

POWR-GARD® Fuse

SPXV SERIES SOLAR FUSE

1500 V dc • 1–60 A

REACH    



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

Fuse Holder: LFPXV Series 1500 V dc

Fuse Clips: 125004/125005

Web Resources

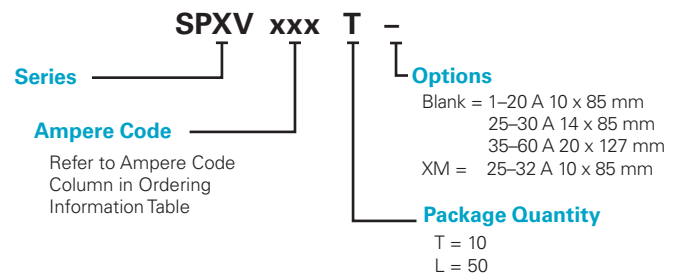
Download technical resources at: Littelfuse.com/spxv

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-30 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	UL 248-19 Listed (File: E339112)
Applicable Standards	UL 248-1, 248-19 IEC 60269-6*
Environmental	RoHS Compliant REACH
Country of Origin	Mexico

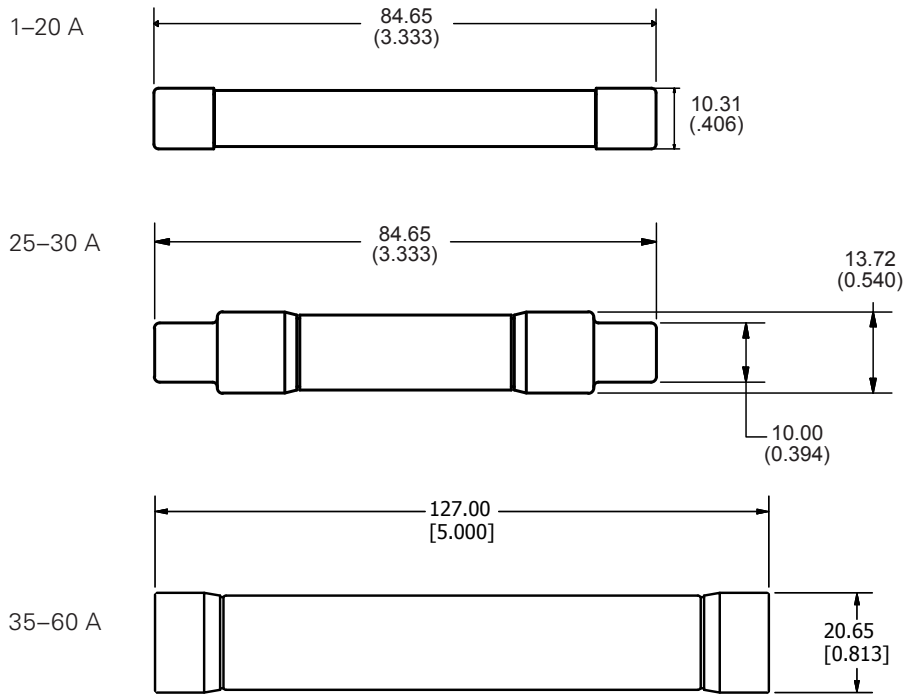
*SPXV 25 and 30 amp fuses meet electrical performance only.

Part Numbering System

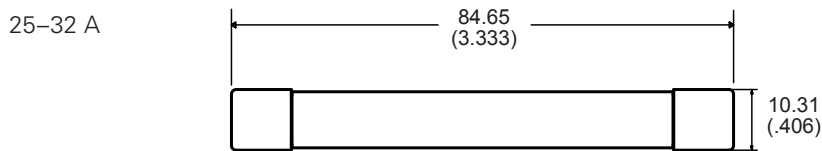


SERIES	AMPERAGE	PACKAGE QUANTITY	CATALOG NUMBER	ORDERING NUMBER
SPXV	6	10	SPXV006	SPXV006.T
SPXV	20	50	SPXV020	SPXV020.L
SPXV	32	10	SPXV032-M	SPXV032.TXM
SPXV	60	10	SPXV060	SPXV060.T

SPXV Dimensions mm (in)



SPXV-M Dimensions mm (in)



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SPXV and SPXV-M Ordering Information

SERIES	AMPERAGE	AMPERE CODE	CATALOG NUMBER	PACK QUANTITY	ORDERING NUMBER	UPC
SPXV	1	001.	SPXV001	10	SPXV001.T	07945822117
				50	SPXV001.L	07945822118
SPXV	2	002.	SPXV002	10	SPXV002.T	07945822119
				50	SPXV002.L	07945822120
SPXV	2.25	2.25	SPXV2.25	10	SPXV2.25T	07945822121
				50	SPXV2.25L	07945822122
SPXV	2.5	02.5	SPXV02.5	10	SPXV02.5T	07945822123
				50	SPXV02.5L	07945822124
SPXV	3	003.	SPXV003	10	SPXV003.T	07945822125
				50	SPXV003.L	07945822126
SPXV	3.5	03.5	SPXV03.5	10	SPXV03.5T	07945822127
				50	SPXV03.5L	07945822128
SPXV	4	004.	SPXV004	10	SPXV004.T	07945819881
				50	SPXV004.L	07945819883
SPXV	4.5	04.5	SPXV04.5	10	SPXV04.5T	07945828569
				50	SPXV04.5L	07945828570
SPXV	5	005.	SPXV005	10	SPXV005.T	07945819885
				50	SPXV005.L	07945819887
SPXV	6	006.	SPXV006	10	SPXV006.T	07945880812
				50	SPXV006.L	07945880811
SPXV	8	008.	SPXV008	10	SPXV008.T	07945880814
				50	SPXV008.L	07945880813
SPXV	10	010.	SPXV010	10	SPXV010.T	07945880816
				50	SPXV010.L	07945880815
SPXV	12	012.	SPXV012	10	SPXV012.T	07945880818
				50	SPXV012.L	07945880817
SPXV	15	015.	SPXV015	10	SPXV015.T	07945880820
				50	SPXV015.L	07945880819
SPXV	16	016.	SPXV016	10	SPXV016.T	07945827709
				50	SPXV016.L	07945827707
SPXV	20	020.	SPXV020	10	SPXV020.T	07945880822
				50	SPXV020.L	07945880821
SPXV	25	025.	SPXV025	10	SPXV025.T	07945880824
				50	SPXV025.L	07945880823
SPXV-M	25	025.	SPXV025-M	10	SPXV025.TXM	07945826354
				50	SPXV025.LXM	07945826355
SPXV	30	030.	SPXV030	10	SPXV030.T	07945880826
				50	SPXV030.L	07945880825
SPXV-M	30	030.	SPXV030-M	10	SPXV030.TXM	07945826356
				50	SPXV030.LXM	07945826357
SPXV-M	32	032.	SPXV032-M	10	SPXV032.TXM	07945826358
				50	SPXV032.LXM	07945826359
SPXV	35	035.	SPXV035	10	SPXV035.T	07945826372
SPXV	40	040.	SPXV040	10	SPXV040.T	07945826373
SPXV	45	045.	SPXV045	10	SPXV045.T	07945826374
SPXV	50	050.	SPXV050	10	SPXV050.T	07945826375
SPXV	55	055.	SPXV055	10	SPXV055.T	07945826376
SPXV	60	060.	SPXV060	10	SPXV060.T	07945826377

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Electrical Specifications

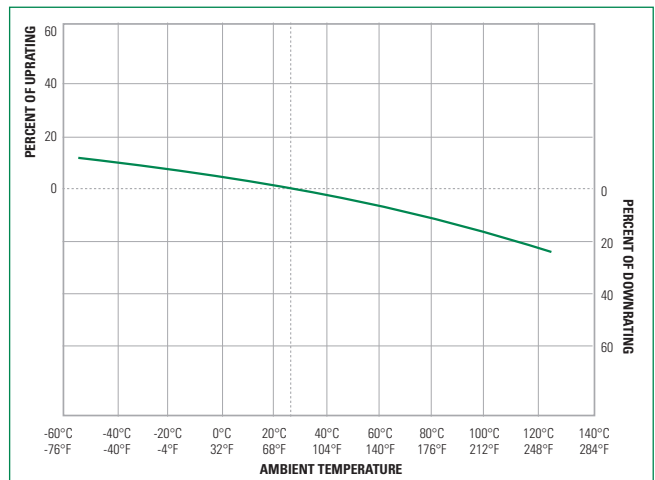
SERIES	AMPERAGE	VOLTAGE	INTERRUPTING RATING	NOM COLD RESISTANCE (ohm)	WATTS LOSS AT 100 % RATED CURRENT (W)	WATTS LOSS AT 80 % RATED CURRENT (W)	MELTING I ² t (A ² s) (1500 V dc)	TOTAL CLEARING I ² t (A ² s) 15 kA (1500 V dc)	TOTAL CLEARING I ² t (A ² s) 30 kA (1500 V dc)	TOTAL CLEARING I ² t (A ² s) 50 kA (1500 V dc)
		DC	DC							
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*	0.1229	2.96	1.65	14	24	-	-
SPXV	4.5	1500	50 kA*	0.1023	2.81	1.61	34	55	-	-
SPXV	5	1500	50 kA*	0.0760	3.01	1.66	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	25	1500	50 kA*	0.0064	5.64	3.18	2671	3202	-	-
SPXV-M	25	1500	50 kA	0.00665	6.1	3.4	2304	-	-	3256
SPXV	30	1500	50 kA*	0.0052	7.16	3.93	3770	4692	6204	-
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

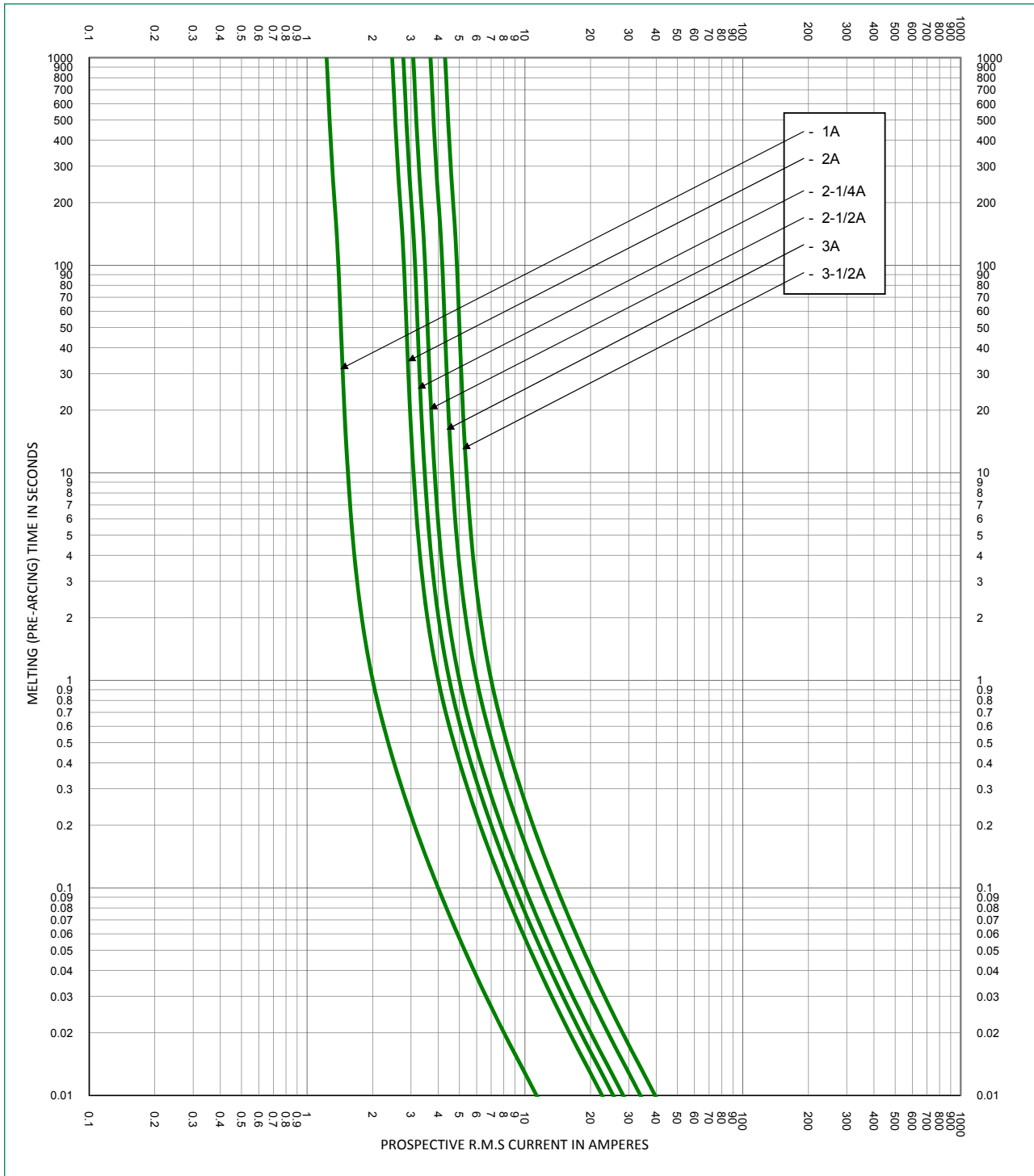
Electrical Specification – Agency Requirements

AMPERAGE RATING	OPENING TIME (MINUTES)				
	100 % of Amperage Rating per UL	113 % of Amperage Rating per IEC	135 % of Amperage Rating per UL	145 % of Amperage Rating per IEC	200 % of Amperage Rating per UL
1-60	Temperature Stabilization	60 Min	60 Max	60 Max	4 Max

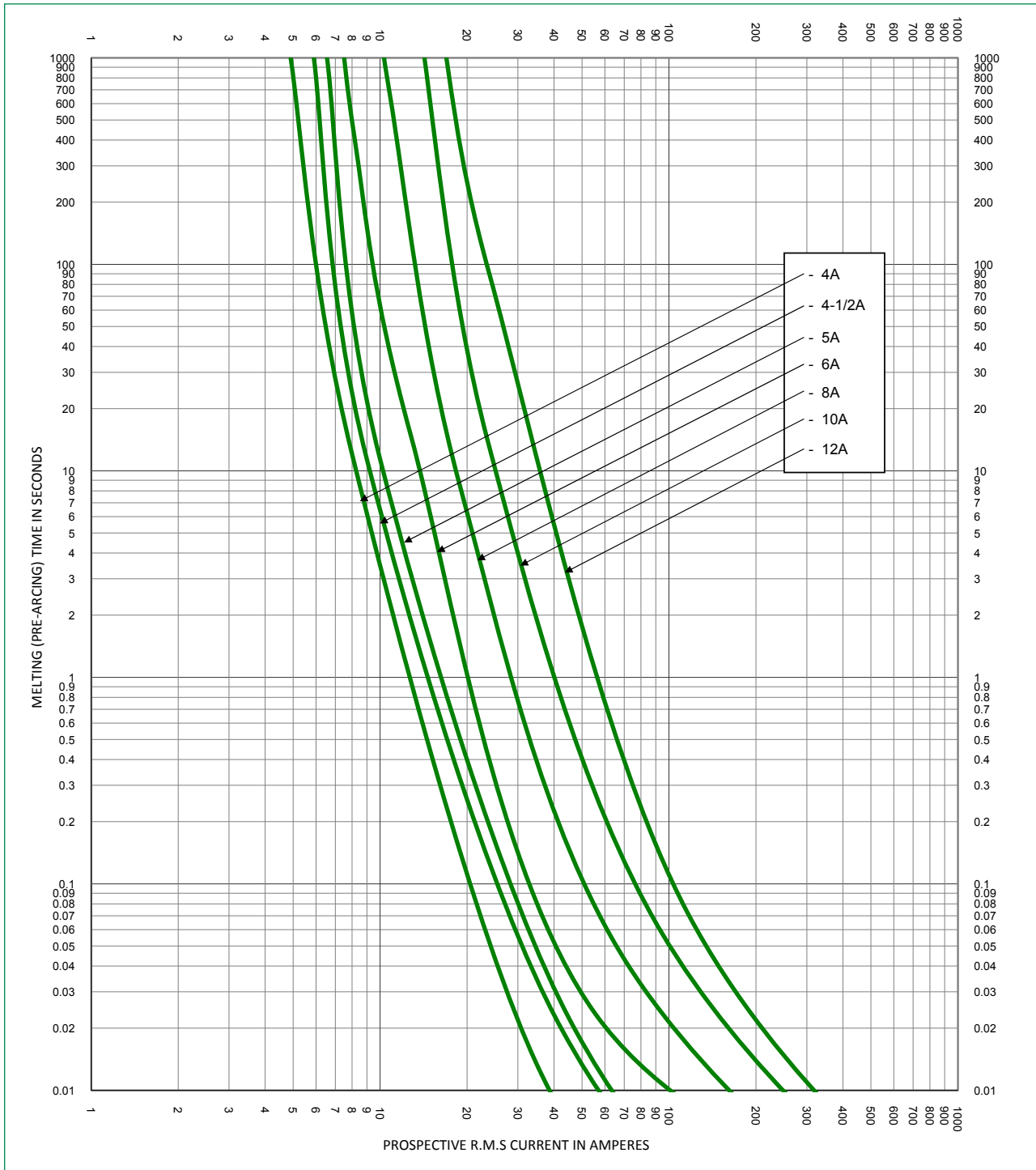
Temperature Derating Curve (temperature of air immediately surrounding fuse)



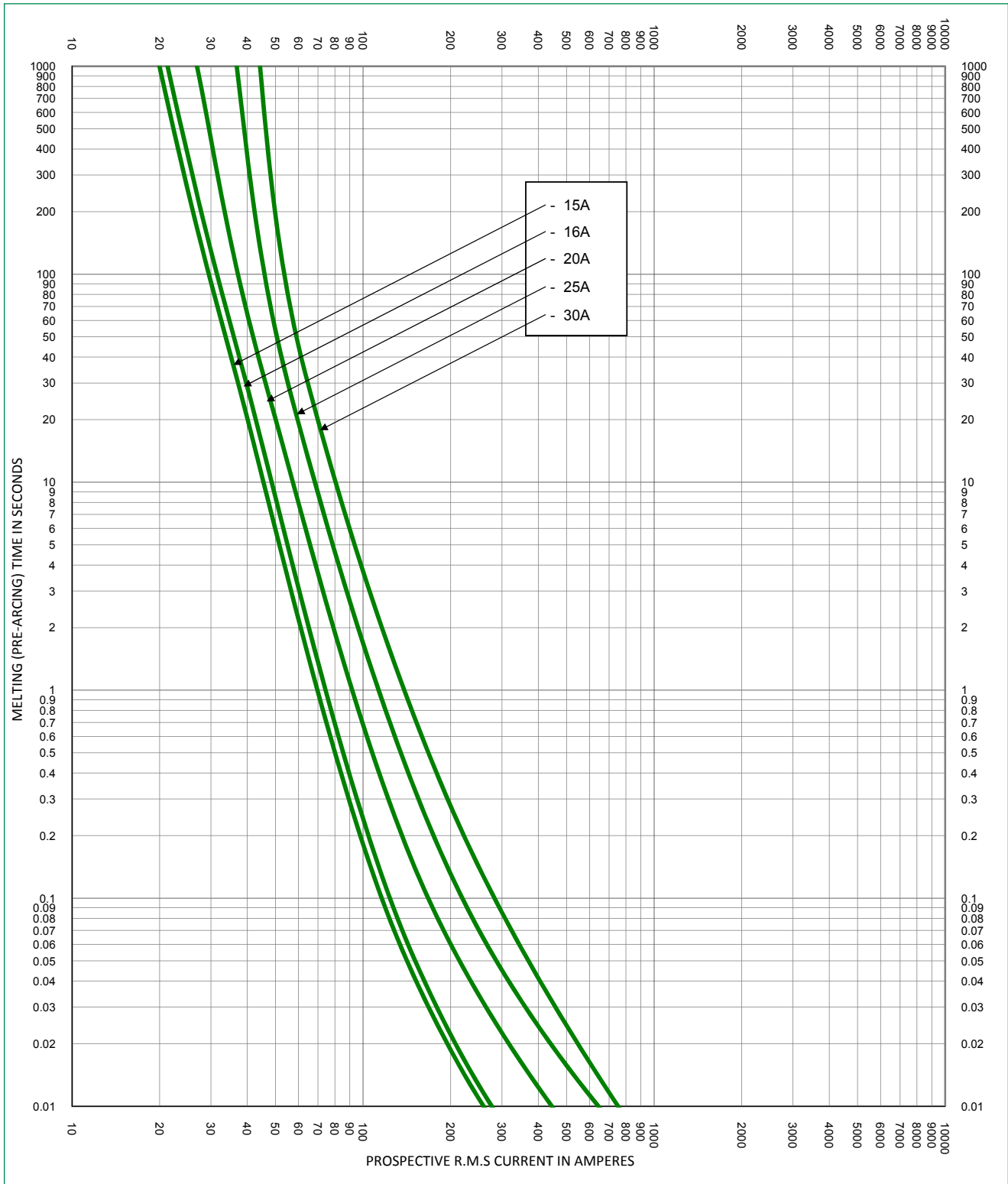
SPXV Time Current Curve
(1–3.5 A)



SPXV Time Current Curve
(4–12 A)



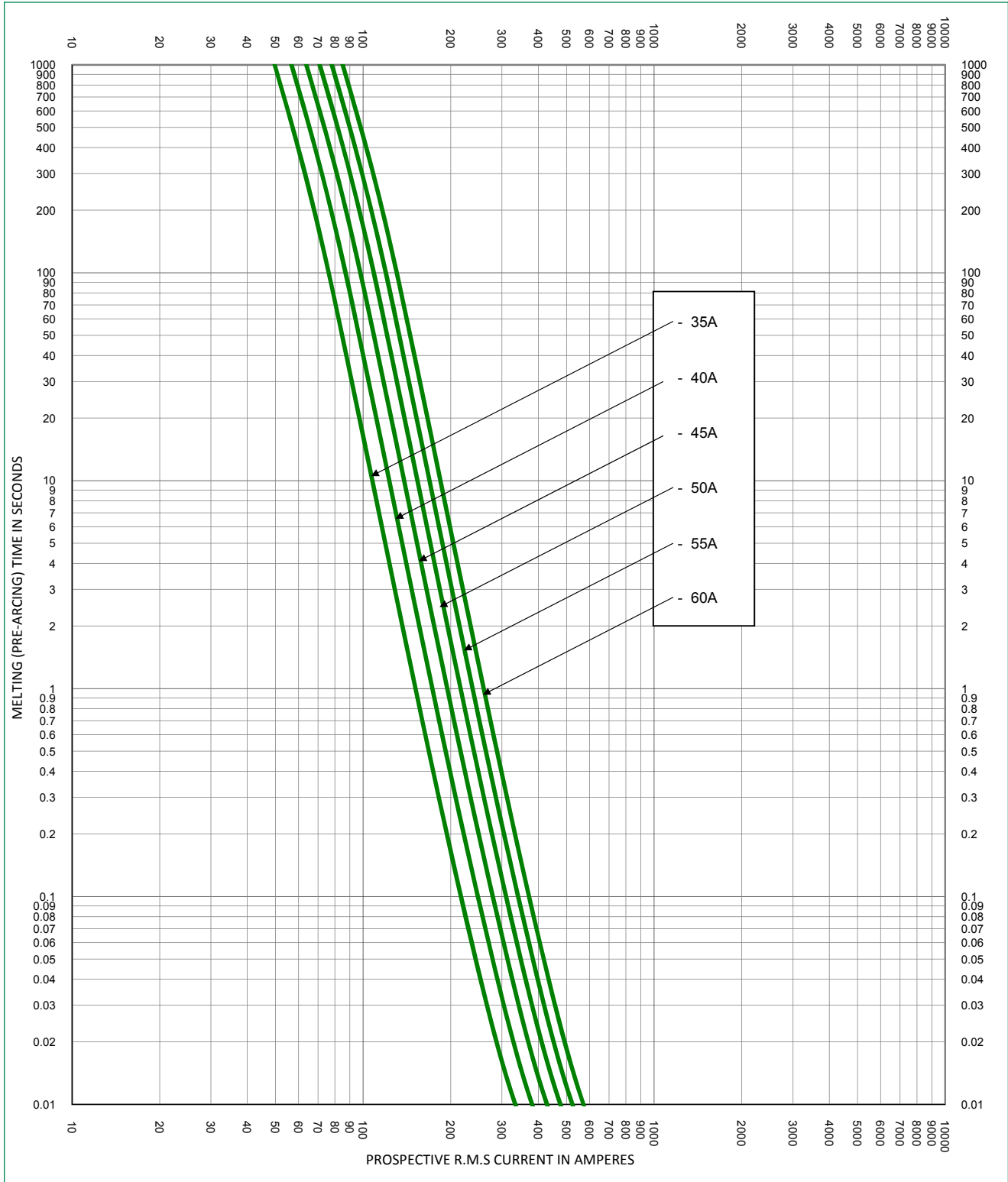
SPXV Time Current Curve
(15–30 A)



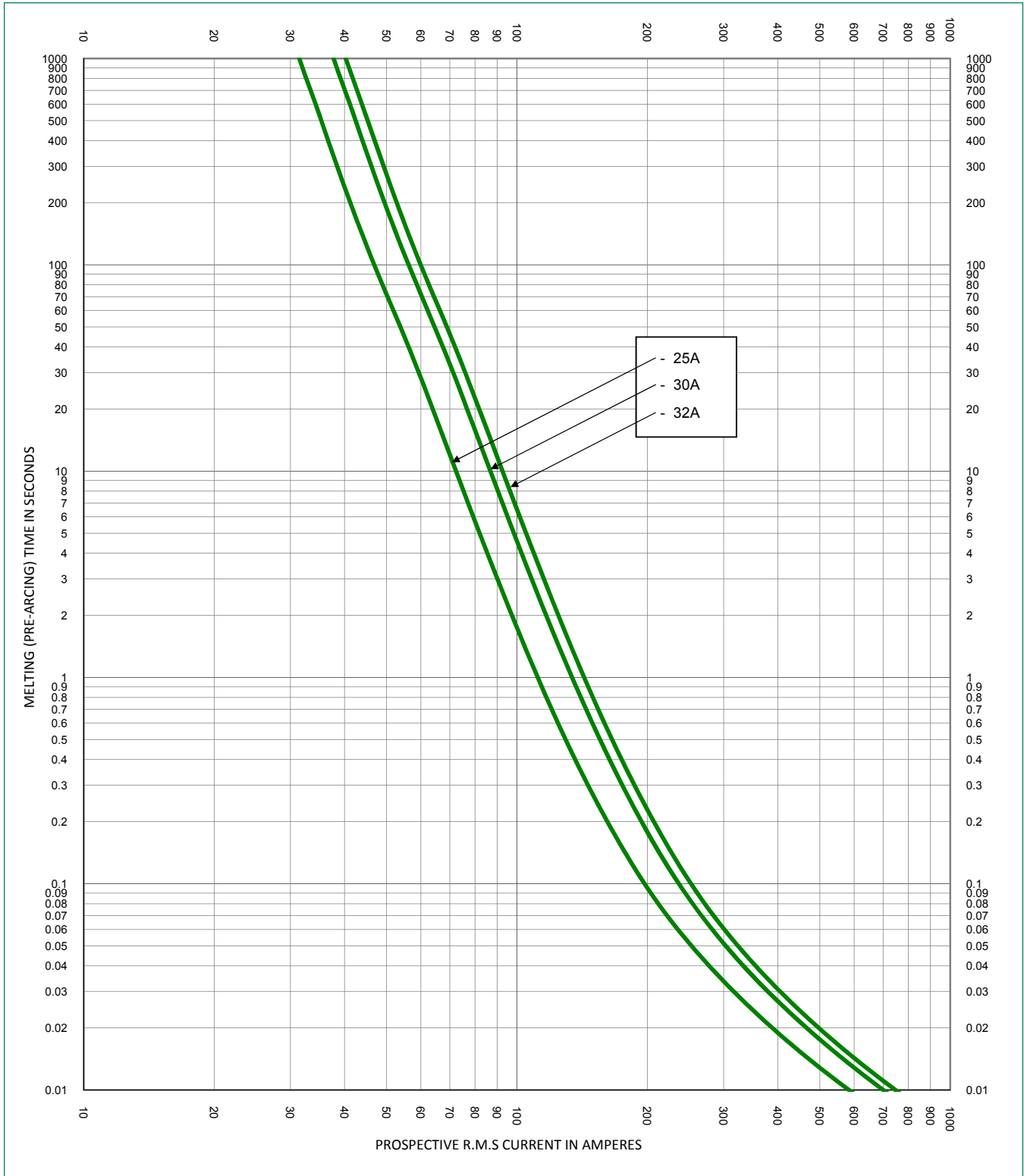
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SPXV Time Current Curve (35–60 A)



SPXV-M Time Current Curve
(25 – 32 A)



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