SIEMENS

Next Gen P1 Panelboards

Quick reference guide for selection and application

siemens.ca/panelboards

Introducing the Siemens Next Gen P1 Panelboard

Siemens is proud to introduce new, innovative additions to the P1 series of panelboards. The new "Next Gen P1" Panelboard increases the flexibility and customization options available in Siemens already robust panelboard line of products.

Siemens New "Next Gen P1" Panelboard

Siemens new Next Gen P1 panelboard adds additional strength and flexibility, through the introduction of Non-Feed-Thru options, to the already rugged, best-in-class line of panelboards. By now offering both Feed-Thru (FT) and Non-Feed-Thru (NFT) configuration options, Siemens offers even greater flexibility and potential for customers to configure solutions that are optimized to meet the many unique application and budgetary requirements that today's projects demand.

For applications where additional space for feed-thru lugs, a subfeed breaker, or an SPD device isn't required, the new NFT P1 option is an ideal solution. The NFT Next Gen P1 features an enclosure that is 6" (152 mm) shorter than a comparably configured P1 with a FT design. Additionally, the NFT design can accommodate 12 circuits more than the FT design panelboard in the same sized enclosure.

Extended Circuitries

In addition to the new NFT options, Siemens P1 line of panelboard products now offer extended circuit options. New, higher 54 and 66 circuit options allow for the elimination of a second enclosure in many applications that would have previously required it.

The extended circuit options also facilitate the configuration of P1 panelboard solutions for many applications that have traditionally required the use of a P2 or P3 panelboard.

Adaptability

The new NFT design, coupled with the extended circuitries offer additional options for adding circuits to existing Siemens P1 with the Feed-Thru design. Where a 42 circuit FT P1 panelboard needs additional circuits but is not utilizing the provided subfeed space, the interior can be replaced by a new 54 circuit NFT design interior. This saves the customer the cost of a new enclosure and cover while still providing the option for extended circuitries.

This selection and application guide is designed to provide full insight into these and many other new features, enhancements and options that will allow you to take full advantage of the flexibility and customization options Siemens offers to configure the P1 panelboard that best meets your specific needs.

Next Gen P1 Panelboard 250 & 400A

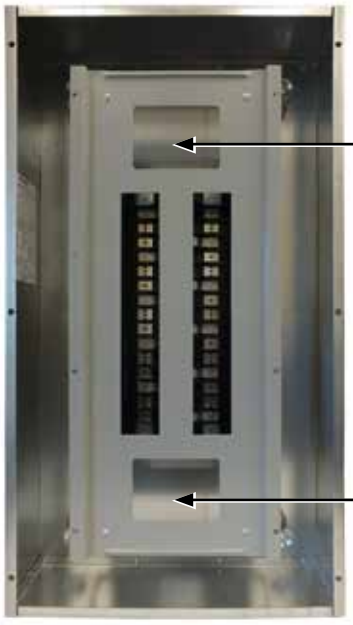
All FT and NFT are invertable in field – Top-feed or Bottom-feed

- Invertability
- Flexibility

FT

250A MLO / MB

20" (508 mm) Wide



Box Sizes
32"
(813 mm)
38"
(965 mm)
44"
(1118 mm)
50"
(1270 mm)
56"
(1422 mm)

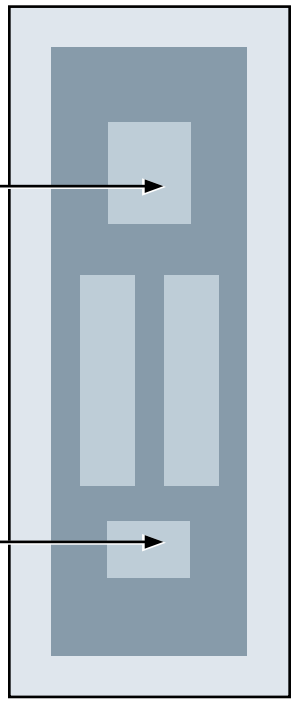
Unit Space
18
30
42
54
66

ML (or) MB

Subfeed
FT Lugs
Subfeed Breakers
SPD Devices

400A MLO / MB

20" (508 mm) Wide



Unit Space
30
42
54

Box Sizes
62"
(1575 mm)
68"
(1727 mm)
74"
(1880 mm)

NFT

250A MLO / MB

20" (508 mm) Wide

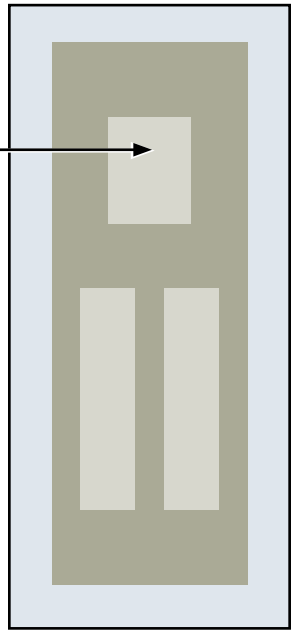
Box Sizes
26"
(660 mm)
38"
(965 mm)
44"
(1118 mm)
50"
(1270 mm)

Unit Space
18
30
42
54
66

ML (or) MB

400A MLO / MB

20" (508 mm) Wide



Unit Space
30
42
54
66

Box Sizes
56"
(1422 mm)
62"
(1575 mm)
68"
(1727 mm)
74"
(1880 mm)

Next Gen P1 Panelboard 250A

Why move to NFT (Non Feed-Thru)?

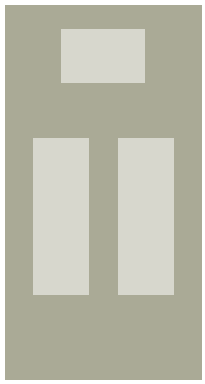
A) Smaller Box Size -
If customer does not need Subfeed space or does not want to pay for it.

- 6" (152 mm) shorter enclosure than FT
- No Subfeed Space - pay for what is needed only.

B) More Circuits needed -
If customer does not need Subfeed space and does want more circuits.

- 12 more circuits than FT in same box size

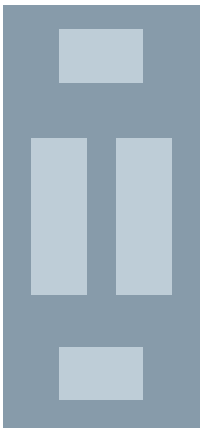
New for Next Gen
250A
18 circuit NFT



B26 Enclosure

6" (152 mm) shorter than FT

Original & Next Gen
250A
18 circuit FT



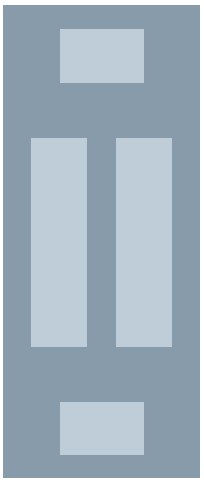
B32 Enclosure

New for Next Gen
250A
30 circuit NFT

B32 Enclosure

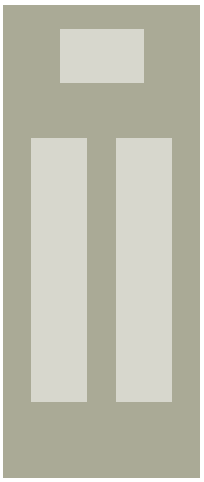
6" (152 mm) shorter than FT

Original & Next Gen
250A
30 circuit FT



B38 Enclosure

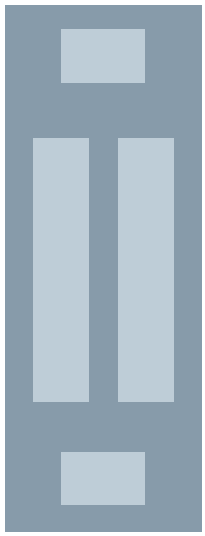
New for Next Gen
250A
42 circuit NFT



B38 Enclosure

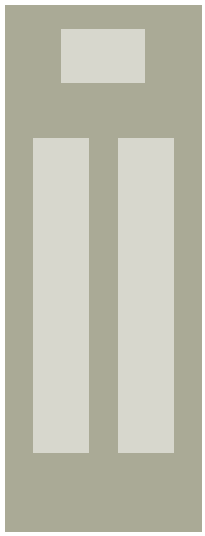
6" (152 mm) shorter than FT

Original & Next Gen
250A
42 circuit FT



B44 Enclosure

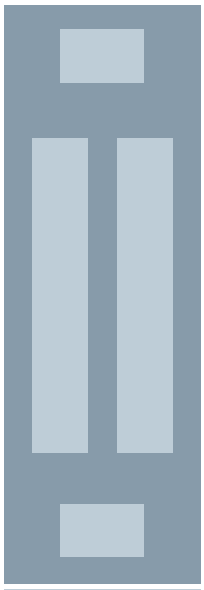
New for Next Gen
250A
54 circuit NFT



B44 Enclosure

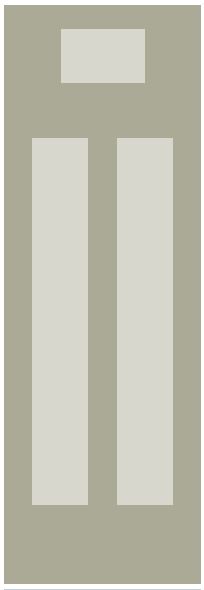
6" (152 mm) shorter than FT

New for Next Gen
250A
54 circuit FT



B50 Enclosure

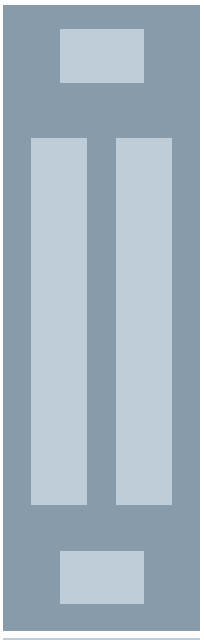
New for Next Gen
250A
66 circuit NFT



B50 Enclosure

6" (152 mm) shorter than FT

New for Next Gen
250A
66 circuit FT



B56 Enclosure

New Options to Consider!

1) If a customer has an existing 42 circuit FT installed and needs additional circuits, the interior can be replaced by a 54 circuit NFT. Re-use the same enclosure and front.

2) If a customer needs more than 42 circuits, you can use a 54 or 66 circuit device and eliminate the second cabinet.

Next Gen P1 Panelboard 400A

Why move to NFT (Non Feed-thru)?

A) Smaller Box Size -
If Customer does not need Subfeed space or does not want to pay for it.

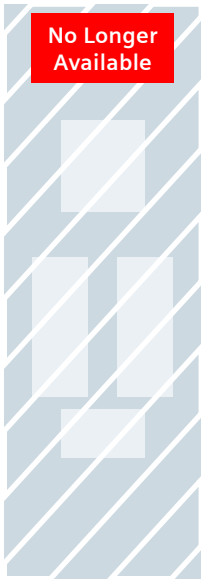
- 6" (152 mm) shorter Enclosure than FT
- No Subfeed Space - pay for what is needed only.

B) More Circuits needed -
If Customer does not need Subfeed space and does want more circuits.

- 12 more circuits than FT in same box size

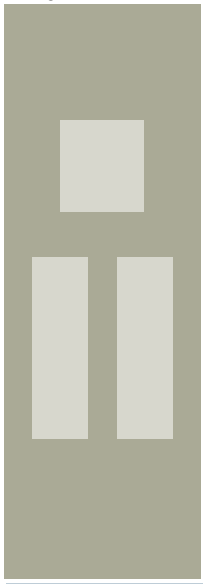
400A
18 circuit NFT

No Longer Available



New for Next Gen

400A
30 circuit NFT

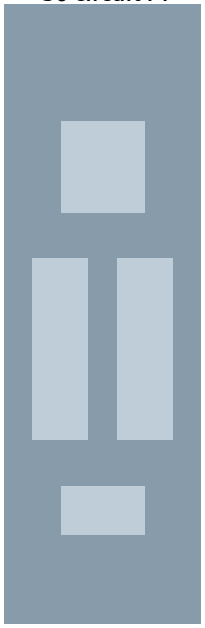


B56 Enclosure

6" (152 mm) shorter than FT

Original & Next Gen

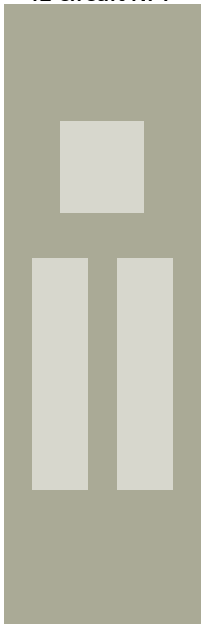
400A
30 circuit FT



B62 Enclosure

New for Next Gen

400A
42 circuit NFT



B62 Enclosure

6" (152 mm) shorter than FT

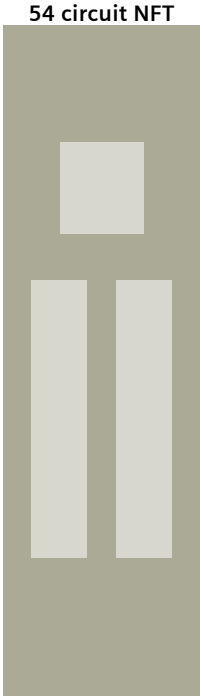
Original & Next Gen

400A
42 circuit FT

B68 Enclosure

New for Next Gen

400A
54 circuit NFT

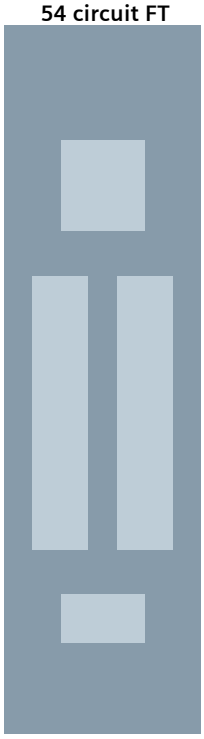


B68 Enclosure

6" (152 mm) shorter than FT

New for Next Gen

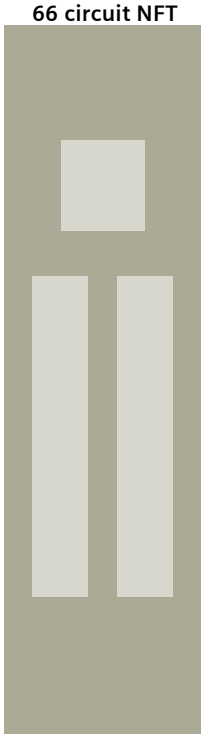
400A
54 circuit FT



B74 Enclosure

New for Next Gen

400A
66 circuit NFT



B74 Enclosure

400A
66 circuit FT

Not Available

New Options to Consider!

1) If a customer has an existing 42 circuit FT installed and needs additional circuits, the interior can be replaced by a 54 circuit NFT. Re-use the same enclosure and front.

2) If a customer needs more than 42 circuits, you can use a 54 or 66 circuit device and eliminate the second cabinet.

Next Gen P1 Panelboard FAQ's

New Features and Options for "Next Gen P1" offering compared to the "Original P1" panels

1. **Non-Feed-thru (NFT) variations of the Next Gen P1 panels are available for Factory assembled only:**

   - Feed-Thru (FT) versions are versions with a Subfeed space that can be occupied by Feed-thru lugs, Subfeed Breaker or an SPD device. All Original P1 interiors were FT versions.
   - Non-Feed-thru (NFT) versions do not have the Subfeed space and therefore can fit into an enclosure 6" (152 mm) smaller than the FT version.
   - Both FT and NFT variations are fully invertible in the field and can be used for either Top-feed or Bottom-feed applications.

2. **Extended Circuits are now available:**
   Only 18, 30 and 42 circuits were available in Original P1 → 54 and 66 "extended circuit" panels are added for Next Gen P1

   a) Next Gen P1 - 250A will have FT and NFT variations for all circuits: 18, 30, 42, 54 and 66 (NGB panels only available as FT)

   b) Next Gen P1 - 400A will have FT and NFT variations for 30, 42, 54 circuits only. (NGB panels only available as FT)
      - The 66 circuit variation of 400A is only available in NFT due to enclosure size limit of 74" high.
      - Also Next Gen P1 - 400A is not available in 18 circuit variations.

→ Benefits: Many P2 and P3 applications can now move to the Next Gen P1 platform!

3. **New Neutral Configurations are now available in Next Gen P1:**

   - The new Neutral system has been developed to accommodate the extended circuit variations without increasing costs.
   - The New Neutral configuration is still a split neutral arrangement with connections down either side of the interior, but it is not full length as before. Neutral connections are still near the breakers, but not adjacent to each breaker connection. Many configurations have extra connections and some larger configurations will allow adding more connections if needed.

4. **Into stock program changes for Next Gen P1:**

   - Into stock program will only get 54 circuit added for both P1-250A and P1-400A.
   - All into stock interiors will be the FT variation, the same as Original P1. (400A - 18 circuit is no longer available)
   - All old Accessories/Kits will remain available for future needs in Original P1 installations.
   - New Accessories/Kits are available - most are same as old kits with "A" added to end of part number.

5. **Accessories and Kits for Next Gen P1 are replacing most of the Original P1 Kits:**
   (most simply add an "A" to end of old kit number)

   a) All Main/Subfeed Breaker mounting kits are new for the Next Gen P1.

   b) All Main Lug Kits are new for Next Gen P1.

   c) All Neutral Lug Kits are new for Next Gen P1.

6. **BL/BQD and NGB Main Breaker usage is ONLY available as a Back-Fed variation.**

   - The Next Gen P1 interior does not have "strap kits" for the BL/BQD and NGB breakers to be used in the "Main" or "Subfeed" positions. If needed to be used as a Main - we now have a "Main Label Kit" that allows the placement of the breaker in unit space to be used as the Main when labeled properly. This does reduce unit space by "2 circuits" in a single phase panel and by "3 circuits" in a 3-phase panel. In other words, the first 2 circuits (single phase panel) or 3 circuits (3-phase panel) on the top left of the interior will be used for the main breaker by default.
   - Back-fed variations can not be used for service entrance application.

7. **New B-Phase bus configuration eliminates "Hump-bus" design**

   - The new flat bus with "B-Phase" connector has many benefits. Allows for replacement connectors in the field in case of a"stripped" connection.
   - Accessory kits for both CU and AL variations of the B-Phase connectors and A/C connectors will be available for repair purposes only.

8. **NGB Breaker series introduction:**

   - This addition to the Breaker line will now allow many configurations to use the Next Gen P1 series. See rating below:

     NGB – 14,000 A IR Max. @ 600Y/347V AC / 100,000 A IR @ 240V AC

9. **Misc. additional features:**

   a) New 750 kcmil AL Main Lug will be available as an option for 400A. (CU cable limited to 600 kcmil)

   b) New 2/0 neutral kits are available. (Standard with NGB interiors)

   c) New filler DFFP1 is introduced replacing QF3-UL (fits tighter in deadfront)

10. **Misc. additional changes/notes:**

    a) All DC voltage offerings are removed from scope of Next Gen P1 interiors.

→ **Customers will be moved to a P2 configuration for these DC Voltage applications.**

    b) The Next Gen P1 with NGB is limited to:

    - 100A per connection (200A per pair) for 18 circuit 250A construction.
    - 125A per connection (250A per pair) for 30, 42, 54 and 66 circuit 250A and 400A construction.

11. **In the Next Gen P1, the branch breaker screws will be supplied as a kit with the interior**

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Next Gen P1 panelboards quick reference guide for selection and application

Next Gen P1 Factory Assembled Panelboards

Next Gen P1 Into Stock Panelboards

Type P1 Panelboards

The Next Gen P1 Panelboards are now available in both Feed-thru (FT) and Non-Feed-thru (NFT) variations. There is a saving of 6" (152 mm) of box height when a NFT version is selected which eliminates the subfeed space. The subfeed Space is where the Feed-thru Lugs, subfeed breaker or a Surge Protection Device (SPD) is installed. The interior part number will end with a "T" for FT panels and will end with an "N" for NFT panels.

The Next Gen P1 Panelboards also have Extended Circuit variations with 54 circuits and 66 circuits available.

Feed-thru (FT) panels are pre-engineered to accept the most common modifications without increasing box height. The enclosure size is determined by the number of circuits as shown in the Main Lug Table P1-5 or the Main Circuit Breaker Table P1-3.

All Next Gen P1 FT main lug or main breaker panelboards have space built-in to accept either feed-thru lugs equal to the panel rating (or) one subfeed circuit breaker up to 250 amperes (or) a surge protection device (SPD) without increasing box height. **(When ordered with sub-feed space the interior part # will end with a "T").**

Non-Feed-thru (NFT) panels do not have a subfeed space and cannot accept feed-thru lugs (or) subfeed Breakers (or) SPD devices. **(NFT panel interior part # will end with a "N").**

Note the following features, all found in the Next Gen P1 lighting panelboards:

- Symmetrical 250A FT Interiors – To change from top to bottom-feed (or vice-versa), simply invert the interior. The deadfront labeling is always legible, even on the NFT panels when inverted. 400A are not symmetrical, but they are invertable.
- First in the Industry Ratings of 125 through 400A main lug and main breaker. Field convertible from main lug to main breaker and vice versa – with no increase in enclosure height.
- Field adaptability of feed-thru lugs (or) subfeed circuit breaker without increasing enclosure size. **(FT panels only)**
- Neutral system is field upgradeable to 200% capacity – another industry first. (also 2/0 neutrals are available as a field install kit)
- Extended circuit panels are now available – up to 66 circuits.
  - 18, 30, 42, 54 and 66 circuits for 250A **(FT & NFT)**
  - 26", 32", 38" 44", 50" and 56" (660 mm, 813 mm, 965 mm, 1118 mm, 1270 mm, 1422 mm) standard enclosures are used.
  - 30, 42 and 54 circuits for 400A (FT & NFT), also 66 circuit NFT
  - 56", 62", 68" and 74" (1422 mm, 1575 mm, 1727 mm, 1880 mm) standard enclosures are used.
- Suitable for use as service entrance given compliance with CEC:
  - Service Entrance equipment rating is not available for panels using BQD, BL, BLH, HBL and NGB as main breakers types.
  - 200% neutral are not available for panel rated as service entrance equipment.
- Bonding provisions (BK1A) provisions are shipped with each panel.
- 240V and 600V versions utilize identical boxes & fronts

Enclosure – Standard Type 1 enclosure is 20" wide x 5.75" deep (508mm W x 146mm D). Box Height is determined only by the number of circuits and FT or NFT selection, not by main lug or main circuit breaker. See tables P1-3 and P1-5 for box height.

Voltage – 600Y/347 Vac max.

Amperage – 400 amp max.

Short Circuit Rating
- 200 KAIC max. symmetrical @ 240V
- 100 KAIC max. symmetrical @ 600V

or equal to the lowest rated device installed unless a series rating is indicated. Note that the main device may be mounted remote from the panel.

Bussing – The P1 panel meets the majority of the markets bussing requirements. The standard bussing is aluminum. The rating is per the requirements of C22.2 No.29, the standard for panelboards. All aluminum bussing is tin-plated. Optional bussing for the P1 panel is 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. (1.36 kg) per inch (54g per mm) of box height.

Table P1-1 – Box Material Gauge

Width in inches (mm)		Height in inches (mm)	Gauge Steel
20 (508)	(250A)	26, 32, 38, 44, 50, 56 (660, 813, 965, 1118, 1270, 1422)	#14
	(400A)	56, 62, 68, 74 (1422, 1575, 1727, 1880)	#14

Table P1-2 – Trim Material Gauge

20 (508)	(250A)	26, 32, 38, 44, 50, 56 (660, 813, 965, 1118, 1270, 1422)	#14
	(400A)	56, 62, 68, 74 (1422, 1575, 1727, 1880)	#14

Selection and Application

3 Easy Steps for Selecting a Siemens Next Gen P1 Panelboard (Note: Factory assembled panels are configurable in IQS)

Step 1
Determine voltage, system, amperage and interrupting rating of branch devices, plus modifications if any.

Example for standard lighting panelboard:

Amperage:	250A
Voltage:	208Y/120V
System:	3Ø4W
Main:	Main Lug
Branches:	10K AIR, 42-20/1
Modifications:	None
Feed Location:	Top
Sub-Feed req'd:	Yes (as provision if wanted)
Mounting:	Surface

Step 2
Create a catalogue number by following the Panelboard Catalogue Numbering System on page 4. The BL branch breakers were selected from the branch breaker selection table 1-6 on page 6.
1-P1C42ML250ATST ("T" indicates FT version)
42-20/1 BL

Note: If Subfeed space is not needed the NFT device can be used as below: 1-P1C42ML250ATN ("N" indicates NFT version) 42-20/1 BL

Step 3
Select enclosure size by the number of circuits and FT/NFT as shown in the panelboard dimension chart (Table P1-3) on page 5.
1-P1C42ML250ATSN
42-20 BL
Box size – 44" high

A unique feature of P1 FT panels is that they can accommodate either feed-thru lugs or one subfeed circuit breaker (up to 250A) without any addition to box height. For our example changing the branch circuits to 39-20/1 and 1-125/3, we have the following:
1-P1C42ML250ATST
39-20/1 BL
1-125/3 QJ2
Box size – 44" high
The QJ2 subfeed was selected from Table P1-7 of subfeed breakers on page 7.
The box height remains the same.

General Specifications

Service Entrance Equipment
When a panelboard is used as service entrance equipment, it must be located as close as practicable to the point of entrance of building supply conductors. Panelboards must be identified as "Service Entrance" at the time of order entry in order to be supplied with the appropriate CSA certification and labelling. Panels include a connector for bonding and grounding neutral conductor. Please consult CSA, CEC and local inspection authorities for specification and installation guidelines.

Service Entrance equipment rating is not available for panels using BQD, BL, BLH, HBL and NGB as main breakers types.

200% neutral is not available when service entrance equipment rating is required. Panelboards with service entrance rating are available as Factory Assembled only.

Integrated Equipment Short Circuit Rating
The term "Integrated Equipment Short Circuit Rating" refers to the application of series connected circuit breakers in a combination that allows some breakers to have lower individual interrupting ratings than the available fault current. This is permitted as long as the series combination has been tested and certified by CSA. "Series Rated" must be identified at the time of order entry.

For more information consult the series combinations catalogue.

Standards
CSA: C22.2 No.29. Certified under files #1267408
UL: 67, 50 and 50E. Listed by Underwriter's Laboratories, Inc., under "Panelboards" File #E2269, and #E4016.

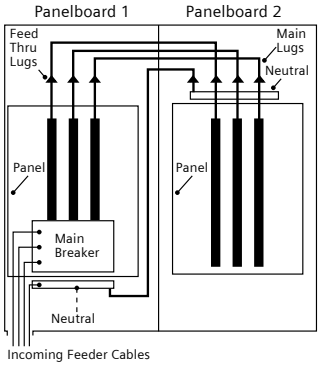
Wire Connectors
Standard wire connectors in Siemens panels are suitable for copper or aluminum cables rated 60/75 degree Celcius. Copper main lugs are a price-added option for most panel types and some Circuit Breakers (check with Siemens sales for availability). It should be noted that most copper lugs will only accept copper cables. Some applications, 100% rated devices in particular, require that the cable and connectors be rated 90 degree Celcius but are sized to the 75 degree Celcius tables.

Standard ground connectors are also suitable for copper or aluminum wire. Ground connector assemblies (EGK, IGK) have (6) 1/0 max. and (15) #6 max. connections. The 1/0 holes are capable of connecting up (3) #10 max. wires. The #6 holes can accept up to (2) #12 max. wires. Copper ground assemblies (ECGK, ICGK) are rated for copper wire only and have the same wiring capacity as the AL/CU connectors.

Standard neutrals, like standard main lugs, are also rated for copper or aluminum wire. The neutral cross bar material follows the selection bus. Copper neutral lugs are rated for copper cable only and available as a price added option.

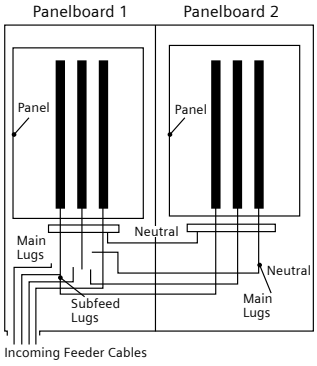
Feed Thru Lugs

Fig G-1



Subfeed lugs or double lugs

Fig G-2 (Not available for P1 panels)



Feed-thru lugs are mounted at the opposite end of the main bus from the main lugs or main breaker and are used to connect two or more panelboards to the incoming feeder. The feeder cables are brought into Panelboard 1 and connected to the main lugs or main breaker. Cables interconnecting the two panelboards are connected to the feed-thru lugs in Panelboard1 and are carried over the main lugs in Panelboard 2. This arrangement could be reversed with the main lugs located at the top and the feed-thru lugs at the bottom of the panel.

Subfeed lugs are mounted directly beside the main incoming lugs and are used to connect two or more panelboards to the incoming feeder. The feeder cables are brought into Panelboard 1 and connected to the main lugs. Another set of cables that are the same size are connected to the subfeed lugs of Panelboard 1 and are carried over the main lugs of Panelboard 2.

Note: P1 panelboards do not have Subfeed lugs available. If this configuration is needed, move to a P2 or P3 panelboard.

Catalogue Numbering System

Next Gen P1 Factory Assembled Panelboards

Type of Panel

P1

Voltage and System*

C = 208Y/120 3Ø 4 W Wye AC
E = 480Y/277 3Ø 4 W Wye AC
D = 240 3Ø 3 W Delta AC
F = 480 3Ø 3 W Delta AC
A = 120/240 1Ø 3 W Grounded Neutral AC
J = 240 1Ø 2 W No Neutral AC
M = 380/220 3Ø 4 W Wye AC
R = 415/240 3Ø 4 W Wye AC
S = 440/250 3Ø 4 W Wye AC
L = 600/347 3Ø 4 W Wye AC
T = 230 3Ø 3 W Delta AC
U = 120V AC 3Ø3W
K = 220/127 3Ø 4 W Wye AC

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

Circuits

18, 30, 42, 54, 66 (See table P1-3 and P1-5 for options available)
(Back-fed 1-phase will show: 16, 28, 40, 52, 64) (Back-fed 3-phase will show: 15, 27, 39, 51, 63)

Main Lug (ML), Main Breaker

(See Main Breaker Table coding below)

Amperage

100–400A = P1

Bus Code	Bus Material	Bus Plating	P1 [1]
A	Aluminum	Tin-Plated	•
C	Copper	Tin-Plated	•

Feed Location T = Top B = Bottom

Mounting

S = Surface

F = Flush. Flush trims extend 1 1/2" (38 mm) beyond the base box dimensions on P1 panels.

Subfeed Space Indicator (for Next Gen P1 only) T = Subfeed Space Included N = No Subfeed Space[2]

Branch breaker Type

NONE = BL/BQD type

- NGB = NGB type only

Main Breaker Coding

Code	Breaker Type	Code	Breaker Type	Code	Breaker Type	Code	Breaker Type	Code	Breaker Type
BL	BL	HB	HBL	J6	JD6	QJ	QJ2	SX	SHJD6
BH	BLH	H4	HED4	JD	JXD2	Q2	QJ2H	SY	SHJD6H
BR	BLR	HF	HFD6	JX	JXD6	QH	QJH2	SJ	SJD6
BQ	BQD	H2	HFXD6	JH	JXD6H			SH	SJD6H
B6	BQD6	H6	HJD6	L6	LD6			S1	SCLD6
E4	ED4	H5	HJXD6	LX	LXD6			S2	SHLD6
E6	ED6	HL	HLD6	LH	LXD6H			SL	SLD6
FD	FD6	HO	HLXD6	NB	NGB				
FX	FXD6	HP	HLXD6H						

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

2 Not available for Next Gen P1 NGB interiors.

Application

Type P1 Panelboards

Table P1-3 – Main Breaker Panel Size Selector – Next Gen P1

Max Ampere rating	Main Breaker Types	Connections suitable for Al or Cu	Max # Poles FT [1]	Max # Poles NFT	Dimensions in inches (mm) Unit Space FT A	Unit Space NFT A	Box Height B	Weight in Lbs. (kg)
70	BQD6[2]	BL: 40-50A: #8-#4 AWG Al or #8-#6 AWG Cu 55-70A: #8-#2 AWG Al or #8-#4 AWG Cu 80-100A: #2-#1/0 AWG Al or #4-#1/0 AWG Cu BQD: 45-100A: #6-1/0 AWG Al #8-#1 AWG Cu	–	18	–	9	26 (661)	90 (41)
100	BL [2], BLH [2], HBL [2], BQD [2]		–	18	–	9	26 (661)	90 (41)
			18	30	9	15	32 (813)	105 (48)
			30	42	15	21	38 (965)	120 (55)
			42	54	21	27	44 (1118)	135 (61)
			54	66	27	33	50 (1270)	150 (67)
			66	–	33	–	56 (1423)	165 (73)
125	NGB 2 ED2, ED4 ED6, HED4	NGB: 35-125A: #4-2/0 AWG Al or #6-1/0 AWG Cu ED: 30-100A: #10-1/0 AWG Al/Cu 110-125A: #1-2/0 AWG Al or #3-3/0 AWG Cu	–	18	–	9	26 (661)	95 (43)
			18	30	9	15	32 (813)	110 (50)
			30	42	15	21	38 (965)	125 (57)
			42	54	21	27	44 (1118)	140 (64)
			54	66	27	33	50 (1270)	155 (71)
			66	–	33	–	56 (1423)	170 (78)
225	QJ2, QJH2, QJ2-H	#4 AWG-300 Kcmil (Al) or #6 AWG-300 Kcmil (Cu)	–	18	–	9	26 (661)	95 (43)
			18	30	9	15	32 (813)	110 (50)
			30	42	15	21	38 (965)	125 (57)
250	FXD6, FD6, HFD6, HFXD6	#4 AWG-350 Kcmil (Al) or #6 AWG-350 Kcmil (Cu)	42	54	21	27	44 (1118)	140 (64)
			54	66	27	33	50 (1270)	155 (71)
			66	–	33	–	56 (1423)	170 (78)
400	JD6, JXD6, HJD6, HJXD6	4/0-500 Kcmil (Al) or 3/0-500 Kcmil (Cu)	–	30	–	15	56 (1423)	172 (78)
			30	42	15	21	62 (1575)	190 (86)
			42	54	21	27	68 (1728)	208 (95)
			54	66	27	33	74 (1880)	226 (104)

Note: Main breakers use breaker connectors. For sizes, see breaker connector chart on page 400A MLO panels have wire bend space for 600kcmil CU and AL wire when using the standard lug. With the optional 750kcmil AL/CU connector – wire bend space is available for up to 750kcmil AL, but is still limited to 600kcmil CU wire.

1 400A 66 circuit only available with non-feed thru versions.

2 BL, BLH, HBL, BQD, BQD6, and NGB main breakers are back fed mounted in unit space and count in max. # of poles.

Table P1-4 – Main Breaker Selection

Ampere rating	Breaker Types	Max. Ir (kA) at 240V AC	Max. Ir (kA) at 600Y/347V AC	Main Breaker Code	Additional Trip Values
70	BQD6	65	10	B6	15, 20, 25, 30, 35, 40, 45, 50, 60, 70
100	BL (STD) [4]	10	–	BL	15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100
	BLH [4]	22	–	BH	15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100
	HBL [4]	65	–	HB	15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100
	BQD [4]	65	–	BQ	15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100
125	NGB [4]	100	14	NB [3]	15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100, 125
	ED4	65	–	E4	15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100, 125
	HED4	42	–	H4	15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100, 125
	ED6 (STD)	65	18	E6	15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 110, 125
225	QJ2 (STD)	10	–	QJ	60, 70, 80, 90, 100, 110, 125, 150, 175, 200, 225
	QJH2	22	–	QH	60, 70, 80, 90, 100, 110, 125, 150, 175, 200, 225
	QJ2-H	42	–	Q2	60, 70, 80, 90, 100, 110, 125, 150, 175, 200, 225
250	FXD6 (STD)	65	22	FX	70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250
	FD6	65	22	FD	70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250
	HFD6	100	25	HF	70, 80, 90, 100, 150, 175, 200, 225, 250
	HFXD6	100	–	H2	70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250
400	JXD2	65	–	JD	300, 400
	JXD6 (STD)	65	25	JX	200, 225, 250, 300, 350, 400
	JD6	65	25	J6	200, 225, 250, 300, 350, 400
	HJD6	100	35	H6	200, 225, 250, 300, 350, 400
	HJXD6	100	35	H5	200, 225, 250, 300, 350, 400

3 NGB interiors are not available as non-feed-thru without subfeed space.

4 Service Entrance equipment rating are not available for panels using BQD, BL, BLH, HBL and NGB as main breaker types.

Application

Type P1 Panelboards

Table P1-5 - Main Lug Panel Size Selector - Next Gen P1

Maximum Ampere rating	Max # Poles FT	Max # Poles NFT	Dimensions in inches (mm) Unit Space FT A	Unit Space NFT A	Box Height B"	Weight in Lbs. (kg)	MLO Connectors Suitable for
125 (or) 250		18	–	9	26 (661)	90 (41)	(1) #6 AWG - 350 kcmil (CU or AL)
	18	30	9	15	32 (813)	105 (48)	
	30	42	15	21	38 (965)	120 (55)	
	42	54	21	27	44 (1118)	135 (61)	
	54	66	27	33	50 (1270)	150 (67)	
	66	–	33	–	56 (1423)	165 (73)	
400	–	30	–	15	56 (1423)	120 (55)	(2) 1/0 AWG to 250 kcmil AL or (1) #2 AWG to 600 kcmil AL or (1) 1/0-600 kcmil CU or (2) 1/0-4/0 CU
	30	42	15	21	62 (1575)	135 (61)	
	42	54	21	27	68 (1728)	150 (68)	
	54	66	27	33	74 (1880)	165 (75)	

Table P1-6 – Branch Circuit Breakers

Breaker Type	Number of Poles	Max. Interrupting Rating (kA) 120V	120/240V	240V	347V	600Y/347V	Available Trip Values	Connections Suitable for Al or Cu
BL	1	10	–	–	–	–	15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 70	15-20A: #12-#10 AWG Al #14-#10 AWG Cu
	2	–	10	–	–	–	15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100	
	3	–	–	10	–	–	15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100	25-35A: #8-#6 AWG Al/Cu
BLH	1	–	22	–	–	–	15, 20, 30, 40, 50, 55, 60, 70	
	2	–	22	–	–	–	15, 20, 30, 40, 50, 60, 70, 90, 100	40-50A: #8-#4 AWG Al #8-#6 AWG Cu
	3	–	–	22	–	–	15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
HBL	1	–	65	–	–	–	15, 20, 30, 40, 50	
	2	–	65	–	–	–	15, 20, 30, 40, 50, 60, 70	55-70A: #8-#2 AWG Al #8-#4 AWG Cu
	3	–	–	65	–	–	15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
BLF	1	10	–	–	–	–	15, 20, 30	80-100A: #2-#1/0 AWG Al #4-#1/0 AWG Cu
	2	–	10	–	–	–	15, 20, 30, 40, 50, 60	
BLHF	1	22	–	–	–	–	15, 20, 30	
	2	–	22	–	–	–	15, 20, 30, 40, 50, 60	
BG [1]	2	10	–	–	–	–	15, 20, 30	
	3	–	10	–	–	–	15, 20, 30	
BLE	1	10	–	–	–	–	15, 20, 30	
	2	–	10	–	–	–	15, 20, 30, 40, 50, 60	
BLEH	1	22	–	–	–	–	15, 20, 30	
	2	–	22	–	–	–	15, 20, 30, 40, 50, 60	
BAF2	1	10	–	–	–	–	15, 20	
BAFH2	1	22	–	–	–	–	15, 20	
HBAF2	1	65	–	–	–	–	15, 20	
BQD	1	–	65	–	14	–	15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100	15-40A: #12-#6 AWG Al #14-#6 AWG Cu
	2	–	65	–	–	14	15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100	
	3	–	–	65	–	14	15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100	45-100A: #6-#1/0 AWG Al #8-#1 AWG Cu
BQD6	1	65	–	–	10	–	15, 20, 25, 30, 35, 40, 45, 50, 60, 70	
	2	–	–	65	–	10	15, 20, 25, 30, 35, 40, 45, 50, 60, 70	
	3	–	–	65	–	10	15, 20, 25, 30, 35, 40, 45, 50, 60, 70	
NGB [2, 3]	1	100	–	–	14	–	15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100, 125 3	15-30A: #12-#6 AWG Al #14-#6 AWG Cu
	2	–	100	100	–	14	15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100, 125 3	35-125A: #4-2/0 AWG Al #6-1/0 AWG Cu
	3	–	100	100	–	14	15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100, 125 [3]	

1 Two-pole breaker is one phase and neutral. Three-pole is two phases and neutral.
2 P1 panel with NGB branch devices will not accept BL or BQD frames in the same panel as branch devices.
3 The new Next Gen P1 (18 circuit 250A only) is limited to 100A per connection (200A per pair) when installing branch breakers across from one another. All other configurations allow 125A per connection max. (250A per pair max.)

NOTE: BL, HBL and BQD breakers are mounted in common mountings in 3" or (6) pole increments.

Application

Type P1 Panelboards

Table P1-7 – Subfeed Breakers

Breaker Type	Number of Poles	Max. Interrupting Rating (kA)		Available Trip Values
		240V	600Y/347V	
QJ2	2, 3	10	–	60, 70, 80, 90, 100, 110, 125, 150, 175, 200, 225
QJH2	2, 3	22	–	60, 70, 80, 90, 100, 110, 125, 150, 175, 200, 225
QJ2H	2, 3	42	–	60, 70, 80, 90, 100, 110, 125, 150, 175, 200, 225
HQJ2	2, 3	100	–	60, 70, 80, 90, 100, 110, 125, 150, 175, 200, 225
ED4	2, 3	65	–	15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 70, 80, 90, 100, 110, 125
ED6	2, 3	65	25	15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 70, 80, 90, 100, 110, 125
HED4	2, 3	100	22	15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 70, 80, 90, 100, 110, 125
FXD6	2, 3	65	25	70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250
FD6	2, 3	65	25	70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250
HFD6	2, 3	100	65	70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250
HFXD6	2, 3	100	65	70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250

Table P1-8 – Breaker Mounting Kit
Main or Subfeed Strap Kit w/o Breaker

Max Amp Rating	Breaker Frames	Service	Original P1 Catalogue Number	Next Gen P1 Catalogue Number
100A	BQD, BQD6	3 Phase	**MBKBC3**	Use Back-fed Main Label Kit # **MBKBFA** [2] (includes Neutral Lug, "MAIN" label and instructions)
100A	BL, BLH, HBL	1 Phase	**MBKBL1**	
		3 Phase	**MBKBL3**	
125A	NGB	1 Phase	–	
		3 Phase	–	
125	ED4, ED6, HED4	1 Phase	**MBKED1**	**MBKED1A**
		3 Phase	**MBKED3**	**MBKED3A**
225	QJ2, QJH2, QJ2-H	1 Phase	**MBKQJ1**	**MBKQJ1A**
		3 Phase	**MBKQJ3**	**MBKQJ3A**
250	FXD6, FD6, HFD6, HFXD6	1 Phase	**MBKFD1**	**MBKFD1A**
		3 Phase	**MBKFD3**	**MBKFD3A**
400 [1]	JXD6, JD6	1 Phase	**MBKJD1**	**MBKJD1A**
	HJD6, HJXD6	3 Phase	**MBKJD3**	**MBKJD3A**

1 400 amp kit is for main ONLY, not allowed for subfeed breaker.
2 Back-fed main occupies branch space.

Table P1-9 – Lug Kits (Main or Feed-Thru)

Max Amp Rating	Matl.	Wire Range (includes Neutral)	Service	Original Catalogue Number	Next Gen P1 Catalogue 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	(1) 1/0-600 kcmil CU or (2) 1/0-4/0 CU	1 Phase	**4MLKC1**	**4MLKC1A**
			3 Phase	**4MLKC3**	**4MLKC3A**
400	AL	AL 1/0-750 kcmil (max. 600 kcmil CU wire)	1 Phase	–	**4MLKA1B**
			3 Phase	–	**4MLKA3B**

Table P1-10 – Copper Neutral Lug Kits – 250A

No. of Circuits	Description	Original P1 Catalogue Number	Next Gen P1 Catalogue Number
18	2 or 4 Branch Neutral Strips, 1 Main Neutral Lug, Hardware	**CNLK18**	**Use 30 ckt kit**
30		**CNLK30**	**CNLK30A**
42		**CNLK42**	**CNLK42A**
54, 66		–	**CNLK54A**

Table P1-10A – 2/0 Neutral Lug Kits – 250A and 400A

No. of Circuits	Description	Original P1 Catalogue Number	Next Gen P1 Catalogue Number
18	2 or 4 Branch Neutral Strips, Hardware	–	**Use 30 ckt kit**
30		–	**LNLK30A**
42		–	**LNLK42A**
54, 66		–	**LNLK54A**

Table P1-11 – 200% Neutral Lug Kits – 250A

No. of Circuits	Description	Original P1 Catalogue Number	Next Gen P1 Catalogue Number
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**

Table P1-12 – 200% Neutral Lug Kits – 400A

No. of Circuits	Description	Original P1 Catalogue Number	Next Gen P1 Catalogue Number
18	2 or 4 Branch Neutral Strips, 1 Main 600 kcmil Neutral Lug, Hardware	**42NLK18**	**N/A**
30		**42NLK30**	**42NLK30A**
42		**42NLK42**	**42NLK42A**
54, 66		–	**42NLK54A**

Application

Type P1 Panelboards

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

Main Breaker	Side Gutter		Neutral Location
	20" wide box	24" wide box	20" or 24" wide box
BL, BLH, HBL [2]	8.500 (216)	8.375 (213)	10.500 (267)
BQD, BQD6 [2]	5.500 (140)	7.500 (191)	10.500 (267)
NGB [2]	8.000 (203)	7.000 (191)	10.500 (267)
ED2, ED4, ED6, HED4	6.125 (156)	8.125 (206)	10.500 (267)
QJ2, QJH2, QJ2-H	6.500 (165)	8.500 (216)	10.500 (267)
FD6, FXD6, HFD6, HFXD6	5.250 (133)	7.250 (184)	10.500 (267)
JD6, JXD6 [1]	15.000 (381)	15.000 (381)	26.500 (674)

[1] JD Frame mounted vertically. Given dimensions are in respect to the End Gutter.

[2] These breakers are back-fed main breakers. Service Entrance equipment rating is not available for panels using back-fed main breakers.

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)

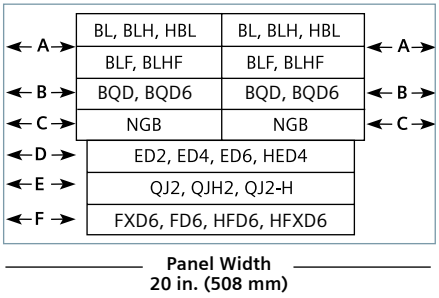
NOTE: Feed-thru lug and neutral wire bending space is 15.000" and 16.250" respectively on 400A panel.

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

Reference Letter	Panel Width 20"	Panel Width 24" Optional
A	6.375 (167)	8.375 (213)
B	5.500 (140)	7.500 (191)
C	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)

Note: Subfeed mounting limit 1 per panel.

Fig P1-1



Miscellaneous Parts and Accessories

Catalogue #	Description
BK1	Bonding Kit for 250A max. Original P1 panels only
BK1A	Bonding Kit for 250A max. Next Gen P1 panels only
IMK1	Interior Adjusting Kit
11-1824-01	Directory Card Holder
12-1110-01	Directory Card
11-1056-01B	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
P1SCRWS	Package of 42 breaker mounting screws for P1
DFFP1	1" Branch circuit filler plate (suitable for replacing QF3-UL in panelboards (Package of 100 filler plates)
P1CONBPHCU [1]	Connector kit – 6 pcs. B-phase Copper
P1CONBPHAL [1]	Connector kit – 6 pcs. B-phase Aluminum
P1CONACPHCU [1]	Connector kit – 6 pcs. A or C-phase Copper
P1CONACPHAL [1]	Connector kit – 6 pcs. A or C-phase Aluminum
MCHK-1	1 Metallic directory card holder
FPLK2	2 Spare Fas-latch trim locks with 2 keys
SDKN	Dripshield kit (20" W x 5.75" D)
TPS9IKITP1	Original P1 mounting bracket for SPD TPS3 09
TPS9IKITP1A	Next Gen P1 mounting bracket for SPD TPS3 09
MBKBFA	Back-Fed Main Breaker kit

[1] Replacement parts only.

Feed-Thru (FT)

Non-Feed-Thru (NFT)

Example of Back-fed NGB Main breaker installed

Typical Catalogue Numbers

Type P1 Factory Assembled Panelboards

Shown with Standard Mains, Top Fed and Surface Trim
Catalogue number is for aluminum main bus. For optional copper main bus change "A" in position 11 to "C".

Panels are top feed, surface mounted. For bottom feed, change "T" in position 12 to "B". For flush mounting, change "S" in position 13 to "F".

Replace fifth and sixth position in panelboard catalogue number, with alternate main breaker code.

Note: Original P1 was produced until 2015 and in June the Next Gen P1 was introduced. All interior numbers that end with "T" or "N" are the new Next Gen interiors. T" at end of catalogue number indicates there is a Subfeed area available. "N" at end of catalogue number indicates there is no Subfeed area available.

Table P1-16 – Main Lugs Only

Main Lug Only			Original P1 – Subfeed Space	Next Gen P1 – Subfeed Space [1, 3]	Original P1 – Subfeed Space	Next GenP1 – Subfeed Space [1, 3]	Original P1 – Subfeed Space	Next Gen P1 – Subfeed Space [1, 3, 4]
Max Panel Amp Rating	Max 1-Pole Circuits	Box Height (in.)	208Y/120V 3-Phase 4-Wire Catalogue #	208Y/120V 3-Phase 4-Wire Catalogue #	120/240V 1-Phase 3-Wire Catalogue #	120/240V 1-Phase 3-Wire Catalogue #	600Y/347V 3-Phase 4-Wire Catalogue #	600Y/347V 3-Phase 4-Wire Catalogue #
125	18	32	P1C18ML125ATS	P1C18ML125ATST	P1A18ML125ATS	P1A18ML125ATST	P1L18ML125ATS	P1L18ML125ATST
	30	38	P1C30ML125ATS	P1C30ML125ATST	P1A30ML125ATS	P1A30ML125ATST	P1L30ML125ATS	P1L30ML125ATST
	42	44	P1C42ML125ATS	P1C42ML125ATST	P1A42ML125ATS	P1A42ML125ATST	P1L42ML125ATS	P1L42ML125ATST
	54	50	–	P1C54ML125ATST	–	P1A54ML125ATST	–	P1L54ML125ATST
	66	56	–	P1C66ML125ATST	–	P1A66ML125ATST	–	P1L66ML125ATST
250	18	32	P1C18ML250ATS	P1C18ML250ATST	P1A18ML250ATS	P1A18ML250ATST	P1L18ML250ATS	P1L18ML250ATST
	30	38	P1C30ML250ATS	P1C30ML250ATST	P1A30ML250ATS	P1A30ML250ATST	P1L30ML250ATS	P1L30ML250ATST
	42	44	P1C42ML250ATS	P1C42ML250ATST	P1A42ML250ATS	P1A42ML250ATST	P1L42ML250ATS	P1L42ML250ATST
	54	50	–	P1C54ML250ATST	–	P1A54ML250ATST	–	P1L54ML250ATST
	66	56	–	P1C66ML250ATST	–	P1A66ML250ATST	–	P1L66ML250ATST
400	18	56	P1C18ML400ATS	–	P1A18ML400ATS	–	P1L18ML400ATS	–
	30	62	P1C30ML400ATS	P1C30ML400ATST	P1A30ML400ATS	P1A30ML400ATST	P1L30ML400ATS	P1L30ML400ATST
	42	68	P1C42ML400ATS	P1C42ML400ATST	P1A42ML400ATS	P1A42ML400ATST	P1L42ML400ATS	P1L42ML400ATST
	54	74	–	P1C54ML400ATST	–	P1A54ML400ATST	–	P1L54ML400ATST
	66 [2]	74 [2]	–	P1C66ML400ATSN [2]	–	P1A66ML400ATSN [2]	–	P1L66ML400ATSN [2]

Table P1-17 – Main Circuit Breaker

100	18	32	P1C18BL100ATS	P1C18BL100ATST	P1A18BL100ATS	P1A18BL100ATST	P1L18B6100ATS	P1L18B6100ATST
	30	38	P1C30BL100ATS	P1C30BL100ATST	P1A30BL100ATS	P1A30BL100ATST	P1L30B6100ATS	P1L30B6100ATST
	42	44	P1C42BL100ATS	P1C42BL100ATST	P1A42BL100ATS	P1A42BL100ATST	P1L42B6100ATS	P1L42B6100ATST
	54	50	–	P1C54BL100ATST	–	P1A54BL100ATST	–	P1L54B6100ATST
	66	56	–	P1C66BL100ATST	–	P1A66BL100ATST	–	P1L66B6100ATST
125 [2]	18	32	P1C18NB125ATS	P1C18NB125ATST	–	–	P1L18NB125ATS	P1L18NB125ATST
	30	38	P1C30NB125ATS	P1C30NB125ATST	–	–	P1L30NB125ATS	P1L30NB125ATST
	42	44	P1C42NB125ATS	P1C42NB125ATST	–	–	P1L42NB125ATS	P1L42NB125ATST
	54	50	–	P1C54NB125ATST	–	–	–	P1L54NB125ATST
	66	56	–	P1C66NB125ATST	–	–	–	P1L66NB125ATST
225	18	32	P1C18QJ225ATS	P1C18QJ225ATST	P1A18QJ225ATS	P1A18QJ225ATST	P1L18FX250ATS	P1L18FX225ATST
	30	38	P1C30QJ225ATS	P1C30QJ225ATST	P1A30QJ225ATS	P1A30QJ225ATST	P1L30FX250ATS	P1L30FX225ATST
	42	44	P1C42QJ225ATS	P1C42QJ225ATST	P1A42QJ225ATS	P1A42QJ225ATST	P1L42FX250ATS	P1L42FX225ATST
	54	50	–	P1C54QJ225ATST	–	P1A54QJ225ATST	–	P1L54FX225ATST
	66	56	–	P1C66QJ225ATST	–	P1A66QJ225ATST	–	P1L66FX225ATST
250	18	32	P1C18FX250ATS	P1C18FX250ATST	P1A18FX250ATS	P1A18FX250ATST	P1L18FX250ATS	P1L18FX250ATST
	30	38	P1C30FX250ATS	P1C30FX250ATST	P1A30FX250ATS	P1A30FX250ATST	P1L30FX250ATS	P1L30FX250ATST
	42	44	P1C42FX250ATS	P1C42FX250ATST	P1A42FX250ATS	P1A42FX250ATST	P1L42FX250ATS	P1L42FX250ATST
	54	50	–	P1C54FX250ATST	–	P1A54FX250ATST	–	P1L54FX250ATST
	66	56	–	P1C66FX250ATST	–	P1A66FX250ATST	–	P1L66FX250ATST
400	18	56	P1C18JX400ATS	–	P1A18JX400ATS	–	P1L18JX400ATS	–
	30	62	P1C30JX400ATS	P1C30JX400ATST	P1A30JX400ATS	P1A30JX400ATST	P1L30JX400ATS	P1L30JX400ATST
	42	68	P1C42JX400ATS	P1C42JX400ATST	P1A42JX400ATS	P1A42JX400ATST	P1L42JX400ATS	P1L42JX400ATST
	54	74	–	P1C54JX400ATST	–	P1A54JX400ATST	–	P1L54JX400ATST
	66 [2]	74 [2]	–	P1C66JX400ATSN [2]	–	P1A66JX400ATSN [2]	–	P1L66JX400ATSN [2]

Table P1-18 – Standard Enclosures

Box Height (in.)	Catalogue Number			
	Type 1 Standard Trim			
	Box	Surface	Flush	Type 3R/12
26 (660)	B26	S26B	F26B	WP26
32 (813)	B32	S32B	F32B	WP32
38 (965)	B38	S38B	F38B	WP38
44 (1118)	B44	S44B	F44B	WP44
50 (1270)	B50	S50B	F50B	WP50
56 (1422)	B56	S56B	F56B	WP56
62 (1575)	B62	S62B	F62B	WP62
68 (1727)	B68	S68B	F68B	WP68
74 (1880)	B74	S74B	F74B	WP74

1 For all products without subfeed space - change "T" at end to "N" and reduce box size by 6" (152 mm).

[2] No subfeed space only for 400A 66 circuit.
[3] BL/BQD/NGB Type Mains are only available as Back-Fed. No kits are available for use in Main or subfeed space. These breakers take up branch circuit space.
[4] NGB interiors are not available as Non-Feed-Thru, without subfeed space.

Standard Modifications

Type P1 Factory Assembled Panelboards

Panel Options

Enclosures

- 24" wide boxes
- Hinged trims
- Door-in-door trims
- Screw to the box trims
- Piano hinge trims
- Painted boxes
- Custom colours
- Type 3R/12 enclosures
- Type 4X enclosures (SS304 or SS316, surface mounted only)
- Panel skirts
- Relay Cabinet
- Gaskets between trim and box

Surge Protection Devices

TPS3 02

- Bus connected
- Internally mounted (30A breaker required to feed SPD)
- Externally mounted in a 15" high aux, enclosure (30A breaker required to feed SPD)

TPS3 09

- Internally mounted (20A breaker required to feed SPD)
- Externally mounted (20A breaker required to feed SPD)

TPS3 12

- Externally mounted (40A breaker required to feed SPD)

Panel Modifications

- Main Bus
  All aluminum bussing is tin-plated.
  Optional bussing for the P1 panel is tin-plated copper.
- Compression lug for MLO [1]
- Contactor Mains - Mount in 24" enclosure ahead of panel.
  - Asco 920 through 225 amps [3]
  - Asco 911 through 150 amps [3]
  - Siemens LEN through 30 amps [3]
- Branch and main breaker accessories
  - Handle blocking devices
  - Handle padlocking devices
- Feed-thru lugs [1]
  Cannot be used in conjunction with SPD or subfeed breakers.

Feed-thru Lugs Amp Rating	Type	Connector CU/AL Range
250	AL/CU Mechanical	(1) #6 AWG-350 kcmil
	CU Mechanical	(1) #6 AWG-350 kcmil
	AL/CU Compression	(1) #6 AWG-350 kcmil
400	AL/CU Mechanical	(2) #1/0 -250 kcmil or (1) #2 AWG-600 kcmil
	CU	(1) 1/0-600 kcmil CU or (2) 1/0-4/0 CU
	AL/CU Compression	(1) 400-600 kcmil AL (1) 400-500 kcmil CU

NOTE: Standard compression lugs used are range taking lugs and may require a particular crimping tool to accommodate the range. Consult factory for information.

- 200% neutral [1,4]
- Copper lugs, mechanical line and branch neutral [1]
- Bus mounted SPD [1]
- Option for Service Entrance
- Grounding of Panelboards
  Ground Bars are shipped with the panel interior.
  - Non-Insulated Equipment Ground Bar – Standard
  - Copper Non-Insulated Ground Bar
  - AL Insulated Equipment Ground Bar
  - CU Insulated Equipment Ground Bar
- Shunt Trip on Main or Branch
  BL [2], BLH [2], HBL [2], BQD [2], BQD6 [2], NGB [2] as branch use 1" unit space for shunt trip.

QJ2, QJ2-H, QJH2, ED2, ED4, ED6, HED4, FD6, FXD6, HFD6
HFXD6, JXD6, JD6, HJD6, HJXD6, HQJ2H

1 Do not increase panel or enclosure size.
2 Accessories on 1" pole breakers (BL, BQD, NGB) will take 1" unit space.
3 External to the panel, supplied in a separate enclosure.
4 Not available with service entrance equipment.

Miscellaneous Modifications

Type P1 Factory Assembled Panelboards

Compression Lugs

Table P1-19 – Lugs

Style	Amp Rating	Breaker Type	Compression Connectors	Box Height Addition
MLO	125	N/A	(1) #6 AWG - 350 kcmil	None
	250			
	400	N/A	(1) 400 - 600 kcmil AL (1) 400 - 500 kcmil CU	None
Main Breaker	125	ED4, ED6, HED4	(1) #14 AWG - 2/0	Box must go to 24" wide
	225	QJ2, QJH2, QJ2H	(1) #6 AWG - 350 kcmil CU or AL	Box must go to 24" wide
	250	FD6, FXD6, HFD6, HFXD6	(1) #6 AWG - 350 kcmil CU or AL	Box must go to 24" wide

Note: Standard compression lugs used for P1 panels are range taking lugs and require a particular crimping tool (tool is Hubbell/Anderson Versa Crimp VC6 - for 250A) to accommodate the range. Consult factory for information. 200% neutral not available with compression lugs. BL, BQD, NGB breakers cannot accommodate compression lugs. For 400A tool use Hubbell/Anderson Versa Crimp VC6FT/VC7FT - see instruction sheet for details.

Enclosure Modifications

NEMA-4X (SS304 is standard, SS316 optional)
Water Tight, Dust Tight and Corrosion Resistant

Table P1-20

Catalogue Number	Enclosure – Stainless Steel Size (inches) (304SS is standard)		
	H	W	D
B4X26	26	20	5.75
B4X32	32	20	5.75
B4X38	38	20	5.75
B4X44	44	20	5.75
B4X50	50	20	5.75
B4X56	56	20	5.75
B4X62	62	20	5.75
B4X68	68	20	5.75
B4X74	74	20	5.75

Remote Switch Modifications

Table P1-21 – Remote Control Switch Modification

Description
Auxiliary Contacts (mounted, not wired)
2-Wire Control

Table P1-22 – Applications for a Remote Switch

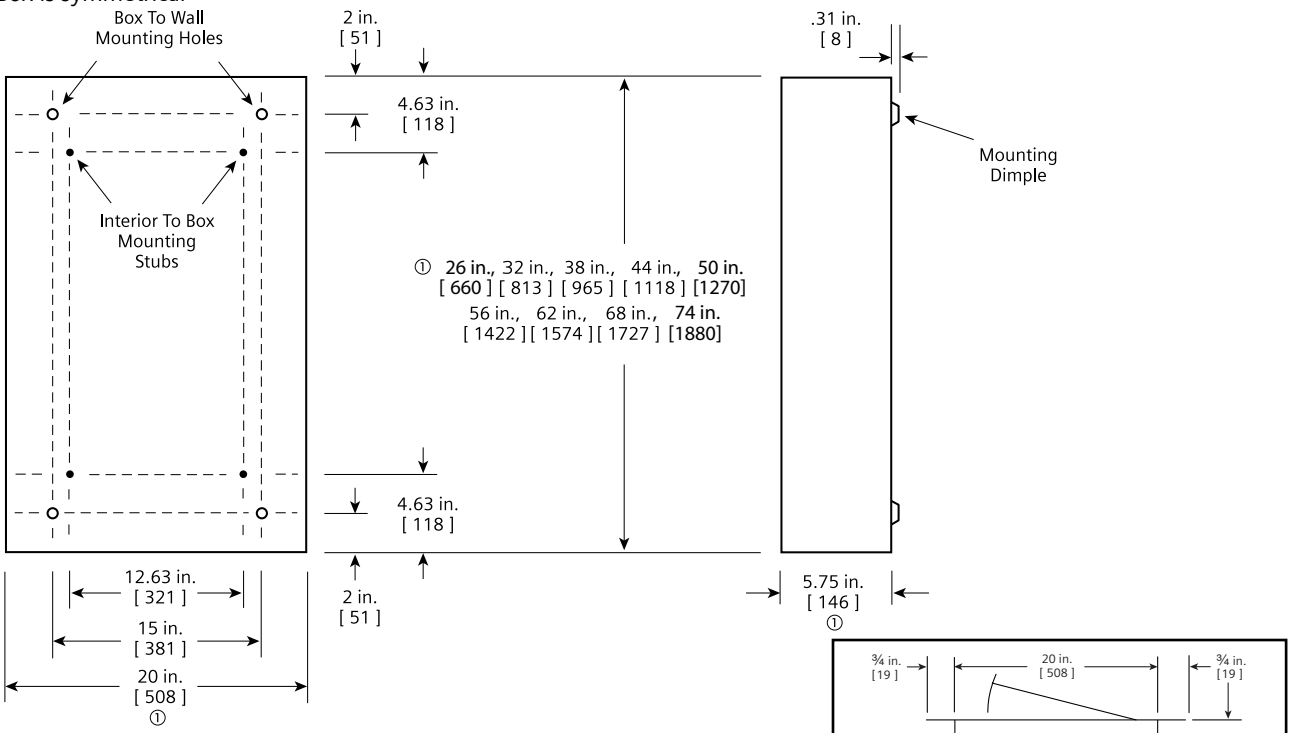
Switch Type	Modification
920	Mounts in 24" H relay cabinet as a main only
LEN	30A mounts in 24" H relay cabinet as a main only

Dimensions

Type P1 Panelboards

Type 1 Box

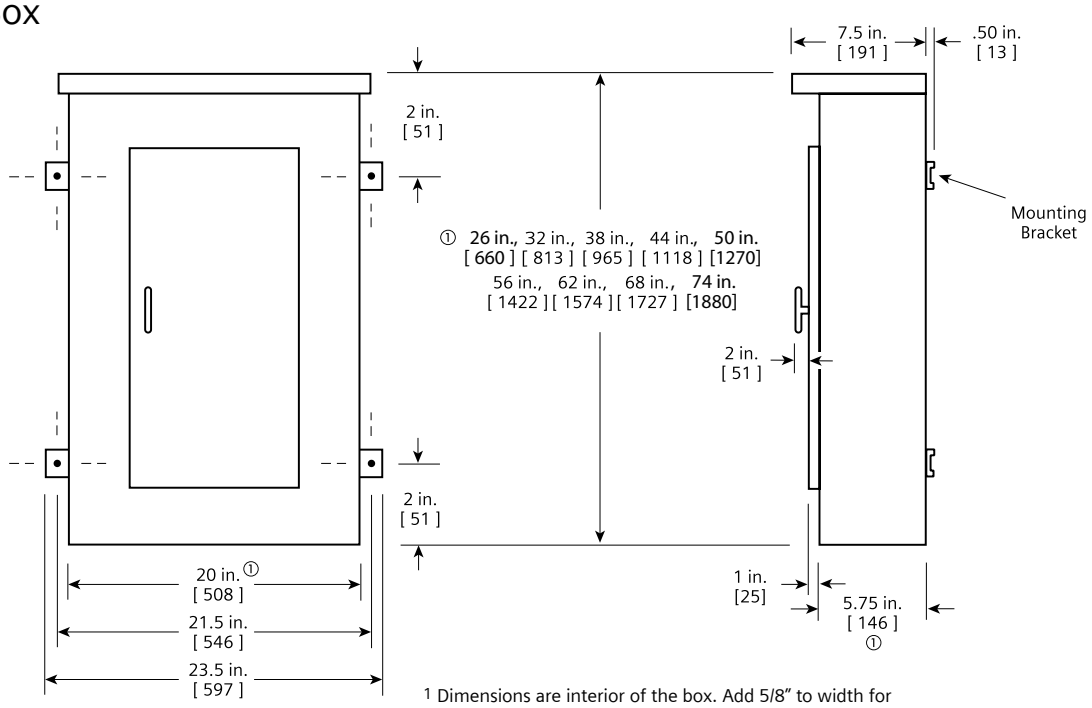
Box is symmetrical



14 Gage Steel or equivalent alternate Construction.

Flush Mounting

Type 3R/12 Box



16 Gage Steel Can with 14 Gage front or similar approved construction.

1 Dimensions are interior of the box. Add 5/8" to width for absolute dimension. Add 1/8" to height for absolute dimension.

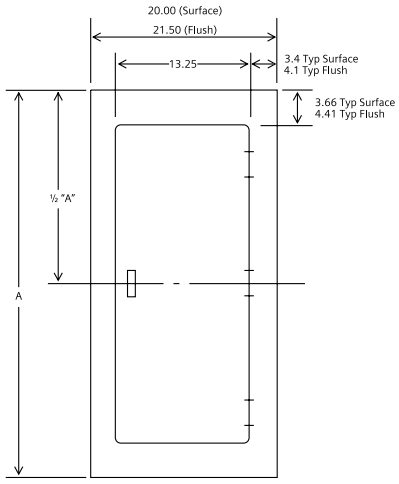
Dimensions shown in inches [millimeters].

Dimensions

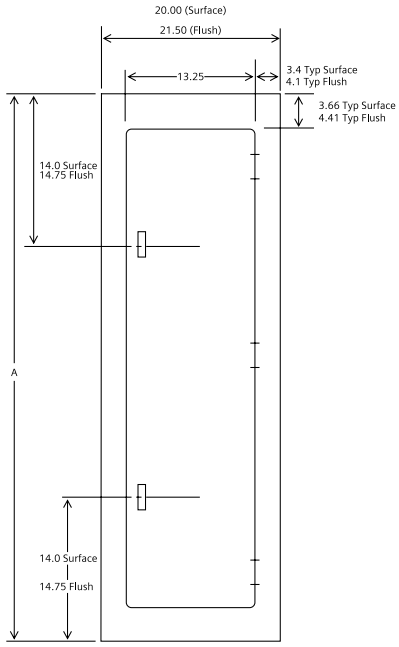
Panelboards - Trim / Front

Standard Trim (FAS-Latch)
(14 Gage Standard - no options)
(Into stock includes surface or flush versions.)

Standard Trim (FAS-Latch) Typical Dimensions (Hinges available as shown on right side only)
(Typical 14 Gage Steel construction or approved equivalent)



Dimensions in inches (mm)			
	Surface	Flush	# of Hinges
Box Size	A	A	
26 (660)	26 (660)	27.5 (699)	2
32 (813)	32 (813)	33.5 (851)	2
38 (965)	38(965)	39.5 (1003)	2
44 (1118)	44 (1118)	45.5 (1156)	3
50 (1270)	50 (1270)	52.5 (1334)	3



Dimensions in inches (mm)			
	Surface	Flush	# of Hinges
Box Size	A	A	
56 (1422)	56 (1422)	57.5 (1461)	3
62 (1574)	62 (1574)	63.5 (1613)	3
68 (1727)	68 (1727)	69.5 (1765)	3
74(1880)	74(1880)	75.5 (1918)	3

Door in Door Front
(14 Gage Standard)

Hinged Front

Also available

- Screw to Box Trim (14 Gage Std.)
- Piano Hinge Trim

Next Gen P1 Into stock Panelboards

To better serve the needs of customers, into stock program offers product flexibility, quicker job turn-around, and affordable pricing. All Siemens into stock panelboards are fully backed for high quality, trouble-free operations.

Flexibility and ease of assembly:
Customer oriented design creates installation convenience. For all of its one-of-a-kind features, the P1 panelboard is also designed to be extremely user friendly. For instance, field convertible main breaker and main lug kits - (through 400 amps), will allow you to switch from main lug to main breaker, and vice versa with no change in box size or additional cabling. Plus, lay-in construction (for 250 A CU) and/or removable lugs make wiring the main and neutral lugs easier and faster. To further speed wiring, as well as reduce clutter, the P1 panel also features a split neutral design and branch neutral connections. Additionally, field addable sub-fed breakers (up to 250 amps) or feed through lug kits can be field installed without utilizing any of your feeder breaker positions or increasing your box height. Furthermore, the unique design allows the panel to be inverted in the field and keep its labeling legible.

1) Completely symmetrical boxes may be mounted with either end up. There are four pre-punched equipment ground connector locations for contractor friendly installation.

2) Box comes pre-punched for optional, field installable door-in-door or hinged style trims. The panel box will accept both standard ground connector (EGK and ECGK) assemblies and insulated ground connector kits (IGK and ICGK).

3) Interior is completely symmetrical allowing it to be changed from top to bottom feed by simply rotating the interior.

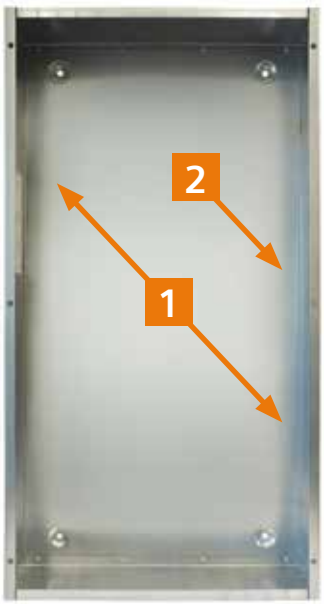
4) Choose either a Main Breaker kit or Main Lug kit with which to terminate your incoming cables. Main lug kits are contractor friendly lugs through 350 kcmil (250 amp panel) or (1) 600 kcmil or (2) 250 kcmil connectors for 400 amp panels. Main Breaker kits (250 amps and below) are horizontally mounted allowing field convertible top or bottom feeds to be performed easily. Main Lug kits and Main Breaker kits are interchangeable and can be changed/added in the field without making changes to the enclosure or interior.

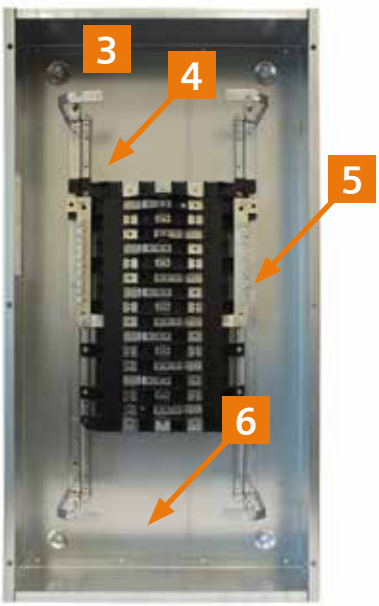
5) Branch neutral connections are near the breaker connections to speed wiring and reduce clutter. The standard P1 neutral is rated for 100% of the panel's ampacity and will accept copper or aluminum wire. Optional 200% and 2/0 neutrals are also available.

6) The panel includes space to add (1) subfeed breaker (max 250 amps), feed-thru lugs or TPS3 (SPD) kit.

7) Siemens standard trim has hidden hinges and mounting hardware for added safety. The rounded door corners not only enhance the panel's appearance but also help to eliminate injuries caused from sharp corners.

8) Semi-flush lock comes standard. Easily identified locked position denoted by keyway being horizontal when door has been locked.





Catalogue Numbering System

Into stock panelboards

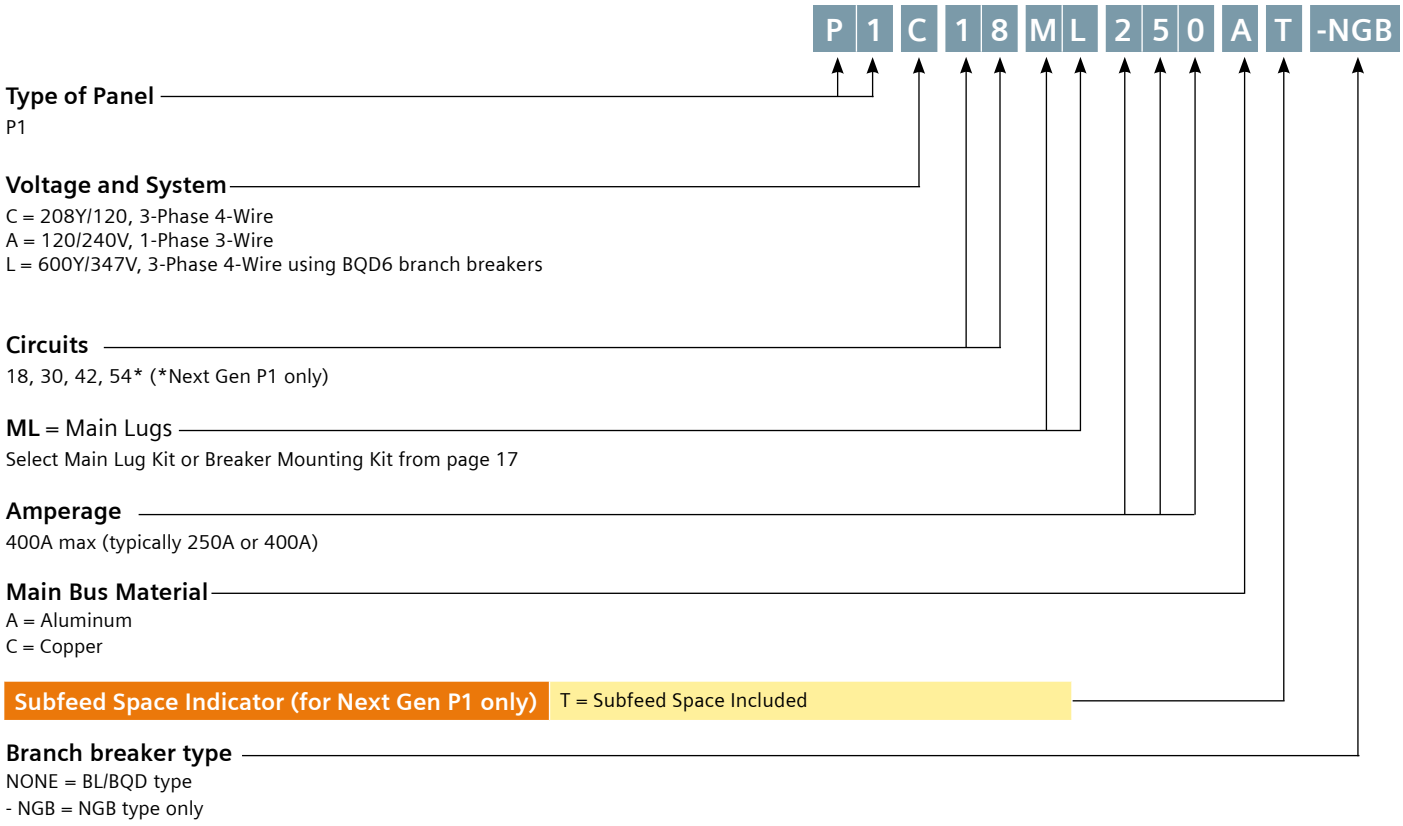
Type P1 into stock panelboards are completely convertible from main lug to main breaker and vice-versa. Additionally feed-thru lugs, or subfeed circuit breakers up to 400 ampere can be added without increasing the box height for Next Gen P1 with “T” suffix, see the chart.

1. Compute total number of poles to determine interior catalogue number. (Note: BL / BQD (or) NGB 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 catalogue number 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 5 and 6 for selection.

4. List required branch circuit breakers.
5. Select any modifications or accessories.

Note: Next Gen P1 was introduced in June 2015. All original P1 devices do not include the "Subfeed Space" indicator (“T” suffix). All original P1 included the Subfeed Space as standard.



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

Branch Breakers

Panel Type	Voltage (Max.)	Breaker Type	Additional Information
Next Gen P	240	BL, BLH, HBL, BQD, NGB	See Page 17
	600 / 347	BQD6, NGB	

Distributor Stock

Type P1 Panelboards

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 16, Main Breaker Kit from pages 16 - 17.
3. Choose Branch Breakers. BL, BQD and NGB breakers from page 19.
4. Choose Feed-Thru Lugs or Subfeed Breaker Kit from pages 16 - 17.

Type P1 Into Stock Panelboards (Next Gen P1 introduced in June 2015)

Amps	Max. # of Poles	Original Main Lugs Interior Catalogue Number	Next Gen P1 Main Lug Interior Catalogue Number	Original Main Convertible Interior Catalogue Number	Next Gen P1 Main Convertible Interior Catalogue Number	Box Size	Type 1 Encl.	Type 3R/12 Encl.①	Type 1 Front Surface	Type1 Front Flush
1-Phase, 3-Wire 120/240V										
250	18	P1A18ML250A	P1A18MC250AT	P1A18MC250A	P1A18MC250AT	32	B32	WP32	S32B	F32B
	30	P1A30ML250A	P1A30ML250AT	P1A30MC250A	P1A30MC250AT	38	B38	WP38	S38B	F38B
	42	P1A42ML250A	P1A42ML250AT	P1A42MC250A	P1A42MC250AT	44	B44	WP44	S44B	F44B
	54	—	P1A54ML250AT	—	P1A54MC250AT	50	B50	WP50	S50B	F50B
400	18	P1A18ML400A	—	P1A18MC400A	—	—	—	—	—	—
	30	P1A30ML400A	P1A30ML400AT	P1A30MC400A	P1A30MC400AT	62	B62	WP62	S62B	F62B
	42	P1A42ML400A	P1A42ML400AT	P1A42MC400A	P1A42MC400AT	68	B68	WP68	S68B	F68B
	54	—	P1A54ML400AT	—	P1A54MC400AT	74	B74	WP74	S74B	F74B
250	18	P1A18ML250C	P1A18ML250CT	P1A18MC250C	P1A18MC250CT	32	B32	WP32	S32B	F32B
	30	P1A30ML250C	P1A30ML250CT	P1A30MC250C	P1A30MC250CT	38	B38	WP38	S38B	F38B
	42	P1A42ML250C	P1A42ML250CT	P1A42MC250C	P1A42MC250CT	44	B44	WP44	S44B	F44B
	54	—	P1A54ML250CT	—	P1A54MC250CT	50	B50	WP50	S50B	F50B
400	18	P1A18ML400C	—	P1A18MC400C	—	—	—	—	—	—
	30	P1A30ML400C	P1A30ML400CT	P1A30MC400C	P1A30MC400CT	62	B62	WP62	S62B	F62B
	42	P1A42ML400C	P1A42ML400CT	P1A42MC400C	P1A42MC400CT	68	B68	WP68	S68B	F68B
	54	—	P1A54ML400CT	—	P1A54MC400CT	74	B74	WP74	S74B	F74B
3-Phase, 4-Wire 208Y/120V										
250	18	P1C18ML250A	P1C18ML250AT	P1C18MC250A	P1C18MC250AT	32	B32	WP32	S32B	F32B
	30	P1C30ML250A	P1C30ML250AT	P1C30MC250A	P1C30MC250AT	38	B38	WP38	S38B	F38B
	42	P1C42ML250A	P1C42ML250AT	P1C42MC250A	P1C42MC250AT	44	B44	WP44	S44B	F44B
	54	—	P1C54ML250AT	—	P1C54MC250AT	50	B50	WP50	S50B	F50B
400	18	P1C18ML400A	—	P1C18MC400A	—	—	—	—	—	—
	30	P1C30ML400A	P1C30ML400AT	P1C30MC400A	P1C30MC400AT	62	B62	WP62	S62B	F62B
	42	P1C42ML400A	P1C42ML400AT	P1C42MC400A	P1C42MC400AT	68	B68	WP68	S68B	F68B
	54	—	P1C54ML400AT	—	P1C54MC400AT	74	B74	WP74	S74B	F74B
250	18	P1C18ML250C	P1C18ML250CT	P1C18MC250C	P1C18MC250CT	32	B32	WP32	S32B	F32B
	30	P1C30ML250C	P1C30ML250CT	P1C30MC250C	P1C30MC250CT	38	B38	WP38	S38B	F38B
	42	P1C42ML250C	P1C42ML250CT	P1C42MC250C	P1C42MC250CT	44	B44	WP44	S44B	F44B
	54	—	P1C54ML250CT	—	P1C54MC250CT	50	B50	WP50	S50B	F50B
400	18	P1C18ML400C	—	P1C18MC400C	—	—	—	—	—	—
	30	P1C30ML400C	P1C30ML400CT	P1C30MC400C	P1C30MC400CT	62	B62	WP62	S62B	F62B
	42	P1C42ML400C	P1C42ML400CT	P1C42MC400C	P1C42MC400CT	68	B68	WP68	S68B	F68B
	54	—	P1C54ML400CT	—	P1C54MC400CT	74	B74	WP74	S74B	F74B
3-Phase, 4-Wire 600Y/347V										
250	18	P1L18ML250A	P1L18ML250AT	P1L18MC250A	P1L18MC250AT	32	B32	WP32	S32B	F32B
	30	P1L30ML250A	P1L30ML250AT	P1L30MC250A	P1L30MC250AT	38	B38	WP38	S38B	F38B
	42	P1L42ML250A	P1L42ML250AT	P1L42MC250A	P1L42MC250AT	44	B44	WP44	S44B	F44B
	54	—	P1L54ML250AT	—	P1L54MC250AT	50	B50	WP50	S50B	F50B
400	18	P1L18ML400A	—	P1L18MC400A	—	—	—	—	—	—
	30	P1L30ML400A	P1L30ML400AT	P1L30MC400A	P1L30MC400AT	62	B62	WP62	S62B	F62B
	42	P1L42ML400A	P1L42ML400AT	P1L42MC400A	P1L42MC400AT	68	B68	WP68	S68B	F68B
	54	—	P1L54ML400AT	—	P1L54MC400AT	74	B74	WP74	S74B	F74B
250	18	P1L18ML250C	P1L18ML250CT	P1L18MC250C	P1L18MC250CT	32	B32	WP32	S32B	F32B
	30	P1L30ML250C	P1L30ML250CT	P1L30MC250C	P1L30MC250CT	38	B38	WP38	S38B	F38B
	42	P1L42ML250C	P1L42ML250CT	P1L42MC250C	P1L42MC250CT	44	B44	WP44	S44B	F44B
	54	—	P1L54ML250CT	—	P1L54MC250CT	50	B50	WP50	S50B	F50B
400	18	P1L18ML400C	—	P1L18MC400C	—	—	—	—	—	—
	30	P1L30ML400C	P1L30ML400CT	P1L30MC400C	P1L30MC400CT	62	B62	WP62	S62B	F62B
	42	P1L42ML400C	P1L42ML400CT	P1L42MC400C	P1L42MC400CT	68	B68	WP68	S68B	F68B
	54	—	P1L54ML400CT	—	P1L54MC400CT	74	B74	WP74	S74B	F74B
Interiors for NGB Breakers — 3-Phase, 4-Wire 600Y/347V										
250	18	—	P1L18ML250AT-NGB	—	P1L18MC250AT-NGB	32	B32	WP32	S32B	F32B
	30	—	P1L30ML250AT-NGB	—	P1L30MC250AT-NGB	38	B38	WP38	S38B	F38B
	42	—	P1L42ML250AT-NGB	—	P1L42MC250AT-NGB	44	B44	WP44	S44B	F44B
	54	—	P1L54ML250AT-NGB	—	P1L54MC250AT-NGB	50	B50	WP50	S50B	F50B
400	18	—	—	—	—	—	—	—	—	—
	30	—	P1L30ML400AT-NGB	—	P1L30MC400AT-NGB	62	B62	WP62	S62B	F62B
	42	—	P1L42ML400AT-NGB	—	P1L42MC400AT-NGB	68	B68	WP68	S68B	F68B
	54	—	P1L54ML400AT-NGB	—	P1L54MC400AT-NGB	74	B74	WP74	S74B	F74B
250	18	—	P1718ML250CT-NGB	—	P1L18MC250CT-NGB	32	B32	WP32	S32B	F32B
	30	—	P1730ML250CT-NGB	—	P1L30MC250CT-NGB	38	B38	WP38	S38B	F38B
	42	—	P1742ML250CT-NGB	—	P1L42MC250CT-NGB	44	B44	WP44	S44B	F44B
	54		P1L54ML250CT-NGB		P1L54MC250CT-NGB	50	B50	WP50	S50B	F50B
400	18	—	—	—	—	—	—	—	—	—
	30	—	P1L30ML400CT-NGB	—	P1L30MC400CT-NGB	62	B62	WP62	S62B	F62B
	42	—	P1L42ML400CT-NGB	—	P1L42MC400CT-NGB	68	B68	WP68	S68B	F68B
	54	—	P1L54ML400CT-NGB	—	P1L54MC400CT-NGB	74	B74	WP74	S74B	F74B

42 circuit with Back-fed Main

54 circuit 400A

① Front included in type 3R/12 Box.

Product Category into stock

Distributor Stock

Type P1 Panelboards

Lug Kits — Main or Feed Thru

Amp Rating	Matl.	Wire Range (includes Neutral)	Service	Original P1 Catalogue Number	Next Gen P1 Catalogue 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	(1) 1/0-600 kcmil CU or (2) 1/0-4/0 CU	1 Phase	4MLKC1	4MLKC1A
			3 Phase	4MLKC3	4MLKC3A
400	AL	AL 1/0-750 kcmil (max. 600 kcmil CU wire)	1 Phase	—	4MLKA1B
			3 Phase	—	4MLKA3B

MBKQJ3A

MBKFD3A

Breaker Mounting Kits — Main or Subfeed Strap Kit w/o Breaker

Ampere Rating	Breaker Types	Service	Original P1 Catalogue Number	Next Gen P1 Catalogue Number
100A	BQD	3-Phase	MBKBC3	Use Back-fed Main Label Kit # MBKBFA② (includes Neutral Lug, "MAIN" label and instructions)
100A	BL, BLH, HBL	1-Phase	MBKBL1	
		3-Phase	MBKBL3	
125A	NGB	1-Phase	—	
		3-Phase	—	
125A	ED4, ED6, HED4	1-Phase	MBKED1	MBKED1A
		3-Phase	MBKED3	MBKED3A
225A	QJ2, QJH2, QJ2-H	1-Phase	MBKQJ1	MBKQJ1A
		3-Phase	MBKQJ3	MBKQJ3A
250A	FXD6, FD6, HFD6, HFXD6	1-Phase	MBKFD1	MBKFD1A
		3-Phase	MBKFD3	MBKFD3A
400A①	JXD2, JD6, JXD6, HJD6, HJXD6	1-Phase	MBKJD1	MBKJD1A
		3-Phase	MBKJD3	MBKJD3A

① 400 amp kit is for main only — not allowed for subfeed breaker.
② Back-fed main occupies branch space.

Copper Neutral Lug Kits — 250A

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

2/0 Neutral Lug Kits — 250A and 400A

18	2 or 4 Branch Neutral Strips, 1 Main Neutral Lug, Hardware	—	Use 30 ckt kit
30		—	LNLK30A
42		—	LNLK42A
54, 66		—	LNLK54A

200% Neutral Lug Kits - 250A

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

200% Neutral Lug Kits - 400A

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

① Replacement Parts Only

Miscellaneous Parts and Accessories

Catalogue #	Description
BK1	Bonding Kit for 250A max. Original P1 panels
BK1A	Bonding Kit for 250A max. Next Gen P1 panels
IMK1	Interior Adjusting Kit
11-1824-01	Directory Card Holder
12-1110-01	Directory Card
11-1056-01B	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
P1SCRWS	Package of 42 breaker mounting screws for P1
DFFP1	1" Branch circuit filler plate (suitable for replacing QF3-UL in panelboards (Package of 100 filler plates)
P1CONBPHCU ①	Connector kit – 6 pcs. B-phase Copper
P1CONBPHAL ①	Connector kit – 6 pcs. B-phase Aluminum
P1CONACPHCU ①	Connector kit – 6 pcs. A or C-phase Copper
P1CONACPHAL ①	Connector kit – 6 pcs. A or C-phase Aluminum
MCHK-1	1 Metallic directory card holder
FPLK2	2 Spare Fas-latch trim locks with 2 keys
SDKN	Dripshield kit (20" W x 5.75" D)
TPS9IKITP1	Original P1 mounting bracket for SPD TPS3 09
TPS9IKITP1A	Next Gen P1 mounting bracket for SPD TPS3 09
MBKBFA	Back-Fed Main Breaker kit

Product Category into stock

Distributor Stock

Main Breaker Mounting Kits with Breakers for P1 Panels

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

Original P1 Catalogue Number	Next Gen P1 Catalogue Number	Description	Ratings	
			240V	600V
MBKQJ12225	**MBKQJ12225A**	Kit w/2-pole QJ2 125A breaker	10KA	—
MBKQJ33150	**MBKQJ33150A**	Kit w/3-pole QJ2 150A breaker	10KA	—
MBKQJ33200	**MBKQJ33200A**	Kit w/3-pole QJ2 175A breaker	10KA	—
MBKQJ33225	**MBKQJ33225A**	Kit w/3-pole QJ2 200A breaker	10KA	—
MBKED33100	**MBKED33100A**	Kit w/3-pole ED6 100A breaker	65KA	18KA
MBKED33125	**MBKED33125A**	Kit w/3-pole ED6 125A breaker	65KA	18KA
MBKFD33200	**MBKFD33200A**	Kit w/3-pole FXD6 200A breaker	65KA	22KA
MBKFD33225	**MBKFD33225A**	Kit w/3-pole FXD6 225A breaker	65KA	22KA
MBKFD33250	**MBKFD33250A**	Kit w/3-pole FXD6 250A breaker	65KA	22KA
MBKHF33250	**MBKHF33250A**	Kit w/3-pole HFD6 250A breaker	100KA	25KA
MBKJD33400	**MBKJD33400A**	Kit w/3-pole JD6 400A breaker	65KA	25KA

NOTE: "Next Gen 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 catalogue numbers.
5. Select ground bar and filler plates. (See replacement parts & accessories on Page 15.)

300A Main installed.

These Next Gen P1 kits can now be used as top or bottom feed.

AFCI – Branch Feeder Type Arc Fault Circuit Interrupter

Breaker Type	Ampere Rating	Catalogue Number	Interrupting Ratings (kA) RMS Symmetrical Amperes		
			Volts AC		
			120	120/240	240
BAF2 1-pole	15	**BA115AF**	10	—	—
	20	**BA120AF**	10	—	—
BAF2H 1-pole	15	**BA115AFH**	22	—	—
	20	**BA120AFH**	22	—	—
HBAF2 1-pole	15	**BA115AFHH**	65	—	—
	20	**BA120AFHH**	65	—	—

GFCI Personnel Protection (5MA)

Breaker Type	Ampere Rating	Catalogue 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	—
HBFGA2 1-pole	15	**BA115DFHH**	65	—	—
	20	**BA120DFHH**	65	—	—

AFCI-Combination Type Arc Fault Circuit Interrupter

Breaker Type	Ampere Rating	Catalogue 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	—	—

Dual Function AFCI/GFCI Circuit Breaker

Breaker Type	Ampere Rating	Catalogue Number	Interrupting Ratings (kA) RMS Symmetrical Amperes		
			Volts AC		
			120	120/240	240
BFGA2 1-pole	15	**BA115DF**	10	—	—
	20	**BA120DF**	10	—	—
BFGAH2 1-pole	15	**BA115DFH**	22	—	—
	20	**BA120DFH**	22	—	—
HBFGA2 1-pole	15	**BA115DFHH**	65	—	—
	20	**BA120DFHH**	65	—	—

Switching Neutrals

Breaker Type	Ampere Rating	Catalogue 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.

Product Category Into Stock

Distributor Stock

Type P1 Panelboards

Branch Breakers Selection for P1

Selection Guide

1. Select breaker type.
2. Select required amperage.
3. Select number of poles.
4. Select branch breaker catalogue numbers.
5. Select ground bar and filler plates. (See replacement parts & accessories on Pages 17 and 18.)

BL Branch Breakers – 10,000A IR②

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

HBL Branch Breakers – 65,000A IR②

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

BQD6 Branch Breakers – 10,000A IR max @ 600/347V

Amp Rating	1-Pole 347V	2-Pole 120/240V	3-Pole 240V
15	BQD6115	BQD6215	BQD6315
20	BQD6120	BQD6220	BQD6320
25	BQD6125	BQD6225	BQD6325
30	BQD6130	BQD6230	BQD6330
35	BQD6135	BQD6235	BQD6335
40	BQD6140	BQD6240	BQD6340
45	BQD6145	BQD6245	BQD6345
50	BQD6150	BQD6250	BQD6350
60	BQD6160	BQD6260	BQD6360
70	BQD6170	BQD6270	BQD6370

BLH Branch Breakers – 22,000A IR②

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 – 65,000A IR max. @ 240 Vac③

Amp Rating	1-Pole 120/240V	2-Pole 120/240V	3-Pole 240V
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

NGB Branch Breakers

14,000 A IR Max. @ 600Y/347V/ 100,000 A IR @ 240V AC

Amp Rating	1-pole 347V	2-pole 600Y/347V	3-pole 600Y/327V
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**

n Built to order. Allow 2–3 weeks for delivery.
① HACR rated.

② To add shunt trip to BL breakers, see Power Product Catalogue for Breaker Accessories.

③ To add shunt trip to BQD breakers, see Power Product Catalogue for Breaker Accessories.

TPS3 02

Surge Protection Device (SPD) for Revised P1 Lighting Panelboards

Features:

- Mounts internal to:
  - Revised P1 Lighting Panelboards
- Consult factory for field retrofit in Revised P1 Lighting Panelboards
- UL 1449 3rd Edition Recognized
- UL 1283
- Type 4 SPD intended for use in Type 1 applications (Type 2, cUL)
- UL Type 1 tested with all internal OCP and safety coordination features included
- Large block, individually fused, thermally protected, 50 kA MOVs
- 20 kA I_n (most models)
- 200 kA SCCR (most models)
- UL96A Lightning Protection Master Label appropriate (@ 20 kA I_n)

- Applications
- Provides main service or downstream protection for sensitive computer and electronic loads
  - Standard redundancy use: 100 kA per phase
  - Increased redundancy use: 200 kA per phase
  - Maximum redundancy use: 300 kA per phase

- SPD Specification
- Surge Current Rating Per Phase

Per Phase	L-N	L-G	N-G
100kA	50kA	50kA	50kA
150 kA	100 kA	50 kA	50 kA
200kA	100kA	100kA	100kA
250kA	150kA	100kA	100kA
300kA	150kA	150kA	150kA

- 100% monitoring (Every MOV is monitored, incl. N-G)
- EMI/RFI filtering: Active tracking up to -50 db from 10 kHz to 100 MHz
- Repetitive impulse: 5,000 hits
- Less than ½ nanosecond response time
- Relative humidity range: 1-95% non-condensing
- Operating frequency: 47-63 Hz
- Operating temperature: -25°C (-15°F) to +60°C (140°F)

UL 1449 3rd Edition SPD

SIEMENS

■ SPD Features
- UL 1449 3rd Edition effective September 2009
- Designed, manufactured & tested consistent with:
  - ANSI/IEEE C62.41.1-2002, C62.41.2-2002, and C62.45-2002
  - 1992/2000 NEMA LS-1
  - NEC Article 285
  - IEC 61643, CE
- Large block, individually fused, thermally protected, 50 kA MOVs

■ SPD Features
- Direct bus connected
- Can be wired to a circuit breaker (consult factory at time of order or see installation manual for retrofit)
- 10 year warranty

■ Standard Monitoring
- LED indicators
- Audible alarm with silence switch and test button
- Dry contacts

■ Available Options
- Surge counter
- Terminal lug for circuit breaker connection

■ Key Bid Specifications
- UL 1449 3rd Edition Recognized
- UL 1283
- Audible alarm with silence switch and test button
- Dry contacts
- EMI/RFI filtering
- Protection modes on L-N, L-G, L-L, N-G
- I_n Rating - 20 kA
- Short Circuit Current Rating - 200 kA
- Surge Current Rating

Per Phase =	L-N	+	L-G
100 kA	50 kA		50 kA

Ordering Information

Catalog # TPS3 □ 02 □□ □□

Voltage Code
- C = 120/208V, 3Ø, 4W (Fig 2)
- D = 240V, 3Ø, 3W (Fig 4)
- E = 277/480V, 3Ø, 4W (Fig 2)
- F = 480V, 3Ø, 3W (Fig 4)
- G = 600V, 3Ø, 3W (Fig 4)❶
- K = 380/220V, 3Ø, 4W (Fig 2)
- L = 600/347V, 3Ø, 4W (Fig 2)
- S = 400/230V, 3Ø, 4W (Fig 2)

Surge Current (kA)
- 10 = 100 kA per phase
- 15 = 150 kA per phase
- 20 = 200 kA per phase
- 25 = 250 kA per phase
- 30 = 300 kA per phase

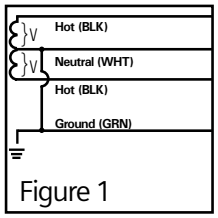
Options
- W = Terminal lug
- X = Surge counter

- Example: TPS3C0120X0 = SPD for a 208/120V panelboard with a surge current capacity of 200 kA per phase and a surge counter option
- When an option is not selected, include a zero (0) in the field

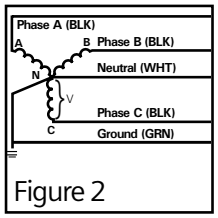
Available Accessories: Ordered Separately
- RMSIE - Remote monitor

UL 1449 3rd Edition - 2009 Test Data Summary
Voltage Protection Rating (VPR - 6kV, 3kA)

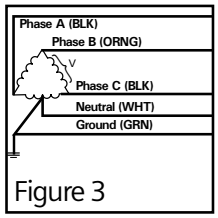
Voltage Code	Service Voltage	L-N	L-G	N-G	L-L	Type	I_n	SCCR	MCOV
A	120/240V, 1Ø, 3W (Fig 1)	700	700	700	1200	Type 4	20 kA	100 kA	150
B	120/240V, 3Ø, 4W (Fig 3)	700 / 1200	700 / 1200	700	1800 / 1800	Type 4	20 kA	200 kA	150 / 320
C	120/208V, 3Ø, 4W (Fig 2)	700	700	700	1200	Type 4	20 kA	200 kA	150
D	240V, 3Ø, 3W (Fig 4)		1200		1200	Type 4	10 kA	200 kA	320
E	277/480V, 3Ø, 4W (Fig 2)	1200	1200	1200	2000	Type 4	20 kA	200 kA	320
F	480V, 3Ø, 3W (Fig 4)		1800		1800	Type 4	10 kA	200 kA	550
G	600V, 3Ø, 3W (Fig 4)		2500		2500	Type 4	10 kA	200 kA	690
K	380/220V, 3Ø, 4W (Fig 2)	1200	1200	1200	2000	Type 4	20 kA	200 kA	320
L	600/347V, 3Ø, 4W (Fig 2)	1500	1500	1500	2500	Type 4	10 kA	200 kA	420
S	400/230V, 3Ø, 4W (Fig 2)	1200	1200	1200	2000	Type 4	20 kA	200 kA	320



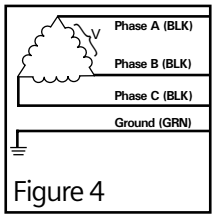
Split
2 Hots, 1 Neu, 1 Grnd



Wye
3 Hots, 1 Neu, 1 Grnd



Hi-Leg Delta (B High)
3 Hots, (B High),
1 Neu, 1 Grnd



Delta & HRG Wye
3 Hots, 1 Grnd

Notes:

❶ Available 100 kA & 150 kA only

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www.siemens.ca

2.16.15.lh

TPS3 L2

True 10 Mode Protection

Surge Protection Device (SPD) for Revised P1 Lighting Distribution Panelboards

Features:

- Mounts internal to:
  - Revised P1 Lighting Panelboards
- Consult factory for field retrofit in Revised P1 Lighting Panelboards
- UL 1449 3rd Edition Recognized
- UL 1283
- Type 4 SPD intended for use in Type 1 applications (Type 2, cUL)
- UL Type 1 tested with all internal OCP and safety coordination features included
- Large block, individually fused, thermally protected, 50 kA MOVs
- 20 kA I_n (most models)
- 200 kA SCCR (most models)
- UL96A Lightning Protection Master Label appropriate (@ 20 kA I_n)

- Applications

- Provides main service or downstream protection for sensitive computer and electronic loads
  - Standard redundancy use: 150 kA per phase
  - Maximum redundancy use: 300 kA per phase

- SPD Specifications

- Directly connected discrete protection elements between all possible modes providing true 10 mode protection
- Surge Current Rating Per Phase

Per Phase	L-N	L-G	L-L	N-G
150 kA	50 kA	50 kA	50 kA	50 kA
300 kA	100 kA	100 kA	100 kA	100 kA

- 100% monitoring (Every MOV is monitored, incl. N-G)
- EMI/RFI filtering: Active tracking up to -50 db from 10 kHz to 100 MHz
- Repetitive impulse: 5,000 hits
- Less than ½ nanosecond response time
- Relative humidity range: 1-95% non-condensing
- Operating frequency: 47-63 Hz
- Operating temperature: -25°C (-15°F) to +60°C (140°F)

UL 1449 3rd Edition SPD

SIEMENS

■ SPD Features
- UL 1449 3rd Edition effective September 2009
- Designed, manufactured & tested consistent with:
  - ANSI/IEEE C62.41.1-2002, C62.41.2-2002, and C62.45-2002
  - 1992/2000 NEMA LS-1
  - NEC Article 285
  - IEC 61643, CE
- Large block, individually fused, thermally protected, 50 kA MOVs

■ SPD Features
- Direct bus connected
- Can be wired to a circuit breaker (consult factory at time of order or see installation manual for retrofit)
- 10 year warranty

■ Standard Monitoring
- LED indicators
- Audible alarm with silence switch and test button
- Dry contacts

■ Available Options
- Surge counter
- Terminal lug for circuit breaker connection

■ Key Bid Specifications
- UL 1449 3rd Edition Recognized - 2009
- UL 1283
- Audible alarm with silence switch and test button
- Dry contacts
- EMI/RFI filtering
- Protection modes on L-N, L-G, L-L, N-G
- I_n Rating - 20 kA
- Short Circuit Current Rating - 200 kA
- Surge Current Rating
  Per Phase = L-N + L-G + L-L
  150 kA 50 kA 50 kA 50 kA

Ordering Information

Catalog # TPS3 □ L2 □□ □□

Voltage Code
A = 120/240V, 1Ø, 3W (Fig 1)
B = 120/240V, 3Ø, 4W (Fig 3)
C = 120/208V, 3Ø, 4W (Fig 2)
E = 277/480V, 3Ø, 4W (Fig 2)
K = 380/220V, 3Ø, 4W (Fig 2)
S = 400/230V, 3Ø, 4W (Fig 2)

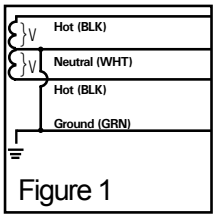
Surge Current (kA)
15 = 150 kA per phase
30 = 300 kA per phase

Options
W = Terminal lug
X = Surge counter

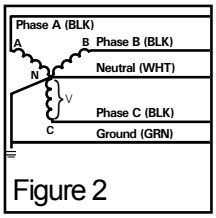
- Example: TPS3CL230X0 = 10 Mode SPD for a 208/120V panelboard with a surge current capacity of 300 kA per phase and a surge counter option
- When surge counter is not selected, include a zero (0) in the field

Available Accessories: Ordered Separately
- RMSIE - Remote monitor

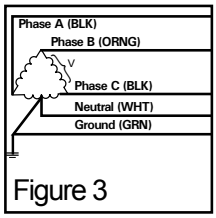
UL 1449 3rd Edition - 2009 Test Data Summary Voltage Protection Rating (VPR - 6kV, 3 kA)									
Voltage Code	Service Voltage	L-N	L-G	N-G	L-L	Type	I_n	SCCR	MCOV
A	120/240V, 1Ø, 3W (Fig 1)	700	700	700	1000	Type 4	20 kA	100 kA	150
B	120/240V, 3Ø, 4W (Fig 3)	800 / 1500	700 / 1200	700	1800 / 1800	Type 4	20 kA	200 kA	150 / 320
C	120/208V, 3Ø, 4W (Fig 2)	700	700	700	1000	Type 4	20 kA	200 kA	150
E	277/480V, 3Ø, 4W (Fig 2)	1200	1200	1200	1800	Type 4	20 kA	200 kA	320
K	380/220V, 3Ø, 4W (Fig 2)	1200	1200	1200	1800	Type 4	20 kA	200 kA	320
S	400/230V, 3Ø, 4W (Fig 2)	1200	1200	1200	1800	Type 4	20 kA	200 kA	320



Split
2 Hots, 1 Neu, 1 Grnd



Wye
3 Hots, 1 Neu, 1 Grnd



Hi-Leg Delta (B High)
3 Hots, (B High),
1 Neu, 1 Grnd

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2.16.15.lh

TPS3 09

Type 1 Surge Protective Device (SPD)
Mounts External to Electrical Distribution Equipment or Internal to P1, P2 Lighting Panelboards, P3 Power Panelboards and Busway Systems

Features:

- UL 1449 3rd Edition – 2009, cUL
- Type 1 SPD (Type 2 cUL)
- Mounts external to electrical distribution equipment
- Weatherproof hub included
- Mounts internal to P1 panelboards & busway
  - P1 - Field retrofit or factory install
  - P2 and P3 - Factory install only
    Consult factory for field retrofit
- Large block, individually fused, thermally protected, 50 kA MOVs
- 20 kA In(most models)
- 200 kA SCCR (most models)
- All UL-required OCP & safety coordination included
- UL96A Lightning Protection Master Label compliant (@ 20 kA In)
- SPD Specifications
  - Surge Current Rating Per Phase

Per Phase	L-N	L-G	N-G
100 kA	50 kA	50 kA	50 kA

  - 100% monitoring (Every MOV is monitored, incl. N-G)
  - Individually fused and thermally protected MOVs
  - Solid state bi-directional operation
  - Repetitive impulse: 5,000 hits
  - Less than 1 nanosecond response time
  - Relative humidity range: 0 -95% non-condensing
  - Operating frequency: 47-63 Hz
  - Operating temperature: -25°C (-15°F) to +60°C (140°F)
- Standard Configuration
  - Standard NEMA 4X polycarbonate enclosure (UL 746C (f1), UL 94-5VA)
  - Wire size: Prewired with 3' (91.4cm) of #10 AWG
  - Standard size: 8" x 3" x 3" (203 mm x 76 mm x 76 mm)
  - Standard weight: 3 lbs. (1.4 kg)

TPS3 09

- SPD Features
  - UL 1449 3rd Edition effective September 2009
  - Designed, manufactured and tested consistent with:
    - ANSI/IEEE C62.41.1-2002, C62.41.2-2002, and C62.45-2002
    - 1992/2000 NEMA LS-1
    - NEC Article 285
    - IEC 61643, CE
  - Large block, individually fused, thermally protected, 50 kA MOVs
  - 10 year warranty
- SPD Monitoring
  - LED indicators
- Available Options
  - Dry contacts & audible alarm
- Available Accessories
  - RMSIE = Remote monitor
  - FMKITC = Flush mount plate
  - TPS9IKITP1 = Mounting bracket for installation in original P1 panels
  - TPS9IKITP1A = Mounting bracket for installation in Next Gen P1 panels
  - TPS9IKITP2 = Mounting bracket for installation in P2 panels
- Key Bid Specifications
  - UL 1449 3rd Edition Recognized - 2009, cUL
  - Type 2 SPD❶
  - Protection modes on L-N, L-G, L-L, N-G
  - I_n Rating - 20 kA
  - Short Circuit Current Rating - 200 kA
  - Surge Current Rating

    Per Phase = L-N + L-G + 150kA 50kA 50kA

Ordering Information

Catalogue # TPS3 □ 09 □□ □□□ 2

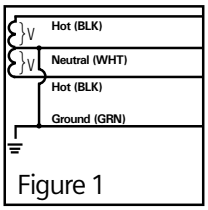
Voltage Code
- A = 120/240V, 1Ø, 3W (Fig 1)
- B = 120/240V, 3Ø, 4W (Fig 3)
- C = 120/208V, 3Ø, 4W (Fig 2)
- D = 240V, 3Ø, 3W (Fig 4)
- E = 277/480V, 3Ø, 4W (Fig 2)
- F = 480V, 3Ø, 3W (Fig 4)
- G = 600V, 3Ø, 3W, (Fig 4)
- K = 380/220V, 3Ø, 4W (Fig 2)
- L = 600/347V, 3Ø, 4W (Fig 2)
- S = 400/230V, 3Ø, 4W (Fig 2)

Surge Current (kA)
- 10 = 100 kA per phase

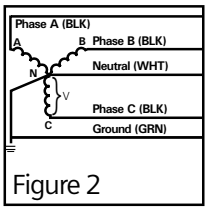
Options
- E = Extended indicator light
- I = Internal mounting in P1, P2 panels❷
- D = Dry contact & audible alarm

- Example: TPS3C0910D002 = Type 2 SPD for a 208/120V panelboard with a surge current capacity of 100 kA per phase with standard NEMA 4X enclosure, dry contacts and audible alarm option.
- Available for field retrofit in P1 panels
- When an option is not selected, include a zero (0) in the field

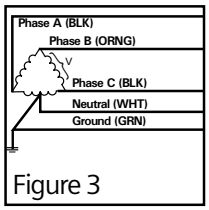
UL 1449 3rd Edition - 2009 Test Data Summary Voltage Protection Rating (VPR - 6kV, 3 kA)									
Voltage Code	Service Voltage	L-N	L-G	N-G	L-L	Type❶	I_n	SCCR	MCOV
A	120/240V, 1Ø, 3W (Fig 1)	600	700	500	1000	Type 2	20 kA	100 kA	150
B	120/240V, 3Ø, 4W (Fig 3)	600 / 1200	700 / 1200	500	1000/ 1000	Type 2	20 kA	200 kA	150 / 320
C	120/208V, 3Ø, 4W (Fig 2)	600	700	500	1000	Type 2	20 kA	200 kA	150
D	240V, 3Ø, 3W (Fig 4)		1200		1200	Type 2	20 kA	200 kA	320
E	277/480V, 3Ø, 4W (Fig 2)	1200	1200	1000	1800	Type 2	20 kA	200 kA	320
F	480V, 3Ø, 3W (Fig 4)		1800		1800	Type 2	10 kA	200 kA	552
G	600V, 3Ø, 3W (Fig 4)		2500		2500	Type 2	10 kA	200 kA	690
K	380/220V, 3Ø, 4W (Fig 2)	1200	1200	1000	1800	Type 2	20 kA	200 kA	320
L	600/347V, 3Ø, 4W (Fig 2)	1500	1500	1500	2500	Type 2	10 kA	200 kA	420
S	400/230V, 3Ø, 4W (Fig 2)	1200	1200	1000	1800	Type 2	20 kA	200 kA	320



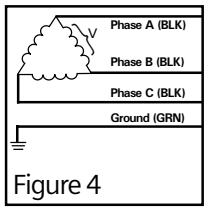
Split
2 Hots, 1 Neu, 1 Grnd



Wye
3 Hots, 1 Neu, 1 Grnd



Hi-Leg Delta (B High)
3 Hots, (B High),
1 Neu, 1 Grnd



Delta & HRG Wye
3 Hots, 1 Grnd

Notes:
❶ Type 1 UL
❷ Requires TPS9IKITP1 or TPS9IKITP2 mounting bracket accessory, see available Accessories

Notes:

Notes:

The information provided in this brochure contains merely general descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.

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Subject to change without prior notice

Order No.: EM-LP-1343

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Energy Management Division
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