POWR-GARD® Fuse

SPXV-S SERIES SOLAR FUSE

1500 V dc • 1 – 20 A

Description

The Littelfuse SPXV-S Series silver-plated string fuse has been specifically designed for the protection of photovoltaic (PV) systems.

It is available in multiple amperage ratings to match various requirements in a range of applications.

Features/Benefits

- Offers higher amperage protection in less space for increased design flexibility
- Full range, fast-acting fuse helps eliminate common low-overload faults
- Silver-plated caps help improve contact resistance for better conductivity
- Up to 50,000 A interrupting rating

Applications

- Inverters
- Combiner boxes

Recommended Crimping Tool

Fuse Holder: LFPXV001
Fuse Clips: 125003

Specifications

Voltage Rating	1500 V dc
Amperage Rating	1, 2, 2.25, 2.5, 3, 3.5, 4, 4.5, 5, 6, 8, 10, 12, 15, 16, 20 A
Interrupting Rating	30 kA (50 kA Self-Certified)
Time Constant	≤ 1ms
Material	Body: Melamine Caps: Copper Alloy (Silver Plated)
Approvals	cULus (File: E339112)
Applicable Standards	UL 248-1, 248-19 IEC 60269-6
Environmental	RoHS Compliant REACH
Country of Origin	Mexico

Part Numbering System

SPXV xxx T XS

- **Series**
- **Amp Code** — Refer to Amp Code Column in Ordering Information Table
- **Package Quantity** — T = 10, L = 50
- **Plating** — XS = Silver Plated

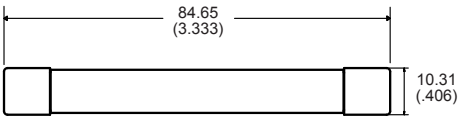
SERIES	AMP	PACKAGE QUANTITY	CATALOG NUMBER	ORDERING NUMBER
SPXVS	6	10	SPXV006-S	SPXV006.TXS
SPXVS	20	50	SPXV020-S	SPXV020.LXS

Web Resources

Download technical resources at:
Littelfuse.com/SPXVS

Dimensions mm (inches)

1 – 20 A



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Ordering Information

SERIES	AMPERAGE	AMPERE CODE	CATALOG NUMBER	FUSE LABEL ID	PACK QUANTITY	ORDERING NUMBER	UPC
SPXV	1	001.	SPXV001-S	SPXV 1-S	10	SPXV001.TXS	07945822105
					50	SPXV001.LXS	07945822106
SPXV	2	002.	SPXV002-S	SPXV 2-S	10	SPXV002.TXS	07945822107
					50	SPXV002.LXS	07945822108
SPXV	2.25	2.25	SPXV2.25-S	SPXV 2 ¼-S	10	SPXV2.25TXS	07945822109
					50	SPXV2.25LXS	07945822110
SPXV	2.5	02.5	SPXV02.5-S	SPXV 2 ½-S	10	SPXV02.5TXS	07945822111
					50	SPXV02.5LXS	07945822112
SPXV	3	003.	SPXV003-S	SPXV 3-S	10	SPXV003.TXS	07945822113
					50	SPXV003.LXS	07945822114
SPXV	3.5	03.5	SPXV03.5-S	SPXV 3 ½-S	10	SPXV03.5TXS	07945822115
					50	SPXV03.5LXS	07945822116
SPXV	4	004.	SPXV004-S	SPXV 4-S	10	SPXV004.TXS	07945819882
					50	SPXV004.LXS	07945819884
SPXV	4.5	04.5	SPXV04.5-S	SPXV 4 ½-S	10	SPXV04.5TXS	07945828571
					50	SPXV04.5LXS	07945828572
SPXV	5	005.	SPXV005-S	SPXV 5-S	10	SPXV005.TXS	07945819886
					50	SPXV005.LXS	07945819888
SPXV	6	006.	SPXV006-S	SPXV 6-S	10	SPXV006.TXS	07945884279
					50	SPXV006.LXS	07945884278
SPXV	8	008.	SPXV008-S	SPXV 8-S	10	SPXV008.TXS	07945884281
					50	SPXV008.LXS	07945884280
SPXV	10	010.	SPXV010-S	SPXV 10-S	10	SPXV010.TXS	07945884283
					50	SPXV010.LXS	07945884282
SPXV	12	012.	SPXV012-S	SPXV 12-S	10	SPXV012.TXS	07945884285
					50	SPXV012.LXS	07945884284
SPXV	15	015.	SPXV015-S	SPXV 15-S	10	SPXV015.TXS	07945884287
					50	SPXV015.LXS	07945884286
SPXV	16	016.	SPXV016-S	SPXV 16-S	10	SPXV016.TXS	07945827710
					50	SPXV016.LXS	07945827708
SPXV	20	020.	SPXV020-S	SPXV 20-S	10	SPXV020.TXS	07945884289
					50	SPXV020.LXS	07945884288

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Electrical Specifications

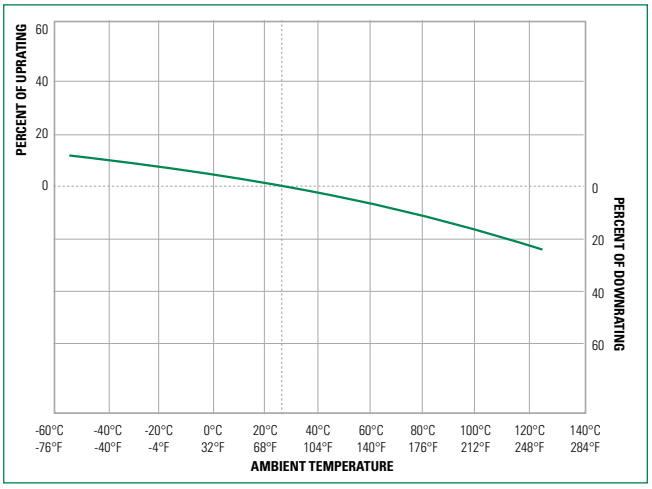
AMPERAGE	VOLTAGE	INTERRUPTING RATING	NOM COLD RESISTANCE (ohm)	WATTS LOSS AT 100% RATED CURRENT (W)	WATTS LOSS AT 80% RATED CURRENT (W)	MELTING I^2T (A^2S) (1500 V dc)	TOTAL CLEARING I^2T (A^2S) 15 kA (1500 V dc)	TOTAL CLEARING I2T (A2S) 30KA (1500 V DC)
	DC	DC						
1	1500	50 kA*	0.926	1.67	0.90	0.27	0.5	–
2	1500	50 kA*	0.289	2.17	1.10	1.35	3.2	–
2.25	1500	50 kA*	0.249	2.43	1.21	1.59	4.4	–
2.5	1500	50 kA*	0.223	2.90	1.40	3.68	5.8	–
3	1500	50 kA*	0.159	2.91	1.41	6	12	–
3.5	1500	50 kA*	0.124	2.95	1.47	10	19	16
4	1500	50 kA*	0.123	2.96	1.65	14	24	–
4.5	1500	50 kA*	0.102	2.81	1.61	34	55	–
5	1500	50 kA*	0.076	3.01	1.66	48	71	–
6	1500	50 kA*	0.058	3.05	1.71	49	75	–
8	1500	50 kA*	0.035	3.26	1.84	121	214	–
10	1500	50 kA*	0.022	3.25	1.82	407	509	–
12	1500	50 kA*	0.016	3.34	1.89	798	951	1154
15	1500	50 kA*	0.013	5.27	3.05	299	637	–
16	1500	50 kA*	0.013	5.32	3.08	404	666	–
20	1500	50 kA*	0.009	5.38	3.14	701	1464	1738

* Self-certifed

Electrical Specification — Agency Requirements

AMPERAGE RATING	OPENING TIME (MINUTES)			
	100 % of Amperage Rating per UL	105 % of Amperage Rating per IEC	135 % of Amperage Rating per UL	200 % of Amperage Rating per UL
1–20	Temperature Stabilization	60 Min	60 Max	4 Max

Temperature Rerating Curve
(Temperature of Air Immediately Surrounding Fuse)



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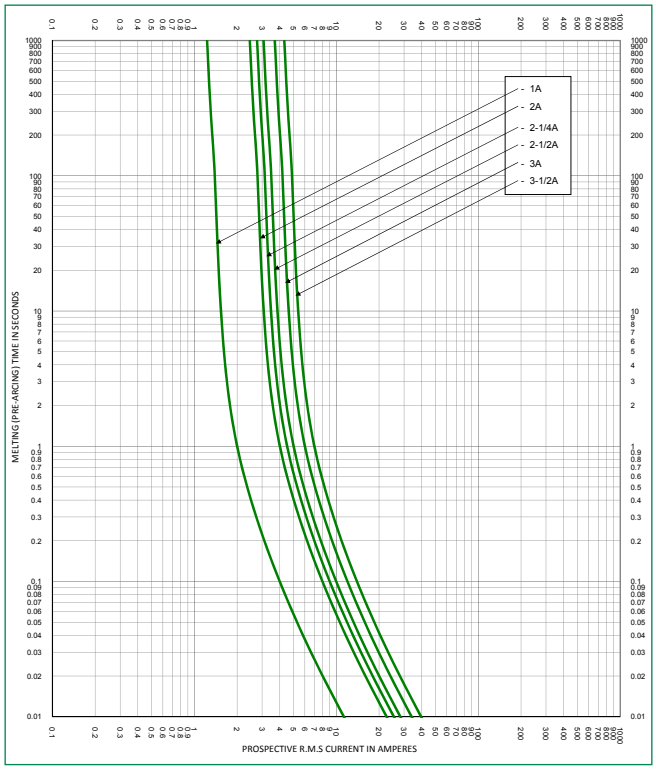
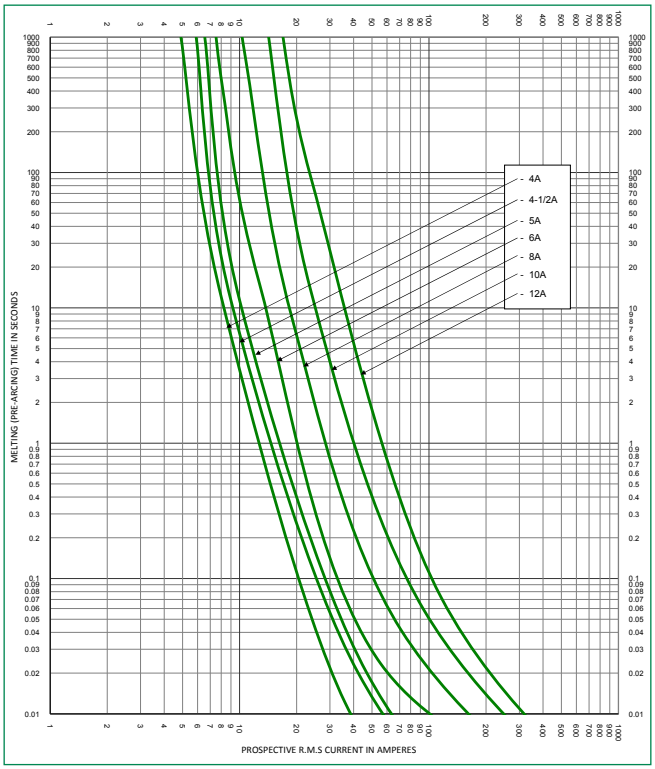
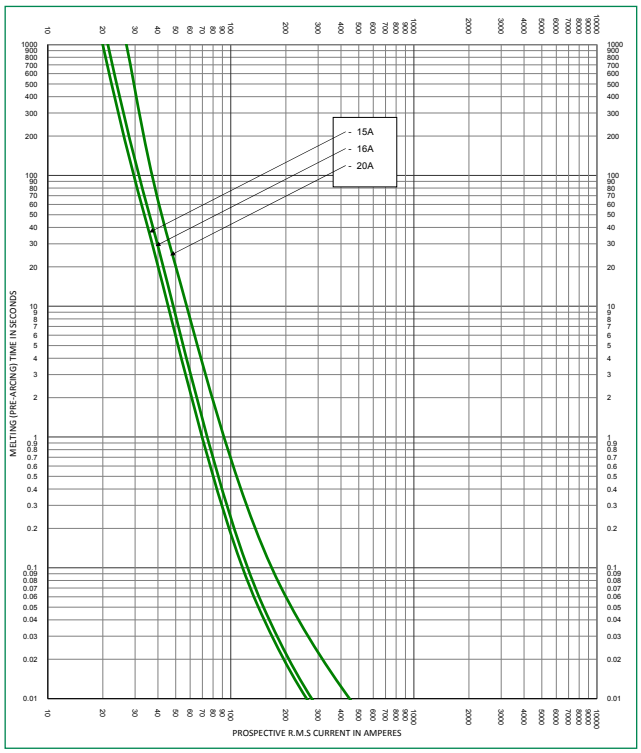
Time Current Curve (1–3.5 A)



Time Current Curve (4–12 A)



Time Current Curve (15–20 A)



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