

SIEMENS

Power Panels



Made in Canada, for Canada

Meet the flexible and rugged distribution power panels that are customizable for every application. The extensive set of parts and additional features that are offered allow you to build the perfect solutions for your needs. From having the ability to mix and match devices of different sizes and ratings to choosing from a wide range of fuse types, the options for our power panels are limitless.

S5 Power Panels (Breaker Type)

Lighting, Appliance, and Distribution Applications

S5 Power Panels are powerful distribution power panels that allow for the use of all Siemens circuit breakers as branch and main devices. These panels are custom made based on customer specifications and requirements.



- 600VAC Max. with 1PH 3W, 3PH 3W, or 3PH 4W system options & 250VDC 2W options are also available
- Short Circuit Rating up to 200kA
- 225A-1200A Main Lugs
- 400A-1200A Main Breaker
- 15-1200A Branch Ratings
- 30", 45", or 60" Unit Space
- 60", 75", or 90" Enclosure Height
- Type 1, 2, 3R, or 12 Enclosure
- Split Neutral for Easy Installation
- Bolted Current-Carrying Parts
- Time-Reducing Wing Nuts to Secure Interior Without Tools
- Optional Compression Lugs
- Optional 200% Neutral



Molded Case Circuit Breakers

All Siemens Molded Case Circuit Breakers can be used as branch disconnect devices in the S5 power panels. This includes breakers with thermal magnetic, ground and arc fault circuit interrupters, and electronic trip units with different frame ratings.



3VA Molded Case Circuit Breakers

3VA breakers are the newest addition to our molded case circuit breaker family. 3VA breakers offer safe, efficient and variable application options while complying with global standards and certifications.

General Application Circuit Breakers

General application thermal magnetic breakers are offered with countless options and possibilities. Types BL, BQD, QR, and GB2 breakers can be used in all kA ratings and amperages.

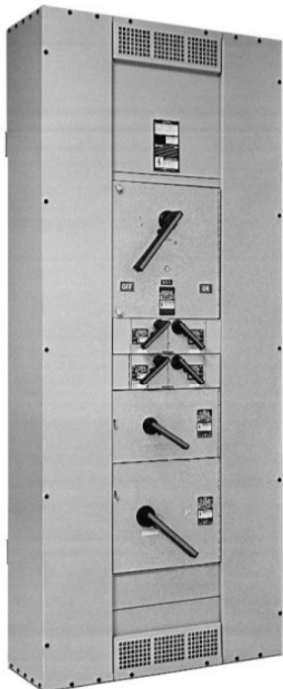
Sentron Molded Case Circuit Breakers

Siemens Sentron™ series molded case circuit breakers have a long history of excellent performance in both commercial and industrial applications.

F2 Power Panels (Fusible Type)

Lighting, Appliance, and Distribution Applications

F2 Power Panelboards are factory assembled fusible type distribution panels that accept a wide range of fuse types including Siemens Vacu-Break fusible switches. With a comprehensive set of options, these panels reliably fit your needs and requirements.



- 600VAC Max. with 1PH 3W, 3PH 3W, or 3PH 4W system options & 250VDC 2W options are also available
- Short Circuit Rating up to 200kA
- 225A-1200A Main Lugs
- 200A-600A Main Switches
- 30-1200A Fusible Branch Ratings
- 30", 45", or 60" Unit Space
- 60", 75", or 90" Enclosure Height
- Type 1, 2, 3R, or 12 Enclosure
- Split Neutral for Easy Installation
- Bolted Current-Carrying Parts
- Time-Reducing Wing Nuts to Secure Interior Without Tools
- Optional Compression Lugs
- Optional 200% Neutral

Fusible Disconnects

Siemens exclusive Vacu-Break switches combines the latest in fusible technology with quick make/quick break performance and reliability. Fusible disconnects used for F2 Power Panels include the VB, VK, and HCP switches.



VB Switches

- 30-600A
- Up to 600 Volts
- J Fuse Provision
- Single or twin mounted

VK Switches

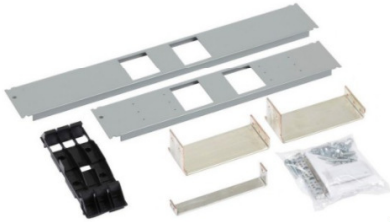
- 30-200A
- Up to 600 Volts
- J Fuse Provision
- Twim mounted only

HCP Switches

- 400-1200A ratings offered
- Up to 600 Volts
- J, T, and L Fuse Provisions
- Horizontally mounted for panel applications

Accessories

Field installable connecting strap kits and filler plates can be offered for a wide range of breakers and fusible switches to meet any customized solutions.



Breaker Connecting Strap Kit

Switch Connecting Strap Kit

Filler Plate

Surge Protection Devices

Siemens Integral TPS3 series surge protectors are factory-installed SPDs mounted within our standard distribution equipment. The results are some of the industry's best "installed" Voltage Protection Ratings.



S5 and F2 Panels Internally Mounted SPD

Siemens TP53 05 and L5 surge protective devices are designed for integration within our S5 and F2 panelboards as well as the distribution section within switchboards.

Power Monitoring

Siemens power monitors combine the best of new technologies and proven practices. Monitor critical loads, power quality, and demand via the web directly from the meters. These systems from Siemens are complete enterprise solutions that help you manage the energy costs and availability of your business.



External or Wall Mounted SPDs

A wide range of external SPDs with different surge current capacities are offered for the S5 and F2 power panels.



PAC Meters



9410 Meter



SEM3 Meter

SEM3 Embedded Micro Metering Module

The Siemens Embedded Micro Metering Module (SEM3) is a modular metering solution for energy monitoring, data analysis, and sub billing applications. The flexible design allows for low, medium, and high density metering requirements to be met efficiently and economically using only a few standardized components.



SEM3 Controller



Current Transformer (CT)



Meter Rack



SEM3 Meter

Panelboards

Power and Distribution

Selection

Type S5 (SPP6)

600 Volts AC, 250 Volts DC Maximum
1200 Ampere Mains
1200 Ampere Maximum Branch
UL & CSA Short Circuit Rating –
200,000A IR Maximum

Branch Breaker Symmetrical
Interrupting Capacity

Based on Underwriters' Test
Procedure

Meets 1996 NEC wire bending requirement, section 373-6.
 CSA - C22.2 No. 0.12

Panelboards

Listed by Underwriters' Laboratories, Inc., under "Panelboards" File #E2269 for interiors and #E4016 for boxes and fronts. Meet Federal Specification W-C375B/Gen. & CSA Certificate No. 1518681.

Service

600 Volts AC, 250 Volts DC, Maximum.
 1 Phase, 3 Wire; 3 Phase, 3 Wire; or
 or 3 Phase, 4 Wire.

Panelboard Fronts and Doors

Standard panelboards are furnished with 4 piece trim with ventilation. Fronts are fabricated from code gauge steel and finished ASA61.

Main Breakers

All 400A and 1200A frame main breakers are mounted horizontally.

Main Lug Connectors

Ampere Rating	Connectors Range/Phase
225A - 400A	(1) #1/0-750MCM CU/AL or (2) #1/0-250MCM CU/AL
600A	(2) #1/0-750MCM CU/AL or (4) #1/0-250MCM CU/AL
800A	(3) #1/0-750MCM CU/AL or (6) #1/0-250MCM CU/AL
1200A	(4) #1/0-750MCM CU/AL or (8) #1/0-250MCM CU/AL

End Gutters

Ampere Rating	Main Lug (Inches)	Main Breaker (Inches)
400/600	15.967	13.0
800/1200	15.967	13.0

Boxes

38" wide, 12.75" deep (Type 1, 2)
 38" wide, 14.25" deep (Type 3R/12)

Panelboard Specifications

Maximum Panel Ampere	Unit Space (MLO)	Box Height	120/240Volts 1 Phase, 3 Wire	120/208 Volts 3 Phase, 4 Wire	600 Volts 3 Phase, 3 Wire	347/600 Volts 3 Phase, 4 Wire
400A	30"	60"				
600A	45"	75"				
800A	60"	90"				
1200A	60"	90"				

Main Breaker Selection

Amperage Rating	Breaker Type	Trip Type	Maximum Interrupting Rating (kA)			Available Trip Values
			240V	480V	600V	
400	JXD6 JD6 HJD6 HHJD6 CJD6	Thermal Magnetic	65	35	25	200, 225, 250, 300, 350, 400
			65	35	25	200, 225, 250, 300, 350, 400
			100	65	35	200, 225, 250, 300, 350, 400
			200	100	50	200, 225, 250, 300, 350, 400
	SJD6 SHJD6 SCJD6	Electronic (Solid State)	65	35	25	200, 300, 400
			100	65	35	200, 300, 400
			200	150	100	200, 300, 400
			200	150	100	200, 300, 400
600	LXD6 LD6 HLD6 HHL6 CLD6	Thermal Magnetic	65	35	25	450, 500, 600
			65	35	25	250, 300, 350, 400, 450, 500, 600
			100	65	35	250, 300, 350, 400, 450, 500, 600
			200	100	50	250, 300, 350, 400, 450, 500, 600
	SLD6 SHLD6 SCLD6	Electronic (Solid State)	65	35	25	300, 400, 500, 600
			100	65	35	300, 400, 500, 600
			200	150	100	300, 400, 500, 600
			200	150	100	300, 400, 500, 600
800	MXD6 MD6 HMD6 CMD6	Thermal Magnetic	65	50	25	500, 600, 700, 800
			65	50	25	500, 600, 700, 800
			100	65	50	500, 600, 700, 800
			200	100	65	500, 600, 700, 800
	SMD6 SHMD6 SCMD6	Electronic (Solid State)	65	50	25	600, 700, 800
			100	65	50	600, 700, 800
			200	100	65	600, 700, 800
			200	100	65	600, 700, 800
1200	NXD6 ND6 HND6 CND6	Thermal Magnetic	65	50	25	800, 900, 1000, 1200
			65	50	25	800, 900, 1000, 1200
			100	65	50	800, 900, 1000, 1200
			200	100	65	800, 900, 1000, 1200
	SND6 SHND6 SCND6	Electronic (Solid State)	65	50	25	800, 1000, 1200
			100	65	50	800, 1000, 1200
			200	100	65	800, 1000, 1200
			200	100	65	800, 1000, 1200

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)
J	11.76 (299)
K	7.92 (201)
M	13.42 (341)
N	12.00 (305)
P	14.25 (362)
Q	13.42 (341)

← A →	BL, BLH, HBL, BQD	BL, BLH, HBL, BQD	← A →
← B →	NGB2, HGB2, LGB2	NGB2, HGB2, LGB2	← B →
← D →	ED4, ED6, HED4, HHED6	ED4, ED6, HED4, HHED6	← D →
← E →	CED6	CED6	← E →
← F →	QR2, QRH2, HQR2, HQR2H	QR2, QRH2, HQR2, HQR2H	← F →
← G →	FD6, FXD6, HFD6, HHFD6	FD6, FXD6, HFD6, HHFD6	← G →
← AA →	3VA52 (MFAS, HFAS, CFAS)	3VA52 (MFAS, HFAS, CFAS)	← AA →
← AB →	3VA61 (MDAE, HDAE, CDAE, LDAE)	3VA61 (MDAE, HDAE, CDAE, LDAE)	← AB →
← AC →	3VA62 (MFAE, HFAE, CFAE, LFAE)	3VA62 (MFAE, HFAE, CFAE, LFAE)	← AC →
← J →	CFD		← J →
← K →	JD6, JXD6, HJD6, HHJD6	JD6, JXD6, HJD6, HHJD6	← K →
← M →	SJD6, SHJD6, LD6, LXD6, HLD6, HHL6, SLD6, SHLD6		← M →
← N →	CJD6, SCJD6, CLD6, SCLD6		← N →
← P →	MXD6, MD6, HMD6, CMD6, NXD6, ND6, HND6, CND6		← P →
← Q →	SMD6, SHMD6, SCMD6, SND6, SHND6, SCND6		← Q →

Branch Circuit Breaker Selection^U

Breaker Frame Rating	Trip Type	Breaker Type	Poles	Trip Amperage	Mounting Height Inches (mm)			Max IC Rating (kA)				
					Single	Twin	Gutter ⁵	240V	480V	600V		
100	Thermal Magnetic	BL	1, 2, 3	15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	—	3.75 (95) ^{2③}	14 (356)	10	—	—		
		BLH	1, 2, 3	15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	—	3.75 (95) ^{2③}	14 (356)	22	—	—		
		HBL	1, 2, 3	15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	—	3.75 (95) ^{2③}	14 (356)	65	—	—		
		BQD ⁶	1, 2, 3	15, 20, 30, 40, 50, 60, 70	—	3.75 (95) ^{2③}	14 (356)	65	—	10		
	Ground Fault Circuit Interrupter	BLE (GFCI)	1, 2	15, 20, 30, 40, 50, 60	—	3.75 (95) ²	14 (356)	10	—	—		
		BLF (GFCI)	1, 2	15, 20, 30, 40, 50, 60	—	3.75 (95) ²	14 (356)	10	—	—		
Arc Fault Circuit Interrupter	BAF (AFCI)	1	15, 20	—	3.75 (95) ²	14 (356)	10	—	—			
	BAFH (AFCI)	1	15, 20	—	3.75 (95) ²	14 (356)	22	—	—			
125	Thermal Magnetic	ED2	1, 2, 3	15, 20, 30, 40, 50, 60, 70, 80, 90, 100	3.75 (95) ^{2③}	3.75 (95) ^{2③}	10 (254)	10	—	—		
		ED4	1, 2, 3	15, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 125	3.75 (95) ^{2③}	3.75 (95) ^{2③}	10 (254)	65	18	—		
		ED6	1, 2, 3	15, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 125	3.75 (95) ^{2③}	3.75 (95) ^{2③}	10 (254)	100	18	18		
		HED4	1, 2, 3	15, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 125	3.75 (95) ^{2③}	3.75 (95) ^{2③}	10 (254)	100	65	30		
		CED6	2, 3	15, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 125	3.75 (95) ²	3.75 (95) ²	7.61 (193)	200	200	100		
		NGB2	1, 2, 3	15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100, 110, 125	3.75 (95) ^{2③}	3.75 (95) ^{2③}	13.98 (355)	100	25	14		
		HGB2	1, 2, 3	15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100, 110, 125	3.75 (95) ^{2③}	3.75 (95) ^{2③}	13.98 (355)	100	35	22		
		LGB2	1, 2, 3	15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100, 110, 125	3.75 (95) ^{2③}	3.75 (95) ^{2③}	13.98 (355)	100	65	25		
		150	Electronic (Solid State)	3VA61 (MDAE)	3	40, 100, 150	5 (127)	5 (127)	9.59 (244)	100	35	18
				3VA61 (HDAE)	3	40, 100, 150	5 (127)	5 (127)	9.59 (244)	100	65	22
3VA61 (CDAE)	3			40, 100, 150	5 (127)	5 (127)	9.59 (244)	200	100	35		
3VA61 (LDAE)	3			40, 100, 150	5 (127)	5 (127)	9.59 (244)	200	150	50		
225	Thermal Magnetic	QR2	2, 3	100, 110, 125, 150, 175, 200, 225	5 (127)	5 (127)	8.75 (222)	10	—	—		
		QRH2	2, 3	100, 110, 125, 150, 175, 200, 225	5 (127)	5 (127)	8.75 (222)	25	—	—		
		HQR2	2, 3	100, 110, 125, 150, 175, 200, 225	5 (127)	5 (127)	8.75 (222)	65	—	—		
		HQR2H	2, 3	100, 110, 125, 150, 175, 200, 225	5 (127)	5 (127)	8.75 (222)	100	—	—		
250	Thermal Magnetic	FXD6, FD6	2, 3	70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250	5 (127)	5 (127)	8.25 (210)	65	35	22		
		HFD6	2, 3	70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250	5 (127)	5 (127)	8.25 (210)	100	65	25		
		CFD6	2, 3	70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250	—	5 (127)	11.76 (299)	200	200	100		
		3VA52 (MFAS)	2, 3	40, 45, 50, 60, 70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250	5 (127)	5 (127)	10.10 (257)	85	35	18		
		3VA52 (HFAS)	2, 3	40, 45, 50, 60, 70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250	5 (127)	5 (127)	10.10 (257)	100	65	25		
		3VA52 (CFAS)	2, 3	40, 45, 50, 60, 70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250	5 (127)	5 (127)	10.10 (257)	200	100	35		
	Electronic (Solid State)	3VA62 (MFAE)	3	100, 250	5 (127)	5 (127)	9.59 (244)	100	35	18		
		3VA62 (HFAE)	3	100, 250	5 (127)	5 (127)	9.59 (244)	100	65	22		
		3VA62 (CFAE)	3	100, 250	5 (127)	5 (127)	9.59 (244)	200	100	35		
		3VA62 (LFAE)	3	100, 250	5 (127)	5 (127)	9.59 (244)	200	150	50		
400	Thermal Magnetic	JXD6, JD6	2, 3	200, 225, 250, 300, 350, 400	8.75 (222)	8.75 (222)	7.92 (201)	65	35	25		
		HJD6	2, 3	200, 225, 250, 300, 350, 400	8.75 (222)	8.75 (222)	7.92 (201)	100	65	35		
		HHJD6	2, 3	200, 225, 250, 300, 350, 400	8.75 (222)	8.75 (222)	7.92 (201)	200	100	50		
		CJD6	2, 3	200, 225, 250, 300, 350, 400	8.75 (222)	—	12 (305)	200	150	100		
	Electronic (Solid State)	SJD6	3	200, 300, 400	8.75 (222)	—	13.42 (341)	65	35	25		
		SHJD6	3	200, 300, 400	8.75 (222)	—	13.42 (341)	100	65	35		
600	Thermal Magnetic	LD6	2, 3	450, 500, 600	8.75 (222)	—	13.42 (341)	65	35	25		
		LD6	2, 3	250, 300, 350, 400, 450, 500, 600	8.75 (222)	—	13.42 (341)	65	35	25		
		HLD6	2, 3	250, 300, 350, 400, 450, 500, 600	8.75 (222)	—	13.42 (341)	100	65	35		
		HHL6	2, 3	250, 300, 350, 400, 450, 500, 600	8.75 (222)	—	13.42 (341)	200	100	50		
	Electronic (Solid State)	CLD6	2, 3	450, 500, 600	8.75 (222)	—	12 (305)	200	150	100		
		SLD6	3	300, 400, 500, 600	8.75 (222)	—	13.42 (341)	65	35	25		
800	Thermal Magnetic	SHLD6	3	300, 400, 500, 600	8.75 (222)	—	13.42 (341)	100	65	35		
		SCLD6	3	300, 400, 500, 600	8.75 (222)	—	12 (305)	200	150	100		
		MXD6	2, 3	500, 600, 700, 800	10 (254)	—	13 (330)	65	50	25		
		MD6	2, 3	500, 600, 700, 800	10 (254)	—	13 (330)	65	50	25		
	Electronic (Solid State)	HMD6	2, 3	500, 600, 700, 800	10 (254)	—	13 (330)	100	65	50		
		CMD6	2, 3	500, 600, 700, 800	10 (254)	—	13 (330)	200	100	65		
1200	Thermal Magnetic	SMD6	3	600, 700, 800	10 (254)	—	12 (305)	65	50	25		
		SHMD6	3	600, 700, 800	10 (254)	—	12 (305)	100	65	50		
		SCMD6	3	600, 700, 800	10 (254)	—	12 (305)	200	100	65		
		NXD6	2, 3	800, 900, 1000, 1200	10 (254)	—	13 (330)	65	50	25		
	Electronic (Solid State)	ND6	2, 3	800, 900, 1000, 1200	10 (254)	—	13 (330)	65	50	25		
		HND6	2, 3	800, 900, 1000, 1200	10 (254)	—	13 (330)	100	65	50		
1200	Thermal Magnetic	CND6	2, 3	800, 900, 1000, 1200	10 (254)	—	13 (330)	200	100	65		
		SND6	3	800, 1000, 1200	10 (254)	—	12 (305)	65	50	25		
		SHND6	3	800, 1000, 1200	10 (254)	—	12 (305)	100	65	50		
		SCND6	3	800, 1000, 1200	10 (254)	—	12 (305)	200	100	65		

Panelboards

Modifications and Additions

Type S5

When required, special constructions or additions to standard panelboards may be specified for all **factory-assembled** Power and Distribution Panelboards. Below and on the next page are listed many of those available for Type S5 panelboards. In no case do these apply to **Narrow** (Column) Width Lighting Panelboards or **Unassembled** Panelboards.

1. Miscellaneous

ENCLOSURE TYPE
Type 1
Type 2 (Drip-proof)
Type 3R
Type 12

2. Painted Finish

Touch-Up Paint (ASA61, Light Gray) 12 oz. aerosol can, Catalog Number TUP61

3. Miscellaneous Accessories

Nameplate — laminated, engraved Tamper-Resistant Screws
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4. Devices Mounted on Gutter Cover — Includes Device, Mounting — Wired or Unwired

Toggle Switch — SPST or 3-way; 15A
Pilot Light — General Purpose, Neon or Incandescent
Pushbutton

5. Feed-Thru Lugs^① (One Set Per Panel)

Ampere Rating			Unit Space (Additional inches)
	3-Pole	2-Pole	MLO
400			10
600	Consult Sales	Consult Sales	10
800			17.5
1200			17.5

① For use on main lug, main breaker or main switch panels without subfeed breakers.
② Ground bar not installed in box.
③ For short circuit ratings with remote control switches, consult sales office.
④ Available in 90" high enclosure only. Unit space is 42 1/2" with Test and Monitor Panel; 45" without Test and Monitor Panel.

6. MLO Compression Lugs — Available as main lugs and neutral lug.

Ampere Rating	Aluminum (Specify Size)	Copper (Specify Size)	Deduct From Available Unit Space (inches)
400			5
600	Consult Sales	Consult Sales	5
800	Office	Office	5
1200			5

7. Grounding of Panelboards^②

Non-Insulated Equipment Ground Bus Including Ground Lug
Insulated Equipment Ground Bus Including Ground Lug

8. Remote Control Switches^{③④}

600V AC Ampere Rating	ASCO 920 Mechanically Held ^{⑤⑥}		Siemens CLH Electrically Held ^⑦	
	2-Pole	3-Pole	2-Pole	3-Pole
30	Unit space 20"		Unit space 20"	
60				
75				
100				
150 ^⑧				
200 ^⑧				
225				

9. Increased Capacity Neutral

Ampere Rating	Unit Space (inches)	
	Phase	Neutral
400	600	None
400	800	None
600	1200	None
800	1200	None

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

Breaker Type	Cat. Number
BL, BLH, HBL, BQ, BQH, HBQ	ECQL1
All BQD, GB	BQDHBD
All QR	HPLQR
All BQD, NGB, NGB2, HGB2, LGB2	BQDPLD
All ED	E2HBL
All FD	FD6HB1
All JD, LD	JD6HBL
All MD, ND, PD	MN6BL
3VA52/61/62	3VA93780LB10

⑤ Not available on Sensitrip IV.
⑥ For required unit space — consult local sales office.
⑦ Price does not include control power transformer.
⑧ Price 600 Volt 7 1/2" high units.
Mounting height increases to 6.25" when shunt trip is required.
⑨ Shunt Trip on 100A frame breakers increases mounting height to 6.25" for twin mounting.

Selection

Padlocking Device — Padlocks in "OFF" position. Available for:

Breaker Type	Cat. Number
BQ, BQH, BL, BLH, HBL	ECQLD3
One Pole BL, BLF, BE, BAF	ECPLD1
Two-Pole BL, BLF, BE	ECPLD2
All QR	HPLQR
All BQD, NGB, NGB2, HGB2, LGB2	BQDPLD
All ED	ED2HPL
All FD	FD6PL1
All JD, LD	JD6HPL
All MD, ND, PD	MN6PLD
3VA52/61/62	3VA91380LB11

11. Ground Fault Sensing Relay Kit^⑩ Equipment Protection (30 mA)

For Use with Breaker Types	Number of Poles	Description
ED4, ED6, HED4	1, 2, 3	Basic kit Basic kit with bell alarm

12. Main Bus

Standard main bus and ground bus are tin plated aluminum. For copper main bus, neutral bus and ground bus change prefix 'A' to 'C' on catalog number and contact your sales office for pricing.

13. Copper Lugs — For Main Lug Only Panels

Standard main lugs and neutral lugs are tin plated aluminum, UL & CSA listed for use with aluminum/copper cables. For copper lugs in the mains and neutral for use with copper cables only, contact sales.

14. Shunt Trip on Main^{⑤⑥⑦⑧⑨} and Branches

Description	Cat. Number
"BL, BQD6 (branch only) QR2, QRH2, HQR2, HQR2H, ED2, ED4, HED4 (branch only) All others through 1200A"	See breaker portion of this catalogue

15. Sentron TPS (TVSS Modules)

100kA, 150kA, 200kA, 250kA, 300kA
Options Surge Counter Remote Indicator

16. Customer Metering

Siemens Digital Metering with Remote Display SEM3 Embedded Metering
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⑩ Not CSA approved.

Panelboards

Modifications and Additions Replacements for Circuit Breakers

Selection

Replacement Connecting Strap Guide

The following table may be used to obtain the proper connector kit by measuring the exterior dimensions of the panel. Every attempt has been made to make this table complete and accurate. The table is based on panels produced by ITE, Bulldog and Siemens from 1958 to present. Should any questions arise please contact your Siemens sales office for replacements.

Panelboard				
Tub Width	Depth	Panel Type	Replacement Max Amps	Note
30" - 36" - 42"	9"	OLD CDP	400	MCCB only.
	9.75"	OLD CDP	600	MCCB only.
32" - 38"	13.75"	CDP/VB6	1200A	MCCB series 6 connectors
			600A	"VB" style units only (*)
38"	12.75"	SPP/FPP6	1200A	MCCB series 6 connectors
			600A	"VK" or "VB" style (*)

* If switch unit width is 17" it is a vacubreak. If switch unit width is 23" or 28" it is a "VK" switch.

Connecting Strap For Use With SPP/FPP, S5^③

Max Amp Rating	Breaker Family	Breaker Type	Catalogue Number	Unit Height	Mounting	
100	General	BQ, BQH, HB BL, BLH, HBL, BQD6	6BL2C ^{②⑤}	3.75" (95)	Twin	
125	General	NGB2, HGB2, LGB2	SGB2DCAN	3.75" (95)	Twin	
	Sentron	ED2, ED4, ED6, HED4	6E62 ^{②③}	3.75" (95)		
		CED6	6CLE2 ^①	3.75" (95)		
150	3VA	3VA61	S3VA52TDCAN ^⑥	5" (127)	Twin	
225	General Purpose	QR2, QR2H, HQR2, HQR2H	6QR2CAN ^④	5" (127)	Twin	
	Sentron	FXD6, FD6, HFD6, HHFD6	6F62 ^①	5" (127)	Twin	
		VL	NFG, LFG	SFGD		5" (127)
	250	Sentron	CFD6	6CLF1C	5" (127)	Single
		3VA	3VA52, 3VA62	S3VA52TDCAN ^⑥	5" (127)	Twin
400	Sentron	JXD6, JD6, HJD6, HHJD6	6JJ62 ^①	8.75" (222)	Twin	
	Sentron	CJD6	6CLJ1C	8.75" (222)	Single	
600	Sentron	LXD6, LD6, HLD6, HHLD6, SLD6, SHLD6, SJD6, SHJD6	6LL61C	8.75" (222)	Single	
		CLD6	6CLL1C	8.75" (222)		
		SCJD6, SCLD6	6SCL61C	8.75" (222)		
800	Sentron	MXD6, MD6, HMD6, CMD6, SHMD6, SCMD6, SJD6, SHJD6, SCJD6, SCLD6	6M61C	10" (254)	Single	
1200	Sentron	NXD6, ND6, HND6, CND6, SHND6, SCND6	6N61C	10" (254)	Single	

3VA Breaker Provision Kits

Breaker Type	Cat. Number	Description
3VA52, 3VA61 or 3VA62 Breaker	S3VA52PRCAN	Contains the necessary hardware to land breaker on an existing scrap kit

① These are aluminum connectors. If copper is required please add suffix C.
 ② 3.75" (95) plate accommodates six 1-pole breakers.
 ③ Connecting strap kits include connecting straps, hardware, and cover plates for switchboards and power panels. Breakers to be ordered separately.

④ QR filler plate only, use p/n: 6QR2FKCAN.
 For copper QR kit, use p/n: 6QR2CCAN.
 ⑤ To field install a single 3VA52, 3VA61 or 3VA62 breaker to an existing strap, provision kit p/n: S3VA52PRCAN is required.

Blank Filler Plates (No Breaker Cutout)

For use with Series 6 CDP Panelboards, S5, F2, SMP, FCI and FCII Switchboards.	
Height	SPP/FPP/CDP/VB 6
1.25"	6FPB01
2.50"	6FPB02
3.75"	6FPB03
5.00"	6FPB05
10.00"	6FPB10
15.00"	6FPB15

Connecting Strap Kits and Front-Filler Plates^①

For use with NDP-CDP-7, S3

Breakers	Catalogue Number
BQD6 (S3 only)	7 BQD6-2
BL, BLH, HBL,	7 BL-2
ED2, ED4, ED6, HED4	7 E6-2
Filler 1 Pole	DFFP1A

Panelboards

Fusible/Power and Distribution

Selection

Type F2

**600 Volts AC, 250 Volts DC Maximum
600 Ampere Main Switch,
1200 Ampere Main Lugs Only
600 Ampere Maximum Branch
UL & CSA Short Circuit Rating –
200,000A IR Maximum**

Meets 1996 NEC wire bending requirement, section 373-6.
CSA - C22.2 No. 0.12

Panelboards

Listed by Underwriters' Laboratories, Inc., under "Panelboards" File #E2269 for interiors and #E4016 for boxes and fronts & CSA Certificate No. 1518681.

Service

600 Volts AC, 250 Volts DC, Maximum.
1 Phase, 3 Wire; 3 Phase, 3 Wire; or 3 Phase, 4 Wire.

Boxes

38" wide, 12.75" deep, Type 1

Panelboard Fronts and Doors

Standard panelboards are furnished with 4 piece trim. Fronts are fabricated from code gauge steel and finished ASA61.

Fuses

The Proper Fuse Type for the Application is Selected Using the Following Parameters:

- Voltage Requirements
- Conductor Ampacity
- Horsepower Requirements
- Maximum Available RMS Fault Current
- CSA Fuse Class

Main Switch Panel Connectors

Ampere Rating	Connectors Range/Phase
400A-600A	(1, 2) #3/0-500MCM CU or (1) #4/0-500MCM AL
800A	(1-3) #1/0-500MCM CU/AL
1200A	(1-3) #1/0-500MCM CU/AL

Branch Switch Connectors

Switch Ampere Rating	Wire and Cable Range
30	(1) - #14 - #2 AWG (Cu or Al)
60	(1) - #14 - #2 AWG (Cu or Al)
100	(1) - #14 - #1/0 AWG (Cu or Al)
200	(1) - #6 AWG - 350 kcmil (Cu or Al)
400	(1) - 750 kcmil OR (2) - 250 kcmil (Cu or Al)
600	(2) - 750 kcmil OR (4) - 250 kcmil (Cu or Al)

Main Lug Panels

Ampere Rating	Connectors Range/Phase
225A - 400A	(1) #1/0-750MCM CU/AL or (2) #1/0-250MCM CU/AL
600A	(2) #1/0-750MCM CU/AL or (4) #1/0-250MCM CU/AL
800A	(3) #1/0-750MCM CU/AL or (6) #1/0-250MCM CU/AL
1200A	(4) #1/0-750MCM CU/AL or (8) #1/0-250MCM CU/AL

Gutters

Ampere Rating	End Gutters (Minimum inches)	Side Gutters (Minimum inches)
400	12	7.9
600	12	7.9
800	12	7.9
1200	12	7.9

Maximum VB HP Ratings

Amp Rating	3 Phase			Single Phase	DC
	Volts			Volts	Volts
	240	480	600	240	250
30	7.5	15	20	3	5
60	15	30	50	10	10
100	30	60	50	15	20
200	60	125	50	-	40
400	50	50	50	-	50
600	50	50	-	-	-

Maximum VK HP Ratings

Amp Rating	3 Phase			Single Phase	DC
	Volts			Volts	Volts
	240	480	600	240	250
30	7.5	15	20	3	5
60	1.5	30	50	10	10
100	30	50	75	15	20
200	60	125	150	15	40

CSA Fuse Classes

Class	Amperes	Volts	Interrupting Ratings	I^2t, I_p	Circuits
H (code)	1-600A	250 and 600V or less AC	10,000A	-	Less than 10,000A available
K [®]	1-600A	250 and 600V or less AC	50,000A	-	Feeder circuits
J	1-600A	600V or less	To 200,000A	I^2t -Low I_p -Low	Feeder circuits (motor load small %)
RK1	1/10-600A	600V or less 250V or less	To 200,000A	I^2t -Slightly > J I_p -Slightly > J	Feeder circuits (motor load small %)
RK5	1/10-600A	600V or less 250V or less	To 200,000A	I^2t - > RK-1 I_p - > RK-1	Motor starting currents a factor
T	1-600A	300 and 600V or less AC	To 200,000A	I^2t -Low I_p -Low	Non-motor loads
L	601-5000A	600V or less	To 200,000A	I^2t -Low I_p -Low	Feeder circuits motor loads

Power and Distribution

Selection

Type F2

Maximum Panel Ampere	Unit Space (MLO)	Box Height				
400A	30"	60"	120/240Volts 1 Phase, 3 Wire	120/208 Volts 3 Phase, 4 Wire	600 Volts 3 Phase, 3 Wire	347/600 Volts 3 Phase, 4 Wire
600A	45"	75"				
800A	60"	90"				
1200A	60"	90"				

Branch Switches 600V Maximum^①

Rating Ampere	Maximum Voltage	Fusing (1)	Mounting Height F2 38" W
30/30A (VK)	600V	J	6.25(159)
60/60A (VK)			6.25(159)
100/100A (VK)			7.5(190)
200/200A (VK)			10(254)
30/30A, 60/60A, 100/100A (VB)			7.5(190) ^①
200A (VB)			10(254)
400A (VB)			15(381)
600A (VB)			15(381)

Modifications and Additions

Type F2

When required, special constructions or additions to standard panelboards may be specified for all **factory-assembled** Power and Distribution Panelboards. Below and on the next page are listed many of those available, for Type F2 panelboards. In no case do these apply to **Narrow** (Column) Width Lighting Panelboards.

1. Miscellaneous

ENCLOSURE TYPE
Type 1
Type 2 (Drip-proof)
Type 3R
Type 12

2. Painted Finish

Description
Touch-Up Paint (ASA61, Light Gray) 12 oz. aerosol can, Catalog Number TUP-61

3. Miscellaneous Accessories

Nameplate — laminated, engraved Tamper-Proof Screws
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4. Devices Mounted on Gutter Cover Includes Device, Mounting — Wired or Unwired

Description
Toggle Switch — SPST or 3-way; 15A
Pilot Light — General Purpose, Neon or Incandescent
Pushbutton

5. Grounding of Panelboards^③

Non-Insulated Equipment Ground Bus Including Ground Lug
Insulated Equipment Ground Bus Including Ground Lug

6. Remote Control Switches^④ 600V AC

600V AC Ampere Rating	ASCO 920 Mechanically Held ^{⑤⑥}		Siemens CLH Electrically Held ^⑦	
	2-Pole	3-Pole	2-Pole	3-Pole
30 60 75 100 150 ^⑧ 200 ^⑧ 225	Unit space 20"		Unit space 20"	

7. Increased Capacity Neutral

Ampere Rating		Unit Space (inches)
Phase	Neutral	
400	600	None
400	800	None
600	1200	None
800	1200	None

8. Main Bus

Standard main bus and ground bus is tin plated aluminum. For copper main bus, neutral bus and ground bus change prefix 'A' to 'C' on catalog number and contact your sales office for pricing.

9. Copper Lugs — For Main Lug Only Panels

Standard main lugs and neutral lugs are tin plated aluminum, UL & CSA listed for use with aluminum/copper cables. For copper Lugs in the mains and neutral for use with copper cables only, contact sales.

10. Feed-Through Lugs^① (One Set Per Panel)

Ampere Rating			Unit Space (Additional inches)
	3-Pole	2-Pole	MLO
400	Consult Sales Office	Consult Sales Office	10
600			10
800			17.5
1200			17.5

11. MLO Compression Lugs

Available as main lugs and neutral lug.

Ampere Rating	Aluminum (Specify Size)	Copper (Specify Size)	Deduct From Available Unit Space (inches)
400			5
600			5
800			5
1200			5

12. VK Switch Accessories

Item	Cat. No.
Fuse Pullers (2) 30/60 mp	FP2
100 amp	FP3
200 amp	FP4

13. Sentron TPS (SPD Modules)

100 KA	200 KA	300 KA
150 KA	250 KA	
Options		
Surge Counter		
Remote Indicator		

14. Customer Metering

Siemens Digital Metering with Remote Display SEM3 Embedded Metering
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Panelboards

Modifications, Additions Replacements for Fusible Switches

Selection

Type F2 Replacement Units^{①②}

Amperes Rating	600 Volts J Fuses Cat. No.	Height in (mm)
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VK Switch For Use With FPP6 Panelboard^{③④⑤⑥}

Rating	VK Switch Cat. No.	Height in (mm)
30/30	VK23611JP	6.25 (159)
60/60	VK23622JP	6.25 (159)
100/100	VK33633JP	7.5 (90)
200/200	VK73644JP	10 (254)

VB Switch For Use With VB6 Panelboards^⑦

Rating	VB Switch Cat. No.	Height in (mm)
30/30	V7E3611JP	7.5(190)
60/60	V7E3622JP	7.5(190)
100/100	V7E3633JP	7.5(190)
200	V7F3604JP	10(254)
400	V7H3605JP	15(381)
600	V7H3606JP	15(381)

Panelboard				
Tub Width	Depth	Panel Type	Replacement Max Amps	Note
30" - 36" - 42"	9"	OLD CDP	400	MCCB only.
	9.75"	OLD CDP	600	MCCB only.
32" - 38"	13.75"	CDP6/VB6	1200A 600A	MCCB series 6 connectors "VB" style units only (*)
38"	12.75"	SPP6/FPP6	1200A 600A	MCCB series 6 connectors "VK" or "VB" style (*)

Connecting Strap Kits^⑧

Rating Amperes	VB Switch Cat. No.	VK Switch Cat. No.	HCP Switch Cat. No.
30/30	VB6-71	VK6-57	N/A
60/60		VK6-58	
100/100		N/A	
200		VK6-72	
200/200	N/A	VK6-72	F6162DCAN
400-600	VB6-150	N/A	
800-1200	N/A	N/A	

Blank Filler Plates^⑨

For use with Series 6 CDP Panelboards, S5, F2, FCI and FCII Switchboards.	
Height	SPP/FPP/CDP/VB 6
1.25"	6FPB01
2.50"	6FPB02
3.75"	6FPB03
5.00"	6FPB05
10.00"	6FPB10
15.00"	6FPB15



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