SIEMENS

Super Blue Pennant™ Switchboard

Selection & Application Guide



Super Blue Pennant Switchboard

The Siemens switchboard engineered **Distributor stocked for**

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

400-600 Ampere Fusible Vacu-Break® Main

3 Phase, 4 Wire Delta 3 Phase, 3 Wire 240/120 Volts 240 Volts 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



Contents Pag	je
Features	1
Indoor Circuit Breaker Main	2
Indoor Fusible Main Switch	3
Components Main Device Load Side Lugs Distribution Panelboard Kits	4
Circuit Breakers	5
For use with Distribution Panelboard Kits 10,000A IR, 18,000A IR, 22,000A IR, 42,000A IR	
Kits and Accessories	6-7
Circuit Breaker Subfeed Kits Circuit Breakers For Use With Subfeed Kits Second Service Disconnect Kit Circuit Breakers For Use With Second Service Disconnect Kit Fuse Clips, Filler Plates, Handle Blocking And Padlocking Devices Underground Pull Sections And Wireway Optional Weatherproof Shell Enclosure Lug Landing Kits Meter Sockets Meter Compartment Doors	
Dimensions and Conduit Entry Type 1 - Indoor Type 3R - Outdoor	8
Wiring Diagrams	9

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.



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



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.



Metering and test block provisions meet EUSERC utility specifications.



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.



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

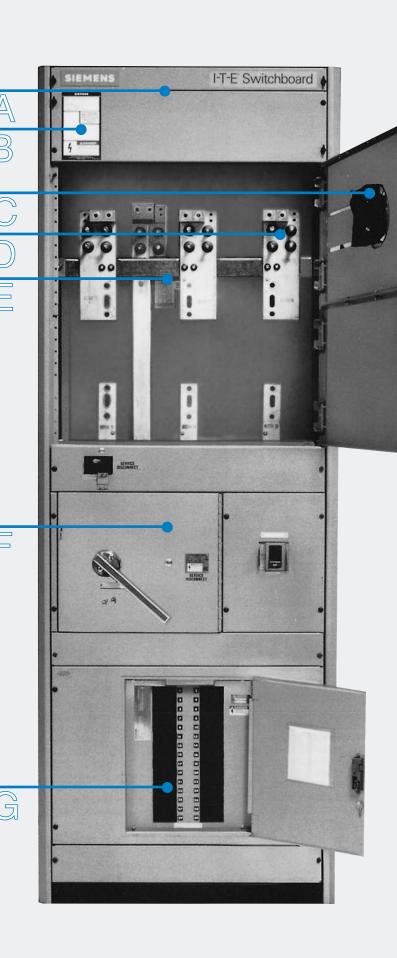


Service disconnect can be fusible Vacu-Break switch through 200,000A IC or circuit breaker with maximum rating of 50,000A IC at 240 volts and 35,000A IC at 480 volts.



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 Indoor	Number ① Outdoor	Meter Socket Clips	Distribution Kits Available		oximate ight Outdoor
400 Ampere Line Lugs	120/240; 1 Phase, 3 Wire	PB224	WPB224	5②	PQ2630 PQ2612	320	1050
(1) — 350-600 kcmil (Copper or Aluminum) Breaker Rated 50,000A IC Symmetrical at 240 Volts	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
35,000A IC Symmetrical at 480 Volts Type JD6	480Y/277; 3 Phase, 4 Wire 480; 3 Phase, 3 Wire	PB444	WPB444	13	PE4630 PF4606	335	1060
600 Ampere Line Lugs	120/240; 1 Phase, 3 Wire	PB226	WPB226	5	PQ2630 PQ2612	320	1050
(2) — 3/0-750 kcmil ③ (Copper or Aluminum) Breaker Rated 50,000A IC Symmetrical at	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
240 Volts 35,000A IC Symmetrical at 480 Volts Type LD6	480Y/277; 3 Phase, 4 Wire 480; 3 Phase, 3 Wire	PB446	WPB446	13	PE4630 PF4606	335	1060
800 Ampere Line Lugs	120/240; 1 Phase, 3 Wire	PB228	WPB228	5②	PQ2840 PQ2816	460	1090
(3) — 3/0-700 kcmil ③ (Copper or Aluminum) Breaker Rated 42,000A IC Symmetrical at	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
240 Volts 35,000A IC Symmetrical at 480 Volts Type MD6	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 ½"

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 Indoor	Number ① Outdoor	Meter Socket Clips	Distribution Kits Available		oximate ight Outdoor
400 Ampere Line Lugs	120/240; 1 Phase, 3 Wire	PF224	WPF224	5②	PQ2630 PQ2612	365	1094
(1) — 350-600 kcmil (Copper or Aluminum) 200,000A IC maximum at 600 Volts	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	120/240; 1 Phase, 3 Wire	PF226	WPF226	5②	PQ2630 PQ2612	370	1100
(2) — 3/0-750 kcmil ③ (Copper or Aluminum) 200,000A IC maximum at 600 Volts	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
ooo voits	480Y/277; 3 Phase, 4 Wire 480; 3 Phase, 3 Wire	PF446	WPF446	13	PQ4630 PF4606	390	1120

Section width: all models $-\ 32"$

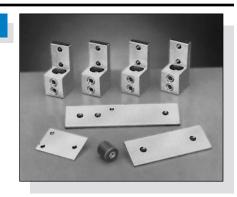
Fuses not included.

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.

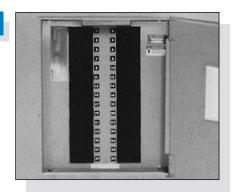


Description	Ampere Rating	Catalog Number	Wire Range
For Fusible Switch	400 600	LKF4 LKF6	(1) —350-800 kcmil (Copper or Aluminum) (2) —4/0-750 kcmil (Copper or Aluminum)
For Circuit Breaker	400 600 800	LKB4 LKB6 LKB8	(1) —600-750 kcmil (Copper or Aluminum) (2) —3/0-350 kcmil (Copper or Aluminum) (2) —600-750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



	Number and Type of Circuit Breaker Poles					Wiring		
Ampere Rating	Service Voltage	QP or HQ	ED4	QJ2 or QJH2	FXD6 3	Catalog Number	Weight (pounds)	Diagrams (page 9)
	100/040 4 51 0 0 14/	30	_	_	_	PQ2630	39	1
	120/240; 1 Phase, 3 Wire	12	_	12	_	PQ2612	39	2
400	240/120; 3 Phase, 4 Wire delta ① ②	30	_	_	_	PQ4630	40	3
and 600	240; 3 Phase, 3 Wire ② 208Y/120; 3 Phase, 4 Wire	12	-	12	_	PQ4612	42	4
	480Y/277; 3 Phase, 4 Wire	_	30	_	_	PE4630	42	3
	480; 3 Phase, 3 Wire	_	12	_	6	PF4606	65	9
	120/240; 1 Phase, 4 Wire	40	_	_	_	PQ2840	65	5
	120/240; 1 Phase, 4 vvire	12	_	16	_	PQ2816	05	6
	240/120; 3 Phase, 4 Wire delta ① ②	40	_	_	_	PQ4840	70	7
800	240; 3 Phase, 3 Wire 208Y/120; 3 Phase, 4 Wire	12	_	18	_	PQ4818	70	8
	480; 3 Phase, 3 Wire	_	40	_	_	PE4840	65	7
	480, 3 Phase, 3 Wife	_	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

			T		
	10,000A IR QP Breaker	22,000A IR QPH Breaker	65,000A IR HQP Breaker		
Ampere	Catalog	Catalog	Catalog		
Rating	Number	Number	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 A		
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 A					
15	Q215R				
20	Q220R				
30	Q230R				
40	Q240R	Not	Not		
50 60	Q250R Q260R	Available	Available		
70	0270R	-			
100	Q2100R	1			
3-POLE			240 VOLTS A		
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
1-POLE	277 VOLTS AC
15	ED41B015
20	ED41B020
25	ED41B025
30	ED41B030
40	ED41B040
50	ED41B050
60	ED41B060
70	ED41B070
80	ED41B080
90	ED41B090
100	ED41B100

Catalog Number
480 VOLTS AC
ED42B015
ED42B020
ED42B030
ED42B040
ED42B050
ED42B060
ED42B070
ED42B080
ED42B090
ED42B100

Ampere Rating	Catalog Number
3-POLE	480 VOLTS AC
15	ED43B015
20	ED43B020
30	ED43B030
40	ED43B040
50	ED43B050
60	ED43B060
70	ED43B070
80	ED43B080
90	ED43B090
100	ED43B100

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

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)	РЕМ

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 shutdown. Padlocking provisions are standard on main and subfeed breakers.

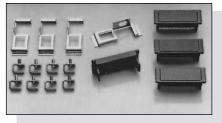
Description	Catalog Number	
"J" FUSE CLIP ADAPTOR KIT	(SET OF 3)	
400A, 240V	VBJK325	
400A, 600V	VBJK355	
600A, 240V	VBJK326	
600A, 600V	VBJK356	
"R" FUSE CLIP ADAPTOR KIT	(SET OF 3)	
400A, 250-600V	SSRK35	
600A, 250-600V	SSRK36	
"T" FUSE CLIP ADAPTOR KIT	(SET OF 3)	
400A, 240V	TFAK52	
400A, 600V	TFAK55	

TFAK62

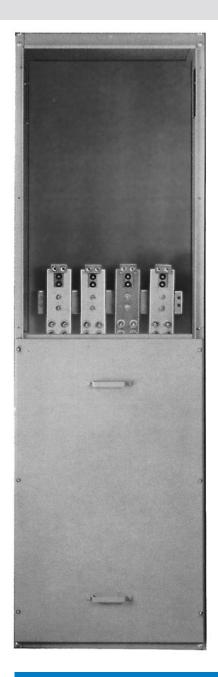
TFAK66

600A, 240V

600A, 600V



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, Q2J-H)	QJHS1		
Blocking (ED4)	E2HBL		
Padlocking (QP, HQP)	QLD3		
Padlocking (QJ2,QJH2,QJ2-H)	HL9419		
Padlocking (ED4)	E2HPL		



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

Optional Weatherproof Shell Enclosure

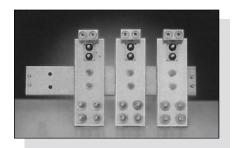
As an option to the standard type 3R outdoor construction, a separate weatherproof shell can be provided for use with a type 1 indoor unit. Included is space to pull underground cable.

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.

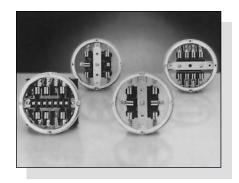


Ampere Rating	Description	Catalog Number
400	1 Phase, 3 Wire or 3 Phase, 3 Wire 3 Phase, 4 Wire	PLL44 ①
600	1 Phase, 3 Wire or 3 Phase, 3 Wire 3 Phase, 4 Wire	PLL46 ①
800	1 Phase, 3 Wire or 3 Phase, 3 Wire 3 Phase, 4 Wire	PLL48 ①

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

Meter Sockets

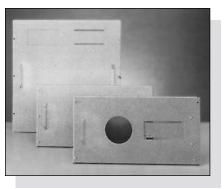
Meter sockets are offered with five, six, eight, 13 or 15 jaw capabilities mounted on the meter door. Socket jaws are tin-plated copper with spring-steel reinforced clips for reliable contact pressure. Five jaw sockets are designed to accommodate field additions of a sixth jaw. All sockets have latch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

Meter Compartment Doors

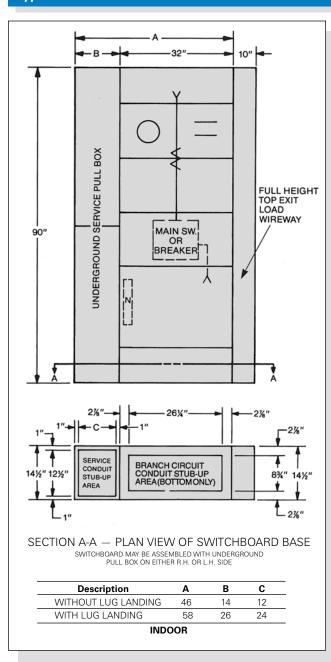
Super Blue Pennant Switchboards have two 15-inch high meter compartment doors, one with meter socket and provision for a test switch, one blank. For requirement flexibility, optional meter doors allow conversions to all common EUSERC utility metering configurations as well as blank doors for remote metering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



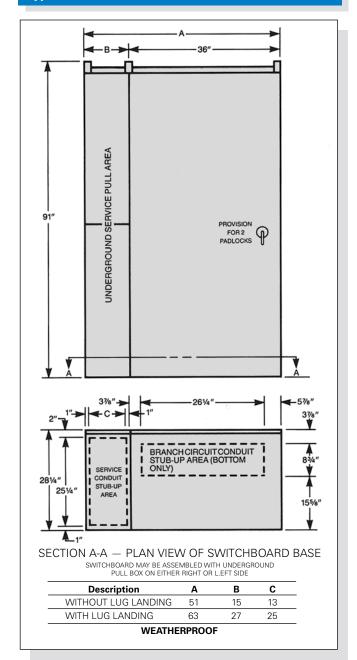
Description	Catalog Number
Meter Compartment Door (32" Wide x 15" High) for "S" base socket with test block cutout (order necessary meter base from items below)	PSP32
Meter Compartment Door (32" Wide x 30" High) for "A" base meter	PAP32
Meter Compartment Door (32" Wide \times 30" High) for 2 "S" base 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

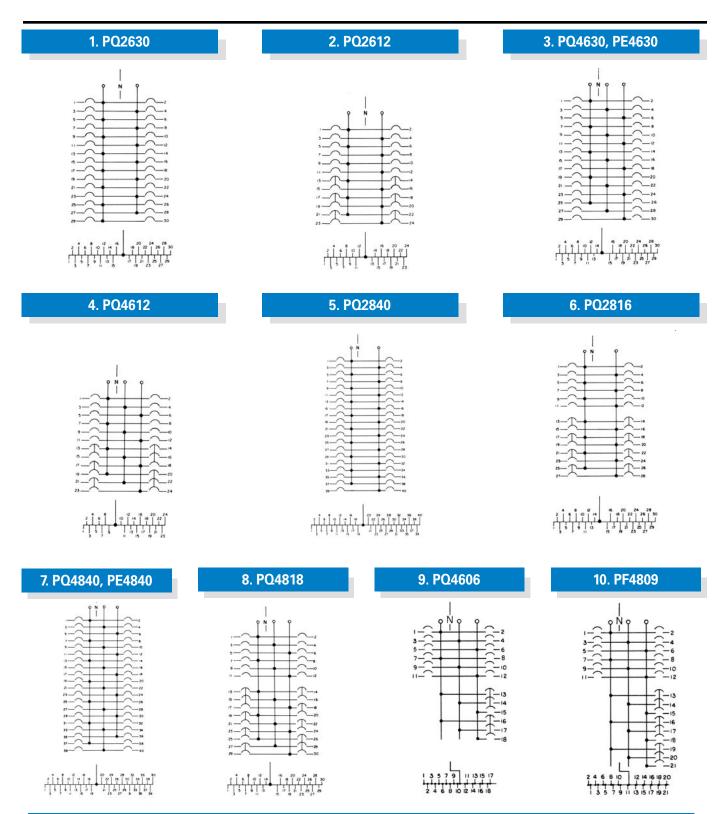
Type 1-Indoor



Type 3R-Outdoor



Wiring Diagrams



Siemens Energy & Automation, Inc. Power Distribution Infrastructure Division 3333 Old Milton Parkway Alpharetta, GA 30005

For Nearest Sales Office 1.800.964.4114 www.sea.siemens.com/sales

For Production Information www.sea.siemens.com/power