BOURNS®

PF-01N100E SERIES

Energy Storage (aR Class) Power Fuses



*RoHS COMPLIANT & **HALOGEN FREE

Features

- Designed to meet IEC 60269-4 (aR class) fuse standard
- 800/1000 VDC rated voltage and 50 kA interrupting current
- RoHS compliant*
- Halogen free**

Applications

- Power conversion devices
- DC common bus systems
- Battery energy storage systems (BESS)
- DC charging piles

Sustainability

- Eco-logistics-friendly packing
- Energy-saving low-power design
- ISO 14001, low-impact energy

Product Overview

BOURNS® POWrFUSE™

Bourns® PF-01N100E Series POWrFuse™ High-Power Fuses feature high-power industrial fuse links designed to meet semiconductor (aR class) protection standards to protect semiconductors against overcurrent conditions.

The PF-01N100E Series provides dependable aR class protection for 800/1000 VDC applications, delivering fast fault response, high interrupting performance, and IEC 60269-4 compliance for today's energy storage and power electronics designs.

Electrical Characteristics

Model***	Rated Current (A)	Rated Voltage	Interrupting Rating	I²t (A²s)		Power Loss**** (W)	Agency Recognition
				Pre-arcing	Clearing		
PF-01N100E50xx	50	1000 VDC	50 kA @ 1000 VDC	350	1650	14	B 118437, N8A 118437
PF-01N100E63xx	63			968	4550	15	
PF-01N100E80xx	80			1400	6549	24	
PF-01N100E100xx	100			1900	8900	25	
PF-01N100E125xx	125			3850	18200	32	
PF-01N100E160xx	160			5550	26200	40	
PF-01N100E200xx	200			9900	46600	52	
PF-01N100E250xx	250			15400	72800	70	
PF-01N100E315xx	315			31100	146400	80	
PF-01N100E350xx	350			41500	195000	90	
PF-01N100E400xx	400			56000	265000	95	
PF-01N80E450xx	450	800 VDC	50 kA @ 1000 VDC	75500	295000	100	

*** xx = Mounting Type: B1 = Bolt Down (Type 1); B2 = Bolt Down (Type 2); DB = DIN Blade; FE = Flush End

**** Tested at rated current

Environmental Characteristics

Specification	Value
Operating Temperature	-40 °C to +85 °C

How to Order

PF - 01N 100E 250 FE

- POWrFuse™ Product Designator
- Size
  - 01N = NH01
- Rated Voltage
  - 100E = 1000 VDC
  - 80E = 800 VDC
- Rated Current
  - 250 = 250 A
- Mounting Type
  - B1 = Bolt Down (Type 1)
  - B2 = Bolt Down (Type 2)
  - DB = DIN Blade
  - FE = Flush End

Contact Information

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* RoHS Directive 2015/863, Mar 31, 2015 and Annex.

** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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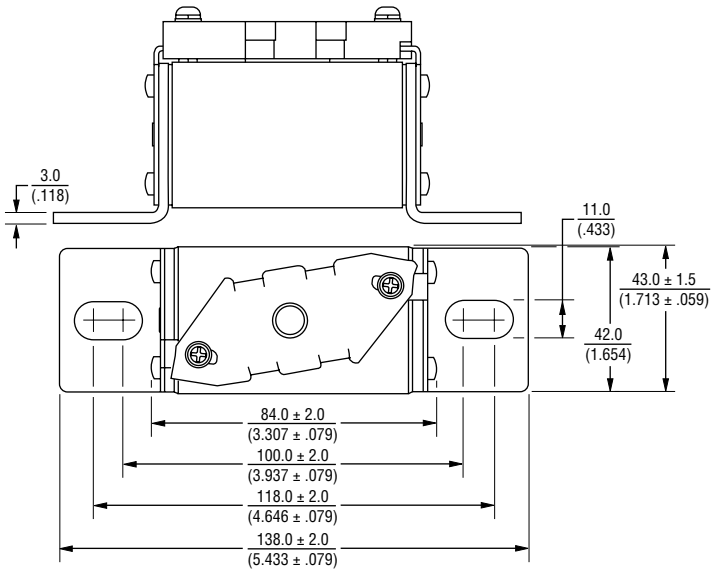
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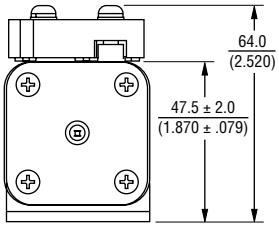


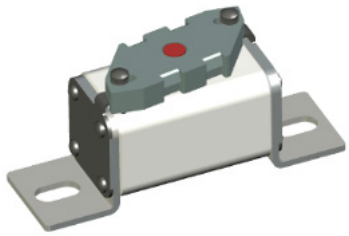
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Product Dimensions

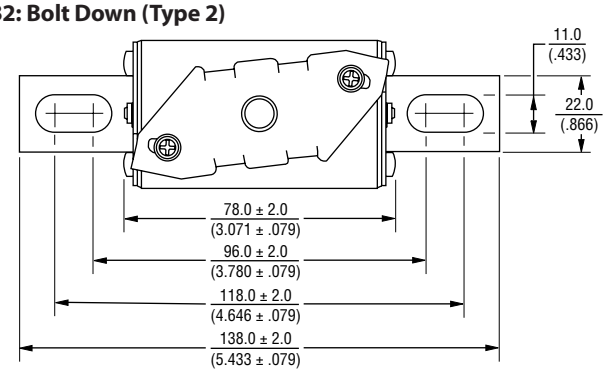
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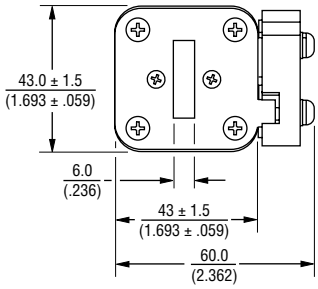


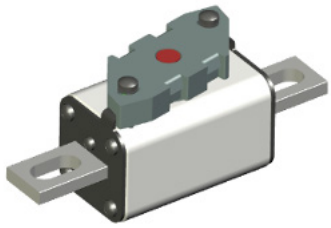




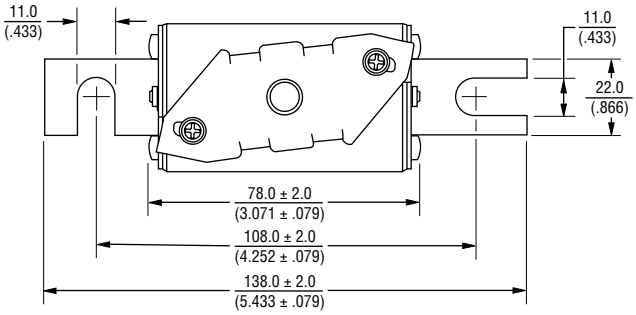
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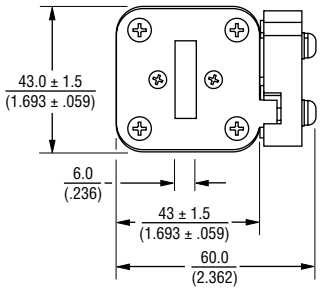


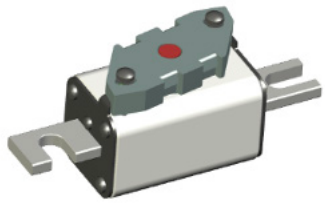




DB: DIN Blade







DIMENSIONS: MM / (INCHES)

Product Dimensions continued on next page

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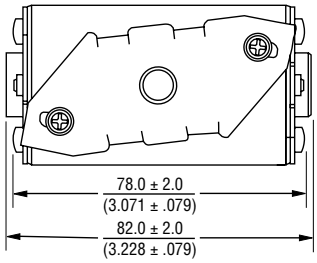
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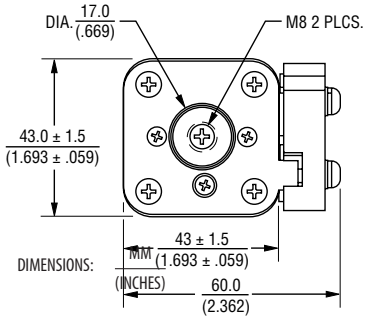


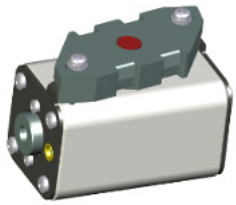
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Product Dimensions (Continued)

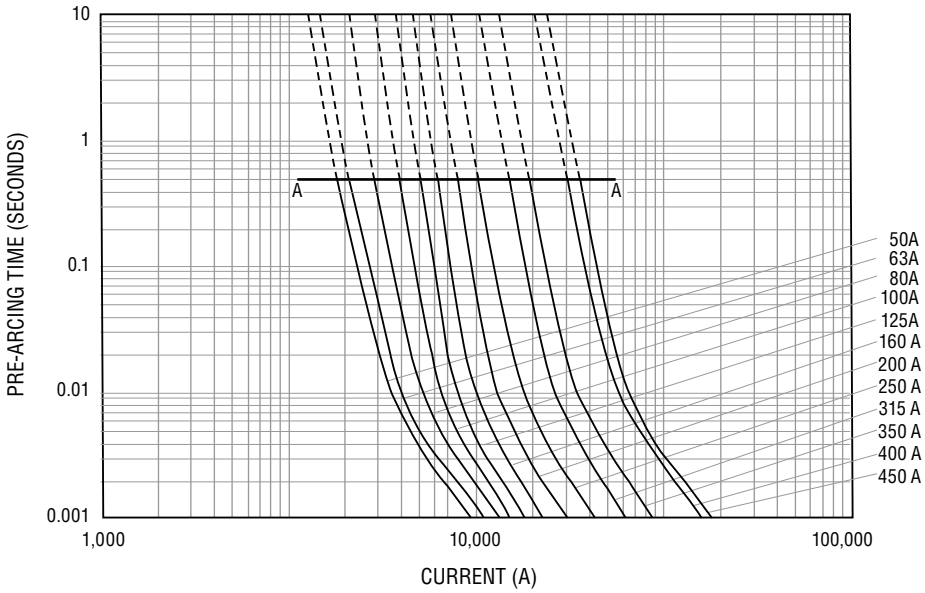
FE: Flush End







Average Pre-Arcing Time vs. Current Curves



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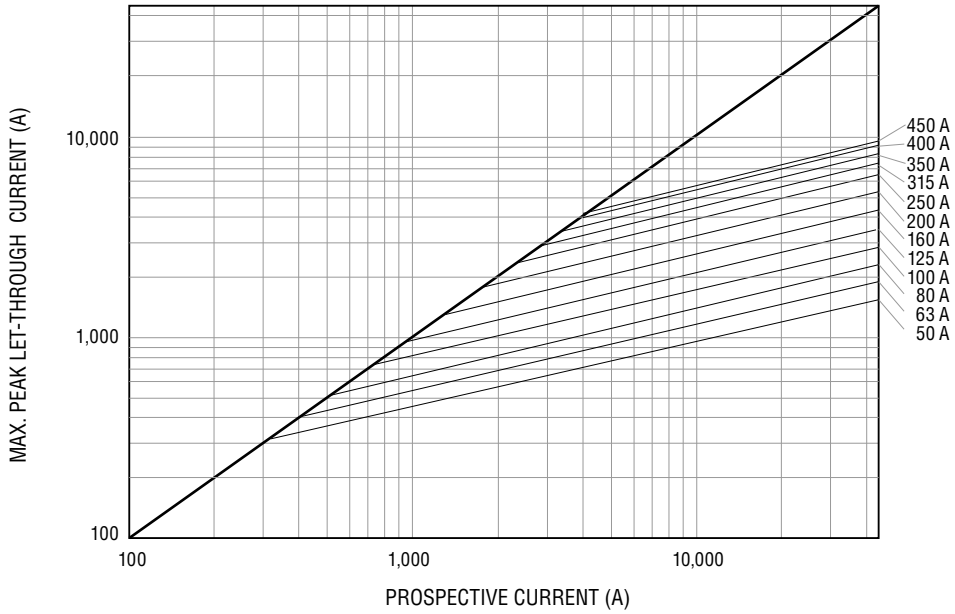
PF-01N100E SERIES

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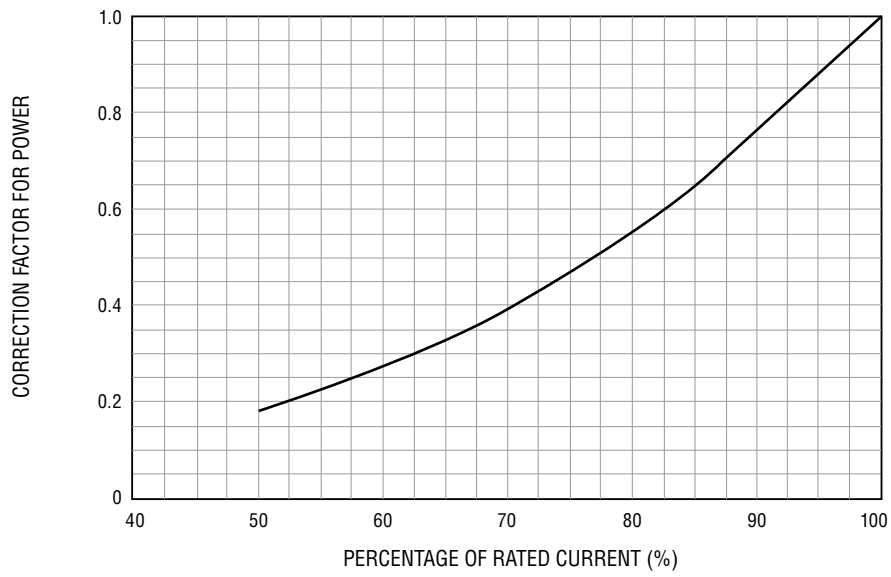


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Truncated Current Curve (For Reference Only)



Power Dissipation Curve (For Reference Only)



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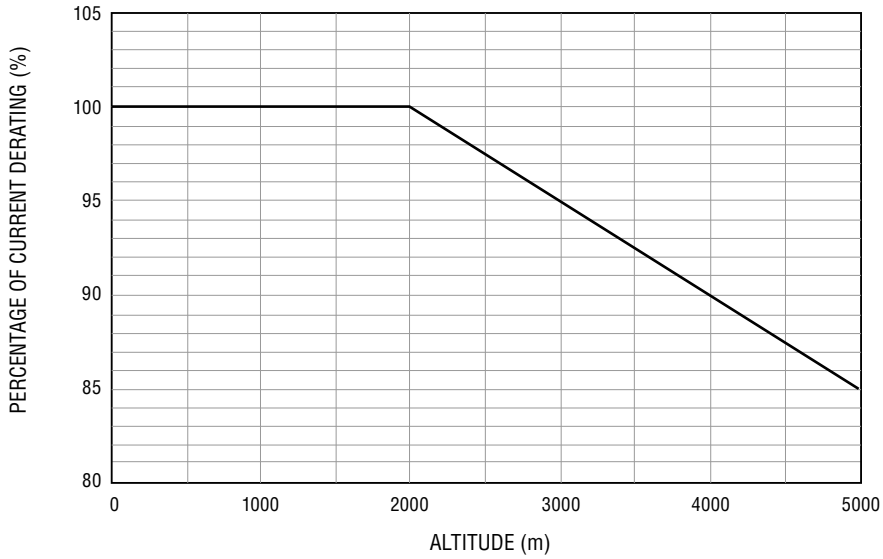
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Energy Storage (aR Class) Power Fuses

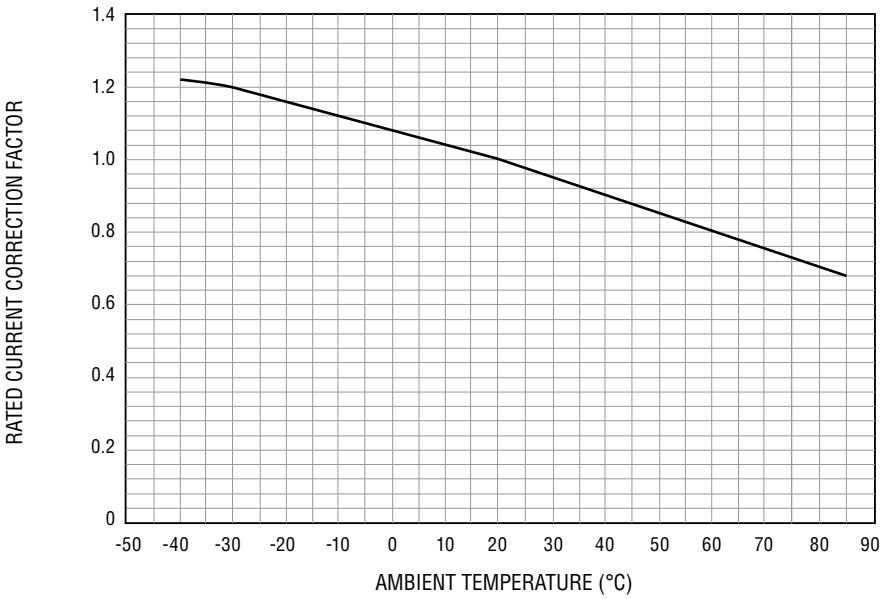


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Altitude Curve (For Reference Only)



Current Rating Thermal Derating Curve



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Energy Storage (aR Class) Power Fuses



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Typical Part Marking

Current Rating (A)	Note 1	Note 2	Note 3	Note 4
50	50	DC Resistance	Date Code	Mounting Type (B1/B2/DB/FE)
63	63			
80	80			
100	100			
125	125			
160	160			
200	200			
250	250			
315	315			
350	350			
400	400			
450	450			

Marking

BOURNS®
PF-01N100E (Note 1) (Note 4)
(Note 1) A
1000 VDC
I1: 50 kA
aR
(Note 2) mΩ (20 °C)
(Note 3) 3625100231

Packaging Specifications

Model	Pearl Cotton Pallet	Carton
PF-01N100E	8 Pieces	32 Pieces

Recommended Mounting Torque and Bolt Sizes

Mounting Type	Mounting Torque	Bolt Size
B1 / B2 / DB	21 ± 1 Nm	M10
FE	13~20 Nm	M8

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