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

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
- ACCESS 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 1600 amperes. The solid state trip units provide finite trip setting adjustment, Modbus and Profibus communication along with many other features.

WL 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 ACCESS 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. The WL breaker can be provided with Dynamic Arc Flash Sentry 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
- 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 Switchboards

Siemens SB3 switchboards are designed for custom options. SB3 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 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) Molded Case Circuit Breakers (MCCB) Vacu-Break Switches (VBS) Vacu-Break Switches (VBS) High Contact Pressure Switches (HCP) Bolted Pressure Switches (BPS)	400 - 1200 400 - 2000 400 - 600 800 - 1200 800 - 1200 800 - 2000	Panel Individual Panel Individual Individual Individual
	Branch	Molded Case Circuit Breakers (MCCB) Molded Case Circuit Breakers (MCCB) Vacu-Break Switches (VBS) Vacu-Break Switches (VBS) High Contact Pressure Switches (HCP) Bolted Pressure Switches (BPS)	15 - 1200 400 - 2000 30 - 600 800 - 1200 400 - 1200 800 - 1200	Panel Individual Panel Individual Individual 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	Main	All SB1 main devices Bolted Pressure Switches (BPS) WL Insulated Case Circuit Breakers (WL)	 Up to 4000 Up to 4000	 Individual Individual
	Branch	All SB1 branch devices Bolted Pressure Switches (BPS) WL Insulated Case Circuit Breakers (WL)	 Up to 4000 Up to 4000	 Individual 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) WL Insulated Case Circuit Breakers (WL)	 Up to 6000 Up to 5000	 Individual Individual
	Branch	All SB1 & SB2 branch devices Bolted Pressure Switches (BPS) WL Insulated Case Circuit Breakers (WL)	 Up to 6000 Up to 5000	 Individual Individual

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

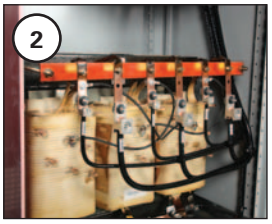
Features

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

Integrated Power Systems Switchboard
Commonly Mounted Equipment

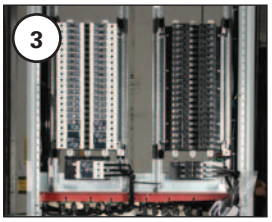
Distribution sections

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



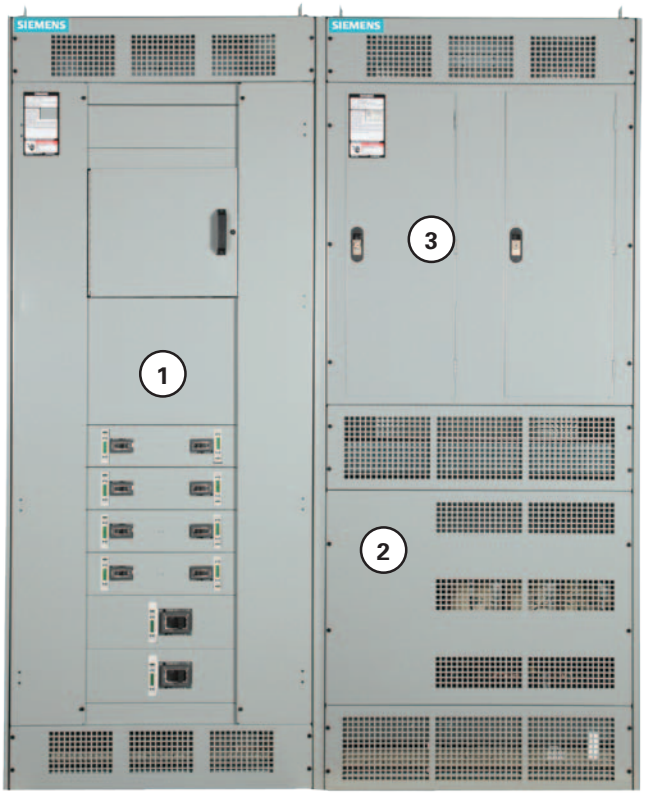
Transformers

- 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
- Mounted panelboards built to UL67 and NEMA PB-1
- Other equipment is UL listed as applicable

Additional Information

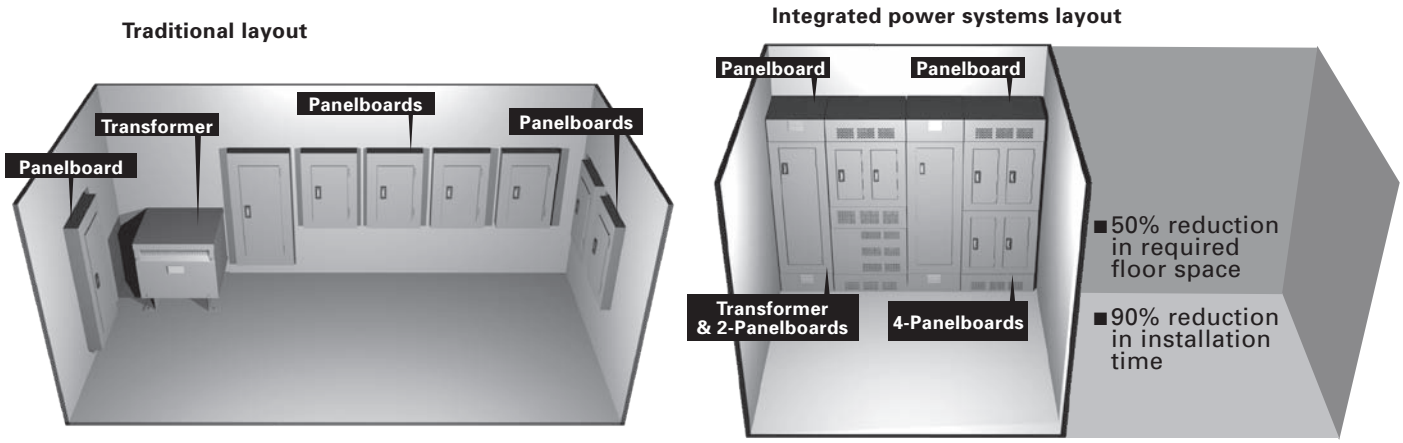
For complete application and pricing information contact your local Siemens sales office.

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



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, 200 or 320 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 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
- 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.

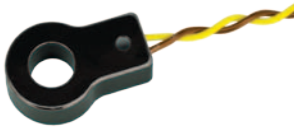
SEM3 System configured in Distribution Panels and Switchboards

The information below pertains to panelboard types P4, P5 and switchboard types SB1, SB2, and SB3. Please note SEM3 is not available for P3 panelboards. SEM3 is available in NEMA type 1, 3R, and 12 enclosures. SEM3 specifics to P4, P5, SB1, SB2, and SB3 are:

SEM3 for use in Siemens Switchboards

Controller

SEM3 controller is mounted in unit space. For P4 and 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 P4/5 and SB1/2/3. 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 P4/5 & SB1/2/3 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.

What is the solution?

- **Simple, scalable** – Can integrate all MCCBs, ICCBs and Power Circuit Breakers in a single system
- **Consistent Architecture** - System can be used in most equipment including Switchgear, Switchboards, and Power Panels
- **Outside the Zone** - Maintenance switches can be mounted on a remote panel outside arc flash zone

What are the benefits?

- Complies with NEC 240.87
- Scalable solution to add multiple breakers
- Can set instantaneous to any required value – not just fixed values
- Can be utilized on both WL, VL breakers
- MODBUS communication – allows for additional control over a SCADA system or local HMI

Standard Features

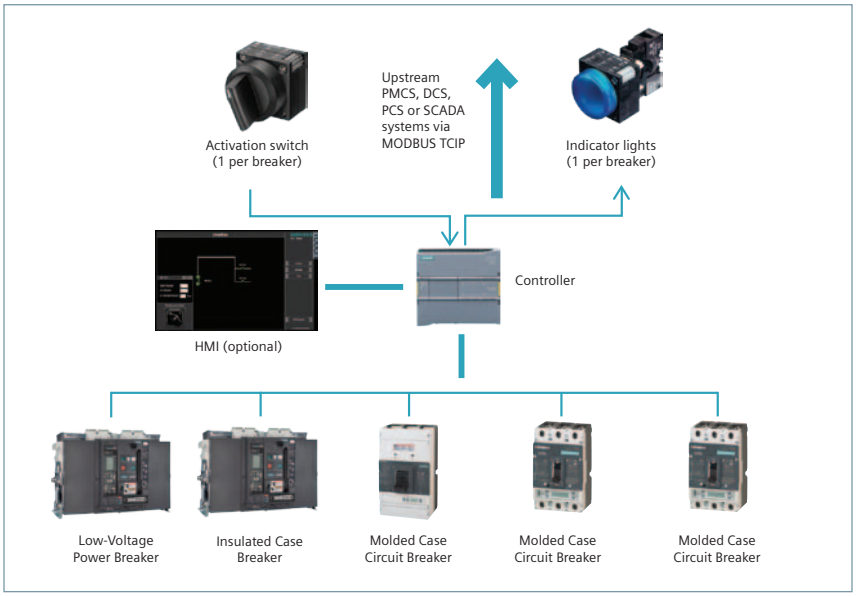
- Siemens Sm@rt DAS controller with MODBUS TCP/IP
- MODBUS communication linking intelligent devices
- One light/switch per breaker
- Power/Insulated Case Circuit Breaker features
  - ETU 776
  - COM16 (MODBUS module)
  - Ability to change all protection setting parameters
- Molded Case Circuit Breaker Features:
  - ETU 586
  - COMMOD21 (MODBUS module)
  - Ability to change short time and instantaneous protection setting parameters

DAS Optional Features

- Optional single switch for entire system with indicator lights for individual breakers
- Optional HMI
  - Remote activation
  - Adjust trip settings on breakers

Switchboard with Sm@rt DAS

DAS Architecture



13 SWITCHBOARDS

Generator Ready Switchboards

Type Generator Ready

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 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

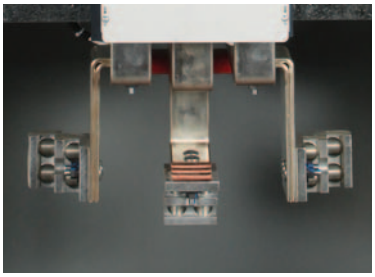
- UL891
- NEMA PB-2
- NEC702
- Florida Building Code section 420.4.2.9.7
- Seismically qualified
- Other equipment is UL listed as applicable

Product Features

2000A main WL 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

TPS3 Integral or Internally Mounted SPDs for Switchboards

Siemens Integral TPS3 06 and L6 are UL 1449 4th Edition, factory installed SPDs within our Siemens Switchboards, utilizing optimal electrical system connections to minimize impedance losses. This results in the some of the industry's best "installed" Voltage Protection Ratings. These SPDs share the following features:

TPS3 06

TPS3 Features

- UL 1449 4th Edition and UL 1283
- UL 1449-4 Type 2 SPD, UL 1283 Listed, CSA 22.2 No. 269.2, Optional UL 1449 4th Edition Recognized Type 1, CSA 22.2
- 20 kA I_n (Most models)
- 200 kA SCCR (most models)
- UL96A Lightning Protection Master Label Compliant
- 100 – 500 kA surge current capacity per phase
- EMI/RFI filtering or Sine Wave tracking
- Standard Monitoring – LEDs, Audible Alarm, Dry Contacts, Surge Counter, and Ground Reference Monitoring (GRM) Diagnostics
- 10 Year Product Warranty

Ordering Information

Catalog # TPS3 ☐ 06 ☐☐ X ☐ ☐

Voltage Code
A = 120/240 V, 1Ø, 3W
B = 120/240 V, 3Ø, 4W
C = 120/208 V, 3Ø, 4W
D = 240 V, 3Ø, 3W②
E = 277/480 V, 3Ø, 4W
F = 480 V, 3Ø, 3W②
G = 600 V, 3Ø, 3W①
K = 380/220 V, 3Ø, 4W
L = 600/347 V, 3Ø, 4W
S = 400/230 V, 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

X = Surge counter (Standard)

Options
B = Busway application
M = MCC application

Options
2 = Type 2 SPD (Default) Includes UL 1283 EMI/ RFI Filters
0 = Type 1 SPD

Example: **TPS3C0640X002** = Type 2 SPD (Default) for a 208/120V switchboard with a surge current capacity of 400 kA per phase and a surge counter.

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

Available Accessories: Ordered Separately

RMSIE = Remote monitor **WHXWDP120** = 10' Display cable extension
① G voltage code only available in 200 & 250 kA
② Not available in 500 kA

"True," "Discrete," or "L-L Enhanced" 10 Mode SPD

Catalog # TPS3 ☐ L6 ☐☐ X ☐ ☐

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

Surge Current (kA)
15 = 150 kA per phase
30 = 300 kA per phase
45 = 450 kA per phase

X = Surge counter (Standard)

Options
B = Busway application
M = MCC application

Options
2 = Type 2 SPD (Default) Includes UL 1283 EMI/ RFI Filters
0 = Type 1 SPD

Example: **TPS3CL645X02** = 10 mode Type 2 SPD (Default) for a 208/120V switchboard with a surge current capacity of 450 kA per phase and a surge counter.

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

Available Accessories: Ordered Separately

RMSIE = Remote monitor

Rear Connected Switchboards

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

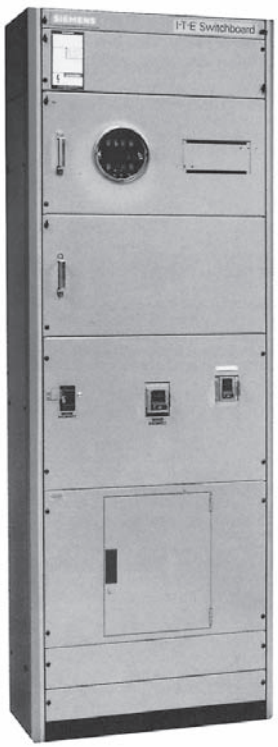
- Provision for utility metering (non-EUSERC)
- Main Vacu-Break fusible switches

Additional Information

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

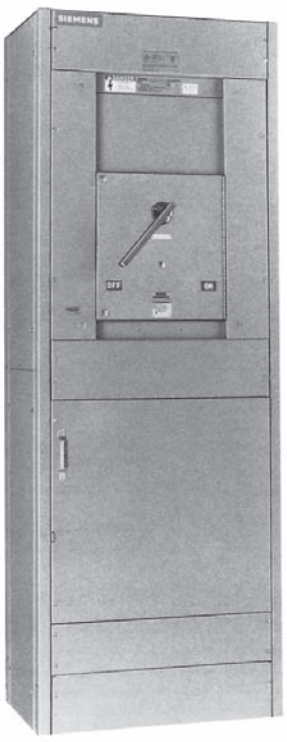
For further information on the product, visit our website at www.usa.siemens.com/switchboards

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.

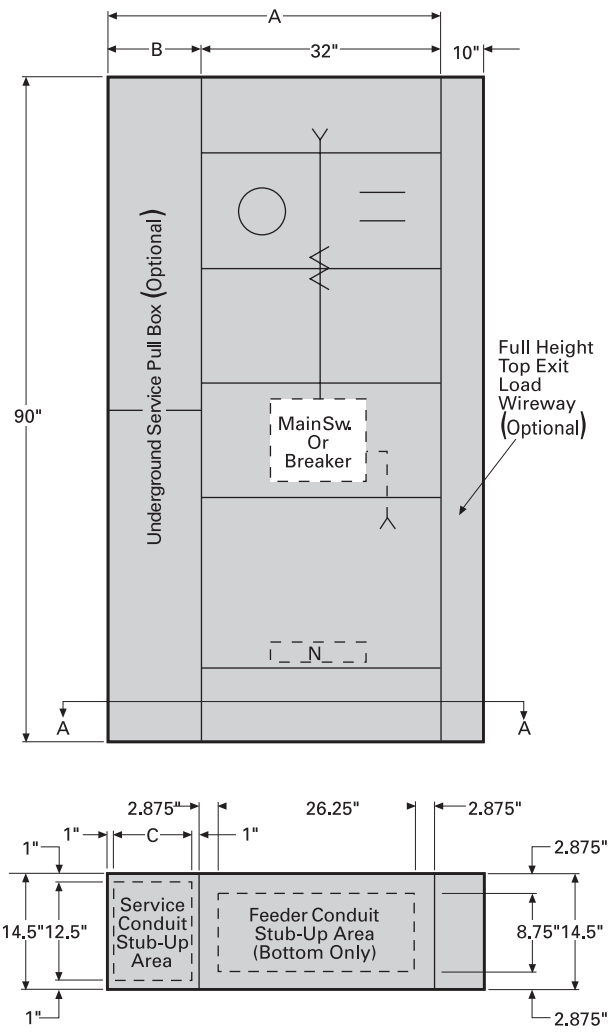
Distribution Panel

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

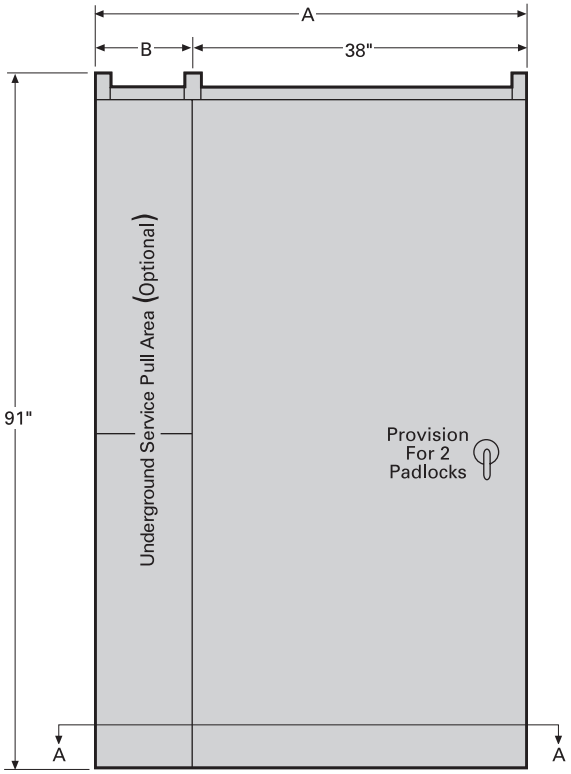
- UL891
- NEMA PB-2
- Seismically qualified
- Other equipment is UL listed as applicable

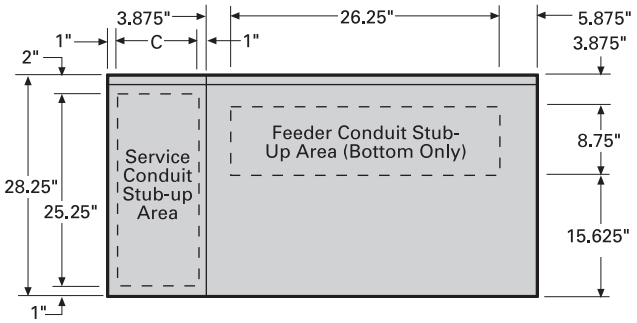
Type 1 — Indoor



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**	**WPB224**	5②	**PQ2630 PQ2612**	320	1050
	240/120; 3-Phase, 4-Wire Delta 240; 3-Phase, 3-Wire 208Y/120; 3-Phase, 4-Wire	**PB424**	**WPB424**	15	**PQ4630 PQ4612**	335	1060
	480Y/277; 3-Phase, 4-Wire 480; 3-Phase, 3-Wire	**PB444**	**WPB444**	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**	**WPB226**	5②	**PQ2630 PQ2612**	320	1050
	240/120; 3-Phase, 4-Wire Delta 240; 3-Phase, 3-Wire 208Y/120; 3-Phase, 4-Wire	**PB426**	**WPB426**	15	**PQ4630 PQ4612**	335	1060
	480Y/277; 3-Phase, 4-Wire 480; 3-Phase 3-Wire	**PB446**	**WPB446**	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**	**WPB228**	5②	**PQ2840 PQ2816**	460	1090
	240/120; 3-Phase, 4-Wire Delta 240; 3-Phase, 3-Wire 208Y/120; 3-Phase, 4-Wire	**PB428**	**WPB428**	15	**PQ4840 PQ4818**	475	1090
	480Y/277; 3-Phase, 4-Wire 480; 3-Phase, 3-Wire	**PB448**	**WPB448**	15	**PE4840 PF4809**	475	1090

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

①Load side lugs, distribution panel and subfeed kits are not included.
②For 6-jaw requirements, order 6th clip kit from accessories.

□ = Warehouse Stock

Main Fusible Switch①

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) 200,000 AIC maximum at 600 Volts	120/240; 1-Phase, 3-Wire	**PF224**	**WPF224**	5③	**PQ2630 PQ2612**	365	1094
	240/120; 3-Phase, 4-Wire Delta 240; 3-Phase, 3-Wire 208Y/120; 3-Phase, 4-Wire	**PF424**	**WPF424**	15	**PQ4630 PQ4612**	375	1110
	480Y/277; 3-Phase, 4-Wire 480; 3-Phase, 3-Wire	**PF444**	**WPF444**	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	**PF226**	**WPF226**	5③	**PQ2630 PQ2612**	370	1100
	240/120; 3-Phase, 4-Wire Delta 240; 3-Phase, 3-Wire 208Y/120; 3-Phase, 4-Wire	**PF426**	**WPF426**	15	**PQ4630 PQ4612**	390	1110
	480Y/277; 3-Phase, 4-Wire 480; 3-Phase 3-Wire	**PF446**	**WPF446**	15	**PE4630 PF4606**	390	1120

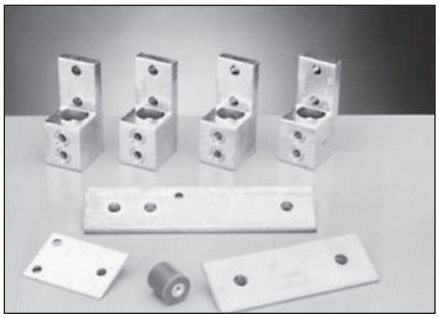
For inches / millimeters conversion, see conversion table in Application Data section.

①Fuses not included.
②Load side lugs, distribution panel and subfeed kits are not included.
③For 6-jaw requirements, order 6th clip kit from accessories.

□ = Warehouse Stock

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

Ampere Rating	Description	Catalog Number	Wire Range
400	For Fusible	**LKF4**	(1)—3/0-750 kcmil (Cu or Al)
600	Switch	**LKF6**	(2)—3/0-500 kcmil (Cu or Al)
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 Poles				Catalog Number	Weight
		QP or HQ⑦	ED4⑦	QJ2, QJH2, 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	—	40	—	—	**PE4840**	65
		—	12	—	9	**PF4809**	70

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

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

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.

□ = 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** **WPUG14**
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
"R" Fuse Clip Adapter Kit (Set of 3) — Discount Schedule VBSS		
400A 250/600V		**SSRK35**
600A 250/600V		**SSRK36**
"J" Fuse Clip Adapter Kit (Set of 3) — Discount Schedule VBSS		
400A 250V		**W49814**
400A 600V		**W49816**
600A 240V		**W49813**
600A 600V		**W49815**
"T" Fuse Clip Adapter Kit (One Pole Kit) — Discount Schedule VBSS		
400A 240V		**TFAK52**
400A 600V		**TFAK55**
600A 240V		**TFAK62**
600A 600V		**TFAK65**
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**
Filler Plates — Discount Schedule MCCB		
QP, BL, BQD, xGB, xGB2, ED		**QF3**
EB		**EBF1**
Handle Blocking and Padlock Devices — Discount Schedule MCCB		
Blocking (QP-HQP 1, 2 and 3-pole)		**ECQL1**
Blocking (QJ2, QJ2H, QJH2)		**QJHS1**
Blocking (QR2, QRH2, HQR2, HQR2H)		**HBLQR**
Blocking (ED2, ED4, ED6)		**E2HBL**
Padlock (QP-HQP)		**ECQLD3**
Padlock (QJ2, QJ2H, QJH2)		**HL9419**
Padlock (QR2, QRH2, HQR2, HQR2H)		**HPLQR**
Padlock (ED2, ED4, ED6)		**ED2HPL**
Equipment Ground Bus — Discount Schedule SWBD		
		PEGB42

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

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

☐ = Warehouse Stock

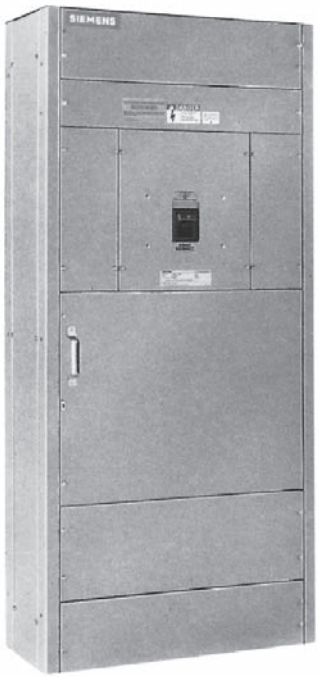
Product Description

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

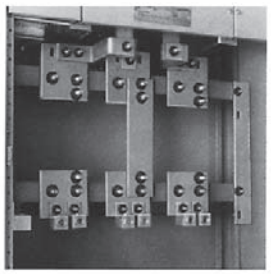
Siemens BCT switchboards incorporate a utility current transformer compartment and a Sentron molded case circuit breaker in a single section.

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

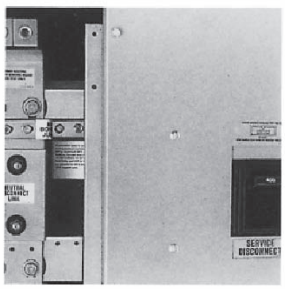
- Retail stores
- Office buildings
- Small factories
- Commercial stores and shopping centers



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

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

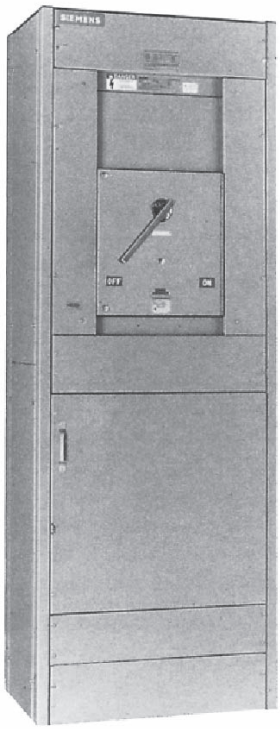
The main service disconnect is a Vacu-Break fusible switch available from 400 to 1200 amperes.

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



SCT Service Cubicle

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			

Connection Strap Kits - Circuit Breaker①

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, cover plates and necessary hardware for switchboards manufactured since 1974. For replacement strap kits for RCIII switchboards, contact your local sales office.

Max Amp Rating	Breaker Family	Breaker Type	Catalog Number②	Unit Height (inches)	Mounting
100	General	BL, BQD	**SBLBD**	3.75	Twin
125	General	EB	**SEBD**	3.75	Twin
	General	xGB	**SNBD**	3.75	Twin
	General	xGB2	**SGB2D**	3.75	Twin
	General	ED	**6E62**	3.75	Twin
	General	CED	**6CLE2**	3.75	Twin
150	VL	DG	**SDGD**	5	Twin
225	General	QJ	**6QJ2**	5	Twin
	General	QR	**6QR2**	5	Twin
250	VL	FG	**SFGD**	5	Twin
	Sentron	FD	**6F62**	5	Twin
	Sentron	CFD	**6CLF1**	5	Single
400	VL	JG	**SJG2D**⑤	6.25	Twin
	VL	JG	**SJG1D**	6.25	Single
	Sentron	JD	**6JJ61**	8.75	Single
	Sentron	JD	**6JJ62**	8.75	Twin
	Sentron	CJD	**6CLJ1**	8.75	Single
	Sentron	SJD	**6SJL1**	8.75	Single
	Sentron	SCJD	**6SCJ1**	8.75	Single
600	VL	LG	**SLGD**	6.25	Single
	Sentron	LD	**6LL61**	8.75	Single
	Sentron	CLD	**6CLL1**	8.75	Single
	Sentron	SLD	**6SLL1**	8.75	Single
	Sentron	SCLD	**6SCL1**	8.75	Single
800	VL	MG	**MG1D**	8.75	Single
	Sentron	LMD	**SLM1D**	8.75	Single
	Sentron	MD	**SMND**	10	Single
	Sentron	SMD	**SSMND**	10	Single
1200	VL	NG	**NG1D**	10	Single
	Sentron	ND	**SMND**	10	Single
	Sentron	SND	**SSMND**	10	Single

Filler Plates①

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, 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
EB	**EBF1**	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.

Connection Strap Kits - Vacu-Break & HCP①

For use with SB1, SB2, SB3, FC20, 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	15	**VB6150**
HCP	800-1200	16.25	**F6162D**

Blank Plates - Circuit Breaker & Fusible Switch①

For use with SB1, SB2, SB3, FC20, 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**

Replacement Meter Socket Kits①③④

For use with SMM and SMD metering switchboards

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

Connecting Kits①③

For use with SMM and SMD metering switchboards

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

Cover Plates

For use with SB1, SB2, SB3, FC20, FCI, FCII, CDP-6 & VB-6 switchboards or series 5 or 6 CDP circuit breaker panelboards.

Breaker Type	Catalog Number
QR	**SQRC**⑥

For inches / millimeters conversion, see conversion table

① Consult sales office for availability
② Connecting strap kit includes front filler plate after 1/91.
③ Siemens meter socks used in SMM switchboards
④ Siemens Type WMS263 Meter Sockets are rated 200A in application Data Section
⑤ Twin mounted VL JG breakers places the trip unit under the gutters preventing the trip unit from being visible by the customer.
⑥ To replace a QJ with a QR only a new cover is needed up to 225A.

Notes