# **Switchboards**

**SPEEDFAX**<sup>TM</sup>







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



# contents

Front Connected Switchboards	13-2 to 13-11
Distribution Switchboards (Type SB1, SB2, SB3)	13-2 to 13-4
Integrated Power Systems Switchboards (Type IPS)	13-5 to 13-6
Commercial Multi-Metering Switchboards (Type SMM & M	MS) 13-7
Embedded Micro Metering Module™ (SEM3)	13-8
Sm@rt DAS Type SB3	13-9
Generator Ready Switchboards	13-10 to 13-11
TPS3 Family of Hardwired Surge Protective Devices	13-12
Rear Connected Switchboards (Type RCS)	13-13
Stock Service Entrance Switchboards	13-14 to 13-22
General Stock Switchboard Overview	13-14
Super Blue Pennant Switchboards	13-15 to 13-20
Circuit Breaker Stock Switchboard (Type BCT)	13-21
Fusible Stock Switchboard (Type SCT)	13-22
Switchboard Monitoring	
Sm@rtGear Mobile App	13-23 – 13-24
Switchboard Replacement Parts and Modification Kits	13-25 – 13-26

# **Product Description**

**Product Description and Application** 

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** 

**Super Blue Pennant Switchboards** 

# **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



# 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**

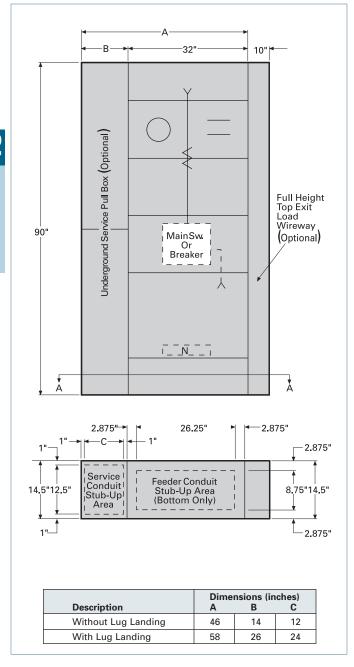
Super Blue Pennant switchboards can accommodate an optional distribution panel assembly per unit with ratings of 400, 600 or 800 amperes. The distribution panel can take up to 40 single pole branch breakers which can be either bolt on or plug-in.

# Standards & Certifications

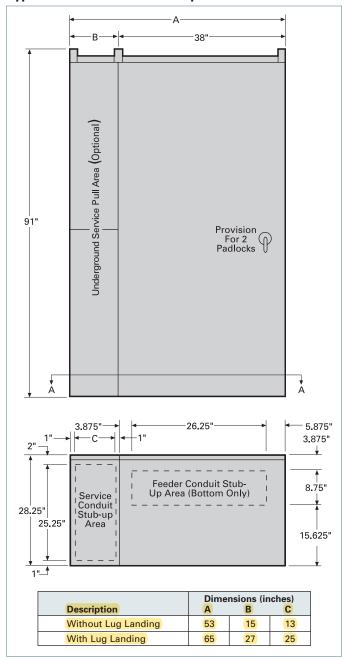
- UL891
- NEMA PB-2
- Seismically qualified
- Other equipment is UL listed as applicable
- Suitable for use only for service entry equipment

# Type 1 — Indoor

Super Blue Pennant Switchboards



Type 3R — Outdoor Weatherproof



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

**Super Blue Pennant Switchboards** 

# **Main Circuit Breaker**

Main Device Ampere Service Catalo		Catalog	Number Meter Socket	Distribution Kits	Approximate Weight (lbs.)		
Rating	Voltage	Indoor	Outdoor	Clips	Available	Indoor	Outdoor
400 Ampere Line Lugs	120/240; 1-Phase, 3-Wire	PB224 <sup>3</sup>	WPB224 <sup>3</sup>	5@	PQ2630 PQ2612	320	1050
(2)—%-500 kcmil (Copper or Aluminum) Breaker Rated 65,000A IR Symmetrical at 240 Volts	240/120; 3-Phase, 4-Wire Delta 240; 3-Phase, 3-Wire 208Y/120; 3-Phase, 4-Wire	PB424 <sup>3</sup>	WPB424 <sup>3</sup>	15	PQ4630 PQ4612	335	1060
35,000A IR Symmetrical at 480 Volts Type JD6	480Y/277; 3-Phase, 4-Wire 480; 3-Phase, 3-Wire	PB444 <sup>3</sup>	WPB444 <sup>3</sup>	15	PE4630 PF4606	335	1060
600 Ampere	120/240; 1-Phase, 3-Wire	PB226 <sup>3</sup>	WPB226 <sup>3</sup>	5@	PQ2630 PQ2612	320	1050
Line Lugs (2)—3-500 kcmil (Copper or Aluminum) Breaker Rated 65,000A IR Symmetrical at 240 Volts 35,000A IR Symmetrical at 480 Volts Type LD6	240/120; 3-Phase, 4-Wire Delta 240; 3-Phase, 3-Wire 208Y/120; 3-Phase, 4-Wire	PB426 <sup>3</sup>	WPB426 <sup>3</sup>	15	PQ4630 PQ4612	335	1060
	480Y/277; 3-Phase, 4-Wire 480; 3-Phase 3-Wire	PB446 <sup>3</sup>	WPB446 <sup>3</sup>	15	PE4630 PF4606	335	1060
800 Ampere	120/240; 1-Phase, 3-Wire	PB228 <sup>3</sup>	WPB228 <sup>3</sup>	5@	PQ2840 PQ2816	460	1090
Line Lugs (3)—%-500 kcmil (Copper or Aluminum) Breaker Rated 65,000A IR Symmetrical at 240 Volts 50,000A IR Symmetrical at 480 Volts Type MD6	240/120; 3-Phase, 4-Wire Delta 240; 3-Phase, 3-Wire 208Y/120; 3-Phase, 4-Wire	PB428 <sup>3</sup>	WPB428 <sup>3</sup>	15	PQ4840 PQ4818	475	1090
	480Y/277; 3-Phase, 4-Wire 480; 3-Phase, 3-Wire	PB448 <sup>3</sup>	WPB448 <sup>3</sup>	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 ont included.

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

Suitable for use only for service entry equipment

<sup>■ =</sup> Warehouse Stock

**Super Blue Pennant Switchboards** 

# Main Fusible Switch<sup>①②</sup>

Main Device Ampere	Service	Catalog Number <sup>3</sup>		Catalog Number <sup>③</sup> Meter Socket		Approximate Weight (lbs.)	
Rating	Voltage	Indoor	Outdoor	Clips	Available	Indoor	Outdoor
	120/240; 1-Phase, 3-Wire	PF224	WPF224	5@	PQ2630 PQ2612	365	1094
400 Ampere Line Lugs (2)—¾-500 kcmil (Copper or Aluminum) 200,000 AIC	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
maximum at 600 Volts	480Y/277; 3-Phase, 4-Wire 480; 3-Phase, 3-Wire	PF444	WPF444	15	PE4630 PF4606	375	1110
	120/240; 1-Phase, 3-Wire	PF226	WPF226	5@	PQ2630 PQ2612	370	1100
600 Ampere Line Lugs (2)—%-500 kcmil (Copper or Aluminum) 200,000 AIC maximum at	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
600 Volts	480Y/277; 3-Phase, 4-Wire 480; 3-Phase 3-Wire	PF446	WPF446	15	PE4630 PF4606	390	1120



# **Super Blue Pennant Switchboards**

# Main Device (Fusible Switch)

# Load Side Lugs<sup>⑤</sup>— 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)

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	<b>©</b> ⑦
400A 600V	HJ65A <sup>©®</sup>
600A 240V	HJ66A <sup>©</sup> 7
600A 600V	HJ66A

# "T" Fuse Clip Adapter Kit (One Pole Kit) — Discount Schedule VBSS

400A 240V	HT25A
400A 600V	HT65A, HT265A <sup>®</sup>
600A 240V	HT26A
600A 600V	HT66A

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

- ① Fuses not included.
- @ Switch accepts class H or K fuses from factory without need for adaptor.
- 3 Suitable for use only for service entry equipment.
- <sup>(4)</sup> For 6-jaw requirements, order 6th clip kit from accessories.
- (§) Includes phase and neutral load lugs and neutral link
- assembly.

  ® Kit not required for branch circuit switches, relocate lug base to achieve fuse fit.
- J fuse option not available for 240V main switches.
   Lug base relocation plus kit required for branch
- circuit switches.
- $\ensuremath{\mathfrak{D}}$  Kit required for Main Switch only.
- = Warehouse Stock

**Super Blue Pennant Switchboards** 

# Main Device (Circuit Breaker or Fusible Switch) Load Side Lugs<sup>①</sup>— 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

		Number and Type of Breaker Poles®					
Ampere Rating	Voltage	QP or HQ <sup>⑦</sup>	ED4®	QR2, QRH2, or HQR2 <sup>©</sup>	FXD6 <sup>2</sup> 6 <sup>7</sup>	Catalog Number	Weight
	120/240\/. 1 Phase 2 \//ira	30	-	_	_	PQ2630	20
	120/240V; 1-Phase, 3-Wire	12	_	12	_	PQ2612	39
400 and	240/120V; 3-Phase, 4-Wire Delta <sup>4</sup> 240V; 3-Phase, 3-Wire <sup>5</sup>	30	_	_	_	PQ4630	42
600	208Y/120V; 3-Phase, 4-Wire	12	_	12	_	PQ4612	42
	480Y/277V; 3-Phase, 4-Wire	<u> </u>	30	_	_	PE4630	42
	480V; 3-Phase, 3-Wire	_	12	_	6	PF4606	65
	120/240\/. 1 Phase 2 \//ira	40	_	_	_	PQ2840	65
	120/240V; 1-Phase, 3-Wire	12	_	16	_	PQ2816	00
800	240/120V; 3-Phase, 4-Wire Delta <sup>®</sup> 240V; 3-Phase, 3-Wire 208Y/120V; 3-Phase, 4-Wire	40	_	_	_	PQ4840	70
000		12	-	18	_	PQ4818	'
	480V; 3-Phase, 3-Wire	_	40	_	_	PE4840	65
	480Y/277V; 3-Phase 4-Wire	_	12	_	9	PF4809	70

# **Super Blue Pennant Switchboards**

Description	Catalog Number
Circuit Breaker Subfeed Kits: (Breakers N	ot 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 N	ot 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.

Olncludes phase and neutral load lugs and neutral link assembly. ②2-pole FXD6 requires 3-pole space.

<sup>3</sup> Includes branch neutral and disconnect link assembly. @1-pole breakers must not be connected to "B" phase. ©2-pole breakers must be rated 240V. ©FXD6 circuit breakers are limited to 225A maximum. ©Price from Molded Case Circuit Breaker section.

<sup>®</sup> QR2, QRH2 & HQR2 are suitable replacements for QJ2, QJH2, QJ2H, HQJ2, HQJ2H, MQ, MQH and MQL, 2 and

<sup>■ =</sup> Warehouse Stock

**Super Blue Pennant Switchboards** 

Description	Catalog Number
Underground Pull Section or Full Height Section For Load Wiring — ${\bf D}$	iscount Schedule SWBD
14.5" Deep 90" High 14" Wide (12" opening) — indoor 15" Wide (12" opening) — outdoor	PUG14 <sup>©</sup> WPUG14 <sup>©</sup>
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 <sup>①</sup>
600A	1-Phase, 3-Wire or 3-Phase, 4-Wire	PLL46 <sup>①</sup>
800A	1-Phase, 3-Wire or 3-Phase, 4-Wire	PLL48 <sup>①</sup>

# 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

1. 1	
	PEGB42

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

■ = Warehouse Stock A suffix. New 'Series A' design ② Non- EUSERC compliant

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

**BCT Service Cubicle** 

# **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





**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	Symmetric Interruptin	cal Amperes	•	Ampere Rating	;		Dimensions (inches)			Available Configurations		
	240V	480V	600V		System Volt	tage	Height	Width	Depth	Top Feed Cold Seq.	Top Feed Hot Seq.	Bottom Feed Cold / Hot Seq.
BCT436JXD6	65,000	35,000	25,000	400	208Y/120V 240V 480Y/277V 480V	1-Phase, 3-Wire 3-Phase, 4-Wire 3-Phase, 3-Wire 3-Phase, 4-Wire 3-Phase, 3-Wire 3-Phase, 3-Wire	90	32	13.75	•	•	•
BCT436HJD6	100,000	65,000	35,000							•	•	
BCT636LXD6	65,000	35,000	25,000							•	•	•
BCT636HLD6	100,000	65,000	35,000	000						•	•	
BCT836MXD6	65,000	50,000	25,000	800						•	•	•
BCT836HMD6	100,000	65,000	50,000	800						•		
BCT1036NXD6	65,000	-	_	1000		3-Phase, 4-Wire 3-Phase, 4-Wire				•	•	•
BCT1036HND6	100,000	_	_		208Y/120V 240V					•		
BCT1236NXD6	65,000	_	_							•	•	•
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

# The state of the s



Vacu-Break Main Switch

# 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

# **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			Dimensions (inches)			
Cold Sequence	Hot Sequence	Rating	System Voltage	Height	Width	Depth		
SCT432	LSCT432	400	120/240V	1-Phase, 3-Wire				
SCT632	LSCT632	600	208Y/120V 240V	240V 3-Phase, 4-Wire 3-Phase, 3-Wire		22	20	
SCT436	LSCT436	400	480Y/277V 3-Phase, 4-Wire		90			
SCT636	LSCT636	600	480 or 600V	3-Phase, 3-Wire	90	32	20	
SCT836	LSCT836	800	All	_				
SCT1236	LSCT1236	1200	208Y/120V 240V	3-Phase, 4-Wire 3-Phase, 3-Wire				