

Front Connected Switchboard (Type SB2)



Integrated Power Systems Switchboard



Rear Connected Switchboard (Type RCS)

Scan to connect online to the most up-to-date version of this Section of SPEEDFAX.

contents

Front Connected Switchboards 13-2 – 13-10
Distribution Switchboards (Type SB1, SB2, SB3, SB4) 13-2 – 13-4
Integrated Power Systems Switchboards (Type IPS) 13-5 – 13-6
Commercial Multi-Metering Switchboards (Type SMM & MMS) 13-7
Embedded Micro Metering Module™ (SEM3) 13-8
Generator Ready Switchboards 13-9 – 13-10
TPS4 Family of Hardwired Surge Protective Devices 13-11

Rear Connected Switchboards (Type RCS) 13-12

Stock Service Entrance Switchboards 13-13 – 13-23
General Stock Switchboard Overview 13-13
Super Blue Pennant Switchboards 13-14 – 13-19
RapidSBx Switchboards for EV 13-20 – 13-21
Circuit Breaker Stock Switchboard (Type BCT) 13-22
Fusible Stock Switchboard (Type SCT) 13-23

Low Voltage Switchboards
Sm@rtGear® V7 IE, Low Voltage Switchboards NEW 13-24 – 13-25

Switchboard Replacement Parts and Modification Kits 13-26 – 13-28

Product Description

Siemens modular front connected switchboard design provides a broad range of features and capabilities for a wide range of applications.

Every aspect of design of Siemens switchboards has been aimed at improving layout convenience, reducing installation costs and minimizing the impact and cost of changes to the system.

Siemens switchboards provide a rugged design and the flexibility necessary in electrical systems for all types of applications, some examples are:

- Commercial buildings
- Industrial plants
- Retail chain stores
- Health care facilities
- Hi-rise complexes



Front Connected Distribution Switchboard (Type SB2)

Features & Benefits

Features

- Up to 6000 ampere main bus rating
- Up to 600 volts AC
- Bus bracing up to 200KAIC
- Tin plated aluminum bus, silver plated copper bus or tin plated copper bus
- Bussing can be temperature or density rated
- Type 1 and Type 3R enclosures
- Main and branch circuit breakers and fusible switches
- Thermal magnetic and solid state circuit breakers
- Surge protective devices
- Customer metering
- Utility metering provisions
- Ground fault protection on mains and distribution devices
- Busway and transformer connections
- Power monitoring on mains and branches

Service Sections

Typical switchboards require one or more service main disconnects that feed one or more distribution sections. Service sections can be fed from overhead or underground, occasionally underground applications require that a pull section to be added to the switchboard lineup.

Distribution Sections

All switchboard distribution sections can accommodate any combination of panel mounted or individually mounted circuit breakers or fusible switches. This modularity allows future system modifications to be made without adding switchboard sections.

Front Accessibility

All Siemens switchboards are rear aligned and front accessible, enabling switchboards to be placed against a wall, while minimizing floor space requirements. Switchboards are standard rear aligned to minimize floor space requirements but can be front and rear aligned as an option.

Rear Accessibility

Rear access is available as an option for when bus maintenance and cable entry and exit require access to the rear of the switchboard.

Features & Benefits (continued)

Protective Devices

Thermal magnetic molded case circuit breakers can be supplied from 15 to 2000 amperes. Solid state (electronic) molded case circuit breakers are available from 30 to 2000 amperes. The solid state trip units provide finite trip setting adjustment, Modbus and Profibus communication along with many other features.

3WA insulated case UL489 circuit breakers can be provided from 200 to 5000 amperes with solid state trip units.

For fusible applications, bolted pressure switches, high contact pressure switches and Vacu-Break fusible switches can be supplied.

Power Monitoring

Power monitoring can be accomplished in both service and distribution sections with a wide array of power monitoring products. Digital and analog meters can be applied as well as branch circuit monitoring devices for tenant sub-billing or cost allocation applications. See section 9 of the Speedfax for further information on power monitoring devices.

Surge Protective Devices

Siemens surge protective devices can be applied in switchboards to improve the electrical system's protection, safety and reliability. These devices can be applied in customer metering compartments in main service sections or can be panel mounted in auxiliary compartments in distribution sections. See section 10 of the Speedfax for further information on surge protection devices.

Arc Flash Mitigation

Many arc flash mitigating features can be incorporated into switchboards. Dynamic Arc Flash Sentry is available with Sentron, 3VA, and 3WA breakers to allow for safer device settings when personnel are working near the switchboard. Also, breaker shutters, remote racking devices and infrared scanning windows can be supplied to further protect personnel from potential arc flash hazards.

Busway and Transformer Connections

Busway and transformer incoming and outgoing connections can be provided in switchboards. For busway connections to the switchboard, bussing is provided up to where the busway enters the switchboard. Also, a cutout for the busway is provided to allow for quick connection of the switchboard to the busway. For transformer connections, flex connectors are supplied for close coupling the switchboard to the secondary side of the unit substation.

Standards and Certifications

- UL891
- NEMA PB-2
- Seismically qualified
- Optional Health Care Access and Information (HCAI)
- Other equipment is UL listed as applicable

Additional Information

For complete application and pricing information contact your local Siemens sales office.

For further information on the product, visit our website at www.usa.siemens.com/switchboards

For detailed configuration information consult the selection and application guide on the website.



Front Connected Distribution Switchboard (Type SB2)

Individual Product lines

SB1 Switchboards

Siemens SB1 switchboards have been specifically designed for the shortest lead times and for applications where floor space is at a premium. The rear of all sections align so the switchboard can be installed against a wall. SB1 switchboards can contain main and branch protective devices and through bus ratings up to 2000 amperes and 600 Volts AC.

SB2 Switchboards

Siemens SB2 switchboards have been designed to be able to incorporate additional features. SB2 switchboards can have extra depth behind the bussing in each distribution section, can be front and rear aligned and can handle up to 4000 amperes and 600 Volts AC. These switchboards may also include insulated case circuit breakers, solid state molded case circuit breakers and density rated bussing.

SB3 and SB4 Switchboards

Siemens SB3 and SB4 switchboards are designed for custom options. SB3 and SB4 switchboards can incorporate custom busway & transformer connections, rear access, all types of utility metering provisions and many other options. No matter your need, Siemens SB3 and SB4 switchboards can provide a solution.

SB1 Switchboards

Available Features	Device Usage	Device Type	Ampere Rating	Mounting
• Individual or panel mounted mains • Individual or panel mounted branches • Thermal magnetic MCCBs • 2000A maximum main bus • Front accessible • Rear Aligned • Standard Utility Metering Position • Customer metering: digital & analog meters • 65KAIC interruption rating • 65C Copper and Aluminum bussing • Type 1 and 3R enclosures • Integrated lighting panelboards	Main	Molded Case Circuit Breakers (MCCB)	400 - 1200	Panel
		Molded Case Circuit Breakers (MCCB)	400 - 2000	Individual
		Vacu-Break Switches (VBS)	400 - 600	Panel
		Vacu-Break Switches (VBS)	800 - 1200	Individual
		High Contact Pressure Switches (HCP)	800 - 1200	Individual
		Bolted Pressure Switches (BPS)	800 - 2000	Individual
	Branch	Molded Case Circuit Breakers (MCCB)	15 - 1200	Panel
		Molded Case Circuit Breakers (MCCB)	400 - 2000	Individual
		Vacu-Break Switches (VBS)	30 - 600	Panel
		Vacu-Break Switches (VBS)	800 - 1200	Individual
		High Contact Pressure Switches (HCP)	400 - 1200	Individual
		Bolted Pressure Switches (BPS)	800 - 1200	Individual

SB2 Switchboards

Available Features	Device Usage	Device Type	Ampere Rating	Mounting
• All SB1 options • 4000A maximum main bus • Electronic trip unit (solid state) MCCBs • Density rated copper and aluminum bussing • 100KAIC interruption rating • Standard Maintenance Mode DAS (Dynamic Arc Sentry)	Main	All SB1 main devices		
		Bolted Pressure Switches (BPS)	Up to 4000	Individual
		3WA Insulated Case Circuit Breakers (3WA)	Up to 4000	Individual
	Branch	All SB1 branch devices		
		Bolted Pressure Switches (BPS)	Up to 4000	Individual
		3WA Insulated Case Circuit Breakers (3WA)	Up to 4000	Individual

SB3 Switchboards

Available Features	Device Usage	Device Type	Ampere Rating	Mounting
• All SB1 & SB2 options • 6000A maximum main bus • 200KAIC interruption rating • Rear accessible • Custom busway and transformer connections • Additional special options and configurations	Main	All SB1 & SB2 main devices		
		Bolted Pressure Switches (BPS)	Up to 6000	Individual
		3WA Insulated Case Circuit Breakers (3WA)	Up to 5000	Individual
	Branch	All SB1 & SB2 branch devices		
		Bolted Pressure Switches (BPS)	Up to 6000	Individual
		3WA Insulated Case Circuit Breakers (3WA)	Up to 5000	Individual

SB4 Switchboards

Available Features	Device Usage	Device Type	Ampere Rating
• All SB1, SB2 and SB3 options • PLC – Non-Siemens standard program • Automatic Throwover (ATO) custom configurations • Custom Communication configurations • Automatic Transfer Switches (ATS) – 2000A and up (customer or Siemens supplied) • Custom Sm@rtGear	Main and Branch	All SB1, SB2, SB3 main devices	Up to 5000A

Product Description

Siemens integrated power systems (IPS) switchboards integrate multiple pieces of electrical distribution equipment into a single assembly. The design results in reduced installation time, a reduced footprint and reduced labor risk for installation.

The modular design of the IPS switchboard allows it to be combined with standard service entrance or distribution switchboards if needed. Also, the IPS switchboard can be added to an existing switchboard lineup.

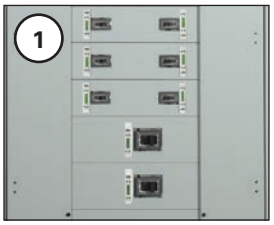
IPS switchboards have a wide range of applications and are commonly used in retail stores, offices, health care facilities and retrofits.

Features & Benefits

Features

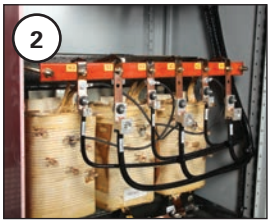
- All standard SB1, SB2, SB3 & SB4 switchboard features
- Lighting panelboards
- Distribution transformers
- Half high distribution switchboard chassis
- Individually mounted breakers (cable in & cable out)
- Auxiliary sections for surge devices, power monitoring, contactors, relays, time clocks, motor starters, customer equipment, etc.

Integrated Power Systems Switchboard
Commonly Mounted Equipment



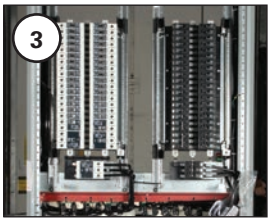
Distribution sections

- Up to 3000A (full height)
- Up to 1200A (half height)



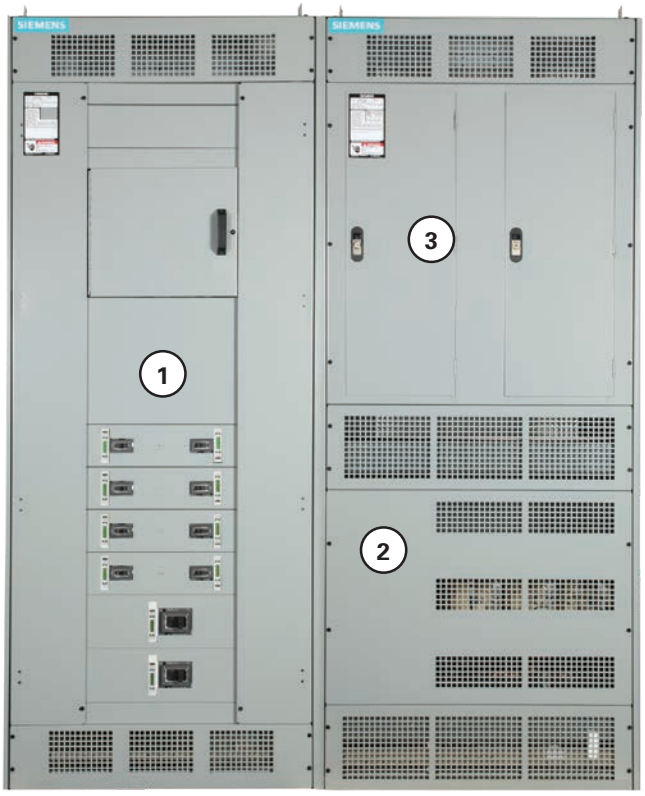
Transformers

- Up to 300KVA (full height)
- Up to 150KVA (half height)



Panelboards

- Up to 800A (full height)
- Up to 600A (half height)



Features & Benefits (continued)

Reduced Installation Time

IPS switchboards arrive at a jobsite with the components factory installed and wired. The result is significantly reduced installation time. The realized savings on installation result in lower labor costs which drops directly to the bottom line.

Reduced Space Requirements

By integrating components that are typically individually mounted, the IPS switchboard can reduce the space requirements for typical electrical equipment installation by up to 40%. This smaller footprint frees up valuable square footage that can be utilized by the building owner for other profitable uses.

Reduced Installation Risk

IPS switchboards are assembled at Siemens manufacturing plants with meticulous attention to details reinforced with strict testing procedures. This focus on quality ensures that problems encountered with traditional installations such as misinterpretation of drawings or field installation errors are eliminated. Utilizing IPS switchboards eliminates risks, enabling projects to come in on time and on budget.

Standards and Certifications

- UL891
- NEMA PB-2
- Seismically qualified
- Optional Health Care Access and Information (HCAI)
- Mounted panelboards built to UL67 and NEMA PB-1
- Other equipment is UL listed as applicable

Additional Information

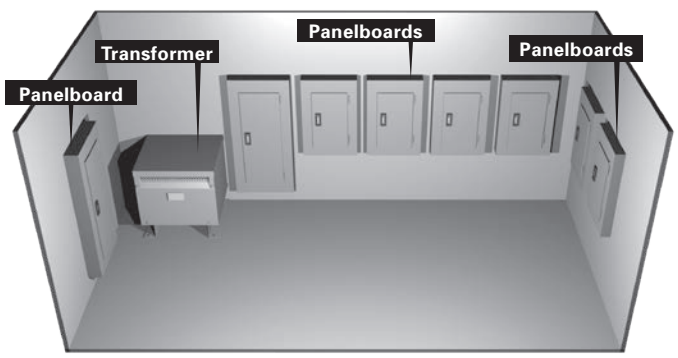
For complete application and pricing information contact your local Siemens sales office.

For further information on the product, visit our website at www.usa.siemens.com/switchboards

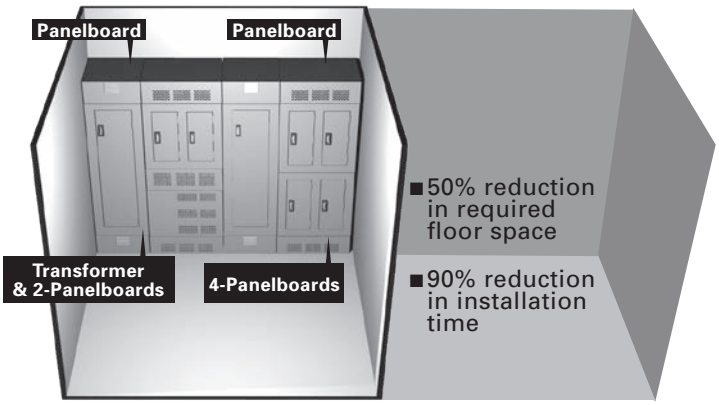
For detailed configuration information consult the selection and application guide on the website.

Integrated Power Systems Switchboard
Optimized electrical room layout

Traditional layout



Integrated power systems layout



Product Description

Siemens commercial multi-metering switchboards provide utility metering for multiple tenants. The sockets and protective devices are cable connected at the factory making the sockets ready for the installation of the meters.

With the modular design of Siemens switchboards all multi-metering sections can be combined with standard main service or distribution sections.

Multi metering switchboards can be used in many applications, some of the most common are:

- Shopping centers
- Office buildings
- Retail chain stores



SMM Commercial Multi-Metering Switchboard

Features & Benefits

Features

- Up to 4000 ampere main bus rating
- Up to 600 volts AC
- Bus bracing up to 200KAIC
- Type 1 and Type 3R enclosures
- Standard hot sequence metering with optional cold sequence metering
- 100 or 200 ampere meter sockets
- Sockets include lever type manual bypass
- Ring-less type meter cover design
- Type 1 and Type 3R ratings
- All other SB1, SB2, SB3, and SB4 switchboard features

Individual Product Lines

Type SMM

Type SMM switchboards are specifically designed for the west coast and meet all EUSERC requirements.

Type MMS

Type MMS switchboards are designed for non-EUSERC territories and are designed to meet the specific requirements of any local utility.

Standards and Certifications

- UL891
- NEMA PB-2
- Seismically qualified
- Optional Health Care Access and Information (HCAI)
- Other equipment is UL listed as applicable

Additional Information

For complete application and pricing information contact your local Siemens sales office.

For further information on the product, visit our website at www.usa.siemens.com/switchboards

For detailed configuration information consult the selection and application guide on the website.

SEM3 System configured in Distribution Panels and Switchboards

The information below pertains to panelboard types P5 and switchboard types SB1, SB2, SB3, and SB4. Please note SEM3 is not available for P3 panelboards. SEM3 is available in NEMA type 1, 3R, and 12 enclosures. SEM3 specifics to P5, SB1, SB2, SB3 and SB4 are:

SEM3 for use in Siemens Switchboards



Controller

SEM3 controller is mounted in unit space. For P5 panels it will be mounted opposite of the feed location specified in COMPAS (i.e., bottom mount for top feed). The controller will require 3.75" of unit space in P5 and SB1/2/3/4. Each controller will be powered by direct tap connection to the section bus and can monitor up to 45 circuits. Applications that require monitoring more than 45 circuits will require additional controllers. For multi-section applications each controller will only be connected to meter racks in the same section as the controller.



Current Transformers (CTs)

Six sizes of CTs are available for use in P5 & SB1/2/3/4 applications: 50, 125, 250, 400, 600, and 1200 amp. All CTs are pre-mounted to a support bracket that attaches to the interior. Each bracket supports a maximum of 3 CTs and is designed for the breaker selected (brackets are not interchangeable between breaker frames). Each CT will be attached to a data module that is placed in the meter racks.



Meter Racks

Each meter rack requires 3.75" of unit space. All meter racks will be installed next to the SEM3 controller in unit space. The COMPAS configuration tool will select the appropriate meter rack configuration according to the user's application and will use the 21 space meter rack as a default option where possible. Only one meter rack (regardless of number of positions) can be installed in 3.75" of unit space. For multi-section applications each rack will only be connected to data modules from CTs in that section. Racks will not be setup to monitor CTs from adjacent sections.

NOTE: Monitoring of 45 circuits will require 9" of unit space: two 21 position racks and one 3 position rack

Other Considerations

Configuration: Data modules from CTs monitoring a circuit breaker must be mounted adjacent to one another in the meter rack. Any field changes to the factory configuration must take this into account.

Start-up & Commissioning: Siemens can provide these services. Contact your local SIEMENS PDS Power Solutions Business Developer for more details.

Billing Services for sub billing applications: Billing services are available. Contact your local SIEMENS PDS Power Solutions Business Developer for more details.

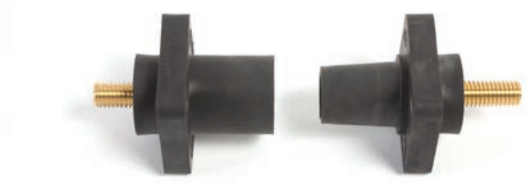
Product Description

Siemens Generator Ready quick connect switchboards meet the market need for quick connection of a generator for temporary back-up power.

The most common application of these switchboards are retail stores with perishable items, nursing homes & hospitals. However, these types of switchboards should be applied in any application that is sensitive to power outages.



Generator Ready Switchboard in NEMA 3R Enclosure



4/0 Crouse-Hinds quick connect Cam-Lok

Features & Benefits

Features

- All standard SB1, SB2, SB3 and SB4 switchboard features
- Crouse-Hinds quick-connect Cam-Loks for a quick primary connection method
- Standard mechanical lugs suitable for use with Type W welding cable for a secondary connection method
- NEMA 1 and NEMA 3R enclosures
- Trap door on NEMA 3R enclosure to maintain rating with cables connected
- Labeled phases and ground connections
- Bus connection between generator breaker and plug-in quick connects
- Mechanical interlocking with normal breaker
- Removable screw cover for covering quick-connects when not in use
- Stand alone or hard bussed in standard switchboard lineup

Generator Breaker Compartment

The generator breaker can be connected to the normal main switchboard by cable or bus. The generator breaker should be key-interlocked with the main breaker in the normal switchboard lineup. The switchboard can rated Suitable for Service Entrance (SUSE).

Quick-Connect Compartment

The Crouse-Hinds quick-connect Cam-Loks are provided in a compartment with a removable screw cover covering the quick-connects for when they are not in use. In addition to the quick-connects, standard mechanical lugs are provided as a secondary method of connection. The mechanical lugs are rated for Type W welding cable which is common in these generator connection applications.

Outgoing Connection

The outgoing load connection of the generator breaker can be accomplished through either cable connection or can be hard bussed to an existing or new switchboard lineup.

Standards and Certifications

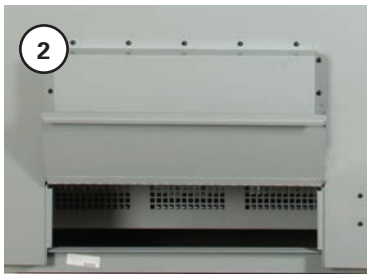
- UL891
- NEMA PB-2
- NEC 702
- Florida Building Code section 420.4.2.9.7
- Seismically qualified
- Optional Health Care Access and Information (HCAI)
- Other equipment is UL listed as applicable

Product Features





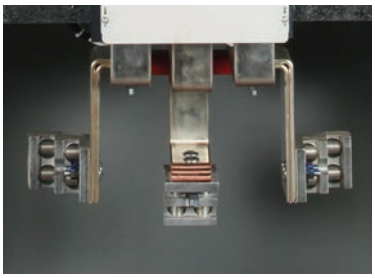
2000A main 3WA generator breaker key interlocked with normal main breaker



Hinged NEMA 3R door to maintain NEMA 3R rating with cables connected



2000A of Crouse-Hinds Cam-Loks for a three phase four wire system with ground connections



Standard mechanical lugs suitable for use with Type W welding cable as a secondary method of connection

Common Application



TPS4 06 and TPS4 L6 (True or Discrete 10-Mode)

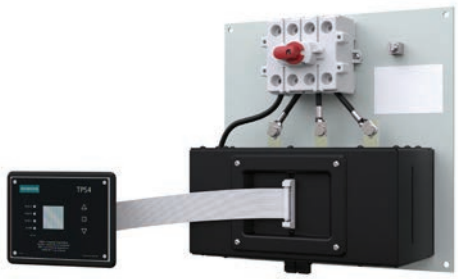
Siemens TPS4 06 and L6 surge protective devices are designed for integration within our SB1, SB2, SB3, Type RCS Switchboards and Low-Voltage Switchgear. The TPS4 06 and L6 SPDs feature Ground Integrity Monitoring (GIM) diagnostics.

TPS4 06 and TPS4 L6 Key Features

- UL 1449 Type 2 SPD and UL 1283 Listed
  - Optional UL 1449 Listed Type 1
- Type 1 / Type 2 SPD
- 100 - 500 kA Per Phase Surge Current
- 20 kA I_n
- 200 kA SCCR
- Voltage Protection Rating (VPRs)
  - 208/120 V, 3Ø, 4W: 600V
  - 480/277 V, 3Ø, 4W: 1000V
- UL 96A Lightning Protection Master Labeling compliant (@ 20 kA)
- New Large Block MOV Pill Stack Design
- Every MOV is monitored, including N-G
- Mounts internal to:
  - SB1, SB2, SB3 and Type RCS Switchboards
  - Type WL low-voltage switchgear
- Modes of Protection: L-N, L-G, N-G, and L-L
- All UL required OCP & safety coordination included
  - Type 1 SPDs intended for Line or Load side of Main Disconnect
  - Type 2 SPDs intended for Load side of Main Disconnect
- Standard Monitoring: LCD Event Counter with Time and Date Stamp, LED Indicators, Surge Counter, Dry Contacts, Audible Alarm w/ silence switch & test button
- Dimensions: 11" x 11" x 4.5" (276 mm x 276 mm x 115 mm)
- Weight: 7.4 lbs (3.4 kg)
- Designed, manufactured & tested consistent with:
  - ANSI / IEEE C62.41.1-2002, C62.41.2-2002, C62.45-2002, C62.62-1010, C62.72-2007 and CSA C22.2 No. 269.1 and 269.2
  - 1992/2000 NEMA LS-1
  - NEC Article 285
  - IEC 61643, CE
- Designed, manufactured & tested consistent with:
  - ANSI / IEEE C62.41.1-2002, C62.41.2-2002, C62.45-2002, C62.62-1010, C62.72-2007 & CSA C22.2 No. 269.1 and .2
  - 1992/2000 NEMA LS-1
  - NEC Article 285
  - IEC 61643, CE
- 10 Year Product Warranty

External Accessories

Catalog numbers	Description
TPS4RIB25	25 ft. ribbon cable
TPS4RIB20	20 ft. ribbon cable
TPS4RIB10	10 ft. ribbon cable



TPS4 06

Ordering Information

Catalog # TPS4 ☐ 06 ☐☐ X ☐

Voltage Code

A = 240/120V ,1Ø, 3W
B = 240/120V, 3Ø, 4W
C = 208/120V, 3Ø, 4W
W= 220/127V, 3Ø, 4W
D = 240V, 3Ø, 3W
E = 480/277V, 3Ø, 4W
F = 480V, 3Ø, 3W
G = 600V, 3Ø, 3W①
K = 380/220V, 3Ø, 4W
L = 600/347V, 3Ø, 4W
S = 400/230V, 3Ø, 4W
T = 415/240V, 3Ø, 4W

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
40 = 400 kA per phase
50 = 500 kA per phase

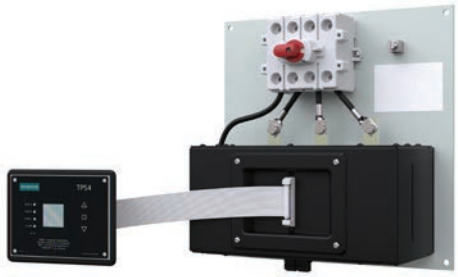
Options

X = Surge counter (Standard)
2 = Type 2 SPD (Default) Includes UL 1283 EMI/RFI Filters
0 = Type 1 SPD

Example: **TPS4C0620X2** = SPD for a 208/120V panelboard with a surge current capacity of 200kA per phase and Type 2 SPD.

When an option is not selected, include a **zero (0)** in the field.

① Not available in 300, 400 or 500kA versions



TPS4 L6

Ordering Information

Catalog # TPS4 ☐ L6 ☐☐ X ☐

Voltage Code

A = 240/120V ,1Ø, 3W
B = 240/120V, 3Ø, 4W
C = 208/120V, 3Ø, 4W
W= 220/127V, 3Ø, 4W
E = 480/277V, 3Ø, 4W
K = 380/220V, 3Ø, 4W
L = 600/347V, 3Ø, 4W
S = 400/230V, 3Ø, 4W
T = 415/240V, 3Ø, 4W

Surge Current (kA)

15 = 150 kA per phase
30 = 300 kA per phase
45 = 450 kA per phase
55 = 550 kA per phase
75 = 750 kA per phase

Options

X = Surge counter (Standard)
2 = Type 2 SPD (Default) Includes UL 1283 EMI/RFI Filters
0 = Type 1 SPD

Example: **TPS4CL620X2** = SPD for a 208/120V panelboard with a surge current capacity of 200kA per phase and Type 2 SPD.

When an option is not selected, include a **zero (0)** in the field.

① Not available in 450, 550 or 750kA versions

Rear Connected Switchboards

Type RCS

General

Siemens RCS switchboards differ from the front connected (Type SB1, SB2, SB3) design primarily in the distribution sections. In the distribution section the branch feeders are individually mounted. Because of this method of mounting, access to the outgoing cable terminals must be from the rear of the unit. Bus bar extensions from the feeder devices are run to the rear of the RCS section stopping before the conduit area for easy access and cable connection.

An optional cable management system can be requested to secure the outgoing cables. The front and rear of all sections align and are designed for mounting away from the wall. RCS switchboard will accommodate requirements up to 6000 ampere and 600 volts. The main bus can be specified for 400 to 6000 ampere rating. Main, tie and branch devices are available in amperage ratings up to 6000 amps. RCS switchboards can be indoor (NEMA 1) or outdoor (NEMA 3R) construction.

RCS switch boards utilize Type WL insulated case and/or low-voltage power circuit breakers with drawout mountings. Features and benefits include high breaker density, 100kA standard short circuit bus bracing and three levels of horizontal bus. Options include insulated/isolated bus, Dynamic Arc Flash Sentry, ModBus Communication and intelligent power monitoring.





Switchboard Type RCS	Mounting	WL Insulated Case Circuit Breaker Drawout Mount	WL LV Power Circuit Breaker Drawout Mount
Main Devices	Individual	400-5000A	400-5000A
Branch Devices	Individual	400-5000A	400-5000A

For additional information on this product visit our website at www.sea.siemens.com.
For application pricing information contact your local distributor or the closest Siemens sales office.

Product Description

Siemens stock service entrance switchboards are designed as stock units to meet the fast delivery needs of the market.

All of Siemens stock switchboards are suitable for service entrance. These switchboards combine utility metering provisions and a main service disconnect that can either be a Vacu-Break fusible switch or a molded case circuit breaker.

Stock switchboards have many applications, some of the most common include:

- Retail stores
- Office buildings
- Small factories
- Commercial stores and shopping centers

Individual Product Lines

Super Blue Pennant

- Specifically designed to meet EUSERC requirements
- Provision for EUSERC utility metering
- Main fusible switch or circuit breaker
- Optional distribution panel

BCT Service Cubicle

- Provision for utility metering (non-EUSERC)
- Main molded case circuit breaker

SCT Service Cubicle

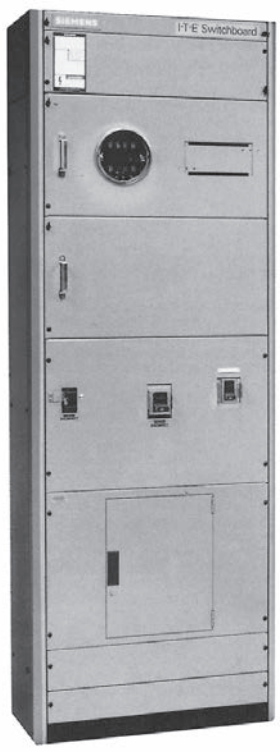
- Provision for utility metering (non-EUSERC)
- Main Vacu-Break fusible switches

Additional Information

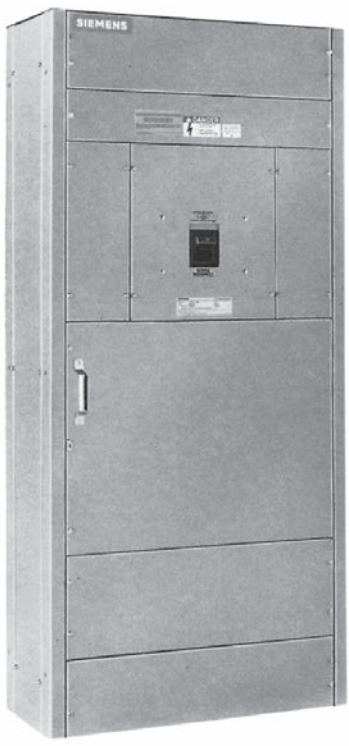
For complete application and pricing information contact your local Siemens sales office.

For further information on the product, visit our website at www.usa.siemens.com/switchboards

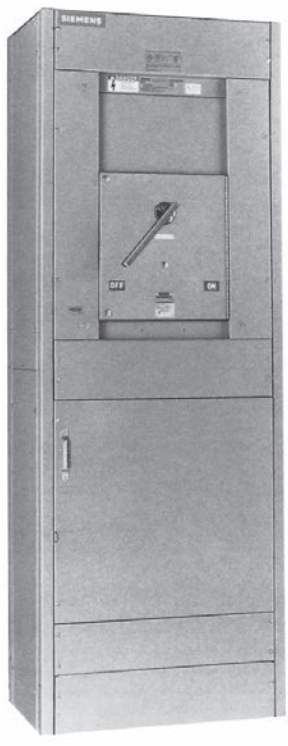
For detailed configuration information consult the selection and application guide on the website.



Super Blue Pennant



BCT Service Cubicle



SCT Service Cubicle

Product Description

Siemens Super Blue Pennant stock service entrance switchboards are designed as stock units to meet the fast delivery needs of the market.

Super Blue Pennant switchboards are suitable for service entrance and are specifically designed to meet EUSERC requirements. They combine utility metering provisions with either a main Sentron molded case circuit breaker or Vacu-Break fusible switch. An optional plug-in or bolt on distribution panel can also added in the field in the same section.

Super Blue Pennant switchboards have many applications, some of the most common include:

- Retail stores
- Office buildings
- Small factories
- Commercial stores and shopping centers



Super Blue Pennant

Features & Benefits

Features

- Up to 800 amperes
- Up to 480 volts AC
- Bus bracing up to 200KAIC
- Type 1 or Type 3R enclosures

Utility Provision

Incoming main lugs are mechanical screw-type, mounted on studs and accept a wide range of cable sizes. A barriered hot sequence utility metering compartment is supplied which meets all EUSERC requirements. The meter and test block provisions are also built to meet EUSERC requirements.

Main Disconnect

The main service disconnect can be either a Sentron molded case circuit breaker in 400, 600 or 800 amperes or a Vacu-Break fusible switch in 400 or 600 amperes.

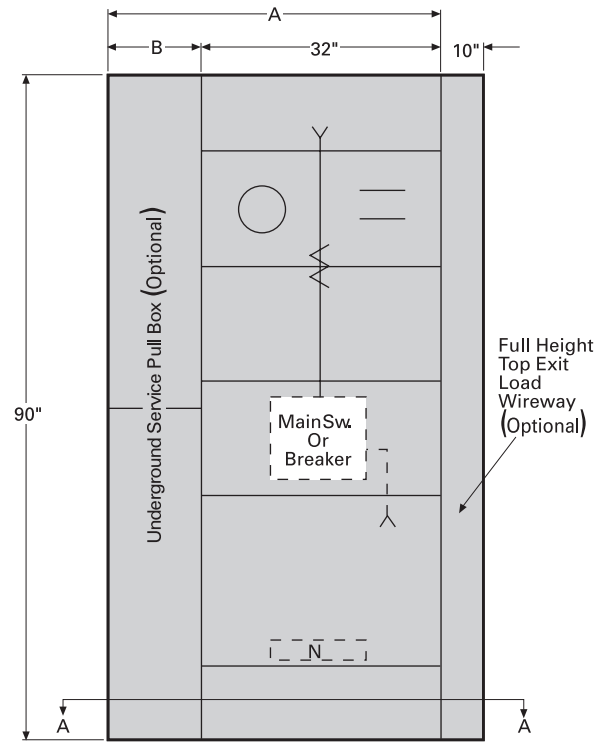
Distribution Panel

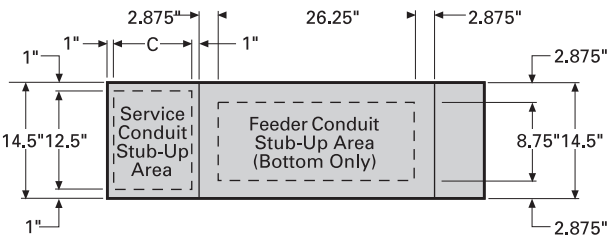
Super Blue Pennant switchboards can accommodate an optional distribution panel assembly per unit with ratings of 400, 600 or 800 amperes. The distribution panel can take up to 40 single pole branch breakers which can be either bolt on or plug-in.

Standards & Certifications

- UL891
- NEMA PB-2
- Seismically qualified
- Other equipment is UL listed as applicable
- Suitable for use only for service entry equipment

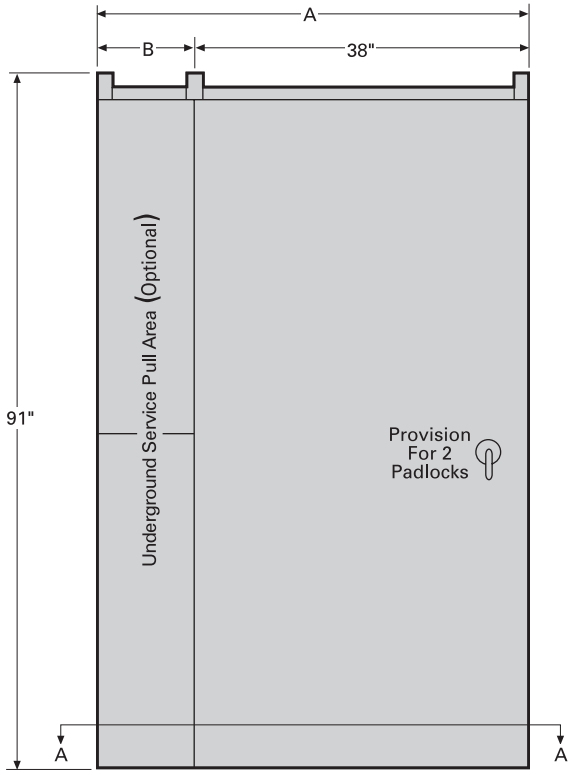
Type 1 — Indoor

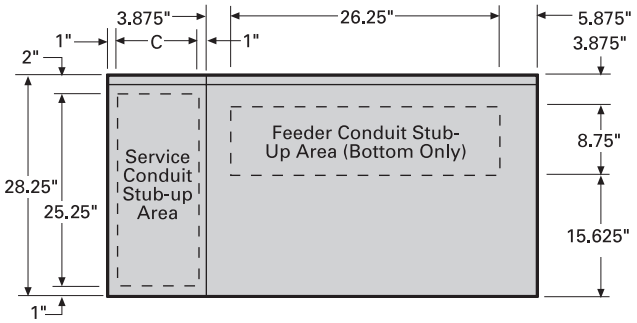




Description	Dimensions (inches) A	B	C
Without Lug Landing	46	14	12
With Lug Landing	58	26	24

Type 3R — Outdoor Weatherproof





Description	Dimensions (inches) A	B	C
Without Lug Landing	53	15	13
With Lug Landing	65	27	25

For inches / millimeters conversion, see conversion table in Application Data section.

Main Circuit Breaker

Main Device Ampere Rating	Service Voltage	Catalog Number		Meter Socket Clips	Distribution Kits Available	Approximate Weight (lbs.)	
		Indoor	Outdoor			Indoor	Outdoor
400 Ampere Line Lugs (2)—⅜-500 kcmil (Copper or Aluminum) Breaker Rated 65,000A IR Symmetrical at 240 Volts 35,000A IR Symmetrical at 480 Volts Type JD6	120/240; 1-Phase, 3-Wire	**PB224**③	**WPB224**③	5②	**PQ2630 PQ2612**	320	1050
	240/120; 3-Phase, 4-Wire Delta 240; 3-Phase, 3-Wire 208Y/120; 3-Phase, 4-Wire	**PB424**③	**WPB424**③	15	**PQ4630 PQ4612**	335	1060
	480Y/277; 3-Phase, 4-Wire 480; 3-Phase, 3-Wire	**PB444**③	**WPB444**③	15	**PE4630 PF4606**	335	1060
600 Ampere Line Lugs (2)—⅜-500 kcmil (Copper or Aluminum) Breaker Rated 65,000A IR Symmetrical at 240 Volts 35,000A IR Symmetrical at 480 Volts Type LD6	120/240; 1-Phase, 3-Wire	**PB226**③	**WPB226**③	5②	**PQ2630 PQ2612**	320	1050
	240/120; 3-Phase, 4-Wire Delta 240; 3-Phase, 3-Wire 208Y/120; 3-Phase, 4-Wire	**PB426**③	**WPB426**③	15	**PQ4630 PQ4612**	335	1060
	480Y/277; 3-Phase, 4-Wire 480; 3-Phase 3-Wire	**PB446**③	**WPB446**③	15	**PE4630 PF4606**	335	1060
800 Ampere Line Lugs (3)—⅜-500 kcmil (Copper or Aluminum) Breaker Rated 65,000A IR Symmetrical at 240 Volts 50,000A IR Symmetrical at 480 Volts Type MD6	120/240; 1-Phase, 3-Wire	**PB228**③	**WPB228**③	5②	**PQ2840 PQ2816**	460	1090
	240/120; 3-Phase, 4-Wire Delta 240; 3-Phase, 3-Wire 208Y/120; 3-Phase, 4-Wire	**PB428**③	**WPB428**③	15	**PQ4840 PQ4818**	475	1090
	480Y/277; 3-Phase, 4-Wire 480; 3-Phase, 3-Wire	**PB448**③	**WPB448**③	15	**PE4840 PF4809**	475	1090



For inches / millimeters conversion, see conversion table in Application Data section.

① Load side lugs, distribution panel and subfeed kits are not included.
② For 6-jaw requirements, order 6th clip kit from accessories.
③ Suitable for use only for service entry equipment

☐ = Warehouse Stock

Main Fusible Switch①②

Main Device Ampere Rating	Service Voltage	Catalog Number③ Indoor	Catalog Number③ Outdoor	Meter Socket Clips	Distribution Kits Available	Approximate Weight (lbs.) Indoor	Approximate Weight (lbs.) Outdoor
400 Ampere Line Lugs (2)—⅜-500 kcmil (Copper or Aluminum) 200,000 AIC maximum at 600 Volts	120/240; 1-Phase, 3-Wire	**PF224A**	**WPF224A**	5④	**PQ2630 PQ2612**	365	1094
	240/120; 3-Phase, 4-Wire Delta 240; 3-Phase, 3-Wire 208Y/120; 3-Phase, 4-Wire	**PF424A**	**WPF424A**	15	**PQ4630 PQ4612**	375	1110
	480Y/277; 3-Phase, 4-Wire 480; 3-Phase, 3-Wire	**PF444A**	**WPF444A**	15	**PE4630 PF4606**	375	1110
600 Ampere Line Lugs (2)—⅜-500 kcmil (Copper or Aluminum) 200,000 AIC maximum at 600 Volts	120/240; 1-Phase, 3-Wire	**PF226A**	**WPF226A**	5④	**PQ2630 PQ2612**	370	1100
	240/120; 3-Phase, 4-Wire Delta 240; 3-Phase, 3-Wire 208Y/120; 3-Phase, 4-Wire	**PF426A**	**WPF426A**	15	**PQ4630 PQ4612**	390	1110
	480Y/277; 3-Phase, 4-Wire 480; 3-Phase 3-Wire	**PF446A**	**WPF446A**	15	**PE4630 PF4606**	390	1120



Super Blue Pennant Switchboards

Main Device (Fusible Switch) Load Side Lugs⑤— Discount Schedule SWBD

Ampere Rating	Description	Catalog Number	Wire Range
400	For Fusible Switch	**LKF4**	(1)—3/0-750 kcmil (Cu or Al)
600		**LKF6**	(2)—3/0-500 kcmil (Cu or Al)

Description	Catalog Number
"R" Fuse Clip Adapter Kit (Set of 3) — Discount Schedule VBSS	
400A 240/600V	**HR65A**
600A 240/600V	**HR66A**
"J" Fuse Clip Adapter Kit (Set of 3) — Discount Schedule VBSS	
400A 240V	⑥⑦
400A 600V	**HJ65A**⑥⑧
600A 240V	**HJ66A**⑥⑦
600A 600V	**HJ66A**
"T" Fuse Clip Adapter Kit (One Pole Kit) — Discount Schedule VBSS	
400A 240V	**HT25A**
400A 600V	**HT65A, HT265A**⑨
600A 240V	**HT26A**
600A 600V	**HT66A**

For inches / millimeters conversion, see conversion table in Application Data section.

① Fuses not included.

② Switch accepts class H or K fuses from factory without need for adaptor.

③ Suitable for use only for service entry equipment.

④ For 6-jaw requirements, order 6th clip kit from accessories.

⑤ Includes phase and neutral load lugs and neutral link assembly.

⑥ Kit not required for branch circuit switches, relocate lug base to achieve fuse fit.

⑦ J fuse option not available for 240V main switches.

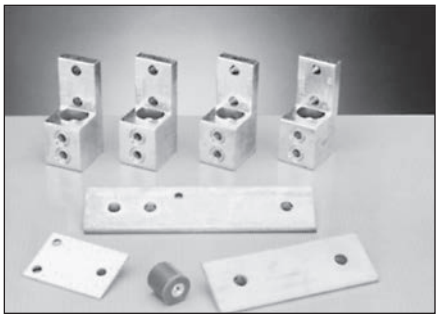
⑧ Lug base relocation plus kit required for branch circuit switches.

⑨ Kit required for Main Switch only.

□ = Warehouse Stock

Main Device (Circuit Breaker or Fusible Switch) Load Side Lugs①— Discount Schedule SWBD

Ampere Rating	Description	Catalog Number	Wire Range
400	For Circuit	**LKB4**	(1)—600-750 kcmil (Cu or Al)
600	Breaker	**LKB6**	(2)—3/0-350 kcmil (Cu or Al)
800		**LKB8**	(2)—600-750 kcmil (Cu or Al)



Distribution Panel Kits — Discount Schedule SWBD

Ampere Rating	Voltage	Number and Type of Breaker Poles⑧				Catalog Number	Weight
		QP or HQ⑦	ED4⑦	QR2, QRH2, or HQR2⑦	FXD6②⑥⑦		
400 and 600	120/240V; 1-Phase, 3-Wire	30	—	—	—	**PQ2630**	39
		12	—	12	—	**PQ2612**	
	240/120V; 3-Phase, 4-Wire Delta④⑤ 240V; 3-Phase, 3-Wire⑤ 208Y/120V; 3-Phase, 4-Wire	30	—	—	—	**PQ4630**	42
		12	—	12	—	**PQ4612**	
	480Y/277V; 3-Phase, 4-Wire 480V; 3-Phase, 3-Wire	—	30	—	—	**PE4630**	42
		—	12	—	6	**PF4606**	65
800	120/240V; 1-Phase, 3-Wire	40	—	—	—	**PQ2840**	65
		12	—	16	—	**PQ2816**	
	240/120V; 3-Phase, 4-Wire Delta④⑤ 240V; 3-Phase, 3-Wire 208Y/120V; 3-Phase, 4-Wire	40	—	—	—	**PQ4840**	70
		12	—	18	—	**PQ4818**	
	480V; 3-Phase, 3-Wire 480Y/277V; 3-Phase 4-Wire	—	40	—	—	**PE4840**	65
		—	12	—	9	**PF4809**	70

Super Blue Pennant Switchboards

Description	Catalog Number

Circuit Breaker Subfeed Kits: (Breakers Not Included) — Discount Schedule SWBD

For FXD6-225A 2 or 3-pole	**PSFFJ6**
For JXD6, JD6, HJD6 400A 2 or 3-pole	**PSFJL6**

Filler Plates — Discount Schedule MCCB

QP, BL, BQD, xGB, xGB2, ED	**QF3**

Circuit Breaker Subfeed Kits: (Breakers Not Included) — Discount Schedule SWBD

Blocking (QP-HQP 1, 2 and 3-pole)	**ECQL1**
Blocking (QR2, QRH2, HQR2, HQR2H)	**HBLQR**
Blocking (ED2, ED4, ED6)	**E2HBL**
Padlock (QP-HQP)	**ECQLD3**
Padlock (QR2, QRH2, HQR2, HQR2H)	**HPLQR**
Padlock (ED2, ED4, ED6)	**ED2HPL**

For inches / millimeters conversion, see conversion table in Application Data section.

①Includes phase and neutral load lugs and neutral link assembly.
②2-pole FXD6 requires 3-pole space.
③Includes branch neutral and disconnect link assembly.
④1-pole breakers must not be connectedto "B" phase.
⑤2-pole breakers must be rated 240V.
⑥FXD6 circuit breakers are limited to 225A maximum.
⑦Price from Molded Case Circuit Breaker section.
⑧ QR2, QRH2 & HQR2 are suitable replacements for QJ2, QJH2, QJ2H, HQJ2, HQJ2H, MQ, MQH and MQL, 2 and 3 Pole constructions.

☐ = Warehouse Stock

Description		Catalog Number
Underground Pull Section or Full Height Section For Load Wiring — Discount Schedule SWBD		
14.5" Deep 90" High 14" Wide (12" opening) — indoor 15" Wide (12" opening) — outdoor		**PUG14**② **WPUG14**②
26" Wide (24" opening) — indoor 27" Wide (24" opening) — outdoor		**PUG26** **WPUG26**
10" Wide (load wiring)		**PLW10**
Lug Landing Kits — Discount Schedule SWBD (Requires Catalog Number PUG26 or WPUG26)		
400A	1-Phase, 3-Wire or 3-Phase, 4-Wire	**PLL44**①
600A	1-Phase, 3-Wire or 3-Phase, 4-Wire	**PLL46**①
800A	1-Phase, 3-Wire or 3-Phase, 4-Wire	**PLL48**①
Optional Meter Sockets and Doors — Discount Schedule SWBD		
Meter Compartment Door (32" Wide x 15" High for "S" base socket with test block cutout (order necessary meter base from items below)		**PSP32**
Meter Compartment Door (32" Wide x 30" High) for 2 "S" base meters with mounting provisions for test block and printing demand meter (order meter base from table below) Left Hand Hinge or Right Hand Hinge		**PSDP32**
Blank Meter Compartment Door (32" Wide x 15" High)		**PBP32**
5 Clip Meter Socket with ring		**PMS5**
6 Clip Meter Socket with ring		**PMS6**
8 Clip Meter Socket with ring		**PMS8**
13 Clip Meter Socket with ring		**PMS13**
15 Clip Meter Socket with ring		**PMS15**
Equipment Ground Bus — Discount Schedule SWBD		
		PEGB42

For inches / millimeters conversion, see conversion table in Application Data section.

☐ = Warehouse Stock

● A suffix. New 'Series A' design

① A PUG26 or WPUG26 Underground pull section is required when using these lug landing kits.

② Non- EUSERC compliant

RapidSBx™ Switchboards

Product Description

Siemens RapidSBx Switchboards are designed as stock units to meet the power distribution needs for EV electrical infrastructure. Beyond EV deployment, RapidSBx is a versatile solution for various outdoor commercial infrastructure projects.

RapidSBx offers customizable branch breaker options and a rugged outdoor enclosure, ensuring adaptability across installation scenarios and environmental conditions. Whether in bustling urban centers or remote locations, RapidSBx guarantees reliability and performance.



Dimensions: 46″ W x 36″ D x 66″ H

Features & Benefits

Features

- 1200A 3VA6 Main breaker with LSIG protection
- Up to 480VAC
- 65kA Interrupt rating
- 3VA Branch options between 125-600A
- Surge Protection (Optional)
- Dynamic Arc Sentry (DAS)
- 120 VAC Duplex convenience outlet

Enclosure

- Low profile, tamper resistant
- NEMA 3R
- White paint finish
- 1600-hour salt spray
- Pad-mounted

Standards and Certifications

- UL891
- CBC 2022/ IBC2021 (Seismically Qualified)
- NEC 240.67 (Arc reduction compliance)

Additional Information

For complete application and pricing information contact your local Siemens sales office.

For further information on the product, visit our website at usa.siemens.com/rapidsbx

Catalog Number Structure

SBX	WW	12	X	B	B	3R	X

Description

Switchboard UL Type Designation **SBX**

Section Type

Main Breaker

Refer to Main Breaker table coding below

Main Bus Amperage

1200 **12**

Configuration

480Y/277V, 3PH, 4W **E**

Dual Voltage **X**

480Y/277V or 208Y/120V

Main Bus Rating

750A/sq in. AL, Tin Plating **B**

Incoming Feed Location

Bottom **B**

Enclosure Type

NEMA 3R Outdoor **3R**

Optional Modifier

Unassembled, no SPD or Receptacle **X**

Unassembled, includes SPD and Receptacle **P**

Main Breaker Type Coding

Code	Breaker	3VA Frame
WV	MNAE	3VA67
WW	HNAE	
WX	CNAE	

Field installable kits and blank filler kits

Connection Strap Kits for field installation

Includes straps, coverplates, and necessary hardware to install branch breaker.

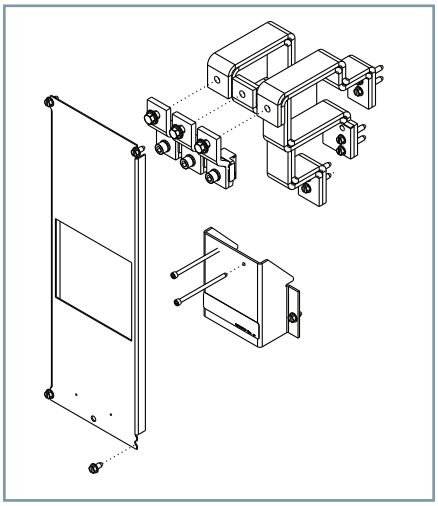
Breaker Family	Max Amp. Rating	Breaker Type	Catalog Number	Unit Space (inches)	Mounting
3VA	125A	3VA41	**S3VA41SBX**	3.75	Single
	250A	3VA52	**S3VA52SBX**	5.00	Single
	400A/600A	3VA53, 3VA54	**S3VA54SBX**	6.25	Single

Blank Filler Plates

Includes blank filler plate to cover open unit space.

Unit Height (inches)	Catalog Number
1.25	**6FPB01SBX**
2.50	**6FPB025BX**
3.75	**6FPB035BX**
5.00	**6FPB055BX**
10.00	**6FPB010BX**

① Switchboard ships from factory with Main Breaker only. Branch Breakers must be field installed.
② Weight of switchboard with packaging
③ Switchboard ships from factory with provisions for TPS4 SPD. TPS4 SPD sold seperately.



S3VA54SBX 400A/600A strap kit.

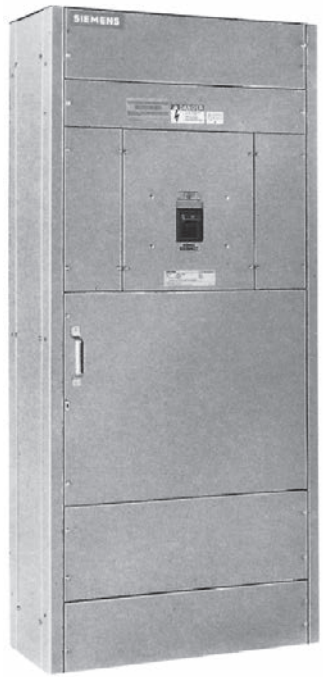
Product Description

Siemens BCT stock service entrance switchboards are designed as stock units to meet the fast delivery needs of the market.

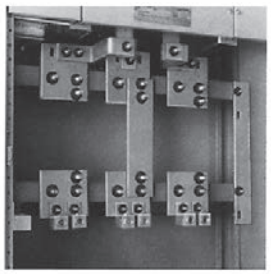
Siemens BCT switchboards incorporate a utility current transformer compartment and a Sentron molded case circuit breaker in a single section.

BCT switchboards have many applications, some of the most common include:

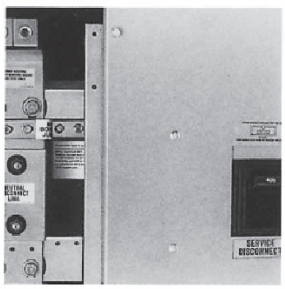
- Retail stores
- Office buildings
- Small factories
- Commercial stores and shopping centers



BCT Service Cubicle



Utility metering provsion



Neutral disconnect link

Features & Benefits

Features

- Up to 1200 amperes
- Up to 600 volts AC
- Bus bracing up to 100KAIC
- Type 1 enclosures only

Utility Provision

The provision can be adjusted for use with 12" or 14.5" primary bar type current transformers. All switchboards are supplied as top feed cold sequence metering only. Switchboards can be field modified for other configurations per the available configurations table below.

Main Disconnect

The main service disconnect is a Sentron molded case circuit breaker available from 400 to 1200 amperes.

Enclosure

The enclosure is tamperproof with a hinged door over the utility provision compartment with a latch for the utility to be able to seal off the compartment. Enclosures are only available as type 1 indoor.

Standards & Certifications

- UL891
- NEMA PB-2
- Other equipment is UL listed as applicable

Connectors (Per Phase & Neutral)

Ampere Rating	Connectors Suitable For Cu or Al
400	(1) 4/0-500 kcmil (2) 250 kcmil
600	(2) 4/0-500 kcmil
800	(2) 250-500 kcmil
1000	(4) 250-500 kcmil
1200	(4) 250-500 kcmil

BCT Catalog Numbers & Application Data

Catalog Number	Symmetrical Amperes Interrupting Capacity			Ampere Rating	System Voltage		Dimensions (inches)			Available Configurations		
	240V	480V	600V				Height	Width	Depth	Top Feed Cold Seq.	Top Feed Hot Seq.	Bottom Feed Cold / Hot Seq.
BCT436JXD6	65,000	35,000	25,000	400	120/240V 208Y/120V 240V 480Y/277V 480V 600V	1-Phase, 3-Wire 3-Phase, 4-Wire 3-Phase, 3-Wire 3-Phase, 4-Wire 3-Phase, 3-Wire 3-Phase, 3-Wire	70	32	13.75	●	●	●
BCT436HJD6	100,000	65,000	35,000							●	●	
BCT636LXD6	65,000	35,000	25,000	600						●	●	●
BCT636HLD6	100,000	65,000	35,000							●	●	
BCT836MXD6	65,000	50,000	25,000	800			90			●	●	●
BCT836HMD6	100,000	65,000	50,000							●		
BCT1036NXD6	65,000	—	—	1000	208Y/120V 240V	3-Phase, 4-Wire 3-Phase, 4-Wire				●	●	●
BCT1036HND6	100,000	—	—							●		
BCT1236NXD6	65,000	—	—	1200						●	●	●
BCT1236HND6	100,000	—	—							●		
PTE	Potential Transformer Enclosure			—	—	—	20	20	10			

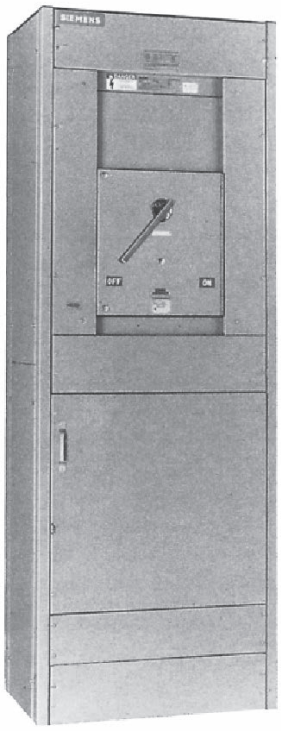
Product Description

Siemens SCT stock service entrance switchboards are designed as stock units to meet the fast delivery needs of the market.

Siemens SCT switchboards incorporate a utility current transformer compartment and a Vacu-Break fusible switch.

SCT switchboards have many applications, some of the most common include:

- Retail stores
- Office buildings
- Small factories
- Commercial stores and shopping centers



SCT Service Cubicle

Features & Benefits

Features

- Up to 1200 amperes
- Up to 600 volts AC
- Bus bracing up to 200KAIC
- Type 1 enclosures only

Utility Provision

The provision can be adjusted for use with 12" or 14.5" primary bar type current transformers. All switchboards are supplied as top feed cold sequence metering only..

Main Disconnect

The main service disconnect is a Vacu-Break fusible switch available from 400 to 1200 amperes.

Enclosure

The enclosure is tamperproof with a hinged door over the utility provision compartment with a latch for the utility to be able to seal off the compartment. Enclosures are only available as type 1 indoor.

Standards & Certifications

- UL891
- NEMA PB-2
- Other equipment is UL listed as applicable



Vacu-Break Main Switch

Connectors (Per Phase & Neutral)

Ampere Rating	Connectors Suitable For Cu or Al
400	(1) 4/0-500 kcmil (2) 250 kcmil
600	(2) 4/0-500 kcmil
800	(2) 250-500 kcmil
1000	(4) 250-500 kcmil
1200	(4) 250-500 kcmil

Fuse Clips

Ampere Rating	Fuse Clip	Symmetrical Amperes Interrupting Capacity
400 - 600	R	200,000
800 - 1200	L	100,000

SCT Catalog Numbers & Application Data

Catalog Number		Ampere Rating	System Voltage		Dimensions (inches)		
Cold Sequence	Hot Sequence				Height	Width	Depth
SCT432	LSCT432	400	120/240V	1-Phase, 3-Wire	90	32	20
SCT632	LSCT632	600	208Y/120V 240V	3-Phase, 4-Wire 3-Phase, 3-Wire			
SCT436	LSCT436	400	480Y/277V	3-Phase, 4-Wire			
SCT636	LSCT636	600	480 or 600V	3-Phase, 3-Wire			
SCT836	LSCT836	800	All	—			
SCT1236	LSCT1236	1200	208Y/120V 240V	3-Phase, 4-Wire 3-Phase, 3-Wire			

Sm@rtGear® V7, Low Voltage Switchboards



Sm@rtGear V7 for switchboards is pre-configured and pre-programmed low voltage switchboard with the ability to integrally support out-of-the-box remote monitoring, configuration, and control of embedded intelligent devices through two-way real-time communication between the user and the apparatus. The two-way real-time communication is achieved by using a single interface point (HMI) that provides an easy-to-use gateway to the embedded intelligent devices.

The HMI GUI (graphical user interface) provides a consistent look and feel that provides seamless access and control of the intelligent devices.

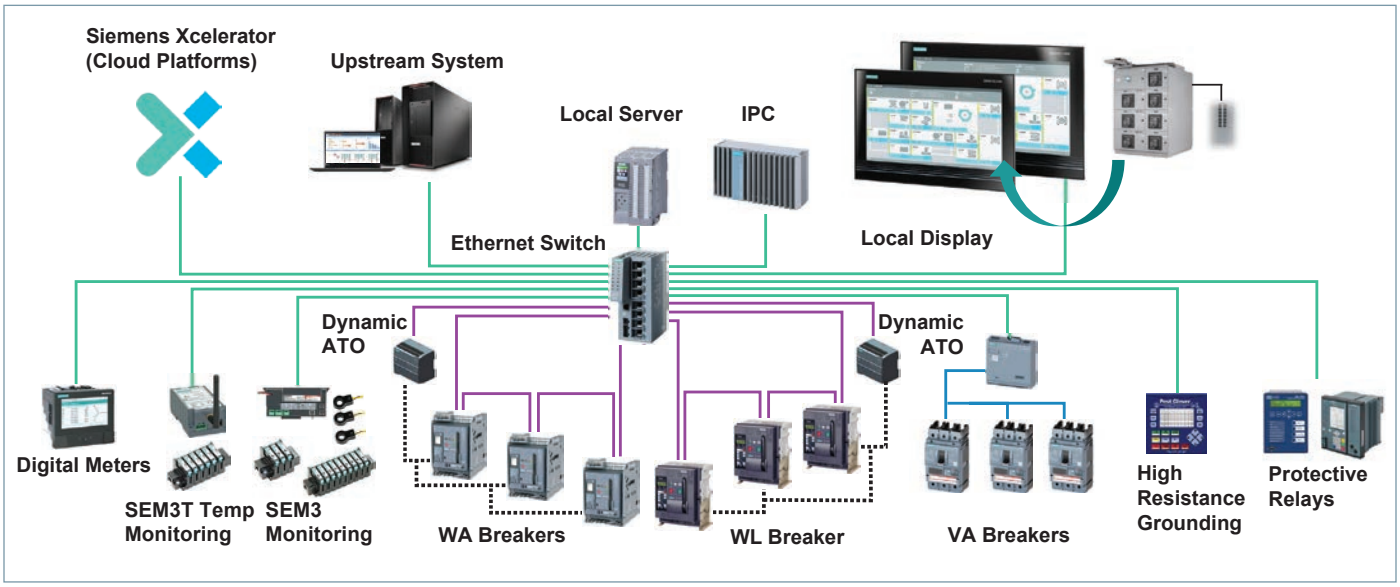
Intelligent (smart) devices, such as electronic circuit breakers, relays, meters, etc., have existed for over 30 years. These smart devices are self-monitoring, configurable and communicating, but individually they are only islands of intelligence. With Sm@rtGear V7, users have one centralized location for interacting with all supported intelligent devices in a consistent and easy to use format.

Historically, consolidated remote monitoring, configuration and control of all embedded intelligent devices have only been available with the inclusion of expensive upstream systems (EPMS, PCS, DCS, SCADA). With the advent of Sm@rtGear V7, consolidated remote monitoring, configuration, and control become standard features that are integral to the low voltage switchgear.

Sm@rtGear V7 Customer Benefits

- Enhanced arc flash safety
- Enables remote monitoring, configuration, and control for single or multiple line ups (Up to 100 Breakers)
- Future ready design with optional edge applications for additional on-premise features like temperature monitoring and power quality as well as direct connections options for multiple cloud services
- Gets personnel outside the arc flash hazard boundary when performing normal breaker operations i.e. open/close, and Dynamic Arc Sentry (DAS) activation
- Significantly reduces internal and external control wiring for increased product reliability and decreased installation labor
- Faster commissioning and startup
- Usage-based preventative and predictive condition based maintenance with device and system level alarming indicators
- Configurable, self-monitoring apparatus that is easier to design, specify, commission, and operate

Sm@rtGear V7, Low Voltage Switchboards



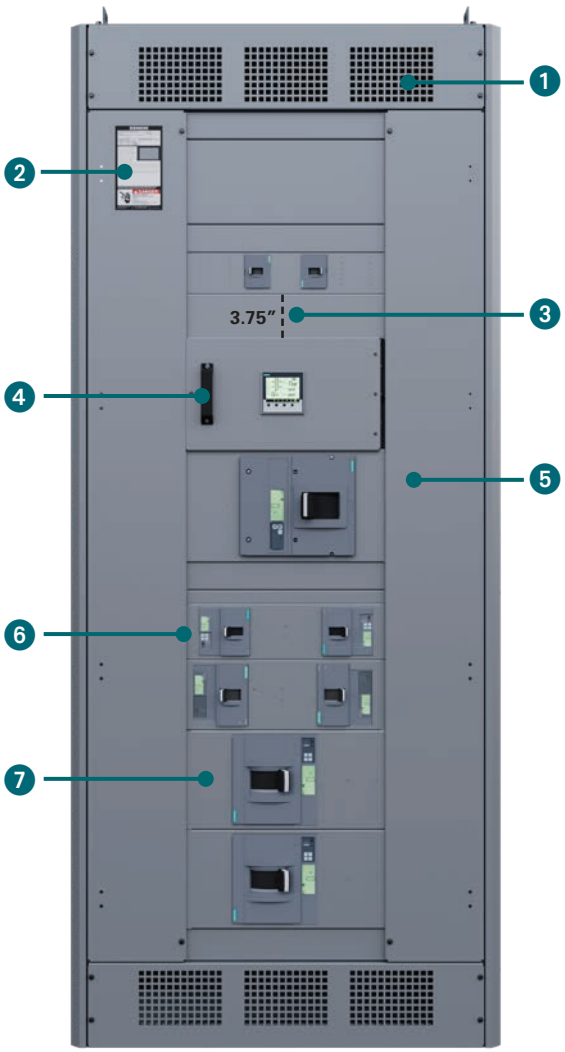
Sm@rtGear V7 For Switchboard Standard Features

- Siemens S7 PLC with all pre-programmed software required to monitor, configure, and control embedded intelligent devices and structural monitoring devices
- 22" Unified Comfort Panel (HMI) pre-configured and pre-programmed with application specific graphical user interface (application specific elevation drawing and/or one-line home page
  - WinCC Unified Architecture)
- Communication backbone linking embedded intelligent devices, PLC, and HMI with optional layer 3 managed switch providing net mapping and enhanced firewall settings
- Electronic trip unit in all breakers that supports arc flash incident energy reduction (where required) and remote capability for settings
- Protective relaying and alarm functions in all breakers when available
- Power metering function in all breakers when available (Metering Plus required)
- Electrically operated breakers with spring charge motor, shunt trip & remote closing coil or external motor operation option when available (EO CB required)

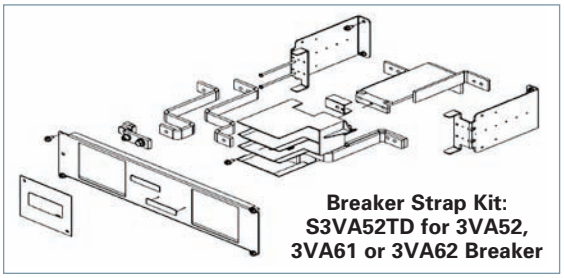
Sm@rtGear V7 Optional Features

- Sm@rtGear Dynamic ATO (Auto-throwover)
  - Wide range of configurations available: Main- Main, Main-Gen, Main-Tie-Main, Main-Tie-Tie-Main, Main-Tie-Gen, and Custom Options
- Sm@rtGear V7 Applications
  - Predictive Temp (Thermal Monitoring)
  - PQ Basic (Power Quality)
  - Compliance Assist (NFPA 70B documenting, reporting, and condition monitoring)
  - Sm@rtGear® Ai
  - Siemens Xcelerator Building X and Electrification X, Enterprise Portal, AWS, and Azure Cloud Connectors
- Cloud Services
  - Enterprise Portal Thermal Monitoring
  - Siemens Xcelerator Building X
  - Siemens Xcelerator Electrification X
- Condition and Environmental monitoring (equipment, ambient temperature, humidity, smoke, water)
- SEM3T
  - Bus bar temperature monitoring
  - Power cable temperature monitoring
  - Stab connection monitoring
  - Optional edge application for predictive monitoring
- Zone differential relaying (ZSI required)
- Load shedding
- Open breaker door monitoring and alarm
- Control power monitoring
- Breaker trip coil monitoring
- High resistance grounding (HRG)
- Transformer Monitoring
- Medium Voltage integration for monitoring and control
  - Stand-alone HMI or integrated
  - Siprotec and SEL default support
  - Custom relay support

Field Installed Provisions



① Vented Cover
② Main Rating Label
③ Open Unit Space (3.75")
④ Auxiliary Compartment
⑤ Gutter Cover
⑥ Twin Mounted Breakers
⑦ Single Mounted Breaker



Breaker Strap Kit: S3VA52TD for 3VA52, 3VA61 or 3VA62 Breaker

For inches / millimeters conversion, see conversion table

① Strap Kit can also accommodate xGB breakers, reference Installation Instructions
② High Density Kit, requires 7.5″ Unit Space to fit QTY (6) 2 Pole breakers
③ Includes qty 1 kit #S3VA52PR
④ Includes qty 1 kit #S3VA53PR

Connection Strap Kits - Circuit Breaker

Siemens offers strap kits to field install molded case circuit breakers in existing switchboard distribution sections with available Unit Space. Unit Space represents the amount of vertical height required to mount each breaker. Strap kits are unique to specific breaker frame size and/or trip unit type (thermal magnetic or electronic trip).

The connecting kits below are for use with SB1, SB2, SB3, FC20, FCI, FCII, CDP-6 & VB-6 switchboards or series 5 or 6 CDP circuit breaker panelboards. Includes straps, coverplates and necessary hardware for switchboards manufactured since 1974. For replacement strap kits for RCIII switchboards, contact your local sales office.

Information Required When Selecting Strap Kits and Blank Plates:

1. How much available Unit Space is in the Switchboard?
2. What breaker frame is being installed?
3. Are blank plates required? To calculate the size of the blank plate required, use the following formula: Available Unit Space - Connection Strap Kit Height = Height of Blank Plates. Reference Blank Plate table on page 13-28.

Example: A Customer needs to add two 125 Amp, 3VA41 circuit breakers to an existing Switchboard.

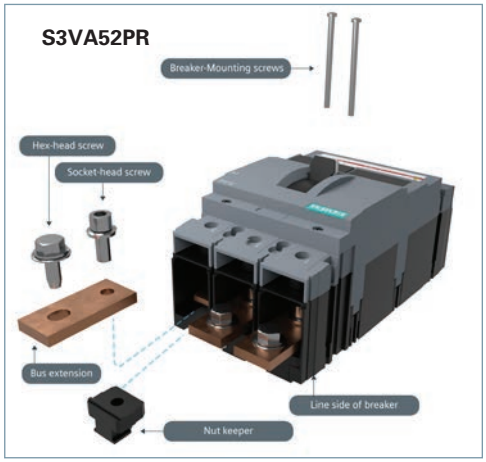
- The section on the right has an available 3.75 inches of available Unit Space (the cover marked by bullet #3).
- Referencing the Connection Strap Kit table below, 3.75 inches of Unit Space is required to mount two 3VA41 breakers. #S3VA41TD is the appropriate strap kit.
- 3VA41 takes up exactly 3.75 inches of Unit Space thus no further blank plate is required.

Max Amp Rating	Breaker Family	Breaker Type	Catalog Number	Unit Space Hgt (in.)	Min. Section Width	Mounting
100	General	BQD	**SBLBD**	3.75	32	Twin
125	3VA	3VA41, xGB	**S3VA41TD**①	3.75	32	Twin
	3VA	3VA41, xGB	**S3VA41TDHD**①②	7.50	32	Twin, High Density
	General	ED	**SE6D**	3.75	32	Twin
	General	CED	**SCED**	3.75	32	Twin
150	3VA	3VA61	**S3VA52TD**③	5.00	32	Twin
225	General	QR	**SQRD**	5.00	32	Twin
250	3VA	3VA52, 3VA62	**S3VA52TD**③	5.00	32	Twin
	Sentron	FD	**SF6D**	5.00	32	Twin
	Sentron	CFD	**SCFD**	5.00	32	Single
400	3VA	3VA53, 3VA63	**S3VA53TD**④	6.25	32	Single
	3VA	3VA53, 3VA63	**S3VA53T2D**	6.25	38	Twin
	Sentron	JD	**SJ1D**	8.75	32	Single
	Sentron	JD	**SJ2D**	8.75	38	Twin
	Sentron	CJD	**SCJD**	8.75	32	Single
	Sentron	SJD	**SSJ1D**	8.75	32	Single
	Sentron	SCJD	**SSCJD**	8.75	32	Single
600	3VA	3VA54, 3VA64	**S3VA54TD**④	6.25	32	Single
	3VA	3VA54, 3VA64	**S3VA54T2D**	6.25	46	Twin
	Sentron	LD	**SL6D**	8.75	32	Single
	Sentron	CLD	**SCLD**	8.75	32	Single
	Sentron	SLD	**SSL6D**	8.75	32	Single
	Sentron	SCLD	**SSCLD**	8.75	32	Single
800	3VA	3VA55, 3VA65	**S3VA55TD**	8.75	32	Single
	Sentron	LMD	**SLM1D**	8.75	32	Single
	Sentron	MD, CMD	**SMND**	10.00	32	Single
	Sentron	SMD	**SSMND**	10.00	32	Single
1000	3VA	3VA66	**S3VA55TD**	8.75	38	Single
1200	3VA	3VA57, 3VA67	**S3VA57TD**	10.00	38	Single
	Sentron	ND	**SMND**	10.00	38	Single
	Sentron	SND	**SSMND**	10.00	38	Single

Factory Installed Provisions

Hardware Kits (Provision Kits)

Additional hardware may be necessary when installing a breaker on factory-provisioned configurations for 3VA52, 3VA61, and 3VA62 twin mount breakers, as well as 3VA5/3VA6 400A & 600A single mount breakers.



Switchboards with ***a ship date prior to June 2021*** require one of the following hardware kits:

Catalog Number	Breaker Type	Description
S3VA52PR	Twin mount 3VA52, 3VA61 or 3VA62 Breakers	These kits include (3) Bus Extensions, (3) 3VA5 Nut Keepers, (3) 3VA6 Nut Keepers and hardware
S3VA53PR	Single mount 3VA53, 3VA63, 3VA54 or 3VA64 Breakers	

Switchboards with ***ship date in June 2021 or later*** require one of the following Nut Keeper kits:

Catalog Number	Description
3VA9233-0QA00	3VA52 250A Nut Keeper Kit (3)
3VA9243-0QA00	3VA61/62 150A/250A Nut Keeper Kit (3)
3VA9473-0QA00	3VA5, 3VA6 400A/600A Nut Keeper Kit (3)

Connection Strap Kits - Vacu-Break & HCP①

For use with SB1, SB2, SB3, SB4, FCI, FCII, VB-5 & VB-6 switchboards. Includes straps, cover plates and necessary hardware for switchboards manufactured since 1974. For replacement strap kits for RCIII switchboards, contact your local sales office.

Switch Type	Ampere Rating	Unit Height (inches)	Catalog Number
Vacu-Break	30-30	5, 7.5	**VB657**
	30-60	5, 7.5	
	60-60	5, 7.5	
	60-100	7.5	
	100-100	7.5	
	100	7.5	
	200	7.5, 10	**VB671**
	200-200	10	**VB610**
	400-600	10, 15	**VB6150**
HCP	800-1200	16.25	**F6162D**

Blank Plates - Circuit Breaker & Fusible Switch①

For use with SB1, SB2, SB3, SB4, FCI, FCII switchboards or series 5 or 6 VB and CDP panelboards.

Unit Height (Inches)	Catalog Number
1.25	**6FPB01**
2.5	**6FPB02**
3.75	**6FPB03**
5	**6FPB05**
10	**6FPB10**

Filler Plates①

For use with SB1, SB2, SB3, SB4, FCI, FCII, CDP-6 & VB-6 switchboards or series 5 or 6 CDP circuit breaker panelboards. Includes straps, cover plates and necessary hardware for switchboards manufactured since 1974. For replacement strap kits for RCIII switchboards, contact your local sales office.

Breaker Frame	Filler Plate Catalog Number	Notes
BL, BQD, ED, xGB, xGB2	**DFFP1**	Per Pole

Note: When a front filler plate is not completely filled with breakers, the openings in the unused space must be closed with 1-pole filler plates from table.

Replacement Meter Socket Kits①②③

For use with SMM and SMD metering switchboards

Type	Catalog Number
1-Phase	**MSK2001**
3-Phase	**MSK2003**

Connecting Kits①②

For use with SMM and SMD metering switchboards

Disconnect Device	Catalog Number
NGG	**SMMNGMK**
EG	**SMMHEMK**
BQ	**SMMBQMK**
QR	**SMMQRMK**
ED	**SMMEDMK**
FD	**SMMFDMK**
CED	**SMMCEMK**
T-Fuse Pullout	**SMMTFMK**

Cover Plates

For use with SB1, SB2, SB3, SB4, FCI, FCII, CDP-6 & VB-6 switchboards or series 5 or 6 CDP circuit breaker panelboards.

Breaker Type	Catalog Number
QR	**SQRC**④

For inches / millimeters conversion, see conversion table

① Consult sales office for availability

② Siemens meter socks used in SMM switchboards

③ Siemens Type WMS263 Meter Sockets are rated 200A in application Data Section

② To replace a QJ with a QR only a new cover is needed up to 225A.