

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

- Enclosed, safer installation; IP20 finger-safe under specific conditions
- High short-circuit current ratings up to 200kA: PDBs do not have to be the weak link in achieving high SCCR for an industrial control panel
- Small footprint saves panel space
- Listed to UL 1953 which has minimum spacing requirements at 600V of at least 1" through air and 2" over surface required for feeders in UL 508A Industrial Control Panels
- For 2D CAD drawings visit Eaton.com/bussmannseries



Electrical

- 600Vac/dc (UL 1953), 690Vac/dc (IEC)
- IP20 finger-safe under specific conditions
- Short-circuit current ratings up to 200kA, see table
- Ampacities up to 760 amps
- Cu/Al wire range 14 AWG to 500 kcmil or 2.5 to 240 mm²

Mechanical

- DIN-Rail or panel mount; PDBFS330 and PDBFS504 panel mount only
- Captive termination screws; screws do not get misplaced
- Wire ready: captive termination screws shipped backed out to save time on conductor installations
- Sliding DIN-Rail latch for easy mounting
- Single pole, gang mountable for multiple pole applications with interlocking dovetail accessory (optional)
- Flammability, UL 94V0
- Tin-plated Al connectors suitable for Cu/Al conductors
- Elongated hole for panel mounting; easier mounting with greater flexibility in matching up with drilled panel holes
- Part 2A1279: Interlocking dovetail pin accessory
- One pin interlocks two units, two pins to interlock three units
- DIN-Rail end anchors required to prevent damage to block when torquing

Agency/standards

- UL Listed 1953, Guide QPQS, File E256146
- CSA Certified, Class 6228-01, File 47235
- IEC 60947-7-1
- IEC 60529, IP20 (finger-safe) under specific wiring conditions

Series PDBFS

Electrical		Terminal copper conductor capability			Short-circuit current rating data								
		Line	Load	Configuration	Conductors		Max fuse Class and Amp**				SCCR		
Catalog number (All Single Pole)	Amps	Wire range	Wire range	Openings per pole		Line	Load	J	T	RK1		RK5	
				Line	Load	AWG or kcmil	AWG or kcmil	LPJ	JJS JJN	LPS-RK LPN-RK	FRS-R FRN-R		
PDBFS204	175A	2/0 to 8 AWG Cu/Al	2/0 to 8 AWG Cu/Al	○	○	2/0 to 8	2/0 to 8	200	200	100	60	200kA	
PDBFS220	175A	2/0 to 14 AWG Cu 2/0 to 8 Al	4 to 14 AWG Cu 4 to 8 AWG Al	○	⌢	2/0 to 8	4 to 12	200	200	100	60	200kA	
							4 to 14	175	175	100	30	100kA	
								200	200	100	60	50kA	
PDBFS303	310A	350kcmil to 6 AWG Cu/Al	350kcmil to 6 AWG Cu/Al	○	○	350 to 6	350 to 6	400	400	200	100	200kA	
PDBFS330	380A	500kcmil to 6 AWG Cu/Al	2 to 14 AWG Cu 2 to 12 Al	○	○○	500 to 6	2 to 6	400	400	200	100	200kA	
							2 to 14	200	200	100	60	50kA	
								175	175	100	30	100kA	
PDBFS377	570A	300kcmil to 4 AWG Cu/Al	4 to 14 AWG Cu 4 to 12 Al	○○	○○○○	300 to 4	300	4 to 8	600	600	400	200	200kA
							4	4	400	400	200	100	100kA
							4 to 14	200	200	100	60	50kA	
PDBFS500	620A	350kcmil to 4 AWG Cu/Al	350kcmil to 4 AWG Cu/Al	○○	○○	350 to 4	350 to 4	600	600	400	200	200kA	
PDBFS504	760A	500kcmil to 6 AWG Cu/Al	500kcmil to 6 AWG Cu/Al	○○	○○	500	500	600	800*	600	200	200kA	
						500 to 6	500 to 6	600	600	400	200	100kA	

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

*Class L 800A (KRP-C 800_SP) or less fuses suitable for this particular SCCR case.

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