



SN7PB & SN7SPB Non-Factory Sealed and Factory Sealed Panelboards

Introducing SN7PB & SN7SPB Panelboards:
Powering Your Future

Discover the pinnacle of power distribution with SN7PB & SN7SPB Panelboards. Experience smart, modular, and safe electrical management in one package.

Key Features: Smart Control, Modular Design, Advanced Safety, Effortless Setup, Space-Saving, Durable and Energy-Efficient

Upgrade to SN7PB & SN7SPB for intelligent power distribution that adapts to your world.

Empowering Connections, Powering Tomorrow



SN7PB & SN7SPB

Non-Factory Sealed & Factory Sealed
Panelboards

EATON

BY **SPKE**
ELECTRIC CONTROLS

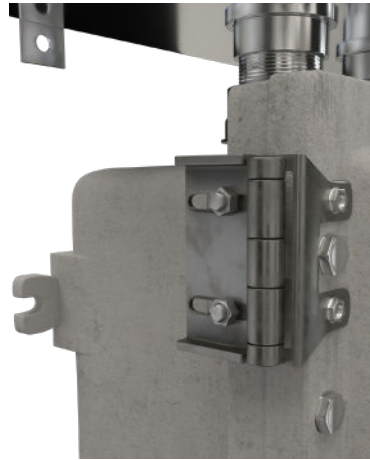


Applications:

- In hazard locations where flammable gases, vapors, and combustible dust is present.
- In areas where weather, dampness and corrosion is present
- For branch protection to motors, starters, pumps, lighting, heat tracing etc.
- For indoor/outdoor use in refineries and chemical plants where hazards exist.

Standard Materials:

- Panel board enclosure - copper-free aluminum
- Terminal housing - 316 stainless steel
- External operating handles - copper-free aluminum
- Operating shafts, washers, breather/drain - stainless steel
- Panel board bus - copper
- Neutral and ground - tin plated aluminum



316 SS Heavy Duty Hinges

Certifications & Compliances:

NEC/CEC:

- Class I, Division 1 & 2, Groups B, C, D
- Class II, Division 1 & 2, Groups E, F, G
- Class III
- cUL & UL Standard 1203, 67
- NEMA Type 3, 3R, 4, 7BCD, 9EFG
- Enclosure Type 4X (requires selecting 4X option)

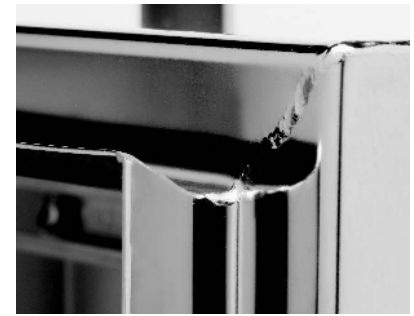
Electrical Rating Range:

- Breather/Drain
- Cast aluminum terminal housing (SN7SPB)
- Inverted Orientation
- Wire for max circuit (SN7SPB)

Options:

- Breather/Drain
- Cast aluminum terminal housing (SN7SPB)
- Inverted Orientation
- Wire for max circuit (SN7SPB)

Terminal Housing Integral Drainage Channel



- Integral drainage channel prevents liquids or other solid contaminants from running in or falling into the enclosure when the door is opened
- Minimizes gasket path Contamination

SN7PB & SN7SPB Panelboards:

High quality factory-sealed & non-factory-sealed solution for lighting, power & heat tracing circuits designed for use in hazardous locations.

SN7PB Non-Factory Sealed:

Non-factory-sealed panelboards are a cost effective solution with maximum circuit flexibility. Without the terminal housing and factory wiring, the SN7PB series reduces material cost but requires field wiring to the circuit breakers.

SN7SPB Factory Sealed:

Factory-sealed panelboards provide a flexible, labor cost saving solution for the field. Panels can be pre-wired to max capacity in order to safely add additional circuits in the field while holding the factory-sealed integrity.





SN7PB

Non-Factory Sealed Panelboards

EATON

BY **SPKE** ELECTRIC CONTROLS

Example Part Number

SN7PB 12 150342T - 6130,6140 - S756V



Non-Factory Sealed
Panelboards Catalog Prefix

SN7PB

12

0225

3 4

2

2T

06130,6140

04S756

Poles	
#	Description
6	6 Circuits
12	12 Circuits
18	18 Circuits
24	24 Circuits
30	30 Circuits
36	36 Circuits
42	42 Circuits
6BF	6 Circuits w/ back fed main breaker
12BF	12 Circuits w/ back fed main breaker
18BF	18 Circuits w/ back fed main breaker
24BF	24 Circuits w/ back fed main breaker
39BF	39 Circuits w/ back fed main breaker

Wiring System

3 4 480Y/277V 3PH 4W

Bus Amps

1	100A
2	225A
3	400A
4	600A

1 Disconnect AMPS

AMPS Description

30-255A	Vertical main
10-100A	Back fed main
MLO	Main lug only
400A	Vertical Main
600A	Vertical Main

2 Power Entry

T	Top Feed
B	Bottom Feed

3 Branch

277/480V

Type	Poles	Amps
GHB	1	15 - 100A
GHB	2	15 - 100A
GHB	3	15 - 100A

Standard

4 Enclosure Modification And Accessories

S756	Drain Class I,B,C & D, Class II,E,F & G, Class III
S756V	Breather/Drain Class I,B,C & D, Class II,E,F & G, Class III



Breaker Format:

qty,type,poles,amps (Each configuration will be followed by a comma)
GHB are standard and do not require a type prefix.
Example: 1130

Back Fed Main Breaker

Catalog Number	Available Poles	Phases	Voltage Rating	Bus amps	Drawing Figure	Dimensions				
						a	b	c	d	e
SN7PB6BF341*.*	6	3	480	100	A	17.09	17.07	10.82	5.44	114.76
SN7PB12BF341*.*	12	3	480	100	B	23.31	17.31	11.13	11.50	14.94
SN7PB18BF341*.*	18	3	480	100	B	23.31	17.31	11.13	11.50	14.94
SN7PB24BF341*.*	24	3	480	100	C	29.44	17.44	11.63	17.50	14.94





SN7PB

Non-Factory Sealed Panelboards

EATON**BY SPIKE**
ELECTRIC CONTROLS

Breaker Format Continued:

qty,type,poles,amps (Each configuration will be followed by a comma) BAB are standard and do not require a type prefix. Example: 1130

Main lug only

Catalog Number	Available Poles	Phases	Voltage Rating	Bus amps	Drawing Figure	Dimensions				
						a	b	c	d	e
SN7PB12MLO341*-**	12	3	480	100	B	23.31	17.31	11.13	11.50	14.94
SN7PB18MLO341*-**	18	3	480	100	B	23.31	17.31	11.13	11.50	14.94
SN7PB24MLO341*-**	24	3	480	100	C	29.44	17.44	11.63	17.50	14.94
SN7PB24MLO342*-**	24	3	480	225	C	29.44	17.44	11.63	17.50	14.94
SN7PB30MLO342*-**	30	3	480	225	D	41.22	17.19	11.92	29.50	14.94
SN7PB36MLO342*-**	36	3	480	225	D	41.22	17.19	11.92	29.50	14.94
SN7PB42MLO342*-**	42	3	480	225	D	41.22	17.19	11.92	29.50	14.94

Vertical Main Breaker

Catalog Number	Available Poles	Phases	Voltage Rating	Bus amps	Drawing Figure	Dimensions				
						a	b	c	d	e
SN7PB6*341*-**	6	3	480	100	A	17.09	17.07	10.82	5.44	11.48
SN7PB12*341*-**	12	3	480	100	B	23.31	17.31	11.13	11.50	14.94
SN7PB18*341*-**	18	3	480	100	B	23.31	17.31	11.13	11.50	14.94
SN7PB24*341*-**	24	3	480	100	C	29.44	17.44	11.63	17.50	14.94
SN7PB24*342*-**	24	3	480	225	C	29.44	17.44	11.63	17.50	14.94
SN7PB30*342*-**	30	3	480	225	D	41.22	17.19	11.92	29.50	14.94
SN7PB36*342*-**	36	3	480	225	D	41.22	17.19	11.92	29.50	14.94
SN7PB42*342*-**	42	3	480	225	D	41.22	17.19	11.92	29.50	14.94





SN7PB

Non-Factory Sealed Panelboards

EATON

BY **SPKE**
ELECTRIC CONTROLS

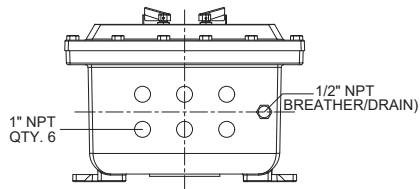
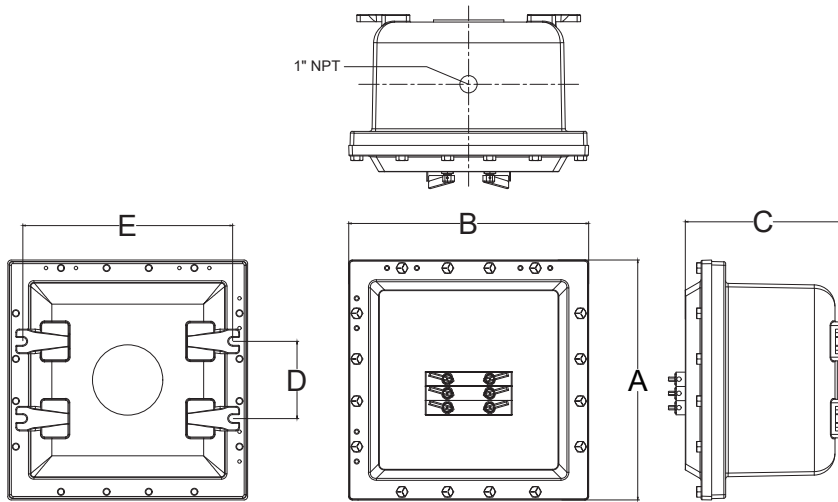


FIGURE "A"

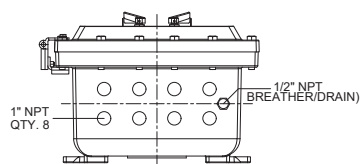
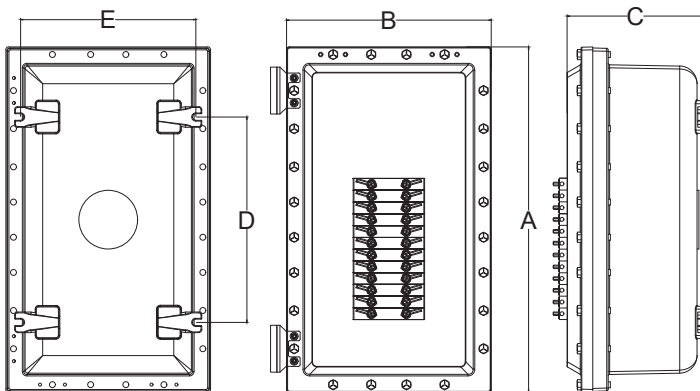
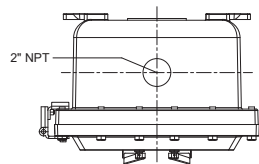


FIGURE "C"

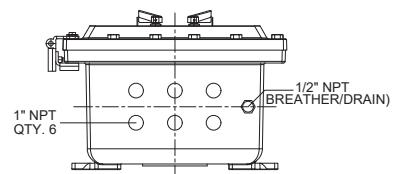
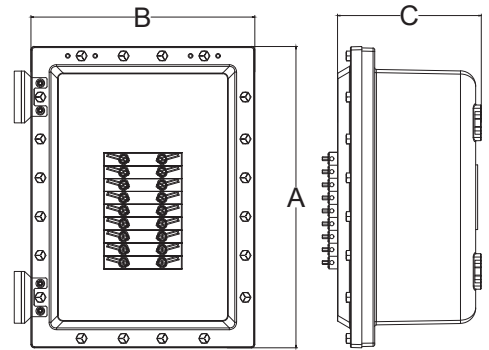
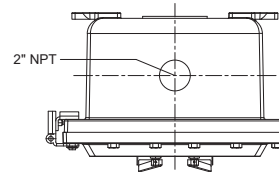


FIGURE "B"



SN7PB

Non-Factory Sealed Panelboards

EATON

BY **SPKE**
ELECTRIC CONTROLS

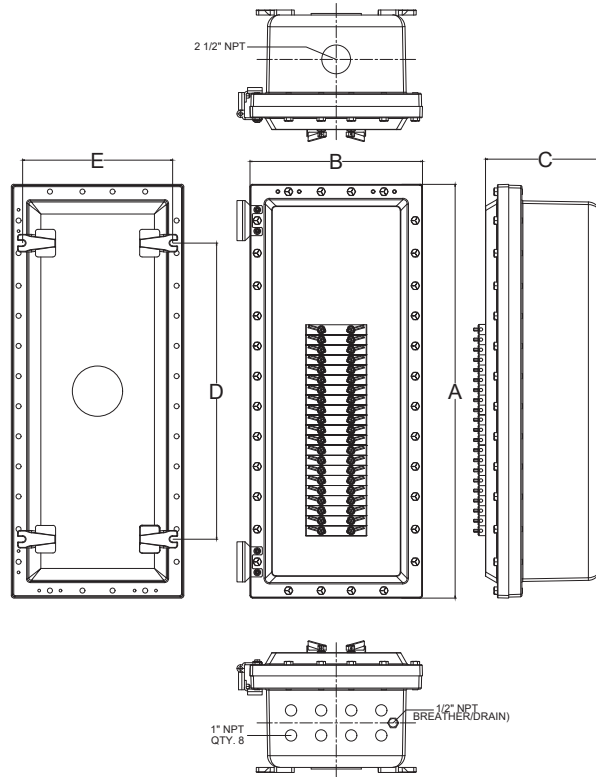
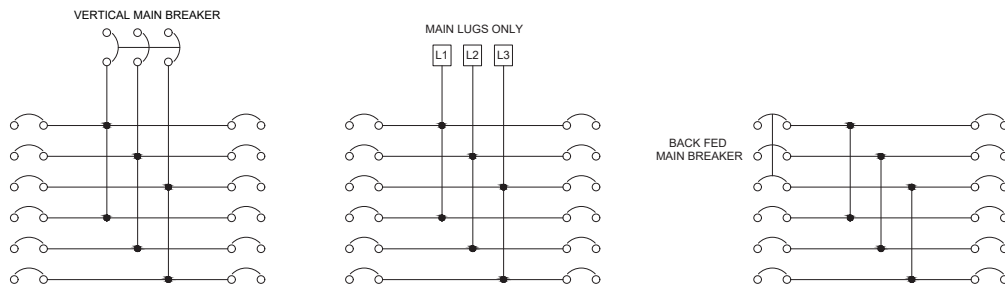


FIGURE "D"

TYPICAL WIRING DIAGRAM FOR SN7PB PANEL BOARDS



THREE PHASE WIRING DIAGRAM



SN7SPB

Factory Sealed Panelboards

EATON

BY **SP/KE**
ELECTRIC CONTROLS

Example Part Number

SN7PB 12 150342T - 6130,6140 - S756V



Non-Factory Sealed
Panelboards Catalog Prefix

SN7SPB

12

0225

3 4

2

2T

- 36130,6140

- 4S756

Poles

#	Description
6	6 Circuits
12	12 Circuits
18	18 Circuits
24	24 Circuits
30	30 Circuits
36	36 Circuits
42	42 Circuits
6BF	6 Circuits w/ back fed main breaker
12BF	12 Circuits w/ back fed main breaker
18BF	18 Circuits w/ back fed main breaker
24BF	24 Circuits w/ back fed main breaker
39BF	39 Circuits w/ back fed main breaker

Wiring System

3 4 480Y/277V 3PH 4w

Bus Amps

1	100A
2	225A
3	400A
4	600A

1 Disconnect AMPS

AMPS Description

30-255A	Vertical main
10-100A	Back fed main
MLO	Main lug only
400A	Vertical Main
600A	Vertical Main

2 Power Entry

T	Top Feed
B	Bottom Feed

3 Branch

480/277V

Type	Poles	Amps
GHB	1	15 - 100A
GHB	2	15 - 100A
GHB	3	15 - 100A

Standard

4 Enclosure Modification And Accessories

S756	Drain Class I,B,C & D, Class II,E,F & G, Class III
S756V	Breather/Drain Class I,B,C & D, Class II,E,F & G, Class III
CJB	Cast Aluminum Junction Box
MC	Pre-Wire For Max Circuits
INV	Inverted Orientation
OS	Oversized Junction Box

Breaker Format:

qty,type,poles,amps (Each configuration will be followed by a comma)
GHB are standard and do not require a type prefix.

Example: 1130

Back Fed Main Breaker

Catalog Number	Available Poles	Phases	Voltage Rating	Bus amps	Drawing Figure	Dimensions							
						a	b	c	d	e	f	g	h
SN7SPB6BF341*.*	6	3	480	100	AA	17.09	17.07	10.82	5.44	114.76	17.25	10.00	30.47
SN7SPB12BF341*.*	12	3	480	100	BB	23.31	17.31	11.13	11.50	14.94	17.25	10.00	36.45
SN7SPB18BF341*.*	18	3	480	100	BB	23.31	17.31	11.13	11.50	14.94	17.25	10.00	36.45
SN7SPB24BF341*.*	24	3	480	100	CC	29.44	17.44	11.63	17.50	14.94	17.25	14.00	42.77





SN7SPB

Factory Sealed Panelboards

EATON

BY **SPKE**
ELECTRIC CONTROLS

Breaker Format:

qty,type,poles,amps (Each configuration will be followed by a comma) BABGHB

Main lug only

Catalog Number	Available Poles	Phases	Voltage Rating	Bus amps	Drawing Figure	Dimensions							
						a	b	c	d	e	f	g	h
SN7SPB6MLO341*-*	6	3	480	100	AA	17.09	17.07	10.82	5.44	114.76	17.25	10.00	30.47
SN7SPB12MLO341*-*	12	3	480	100	BB	23.31	17.31	11.13	11.50	14.94	17.25	10.00	36.45
SN7SPB18MLO341*-*	18	3	480	100	BB	23.31	17.31	11.13	11.50	14.94	17.25	10.00	36.45
SN7SPB24MLO341*-*	24	3	480	100	CC	29.44	17.44	11.63	17.50	14.94	17.25	14.00	42.77
SN7SPB24MLO342*-*	24	3	480	225	CC	29.44	17.44	11.63	17.50	14.94	17.25	14.00	42.77
SN7SPB30MLO342*-*	30	3	480	225	DD	41.22	17.19	11.92	29.50	14.94	17.25	14.00	54.53
SN7SPB36MLO342*-*	36	3	480	225	DD	41.22	17.19	11.92	29.50	14.94	17.25	14.00	54.53
SN7SPB42MLO342*-*	42	3	480	225	DD	41.22	17.19	11.92	29.50	14.94	17.25	14.00	54.53

Vertical Main Breaker

Catalog Number	Available Poles	Phases	Voltage Rating	Bus amps	Drawing Figure	Dimensions							
						a	b	c	d	e	f	g	h
SN7SPB6*341*-*	6	3	480	100	AA	17.09	17.07	10.82	5.44	11.48	17.25	10.00	30.47
SN7SPB12*341*-*	12	3	480	100	BB	23.31	17.31	11.13	11.50	14.94	17.25	10.00	36.45
SN7SPB18*341*-*	18	3	480	100	BB	23.31	17.31	11.13	11.50	14.94	17.25	10.00	36.45
SN7SPB24*341*-*	24	3	480	100	CC	29.44	17.44	11.63	17.50	14.94	17.25	14.00	42.77
SN7SPB24*342*-*	24	3	480	225	CC	29.44	17.44	11.63	17.50	14.94	17.25	14.00	42.77
SN7SPB30*342*-*	30	3	480	225	DD	41.22	17.19	11.92	29.50	14.94	17.25	14.00	54.53
SN7SPB36*342*-*	36	3	480	225	DD	41.22	17.19	11.92	29.50	14.94	17.25	14.00	54.53
SN7SPB42*342*-*	42	3	480	225	DD	41.22	17.19	11.92	29.50	14.94	17.25	14.00	54.53





SN7SPB

Factory Sealed Panelboards

EATON

BY **SPKE**
ELECTRIC CONTROLS

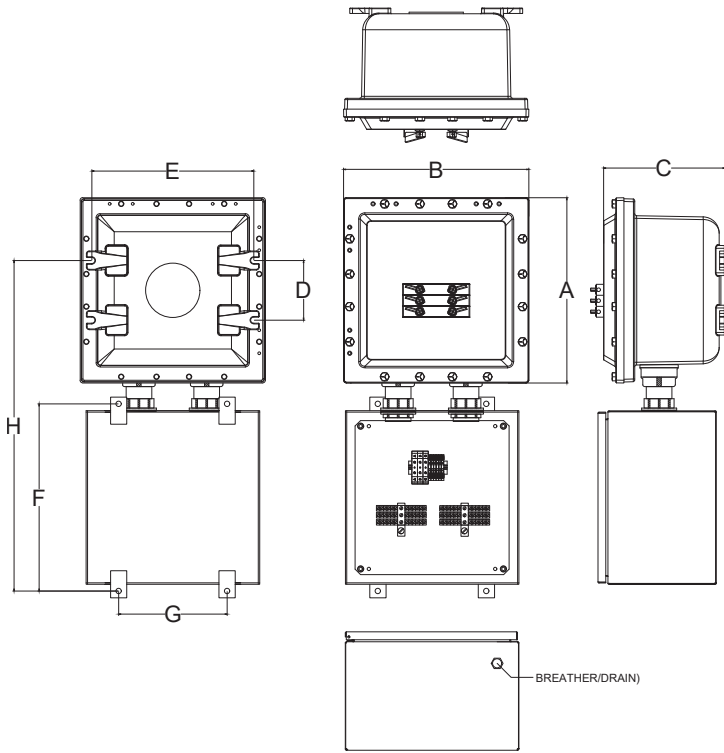


FIGURE "AA"

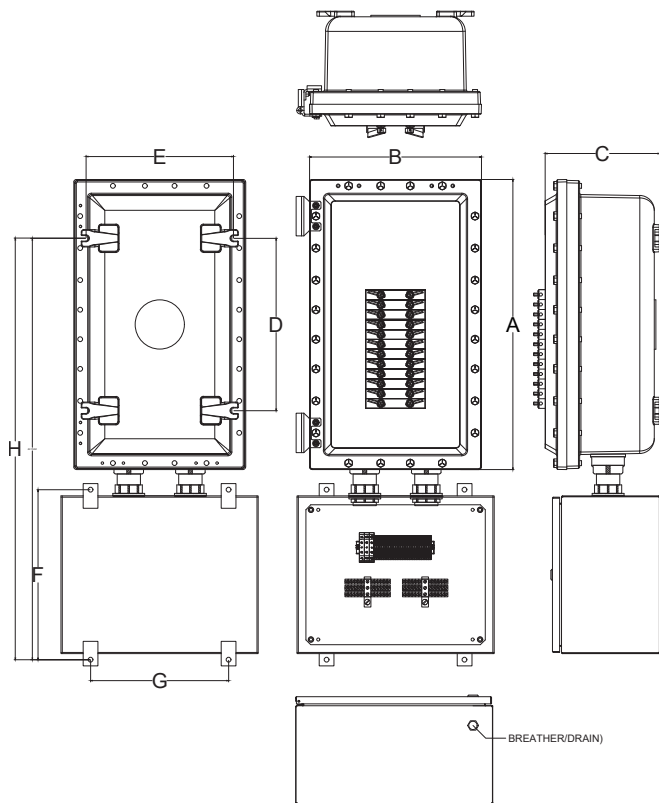


FIGURE "CC"

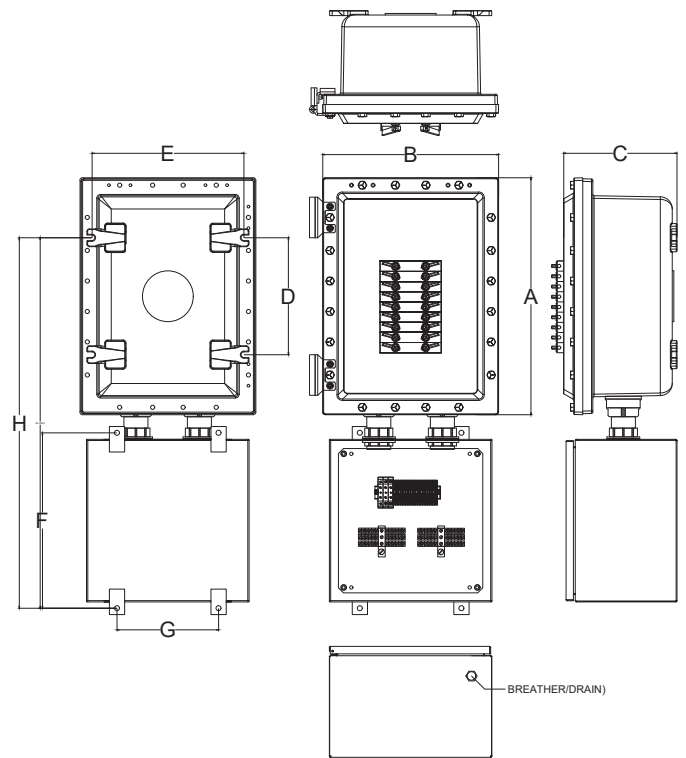


FIGURE "BB"



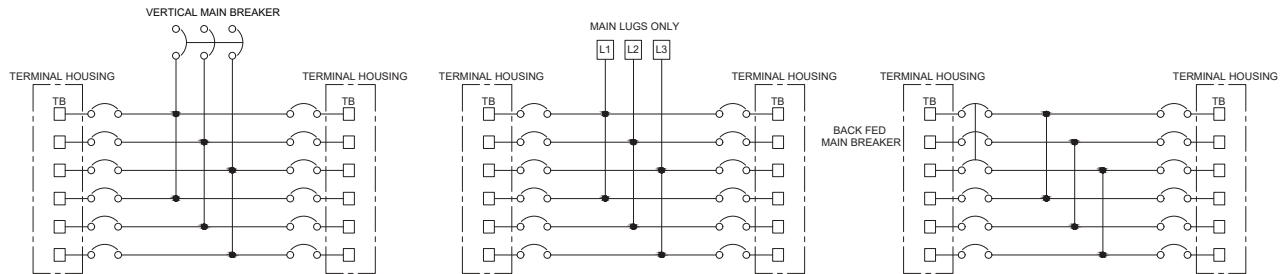
SN7SPB

Factory Sealed Panelboards

EATON

BY **SPKE**
ELECTRIC CONTROLS

TYPICAL WIRING DIAGRAM FOR SN7SPB FACTORY SEALED PANEL BOARDS



THREE PHASE WIRING DIAGRAM

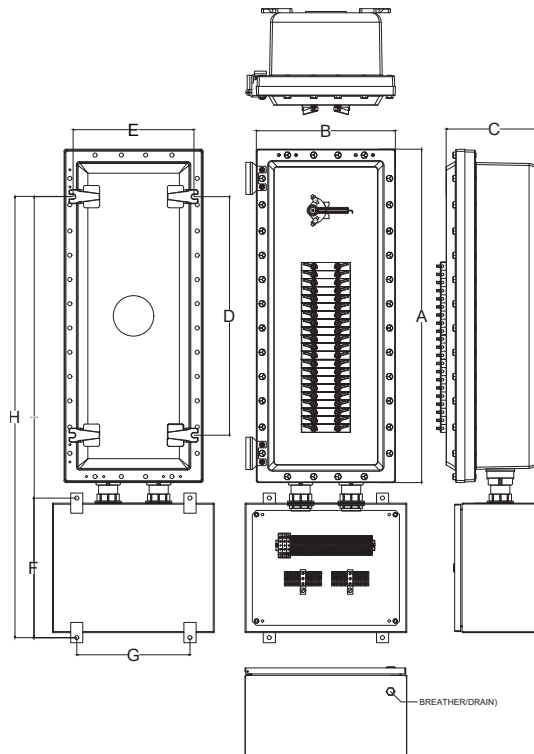


FIGURE "DD"
(SHOWN WITH VERTICAL MAIN BREAKER)



Green Energy Efficient: The SN7SPB & SN7PB factory sealed & non-factory sealed panelboards embody a commitment to green energy efficiency. Through innovative design, they minimize energy wastage, seamlessly incorporate renewable sources, and adhere to rigorous energy standards. These panelboards feature advanced insulation, optimized circuitry, and user-friendly interfaces, playing a pivotal role in promoting a sustainable and eco-friendly approach to energy distribution.



Panelboards

Pow-R-Line 2a



Branch Breakers:

15–100 A (bolt-on)

Mains:

For available mains, refer to Table 22.2-1.

The GHB main breaker is horizontally mounted, same as branch breakers.

All other main breakers are vertically mount

Branch Circuits:

For available branch devices, refer to Table 22.2-2.

Main Lugs Only:

The short-circuit rating of the MLO assembled panelboard will be fully rated based upon the lowest rated branch device or may be series rated with an approved upstream device.

Main lugs only ampere ratings:

100, 225 and 400.

Main Circuit Breakers:

The short-circuit rating shown is that of the main breaker only. The short circuit rating of the assembled panelboard is the rating of the lowest fully rated main or branch device or the rating of an approved series rated combination.

Panelboard Ratings:

Voltage:

- 480Y/277 Vac maximum **Note:** PRL2a panelboards are suitable for use on three-phase, three-wire applications when derived from a three-phase, four-wire 480Y/277 Vac service where the neutral is not brought to the panelboard. For three phase, three-wire 480 Vac Delta services use a PRL3a panelboard.
- 250 Vdc maximum

Short-Circuit Current Ratings (Symmetrical)

- 240 Vac: 65 kA fully rated
- 240 Vac: 100–200 kA series rated
- 480Y/277 Vac: 14 kA fully rated
- 480Y/277 Vac: 22–150 kA series rated
- 250 Vdc: 10 kA and 14 kA fully rated

Service:

- Three-phase, four-wire
- Two-wire 125 Vdc
- Two-wire 250 Vdc
- * Suitable for service entrance applications when specified

Main Lugs:

- 100–600 A

Main Breakers:

100–600 A

Table 22.2-1. Main Circuit Breakers

Breaker Frame (Amperes)	Breaker Type	Interrupting Rating (kA Symmetrical)		
		240 Vac	480Y/277 Vac	125/250 Vdc
100	GHB ❶	65	14	14
1100	EHD	18	14	10
150	FDB	18	14	10
225	FC, FDE	65	35	10
225	HFD, HFDE	100	65	22
225	DDC, FDCE	200	100	22
225	ED	65	-	-
250	EDH	100	-	-
250	EDH	200	-	-
250	JD	65	10	10
250	HJD	100	22	22
250	JDC	200	22	22
400	DK	65	10	10
400	KD	65	10	10
400	HKD	100	22	22
400	LHH	100	-	-
400	KDC	200	22	22
600	LGE	65	22	22
600	LGS	65	22	22
600	LGH	100	42	42
600	LGC, LGU	200	42	42

❶ FOR USE ON 480Y/277 VAC SYSTEMS ONLY.

Table 22.2-2. Main Circuit Breakers

Breaker Type	Ampere Rating	Number of Poles	Interrupting Rating (kA Symmetrical)				
			120 Vac	240 Vac	277 Vac	480Y/277 Vac	125/250 Vdc
GHV ❷	15-100	1	65	-	14	-	14
GHB ❷	15-100	2, 3	-	65	-	14	14
GHQ	15-30	1, 2	65	-	14	-	-
HGHB	15-30	1	65	-	25	-	-
GHQRSP ❷❸	15-20	1, 2	65	65	14	14	-
GHBGFEP	15-60	1	-	-	14	-	-

❷ FOR USE ON 480Y/277 VAC SYSTEMS ONLY.

❸ SOLENOID OPERATED BREAKER.



Panelboards

Pow-R-Line 2a



Technical Data

Bussing

100–400 A: Tin-plated aluminum is standard, copper is available as an option.

Shunt Trips

Shunt trips are available on breakers. GHB breakers with shunt trips require three-pole frame.

Ground Bar

Standard bolted in box. Aluminum is standard. Copper is available as an option.

Surge Protective Device (SPD)

Integrated onto panelboard chassis. For complete product description and available ratings, refer contact factory.

Box Sizing and Selection

Box size for all Type 1 panelboards are available from Table 22.2-6.

Modifications

Table 22.2-3. Sub-Feed Lugs (Main Lugs Only)

Amperes	Panel Height Addition
100	0 Inches (0 mm)
225	0 Inches (0 mm)

Table 22.2-4. Through-Feed Lugs

Amperes	Information
100	See Table 22.2-6
225	See Table 22.2-6
400	See Table 22.2-6
600	See Table 22.2-6

Instructions

1. Using description on the required panelboard, select the rating and type of mains required.

2. Count total number of branch circuit poles (including spaces) required in the panelboard. Do not count main breaker poles.

Convert two- or three-pole branch breakers to single-poles. i.e., three-pole breaker, count as three poles.

Note: For horizontal mounted mains (GHB Type), use main lug table, include space in branch section for mains.

3. Using correct table, type of mains and ampere rating per Step 1, find total number of poles.

Note: Where total number of poles (Step 2) fall between number in table, use the next higher number.

4. Read box size across columns to the right.

Table 22.2-5. Sub-Feed Breakers (One Per Panel)

Ampere Rating	Breaker Type	Interrupting Rating (kA Symmetrical)	
		240 V	480Y/277 V
150	FDB	18	14
225	FD	65	35
225	HFD	100	65
225	FDC	200	100
225	ED	65	—
225	EDH	100	—
225	EDC	200	—
250	JD	65	35
250	HJD	100	65
250	JDC	200	100
400	KD	65	35
400	HKD	100	65
400	KDC	200	100



Panelboards

Overview



General Construction Features:

Our assembled panelboards are designed for sequence phase connection of branch circuit devices. This allows complete flexibility of circuit arrangement (single-, two- or three-poles) to allow balance of the electrical load on each phase.

Sturdy, rigid chassis assembly ensures accurate alignment of interior with panel front; prevents flexing and minimizes possibility of loosening or damage to current carrying parts during and after installation.

Four point in-and-out adjustment of panel interior is provided to meet critical depth dimensions on flush installations. This compensates for possible misalignment of box at installation.

Main lugs are mechanical solderless type and approved for copper and aluminum conductors.

Standards and Certifications:

- UL® 67 Listed for wall-mounted applications from 600 A National Electrical Code®

Available Rating:

The panelboards are rated at 240 Vac, 480 Vac and 600 Vac. Fault current is available up to 200 kAIC at 240 Vac, 100 kAIC at 480 Vac and 65 kAIC at 600 Vac. The short-circuit current rating of the panelboard is determined by the low short-circuit current rating of the lowest rated overcurrent device in the panelboard.

Pow-R-Line 1a:

- Robust design using Eaton circuit breakers
- Increased ratings (with Series
- Rated main circuit breakers) provide higher short-circuit ratings
- Pow-R-Line 1a can accommodate branch breakers dual-mounted through 100 A
- Pow-R-Line 1a panelboards accommodate sub-feed breakers up to 400 A

UL tested and listed. Meets NEC® and NEMA® standards

Panelboard Options:

- Copper and silver-plated copper
- Copper lugs
- Density-rated bus
- Ground bars
- Customer-owned meters
- Service equipment construction
- Surge protective devices
- Seismically qualified panelboards

Standards:

All our panelboards are designed to meet the following applicable industry standards, except where noted:

- Underwriters Laboratories
 - Panelboards: UL 67
 - Cabinets, boxes and trims: UL 50

*Note: Only panelboards containing UL listed devices can be UL labeled.

- National Electrical Code
- NEMA Standards: PB 1
- Federal Specification W-P-115c
Circuit breaker—Type I Class 1
FUSIBLE SWITCH—TYPE II CLASS 1

Panelboard Selection Factors:

In selecting a panelboard, the following factors must be considered:

- Service (voltage and frequency).
- Interrupting capacity (fully or series rated).
- Ampere rating of main.
- Ampere ratings of branches.
- Installation environment
- Codes and standards mandates.



Combination AFCI Circuit Breakers:

Eaton's 125 Vac AFCI single- and two-Circuits,

15 A and 20 A bolt-on breakers in panelboards meet Article 210.12 of the NEC. See the NEC code for definitions and details

Panelboard Short-Circuit Rating:

The short-circuit rating of Eaton's assembled panelboards are test verified by, and listed with, Underwriters Laboratories. Generally, these ratings are that of the lowest interrupting rated device in the panel.

Certain exceptions to this rule exist where branch devices have been UL tested in combination with specific main devices having a higher interrupting rating. Where these defined main breaker and branch breaker combinations are used, the series short-circuit rating of the assembled panelboard will be the same as the series tested rating of the approved rated main breaker. All combinations shown are UL tested and listed.

These series ratings apply to panels having main devices, or main lug only panelboards fed remotely by the device listed in the series ratings chart as the main, for which UL listed tests were conducted.

