

Selection Table for SCCR Power Distribution Blocks and Power Terminal Blocks

Short-Circuit Current Rated Power Distribution Blocks

Cooper Bussmann 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 UL1953 Listed PDBs or UL1059 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?

Assembly short-circuit current ratings (SCCRs) are now required in the 2008 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 now 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 Series 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 Series and PDB Series power distribution blocks can be used to meet the new 2008 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	295	UL 1953 Listed	Yes†	Yes	Yes	Yes	Yes	Yes	Yes
Series PDB	296	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 & 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

Series PDB of Power Distribution Blocks



Electrical

- 600Vac/dc (UL 1953)
- Short-circuit current ratings up to 200kA, see table
- Wire range 14 AWG to 350 kcmil Cu
- 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 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.

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

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

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 www.cooperbussmann.com

Agency/Standards

- UL Listed 1953, Guide QPQS, File E256146

Series PDB

		Terminal Copper Conductor Capability			Short-Circuit Current Rating Data							
		Line	Load	Configuration	Conductors		Max Fuse Class & Amp*				SCCR	
Catalog Number	Amps	Wire Range	Wire Range	Openings per Pole		Line	Load	J	T	RK1		RK5
- Pole				Line	Load	AWG or kcmil	AWG or kcmil	LPJ	JJS JJN	LPS-RK LPN-RK	FRS-R FRN-R	
PDB204-1 PDB204-3	175A	2/0 - 8 AWG	2/0 - 8 AWG			2/0 - 8	2/0 - 8	200	200	200	60	200kA
PDB220-1 PDB220-3	175A	2/0 - 8 AWG	4 - 14 AWG			2/0 - 8	4 - 12	200	200	200†	60†	200kA
							14	175†	175†	100†	60†	100kA
								200†	200†	100†	60†	50kA
PDB280-1 PDB280-3	175A	2/0 - 8 AWG	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	4 - 14 AWG			2/0 - 8	4 - 12	400	400	200†	100†	200kA
								400†	400†	400†	100†	100kA
							14	175†	175†	100†	60†	100kA
PDB323-1 PDB323-3	310A	300kcmil - 4 AWG	4 - 12 AWG			300 - 4	4 - 8	400	400	200†	100†	200kA
								400†	400†	400†	100†	100kA
							10 - 12	175†	175†	100†	60†	100kA
PDB370-1 PDB370-3	310A	350kcmil - 4 AWG	4 - 14 AWG			350 - 4	4 - 8	400	400	200†	100†	200kA
								400†	400†	400†	100†	100kA
							10 - 14	175†	175†	100†	60†	100kA
PDB371-1 PDB371-3	310A	350kcmil - 4 AWG	(6) 2 - 12 AWG (3) 1/0-12			350 - 4	1/0 - 6	400	400	200†	100†	200kA
								400†	400†	400†	100†	100kA
							8 - 12	175†	175†	100†	60†	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, FNQ-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 1149.