

POWR-GARD® Fuse

SPXV_CN SERIES SOLAR FUSE

1500 V dc • 1–32 A



Description

The Littelfuse SPXV_CN 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

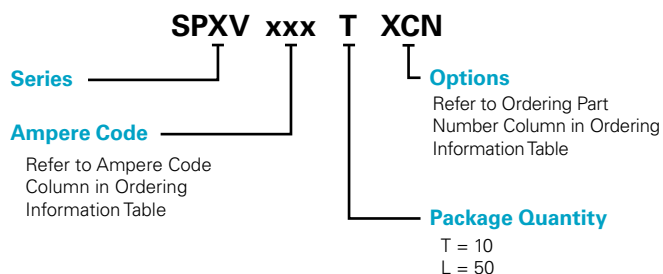
Recommended Accessories

Fuse Holder: 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, 25, 30, 32 A
Interrupting Rating	SPXV 1 A–20 A: 30 kA (50 kA self-certified) SPXV-M 25 A–32 A: 50 kA
Time Constant	≤ 1 ms
Material	Body: melamine Caps: copper alloy (nickel plated)
Approval	UL and cUL Listed (File: E339112), TUV (Cert: J 50506219)
Applicable Standards	UL 248-1, 248-19 IEC 60269-6
Environmental	RoHS Compliant REACH
Country of Origin	China

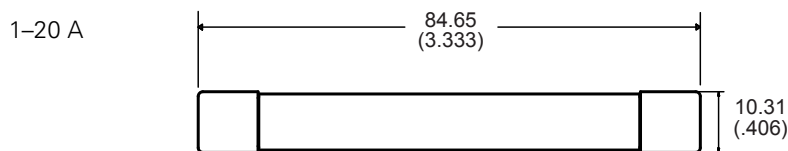
Part Numbering System



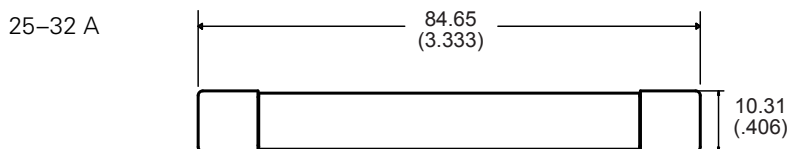
Web Resources

Download technical resources at: [Littelfuse.com/Solar](https://www.littelfuse.com/Solar)

SPXV_CN Dimensions mm (in)



SPXV-M_CN Dimensions mm (in)



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Ordering Information

SERIES	AMPERAGE	AMPERE CODE	CATALOG NUMBER	PACK QUANTITY	ORDERING PART NUMBER	UPC
SPXV	1	001.	SPXV001CN	10	SPXV001.TXCN	07945826571
				50	SPXV001.LXCN	07945826585
SPXV	2	002.	SPXV002CN	10	SPXV002.TXCN	07945826572
				50	SPXV002.LXCN	07945826586
SPXV	2.25	2.25	SPXV2.25CN	10	SPXV2.25TXCN	07945826573
				50	SPXV2.25LXCN	07945826587
SPXV	2.5	02.5	SPXV02.5CN	10	SPXV02.5TXCN	07945826574
				50	SPXV02.5LXCN	07945826588
SPXV	3	003.	SPXV003CN	10	SPXV003.TXCN	07945826575
				50	SPXV003.LXCN	07945826589
SPXV	3.5	03.5	SPXV03.5CN	10	SPXV03.5TXCN	07945826576
				50	SPXV03.5LXCN	07945826590
SPXV	4	004.	SPXV004CN	10	SPXV004.TXCN	07945826577
				50	SPXV004.LXCN	07945826591
SPXV	4.5	04.5	SPXV04.5CN	10	SPXV04.5TXCN	07945828662
				50	SPXV04.5LXCN	07945828661
SPXV	5	005.	SPXV005CN	10	SPXV005.TXCN	07945826578
				50	SPXV005.LXCN	07945826592
SPXV	6	006.	SPXV006CN	10	SPXV006.TXCN	07945826579
				50	SPXV006.LXCN	07945826593
SPXV	8	008.	SPXV008CN	10	SPXV008.TXCN	07945826580
				50	SPXV008.LXCN	07945826594
SPXV	10	010.	SPXV010CN	10	SPXV010.TXCN	07945826581
				50	SPXV010.LXCN	07945826595
SPXV	12	012.	SPXV012CN	10	SPXV012.TXCN	07945826582
				50	SPXV012.LXCN	07945826596
SPXV	15	015.	SPXV015CN	10	SPXV015.TXCN	07945826583
				50	SPXV015.LXCN	07945826597
SPXV	16	016.	SPXV016CN	10	SPXV016.TXCN	07945828664
				50	SPXV016.LXCN	07945828663
SPXV	20	020.	SPXV020CN	10	SPXV020.TXCN	07945826584
				50	SPXV020.LXCN	07945826598
SPXV	25	025.	SPXV025MCN	10	SPXV025.TXMCN	07945826605
				50	SPXV025.LXMCN	07945826608
SPXV	30	030.	SPXV030MCN	10	SPXV030.TXMCN	07945826606
				50	SPXV030.LXMCN	07945826609
SPXV	32	032.	SPXV032MCN	10	SPXV032.TXMCN	07945826607
				50	SPXV032.LXMCN	07945826610

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Electrical Specifications

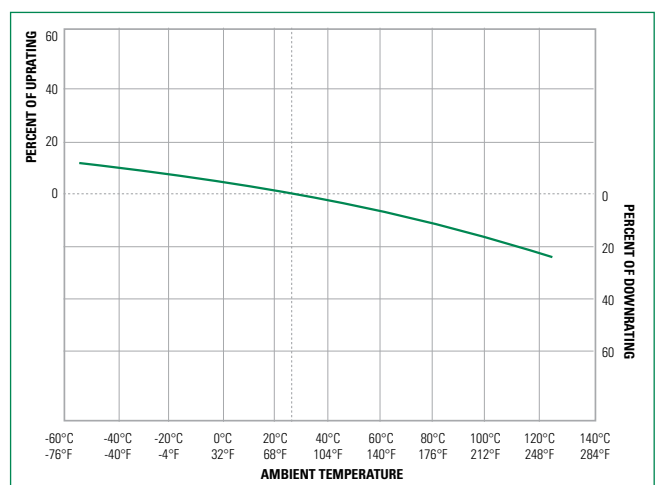
AMPERAGE	AMPERE CODE	CATALOG NUMBER	FUSE LABEL ID	VOLTAGE		INTERRUPTING RATING (kA)	NOM COLD RESISTANCE (ohm)	WATTS LOSS AT 100 % RATED CURRENT (W)	WATTS LOSS AT 80 % RATED CURRENT (W)	MELTING I _t (A²s) (1500 V dc)	TOTAL CLEARING I _t (A²s) 15 kA (1500 V dc)	TOTAL CLEARING I _t (A²s) 30 kA (1500 V dc)	TOTAL CLEARING I _t (A²s) 50 kA (1500 V dc)	AGENCY APPROVALS	
				DC	DC									cULus	TUV
1	001.	SPXV001CN	SPXV 1A	1500	50 kA*	0.926	1.67	0.90	0.27	0.5	—	—	—	•	•
2	002.	SPXV002CN	SPXV 2A	1500	50 kA*	0.289	2.17	1.10	1.35	3.2	—	—	—	•	•
2.25	2.25	SPXV2.25CN	SPXV 2 ¼A	1500	50 kA*	0.246	2.43	1.21	1.59	4.4	—	—	—	•	•
2.5	02.5	SPXV02.5CN	SPXV 2 ½A	1500	50 kA*	0.223	2.90	1.40	3.68	5.8	—	—	—	•	•
3	003.	SPXV003CN	SPXV 3A	1500	50 kA*	0.159	2.91	1.41	6	12	—	—	—	•	•
3.5	03.5	SPXV03.5CN	SPXV 3 ½A	1500	50 kA*	0.124	2.95	1.47	10	19	16	—	—	•	•
4	004.	SPXV004CN	SPXV 4A	1500	50 kA*	0.1067	2.99	1.58	14	24	—	—	—	•	•
4.5	04.5	SPXV04.5CN	SPXV 4 ½A	1500	50 kA*	0.0899	2.84	1.54	34	55	—	—	—	•	•
5	005.	SPXV005CN	SPXV 5A	1500	50 kA*	0.0644	3.04	1.59	48	71	—	—	—	•	•
6	006.	SPXV006CN	SPXV 6A	1500	50 kA*	0.058	3.05	1.71	49	75	—	—	—	•	•
8	008.	SPXV008CN	SPXV 8A	1500	50 kA*	0.035	3.26	1.84	121	214	—	—	—	•	•
10	010.	SPXV010CN	SPXV 10A	1500	50 kA*	0.022	3.25	1.82	407	509	—	—	—	•	•
12	012.	SPXV012CN	SPXV 12A	1500	50 kA*	0.016	3.34	1.89	798	951	1154	—	—	•	•
15	015.	SPXV015CN	SPXV 15A	1500	50 kA*	0.013	5.27	3.05	299	637	—	—	—	•	•
16	016.	SPXV016CN	SPXV 16A	1500	50 kA*	0.013	5.32	3.08	404	666	—	—	—	•	•
20	020.	SPXV020CN	SPXV 20A	1500	50 kA*	0.009	5.38	3.14	701	1464	1738	—	—	•	•
25	025.	SPXV025MCN	SPXV 25A-M	1500	50 kA	0.007	6.10	3.40	2304	—	—	3256	—	•	•
30	030.	SPXV030MCN	SPXV 30A-M	1500	50 kA	0.005	7.10	4.00	3792	—	—	5543	—	•	•
32	032.	SPXV032MCN	SPXV 32A-M	1500	50 kA	0.005	7.30	4.10	4350	—	—	6655	—	•	•

* Self-certified

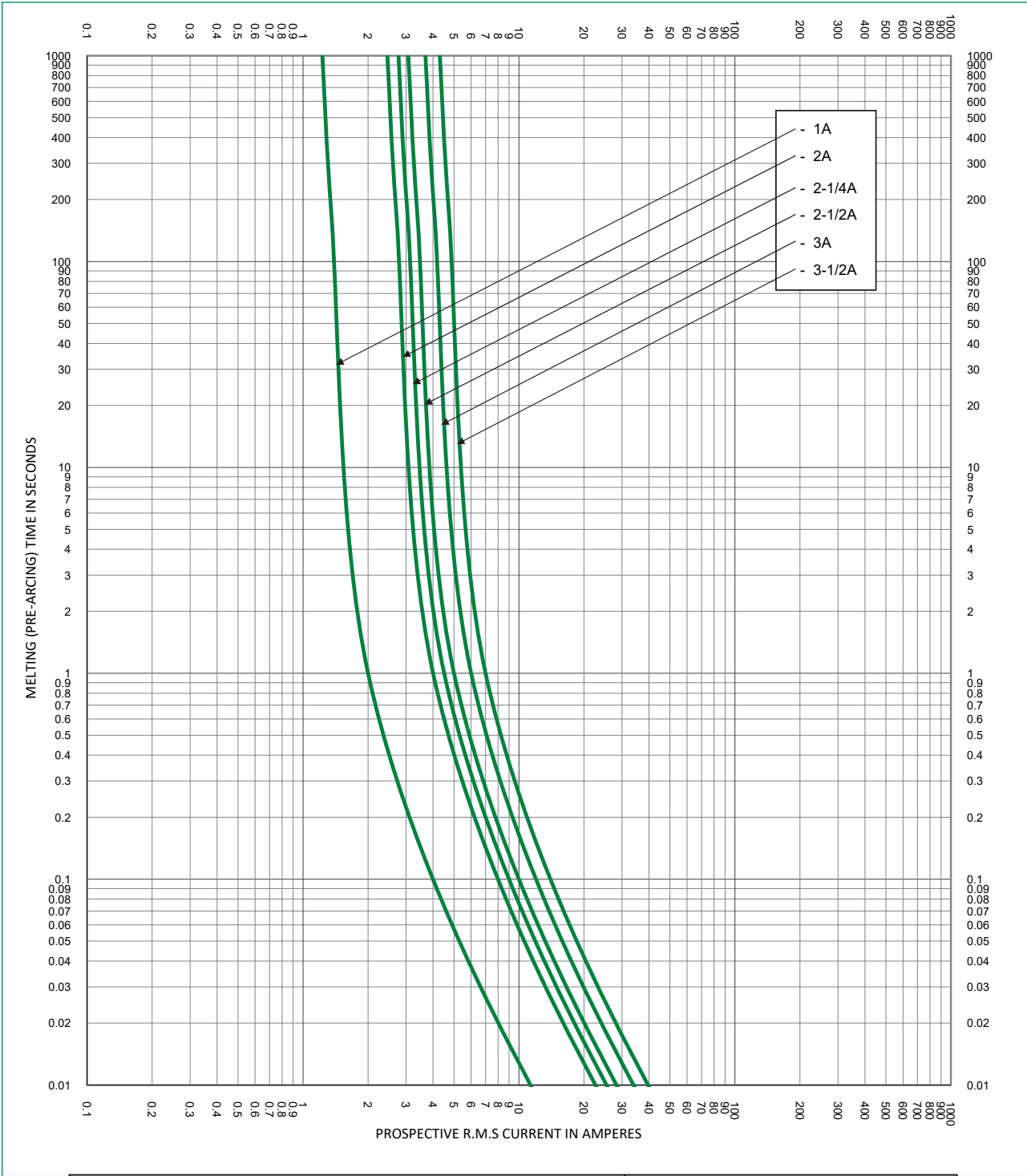
Electrical Specification — Agency Requirements

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	Temperature Stabilization	60 Min	60 Max	6 Max

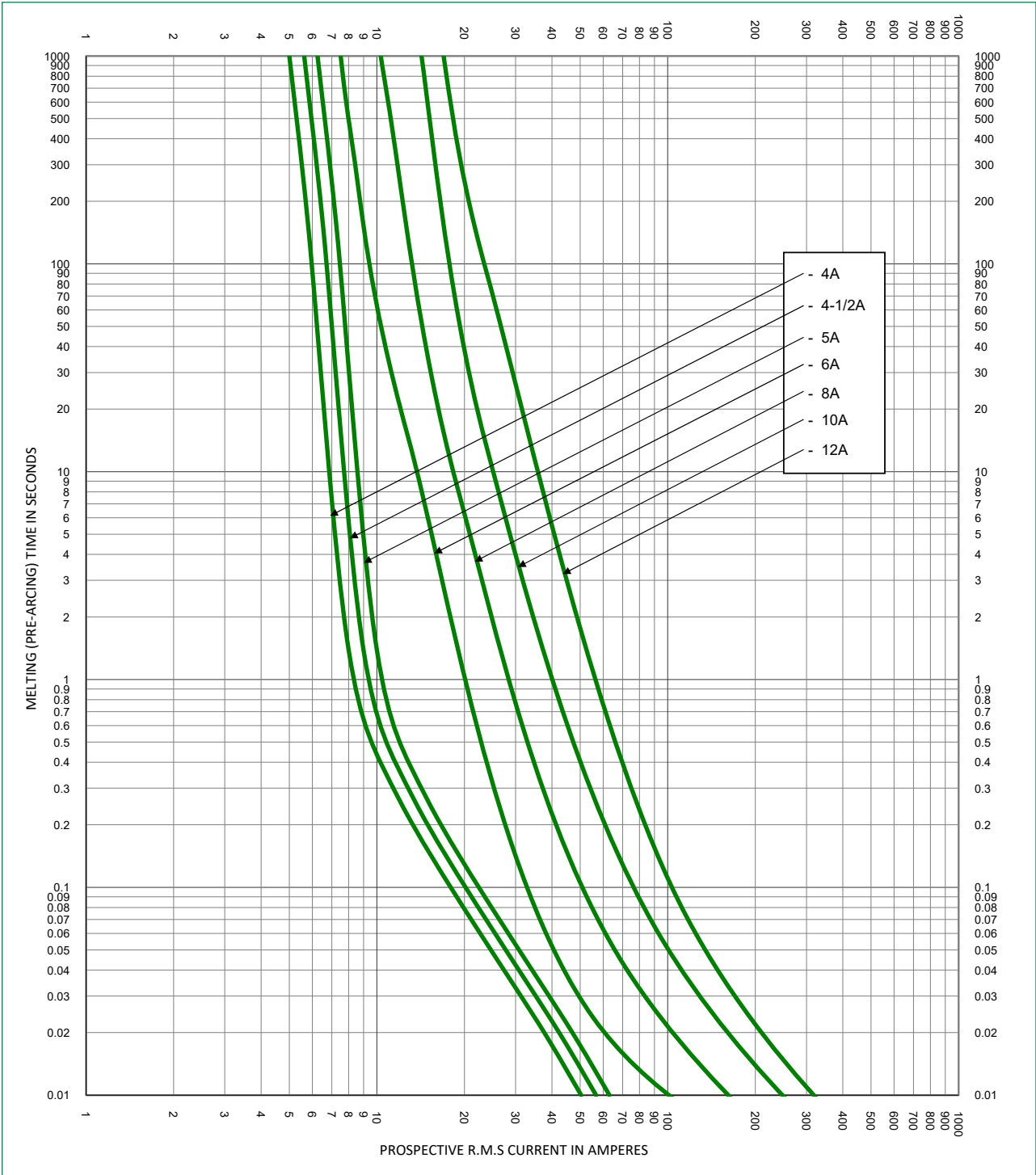
Temperature Derating Curve (temperature of air immediately surrounding fuse)



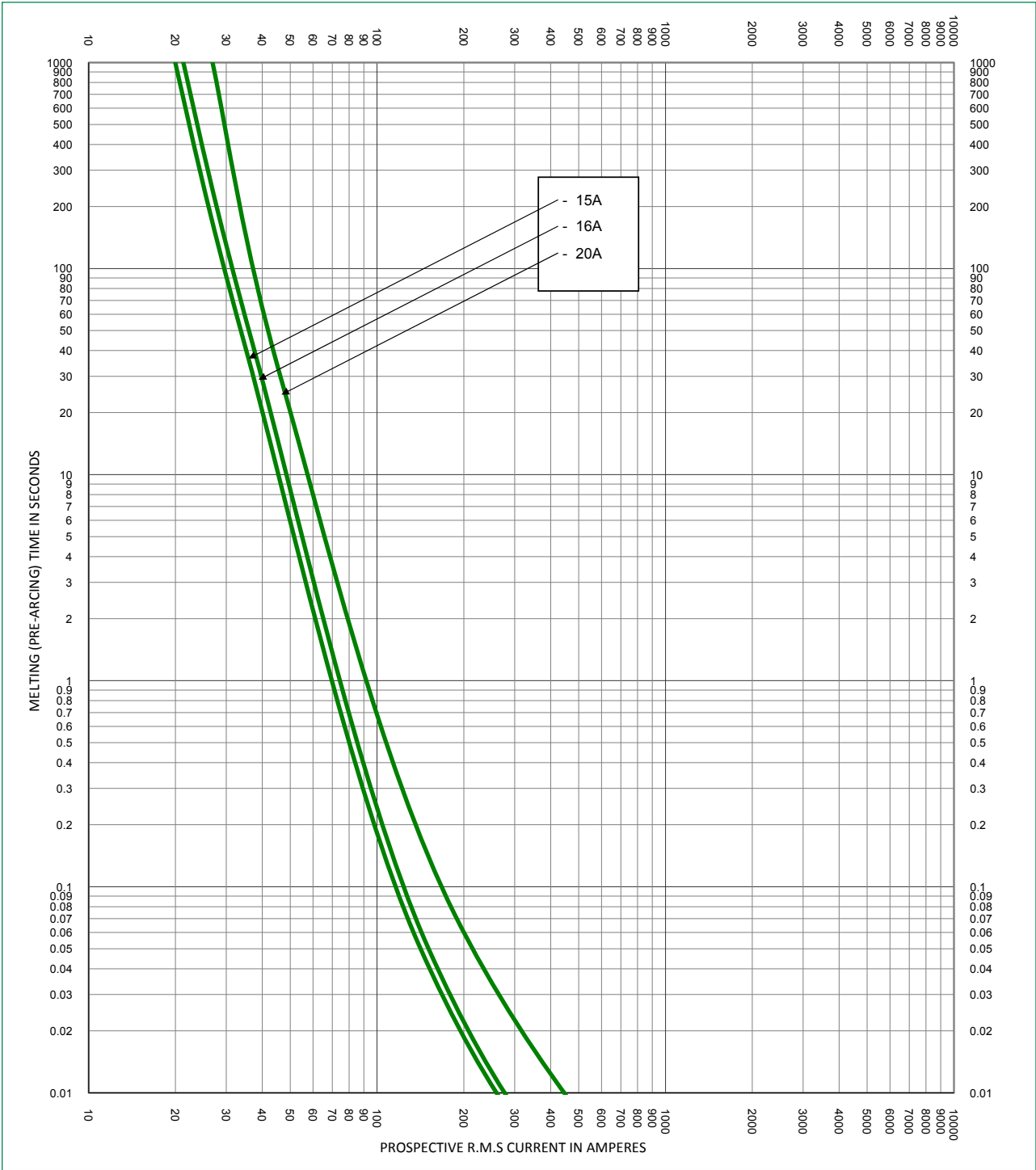
SPXV_CN Time Current Curve
(1–3.5 A)



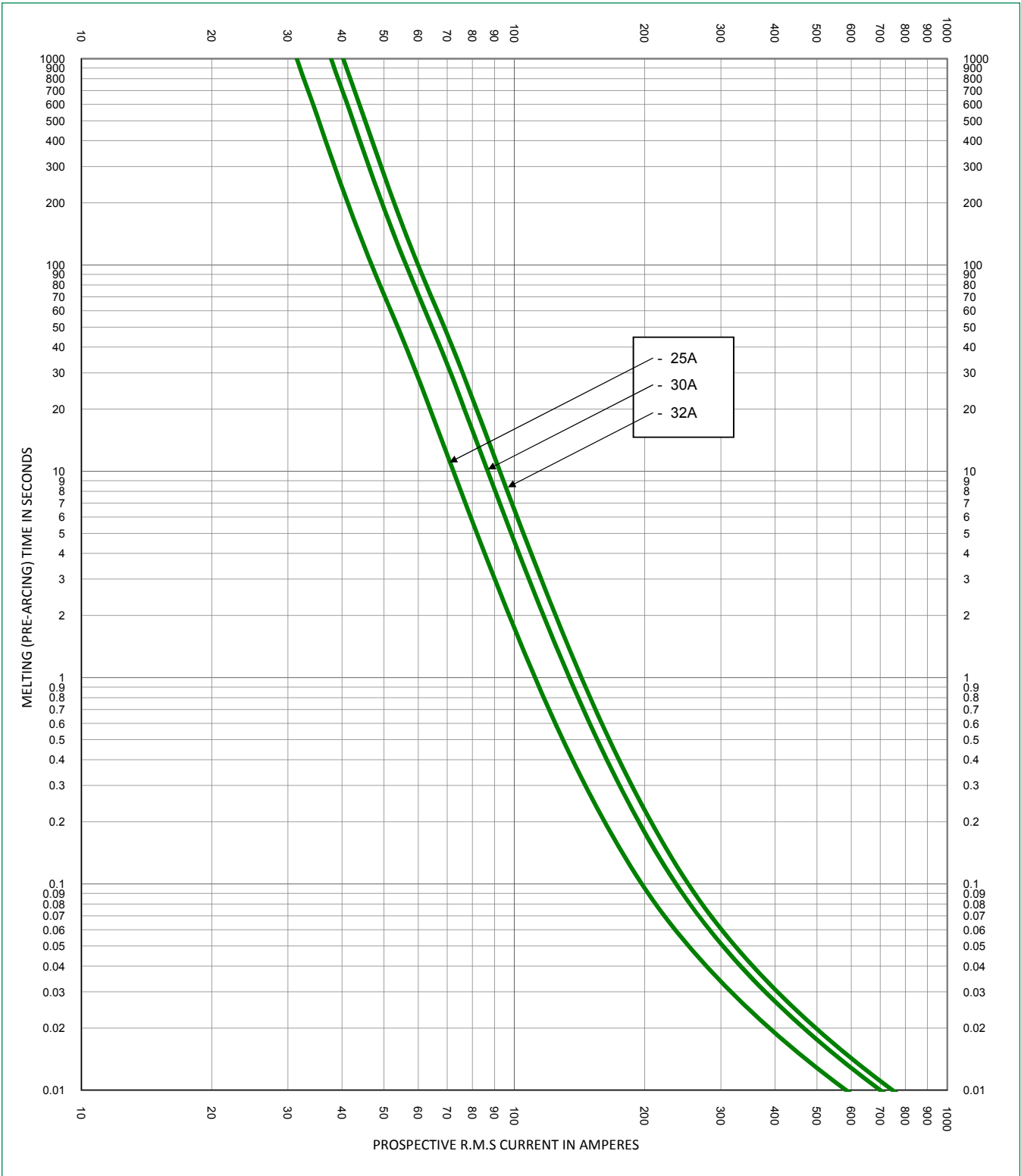
SPXV_CN Time Current Curve
(4-12 A)



SPXV_CN Time Current Curve
(15–20 A)



SPXV-M_CN Time Current Curve
(25–32 A)



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