

# Application

## Type P1 Panelboards

**Table P1-13 – Main Breaker Gutter Dimensions Inches (mm)**

Main Breaker	Max. Interrupting Rating (kA)		Neutral Location
	20" wide box	24" wide box	20" wide box
BL, BLH, HBL <sup>②</sup>	8.680 (220) <sup>③</sup>	10.690 (272) <sup>③</sup>	10.500 (267)
BQD <sup>②</sup>	7.880 (200)	9.880 (251)	10.500 (267)
NGB, HGB, LGB <sup>②</sup>	7.770 (197) <sup>③</sup>	9.770 (248) <sup>③</sup>	10.500 (267)
ED4, ED6, HED4	6.125 (156)	8.125 (206)	10.500 (267)
QJ2, QJH2, QJ2H	6.500 (165)	8.500 (216)	10.500 (267)
QR2, QRH2, HQR2, HQR2H	6.500 (165)	8.500 (216)	10.500 (267)
FD6, FXD6, HFD6, HFXD6	5.250 (133)	7.250 (184)	10.500 (267)
JD6, JXD6 <sup>①</sup>	15.000 (381)	15.000 (381)	26.500 (674)

① JD frame mounted vertically.

② For revised P1 with back-fed main option, use Side Gutter Wiring Spec Table P1-15

③ These dimensions are for Revised P1 only. See Original P1 cut sheets for valid dimensions if needed (P1 production prior to January 2015).

**Table P1-14 – Main Lug End Gutter Dimensions Inches (mm)**

Amp Rating	End Gutter		Neutral Location	
	20" wide box	24" wide box	20" wide box	24" wide box
125	9.500 (242)	9.500 (242)	10.500 (267)	10.500 (267)
250	9.500 (242)	9.500 (242)	10.500 (267)	10.500 (267)
400	25.500 (648)	25.500 (648)	26.750 (680)	26.750 (680)

NOTE: Feed-thru lug and neutral wire bending space is 15.000" and 16.250" respectively on 400A panel.

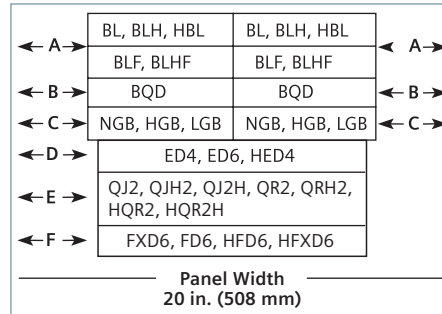
**Table P1-15 – Side Gutter Wiring Space Inches (mm) (Fig P1-1)**

Reference Letter	Panel Width 20"	Panel Width 24" Optional
A <sup>②</sup>	6.375 (167)	8.375 (213)
B <sup>②</sup>	5.500 (140)	7.500 (191)
C <sup>②</sup>	5.000 (127)	7.000 (178)
D	6.125 (156)	8.125 (206)
E	6.500 (165)	8.500 (216)
F	5.250 (133)	7.250 (184)

① Subfeed mounting limit 1 per panel.

② For all Revised P1 panels using BL/BQD or xGB breakers as mains in back-fed position, use this chart for wiring space.

**Fig P1-1**



## 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 for S3 Panel
IMK1	Interior Adjusting Kit
11-1824-01	Directory Card Holder
12-1110-01	Directory Card
MCHK	Metal Card Holder Kit
ANSI/NEMA PB 1.1-2013 <sup>③</sup>	General Instructions for Proper Installation, Operation, and Maintenance of Panelboards Rated 600 Volts or Less (O&M Manual)
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 (Used for BL/BQD/xGB/xGB2/ED blank position. Suitable for replacing QF3 in P1 thru P5 Panelboards and Switchboards.)
SEBKR1V1 <sup>①</sup>	FD, QJ, QR Service Entrance Barrier Kit (Revised P1)
SEBKR1V2 <sup>②</sup>	ED Service Entrance Barrier Kit (Revised P1)
SEBKR1V3 <sup>③</sup>	BQD Service Entrance Barrier Kit (Revised P1 - back-fed)
SEBKR1V4 <sup>③</sup>	xGB Service Entrance Barrier Kit (Revised P1 - back-fed)
SEBKR1V5 <sup>③</sup>	BL/BQD/xGB Service Entrance Barrier Kit (RP1 in Main Space)
SEBKP1P2P3V1 <sup>②</sup>	JD, LD Service Entrance Barrier Kit (RP1, P1, P2, P3)
P1CONBPHCU <sup>①</sup>	Connector kit – 6 pcs. B-phase Copper
P1CONBPHAL <sup>①</sup>	Connector kit – 6 pcs. B-phase Aluminum
P1CONACPHCU <sup>①</sup>	Connector kit – 6 pcs. A or C-phase Copper
P1CONACPHAL <sup>①</sup>	Connector kit – 6 pcs. A or C-phase Aluminum
MBKQRFK	P1/Revised P1 Filler for 1PH/3PH QR. Horizontal mount only.
HPLQR	QR Padlock Device
HBLQR	QR Handle Block Device

① Replacement parts only.

② Factory installed and field installable Service Entrance Barrier kits are now available as required by UL67. (In COMPAS, you must select Service Entrance Required.)

③ PDF can be downloaded for free and printed at this location: <http://www.nema.org/standards/pages/Panelboards.aspx>



Feed-Thru (FT)



Non-Feed-Thru (NFT)



Example of Back-fed xGB Main breaker installed

# Distributor Stock

## Type P1 Panelboards

### Lug Kits — Main or Feed Thru

Max Amp Rating	Matl.	Wire Range (includes Neutral)	Service	Original Catalog Number	Revised P1 Catalog Number
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—Main or Subfeed Strap Kit w/o Breaker

Amp Rating	Breaker Frames	Service	Original P1 Catalog Number	Revised P1 Catalog Number <sup>2</sup>
100A	BL, BLH, HBL	1 Phase	MBKBL1	MBKBL1A
		3 Phase	MBKBL3	MBKBL3A
100A	BQD	1 Phase	—	MBKBC1NBA
125A	NGB, HGB, LGB	1 Phase	MBKNB1	—
100A	BQD	3 Phase	MBKBC3	MBKBC3NBA
125A	NGB, HGB, LGB	3 Phase	MBKNB3	—
125	ED4, ED6, HED4, HHED6	1 Phase	MBKED1	MBKED1A
		3 Phase	MBKED3	MBKED3A
225	QJ2, QJH2, QJ2H	1 Phase	MBKQJ1	MBKQJ1A
		3 Phase	MBKQJ3	MBKQJ3A
225	QR2, QRH2, HQR2, HQR2H	1 Phase	MBKQR1	MBKQR1A
		3 Phase	MBKQR3	MBKQR3A
250	FXD6, FD6, HFD, HFXD6	1 Phase	MBKFD1	MBKFD1A
		3 Phase	MBKFD3	MBKFD3A
400 <sup>1</sup>	JXD6, JD6	1 Phase	MBKJD1	MBKJD1A
		3 Phase	MBKJD3	MBKJD3A

<sup>1</sup> 400 amp kit is for main—only, not allowed for subfeed breaker.

<sup>2</sup> MBKBFA kit is available to mount BL/BQD/xGB 2-pole or 3-pole in unit space as a "Back-Fed Main". This occupies branch space and reduces circuit count by 2 or 3 positions. (includes Neutral Lug, "MAIN" label and instructions).

### Copper Neutral Lug Kits — 250A

Number of Circuits	Description	Original P1 Catalog Number	Revised P1 Catalog Number
18		CNKL18	Use 30 ckt kit
30	2 or 4 Branch Neutral Strips, 1 Main Neutral Lug, Hardware	CNKL30	CNLK30A
42		CNKL42	CNLK42A
54, 66		—	CNLK54A

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

18		—	Use 30 ckt kit
30	2 or 4 Branch Neutral Strips, Hardware	—	LNLK30A
42		—	LNLK42A
54, 66		—	LNLK54A

### 200% Neutral Lug Kits/250A

18		2NLK18	Use 30 ckt kit
30	2 or 4 Branch Neutral Strips, 2 Main Neutral Lugs, Hardware	2NLK30	2NLK30A
42		2NLK42	2NLK42A
54, 66		—	2NLK54A

### 200% Neutral Lug Kits/400A

18		42NLK18	Use 30 ckt kit
30	2 or 4 Branch Neutral Strips, 1 Main 600MCM Neutral Lug, Hardware	42NLK30	42NLK30A
42		42NLK42	42NLK42A
54, 66		—	42NLK54A

### Product Category UPB



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SEBKRP1V2 <sup>2</sup>	ED Service Entrance Barrier Kit (Revised P1)
SEBKRP1V3 <sup>2</sup>	BQD Service Entrance Barrier Kit (Revised P1 - back-fed)
SEBKRP1V4 <sup>2</sup>	xGB Service Entrance Barrier Kit (Revised P1 - back-fed)
SEBKRP1V5 <sup>2</sup>	BL/BQD/xGB Service Entrance Barrier Kit (RP1 in Main Space)
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