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BMM

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R600

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** IEC only to 1000Vdc.

CHPV

CH14

HEB

SD1-D-PV

SB1XL-S

SB2XL-S

SB3L-S

HPV

1500 Volts	Fuses	Volts	Page
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* Available with tags for bolt mounting or 10mm fixings for mounting in modular blocks for 10mm diameter fuses.

** IEC only to 1500Vdc.


SB1XL-S


SB2XL-S


SB3L-S

Solar fuses

13/32″ x 1 1/2″ Midget PV fuses

PVM

Specifications:

Description: A range of UL 248-19 fast-acting 600Vdc Midget fuses specifically designed to protect solor power systems in extreme ambient temperature, high cycling and low level fault current conditions (reverse current, multi-array fault).

RoHS

Dimensions: 13⁄32″ x 1 1⁄2″ (10.3 x 38.1mm).

Ratings:

Volts — 600Vdc to UL 248-19

Amps — 4-30A

IR — 50kA DC (4-30A)

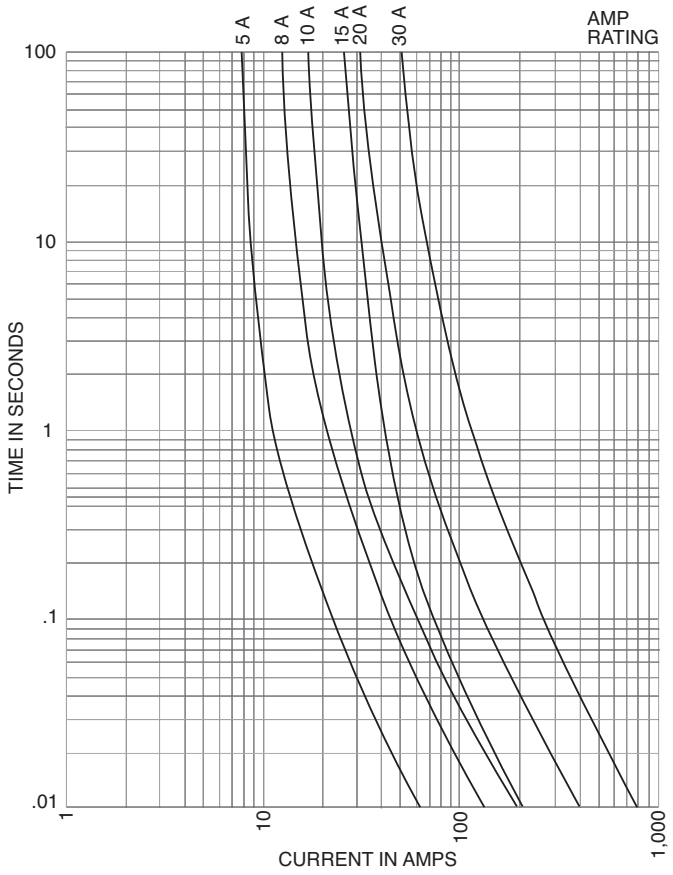
Agency information: UL Listed 248-19, Guide JFGA, File E335324, CSA Component Certified C22.2. RoHS compliant.

Features and benefits:

- Specifically designed to protect solar power systems in extreme ambient temperature per UL 248-19 listed
- Capable of withstanding high cycling and low level fault current conditions

Typical applications:

- Solar combiner boxes
- Solar string protectors



Power loss (watts)

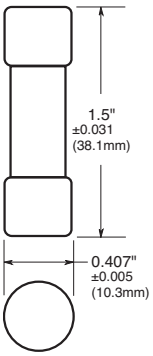
Catalog number	Amp rating	Power loss (watts) 0.8 x I_n	1.0 x I_n
PVM-10	10	1.0	1.9
PVM-15	15	1.0	1.7
PVM-30	30	1.6	2.9

I_n = Rated current

Catalog numbers (amps)

PVM-4	PVM-7	PVM-10	PVM-20
PVM-5	PVM-8	PVM-12	PVM-25
PVM-6	PVM-9	PVM-15	PVM-30

Dimensions - (mm)



Data Sheet: 2153

Recommended fuse holders and blocks for the PVM fuse

• See page 1-2

PVCF 600V

RoHS

Catalog symbol: PVCF_RN

Fast-acting fuse: 6 minutes maximum clearing time at 200% rated current for 30 to 60A fuse
8 minutes maximum clearing time at 200% rated current for 70 to 100A fuse

Ratings:

Volts — 600Vdc
Amps — 35-100A
IR — 50kA DC (UL and CSA)

Agency information:

- UL 248-19 Listed Fuse: Guide JFGA, File E335324
- CSA Certified Fuse: Class C22.2
- RoHS compliant

Other ratings/specifications:

Watts loss at rated current: PVCF35RN: 5.45W
PVCF60RN: 7.27W
PVCF100RN: 11.50W

Operating and storage temperature range: -40 to 90°C

Material specifications:

- Case: glass filled PES (Polyethersulfone)
- Terminals: copper alloy
- Terminal plating: electroless tin

Carton quantity and weight

Amp rating	Carton qty.	Weight per carton lbs	kg
PVCF-35-60A	12	1.42	0.65
PVCF-70-100A	6	1.74	0.79

Features and product benefits:

- Maximize uptime and reliability using fuses designed and listed to UL 248-19: *Low Voltage Fuses - Fuses for Photovoltaic Systems*.
- Minimize chances of equipment failure and personnel injury when using full range fuses having the industry's fastest response time to low-magnitude faults.
- Maximize return on investment with fuses proven to withstand harsh temperatures.
- Minimize design time, operating outage time and replacement cost with fuses qualified in excessively changing enviromental conditions.
- Simplify compatibility with readily available industry standard Class CF holders.
- Temperature derating: designed to maximize rated capacity in elevated environmental temperatures.
- Overload protection: proven to clear faults faster than the UL requirement.
- Power loss: minimal energy consumption leading to increased efficiency.

Fuse catalog numbers non-indicating (amps)

PVCF35RN	PVCF50RN	PVCF80RN
PVCF40RN	PVCF60RN	PVCF90RN
PVCF45RN	PVCF70RN	PVCF100RN

Data Sheet: 2155

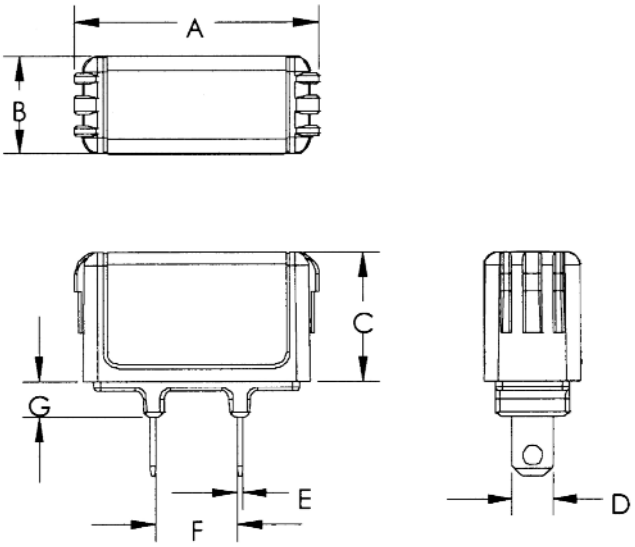
Recommended fuse holders for Class CF fuses

• See pages 1-16 and 1-17

Solar fuses

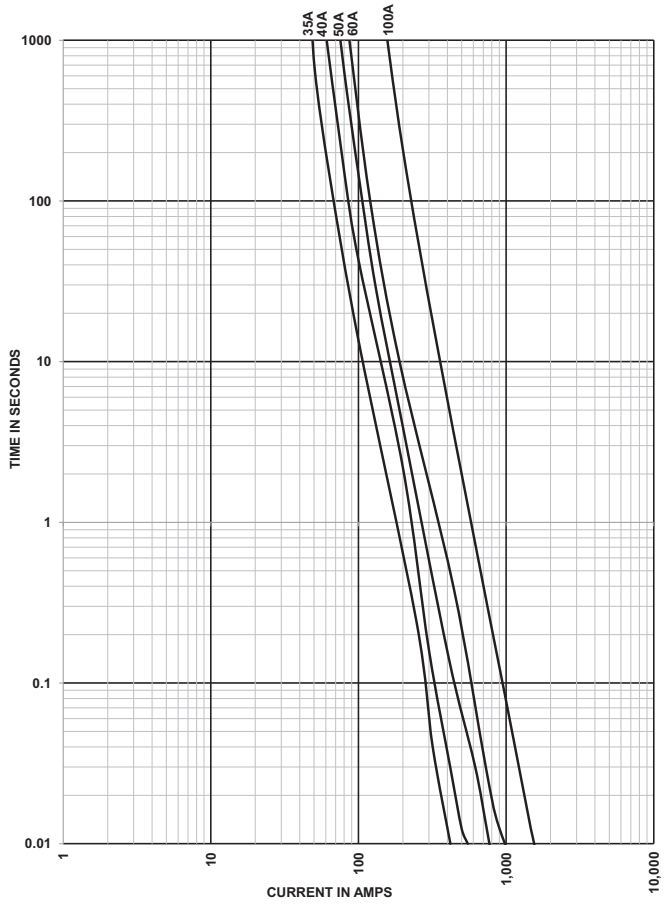
Photovoltaic CUBEFuse™

Dimensions – in (mm)

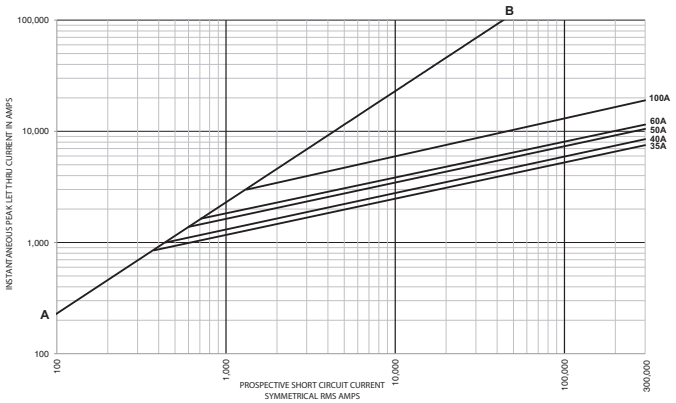


Fuse amps	Dimensions - in (mm)						
	A	B	C	D	E	F	G
35-40	2.13 (54.10)	1.00 (25.40)	1.13 (28.58)	0.36 (9.10)	0.04 (1.02)	0.63 (15.93)	0.38 (9.65)
45-50	2.13 (54.10)	1.00 (25.40)	1.13 (28.58)	0.44 (11.13)	0.04 (1.02)	0.63 (15.93)	0.38 (9.65)
60	2.13 (54.10)	1.00 (25.40)	1.13 (28.58)	0.44 (11.13)	0.04 (1.02)	0.63 (15.93)	0.38 (9.65)
70	3.01 (76.45)	1.00 (25.40)	1.26 (32.00)	0.49 (12.45)	0.06 (1.60)	0.58 (14.78)	0.38 (9.65)
80-90	3.01 (76.45)	1.00 (25.40)	1.26 (32.00)	0.49 (12.45)	0.06 (1.60)	0.58 (14.78)	0.38 (9.65)
100	3.01 (76.45)	1.00 (25.40)	1.26 (32.00)	0.57 (14.48)	0.06 (1.60)	0.58 (14.78)	0.38 (9.65)

Time-current characteristic curves–average melt



Current limitation curves



CUBEFuse holders

Catalog numbers (amps)	Fits fuse holder	
Non-indicating	TCFH60N	TCFH100N
PVCF35RN	X	X
PVCF40RN	X	X
PVCF45RN	X	X
PVCF50RN	X	X
PVCF60RN	X	X
PVCF70RN	–	X
PVCF80RN	–	X
PVCF90RN	–	X
PVCF100RN	–	X

Data Sheet: 2155

PVS-R (600Vac/dc) Class RK5

Specifications:

Description: A range of UL 248-19 fast-acting 600Vdc Class RK5 fuses specifically designed to protect solar power systems in extreme ambient temperature, high cycling and low level fault current conditions (reverse current, multi-array fault).

Dimensions: See page 1-3 for Class RK5 dimensions.

Ratings:

Volts — 600Vac to UL 248-12
600Vdc to UL 248-19

Amps — 20-400A

IR — 200kA RMS Sym. AC
20kA DC (20-60A)
10kA DC (70-400A)

Agency information: UL Std. 248-12, Class RK5, UL Listed, Guide JFGA, File E335324. Photovoltaic to UL 248-19, CSA Component Certified C22.2.

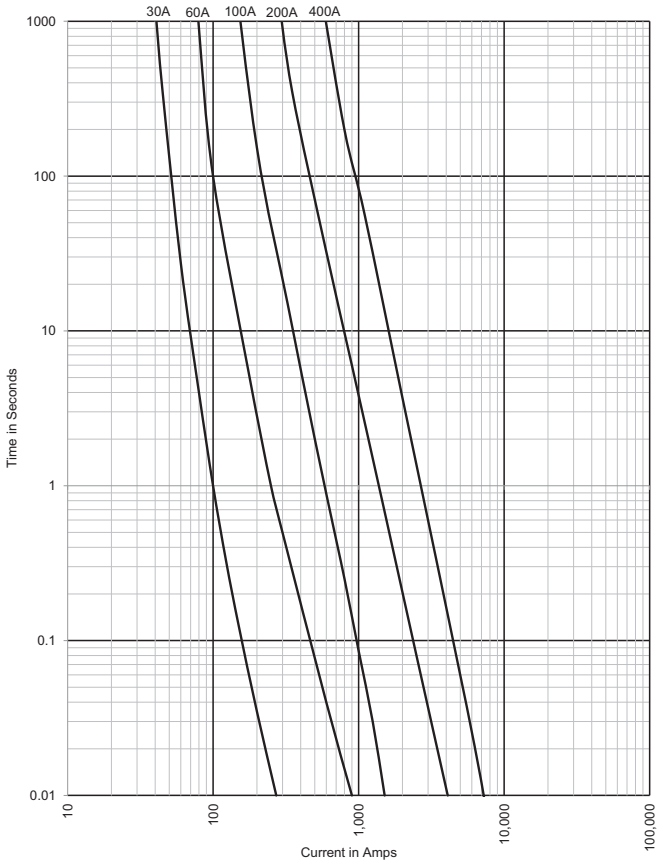
Features and benefits:

- Current limitation for non-inductive circuits provides Class RK5 current-limiting response to ground fault and short-circuit conditions.
- Designed for the protection and isolation of photovoltaic systems.

Typical applications:

- Photovoltaic systems
- Inverters
- Solar DC safety switches
- Recombiner boxes

Time-current characteristic curves—average melt



Catalog numbers (amps)

PVS-R-20	PVS-R-70	PVS-R-175
PVS-R-25	PVS-R-80	PVS-R-200
PVS-R-30	PVS-R-90	PVS-R-225
PVS-R-35	PVS-R-100	PVS-R-250
PVS-R-40	PVS-R-110	PVS-R-300
PVS-R-50	PVS-R-125	PVS-R-350
PVS-R-60	PVS-R-150	PVS-R-400

Recommended fuse holders and blocks for Class RK5 fuses

- See page 1-3

Data Sheet: 4203

Solar fuses

10x38mm photovoltaic fuses

10x38mm fuses — 1000Vdc, 1-30A

RoHS

Description:

A range 10x38mm, 1000Vdc PV fuses for the protection and isolation of photovoltaic strings. The fuses are specifically designed for use in PV systems with extreme ambient temperature, high cycling and low fault current conditions (reverse current, multi-array fault) string arrays.

Available with four mounting styles for application flexibility.

Basic fuse size:

- 10x38mm

Catalog symbols:

1-20A* — PV-(amp)A10F (cylindrical)
— PV-(amp)A10-T (bolt mounting)
— PV-(amp)A10-1P (single PCB tab)
— PV-(amp)A10-2P (dual PCB tab)
— PV-(amp)10F-CT (in-line, crimp terminals)

25-30A** — PV10M-(amp) (cylindrical)
— PV10M-(amp)-CT (in-line, crimp terminals)

*Ceramic tube construction.
**Melamine tube construction.

Time constant:

- 1-3ms

PV Fuse coordination:

With thin film cells and 4", 5" and 6" crystalline silicon cells

Agency information:

- UL Listed to 2579*, Guide JFGA, File E335324
- IEC 60269-6 (gPV)
- CSA File 53787, Class 1422-30 (1-15A), 20-30A Pending
- CCC (1-20A) (25-30A pending)
- RoHS Compliant

* Except crimp terminal version that is UL Recognized to UL 2579, Guide JFGA2, File E335324.

Features and benefits:

- Meets UL and IEC photovoltaic standards for global acceptance
- Low watts loss performance for energy efficiency
- Low temperature rise performance for more precise sizing
- In-line crimp terminal version is easy to apply in wire harness construction

Typical applications:

- Combiner boxes • Inverters • PV wire harnesses

Recommended fuse blocks, holders and fuseclips:

Part number	Description	Data Sheet #
BPVM_	1000Vdc modular fuse block with optional cover	10265
CHPV_ 3185	1? and 2?pole modular fuse holders with optional open fuse indication	Lit #
1A3400?09	PCB fuseclip	2131
HPV?DV?_A	In?line fuse holder assembly	2157

Catalog numbers (amp)/electrical characteristics:

Cylindrical ferrule	Bolt fixing	PCB fixing single pin	PCB fixing double pin	In-line with crimp terminal	Rated amps	Rated volts Vdc	Interrupting rating	I^2t (A^2s) Pre-arcing	I^2t (A^2s) Total @ rated volts	Watts loss $0.8I_n$	Watts loss I_n
PV?1A10F	PV?1A10?T	PV?1A10?1P	PV?1A10?2P	PV?1A10F?CT	1	1000	50kA	0.15	0.4	0.8	1.5
PV?2A10F	PV?2A10?T	PV?2A10?1P	PV?2A10?2P	PV?2A10F?CT	2	1000	50kA	1.2	3.4	0.6	1.0
PV?3A10F	PV?3A10?T	PV?3A10?1P	PV?3A10?2P	PV?3A10F?CT	3	1000	50kA	4	11	0.8	1.3
PV?3?5A10F	PV?3?5A10?T	PV?3?5A10?1P	PV?3?5A10?2P	PV?3?5A10F?CT	3.5	1000	50kA	6.6	18	0.9	1.4
PV?4A10F	PV?4A10?T	PV?4A10?1P	PV?4A10?2P	PV?4A10F?CT	4	1000	50kA	9.5	26	1.0	1.5
PV?5A10F	PV?5A10?T	PV?5A10?1P	PV?5A10?2P	PV?5A10F?CT	5	1000	50kA	19	50	1.0	1.6
PV?6A10F	PV?6A10?T	PV?6A10?1P	PV?6A10?2P	PV?6A10F?CT	6	1000	50kA	30	90	1.1	1.8
PV?8A10F	PV?8A10?T	PV?8A10?1P	PV?8A10?2P	PV?8A10F?CT	8	1000	50kA	3	32	1.2	2.1
PV?10A10F	PV?10A10?T	PV?10A10?1P	PV?10A10?2P	PV?10A10F?CT	10	1000	50kA	7	70	1.2	2.3
PV?12A10F	PV?12A10?T	PV?12A10?1P	PV?12A10?2P	PV?12A10F?CT	12	1000	50kA	12	120	1.5	2.7
PV?15A10F	PV?15A10?T	PV?15A10?1P	PV?15A10?2P	PV?15A10F?CT	15	1000	50kA	22	220	1.7	2.9
PV?20A10F	PV?20A10?T	PV?20A10?1P	PV?20A10?2P	PV?20A10F?CT	20	1000	50kA	34	350	2.1	3.6
PV10M?25					25	1000	20kA	325	1860*	1.7	2.9
PV10M?30					30	1000	20kA	536	3360*	1.7	3.3

*Total I^2t @ 20kA. Consult factory for availability.

Data Sheet: 10121

HPV — 1000Vdc

RoHS

Catalog symbol:

HPV-DV-(amp)A

Description:

Single-pole, non-serviceable photovoltaic in-line fuse holder and fuse assembly in an IP67 dust tight and temporary water immersion resistant insulating boot for use in photovoltaic wire harnesses.

Ratings

Volts — 1000Vdc

Amps — 1-20A

IR — 33kA

Agency information

- UL Listed to 4248-1 and 4248-18. File # E 348242
- CSA Component Acceptance, Class 6225 30, File # 47235
- CE, RoHS Compliant, IP20 Finger-safe, IP67

Conductors

- 75°C/90°C Cu Stranded 12-10AWG PV wire

Terminals

- Crimp connection for single, stranded 12-10AWG PV conductor

Boot material

- UL 5VA flammability resistant rated elastomer.
- UV resistant to UL F1 suitable for outdoor use.

Operating and storage temperature range

- -40°C to +90°C

Packaging

Bulk packed in cartons, 180 fuse assemblies per carton. Carton weight 19.3 Lbs (8.7543kg).

Fuse assemblies poly bagged with PV fuse element, two insulating boots (for lineside and loadside), and one pressure sensitive label to be applied on outside after complete assembly to the wire harness.

Catalog numbers (amps) and fuse elements*

HPV catalog number	10x38mm PV fuse part number	Amps
HPV-DV-1A	PV-1A10F-CT	1
HPV-DV-2A	PV-2A10F-CT	2
HPV-DV-2.5A	PV-2.5A10F-CT	2.5
HPV-DV-3A	PV-3A10F-CT	3
HPV-DV-3.5A	PV-3.5A10F-CT	3.5
HPV-DV-4A	PV-4A10F-CT	4
HPV-DV-5A	PV-5A10F-CT	5
HPV-DV-6A	PV-6A10F-CT	6
HPV-DV-8A	PV-8A10F-CT	8
HPV-DV-10A	PV-10A10F-CT	10
HPV-DV-12A	PV-12A10F-CT	12
HPV-DV-15A	PV-15A10F-CT	15
HPV-DV-20A	PV-20A10F-CT	20

* For fuse specifications and derating curves see data sheet no. 10121 at www.cooperbussmann.com/DatasheetsEle.

Recommended tools

- Sta-Kon™ terminal crimping tool, catalog # ERG4002
- Multi-Contact assembly tool, catalog # PV-RWZ with PV-KOI+II and PV-KOIII tapered spindles

Data Sheet: 2157

Solar fuses

14x51mm photovoltaic fuses

14x51mm fuses — 1000/1100Vdc, 15-32A

RoHS

Description:

A range of 14x51mm PV fuses specifically designed for protecting and isolating photovoltaic strings. These fuses are capable of interrupting low overcurrents associated with faulted PV systems (reverse current, multi-array fault).

Ratings:

Volts — 1000Vdc (25 and 32A)
— 1100Vdc (15 and 20A)
Amps — 15-32A
IR — 10kA

Agency information:

- UL Listed, Guide JFGA, File E335324. Photovoltaic to UL 248-19
- IEC 60269-6 gPV
- CSA Pending
- CCC Pending

Catalog numbers/electrical characteristics:

Catalog number	Rated amps	Rated volts DC	I^2t (A^2s) Pre-arcing	I^2t (A^2s) Total @ rated volts	Watts loss $0.8I_n$	Watts loss I_n
PV-15A14F	15	1100	14	265	2.1	4
PV-20A14F	20	1100	27	568	2.7	5
PV-25A14F	25	1000	65	943	2.7	5.1
PV-32A14F	32	1000	120	1740	3.3	6.2

Features and benefits:

- Specifically designed to provide fast-acting protection under low fault current conditions associated with PV systems
- High DC voltage rating
- Demonstrated performance in extreme temperature cycling conditions

Typical applications:

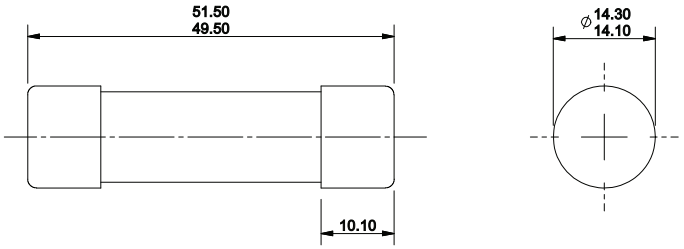
- Combiner boxes
- Inverters

Recommended fuse holder:

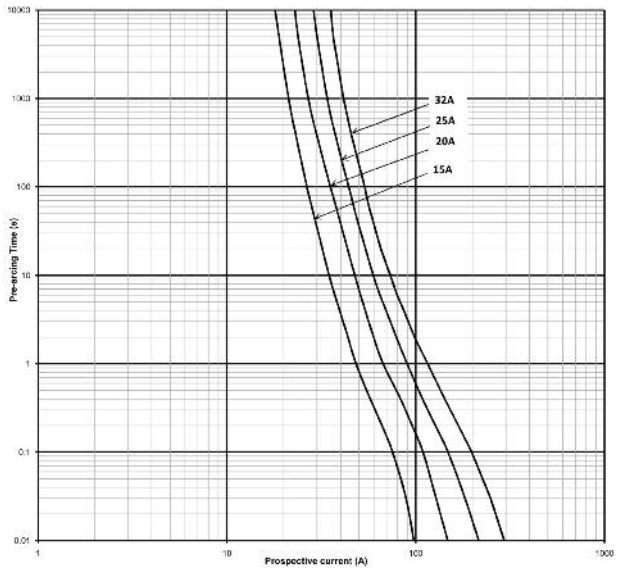
CH141B-PV DIN-Rail modular fuse holder

See data sheet # 720148 for more information.

Dimensions - mm



Time-current characteristic curves—average melt



Available current (amps), DC-time constant 1-3ms

Recommended fuse holders and blocks for 14x51mm fuses

• See page 2-2

Data Sheet: 720132

NH fuses — 1000Vdc, NH1, 2, 3, 32-400A

RoHS

Description:

A range of 1000Vdc NH size Photovoltaic (PV) fuses specifically designed for protecting and isolating array combiners/re-combiners, disconnects and inverters.

Ratings:

Volts — 1000Vdc
Amps — 32-400A
IR — 50kA

Agency information:

- UL Listed, Guide JFGA, File E335324. Photovoltaic to UL 248-19
- IEC 60269-6 gPV
- CSA Class 1422-30, File 53787 (32-160A)
- UL Listed, IEC gPV, CSA, CCC Pending, RoHS compliant

Features and benefits:

- Compact size saves panel space and extends design flexibility
- Bolt-on versions have common hole centers for standardizing busbar designs across 63-400 amp range
- Low power loss for greater efficiency and lower operating temperature
- Global agency standards simplifies design considerations for worldwide markets
- Dual indication feature and optional microswitches make system monitoring easier

Typical applications:

- Recombiner boxes
- Inverters

Recommended fuse blocks*:

Fuse size	Fuse block
NH1	SD1-D-PV
NH2	SD2-D-PV
NH3	SD3-D-PV

See data sheet # 720149 for more information.

Optional microswitches*:

Part number	Tab size/ mm (inch)	Connection	Volts	Amps
170H0236	250/6.3 (¼)	Quick connect	250	2
170H0238	110/2.8 (0.11)	Quick connect	250	2
BVL50	187/4.8 (¾)	Quick connect	250	6

*For use with bladed version.

Catalog numbers/electrical characteristics:

Blade without bolt-holes

Part number	Fuse size	Current rating (amps)	Energy integrals I^2t (A^2S) Pre-arcing	Energy integrals I^2t (A^2S) Total at 1000V	Watts loss $0.8I_n$	Watts loss I_n
PV-32ANH1	NH1	32	80	720	4	8
PV-40ANH1	NH1	40	185	1670	5	9
PV-50ANH1	NH1	50	400	3600	6	11
PV-63ANH1	NH1	63	470	4300	6	12
PV-80ANH1	NH1	80	640	5760	8	15
PV-100ANH1	NH1	100	1300	11,700	8	16
PV-125ANH1	NH1	125	2600	23,400	9	17
PV-160ANH1	NH1	160	5200	46,800	14	27
PV-200ANH1	NH1	200	10,200	82,000	13	25
PV-250ANH2	NH2	250	17,000	136,000	19	38
PV-300ANH3	NH3	300	32,000	260,000	24	40
PV-315ANH3	NH3	315	32,000	260,000	26	44
PV-350ANH3	NH3	350	44,500	370,000	27	45
PV-355ANH3	NH3	355	44,500	370,000	28	46
PV-400ANH3	NH3	400	67,500	550,000	30	50

See data sheet No. 720133 for complete details.

Blade with bolt-holes

Part number with bolt holes	Fuse size	Current rating (amps)	Energy integrals I^2t (A^2S) Pre-arcing	Energy integrals I^2t (A^2S) Total at 1000V	Watts loss $0.8I_n$	Watts loss I_n
PV-63ANH1-B	NH1	63	470	4300	6	12
PV-80ANH1-B	NH1	80	640	5760	8	15
PV-100ANH1-B	NH1	100	1300	11,700	8	16
PV-125ANH1-B	NH1	125	2600	23,400	9	17
PV-160ANH1-B	NH1	160	5200	46,800	14	27
PV-200ANH1-B	NH1	200	10,200	82,000	13	25
PV-250ANH2-B	NH2	250	17,000	136,000	19	38
PV-315ANH3-B	NH3	315	32,000	260,000	26	44
PV-355ANH3-B	NH3	355	38,000	310,000	29	48
PV-400ANH3-B	NH3	400	61,000	490,000	32	50

See data sheet No. 720133 for complete details.

Data Sheet: 720133

Solar fuses

1000Vdc XL photovoltaic fuses

XL fuses — 1000Vdc, XL01, 1, 2, 3, 63-630A

RoHS

Features and benefits:

- Specifically designed to provide fast-acting protection under low fault current conditions associated with PV systems
- High DC voltage rating
- Variety of mounting options for flexibility
- Demonstrated performance in extreme temperature cycling conditions

Typical applications:

- Recombiner boxes
- Inverters

Description:

A range of XL size PV fuses specifically designed for protecting and isolating photovoltaic array combiners and disconnects. These fuses are capable of interrupting low overcurrents associated with faulted PV systems (reverse current, multi-array fault). Available with optional microswitches for use in monitoring systems.

Recommended fuse holders:

Fuse size	Part number	Description
01XL	SB1XL-S	1-pole block
1XL	SB1XL-S	1-pole block
2XL	SB2XL-S	1-pole block
3L	SB3L-S	1-pole block

See data sheet # 10066 for more information.

Catalog symbols:

Blade — PV-(amp)A(size)XL
Bolt-In — PV-(amp)A(size)XL-B

Optional microswitches:

Blade — 170H0235 or 170H0237 for size 01XL
— 170H0236 or 170H0238 for sizes 1XL, 2XL and 3L
Bolt-in — 170H0069 for all sizes

Agency information:

- UL 248-19, Guide JFGA, File E335324
- IEC 60269-6
- CSA Class 1422-30, File 53787
- RoHS Compliant

Catalog numbers (amp)/electrical characteristics:

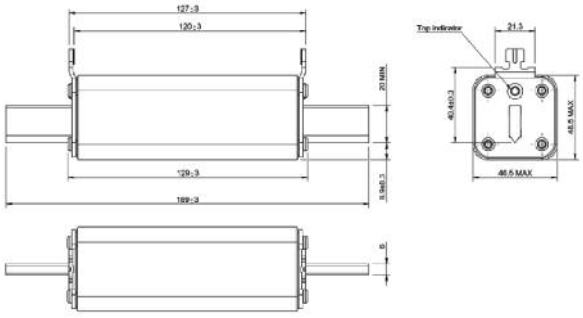
Fuse size	Bladed version	Bolted version	Rated amps	Rated volts Vdc	Interrupting rating	I^2t (A^2s) Pre-arcing	I^2t (A^2s) Total @ rated volts	Watts loss $0.8I_n$	Watts loss I_n
01	PV-63A-01XL	PV-63A-01XL-B	63	1000	50kA	260	1900	13	24
	PV-80A-01XL	PV-80A-01XL-B	80	1000	50kA	490	3600	17	29
	PV-100A-01XL	PV-100A-01XL-B	100	1000	50kA	870	6300	18	32
	PV-125A-01XL	PV-125A-01XL-B	125	1000	50kA	1930	13,900	20	40
	PV-160A-01XL	PV-160A-01XL-B	160	1000	50kA	3900	28,100	22	44
1	PV-200A-1XL	PV-200A-1XL-B	200	1000	33kA	9400	27,260	31	60
2	PV-160A-2XL	PV-160A-2XL-B	160	1000	33kA	2780	21,000	25	44
	PV-200A-2XL	PV-200A-2XL-B	200	1000	33kA	4950	37,000	28	50
	PV-250A-2XL	PV-250A-2XL-B	250	1000	33kA	9450	70,000	34	60
	PV-315A-2XL	PV-315A-2XL-B	315	1000	33kA	16,600	123,000	40	66
	PV-350A-2XL	PV-350A-2XL-B	350	1000	33kA	26,000	192,000	42	68
	PV-355A-2XL	PV-355A-2XL-B	355	1000	33kA	26,000	192,000	42	68
3	PV-350A-3L	PV-350A-3L-B	350	1000	50kA	31,000	161,200	40	65
	PV-400A-3L	PV-400A-3L-B	400	1000	50kA	44,500	231,400	48	82
	PV-500A-3L	PV-500A-3L-B	500	1000	50kA	85,000	442,000	50	85
	PV-600A-3L	PV-600A-3L-B	600	1000	50kA	137,000	712,400	80	108
	PV-630A-3L*	PV-630A-3L-B*	630*	1000	50kA	137,000	712,400	92	118

* 630A thermally rated to UL only.

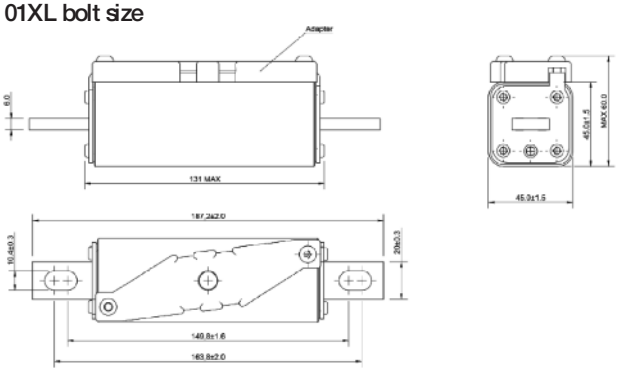
Data Sheet: 10201

Dimensions - mm (not to scale)

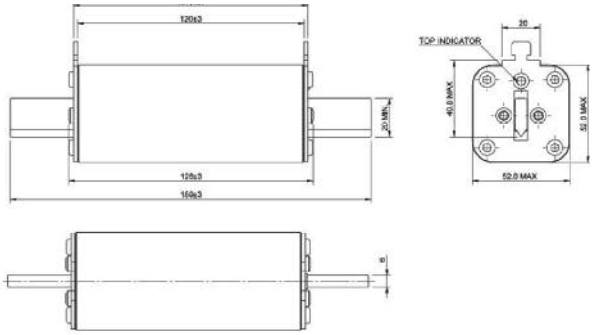
01XL blade size



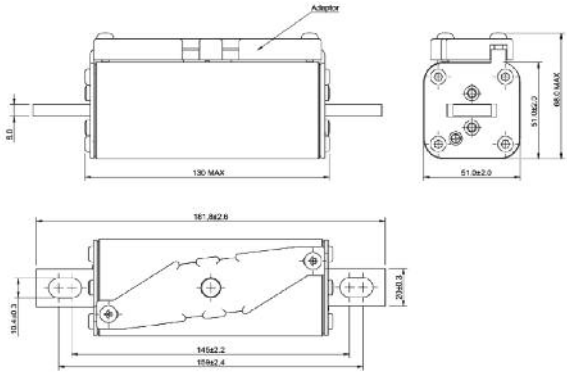
01XL bolt size



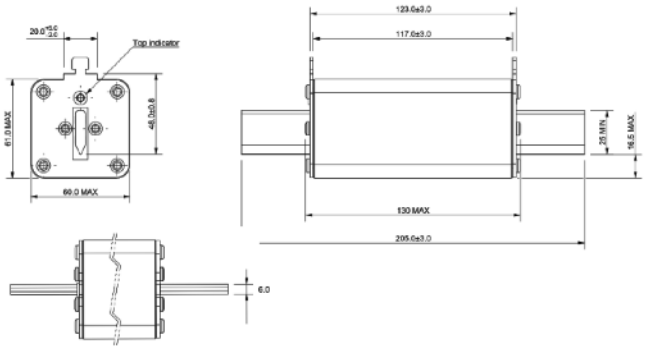
1XL blade size



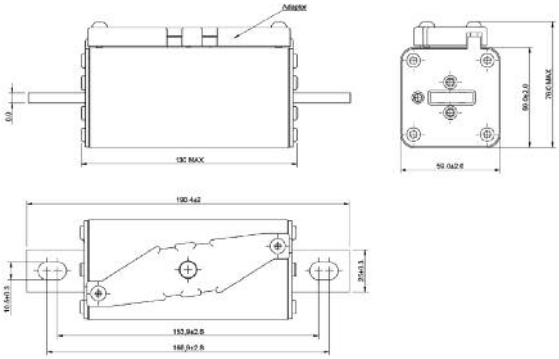
1XL bolt size



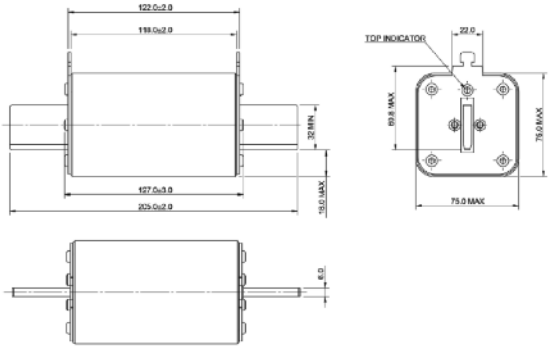
2XL blade size



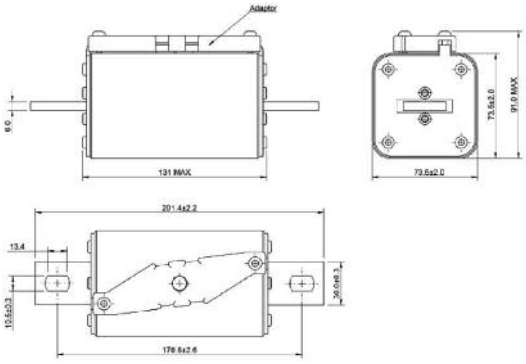
2XL bolt size



3L blade size



3L bolt size

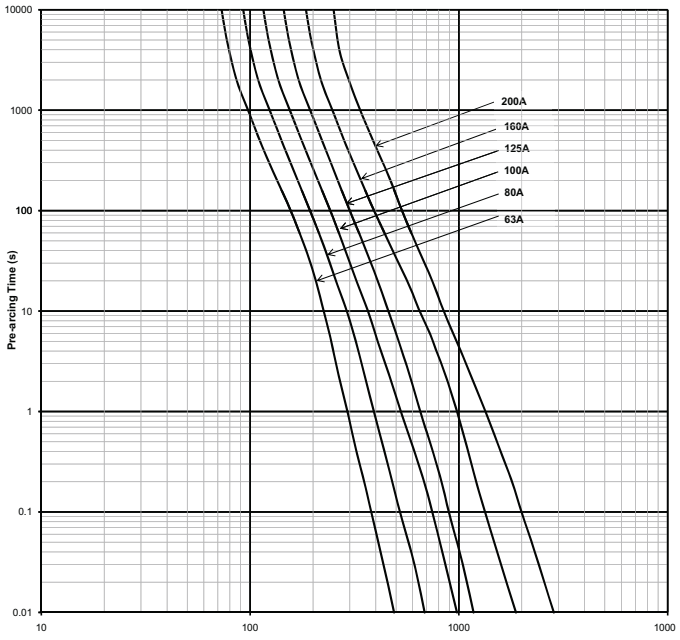


Data Sheet: 720134

Solar fuses

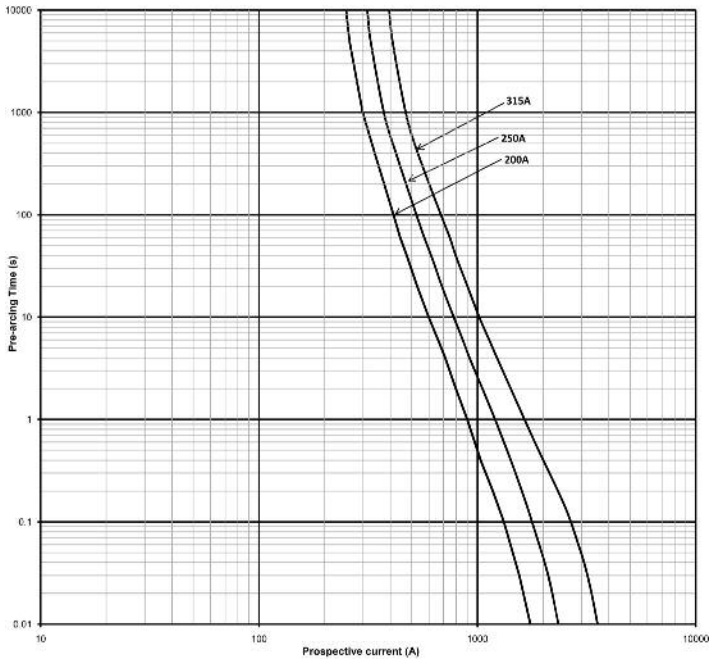
1000Vdc XL photovoltaic fuses for solar applications

Time-current curves for 01XL and 1XL



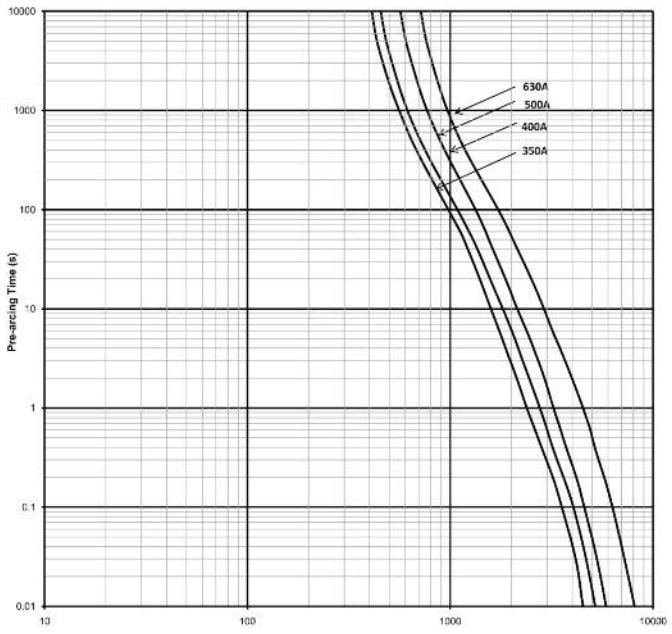
Available current (amps), DC-time constant 1-3ms

Time-current curves for 2XL



Available current (amps), DC-time constant 1-3ms

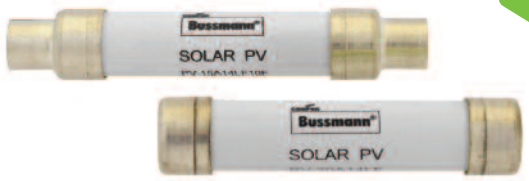
Time-current curves for 3L



Available current (amps), DC-time constant 1-3ms

Data Sheet: 720134

14x65mm fuses — 1300/1500Vdc, 2.25-32A



RoHS

Description:

A range of 14 x 65mm package PV fuses specifically designed for protecting and isolating photovoltaic strings. These fuse links are capable of interrupting low overcurrents associated with faulted PV systems (reverse current, multi-array fault).

Available in three mounting styles for application flexibility.

Basic fuse size:

14x65mm

Catalog symbols and mounting style:

PV-(amp)A14LF	(cylindrical)
PV-(amp)A14L-T	(cylindrical with tags)
PV-(amp)A14LF10F	(cylindrical with 10mm fixings)

Agency information:

- UL Listed, Guide JFGA, File E335324, Photovoltaic to UL 248-19*
- IEC 60269-6 gPV
- CSA pending
- CCC pending
- RoHS compliant

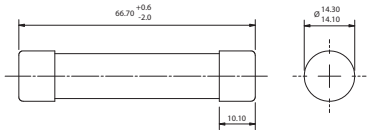
Features and benefits:

- Specifically designed to provide fast-acting protection under low fault current conditions associated with PV systems
- Variety of mounting options for flexibility
- Fuses meet UL and IEC photovoltaic standards for global product acceptance
- Low watts loss for greater PV system efficiency
- Low heat rise permits more precise sizing

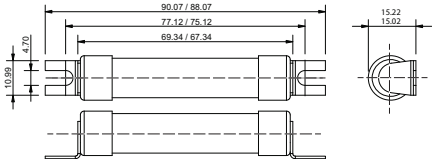
Typical applications:

- Combiner boxes • Inverters

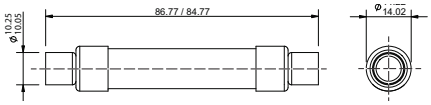
Dimensions/configurations - mm:



Cylindrical PV-(amp)A14LF



Cylindrical with tags PV-(amp)A14L-T



Cylindrical with 10mm fixings PV-(amp)A14LF10F

Catalog numbers (amp)/electrical characteristics:

Cylindrical	Cylindrical with tags	Cylindrical with 10mm fixings	In-line with crimp terminals	Rated amps	Rated volts Vdc	Interrupting rating	I²t (A²s) Pre-arcing	I²t (A²s) Total at rated voltage	Watts loss 0.8 In	Watts loss In
PV-2.25A14LF	PV-2.25A14L-T	PV-2.25A14LF10F	PV-2.25A-CT	2.25	1500	10kA	4	8	1.4	2.3
PV-2.5A14LF	PV-2.5A14L-T	PV-2.5A14LF10F	PV-2.5A-CT	2.5	1500	10kA	5	10	1.5	2.5
PV-3A14LF	PV-3A14L-T	PV-3A14LF10F	PV-3A-CT	3.0	1500	10kA	8	14	1.7	2.8
PV-3.5A14LF	PV-3.5A14L-T	PV-3.5A14LF10F	PV-3.5A-CT	3.5	1500	10kA	12	23	1.8	3.0
PV-4A14LF	PV-4A14L-T	PV-4A14LF10F	PV-4A-CT	4.0	1500	10kA	18	34	2.0	3.3
PV-15A14LF	PV-15A14L-T	PV-15A14LF10F	PV-15A-CT	15	1500	10kA	14	160	3.2	5.8
PV-20A14LF	PV-20A14L-T	PV-20A14LF10F	PV-20A-CT	20	1500	10kA	34	400	3.6	6.5
PV-25A14LF	PV-25A14L-T	PV-25A14LF10F	—	25	1300	10kA	65	550	4.1	7.5
PV-32A14LF	PV-32A14L-T	PV-32A14LF10F	—	32	1300	10kA	105	900	5.7	10.4

Data Sheet: 1172

Solar fuses

1500Vdc XL photovoltaic fuses

XL PV fuses — 1500Vdc, XL01, 1, 2, 3, 50-400A

RoHS

Description:

A range of XL size PV fuses specifically designed for protecting and isolating photovoltaic array combiners and disconnects. These fuses are capable of interrupting low overcurrents associated with faulted PV systems (reverse current, multi-array fault). Available with optional microswitches for use in monitoring systems.

Catalog symbols:

Blade — PV-(amp)A(size)XL-15
Bolt-In — PV-(amp)A(size)XL-B-15

Agency information:

- UL Listed, Guide JFGA, File E335324. Photovoltaic to UL 248-19
- IEC 60269-6 gPV
- CSA Class 1422-30, File 53787
- RoHS compliant

Features and benefits:

- Specifically designed to provide fast-acting protection under low fault current conditions associated with PV systems
- Variety of mounting options for flexibility

Typical applications:

- Recombiner boxes
- Inverters

Recommended fuse holders:

Fuse size	Part number	Description
01XL	SB1XL-S	1-pole block
1XL	SB1XL-S	1-pole block
2XL	SB2XL-S	1-pole block
3L	SB3L-S	1-pole block

See data sheet # 10066 for more information.

Optional microswitches:

Blade — 170H0235 or 170H0237 for size 01XL
— 170H0236 or 170H0238 for sizes 1XL, 2XL & 3L
Bolt-in — 170H0069 for all sizes

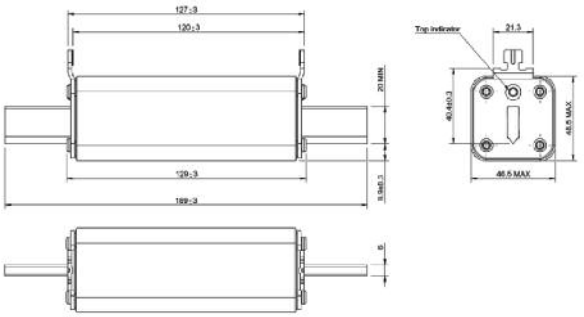
Catalog numbers (amp)/electrical characteristics:

Fuse size	Bladed version	Bolted version	Rated amps	Rated volts Vdc	Interrupting rating	I^2t (A^2s) Pre-arcing	I^2t (A^2s) Total @ rated volts	Watts loss $0.8I_n$	Watts loss I_n
01	PV-50A-01XL-15	PV-50A-01XL-B-15	50	1500	30kA	75	1000	14	25
	PV-63A-01XL-15	PV-63A-01XL-B-15	63	1500	30kA	362	2250	15	26
	PV-80A-01XL-15	PV-80A-01XL-B-15	80	1500	30kA	565	3300	19	35
	PV-100A-01XL-15	PV-100A-01XL-B-15	100	1500	30kA	1100	6600	22	40
	PV-125A-01XL-15	PV-125A-01XL-B-15	125	1500	30kA	2200	10,500	23	42
	PV-160A-01XL-12	PV-160A-01XL-B-12	160	1200	30kA	5000	24,000	26	52
1	PV-100A-1XL-15	PV-100A-1XL-B-15	100	1500	30kA	1250	6000	24	43
	PV-125A-1XL-15	PV-125A-1XL-B-15	125	1500	30kA	1950	9360	25	52
	PV-160A-1XL-15	PV-160A-1XL-B-15	160	1500	30kA	4200	20,160	30	58
	PV-200A-1XL-15	PV-200A-1XL-B-15	200	1500	30kA	9400	45,120	31	61
2	PV-125A-2XL-15	PV-125A-2XL-B-15	125	1500	30kA	2200	15,000	25	44
	PV-160A-2XL-15	PV-160A-2XL-B-15	160	1500	30kA	5000	32,000	29	48
	PV-200A-2XL-15	PV-200A-2XL-B-15	200	1500	30kA	8800	51,000	32	57
	PV-250A-2XL-15	PV-250A-2XL-B-15	250	1500	30kA	16,600	85,000	40	70
3	PV-250A-3L-15	PV-250A-3L-B-15	250	1500	30kA	22,300	92,000	32	50
	PV-315A-3L-15	PV-315A-3L-B-15	315	1500	30kA	38,000	160,000	36	66
	PV-355A-3L-15	PV-355A-3L-B-15	355	1500	30kA	44,500	184,000	44	80
	PV-400A-3L-15	PV-400A-3L-B-15	400	1500	30kA	58,000	240,000	49	91

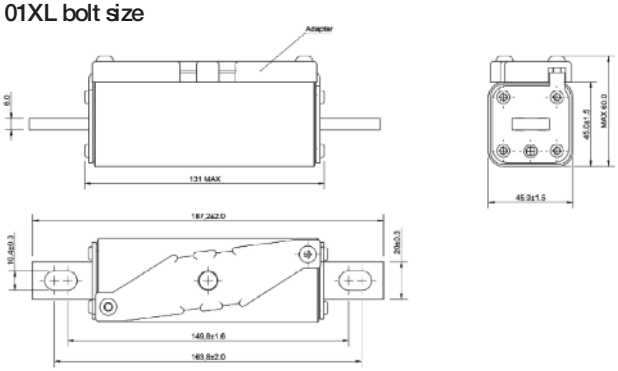
Data Sheet: 10201

Dimensions - mm (not to scale)
Bladed - size 01XL, 1XL, 2XL and 3L

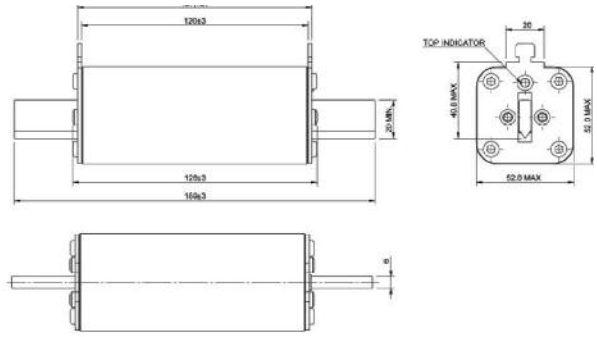
01XL blade size



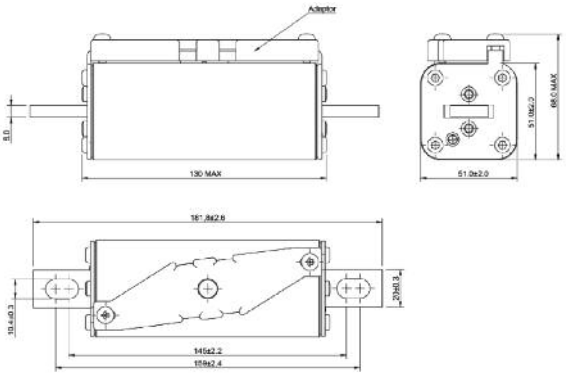
01XL bolt size



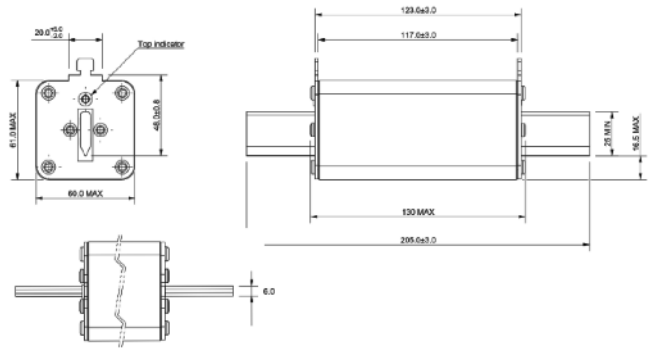
1XL blade size



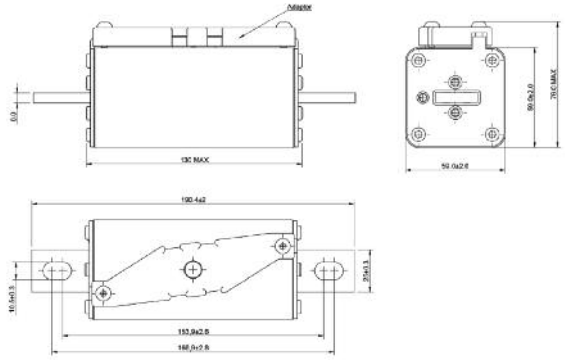
1XL bolt size



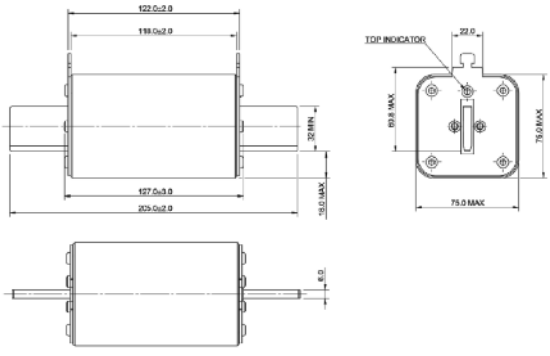
2XL blade size



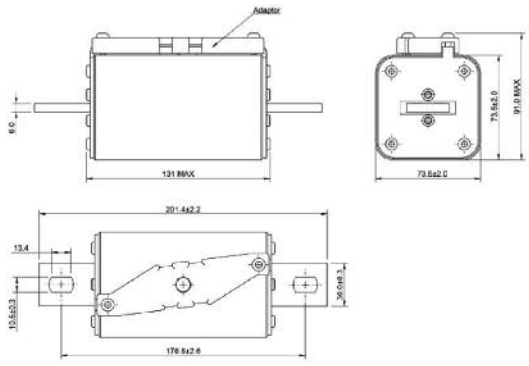
2XL bolt size



3L blade size



3L bolt size

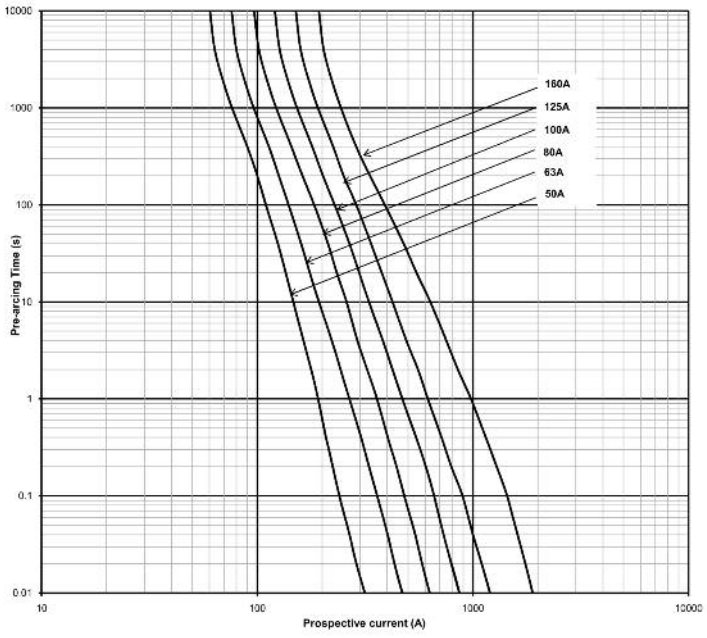


Data Sheet: 720134

Solar fuses

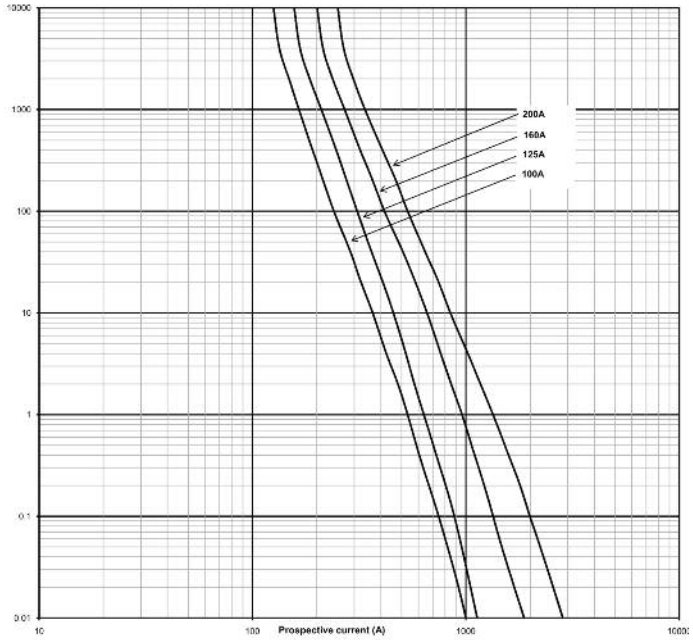
1500Vdc XL photovoltaic fuses

Time-current curves for 01XL - 1500Vdc



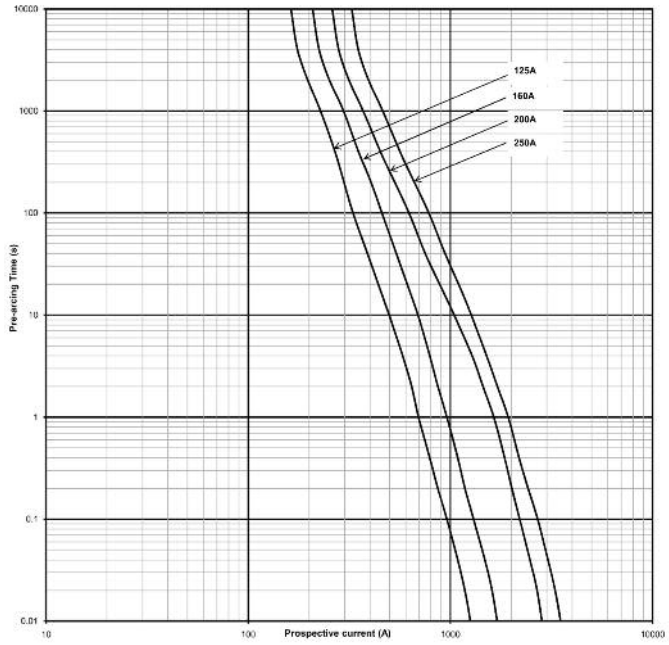
Available current (amps), DC-time constant 1-3ms

Time-current curves for 1XL - 1500Vdc



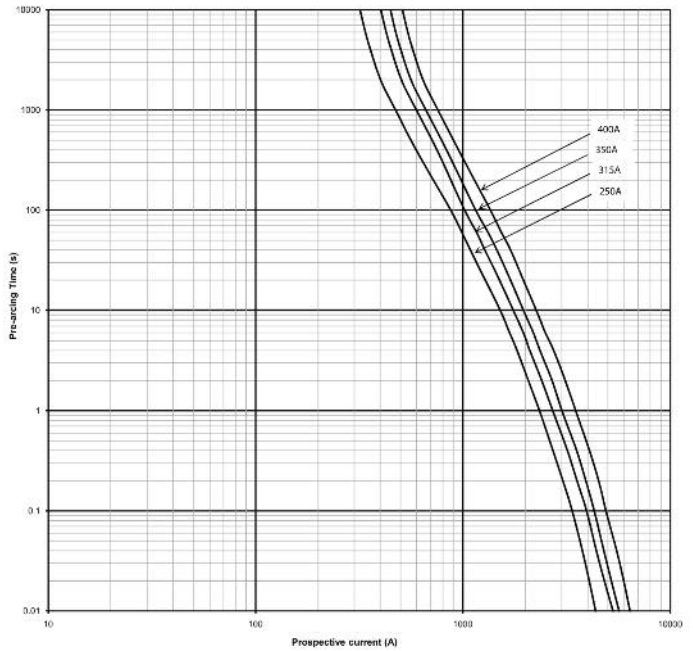
Available current (amps), DC-time constant 1-3ms

Time-current curves for 2XL - 1500Vdc



Available current (amps), DC-time constant 1-3ms

Time-current curves for 3L - 1500Vdc



Available current (amps), DC-time constant 1-3ms

Data Sheet: 720134