

SIEMENS

Super Blue Pennant™ Switchboard

Selection & Application Guide



Super Blue Pennant Switchboard

The Siemens switchboard engineered for reliability and durability. Distributor stocked for convenience.

Ampere Ratings:
400-600-800 Ampere
Circuit Breaker Main

400-600 Ampere
Fusible Vacu-Break® Main

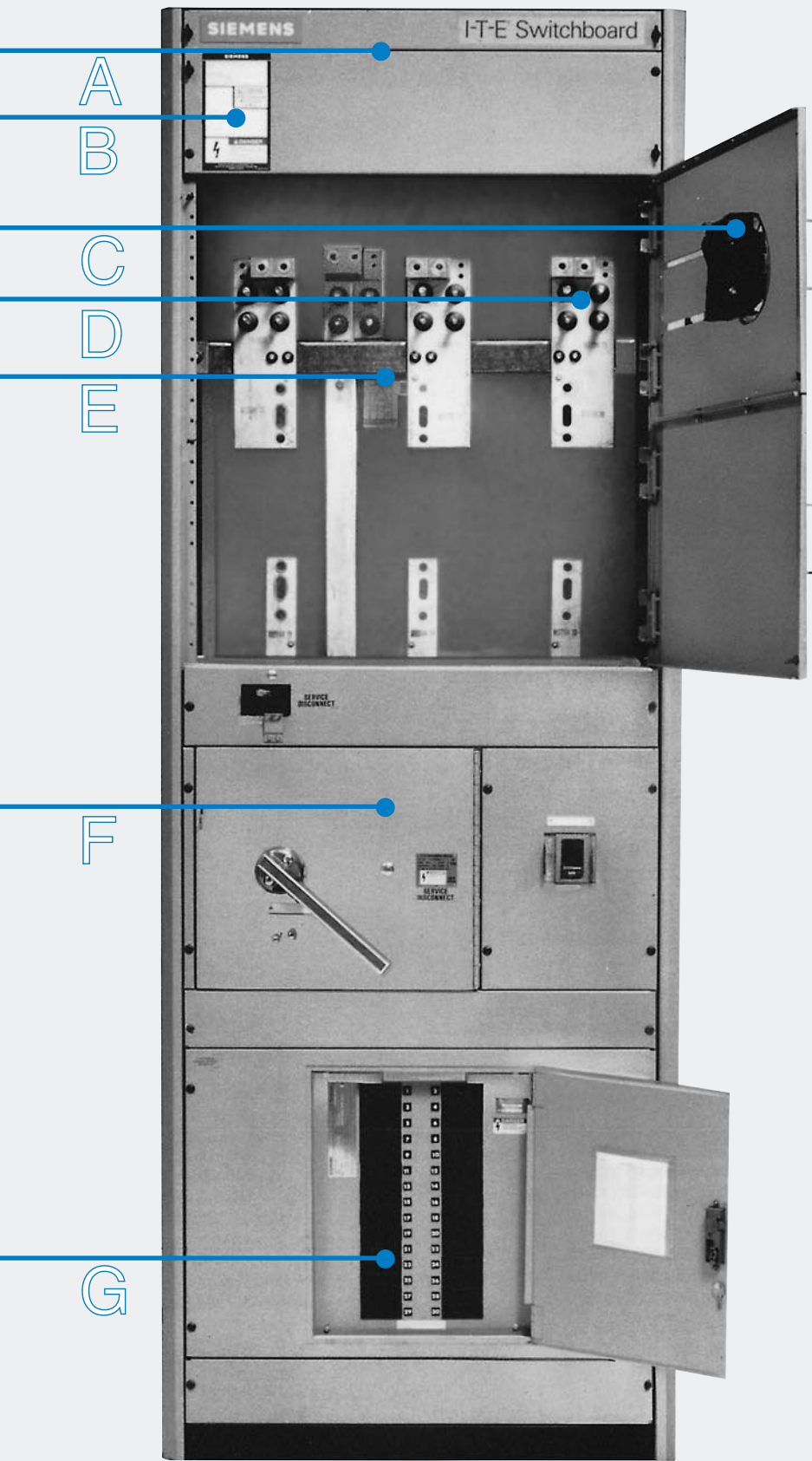
Voltage Ratings:
240/120 Volts 1 Phase, 3 Wire
240/120 Volts 3 Phase, 4 Wire Delta
240 Volts 3 Phase, 3 Wire
208Y/120 Volts 3 Phase, 4 Wire
480Y/277 Volts 3 Phase, 4 Wire
480 Volts 3 Phase, 3 Wire

Short Circuit Ratings:
The short circuit rating is limited to the lowest current interrupting rating, at the supply voltage, of any device installed. Only I-T-E breakers with short circuit interrupting ratings equal to or greater than the marked short circuit current rating shall be used for replacement or additions.



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Features



The Blue Pennant Service Entrance Switchboard is a single unit system designed to meet the needs of main overcurrent protection with distribution devices for medium duty service applications. Main service disconnects can be either a Siemens Vacu-Break[®] fusible switch or Siemens circuit breaker. Each provides dependable performance with series rated combinations available. All switchboards meet EUSERC utility requirements, and are suitable for use only as service equipment. Warehouse stock for fast delivery.

A NEMA Type 1 indoor or Type 3R outdoor self-contained enclosures are constructed of code gauge steel and painted ANSI-61 light gray.

B Rating label information is clearly visible on the equipment front panel. Danger, short circuit rating labels and UL listing label present necessary information to conform with NEMA Standard PB-2.

C Metering and test block provisions meet EUSERC utility specifications.

D Incoming main lugs are mechanical screw-type mounted on studs accepting a wide range of cable sizes. These can be removed and replaced with compression lugs supplied by the utility, if required.

E Barriered hot sequence utility metering and fully bussed power company current transformer compartment meet EUSERC utility standards.

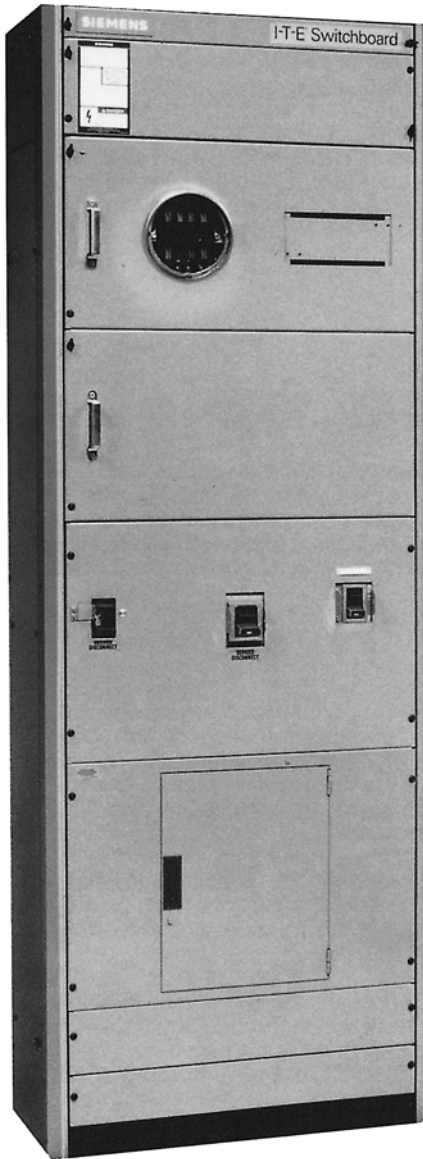
F Service disconnect can be fusible Vacu-Break switch through 200,000A IC or circuit breaker with maximum rating of 50,000A IC at 240 volts and 35,000A IC at 480 volts.

G Distribution panel kits are optional and field addable with ratings of 400-800 amperes. Up to 40 branch circuit provisions available, 18 branch circuit minimum.

- High interrupting capacity subfeed kits with molded case circuit breaker ratings of 225 or 400 amperes.
- Series rated combinations are available. Consult sales office.

Circuit Breaker Service Section

Indoor Circuit Breaker Main



Main Device Ampere Rating	Service Voltage	Catalog Number ^①		Meter Socket Clips	Distribution Kits Available	Approximate Weight	
		Indoor	Outdoor			Indoor	Outdoor
400 Ampere Line Lugs (1) — 350-600 kcmil (Copper or Aluminum) Breaker Rated 50,000A IC Symmetrical at 240 Volts 35,000A IC Symmetrical at 480 Volts Type JD6	120/240; 1 Phase, 3 Wire	PB224	WPB224	5 ^②	PQ2630 PQ2612	320	1050
	240/120; 3 Phase, 4 Wire delta 240; 3 Phase, 3 Wire 208Y/120; 3 Phase, 4 Wire	PB424	WPB424	13	PQ4630 PQ4612	335	1060
	480Y/277; 3 Phase, 4 Wire 480; 3 Phase, 3 Wire	PB444	WPB444	13	PE4630 PF4606	335	1060
600 Ampere Line Lugs (2) — 3/0-750 kcmil ^③ (Copper or Aluminum) Breaker Rated 50,000A IC Symmetrical at 240 Volts 35,000A IC Symmetrical at 480 Volts Type LD6	120/240; 1 Phase, 3 Wire	PB226	WPB226	5	PQ2630 PQ2612	320	1050
	240/120; 3 Phase, 4 Wire delta 240; 3 Phase, 3 Wire 208Y/120; 3 Phase, 4 Wire	PB426	WPB426	13	PQ4630 PQ4612	335	1060
	480Y/277; 3 Phase, 4 Wire 480; 3 Phase, 3 Wire	PB446	WPB446	13	PE4630 PF4606	335	1060
800 Ampere Line Lugs (3) — 3/0-700 kcmil ^③ (Copper or Aluminum) Breaker Rated 42,000A IC Symmetrical at 240 Volts 35,000A IC Symmetrical at 480 Volts Type MD6	120/240; 1 Phase, 3 Wire	PB228	WPB228	5 ^②	PQ2840 PQ2816	460	1090
	240/120; 3 Phase, 4 Wire delta 240; 3 Phase, 3 Wire 208Y/120; 3 Phase, 4 Wire	PB428	WPB428	13	PQ4840 PQ4818	475	1090
	480Y/277; 3 Phase, 4 Wire 480; 3 Phase, 3 Wire	PB448	WPB448	13	PE4840 PF4809	475	1090

Section width: all models — 32"
Section depth: all models — 14 1/2"

① Does not include load side lugs, Distribution Panel or Subfeed Kits.

② For 6-Jaw requirements, order 6th Clip Kit from Accessories.

③ 600A and 800A Top Feed units require entry in top of pull sections catalog numbers PUG14 or PUG26.

Vacu-Break Service Section

Indoor Fusible Main Switch



Main Device Ampere Rating	Service Voltage	Catalog Number ①		Meter Socket Clips	Distribution Kits Available	Approximate Weight	
		Indoor	Outdoor			Indoor	Outdoor
400 Ampere Line Lugs (1) – 350-600 kcmil (Copper or Aluminum) 200,000A IC maximum at 600 Volts	120/240; 1 Phase, 3 Wire	PF224	WPF224	5 ②	PQ2630 PQ2612	365	1094
	240/120; 3 Phase, 4 Wire delta 240; 3 Phase, 3 Wire 208Y/120; 3 Phase, 4 Wire	PF424	WPF424	13	PQ4630 PQ4612	375	1110
	480Y/277; 3 Phase, 4 Wire 480; 3 Phase, 3 Wire	PF444	WPF444	13	PE4630 PF4606	375	1110
600 Ampere Line Lugs (2) – 3/0-750 kcmil ③ (Copper or Aluminum) 200,000A IC maximum at 600 Volts	120/240; 1 Phase, 3 Wire	PF226	WPF226	5 ②	PQ2630 PQ2612	370	1100
	240/120; 3 Phase, 4 Wire delta 240; 3 Phase, 3 Wire 208Y/120; 3 Phase, 4 Wire	PF426	WPF426	13	PQ4630 PQ4612	390	1110
	480Y/277; 3 Phase, 4 Wire 480; 3 Phase, 3 Wire	PF446	WPF446	13	PQ4630 PF4606	390	1120

Section width: all models — 32"
Fuses not included.

① Does not include load side lugs, Distribution Panel or Subfeed Kits.

② For 6-Jaw requirements, order 6th Clip Kit from Accessories.

③ 600A and 800A Top Feed units require entry in top of pull sections catalog numbers PUG14 or PUG26.

Components

Main Device Load Side Lugs

Main device load side lugs are adaptable to either circuit breaker or fusible switch construction. Ampere ratings for fusible switches are 400 or 600 amperes and 400, 600 or 800 amperes for circuit breakers.

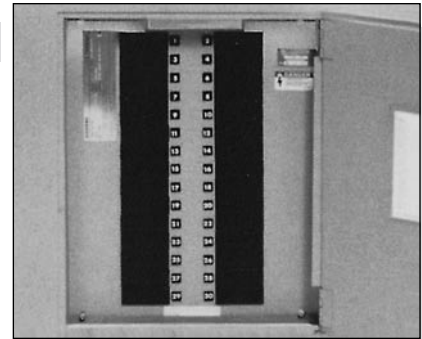


Description	Ampere Rating	Catalog Number	Wire Range
For Fusible Switch	400	LKF4	(1) – 350-800 kcmil (Copper or Aluminum)
	600	LKF6	(2) – 4/0-750 kcmil (Copper or Aluminum)
For Circuit Breaker	400	LKB4	(1) – 600-750 kcmil (Copper or Aluminum)
	600	LKB6	(2) – 3/0-350 kcmil (Copper or Aluminum)
	800	LKB8	(2) – 600-750 kcmil (Copper or Aluminum)

NOTE: Includes phase and neutral load lugs and neutral link assembly.

Distribution Panelboard Kits

Super Blue Pennant Switchboards can accommodate one distribution panelboard assembly per unit. With ratings of 400, 600 or 800 amperes, the distribution panels will allow mounting of up to 40 single pole branch breakers in systems through 480 volts.



Ampere Rating	Service Voltage	Number and Type of Circuit Breaker Poles				Catalog Number	Weight (pounds)	Wiring Diagrams (page 9)
		QP or HQ	ED4	QJ2 or QJH2	FXD6 ③			
400 and 600	120/240; 1 Phase, 3 Wire	30	—	—	—	PQ2630	39	1
		12	—	12	—	PQ2612		2
	240/120; 3 Phase, 4 Wire delta ① ② 240; 3 Phase, 3 Wire ② 208Y/120; 3 Phase, 4 Wire	30	—	—	—	PQ4630	42	3
		12	—	12	—	PQ4612		4
	480Y/277; 3 Phase, 4 Wire 480; 3 Phase, 3 Wire	—	30	—	—	PE4630	42	3
		—	12	—	6	PF4606	65	9
800	120/240; 1 Phase, 4 Wire	40	—	—	—	PQ2840	65	5
		12	—	16	—	PQ2816		6
	240/120; 3 Phase, 4 Wire delta ① ② 240; 3 Phase, 3 Wire 208Y/120; 3 Phase, 4 Wire	40	—	—	—	PQ4840	70	7
		12	—	18	—	PQ4818		8
	480; 3 Phase, 3 Wire	—	40	—	—	PE4840	65	7
		—	12	—	9	PF4809	70	10

① 1-pole breakers must not be connected to "B" phase.

② 2-pole breakers must be rated 240V.

③ 2-pole FJ6 breaker requires 3-pole space.

Circuit Breakers

Circuit Breakers For Use With Distribution Panelboard Kits

Ampere Rating	10,000A IR QP Breaker	22,000A IR QPH Breaker	65,000A IR HQP Breaker
	Catalog Number	Catalog Number	Catalog Number
1-POLE 240/120 VOLTS AC			
15	Q115	Q115H	Q115HH
20	Q120	Q120H	Q120HH
30	Q130	Q130H	Q130HH
40	Q140	Q140H	Q140HH
50	Q150	Q150H	Q150HH
2-POLE 240/120 VOLTS AC			
15	Q215	Q215H	Q215HH
20	Q220	Q220H	Q220HH
30	Q230	Q230H	Q230HH
40	Q240	Q240H	Q240HH
50	Q250	Q250H	Q250HH
60	Q260	Q260H	Q260HH
70	Q270	Q270H	Q270HH
90	Q290	Q290H	Q290HH
100	Q2100	Q2100H	Q2100HH
125	Q2125	Q2125H	Q2125HH
2-POLE 240 VOLTS AC			
15	Q215R	Not Available	Not Available
20	Q220R		
30	Q230R		
40	Q240R		
50	Q250R		
60	Q260R		
70	Q270R		
100	Q2100R		
3-POLE 240 VOLTS AC			
15	Q315	Q315H	Q315HH
20	Q320	Q320H	Q320HH
30	Q330	Q330H	Q330HH
40	Q340	Q340H	Q340HH
50	Q350	Q350H	Q350HH
60	Q360	Q360H	Q360HH
70	Q370	Q370H	Q370HH
90	Q390	Q390H	Q390HH
100	Q3100	Q3100H	Q3100HH

Circuit Breakers - 18,000A IR

Ampere Rating	Catalog Number	Ampere Rating	Catalog Number	Ampere Rating	Catalog Number
1-POLE 277 VOLTS AC		2-POLE 480 VOLTS AC		3-POLE 480 VOLTS AC	
15	ED41B015	15	ED42B015	15	ED43B015
20	ED41B020	20	ED42B020	20	ED43B020
25	ED41B025	30	ED42B030	30	ED43B030
30	ED41B030	40	ED42B040	40	ED43B040
40	ED41B040	50	ED42B050	50	ED43B050
50	ED41B050	60	ED42B060	60	ED43B060
60	ED41B060	70	ED42B070	70	ED43B070
70	ED41B070	80	ED42B080	80	ED43B080
80	ED41B080	90	ED42B090	90	ED43B090
90	ED41B090	100	ED42B100	100	ED43B100
100	ED41B100				

Circuit Breakers - 10,000A IR

Ampere Rating	Catalog Number
2-POLE 240 VOLTS AC	
125	QJ22B125
150	QJ22B150
175	QJ22B175
200	QJ22B200
225	QJ22B225
3-POLE 240 VOLTS AC	
125	QJ23B125
150	QJ23B150
175	QJ23B175
200	QJ23B200
225	QJ23B225

Circuit Breakers - 22,000A IR

Ampere Rating	Catalog Number
2-POLE 240 VOLTS AC	
125	QJH22B125
150	QJH22B150
175	QJH22B175
200	QJH22B200
225	QJH22B225
3-POLE 240 VOLTS AC	
125	QJH23B125
150	QJH23B150
175	QJH23B175
200	QJH23B200
225	QJH23B225

Circuit Breakers - 42,000A IR

Ampere Rating	Catalog Number
2-POLE 240 VOLTS AC	
125	QJ22B125H
150	QJ22B150H
175	QJ22B175H
200	QJ22B200H
225	QJ22B225H
3-POLE 240 VOLTS AC	
125	QJ23B125H
150	QJ23B150H
175	QJ23B175H
200	QJ23B200H
225	QJ23B225H

Kits and Accessories

Circuit Breaker Subfeed Kits

Subfeed circuit breakers have current ratings of 225 or 400 amperes with either two or three poles.

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

Circuit Breakers For Use With Subfeed Kits

Ampere Rating	Catalog Number 2-Pole	A IR Symmetrical		Ampere Rating	Catalog Number 3-Pole	A IR Symmetrical	
		240V	480V			240V	480V
480 VOLTS							
125	FXD62B125	65,000	35,000	125	FXD63B125	65,000	35,000
150	FXD62B150			150	FXD63B150		
175	FXD62B175			175	FXD63B175		
200	FXD62B200			200	FXD63B200		
225	FXD62B225			225	FXD63B225		
200	Not Available	—	—	200	HJD63B200	100,000	65,000
225				HJD63B225			
250				HJD63B250			
300				HJD63B300			
350				HJD63B350			
400	HJD63B400						
250	JXD62B250	65,000	35,000	250	JXD63B250	65,000	35,000
300	JXD62B300			300	JXD63B300		
350	JXD62B350			350	JXD63B350		
400	JXD62B400			400	JXD63B400		
200	JD62B200	65,000	35,000	200	JD63B200	65,000	35,000
225	JD62B225			225	JD63B225		
250	JD62B250			250	JD63B250		
300	JD62B300			300	JD63B300		
350	JD62B350			350	JD63B350		
400	JD62B400	400	JD63B400				

Second Service Disconnect Kit

Field addable second service disconnect kit can be installed near the main disconnect to control exit lights or fire alarms. Provisions are available for either two—one pole or one—two pole breaker.

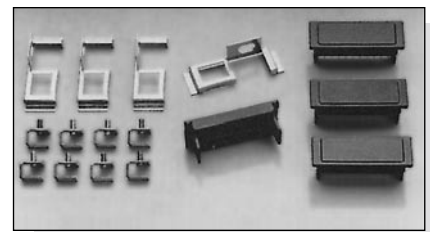
Description	Catalog Number
Second Service Disconnect Kit Provision for (2) 1-pole or (1) 2-pole CC circuit breaker. (breaker not included)	PEM

Circuit Breakers For Use With Second Service Disconnect Kit

Ampere Rating	Catalog Number
2-POLE (100,000A IR) 277 VOLTS AC	
15	CC1B015
20	CC1B020
30	CC1B030
3-POLE (100,000A IR) 480/277 VOLTS AC	
15	CC2B015
20	CC2B020
30	CC2B030

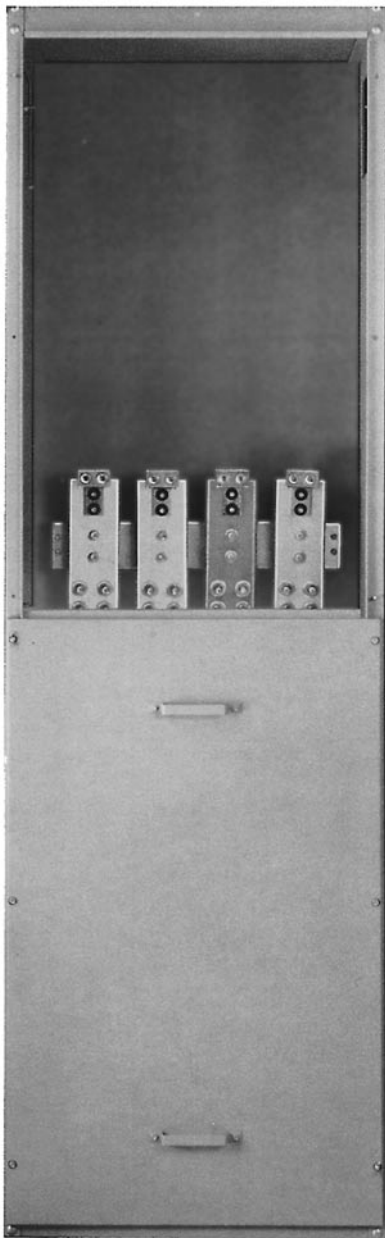
Fuse Clips, Filler Plates, Handle Blocking and Padlocking Devices

"J," "R" or "T" fuse clip adaptor kits are available in either 400 or 600 ampere, 240-600 volts. Factory installed filler plates in the distribution panel kit conceal space unoccupied by either QP, QJ or E frame circuit breakers. Handle blocking and padlocking devices may be installed to secure branch breakers in position and prevent unauthorized equipment shut-down. Padlocking provisions are standard on main and subfeed breakers.



Description	Catalog Number
"J" FUSE CLIP ADAPTOR KIT (SET OF 3)	
400A, 240V	VBJK325
400A, 600V	VBJK355
600A, 240V	VBJK326
600A, 600V	VBJK356
"R" FUSE CLIP ADAPTOR KIT (SET OF 3)	
400A, 250-600V	SSRK35
600A, 250-600V	SSRK36
"T" FUSE CLIP ADAPTOR KIT (SET OF 3)	
400A, 240V	TFAK52
400A, 600V	TFAK55
600A, 240V	TFAK62
600A, 600V	TFAK66

Description	Catalog Number
FILLER PLATES	
QP, HQP, QJ2, QJH2, QJ2-H	QF3
HANDLE BLOCKING AND PADLOCKING DEVICES	
Blocking (QP, HCP) (1, 2 and 3-pole)	QL1
Blocking (QJ2, QJH2, QJ2-H)	QJHS1
Blocking (ED4)	E2HBL
Padlocking (QP, HQP)	QLD3
Padlocking (QJ2, QJH2, QJ2-H)	HL9419
Padlocking (ED4)	E2HPL



Optional Weatherproof Shell Enclosure

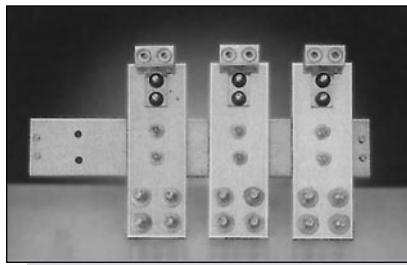
As an option to the standard type 3R outdoor construction, a separate weatherproof shell can be provided for use with a type 1 indoor unit. Included is space to pull underground cable.

Description	Catalog Number
46" Wide (includes 14" UGP)	PRE46
58" Wide (includes 26" UGP)	PRE58

NOTE: For overhead service, consult sales office.

Lug Landing Kits

Available in 400, 600 or 800 amperes, lug landing kits used in the underground pull section are available for single phase three wire, three phase three wire or three phase four wire systems to meet application requirements.

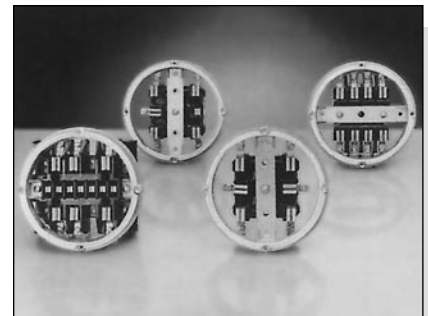


Ampere Rating	Description	Catalog Number
400	1 Phase, 3 Wire or 3 Phase, 3 Wire 3 Phase, 4 Wire	PLL44 ①
600	1 Phase, 3 Wire or 3 Phase, 3 Wire 3 Phase, 4 Wire	PLL46 ①
800	1 Phase, 3 Wire or 3 Phase, 3 Wire 3 Phase, 4 Wire	PLL48 ①

① A PUG26 underground pull section is required when using these lug landing kits.

Meter Sockets

Meter sockets are offered with five, six, eight, 13 or 15 jaw capabilities mounted on the meter door. Socket jaws are tin-plated copper with spring-steel reinforced clips for reliable contact pressure. Five jaw sockets are designed to accommodate field additions of a sixth jaw. All sockets have latch type sealing rings.



Description	Catalog Number
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
6th Clip Kit (to adapt 5-jaw to 6-jaw socket)	P6C

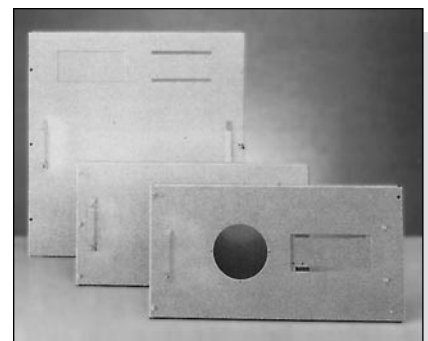
Underground Pull Sections And Wireway

Underground pull sections may be used for bottom entry of line side cable; a load side wireway is available for top exit of load cables. On type 3R outdoor units, the underground pull section may be used either as a pull section or a load side wireway. Units may be located on either side of the service section.

Description	Catalog Number
14.5" Deep, 90" High 14" Wide (12" opening) Indoor	PUG14
14" Wide (12" opening) Outdoor	WPUG14
26" Wide (24" opening) Indoor	PUG26
26" Wide (24" opening) Outdoor	WPUG26
10" Wide (load wiring)	PLW10

Meter Compartment Doors

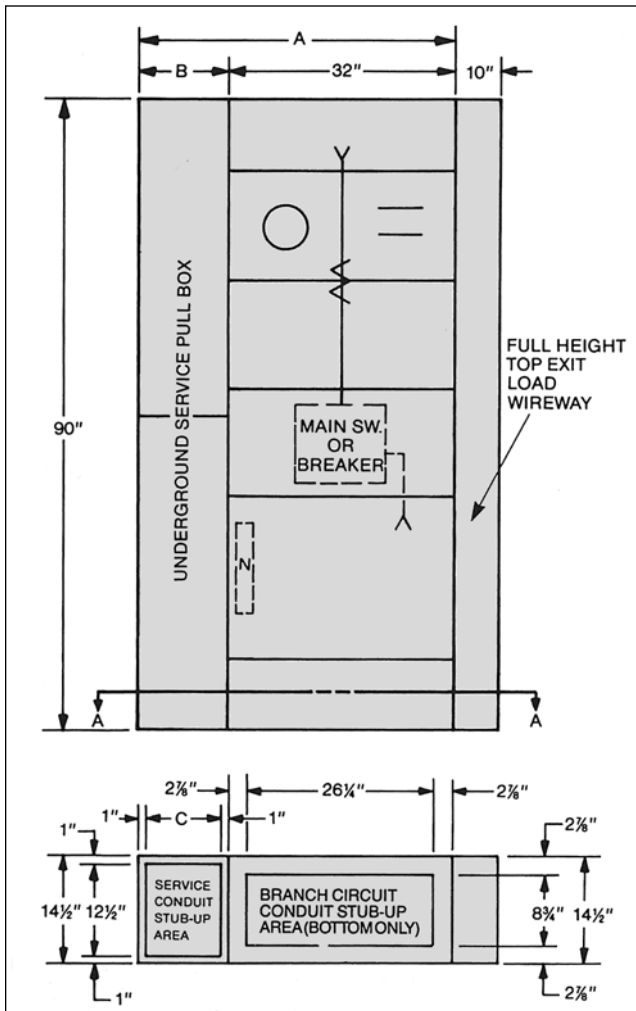
Super Blue Pennant Switchboards have two 15-inch high meter compartment doors, one with meter socket and provision for a test switch, one blank. For requirement flexibility, optional meter doors allow conversions to all common EUSERC utility metering configurations as well as blank doors for remote metering applications.



Description	Catalog Number
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 "A" base meter	PAP32
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 separately) Left Hand Hinge or Right Hand Hinge	PSDP32
Blank Meter Compartment Door (32" Wide x 15" High)	PBP32

Dimensions and Conduit Entry

Type 1-Indoor

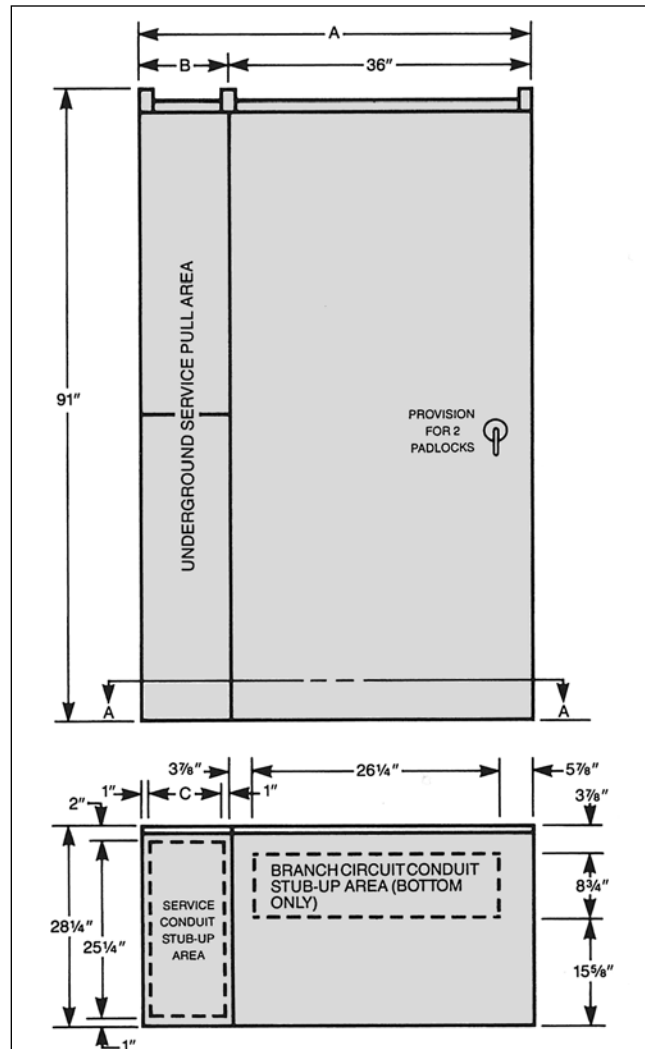


SECTION A-A — PLAN VIEW OF SWITCHBOARD BASE
 SWITCHBOARD MAY BE ASSEMBLED WITH UNDERGROUND
 PULL BOX ON EITHER R.H. OR L.H. SIDE

Description	A	B	C
WITHOUT LUG LANDING	46	14	12
WITH LUG LANDING	58	26	24

INDOOR

Type 3R-Outdoor



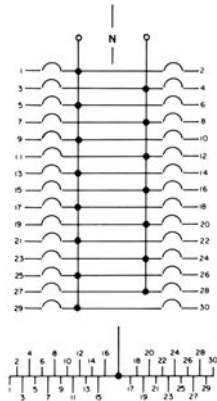
SECTION A-A — PLAN VIEW OF SWITCHBOARD BASE
 SWITCHBOARD MAY BE ASSEMBLED WITH UNDERGROUND
 PULL BOX ON EITHER RIGHT OR LEFT SIDE

Description	A	B	C
WITHOUT LUG LANDING	51	15	13
WITH LUG LANDING	63	27	25

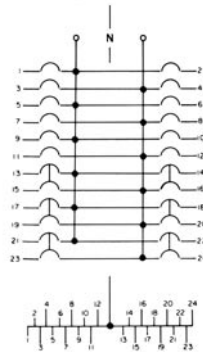
WEATHERPROOF

Wiring Diagrams

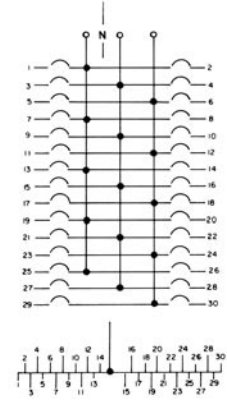
1. PQ2630



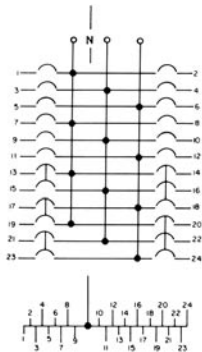
2. PQ2612



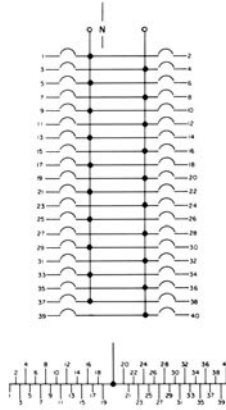
3. PQ4630, PE4630



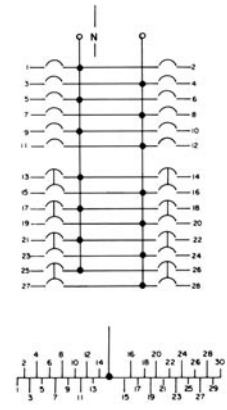
4. PQ4612



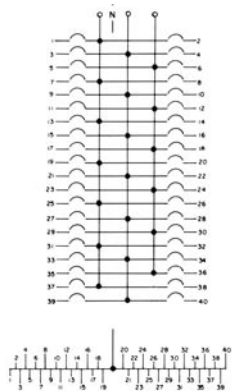
5. PQ2840



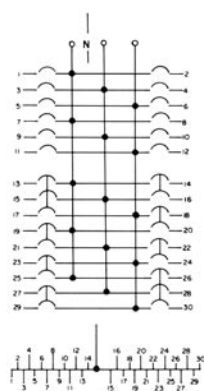
6. PQ2816



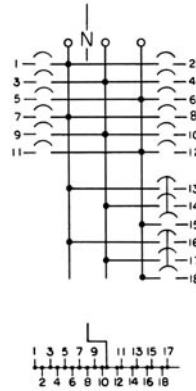
7. PQ4840, PE4840



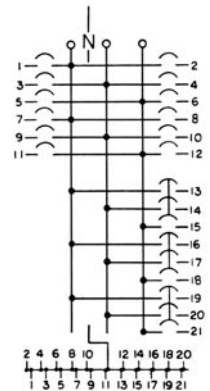
8. PQ4818



9. PQ4606



10. PF4809



Siemens Energy & Automation, Inc.
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