

Selection table for SCCR power distribution blocks and power terminal blocks

Short-circuit current rated power distribution blocks

Eaton offers three distinctly different styles of short-circuit current rated power distribution blocks (PDBs) and power terminal blocks (PTBs) to match different application needs. The differences are whether the power distribution blocks are enclosed or not, and whether they are UL 1953 Listed PDBs or UL 1059 Recognized PTBs, which have different minimum spacing requirements. The table on this page can assist in the selection of the right series for your application requirements.

Why these are important

Equipment short-circuit current ratings (SCCRs) are now required in the 2011 NEC® and UL 508A Listed Industrial

Control Panels. Marking the SCCR on Industrial Control Panels (NEC® 409.110), Industrial Machinery Electrical Panels (NEC® 607.3(A)), and HVAC equipment (NEC® 440.4(B)) is required by the National Electrical Code. PDBs or PTBs not marked with a SCCR, typically are the weakest link and may limit an assembly to no more than 10kA SCCR. The PDBFS and PDB have increased spacing required where used in feeder circuits in equipment listed to UL508A (UL1059 PTBs must be evaluated for proper spacings). Also, for building wiring systems, the PDBFS and PDB power distribution blocks can be used to meet the new 2013 NEC® requirements in section 376.56(B) for PDBs in wireways.

Selection table

Description	Catalog page	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)
Series PDBFS	325	UL 1953 Listed	Yes†	Yes	Yes	Yes	Yes	Yes	Yes
Series PDB	326	UL 1953 Listed	No***	Yes	Yes	Yes	Yes	Yes	Yes w/optional cover

† IP20 Finger-safe under specific conditions, see datasheet 1149.

*When protected by proper fuse class with maximum ampere rating specified or less.

See **PDB spacing requirements for equipment table below.

***Optional covers are available. Not IP20, but provide a safety benefit.

****No, except: Yes, if single pole units installed with proper spacings.

PDB and PTB minimum spacing requirements for equipment

UL Standard	Spacing between live parts of opposite polarity		Spacing between live parts and grounded parts or enclosure @600V
	Through air @600V	Over surface @600V	
508A feeder circuits	1"	2"	1"
508A branch circuits	3/8"	1/2"	1/2"
1995 HVAC	3/8"	1/2"	1/2"

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



Series PDBFS



Series PDB



Feature/benefits

- High short-circuit current ratings up to 200kA. These PDBs do not have to be the weak link in achieving high SCCR for an industrial control panel
- Listed to UL 1953 which has minimum spacing requirements at 600V of at least 1" through air and 2" over surface required for feeder in UL 508A Industrial Control Panels
- For 2D CAD drawings visit Eaton.com/bussmannseries

Agency/standards

- UL Listed 1953, Guide QPQS, File E256146

Electrical

- 600Vac/dc (UL 1953)
- Short-circuit current ratings up to 200kA, see table
- Wire range 14 AWG to 350 kcmil Cu/Al
- Spacing between uninsulated opposite polarities or ground meets UL 1953 which requires at least 1" through air and 2" over surface
- Ratings available with circuit breakers

Mechanical

- Panel mount
- Flammability, UL 94V0
- Tin-plated Al connectors suitable for Cu/Al conductors

Optional covers

Covers are ordered for each individual pole, i.e., three 1-pole covers for 3-pole block, see table A.

Except PDB321 blocks have one cover for 1-, 2- or 3-pole versions, see table B.

Table A

Block	Cover
PDB2XX-(pole):	CPB162-1
PDB3XX-(pole):	CPDB-1

Table B

Block	Cover
PDB321-1	CPDB-1
PDB321-2	CPDB-2
PDB321-3	CPDB-3

Series PDB

Catalog number - Pole	Amps	Terminal copper conductor capability			Short-circuit current rating data							
		Line	Load	Configuration	Conductors		Max fuse class and Amp*				SCCR	
		Wire range	Wire range	Openings per pole Line Load	Line AWG or kcmil	Load AWG or kcmil	J LPJ	T JJS JJN	RK1 LPS-RK LPN-RK	RK5 FRS-R FRN-R		
PDB204-1 PDB204-3	175A	2/0 - 8 AWG Cu 2/0 - 12 AWG Al	2/0 - 8 AWG Cu 2/0 - 12 AWG Al		2/0 - 8	2/0 - 8	200	200	200	60		200kA
PDB220-1 PDB220-3	175A	2/0 - 8 AWG Cu 2/0 - 8 AWG Al	4 - 14 AWG Cu 4 - 8 AWG Al		2/0 - 8	4 - 12 14	200 175† 200†	200 175† 200†	200† 100† 100†	60† 60† 60†	200kA 100kA 50kA	
PDB280-1 PDB280-3	175A	2/0 - 8 AWG Cu 2/0 - 8 AWG Al	1/4-20 X 3/4 STUD		2/0 - 8	Stud	200	200	100	60	200kA	
PDB321-1 PDB321-2 PDB321-3	175A	2/0 - 8 AWG Cu 2/0 - 12 AWG Al	4 - 14 AWG Cu 4 - 12 AWG Al		2/0 - 8	4 - 12 14	400 400† 175†	400 400† 175†	200† 400† 100†	100† 100† 60†	200kA 100kA 100kA	
PDB323-1 PDB323-3	310A	350kcmil - 4 AWG Cu 350 - 6 AWG Al	4 - 12 AWG Cu 4 - 12 AWG Al		300 - 4	4 - 8 10 - 12	400 400† 175†	400 400† 175†	200† 400† 100†	100† 100† 60†	200kA 100kA 100kA	
PDB370-1 PDB370-3	310A	350kcmil - 4 AWG Cu 350 - 4 AWG Al	4 - 14 AWG Cu 4 - 12 AWG Al		350 - 4	4 - 8 10 - 14	400 400† 175†	400 400† 175†	200† 400† 100†	100† 100† 60†	200kA 100kA 100kA	
PDB371-1 PDB371-3	310A	350kcmil - 4 AWG Cu 350 - 6 AWG Al	(6) 2 - 12 AWG Al (3) 1/0-12 (6) 2 - 8 AWG Al (3) 1/0-8 AWG Al		350 - 4	1/0 - 6 8 - 12	400 400† 175†	400 400† 175†	200† 400† 100†	100† 100† 60†	200kA 100kA 100kA	

Ampacities 75°C per NEC® Table 310.16 and UL508A Table 28.1

* Class G 60A (SC-60) or less or Class CC 30A (LP-CC-30, FNR-R-30_SP, KTK-R-30) or less are suitable for all these SCCR in this table.

† Higher SCCR may be available, check data sheet 1049.

Data Sheet: 1049