

Edison Power Distribution Blocks



Short-Circuit Current Rated Power Distribution Blocks

We offer distinctly different styles of short-circuit current rated power distribution blocks (PDBs) and terminal blocks (TBs) to match different application needs. The differences are whether the power distribution blocks are enclosed or not, and whether they are UL1953 Listed PDBs or UL1059 Recognized TBs, which have different minimum spacing requirements. The table below can assist in the selection of the right series for your application requirements.

Why are these important?

Assembly short-circuit current ratings (SCCRs) are now required in the 2005 NEC® and UL508A Listed Industrial Control Panels. Marking the SCCR on Industrial Control Panels (NEC® 409.110), Industrial Machinery Electrical Panels (NEC® 670.3(A)), and HVAC equipment (NEC® 440.4(B)) is now required by the National Electrical Code. Power distribution blocks or terminal blocks not marked with an SCCR are typically one of the weakest links and may limit an assembly to no more than 10 kA SCCR. The EPDB Series has increased spacing required where used in feeder circuits in equipment listed to UL508A (UL1059 terminal blocks must be evaluated for proper spacings). Also, for building wiring systems, the EPDB Series power distribution blocks can be used to meet the 2005 NEC® requirements in section 376.56(B) for power distribution blocks in wireways.

Edison Power Distribution Blocks Selection Guide								
Series	UL	† Enclosed	High SCCR*	Spacing** 1" Air 2" Surface	Industrial Control Panels UL 508A Branch Circuit	Industrial Control Panels UL 508A Feeder Circuit	HVAC UL 1995	Wireways NEC® 376.56(B) (Requires UL 1953)
EPDB	UL 1953 Listed Power Distribution Blocks	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PB	UL 1059 Recognized Terminal Blocks	No***	Yes	No****	Yes	No****	Yes	No***

† IP-20 finger-safe under specific conditions. See page B26-5.

*When protected by proper fuse class with maximum ampere rating specified or smaller. This does not apply to PB40, PB51 and PB71 series.

**See Minimum Space Requirements for Equipment table below.

***Optional covers are available. They are not IP-20 rated, but do provide additional protection against direct contact with Live Parts.

****Exception: Yes, if single pole units installed with proper spacings.

Minimum Space Requirements for Equipment			
UL Standard	Spacing Between Live Parts of Opposite Polarity		Spacing Between Live Parts and Grounded Parts or Enclosures, Through Air and Over Surface @ 600V
	Through Air @ 600V	Over Surface @ 600V	
508A Feeder Circuits, Table 10.2	1"	2"	1"
508A Branch Circuits, Table 10.1	3/8"	1/2"	1/2"
UL 1995 HVAC	3/8"	1/2"	1/2"

Note: Refer to specific UL standards for complete spacing details.

Edison Open-Style Terminal Blocks

Open-style terminal blocks for cable termination

Edison Open-style terminal blocks are a convenient way to manage your power distribution needs. They are engineered to maintain an SCCR rating of 200kA with copper conductors and an SCCR of 10 kA for aluminum conductors, making these distribution blocks the ideal solution to today's power circuit wiring needs.

Features

- Used in UL508A panels for branch circuit applications
- Standard aluminum box connectors accommodate copper wire. PB401x, PB512x and PB712x series accommodate copper or aluminum wire.
- Tin-plated aluminum connectors suitable for copper conductors
- Available safety covers for greater protection (purchase separately)
- Suitable for both factory and field wiring

Ratings

- Ampere ratings up to 760 Amps
- 600 VAC or VDC
- Short Circuit Current Rating (SCCR) 200kA with proper fusing
- Flammability: UL 94V0

Agency Approvals

- UL 1059 recognized - File E221592 Guide XCFR2
- CSA Certified: Class 6228-01, File 700489
- CE

Open Type Power Distribution Blocks Selection Table

Series	Part Number	Amps	Description	SCCR Rtg	Pcs/Pkg	Wt.	Price
Open	PB1011	175 max	1 pole distribution block, 1 in/1 out	200 kA	1	2.8 oz.	<-->
	PB1012	175 max	2 pole distribution block, 1 in/1 out	200 kA	1	4.6 oz.	<-->
	PB1013	175 max	3 pole distribution block, 1 in/1 out	200 kA	1	6.8 oz.	<-->
	PB1041	175 max	1 pole distribution block, 1 in/4 out	200 kA	1	3.1 oz.	<-->
	PB1042	175 max	2 pole distribution block, 1 in/4 out	200 kA	1	5.2 oz.	<-->
	PB1043	175 max	3 pole distribution block, 1 in/4 out	200 kA	1	7.3 oz.	<-->
	PB3061	310 max	1 pole distribution block, 1 in/6 out	200 kA	1	10.9 oz.	<-->
	PB3062	310 max	2 pole distribution block, 1 in/6 out	200 kA	1	19.1 oz.	<-->
	PB3063	310 max	3 pole distribution block, 1 in/6 out	200 kA	1	25.5 oz.	<-->
	PB3121	310 max	1 pole distribution block, 1 in/12 out	200 kA	1	12.7 oz.	<-->
	PB3122	310 max	2 pole distribution block, 1 in/12 out	200 kA	1	21.6 oz.	<-->
	PB3123	310 max	3 pole distribution block, 1 in/12 out	200 kA	1	31.1 oz.	<-->
	PB4011	380 max	1 pole distribution block, 1 in/stud	10 kA	1	11.9 oz.	<-->
	PB4012	380 max	2 pole distribution block, 1 in/stud	10 kA	1	20.7 oz.	<-->
	PB4013	380 max	3 pole distribution block, 1 in/stud	10 kA	1	29.1 oz.	<-->
	PB5121	570 max	1 pole distribution block, 2 in/12 out	10 kA	1	13.8 oz.	<-->
	PB5122	570 max	2 pole distribution block, 2 in/12 out	10 kA	1	24.4 oz.	<-->
	PB5123	570 max	3 pole distribution block, 2 in/12 out	10 kA	1	34.7 oz.	<-->
	PB7121	760 max	1 pole distribution block, 2 in/12 out	10 kA	1	17.0 oz.	<-->
	PB7123	760 max	3 pole distribution block, 2 in/12 out	10 kA	1	44.0 oz.	<-->



Safety Covers for Open Power Distribution Blocks Selection Table

Part Number	Description	Pcs/Pkg	Wt.	Price
PBC21	Cover and screws for PB1011, PB1041, 1-pole blocks	1	0.3 oz.	<-->
PBC22	Cover and screws for PB1012, PB1042, 2-pole blocks	1	0.4 oz.	<-->
PBC23	Cover and screws for PB1013, PB1043, 3-pole blocks	1	0.5 oz.	<-->
PBC31	Cover and screws for PB3061, PB3121, PB4011, PB5121, 1-pole blocks	1	0.9 oz.	<-->
PBC32	Cover and screws for PB3062, PB3122, PB4012, PB5122, 2-pole blocks	1	1.3 oz.	<-->
PBC33	Cover and screws for PB3063, PB3123, PB4013, PB5123, 3-pole blocks	1	1.6 oz.	<-->
PBC71	Snap-on cover for PB7121, 1-pole blocks and PB7123, 3-pole blocks. 1-pole block requires 1 cover. 3-pole block requires 3 covers.	1	0.9 oz.	<-->

Open Style Power Distribution Block General Specifications

Wire type	75°C* Copper
Voltage	600 VAC or VDC maximum
Mounting	Surface mount
*Note: Amp Rating based on NEC table 310.16 for 75°C copper wire.	

Edison Open-Style Terminal Blocks Specifications

UL Series Wire and Torque Range Specifications								
Part Number	Line				Load			
	CU Wire Range	Torque Lb-in (Nm)	Trim Length in (mm)	Hex Key	CU Wire Range	Torque Lb-in (Nm)	Trim Length in (mm)	Hex Key, Slot, Stud
PB1011	2/0 to 8 AWG, 70 to 10 mm ²	110 [12.4]	0.70 [17.8]	3/16"	2/0 to 8 AWG, 70 to 10 mm ²	110 [12.4]	0.70 [17.8]	3/16" Hex
PB1012								
PB1013								
PB1041	2/0 to 8 AWG, 70 to 10 mm ²	120 [13.6]	0.670 [17.0]	3/16"	4 to 6 AWG, 25 to 16 mm ²	35 (4.0)	0.470 [11.9] top row, 0.780 [19.8] bottom row	Slot
PB1042					8 AWG, 10 mm ²	25 (2.8)		
PB1043					10 to 14 AWG, 6 to 2.5 mm ²	20 (2.3)		
PB3061	350 kcmil to 4 AWG, 185 to 25 mm ²	275 [31.1]	0.90 [22.9]	5/16"	4 to 6 AWG, 25 to 16 mm ²	35 (4.0)	1.00 [25.4] top row 0.45 [11.43] bottom row	Slot
PB3062					8 AWG, 10 mm ²	25 (2.8)		
PB3063					10 to 12 AWG, 6 to 4 mm ²	20 (2.3)		
PB3121	350 kcmil to 4 AWG 185 to 25 mm ²	275 [31.1]	0.90 [22.9]	5/16"	4 to 6 AWG, 25 to 16 mm ²	35 (4.0)	0.450 [11.4] top row, 0.630 [16.0] middle row, 0.920 [23.4] bottom row	Slot
PB3122					8 AWG, 10 mm ²	25 (2.8)		
PB3123					10 to 14 AWG, 6 to 2.5 mm ²	20 (2.3)		

Short-Circuit Current Rating Data												
Part Number	Number of Poles	Capacity*	Line		Configuration	Conductors		Maximum Fuse Class and Amp**				
			Wire Range	Wire Range		Openings per Pole	Line AWG or kcmil	Load AWG or kcmil	Class J (JDL)	Class T (A3T/ A6T)	Class RK1 (LENRK/ LESRK)	Class RK5 (ECNR/ ECSR)
PB1011	1	175A	2/0 to 8 AWG 70 to 10 mm ²	2/0 to 8 AWG 70 to 10 mm ²	1/1	2/0 to 8	2/0 to 8	200	200	200	60	200 kA
PB1012	2											
PB1013	3											
PB1041	1	175A	2/0 to 8 AWG 70 to 10 mm ²	4 to 14 AWG 25 to 2.5 mm ²	1/4	2/0 to 8	4 to 12	200	200	200	60	200 kA
PB1042	2						4 to 14	175	175	100	60	100 kA
PB1043	3						4 to 14	200	200	100	60	50 kA
PB3061	1	310A	350 kcmil to 4 AWG 185 to 25 mm ²	4 to 12 AWG 0 25 to 4 mm ²	1/6	350 to 4	4 to 8	400	400	200	100	200 kA
PB3062	2						4 to 8	400	400	400	100	100 kA
PB3063	3						4 to 12	175	175	100	60	100 kA
PB3121	1	310A	350 kcmil to 4 AWG 185 to 25 mm ²	4 to 14 AWG 25 to 2.5 mm ²	1/12	350 to 4	4 to 8	400	400	200	100	200 kA
PB3122	2						4 to 14	175	175	100	60	100 kA
PB3123	3						4 to 14	175	175	100	60	100 kA
PB4011	1	380A	500 kcmil to 6 AWG 240 to 16 mm ²	One 3/8" - 16 x 1 stud	One 3/8" - 16 x 1 stud	500	One 3/8" - 16 x 1 stud	***	***	***	***	10 kA
PB4012	2					500 to 6	***	***	***	***		
PB4013	3					500 to 6	***	***	***	***		
PB5121	1	570A	300 kcmil to 4 AWG 150 to 25 mm ²	4 AWG to 14 AWG 25 to 2.5 mm ²	2/12	300	4 to 14	***	***	***	***	10 kA
PB5122	2					300 to 4	4 to 14	***	***	***	***	
PB5123	3					300 to 4	4 to 14	***	***	***	***	
PB7121	1	760A	500 kcmil to 6 AWG 240 to 16 mm ²	4 AWG to 14 AWG 25 to 2.5 mm ²	2/12	500 to 6	4 to 14	***	***	***	***	10 kA
PB7123	3						4 to 14	***	***	***	***	

*Amp ratings are based on NEC® Table 310.16 for 75°C copper wire and UL508A Table 28.1

**Class G 60A or less or Class CC 30A or less fuses are suitable for all SCCR in this table.

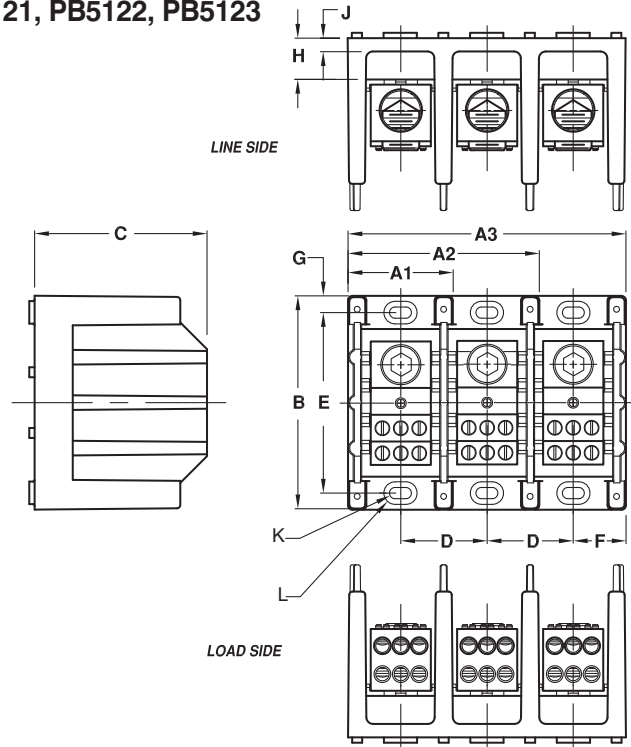
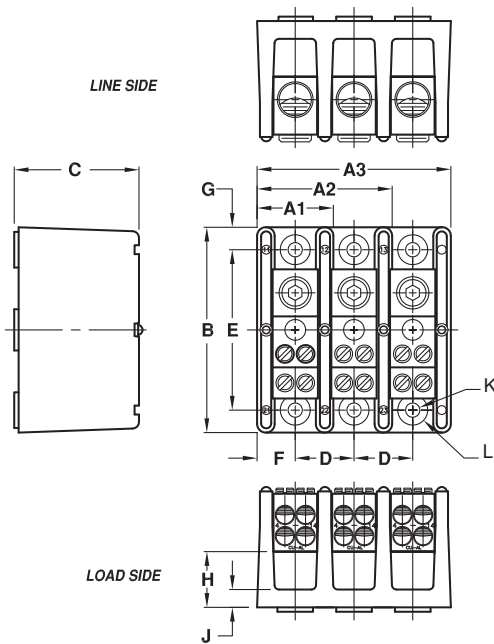
***Not High SCCR rated. Refer to UL508A Table SB4.1.

Edison Open-Style Terminal Blocks Dimensions

Edison Open-Style Power Distribution Blocks Dimensions (in[mm])													
Part Number	Width			Length	Height								
	A1	A2	A3	B	C	D	E	F	G	H	J	K	L
PB1011	1.06 [26.92]	1.88 [47.75]	2.60 [66.04]	2.85 [72.39]	1.75 [44.45]	0.81 [20.57]	2.25 [57.15]	0.53 [13.46]	0.31 [7.87]	0.84 [21.34]	0.31 [7.87]	0.20 [5.08]	0.42 [10.67]
PB1012													
PB1013													
PB1041													
PB1042													
PB1043													
PB3061	1.96 [49.78]	3.58 [90.93]	5.20 [132.08]	4.0 [101.60]	3.32 [84.33]	1.62 [41.15]	3.37 [85.60]	0.985 [25.02]	0.310 [7.87]	0.780 [19.81]	0.250 [6.35]	Slot 0.20 [5.08] (w) x 0.41 [10.41] (l)	Slot 0.42 [10.67] (w) x 0.62 [15.75] (l)
PB3062													
PB3063													
PB3121													
PB3122													
PB3123													
PB4011													
PB4012													
PB4013													
PB5121													
PB5122													
PB5123													

PB1011, PB1012, PB1013
PB1041, PB1042, PB1043

PB3061, PB3062, PB3063
PB3121, PB3122, PB3123
PB4011, PB4012, PB4013
PB5121, PB5122, PB5123



Part Number	Minimum Enclosure Size in[mm]*
PB1011, PB1012, PB1013	16 x 16 x 6.75 [406.4 x 406.4 x 171.45]
PB1041, PB1042, PB1043	16 x 16 x 6.75 [406.4 x 406.4 x 171.45]
PB3061, PB3062, PB3063	24 x 20 x 6.75 [609.6 x 508 x 171.45]
PB3121, PB3122, PB3123	24 x 20 x 6.75 [609.6 x 508 x 171.45]
PB4011, PB4012, PB4013	N/A
PB5121, PB5122, PB5123	N/A
PB7121, PB7123	N/A

*Note: Terminal block SCCR determined based on testing in minimum-size enclosure

Edison Open-Style Terminal Blocks

Dimensions

Company Info.

PLCs

Field I/O

Software

C-more & other HMI

AC Drives

AC Motors

Power Transmiss.

Steppers/ Servos

Motor Controls

Proximity Sensors

Photo Sensors

Limit Switches

Encoders

Current Sensors

Pressure Sensors

Temp. Sensors

Pushbuttons/ Lights

Process

Relays/ Timers

Comm.

Terminal Blocks & Wiring

Power

Circuit Protection

Enclosures

Tools

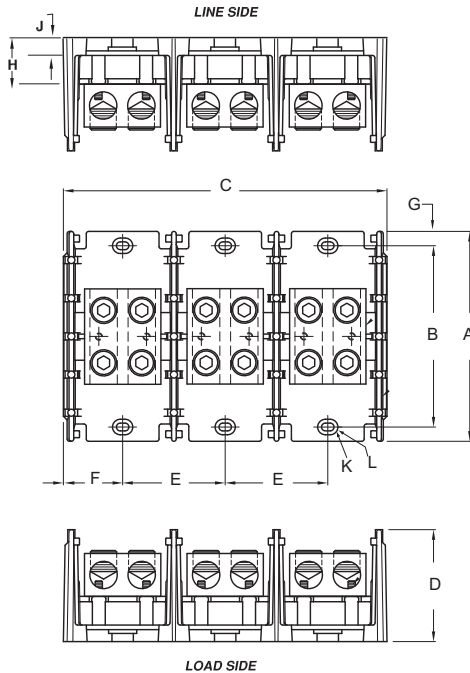
Pneumatics

Appendix

Part Index

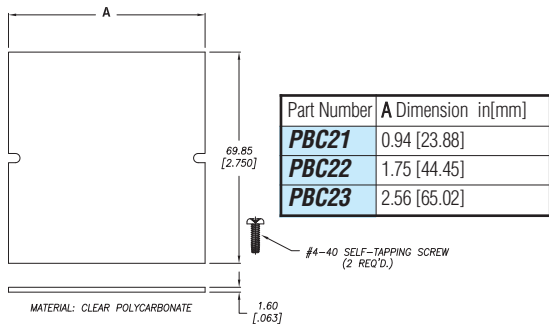
Edison Open-Style Power Distribution Blocks Dimensions (in [mm])													
Part Number	Width	Length	Height										
	A	B	C1	C2	C3	D	E	F	G	H	J	K	L
PB7121	5.5	4.75	3.10	5.79	8.48	2.93	2.69	1.55	0.38	1.19	0.44	Slot: 0.20 [5.08] (w) x 0.33 [8.38] (l)	Slot: 0.41 [10.41] (w) x 0.53 [13.46] (l)
PB7123	[139.7]	[120.7]	[78.74]	[147.1]	[215.39]	[74.42]	[68.33]	[39.37]	[9.65]	[30.23]	[11.18]		

PB7121, PB7123

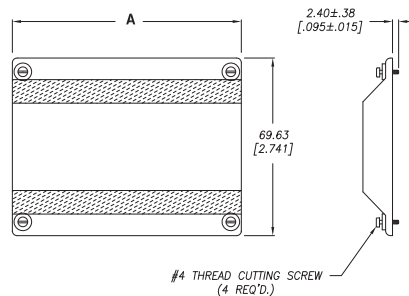


Covers

Optional Cover for
PB1011, PB1012, PB1013
PB1041, PB1042, PB1043



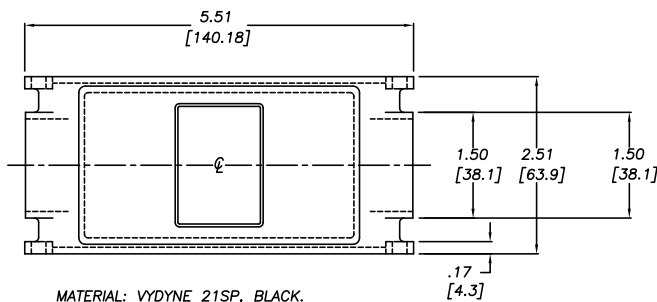
Optional Cover for
PB3061, PB3062, PB3063
PB3121, PB3122, PB3123



PB4011, PB4012, PB4013
PB5121, PB5122, 5123

Optional Cover for PB7121 and PB7123

Part Number
PBC71



Note: Dimensions are in inches [millimeters]

