

# XL Photovoltaic fuse links



## Product description

Eaton's Bussmann® series XL fuse links are specifically designed to protect and isolate photovoltaic array combiners and disconnects. These fuse links are capable of interrupting low overcurrents associated with faulted PV systems (reverse current, multi-array fault).

## Standard features

- Global accreditations
- Compatible with Eaton's Bussmann series PV XL bases range (see data sheet 10066)

### Catalogue symbol

1000 V d.c.	Fuse body size			
Fuse type	01	1	2	3
Bladed	PV-(amp rating)-01XL	PV-(amp rating)-1XL	PV-(amp rating)2XL	PV-(amp rating)-3L
Bolted	PV-(amp rating)-01XL-B	PV-(amp rating)-1XL-B	PV-(amp rating)2XL-B	PV-(amp rating)-3L-B
			PV-(amp rating)2XL-3B <sup>1</sup>	

1500 V d.c.	Fuse body size			
Fuse type	01	1	2	3
Bladed with top indicator	PV-(amp rating)-01XL-15	PV-(amp rating)-1XL-15	PV-(amp rating)-2XL-15	PV-(amp rating)-3L-15
Bladed <b>without</b> top indicator				PV-(amp rating)-3L-U-15
Bolted with side indicator	PV-(amp rating)-01XL-B-15	PV-(amp rating)-1XL-B-15	PV-(amp rating)-2XL-B-15	PV-(amp rating)-3L-B-15
			PV-(amp rating)-2XL-3B-15 <sup>1</sup>	
Bolted <b>without</b> side indicator				PV-(amp rating)-3L-BU-15

### Fuse size

- 01XL, 1XL, 2XL and 3L

### Technical data

Rated voltage: 1000, 1200, 1500 V d.c.

Rated current: 50 to 600 A

Breaking capacity see details in technical data table page 3

Time constant: 1-3 mS

Class of operation: gPV and UL PV fuse links

Minimum interrupting rating:  $2 \times I_n$

### Standards/Approvals

- IEC 60269-6
- UL 248-19 (file number E335324)
- RoHS compliant

### Microswitches

- For bladed fuse links
  - 170H0235 or 170H0237 for 01XL
  - 170H0236 or 170H0238 for 1XL, 2XL and 3L
- For bolted fuse links
  - 170H0069 for all sizes

### Fuse holders (ordered separately)

- SB1XL-S (suitable for fuse body size 01 and 1XL)
- SB2XL-S (suitable for fuse body size 2XL)
- SB3L-S (suitable for fuse body size 3L)

### Packaging

- MOQ: 1

<sup>1</sup> PV-\*A-2XL-3B and PV-\*A-2XL-3B-15 have revised bolting patterns, which are identical to size 3L bolting pattern. This allows utilisation of both size 2XL and size 3L fuse links without changing the dimensional layout of the inverter, combiners and disconnects.

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Table 1. Technical data 1000 V d.c.

Catalogue numbers		Fuse size	Current (amps)	Voltage (V d.c.)	Breaking capacity (kA)	Energy integrals I <sup>2</sup> t (A <sup>2</sup> S)		Watts loss	
Bladed	Bolted					Pre-arcing	Total at 1000 V d.c.	0.8In	In
PV-63A-01XL	PV-63A-01XL-B	01	63	1000	50	260	1900	13	24
PV-80A-01XL	PV-80A-01XL-B	01	80	1000	50	490	3600	17	29
PV-100A-01XL	PV-100A-01XL-B	01	100	1000	50	870	6300	18	32
PV-125A-01XL	PV-125A-01XL-B	01	125	1000	50	1930	13900	20	40
PV-160A-01XL	PV-160A-01XL-B	01	160	1000	50	3900	28100	22	44
PV-200A-1XL	PV-200A-1XL-B	1	200	1000	33	9400	27260	31	60
PV-160A-2XL	PV-160A-2XL-B	2	160	1000	33	2780	21000	25	44
PV-200A-2XL	PV-200A-2XL-B	2	200	1000	33	4950	37000	28	50
PV-250A-2XL	PV-250A-2XL-B	2	250	1000	33	9450	70000	34	60
PV-315A-2XL	PV-315A-2XL-B	2	315	1000	33	16600	123000	40	66
PV-355A-2XL	PV-355A-2XL-B	2	355	1000	33	26000	192000	42	68
	PV-160A-2XL-3B <sup>1</sup>	2	160	1000	33	2780	21000	25	44
	PV-200A-2XL-3B <sup>1</sup>	2	200	1000	33	4950	37000	28	50
	PV-250A-2XL-3B <sup>1</sup>	2	250	1000	33	9450	70000	34	60
	PV-315A-2XL-3B <sup>1</sup>	2	315	1000	33	16600	123000	40	66
	PV-355A-2XL-3B <sup>1</sup>	2	355	1000	33	26000	192000	42	68
PV-350A-3L	PV-350A-3L-B	3	350	1000	50	31000	161200	40	65
PV-400A-3L	PV-400A-3L-B	3	400	1000	50	44500	231400	48	82
PV-500A-3L	PV-500A-3L-B	3	500	1000	50	85000	442000	50	85
PV-600A-3L	PV-600A-3L-B	3	600	1000	50	137000	712400	80	108

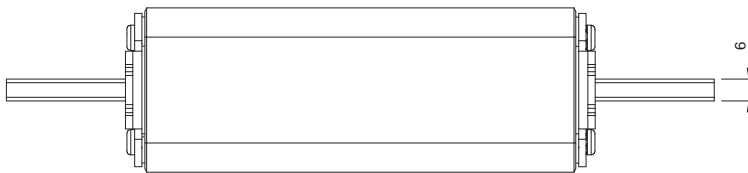
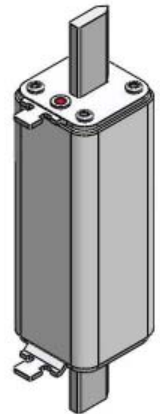
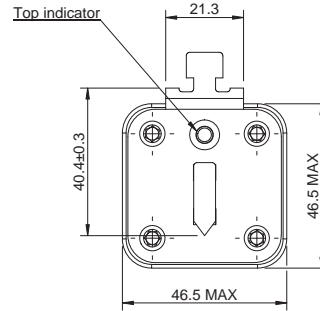
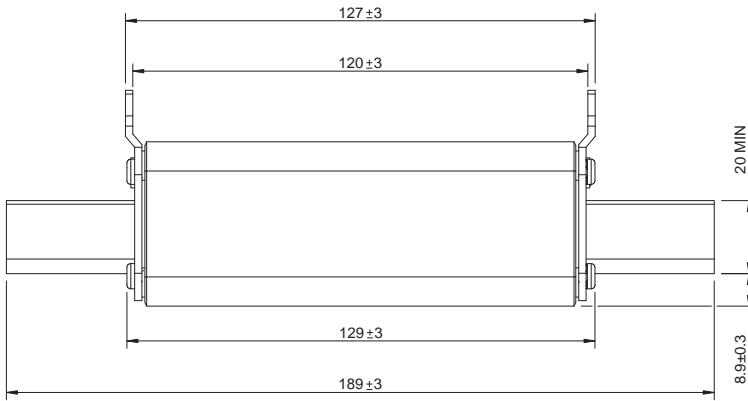
Table 2. Technical data 1500 V d.c.

Catalogue numbers				Fuse size	Current (amps)	Voltage (V d.c.)	Breaking capacity (kA)	Energy integrals I <sup>2</sup> t (A <sup>2</sup> S)		Watts loss	
Bladed with top indicator	Bladed without top indicator	Bolted with side indicator	Bolted without side indicator					Pre-arcing	Total at 1500 V d.c.	0.8In	In
PV-50A-01XL-15		PV-50A-01XL-B-15		01	50	1500	30	175	1000	14	25
PV-63A-01XL-15		PV-63A-01XL-B-15		01	63	1500	30	362	2250	15	26
PV-80A-01XL-15		PV-80A-01XL-B-15		01	80	1500	30	565	3300	19	35
PV-100A-01XL-15		PV-100A-01XL-B-15		01	100	1500	30	1100	6600	22	40
PV-125A-01XL-15		PV-125A-01XL-B-15		01	125	1500	30	2200	10500	23	42
PV-160A-01XL-12		PV-160A-01XL-B-12		01	160	1200	30	5000	24000	26	52
PV-100A-1XL-15		PV-100A-1XL-B-15		1	100	1500	30	1250	6000	24	43
PV-125A-1XL-15		PV-125A-1XL-B-15		1	125	1500	30	1950	9360	25	52
PV-160A-1XL-15		PV-160A-1XL-B-15		1	160	1500	30	4200	20160	30	58
PV-200A-1XL-15		PV-200A-1XL-B-15		1	200	1500	30	9400	45120	31	61
PV-125A-2XL-15		PV-125A-2XL-B-15		2	125	1500	30	2200	15000	25	44
PV-160A-2XL-15		PV-160A-2XL-B-15		2	160	1500	30	5000	32000	29	48
PV-200A-2XL-15		PV-200A-2XL-B-15		2	200	1500	30	8800	51000	32	57
PV-250A-2XL-15		PV-250A-2XL-B-15		2	250	1500	30	16600	85000	40	70
		PV-125A-2XL-3B-15 <sup>1</sup>		2	125	1500	30	2200	15000	25	44
		PV-160A-2XL-3B-15 <sup>1</sup>		2	160	1500	30	5000	32000	29	48
		PV-200A-2XL-3B-15 <sup>1</sup>		2	200	1500	30	8800	51000	32	57
		PV-250A-2XL-3B-15 <sup>1</sup>		2	250	1500	30	16600	85000	40	70
PV-250A-3L-15		PV-250A-3L-B-15		3	250	1500	50	74000	263000	28	49
PV-315A-3L-15	PV-315A-3L-U-15	PV-315A-3L-B-15	PV-315A-3L-BU-15	3	315	1500	50	150000	533000	30	52
PV-355A-3L-15	PV-355A-3L-U-15	PV-355A-3L-B-15	PV-355A-3L-BU-15	3	355	1500	50	195000	693000	33	58
PV-400A-3L-15	PV-400A-3L-U-15	PV-400A-3L-B-15	PV-400A-3L-BU-15	3	400	1500	100	296000	1060000	35	61
PV-500A-3L-15	PV-500A-3L-U-15	PV-500A-3L-B-15	PV-500A-3L-BU-15	3	500	1500	100	532000	1890000	42	73

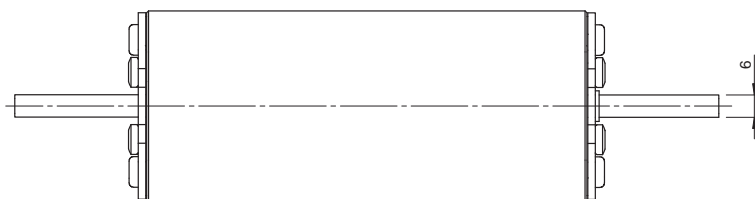
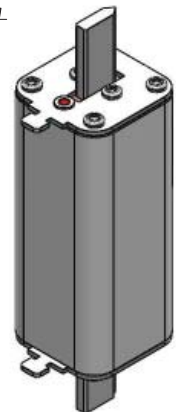
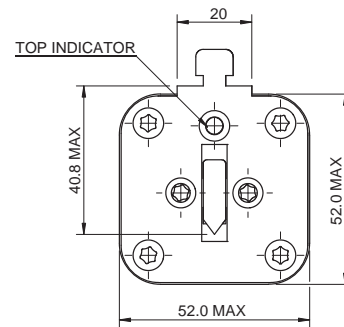
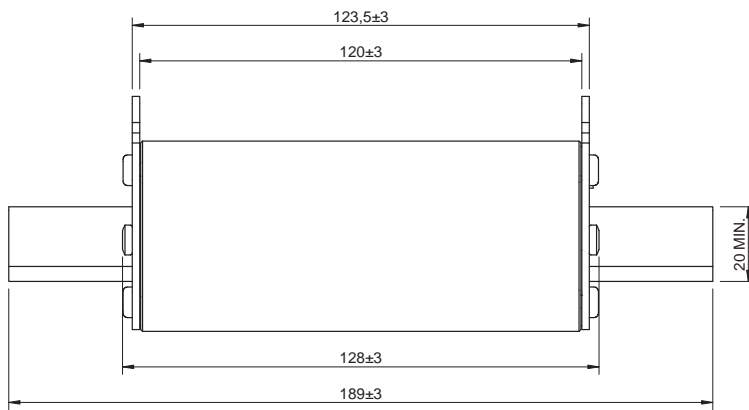
<sup>1</sup> PV-\*A-2XL-3B and PV-\*A-2XL-3B-15 have revised bolting patterns, which are identical to size 3L bolting pattern. This allows utilisation of both size 2XL and size 3L fuse links without changing the dimensional layout of the inverter, combiners and disconnects.

**Dimensions - mm**

Bladed - size 01XL

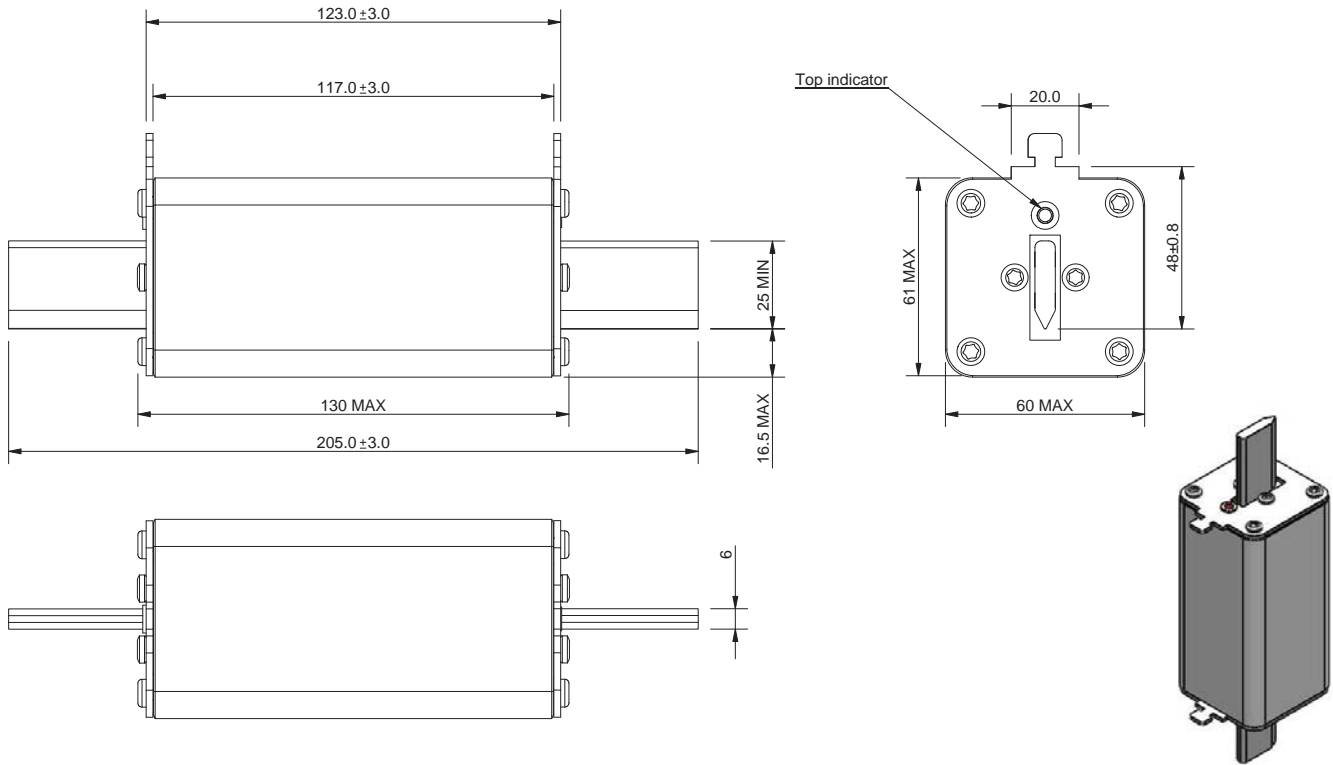


Bladed - size 1XL

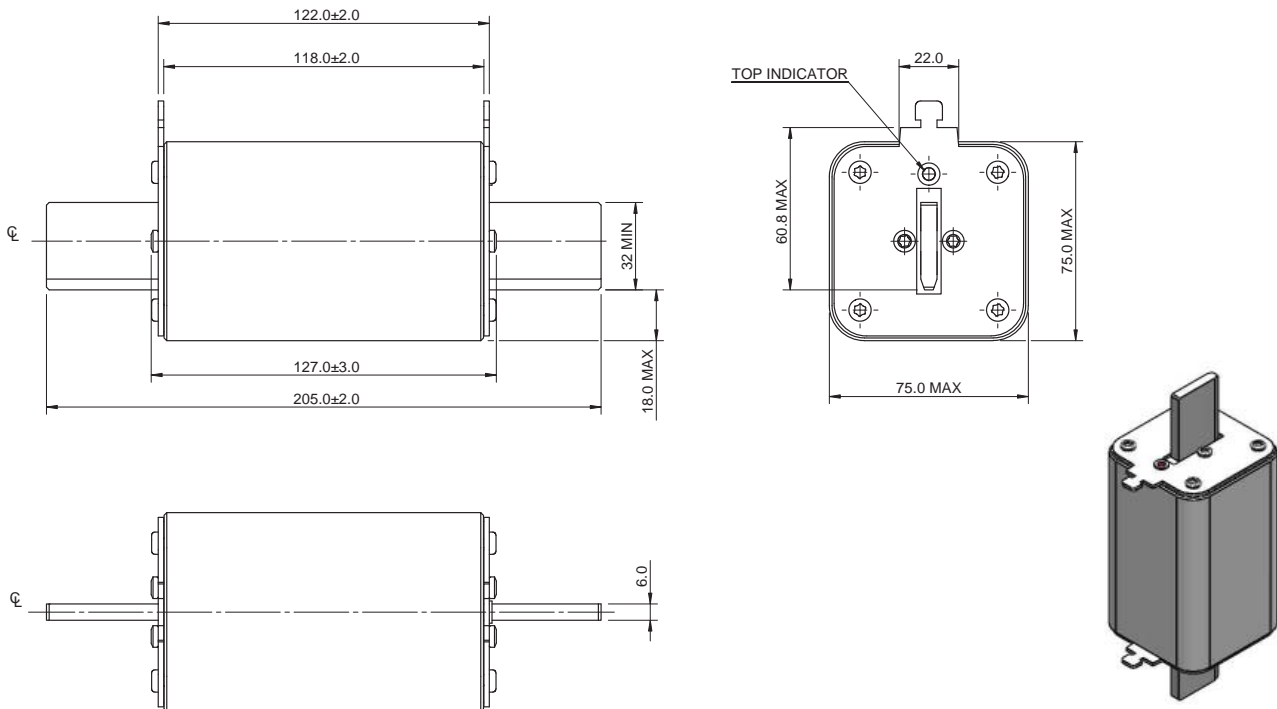


**Dimensions - mm**

Bladed - size 2XL



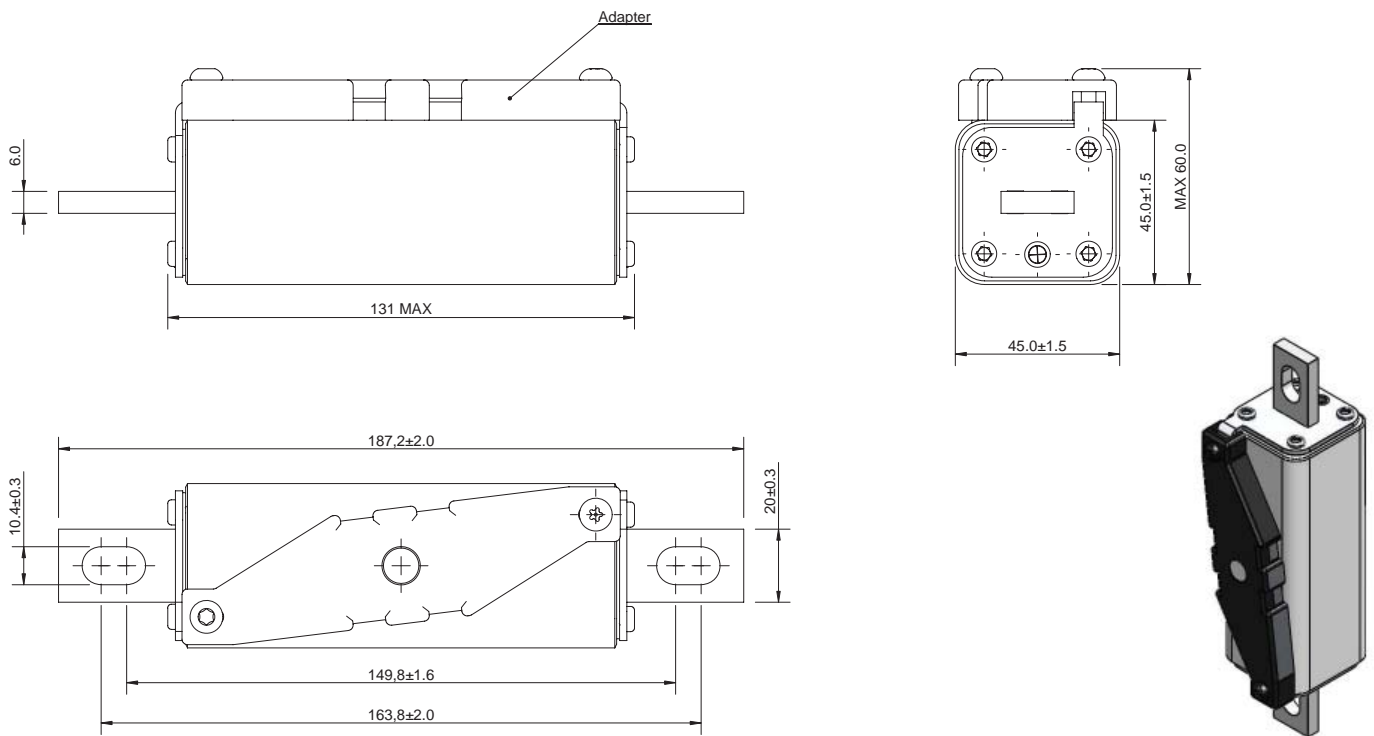
Bladed - size 3L



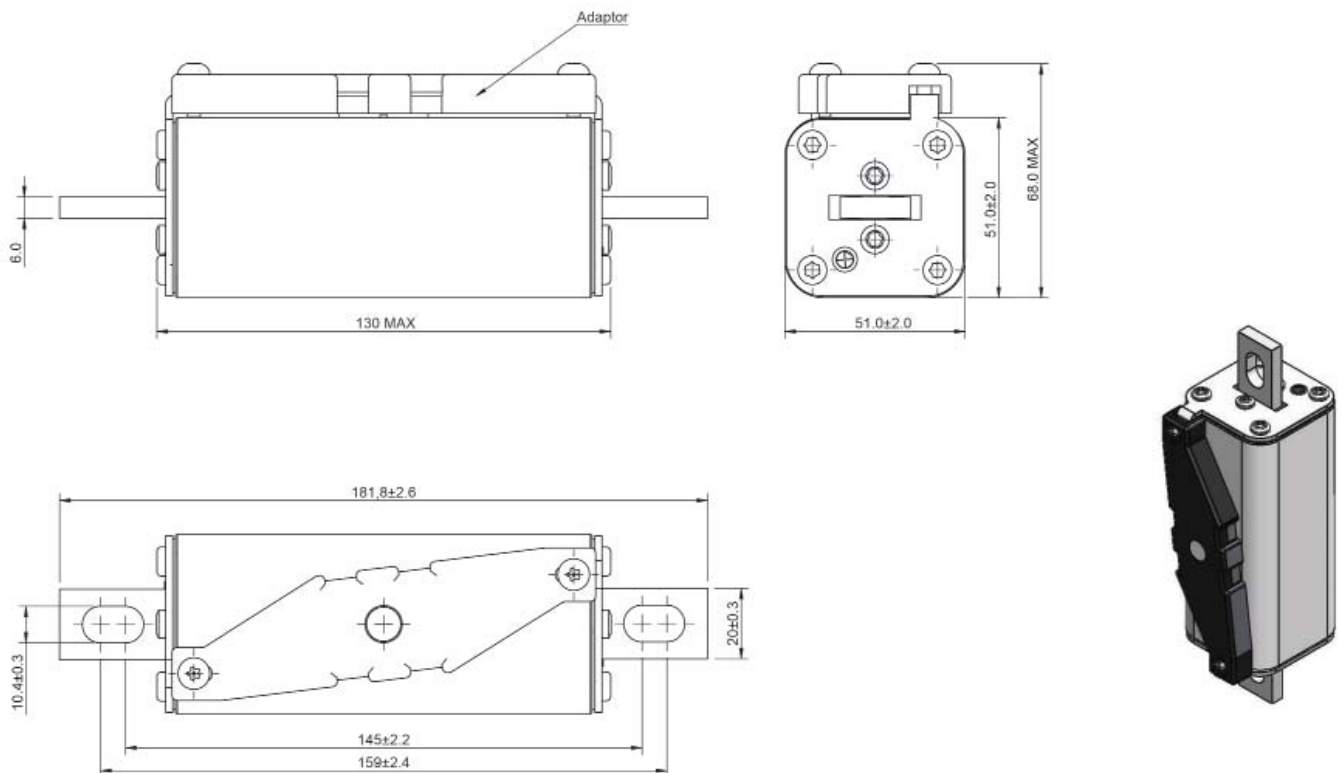
## XL Photovoltaic fuse links

### Dimensions - mm

Bolted - size 01XL

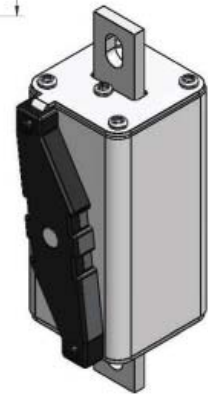
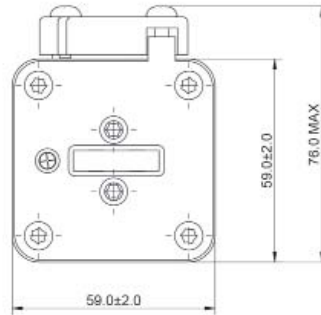
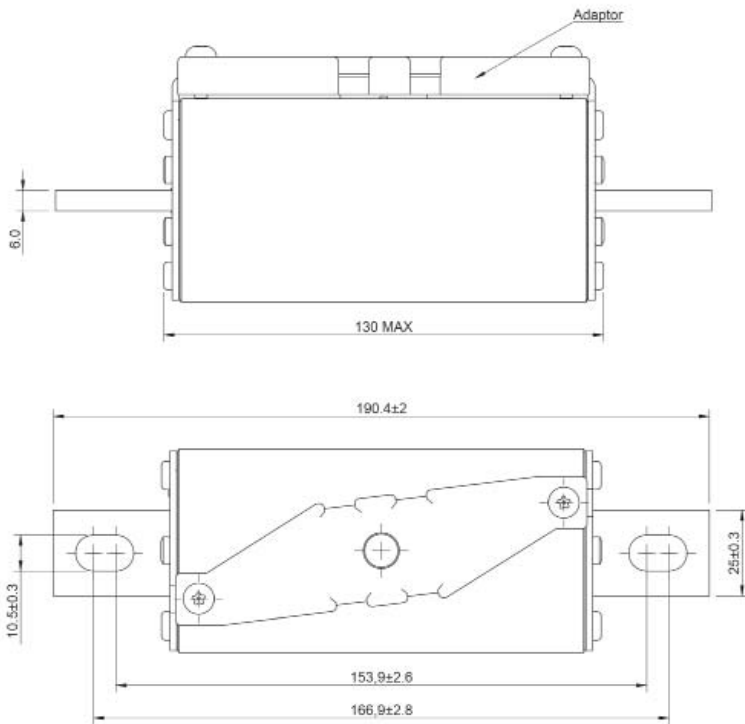


Bolted - size 1XL

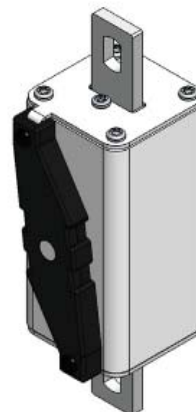
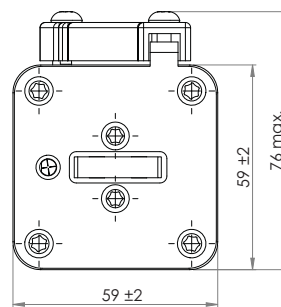
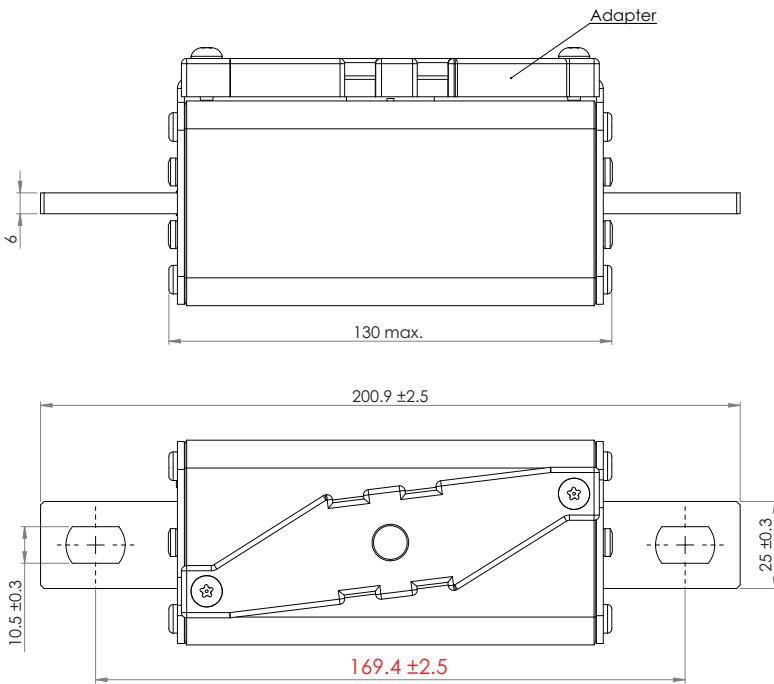


**Dimensions - mm**

Bolted - size 2XL



Bolted - size 2XL-3B<sup>1</sup>



<sup>1</sup> PV-\*A-2XL3B and PV-\*A-2XL3B-15 have revised bolting patterns, which are identical to size 3L bolting pattern. This allows utilisation of both size 2XL and size 3L fuse links without changing the dimensional layout of the inverter, combiners and disconnects.

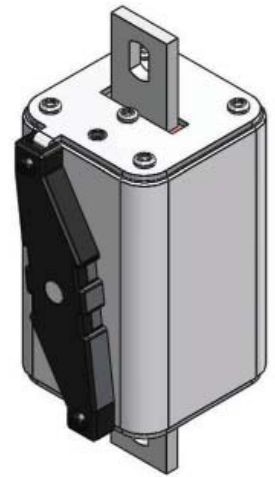
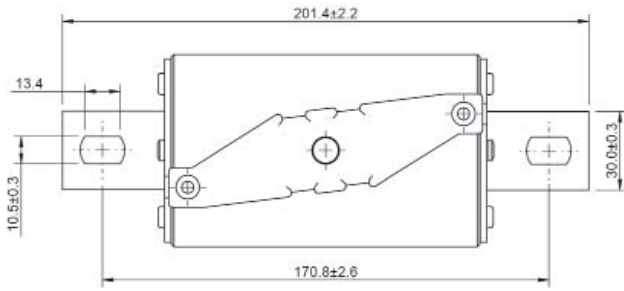
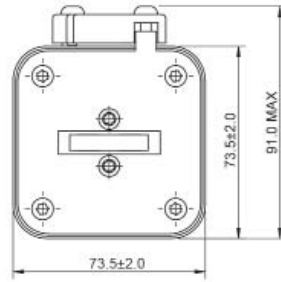
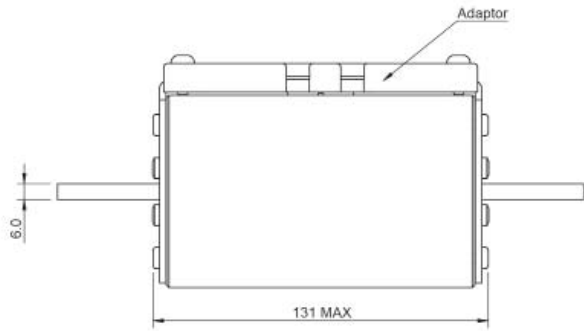
**Mounting dimensions comparison**

2XL-3B	3L
169.4	170.8

# XL Photovoltaic fuse links

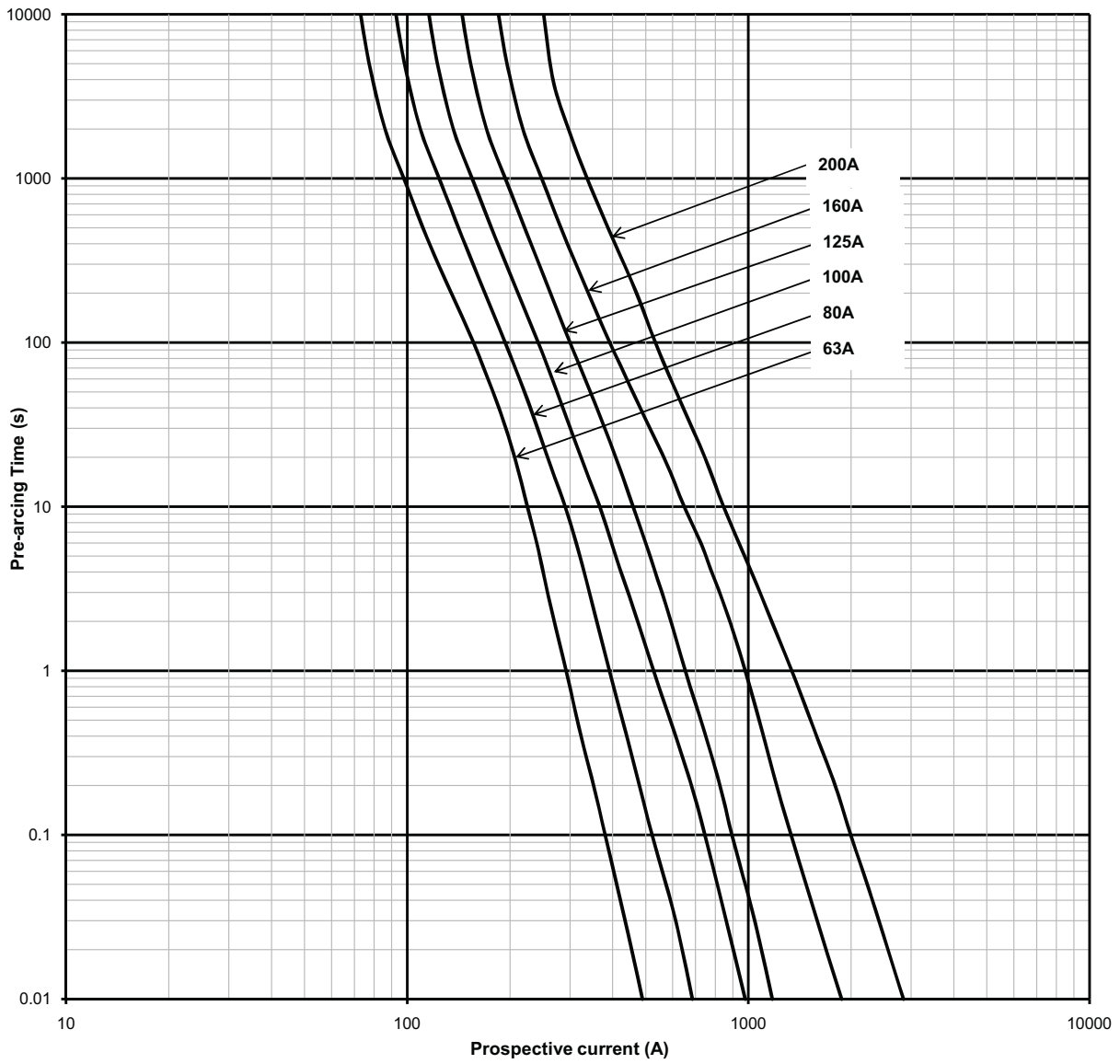
## Dimensions - mm

Bolted - size 3L

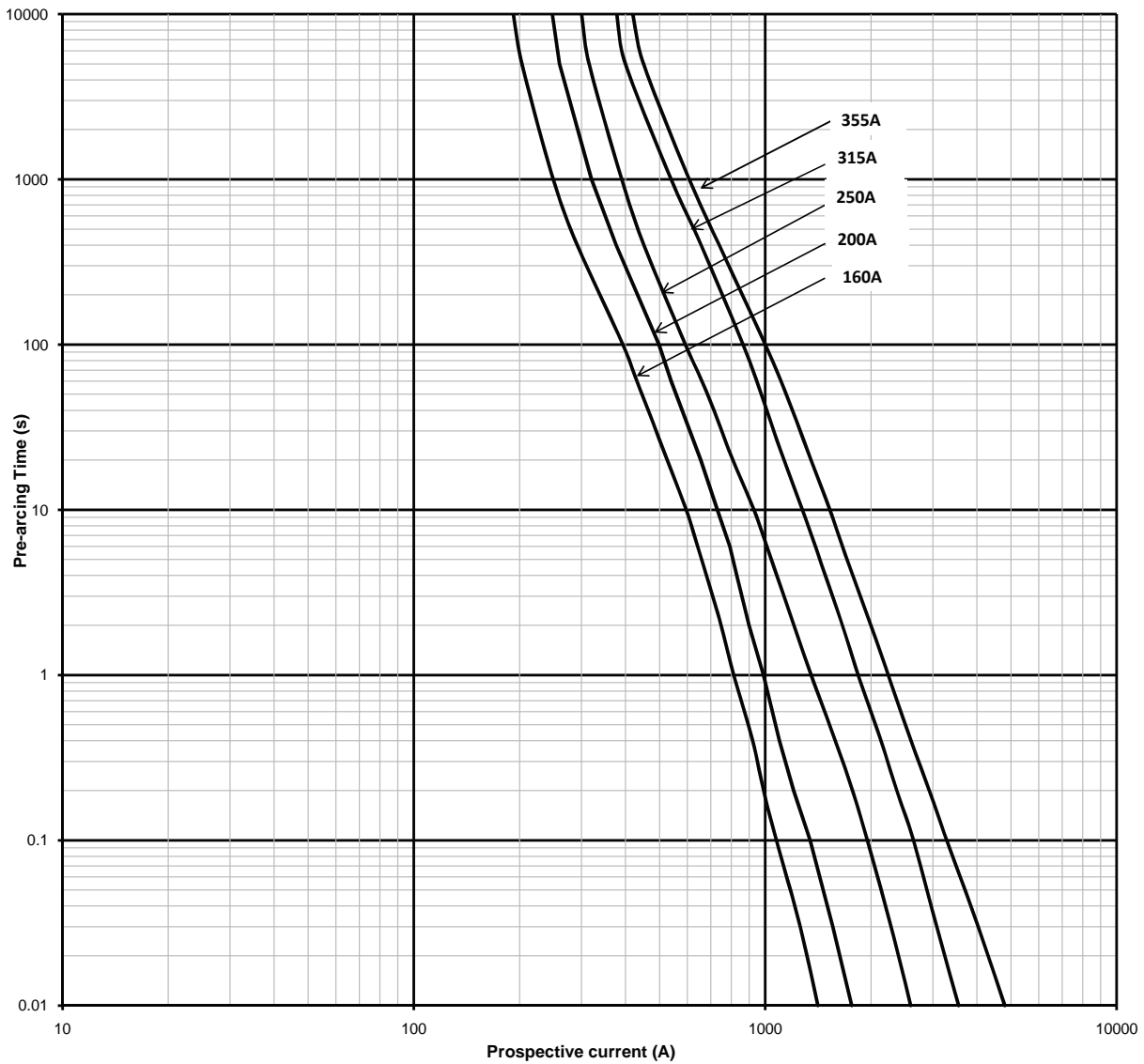




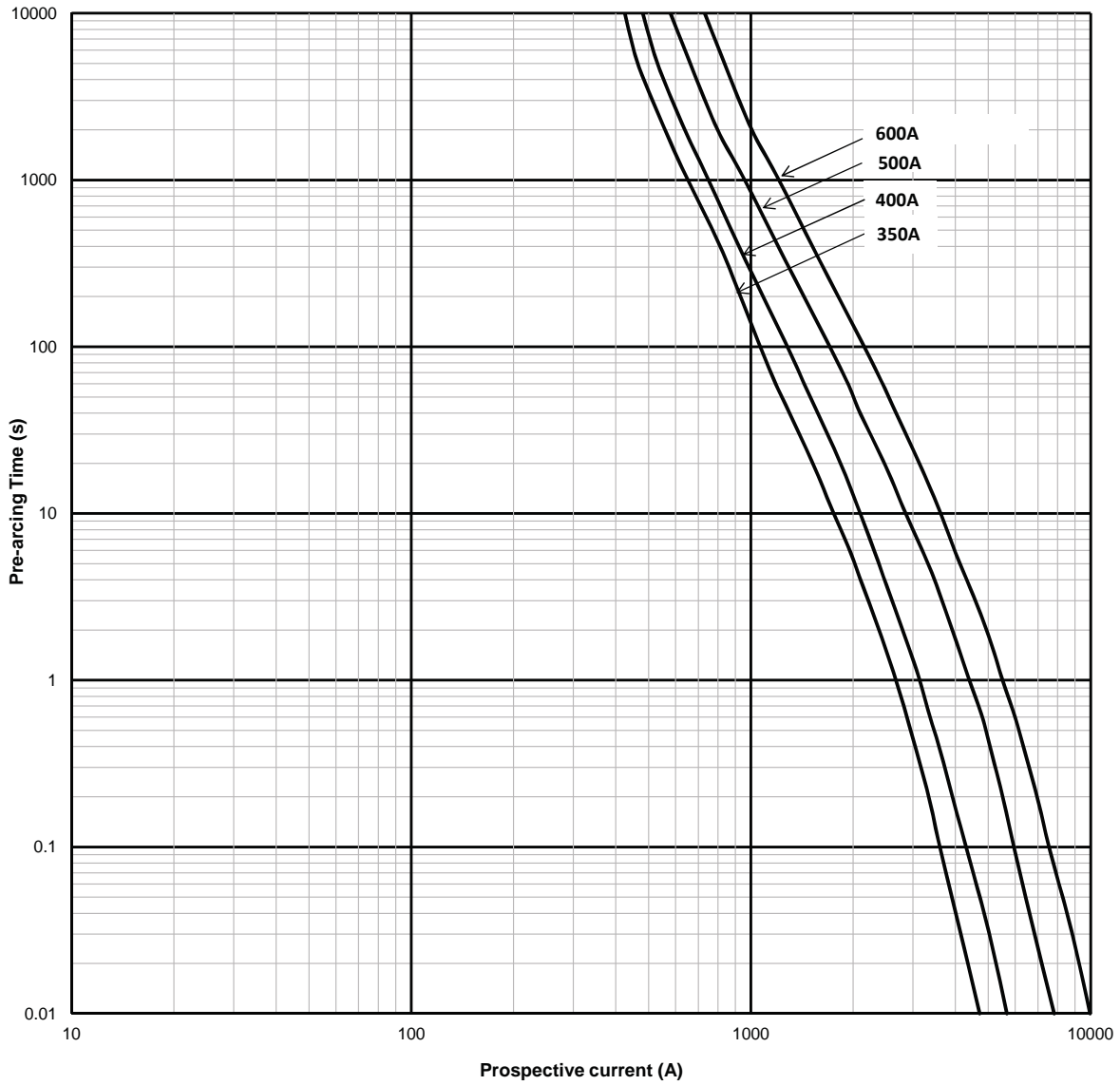
Time current curve - 1000 V d.c. - 01XL - Bladed and bolted



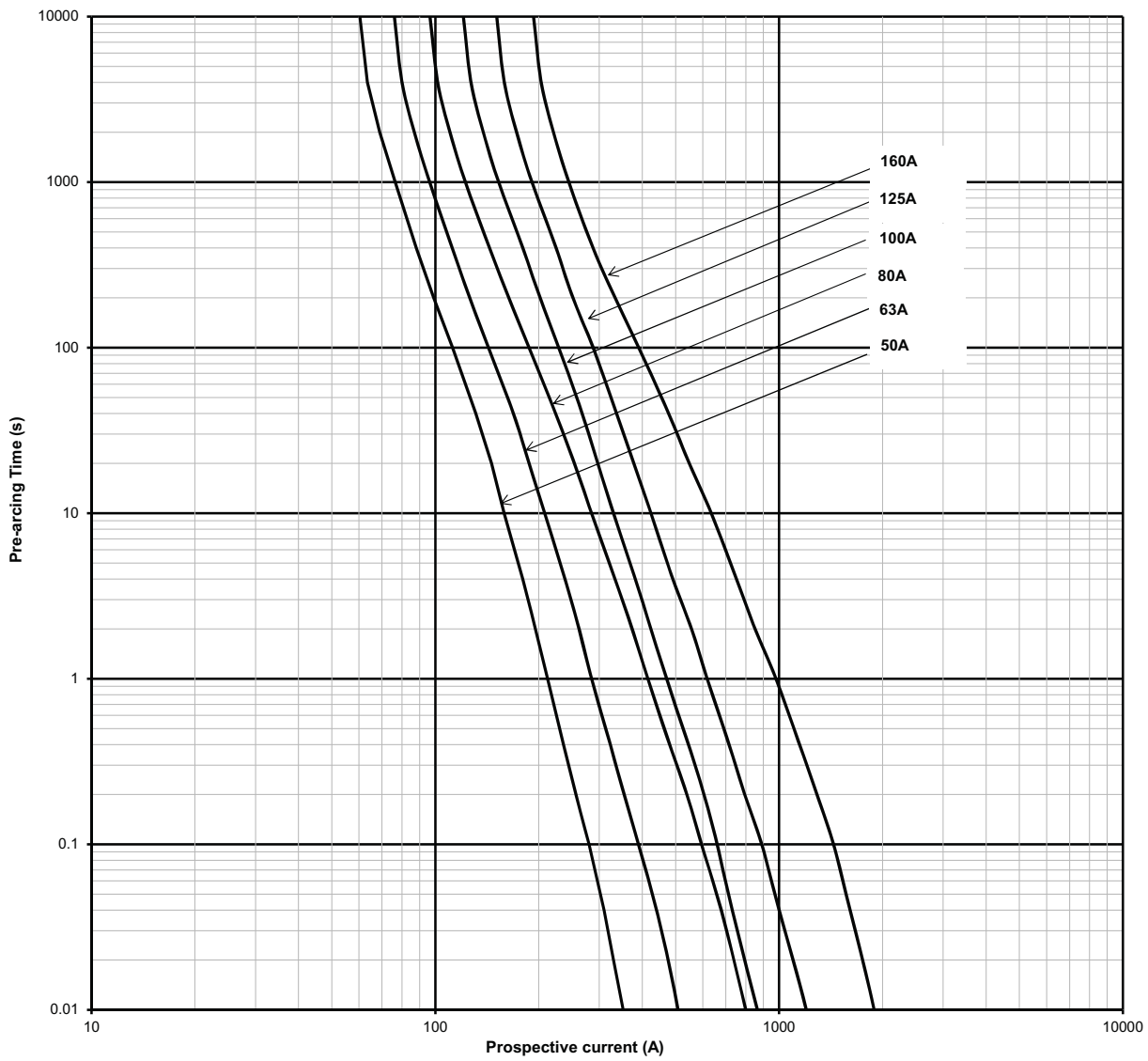
Time current curve - 1000 V d.c. - 2XL - Bladed and bolted



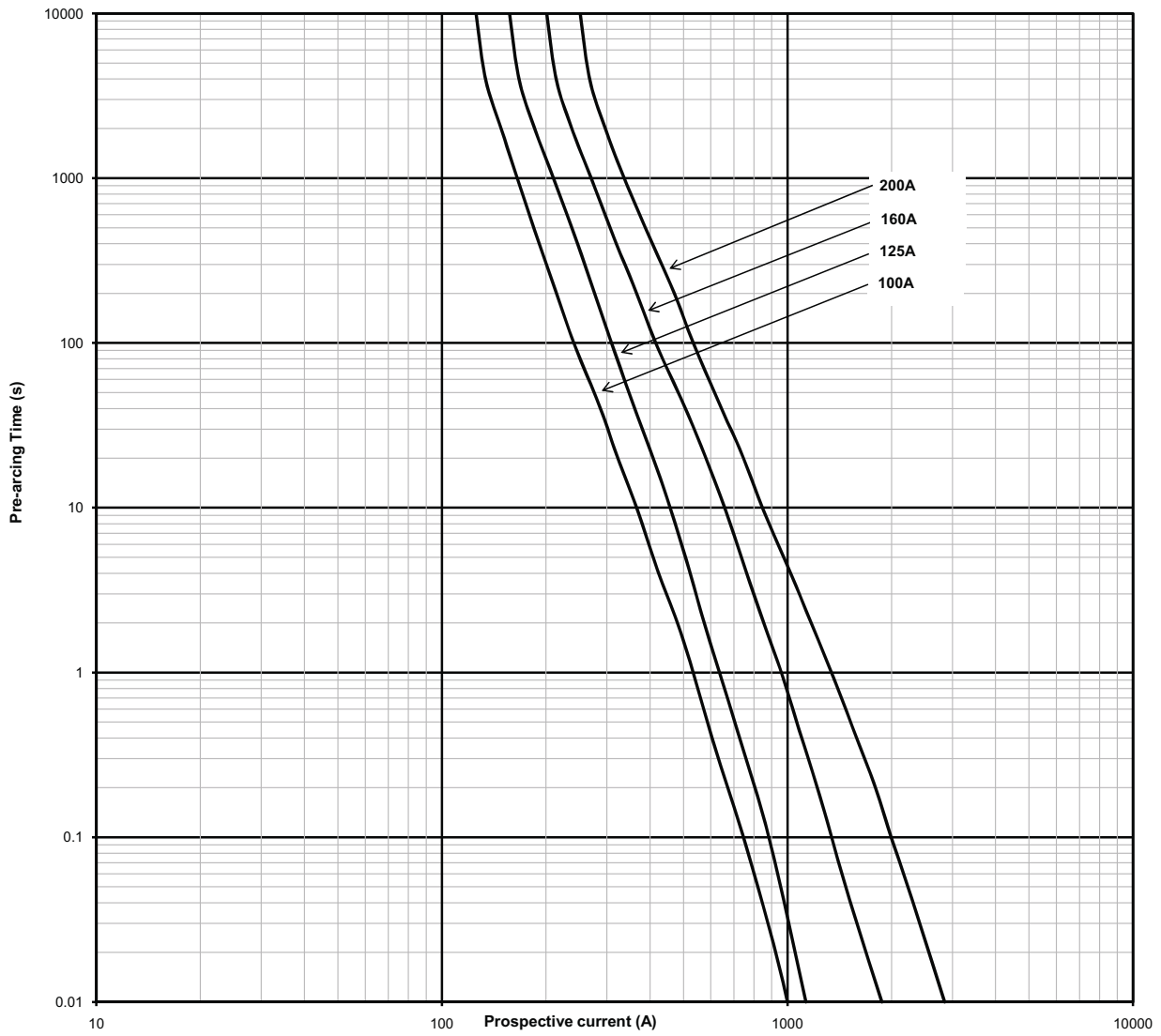
Time current curve - 1000 V d.c. - 3L - Bladed and bolted



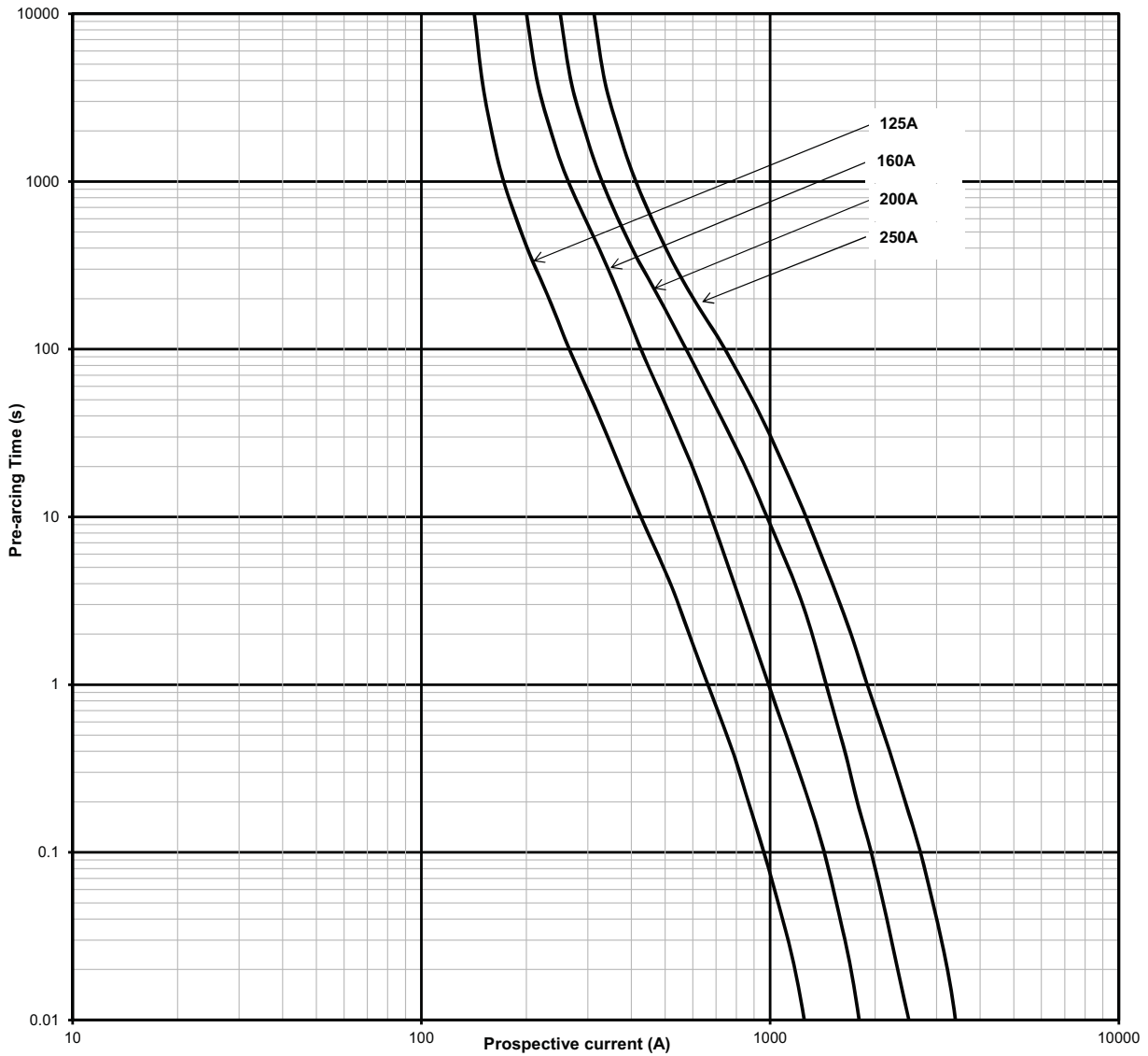
Time current curve - 1500 V d.c. - 01XL - Bladed and bolted



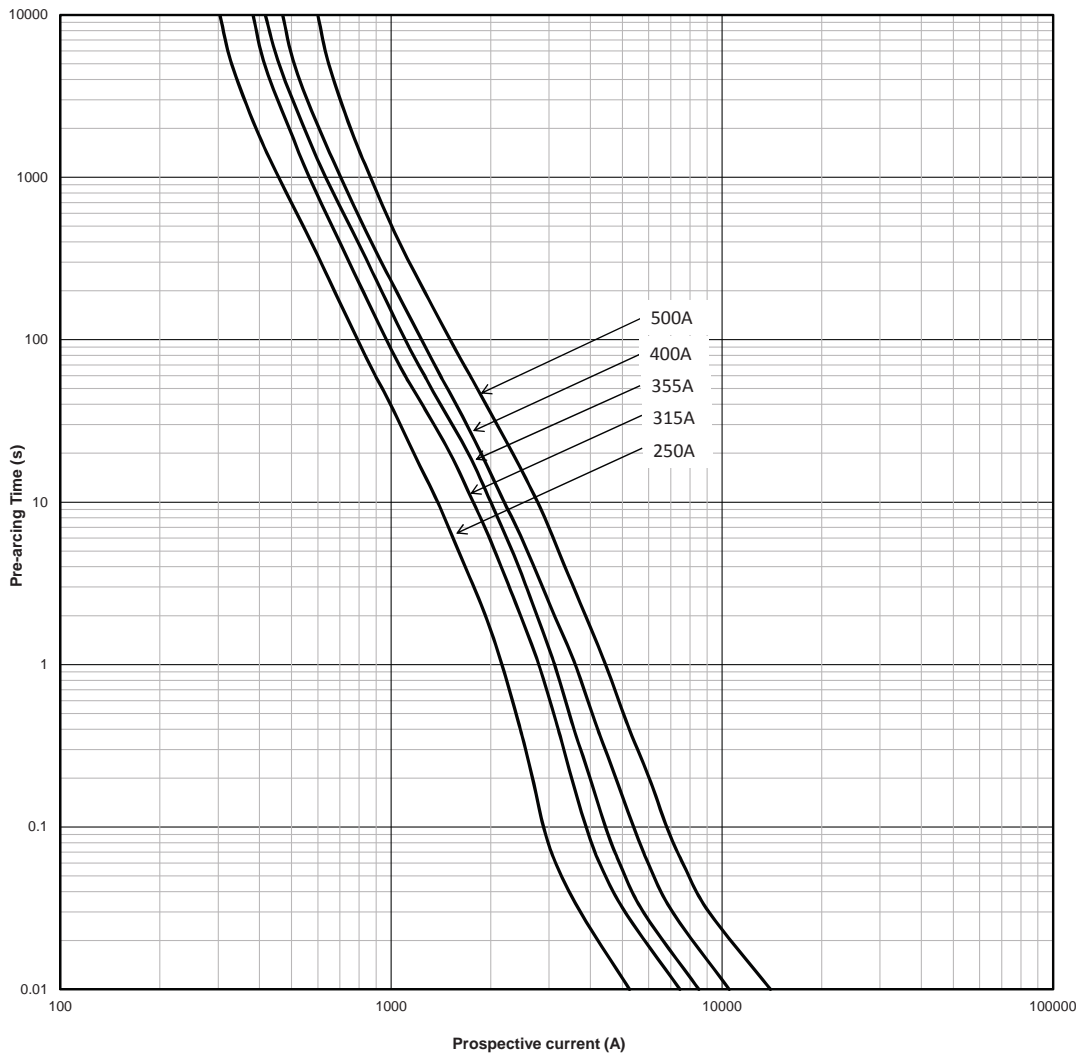
Time current curve - 1500 V d.c. - 1XL - Bladed and bolted



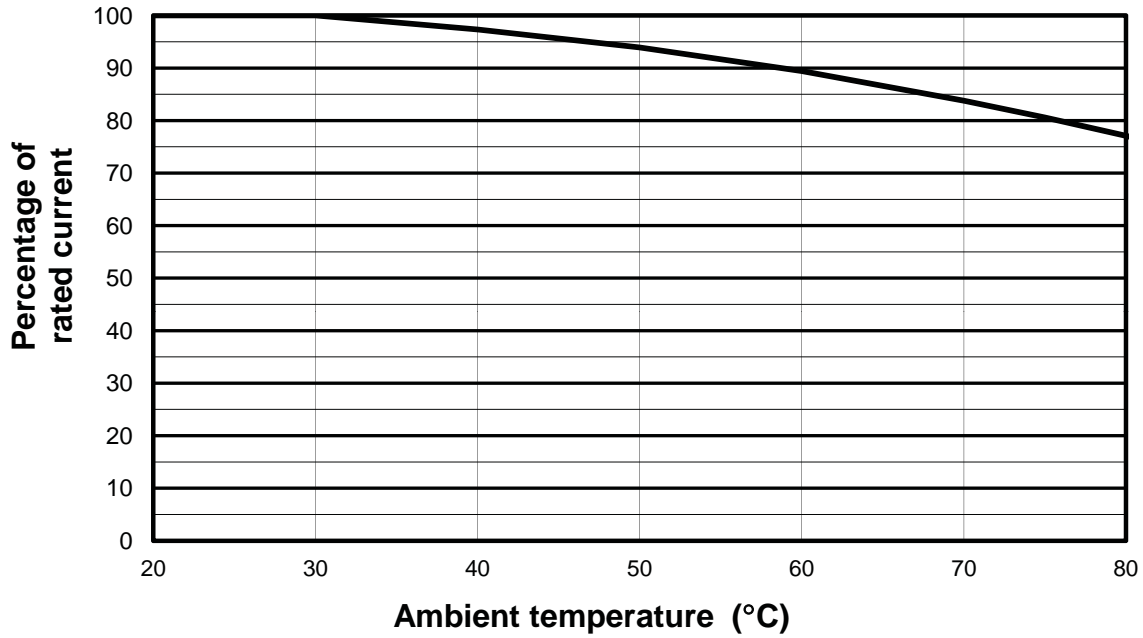
Time current curve - 1500 V d.c. - 2XL - Bladed and bolted



**Time current curve - 1500 V d.c. - 3L - Bladed and bolted**



Temperature derating curve



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