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 10685)

Powering Business Worldwide

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[1]	

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 without 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[1]	
Bolted without 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 on page 3

Class of operation: gPV and UL PV fuse links

Minimum interrupting rating: 2 x I_n

Standards/Approvals

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

Microswitches

See table

Fuse holders (ordered separately)

See table

Fuse extraction handle (ordered separately)

- SD1XL-S-PV (suitable for fuse body size 01 and 1XL)

Packaging

- MOQ: 1

[1] 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.

XL Photovoltaic fuse links

Technical Data - 1000 V d.c.

Fuse link body size	Rated voltage	Rated current (Amps)	Breaking capacity (IEC/UL) (kA)	I^2t (A^2 Sec)		Watts loss (W)		Catalogue numbers	
				Pre-arcing	Total at 1000 V d.c.	0.7 I_n	I_n	Bladed version	Bolted version
01	1000 V d.c.	63	50	260	1900	10	24	PV-63A-01XL	PV-63A-01XL-B
		80	50	490	3600	12	29	PV-80A-01XL	PV-80A-01XL-B
		100	50	870	6300	13	32	PV-100A-01XL	PV-100A-01XL-B
		125	50	1930	13,900	16	40	PV-125A-01XL	PV-125A-01XL-B
		160	50	3900	28,100	18	44	PV-160A-01XL	PV-160A-01XL-B
2	1000 V d.c.	160	33	2780	21,000	18	44	PV-160A-2XL	PV-160A-2XL-B
		200	33	4950	37,000	20	50	PV-200A-2XL	PV-200A-2XL-B
		250	33	9450	70,000	24	60	PV-250A-2XL	PV-250A-2XL-B
		315	33	16,600	123,000	26	66	PV-315A-2XL	PV-315A-2XL-B
		355	33	26,000	192,000	27	68	PV-355A-2XL	PV-355A-2XL-B
		160	33	2780	21,000	18	44		PV-160A-2XL-3B[1]
		200	33	4950	37,000	20	50		PV-200A-2XL-3B[1]
		250	33	9450	70,000	24	60		PV-250A-2XL-3B[1]
		315	33	16,600	123,000	26	66		PV-315A-2XL-3B[1]
		355	33	26,000	192,000	27	68		PV-355A-2XL-3B[1]
3	1000 V d.c.	350	50	31,000	161,200	26	65	PV-350A-3L	PV-350A-3L-B
		400	50	44,500	231,400	33	82	PV-400A-3L	PV-400A-3L-B
		500	50	85,000	442,000	34	85	PV-500A-3L	PV-500A-3L-B
		600	50	137,000	712,400	43	108	PV-600A-3L	PV-600A-3L-B

Technical Data - 1500 V d.c.

Fuse link body size	Rated voltage	Rated current (Amps)	Breaking capacity (IEC/UL) (kA)	I^2t (A^2 Sec)		Watts loss (W)		Catalogue numbers			
				Pre-arcing	Total at 1500 V[1]	0.7 I_n	I_n	Bladed with top indicator	Bladed without top indicator	Bolted version with side indicator	Bolted without side indicator
01	1500 V d.c.	50	30	175	1000	10	25	PV-50A-01XL-15		PV-50A-01XL-B-15	
		63	30	362	2250	10	26	PV-63A-01XL-15		PV-63A-01XL-B-15	
		80	30	565	3300	14	35	PV-80A-01XL-15		PV-80A-01XL-B-15	
		100	30	1100	6600	16	40	PV-100A-01XL-15		PV-100A-01XL-B-15	
		125	30	2200	10,500	18	44	PV-125A-01XL-15		PV-125A-01XL-B-15	
1	1500 V d.c.	100	30	1250	6000	24	43	PV-100A-1XL-15		PV-100A-1XL-B-15	
		125	30	1950	9360	25	52	PV-125A-1XL-15		PV-125A-1XL-B-15	
		160	30	4200	20,160	26	54	PV-160A-1XL-15		PV-160A-1XL-B-15	
		200	30	9400	45,120	31	60	PV-200A-1XL-15		PV-200A-1XL-B-15	
2	1500 V d.c.	125	30	2200	15,000	18	44	PV-125A-2XL-15	PV-125A-2XL-U-15	PV-125A-2XL-B-15	PV-125A-2XL-BU-15
		160	30	5000	32,000	19	48	PV-160A-2XL-15	PV-160A-2XL-U-15	PV-160A-2XL-B-15	PV-160A-2XL-BU-15
		200	30	8800	51,000	23	57	PV-200A-2XL-15	PV-200A-2XL-U-15	PV-200A-2XL-B-15	PV-200A-2XL-BU-15
		250	30	16,600	85,000	28	70	PV-250A-2XL-15	PV-250A-2XL-U-15	PV-250A-2XL-B-15	PV-250A-2XL-BU-15
		125	30	2200	15,000	18	44			PV-125A-2XL-3B-15[1]	PV-125A-2XL-3BU-15[1]
		160	30	5000	32,000	19	48			PV-160A-2XL-3B-15[1]	PV-160A-2XL-3BU-15[1]
		200	30	8800	51,000	23	57			PV-200A-2XL-3B-15[1]	PV-200A-2XL-3BU-15[1]
		250	30	16,600	85,000	28	70			PV-250A-2XL-3B-15[1]	PV-250A-2XL-3BU-15[1]
3	1500 V d.c.	250	100[2]	74,000	263,000	20	49	PV-250A-3L-15	PV-250A-3L-U-15	PV-250A-3L-B-15	PV-250A-3L-BU-15
		315	100[2]	150,000	533,000	21	52	PV-315A-3L-15	PV-315A-3L-U-15	PV-315A-3L-B-15	PV-315A-3L-BU-15
		350	100[2]	195,000	693,000	24	59	PV-350A-3L-15	PV-350A-3L-U-15	PV-350A-3L-B-15	PV-350A-3L-BU-15
		355	100[2]	195,000	693,000	24	59	PV-355A-3L-15	PV-355A-3L-U-15	PV-355A-3L-B-15	PV-355A-3L-BU-15
		400	100[2]	296,000	1,060,000	24	61	PV-400A-3L-15	PV-400A-3L-U-15	PV-400A-3L-B-15	PV-400A-3L-BU-15
		450	100[2]	412,000	1,470,000	27	67	PV-450A-3L-15	PV-450A-3L-U-15	PV-450A-3L-B-15	PV-450A-3L-BU-15
		500	100[2]	532,000	1,890,000	29	73	PV-500A-3L-15	PV-500A-3L-U-15	PV-500A-3L-B-15	PV-500A-3L-BU-15

[1] - 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.
[2] - 100 kA at time constant 6 mS.

Compatible fuse bases and microswitches - 1000 V d.c.

Fuse link body size	Rated voltage	Rated current (Amps)	Fuse type	Catalogue numbers	Compatible Fuse bases	Compatible microswitches
01	1000 V d.c.	63	Bladed version	PV-63A-01XL	SD1XL-S-PV	170H0236/170H0238
		80		PV-80A-01XL	SD1XL-S-PV	170H0236/170H0238
		100		PV-100A-01XL	SD1XL-S-PV	170H0236/170H0238
		125		PV-125A-01XL	SD1XL-S-PV	170H0236/170H0238
		160		PV-160A-01XL	SD1XL-S-PV	170H0236/170H0238
2	1000 V d.c.	160		PV-160A-2XL	SD2XL-S-PV	170H0236/170H0238
		200		PV-200A-2XL	SD2XL-S-PV	170H0236/170H0238
		250		PV-250A-2XL	SD2XL-S-PV	170H0236/170H0238
		315		PV-315A-2XL	SD2XL-S-PV	170H0236/170H0238
		355		PV-355A-2XL	SD2XL-S-PV	170H0236/170H0238
3	1000 V d.c.	350		PV-350A-3L	SD3L-S-PV	170H0236/170H0238
		400		PV-400A-3L	SD3L-S-PV	170H0236/170H0238
		500		PV-500A-3L	SD3L-S-PV	170H0236/170H0238
		600		PV-600A-3L	SD3L-S-PV	170H0236/170H0238
01	1000 V d.c.	63	Bolted version	PV-63A-01XL-B		170H0069
		80		PV-80A-01XL-B		170H0069
		100		PV-100A-01XL-B		170H0069
		125		PV-125A-01XL-B		170H0069
		160		PV-160A-01XL-B		170H0069
2	1000 V d.c.	160		PV-160A-2XL-B		170H0069
		200		PV-200A-2XL-B		170H0069
		250		PV-250A-2XL-B		170H0069
		315		PV-315A-2XL-B		170H0069
		355		PV-355A-2XL-B		170H0069
		160		PV-160A-2XL-3B[1]		170H0069
		200		PV-200A-2XL-3B[1]		170H0069
		250		PV-250A-2XL-3B[1]		170H0069
		315		PV-315A-2XL-3B[1]		170H0069
		355		PV-355A-2XL-3B[1]		170H0069
3	1000 V d.c.	350		PV-350A-3L-B		170H0069
		400		PV-400A-3L-B		170H0069
		500		PV-500A-3L-B		170H0069
		600		PV-600A-3L-B		170H0069

XL Photovoltaic fuse links

Compatible fuse bases and microswitches - 1500 V d.c.- Bladed

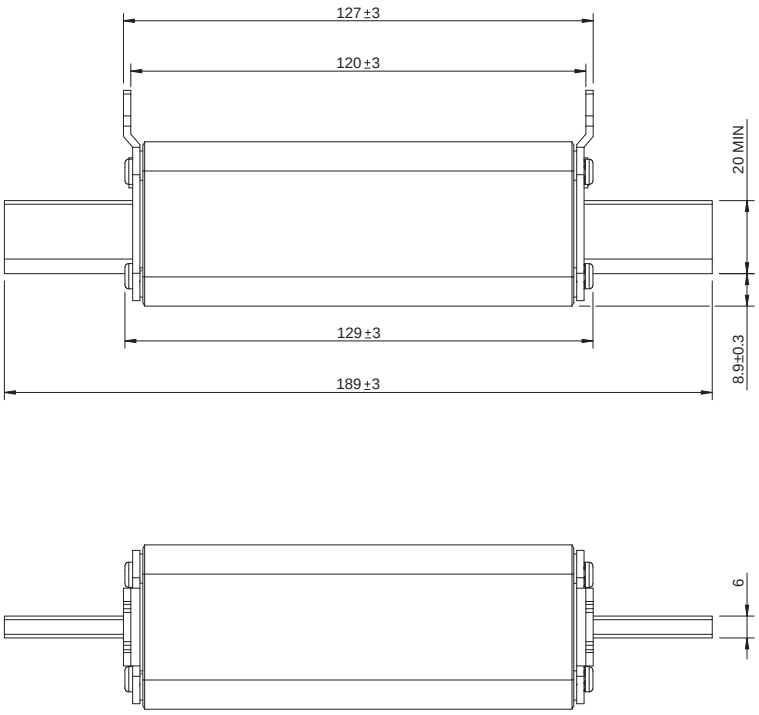
Fuse link body size	Rated voltage	Rated current (Amps)	Fuse type	Catalogue numbers	Compatible XL Bases	Compatible micro-switches
01	1500 V d.c.	50	Bladed with top indicator	PV-50A-01XL-15	SD1XL-S-PV	170H0236/170H0238
		63		PV-63A-01XL-15	SD1XL-S-PV	170H0236/170H0238
		80		PV-80A-01XL-15	SD1XL-S-PV	170H0236/170H0238
		100		PV-100A-01XL-15	SD1XL-S-PV	170H0236/170H0238
		125		PV-125A-01XL-15	SD1XL-S-PV	170H0236/170H0238
1	1500 V d.c.	100		PV-100A-1XL-15	SD1XL-S-PV	170H0236/170H0238
		125		PV-125A-1XL-15	SD1XL-S-PV	170H0236/170H0238
		160		PV-160A-1XL-15	SD1XL-S-PV	170H0236/170H0238
		200		PV-200A-1XL-15	SD1XL-S-PV	170H0236/170H0238
2	1500 V d.c.	125		PV-125A-2XL-15	SD2XL-S-PV	170H0236/170H0238
		160		PV-160A-2XL-15	SD2XL-S-PV	170H0236/170H0238
		200		PV-200A-2XL-15	SD2XL-S-PV	170H0236/170H0238
		250		PV-250A-2XL-15	SD2XL-S-PV	170H0236/170H0238
3	1500 V d.c.	250		PV-250A-3L-15	SD3L-S-PV	170H0236/170H0238
		315		PV-315A-3L-15	SD3L-S-PV	170H0236/170H0238
		350		PV-350A-3L-15	SD3L-S-PV	170H0236/170H0238
		355		PV-355A-3L-15	SD3L-S-PV	170H0236/170H0238
		400		PV-400A-3L-15	SD3L-S-PV	170H0236/170H0238
		450		PV-450A-3L-15	SD3L-S-PV	170H0236/170H0238
		500		PV-500A-3L-15	SD3L-S-PV	170H0236/170H0238
2	1500 V d.c.	125	Bladed without top indicator	PV-125A-2XL-U-15	SD2XL-S-PV	
		160		PV-160A-2XL-U-15	SD2XL-S-PV	
		200		PV-200A-2XL-U-15	SD2XL-S-PV	
		250		PV-250A-2XL-U-15	SD2XL-S-PV	
3	1500 V d.c.	250		PV-250A-3L-U-15	SD3L-S-PV	
		315		PV-315A-3L-U-15	SD3L-S-PV	
		350		PV-350A-3L-U-15	SD3L-S-PV	
		355		PV-355A-3L-U-15	SD3L-S-PV	
		400		PV-400A-3L-U-15	SD3L-S-PV	
		450		PV-450A-3L-U-15	SD3L-S-PV	
		500		PV-500A-3L-U-15	SD3L-S-PV	

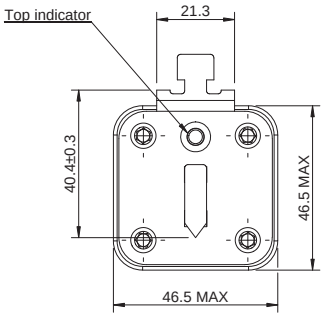
Compatible fuse bases and microswitches - 1500 V d.c.- Bolted

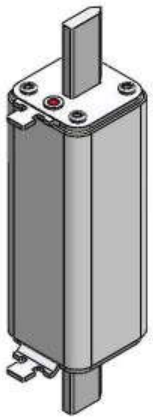
Fuse link body size	Rated voltage	Rated current (Amps)	Fuse type	Catalogue number	Compatible XL Bases	Compatible microswitches
01	1500 V d.c.	50	Bolted with side indicator	PV-50A-01XL-B-15		170H0069
		63		PV-63A-01XL-B-15		170H0069
		80		PV-80A-01XL-B-15		170H0069
		100		PV-100A-01XL-B-15		170H0069
		125		PV-125A-01XL-B-15		170H0069
1	1500 V d.c.	100		PV-100A-1XL-B-15		170H0069
		125		PV-125A-1XL-B-15		170H0069
		160		PV-160A-1XL-B-15		170H0069
		200		PV-200A-1XL-B-15		170H0069
2	1500 V d.c.	125		PV-125A-2XL-B-15		170H0069
		160		PV-160A-2XL-B-15		170H0069
		200		PV-200A-2XL-B-15		170H0069
		250		PV-250A-2XL-B-15		170H0069
		125		PV-125A-2XL-3B-15		170H0069
		160		PV-160A-2XL-3B-15		170H0069
		200		PV-200A-2XL-3B-15		170H0069
		250		PV-250A-2XL-3B-15		170H0069
3	1500 V d.c.	250		PV-250A-3L-B-15		170H0069
		315		PV-315A-3L-B-15		170H0069
		350		PV-350A-3L-B-15		170H0069
		355		PV-355A-3L-B-15		170H0069
		400		PV-400A-3L-B-15		170H0069
		450		PV-450A-3L-B-15		170H0069
		500		PV-500A-3L-B-15		170H0069
2	1500 V d.c.	125	Bolted without side indicator	PV-125A-2XL-BU-15		
		160		PV-160A-2XL-BU-15		
		200		PV-200A-2XL-BU-15		
		250		PV-250A-2XL-BU-15		
		125		PV-125A-2XL-3BU-15		
		160		PV-160A-2XL-3BU-15		
		200		PV-200A-2XL-3BU-15		
		250		PV-250A-2XL-3BU-15		
3	1500 V d.c.	250		PV-250A-3L-BU-15		
		315		PV-315A-3L-BU-15		
		350		PV-350A-3L-BU-15		
		355		PV-355A-3L-BU-15		
		400		PV-400A-3L-BU-15		
		450		PV-450A-3L-BU-15		
		500		PV-500A-3L-BU-15		

Dimensions - mm

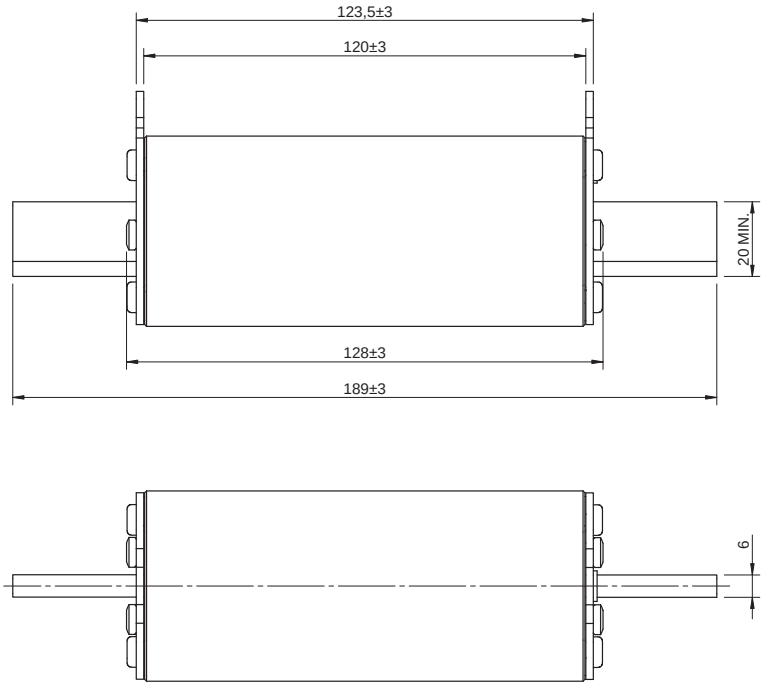
Bladed - size 01XL

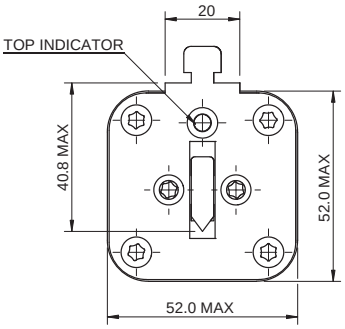


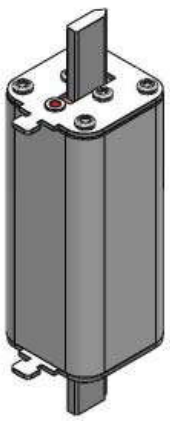




Bladed - size 1XL

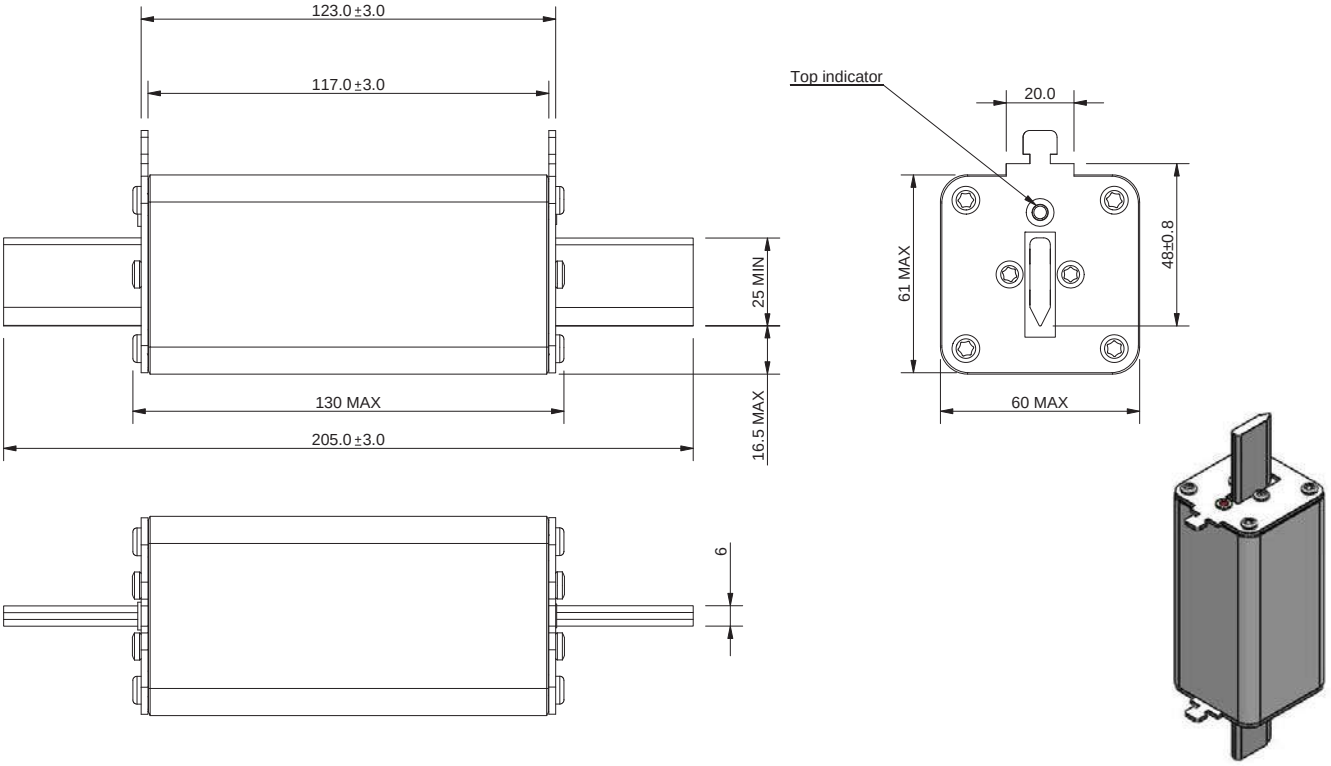




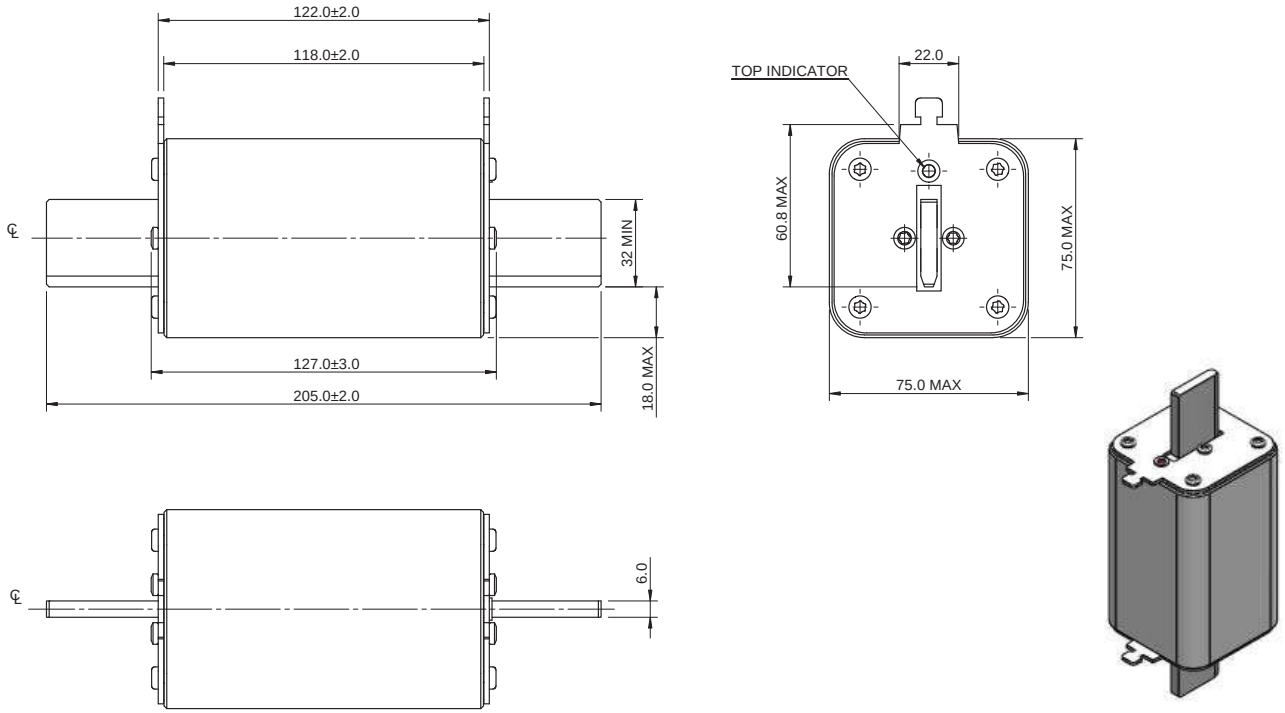


Dimensions - mm

Bladed - size 2XL



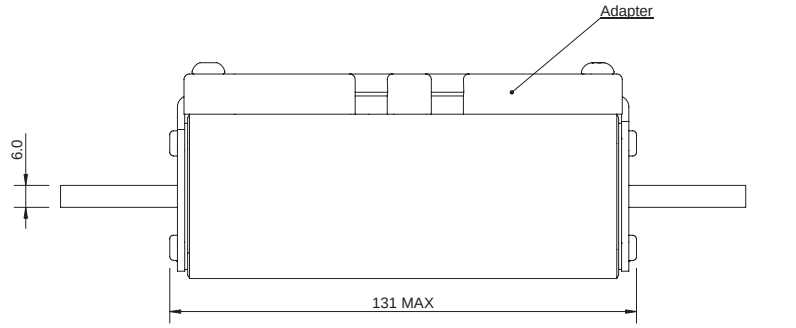
Bladed - size 3L

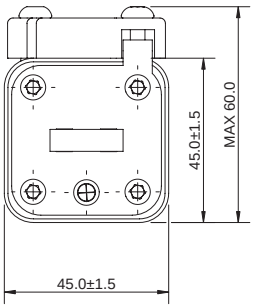


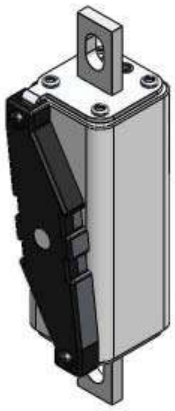
XL Photovoltaic fuse links

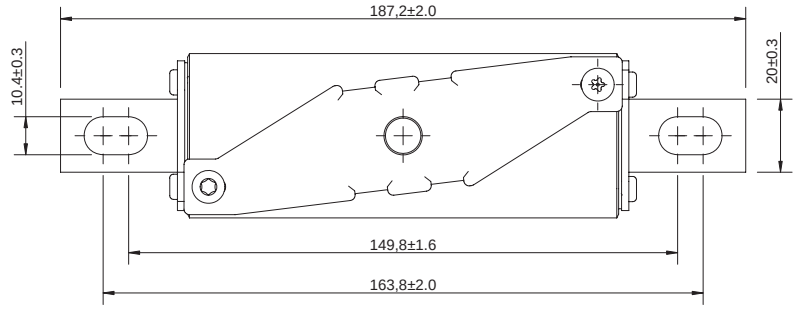
Dimensions - mm

Bolted - size 01XL

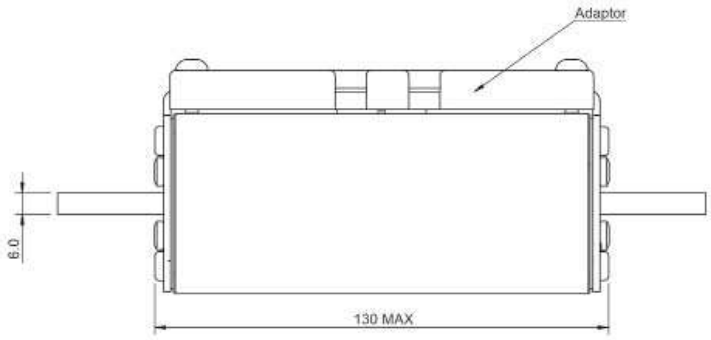


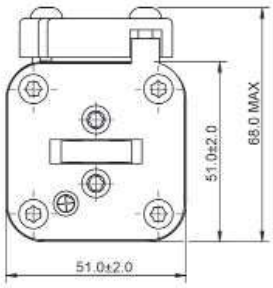


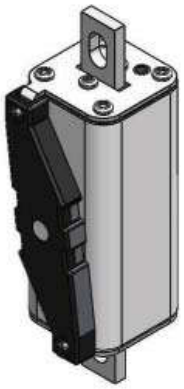


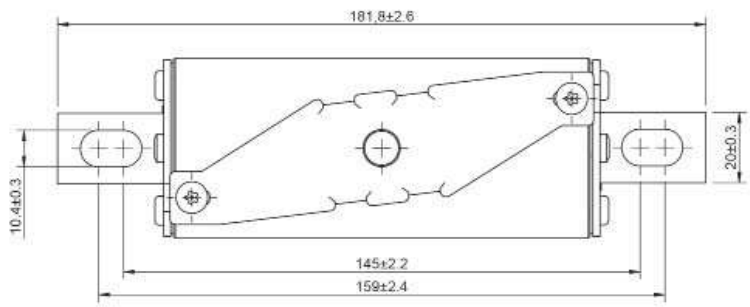


Bolted - size 1XL



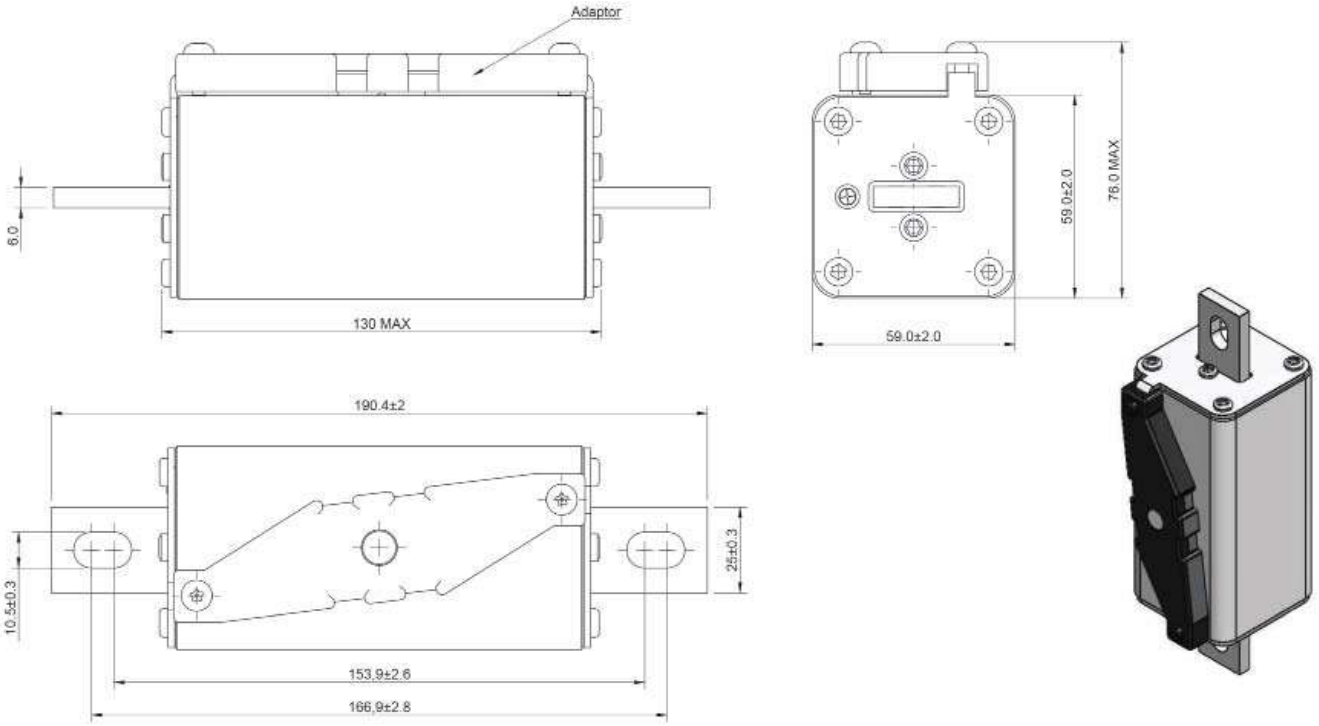




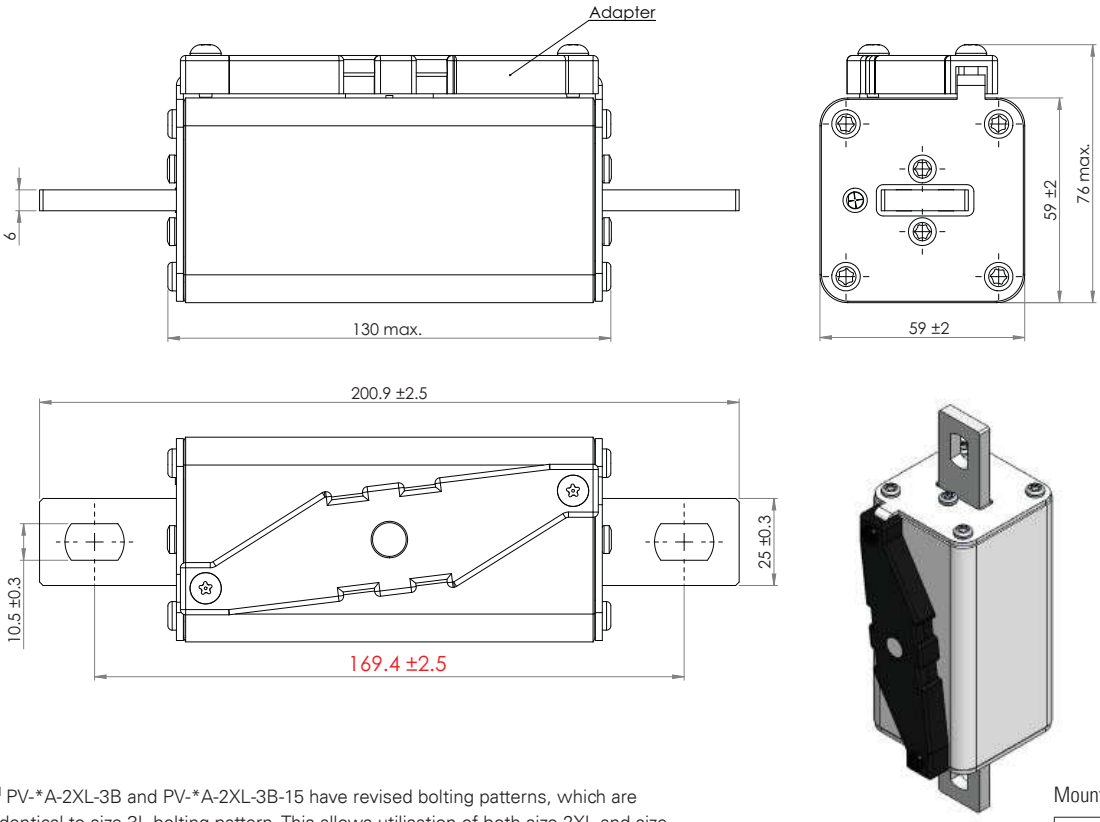


Dimensions - mm

Bolted - size 2XL



Bolted - size 2XL-3B[1]



[1] 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.

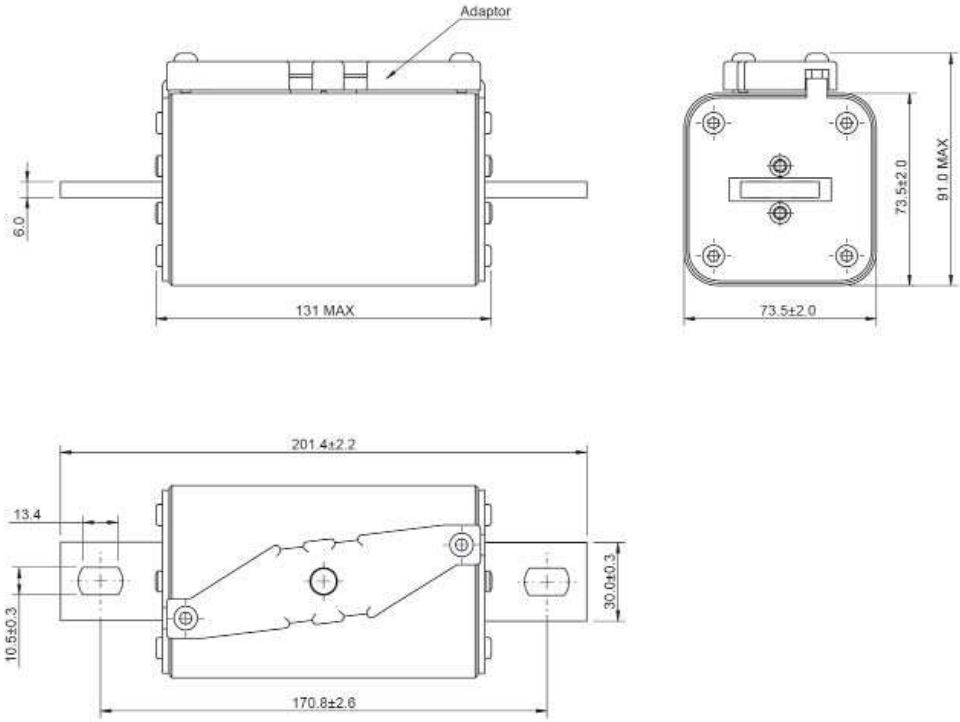
Mounting dimensions comparison

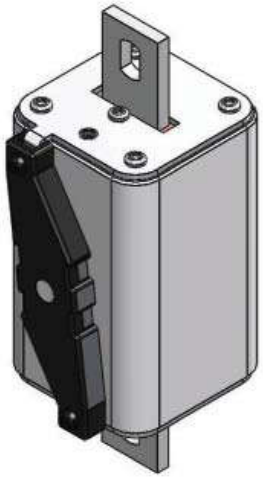
2XL-3B	3L
169.4	170.8

XL Photovoltaic fuse links

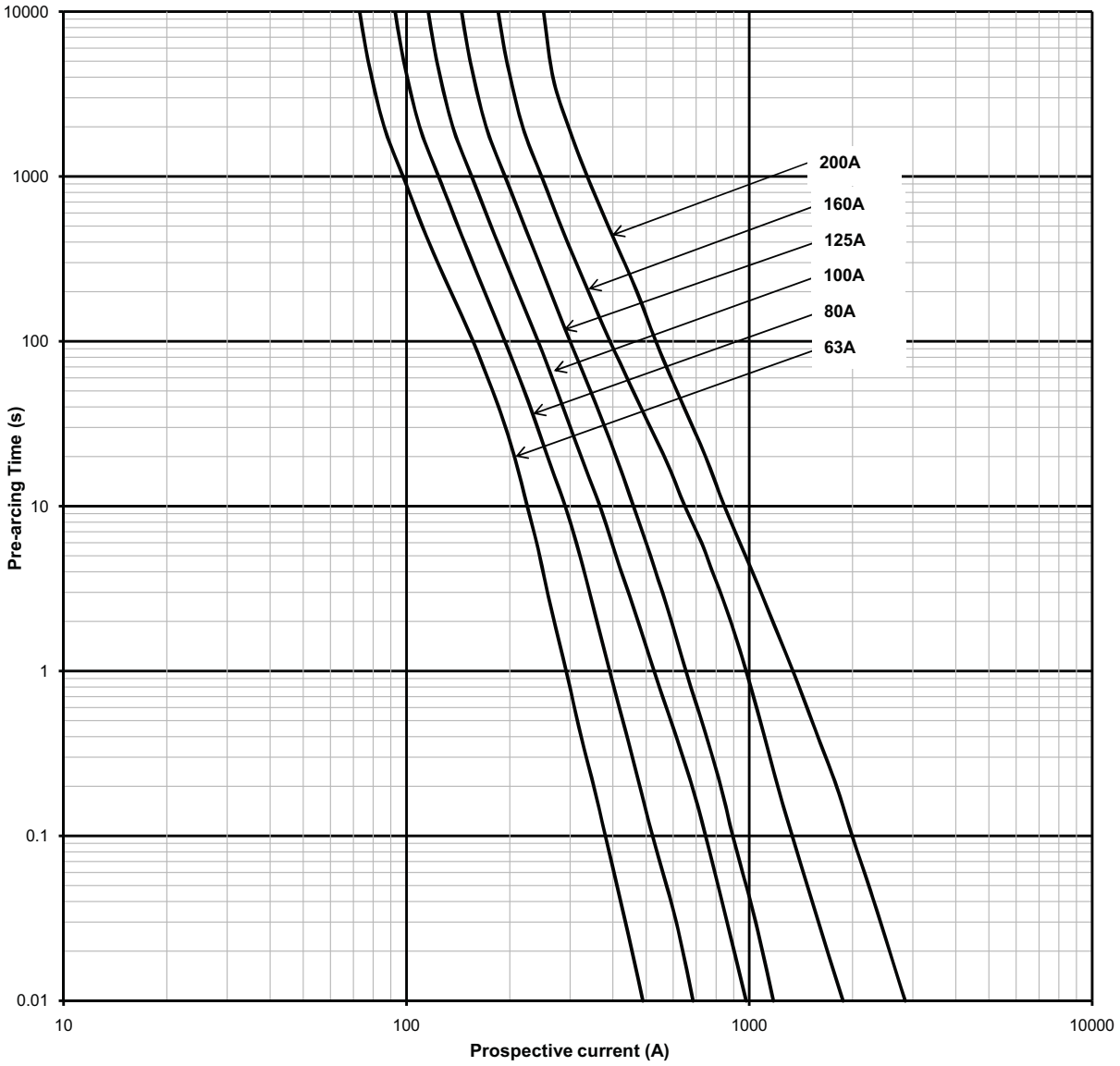
Dimensions - mm

Bolted - size 3L

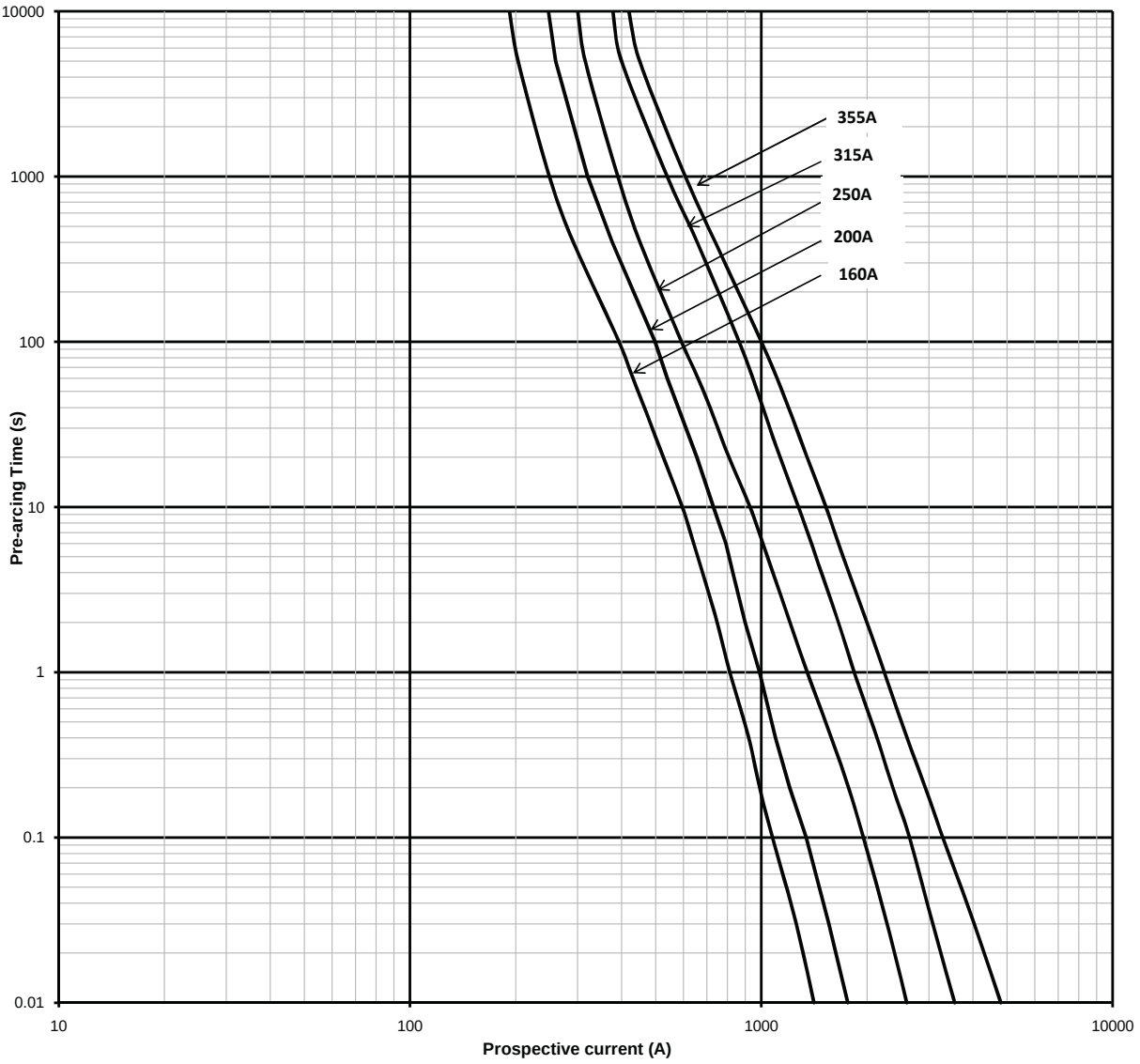




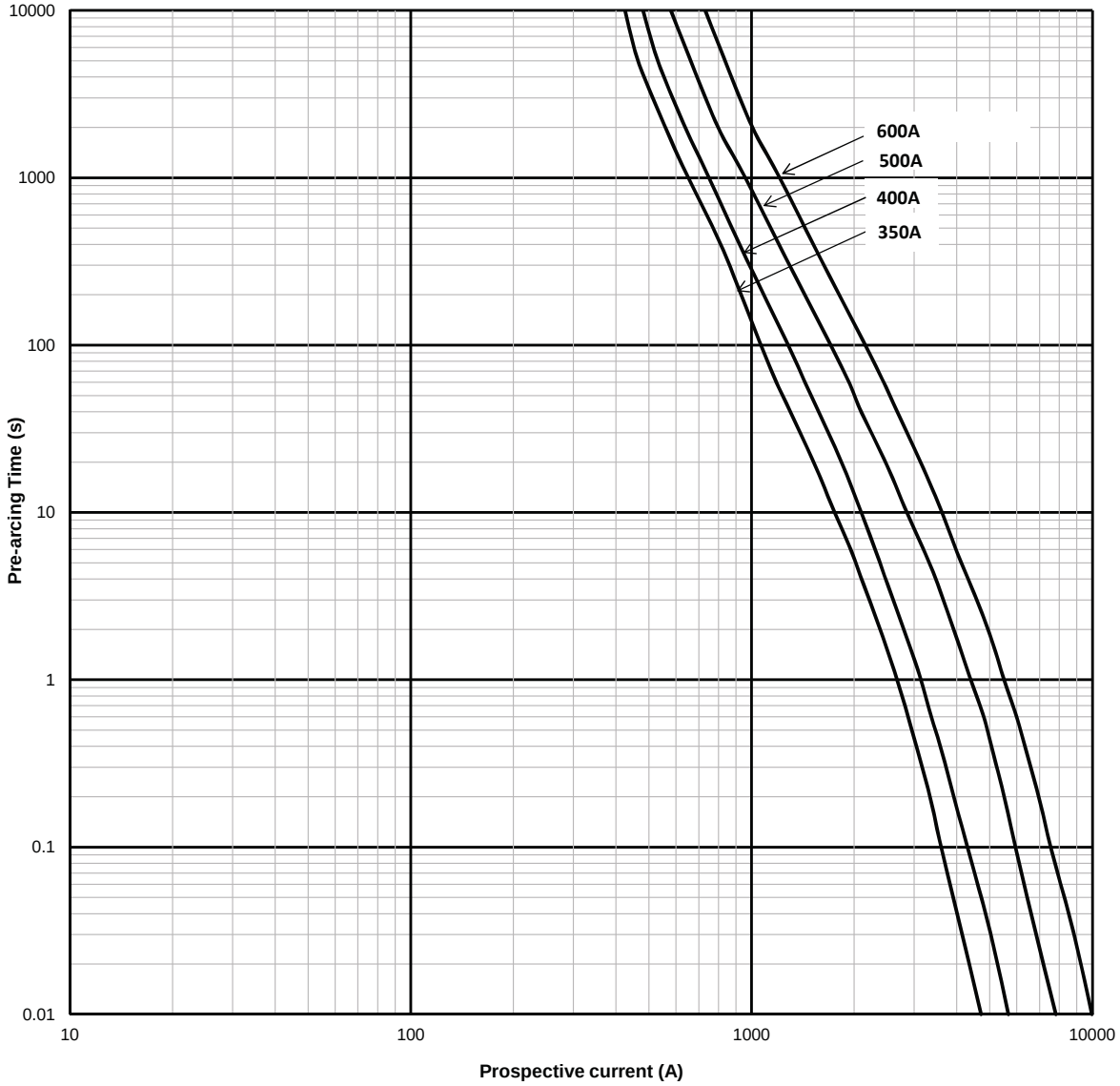
Time current curve - 1000 V d.c. - 01XL - Bladed and bolted



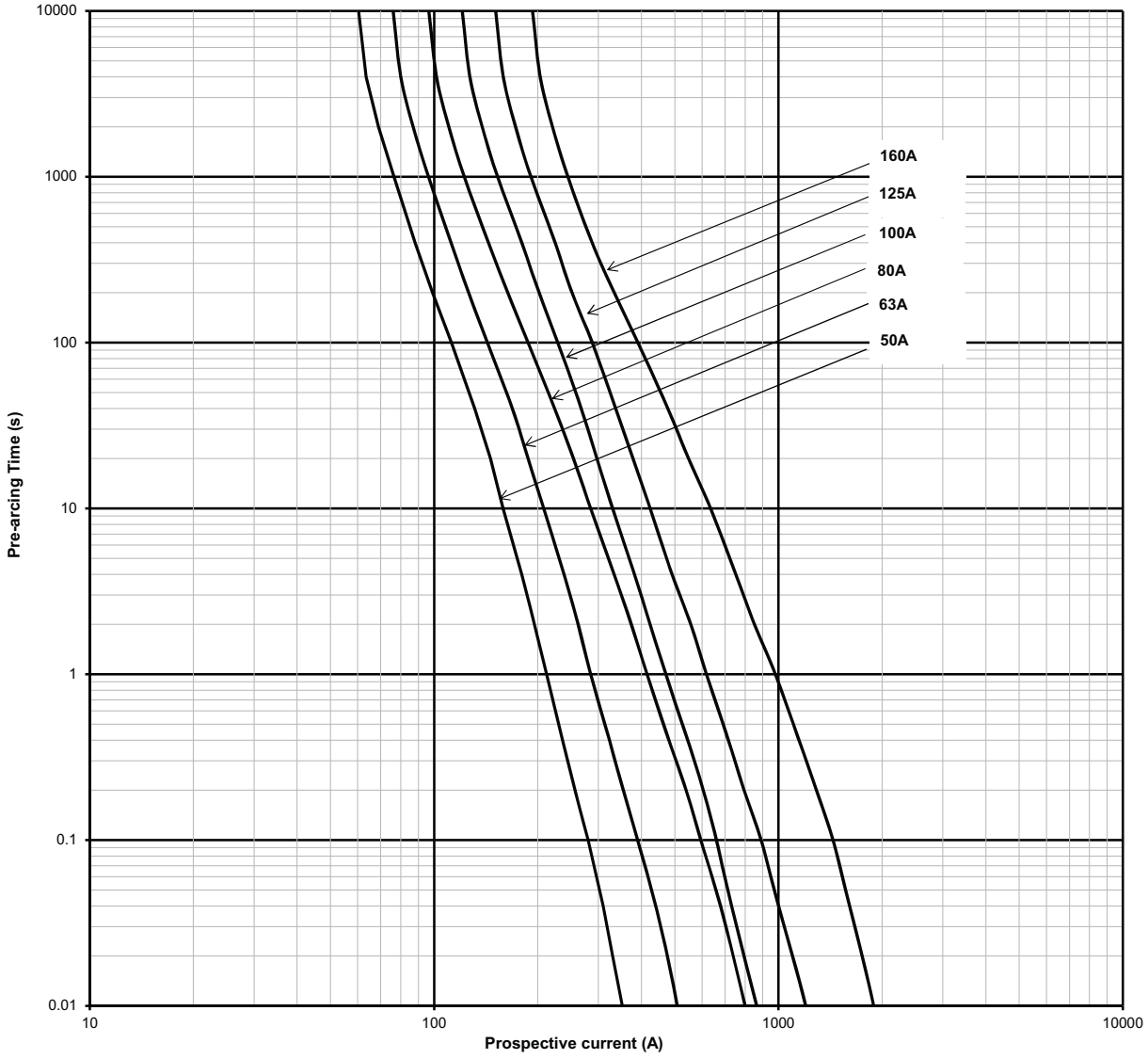
Time current curve - 1000 V d.c. - 2XL - Bladed and bolted



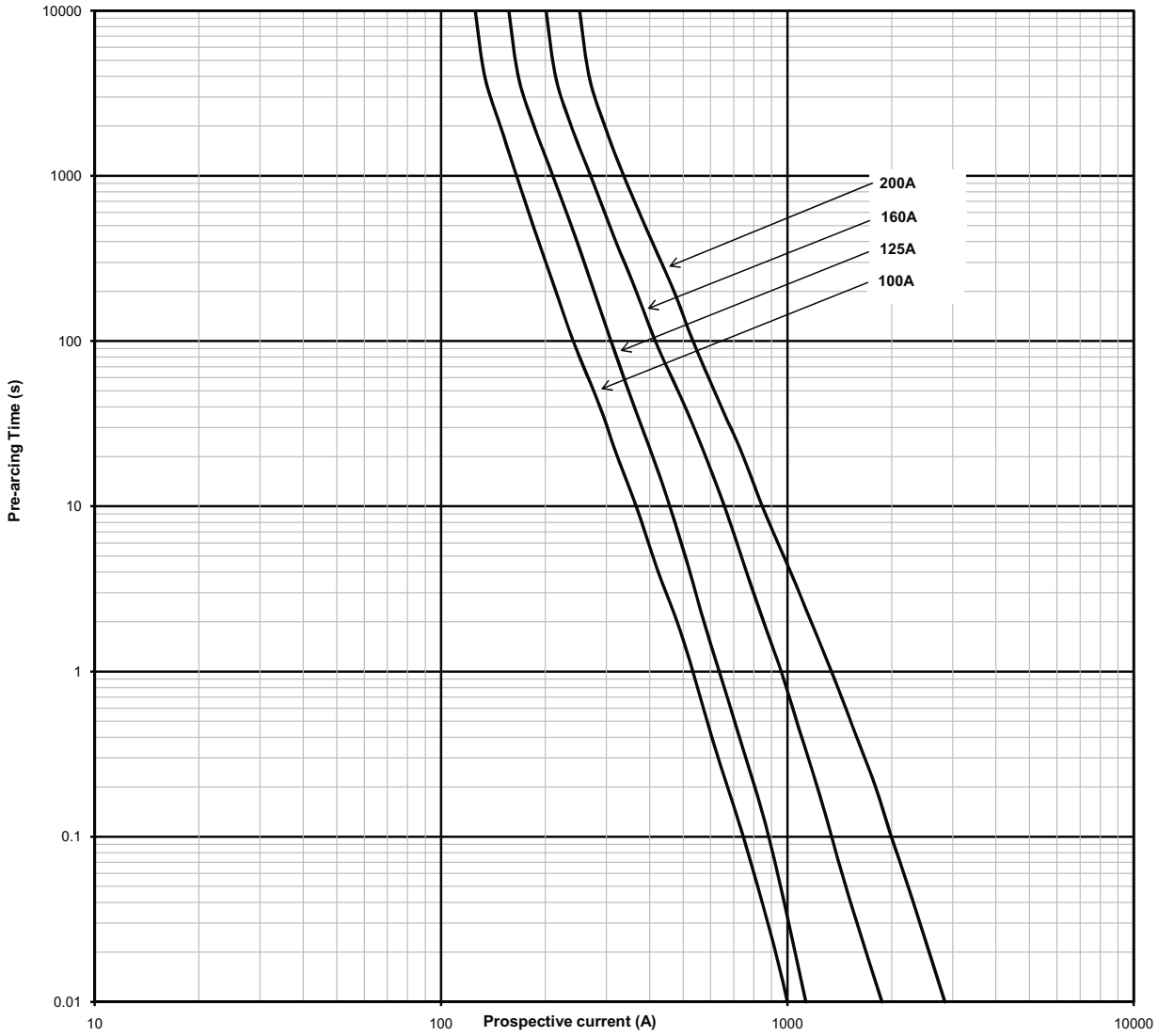
Time current curve - 1000 V d.c. - 3L - Bladed and bolted



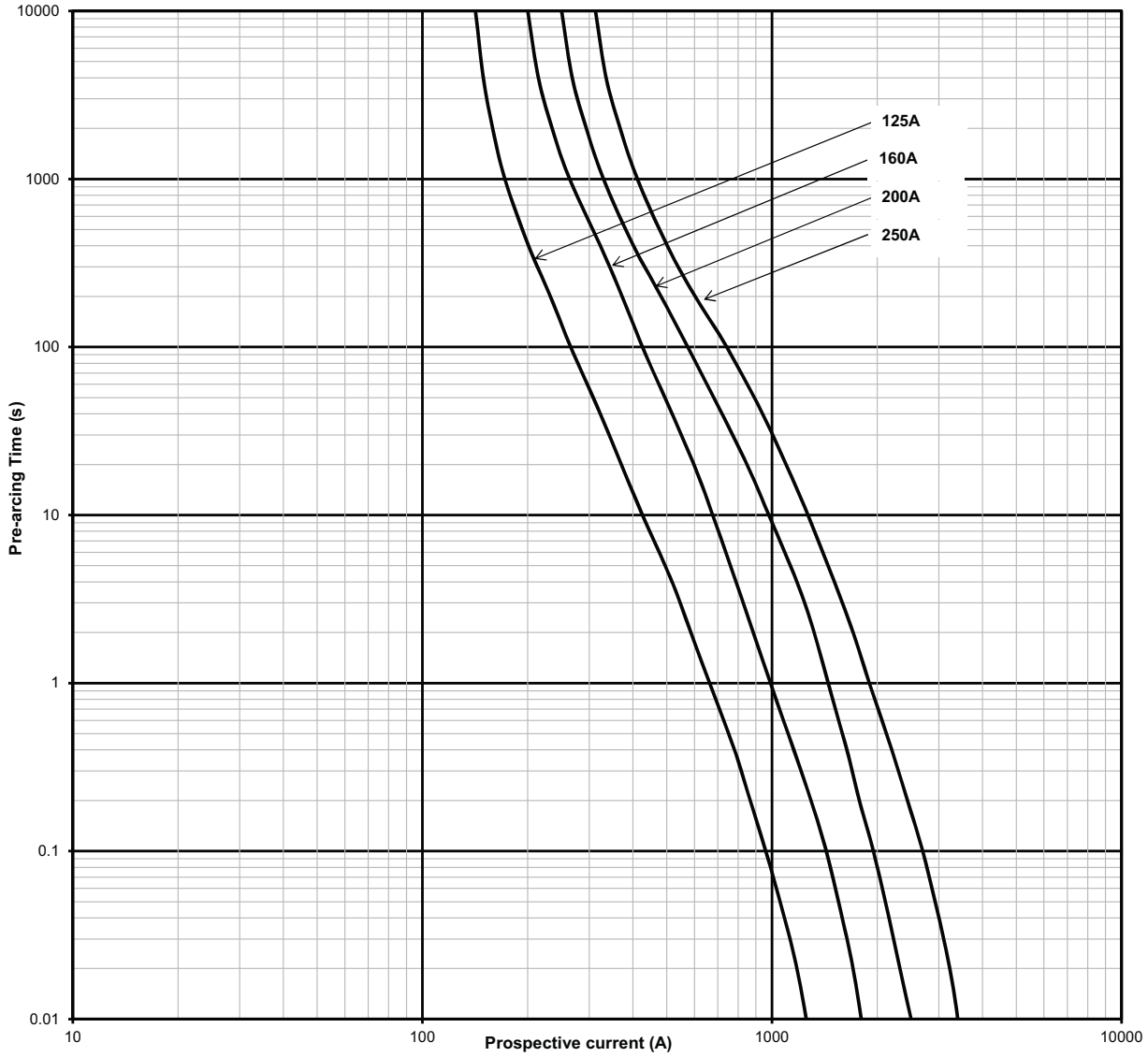
Time current curve - 1500 V d.c. - 01XL - Bladed and bolted



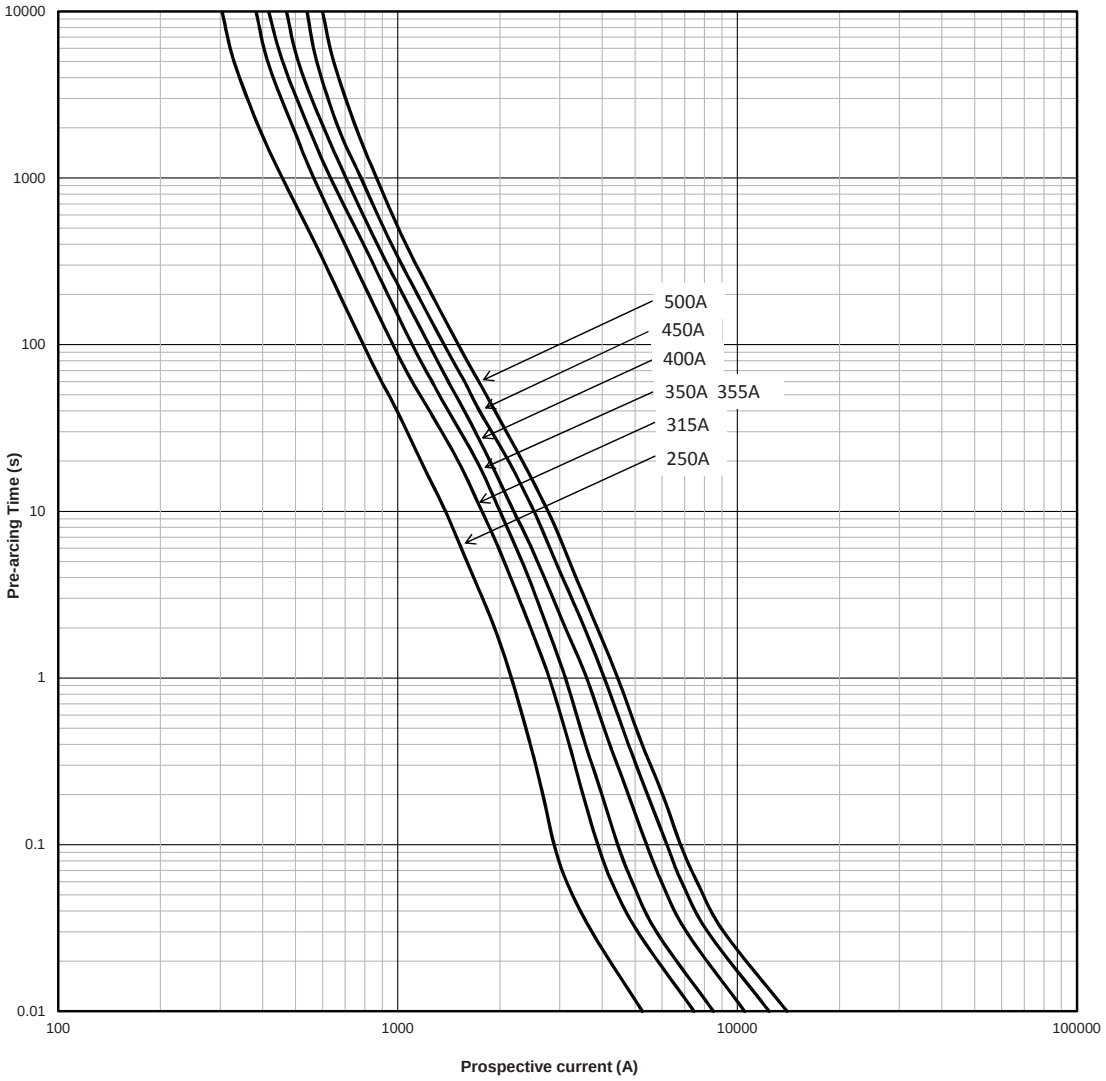
Time current curve - 1500 V d.c. - 1XL - Bladed and bolted



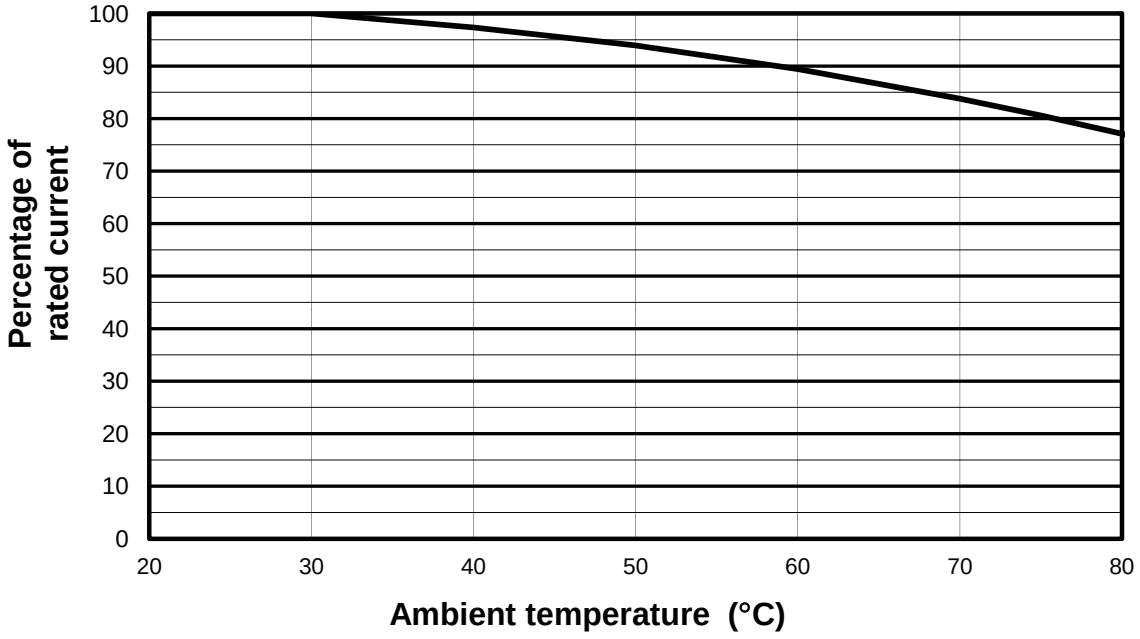
Time current curve - 1500 V d.c.- 2XL - Bladed and bolted



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



Temperature derating curve



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Eaton
EMEA Headquarters
Route de la Longeraie 7
1110 Morges, Switzerland

Eaton Electrical Products Limited
Unit 1, Hawker Business Park
Melton Road
Burton-on-the-Wolds
Leicestershire, LE12 5TH
United Kingdom

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