

Product Data Sheet



PDE-18-400

Enclosed Power Distribution Block
 335 Amps, 600V UL/CSA
 1,000V AC/DC CE (IEC 60947-7-1)



Wire Range:

Line side: (1) 400kcmil - #6 AWG (185 – 16 mm²) and (1) 2/0 - #14 (70 – 2.5 mm²)
 Load Side: (8) #2 - 16 AWG (35 – 2.5 mm²)

See tables below for SCCR wire ranges, flexible stranded and multiple wire approvals, and wire ranges to achieve IP-20 touch protection.

Electrical Ratings:

- 335A copper wire, 270A aluminum wire (Based on NEC Table 310-16, 75°C columns)
- CE Rated Voltage (U_i): 1,000 V AC/DC per IEC 60947-7-1
- Material Group: IIIa
- Pollution Degree: 3
- UL/CSA Voltage Rating: 600 Volts AC/DC (UL 1059 Class C, User Group - General Industrial)
- Factory and Field Wiring

Short Circuit Current Ratings (Copper wire only):

Wire Class	Suitable Conductors (kcmil/AWG)		Overcurrent Protection Fuse Required Class/Max Amp Rating						SCCR, RMS SYM Amps	Volts Max
	Line	Load	J	T	RK1	RK5	G	CC		
B, C	400 - 3/0	2 - 8	400	400	400	200	60	30	100,000	600
B, C	2/0 - 6	2 - 14	200	200	200	100	60	30	100,000	600
G, H, I, K	2/0 - 6	2 - 10	300	300	200	100	60	30	100,000	600

• Short Circuit Current Rating investigated in 16 x 12 x 6 enclosure. Use in smaller enclosure is subject to end-use evaluation.

Mechanical Ratings:

- Maximum insulator base temperature: 125°C (257°F) UL RTI
- Flammability rating of insulator base: UL 94V-0

- Touch protection: IP-20 (IEC 60529) with following conditions: Restricted wire range. See “Wire Approvals” table below for wire ranges to achieve IP-20 rating. Safety plugs are required for unused taps. See “Accessories” below for safety plugs.

* Use outside these ratings needs to be judged in the end-use application.

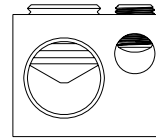
Materials:

- Connector: High conductivity aluminum, tin plated
- Insulator base: Glass filled polycarbonate (thermoplastic)
- Terminal screws: Aluminum, tin plated and Steel, nickel plated
- Connector mounting screw: Steel, zinc plated

Agency Approvals:

- UL Recognized, UL 1059 Terminal Block Standard, File No. E84782
- CSA Certified, CSA C22.2 No. 158, File No. MC 249467 (Wire Classes B & C only)
- CE compliant to IEC 60947-7-1
- RoHS Compliant

Wire Approvals:



Line Side Approvals:

		Copper Wire Stranding Classes - Number of Strands						
Wire Size	Torque	Solid	Class B	Class C	Class G	Class H	Class I	Class K
400 kcmil	375 in. lbs		37	61	~ 259	~ 427	~ 980	~ 3990
350	375 in. lbs		37	61	~ 259	~ 427	~ 882	~ 3458
300	375 in. lbs		37	61	~ 259	~ 427	~ 735	~ 2989
250	375 in. lbs		37	61	~ 259	~ 427	~ 637	~ 2499
4/0	375 in. lbs		19	37	~ 133	~ 259	~ 532	~ 2107
3/0	375 in. lbs		19	37	~ 133	~ 259	~ 418	~ 1666
2/0	375 in. lbs		19	37	~ 133	~ 259	~ 342	~ 1323
1/0	275 in. lbs		19	37	~ 133	~ 259	~ 266	~ 1064
1	275 in. lbs		19	37	~ 133	~ 259	~ 210	~ 836
2	275 in. lbs		7	19	~ 49	~ 133	~ 161	~ 665
4	275 in. lbs		7	19				
6	275 in. lbs		7	19				

		Copper Wire Stranding Classes - Number of Strands		
Wire Size	Torque	Class 1	Class 2	Class 5
185 mm ²	42.37 N·m		37	~ 944
150	42.37 N·m		37	~ 765
120	42.37 N·m		37	~ 614
95	42.37 N·m		19	~ 485
70	42.37 N·m		19	~ 356
50	31.07 N·m		19	~ 400
35	31.07 N·m		7	~ 280
25	31.07 N·m		7	
16	31.07 N·m		7	

Aluminum stranded wire range: 400kcmil – 6 AWG (185 -16 mm²)

Copper Wire Stranding Classes - Number of Strands								
Wire Size	Torque	Solid	Class B	Class C	Class G	Class H	Class I	Class K
3/0	120 lbf·in		19	37				
2/0	120 lbf·in		19	37	~133	~259	~342	~1323
1/0	120 lbf·in		19	37	~133	~259	~266	~1064
1	120 lbf·in		19	37	~133	~259	~210	~836
2	80 lbf·in		7	19	~49	~133	~161	~665
4	80 lbf·in		7	19	~49	~133	~105	~420
6	80 lbf·in		7	19	~49	~133	~63	~266
8	40 lbf·in		7	19	~49	~133	~41	~168
10	40 lbf·in	1	7	19	Not commercially available		~27	~104
12	40 lbf·in	1	7	19			~27	~65
14	40 lbf·in	1	7	19			~19	~41

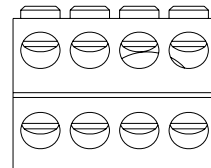
Copper Wire Stranding Classes - No. of Strands				
Wire Size	Torque	Class 1	Class 2	Class 5
95mm ²	13.56 N·m		19	
70	13.56 N·m		19	~356
50	13.56 N·m		19	~400
35	9.04 N·m		7	~280
25	9.04 N·m		7	~200
16	9.04 N·m		7	~128
10	4.52 N·m		7	~80
6	4.52 N·m	1	7	~84
4	4.52 N·m	1	7	~56
2.5	4.52 N·m	1	7	~50

Cells highlighted in green indicate wire ranges to maintain IP-20 rating.

~ Quantity of strands for Classes G, H, I, K and 5 may vary by manufacturer.

Aluminum stranded wire range: 2/0 – 6 (70 – 16 mm²).

Load Side Approvals:



Copper Wire Stranding Class - Number of Strands								
Wire Size	Torque	Solid	Class B	Class C	Class G	Class H	Class I	Class K
2 AWG	80 lbf·in		7	19	~49	~133	~161	~665
4	80 lbf·in		7	19	~49	~133	~105	~420
6	80 lbf·in		(1-2)* 7	(1-2)* 19	~49	~133	~63	~266
8	40 lbf·in		(1-2)* 7	(1-2)* 19	~49	~133	~41	~168
10	40 lbf·in	1	(1-4)* 7	(1-4)* 19	Comm. Not avail.		(1-2)* ~27	(1-2)* ~104
12	40 lbf·in	1	(1-4)* 7	(1-4)* 19			(1-2)* ~19	(1-2)* ~65
14	40 lbf·in	1	(1-4)* 7	(1-4)* 19			(1-2)* ~19	(1-2)* ~41

		Copper Wire Stranding Class - No. of Strands		
Wire Size	Torque	Class 1	Class 2	Class 5
35.0 mm ²	9.04 N·m		133	~280
25.0	9.04 N·m		84	~200
16.0	9.04 N·m		(1-2)* 49	~128
10.0	4.52 N·m		(1-2)* 49	(1-2)* ~80
6.0	4.52 N·m	1	(1-4)* 19	(1-2)* ~84
4.0	4.52 N·m	1	(1-4)* 19	(1-2)* ~56
2.50	4.52 N·m	1	(1-4)* 19	(1-2)* ~50

Cells highlighted in green indicate wire ranges to maintain IP-20 rating.

~ Quantity of strands for Classes G, H, I, K and 5 may vary by manufacturer.

* Multiple conductor approvals for **LOAD** side only (copper wire only).

Aluminum stranded wire range: 2 AWG– 6 AWG (35 - 16 mm²)

Tap Size	400 KCMIL	2/0 (70 mm ²)	2 (35 mm ²)
Wire Strip Length	1 7/16" (36 mm)	1" (25 mm)	5/8" (16 mm)
Hex Drive	8 mm	6 mm	5 mm

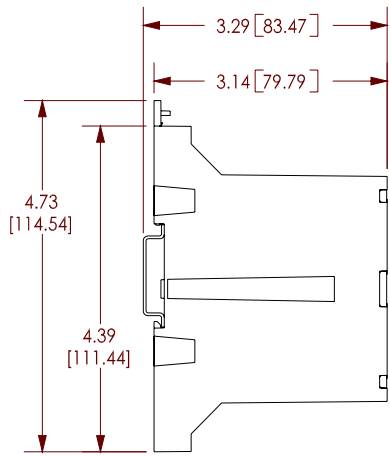
See “Accessories” for Allen wrenches that are recommended for this application.

- Panel mountable: ¼” (M6) fasteners, torque to 30 - 40 in. lbs. (3.39 – 4.52 N·m).

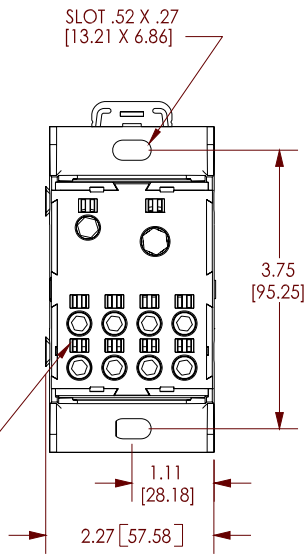
Accessories:

- Safety plugs: PDE-TSP-2, PDE-TSP-2/0, PDE-TSP-400
- Allen wrenches commercially available:

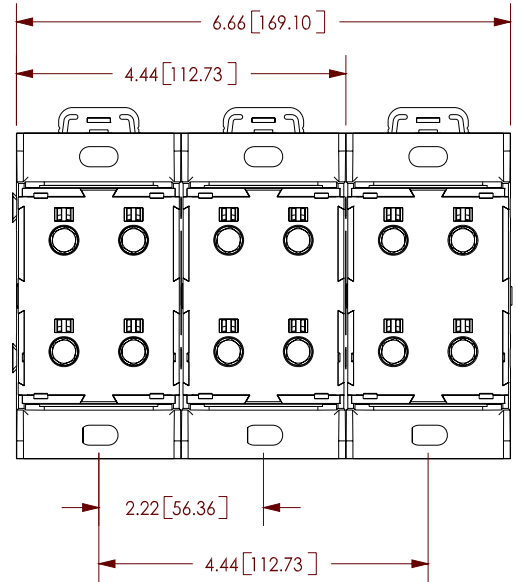
	5 mm	6 mm	8 mm
S & K Tools	45955	45956	45958
Snap-On Tools	FAML5E	FAML6E	FAML8E
MAC Tools	XDLS5MM	XDLS6MM	XDLS8MM
McMaster-Carr	8367A23	8367A24	8367A26
Armstrong	38-709	38-711	38-713



TYP. FOR SNAP-IN
MARKER CARDS



STACK UP DIMENSIONS
(IF DOVETAIL IS USED FOR MULTI-LINE PB)



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