

# SPXI SERIES IN-LINE SOLAR FUSE

1500 Vdc • 2.5-30 A



## 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 248-19 for photovoltaic applications. The SPXI can be electrically insulated by either overmolding or using heat-shrink.

## Features/Benefits

- UL 248-19 Recognized
- Meets IEC 60269-6 electrical performance requirements
- 30,000 A interrupting rating
- No fuse holder required

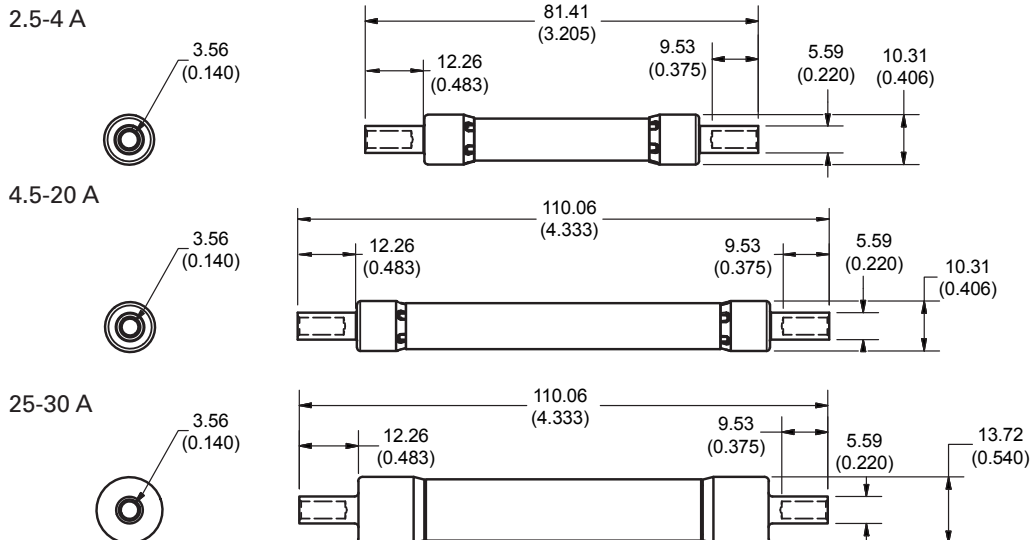
## Applications

- Photovoltaic wire harness

## Recommended Crimping Tool

SPXI: T&B Sta-Kon ERG4002  
SPXI-B: T&B Sta-Kon ERG4

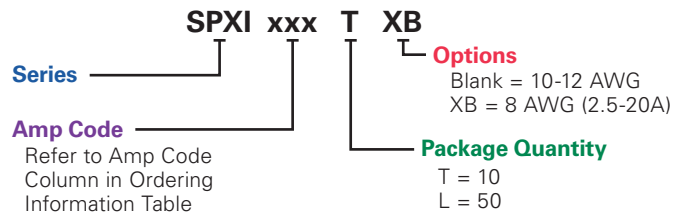
## SPXI Dimensions mm (in)



## Specifications

<b>Voltage Rating</b>	1500 Vdc
<b>Amperage Rating</b>	2.5, 3.5, 4, 4.5, 5, 6, 8, 10, 12, 15, 20, 25, 30 A
<b>Interrupting Ratings</b>	15 kA (UL 248-19) 30 kA (Self-Certified)
<b>Time Constant</b>	≤ 1ms
<b>Material</b>	Body: Melamine Caps: Copper Alloy (Nickel Plated)
<b>Approvals</b>	UL 248-19 Recognized (File: E339112)
<b>Environmental</b>	RoHS Compliant REACH
<b>Country of Origin</b>	Mexico
<b>US Patent</b>	9,564,281

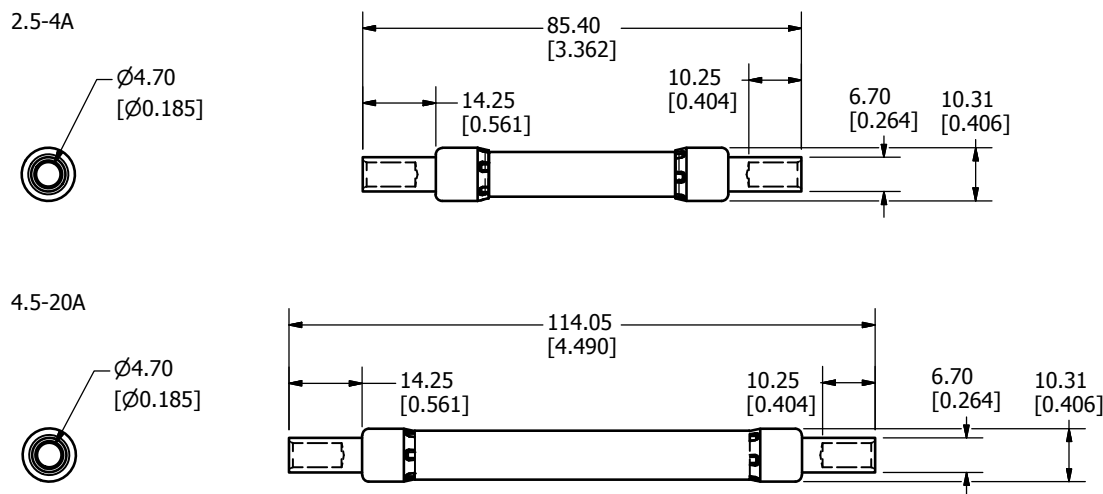
## Part Numbering System



## Web Resources

Download additional technical information and view the complete solar portfolio: [littelfuse.com/spxi](http://littelfuse.com/spxi)

### SPXI-B Dimensions mm (in)



### SPXI 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	4.5	04.5	SPXI04.5	SPXI 4 ½ A	10	SPXI04.5T	07945824324
					50	SPXI04.5L	07945824325
SPXI	5	005.	SPXI005	SPXI 5A	10	SPXI005.T	07945823273
					50	SPXI005.L	07945823274
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

# SPXI SERIES IN-LINE SOLAR FUSE

## SPXI-B Ordering Information

SERIES	AMPERAGE	AMP CODE	CATALOG NUMBER	PRODUCT MARKING	PACK QUANTITY	ORDERING NUMBER	UPC
SPXI-B	2.5	02.5	SPXI02.5-B	SPXI 2 ½ A-B	10	SPXI02.5TXB	07945824341
					50	SPXI02.5LXB	07945824354
SPXI-B	3.5	03.5	SPXI03.5-B	SPXI 3 ½ A-B	10	SPXI03.5TXB	07945824342
					50	SPXI03.5LXB	07945824355
SPXI-B	4	004.	SPXI004-B	SPXI 4 A-B	10	SPXI004.TXB	07945824343
					50	SPXI004.LXB	07945824356
SPXI-B	4.5	04.5	SPXI04.5-B	SPXI 4 ½ A-B	10	SPXI04.5TXB	07945824344
					50	SPXI04.5LXB	07945824357
SPXI-B	5	005.	SPXI005-B	SPXI 5 A-B	10	SPXI005.TXB	07945824345
					50	SPXI005.LXB	07945824358
SPXI-B	6	006.	SPXI006-B	SPXI 6 A-B	10	SPXI006.TXB	07945824346
					50	SPXI006.LXB	07945824359
SPXI-B	8	008.	SPXI008-B	SPXI 8 A-B	10	SPXI008.TXB	07945824347
					50	SPXI008.LXB	07945824360
SPXI-B	10	010.	SPXI010-B	SPXI 10 A-B	10	SPXI010.TXB	07945824348
					50	SPXI010.LXB	07945824361
SPXI-B	12	012.	SPXI012-B	SPXI 12 A-B	10	SPXI012.TXB	07945824349
					50	SPXI012.LXB	07945824362
SPXI-B	25	015.	SPXI015-B	SPXI 15 A-B	10	SPXI015.TXB	07945824350
					50	SPXI015.LXB	07945824363
SPXI-B	20	020.	SPXI020-B	SPXI 20 A-B	10	SPXI020.TXB	07945824351
					50	SPXI020.LXB	07945824364

## SPXI 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 <sup>2</sup> t (A <sup>2</sup> s) 15 kA (1500VDC)	TOTAL CLEARING I <sup>2</sup> t (A <sup>2</sup> s) 15 kA (1500VDC)
		AC	DC*						
2.5	1500	–	30 kA	10-12 AWG (6-4 mm <sup>2</sup> )	0.099	0.86	0.48	7	16
3.5	1500	–	30 kA	10-12 AWG (6-4 mm <sup>2</sup> )	0.0711	1.56	0.81	25	50
4	1500	–	30 kA	10-12 AWG (6-4 mm <sup>2</sup> )	0.0438	0.95	0.54	57	95
4.5	1500	–	30 kA	10-12 AWG (6-4 mm <sup>2</sup> )	0.1023	2.81	1.61	34	55
5	1500	–	30kA	10-12 AWG (6-4 mm <sup>2</sup> )	0.0760	3.01	1.66	48	71
6	1500	–	30 kA	10-12 AWG (6-4 mm <sup>2</sup> )	0.0576	3.05	1.71	49	75
8	1500	–	30 kA	10-12 AWG (6-4 mm <sup>2</sup> )	0.0349	3.26	1.84	121	214
10	1500	–	30 kA	10-12 AWG (6-4 mm <sup>2</sup> )	0.0223	3.25	1.82	407	509
12	1500	–	30 kA	10-12 AWG (6-4 mm <sup>2</sup> )	0.0163	3.34	1.89	798	951
15	1500	–	30 kA	10-12 AWG (6-4 mm <sup>2</sup> )	0.0131	5.27	3.05	299	637
20	1500	–	30 kA	10-12 AWG (6-4 mm <sup>2</sup> )	0.0085	5.38	3.14	701	1464
25	1500	–	30 kA	10-12 AWG (6-4 mm <sup>2</sup> )	0.0066	6.28	3.55	2209	2548
30	1500	–	30 kA	10-12 AWG (6-4 mm <sup>2</sup> )	0.0055	7.60	4.25	3561	4010

\* 15 kA per UL 248-19

### SPXI-B Electrical Specifications

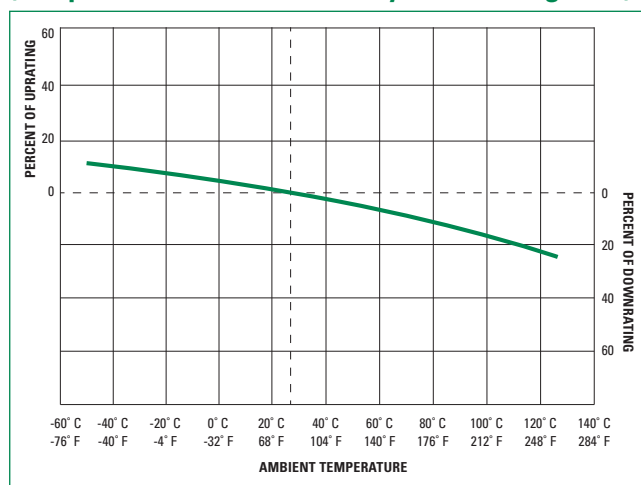
AMPERAGE	VOLTAGE	INTERRUPTING RATING			WIRE RANGE CU Only (Solid/Stranded)	NOM COLD RESISTANCE (ohm)	WATTS LOSS AT 100% RATED CURRENT (W)	WATTS LOSS AT 80% RATED CURRENT (W)	MELTING I <sup>2</sup> t (A <sup>2</sup> s) 15 kA (1500VDC)	TOTAL CLEARING I <sup>2</sup> t (A <sup>2</sup> s) 15 kA (1500VDC)
		DC	AC	DC*						
2.5	1500	–	30 kA	8 AWG (10 mm <sup>2</sup> )	0.099	0.86	0.48	7	16	
3.5	1500	–	30 kA	8 AWG (10 mm <sup>2</sup> )	0.0711	1.56	0.81	25	50	
4	1500	–	30 kA	8 AWG (10 mm <sup>2</sup> )	0.0438	0.95	0.56	57	95	
4.5	1500	–	30 kA	8 AWG (10 mm <sup>2</sup> )	0.1023	2.81	1.61	34	55	
5	1500	–	30kA	8 AWG (10 mm <sup>2</sup> )	0.0760	3.01	1.66	48	71	
6	1500	–	30 kA	8 AWG (10 mm <sup>2</sup> )	0.0576	3.05	1.71	49	75	
8	1500	–	30 kA	8 AWG (10 mm <sup>2</sup> )	0.0349	3.26	1.84	121	214	
10	1500	–	30 kA	8 AWG (10 mm <sup>2</sup> )	0.0223	3.25	1.82	407	509	
12	1500	–	30 kA	8 AWG (10 mm <sup>2</sup> )	0.0163	3.34	1.89	798	951	
15	1500	–	30 kA	8 AWG (10 mm <sup>2</sup> )	0.0131	5.27	3.05	299	637	
20	1500	–	30 kA	8 AWG (10 mm <sup>2</sup> )	0.0085	5.38	3.14	701	1464	

\* 15 kA per UL 248-19

### Electrical Specification — Agency Requirements

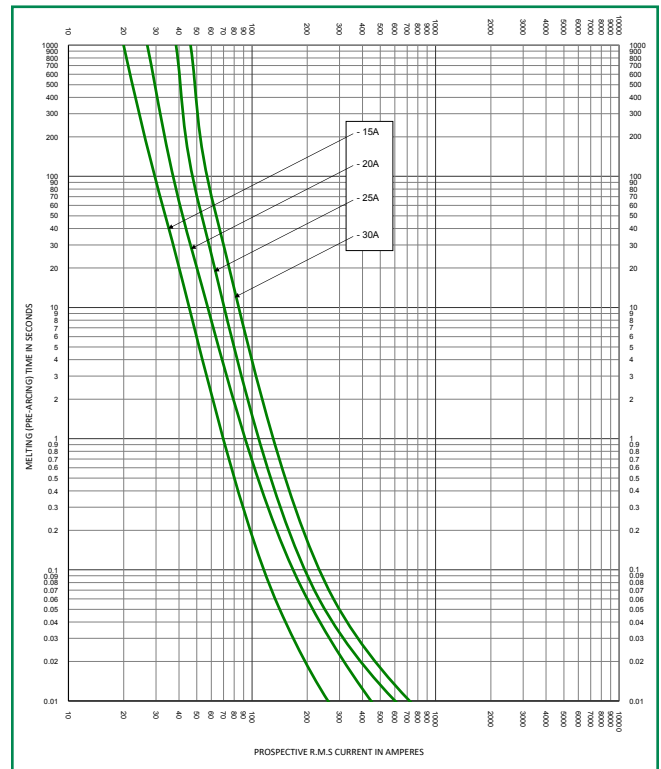
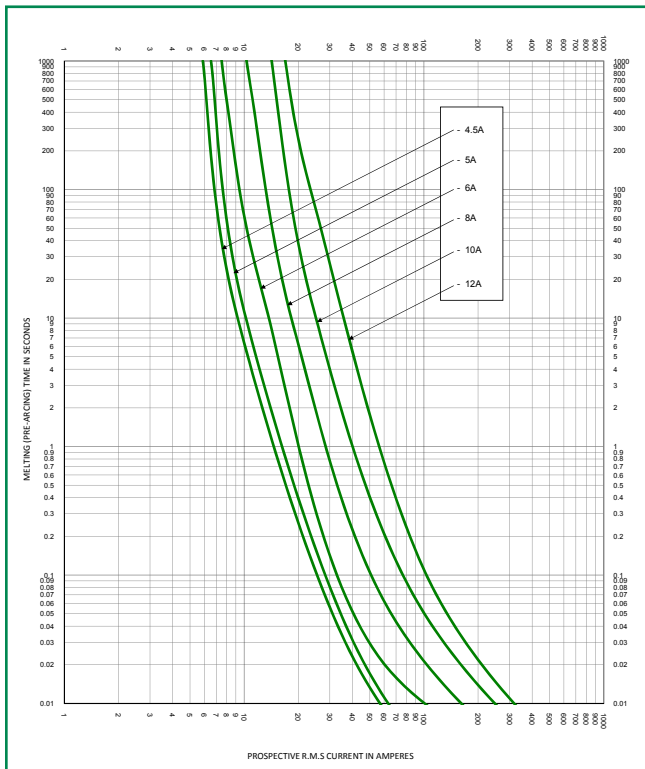
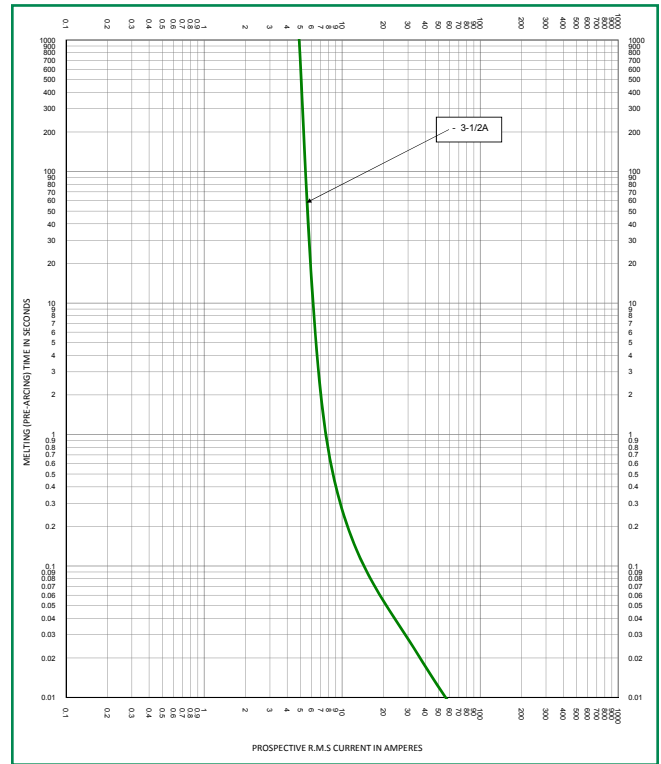
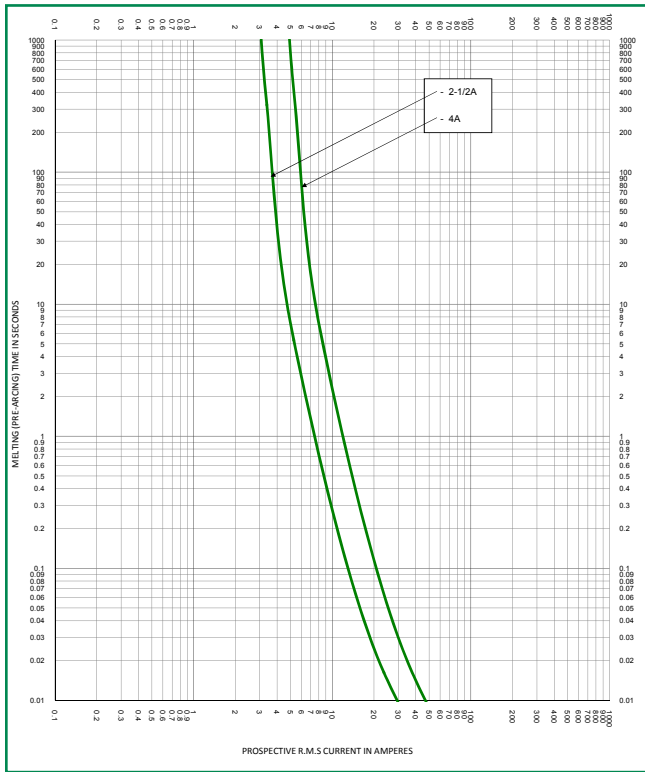
AMPERAGE RATING	OPENING TIME (MINUTES)				
	100% of Amp Rating per UL	113% of Amp Rating per IEC	135% of Amp Rating per UL	145% of Amp Rating per IEC	200% of Amp Rating per UL
2.5-30	Temperature Stabilization	60 Min	60 Max	60 Max	4 Max

### Temperature Derating Curve (Temperature of Air Immediately Surrounding Fuse)



# SPXI SERIES IN-LINE SOLAR FUSE

## Time Current Curves



**Disclaimer Notice** – Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at [www.littelfuse.com/product-disclaimer](http://www.littelfuse.com/product-disclaimer).