

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

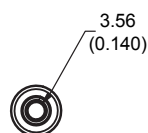
Recommended Crimping Tool

SPXI: T&B Sta-Kon ERG4002

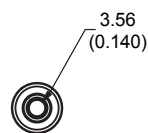
SPXI-B: T&B Sta-Kon ERG4

SPXI Dimensions mm (in)

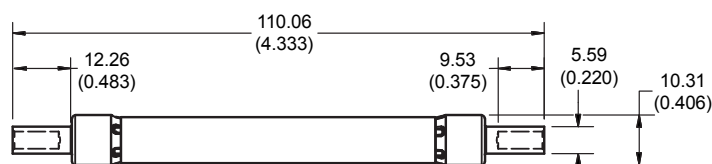
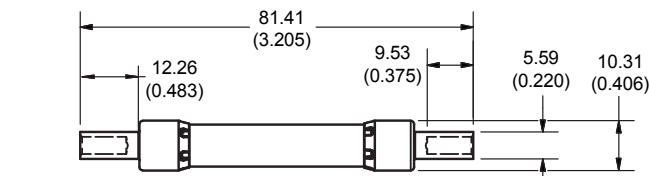
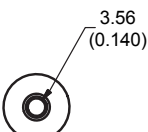
2.5-4 A



4.5-20 A



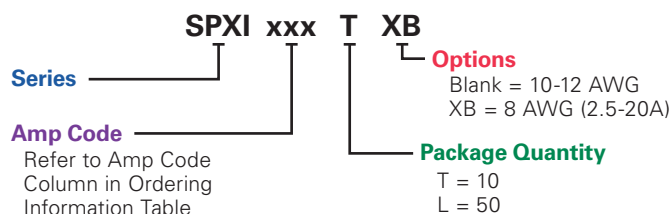
25-30 A



Specifications

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

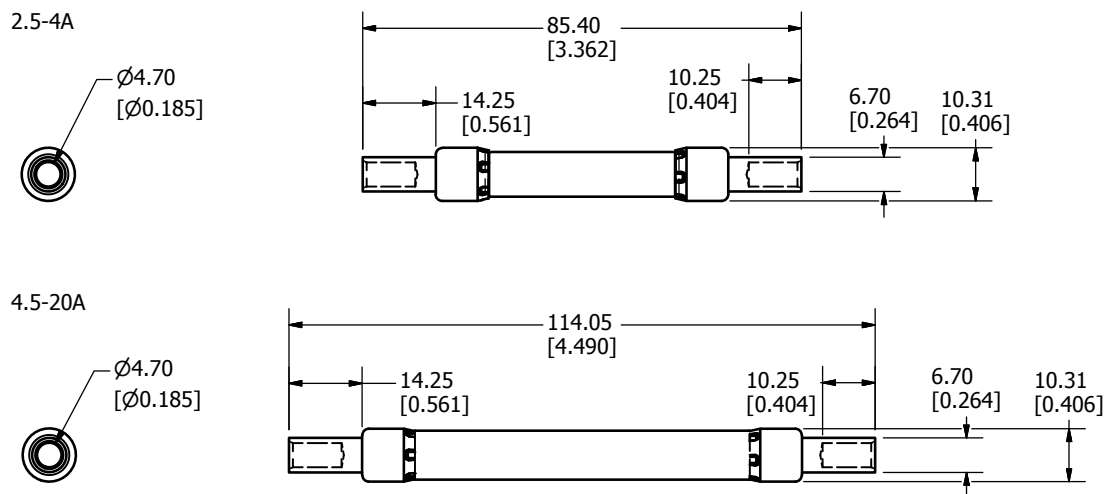
Part Numbering System



Web Resources

Download additional technical information and view the complete solar portfolio: 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

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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 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
4.5	1500	—	30 kA	10-12 AWG (6-4 mm ²)	0.1023	2.81	1.61	34	55
5	1500	—	30kA	10-12 AWG (6-4 mm ²)	0.0760	3.01	1.66	48	71
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 248-19

SPXI-B Electrical Specifications

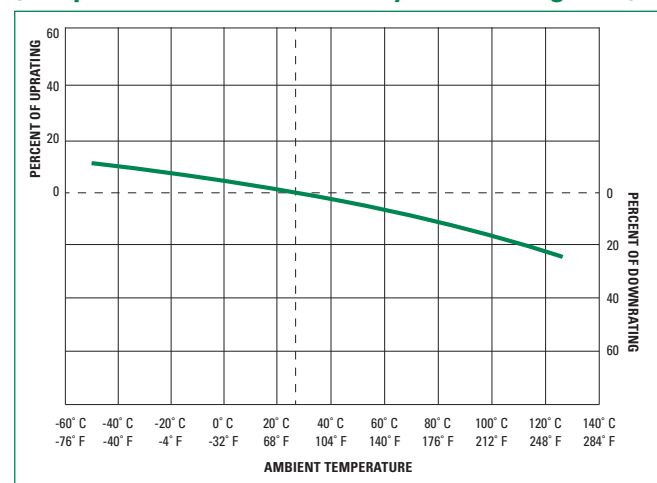
AMPERAGE	VOLTAGE	INTERRUPTING RATING		WIRE RANGE CU Only (Solid/Stranded)	NOM COLD RESISTANCE (ohm)	WATTS LOSS AT 100% RATED CURRENT (W)	WATTS LOSS AT 80% RATED CURRENT (W)	MELTING I^2t (A ² s) 15 kA (1500VDC)	TOTAL CLEARING I^2t (A ² s) 15 kA (1500VDC)
	DC	AC	DC*						
2.5	1500	—	30 kA	8 AWG (10 mm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

* 15 kA per UL 248-19

Electrical Specification — Agency Requirements

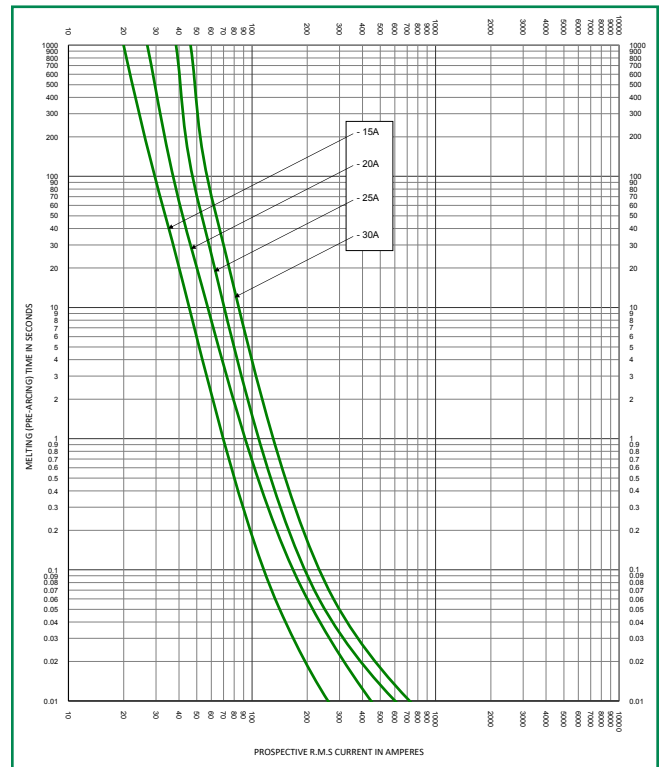
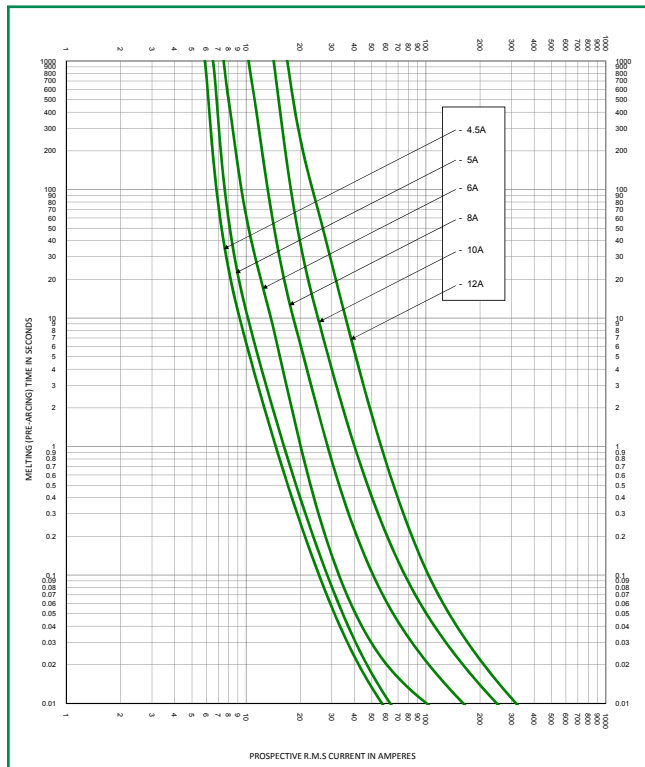
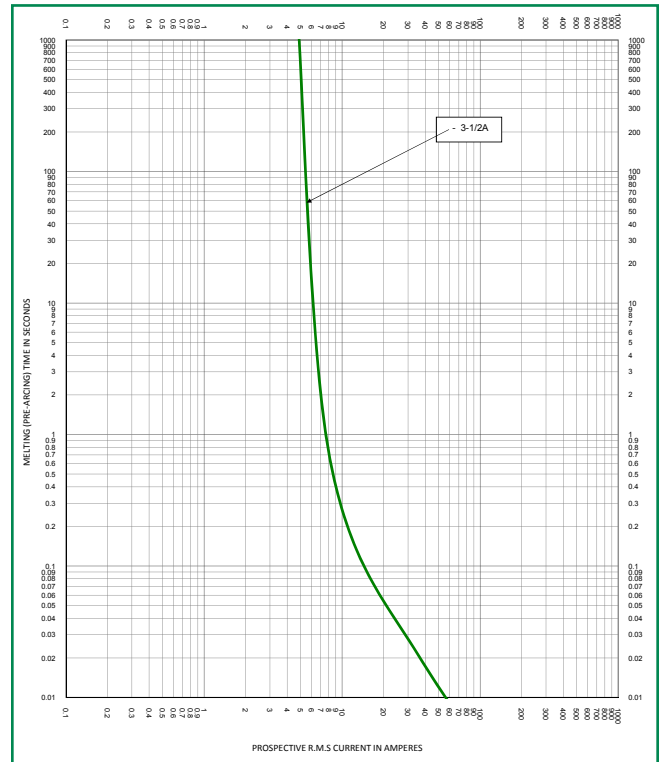
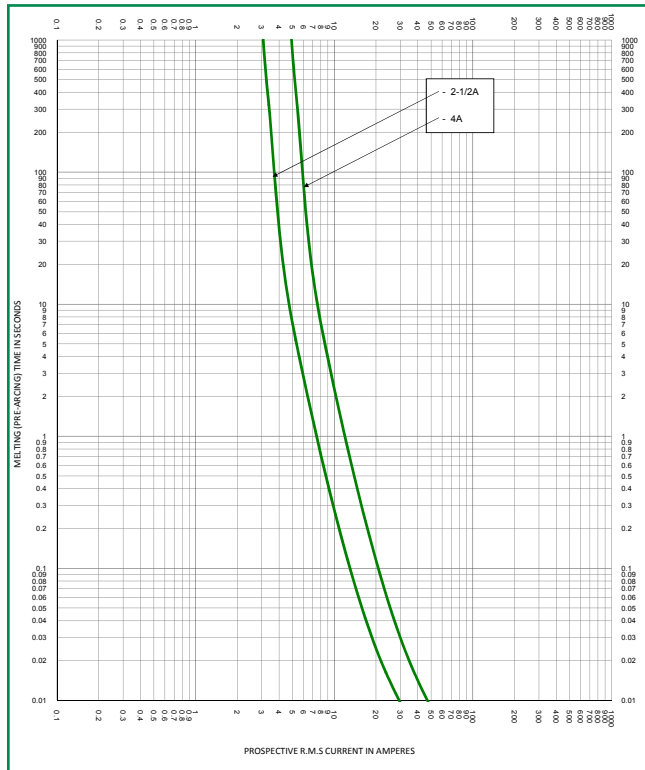
AMPERAGE RATING	OPENING TIME (MINUTES)				
	100% of Amp Rating per UL	113% of Amp Rating per IEC	135% of Amp Rating per UL	145% of Amp Rating per IEC	200% of Amp Rating per UL
2.5-30	Temperature Stabilization	60 Min	60 Max	60 Max	4 Max

Temperature Derating Curve (Temperature of Air Immediately Surrounding Fuse)



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Time Current Curves



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