32	S32B	F32B
	30	P1E30MC250A	38	B38	WP38	S38B	F38B
	42	P1E42MC250A	44	B44	WP44	S44B	F44B
400	18	P1E18MC400A	46	B56	WP56	S56B	F56B
	30	P1E30MC400A	62	B62	WP62	S62B	F62B
	42	P1E42MC400A	68	B68	WP68	S68B	F68B
250	18	P1E18MC250C	32	B32	WP32	S32B	F32B
	30	P1E30MC250C	38	B38	WP38	S38B	F38B
	42	P1E42MC250C	44	B44	WP44	S44B	F44B
400	18	P1E18MC400C	56	B56	WP56	S56B	F56B
	30	P1E30MC400C	62	B62	WP62	S62B	F62B
	42	P1E42MC400C	68	B68	WP68	S68B	F68B
<b>Interiors for NGB Breakers — 3-Phase, 4-Wire</b>							
<b>480Y / 277V</b>							
250	18	P1718MC250A	32	B32	WP32	S32B	F32B
	30	P1730MC250A	38	B38	WP38	S38B	F38B
	42	P1742MC250A	44	B44	WP44	S44B	F44B
400	18	P1718MC400A	46	B56	WP56	S56B	F56B
	30	P1730MC400A	62	B62	WP62	S62B	F62B
	42	P1742MC400A	68	B68	WP68	S68B	F68B
250	18	P1718MC250C	32	B32	WP32	S32B	F32B
	30	P1730MC250C	38	B38	WP38	S38B	F38B
	42	P1742MC250C	44	B44	WP44	S44B	F44B
400	18	P1718MC400C	56	B56	WP56	S56B	F56B
	30	P1730MC400C	62	B62	WP62	S62B	F62B
	42	P1742MC400C	68	B68	WP68	S68B	F68B

<sup>Ⓞ</sup> Front included in NEMA 3R Box.



# Panelboards

• Revised •  
06/13/14

## Distributor Stock

*Selection*

### Type P1 Panelboards

#### Lug Kits — Main or Feed Thru

Ampere Rating	Material	Wire Range	Service	Catalog Number
250	Al	(1) #6 AWG–350 kcmil Cu or Al	1-Phase	<b>MLKA1</b>
		(1) #6 AWG–350 kcmil Cu or Al	3-Phase	<b>MLKA3</b>
	Cu	(1) #6 AWG–350 kcmil Cu or Al	1-Phase	<b>MLKC1</b>
		(1) #6 AWG–350 kcmil Cu or Al	3-Phase	<b>MLKC3</b>
400	Al	(2) 3/0 250 or (1) 600 kcmil	1-Phase	<b>4MLKA1</b>
		(2) 3/0 250 or (1) 600 kcmil	3-Phase	<b>4MLKA3</b>
	Cu	(2) 3/0 250 or (1) 600 kcmil	1-Phase	<b>4MLKC1</b>
		(2) 3/0 250 or (1) 600 kcmil	3-Phase	<b>4MLKC3</b>

#### Copper Neutral Lug Kits — 250A

Number of Circuits	Description	Catalog Number
18	2 Branch Neutral Strips, 1 Main Neutral Lug, Hardware	<b>CNLK18</b>
30	2 Branch Neutral Strips, 1 Main Neutral Lug, Hardware	<b>CNLK30</b>
42	2 Branch Neutral Strips, 1 Main Neutral Lug, Hardware	<b>CNLK42</b>

#### 200% Neutral Lug Kits/250A

18	2 Branch Neutral Strips, 2 Main Neutral Lug, Hardware	<b>2NLK18</b>
30	2 Branch Neutral Strips, 2 Main Neutral Lug, Hardware	<b>2NLK30</b>
42	2 Branch Neutral Strips, 2 Main Neutral Lug, Hardware	<b>2NLK42</b>

#### 200% Neutral Lug Kits/400A

18	2 Branch Neutral Strips, 1 Main 600MCM Neutral Lug, Hardware	<b>42NLK18</b>
30		<b>42NLK30</b>
42		<b>42NLK42</b>

#### Miscellaneous Parts and Accessories

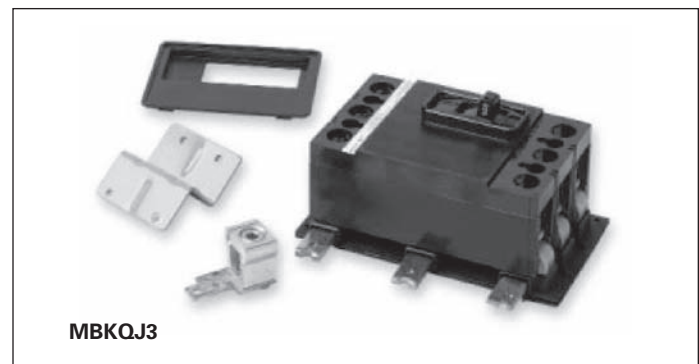
Catalog Number	Description
<b>EGK</b>	Al Ground Bus 44 Connections
<b>BK1</b>	Bonding kit for 250A max. and all P1 panels
<b>BK2</b>	Bonding kit for S1/S2 400 & 600
<b>BK3</b>	Bonding kit
<b>IMK1</b>	Interior Adjusting Kit
<b>11-1824-01</b>	Directory Card Holder
<b>12-1110-01</b>	Directory Card
<b>11-1056-01</b>	NEMA Instruction Book
<b>NBK03</b>	Number Strips 1–42
<b>NBK04</b>	Number Strips 43–84
<b>NBK05</b>	Number Strips 85–126
<b>NBK06</b>	Number Strips 127–168
<b>ECGK</b>	Cu Ground Bus 44 Connections
<b>IGK</b>	Insulated Al Ground Bus
<b>ICGK</b>	Insulated Cu Ground Bus
<b>EWK1</b>	End Wall Kit with Knockouts (20" W x 5.75" DP)
<b>EWK2</b>	End Wall Kit with Knockouts (24" W x 7.75" DP)
<b>QF3</b>	Filler Plate
<b>EBF1</b>	NEB/HEB Filler Plate

### Type P1 Panelboards

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

Ampere Rating	Breaker Types	Service	Catalog Number
100A	BQD	3-Phase	<b>MBKBC3</b>
100A	BL, BLH, HBL	1-Phase	<b>MBKBL1</b>
		3-Phase	<b>MBKBL3</b>
125A	NGB	1-Phase	<b>MBKNB1</b>
125A	ED4, ED6, HED4, HED6	3-Phase	<b>MBKNB3</b>
		1-Phase	<b>MBKED1</b>
125A	ED4, ED6, HED4, HED6	3-Phase	<b>MBKED3</b>
		1-Phase	<b>MBKQJ1</b>
225A	QJ2, QJH2, QJ2-H	3-Phase	<b>MBKQJ3</b>
		1-Phase	<b>MBKFD1</b>
250A	FXD6, FD6, HFD6, HFDX6	3-Phase	<b>MBKFD3</b>
		1-Phase	<b>MBKJD1</b>
400A <sup>①</sup>	JXD2, JD6, JXD6, HJD6, HJXD6	3-Phase	<b>MBKJD3</b>

① 400 amp kit is for main—only not allowed for subfeed breaker.



# Panelboards

## Panelboard Replacement, Modification, and Additions

*Selection*

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

### 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, HQJ2, HQJ2H <sup>Ⓞ</sup>	1-Phase	<b>SMBKQJ1</b>
225A	QJ2, HQJ2, HQJ2H <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>
400A	JD6, JXD6, HJD6, HJXD6	3-Phase	<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 11-51 for branch breaker mounting kits.

For P5/S5 and 12.75" deep SPP panels see page 11-63 for branch breaker mounting kits.

For P4/F1 and 10" deep FPP panels see page 11-51 for branch fusible switch mounting kits.

For P5/F2 and 12.75" deep FPP panels see page 11-63 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

## Warehouse Stock/Unassembled

*Selection*

### Main Breaker Mounting Kits w/Breakers for P1 panels

Catalog Number	Description	Ratings	
		240V	480V
MBKED3100	Kit w/3-pole ED4 100A breaker	65KA	18KA
MBKED3125	Kit w/3-pole ED4 125A breaker	65KA	18KA
MBKQJ1125	Kit w/2-pole QJ2 125A breaker	10KA	—
MBKQJ1150	Kit w/2-pole QJ2 150A breaker	10KA	—
MBKQJ1175	Kit w/2-pole QJ2 175A breaker	10KA	—
MBKQJ1200	Kit w/2-pole QJ2 200A breaker	10KA	—
MBKQJ1225	Kit w/2-pole QJ2 225A breaker	10KA	—
MBKQJ3125	Kit w/3-pole QJ2 125A breaker	10KA	—
MBKQJ3150	Kit w/3-pole QJ2 150A breaker	10KA	—
MBKQJ3175	Kit w/3-pole QJ2 175A breaker	10KA	—
MBKQJ3200	Kit w/3-pole QJ2 200A breaker	10KA	—
MBKQJ3225	Kit w/3-pole QJ2 225A breaker	10KA	—
MBKQJ1125H	Kit w/2-pole QJ2H 125A breaker	42KA	—
MBKQJ1150H	Kit w/2-pole QJ2H 150A breaker	42KA	—
MBKQJ1175H	Kit w/2-pole QJ2H 175A breaker	42KA	—
MBKQJ1200H	Kit w/2-pole QJ2H 200A breaker	42KA	—
MBKQJ1225H	Kit w/2-pole QJ2H 225A breaker	42KA	—
MBKQJ3125H	Kit w/3-pole QJ2H 125A breaker	42KA	—
MBKQJ3150H	Kit w/3-pole QJ2H 150A breaker	42KA	—
MBKQJ3175H	Kit w/3-pole QJ2H 175A breaker	42KA	—
MBKQJ3200H	Kit w/3-pole QJ2H 200A breaker	42KA	—
MBKQJ3225H	Kit w/3-pole QJ2H 225A breaker	42KA	—
MBKFD3150	Kit w/3-pole FXD6 150A breaker	65KA	35KA
MBKFD3175	Kit w/3-pole FXD6 175A breaker	65KA	35KA
MBKFD3200	Kit w/3-pole FXD6 200A breaker	65KA	35KA
MBKFD3225	Kit w/3-pole FXD6 225A breaker	65KA	35KA
MBKFD3250	Kit w/3-pole FXD6 250A breaker	65KA	35KA
MBKJD1300	Kit w/2-pole JXD6 300A breaker	65KA	—
MBKJD3300	Kit w/3-pole JXD6 300A breaker	65KA	35KA
MBKJD1400 <sup>①</sup>	Kit w/2-pole JXD6 400A breaker	65KA	35KA
MBKJD3400 <sup>①</sup>	Kit w/3-pole JXD6 400A breaker	65KA	35KA

■ Built to order.

① 400 Amp Kit used as Main and for top feed application only. For bottom feed, order breaker, bracket and lugs separately.

### 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.)

### 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	BA115AFC	10	—	—
	20	BA120AFC	10	—	—
BAFH2 1-pole	15	BA115AFCH	22	—	—
	20	BA120AFCH	22	—	—
HBAF2 1-pole	15	BA115AFCHH	65	—	—
	20	BA120AFCHH	65	—	—

### 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	—	—

### Switching Neutrals

Breaker Type	Ampere Rating	Catalog Number	Interrupting Ratings (kA) RMS Symmetrical Amperes		
			Volts AC		
			120	120/240	240
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	—

# Panelboards

## 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>②</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	B260R	B360
70	B170	B270	B270R	B370
80	—	B280	B280R	B380
90	—	B290	B290R	B390
100	—	B2100	B2100R	B3100
110	—	B2110	—	—
125	—	B2125	—	—

#### BLH Branch Breakers – 22,000A IR<sup>②</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
40	B140H	B240H	B340H
50	B150H	B250H	B350H
55	B155H	—	—
60	B160H	B260H	B360H
70	B170H	B270H	B370H
80	—	B280H	B380H
90	—	B290H	B390H
100	—	B2100H	B3100H

#### BQD Branch Breakers – 14,000A IR Max. @ 480/277 Vac / 65,000A IR max. @ 240 Vac<sup>③</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
60	BQD160	BQD260	BQD360
70	BQD170	BQD270	BQD370
80	BQD180	BQD280	BQD380
90	BQD190	BQD290	BQD390
100	BQD1100	BQD2100	BQD3100

#### HBL Branch Breakers – 65,000A IR<sup>②</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

#### GFCI Personnel Protection (5MA)

Breaker Type	Ampere Rating	Catalog Number	Interrupting Ratings (kA) RMS Symmetrical Amperes		
			Volts AC		
			120	120/240	240
BLF 1-Pole	15	BF115	10	—	—
	20	BF120	10	—	—
	25	BF125■	10	—	—
	30	BF130	10	—	—
BLF 2-Pole	15	BF215	—	10	—
	20	BF220	—	10	—
	30	BF230	—	10	—
	40	BF240■	—	10	—
	50	BF250■	—	10	—
	60	BF260■	—	10	—
BLHF 1-Pole	15	BF115H	22	—	—
	20	BF120H	22	—	—
	30	BF130H■	22	—	—
BLHF 2-Pole	15	BF215H■	—	22	—
	20	BF220H■	—	22	—
	30	BF230H■	—	22	—
	40	BF240H■	—	22	—
	50	BF250H■	—	22	—
	60	BF260H■	—	22	—

#### NGB Branch Breakers – 25,000 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	NGB1B015B	NGB2B015B	NGB3B015B
20	NGB1B020B	NGB2B020B	NGB3B020B
25	NGB1B025B	NGB2B025B	NGB3B025B
30	NGB1B030B	NGB2B030B	NGB3B030B
35	NGB1B035B	NGB2B035B	NGB3B035B
40	NGB1B040B	NGB2B040B	NGB3B040B
45	NGB1B045B	NGB2B045B	NGB3B045B
50	NGB1B050B	NGB2B050B	NGB3B050B
60	NGB1B060B	NGB2B060B	NGB3B060B
70	NGB1B070B	NGB2B070B	NGB3B070B
80	NGB1B080B	NGB2B080B	NGB3B080B
90	NGB1B090B	NGB2B090B	NGB3B090B
100	NGB1B100B	NGB2B100B	NGB3B100B
110	NGB1B110B	NGB2B110B	NGB3B110B
125	NGB1B125B	NGB2B125B	NGB3B125B

■ Built to order. Allow 2-3 weeks for delivery.  
② HACR rated.

③ To add shunt trip to BL breakers, see page 7-29 Accessories.

③ To add shunt trip to BQD breakers, see page 7-36 Accessories.

# Panelboards

## Factory Assembled

## Selection

### Catalog Numbering System

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

#### 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 Branches Only (3) - All  |
| B = 240/120 3Ø 4 W Delta BØ High Leg AC - All           | 2 = 24V DC 2-Pole Branches Only (3) - All  |
| Q = 240/120 3Ø 4 W Delta CØ High Leg AC - All           | 3 = 48V DC 1-Pole Branches Only (3) - All  |
| A = 120/240 1Ø 3 W Grounded Neutral AC (2) - All        | 4 = 48V DC 2-Pole Branches Only (3) - All  |
| H = 120 1Ø 2 W Grounded Neutral AC (2) - All            | 5 = 125V DC 1-Pole Branches Only (3) - All |
| J = 240 1Ø 2 W No Neutral AC (3) - All                  | N = 125V DC 2-Pole Branches Only - All     |
| Y = 125 1Ø 2 W Grounded Neutral AC (2) - P2, P3, P4, P5 | O = 125/250V DC 2-Pole Branches Only - All |
| Z = 500 2W DC - P2, P3, P4, P5                          | P = 125/250V DC 2 & 3-Pole Branches - 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 - All       |

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

#### Circuits

P1 – 18, 30, 42  
P2 – 18, 30, 42, 54, 66, 78, 90.①

or

#### Enclosure Height

P3 – 56, 62, 68, 74, 80  
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 Material

Temp rated Al.  
750A/sq. in. Al.  
Temp rated Cu.  
Temp rated Cu.  
1000A/sq. in. Cu.  
1000A/sq. in. Cu.

#### Bus Plating

Tin-Plated  
Tin-Plated  
Tin-Plated  
Silver-Plated  
Tin-Plated  
Silver-Plated

#### Letter

A  
B  
C  
E  
F  
G  
H

Bus Code	P1①	P2	P3	P4	P5
A	•	•	•	•	•
B	n/a	•	•	•	•
C	•	•	•	n/a	n/a
F	n/a	•	•	•	•
E	n/a	optional	optional	•	•
G	n/a	•	•	optional	optional
H	n/a	optional	optional	•	•

• Indicates default for this bus type.

#### 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.

### Main Breaker Coding

#### (Breaker Type) Code

(BAF) BA, (BAFH) BF, (BQD) BQ, (BQD6) B6, (BL) BL, (BLEH) BE, (BLH) BH, (BLR) BR, (HBL) HB, (BGL-SWI) B1, (BLE-GFCI) BG, (BLF-GFCI) BC, (CED6) CE, (ED2) ED, (ED4) E4, (ED6) E6, (HED4) H4, (HHED6) HA, (BLHF-GFCI) B4, (BL-HID) B2, (NGB) NB, (HQP) HQ, (QP) QP, (QPH) PQ, (CEG) C4, (QJ2) QJ, (QJ2H) Q2, (QJH2) QH, HQJ2H (Q3), (CFD6) CF, (FD6) FD, (FXD6) FX, (HFD6) HF, (HFXD6) H2, (HHFD6) H1, (HHFXD6) H3, (CJD6) CJ, (HHJD6) H4, (HHJXD6) H9, (HJD6) H6, (HJXD6) H5, (HJXD6H) H7, (JD6) J6, (JXD2) JD, (JXD2H) J2, (JXD6) JX, (JXD6H) JH, (NJX) J1, (HJX) J7, (LJX) J3, (NJY) J4, (SJD6H) SH, (SJD6) SJ, (SHJD6) SX, (SHJD6H) SY, (SCJD6) SC, (HJY) J5, (LJY) J8, (CLD6) CL (HHL6) HH, (HHLXD6) XH, (HLD6) HL, (HLXD6) HO, (HLXD6H) HP, (LD6) L6, (LXD6) LX, (LXD6H) LH, (NLX) L7, (HLX) L2, (LLX) L3, (SLD6) SL, (SHLD6) S2, (SCLD6) S1, (HLMD6) HJ, (HLMXD6) HK, (LMD6) L1, (LMXD6) LM, (CMD) CM, (CMD6H) CH, (HMD6) HM, (HMXD6) HR, (HMXD6H) HS, (MD6) MD, (MXD6) MX, (MXD6H) MH, (NMX) M1, (HMX) M2, (LMX) M3, SCMD6 (SO), SCMD6H (SQ), SMD6 (SM), SMD6H (AX), SHMD6 (S5), SHMD6H (S6) (CND6) CN, (CND6H) C6, (HND6) HN, (HNXD6) HT, (HNXD6H) HX, (ND6) ND, (NXD6) NX, (NXD6H) NT, (NNX) N1, (HNX) N2, (LNX) N3, (NNY) N4, (HNY) N5, (LNY) N6, (SCND6) SR, (SCND6H) ST, (SND6) SN, (SHND6) AD, (SND6H) AY

① Panel must not be a lighting and appliance panel. See NEC article 408.34 for areas on NEC 2008 or earlier.

② 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.

# Panelboards

## Circuit Breaker / Lighting and Distribution

Pricing

### Types 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 42 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 11-20.

Example No. 2 is a two section panel, each having 42 circuits. Section One will contain 1-225/3 QJ2 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.

- 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.

Panel LPA		
1 — P1C30QJ225ATS		2540.
10-20/1	25. ea.	250.
4-30/3	140. ea.	560.
		3350.

Example No. 1

Panel LPB	
1 — P1C42QJ225ATS	2760.
1 — P1C42ML250ATS	1330.
1 — Feed-Thru Lugs	190.
	4280.

Example No. 2

Panel LPC	
1 — P1C42HF250CTS	3160.
HFD6 Main	1900.
42-20/1 BLH 35. ea.	1470.
Cu Bus	255.
Type 3R	860.
	7645.

Example No. 3

### 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 11-29.

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 11-35, 11-45, or 11-57, 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 QJ2	5" = 15"
5-225/3 QJ2	5" = 5"
1-250/3 FXD6	5" = 5"
	25"

Enclosure is B275 from Selection Chart on page 11-42.  
(32" wide, 75" high, 10" deep).

#### Step #3

1 — P4C75JX400ATS		\$ 4210.
5-125/3 QJ2	940.	4700.
2-225/3 QJ2	940.	1880.
1-250/3 FXD6	2700.	2700.
		13490.