

Panelboards

Type P5 Panelboards

General

Features

The P5 panel is the largest footprint distribution panel in the Siemens panel family. Even though it is our largest panel type, the P5 panel is still a space saver with its 38" width and 12.75" depth. With even higher main ratings to fit the application that require more or larger branch devices. This panel offers a wide array of factory assembled options and has the ability to mix breaker frames in unit space up to 1200 amps and fusible switches up to 1200 amps. Bussing options for the P5 vary from the standard temperature rated aluminum to temperature rated copper and 750 A/SI aluminum and 1000A/SI copper designs. All aluminum bussing in the P5 panel is tin-plated as a standard. Silver-plated is offered as the default for copper bus and tin as an option. Integrated time clocks, bus mounted contactors as mains or submains, split bus and subfeed lugs (up to 600 amps) are just a few of the options of this flexible panel.

The P5 panel configurations defined by the unit space allowed for a given amperage, main device and box height. The P5 panel starts with a 60" high box. All of the branch devices are unit space mounted. Breakers and switches can be mixed and matched to meet customer requirements.

Main Lug / Main Breaker / Main Switch

Enclosure – Standard Type 1 enclosure is 38" wide x 12.75" deep. X Box Height is determined by main device and unit space. See charts for box height.

Voltage – 600V AC max.
250V DC max.

Amperage – 400-1200 amp main breaker, 400-1200 amp main lug only or 200-1200 amp main switch.

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 P5 panel is limited to 42 Kaic. Note that the main device may be mounted remote from the panel.

Bussing – The P5 panel has more options to meet market requirements. The standard bussing is temperature rated aluminum. The rating is per the requirements of UL 67 – the standard for panelboards. All aluminum bussing is tin-plated. Optional bussing for the P5 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 10 lbs. (1 kg) per inch (54g per mm) of box height.

Main Lugs ①

Ampere Rating	Connectors Suitable for Copper or Aluminum
400	(1) 250-500Kcmil
600	(2) #3/0-500Kcmil
800	(3) #3/0 AWG-500 Kcmil
1000	(4) #3/0 AWG-500 Kcmil
1200	(4) #3/0 AWB-500 Kcmil

① Alternate lugs for 750 kcmil cable are available, but result in significant loss of branch unit mounting space. Consult Siemens.

Gauge Steel of Boxes Fronts, Surface and Flush

Dimensions in inches (mm)		Gauge Steel	
Width	Height	Box	Fronts
38" (965)	60 - 75 - 90 (1524, 1905, 2286)	#16①	#14 (1 piece trim) #14 (4 piece trim)

① 16 gauge side panels, 12 gauge back support.

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Power and Distribution

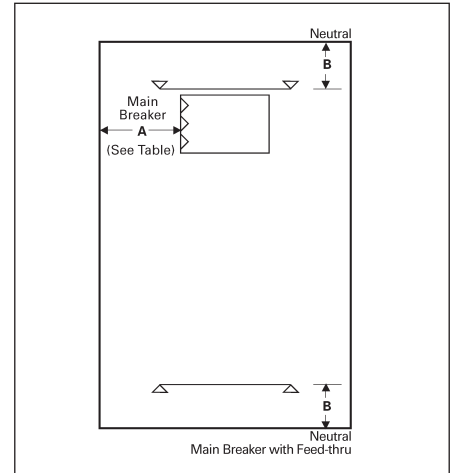
Selection/Dimensions

Enclosure Selection ^①

Enclosure Dimension in Inches (mm)				Available Unit Space in Inches (mm)					
H	W	D		Main Lug Only	Main Breaker		Main VB Switch		Main HCP Switch
Type 1 or 3R/12	Type 1	Type 3R/12		400 - 1200A	400-800A	1200A	200A	400A-600A	400-1200A
60 (1524)	38 (965)	12.75 (324)	14.25 (362)	30 (762)	21.25 (540)	20 (508)	20 (508)	-	13.75 (349)
75 (1905)	38 (965)	12.75 (324)	14.25 (362)	45 (1143)	36.25 (921)	35 (889)	40 (1016)	25 (889)	28.75 (730)
90 (2286)	38 (965)	12.75 (324)	14.25 (362)	60 (1524)	51.25 (1302)	50 (1270)	55 (1397)	40 (1270)	43.75 (1111)

Main Breaker Unit Space Dimensions

Ampere Rating	Breaker Family	Breaker Type	Dimensions in inches (mm)	
			A	B
400	Sentron	JXD6, JD6, HJXD6, HJD6, HHJXD6, HHJD6	13.425 (265)	13.125 (333)
	VL ^②	NJ, HJ, LJ	15.500 (318)	
	Sentron	SJD6, SHJD6	13.425 (265)	
		CJD6, SCJD6	11.250 (210)	
600	Sentron	LXD6, LD6, HLXD6, LD6, HHLXD6, HHLD6	13.425 (265)	
	VL ^②	NL, HL, LL	14.250 (286)	
	Sentron	SLD6, SHLD6	13.425 (265)	
		CLD6, SCLD6	11.250 (210)	
800	VL	NM, HM, LM	13.425 (265)	
	Sentron	MXD6, MD6, HMXD6, HMD6, CMD6, SMD6, SHMD6, SCMD6	13.00 (330) 10.42 (265)	
		VL	NN, HN, LN	
1200	Sentron	NXD6, ND6, HNXD6, HND6, CND6, SND6, SHMD6, SCND6	13.00 (330) 13.00 (330)	



Main Breaker Wire Bending Space Dimensions & Main Switch

Main Switch

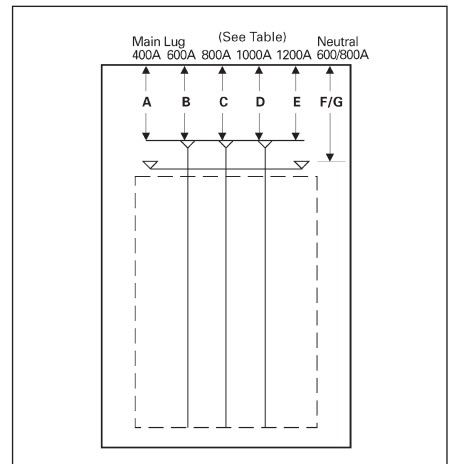
Maximum Ampere Rating	A	B
400A/600A VB	9.30 (236)	13.125 (333)
800A/1200A HCP	10.30 (262)	
200A VB	13.425 (265)	

Main Switch Connectors

Ampere Rating	Connectors suitable for Copper or Aluminum
400	(1) #3/0 AWG-500 kcmil (2) #3/0 AWG-250 kcmil
600	(2) #3/0 AWG-500 kcmil
800	(3) #3/0 AWG-500 kcmil
1200	(4) #3/0 AWG-500 kcmil

Main Lugs Only Wire Bending Space

Lugs	Dimensions in inches (mm)					
	Main Lug					Neutral
	400A A	600A B	800A C	1000A D	1200A E	800A G
Standard	16.500 (419)	16.750 (425)	15.969 (406)	15.969 (406)	15.969 (406)	13.125 (333)
Oversize	16.500 (419)	21.750 (552)	25.969 (660)	25.969 (660)	25.969 (660)	23.125 (587)
Crimp	19.187 (487)	18.250 (464)	18.687 (475)	18.250 (464)	18.250 (464)	15.937 (405)
Standard with Subfeed	16.750 (425)	15.969 (406)	—	—	—	13.125 (333)
Standard with Feed-thru	16.500 (419)	16.750 (425)	—	—	—	13.125 (333)



Main Lugs Only Wire Bending Space

^① Standard trim is for space without door. Surface flush one piece trim is available for 32" (813mm) wide circuit breaker panel.

^② Available with solid state (electronic) trip units only.

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Power and Distribution

Selection

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Shown with Standard Mains, Top Fed and Surface Trim

Catalog 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 catalog number, with alternate main breaker code. Use price adders from main breaker section table. Horizontally mounted.

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

Maximum Panel Ampere Rating	Unit Space (inches)	208Y/120V	240/120V	120/240V or 250 Vdc Max
		3-Phase, 4-Wire Catalog Number	3-Phase, 4-Wire Catalog Number	1-Phase, 3-Wire Catalog Number
800 ^②	30	P5C60ML800ATS	P5B60ML800ATS	P5A60ML800ATS
	45	P5C75ML800ATS	P5B75ML800ATS	P5A75ML800ATS
	60	P5C90ML800ATS	P5B90ML800ATS	P5A90ML800ATS
1000	30	P5C60ML101ATS	P5B60ML101ATS	P5A60ML101ATS
	45	P5C75ML101ATS	P5B75ML101ATS	P5A75ML101ATS
	60	P5C90ML101ATS	P5B90ML101ATS	P5A90ML101ATS
1200	30	P5C60ML120ATS	P5B60ML120ATS	P5A60ML120ATS
	45	P5C75ML120ATS	P5B75ML120ATS	P5A75ML120ATS
	60	P5C90ML120ATS	P5B90ML120ATS	P5A90ML120ATS
Maximum Panel Ampere Rating	Unit Space (inches)	240	480Y/277V	480V ^①
		3-Phase, 3-Wire Catalog Number	3-Phase, 4-Wire Catalog Number	1-Phase, 3-Wire Catalog Number
800 ^②	30	P5D60ML800ATS	P5E60ML800ATS	P5F60ML800ATS
	45	P5D75ML800ATS	P5E75ML800ATS	P5F75ML800ATS
	60	P5D90ML800ATS	P5E90ML800ATS	P5F90ML800ATS
1000	30	P5D60ML101ATS	P5E60ML101ATS	P5F60ML101ATS
	45	P5D75ML101ATS	P5E75ML101ATS	P5F75ML101ATS
	60	P5D90ML101ATS	P5E90ML101ATS	P5F90ML101ATS
1200	30	P5D60ML120ATS	P5E60ML120ATS	P5F60ML120ATS
	45	P5D75ML120ATS	P5E75ML120ATS	P5F75ML120ATS
	60	P5D90ML120ATS	P5E90ML120ATS	P5F90ML120ATS

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

Maximum Panel Ampere Rating	Unit Space (inches)	208Y/120V	240/120V	120/240V or 250 Vdc Max
		3-Phase, 4-Wire Catalog Number	3-Phase, 4-Wire Catalog Number	1-Phase, 3-Wire Catalog Number
800 ^②	21.25	P5C60M1800ATS	P5B60M1800ATS	P5A60M1800ATS
	36.25	P5C75M1800ATS	P5B75M1800ATS	P5A75M1800ATS
	51.25	P5C90M1800ATS	P5B90M1800ATS	P5A90M1800ATS
1200	20	P5C60N1120ATS	P5B60N1120ATS	P5A60N1120ATS
	35	P5C75N1120ATS	P5B75N1120ATS	P5A75N1120ATS
	50	P5C90N1120ATS	P5B90N1120ATS	P5A90N1120ATS
Maximum Panel Ampere Rating	Unit Space (inches)	240	480Y/277V	480V ^①
		3-Phase, 4-Wire Catalog Number	3-Phase, 4-Wire Catalog Number	1-Phase, 3-Wire Catalog Number
800 ^②	21.25	P5D60M1800ATS	P5E60M1800ATS	P5F60M1800ATS
	36.25	P5D75M1800ATS	P5E75M1800ATS	P5F75M1800ATS
	51.25	P5D90M1800ATS	P5E90M1800ATS	P5F90M1800ATS
1200	20	P5D60N1120ATS	P5E60N1120ATS	P5F60N1120ATS
	35	P5D75N1120ATS	P5E75N1120ATS	P5F75N1120ATS
	50	P5D90N1120ATS	P5E90N1120ATS	P5F90N1120ATS

For inches / millimeters conversion, see Application Data section.

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

② Alternate main breaker requires additional 1.25" unit space.

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Power and Distribution

Selection

Main Fusible Switch (fuses not included)

Maximum Panel Ampere Rating	Unit Space (inches)	208Y/120V	240/120V	120/240V	240V	480Y/277V	480V ^①
		3-Phase, 4-Wire Catalog Number	3-Phase, 4-Wire Catalog Number	1-Phase, 3-Wire Catalog Number	3-Phase, 3-Wire Catalog Number	3-Phase, 4-Wire Catalog Number	3-Phase, 3-Wire Catalog Number
400	25	P5C75MS400ATS	P5B75MS400ATS	P5A75MS400ATS	P5D75MS400ATS	P5E75MS400ATS	P5F75MS400ATS
	40	P5C90MS400ATS	P5B90MS400ATS	P5A90MS400ATS	P5D90MS400ATS	P5E90MS400ATS	P5F90MS400ATS
600	25	P5C75MS600ATS	P5B75MS600ATS	P5A75MS600ATS	P5D75MS600ATS	P5E75MS600ATS	P5F75MS600ATS
	40	P5C90MS600ATS	P5B90MS600ATS	P5A90MS600ATS	P5D90MS600ATS	P5E90MS600ATS	P5F90MS600ATS
800 ^④	28.75	P5C75MS800ATS	P5B75MS800ATS	P5A75MS800ATS	P5D75MS800ATS	P5E75MS800ATS	P5F75MS800ATS
	43.75	P5C90MS800ATS	P5B90MS800ATS	P5A90MS800ATS	P5D90MS800ATS	P5E90MS800ATS	P5F90MS800ATS
1200 ^④	28.75	P5C75MS120ATS	P5B75MS120ATS	P5A75MS120ATS	P5D75MS120ATS	P5E75MS120ATS	P5F75MS120ATS
	43.75	P5C90MS120ATS	P5B90MS120ATS	P5A90MS120ATS	P5D90MS120ATS	P5E90MS120ATS	P5F90MS120ATS

Alternate Main Breaker Selection^②

Breaker Frame Rating	Trip Type	Breaker Family	Frame Type	Alternate Main Breaker Code ^③	Trip Amperage	Unit Space Requirements in Inches	Maximum Interruption Rating (KAIC) Volts AC			
							240	480	600	
400	Thermal Magnetic	Sentron	JXD6	JX	200, 225, 250, 300, 350, 400	8.75	65,000	35,000	25,000	
			JD6	J6	200, 225, 250, 300, 350, 400	8.75	65,000	35,000	25,000	
			HJXD6	H5	200, 225, 250, 300, 350, 400	8.75	100,000	65,000	35,000	
			HJD6	H6	200, 225, 250, 300, 350, 400	8.75	100,000	65,000	35,000	
			HHJXD6	H9	200, 225, 250, 300, 350, 400	8.75	200,000	100,000	50,000	
			HHJD6	6H	200, 225, 250, 300, 350, 400	8.75	200,000	100,000	50,000	
			CJD6	CJ	200, 225, 250, 300, 350, 400	8.75	200,000	150,000	100,000	
	Electronic (Solid state)	VL	Sentron	NJ	J1	250, 400	6.25	65,000	35,000	25,000
				HJ	J7	250, 400	6.25	100,000	65,000	25,000
				LJ	J3	250, 400	6.25	200,000	100,000	25,000
		Sentron	Sentron	SJD6	SJ	200, 300, 400	8.75	65,000	35,000	25,000
				SHJD6	SX	200, 300, 400	8.75	100,000	65,000	35,000
				SCJD6	SC	200, 300, 400	8.75	200,000	150,000	100,000
				LXD6	LX	450, 500, 600	8.75	65,000	35,000	25,000
600	Thermal Magnetic	Sentron	LD6	L6	250, 300, 350, 400, 450, 500, 600	8.75	65,000	35,000	25,000	
			HLXD6	HO	250, 300, 350, 400, 450, 500, 600	8.75	100,000	65,000	35,000	
			HLD6	HL	250, 300, 350, 400, 450, 500, 600	8.75	100,000	65,000	35,000	
			HHLXD6	XH	250, 300, 350, 400, 450, 500, 600	8.75	200,000	100,000	50,000	
			HHLD6	HH	250, 300, 350, 400, 450, 500, 600	8.75	200,000	100,000	50,000	
			CLD6	CL	250, 300, 350, 400, 450, 500, 600	8.75	200,000	150,000	100,000	
			NL	L7	400, 600	6.25	65,000	35,000	25,000	
	Electronic (Solid state)	VL	Sentron	HL	L2	400, 600	6.25	100,000	65,000	25,000
				LL	SL	400, 600	6.25	200,000	100,000	25,000
				SLD6	L6	300, 400, 500, 600	8.75	65,000	35,000	25,000
		Sentron	Sentron	SHLD6	S2	300, 400, 500, 600	8.75	100,000	65,000	35,000
				SCLD6	SI	300, 400, 500, 600	8.75	200,000	150,000	100,000
				NM	M1	600, 700, 800	8.75	65,000	35,000	25,000
				HM	M2	600, 700, 800	8.75	100,000	65,000	35,000
800	Thermal Magnetic	Sentron	LM	M3	600, 700, 800	8.75	200,000	100,000	50,000	
			LMXD6	LM	500, 600, 700, 800	8.75	65,000	50,000	25,000	
			LMD6	L1	500, 600, 700, 800	8.75	65,000	50,000	25,000	
			HLMXD6	HK	500, 600, 700, 800	8.75	100,000	65,000	50,000	
			HLMD6	HJ	500, 600, 700, 800	8.75	100,000	65,000	50,000	
			MXD6	MX	500, 600, 700, 800	10.00	65,000	50,000	25,000	
			MD6	MD	500, 600, 700, 800	10.00	65,000	50,000	25,000	
	HMXD6	HR	500, 600, 700, 800	10.00	100,000	65,000	50,000			
	Electronic (Solid state)	VL	Sentron	HMD6	HM	500, 600, 700, 800	10.00	100,000	65,000	50,000
				CMD6	CM	500, 600, 700, 800	10.00	200,000	100,000	65,000
				NM	M1	600, 800	8.75	65,000	35,000	25,000
		Sentron	Sentron	HM	M2	600, 800	8.75	100,000	65,000	35,000
				LM	M3	600, 800	8.75	200,000	100,000	50,000
				SMD6	SM	600, 700, 800	10.00	65,000	50,000	25,000
SHMD6				S5	600, 700, 800	10.00	100,000	65,000	50,000	
1200	Thermal Magnetic	VL	SCMD6	SO	600, 700, 800	10.00	200,000	100,000	65,000	
			NN	N1	800, 900, 1000, 1200	10.00	65,000	35,000	25,000	
			HN	N2	800, 900, 1000, 1200	10.00	100,000	65,000	35,000	
		Sentron	Sentron	LN	N3	800, 900, 1000, 1200	10.00	200,000	100,000	65,000
				NXD6	NX	900, 1000, 1200	10.00	65,000	50,000	25,000
				ND6	ND	900, 1000, 1200	10.00	65,000	50,000	25,000
				HNXD6	HT	900, 1000, 1200	10.00	100,000	65,000	50,000
	Electronic (Solid state)	VL	Sentron	HND6	HN	900, 1000, 1200	10.00	100,000	65,000	50,000
				CND6	Cn	900, 1000, 1200	10.00	200,000	100,000	65,000
				NN	N1	800, 1000, 1200	10.00	65,000	35,000	25,000
		Sentron	Sentron	HN	N2	800, 1000, 1200	10.00	100,000	65,000	35,000
				LN	N3	800, 1000, 1200	10.00	200,000	100,000	65,000
				SND6	SN	800, 1000, 1200	10.00	65,000	50,000	25,000
				SHND6	AD	800, 1000, 1200	10.00	100,000	65,000	50,000
SCND6	SR	800, 1000, 1200	10.00	200,000	100,000	65,000				

For inches / millimeters conversion, see Application Data section.

① For 600V, change "F" in position 3 to "G". Price only branch breakers with 600V ratings.
② For ground fault, see page 11-64.

③ Replace "MS" in catalog number with code letter.
④ 800 and 1200 ampere switches have "L" class fuse provisions (Type HCP).

Panelboards

Power and Distribution

• Revised •
04/15/14

Selection

Type P5

Branch Circuit Breakers^①

Breaker Frame Rating	Trip Type	Breaker Family	Frame Type	Poles	Trip Amperage	Unit Space Requirements in Inches		Maximum Interruption Rating (KAIC) Volts AC					
						Single	Twin	120	240	480V/277	480	600V/347	600
100	Thermal Magnetic	General Application	BL	1, 2, 3	15-60, 70, 80, 90, 100, 110, 125	—	3.75 ^{②③}	10,000	10,000	—	—	—	—
			BLR	2	15, 20, 30, 40, 50, 60, 70, 80, 90, 100	—	3.75 ^{②③}	10,000	10,000	—	—	—	—
			BLH	1, 2, 3	15-60, 70, 80, 90, 100, 110, 125	—	3.75 ^{②③}	22,000	22,000	—	—	—	—
			HBL	1, 2, 3	15-60, 70, 80, 90, 100, 110, 125	—	3.75 ^{②③}	65,000	65,000	—	—	—	—
			BQD	1, 2, 3	15-50, 60, 70, 80, 90, 100	—	3.75 ^{②③}	65,000	65,000	14,000	—	—	—
			BQD6	1, 2, 3	15-50, 60, 70	—	3.75 ^{②③}	65,000	65,000	—	—	10,000	—
	Special Application	BL-HID	1, 2	15, 20, 30	—	3.75 ^{②③}	10,000	10,000	—	—	—	—	
		BL-BG	2, 3	15, 20, 30	—	3.75 ^{②③}	10,000	10,000	—	—	—	—	
		Ground Fault Circuit Interrupter	BLE-GFCI	1, 2	15, 20, 30, 40, 50, 60	—	3.75 ^②	10,000	10,000	—	—	—	—
			BLEH-GFCI	1, 2	15, 20, 30, 40, 50, 60	—	3.75 ^②	10,000	10,000	—	—	—	—
	BLF-GFCI		1, 2	15, 20, 30, 40, 50, 60	—	3.75 ^②	10,000	10,000	—	—	—	—	
	BLHF-GFCI		1, 2	15, 20, 30, 40, 50, 60	—	3.75 ^②	10,000	10,000	—	—	—	—	
	Arc Fault Circuit Interrupter	BAF-AFCI	1, 2	15, 20	—	3.75 ^②	10,000	10,000	—	—	—	—	
		BAFH-AFCI	1, 2	15, 20	—	3.75 ^②	10,000	10,000	—	—	—	—	
		BAFC-AFCI	1, 2	15, 20	—	3.75 ^②	10,000	10,000	—	—	—	—	
		BAFCH-AFCI	1, 2	15, 20	—	3.75 ^②	10,000	10,000	—	—	—	—	
125	Thermal Magnetic	General Application	NGB	1, 2, 3	15-60, 70, 80, 90, 100, 110, 125	—	3.75 ^{②③}	—	100,000	25,000	—	14,000	—
			HGB	1, 2, 3	15-60, 70, 80, 90, 100, 110, 125	—	3.75 ^{②③}	—	100,000	35,000	—	14,000	—
			LGB	1, 2, 3	15-60, 70, 80, 90, 100, 110, 125	—	3.75 ^{②③}	—	100,000	65,000	—	14,000	—
			NEB	1, 2, 3	15-60, 70, 80, 90, 100, 110, 125	—	3.75 ^{②③}	—	85,000	—	35,000	—	22,000
			HEB	1, 2, 3	15-60, 70, 80, 90, 100, 110, 125	—	3.75 ^{②③}	—	100,000	—	65,000	—	25,000
			ED4	1, 2, 3	15-50, 60, 70, 80, 90, 100, 110, 125	—	3.75 ^{②③}	—	65,000	—	18,000	—	—
			HED4 ^{④⑤}	1, 2, 3	15-50, 60, 70, 80, 90, 100, 110, 125	—	3.75 ^{②③}	—	100,000	—	42,000	—	—
			CED6	2, 3	15-50, 60, 70, 80, 90, 100, 110, 125	—	3.75 ^{②③}	—	200,000	—	200,000	—	100,000
150	Electronic (Solid state)	VL	ND	3	60, 100, 150	—	5.00	—	65,000	—	35,000	—	18,000
			HD	3	60, 100, 150	—	5.00	—	100,000	—	65,000	—	20,000
			LD	3	60, 100, 150	—	5.00	—	200,000	—	100,000	—	25,000
225	Thermal Magnetic	General Application	QJ2	2, 3	60-110, 125, 150, 175, 200, 225	—	5.00	—	10,000	—	—	—	—
			QJH2	2, 3	60-110, 125, 150, 175, 200, 225	—	5.00	—	22,000	—	—	—	—
			QJ2H	2, 3	60-110, 125, 150, 175, 200, 225	—	5.00	—	42,000	—	—	—	—
250	Thermal Magnetic	Sentron	FXD6, FD6	2, 3	70-110, 125, 150, 175, 200, 225, 250	5.00	5.00	—	65,000	—	35,000	—	22,000
			HFXD6, HFD6	2, 3	70-110, 125, 150, 175, 200, 225, 250	5.00	5.00	—	100,000	—	65,000	—	25,000
			HHFXD6, HHFD6	2, 3	70-110, 125, 150, 175, 200, 225, 250	5.00	5.00	—	200,000	—	100,000	—	25,000
			CFD6	3	70-110, 125, 150, 175, 200, 225, 250	—	5.00	—	200,000	—	200,000	—	100,000
	Electronic (Solid state)	VL	NF	3	100, 150, 250	—	5.00	—	65,000	—	35,000	—	18,000
			HF	3	100, 150, 250	—	5.00	—	100,000	—	65,000	—	20,000
			LF	3	100, 150, 250	—	5.00	—	200,000	—	100,000	—	25,000
400	Thermal Magnetic	Sentron	JXD6, JD6	2, 3	200, 225, 250, 300, 350, 400	8.75	8.75	—	65,000	—	35,000	—	25,000
			HJXD6, HJD6	2, 3	200, 225, 250, 300, 350, 400	8.75	8.75	—	100,000	—	65,000	—	35,000
			HHJXD6, HHJD6	2, 3	200, 225, 250, 300, 350, 400	8.75	8.75	—	200,000	—	100,000	—	50,000
			CJD6	3	200, 225, 250, 300, 350, 400	8.75	—	—	200,000	—	150,000	—	100,000
			Electronic (Solid state)	VL	NJ	3	250, 400	6.25	6.25	—	65,000	—	35,000
	HJ	3			250, 400	6.25	6.25	—	100,000	—	65,000	—	25,000
	LJ	3			250, 400	6.25	6.25	—	200,000	—	100,000	—	25,000
	Sentron	SJD6		3	200, 300, 400	8.75	—	—	65,000	—	35,000	—	25,000
		SHJD6		3	200, 300, 400	8.75	—	—	100,000	—	65,000	—	35,000
	SCJD6	3	200, 300, 400	8.75	—	—	200,000	—	150,000	—	100,000		

For inches / millimeters conversion, see Application Data section.

① Includes housing frame plate with blank cover plate. Provision price includes all necessary mounting hardware, less circuit breaker, and includes housing frame cover plate with breaker handle opening.
② 1 to 6 poles may be mounted in 3.75" of unit space.

③ Accessories such as shunt trips on three pole breakers require 6.25" of unit space.
④ HED4 1-pole 15-30A = 65,000 IR
35-100A = 25,000 IR
⑤ HED4 3-Pole = 42,000 IR.

Panelboards

Power and Distribution

Selection

Type P5

Branch Circuit Breakers^① (cont.)

Breaker Frame Rating	Trip Type	Breaker Family	Frame Type	Poles	Trip Amperage	Unit Space Requirements in Inches		Maximum Interruption Rating (KAIC) Volts AC							
						Single	Twin	120	240	480Y/277	480	600Y/347	600		
						600	Thermal Magnetic	Sentron	LXD6	2, 3	450, 500, 600	8.75	—	—	65,000
LD6	2, 3	250, 300, 350, 400, 450, 500, 600	8.75	—	—	65,000			—	35,000	—	25,000			
HLD6, HLD6	2, 3	250, 300, 350, 400, 450, 500, 600	8.75	—	—	100,000			—	65,000	—	35,000			
HHLXD6, HHLXD6	2, 3	250, 300, 350, 400, 450, 500, 600	8.75	—	—	200,000			—	100,000	—	50,000			
CLD6	3	250, 300, 350, 400, 450, 500, 600	8.75	—	—	200,000			—	150,000	—	100,000			
Electronic (Solid state)	VL	NL	3	400, 600	6.25	—		—	65,000	—	35,000	—	25,000		
		HL	3	400, 600	6.25	—		—	100,000	—	65,000	—	25,000		
		LL	3	400, 600	6.25	—		—	200,000	—	100,000	—	25,000		
	Sentron	SLD6	3	300, 400, 500, 600	8.75	—		—	65,000	—	35,000	—	25,000		
		SHLD6	3	300, 400, 500, 600	8.75	—		—	100,000	—	65,000	—	35,000		
800	Thermal Magnetic	VL	NM	2, 3	600, 700, 800	8.75	—	—	65,000	—	35,000	—	25,000		
			HM	2, 3	600, 700, 800	8.75	—	—	100,000	—	65,000	—	35,000		
			LM	2, 3	600, 700, 800	8.75	—	—	200,000	—	100,000	—	50,000		
		Sentron	MXD6	2, 3	600, 700, 800	10.00	—	—	65,000	—	50,000	—	25,000		
			MD6	2, 3	500, 600, 700, 800	10.00	—	—	65,000	—	50,000	—	25,000		
			HMXD6	2, 3	600, 700, 800	10.00	—	—	100,000	—	65,000	—	50,000		
			HMD6	2, 3	500, 600, 700, 800	10.00	—	—	100,000	—	65,000	—	50,000		
			CMD6	3	600, 700, 800	10.00	—	—	200,000	—	100,000	—	65,000		
			Electronic (Solid state)	VL	NM	3	600, 800	8.75	—	—	65,000	—	35,000	—	25,000
					HM	3	600, 800	8.75	—	—	100,000	—	65,000	—	35,000
	LM	3			600, 800	8.75	—	—	200,000	—	100,000	—	50,000		
	Sentron	SMD6	3	600, 700, 800	10.00	—	—	65,000	—	50,000	—	25,000			
		SHMD6	3	600, 700, 800	10.00	—	—	100,000	—	65,000	—	50,000			
		SCMD6	3	600, 700, 800	10.00	—	—	200,000	—	100,000	—	65,000			
		1200	Thermal Magnetic	VL	NN	2, 3	800, 900, 1000, 1200	10.00	—	—	65,000	—	35,000	—	25,000
					HN	2, 3	800, 900, 1000, 1200	10.00	—	—	100,000	—	65,000	—	35,000
					LN	2, 3	800, 900, 1000, 1200	10.00	—	—	200,000	—	100,000	—	65,000
				Sentron	NXD6	2, 3	900, 1000, 1200	10.00	—	—	65,000	—	50,000	—	25,000
	ND6				2, 3	800, 900, 1000, 1200	10.00	—	—	65,000	—	50,000	—	25,000	
	HNXD6				2, 3	900, 1000, 1200	10.00	—	—	100,000	—	65,000	—	50,000	
HND6	2, 3				800, 900, 1000, 1200	10.00	—	—	100,000	—	65,000	—	50,000		
CND6	2, 3				900, 1000, 1200	10.00	—	—	200,000	—	100,000	—	65,000		
Electronic (Solid state)	VL				NN	3	800, 1000, 1200	10.00	—	—	65,000	—	35,000	—	25,000
					HN	3	800, 1000, 1200	10.00	—	—	100,000	—	65,000	—	35,000
		LN	3	800, 1000, 1200	10.00	—	—	200,000	—	100,000	—	65,000			
Sentron	SND6	3	800, 1000, 1200	10.00	—	—	65,000	—	50,000	—	25,000				
	SHND6	3	800, 1000, 1200	10.00	—	—	100,000	—	65,000	—	50,000				
	SCND6	3	800, 1000, 1200	10.00	—	—	200,000	—	100,000	—	65,000				

For inches / millimeters conversion, see Application Data section.

① Includes housing frame plate with blank cover plate. Provision price includes all necessary mounting hardware, less circuit breaker, and includes housing frame cover plate with breaker handle opening.

Panelboards

• Revised •
04/15/14

Power and Distribution

Selection/Dimensions

11
PANELBOARDS

Ampere Rating	Mounting Height (inches)
240V — Twin Mounted NEC Fuse Clips^②	
30-30	2½ ^④
30-30	5
30-60	5
60-60	5
60-100	7½
100-100	7½
200-200	10

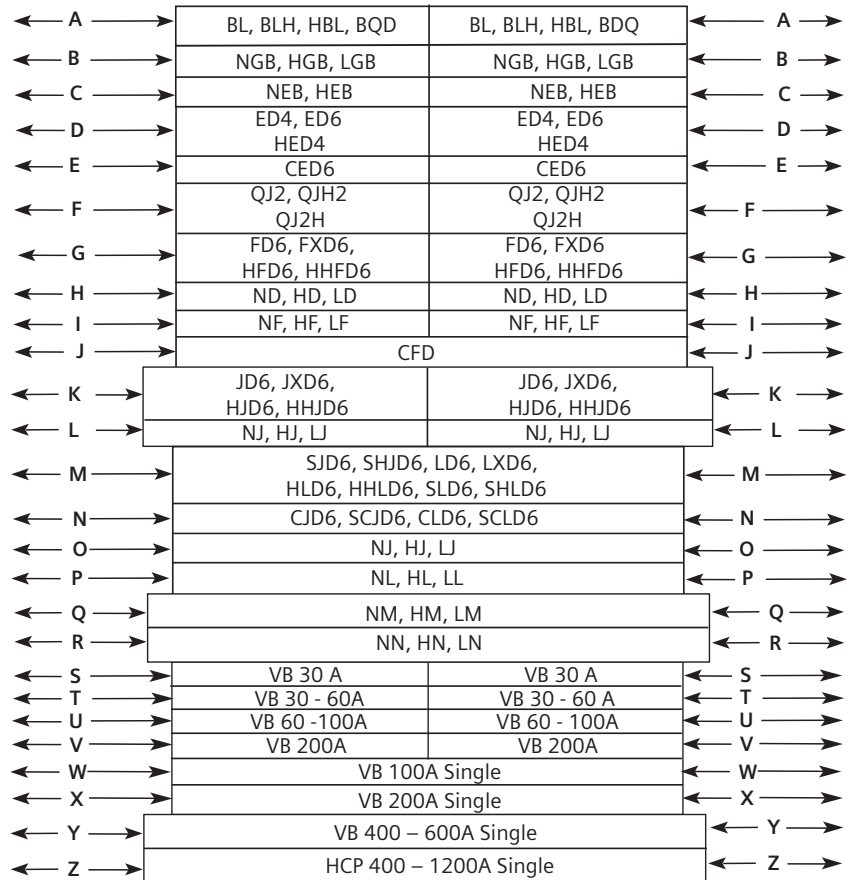
Ampere Rating	Mounting Height (inches)
240V — Single Mounted NEC Fuse Clips^②	
30	7½
60	7½
100	7½
200	10
200	7½
400	15
600	15
800 (HCP)	16¼
1200 (HCP)	16¼

Ampere Rating	Mounting Height (inches)
600V — Twin Mounted NEC Fuse Clips^②	
30-30	7½
30-60	7½
60-60	7½
60-100	7½
100-100	7½
200-200	10

Ampere Rating	Mounting Height (inches)
600V — Single Mounted NEC Fuse Clips^②	
100	7½
200	10
400	15
400 (HCP)	15
600	15
600	15
800 ^③ (HCP)	16¼
1200 ^③ (HCP)	16¼

Branch Breaker Side Gutter Inches (mm)

Reference Letter	Panel Width 38 Inches Dimensions in inches (mm)
A	14.00 (356)
B	13.98 (355)
C	11.62 (295)
D	10.00 (254)
E	7.61 (193)
F	8.75 (222)
G	8.25 (210)
H	10.90 (276)
I	10.90 (276)
J	11.76 (299)
K	7.92 (201)
L	8.00 (203)
M	13.42 (341)
N	12.00 (305)
O	15.50 (393)
P	14.25 (362)
Q	13.42 (341)
R	13.42 (341)
S	10.00 (254)
T	8.00 (203)
U	10.50 (267)
V	10.50 (267)
W	9.30 (236)
X	10.30 (262)
Y	9.30 (236)
Z	10.30 (262)



For inches / millimeters conversion, see Application Data section.

① Includes housing frame plate without breaker handle opening. Provisions include all necessary mounting hardware less breakers.

② For Class J, R or T fuse clip prices, refer to page 11-64.
③ 800 and 1200 ampere switches have class "L" fuse provisions. (Type HCP).
④ NEC fuse clips only.

Panelboards

Power and Distribution

Selection/Dimensions

Types P5 and SPP/FPP, F2 (12 3/4" deep)

Connecting Strap Kits^{①②③} Circuit Breaker

For use with P5, Sentron Deep or Type S5 Power Panels					
Max Amp Rating	Breaker Family	Breaker Type	Catalog Number	Unit Height (inches)	Mounting
100	General	BL, BQD	SBLBD	3.75	Twin
125	General	NGB, HGB, LGB	SNBD	3.75	Twin
	General	EB	SEBD	3.75	Twin
	General	ED	SE6D	3.75	Twin
	General	CED	SCED	3.75	Twin
150	VL	DG	SDGD	5.00	Twin
225	General	QJ	SQJD	5.00	Twin
250	Sentron	FD	SF6D	5.00	Twin
	VL	FG	SFGD	5.00	Twin
	Sentron	CFD	SCFD	5.00	Single
400	Sentron	JD	SJ1D	8.75	Single
	Sentron	JD	SJ2D	8.75	Twin
	Sentron	SJD	SSJ1D	8.75	Single
	VL	JG	SJG1D	6.25	Single
	VL	JG	SJG2D	6.25	Twin
	Sentron	CJD	SCJD	8.75	Single
	Sentron	SJD	SSCJD	8.75	Single
600	Sentron	LD	SL6D	8.75	Single
	Sentron	SLD	SSL6D	8.75	Single
	VL	LG	SLGD	6.25	Single
	Sentron	CLD	SCLD	8.75	Single
	Sentron	SCLD	SSCLD	8.75	Single
800	VL	MG	MG1D	8.75	Single
	Sentron	LMD	SLM1D	8.75	Single
	Sentron	MD	SMND	10.00	Single
	Sentron	SMD	SSMND	10.00	Single
1200	VL	NG	NG1D	10.00	Single
	Sentron	ND	SMND	10.00	Single
	Sentron	SND	SSMND	10.00	Single

Connecting Strap Kits^③ Fusible

For use with P5, Sentron FPP Deep or Type F2 power panels		
Ampere Rating	Unit Height (inches)	12. 75" Deep Box Catalog Number
30-30	2.5	F602D
30-30	5, 7.5	F657D
30-60	5, 7.5	F657D
60-60	5, 7.5	F657D
60-100	5, 7.5	F657D
100-100	5, 7.5	F657D
100	7.5	F657D
200	7.5	F657D
200	10	F671D
200-200	10	F672D
400-600	15	F6150D
800-1200 ^④	16.25	F6162D

Blank Plates Circuit Breaker and Vacu-Break^①

For use with P5, Sentron SPP and Type S5 power panels	
Height (inches)	Catalog Number
1.25	6FPB01
2.5	6FPB02
3.75	6FPB03
5.0	6FPB05
10.0	6FPB10

Filler Plates

For use with P5, Sentron SPP and Type S5 power panels	
Breaker Type	Filler Plate Catalog Number
BL, BLH, HBL, BQD, ED2, ED4, ED6, NGB, HGB, LGB, HED4, HED6	DFFP1^⑤
NEB, HEB	EBF1

For inches / millimeters conversion, see Application Data section.

① Normal stock item.

② Includes cover plate and mounting hardware, less circuit breaker.

③ Also fits Types FCI, FCII, SB1 and SB2 switchboards.

④ 800-1200 amp units are HCP switch.

⑤ Suitable to replace QF3 in P1 thru P5 Panelboards and Switchboards

Note: When a front filler plate is not completely filled with breakers, the openings in the unused space must be closed with filler plates selected from this table.

Panelboards

Modifications and Additions

Selection

Type P5 Panelboards

Devices Mounted on Gutter Cover Includes Device, Mounting – Wired or Unwired

Description
One piece front with door
(Depth increases to 14.25")
Hinged Gutter Covers 4 pc front
Toggle Switch — SPST or 3-way
15A, 277V maximum
Pilot Light — General Purpose
Neon or Incandescent
Pushbutton

Feed-Thru Lugs

Ampere Rating	Unit Space (inches)
400	10
600	10
800	17.5
1200	17.5

Grounding of Panelboards

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

- Non-Insulated Equipment Ground Bar – Standard
- Copper Non-Insulated Ground Bar
- Al Insulated Equipment Ground Bar
- Cu Insulated Equipment Ground Bar
- Ground Bar Brazed to Box

Fuse Clip Provisions (Add to 250 Volts or 600 Volts Unit Prices Per Switch)

Amp Rating	Class J	Class R	Class T
30	•	•	N/A
60	•	•	N/A
100	•	•	•
200 ^①	•	•	•
400	•	•	•
600	•	•	•

• Indicates available

Ground Fault on Main Breaker

Description	Amp Rating
Conventional Ground Fault ^② Includes:	
Ground Fault Relay, Ground Sensor, CPT and Shunt Trip	800-1200
Test and Monitor Panel ^③	
Ground Fault add to Sensitrip III breaker price (takes 5" of unit space)	800-1200

Time Clocks^④

Sangamo, Tork or Paragon time clock can be supplied, mounted in panel-board cabinet. For required increase in enclosure dimension, consult local sales office.

Description
Time clock (1- or 2-Pole, Single or Double Throw Contacts; 3-Pole Single Throw)
277V Maximum with Plain Dial
Optional: Astronomical Dial An Omitting Device Reserve Power or Carryover
Space and Mounting Provisions Only

Circuit Breaker Accessories Handle Blocking Device Blocks handle in either the "ON" or "OFF" position.

Padlocking Device – Padlocks in "OFF" position.

Main Bus

Standard main bus and ground bus are tin-plated aluminum. For copper main bus, neutral bus and ground bus, add from the table for each panel.

Lugs – For Main Lug Only Panels

Standard main lugs and neutral lugs are tin-plated aluminum, UL listed for use with aluminum/copper cables. Copper only lugs are an option.

Ampere Rating
400 - 1200

Shunt Trip on Main and Branches^⑤

Description
BL, BOD, NGB, HGB, LGB, NEB, HEB (branch only)
QJ2, QJH2, QJ2H, HQJ2H, ED2, ED4, HED4, HHED6, CED (branch only)
All others to 1200A

100% Rated Main Circuit Breakers

Ampere Rating	Breaker Type
400	JXD6H, HJXD6H
	NJY, HJY, LJY
600	LXD6H, HLXD6H
600 ^⑥	NMY, HMY, LMY
800 ^⑦	NNY, HNY, LNY
1200	NNY, HNY, LNY

^① For use on main lug, main breaker or main switch panels without subfeed breakers.

^② Available in 90" high enclosure only. Unit space is 42½" with Test and Monitor Panel; 45" without Test Monitor Panel.

^③ Not available on Sensitrip III.

^④ For required unit space, consult local sales office.

^⑤ Shunt Trip on 100A frame breakers increases mounting height to 6.25" for twin mounting.

^⑥ The 600A, 100% rated breaker application requires the use of an 800A frame breaker.

^⑦ The 800A, 100% rated breaker application requires the use of a 1200A frame breaker.

Panelboards

Modifications and Additions

Selection

Type P5 Panelboards

Vacu-Break Fusible Switches

For Branch Circuit Use with AC Combination Full Voltage Starters ^①

Amp Rating	Horsepower Ratings				Mounting Height in Inches (mm)				Min. Section Width Inches (mm)
	240V AC		480V AC		240V AC		480V AC		
	With NEC Fuse	With Dual-Element Fuse	With NEC Fuse	With Dual-Element Fuse	Twin	Single	Twin	Single	
30-30	3	7.5	—	—	2.50 [Ⓢ] (64)	—	—	—	32 (813)
30-30	3	7.5	5	10	5.00 (127)	—	7.50 (191)	—	32 (813)
30-60	3-7.5	7.5-15	5-15	25	5.00 (127)	—	7.50 (191)	—	32 (813)
60-60	7.5	15	15	25	5.00 (127)	—	7.50 (191)	—	32 (813)
60-100	7.5-15	15-30	15-25	25-50	7.50 (191)	—	7.50 (191)	—	32 (813)
100-100	15	30	25	50	7.50 (191)	—	7.50 (191)	—	32 (813)
100	—	—	25	50	—	—	—	7.50 (191)	32 (813)
200	25	50	50	100	—	10.00 (254)	—	10.00 (254)	32 (813)
200-200	—	50	—	100	10.00 (254)	—	10.00 (254)	—	32 (813)
400	50	100	100	—	—	15.00 (381)	—	15.00 (381)	38 (965)
600	75	100	—	—	—	15.00 (381)	—	15.00 (381)	38 (965)

Connector Modifications

Compression Lugs

Style	Amp Rating	Breaker Type	Compression Connectors	Available Unit Space Reduction
MLO	800	N/A	All compression lugs	Deduct 5.0" Unit Space
	1000	N/A	All compression lugs	Deduct 5.0" Unit Space
	1200	N/A	All compression lugs	Deduct 5.0" Unit Space
Main Breaker	800	MD6, HMD6, CMD6, SMD6, SHMD6, SCMD6	(3)#2/0 AWG - 500 Kcmil Cu or Al	0
	1200	ND6, HND6, CND6, SND6, SHND6, SCND6	(4)#250 - 500 Kcmil Cu or Al	0

Alternate Lugs

Style	Amp Rating	Breaker Type	Compression Connectors	Available Unit Space Reduction
MLO	800	N/A	(3)#3/0 AWG - 750 Kcmil Cu or Al	Deduct 10" Unit Space
	1000	N/A	(4)#3/0 - 600 Kcmil Cu or Al (4)#3/0 AWG - 750 Kcmil Cu or Al	Deduct 10" Unit Space
	1200	N/A	(4)#3/0 AWG - 600 Kcmil Cu or Al (4)#3/0 AWG - 750 Kcmil Cu or Al	Deduct 10" Unit Space

① 100,000 kA at 480V with Class J or Class RK5 fuses.

Ⓢ The 2.50 inch (64mm) high unit is suitable for NEC Class H and K5 fuses only. Class R rejection type fuse holders are not available.

Panelboards

Kits and Accessories

Selection

Type P5 Panelboards

Enclosures

Description	Catalog number
P5 Type 1 36" W x 12.75" D x 60" H	PB860
P5 Type 1 36" W x 12.75" D x 75" H	PB875
P5 Type 1 36" W x 12.75" D x 90" H	PB890
P5 Type 1 36" W x 14.75" D x 60" H	PBD860 ^①
P5 Type 1 36" W x 14.75" D x 75" H	PBD875 ^①
P5 Type 1 36" W x 14.75" D x 90" H	PBD890 ^①
P5 Type 3R/12 60" H	WP860
P5 Type 3R/12 75" H	WP875
P5 Type 3R/12 90" H	WP890

Trims

Description	Catalog number
P5 Std (4 piece trim) vented 60"	P560V
P5 Std (4 piece trim) vented 75"	P575V
P5 Std (4 piece trim) vented 90"	P590V
P5 Std (4 piece trim) unvented 60"	P560NV ^②
P5 Std (4 piece trim) unvented 75"	P575NV ^②
P5 Std (4 piece trim) unvented 90"	P575NV ^②
P5 Std (4 piece trim) vented 60" with hinged gutter covers	P560VHG
P5 Std (4 piece trim) vented 75" with hinged gutter covers	P575VHG
P5 Std (4 piece trim) vented 90" with hinged gutter covers	P590VHG
P5 Std (4 piece trim) unvented 60" with hinged gutter covers	P560NVHG
P5 Std (4 piece trim) unvented 75" with hinged gutter covers	P575NVHG
P5 Std (4 piece trim) unvented 90" with hinged gutter covers	P590NVHG
P5 Std (1 PC Door) vented 60"	P560VD ^③
P5 Std (1 PC Door) vented 75"	P575VD ^③
P5 Std (1 PC Door) vented 90"	P590VD ^③
P5 Std (1 PC Door) unvented 60"	P560NVD ^③
P5 Std (1 PC Door) unvented 75"	P575NVD ^③
P5 Std (1 PC Door) unvented 90"	P590NVD ^③
P5 Std (1 PC Door-in-door) vented 60"	P560VDD ^③
P5 Std (1 PC Door-in-door) vented 75"	P575VDD ^③
P5 Std (1 PC Door-in-door) vented 90"	P590VDD ^③
P5 Std (1 PC Door-in-door) unvented 60"	P560NVDD ^③
P5 Std (1 PC Door-in-door) unvented 75"	P575NVDD ^③
P5 Std (1 PC Door-in-door) unvented 90"	P590NVDD ^③

Flush mounting kits

Description	Catalog number
Flush kit to P5 60" High	F860
Flush kit to P5 75" High	F875
Flush kit to P5 90" High	F890

^① Required with door over breaker handles.

^③ Requires 14.5" deep box.

^② Unvented trims require amps per square inch bussing.

