

SPXI SERIES IN-LINE SOLAR FUSE

1500 Vdc • 2.5-30 A (Patent Pending)



Description

The Littelfuse SPXI solar fuse is designed to integrate into an in-line assembly within a wire harness. The fuse provides photovoltaic (PV) protection that meets UL 2579 for photovoltaic applications. The SPXI can be electrically insulated by either overmolding or using approved heat-shrink.

Features/Benefits

- UL 2579 Recognized
- Meets IEC 60269-6 electrical performance requirements
- 30,000 A interrupting rating
- No fuse holder required

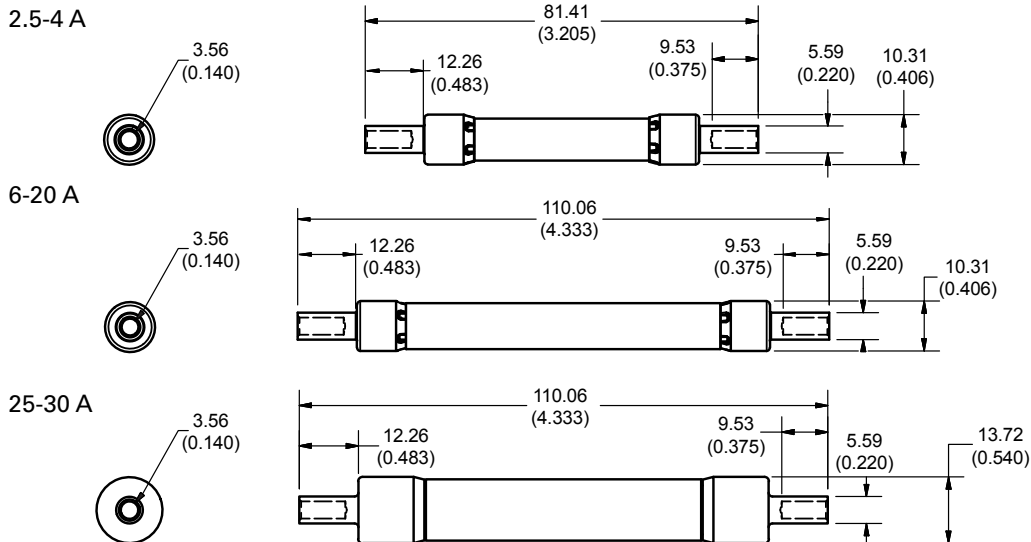
Applications

- Photovoltaic wire harness

Recommended Crimping Tool

T&B Sta-Kon ERG4002 or equivalent
Weidmüller HTN 21 or equivalent

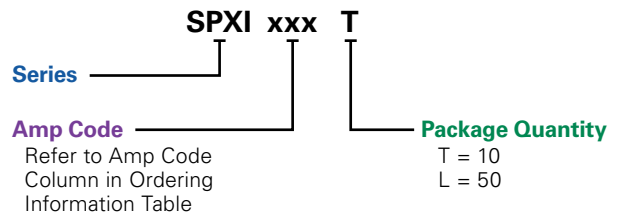
Dimensions mm (in)



Specifications

| | |
|------------------------------|--|
| Voltage Rating: | 1500 Vdc |
| Amperage Rating: | 2.5, 3.5, 4, 6, 8, 10, 12, 15, 20, 25, 30 A |
| Interrupting Ratings: | 15 kA (UL 2579) 30 kA (Self-Certified) |
| Time Constant | ≤ 1ms |
| Material: | Body: Melamine Caps: Copper Alloy (Nickel Plated) |
| Approvals: | UL 2579 Recognized (File: E339112) |
| Environmental: | RoHS Compliant REACH |
| Country of Origin: | Mexico |

Part Numbering System



| SERIES | AMP | PACKAGE QUANTITY | CATALOG NUMBER | ORDERING NUMBER |
|--------|-----|------------------|----------------|-----------------|
| SPXI | 3.5 | 10 | SPXI03.5 | SPXI03.5T |
| SPXI | 4 | 10 | SPXI004 | SPXI004.T |
| SPXI | 20 | 50 | SPXI020 | SPXI020.L |

Web Resources

Download additional technical information and view the complete solar portfolio: littelfuse.com/spxi

SPXI SERIES IN-LINE SOLAR FUSE

Ordering Information

| SERIES | AMPERAGE | AMP CODE | CATALOG NUMBER | PRODUCT MARKING | PACK QUANTITY | ORDERING NUMBER | UPC |
|--------|----------|----------|----------------|-----------------|---------------|-----------------|-------------|
| SPXI | 2.5 | 02.5 | SPXI02.5 | SPXI 2 ½ A | 10 | SPXI02.5T | 07945880950 |
| | | | | | 50 | SPXI02.5L | 07945880949 |
| SPXI | 3.5 | 03.5 | SPXI03.5 | SPXI 3 ½ A | 10 | SPXI03.5T | 07945880808 |
| | | | | | 50 | SPXI03.5L | 07945880149 |
| SPXI | 4 | 004. | SPXI004 | SPXI 4 A | 10 | SPXI004.T | 07945884508 |
| | | | | | 50 | SPXI004.L | 07945884509 |
| SPXI | 6 | 006. | SPXI006 | SPXI 6 A | 10 | SPXI006.T | 07945882658 |
| | | | | | 50 | SPXI006.L | 07945882659 |
| SPXI | 8 | 008. | SPXI008 | SPXI 8 A | 10 | SPXI008.T | 07945882660 |
| | | | | | 50 | SPXI008.L | 07945882661 |
| SPXI | 10 | 010. | SPXI010 | SPXI 10 A | 10 | SPXI010.T | 07945882662 |
| | | | | | 50 | SPXI010.L | 07945882663 |
| SPXI | 12 | 012. | SPXI012 | SPXI 12 A | 10 | SPXI012.T | 07945882664 |
| | | | | | 50 | SPXI012.L | 07945882665 |
| SPXI | 15 | 015. | SPXI015 | SPXI 15 A | 10 | SPXI015.T | 07945882666 |
| | | | | | 50 | SPXI015.L | 07945882667 |
| SPXI | 20 | 020. | SPXI020 | SPXI 20 A | 10 | SPXI020.T | 07945882556 |
| | | | | | 50 | SPXI020.L | 07945882557 |
| SPXI | 25 | 025. | SPXI025 | SPXI 25 A | 10 | SPXI025.T | 07945883059 |
| | | | | | 50 | SPXI025.L | 07945883060 |
| SPXI | 30 | 030. | SPXI030 | SPXI 30 A | 10 | SPXI030.T | 07945883061 |
| | | | | | 50 | SPXI030.L | 07945883062 |

Electrical Specifications

| AMPERAGE | VOLTAGE | INTERRUPTING RATING | | WIRE RANGE CU Only (Solid/Stranded) | NOM COLD RESISTANCE (ohm) | WATTS LOSS AT 100% RATED CURRENT (W) | WATTS LOSS AT 80% RATED CURRENT (W) | MELTING I ² t (A ² s) 15 kA (1500VDC) | TOTAL CLEARING I ² t (A ² s) 15 kA (1500VDC) |
|----------|---------|---------------------|-------|---|---------------------------------|--|---|---|--|
| | | AC | DC* | | | | | | |
| 2.5 | 1500 | – | 30 kA | 10-12 AWG (6-4 mm ²) | 0.099 | 0.86 | 0.48 | 7 | 16 |
| 3.5 | 1500 | – | 30 kA | 10-12 AWG (6-4 mm ²) | 0.0711 | 1.56 | 0.81 | 25 | 50 |
| 4 | 1500 | – | 30 kA | 10-12 AWG (6-4 mm ²) | 0.0438 | 0.95 | 0.54 | 57 | 95 |
| 6 | 1500 | – | 30 kA | 10-12 AWG (6-4 mm ²) | 0.0576 | 3.05 | 1.71 | 49 | 75 |
| 8 | 1500 | – | 30 kA | 10-12 AWG (6-4 mm ²) | 0.0349 | 3.26 | 1.84 | 121 | 214 |
| 10 | 1500 | – | 30 kA | 10-12 AWG (6-4 mm ²) | 0.0223 | 3.25 | 1.82 | 407 | 509 |
| 12 | 1500 | – | 30 kA | 10-12 AWG (6-4 mm ²) | 0.0163 | 3.34 | 1.89 | 798 | 951 |
| 15 | 1500 | – | 30 kA | 10-12 AWG (6-4 mm ²) | 0.0131 | 5.27 | 3.05 | 299 | 637 |
| 20 | 1500 | – | 30 kA | 10-12 AWG (6-4 mm ²) | 0.0085 | 5.38 | 3.14 | 701 | 1464 |
| 25 | 1500 | – | 30 kA | 10-12 AWG (6-4 mm ²) | 0.0066 | 6.28 | 3.55 | 2209 | 2548 |
| 30 | 1500 | – | 30 kA | 10-12 AWG (6-4 mm ²) | 0.0055 | 7.60 | 4.25 | 3561 | 4010 |

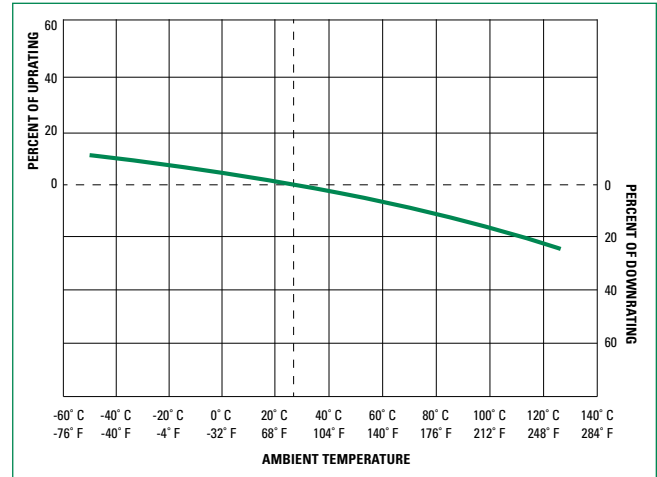
* 15 kA per UL 2579

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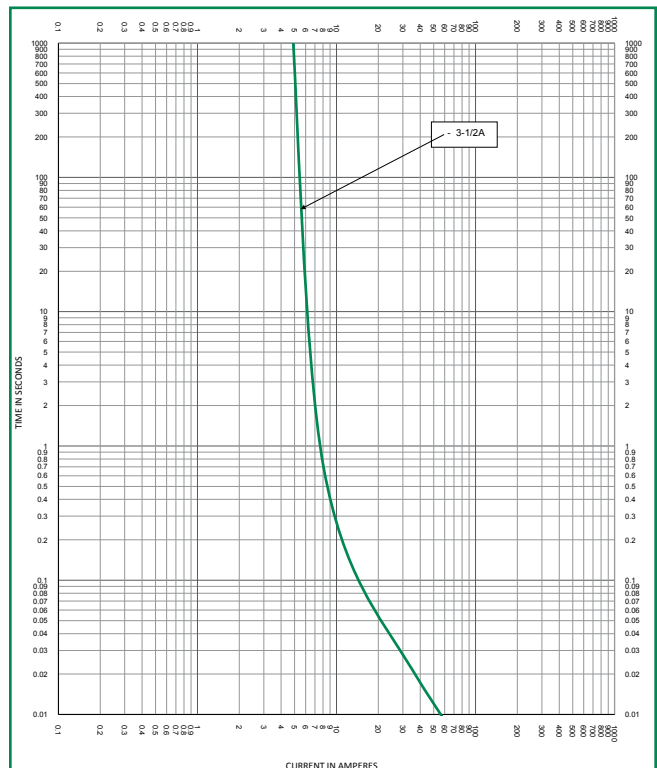
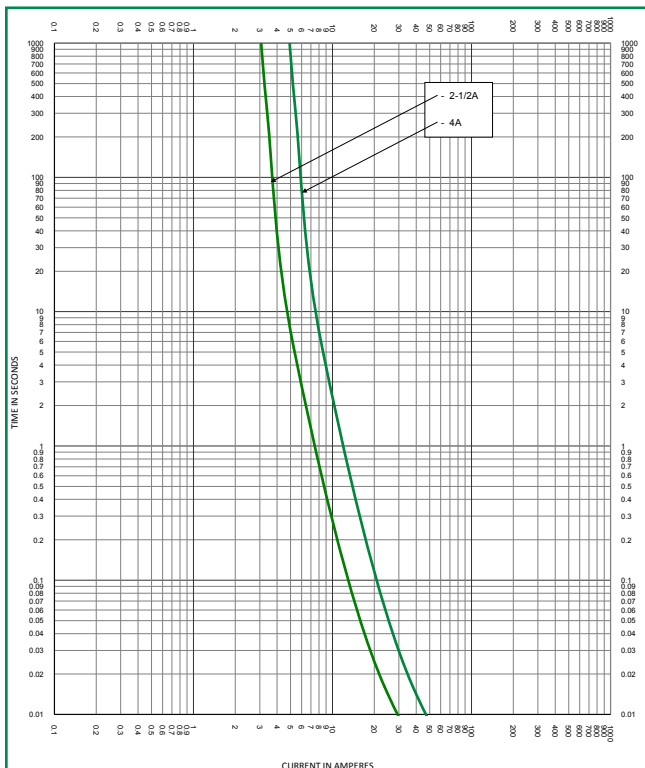
Electrical Specification — Agency Requirements

| AMPERAGE RATING | OPENING TIME (MINUTES) | | | | |
|-----------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|
| | 100% of Amp Rating per UL | 113% of Amp Rating per IEC | 135% of Amp Rating per UL | 145% of Amp Rating per IEC | 200% of Amp Rating per UL |
| 2.5-30 | Temperature Stabilization | 60 Min | 60 Max | 60 Max | 4 Max |

Temperature Derating Curve (Temperature of Air Immediately Surrounding Fuse)



Time Current Curves



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Time Current Curves

