BOURNS®

# PF-000100E SERIES

## Energy Storage (aR/aBat Class) Power Fuses



*RoHS COMPLIANT & **HALOGEN FREE

### Features

- Designed to meet UL248-13 (aR class) and IEC 60269-7 (aBat class) fuse standards
- 1000 VDC rated voltage and 50 kA interrupting current
- RoHS compliant*
- Halogen free**

### Applications

- Power conversion devices
- DC 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® PF-0001100E Series POWrFuse™ High-Power Fuses feature high-power industrial fuse links designed to meet semiconductor (aR class) and battery (aBat) protection standards to protect semi-conductors and batteries against overcurrent conditions.

The PF 000100E Series offers dependable aR/aBat class protection for 1000 VDC applications, delivering fast response and high interrupting capability to help protect power conversion devices, DC systems, battery energy storage systems, and DC charging piles.

## Electrical Characteristics

| Model | Rated Current (A) | Rated Voltage | Interrupting Rating | I²t (A²s) | | Power Loss*** (W) | Agency Recognition |
|---|---|---|---|---|---|---|---|
| | | | | Pre-arcing | Clearing | | |
| PF-000100E50B1 | 50 | 1000 VDC | 50 kA @ 1000 VDC | 480 | 2500 | 12 | E500949, B 118437 |
| PF-000100E63B1 | 63 | | | 850 | 4500 | 15 | |
| PF-000100E80B1 | 80 | | | 1300 | 7000 | 20 | |
| PF-000100E100B1 | 100 | | | 1900 | 10100 | 28 | |
| PF-000100E125B1 | 125 | | | 3400 | 18000 | 35 | |
| PF-000100E160B1 | 160 | | | 5300 | 28000 | 50 | |
| PF-000100E200B1 | 200 | | | 10400 | 55000 | 55 | |
| PF-000100E250B1 | 250 | | | 18150 | 95600 | 60 | |

*** Tested at rated current

## Environmental Characteristics

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

## How to Order

PF - 000 100E 125 B1

- POWrFuse™ Product Designator
- Size
  - 000 = NH000
- Rated Voltage
  - 100E = 1000 VDC
- Rated Current
  - 125 = 125 A
- Mounting Type
  - B1 = Bolt Down (Type 1)

## 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.
Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.
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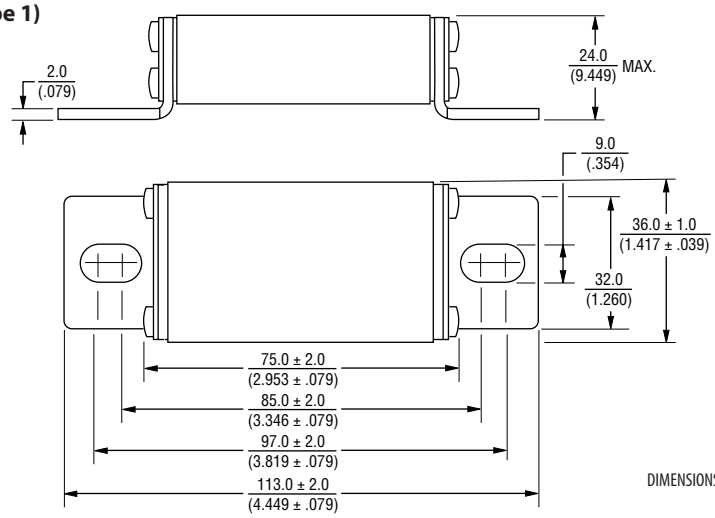
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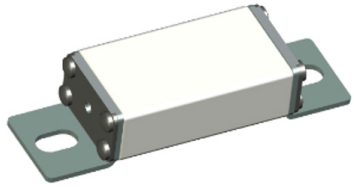


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## Product Dimensions

### B1: Bolt Down (Type 1)



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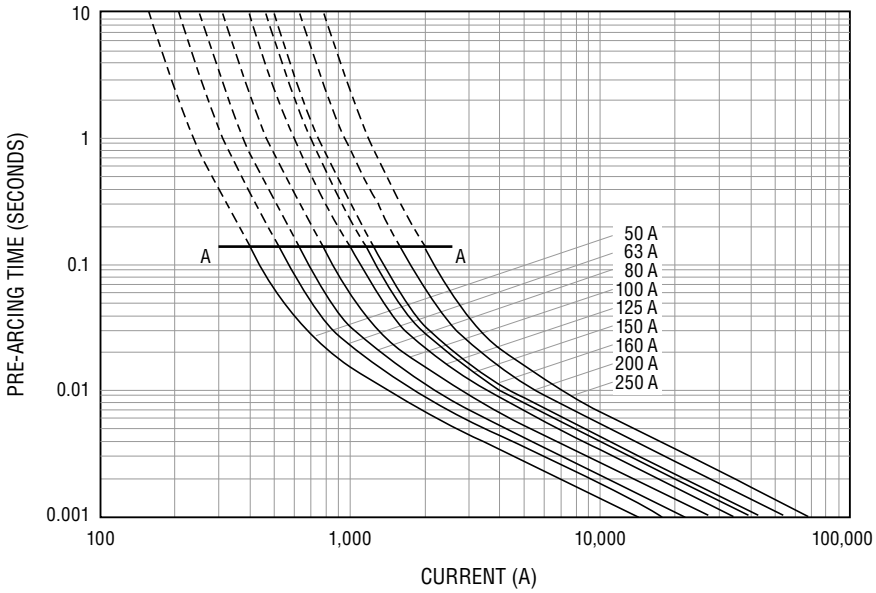
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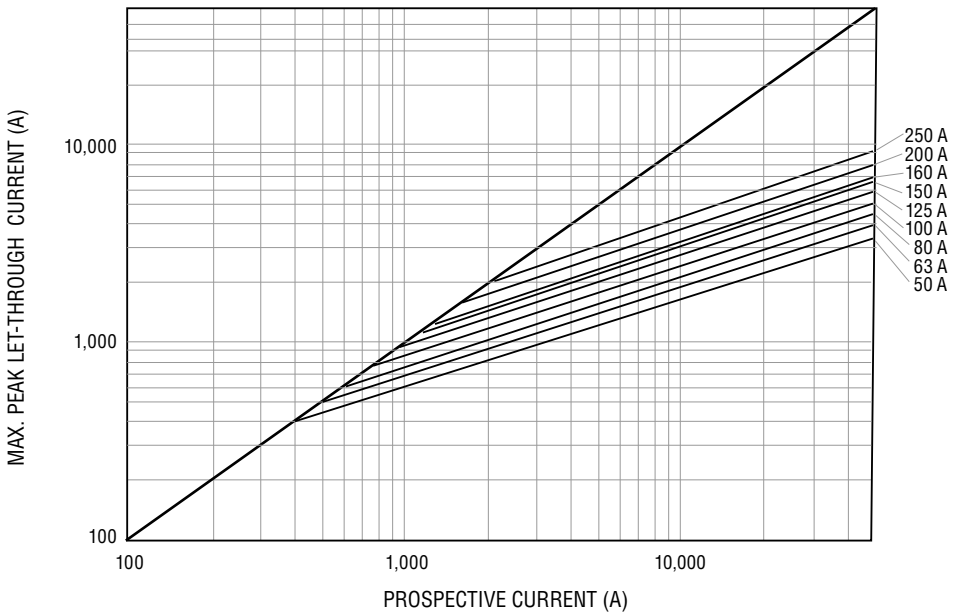


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## Average Pre-Arcing Time vs. Current Curves




## Truncated Current Curve (For Reference Only)




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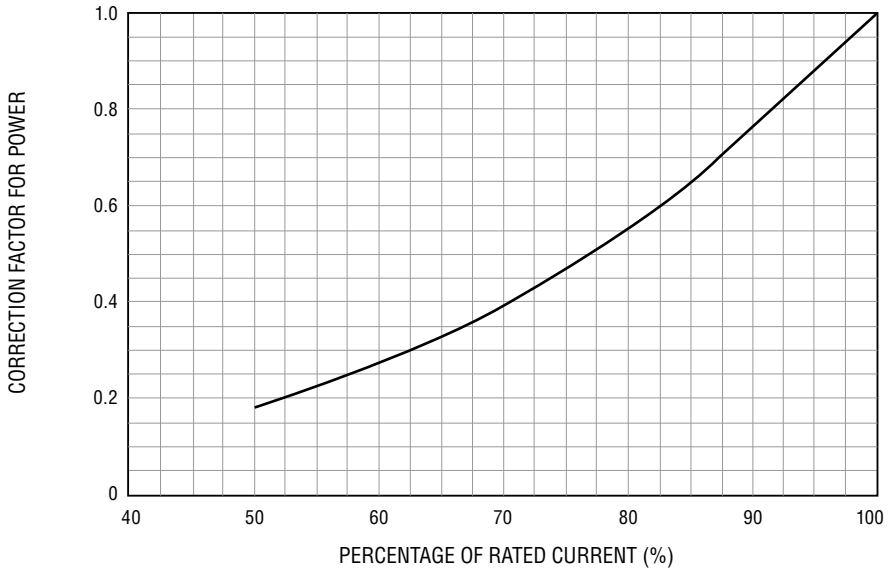
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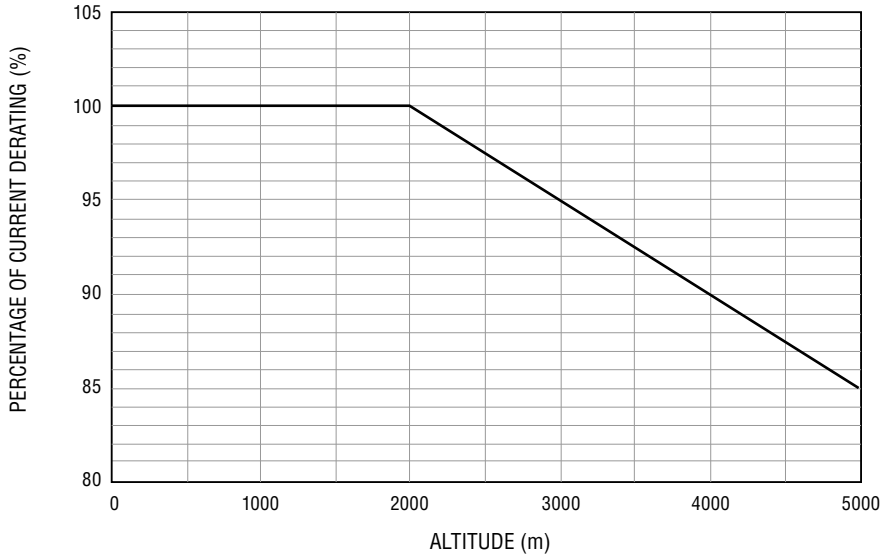


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## Power Dissipation Curve (For Reference Only)




## Altitude Curve (For Reference Only)




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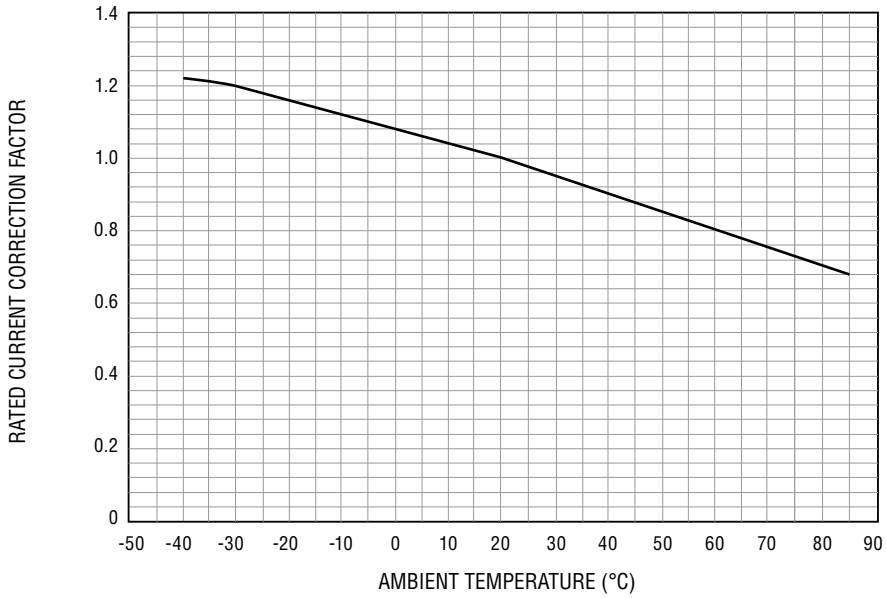
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## Current Rating Thermal Derating Curve




## Typical Part Marking

| Current Rating (A) | Note 1 | Note 2 | Note 3 |
|---|---|---|---|
| 50 | 50 | DC Resistance | Date Code |
| 63 | 63 | | |
| 80 | 80 | | |
| 100 | 100 | | |
| 125 | 125 | | |
| 160 | 160 | | |
| 200 | 200 | | |
| 250 | 250 | | |
| **Marking** | BOURNS® PF-000100E (Note 1) B1 (Note 1) A 1000 VDC I1: 50 kA aR aBat (Note 2) mΩ (20 °C) (Note 3) 362524518 | | |

## Packaging Specifications

| Model | Pearl Cotton Pallet | Carton |
|---|---|---|
| PF-000100E | 20 Pieces | 80 Pieces |

## Recommended Mounting Torque and Bolt Sizes

| Mounting Type | Mounting Torque | Bolt Size |
|---|---|---|
| B1 | 12 ± 1 Nm | M8 |




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