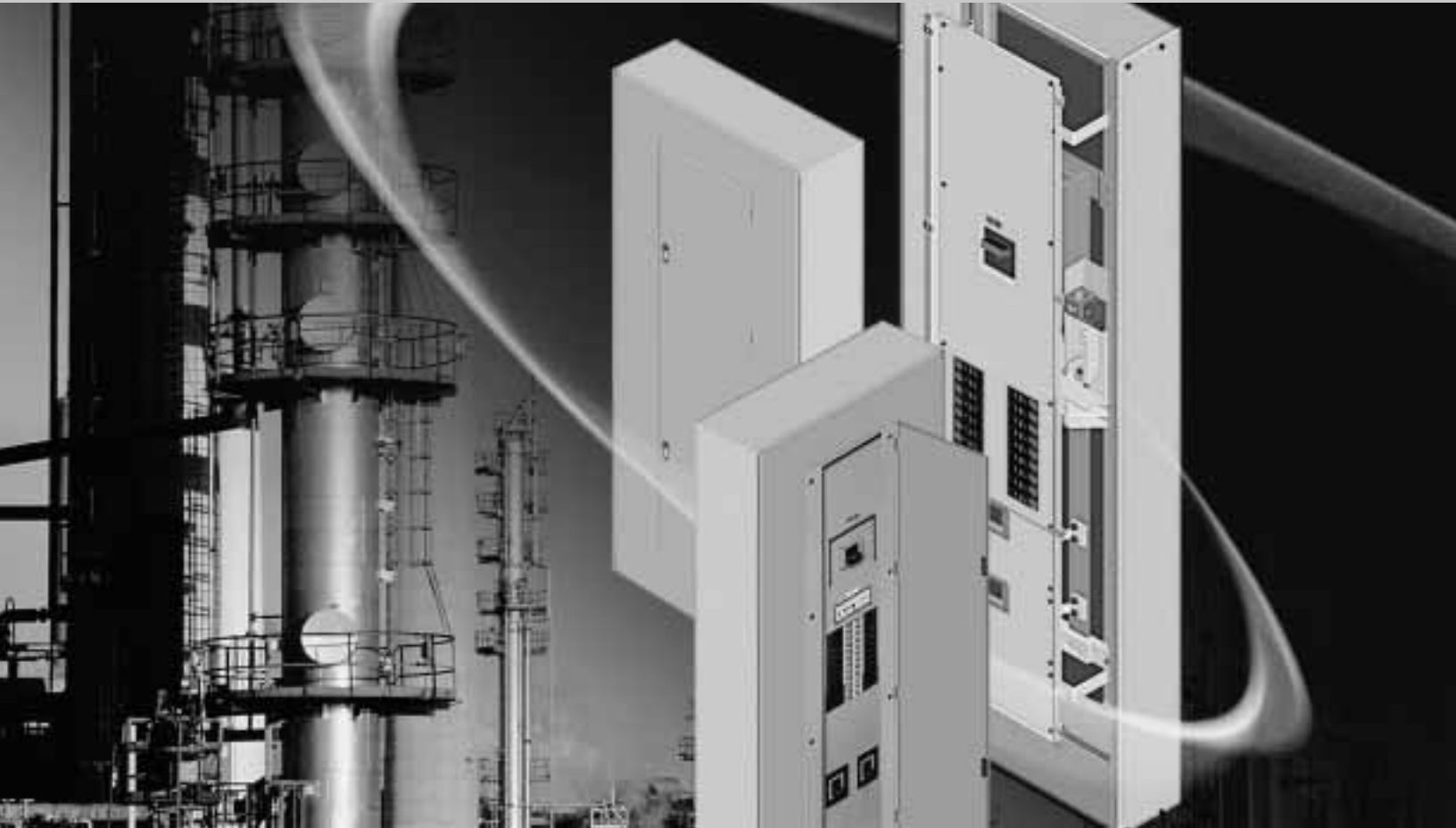


P2 PANELBOARDS SELECTION & APPLICATION GUIDE



2004

P2 Panelboards



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Flexibility is the hallmark of the P2 panel. This panel offers a wide array of factory-assembled options to meet almost all lighting panel applications. With this design, the ability to mix breaker frames in unit space up to 250 amps will also meet many distribution panel requirements in a much smaller package. Busing options for the P2 vary from the typical temperature rated to 750 A/Si aluminum to 1000A/Si copper. Standard busing in the P2 panel is tin-plated. Silver-plated copper is also offered as an option. 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.

Like a lighting panel, P2 is set up around 18, 30, 42, and 54 circuit configurations. It will also allow the user to configure the panel to the smallest possible size. The P2 panel starts with 9" of unit space (18 circuits of 1" pole breakers). Breakers mounted in unit space can be mixed and matched to meet customer requirements. All 1" pole breakers (BL, BQD, ED frames) are mounted in 3" or 6" pole increments. Breaker frames, above 125 amps, are mounted in 6" single breaker mountings. As an example of a minimum panel, (6) 20 amp 1-pole BL breakers (3" of unit space) and a 3-pole 225 amp QJ breaker (6" of unit space) equaling 9" of unit space can be configured in a P2 panel without any extra provisions or space required. FD 250 amp and JD 400 amp breakers are mounted as subfeed breakers outside of unit space.

Another unique feature of the P2 panel is that blank unit space can be added 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. QJ frame breakers are mounted in 6" increments for two and three pole, single mounted units. Changes in the unit space length for BL, BQD, or ED frame breakers require an addition 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 20" wide x 5.75" deep X. Box Height is determined by main device and unit space. See charts for box height.

Voltage – 600 Vac Max.
250 Vdc Max.

Amperage – 600 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 P2 panel is limited to 22 KAIC. Note that the main device may be mounted remote from the panel.

Busing – The P2 panel has more options to meet market requirements. The standard busing is temperature rated aluminum. The rating is per the requirements of CSA: 22.2 No. 29 – the standard for panelboards. All aluminum busing is tin-plated. Optional busing for the P2 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 3 lbs. (1 kg) per inch (54g per mm) of box height.

Table P2-1 – Gauge Steel of Boxes Fronts, Surface and Flush

Dimensions in inches (mm)		Gauge Steel	
Width	Height	Box	Front
20"	26 - 74	#16	#14
(508)	(660, 1880)		

Selection and Application

Step 1

Determine configuration required.

Example:
 Amperage 250A
 Voltage 208Y/120V
 System 3Ø4W
 Main Main Lug
 Bus Material Temperature rated aluminum
 Interrupt Rating 10 Ka
 Branch Devices (6) 20 amp, 1-pole
 (1) 225 amp, 3-pole
 Feed Location Top
 Mounting Surface

Step 2

Create a catalogue number by following the Catalogue Numbering System on page 6. Note that the number of circuits number (4th and 5th position) will be 18 for those panels with 6-18 circuits, 30 for those panels with 19-30 circuits, 42 for those panels 31 to 42 circuits and 54 for those panels 43 to 54 circuits. The most cost effective 20 amp 1-pole breaker for this application would be BL. However, a myriad of other breakers with options may be used in the P2 panel. The most cost effective 225 amp breaker for this application is the QJ2.

Based on the above
 P2C18ML250ATS
 (6) BL 20 amp 1-Pole
 (1) QJ2 225 amp 3-pole

Step 3

Determine the enclosure size. The matrix on page 2-3 shows the enclosure sizes based on the amperage, main device and unit space required.

Table P2-2 – Panel Unit Space To Box Height Requirements

"B" Dimension Box Height	P2 Panels With Standard Line Lugs. Unit Space (starting with 9" and adding 6" increments) "A" Dimension													
	Main Lugs				Main Breakers									
	125A	250A	400A	600A	125A Horiz. BL,BQD,ED	125A Horiz. CED	125A Vert. ED	225A Horiz. QJ	250A Horiz. FD	250A Vert. CFD	400A JD	400A CJD	600A LD	600A CLD
26	9	—	—	—	9	—	—	—	—	—	—	—	—	—
32	15	9	—	—	15	9	9	9	—	—	—	—	—	—
38	21	15	9	9	21	15	15	15	9	—	—	—	—	—
44	27	21	15	15	27	21	21	21	15	—	—	—	—	—
50	33	27	21	21	33	27	27	27	21	9	9	—	—	—
56	39	33	27	27	39	33	33	33	27	15	15	—	9	—
62	45	39	33	33	45	39	39	39	33	21	21	9	15	9
68*	51*	45	39	39	51*	45	45	45	39	27	27	15	21	15
74*	57*	51*	45	45	57*	51*	51*	51*	45	33	33	21	27	21

Table P2-3 – Main Breaker (Fig. P2-1)

Panel Amps	Breaker Frames	C	D
100	BL	5.75	8.00
	BQD	5.125	8.00
125	ED	4.00	8.00
225	QJ	5.00	7.00
250	FD	5.00	7.00
400	JD	14.00	25.00
600	LD	15.50	23.00

Table P2-4 – Main Lug Connectors (Fig. P2-2)

Panel Amps	Standard Connectors	C	D
125	(1) #14 - 2/0	6.62	8.19
250	(1) #6 AWG - 350 Kcmil	12.34	11.22
400	(1) #4 AWG - 600 Kcmil or (2) #6 - 250 Kcmil	14.00	13.09
600	(2) #4 AWG - 500 Kcmil	14.00	11.00

Fig. P2-1

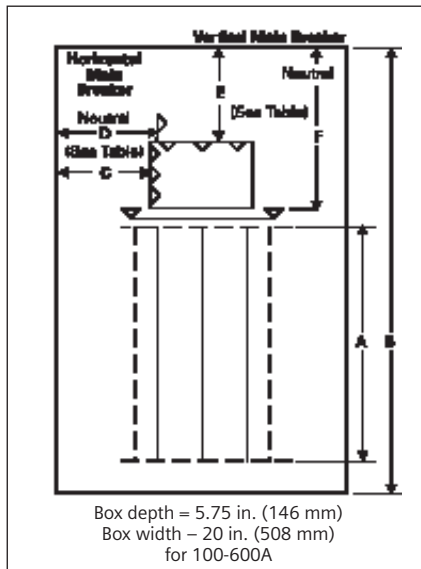


Fig. P2-2

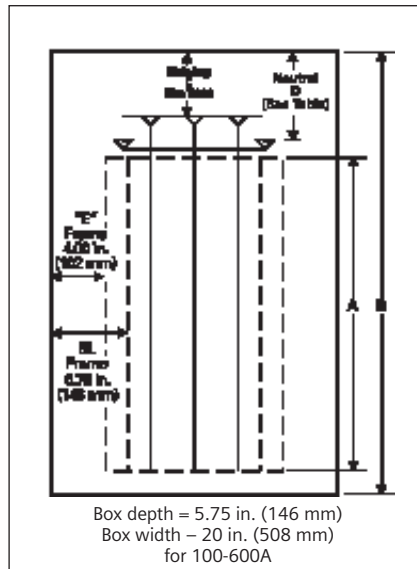
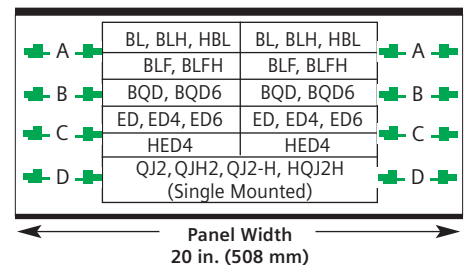


Table P2-5 – Branch Breaker Side Gutters Inches (mm) (Fig. P2-3)

Reference Letter	Panel Width 20" (508)
A	5.750 (146)
B	5.125 (130)
C	4.000 (102)
D ¹	5.000 (127)

¹ Single branch mounting construction.

Fig. P2-3



*Contact local Siemens representative before ordering.

Table P2-6 – Main Breaker Selection ¹

Ampere Rating	Breaker Type	Maximum Interrupting Rating (kA)			Available Trip Values
		240V	480V	600V	
100	BL (STD)	10	—	—	15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100
	HBL	65	14	—	
	BQD (STD 480/277 Vac)	65	18	—	
	ED4	65	25	—	
	ED6	100	42	18	
	HED4	100	65	—	
	CED6	200	200	100	
125	ED4 (STD)	65	18	—	125
	ED6	65	25	18	
	HED4	100	42	—	
	CED6	200	200	100	
225	QJ2 (STD)	10	—	—	60, 70, 80, 90, 100, 110, 125, 150, 175, 200, 225
	QJH2	22	—	—	
	QJ2H	42	—	—	
	FD6, FXD6	65	35	18	70, 80, 90, 100, 110, 125, 150, 175, 200, 225
	HFD6, HFXD6	100	65	25	
	CFD6	200	150	100	
250	FD6, FXD6 (STD)	65	35	18	250
	HFD6, HFXD6	100	65	25	
	CFD6	200	150	100	
400	JXD6 (STD), JD6	65	35	25	200, 225, 250, 300, 350, 400
	HJD6, HJXD6	100	65	35	200, 225, 250, 300, 350, 400
	SJD6	65	35	25	200, 300, 400
	CJD6, SCJD6	200	200	100	200, 300, 400
600	LXD6 (STD)	65	35	25	450, 500, 600
	LD6	65	35	25	250, 300, 350, 400, 450, 500, 600
	HLD6, HLXD6	100	65	35	250, 300, 350, 400, 450, 500, 600
	SLD6,	65	35	25	300, 400, 500, 600
	SHLD6	100	65	35	300, 400, 500, 600
	CLD6, SCLD6	200	150	100	300, 400, 500, 600

¹ Interchangeable trip main breakers are mounted at top of panel only.

Table P2-7 – Subfeed Breakers

Breaker Type	Mounting Position When Used As Subfeed Breaker	Maximum Interrupting Rating (kA) Symmetrical	240V AC	480V AC	600V DC
	Vertical	Ampere Ratings For Load			
FD6 ¹ , FXD6	Twin	70 - 250	65	35	18
HFD6 ¹ , HFXD6	Twin	70 - 250	100	65	25
JD6 ² , JXD6	Single	200 - 400	65	35	25
HJD6 ² , HJXD6	Single	200 - 400	100	65	35

¹ Twin mounted subfeed breakers are mounted at bottom of panelboard only and adds 24" to the panel height.

² Subfeed breaker is mounted at bottom of panelboard only. 400 amp subfeed breaker adds 30" to the panel height.

Table P2-8 – Branch Circuit Breakers

Max. Amp Rating	Bolt-On Breaker Type	No. of Poles	Amp Rating	Maximum Interrupting Rating (kA)						
				Volts – AC						DC
				120	120/240	240	277	480	600	250
100	BL	1	15 - 70	10	—	—	—	—	—	—
		2	15 - 100	—	10	—	—	—	—	—
		3	15 - 100	—	—	10	—	—	—	—
	BL, HID	1	15 - 30	10	—	—	—	—	—	—
		2	15 - 30	—	10	—	—	—	—	—
	BLR	2	15 - 100	—	—	10	—	—	—	—
	BLE	1	15 - 30	10	—	—	—	—	—	—
		2	15 - 60	—	10	—	—	—	—	—
	BLEH	1	15 - 30	22	—	—	—	—	—	—
		2	15 - 60	—	22	—	—	—	—	—
	BLF	1	15 - 30	10	—	—	—	—	—	—
		2	15 - 60	—	10	—	—	—	—	—
	BLHF	1	15 - 30	22	—	—	—	—	—	—
		3	15 - 60	—	22	—	—	—	—	—
	BGL 1	2	15 - 30	10	—	—	—	—	—	—
		3	15 - 30	—	10	—	—	—	—	—
	BAF	1	15, 20	10	—	—	—	—	—	—
	BAFH	1	15, 20	22	—	—	—	—	—	—
	BLH	1	15 - 70	—	22	—	—	—	—	—
2		15 - 100	—	22	—	—	—	—	—	
3		15 - 100	—	—	22	—	—	—	—	
HBL	1	15 - 70	—	65	—	—	—	—	—	
	2	15 - 100	—	65	—	—	—	—	—	
	3	15 - 100	—	—	65	—	—	—	—	
BQD	1	—	—	65	—	14	—	—	14	
	2	15 - 100	—	65	—	—	14	—	14	
	3	—	—	—	65	—	14	—	14	
125	ED2	1	15 - 100	10	—	—	—	—	—	
		2/3	—	10	—	—	—	—	5 (2-P)	
	ED4	1	15 - 125	65	—	—	22	—	—	
		2	—	—	—	65	—	18	—	
		3	—	—	—	65	—	18	—	
	ED6	2	15 - 125	—	—	65	—	25	18	
		3	—	—	—	65	—	25	18	
	*CED6	1	—	—	—	—	—	—	—	
2		15 - 125	—	200	200	200	200	100		
3		—	—	200	200	200	200	100		
225	QJ2	2/3	60 - 225	—	—	10	—	—	—	
	QJH2	2/3	60 - 225	—	—	22	—	—	—	
	QJ2-H	2/3	60 - 225	—	—	42	—	—	—	
	HQJ2H	2/3	100 - 225	—	—	100	—	—	—	

1. Two pole breaker is one phase and neutral. Three pole is two phase and neutral.
NOTE: QJ Breakers are single mounted in unit space and take 6" of unit space. Limited to (3) per panel max. BL, HBL, BLH and BQD breakers are mounted in

common mountings in 3" or (6) pole increments. ED2, ED4, ED6 and HED4 breakers are mounted in common mountings in 3" or (6) pole increments.

Branch Device Limitations

For panels applied on systems requiring neutral connections, some limitations apply. By application rule (NEC 480.14) lighting and appliance panels are limited to 42 circuits installed. Each overcurrent device pole counts as a circuit. Additional limitations for these panels are based on available neutral connections.

*Contact local Siemens representative before ordering.

Table P2-9 – Branch Neutral Connections

Wire Range	Max. Number of Connections	Max. Amps ¹
#14-#6	26	65
#14-1/0	28	125
#6 - 350 Kcmil	3	250
(1) #4-600 Kcmil or (2) #6-250 Kcmil	1	400

¹ Based on 75 degree copper.

Table P2-10 – Main Lugs Only (1)(2)(4)(5)

Maximum Panel Amp Rating	Maximum 1-Pole Circuits (6)	Box Height inches (mm)	Catalogue Number (2)			
			3Ø4W 208Y/120V	1Ø3W 120/240V	3Ø4W 480Y/27V	3Ø4W 347/600V
125	18	26	P2C18ML125ATS	P2A18ML125ATS	P2E18ML125ATS	P2L18ML125ATS
	30	32	P2C30ML125ATS	P2A30ML125ATS	P2E30ML125ATS	P2L30ML125ATS
	42	38	P2C42ML125ATS	P2A42ML125ATS	P2E42ML125ATS	P2L42ML125ATS
	54	44	P2C54ML125ATS	P2A54ML125ATS	P2E54ML125ATS	P2L54ML125ATS
	66	50	P2C66ML125ATS	P2A66ML125ATS	P2E66ML125ATS	P2L66ML125ATS
	78	56	P2C78ML125ATS	P2A78ML125ATS	P2E78ML125ATS	P2L78ML125ATS
	90	62	P2C90ML125ATS	P2A90ML125ATS	P2E90ML125ATS	P2L90ML125ATS
250	18	32	P2C18ML250ATS	P2A18ML250ATS	P2E18ML250ATS	P2L18ML250ATS
	30	38	P2C30ML250ATS	P2A30ML250ATS	P2E30ML250ATS	P2L30ML250ATS
	42	44	P2C42ML250ATS	P2A42ML250ATS	P2E42ML250ATS	P2L42ML250ATS
	54	50	P2C54ML250ATS	P2A54ML250ATS	P2E54ML250ATS	P2L54ML250ATS
	66	56	P2C66ML250ATS	P2A66ML250ATS	P2E66ML250ATS	P2L66ML250ATS
	78	62	P2C78ML250ATS	P2A78ML250ATS	P2E78ML250ATS	P2L78ML250ATS
	90	68	P2C90ML250ATS	P2A90ML250ATS	P2E90ML250ATS	P2L90ML250ATS
400	18	38	P2C18ML400ATS	P2A18ML400ATS	P2E18ML400ATS	P2L18ML400ATS
	30	44	P2C32ML400ATS	P2A32ML400ATS	P2E32ML400ATS	P2L32ML400ATS
	42	50	P2C42ML400ATS	P2A42ML400ATS	P2E42ML400ATS	P2L42ML400ATS
	54	56	P2C54ML400ATS	P2A54ML400ATS	P2E54ML400ATS	P2L54ML400ATS
	66	62	P2C66ML400ATS	P2A66ML400ATS	P2E66ML400ATS	P2L66ML400ATS
	78	68	P2C78ML400ATS	P2A78ML400ATS	P2E78ML400ATS	P2L78ML400ATS
	90	74	P2C90ML400ATS	P2A90ML400ATS	P2E90ML400ATS	P2L90ML400ATS
600	18	38	P2C18ML600ATS	P2A18ML600ATS	P2E18ML600ATS	P2L18ML600ATS
	30	44	P2C30ML600ATS	P2A30ML600ATS	P2E30ML600ATS	P2L30ML600ATS
	42	50	P2C42ML600ATS	P2A42ML600ATS	P2E42ML600ATS	P2L42ML600ATS
	54	56	P2C54ML600ATS	P2A54ML600ATS	P2E54ML600ATS	P2L54ML600ATS
	66	62	P2C66ML600ATS	P2A66ML600ATS	P2E66ML600ATS	P2L66ML600ATS
	78	68	P2C78ML600ATS	P2A78ML600ATS	P2E78ML600ATS	P2L78ML600ATS
	90	74	P2C90ML600ATS	P2A90ML600ATS	P2E90ML600ATS	P2L90ML600ATS

Table P2-11 - Main Circuit Breaker (1)(2)(3)(4)(5)

Maximum Panel Amp Rating	Maximum 1-Pole Circuits	Box Height inches (mm)	Catalogue Number (2)			
			3Ø4W 120/208V	1Ø3W 120/240V	3Ø4W 277/480V	3Ø4W 347/600V
100	18	26	P2C18BL100ATS	P2A18BL100ATS	P2E18BD100ATS	P2L18BD100ATS
	30	32	P2C30BL100ATS	P2A30BL100ATS	P2E30BD100ATS	P2L30BD100ATS
	42	38	P2C42BL100ATS	P2A42BL100ATS	P2E42BD100ATS	P2L42BD100ATS
	54	44	P2C54BL100ATS	P2A54BL100ATS	P2E54BD100ATS	P2L54BD100ATS
	66	50	P2C66BL100ATS	P2A66BL100ATS	P2E66BD100ATS	P2L66BD100ATS
	78	56	P2C78BL100ATS	P2A78BL100ATS	P2E78BD100ATS	P2L78BD100ATS
	90	62	P2C90BL100ATS	P2A90BL100ATS	P2E90BD100ATS	P2L90BD100ATS
125	18	26	P2C18E4125ATS	P2A18E4125ATS	P2E18E4125ATS	P2L18E6125ATS
	30	32	P2C30E4125ATS	P2A30E4125ATS	P2E30E4125ATS	P2L30E6125ATS
	42	38	P2C42E4125ATS	P2A42E4125ATS	P2E42E4125ATS	P2L42E6125ATS
	54	44	P2C54E4125ATS	P2A54E4125ATS	P2E54E4125ATS	P2L54E6125ATS
	66	50	P2C66E4125ATS	P2A66E4125ATS	P2E66E4125ATS	P2L66E6125ATS
	78	56	P2C78E4125ATS	P2A78E4125ATS	P2E78E4125ATS	P2L78E6125ATS
	90	62	P2C90E4125ATS	P2A90E4125ATS	P2E90E4125ATS	P2L90E6125ATS
225	18	32	P2C18QJ225ATS	P2A18QJ225ATS	P2E18E4225ATS	P2L18E6225ATS
	30	38	P2C32QJ225ATS	P2A32QJ225ATS	P2E32E4225ATS	P2L32E6225ATS
	42	44	P2C42QJ225ATS	P2A42QJ225ATS	P2E42E4225ATS	P2L42E6225ATS
	54	50	P2C54QJ225ATS	P2A54QJ225ATS	P2E54E4225ATS	P2L54E6225ATS
	66	56	P2C66QJ225ATS	P2A66QJ225ATS	P2E66E4225ATS	P2L66E6225ATS
	78	62	P2C78QJ225ATS	P2A78QJ225ATS	P2E78E4225ATS	P2L78E6225ATS
	90	68	P2C90QJ225ATS	P2A90QJ225ATS	P2E90E4225ATS	P2L90E6225ATS
250	18	38	P2C18FX250ATS	P2A18FX250ATS	P2E18FX250ATS	P2L18FX250ATS
	30	44	P2C30FX250ATS	P2A30FX250ATS	P2E30FX250ATS	P2L30FX250ATS
	42	50	P2C42FX250ATS	P2A42FX250ATS	P2E42FX250ATS	P2L42FX250ATS
	54	56	P2C54FX250ATS	P2A54FX250ATS	P2E54FX250ATS	P2L54FX250ATS
	66	62	P2C66FX250ATS	P2A66FX250ATS	P2E66FX250ATS	P2L66FX250ATS
	78	68	P2C78FX250ATS	P2A78FX250ATS	P2E78FX250ATS	P2L78FX250ATS
	90	74	P2C90FX250ATS	P2A90FX250ATS	P2E90FX250ATS	P2L90FX250ATS
400	18	50	P2C18JX400ATS	P2A18JX400ATS	P2E18JX400ATS	P2L18JX400ATS
	30	56	P2C32JX400ATS	P2A32JX400ATS	P2E32JX400ATS	P2L32JX400ATS
	42	62	P2C42JX400ATS	P2A42JX400ATS	P2E42JX400ATS	P2L42JX400ATS
	54	66	P2C54JX400ATS	P2A54JX400ATS	P2E54JX400ATS	P2L54JX400ATS
	66	74	P2C66JX400ATS	P2A66JX400ATS	P2E66JX400ATS	P2L66JX400ATS
600	18	56	P2C18LX600ATS	P2A18LX600ATS	P2E18LX600ATS	P2L18LX600ATS
	30	62	P2C30LX600ATS	P2A30LX600ATS	P2E30LX600ATS	P2L30LX600ATS
	42	68	P2C42LX600ATS	P2A42LX600ATS	P2E42LX600ATS	P2L42LX600ATS
	54	74	P2C54LX600ATS	P2A54LX600ATS	P2E54LX600ATS	P2L54LX600ATS

(1) Refer to Pg 12, table P2-21 for breaker kits and accessories (2) Part # for Interior only (3) Refer to Pg 4 for Main breaker selection (4) Refer to Pg 5 for Branch circuit breaker selection (5) Refer to Pg 12, table P2-20 for box and trim details (6) For more number of circuits, contact local Siemens representative before ordering

P2 Panel Options

Enclosures

- Extra gutter to sides or ends of the can
- 24" wide boxes
- Hinged trims*
- Door-in-door trims*
- Screw to the box trims*
- Trim mounted devices (Devices mounted and wired to the trim should also have hinged trim specified)
 - Pilot lights
 - Toggle switches
 - Push buttons
- Painted boxes
- Custom colors
- Increase gauge trims and boxes*
- Stainless steel trims and boxes, Type 1*

Panel Modifications

- Main Bus

Standard main bus is temperature rated tin-plated aluminum. Bus options are 750 A/Si aluminum, tin-plated temperature rated copper tin-plated standard – silver optional. 1000 A/Si copper tin-plated standard – silver optional. Includes copper neutral cross bar. For copper neutral branch lugs, see miscellaneous.
- Split bus adds 6" to unit space*
- Compression lug for MLO*
- Compression lugs on main breaker (may require extra width or length on enclosure)*
- Contactor mains or submain*
 - Asco 920 through 225 amps. Adds 12" unit space as main, 15" unit space as submain.*
 - Asco 911 through 150 amps. Adds 21" unit space.*
 - Siemens LEN through 30 amps. Adds 12" unit space.* Makes box 10" deep.
- Control power transformers (contact engineering for extra gutter requirements)
- Branch and main breaker accessories
 - Handle blocks
 - Handle locks
 - Aux. Contacts ¹
 - UVR ¹
- Feed-thru lugs
- 200% neutral
- Copper lugs, mechanical
- Bus mounted TVSS
- Service entrance labeled

¹ Accessories on 1" pole breakers (BL, BQD, ED) will take unit space.

*Contact local Siemens representative for any options & modifications.

- Aluminum trims and boxes, Type 1*
- NEMA 3R/12 enclosures
- NEMA 4 enclosures
- NEMA 4X enclosures
- Special keyed locks*
- Gasketing trim to box
- Panel skirts

- Grounding of panelboards

Ground bars are shipped with the panel interior factory mounted.

 - Non-insulated equipment ground bar – standard
 - Copper non-insulated ground bar
 - Aluminum insulated equipment ground bar
 - Copper insulated equipment ground bar
- Shunt trip on main or branch

BL, BLH, HBL, ED2, ED4, HED4, HED6, HHED6 uses 1" unit space for shunt trip. All may be used on mains or subfeeds.

QJ2, QJ2-H, QJH2, HQJ2H, ED2, ED4, ED6, HED4, HED6, FXD6, HFD6, JXD6, JD6, HJD6, HJXD6

- Remote control switches – mounted in a 23" enclosure to be cable connected to the panel.
- Time clocks – 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.

Table P2-12 – Box Size Additions (In.) For Optional Features

Options	Main Lugs				Main Breakers									
	125A	250A	400A	600A	125A Horiz. BL, BQD, ED	125A Horiz. CED	125A Vert. ED	225A Vert. QJ	250A Vert. FD	250A Vert. CFD	400A JD	400A CJD	600A LD	600A CLD
200 Neutral (lug type)	0	0	6 (all)	6 (all)	0	0	0	6	6	0	0	0	0	0
Std. Lugs (100% Neut. PNL)	0	0	0	0	0	0	0	6	6	0	0	0	0	0
CU Lugs (100% Neut. PNL)	6	6	6	0	6	6	0	6	6	0	0	0	0	0
Comp Lugs (100% Neut. PNL)	6	6	6	6	6	6	0	6	6	0	0	0	0	0
Feed-thru Standard Lugs	6	6	12	12	6	6	6	6	6	6	12	12	12	12
Feed-thru Cu Lugs	6	6	12	N/A	6	6	6	6	6	6	12	12	12	N/A
Feed-thru Comp Lugs	6	12	12	N/A	6	6	6	6	12	12	12	12	12	N/A
Subfeed Standard Lugs	0	6	6	N/A	—	—	—	—	—	—	—	—	—	—
Split Bus	6	6	6	6	6	6	6	6	6	6	6	6	6	6
(1) FD Subfeed (Horizontal Mtg.)	N/A	12	12	12	N/A	N/A	N/A	N/A	12	12	12	12	12	12
(2) FD Subfeed (Vertical Mtg.)	N/A	24	24	24	N/A	N/A	N/A	N/A	24	24	24	24	24	24
TVSS	12	12	12	12	12	12	12	12	12	12	12	12	12	12

Split bus is paired with feed-thru lugs by default. Feed-thru lugs are to feed the section after the split. NOTE: N/A = OPTION NOT AVAILABLE

*Contact local Siemens representative before any modification.

Compression Lugs

Table P2-13 – Lugs

Style	Amp Rating	Breaker Type	Compression Connectors	Box Height Addition
MLO	125	N/A	(1)#6 - 350 Kcmil Al/Cu	6
	250	N/A	(1)#6 - 350 Kcmil Al/Cu	6
	400	N/A	(1) 400 - 600 Kcmil Cu or (2)#6 - 350 Kcmil Al/Cu	6
	600	N/A	(2)#6 - 350 Kcmil Cu or Cu/Al or 400 - 600 Kcmil Al/Cu	6
Main Breaker	100	ED4, ED6, HED4 CED6	(1)#14-2/0 AWG Cu or Al	Box must go to 24" wide on CED6 breaker only Add 6" to box height for NØ
	225	QJ2, QJH2, QJ2H FXD6, HFD6, CFD6	(1)#6 AWG - 350 Kcmil Cu or Al (1)#6 AWG - 350 Kcmil Cu or Al	Box must go to 24" wide Box must go to 24" wide for all breakers Requires an additional 6.0" box height
	400	JD6, JXD6, HJD6, CJD6, SJD6, SHJD6, SCJD6	(2)#1/0 AWG - 500 Kcmil Cu or Al	9
	600	LD6, LXD6, HLD6, CJD6, SLD6, SHLD6, SCLD6	(2)#2/0 AWG - 500 Kcmil Cu or Al	6

Table P2-14 – Alternate Lugs*

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

*Contact local Siemens representative for any modifications.

Enclosure Modifications

NEMA-4 For Type P2*
Water Tight, Dust Tight, Steel Enclosure

Table P2-15

Box Height Inches	Enclosure Size		
	H	W	D
26	30	24	8
32	36	24	8
38	42	30	8
44	48	36	8
50	60	36	8
56	60	36	8
62	66	36	8
68	72	36	8
74	78	36	8
80	84	36	8

NEMA-4X For Type P2*
Water Tight, Dust Tight and Corrosion Resistant

Table P2-16

Box Height Inches	Enclosure - Stainless Steel and Steel with Epoxy Coating			Enclosure - Fiberglass Size (inches)		
	H	W	D	H	D	W
26	30	24	8	30	24	8
32	36	24	8	36	24	8
38	48	36	8	48	36	12
44	48	36	8	48	36	12
50	60	36	12	60	36	12
56	60	36	12	60	36	12
62	66	36	8	72	36	8
68	72	36	8	72	36	8
74	78	36	8	84	36	8
80	84	36	8	84	36	8

Remote Switch Modifications

Table P2-17 – Control Power* Transformer

Size	VA
0,1	50
2	75
3	150
4	250

Table P2-19 – Remote Control Switch Modification*

Description
Auxiliary Contacts (Mounted Not Wired) Ea.
2-Wire Control

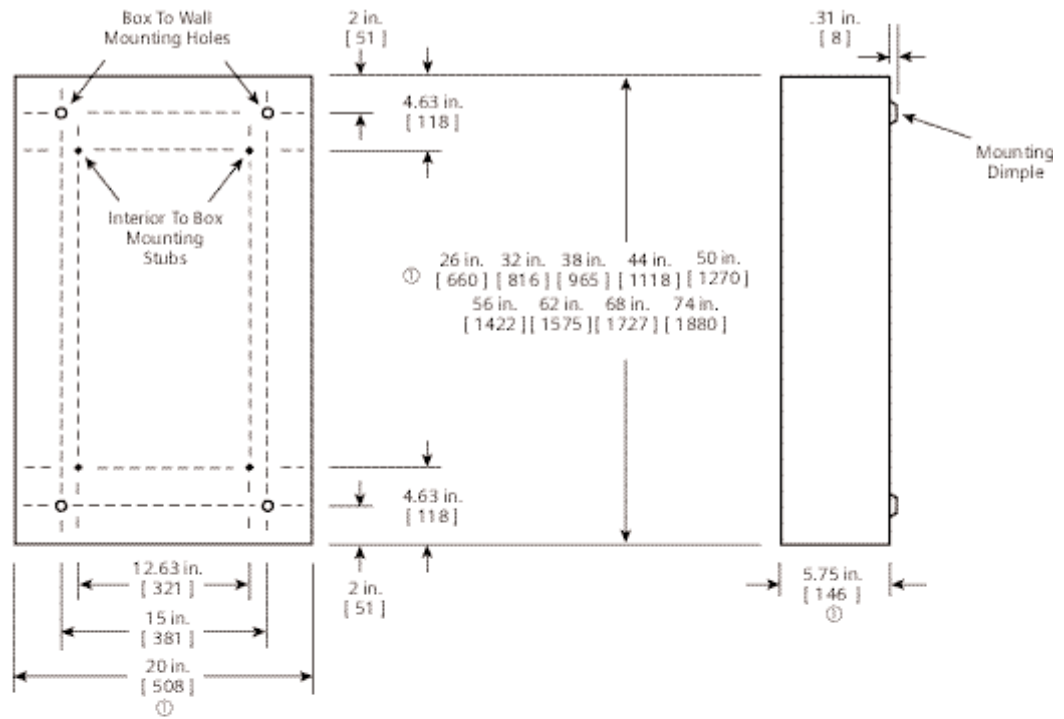
Table P2-18 – Application For Remote Switch*

Switch Type	Modification
920	Adds 12" to unit space
911	≤ 225A adds 21" unit space >225 ≤400 Amps add 10" to width and 8" DP minimum and 24" to height
LEN	30A adds 15" to unit space >30A 100 adds 12" to unit space 7.7 Dp. Box min. 100 A ≤ 200 adds 12" to unit space and 10" DP. min.

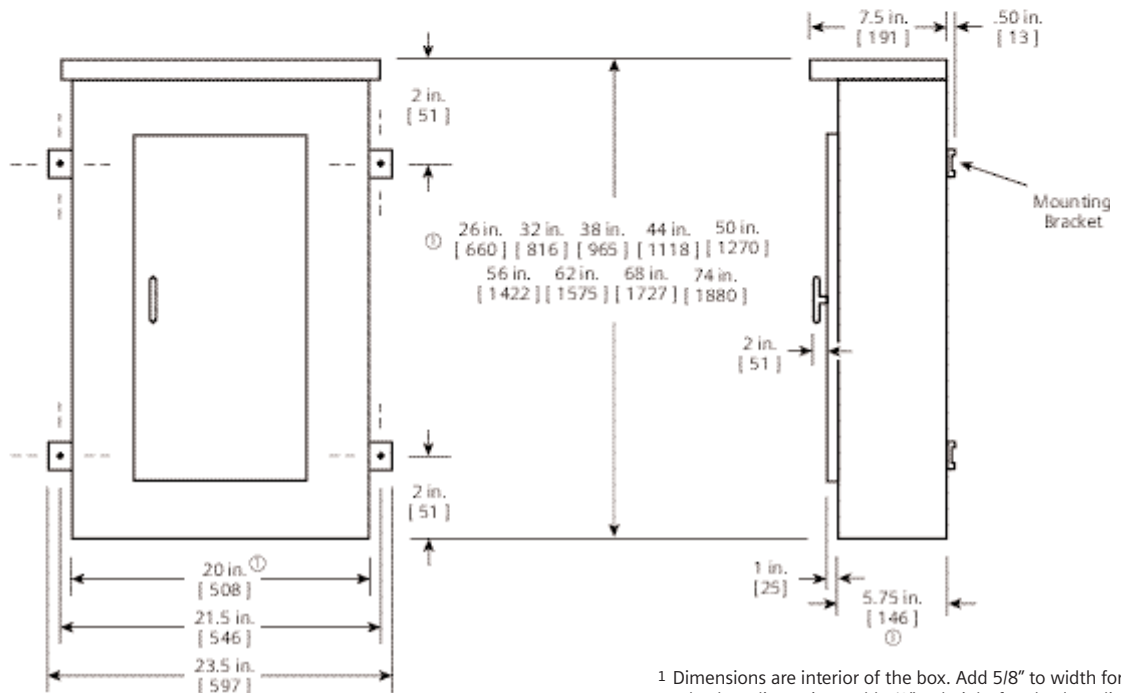
*Contact local Siemens representative for any modifications.

Type 1 Box

Box is symmetrical



Type 3R/12 Box



¹ Dimensions 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 [].

Table P2-20 – Standard Enclosures

Box Height Inches	Catalogue Number					
	Type 1 Standard Trim			Type 2 Standard Trim		Type 3R/12 (1) Complete Enclosure With Hinged Cover
	Box	Surface	Flush	Box	Surface	
26	B26	S26B	F26B	DSB52026	S26B	WP26
32	B32	S32B	F32B	DSB52032	S32B	WP32
38	B38	S38B	F38B	DSB52038	S38B	WP38
44	B44	S44B	F44B	DSB52044	S44B	WP44
50	B50	S50B	F50B	DSB52050	S50B	WP50
56	B56	S56B	F56B	DSB52056	S56B	WP56
62	B62	S62B	F62B	DSB52062	S62B	WP62
68	B68	S68B	F68B	DSB52068	S68B	WP68
74	B74	S74B	F74B	DSB52074	S74B	WP74

Options for Type 1 & 2 Tubs

- Add suffix "K" for enclosure c/w tub end wall with knockouts
- Add suffix "KN" for enclosure c/w tub end wall with knockouts and gasketed
- Add suffix "N" for enclosure gasketed
- Add suffix "P" for enclosure painted std grey
- Add suffix "PK" for enclosure painted std grey c/w tub end wall with knockouts
- Add suffix "PKN" for enclosure painted std grey c/w tub end wall with knockouts and gasketed
- Add suffix "PN" for enclosure painted std grey and gasketed
- Add suffix "M" for metal card holder
- Hinged trim - Replace "B" suffix with "H"
- Door-in-door - Replace "B" suffix with "D"
- Metal card holder – Add "M" suffix

Option For 24" Wide Enclosures with Equal Gutter on Both Sides

24" wide with equal gutter on both sides - Add "24" as prefix

(1) For Silicon free enclosure, contact local Siemens representative.

Table P2-21 – Breaker Kits and Accessories (1)

Kit No.	Description	Contents
BBKB32AT	BL/BQD 6-pole 3" branch breaker kit	Kit contains top barrier, (3) A/C connectors, (1) B connector, hardware (Al/Tin)
BBKED32AT	ED 6-pole 3" branch breaker kit	Kit contains breaker support, inter-phase barriers, (3) A/C connectors, (1) B connector, hardware (Al/Tin)
BBKQ1AT	QJ branch breaker kit for 2 and 3-pole single mount	Kit to contain all connectors and cover plates necessary to mount both 2 and 3-pole breakers (Al/Tin)
DFK1	BL, BQD, ED deadfront kit for 1" pole breakers	Center strips 3", 6", 9," 15," 21" plus mounting hardware
DFFP3	Deadfront filler 3"	3" empty space filler and hardware
DFFP6	Deadfront filler 6"	6" empty space filler and hardware
BNK2	Branch neutral (P2)	Three tier lug with mounting hardware to increase neutral capacity
P2BK1	P2 250A max. Bonding Kit	Bonding strap and hardware
P2BK2	P2 400A max. Bonding Kit	Bonding strap and hardware
P2BK3	P2 600A max. Bonding Kit	Bonding strap and hardware
BBKB32CS	BL/BQD 6-pole 3" branch breaker kit	Kit contains top barrier, (3) A/C connectors, (1) B connector, hardware (Cu/Silver)
BBKED32CS	ED 6-pole 3" branch breaker kit	Kit contains breaker support, inter-phase barriers, (3) A/C connectors, (1) B connector, hardware (Cu/Silver)
BBKQ1CS	QJ branch breaker kit for 2 and 3-pole single mount	Kit to contain all connectors and cover plates necessary to mount both 2 and 3-pole breakers (Cu/Silver)

(1) For CEDG branch breaker kit, contact local Siemens representative

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