

Panelboards

Type P3 Panelboards

General

Features

Another innovation from Siemens is the P3 panel. It is a smaller, footprint distribution panel to fit a large number of applications that require more (or larger) branch devices than the lighting panel class offer. This panel offers a wide array of factory-assembled options, and has the ability to mix breaker frames in unit space up to 250 amps. Bussing options for the P3 vary from the standard temperature aluminum to temperature rated copper, 750 A/Si aluminum, and 1000A/Si copper designs. All bussing in the P3 panel is tin-plated as a standard. Silver-plated copper is offered as an option on a copper bus. Integrated time clocks, bus mounted contactors, as mains or sub mains, split bus and subfeed lugs (up to 400 amp) are just a few of the options of this unique panel.

The P3 panel configurations, defined by the unit space, allow for a given amperage, main device, and box height. The P3 panel starts with a 56" high box. Breaker unit space can be mixed and matched to meet customer requirements. All 1" pole breakers (BL, BQD, ED, xGB frames) are mounted in 3" or 6" pole increments. Breakers frames, above 125 amps, are mounted in 6" single or twin breaker mountings. As an example panel, FD 250 amp and JD 400 amp breakers are mounted as subfeed breakers outside of unit space.

Like other distribution panels, the P3 panel can have blank space added into the panel to allow for future expansions or modifications. Any expansions or modifications must be in 3" increments. BL, BQD and ED frame breakers have 3" or 6-pole kits and can be mixed in unit space by these increments. Breakers of the same frame can cross from one mounting to another if contiguous. xGB frame breakers cannot be mixed with other frame types. Any expansion or modification must be in 3" increments also. QJ/QR frame breakers are mounted in 6" increments for two and three pole single and twin mounted units. Changes in the unit space length for BL, BQD, xGB, or ED frame breakers require an additional deadfront center strip kit. Check with sales or the factory for additional unit space kits.

Main Lug/Main Breaker

Enclosure – Standard Type 1 enclosure is 24" wide x 7.75" deep. X Box Height is determined by main device and unit space. See charts for box height.

Voltage – 600V AC max.
250V DC max.

Amperage – 800 amp max.

Short Circuit Rating – 200 Kaic max. symmetrical or equal to the lowest rated device installed unless a series rating is indicated. Panels with subfeed or feed-thru lugs without a main device, circuit breaker or fusible unit, are limited to a three-cycle rating. The three-cycle rating for the P3 panel is limited to 22 Kaic. Note that the main device may be mounted remote from the panel.

Bussing – The P3 panel has more options to meet market requirements. The standard bussing is temperature rated aluminum. The rating is per the requirements of UL 67 – the standard for panelboards. All aluminum bussing is tin-plated. Optional bussing for the P3 panel is: 750 A/si aluminum, temperature rated copper, and 1000 A/si copper. The copper bus option for this panel is tin-plated.

Weight – Approximate

Total panelboard weight when filled with a normal quantity of breakers and accessories is about 5 lbs. (1 kg) per inch (54g per mm) of box height.

Gauge Steel of Boxes Fronts, Surface & Flush

Dimensions in inches (mm)		Gauge Steel	
Width	Height	Box	Front
24" (610)	56 - 80" (1422, 2032)	#16	#14

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Selection/Dimensions

Panel Unit Space To Box Height Requirements

"B" Dimension Box Height	P3 Panels With Standard Line Lugs. Unit Space (starting with 9" and adding 6" increments) "A" Dimension										
	Main Lugs				Main Breakers						
	250A	400A	600A	800A	250A Horiz. FD	250A Vert. FD	250A CFD	400A JD	400A CJD	600A LD	600A CLD
56	27	21	21	21	21	15	9	9	—	9	—
62	33	27	27	27	27	21	15	15	9	15	9
68	39	33	33	33	33	27	21	21	15	21	15
74	45	39	39	39	39	33	27	27	21	27	21
80	45	45	45	45	45	39	33	33	27	33	27

Main Breaker Wire Bending

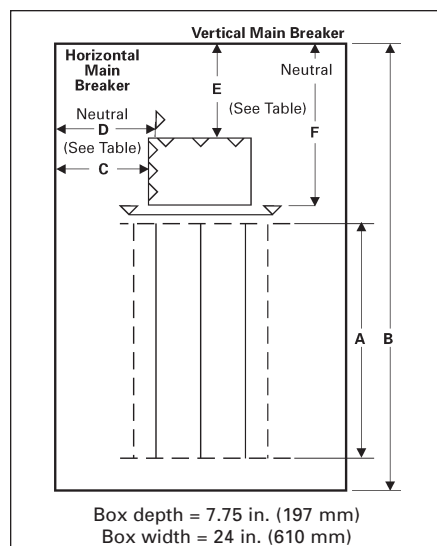
Breaker Frame	C	E	F
FD Horiz.	7.25	—	20.13
FD Vert.	—	12.25	25.38
CFD	—	13.63	31.38
JD	—	15.63	29.38
CJD	—	14.75	35.38
LD	—	14.75	29.38
CLD	—	14.00	35.38

Main Lug Wire Bending

Panel Amps	Standard Connectors	C	D
250	(1) #6 AWG - 350 kcmil	10.75 ①	13.50
400	(2) #3/0 AWG - 250 kcmil or (1) 600 kcmil	16.00	17.88
600	(2) #3/0 AWG - 500 kcmil	16.00	17.88
800	(2) 600 kcmil	16.00	17.88

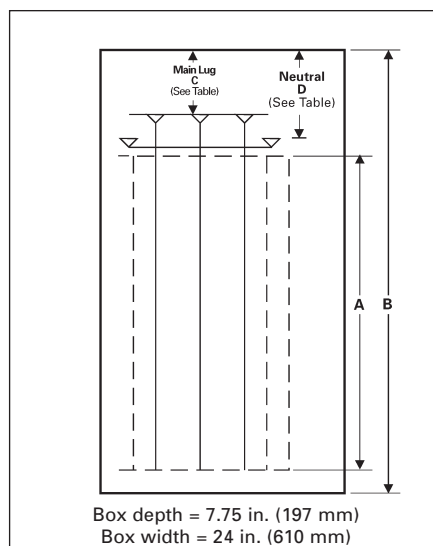
① This lug is removable.

Main Breaker Wire Bending Diagram



Main Breaker Wire Bending

Main Lug Wire Bending Diagram



Main Lug Wire Bending

Branch Breaker Side Gutters Inches (mm)

Reference Letter	Panel Width 24" (609)
A	7.750 (197)
B	7.125 (181)
C	6.000 (152)
D①	7.000 (178)
E	5.000 (127)
F	6.625 (168)
G	5.750 (144)

① Single branch mounting construction.

Branch Breaker Wire Bending Diagram

← A →	BL, BLH, HBL	BL, BLH, HBL	← A →
← B →	BLF2, BLHF2	BLF2, BLHF2	← B →
← C →	HBLF2, BLFB, BLHFB	HBLF2, BLFB, BLHFB	← C →
← D/E →	BQD, BQD6	BQD, BQD6	← D/E →
← F →	ED, ED4, ED6	ED, ED4, ED6	← F →
← G →	HED4, HHED6	HED4, HHED6	← G →
← D/E →	QJ2, QJH2, QJ2H, QR2, QRH2, HQR2, HQR2H	QJ2, QJH2, QJ2H, QR2, QRH2, HQR2, HQR2H	← D/E →
← F →	NGB, HGB, LGB	NGB, HGB, LGB	← F →
← G →	NEB, HEB	NEB, HEB	← G →

← Panel Width →
24 in. (610 mm)

Branch Breaker Side Gutters

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Selection

Alternate Main Breakers

Ampere Rating	Breaker Type	Maximum Interrupting Rating (kA)			Ref. Catalog Number	Available Configurations ^②			Available Trip Values
		240V	480V	600V		240V AC	480V AC	600V AC	
250	FD6	65	35	18	FD	STD	STD	STD	70, 80, 90, 100, 110, 125, 150, 200, 225, 250
	FXD6	65	35	18	FX	STD	STD	STD	70, 80, 90, 100, 110, 125, 150, 200, 225, 250
	HFD6	100	65	25	HF	ADD	ADD	ADD	70, 80, 90, 100, 110, 125, 150, 200, 225, 250
	HFXD6	100	65	25	H2	ADD	ADD	ADD	70, 80, 90, 100, 110, 125, 150, 200, 225, 250
	CFD6 ^①	200	150	100	CF	ADD	ADD	ADD	70, 80, 90, 100, 110, 125, 150, 200, 225, 250
400	JXD6 ^①	65	35	25	JX	STD	STD	STD	200, 225, 250, 300, 350, 400
	JD6 ^①	65	35	25	J6	STD	STD	STD	200, 225, 250, 300, 350, 400
	HJXD6 ^①	100	65	35	H6	ADD	ADD	ADD	200, 225, 250, 300, 350, 400
	HJD6 ^①	100	65	35	H5	ADD	ADD	ADD	200, 225, 250, 300, 350, 400
	SJD6 ^①	65	35	25	SJ	ADD	ADD	ADD	200, 300, 400
	SHJD6 ^①	100	65	35	S2	ADD	ADD	ADD	200, 300, 400
	CJD6 ^①	200	200	100	CJ	ADD	ADD	ADD	200, 300, 400
	SCJD6 ^①	200	200	100	SC	ADD	ADD	ADD	200, 300, 400
600	LXD6 ^①	65	35	25	LX	STD	STD	STD	450, 500, 600
	LD6 ^①	65	35	25	L6	STD	STD	STD	250, 300, 350, 400, 450, 500, 600
	HLXD6 ^①	100	65	35	HL	ADD	ADD	ADD	250, 300, 350, 400, 450, 500, 600
	HLD6 ^①	100	65	35	HO	ADD	ADD	ADD	250, 300, 350, 400, 450, 500, 600
	SLD6 ^①	65	35	25	SL	ADD	ADD	ADD	300, 400, 500, 600
	SHLD6 ^①	100	65	35	S6	ADD	ADD	ADD	300, 400, 500, 600
	CLD6 ^①	200	150	100	CL	ADD	ADD	ADD	300, 400, 500, 600
	SCLD6	200	150	100	C6	ADD	ADD	ADD	300, 400, 500, 600

① Vertically mounted

② STD = Standard configuration. ADD = Additional cost.

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Selection

Branch Circuit Breakers

Max. Amp Rating	Bolt-On Breaker Type	Amps	Provisions for Maximum Interrupting Rating (kA)						
			120V AC	120/240V AC	240V AC	277V AC	480V AC	600V AC	250V DC
100	BL	15-60	10	—	—	—	—	—	—
		70	—	10	—	—	—	—	—
		80-100	—	—	10	—	—	—	—
	BLH	15-60	—	22	—	—	—	—	—
		70	—	22	—	—	—	—	—
		80-100	—	—	22	—	—	—	—
	HBL	15-55	—	65	—	—	—	—	—
		60-100	—	—	65	—	—	—	—
	BL, (HID)	15-30	10	—	—	—	—	—	—
	BLR (240V)	15-60	—	—	10	—	—	—	—
		70-100	—	—	10	—	—	—	—
	BLE (GFCI)	15-30	10	—	—	—	—	—	—
		40-60	—	10	—	—	—	—	—
	BLEH (GFCI)	15-30	22	—	—	—	—	—	—
		15-60	—	22	—	—	—	—	—
125	NGB	15-60	100	100	100	25	25	14	14 ^④
		70-100	100	100	100	25	25	14	14 ^④
		110-125	100	100	100	25	25	14	14 ^④
	HGB	15-60	100	100	100	35	35	14	14 ^④
		70-100	100	100	100	35	35	14	14 ^④
		110-125	100	100	100	35	35	14	14 ^④
	LGB	15-60	100	100	100	65	65	14	14 ^④
		70-100	100	100	100	65	65	14	14 ^④
		110-125	100	100	100	65	65	14	14 ^④
	NEB	15-60	85	85	85	35	35	22	35
		70-100	85	85	85	35	35	22	35
		110-125	85	85	85	35	35	22	35
	HEB	15-60	100	100	100	65	65	25	42
		70-100	100	100	100	65	65	25	42
		110-125	100	100	100	65	65	25	42
	ED4	15-60	65	—	—	22	—	—	—
		70-100	—	—	65	—	18	—	30
		110-125	—	—	65	—	18	—	—
225	QJ2	15-60	—	—	65	—	25	18	30
		70-100	—	—	65	—	25	18	—
		110-125	100	—	—	—	—	—	—
	HED4	15-60	100	—	—	—	—	—	—
		70-100	—	—	—	65	—	—	—
		110-125	—	—	—	65	—	—	—
	QJ2H	60-225	—	—	10	—	—	—	—
		60-225	—	—	22	—	—	—	—
		60-225	—	—	42	—	—	—	—
	QR2	100-225	—	—	10	—	—	—	—
		100-225	—	—	25	—	—	—	—
		100-225	—	—	65	—	—	—	—
	HQR2H	100-225	—	—	100	—	—	—	—
		100-225	—	—	—	—	—	—	—

Branch Device Limitations

Lighting and appliance branch circuit panelboards were included in editions of the National Electrical Code prior to 2008. By application rule (408.15 in all versions of the NEC prior to 2008), lighting and appliance panels are limited to 42 installed circuits. Each over current device pole counts as a circuit.

Subfeed Breakers (available in 2-pole or 3-pole)

Breaker Type	Mounting Position When Used as Subfeed Breaker	Ampere Ratings For Load	Maximum Interrupting Rating (kA) Symmetrical		
			240V AC	480V AC	600V AC
FD6 ^② , FXD6	Twin	70-250	65	35	18
HFD6 ^② , HFXD6	Twin	70-250	100	65	25
JD6 ^③ , JXD6	Single	200-400	65	35	25
HJD6 ^③ , HJXD6	Single	200-400	100	65	35

NOTE: QJ/QR Breakers are twin mounted in unit space and take 6" of unit space. Limited to (6) per panel max. BL, HBL, BLH and BQD breakers are mounted in common mountings in 3" or (6) pole increments. ED2, ED4, ED6, HED4 and HHED6 breakers are mounted in common mountings in 3" or (6) pole increments.

- ① BGL 2-pole is (1) phase and neutral 3-pole is (2) phases and neutral.
 ② Twin mounted subfeed breakers are mounted at bottom of panelboard only and adds 24" to the panel height.

Neutral Connectors

Wire Range	Max. Number of Connections	Max. Amps
#14-#1/0	44	125
#4 - 350 kcmil	6	250
(1)#4 - 600 kcmil or (2)#6 - 250 kcmil	1	400

- ③ Subfeed breaker is mounted at bottom of panelboard only. 400 amp subfeed breaker adds 30" to the panel height.
 ④ 2-pole only (or) two outer poles of 3-pole breaker.

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Typical Catalog Numbers

Main Lugs Only – shown with aluminum bus, top fed, and surface trims

Maximum Panel Amp Rating	Unit Space (inches)	208Y/120V	240/120V	120/240V or 250V DC Max.
		3-Phase, 4-Wire Catalog Number	3-Phase, 4-Wire Catalog Number	1-Phase, 3-Wire Catalog Number
250	27	P3C56ML250ATS	P3B56ML250ATS	P3A56ML250ATS
	33	P3C62ML250ATS	P3B62ML250ATS	P3A62ML250ATS
	39	P3C68ML250ATS	P3B68ML250ATS	P3A68ML250ATS
	45	P3C74ML250ATS	P3B74ML250ATS	P3A74ML250ATS
	51	P3C80ML250ATS	P3B80ML250ATS	P3A80ML250ATS
400	21	P3C56ML400ATS	P3B56ML400ATS	P3A56ML400ATS
	27	P3C62ML400ATS	P3B62ML400ATS	P3A62ML400ATS
	33	P3C68ML400ATS	P3B68ML400ATS	P3A68ML400ATS
	39	P3C74ML400ATS	P3B74ML400ATS	P3A74ML400ATS
	45	P3C80ML400ATS	P3B80ML400ATS	P3A80ML400ATS
600	21	P3C56ML600ATS	P3B56ML600ATS	P3A56ML600ATS
	27	P3C62ML600ATS	P3B62ML600ATS	P3A62ML600ATS
	33	P3C68ML600ATS	P3B68ML600ATS	P3A68ML600ATS
	39	P3C74ML600ATS	P3B74ML600ATS	P3A74ML600ATS
	45	P3C80ML600ATS	P3B80ML600ATS	P3A80ML600ATS
800	21	P3C56ML800ATS	P3B56ML800ATS	P3A56ML800ATS
	27	P3C62ML800ATS	P3B62ML800ATS	P3A62ML800ATS
	33	P3C68ML800ATS	P3B68ML800ATS	P3A68ML800ATS
	39	P3C74ML800ATS	P3B74ML800ATS	P3A74ML800ATS
	45	P3C80ML800ATS	P3B80ML800ATS	P3A80ML800ATS

Maximum Panel Amp Rating	Unit Space (inches)	240V	408Y/277V	480V ^①
		3-Phase, 3-Wire Catalog Number	3-Phase, 4-Wire Catalog Number	3-Phase, 3-Wire Catalog Number
250	27	P3D56ML250ATS	P3E56ML250ATS	P3F56ML250ATS
	33	P3D62ML250ATS	P3E62ML250ATS	P3F62ML250ATS
	39	P3D68ML250ATS	P3E68ML250ATS	P3F68ML250ATS
	45	P3D74ML250ATS	P3E74ML250ATS	P3F74ML250ATS
	51	P3D80ML250ATS	P3E80ML250ATS	P3F80ML250ATS
400	21	P3D56ML400ATS	P3E56ML400ATS	P3F56ML400ATS
	27	P3D62ML400ATS	P3E62ML400ATS	P3F62ML400ATS
	33	P3D68ML400ATS	P3E68ML400ATS	P3F68ML400ATS
	39	P3D74ML400ATS	P3E74ML400ATS	P3F74ML400ATS
	45	P3D80ML400ATS	P3E80ML400ATS	P3F80ML400ATS
600	21	P3D56ML600ATS	P3E56ML600ATS	P3F56ML600ATS
	27	P3D62ML600ATS	P3E62ML600ATS	P3F62ML600ATS
	33	P3D68ML600ATS	P3E68ML600ATS	P3F68ML600ATS
	39	P3D74ML600ATS	P3E74ML600ATS	P3F74ML600ATS
	45	P3D80ML600ATS	P3E80ML600ATS	P3F80ML600ATS
800	21	P3D56ML800ATS	P3E56ML800ATS	P3F56ML800ATS
	27	P3D62ML800ATS	P3E62ML800ATS	P3F62ML800ATS
	33	P3D68ML800ATS	P3E68ML800ATS	P3F68ML800ATS
	39	P3D74ML800ATS	P3E74ML800ATS	P3F74ML800ATS
	45	P3D80ML800ATS	P3E80ML800ATS	P3F80ML800ATS

① For 600V, change "F" in position 3 to "G." Price only branch breakers with 600V ratings.

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Typical Catalog Numbers

Main Circuit Breaker – shown with aluminum bus, top fed, and surface trims

Maximum Panel Amp Rating	Unit Space (inches)	208Y/120V	240/120V	120/240V or 250V DC Max
		3-Phase, 4-Wire Catalog Number	3-Phase, 4-Wire Catalog Number	1-Phase, 3-Wire Catalog Number
250	21	P3C56FD250ATS	P3B56FD250ATS	P3A56FD250ATS
	27	P3C62FD250ATS	P3B62FD250ATS	P3A62FD250ATS
	33	P3C68FD250ATS	P3B68FD250ATS	P3A68FD250ATS
	39	P3C74FD250ATS	P3B74FD250ATS	P3A74FD250ATS
	45	P3C80FD250ATS	P3B80FD250ATS	P3A80FD250ATS
400	9	P3C56JD400ATS	P3B56JD400ATS	P3A56JD400ATS
	15	P3C62JD400ATS	P3B62JD400ATS	P3A62JD400ATS
	21	P3C68JD400ATS	P3B68JD400ATS	P3A68JD400ATS
	27	P3C74JD400ATS	P3B74JD400ATS	P3A74JD400ATS
	33	P3C80JD400ATS	P3B80JD400ATS	P3A80JD400ATS
600	9	P3C56LD600ATS	P3B56LD600ATS	P3A56LD600ATS
	15	P3C62LD600ATS	P3B62LD600ATS	P3A62LD600ATS
	21	P3C68LD600ATS	P3B68LD600ATS	P3A68LD600ATS
	27	P3C74LD600ATS	P3B74LD600ATS	P3A74LD600ATS
	33	P3C80LD600ATS	P3B80LD600ATS	P3A80LD600ATS

Maximum Panel Amp Rating	Unit Space (inches)	240V	408Y/277V	480V ^①
		3-Phase, 3-Wire Catalog Number	3-Phase, 4-Wire Catalog Number	3-Phase, 3-Wire Catalog Number
250	21	P3D56FD250ATS	P3E56FD250ATS	P3F56FD250ATS
	27	P3D62FD250ATS	P3E62FD250ATS	P3F62FD250ATS
	33	P3D68FD250ATS	P3E68FD250ATS	P3F68FD250ATS
	39	P3D74FD250ATS	P3E74FD250ATS	P3F74FD250ATS
	45	P3D80FD250ATS	P3E80FD250ATS	P3F80FD250ATS
400	9	P3D56JD400ATS	P3E56JD400ATS	P3F56JD400ATS
	15	P3D62JD400ATS	P3E62JD400ATS	P3F62JD400ATS
	21	P3D68JD400ATS	P3E68JD400ATS	P3F68JD400ATS
	27	P3D74JD400ATS	P3E74JD400ATS	P3F74JD400ATS
	33	P3D80JD400ATS	P3E80JD400ATS	P3F80JD400ATS
600	9	P3D56LD600ATS	P3E56LD600ATS	P3F56LD600ATS
	15	P3D62LD600ATS	P3E62LD600ATS	P3F62LD600ATS
	21	P3D68LD600ATS	P3E68LD600ATS	P3F68LD600ATS
	27	P3D74LD600ATS	P3E74LD600ATS	P3F74LD600ATS
	33	P3D80LD600ATS	P3E80LD600ATS	P3F80LD600ATS

① For 600V, change "F" in position 3 to "G." Price only branch breakers with 600V ratings.

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Type P3 Panelboard Modifications and Additions

Selection

Enclosures

Extra Gutter to Sides or Ends of the Can (Type 1 Only)

Description
6" end gutter 2" side gutter Barrier in gutter (add to extra gutter price – min 4" required)
Hinged trims Piano hinged trims Door-in-door trims Screw to the box trims
Trim mounted devices See page 11-83 • Pilot lights • Toggle switches • Push buttons
Painted boxes See page 11-83 Custom colors See painted boxes Increase gauge trims and boxes See page 11-83 Stainless steel trims, Type 1 See page 11-83

Meters

(Contact sales for pricing and application engineering for space requirements)

Panel Skirts

See page 11-84

Special Locks

TEY TEU1 Cat 60 LL803 LL806 Yale 47 (NYC) National C413A Best Lock 7-pin tumbler Southco 1/4" Fastener Corbin 1001 FAB7
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Panel Bus Modifications

Main Bus	Catalog Number Addition Amperes Ratings			
	125A	250A	400A	600A
750 A/SI AL.	B	B	B	B
Copper (tin pltd.)	F	F	F	F
Copper (silver pltd.)	E	E	E	E
1000 A/SI Copper (tin pltd.)	G	G	G	G
1000 A/SI Copper (silver pltd.)	H	H	H	H

Subfeed, Feed-Thru and Split Bus (for 2-pole or 3-pole)

Ampere Rating	Connector Cu/Al Wire Range
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Subfeed (Double) Lugs for Main Lug Panelboards Only

225/250	(2)—#6 AWG-350 kcmil
400	(2)—250 kcmil (1)—600 kcmil

Feed-Thru Lugs — Cannot Be Used in Conjunction with TVSS or Subfeed Breakers

See page 11-46 for unit space adders and compatibility with other options.

225/250	(1)—#6 AWG-350 kcmil
400	(2)—250 kcmil (1)—600 kcmil
600	(2)—250-500 kcmil
800	(2)—600 kcmil

Split Bus (1 per interior)

225/250	(1)—#6 AWG-350 kcmil
400	(2)—250 kcmil (1)—600 kcmil
600	(2)—250-500 kcmil
800	(2)—600 kcmil

Branch and Main Breaker Accessories

See page 11-81 and Breaker Section

- Handle blocks
- Handle locks
- Aux. Contacts[Ⓢ]
- UVR[Ⓢ]

Increase capacity neutral up to 200%

Main Bus Amps
125
250
400
600

See page 11-46 for unit space adders and compatibility with other options.

Copper MLO Only

Main Bus Amps
125
250
400
600

(Devices mounted and wired to the trim should also have hinged trim specified)

Bus mounted SPD

See Section 10 for TPS1

Service Entrance Label

Type P3 Panelboards are factory labeled suitable for use as service entrance equipment when NEC requirements are met. A panelboard cannot have more than six main disconnects, unless it is a lighting and appliance branch panelboard. Lighting and appliance branch panelboards are limited to two main disconnects.

Grounding of Panelboards

Ground Bars except for brazed to box are shipped with the panel interior factory mounted.

- Non-Insulated Equipment Ground Bar
- Copper Non-Insulated Ground Bar
- Al Insulated Equipment Ground Bar
- Cu Insulated Equipment Ground Bar
- Ground Bar Brazed to Box (recommended for painted boxes)

Shunt Trip on Main or Branch

BL, BLH, HBL, BOD, ED4, HED4, ED6, HED6, QJ2, QJ2H, QJH2, QR2, QRH2, HQR2, HQR2H as branch only. BL, BLH, HBL, NGB, HGB, LGB, ED2, ED4, HED4, ED6, HED6 uses 1" unit space for shunt trip. All others may be used on mains or subfeeds.

Time Clocks

Time clocks may be mounted in a 23" enclosure to be cable connected to the panel. Sangamo, Tork or Paragon time clock can be supplied and mounted in panelboard cabinet. Adds 12" to panel height. Mounts in Sub-area.

Description
Time Clock (1 or 2-pole, single or double throw contacts; 3-pole, single throw) 277V maximum with plain dial
Astronomical dial
An omitting device
Reserve power or carryover
Space and mounting provisions only

[Ⓢ] Accessories on 1" pole breakers (BL, BOD, ED) will take unit space.

Panelboards

Type P3 Panelboard Standard Modifications

Selection

Option Combinations

Amps	Incoming	Subfeed Lugs	Feed-thru Lugs	FD ^① Subfeed	JD ^① Subfeed	FD ^② Subfeeds	200% Neutral	Min. Box Size (in.)	Unit Space (in.)
250	Main Lug Only	—	• — —	— • —	— — —	— — •	• • •	56 56 56	27 15 9
	Main Lugs w/Subfeed Lugs	•	• — —	— • —	— — —	— — •	• • •	56 56 62	21 21 9
	Main Breaker (Horiz. FD)	—	• —	— •	— —	— —	• •	56 56	21 9
	Main Breaker (Vert. FD)	None Std.	• —	— •	— —	— —	• •	56 68	15 9 9
	Main Breaker (CFD)	None Std.	• —	— •	— —	— —	• •	56 68	9 9
400 ^{②③}	Main Lug Only	• — — — —	— • — — —	— — • — —	— — — • —	— — — — •	• • • • •	56 56 56 56 62	21 15 9 9 9
		None Std.	— • — — —	— — • — —	— — — • —	— — — — •	• • • • •	56 62 68 68 74	9 9 9 9 9
			— • — — —	— — • — —	— — — • —	— — — — •	• • • • •	62 74 74 74 80	9 9 9 9 9
			— • — — —	— — • — —	— — — • —	— — — — •	• • • • •	56 56 56 56 62	21 15 9 9 9
			— • — — —	— — • — —	— — — • —	— — — — •	• • • • •	56 62 68 68 74	9 9 9 9 9
	Main Breaker LD	—	— • — — —	— — • — —	— — — • —	— — — — •	• • • — •	56 62 68 68 74	9 9 9 9 9
			— • — — —	— — • — —	— — — • —	— — — — •	• • • — •	62 68 74 74 80	9 9 9 9 9
			— • — — —	— — • — —	— — — • —	— — — — •	• • • — •	56 56 56 56 62	21 9 9 9 9
			— • — — —	— — • — —	— — — • —	— — — — •	• • • — •	56 56 56 56 62	21 9 9 9 9
600 ^{②③}	Main Lug Only	—	— • — — —	— — • — —	— — — • —	— — — — •	• • • — •	56 56 56 56 62	21 9 9 9 9
			— • — — —	— — • — —	— — — • —	— — — — •	• • • — •	56 62 68 68 74	9 9 9 9 9
			— • — — —	— — • — —	— — — • —	— — — — •	• • • — •	62 68 74 74 80	9 9 9 9 9
			— • — — —	— — • — —	— — — • —	— — — — •	• • • — •	56 56 56 56 62	21 9 9 9 9
			— • — — —	— — • — —	— — — • —	— — — — •	• • • — •	56 56 56 56 62	21 9 9 9 9
800 ^{②③}	Main Lug Only	—	— • — — —	— — • — —	— — — • —	— — — — •	• • • — •	56 56 56 56 62	21 9 9 9 9
			— • — — —	— — • — —	— — — • —	— — — — •	• • • — •	56 56 56 56 62	21 9 9 9 9
			— • — — —	— — • — —	— — — • —	— — — — •	• • • — •	56 56 56 56 62	21 9 9 9 9
			— • — — —	— — • — —	— — — • —	— — — — •	• • • — •	56 56 56 56 62	21 9 9 9 9
			— • — — —	— — • — —	— — — • —	— — — — •	• • • — •	56 56 56 56 62	21 9 9 9 9

① Subfed lugs are currently not offered as standard with main circuit breakers.

② Subfed lugs on panels above 400A are not standard.

③ 200% neutral cannot be provided along with a 400A subfeed breaker because the breaker blocks the 4th lug site.

Panelboards

Type P3 Panelboard Modifications and Additions

Selection

Compression Lugs

Style	Amp Rating	Breaker Type	Compression Connectors	Box Height Addition
MLO	250	N/A	(1)#6 AWG - 350 kcmil	—
	400	N/A	(1) 250 - 500 kcmil or (2)# 1/0 AWG - 250 kcmil	—
	600	N/A	(2)#3/0 AWG - 500 kcmil	—
	800	N/A	(2) 400-750 kcmil Cu only	—
Main Breaker	250	FXD6, HFD6, CFD6	(1)#6 AWG - 350 kcmil Cu or Al	CFD6 requires an additional 6.0" box height
	400	JD6, JXD6, HJD6, CJD6, SJD6, SHJD6, SCJD6	(2)#1/0 AWG - 500 kcmil Cu or Al	—
	600	LD6, LXD6, HLD6, CJD6, SLD6, SHLD6, SCLD6	(2)#2/0 AWG - 500 kcmil Cu or Al	—

Alternate Lugs

Style	Amp Rating	Breaker Type	Standard AL Connectors	Box Height Addition
MLO	400	N/A	(1) 250 - 750 kcmil or (2)#3/0 AWG - 250 kcmil Cu or Al	6
	800	N/A	(3) 500 kcmil	6
Main Breaker	400	JD6, JXD6, HJD6, CJD6, SJD6, SHJD6, SCJD6	(1)#4/0 AWG - 750 kcmil Cu or Al	6

Enclosure Modifications

24" Panel Width Description
NEMA 3R enclosures
NEMA 3R/12 enclosures
Gasket between trim and box (Type 1)

NEMA-4X For Type P3

Water Tight, Dust Tight and Corrosion Resistant

(consult plant for actual enclosure size and for NEMA 4 enclosures)

Box Height Inches	Enclosure – Stainless Steel		
	H	W	D
56	56	24	7.75
62	62	24	7.75
68	68	24	7.75
74	74	24	7.75
80	80	24	7.75

Panelboards

Type P3 Panelboard Kits and Accessories

Selection

Standard Enclosures

Box Height (in.)	Catalog Number				
	Type 1 Standard Trim			Type 3R	Type 3R/12
	Box	Surface	Flush		
56	24WD56	P3S56	P3F56	24NRD56	24WPD56
62	24WD62	P3S62	P3F62	24NRD62	24WPD62
68	24WD68	P3S68	P3F68	24NRD68	24WPD68
74	24WD74	P3S74	P3F74	24NRD74	24WPD74
80	24WD80	P3S80	P3F80	24NRD80	24WPD80

Options For Type 1 Trims

Items must be ordered as manual line item on factory

Hinged trim – Add “H” suffix

Door-in-door – Add “D” suffix

Metal card holder – Add “M” suffix

Breaker Kits and Accessories

Kit Number	Description	Contents
BBKB32 (P2/P3)	BL/BQD 6-pole 3" branch breaker kit	Kit contains top barrier, (3) A/C connectors, (1) B connector, hardware
BBKNB32 (P2/P3)	NGB, HGB, LGB 6-pole 3" branch breaker kit	Kit contains top barrier, (3) A/C connectors, (1) B connector, hardware
BBKEB32 (P3)	NEB/HEB 6-pole 3" branch breaker kit	Kit contains top barrier, (3) A/C connectors, (1) B connector, hardware
BBKED32 (P2/P3)	ED 6-pole 3" branch breaker kit	Kit contains breaker support, inter-phase barriers, (3) A/C connectors, (1) B connector, hardware
BBKQ2 (P3)	Branch breaker kit for 2 and 3-pole QJ twin mount	Kit contains all connectors and cover plates necessary to mount both 2 and 3-pole breakers
BBKQR1 ①	P2 branch BKR strap kit for single QR 1-phase/3-phase.	Kit contains all connectors and cover plates necessary to mount both 2 and 3-pole breakers
BBKQR2 ①	P3 twin BKR mounting kit for 1-phase/3-phase.	Kit contains all connectors and cover plates necessary to mount both 2 and 3-pole breakers
DFFP3	Deadfront filler 3"	3" empty space filler and hardware
DFFP6	Deadfront filler 6"	6" empty space filler and hardware
P3BK1	P3 bonding kit	Bonding strap and hardware
EBF1	HEB/NEB Filler Plate	Filler Plate
BBKQRP1FK	P2 Filler for QR. Horizontal or vertical mount. 1-phase/3-phase.	Kit contains all cover plates necessary to change from QJ to QR both 2 and 3-pole breakers.
BBKQRP2FK	P3 Filler for QR. Dual mount horizontal. 1-phase/3-phase.	Kit contains all cover plates necessary to change from QJ to QR both 2 and 3-pole breakers. For 1-phase panel, both breakers must change from QJ to QR, cannot have one of each installed.

① Although QR is rated 250A, it is limited to 225A in panelboard.

Type P1, P2, and P3 Panelboards

Miscellaneous Parts and Accessories

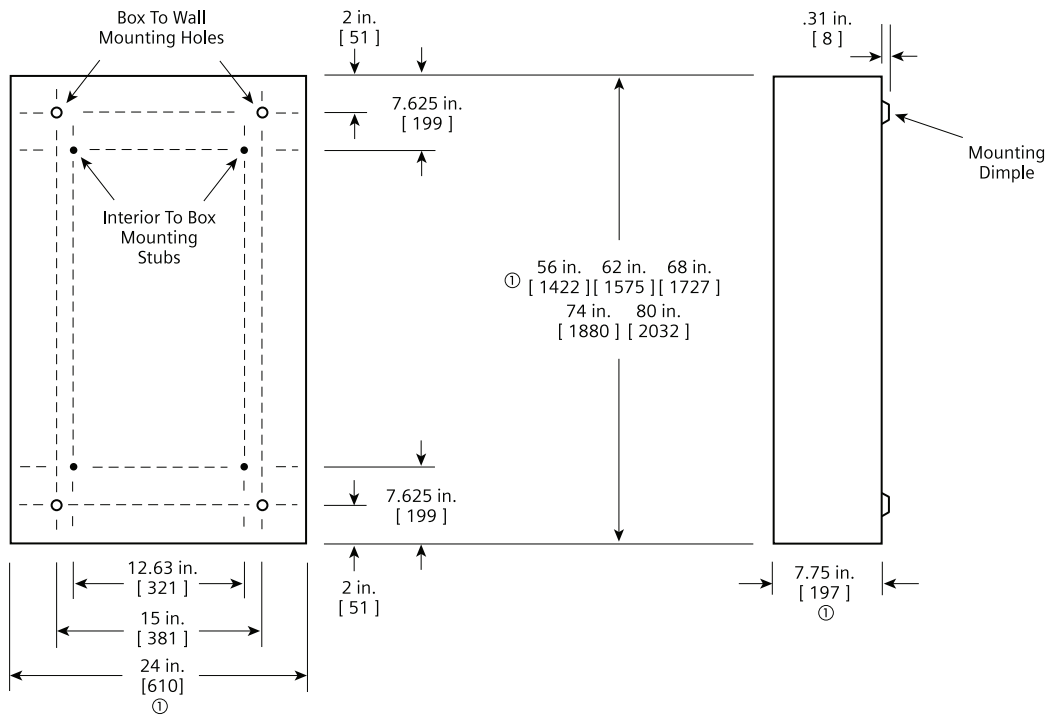
Catalog Number	Description
EGK	AI Ground Bus 44 Connections
BK1	Bonding kit for 250A max. and all P1 panels
IMK1	Interior Adjusting Kit
11-1824-01	Directory Card Holder
12-1110-01	Directory Card
11-1056-01	NEMA Instruction Book
NBK3	Number Strips 1-42. Snap-in type; Use w/P2 & P3 series Panels
NBK4	Number Strips 43-84. Snap-in type; Use w/P2 & P3 series Panels
NBK5	Number Strips 85-126. Snap-in type; Use w/P2 & P3 series Panels
NBK6	Number Strips 127-168. Snap-in type; Use w/P2 & P3 series Panels
NBK7	Number Strips 169-210. Snap-in type; Use w/P2 & P3 series Panels
NBK8	Number Strips 211-252. Snap-in type; Use w/P2 & P3 series Panels
ECGK	Cu Ground Bus 44 Connections
IGK	Insulated AI Ground Bus
ICGK	Insulated Cu Ground Bus
EWK2	End Wall Kit with Knockouts (24" W x 7.75" DP)
DFFP1	1" Filler Plate (Suitable for replacing QF3 in P1 thru P5 Panelboards and Switchboards)

Panelboards

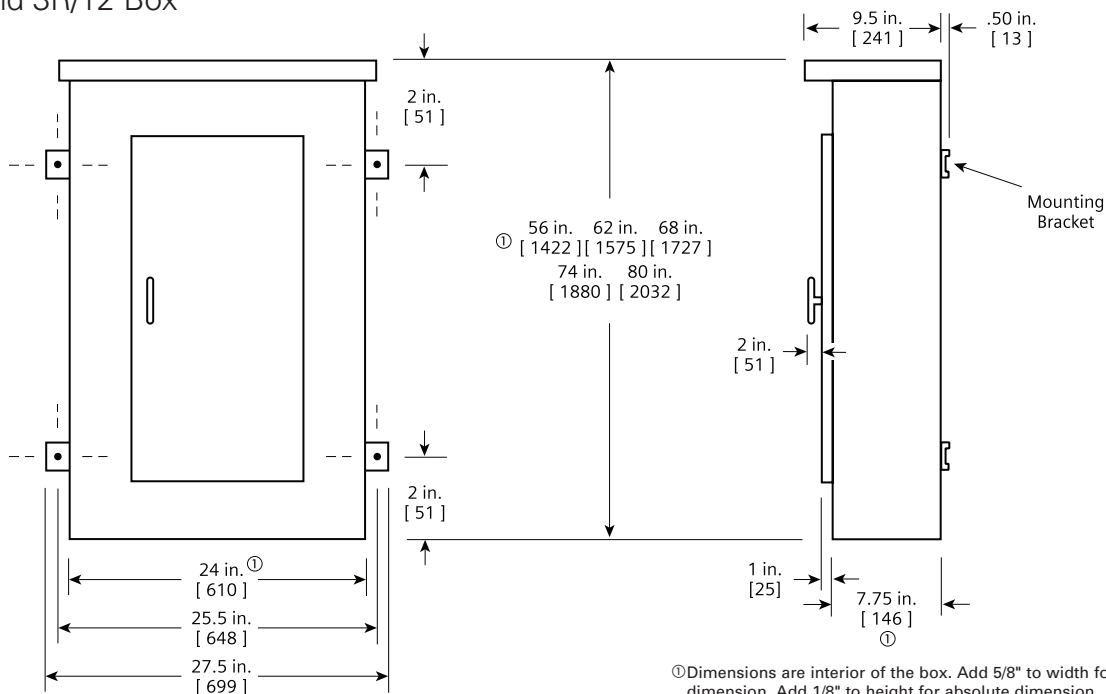
Type P3 Panelboards

Dimensions

Type 1 Box
Box is symmetrical



Type 3R and 3R/12 Box



①Dimensions are interior of the box. Add 5/8" to width for absolute dimension. Add 1/8" to height for absolute dimension.
Dimensions shown in inches and millimeters [].