POWR-GARD® Fuse
SPXV SERIES SOLAR FUSE

1500 V dc • 1–60 A



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, 25, 30, 32, 35, 40, 45, 50, 55, 60 A
Interrupting Rating	SPXV 1 A–20 A: 30 kA (50 kA Self-Certified) SPXV 35 A–60 A: 50 kA SPXV-M 25 A–32 A: 50 kA
Time Constant	≤ 1ms
Material	Body: melamine Caps: copper alloy (nickel plated)
Approvals	cULus (File: E339112) TUV (Cert: J 50506219)
Applicable Standards	UL 248-1, 248-19 IEC 60269-6
Environmental	RoHS Compliant REACH
Country of Origin	Mexico

Description

The Littelfuse SPXV solar string fuse has been specifically designed for the protection of photovoltaic (PV) systems.

It is available in multiple ampere 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
- Up to 50,000 A interrupting rating

Applications

- Inverters
- Combiner boxes

Recommended Accessories

1–32 Amperes

Fuse Holder: LFPXV001
Fuse Clips: 125003

35–60 Amperes

Fuse Block and Cover: LFXV15060-BC

Web Resources

Download technical resources at: **Littelfuse.com/SPXV**

Part Numbering System

SPXV xxx T –

Series

Ampere Code
Refer to Ampere Code Column in Ordering Information Table

Options
Blank = 1–20 A 10 x 85 mm
35–60 A 20 x 127 mm
XM = 25–32 A 10 x 85 mm

Package Quantity
T = 10
L = 50

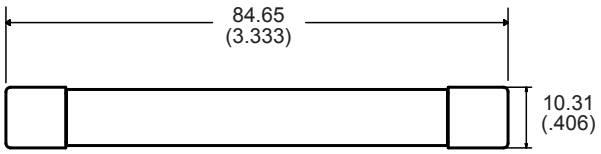
SERIES	AMPERAGE	PACKAGE QUANTITY	CATALOG NUMBER	ORDERING NUMBER
SPXV	6	10	SPXV006	SPXV006.T
SPXV	20	50	SPXV020	SPXV020.L
SPXV	32	10	SPXV032-M	SPXV032.TXM
SPXV	60	10	SPXV060	SPXV060.T

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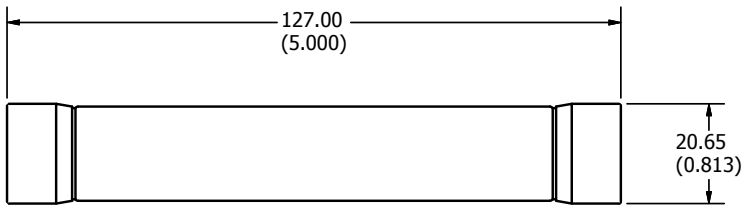
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SPXV Dimensions mm (in)

1–20 A

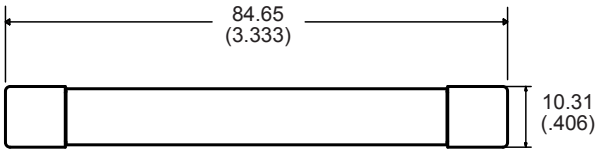


35–60 A



SPXV-M Dimensions mm (in)

25–32 A



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SPXV and SPXV-M Ordering Information

SERIES	AMPERAGE	AMPERE CODE	CATALOG NUMBER	FUSE LABEL ID	PACK QUANTITY	ORDERING NUMBER	UPC
SPXV	1	001.	SPXV001	SPXV 1	10 50	SPXV001.T SPXV001.L	07945822117 07945822118
SPXV	2	002.	SPXV002	SPXV 2	10 50	SPXV002.T SPXV002.L	07945822119 07945822120
SPXV	2.25	2.25	SPXV2.25	SPXV 2 ¼	10 50	SPXV2.25T SPXV2.25L	07945822121 07945822122
SPXV	2.5	02.5	SPXV02.5	SPXV 2 ½	10 50	SPXV02.5T SPXV02.5L	07945822123 07945822124
SPXV	3	003.	SPXV003	SPXV 3	10 50	SPXV003.T SPXV003.L	07945822125 07945822126
SPXV	3.5	03.5	SPXV03.5	SPXV 3 ½	10 50	SPXV03.5T SPXV03.5L	07945822127 07945822128
SPXV	4	004.	SPXV004	SPXV 4	10 50	SPXV004.T SPXV004.L	07945819881 07945819883
SPXV	4.5	04.5	SPXV04.5	SPXV 4 ½	10 50	SPXV04.5T SPXV04.5L	07945828569 07945828570
SPXV	5	005.	SPXV005	SPXV 5	10 50	SPXV005.T SPXV005.L	07945819885 07945819887
SPXV	6	006.	SPXV006	SPXV 6	10 50	SPXV006.T SPXV006.L	07945880812 07945880811
SPXV	8	008.	SPXV008	SPXV 8	10 50	SPXV008.T SPXV008.L	07945880814 07945880813
SPXV	10	010.	SPXV010	SPXV 10	10 50	SPXV010.T SPXV010.L	07945880816 07945880815
SPXV	12	012.	SPXV012	SPXV 12	10 50	SPXV012.T SPXV012.L	07945880818 07945880817
SPXV	15	015.	SPXV015	SPXV 15	10 50	SPXV015.T SPXV015.L	07945880820 07945880819
SPXV	16	016.	SPXV016	SPXV 16	10 50	SPXV016.T SPXV016.L	07945827709 07945827707
SPXV	20	020.	SPXV020	SPXV 20	10 50	SPXV020.T SPXV020.L	07945880822 07945880821
SPXV-M	25	025.	SPXV025-M	SPXV 25A-M	10 50	SPXV025.TXM SPXV025.LXM	07945826354 07945826355
SPXV-M	30	030.	SPXV030-M	SPXV 30A-M	10 50	SPXV030.TXM SPXV030.LXM	07945826356 07945826357
SPXV-M	32	032.	SPXV032-M	SPXV 32A-M	10 50	SPXV032.TXM SPXV032.LXM	07945826358 07945826359
SPXV	35	035.	SPXV035	SPXV 35A	10	SPXV035.T	07945826372
SPXV	40	040.	SPXV040	SPXV 40A	10	SPXV040.T	07945826373
SPXV	45	045.	SPXV045	SPXV 45A	10	SPXV045.T	07945826374
SPXV	50	050.	SPXV050	SPXV 50A	10	SPXV050.T	07945826375
SPXV	55	055.	SPXV055	SPXV 55A	10	SPXV055.T	07945826376
SPXV	60	060.	SPXV060	SPXV 60A	10	SPXV060.T	07945826377

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Electrical Specifications

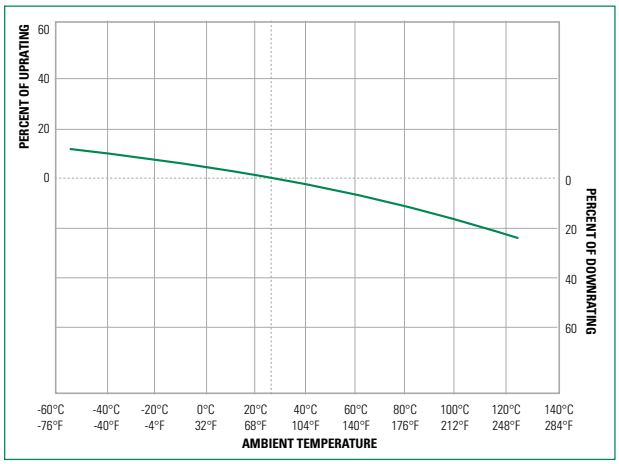
SERIES	AMPERAGE	VOLTAGE	INTERRUPTING RATING	NOM COLD RESISTANCE (ohm)	WATTS LOSS AT 100 % RATED CURRENT (W)	WATTS LOSS AT 80 % RATED CURRENT (W)	MELTING I^2t (A^2s) (1500 V dc)	TOTAL CLEARING I^2t (A^2s) 15 kA (1500 V dc)	TOTAL CLEARING I^2t (A^2s) 30 kA (1500 V dc)	TOTAL CLEARING I^2t (A^2s) 50 kA (1500 V dc)	AGENCY APPROVALS	
		DC	DC								cULus	TUV
SPXV	1	1500	50 kA*	0.9256	1.67	0.90	.27	0.48	–	–	•	•
SPXV	2	1500	50 kA*	0.2891	2.17	1.10	1.35	3.24	–	–	•	•
SPXV	2.25	1500	50 kA*	0.2492	2.43	1.21	1.59	4.44	–	–	•	•
SPXV	2.5	1500	50 kA*	0.2234	2.90	1.40	3.68	5.8	–	–	•	•
SPXV	3	1500	50 kA*	0.1587	2.91	1.41	6	12	–	–	•	•
SPXV	3.5	1500	50 kA*	0.1240	2.95	1.47	10	19	16	–	•	•
SPXV	4	1500	50 kA*	0.1067	2.99	1.58	14	24	–	–	•	•
SPXV	4.5	1500	50 kA*	0.0899	2.84	1.54	34	55	–	–	•	•
SPXV	5	1500	50 kA*	0.0644	3.04	1.59	48	71	–	–	•	•
SPXV	6	1500	50 kA*	0.0576	3.05	1.71	49	75	–	–	•	•
SPXV	8	1500	50 kA*	0.0349	3.26	1.84	121	214	–	–	•	•
SPXV	10	1500	50 kA*	0.0223	3.25	1.82	407	509	–	–	•	•
SPXV	12	1500	50 kA*	0.0163	3.34	1.89	798	951	1154	–	•	•
SPXV	15	1500	50 kA*	0.0131	5.27	3.05	299	637	–	–	•	•
SPXV	16	1500	50 kA*	0.0130	5.32	3.08	404	666	–	–	•	•
SPXV	20	1500	50 kA*	0.0085	5.38	3.14	701	1464	1738	–	•	•
SPXV-M	25	1500	50 kA	0.00665	6.1	3.4	2304	–	–	3256	•	•
SPXV-M	30	1500	50 kA	0.00526	7.1	4.0	3792	–	–	5543	•	•
SPXV-M	32	1500	50 kA	0.00459	7.3	4.1	4350	–	–	6655	•	•
SPXV	35	1500	50 kA	0.00713	13.22	7.40	257	–	–	1794	•	
SPXV	40	1500	50 kA	0.00563	13.75	7.70	362	–	–	5726	•	
SPXV	45	1500	50 kA	0.0046	13.86	7.76	588	–	–	5521	•	
SPXV	50	1500	50 kA	0.00412	16.07	9.00	657	–	–	7058	•	
SPXV	55	1500	50 kA	0.0037	18.31	10.25	853	–	–	8783	•	
SPXV	60	1500	50 kA	0.0033	20.93	11.72	1030	–	–	11682	•	

*Self-certified

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
1–30	Temperature Stabilization	60 Min	60 Max	4 Max
32–60	Temperature Stabilization	60 Min	60 Max	6 Max

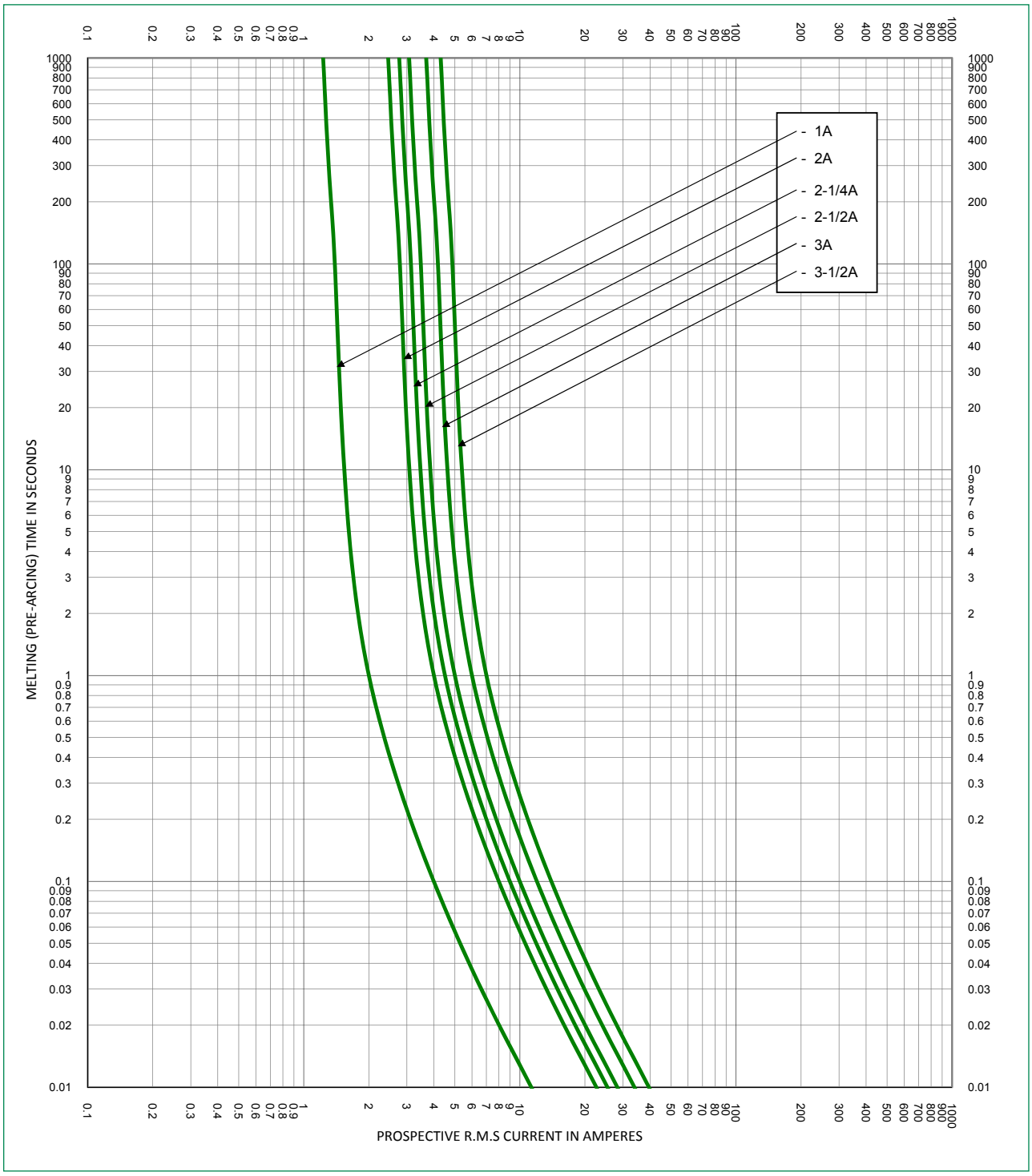
Temperature Rerating Curve
(temperature of air immediately surrounding fuse)



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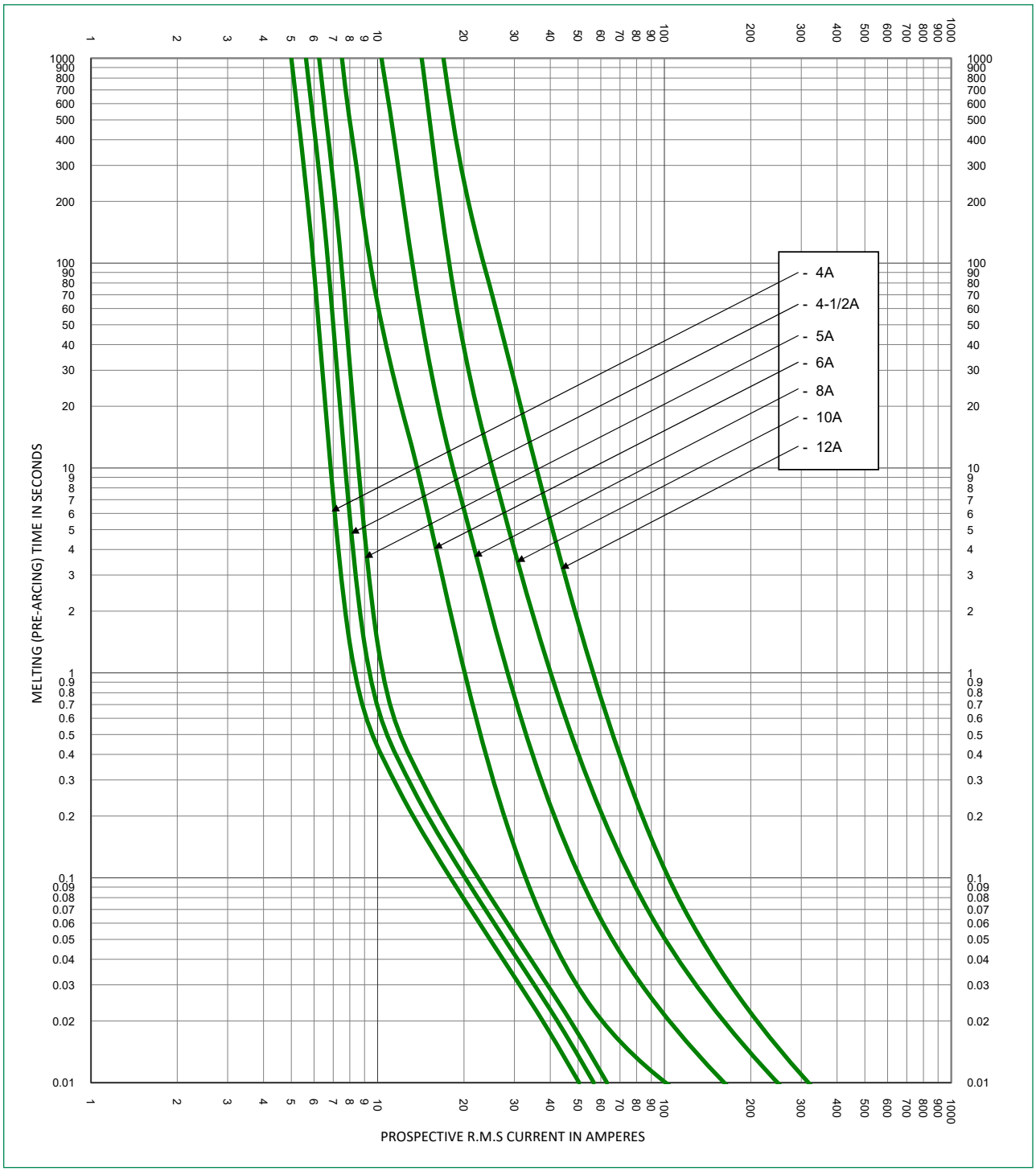
SPXV Time Current Curve
(1–3.5 A)



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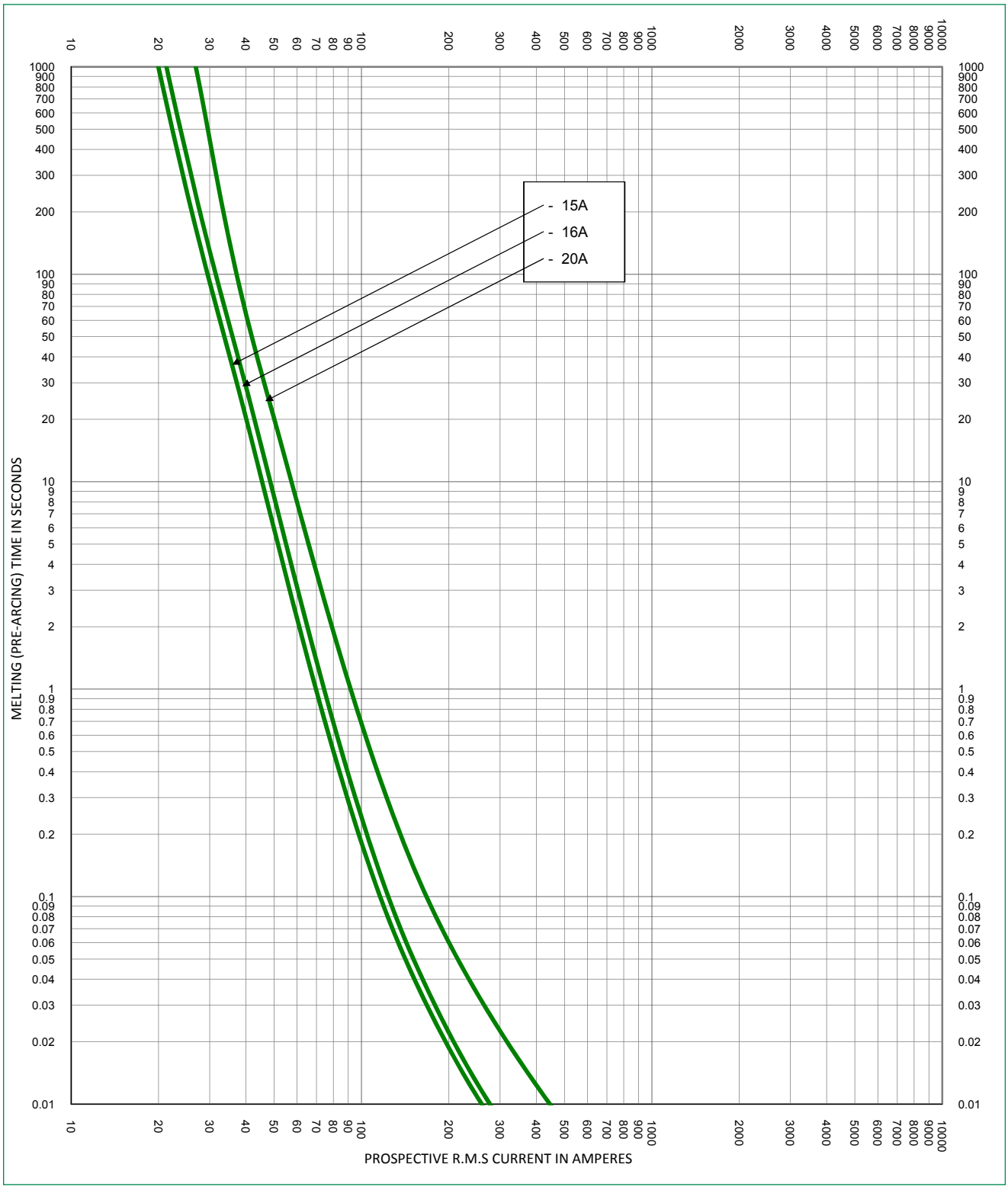
SPXV Time Current Curve
(4–12 A)



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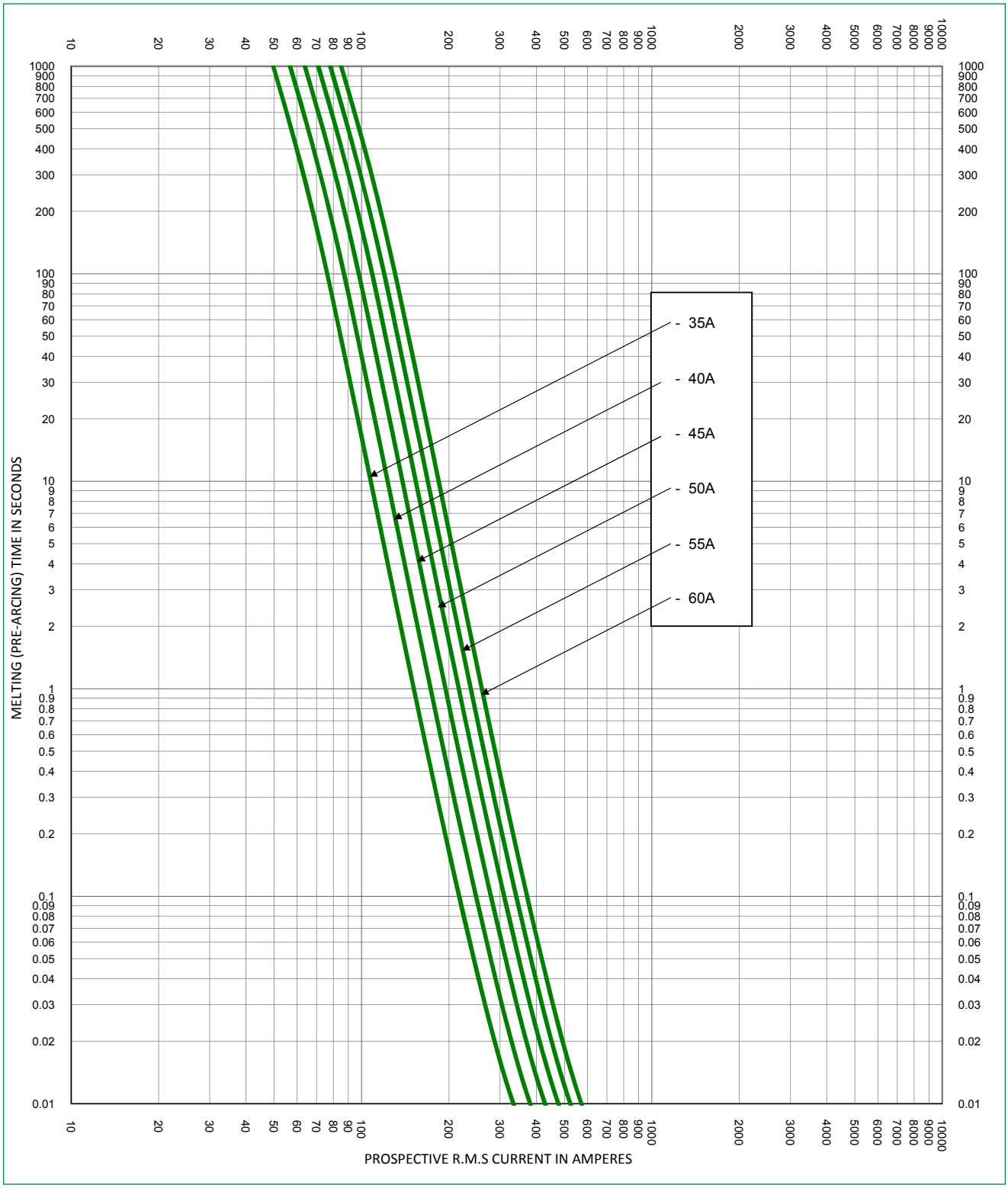
SPXV Time Current Curve
(15–20 A)



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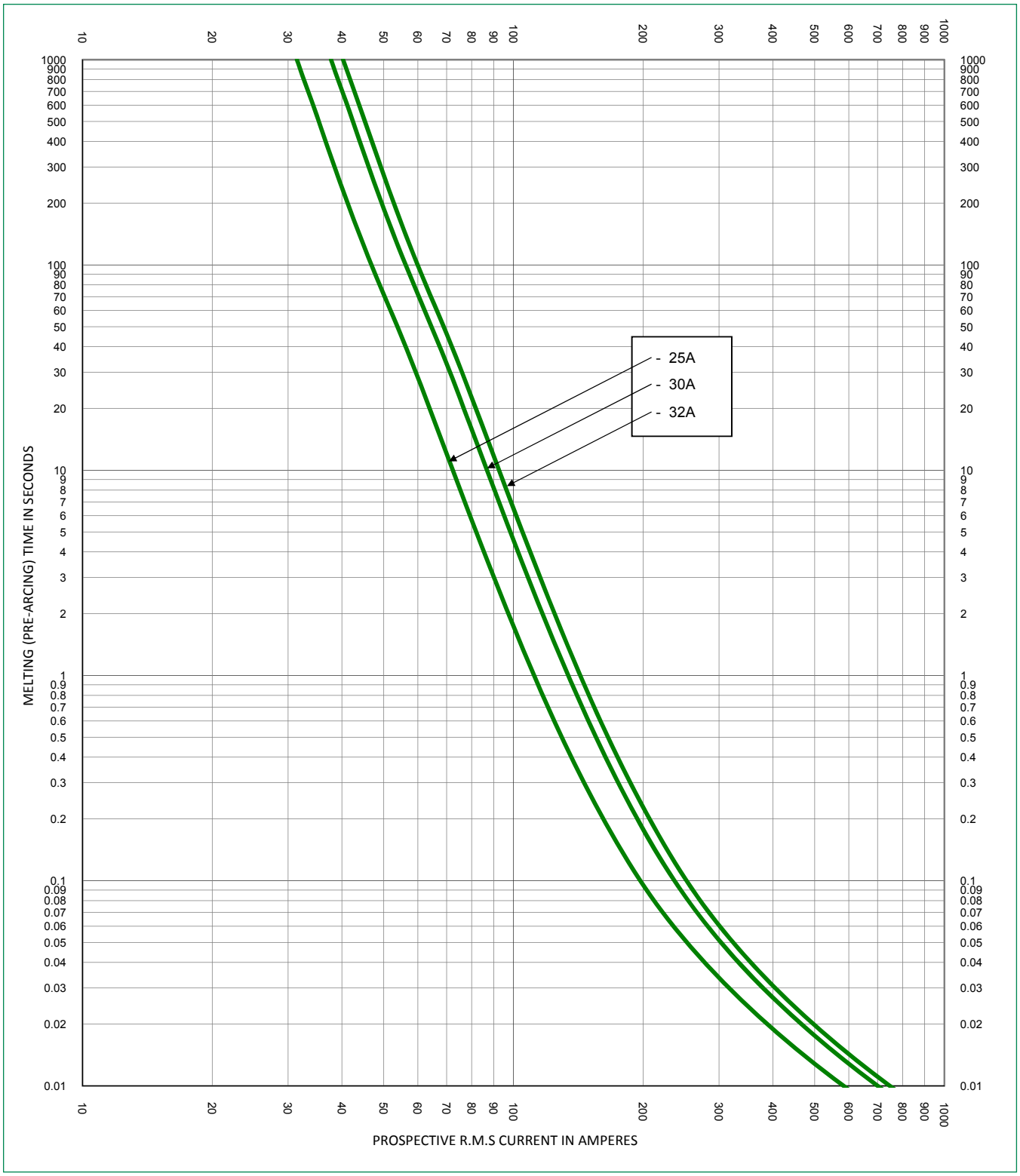
SPXV Time Current Curve
(35–60 A)



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SPXV-M Time Current Curve
(25–32 A)



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