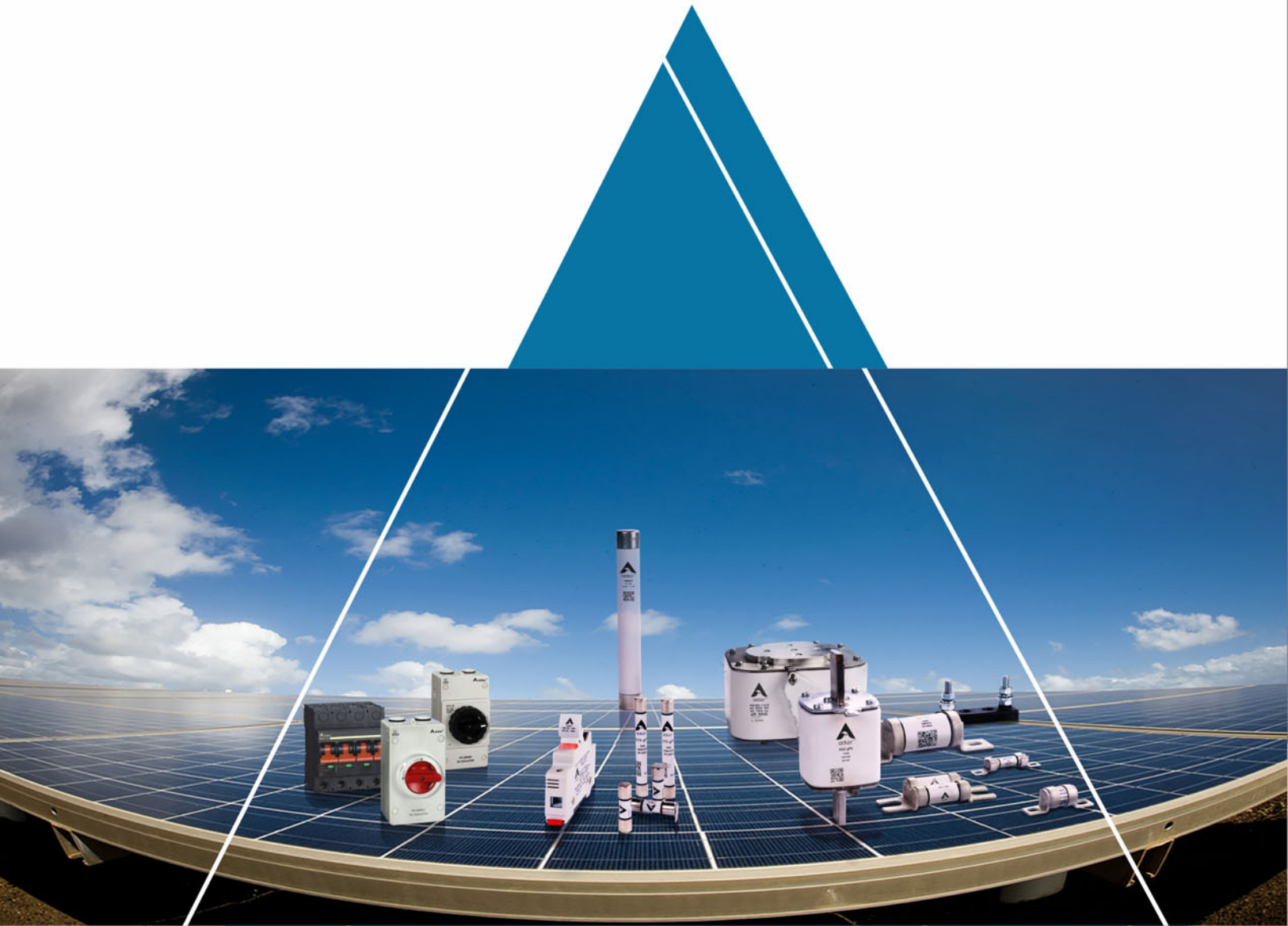




HIGH SPEED FUSES
AND SYSTEM PROTECTION
for Photovoltaic Installations
Electric Vehicles/ EV Charging Stations
Industrial and Power Equipment



2016 Portfolio

Ihr Rundumschutz für starke Ströme
All-round protection for strong currents



www.adlerelectric.com

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ADLER-Your All-round Protection for Strong Currents!

Our professional team is a skilled and knowledge based group which endeavors to provide best and wide spectrum of technical and customer services at one stop. We at ADLER wish to establish ourselves as your number one destination for photovoltaic, industrial and electrical vehicle fuses and

accessories. We have strong foundations by which we wish to achieve robust growth. Our diversified and dedicated team of sales, product technicians and field application engineers have all needed expertise in providing you with supreme technical support and customer service.



Our products are designed for following applications:

- Photovoltaic midjet and medium fuse links (gPV)
- Photovoltaic NH fuses in various sizes (gPV)
- Rail-mount fuse holder cartridges for cylindrical fuses and NH blade type fuse bases
- Photovoltaic system components, combiner boxes and parts
- DC switches, isolators, disconnects, circuit breakers
- Photovoltaic surge protection devices (SPD)

- Cylindrical fuse links for industrial applications (gG)
- All standard DIN-sized NH blade fuses for general industrial application (gG)
- Fuse holders for cylindrical fuses, fuse mounts and NH blade type fuse bases
- MV and HV power current limiting fuse links, CEF type
- HV fast acting semiconductor fuses

- Special EV type cylindrical fuses for EV chargers and battery storage systems
- BS88 cartridge fuses
- EV fuse bolt mounts and holders



Across all of our product range, we are proud to represent established, certified products that have developed a reputation for quality, reliability and innovation. Please refer to our brand and datasheets available from our website for a more detailed overview of our products.

We provide our customers with solutions expertise, a high standard of personalized service, availability of stock and an 'easy to deal with' experience.

Our Mission Statement

We add value to our customer's business by supplying quality specialist electrical products, solutions-focused expertise, personal service and genuine customer care at highest possible standards in our industry.

Our Location:

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PV – Fuse Selection Guide

For any PV systems with arrays of at least 4 module strings the fault current can easily exceed the operating current and reach a level that can cause overheating and damage of wire insulation. To ensure the best possible protection for the system and people working on the equipment, each string of solar panels must be protected with a fuse on each pole. They will also isolate the faulted string so that the rest of the PV system can continue to generate electricity.

It must be considered that polarities neither + nor – in photovoltaic equipment are connected to the earth, each chain of modules has therefore to be fitted with two

fuses: one fuse on the positive output and one fuse on the negative output.

It should also be reminded that in operation, fuse links, like thermal devices, are influenced by ambient temperature. The current capability of the PV fuse links shall therefore be derated according to their corresponding Temperature Derating Curve.

When a fault occurs in the DC circuit of the PV installation, the absence of natural zero voltage makes the interruption of DC faults more difficult than the interruption of AC faults as only the fuse arc will force the current to decrease to zero.

The correct interruption depends on three parameters:

1. The value of the DC voltage
2. The value of the ratio L/R (time constant) of the fault path
3. The value of the fault current

Due to the unique requirement in PV systems of having to clear a very low level fault, it is important that a fuse with full range capability is used. This means that the fuse is designed for clearing overloads as well as short circuit faults and requires the use of a fuse with a gPV characteristic.

In order to calculate the best fuse for a general recommendation, the following information is required:

- The array open circuit voltage (with the temperature coefficient)
- The lowest application temperature
- The ambient temperature
- The MPP-current
- The short circuit current (with temperature coefficient of the short circuit current) of the string
- The number of parallel strings
- The max irradiance



Checklist:

- 1) Taking the fact that the polarities + and – are never connected to the earth (neither one nor the other in photovoltaic equipment) into account, each chain of modules has to be fitted with two fuses: one fuse on the positive output and also one fuse on the negative output.
- 2) The first rule has to be applied when the number of chains in parallel (N) is equal to or higher than 4. (for 1, 2, 3 parallel chains, the fusing is not necessary).
- 3) The maximum DC operating voltage of the fuse must be higher than or equal to $1.20 \times M \times (V_{oc} \text{ STC})$.

Calculation method to choose the correct fuse for a PV power system:

Example: 20kW PV installation

Check the datasheet of the module (STC-values):

Voltage at P _{MAX} (Maximum Point of Power)	V _{MPP} = 29.2V
Open Circuit Voltage	V _{OC} = 36.4V
MPP-Current	I _{MPP} = 7.9A
Short Circuit Current	I _{SC} = 8.7A

Check the datasheet of the generator (STC-values):

Number of strings N	N = 4
Number of modules per string	M = 22
MPP Array Voltage = U _{MPP} x M	V _{ARRAY} = 642V
Array-Open Circuit Voltage = U _{OC} MOD x M	V _{OC} ARRAY = 800V
Temperature inside combiner box	60 °C



1. Evaluation of the fuse rated voltage

Calculate the smallest fuse link voltage:

VP MIN -25 °C (with temperature coefficient of UCO = 0.36%/°C)
 VP MIN >= VOC ARRAY x (1 + (25+25) x 0.0036) =945V
 taken: VN = 900 V (VP = 1000 V)
 At an IMPP – Current of 7.9A and an open circuit voltage of 945V for the string-protection should be using a gPV type fuse such as ADLER A73 range.

2. Evaluation of the fuse rated current

Determine the de-ratings of the fuse:

Ambient temperature of 60 °C 0.84
 Cycling factor for full-range fuse-links 0.90
 De-rating of multiple encapsulated fuse-holders must possibly be considered.

Calculate:

Smallest fuse rating IN MIN = I MPP / De-rating = 7.9 A / 0.84 / 0.9 10.50A
 Next highest available fuse rating IN chosen: 12.00A

Take into consideration:

Reduced fuse rating in the junction box 12A x 0.84 x 0.9 = 9.1A
 Check, if the reduced fuse rating is > ISC MOD 9.1 A > 8.7 A ()
 String short circuit current ISC STRING = ISC x (N-1) ISC STRING = 26.1A
 ISC STRING at 70 °C (with temp. coefficient of ISC with 0.065%/°C)
 ISC STRING' = I SC STRING" x (1 + (70-25) x 0.00065)) ISC STRING' = 27A
 Consideration of max. irradiance
 ISC STRING' at 1200 W/m² I SC STRING = 27x1.2 = 32.4A
 Melting time ts of the fuse rating 12A at ISC STRING 30 s

3. Result:

In this case, ADLER's A7332120700 fuse is the best choice. It is a gPV type fuse, has dimensions 10mm x 38mm, is rated at 1000VDC with a rated current of 12A. This will carry the MPP current of 7.9A and will interrupt a string short circuit current of 32.4A in a time of about 30s. Fuse ratings above 12A are possible, but have to be calculated on the above scheme. Accordingly, the cable type and the cross section the maximum overload current IZ has to be considered.

For further advice, please contact ADLER and we will be happy to assist you with the best fuse selection solutions.



EV – Fuse Selection Guide

Fuse products for EV/ HEV applications are relatively new in the industry, they could be regarded as a crossover product between low voltage fuse and automotive fuse. As of current there are no certification standards or industrial regulations defined yet. For our ADLER's EV fuse designs we take references from following industry standards:

- ISO 8820-8
- ISO 8820-1
- AECQ200
- SAE J2781
- JASO D622 – Japan

The following steps shall help you in selecting the correct EV fuse for automotive applications:

Determine the following parameters:

- Rated Voltage Vn:** The rated voltage of the fuse shall not be lower than the operation voltage of the system. For EV purposes and quick-charging stations DC fuses must be applied.
- Rated Current In:** Calculate the proper rating according to the maximum continuous load current of the system. Take also the automotive application factor in consideration.
- Dimensions:** Find the suitable dimensions and mounting method for the application. Mind that automotive grade fuses must be securely fastened, usually bolt mounted.
- Wiring, overload capacity:** Determine, if additional cable protection is required. It is recommended that the auxiliary protection matches the cable protection as far as possible.

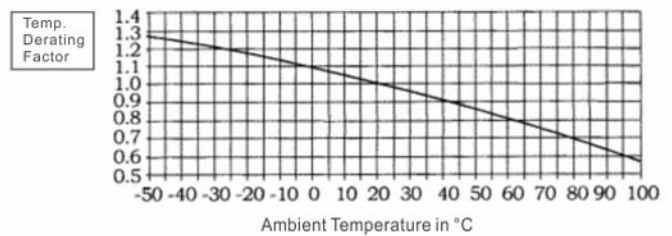
To calculate the proper fuse current rating for EV purposes, follow the principles for low voltage fuse and take automotive requirements into consideration:

Formula for current rating of the fuse based on Ib:

$$I_b = I_n \times K_T \times K_e \times K_v \times K_f$$

Converted to : $I_n \geq I_b / (K_T \times K_e \times K_v \times K_f)$

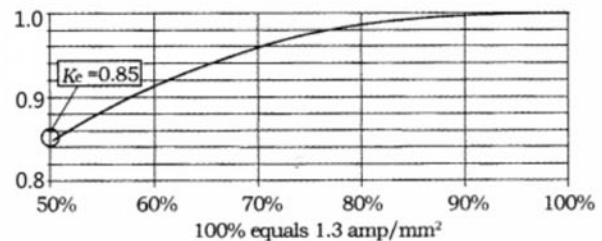
in: rated current of fuse
Ib: the allowable maximum continuous load current in the circuit, determined by operation current of the application
KT: temperature derating factor, determined through measurement of the ambient temperature



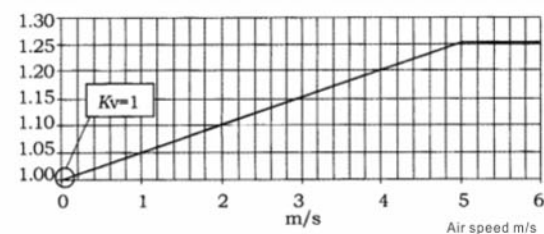
Ke: Heat transfer factor of the connected device

The fuse is generally connected through a copper bar. We can determine the heat transfer according to the current density in the connected copper bolt in the actor correction curve of connecting device heat transfer factor Ke.

Generally, the fuse copper bar has a current density of 1 - 1.6 amp/mm², if the rated current is high, try to adjust the current density to a lower rate.



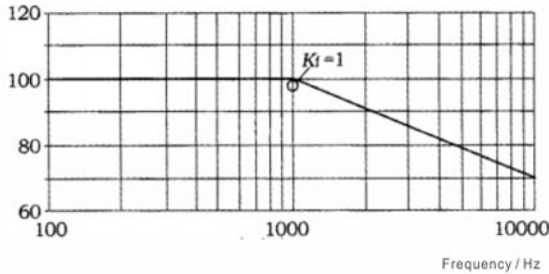
Kv: Forced cooling correction factor:



As is the case with K_t , artificial cooling will affect the operation time of the fuse as well. Natural cooling is the most recommended for EV applications, in that case we have a factor of $K_v=1$

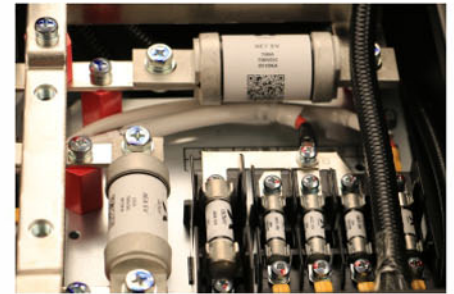
K_f : Frequency correction factor

Below 1000 Hz frequency of the DC current, the K_f value is 1



Based on the variables from the preliminary selection, and taking into consideration the calibration factor 1.6 for electric vehicles, we can now calculate the proper fuse rating:

$$I_n \geq 1.6 \times [I_b / (K_T \times K_e \times K_v \times K_f)]$$



Industrial Power Fuses - Selection Guide

The rated current of the fuse (I_n) is the r.m.s. current which the fuse is able to carry continuously under specified test conditions. I_n is established by testing the fuse under standard conditions specified in fuse standards (such as UL or IEC). But note that the current rating alone does not provide the user with any information about a fuse's protective characteristics. The temperatures of the various parts of a fuse must be kept within acceptable limits when it is carrying rated current.

The need for circuit protection can be distinguished into two kinds, overload and short circuit situations.

Overload is an excess current passing through the circuit. These currents are usually not much greater than the normal full-load current in the system, but if they are not contained over time they will cause damage to the system, especially to insulating

materials in contact with the circuit conductors.

The heating time in overload situations is relatively long (from seconds up to several hours)

The requirement for a overload protective devices is that it should limit the duration of the overload current.

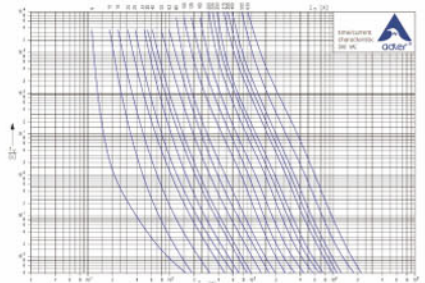
Short Circuits mean the electrical circuit has been forcefully bridged, which could happen because of insulation defects or accidental breakdown. The r.m.s. value of the prospective short-circuit current is very high, typically more than 20 times of the normal full-load current in the system. The heating effect is so intense that damage to the system can occur within milli-seconds. This heating effect depends on the waveform of the current, in which case the requirement for the protective device is to limit the energy associated with the fault,

1 $\int i$: Instantaneous current [i.e. $i = i(t)$]. This integral is also called « I^2t » and is the measure of the thermal energy delivered to each ohm of the circuit by the short-circuit current during the time t .

A short-circuit fuse or protective device should also limit the peak value of current permitted to run in the circuit. ADLER high-speed fuses open very rapidly under short circuit conditions and provide excellent protection in case of short-circuit faults.

2 I^2t (Time-Current Characteristics):

The time it takes for the fuse element to melt due to heating effect of the current running through the fuse is called pre-arcing time, and is followed by a period of arcing. For operation in times less than one AC cycle, the melting time of the element is affected by the current's wave shape. To determine the proper system protection it is necessary to consider the fuse's I^2t values. Below is a standard time current curve for a range of ADLER 500 VAC fuses.



3 Ambient Temperature Derating Factor K_T :

Fuse current ratings are usually determined through standard tests with a reference ambient air temperature of 25°C. But in most industrial power applications the ambient temperature is higher than that, rather in the range of 40-70°C. That's why the fuse must be "derated." The temperature rise in the fuse is forced by the internal power generation, which is a function of the square of the current. So, for a real ambient temperature value A the current rating must be multiplied by a special de-rating coefficient K_T , considering the maximum allowable fuse temperature T_{max} (typically 130-150°C)

$$KT \sqrt{\frac{T_{max-\theta}}{T_{max-\theta A}}}$$

4 Forced Cooling Correction Kv:

If the application uses forced air to cool the fuse, the continuous current rating of the fuse may be increased, by multiplying the rated current by a coefficient, Kv. The limiting value is typically 1.25, but values higher than this can be adjusted for special purpose fuse designs.

5 High Frequency Coefficient KF:

If the current in the circuit contains high-frequency components with more than 1kHz, the current distribution in the fuse will be effected by electromagnetic field interactions. This results in additional heating and should be considered through a coefficient KF:

f (Hz)	Kf
0 < f ≤ 100	1.00
100 < f ≤ 500	0.95
500 < f ≤ 1500	0.90
1500 < f ≤ 5000	0.80
5000 < f ≤ 10000	0.70
10000 < f ≤ 20000	0.60

6 Load Current Coefficient KTL:

In industrial power equipment the r.m.s. current through the fuse usually varies depending on the load and duty cycle when it is in operation. Also, power conversion equipment can be switched on and off from time to time. The heating and cooling of the fuse elements due to this loading can cause mechanical deterioration and nuisance opening of the fuse. This is especially important for semiconductor and ultra-high speed fuses.

Variations in the load current and duty cycle are taken into account by using a derating coefficient KTL. Loads can be classified as continuous or cyclic.

Continuous load means that the load current remains steady when the equipment is in operation, no overloads occur. For a few stops per year the KTL will have minor effect at about 0.95. For daily stops (such as overnight shutdowns) the KTL will be 0.9. For frequent daily stops the KTL shall be considered as 0.8.

If the current load cyclic, which means it repeatedly switches on and off, the temperature fluctuation is even large and KTL must be 0.6 or lower.



This formula combines the discussed values and derating factors:

$$I_b = I_n \times K_T \times K_V \times K_F \times K_{TL}$$

Converted to : **$I_n \geq I_b / (K_T \times K_V \times K_F \times K_{TL})$**





2 Photovoltaic Fuses and Protection

- PV Cylindrical Fuse Links
- PV Blade Type Fuse Links
- DC Surge Protection Device

A73 gPV Midget Fuse 10x38mm



Features:

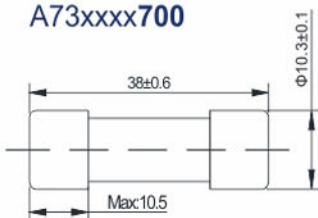
- Rated voltage: 1000 VDC, class gPV
- Rated Current: 1~30A
- Rated Breaking Capacity: 20 kA
- Min Interrupting Rating: 1.3 x In
- Time Constant: 1-3ms
- Standard: EC60269-1:2007+A1, EC60269-6:2011; UL2579

ELECTRICAL SPECIFICATIONS

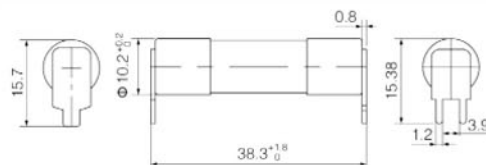
Part Number	Rated Current	Cold Resistance (mΩ)	I ² t (A ² s)		Dissipation (W)		Certifications	
			Pre-Arc	Total @ Rated V	80% In	100% In	UL	TÜV
A73110070X	1	558.50	0.15	0.4	0.8	1.5	○	○
A73120070X	2	327.65	1.2	3.4	0.6	2.1	○	●
A73130070X	3	101.50	4	11	0.8	0.98	●	●
A73140070X	4	73.88	9.5	26	1.0	1.1	●	●
A73150070X	5	60.43	19	50	1.0	1.2	●	●
A73160070X	6	44.99	30	90	1.1	1.37	●	●
A73180070X	8	24.94	27.5	32	1.2	1.9	●	●
A73210070X	10	17.25	21.8	70	1.2	2.2	●	●
A73212070X	12	13.17	51.3	120	1.5	2.6	●	●
A73215070X	15	9.53	98.3	220	1.7	2.8	●	●
A73220070X	20	5.59	157.5	240	2.1	3.1	●	●
A73225070X	25	4.67	40	260	2.9	4.1	○	○
A73230070X	30	3.09	48	280	3.6	4.95	○	○

DIMENSIONS (mm)

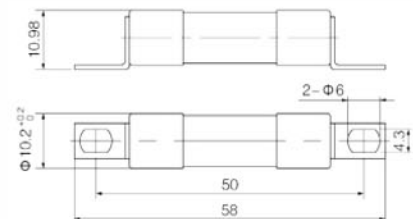
A73xxxx700



A73xxxx701



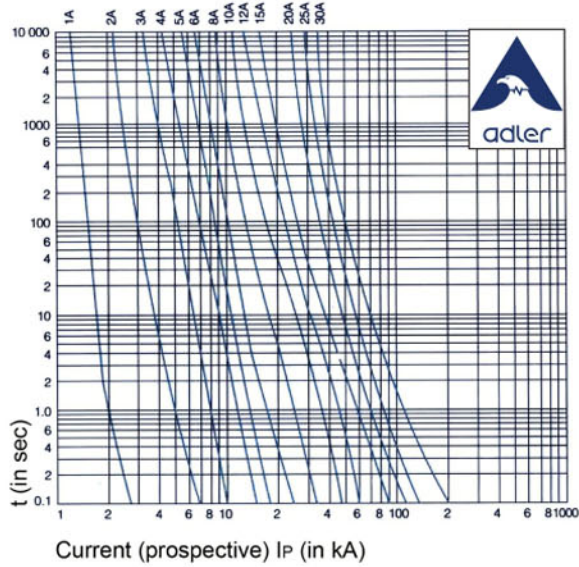
A73xxxx702



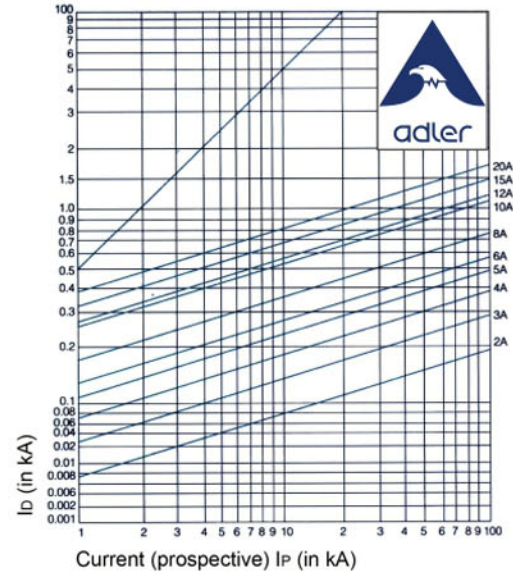
Applications:

- PV combiner/ junction boxes
- Inverters
- Battery Charge Controllers

TIME/ CURRENT (I-T) CHART (reference)



CURRENT LIMITING-CURRENT (reference)

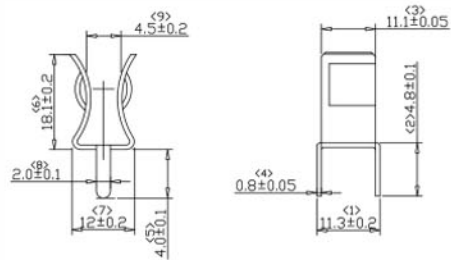


MATCHING FUSE HOLDERS/ ACCESSORIES:

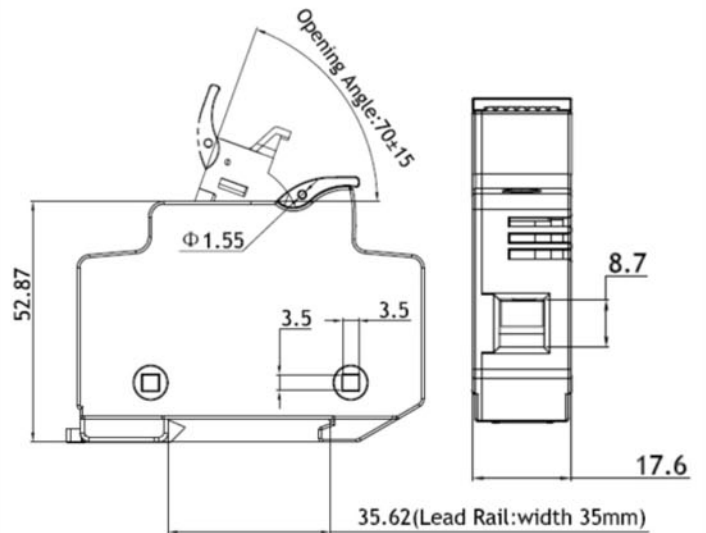
- DIN rail holders BH100, BH101, BH100B Series
- 10x38mm Fuse Clips BC800.



BC800



BH101&BH100



A74 gPV Midget Fuse 14x51mm



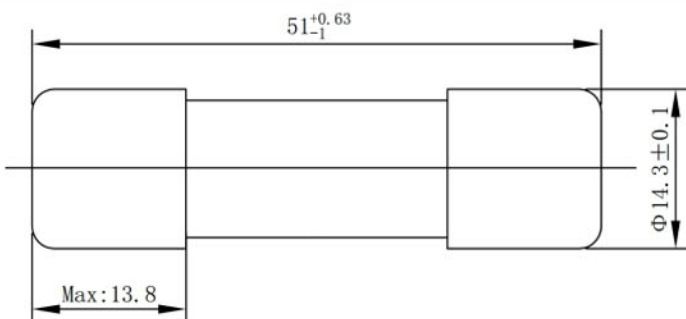
Features:

- Rated voltage: 1000/1500 VDC
- Rated Current: 2.5~32A
- Rated Breaking Capacity: 20~30 kA
- Min Interrupting Rating: 1.3 x In
- Time Constant: 1-3ms
- Standard: UL 248-19(2579)

ELECTRICAL SPECIFICATIONS

Part Number	Rated Current	Breaking Capacity	I ² t (A ² s)		Dissipation (W)		Certifications
			Pre-Arc	Total @ Rated V	80% In	100% In	UL
A741250b00	2.5	20kA@1500VDC	6	15	1.6	3.0	○
A741350b00	3.5		9.8	14	1.6	3.0	○
A741400b00	4		14.5	50	1.6	3.0	○
A742150700	15	30kA@1000VDC	14	265	2.1	4	○
A742200700	20		27	560	2.7	5	○
A742250700	25		65	940	2.7	5	○
A742320700	32		120	1740	3.3	6.2	○

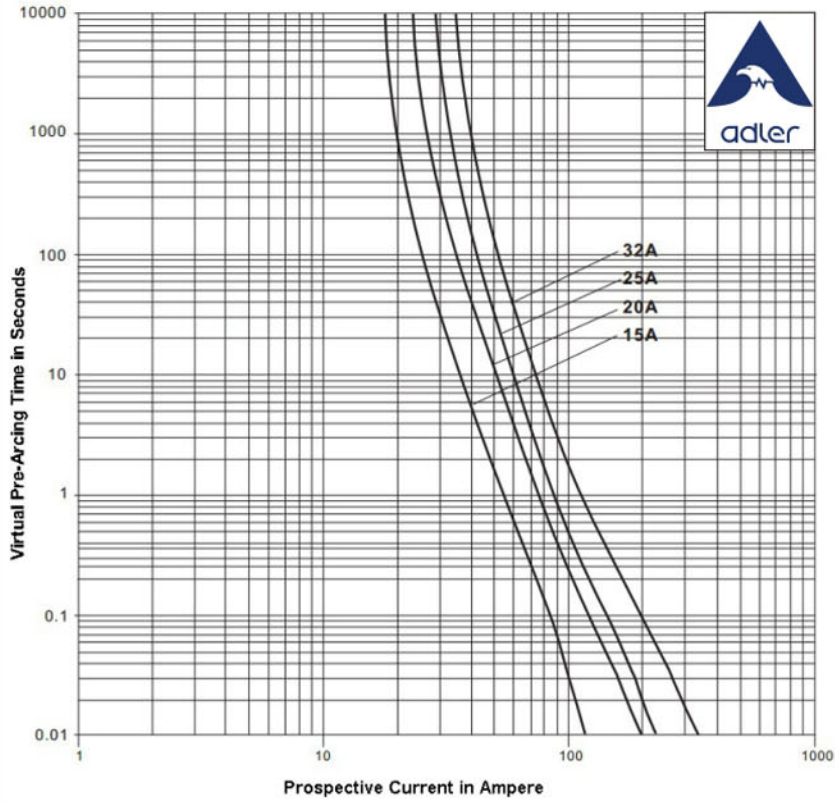
DIMENSIONS (mm)



Applications:

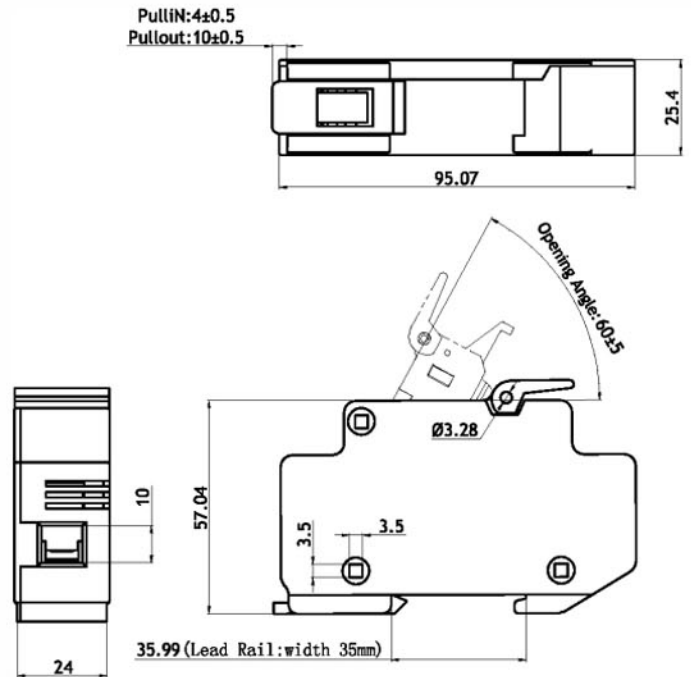
- PV combiner / junction boxes
- Inverters
- Battery Charge Controllers

TIME/ CURRENT (I-T) CHART (reference)



MATCHING FUSE HOLDERS/ ACCESSORIES:

- DIN rail holders BH200



A75 gPV Midget Fuse 10x85mm



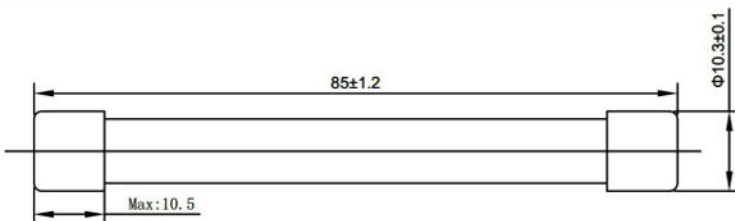
Features:

- Rated voltage: 1500 VDC, class gPV
- Rated Current: 2~25A
- Rated Breaking Capacity: 30 kA
- Min Interrupting Rating: 1.3 x In
- Time Constant: 1-3ms
- Standard: IEC60269

ELECTRICAL SPECIFICATIONS

Part Number	Rated Current	Rated Voltage	Breaking Capacity(kA)	Power Dissipation(W)	Certifications
					UL
A751200b00	2	1500	30	2.72	○
A751400b00	4	1500	30	2.96	○
A751600b00	6	1500	30	3.20	○
A751800b00	8	1500	30	4.19	○
A752100b00	10	1500	30	4.20	○
A752120b00	12	1500	30	3.47	○
A752160b00	16	1500	30	3.65	○
A752200b00	20	1500	30	3.85	○
A752250b00	25	1500	30	5.00	○

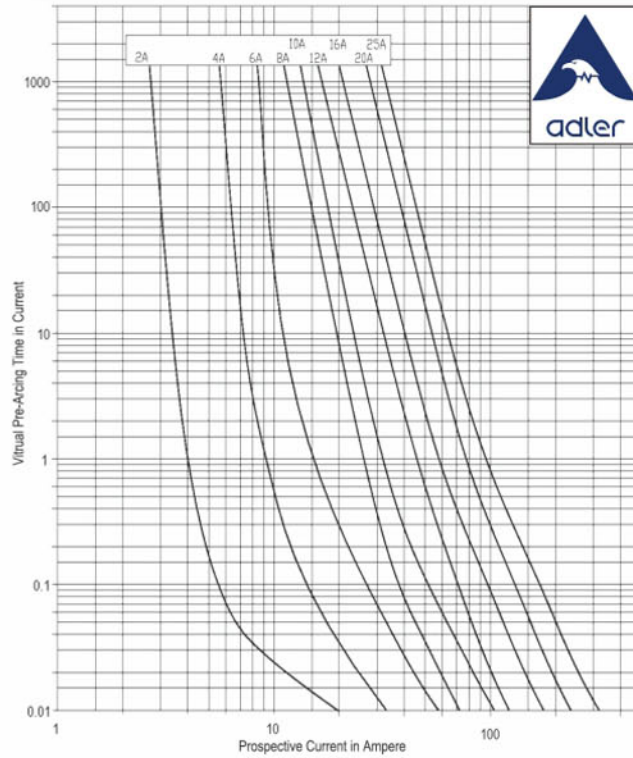
DIMENSIONS (mm)



Applications:

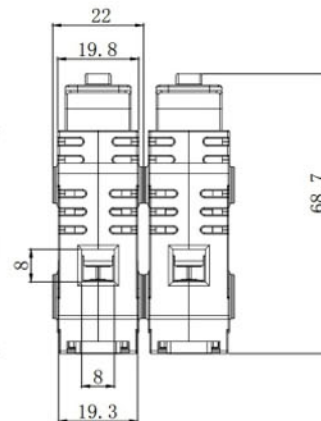
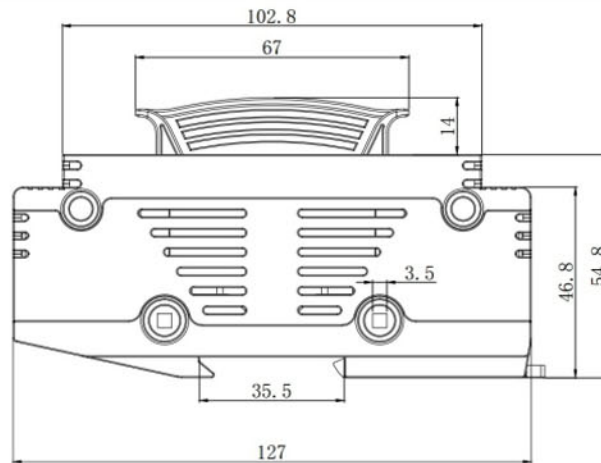
- PV combiner / junction boxes
- Inverters
- Battery Charge Controllers

TIME/ CURRENT (I-T) CHART (reference)

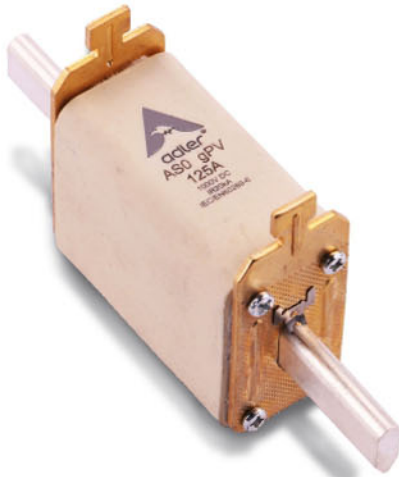


MATCHING FUSE HOLDER:

BH300 Series



AS0 gPV NH0 Size



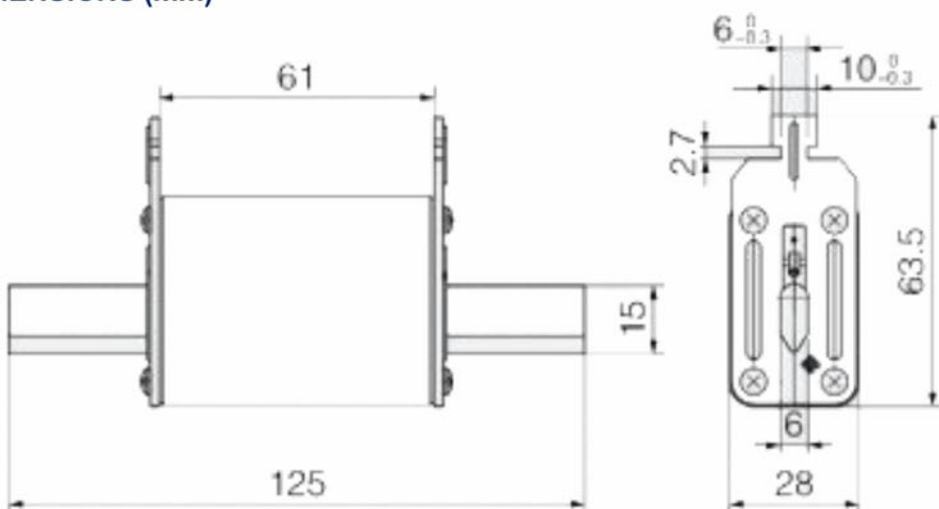
Features:

- Rated voltage: 1000 VDC, class gPV
- Rated Current: 40~160A
- Rated Breaking Capacity: 25 kA
- Max Dissipation: 25W
- Standard: IEC/EN60269-6

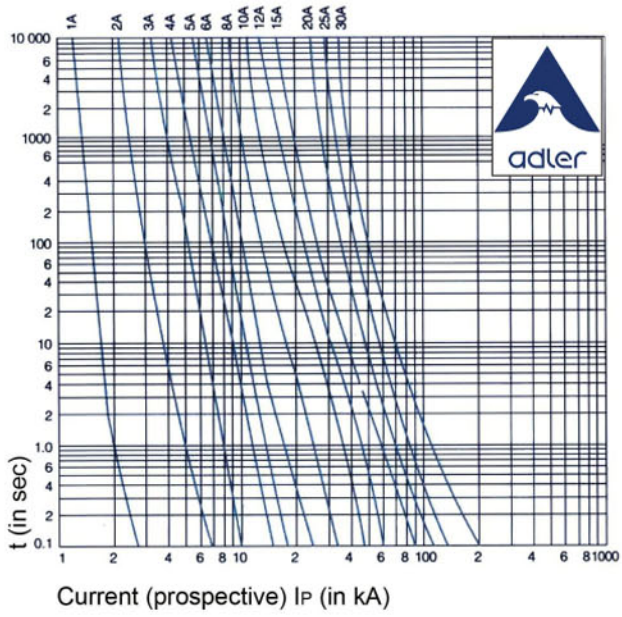
ELECTRICAL SPECIFICATIONS

Part Number	Rated Current	I ² t (A ² s)		Max Dissipation (W)		Certifications TÜV
		Pre-Arc	Total @ Rated Voltage	70% In	100% In	
AS02400700	40A	105	760	16	25	•
AS02500700	50A	215	1550	16	25	•
AS02630700	63A	380	2750	16	25	•
AS02800700	80A	815	5900	16	25	•
AS03100700	100A	1550	11500	16	25	•
AS03125700	125A	3000	22000	16	25	•
AS03160700	160A	6250	45000	16	25	•

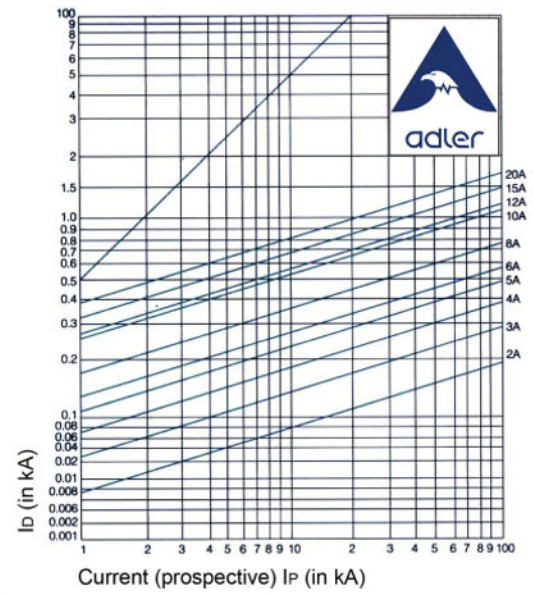
DIMENSIONS (mm)



TIME/ CURRENT (I-T) CHART (reference)

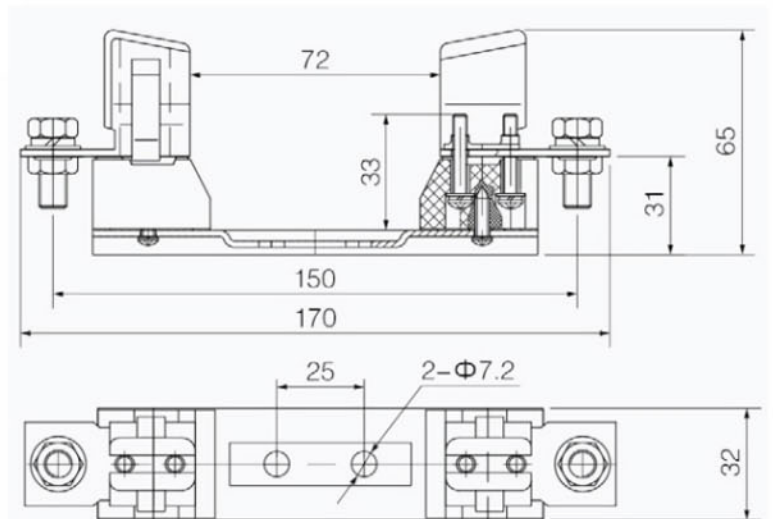
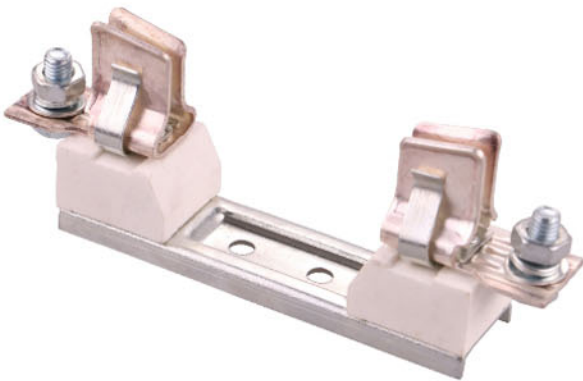


CURRENT LIMITING-CURRENT (reference)



MATCHING FUSE HOLDERS/ ACCESSORIES:

- Holders NH0 Series.



AS6 gPV NH1XL Size



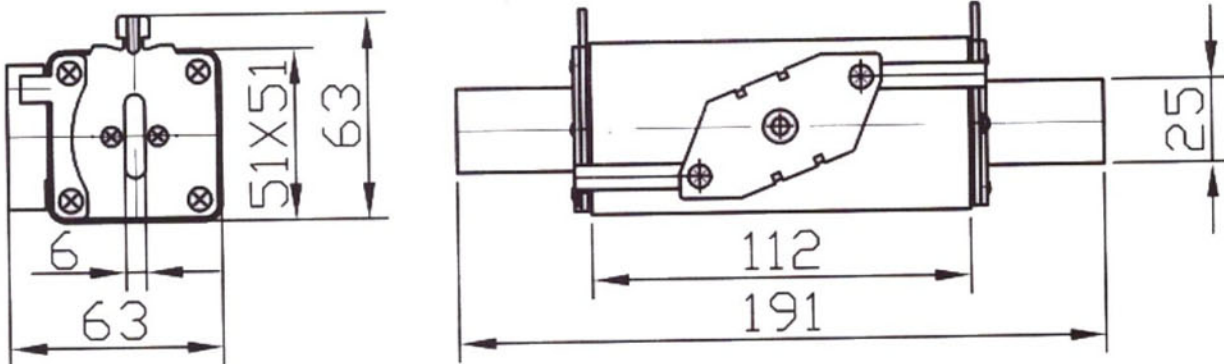
Features:

- Rated voltage: 1000 VDC, class gPV
- Rated Current: 80~250A
- Rated Breaking Capacity: 25 kA
- Max Dissipation: 37.5W
- Standard: IEC60269

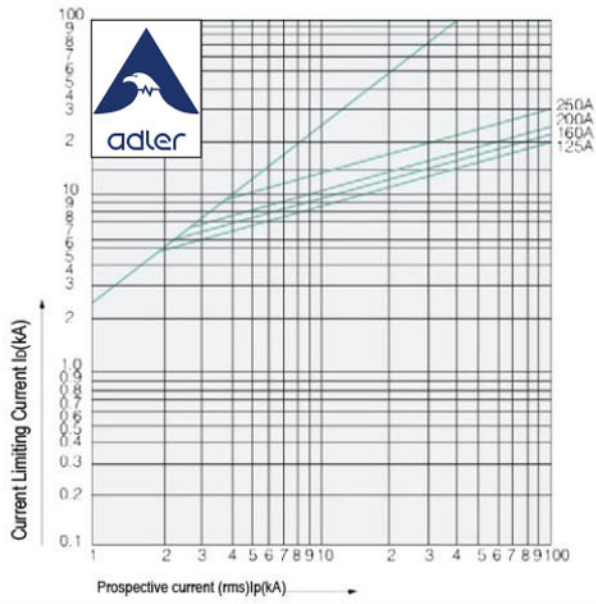
ELECTRICAL SPECIFICATIONS

Part Number	Rated Current	I ² t (A ² s)		Max Dissipation (W)		Certifications
		Pre-Arc	Total @ Rated Voltage	70% In	100% In	
AS62800700	80A	490	3600	24.5	37.5	• TÜV
AS63100700	100A	870	6300	24.5	37.5	• TÜV
AS63125700	125A	1930	13900	24.5	37.5	• TÜV
AS63160700	160A	3900	18100	24.5	37.5	• TÜV
AS63200700	200A	9400	27260	24.5	37.5	• TÜV
AS63250700	250A	9450	70000	24.5	37.5	• TÜV

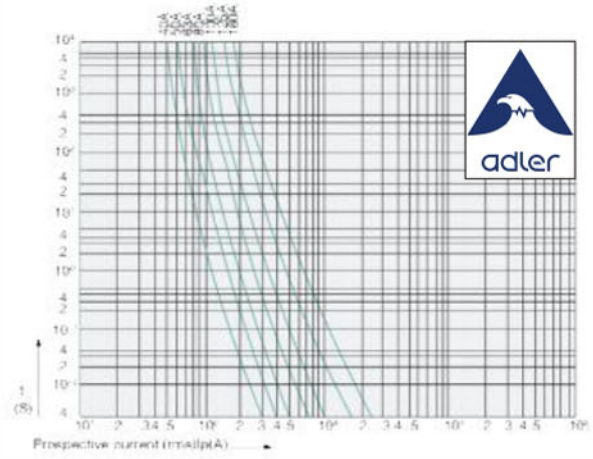
DIMENSIONS (mm)



TIME/ CURRENT (I-T) CHART (reference)

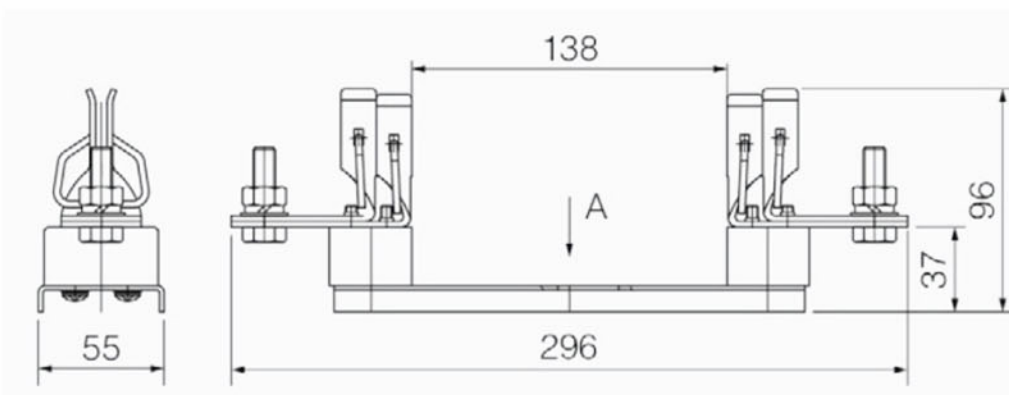
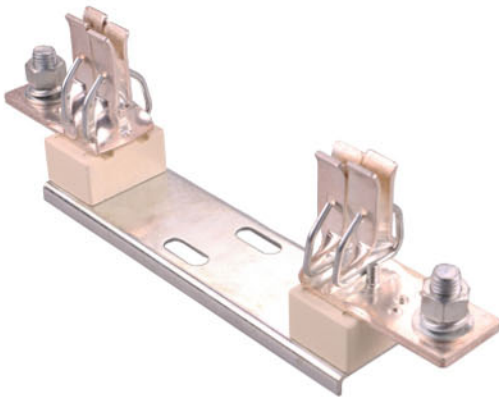


CURRENT LIMITING-CURRENT (reference)



MATCHING FUSE HOLDERS/ ACCESSORIES:

- Holders NH3L/NH2XL Series.



AS7 gPV NH2XL Size



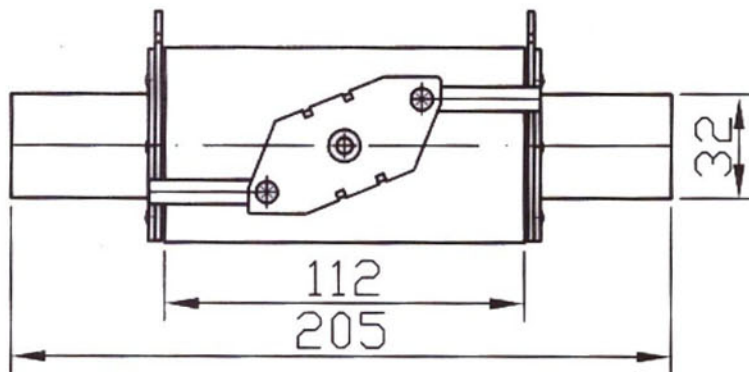
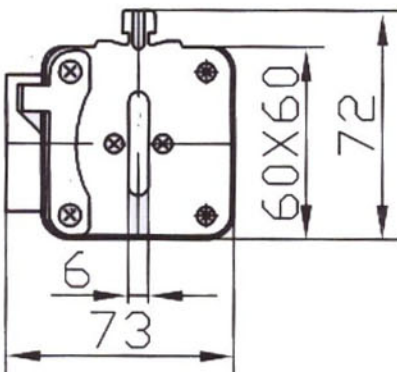
Features:

- Rated voltage: 1000 VDC, class gPV
- Rated Current: 125~400A
- Rated Breaking Capacity: 30 kA
- Max Dissipation: 65W
- Standard: IEC60269

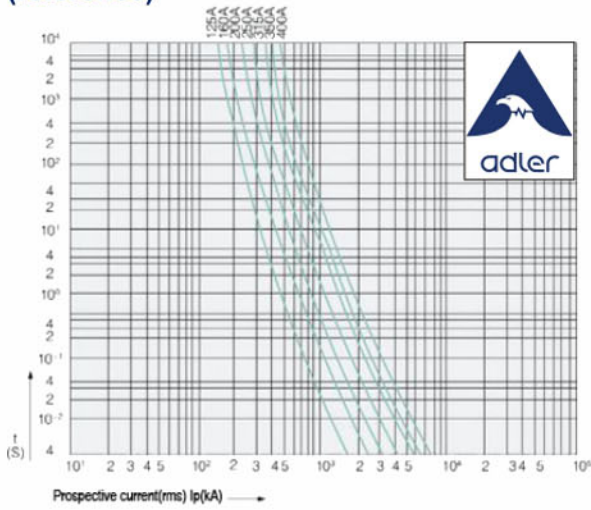
ELECTRICAL SPECIFICATIONS

Part Number	Rated Current	I ² t (A ² s)		Max Dissipation (W)		Certifications
		Pre-Arc	Total @ Rated Voltage	70% In	100% In	
AS73125700	125A	2200	18000	50	65	•
AS73160700	160A	2780	21000	50	65	•
AS73200700	200A	4950	37000	50	65	•
AS73250700	250A	9450	70000	50	65	•
AS73315700	315A	16600	123000	50	65	•
AS73350700	350A	20000	160000	50	65	•
AS73400700	400A	30000	250000	50	65	•

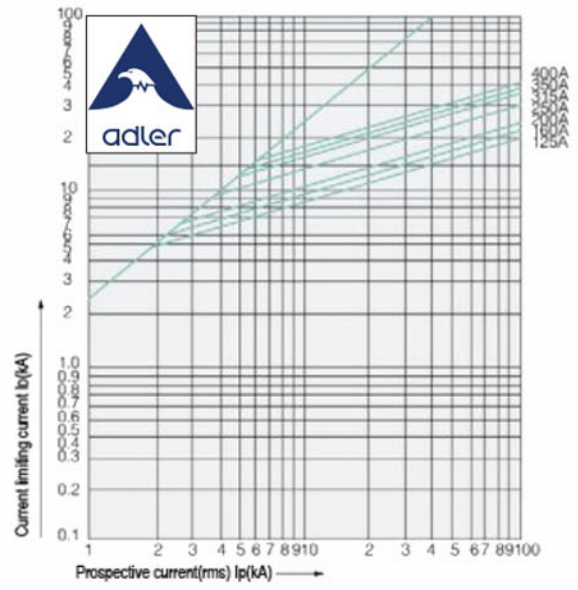
DIMENSIONS (mm)



TIME/ CURRENT (I-T) CHART (reference)
(reference)

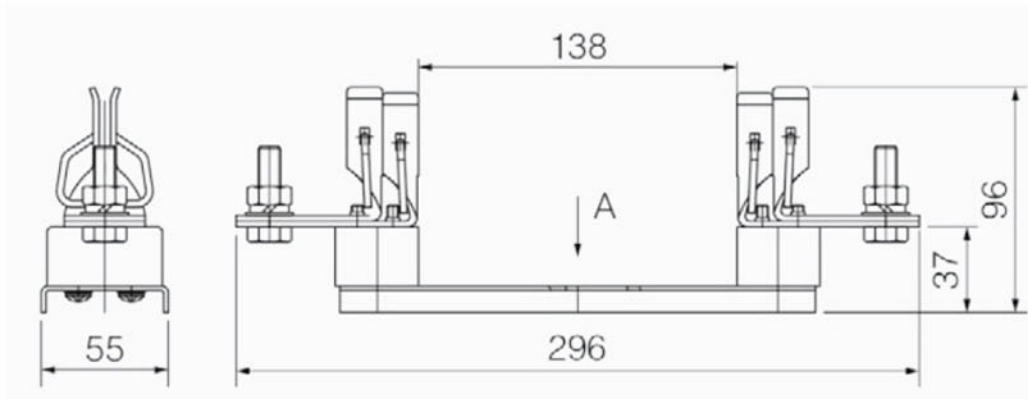
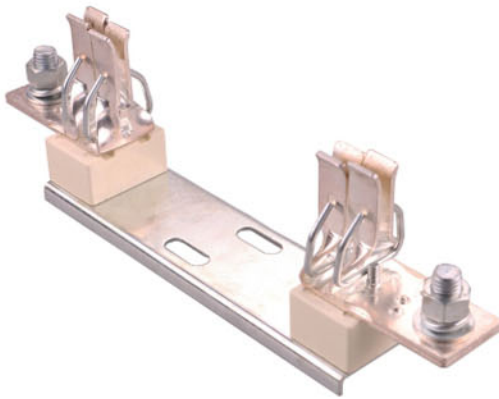


CURRENT LIMITING-CURRENT



MATCHING FUSE HOLDERS/ ACCESSORIES:

- Holders NH3L/NH2XL Series.



AS8 gPV NH3L Size



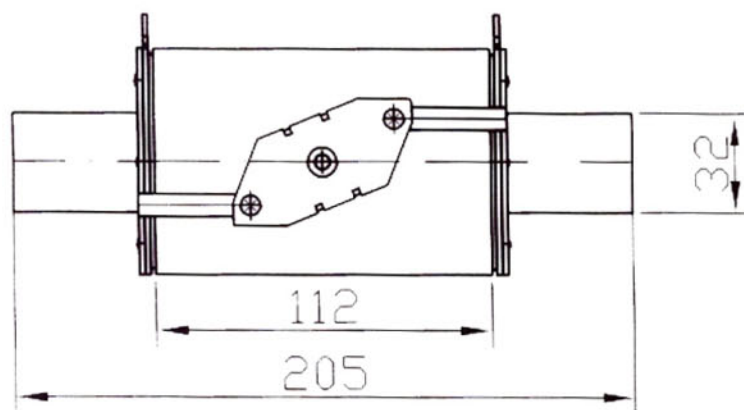
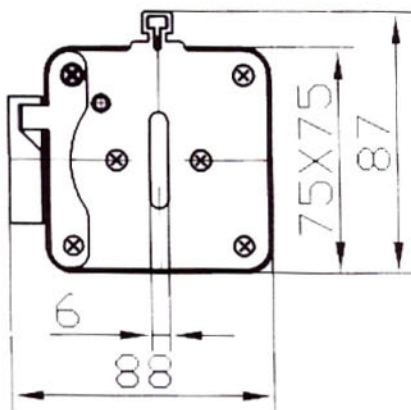
Features:

- Rated voltage: 1000 VDC, class gPV
- Rated Current: 125–400A
- Rated Breaking Capacity: 30 kA
- Max Dissipation: 65W
- Standard: IEC60269

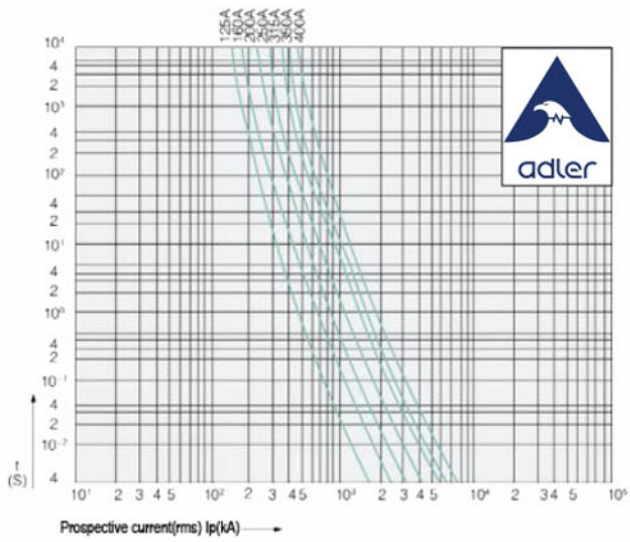
ELECTRICAL SPECIFICATIONS

Part Number	Rated Current	Pt (A ² s)		Max Dissipation (W)		Certifications TÜV
		Pre-Arc	Total @ Rated Voltage	70% In	100% In	
AS83250700	250A	23000	100000	75	100	○
AS83315700	315A	28000	130000	75	100	○
AS83350700	350A	31000	161200	75	100	○
AS83400700	400A	44500	231400	75	100	○
AS83450700	450A	75000	350000	75	100	○
AS83500700	500A	85000	442000	75	100	○
AS83630700	630A	137000	712400	75	100	○

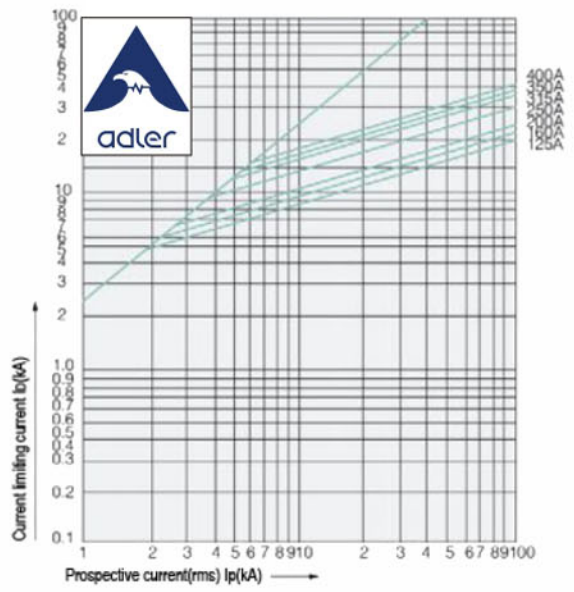
DIMENSIONS (mm)



TIME/ CURRENT (I-T) CHART (reference)

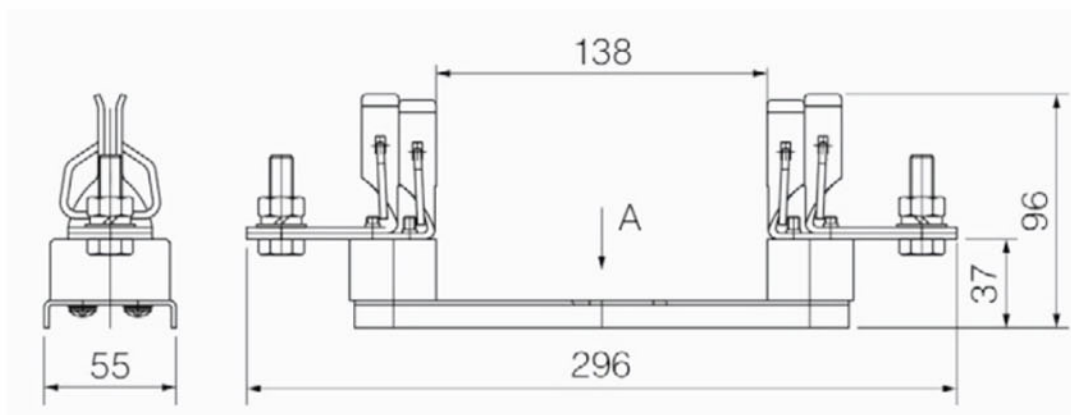
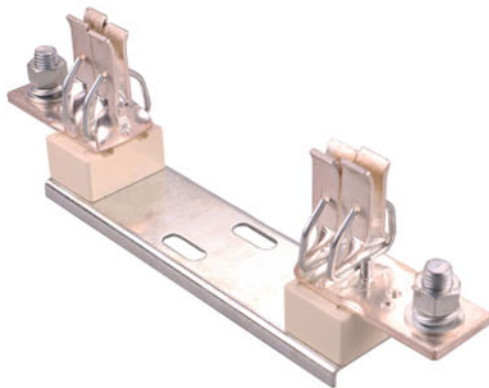


CURRENT LIMITING-CURRENT (reference)



MATCHING FUSE HOLDERS/ ACCESSORIES:

- Holders NH3L/NH2XL Series.



ASPD Series PV Surge Protection Device



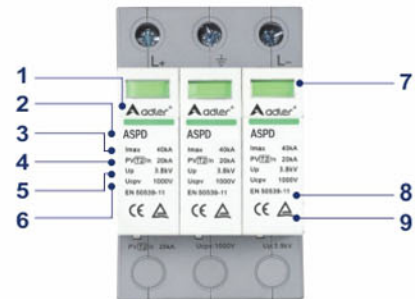
Features

- Suitable For Use in All Photovoltaic Systems
- Pre-wired Modular Complete Unit, Consisting of A Base Part and Plug-in Protection Modules
- Plug-in Protection Module, Easily Installation and Maintainance
- High Energy Varistor, Response Time Less Than 25 Nanoseconds
- Optional Remote Signal Contact(FM) for Monitoring Device (Floating Changeover Contact)
- Din Rail Mounting TH35-7.5/DIN35
- Comply with :EN 50539-11

Product Specifications

ASPD PV DC Surge Protection Device		
Pole		3P
Standard		EN 50539-11
Electrical Characteristics		
Category IEC/EN		IEC II/EN2
Open Voltage	Uoc Max	1000V DC
Max Continuous Operational Voltage	Uc	1000V DC
Nominal Discharge Current	In(8/20)μs	20KA
Maximum Discharge Current	I _{max} (8/20)μs	40KA
Voltage Protection Level Up	Up	≤3.8KV
Response Time		≤25ns
Contol and Indication		
Operating State/fault Indication		Green/Red
Plug-in Protection Module		■
Remote Signalling Contact (Optional)	Max. Working Voltage(V)	30V DC
	Max. Working Current	1A
Connection And Installation		
Wire	Hard cable mm ²	4~25
	Flexible cable mm ²	4~16
Terminal Screws		M5
Torque(Nm)	Main Circuit	2.5
	Remote Contact	0.25
Degree of Protection		IP20
Installation Environment		
Operating Temperature Range (TU)		-40°C~+80°C
For Mounting on		TH35-7.5/DIN35
Relative Humidity		30%~90%
Weight kg		0.36

Product Architecture

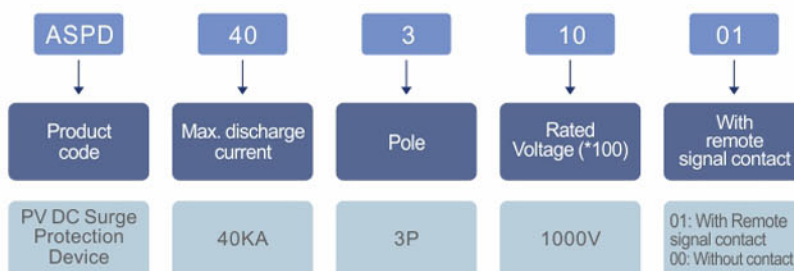


- 1 Brand
- 2 Type
- 3 Max. Discharge Current I_{max}
- 4 Nominal Discharge Current I_n
- 5 Voltage Protection Level U_p
- 6 Max. Continuous Operating Voltage U_{cpv}
- 7 Indicator
- 8 Standard Code
- 9 Certificate Symbol

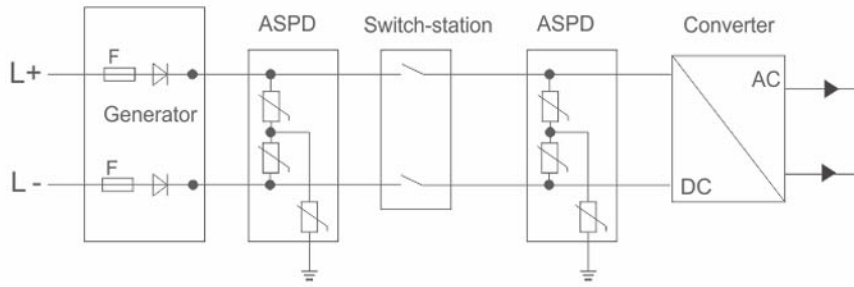
Application

ADLER's ASPD Series PV DC Surge Protection Device are designed and manufactured complying to PV standard EN50539-11. It is widely used in PV DC combiner boxes, inverters, controllers and DC cabinets. With a rated voltage of 1000V DC, a maximum discharge current of 40KA and the integrated high-energy varistor provide highly effective protection against lightning and surge voltages.

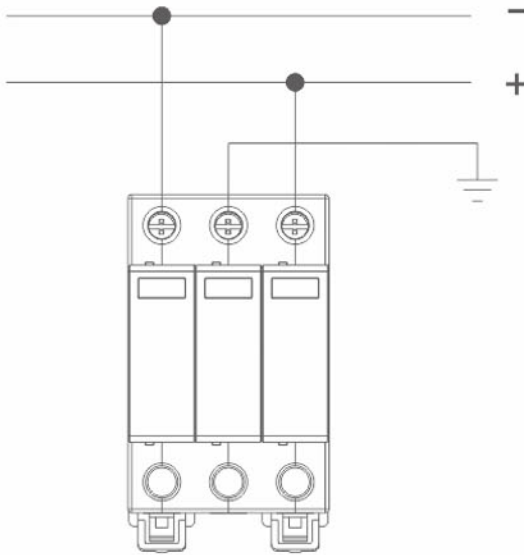
Model Numbering Definitions



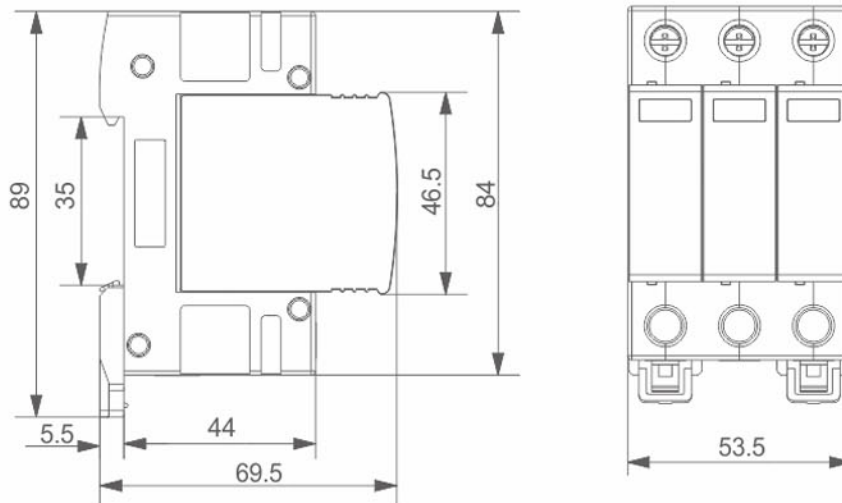
Connection Diagram



Wiring Instructions



Dimensions(mm)





3

Photovoltaic System Components

- PV Holders
- PV Combiner Boxes
- DC Isolator Switches
- DC Circuit Breakers

BH100 & BH101 Holder



FEATURES:

ADLER BH100 and BH101 holders are designed for A73 series and standard 10x38mm PV fuses. The BH101 holder is equipped with a red indicator light. It will light up when the inserted fuse is blown.

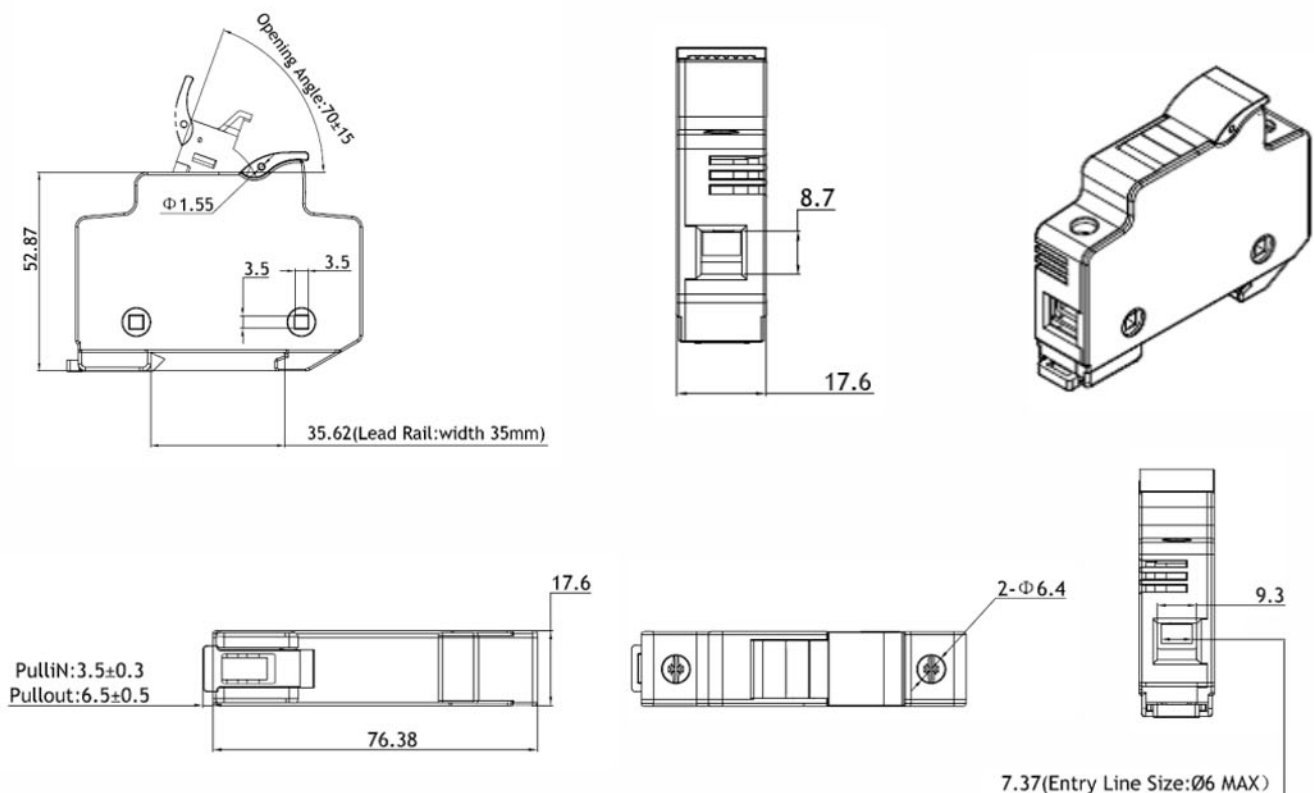
DESCRIPTION:

The BH100 and BH101 holders apply to 10x38mm miniature fuses.

SPECIFICATIONS:

- Rated Voltage: 1000 VDC/600VDC
- Rated Current: 0-50A
- Withstand rating, DC Amperes: 30KA/10KA
- Material Flammability:
UL 94-V0 (PBT)/ UL91-V2 (PA6)
- Neon Light Indicator in case of over-current fault (optional): min 90VAC
- Mounting: DIN Rail mounting
- Wire diameters: 0.8mm² – 6.0mm²
- Ambient temperature: -40°C ~ +130°C

DIMENSIONS: mm



BH200 Holder

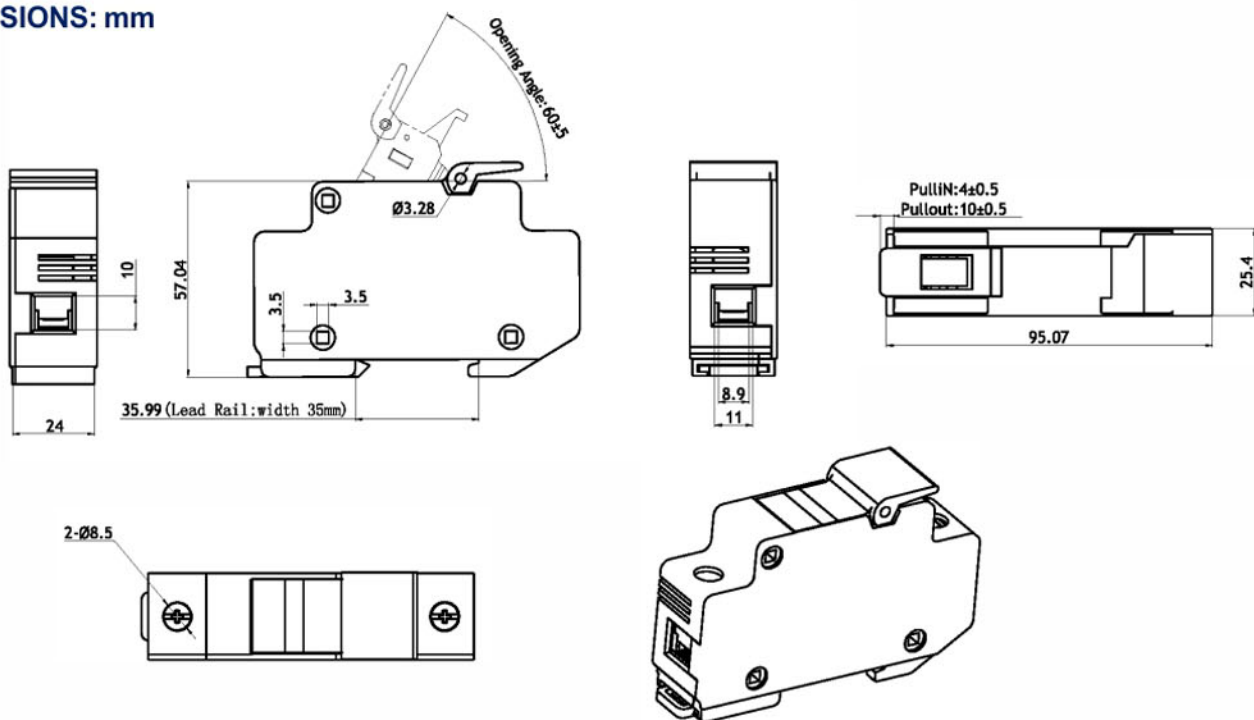


FEATURES:

These holders, in conjunction with APC fuse, are the effective solution to safely reference modules from reserve over current conditions.

Rated for up to above 50 Amps and 690VAC, this holder, could supply a cost-effective solution to protect circuit overload, short(gG), motor circuit(aM) and semi-conductor or sets equipment(aR).

DIMENSIONS: mm



DESCRIPTION:

The BH200 applies to 14x51mm fuse.

SPECIFICATIONS:

- Rated Voltage: 690 VAC
- Rated Current: 0~50A
- Breaking Capacity: 25KA/690VAC
- Manufacturing Standards: IEC60269; GB13539; RoHS compliant
- Material Flammability: UL 94-V0 (PBT) / UL91-V2 (PA6)
- Wire Range: 2.5mm² – 16mm²
- UL file: pending

BH300 Holder



FEATURES:

These holders, in conjunction with BH300 fuse, are the effective solution to safely reference modules from reserve over current conditions.

Rated for up to above 30 Amps and 1500VDC, this holder, could supply a cost-effective solution to protect circuit overload, gPV

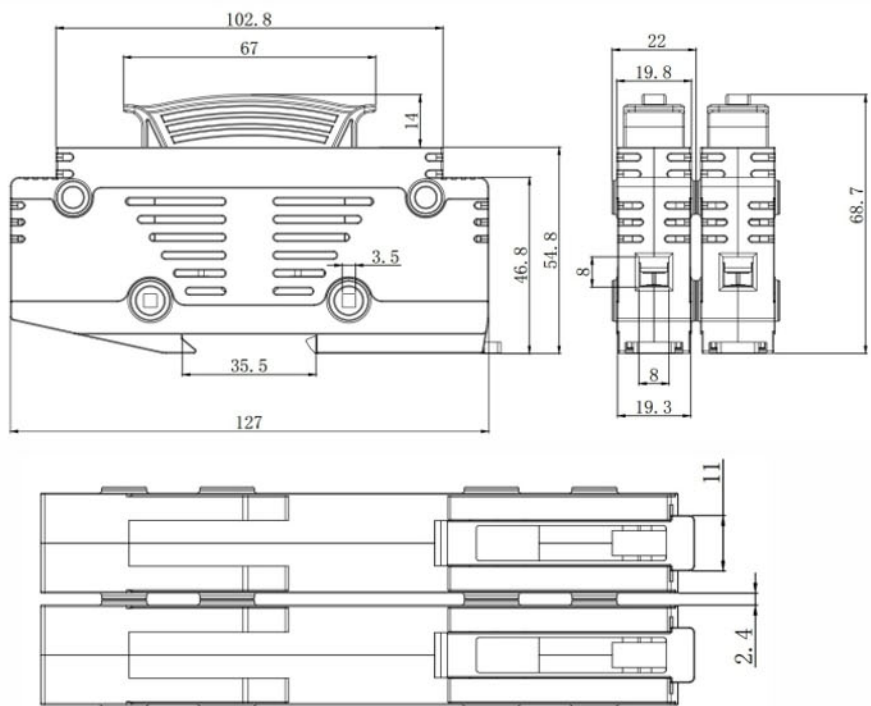
DESCRIPTION:

The BH300 applies to 10x85mm fuse.

SPECIFICATIONS:

- Rated Voltage: 1500 VDC
- Rated Current: 0~30A
- Breaking Capacity: 10KA/1500VDC
- Manufacturing Standards: IEC60269; GB13539; RoHS compliant
- Material Flammability: UL 94-V0 (PBT) / UL91-V2 (PA6)
- Wire Range: 2.0mm²~13.3mm²
- UL file: pending

DIMENSIONS: mm



BH112 Fuse Holder



FEATURES:

- Adjustable mounting hole, easy to install with screws or bolts
- Combination slide-on design to stack in series
- Designed for general purpose fuse ratings

DESCRIPTION:

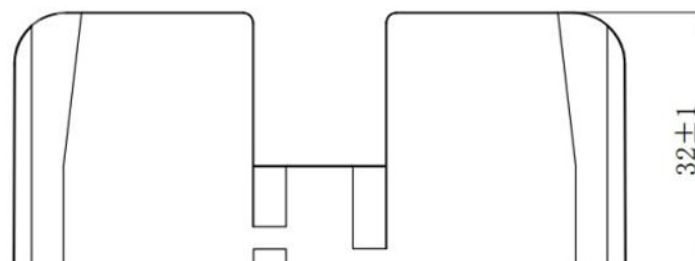
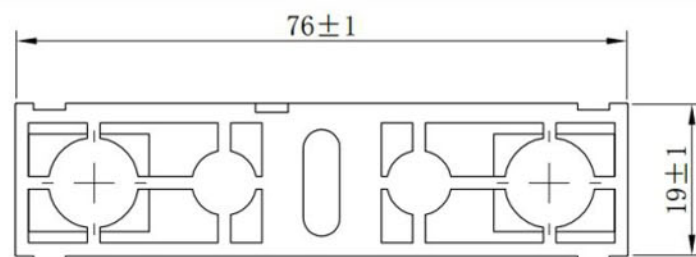
This BH112 holder made of thermoplastic is designed for 10x38mm cylindrical fuses and allows for easy mounting on flat surfaces.

Please note, BH112 cannot be mounted on DINR constructions.

SPECIFICATIONS:

- Thermoplastic meets UL94 V-0 flammability standards
- Rated Voltage: 600VAC / DC
- Maximum Current: 30A
- Dielectric strength: >1200 V
- Clip/terminals : Tin-plated copper alloy
- Screw and captive pressure plate: Zinc-plated steel
- Base Temperature: 125°C
- Torque: 4nm (35 in-lbs)
- Wire Range: 6-14 AWG

DIMENSIONS: mm



BH114 Fuse Holder



FEATURES:

Adjustable mounting hole, easy to install with screws or bolts
 Combination slide-on design to stack in series
 Designed for general purpose fuse ratings

DESCRIPTION:

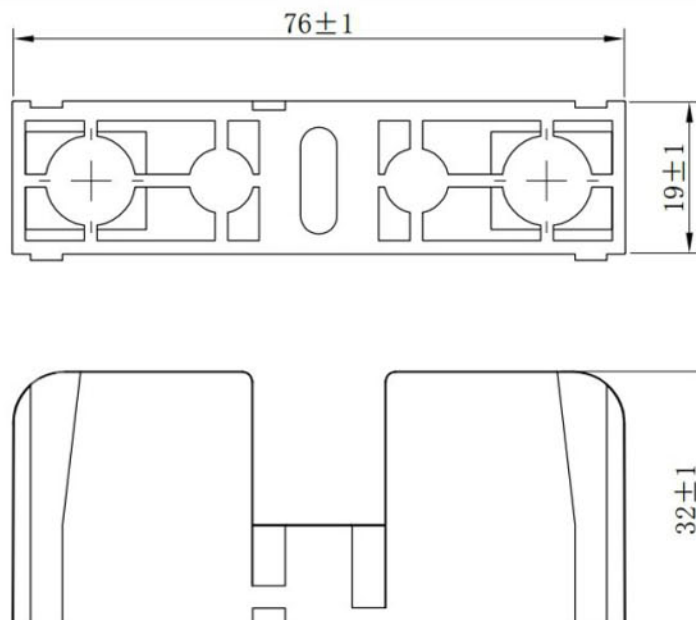
This BH114 holder made of thermoplastic is designed for 10x38mm cylindrical fuses and allows for easy mounting on flat surfaces.

Please note, BH114 cannot be mounted on DINR constructions.

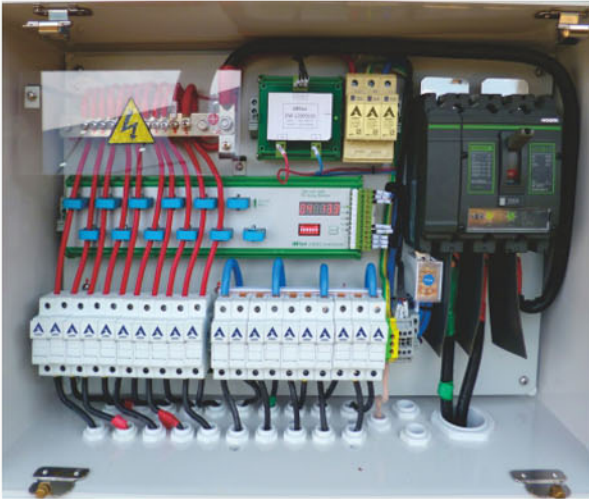
SPECIFICATIONS:

- Thermoplastic meets UL94 V-0 flammability standards
- Rated Voltage: 600VAC / DC
- Maximum Current: 30A
- Dielectric strength: >1200 V
- Clip/terminals : Tin-plated copper alloy
- Screw and captive pressure plate: Zinc-plated steel
- Base Temperature: 125°C
- Torque: 2.3nm (20 in-lbs)
- Wire Range: 10-14 AWG

DIMENSIONS: mm

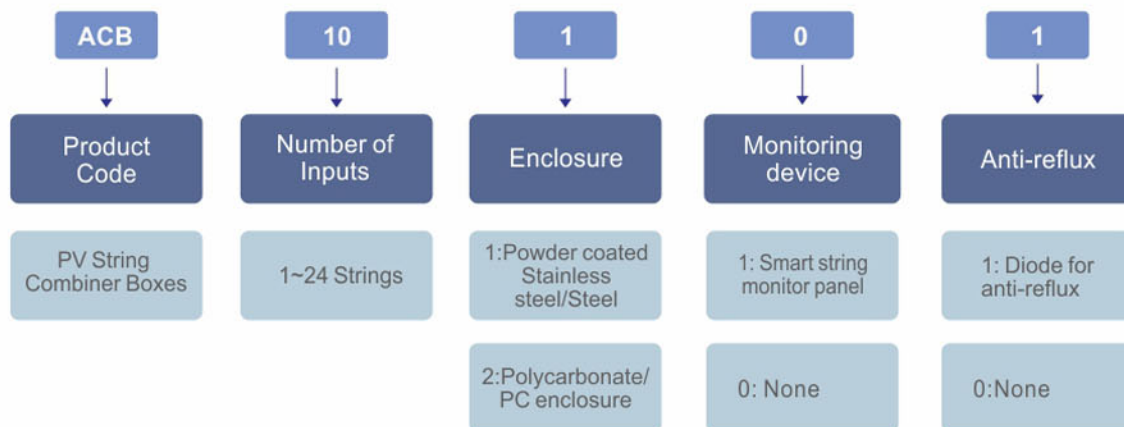


ACB PV Array Combiner Boxes



- Efficient Protection Grade IP65/66**
 The ADLER ACB Combiner box is waterproof, dust proof and anti-corrosive, it withstands harsh environmental exposure.
- PV Solar string Current Aggregation**
 Multiple strings input, one string output, Available for 1~24 strings, Max current 30 A per string.
- Effective Isolating**
 ADIM Series Isolator Switches, current 16 A to 630A, Max voltage up to 1500V DC, widely meet the various demands from PV power systems.
- Lightning Protection**
 ASPD-40 Surge protector device with plug-in design, up to 1000V DC, 40KA, with lightning protection for PV power system.
- Over-current Protection and Short-circuit Protection**
 A73 fuse links with B100 touch-safe holders (optional with LED indicator) for over current protection.
 ADCM and ADCR series circuit breaker, for optimal and precise short-circuit protection and over current protection, with Max current up to 630A ,Max voltage up to 1000 V DC.

Model Number Definitions



Application

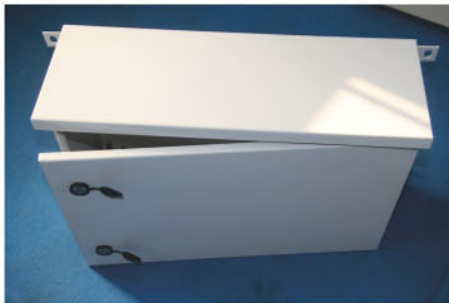
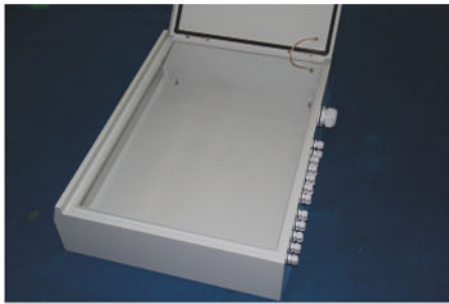
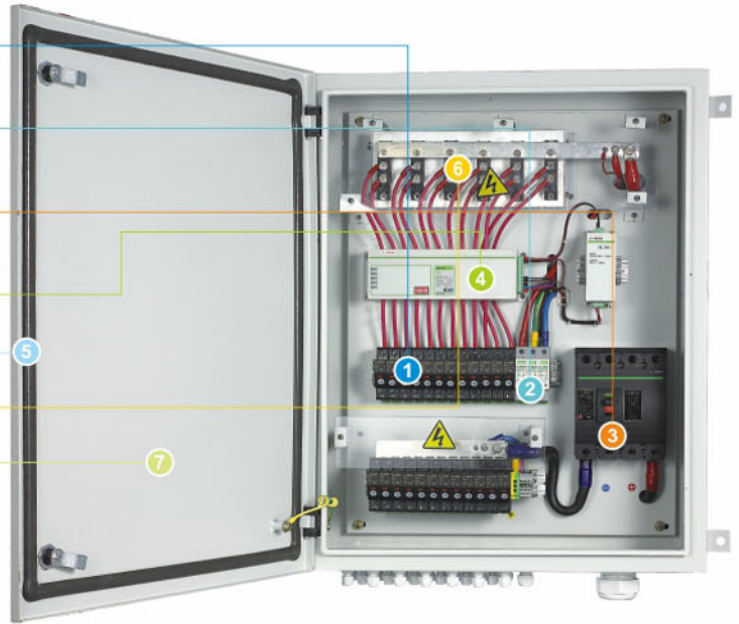
PV String DC Combiner Boxes are key components in the PV Solar power systems, they are placed between Solar Modules and the DC Inverter.

Features

- Simplified physical wiring between solar panel and inverter
- Fault current protection for each PV String
- Fault alarm
- Easy installation and maintenance

Structure diagram

- 1 A73 Fuse links and B100 or B101 PV fuse holder with LED indication light, 1000V DC 25/ 30A
- 2 ASPD-40 triple surge protection device, plug-in design, up to 1000V DC 40KA
- 3 ADCM series Circuit breakers, 1000V DC Max current 630A, meets standard demands for PV systems
- 4 Smart monitoring device (wireless communication can be attached)
- 5 Drop-in rubber rims for superior moisture resistance
- 6 Diode with Anti -Reflux function
- 7 Powder Coated steel(Powder coated stainless steel / Polycarbonate enclosure optional) Protection up to IP65/IP66, customized solutions



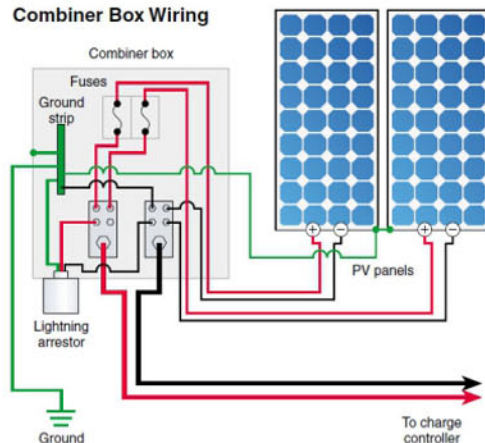
Advantage of Polycarbonate enclosure

- Very high impact resistance
- Easy machining with normal tools
- Ip66
- Wide operation temperature range
- Fire Resistance
- Non-conductive
- Good resistance to chemical corrosion
- Light weight
- Good UV resistance
- Excellent insulating properties
- Cost-effective material for harsh environments

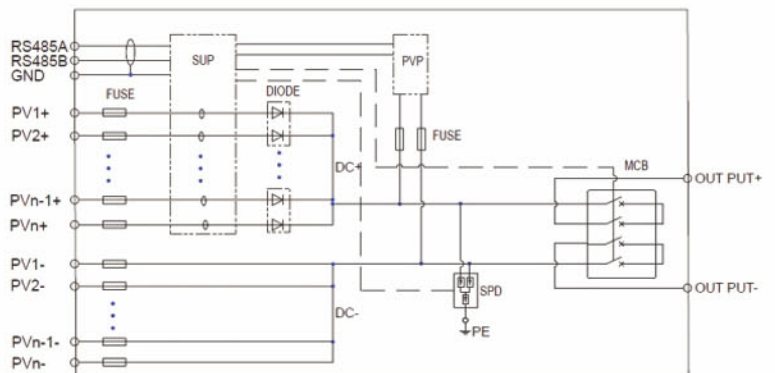
Advantage of Powder coated Stainless steel/Steel enclosure

- Thickness $\geq 1.5\text{mm}$; powder coated; cold rolled steel
- Surface finish: sand blasted and parkerised 80-120 μm
- Ip65 waterproof, dust proof, anti-corrosion and UV resistance
- Durability: ACB series combiner boxes are built to withstand harsh environmental exposure
- Suitable for long distance transport

Combiner Box Wiring



Schematics Diagram



ACB Series String Array Combiner Boxes



- Simplified physical wiring between solar panel and inverter
- Fault current protection for each PV String
- Powder Coated Steel or Stainless Steel enclosure
- Easy installation and maintenance
- IP 65 protection class



Product Specifications

Model	ACB-04	ACB-06	ACB-08	ACB-10	ACB-12	ACB-16	ACB-18	ACB-20	ACB-24
Dimensions(LXWXH)	450x250x150	500x400x210	500x400x210	500x400x210	600x400x210	600x400x210	650x400x210	750x500x250	800x600x300
Weight	21KG	23KG	25KG	27KG	28KG	35KG	45KG	50KG	55KG
Casing	Powder Coated steel /Powder coated stainless steel								
IP Protection Class(IEC60529)	IP65/IP66	IP65/IP66	IP65/IP66	IP65/IP66	IP65/IP66	IP65/IP66	IP65/IP66	IP65/IP66	IP65/IP66
IK Impact Resistance Classe(IEC62262)	IK08	IK08	IK08	IK08	IK08	IK08	IK08	IK08	IK08
Electrical Properties									
Max. Rated Voltage DC	1000V DC	1000V DC	1000V DC	1000V DC	1000V DC	1000V DC	1000V DC	1000V DC	1000V DC
Fuse Holder	1000V DC 30A								
DC Switching /MCCB Capacity	50A	80A	100A	125A	160A	225A	250A	315A	350A
Surge Protection DC	Type II/In=20KA,Imax=40KA,Ucpv=1000V DC								
Over-Voltage Category	Cat III	Cat III	Cat III	Cat III	Cat III	Cat III	Cat III	Cat III	Cat III
String Monitoring Device	-								
Diode for The Function of Anti -Reflux	-								
Inputs									
Number of DC Inputs	4	6	8	10	12	16	18	20	24
Connection Type DC Input	PG09,IP68(MC4 Optional)								
Input Cable Size for Negative and Positive	Ø4-8mm								
Input Fuse	10A/15A/20A/25A								
Outputs									
Number of DC Outputs	1	1	1	1	1	1	1	1	1
Connection Type DC Output	PG 36 ,IP68,Ø22-32mm (Customizable)								
Gland Connectors	Material :Nylon Plastic, Seals: Nitrile Rubber Buna, IP68								
Connection DC Earth Protection	PG16,IP68,Ø10-14mm								
Environmental									
Ambiant Temperature Range/Humidity	Temperature: -20℃ ~+60℃ , Humidity: 0-99%								
Altitude	≤2000m, 2000m Derating								
Installation	Wall mounting/ Padlockable Latch								

ACB Series Combiner Boxes with Smart Panel



- Simplified physical wiring between solar panel and inverter
- Fault current protection for each PV String
- String monitoring and fault alarm
- Powder Coated Steel or Stainless Steel enclosure
- Easy installation and maintenance
- IP 65 protection class

Product Specifications

Model	ACB-0411	ACB-0611	ACB-0811	ACB1011	ACB-1611	ACB-1811	ACB-2011	ACB-2411
Dimensions(LXWXH)	500x550x180	600x480x210	600x480x210	650x480x210	600x650x210	650x650x210	800x750x250	800x800x300
Weight	25KG	28KG	30KG	32KG	34KG	35KG	50KG	55KG
Casing	Powder Coated steel /Powder coated stainless steel							
IP Protection Class(IEC60529)	IP65/IP66	IP65/IP66	IP65/IP66	IP65/IP66	IP65/IP66	IP65/IP66	IP65/IP66	IP65/IP66
IK Impact Resistance Classe(IEC62262)	IK08	IK08	IK08	IK08	IK08	IK08	IK08	IK08
Electrical Properties								
Max.Rated Voltage DC	1000V DC	1000V DC	1000V DC	1000V DC	1000V DC	1000V DC	1000V DC	1000V DC
Fuse Holder	1000V DC 30A							
DC Switching /MCCB Capacity	50A	80A	100A	125A	160A	225A	315A	350A
Surge Protection DC	Type II/In=20KA,Imax=40KA,Ucpv=1000V DC with Remote Contact							
Over-Voltage Category	Cat III	Cat III	Cat III	Cat III	Cat III	Cat III	Cat III	Cat III
String Monitoring Device								
String Monitoring Device	Yes							
Diode for The Function of Anti -Reflux	-							
Protocol	RS485/MODBUS-RTU							
Wireless Communication	Optional							
Monitoring Function Details	Monitoring DC voltage and current of sub-array. Monitoring the Temperature							
Power Supply	Self-Supplied DC 24V							
Inputs								
Number of DC Inputs	4	6	8	10	12	16	20	24
Connection Type DC Input	PG09,IP68(MC4 Optional)							
Input Cable Size for Negative and Positive	Ø4-8mm							
Input Fuse	10A/15A/20A/25A							
Outputs								
Number of DC Outputs	1	1	1	1	1	1	1	1
Connection Type DC Output	PG 36 ,IP68,Ø22-32mm (Customizable)							
Gland Connectors	Material :Nylon Plastic, Seals: Nitrile Rubber Buna, IP68							
Connection DC Earth Protection	PG16,IP68,Ø10-14mm							
Environmental								
Ambiant Temperature Range/Humidity	Temperature: -20℃ ~+60℃ , Humidity: 0-99%							
Altitude	≤2000m, 2000m Derating							
Installation	Wall mounting/ Padlockable Latch							

ACB Series Combiner Boxes with Smart Panel and Diode



- Simplified physical wiring between solar panel and inverter
- Fault current protection for each PV String
- String monitoring and fault alarm
- Powder Coated Steel or Stainless Steel enclosure
- Easy installation and maintenance
- IP 65 protection class



Product Specifications

Model	ACB-04111	ACB-06111	ACB-08111	ACB10111	ACB-16111	ACB-18111	ACB-20111	ACB-2411
Dimensions(LXWXH)	500x650x180	650x650x210	650x650x210	750x650x210	750x650x210	850x650x210	800x1000x250	800x1000x300
Weight	28KG	30KG	32KG	34KG	36KG	40KG	52KG	58KG
Casing	Powder Coated steel /Powder coated stainless steel							
IP Protection Class(IEC60529)	IP65/IP66	IP65/IP66	IP65/IP66	IP65/IP66	IP65/IP66	IP65/IP66	IP65/IP66	IP65/IP66
IK Impact Resistance Classe(IEC62262)	IK08	IK08	IK08	IK08	IK08	IK08	IK08	IK08
Electrical Properties								
Max. Rated Voltage DC	1000V DC	1000V DC	1000V DC	1000V DC	1000V DC	1000V DC	1000V DC	1000V DC
Fuse Holder	1000V DC 30A							
DC Switching /MCCB Capacity	50A	80A	100A	125A	160A	225A	315A	350A
Surge Protection DC	Type II/In=20KA,Imax=40KA,Uc _{pv} =1000V DC with Remote Contact							
Over-Voltage Category	Cat III	Cat III	Cat III	Cat III	Cat III	Cat III	Cat III	Cat III
String Monitoring Device								
String Monitoring Device	Yes							
Diode for The Function of Anti -Reflux	Yes							
Protocol	RS485/MODBUS-RTU							
Wireless Communication	Optional							
Monitoring Function Details	Monitoring DC voltage and current of sub-array. Monitoring the Temperature							
Power Supply	Self-Supplied DC 24V							
Inputs								
Number of DC Inputs	4	6	8	10	12	16	20	24
Connection Type DC Input	PG09,IP68(MC4 Optional)							
Input Cable Size for Negative and Positive	Ø4-8mm							
Input Fuse	10A/15A/20A/25A							
Outputs								
Number of DC Outputs	1	1	1	1	1	1	1	1
Connection Type DC Output	PG 36 ,IP68,Ø22-32mm (Customizable)							
Gland Connectors	Material :Nylon Plastic, Seals: Nitrile Rubber Buna, IP68							
Connection DC Earth Protection	PG16,IP68,Ø10-14mm							
Environmental								
Ambiant Temperature Range/Humidity	Temperature: -20℃ ~+60℃ , Humidity: 0-99%							
Altitude	≤2000m, 2000m Derating							
Installation	Wall mounting/ Padlockable Latch							



ADIE Series Enclosed PV DC Isolator Switch

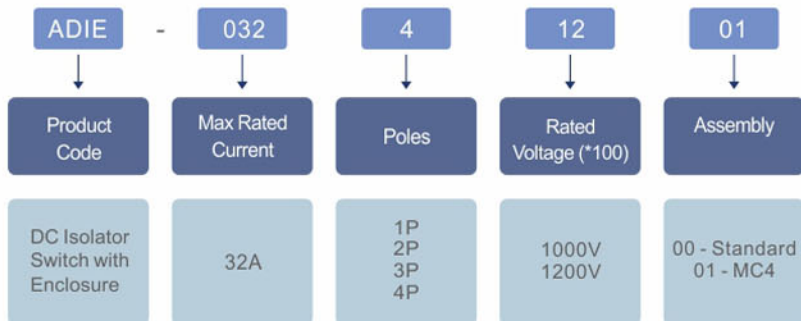


Features

- Compact construction
- pre-wired DC Main Switch with MC4(optional)
- UV resistant, IP66 enclosure
- Arcing time < 3ms
- "OFF" position Lockable
- IEC60947-3 Standard
- 4P,6P
- DC-21B: 16A,25A,32A up to 1500VDC

ADIE - 1000V DC Isolator Switch

Model Numbering Definitions



ADIE - 1200V DC Isolator Switch

Technical Specifications

Electrical Characteristics		ADIE-1000V	ADIE-1200V
Type			Isolator, Control
Function			IEC60947-3
Comply with			4P
Pole			32A
Max Rated Current			1200V DC
Rated Working Voltage	Ue	1000V DC	1200V DC
Rated Current	In		32A
Rated Insulated Voltage	Ui	1000V DC	1200V DC
Rated Impulsed Voltage	Uimp		8KV
Service Life/Cycle Operation			
Mechanical			20000
Electrical			2000
Installation Environment			
Ingress Protection			IP66
Storage Temperature			-40°C~+85°C



Application

ADLER's ADIE Series DC Isolator Switch in plastic enclosure is applied to 1-20kw residential and commercial PV systems, it is installed between solar panels and inverter. It's arcing time of less than 3ms is the key

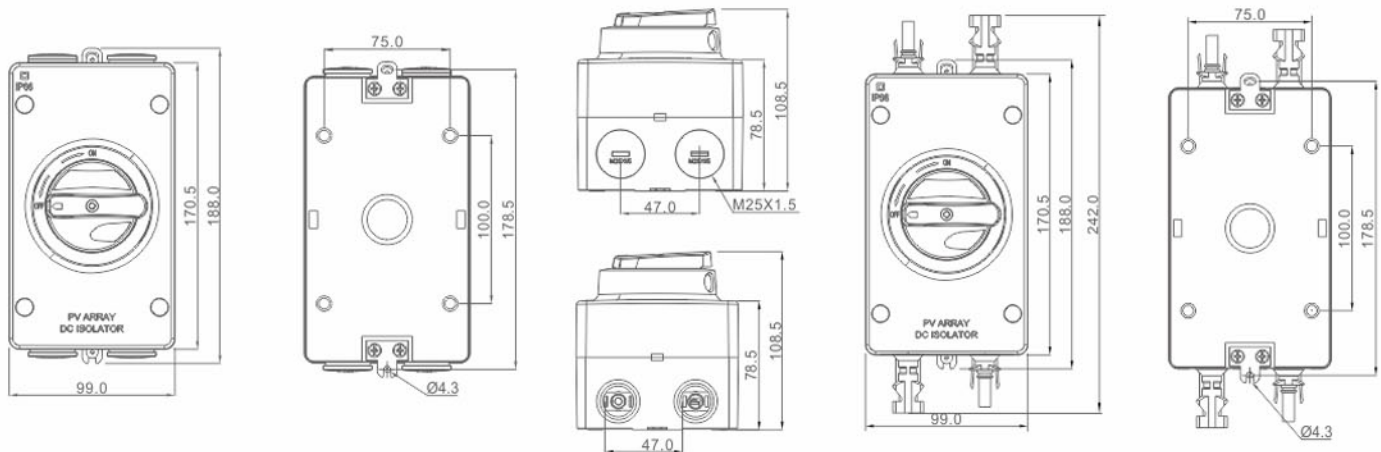
advantage of the switch and safety. Top material and highest PV test standard ensure high quality isolator switch and long working life.

Wiring Instructions

Contacts wiring diagram	500V	600V	800V	1000V	1200V	Poles in series	Number of Strings	Type Number	Weight kg/PCS
	16A	16A	16A	9A	7.5A	2	1	PE2	0.70
	25A	25A	20A	11A	9A	2	1	PE2	0.70
	32A	32A	23A	13A	13A	2	1	PE2	0.70
	29A	29A	16A	9A	7.5A	2	1	PE2H	0.70
	45A	45A	20A	11A	9A	2	1	PE2H	0.70
	50A	50A	23A	13A	13A	2	1	PE2H	0.70
	16A	16A	16A	9A	7.5A	2	2	PE4	0.70
	25A	25A	20A	11A	9A	2	2	PE4	0.70
	32A	32A	23A	13A	13A	2	2	PE4	0.70
	16A	16A	16A	16A	16A	4	1	PE4S	0.70
	25A	25A	25A	25A	25A	4	1	PE4S	0.70
	32A	32A	32A	32A	32A	4	1	PE4S	0.70
	16A	16A	16A	16A	16A	4	1	PEB	0.70
	25A	25A	25A	25A	25A	4	1	PEB	0.70
	32A	32A	32A	32A	32A	4	1	PEB	0.70
	16A	16A	16A	16A	16A	4	1	PE4T	0.70
	25A	25A	25A	25A	25A	4	1	PE4T	0.70
	32A	32A	32A	32A	32A	4	1	PE4T	0.70

*Note: Recommend for MC4 Type

Dimensions(mm)



Switching Configurations

Type	2-pole	2-pole 4 Paralleled Poles	4-pole	4-pole with Input on top Output bottom	4-pole with Input and Output bottom	4-pole with Input and Output on top
ADIE-16/ADIE-16	2	2H	4	4S	4B	4T
ADIE-25/ADIE-25	2	2H	4	4S	4B	4T
ADIE-32/ADIE-32	2	2H	4	4S	4B	4T
Contacts Wiring graph						
Switching example						

ADIE Series Enclosed PV DC Isolator Switch

CB


Features

- Compact construction
- pre-wired DC Main Switch with MC4(optional)
- UV resistant, IP66 enclosure
- Arcing time < 3ms
- "OFF" position Lockable
- IEC60947-3 Standard
- 4P,6P
- DC-21B: 16A,25A,32A up to 1500VDC

Product Specifications

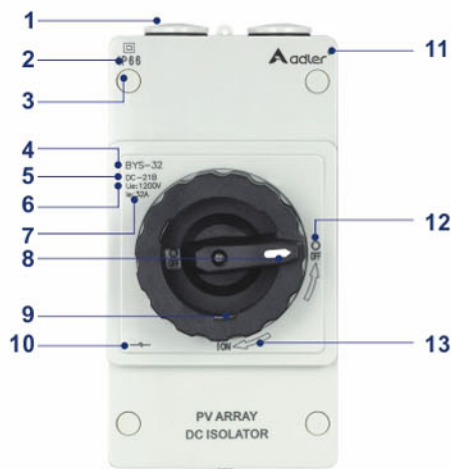
Electrical Characteristics					
Model	ADIP-Standard		ADIP-MC4		
Function	Isolator, Control				
Comply with	IEC60947-3				
Pole	4P	6P	4P	6P	
Max Rated Current	63A				
Rated Working Voltage	Ue	1200V DC	1500V DC	1200V DC	1500V DC
Rated Current	In	Refer to wiring diagram			
Rated Insulated Voltage	Ui	1500V DC			
Application Category	DC-21B				
Service Life/Cycle Operation					
Mechanical	15000				
Electrical	1000				
Isolator Function	Yes				
Installation Environment					
Ingress Protection	IP66				
Storage Temperature	-30°C~+70°C				

Applications

ADLER's ADIP series DC Isolator switch in plastic enclosure are applicable in 1-20KW Residential or Commercial Photovoltaic systems, working independently from inverters.

These models are designed to keep solar system safer, with a maximum voltage of up to 1500V DC.

Functions

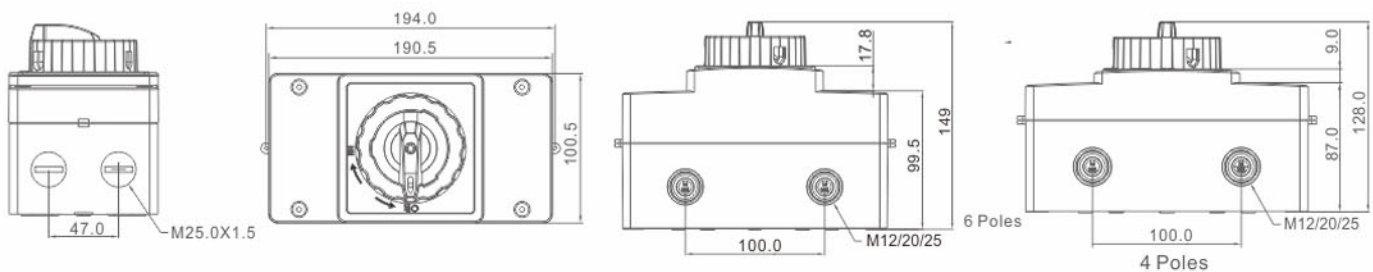


- 1 Waterproof Plug
- 2 IP66 Ingress Protection
- 3 Sealed Plug
- 4 Type
- 5 Application Category
- 6 Rated Voltage
- 7 Rated Current
- 8 Knob
- 9 BE LOCKABLE
- 10 Electrical Diagram
- 11 Brand
- 12 ON
- 13 OFF

Wiring Instructions

Contact Configuration	DC-21B Rating						Poles in series	Number of Strings	Type Number	Weight kg/pcs
	600V	800V	900V	1000V	1200V	1500V				
	50A						2	1	PE 2H	0.91
	32A	23A		16A	10A	5A	2	2	PE 4	0.91
	40A	40A		40A	32A	16A	4	1	PE 4S	0.91
	40A	40A		40A	32A	16A	4	1	PE 4B	0.91
	32A	32A		32A	32A	16A	4	1	PE 4T	0.91
	63A						2	1	PE 3H	1.05
	32A	23A		16A	10A	5A	2	3	PE 6	1.05
	32A	32A		32A	32A	32A	6	1	PE 6S	1.05
	32A	32A		32A	32A	32A	6	1	PE 6B	1.05
	40A	40A		40A			6	2	PE 6T	1.05

Dimensions(mm)



Switching Configurations

Type	2-pole 4Parlleled poles	4-pole	2-pole with Input on top Output bottom	2-pole with Input and Output bottom	2-pole with Input and Output on top	2-pole 6Parlleled poles	6-pole	2-pole with Input on top Output bottom	2-pole with Input and Output bottom	4-pole with Input and Output bottom
Model	PE 2H	PE 4	PE 4S	PE 4B	PE 4T	PE 3H	PE 6	PE 6S	PE 6B	PE 6T
Contacts Wiring diagram										
Switching example										

ADIS Series PV DC Isolator Switch



ADIS-1 1200V DC Isolator Switch

- Rated Voltage 1200V DC
- Single Hole Mounting Ø22mm
- Flame-Retardant
- Arcing Time < 3ms
- IEC60947-3
- 4 poles(Single|Double Strings Available)
- DC-21B: 16A,25A,32A up to 1200V DC



ADIS-2

ADIS - Standard 1200V DC Isolator Switch

Application

ADLER's ADIS series DC Isolator Switches are designed for installation in 1-20KW Inverters, Controller, DC Combiner Boxes.

They are used for Residential or Commercial PV solar power system(on-grid/off-grid). With their arcing time of less than 3ms they effectively disconnect all standard PV solar systems.

ADIS-3 1200V DC Isolator Switch with OFF-Lock


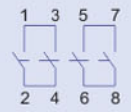

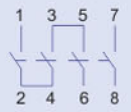
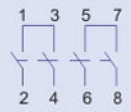



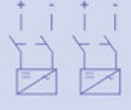

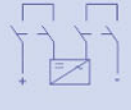
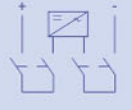


- DIN Rail Mounting
- BYT.2 -32 Rated Voltage 1200V DC
- OFF - Lock
- Flame-Retardant
- Arcing Time < 3ms
- IEC60947-3
- 4Poles(Single|Double Strings Available)
- DC-21B: 16A,25A,32A up to 1200V DC

Product Specifications

Electrical Characteristics		
Function		Isolator, Control
Comply with		IEC60947-3
Pole		4P
Max Rated Current		32A
Rated Working Voltage	Ue	1200V DC
Rated Current	In	16A/25A/32A
Rated Insulated Voltage	Ui	1200V DC
Rated Impulsed Voltage	Uimp	8KV
Service Life/Cycle Operation		
Mechanical		20000
Electrical		2000
Installation Environment		
Size of Terminal Screw		M4
Tightening Torque	Nm	2.5
Maximum Cable Cross Sections	mm ²	4-16
Ingress Protection		IP40
Storage Temperature		-5°C~+80°C

Switching Configurations

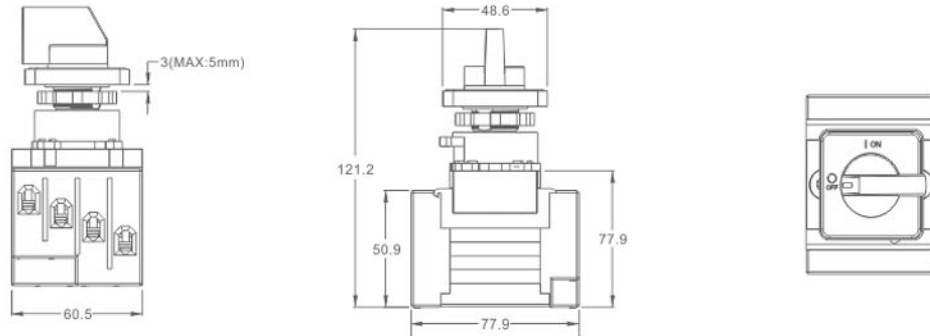
Model	2-pole	2-pole 4 Paralleled Poles	4-pole	4-pole with Input on top Output bottom	4-pole with Input and Output bottom	4-pole with Input and Output on top
ADIS-1/2/3 16A	2	2H	4	4S	4B	4T
ADIS-1/2/3 25A	2	2H	4	4S	4B	4T
ADIS-1/2/3 32A	2	2H	4	4S	4B	4T
Contacts Wiring graph						
Switching example						

Wiring Instructions

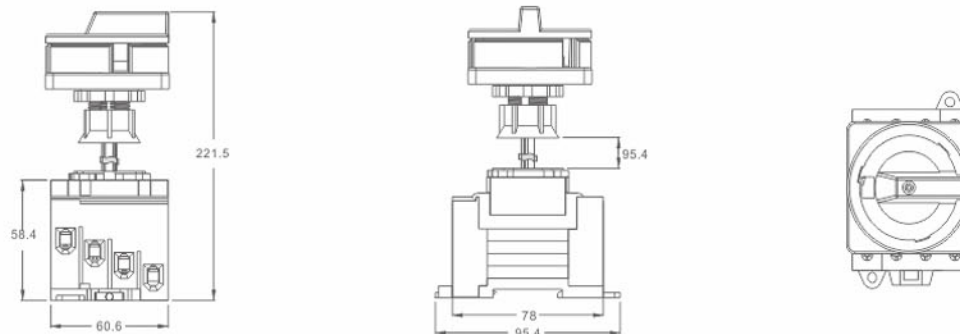
Contacts Configuration	500V	600V	800V	1000V	1200V	Poles in series	Number of Strings	Code	Weight kg/PCS
	16A	16A	16A	9A	7.5A	2	1	DR2	0.28
	25A	25A	20A	11A	9A	2	1	DR2	0.28
	32A	32A	23A	13A	13A	2	1	DR2	0.28
	29A	29A	16A	9A	7.5A	2	1	DR2H	0.28
	45A	45A	20A	11A	9A	2	1	DR2H	0.28
	50A	50A	23A	13A	13A	2	1	DR2H	0.28
	16A	16A	16A	9A	7.5A	2	2	DR4	0.28
	25A	25A	20A	11A	9A	2	2	DR4	0.28
	32A	32A	23A	13A	13A	2	2	DR4	0.28
	16A	16A	16A	16A	16A	4	1	DR4S	0.28
	25A	25A	25A	25A	25A	4	1	DR4S	0.28
	32A	32A	32A	32A	32A	4	1	DR4S	0.28
	16A	16A	16A	16A	16A	4	1	DR4B	0.28
	25A	25A	25A	25A	25A	4	1	DR4B	0.28
	32A	32A	32A	32A	32A	4	1	DR4B	0.28
	16A	16A	16A	16A	16A	4	1	DR4T	0.28
	25A	25A	25A	25A	25A	4	1	DR4T	0.28
	32A	32A	32A	32A	32A	4	1	DR4T	0.28

Dimensions

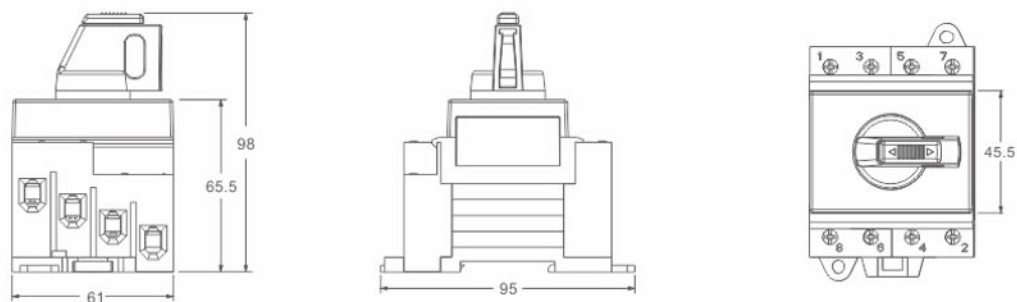
ADIS-1



ADIS-2
DIN Rail Mounting



ADIS-3
DIN Rail Mounting,
Handle Clutch



ADII Series PV Inverter DC Isolator Switch



ADII-1 63A DC Isolator Switch

- Panel Mounting
- Compact Structure
- Arcing time < 3ms
- Busbar Design, Easy Installation
- Flame-Retardant
- Special Modular Design
- IEC60947-3 Standard
- 2P,4P,6P



ADII-2 63A DC Isolator Switch

- Din Rail Mounting And Fixed Mounting
- Compact Structure
- Arcing Time < 3ms
- Busbar Design, Easy Installation
- Flame-retardant
- Special Modular Design
- IEC60947-3 Standard
- 2P,4P,6P

Product Specifications

Electrical Characteristics				
Function		Isolator, Control		
Comply With		IEC60947-3		
Pole		2P	4P	6P
Max Rated Current		63A		
Rated Working Voltage	U _e	600V DC	1200V DC	1500V DC
Rated Current	I _n	Refer to wiring diagram		
Rated Insulated Voltage	U _i	1500V DC		
Mechanical Cycle Operation		15000		
Electrical Cycle Operation		1000		
Installation Environment				
Ingress Protection		IP20		
Rotation Angle for Knob		90°		
Operation Temperature		-30°C~+70°C		
Mounting		Standard Din rail/Panel Mounting/Fixed installation		
Use Categories		DC-21B		
Resistance to Humidity and Heat		II		
Altitude		<2000m		
Relative Humidity		When Temperature arrived to 20°C,Relative Humidity ≤95%, Temperature arrived 40°C,Relative Humidity ≤50%		
Pollution Degree		3		

Application

ADLER's ADII series DC Isolator Switches are designed as one of the most important components in PV solar power systems, in applications between 1KW to 20 KW, especially for Inverters, Controllers and Solar DC Combiner Boxes. Maximum Voltage is up to 1500V DC, Rated Current 32A, combining innovative design with a compact structure.

Dimensions(mm)

ADII-1	ADII-2
<p>6P</p> <p>94.5 132.5 75.5 47.0 44.7 60.0</p>	<p>6P</p> <p>94.0 132.0 78.0 35.5 68.0 47.0</p>
<p>4P</p> <p>73.5 111.0 54.5 47.0 44.7 60.0</p>	<p>4P</p> <p>73.0 111.0 78.0 35.5 10.5 68.0 47.0</p>
<p>2P</p> <p>52.5 90.0 33.5 47.0 44.7 60.0</p>	<p>2P</p> <p>52.0 91.0 78.0 35.5 68.0 47.0</p>

Switching Configurations

Type	2-pole	2-pole 4Parlleled poles	4-pole	2-pole with Input on top Output bottom	2-pole with Input and Output bottom	2-pole with Input and Output on top	2-pole 6Parlleled poles	6-pole	2-pole with Input on top Output bottom	2-pole with Input and Output bottom	4-pole with Input and Output bottom
Part Number	2	2H	4	4S	4B	4T	3H	6	6B	6S	6T
Contacts Wiring diagram											
Switching example											

Wiring Instructions

Contact Configuration	DC-21B Rating						Poles in series	Number of Strings	Type Number	Weight kg/pcs
	600V	800V	900V	1000V	1200V	1500V				
		25A	20A	16A	10A	5A	2	1	2	0.18
	50A						2	1	2H	0.26
	32A	23A		16A	10A	5A	2	2	4	0.26
	40A	40A		40A	32A	16A	4	1	4S	0.26
	40A	40A		40A	32A	16A	4	1	4B	0.26
	32A	32A		32A	32A	16A	4	1	4T	0.26
	63A						2	1	3H	0.33
	32A	23A		16A	10A	5A	2	3	6	0.33
	32A	32A		32A	32A	32A	6	1	6S	0.33
	32A	32A		32A	32A	32A	6	1	6B	0.33
	40A	40A		40A			6	2	6T	0.33

ADIH Series PV High-Current DC Isolator Switch

CB

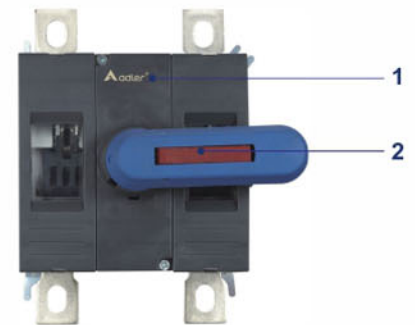

Features

- Breaking Power Optimized Across The Entire Current Range.
- Visible Contacts
- Simplicity in Installation
- Padlockable in The "OFF" Position and with Door Interlock in The "ON" Position
- Adjustable Shaft for a Depth of Installation Ranges
- DC21B:160A,200A,250A with Operational Voltage of 1000V DC

Product Specifications

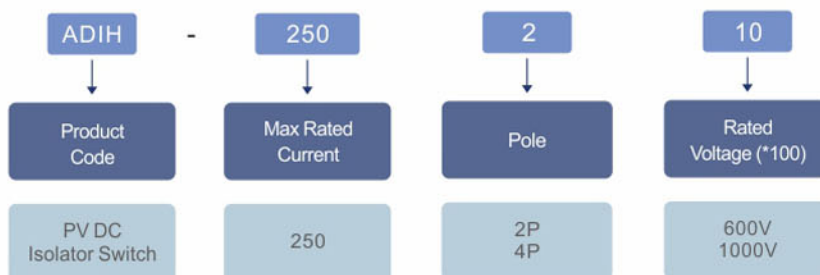
ADIH Series PV DC Isolator Switches							
Pole		2P			4P		
Electrical Characteristics							
Rated Working Voltage	Ue	600V DC			1000V DC		
Max Rated Current		250A			250A		
Rated Current	In	160A	200A	250A	160A	200A	250A
Rated Insulated Voltage	Ui	600V DC			1000V DC		
Rated Impulsed Voltage	Uimp	8KV			12KV		
Rated Short-time Withstand Current 1s		8KA			8KA		
Rated Thermal Current	Free Air	200A	200A	250A	200A	200A	250A
(Ambient Temperature:40□)	Enclosed Air	160A	200A	250A	160A	200A	250A
Service Life/cycle Operation							
Mechanical		10000			10000		
Weight(without Accessory)	kg	0.8			1.5		
Terminal Screw Specification	mm	M8X25			M8X25		
Terminal Torque Force	NM	15-22			15-22		
Ingress Protection		IP20			IP20		
Installation Environment							
Comply with		IEC60947-3					
Operating Temperature		-45°C~+70°C					

Product Architecture



- 1 Brand
- 2 Knob

Model Numbering Definitions

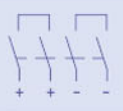




Application

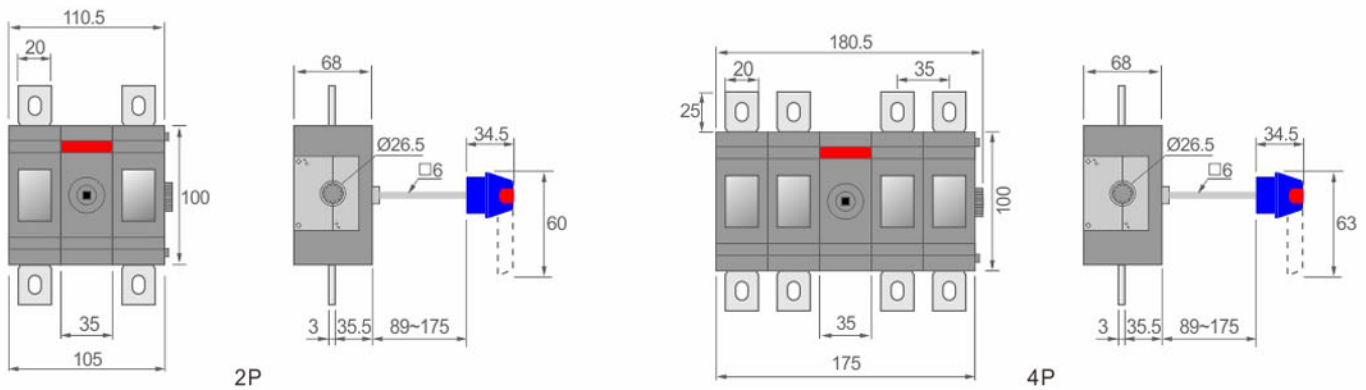
ADLER's ADIH series PV DC Isolator Switches are mainly used in large solar power system, such like solar DC combiner box ,inverter and DC power distribution cabinet. Rated voltage up to

1000V DC, Rated Current up to 250 A with the function of effective disconnection.

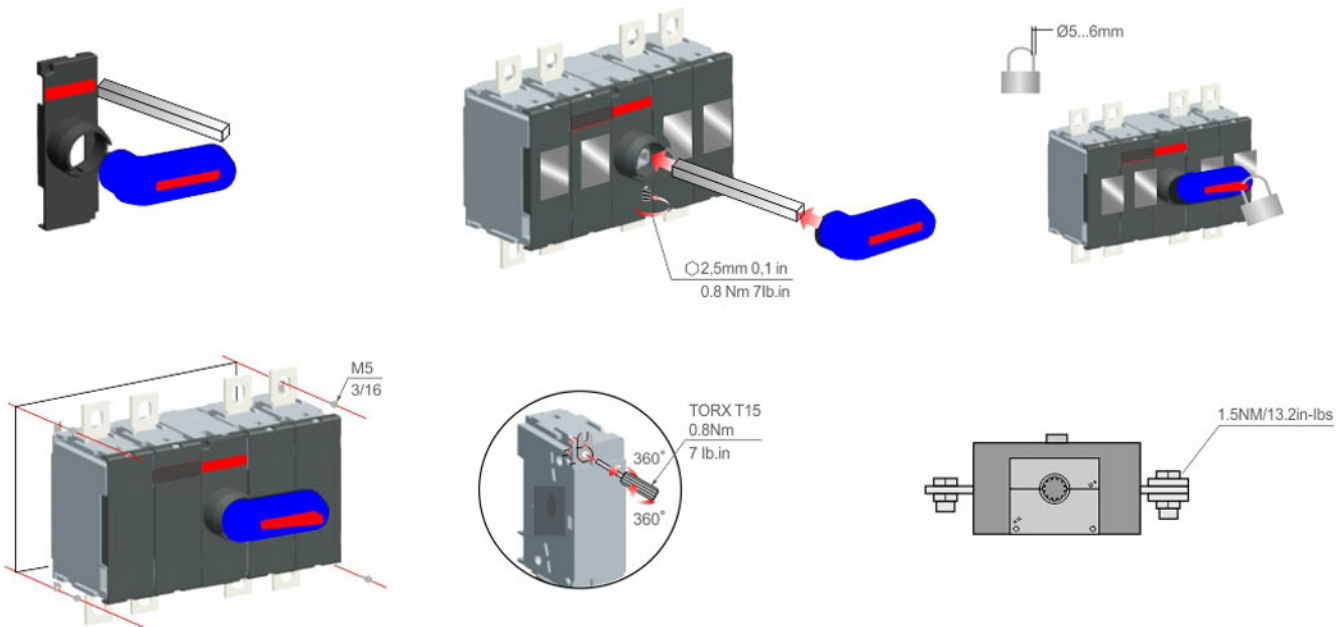
Wiring Instructions

Contacts wiring graph	Pole	Rated insulation voltage Ui	Max Rated Current A
	4P	DC 1000V	250A
	2+2P	DC 600V	250A
	2P	DC 600V	250A

Dimensions(mm)



Installation



ADIR Series PV Rail-Mount DC Isolator Switch



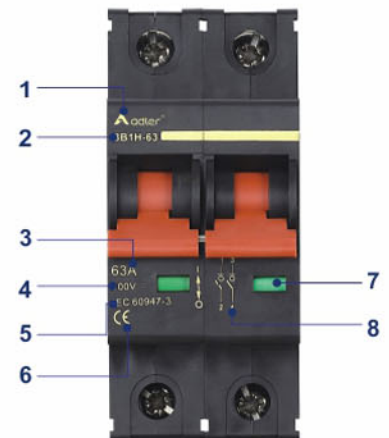
Features

- Non-polar design
- Functions: Unfrequent operation and Isolation
- Rated Current: Up to 63A
- Rated Voltage: 1200V DC
- Flash Barrier for better system safety
- Compliance with :IEC60947-3/GB14048-3

Product Specifications

Electrical Characteristics		ADIR			
Model	ADIR				
Comply With	IEC60947-3/GB14048.3				
Pole	1P	2P	3P	4P	
Rated Working Voltage Ue	300V DC	600V DC	900V DC	1200V DC	
Max Rated Current	63A				
Rated Current In	25A,40A,63A				
Rated Insulated Voltage Ui	1200V DC				
Rated Impulsed Voltage Uimp	4KV				
Service Life/cycle Operation					
Mechanical	Actual Value	20000			
	Standard Value	8500			
Electrical	Actual Value	4000			
	Standard Value	1500			
Isolator Function	Yes				
Installation Environment					
Ingress Protection	All Sides IP40 ,Connection Terminal IP20				
Terminal Cross Section	2.5-25mm ²				
Working Temperature	-25°C~+70°C				
Storage Temperature	-40°C~+85°C				
Resistance to Humidity And Heat	II (at humidity level of 55%, relative humidity 95%)				
Resistance to Shock	2.6 IEC60068				
Resistance to Impact	2.27 IEC60068				

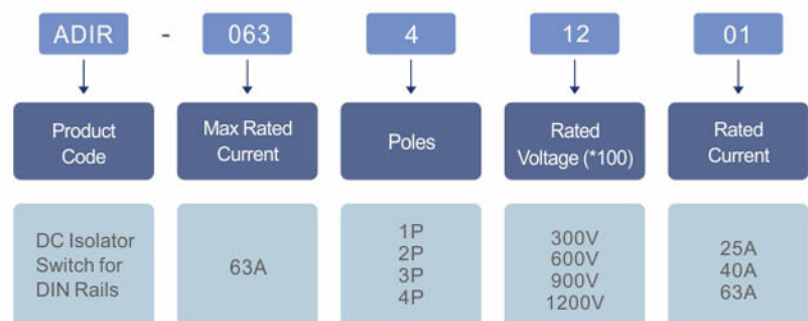
Product Architecture



- 1 Brand
- 2 Type
- 3 Rated Current
- 4 Rated Voltage
- 5 Standard Code
- 6 Certificate Symbol
- 7 Indicator
- 8 Wiring Diagram



Model Numbering Definitions



Application

ADLER's ADIR Series PV Rail-Mounted DC Isolator switches are mainly be used in PV solar power system, which are applied for DC solar combiner box, controller etc. The Max voltage is up to

1200V DC, current up to 63A ,with the function of effective disconnection and Anti-reflux protection. Scientific design of arc-extinguishing system keep PV system more safe.

ADIM Series PV Moulded Case DC Isolator Switch



Features

- High Insulation Performance
- Functions: Unfrequent Operation and Isolation
- Rated Voltage up to 1000V
- Rated Current 125A,250A,400A,630A
- IEC60947-3, GB14048-3

Product Specifications

ADIM series PV DC Moulded Case Isolator Switch				
Type	ADIM-125	ADIM-250	ADIM-400	ADIM-630
Pole	4P			
Max Rated Current	125A	250A	400A	630A
Electrical Characteristics				
Rated Working Voltage	Ue 1200V DC			
Rated Current	In(A) 60/80 100/125	125/160 200/250	250/300/315 350/400	400/500/630
Rated Insulated Voltage	Ui 1200V DC			
Rated Impulsed Voltage	Uimp 8KV			
1 Min Power Frequency Withstand Voltage	3.8KV			
Control And Indication				
Control Mode	Manual Direct (RHD)	Optional		
	Extended(ERH)	Optional		
	MOD	Optional		
Shunt Release (SHT)	Optional			
Auxiliary Release	Optional			
Terminal End Cover	Yes			
Interphase Barriers	Yes			
Service Life/Cycle Operation				
Mechanical	14000	14000	5000	5000
Electrical	5000	5000	1500	1500
Size (L x W x H)	150x122x92	165x142x90	257x198x106.5	280x280x115.5
Ingress Protection	All Sides IP40 ,Connection Terminal IP20			
Installation Environment				
Comply with	IEC60947-3/GB14048.3			
Storage Temperature	-25°C~+70°C			

Product Architecture



- 1 Brand
- 2 Type
- 3 Rated Current
- 4 Rated Voltage
- 5 Rated Short-time Withstand Current
- 6 Standard Code
- 7 Certificate Symbol
- 8 Wiring Diagram

Model Numbering Definitions



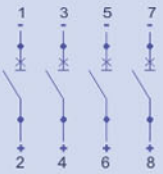
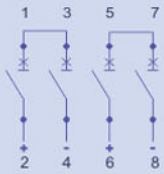
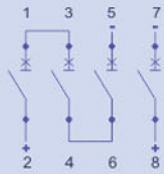
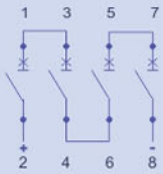
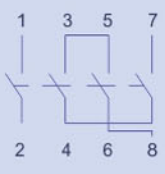
Application

ADLER's ADIM series PV DC Moulded Case Isolator Switches are mainly used in large solar power system, such like solar DC combiner box ,inverter and DC power distribution cabinet. Rated

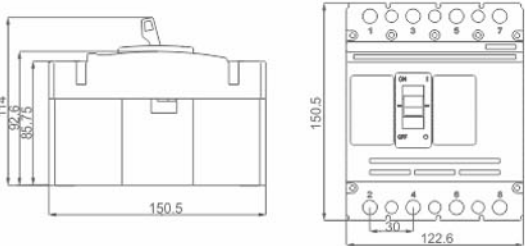
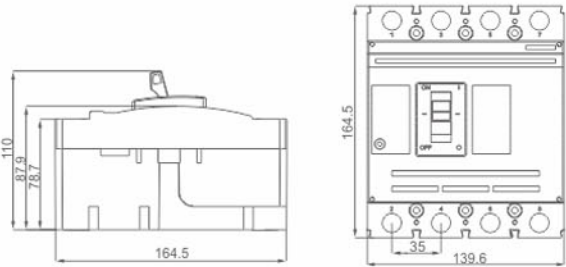
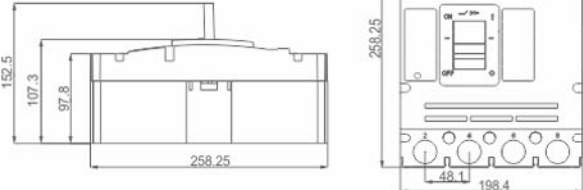
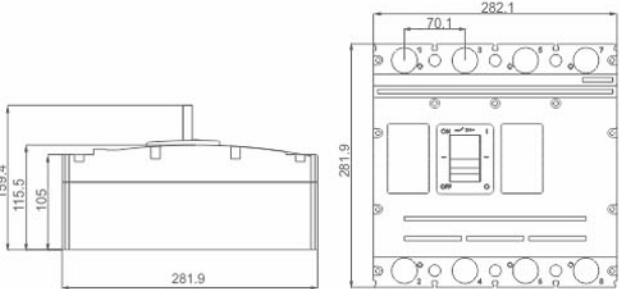
voltage up to 1200V DC, Rated Current up to 630A with the function of effective isolator.

Type	ADIM-125A	ADIM-250A	ADIM-400A	ADIM-630A
Picture				

Wiring Instructions

	Type Y MCCB				Type S MCCB
Contacts Wiring graph					

Dimensions(mm)

125A	250A
	
400A	630A
	

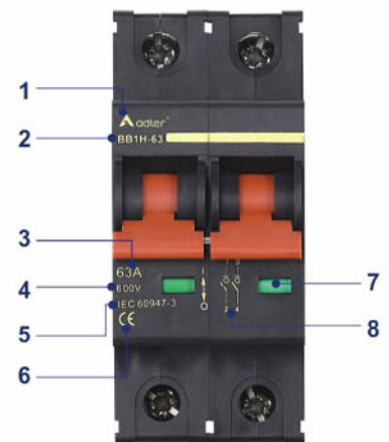
ADCR Series PV Rail-Mount DC Circuit Breakers



Features

- Nonpolarity
- High Short-Circuit / Breaking Capacity
- Functions: Overload, Short Circuit, Unfrequent Operation and, Anti-reflux Protection
- Rated Voltage: 1200V, Ultimate Breaking Capacity : 6KA
- Rated Current: 63A
- Comply with : IEC60947-2/GB14048-2

Product Architecture



- 1 Brand
- 2 Type
- 3 Rated Current
- 4 Rated Voltage
- 5 Breaking Capacity
- 6 Standard
- 7 Indicator
- 8 Wiring Diagram

Parameter

Electrical Characteristics		ADCR			
Type		ADCR			
Comply with		IEC60947-2/GB14048.2			
Pole		1P	2P	3P	4P
Rated Working Voltage	Ue	300V DC	600V DC	900V DC	1200V DC
Max Rated Current		63A			
Rated Current	In	3A, 4A, 6A, 10A, 13A, 16A, 20A, 25A, 32A, 40A, 50A, 63A			
Rated Insulated Voltage	Ui	1200V DC			
Rated Impulsed Voltage	Uimp	4KV			
Ultimate Breaking Capacity Icu		6KA			
Run Breaking Capacity Ics		100%			
Curve Type		B			
Tripping Type		Thermal Magnetic Type			
Service Life/cycle Operation					
Mechanical	Actual Value	20000			
	Standard Value	8500			
Electrical	Actual Value	4000			
	Standard Value	1500			
Installation Environment					
Ingress Protection		All Sides IP40 ,Connection Terminal IP20			
Terminal Cross Section		2.5-25mm ²			
Working Temperature		-25°C~+70°C			
Storage Temperature		-40°C~+85°C			
Resistance to Humidity And Heat		II (at humidity levels up to 55%, Relative Humidity 95%)			
Resistance to Shock		2.6 IEC60068			
Resistance to Impact		2.27 IEC60068			



Model Numbering Definitions






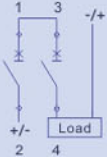
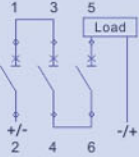
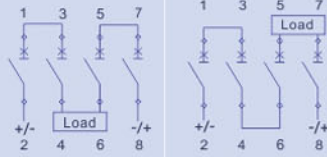


Application

ADLER's ADCR Series PV Circuit Breakers are mainly applied to DC solar combiner box ,Controller etc. The main function include overload protection ,Anti-reflux protection and short-circuit

protection. Scientific design of arc-extinguishing system keep solar system more safe. Max Voltage up to 1200V DC, current up to 63A.

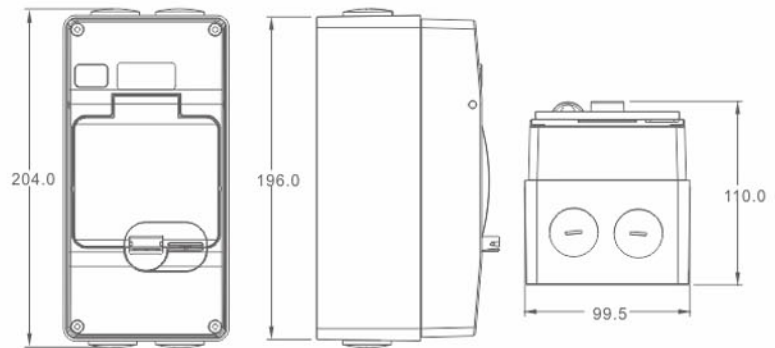
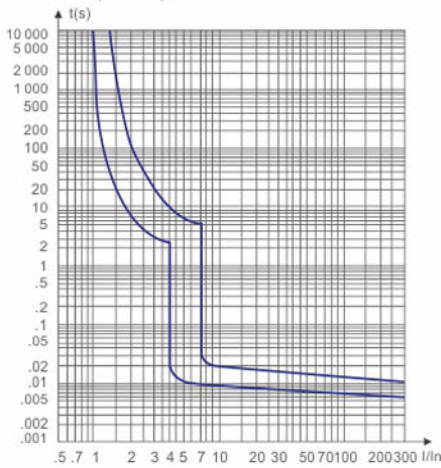
Wiring Method

Pole	1P	2P	3P	4P
Type				
Contacts Wiring graph				

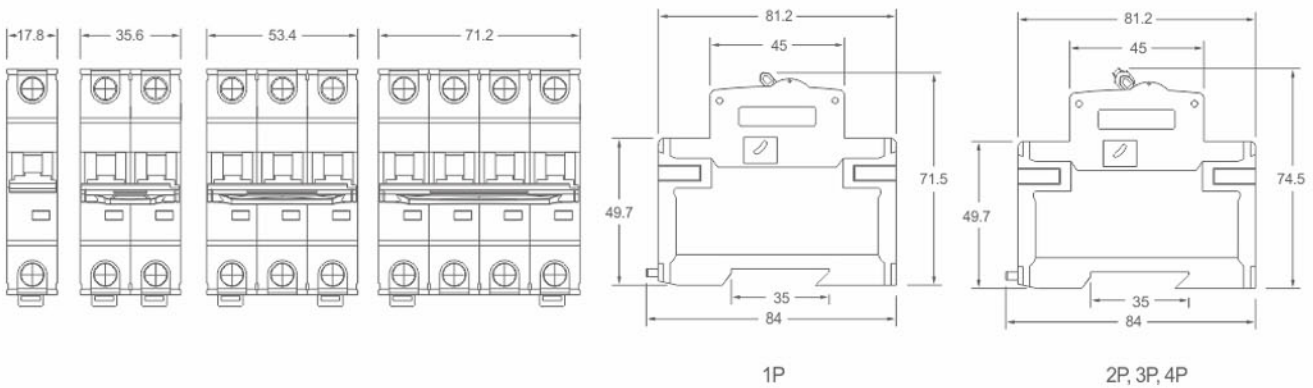
Characteristic Curve

Dimensions(mm)

B curve : (4.4-6.6) In



Dimensions(mm)



ADCM Series PV Moulded Case DC Circuit Breakers



Features

- High Short-Circuit/Breaking Capacity
- Protection Functions: Overload, Short circuit, Unfrequent Operation
- Rated Voltage up to 1000V DC
- Rated Current 125A, 250A, 400A, 630A
- IEC60947-2, GB14048-2
- Easy Installation

Product Specifications

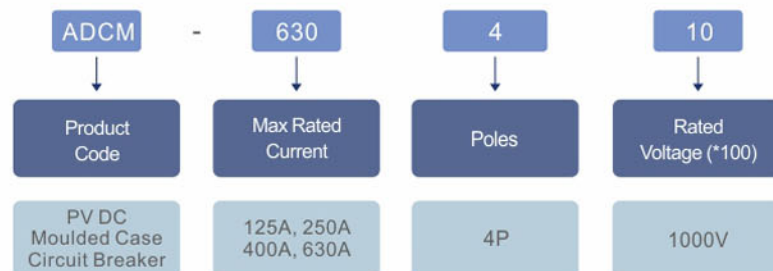
ADCM Series					
Type		ADCM-125	ADCM-250	ADCM-400	ADCM-630
Pole		4P	4P	4P	4P
Max Rated Current		125A	250A	400A	630A
Electrical Characteristics					
Rated Working Voltage	U _e	1000V DC	1000V DC	1000V DC	1000V DC
Rated Current	I _n (A)	60/80 100/125	125/160 200/250	250/300/315 350/400	400/500/630
Rated Insulated Voltage	U _i	1000V DC			
Rated Impulsed Voltage	U _{imp}	8KV			
1 Min Power Frequency Withstand Voltage		3.8 KV	3.8 KV	3.8 KV	3.8 KV
Ultimate Breaking Capacity	I _{cu}	20 KA	20 KA	20 KA	20 KA
Run Breaking Capacity	I _{cs}	15 KA	15 KA	15 KA	15 KA
Protection					
Tripping Type		Thermal Magnetic Type			
Control And Indication					
Control Mode	Manual	Direct (RHD)	Optional		
		Extended(ERH)	Optional		
	MOD		Optional		
	Shunt Release (SHT)		Optional		
	Auxiliary Release		Optional		
	Terminal End Cover		Yes		
	Interphase Barriers		Yes		
Service Life/Cycle Operation					
Mechanical		14000	14000	5000	5000
Electrical		5000	5000	1500	1500
Size (L x W x H)		150x122x92	165x142x90	257x198x106.5	280x280x115.5
Ingress Protection		All Sides IP40, Connection Terminal IP20			
Installation Environment					
Comply With		IEC60947-2/GB14048.2			
Storage Temperature		-25°C~+70°C			

Product Architecture



- 1 Brand
- 2 Type
- 3 Rated Current
- 4 Rated Voltage
- 5 Breaking Capacity
- 6 Operation Breaking Capacity
- 7 Standard Code
- 8 Certificate Symbol
- 9 Wiring Diagram
- 10 Characteristic Curve

Model Numbering Definitions

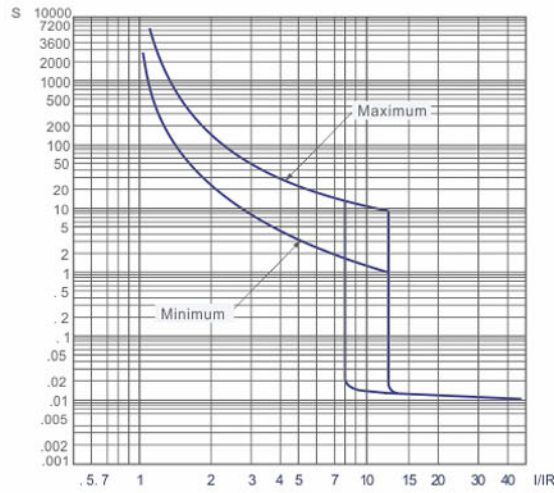


Application

ADCM's ADCM series PV DC Moulded Case Circuit Breaker (MCCB) are mainly used in large solar power system, which are applied for solar DC combiner box, inverter and DC power

distribution cabinet. Rated voltage up to 1000V DC, current up to 630A, with the function of overload protection and short-circuit protection.

Characteristic Curve



Type	ADCM-125A	ADCM-250V	ADCM-400A	ADCM-630A
Picture				

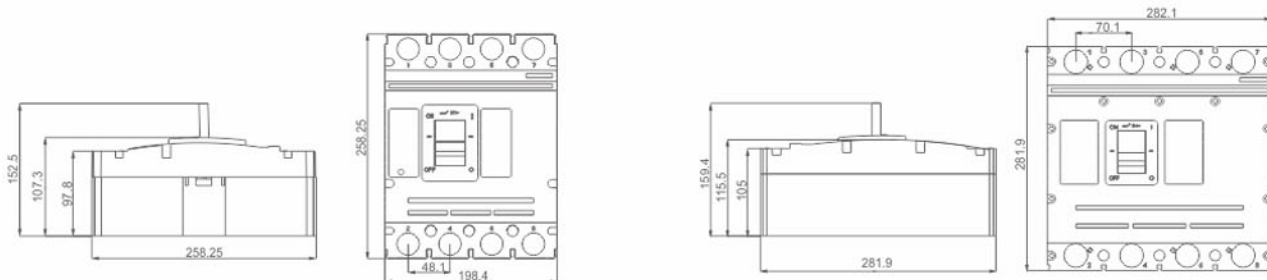
	Type Y MCCB				Type S MCCB			
Contacts Wiring graph								

Dimensions(mm)

125A	250A
------	------



400A	630A
------	------





4

Industrial Power Protection

- Industrial Cylindrical Fuse Links
- Industrial DIN NH Fuse Links
- MV/ HV Current Limiting Fuse Links
- High Speed Semiconductor Fuse Links

APC / Power Fuses



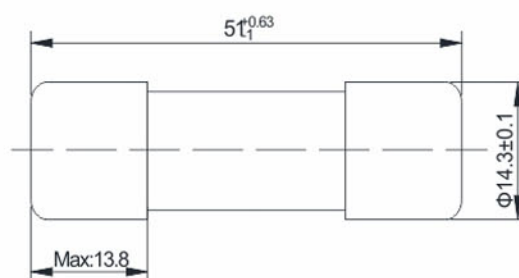
FEATURES:

- Rated Voltage: 500 VAC
- Rated Current: 2~125A
- Breaking Capacity: 25 kA
- Max. Power Dissipation: 5W
- Class of operation: gG

ELECTRICAL SPECIFICATIONS

Part Number	Rated Current	Minimum I ² T(before arc)		Maximum melting time I ² T	
		Prospective current (RMS)/kA	I ² t/A ² s	Prospective current (RMS)/kA	I ² t/A ² s
APC1200500	2	0.013	0.67	0.064	16
APC1400500	4	0.035	4	0.130	67
APC1500500	6	0.064	16	0.220	193
APC1600500	8	0.100	40	0.310	390
APC2100500	10	0.130	67	0.300	640
APC2120500	12	0.180	130	0.450	820
APC2160500	16	0.270	291	0.550	1210
APC2200500	20	0.400	640	0.790	2500
APC2250500	25	0.550	1210	1.000	4000
APC2320500	32	0.790	2500	1.200	5750
APC2400500	40	1.000	4000	1.500	9000
APC2500500	50	1.200	5750	1.850	13700
APC2630500	63	1.500	9000	2.300	21200
APC2800500	80	1.850	13700	3.000	36000
APC3100500	100	2.300	21200	3.000	64000
APC3125500	125	3.000	36000	5.100	104000

DIMENSIONS (mm)



AG0 / Power Fuses



FEATURES:

- Rated Voltage: 240VAC / 150VDC
- Rated Current: 25~180A
- Max. Breaking Capacity: 50 KA
- High speed semi-conductor fuse
- Design Standard: IEC 60269-4/BS88-4/GB13539-4, Type-A

ELECTRICAL SPECIFICATIONS

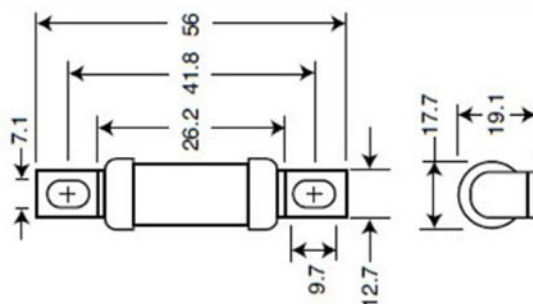
Type	Part Number	Rated Current (RMS-A)	Energy Integrals I ² t (A ² S)			Typical Power Loss (W)
			Pre-Arcing	Clearing at 120V	Clearing at 240V	
	AG02250x00	25	18	120	250	4
	AG02320x00	32	32	200	450	5
	AG02350x00	35	50	320	600	5
	AG02500x00	50	100	500	1400	7
	AG02630x00	63	180	1100	2200	9
	AG02800x00	80	300	1900	3800	10
	AG03100x00	100	600	3800	7500	10
	AG03125x00	125	600	3800	7500	16
	AG03160x00	160	1100	7000	16000	20
	AG03180x00	180	1600	12000	29000	21

Note:

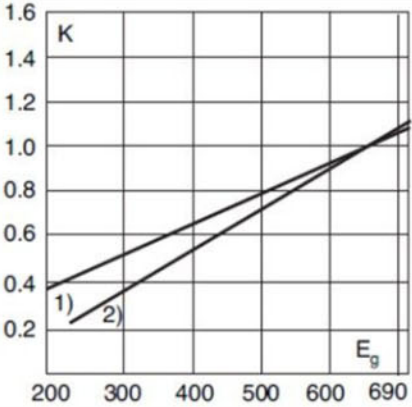
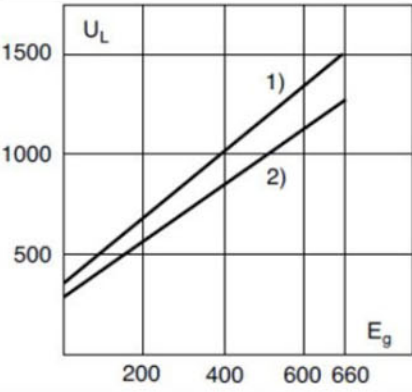
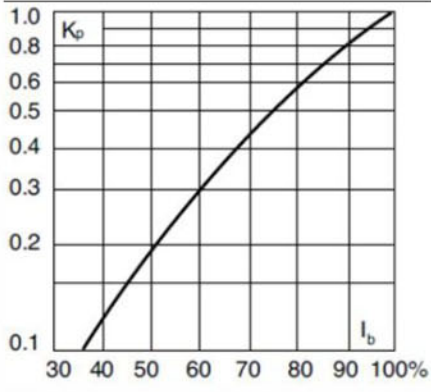
- (1) x: expression rated voltage, for l is 240VAC, c: is 150VDC.
- (2) Typical Pre-arcing I²t are measured at 10I_n Current.
- (3) The breaking capacity is 50kA for 240VAC, 10kA for 150VDC.

DIMENSIONS (mm)

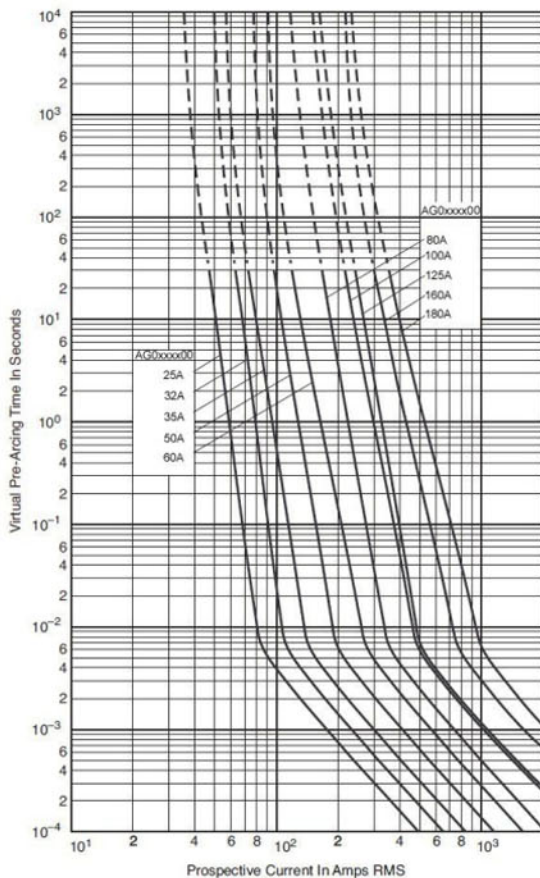
AG0xxxx00



ELECTRICAL CHARACTERISTICS

Total Clearing I ² t	Arc Voltage	Power Loss
<p>The total clearing I²t at rated voltage and at power factor of 15% are given in the electrical characteristics. For other voltages, the clearing I²t is found by multiplying by correction factor, K, given as a function of applied working voltage, E_g, (rms).</p>	<p>This curve gives the peak arc voltage, U_L, which may appear across the fuse during its operation as a function of the applied working voltage, E_g, (rms) at a power factor of 15%.</p>	<p>Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the power losses at load currents lower than the rated current. The correction factor, K_p, is given as a function of the RMS load current, I_b, in % of the rated current.</p>
 <p>(1) AG1 (2) AG0,AG1</p>	 <p>(1) AG1 (2) AG0,AG1</p>	

TIME CURRENT CURVE



APX / Power Fuses



FEATURES:

- Rated Voltage up to 500VAC and 690VAC
- Breaking capacity: 120KA/500V AC, 50KA/690V AC
- Operating class: gG
- Standard: DIN VDE 0636, EN/ IEC 60269-2-1
- Suitable for interconnected networks IN < 630A

ELECTRICAL SPECIFICATIONS

Models and Rated Currents								
Model No.	Rated Current (A)	APx (DIN Sizes)						
		Z	Y	0	1	2	3	4
APx1200500	2	●	○	●	○	○	○	○
APx1400500	4	●	○	●	○	○	○	○
APx1600500	6	●	●	●	○	○	○	○
APx2100500	10	●	●	●	○	○	○	○
APx2160500	16	●	●	●	○	○	○	○
APx2200500	20	●	●	●	○	○	○	○
APx2250500	25	●	●	●	○	○	○	○
APx2320500	32	●	●	●	○	○	○	○
APx2350500	35	●	●	●	○	○	○	○
APx2400500	40	●	●	●	○	○	○	○
APx2500500	50	●	●	●	○	○	○	○
APx2630500	63	●	●	●	○	○	○	○
APx2800500	80	●	●	●	●	○	○	○
APx3100500	100	●	●	●	●	○	○	○
APx3125500	125	○	●	●	●	●	○	○
APx3160500	160	○	●	●	●	●	○	○
APx3200500	200	○	○	○	●	●	○	○
APx3224500	224	○	○	○	●	●	○	○
APx3250500	250	○	○	○	●	●	○	○
APx3300500	300	○	○	○	○	●	●	○
APx3315500	315	○	○	○	○	●	●	○
APx3355500	355	○	○	○	○	●	●	○
APx3400500	400	○	○	○	○	●	●	○
APx3425500	425	○	○	○	○	○	●	○
APx3500500	500	○	○	○	○	○	●	○
APx3630500	630	○	○	○	○	○	●	○

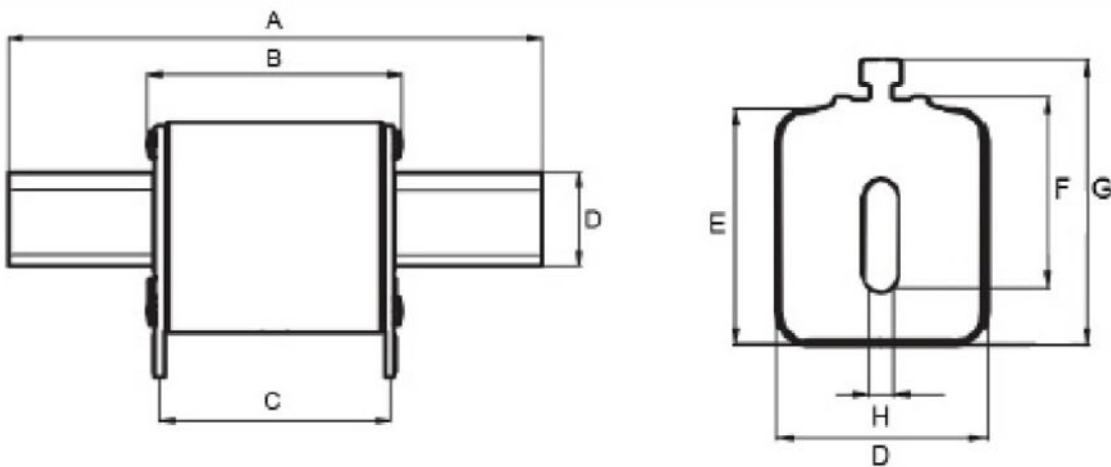
Note: '●' representative has the corresponding size and current,
 '○' representative has not the corresponding size and current.

Available DIN Sizes:

APX Series								
	APZ	APY	AP0	AP1	AP2	AP3	N/A	N/A
DIN	00c	00	0	1	2	3	4	4a

Size	A	B	C	D	E	F	G	H
APZ	78.5± 1.5	54	45± 1.5	15	48	35(± 8)	60	6
APY	78.5± 1.5	54	45± 1.5	15	48	35(± 8)	61	6
AP0	125± 2.5	68	62 +3/-1.5	16	48	35(± 8)	61	6
AP1	135± 2.5	75	62± 2.5	20	53	40(± 8)	66	6
AP2	150± 2.5	75	62± 2.5	48	61	48(± 8)	74	6
AP3	150± 2.5	75	62± 2.5	60	76	60(± 8)	89	6

DIMENSIONS (mm)



67xxx / Power Fuses



FEATURES:

- Rated Voltage up to 36kV
- Rated Max. Breaking Current: 63kA
- Operating class: gG
- Standard: VDE 0670 T4/ IEC 60282-1, IEC 60787, VDE 0671 T105/IEC 62271-105, DIN 43625, DIN 43624

ELECTRICAL SPECIFICATIONS

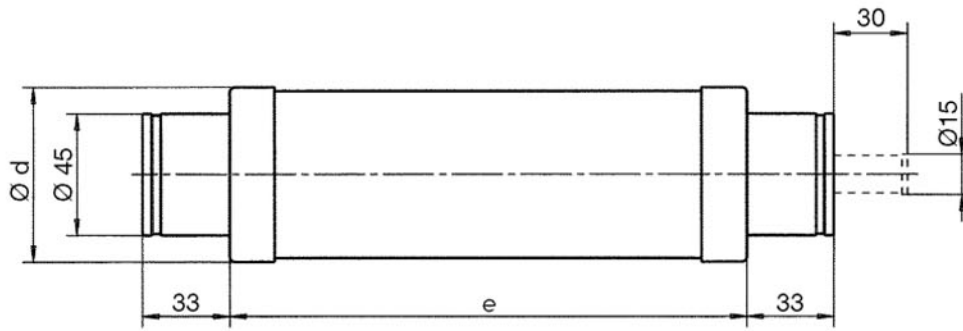
Oder No.	Rated Voltage Range	Rated current	Rated Maximum Breaking Current	Rated Minimum Breaking Current	Dimensions		Resistances and power Dissipation		Total I ² t
					e	d	R _{kalt}	P _{warm}	
	Un(KV)	I _n (A)	I ₁ (kA)	I ₃ (kA)	(mm)	(mm)	(mΩ)	(W)	A ² S
67210.0020	3/7.2	2	63	15	192	56	290	1.8	600
67210.0040		4		20			270	5	800
67110.0060		6.3		21			256	11	800
67110.0100		10		38			144	19	3
67110.0160		16		65			41	13	2.34
67110.0200		20		92			32	14.5	3.9
67110.0250		25		110			25	20	4.9
67110.0320		31.5		123			19	23	7
67110.0400		40		140			12.3	30	14
67110.0500		50		194			9.3	35	25.3
67210.0630		63		220			8.75	60	41.2
67210.0800		80		306			6.3	85	84
67210.1000		100		363			5	96	93.6
67110.1250		125		440			2.9	75	440
67210.1600		160		509			2.5	120	500
67210.2000		200		612			2.3	200	654
67220.0010		6/12		1			63	14	292
67220.0020	2		16	510	2	280			
67220.0040	4		22	338	6	500			
67220.0060	6.3		30	190	8	600			
67220.0100	10		42	139	16	1.15			
67220.0160	16		54	107	38	1.29			
67220.0200	20		73	71	38	3.2			

Oder No.	Rated Voltage Range	Rated current	Rated Maximum Breaking Current	Rated Minimum Breaking Current	Dimensions		Resistances and power Dissipation		Total I ² t			
	Un(KV)				I _n (A)	I ₁ (kA)	I ₃ (kA)	e		d	R _{kalt}	P _{warm}
		(mm)	(mm)	(mΩ)				(W)	A ² S			
67220.0250	6/12	25	63	93	292	56	52	46	5.2			
67220.0320		31.5		105			43	65	7.2			
67220.0400		40		125			23	54	23.3			
67220.0500		50		160			18	70	34.9			
67220.0630		63		230			12	85	58.3			
67220.0800		80		350		10.6	114	90				
67220.1000		100		500		8.5	156	140				
67220.1250		125		480		4	117	440				
67220.1600		160		560		4.3	217	500				
67220.2000		200		610		3.8	333	654				
67240.0010	10/24	1	63	14	442	56	2100	2	90			
67240.0020		2		16			800	3	340			
67240.0040		4		23			550	10	450			
67240.0060		6.3		30			300	13	530			
67240.0100		10		43			220	26	940			
67240.0160		16		54			197	73	1.4			
67240.0200		20		73			134	76	3.1			
67240.0250		25		93			96	89	4.5			
67240.0320		31.5		105			79	127	5.9			
67240.0400		40		125			45	114	18.8			
67240.0500		50		205		35	147	33.5				
67240.0630		63		280		24	170	59.6				
67240.0800		80		310		20.5	233	84				
67240.1000		100		430		18	400	93				
67240.1250		125		40		760	78	11	340	350		
67240.1600		160		31.5		900	88	9.6	515	500		
67240.2000		200		1050		7.4	740	730				
67250.0020		20/36		2		31.5	15	537	56	950	9	600
67250.0040				4			20			900	32	800
67150.0060				6.3			23			827	39	600
67150.0100	10		34	520	65		2					
67150.0160	16		70	210	67		2.34					
67150.0200	20		100	165	84		3.9					
67150.0250	25		110	125	100		6.5					
67150.0320	31.5		135	85	119		7					
67150.0400	40		205	65	176		14.2					
67150.0500	50		220	42	183		40					
67150.0630	63		360	35	271		61.7					

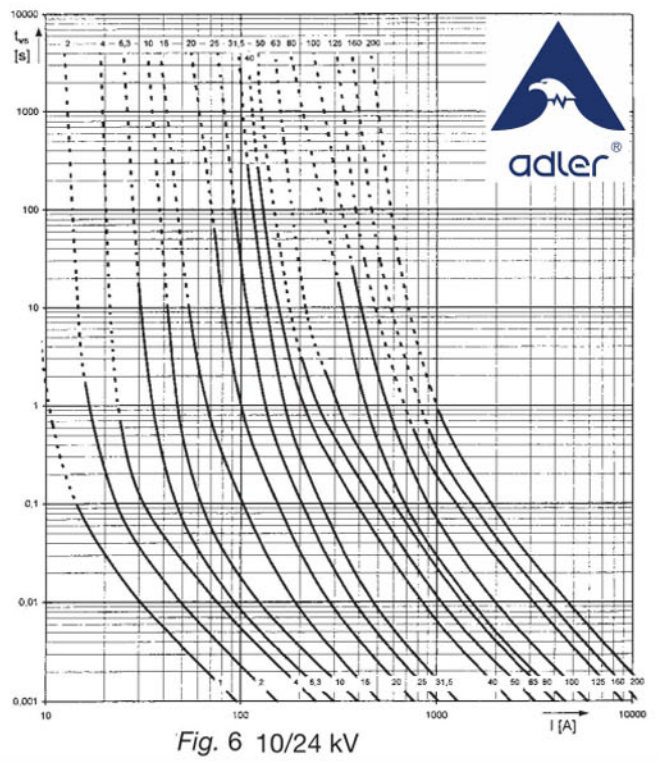
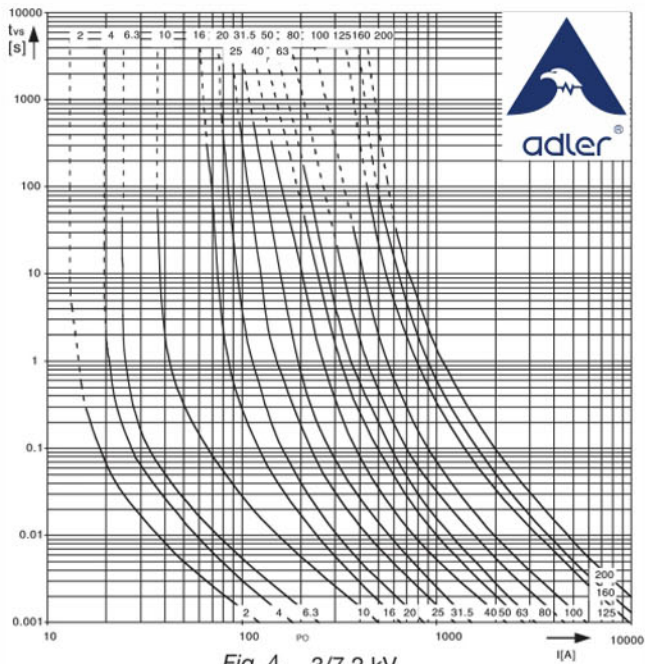
Note:

The 67220.0160 to 67240.1000 suitable for with controlled power dissipation ÜLA and without controlled power disipation ÜLA; the others only suitable for without controlled pwoer ÜLA.

DIMENSIONS (mm)



TIME CURRENT CURVE



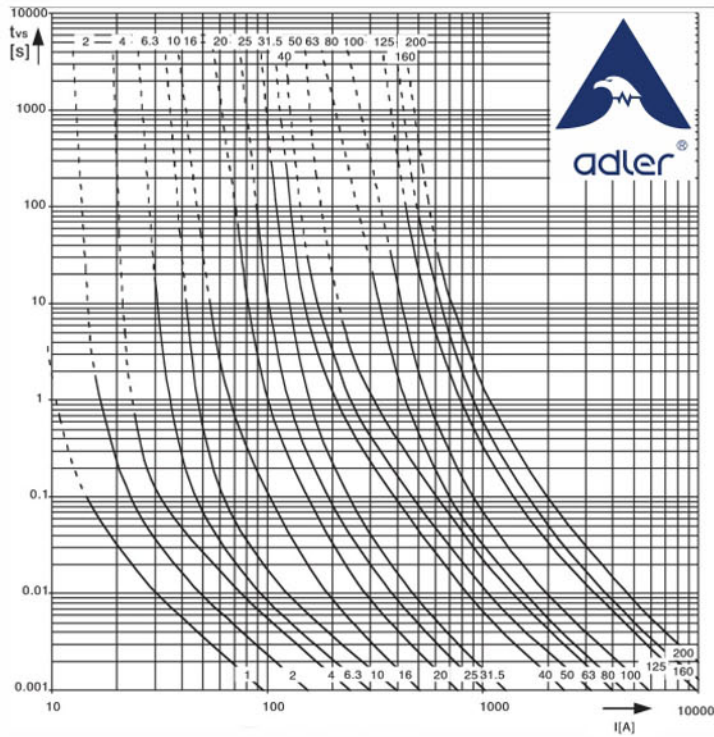


Fig. 5 6/12 kV

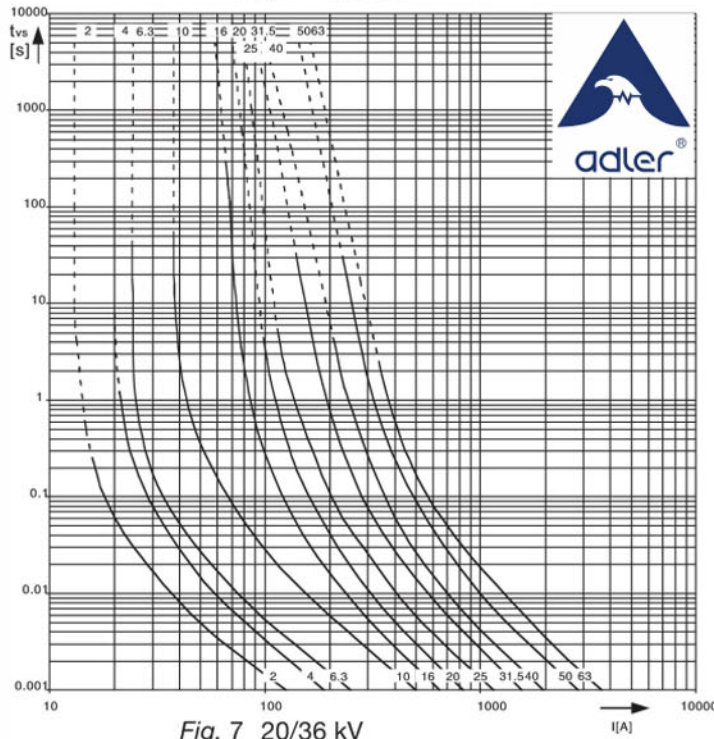


Fig. 7 20/36 kV

XRNT / Power Fuses



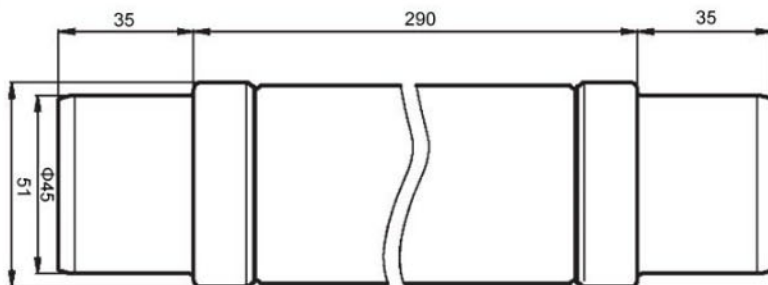
FEATURES:

- Rated Voltage: 12KV
- Rated Current: 6.3~63A
- Breaking Capacity: 50 kA
- Max. Power Dissipation: 63W
- Standard: IEC 60282-1

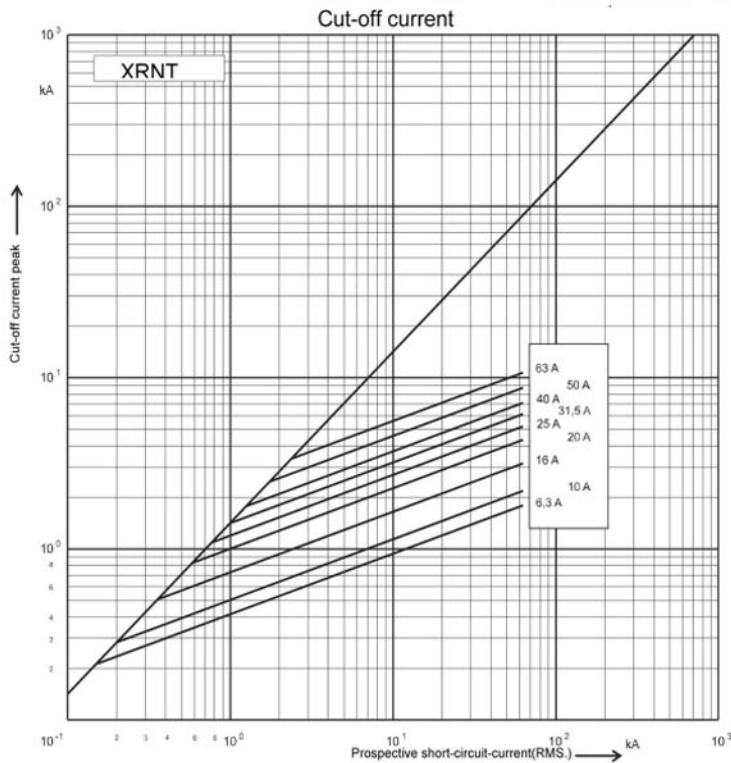
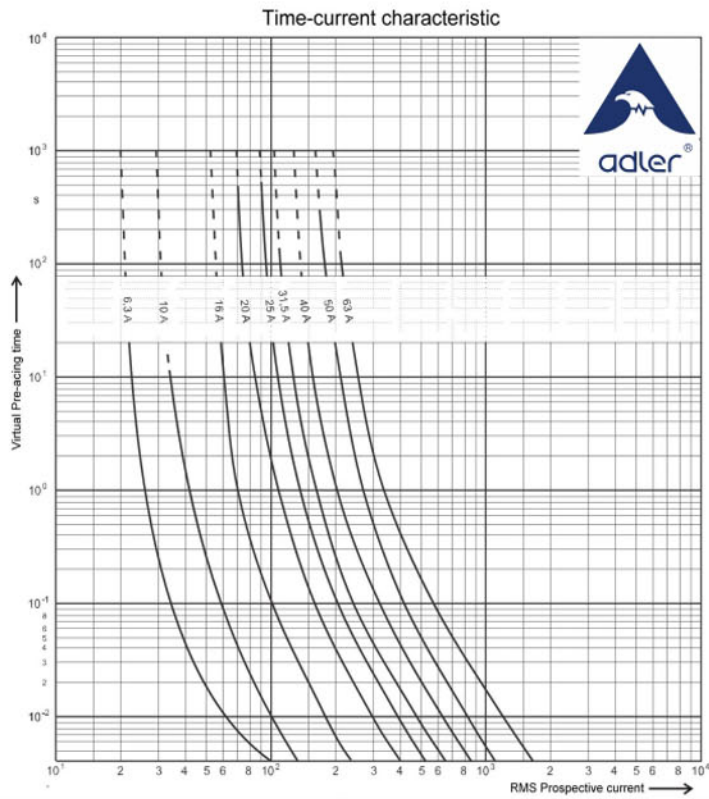
ELECTRICAL SPECIFICATIONS

Part Number	Rated Current	Rated Breaking Current	Min. Breaking Current	Pre-arcing I ² T value	Total I ² T value		Power Loss	Cold Resistance
					Un min	Un max		
	A	kA	A	A ² S	A ² S	A ² S	W	mΩ
XRNT163000	6.3	50	22	45	210	360	16	297
XRNT210000	10	50	34	75	350	560	28	189
XRNT216000	16	50	56	250	1100	2000	28	87
XRNT220000	20	50	70	640	2900	4800	23	46
XRNT225000	25	50	90	1050	4700	7500	29	36
XRNT231500	31.5	50	110	1700	6600	12000	38	29
XRNT240000	40	50	140	2900	12000	19000	50	22
XRNT250000	50	50	170	5700	20000	33000	56	16
XRNT263000	63	50	210	10700	40000	66000	63	12

DIMENSIONS (mm)



TIME CURRENT CURVE



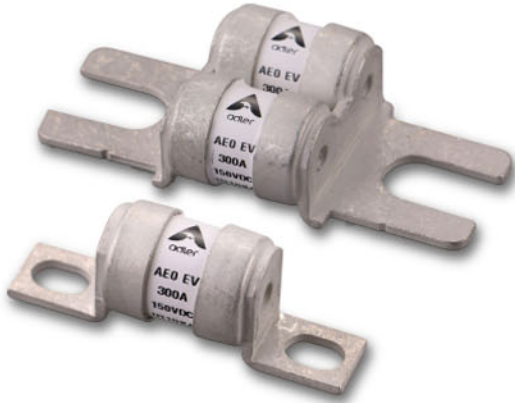
5

Electric Vehicle and Charger Protection

- EV Automotive and Charger Fuse Links



AE0 EV Fuse



FEATURES:

- Rated Voltage: 150 VDC
- Rated Current: 20~600A
- Rated Breaking Capacity: 10 kA
- General purpose fuse for EV/HEV, e-Bus and charging stations
- Special designed fuse base for automotive use

ELECTRICAL SPECIFICATIONS

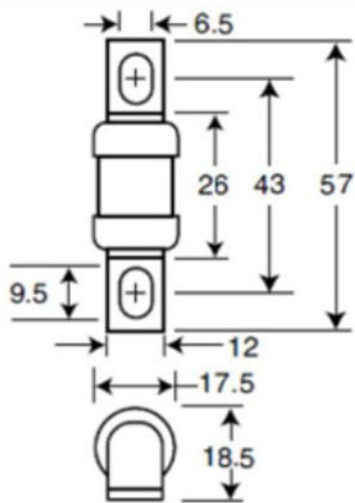
Type	Part Number	Rated Current (A)	Rated Voltage (VDC)	Breaking Capacity	Typical Voltage drop (mV)	Typical Power loss (W)
Single	AE02200c0x	20	150	10kA	145	2.9
	AE02250c0x	25			140	3.5
	AE02320c0x	32			135	4.3
	AE02400c0x	40			125	5.0
	AE02500c0x	50			120	6.0
	AE02600c0x	60			117	7.5
	AE02800c0x	80			113	9.0
	AE03100c0x	100			110	11.0
	AE03125c0x	125			105	13.0
	AE03150c0x	150			112	17.0
	AE03180c0x	180			105	19.5
	AE03200c0x	200			100	20.0
	AE03250c0x	250			83	20.7
	AE03300c0x	300			77	23.1
Twins	AE03400c0x	400	100	40.0		
	AE03500c0x	500	90.5	45.2		
	AE03600c0x	600	82	48.7		

Note:

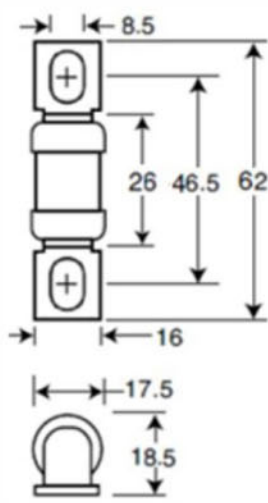
- (1) Percentage of change in fuse current carry capability, Change in ambient temperature: $-0.13\%/^{\circ}\text{C}$
- (2) Temperature Rise: $\leq 75\text{K}$ with rated current ; $\leq 45\text{K}$ with 60% of rated current

DIMENSIONS (mm)

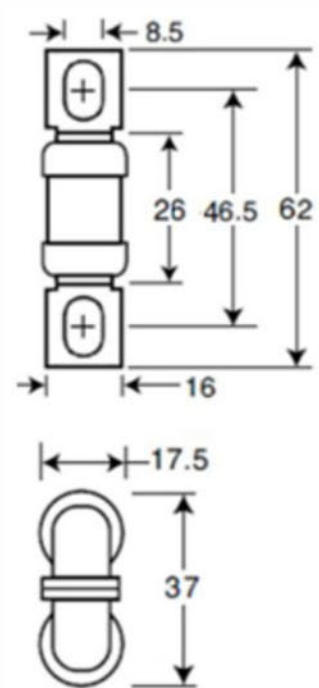
Single
AE0xxxxc00



Single
AE0xxxxc01



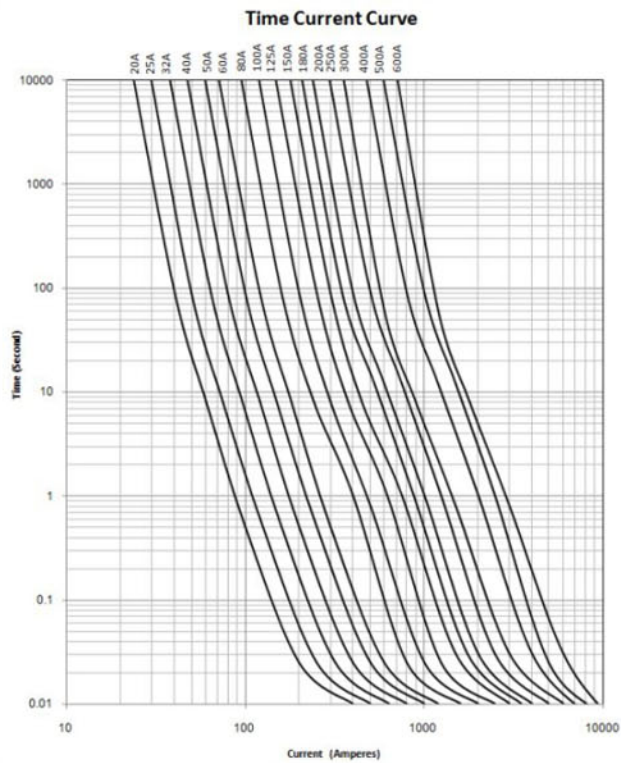
Twins
AE0xxxxc02



TIME VS CURRENT CHARACTERISTIC

Rated Current	110%	200%	300%	500%
20~600A	>4H	1~300s	0.2~30s	0.1~10s

TIME CURRENT CURVE



AE1 EV Fuse



FEATURES:

- Rated Voltage: 150/500/700VDC
- Rated Current: 5~400A
- Max. Breaking Capacity: 10 KA
- 150/500/700VDC ideal for EV or HEV application
- General purpose fuse for EV/HEV, e-Bus and charging stations
- Special designed fuse base for automotive use

ELECTRICAL SPECIFICATIONS

Type	Part Number	Rated Current (A)	Rated Voltage (VDC)	Breaking Capacity	Typical Voltage Drop (mV)	Typical Power loss (W)		
Single	AE13250c0x	50	150	10kA	125	6.2		
	AE12800c0x	80			115	9.2		
	AE13100c0x	100			110	11		
	AE13125c0x	125			105	13		
	AE13150c0x	150			115	17.2		
	AE13180c0x	180			110	19.8		
	AE13200c0x	200			80	16		
	AE13225c0x	250			88	22		
Twins	AE13300c0x	300					95	28.5
	AE13350c0x	350					105	37
	AE13400c0x	400			110	44		

Type	Part Number	Rated Current (A)	Rated Voltage (VDC)	Breaking Capacity	I ² T (A ² S)
Single	AE1215060x	15	500	10KA	340
	AE1220060x	20			800
	AE1225060x	25			1250
	AE1232060x	32			1500
	AE1235060x	35			1800
	AE1240060x	40			3200
	AE1250060x	50			6250
	AE1260x60x	60			9000
	AE1270060x	70			12250
	AE1280060x	80			16000
	AE1310060x	100			25000

Type	Part Number	Rated Current (A)	Rated Voltage (VDC)	Breaking Capacity	I ² T (A ² S)
Single	AE1312560x	125	500	6KA	39000
	AE1315060x	150			56250
Twins	AE1315060x	150		10KA	59500
	AE1317560x	175			89000
	AE1320060x	200			120000
	AE1322560x	225			150000
	AE1325060x	250			187500

Note:

(1)Percentage of change in fuse current carry capability, Change in ambient temperature.

(2)Temperature Rise: <=75K with rated current(single only); <=45K with 60% of rated current.

Type	Part Number	Rated Current (A)	Rated Voltage (VDC)	Breaking Capacity	I ² T (A ² S)
Single	AE11500i0x	5	700	10KA	37.5
	AE11800i0x	8			96.0
	AE12100i0x	10			150
	AE12150i0x	15			330
	AE12200i0x	20			400
	AE12250i0x	25			625
	AE12320i0x	32			1000
	AE12400i0x	40			1600
	AE12500i0x	50			2500
	AE1260xi0x	60			3500
Twins	AE12800i0x	80			5800
	AE12900i0x	90			7300
	AE13100i0x	100			9100
	AE13125i0x	125			14500
	AE13150i0x	150			20000

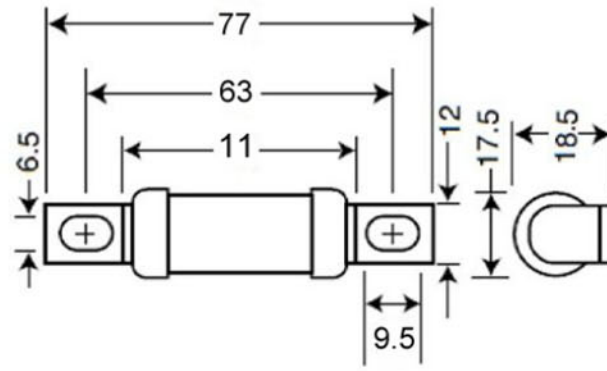
Note:

(1) Percentage of change in fuse current carry capability, Change in ambient temperature: -0.13%/°C

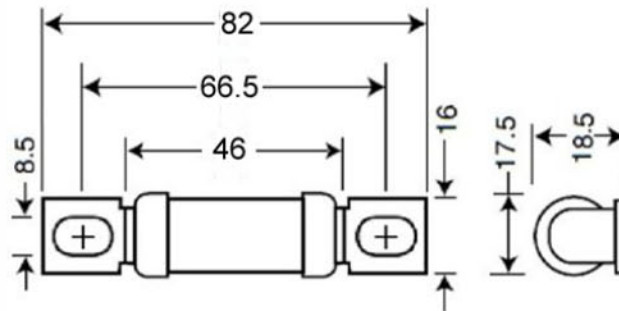
(2) Temperature Rise: <=75K with rated current; <45K with 60% of rated current

DIMENSIONS (mm)

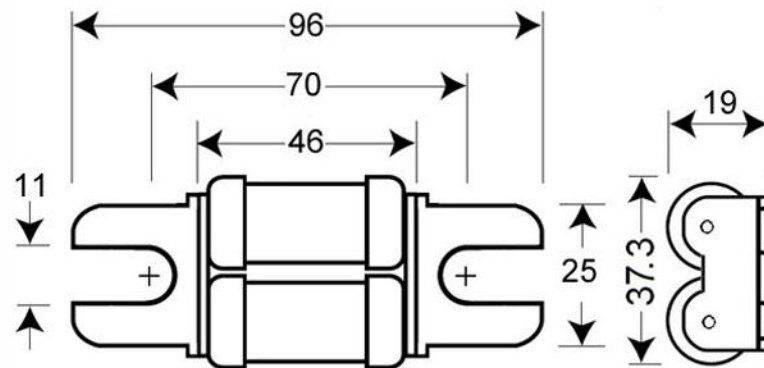
Single
AE1xxxxx00



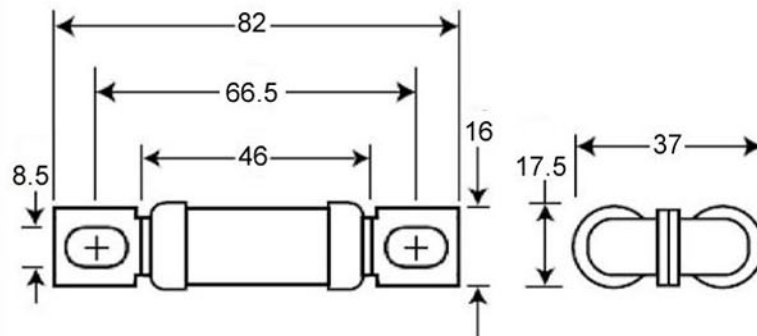
Single
AE1xxxxx01



Twins
AE1xxxxx02



Twins
AE1xxxxx03

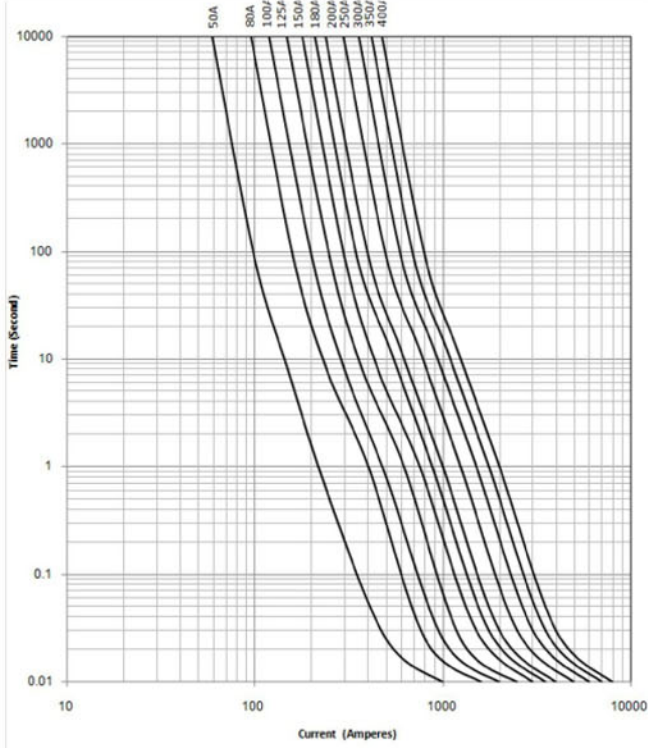


TIME VS CURRENT CHARACTERISTIC

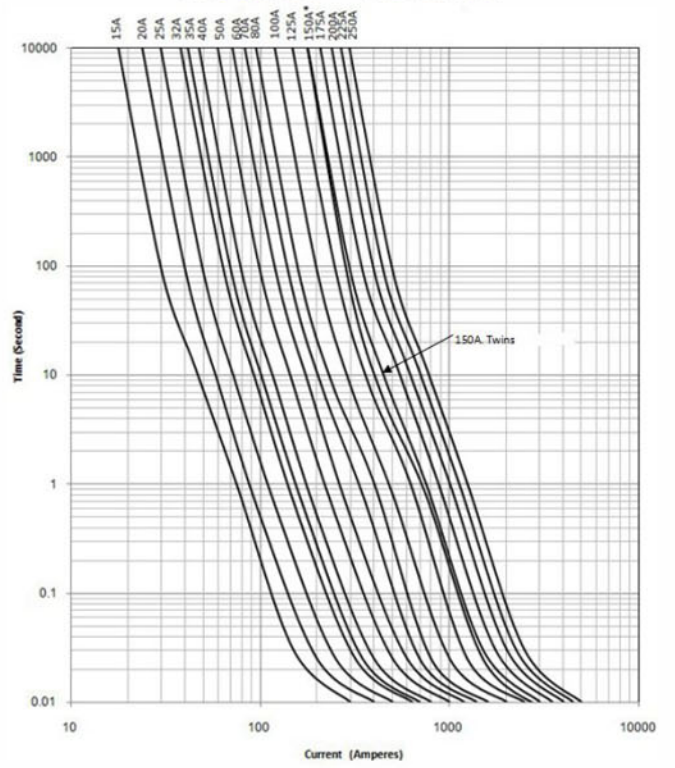
Rated Current	110%	200%	300%	500%
5~400A	>4H	1~300s	0.2~30s	0.1~10s

TIME CURRENT CURVE

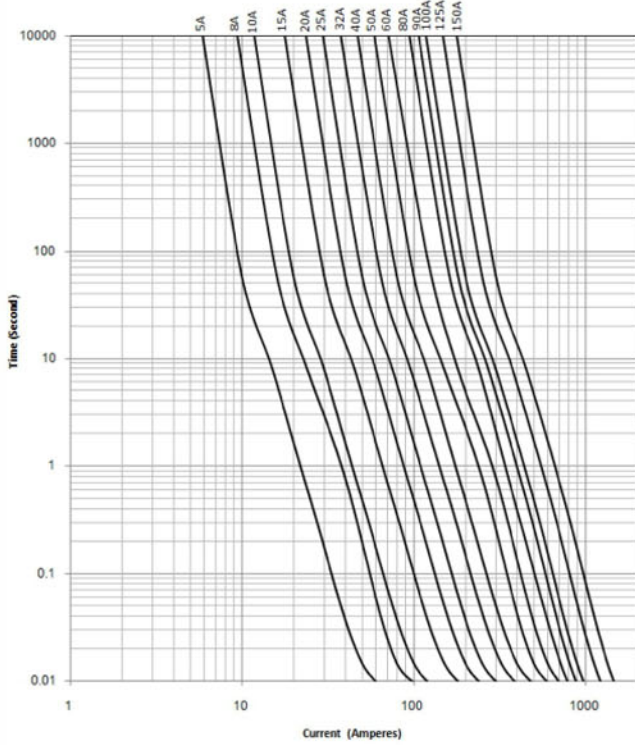
Time Current with AE1xxxx0x



Time Current with AE1xxxx60x



Time Current with AE1xxxxi0x



AE2 EV Fuse



FEATURES:

- Rated Voltage: 500/700 VDC
- Rated Current: 5~40A
- MAX. Breaking Capacity: 10 kA
- General purpose fuse for EV/HEV, e-Bus and charging stations
- Special designed fuse base for automotive use

ELECTRICAL SPECIFICATIONS

Part Number	Rated Current (A)	Rated Voltage (VDC)	Breaking Capacity
AE21500Y0x	5	500 / 700	6KA/500VDC, 10KA/700VDC
AE21600Y0x	6		
AE21800Y0x	8		
AE22100Y0x	10		
AE22150Y0x	15		
AE22200Y0x	20		
AE22250Y0x	25		
AE22300Y0x	30		
AE22350Y0x	35	500	
AE22400Y0x	40		

Note:

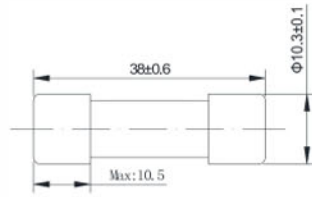
(1) Percentage of change in fuse current carry capability, Change in ambient temperature: -0.13%/°C

(2) Temperature Rise: ≤75K with rated current ; ≤45K with 60% of rated current

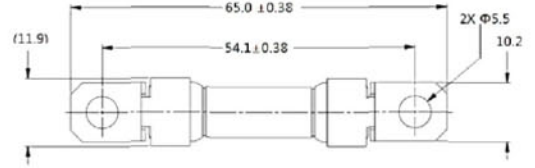
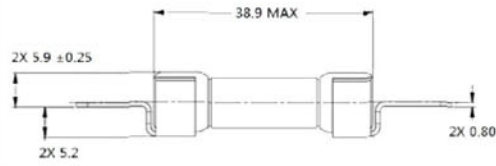
(3) Y: represent rated voltage, 6: 500V, i: 700V

DIMENSIONS (mm)

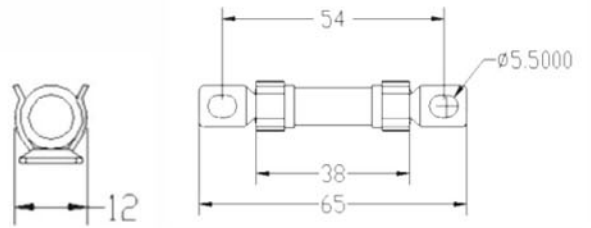
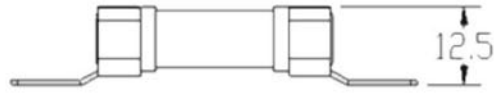
AE2xxxxx00



AE2xxxxx01



AE2xxxxx02

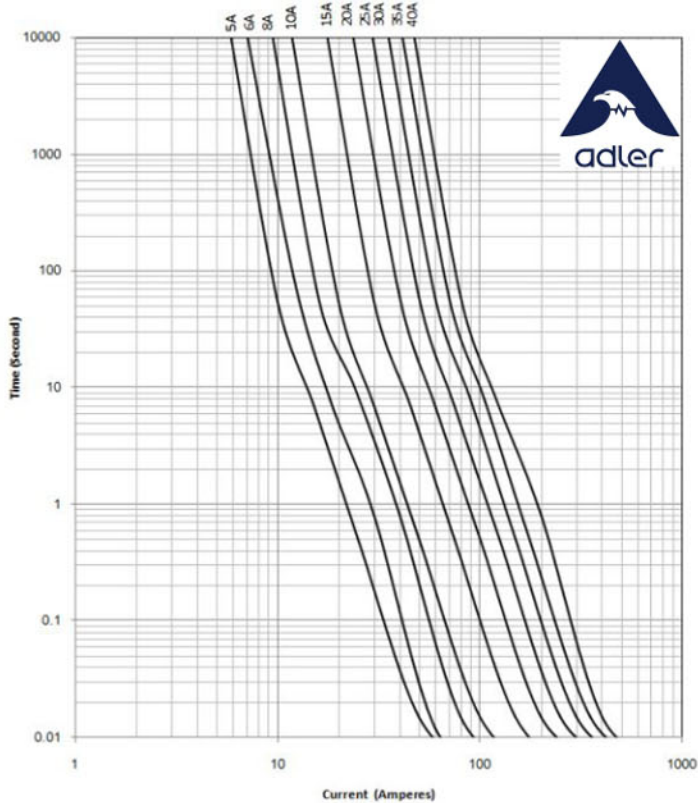


TIME VS CURRENT CHARACTERISTIC

Rated Current	110%	200%	300%	500%
5~40A	>4H	1~300s	0.2~30s	0.1~10s

TIME CURRENT CURVE

Time Current with AE2xxxx60x



AE3 EV Fuse



FEATURES:

- Rated Voltage: 500 VDC
- Rated Current: 60~250A
- Rated Breaking Capacity: 10 kA
- General purpose fuse for EV/HEV, e-Bus and charging stations
- Special designed fuse base for automotive use

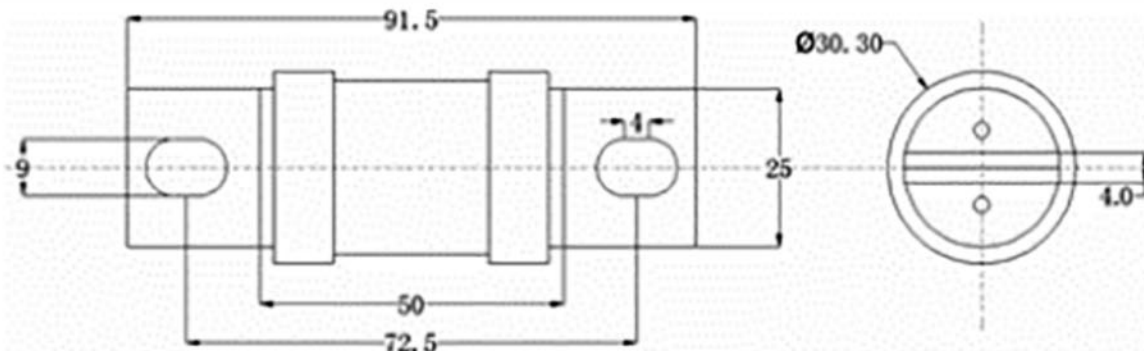
ELECTRICAL SPECIFICATIONS

Type	Part Number	Rated Current (A)	Rated Voltage (VDC)	Breaking Capacity	I ² T (A ² S)
Single	AE31600600	60	500	10KA	4800
	AE31700600	70			6550
	AE31800600	80			8450
	AE31900600	90			10500
	AE32100600	100			12050
	AE32150600	125			19500
	AE32150600	150			31000
	AE32175600	175			40000
	AE33200600	200			52000
	AE32150600	250			75000

Note:

- (1) Percentage of change in fuse current carry capability, Change in ambient temperature: -0.13%/°C
- (2) Temperature Rise: ≤75K with rated current; ≤45K with 60% of rated current

DIMENSIONS (mm)

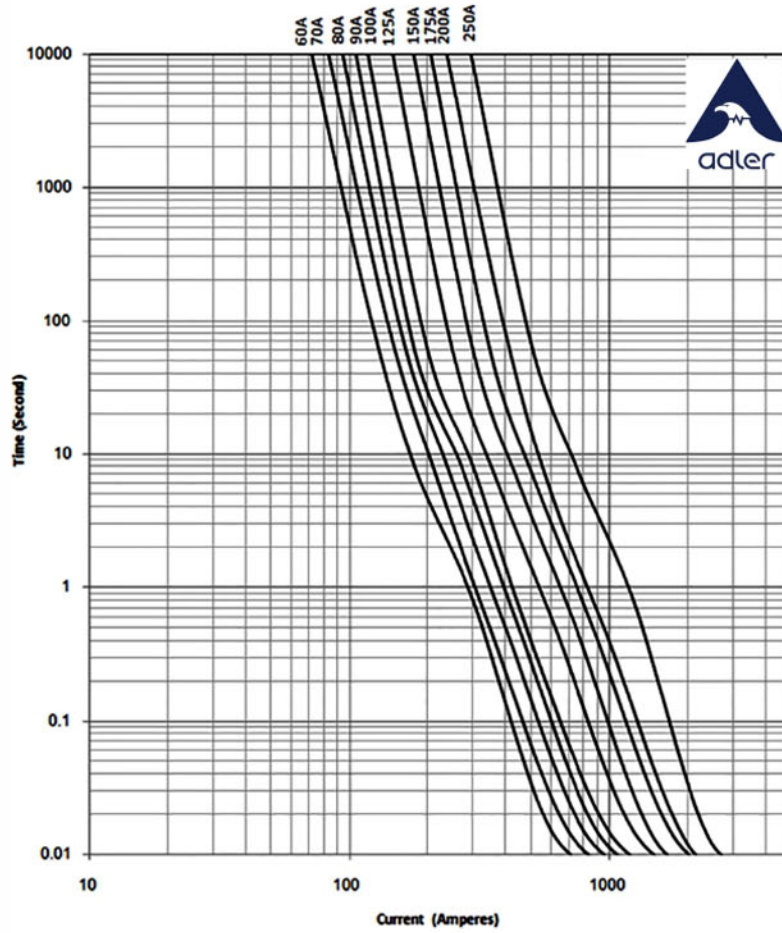


TIME VS CURRENT CHARACTERISTIC

Part Number	Rated Current	100%	110%	200%	300%	500%
AE3xxxx600	60~250A	-	>4H	1~300s	0.2~30s	0.1~10s

TIME CURRENT CURVE

Time Current with AE2xxxx60x



AE6 EV Fuse



FEATURES:

- Rated Voltage: 500 VDC
- Rated Current: 200~600A
- Rated Breaking Capacity: 10 kA
- 500VDC ideal for EV or HEV application
- General purpose fuse for EV/HEV, e-Bus and charging stations
- Special designed fuse base for automotive use

ELECTRICAL SPECIFICATIONS

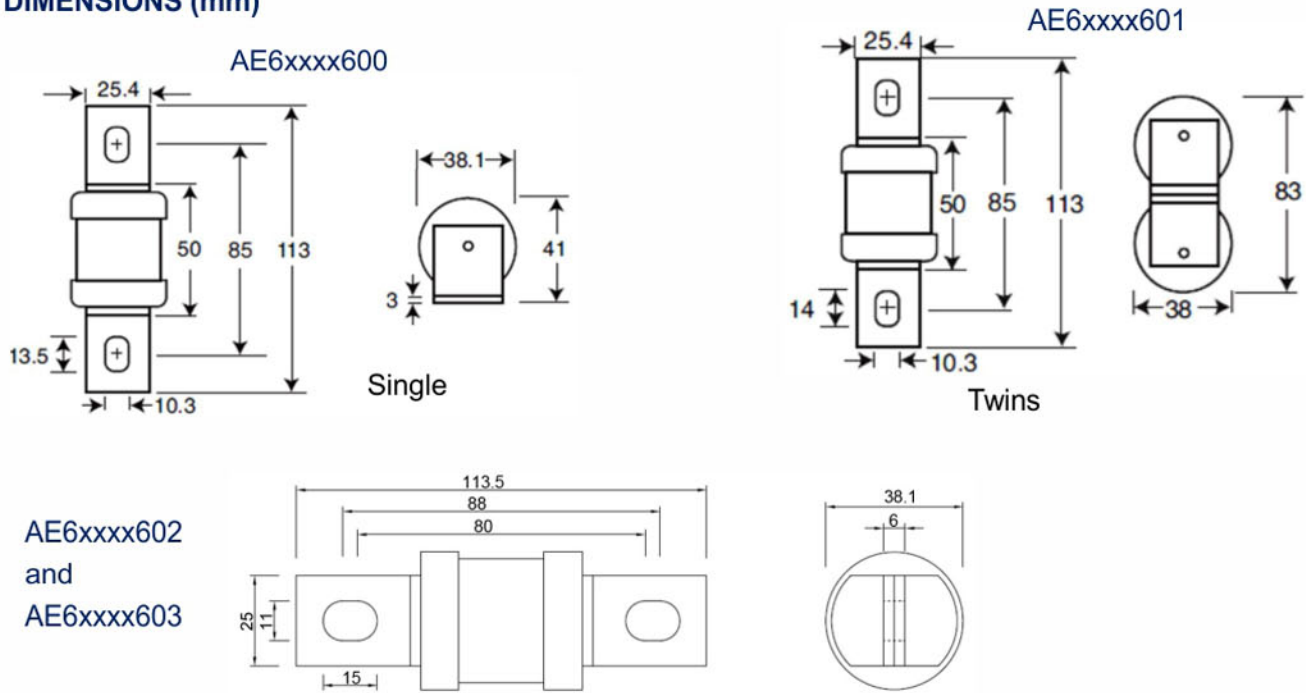
Type	Part Number	Rated Current (A)	Rated Voltage (VDC)	Breaking Capacity	Typical Voltage drop (mV)	Max. Power loss (W)
Single	AE63200600	200	500	10KA	180.0	36
	AE63225600	225			173.3	39
	AE63250600	250			164.0	41
	AE63300600	300			150.0	45
	AE63350600	350			142.9	50
	AE63400600	400			132.5	53
Twins	AE63450601	450			144.4	65
	AE63500601	500			168.0	84
	AE63600601	600			180.0	108
Single	AE63200602	200			180.0	36
	AE63250602	250			164.0	41
	AE63300602	300			150.0	45
	AE63350602	350	142.9	50		
	AE63400602	400	132.5	53		
Single	AE63200603	500	168.0	84		

Note:

(1) Percentage of change in fuse current carry capability, Change in ambient temperature: $-0.13\%/^{\circ}\text{C}$

(2) Temperature Rise: $<45\text{K}$ with 50% of rated current

DIMENSIONS (mm)

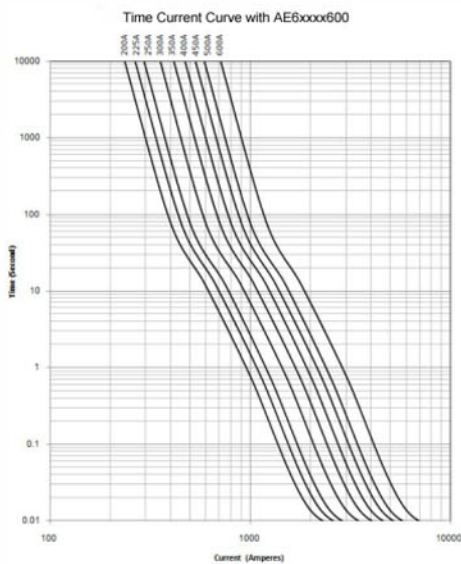


TIME VS CURRENT CHARACTERISTIC

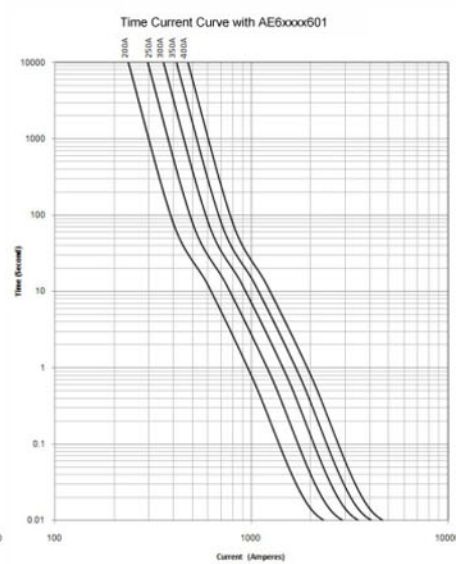
Part Number	Rated Current	100%	110%	200%	300%	500%
AE6xxx600 & AE6xxx601	200~600A	-	>4H	1~300s	0.2~30s	0.1~10s
AE6xxx602	200A~400A	-	>4H	1~300s	0.2~30s	0.1~10s
AE6xxx603	500A	>1H	-	-	-	-

TIME CURRENT CURVE

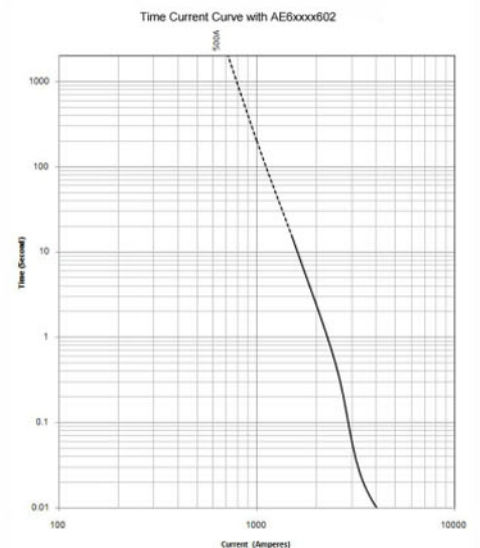
Time Current with AE6xxx600&AE6xxx601



Time Current with AE6xxx602



Time Current with AE6xxx603



AE7 EV Fuse



FEATURES:

- Rated Voltage: 700 VDC
- Rated Current: 125~700A
- Rated Breaking Capacity: 10 kA
- 700VDC ideal for EV or HEV application
- General purpose fuse for EV/HEV, e-Bus and charging stations
- Special designed fuse base for automotive use

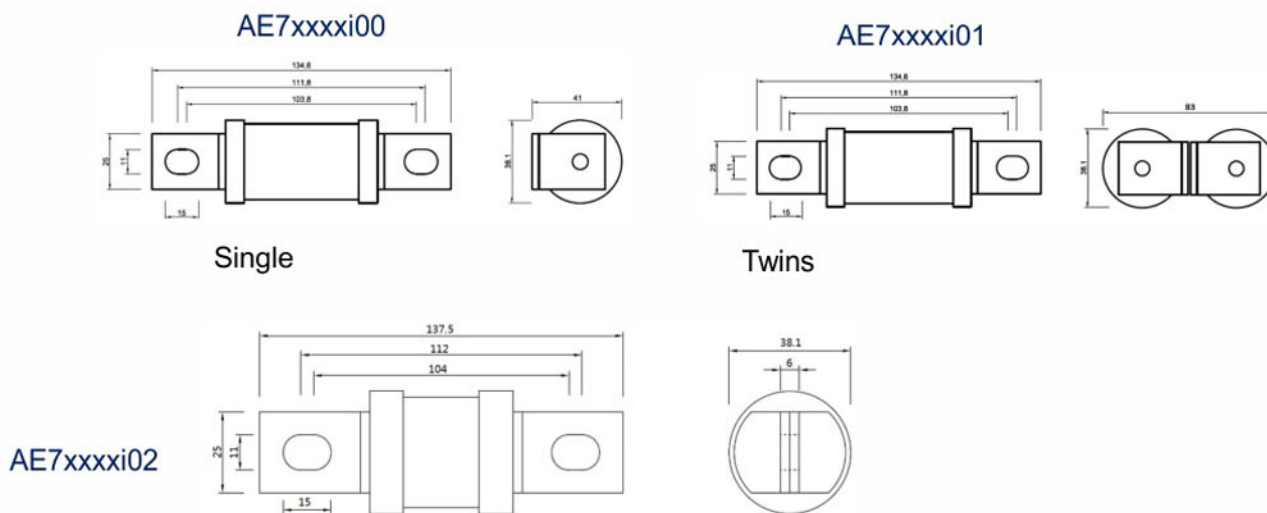
ELECTRICAL SPECIFICATIONS

Type	Part Number	Rated Current (A)	Rated Voltage (VDC)	Breaking Capacity	Typical Voltage drop (mV)	Typical Power loss (W)
Single	AE73125f00	125	700	10KA	184.0	23
	AE73150f00	150			206.7	31
	AE73175f00	175			211.4	37
	AE73200f00	200			215.0	43
	AE73225f00	225			200.0	45
	AE73250f00	250			200.0	50
	AE73300f00	300			200.0	60
	AE73350f00	350			185.7	65
	AE73400f00	400			195.0	78
Twins	AE73450f01	450			182.2	82
	AE73500f01	500			180.0	90
	AE73600f01	600			175.0	105
	AE73700f01	700			157.1	110
Single	AE73125f02	125			184.0	23
	AE73150f02	150			206.7	31
	AE73175f02	175			211.4	37
	AE73200f02	200			215.0	43
	AE73250f02	250	200.0	50		
	AE73300f02	300	200.0	60		
	AE73350f02	350	185.7	65		
	AE73400f02	400	195.0	78		

Note:

- (1) Percentage of change in fuse current carry capability, Change in ambient temperature: $-0.13\%/^{\circ}\text{C}$
- (2) Temperature Rise: $<45\text{K}$ with 50% of rated current

DIMENSIONS (mm)

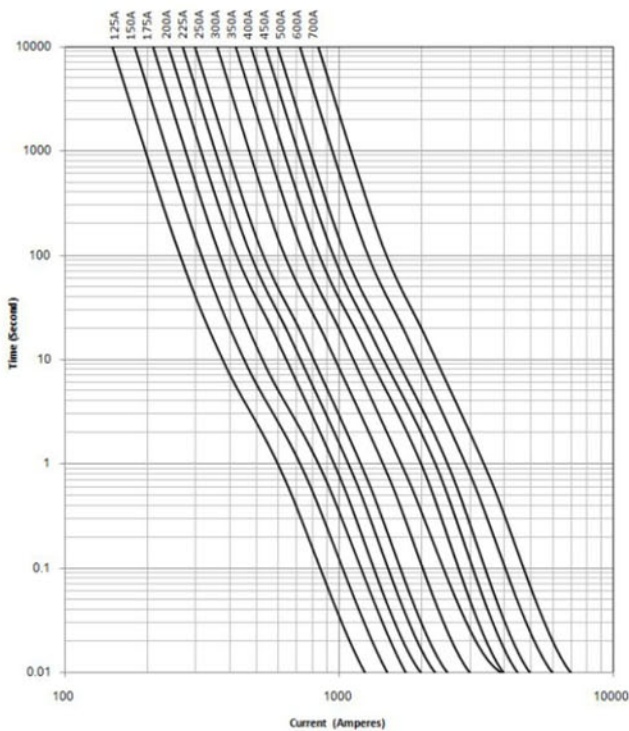


TIME VS CURRENT CHARACTERISTIC

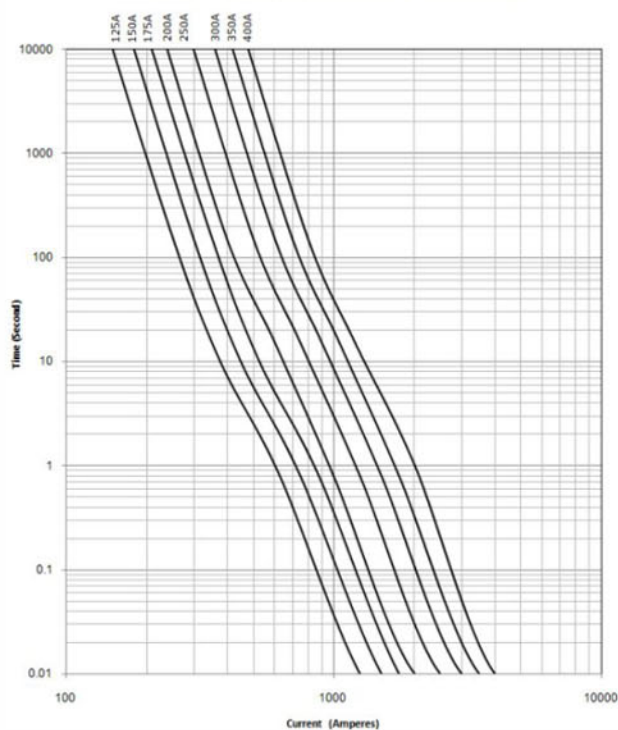
Rated Current	110%	200%	300%	500%
125A~700A	>4H	1~300s	0.2~30s	0.1~10s

TIME CURRENT CURVE

Time Current with AE7xxxxi00&AE7xxxxi01



Time Current with AE7xxxxi02



AE8 EV Fuse

FEATURES:

- Rated Voltage: 800 VDC
- Rated Current: 200~400A
- Rated Breaking Capacity: 10 kA
- 800VDC ideal for EV or HEV application
- Fast Acting fuse for EV/HEV, e-Bus and charging stations
- Special designed fuse base for automotive use



ELECTRICAL SPECIFICATIONS

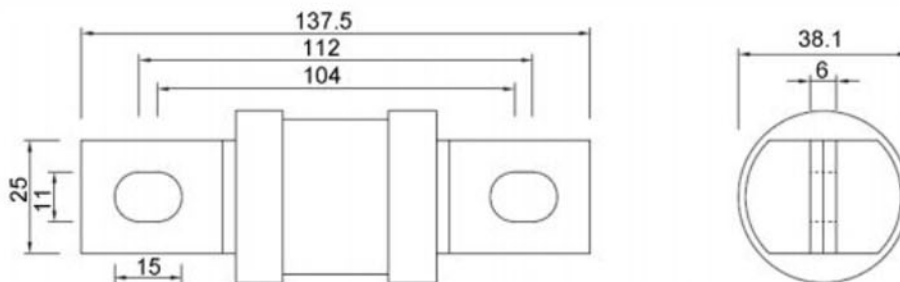
Part Number	Rated Current (A)	Rated Voltage (VDC)	Breaking Capacity	Max. Power loss (W)
AE83200j01	200	800	10KA	35
AE83250j01	250			45
AE83300j01	300			60
AE83350j01	350			65
AE83400j01	400			78

Note:

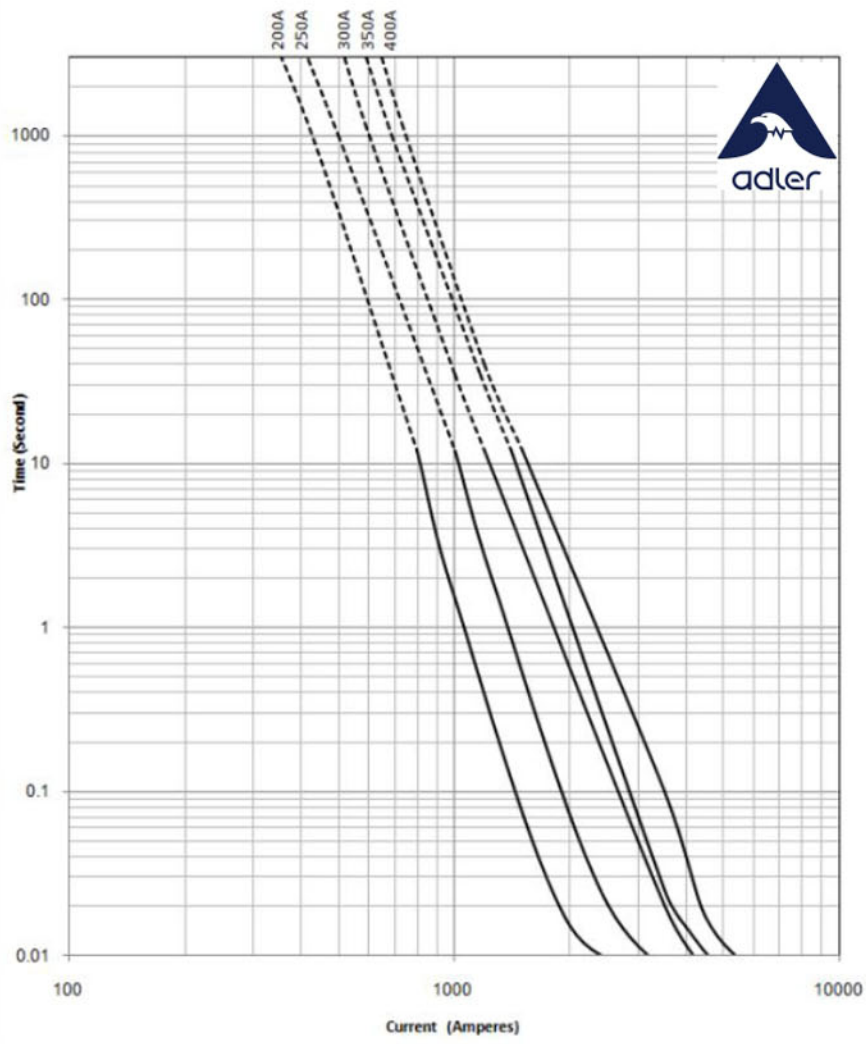
(1) Temperature Rise: <45K with 50% of rated current

DIMENSIONS (mm)

AE8xxxj01



TIME CURRENT CURVE



AE9 EV Fuse



FEATURES:

- Rated Voltage: 700VDC
- Rated Current: 5~100A
- Rated Breaking Capacity: 10 KA
- 700VDC ideal for EV or HEV application
- General purpose fuse for EV/HEV, e-Bus and charging stations
- Special designed fuse base for automotive use

ELECTRICAL SPECIFICATIONS

Type	Part Number	Rated Current (A)	Rated Voltage (VDC)	Breaking Capacity	I ² T (A ² S)
Single	AE91500i00	5	700	10KA	37.5
	AE91800i00	8			96.0
	AE92100i00	10			150
	AE92150i00	15			330
	AE92200i00	20			400
	AE92250i00	25			625
	AE92320i00	32			1000
	AE92400i00	40			1600
	AE92500i00	50			2500
Twins	AE92600i00	60			4000
	AE92800i00	80			8900
	AE93100i00	100			12000

Note:

(1) Percentage of change in fuse current carry capability, Change in ambient temperature: -0.13%/°C

(2) Temperature Rise: <45K with 60% of rated current

AEA EV Fuse



FEATURES:

- Rated Voltage: 700VDC / 800 VDC
- Rated Current: 50~600A
- Rated Breaking Capacity: 10 kA
- General purpose fuse for EV/HEV, e-Bus and charging stations
- Special designed fuse base for automotive use

ELECTRICAL SPECIFICATIONS

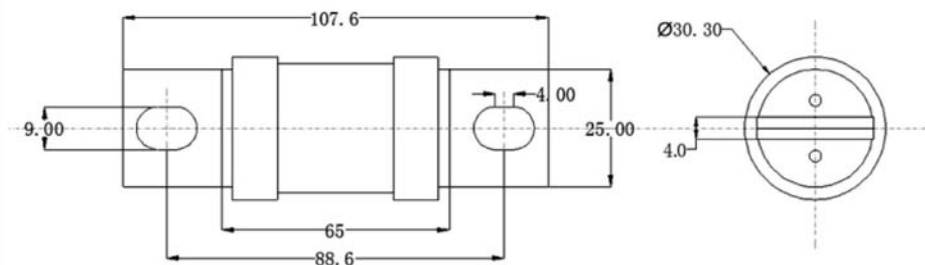
Type	Part Number	Rated Current (A)	Rated Voltage (VDC)	Breaking Capacity	I ² T (A ² S)
Single	AEA2500i00	50	700	10kA	3200
	AEA2600i00	60			5040
	AEA2700i00	70			6860
	AEA2800i00	80			8960
	AEA2900i00	90			11340
	AEA3100i00	100			14000
	AEA3125i00	125			23000
	AEA3150i00	150			31000
	AEA3175i00	175			40000
	AEA2500i00	200			52000
Single	AEA2600j00	60	800	10kA	4280
	AEA2700j00	70			5830
	AEA2800j00	80			7620
	AEA2900j00	90			9650
	AEA3100j00	100			11900
	AEA3125j00	125			16550
	AEA3150j00	150			24350
Twins	AEA3500i01	500	700	10kA	300000
	AEA3600i01	600			360000

Note:

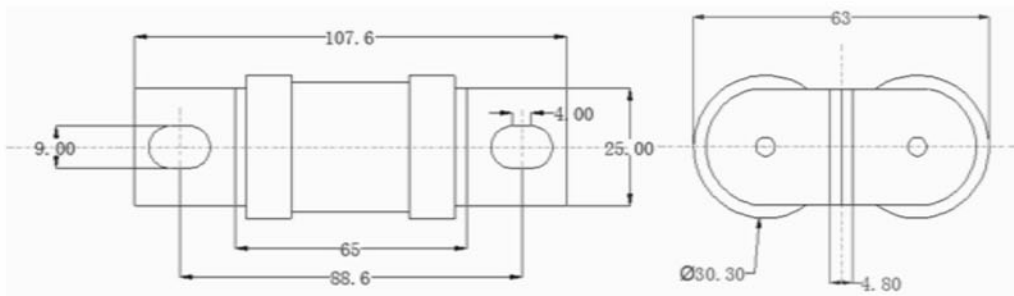
- (1) Percentage of change in fuse current carry capability, Change in ambient temperature: -0.13%/°C.
- (2) Temperature Rise: <=75K with rated current; <45K with 60% of rated current(only 700VDC twins).

DIMENSIONS (mm)

AEAxxxi00



AEAxxxi02

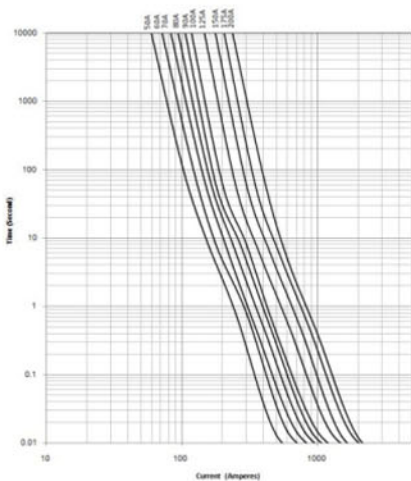


TIME VS CURRENT CHARACTERISTIC

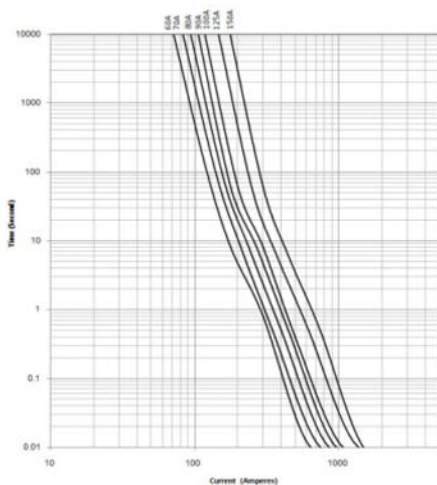
Rated Current	110%	200%	300%	500%
50~600A	>4H	1~300s	0.2~30s	0.1~10s

TIME CURRENT CURVE

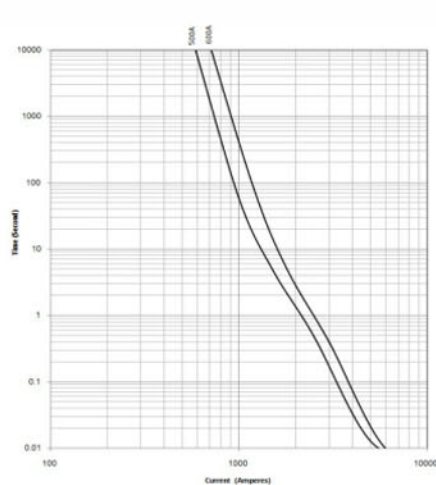
Time Current with AEAxxx00



Time Current curve with AEAxxx00



Time Current curve with AEAxxx01



AEB EV Fuse



FEATURES:

- Rated Voltage: 750 VDC
- Rated Current: 150~250A
- Rated Breaking Capacity: 50 kA
- Fast Acting fuse for EV/HEV, e-Bus and charging stations
- Special designed fuse base for automotive use

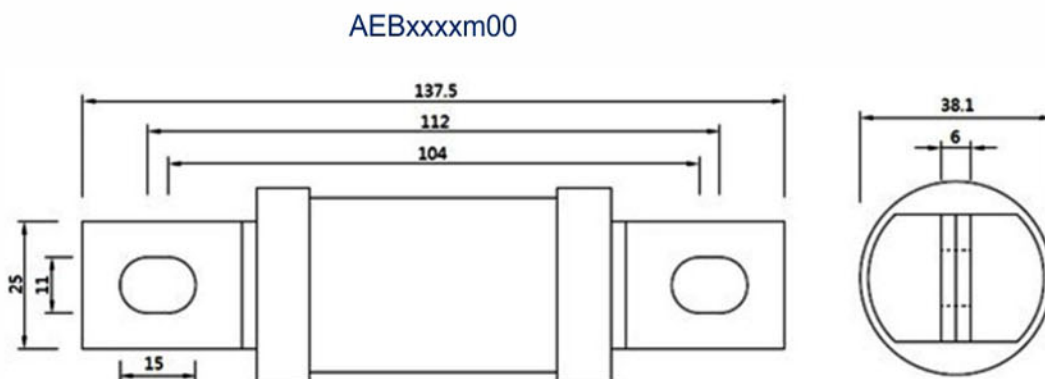
ELECTRICAL SPECIFICATIONS

Part Number	Rated Current (A)	Rated Voltage (VDC)	Breaking Capacity	Max. Power loss (W)
AEB3150m00	150	750	50KA	37
AEB3175m00	175			40
AEB3200m00	200			45
AEB3250m00	250			55

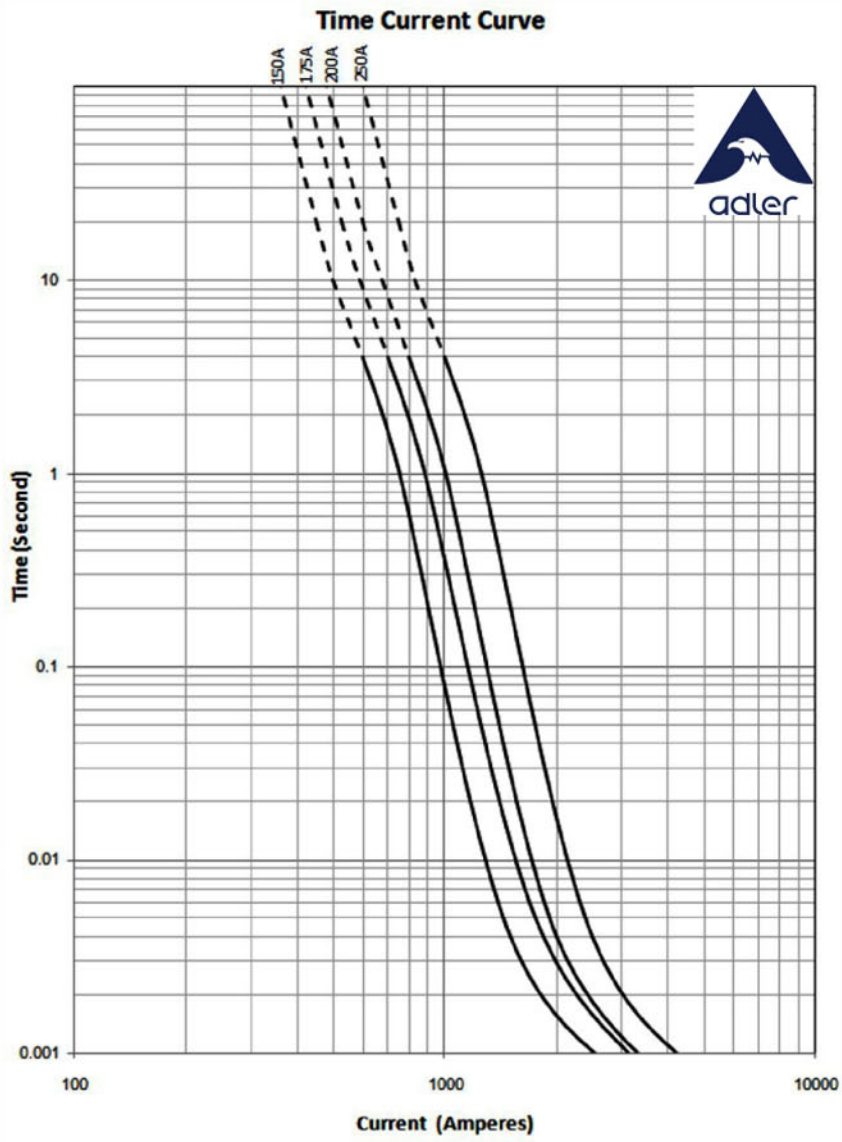
Note:

(1) Temperature Rise: <45K with 50% of rated current

DIMENSIONS (mm)



TIME CURRENT CURVE



AEC EV Fuse



FEATURES:

- Rated Voltage: 700V AC
- Rated Current: 200~500A
- Rated Breaking Capacity: 100 kA
- Fast Acting fuse for EV/HEV, HV Connectors, e-Bus and charging stations
- Special designed fuse base for automotive use
- Flush end contact mounting

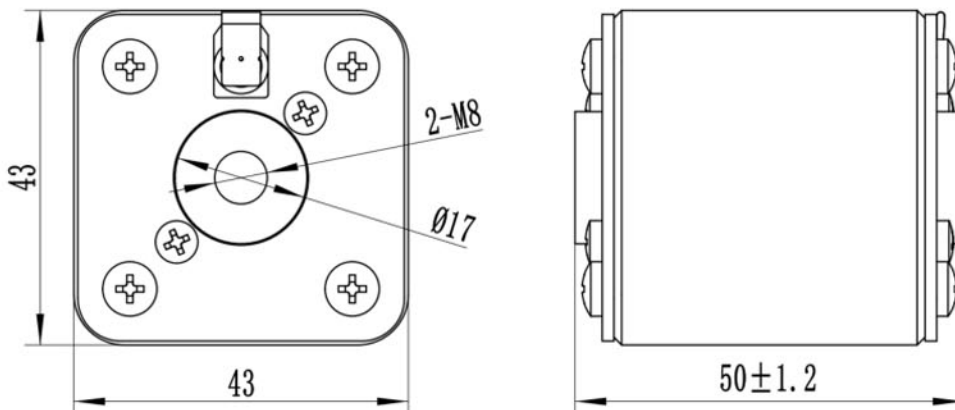
ELECTRICAL SPECIFICATIONS

Part Number	Rated Current (A)	Rated Voltage (VDC)	Breaking Capacity	Max. Power loss (W)
AEC3200i00	200	700	100KA	80
AEC3250i00	250			80
AEC3315i00	315			80
AEC3350i00	350			80
AEC3400i00	400			80
AEC3450i00	450			80
AEC3500i00	500			80

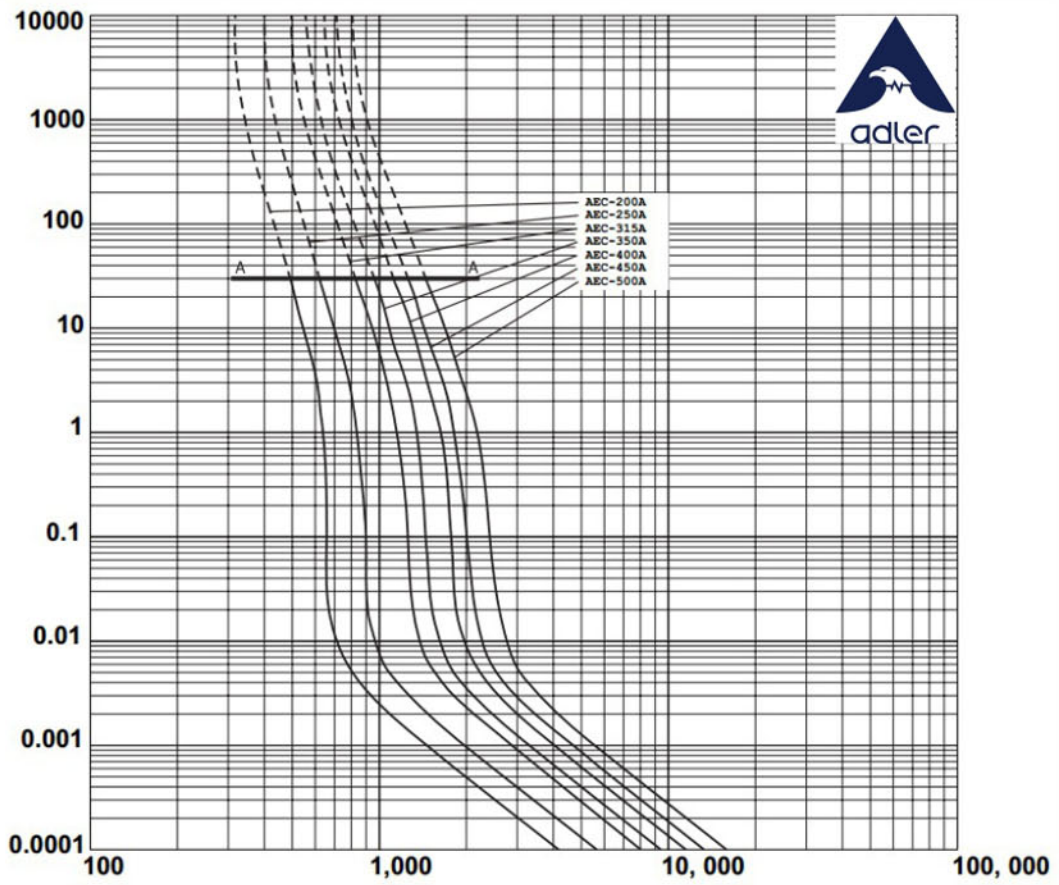
Note:

(1) Temperature Rise: <80K at 50% of rated current

DIMENSIONS (mm)



TIME CURRENT CURVE



AED EV Fuse



FEATURES:

- Rated Voltage: 500V DC
- Rated Current: 225~400A
- Rated Breaking Capacity: 20 kA
- Fast Acting fuse for EV/HEV, power distribution units and charging stations
- Special designed fuse base for automotive use
- Flush end contact mounting

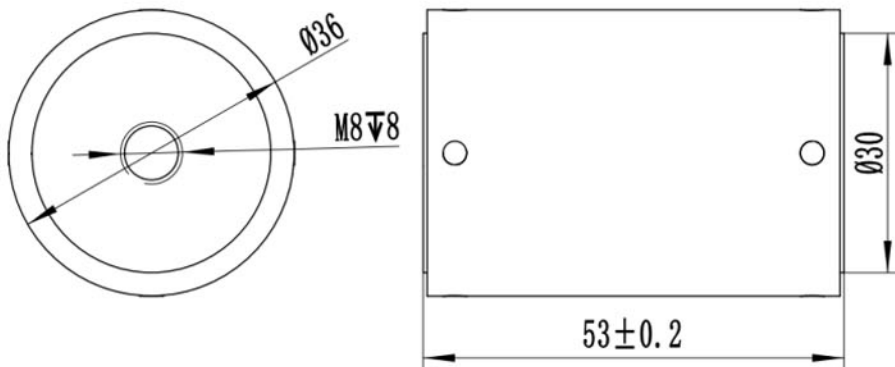
ELECTRICAL SPECIFICATIONS

Part Number	Rated Current (A)	Rated Voltage (VDC)	Breaking Capacity	Max. Power loss (W)
AED3225600	225	500	20KA	60
AED3250600	250			60
AED3275600	275			60
AED3300600	300			60
AED3250600	325			60
AED3350600	350			60
AED3400600	400			60

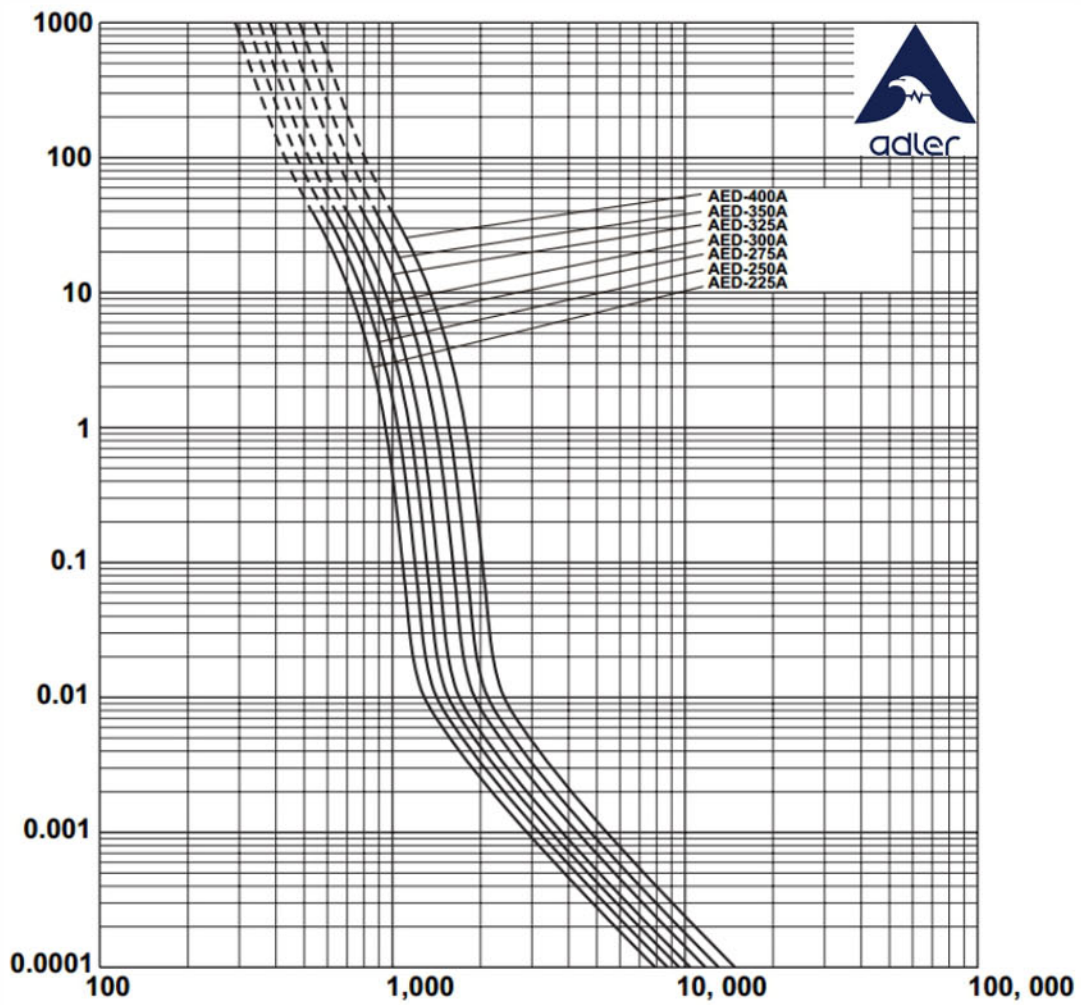
Note:

(1) Temperature Rise: <80K at 50% of rated current

DIMENSIONS (mm)



TIME CURRENT CURVE



BHE01 Holder



FEATURES:

ADLER BHE01 holders are designed for AE1 series fuse.

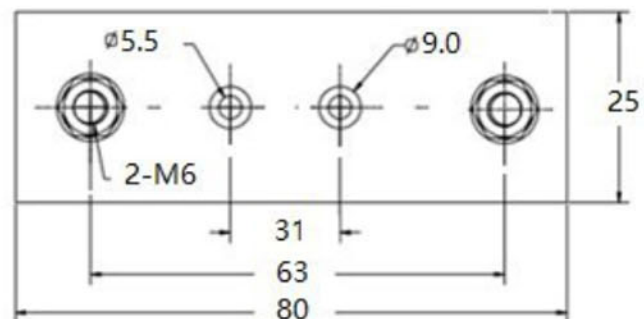
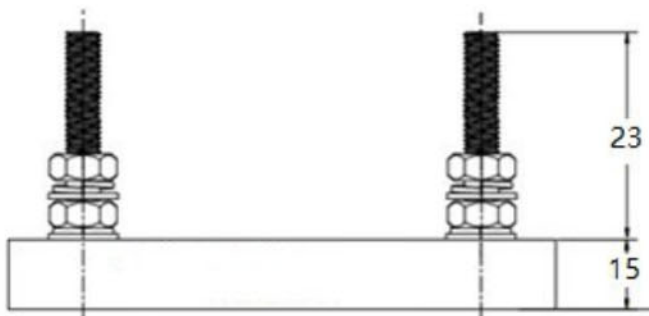
DESCRIPTION:

The BHE01 is suitable for use with automotive equipment, and ADLER AE1 EV fuse links.

SPECIFICATION:

- Rated Voltage: 500V AC/DC
- Max. Current: 700A
- Operating temperature: -40°C ~ +120°C
- Pressure: 13~18KV
- Insulation Board Material:
Phenolic resin laminate
- Insulation Resistance: 50, 000 MΩ
- Metal Material : stainless steel,
carbon steel
- UL-94 Flame retardant grade : 94HB

DIMENSIONS: MM



Note:

- (1)The bolt length 23 can be adjusted according to need.
- (2) The mounting holes distance 31 can be adjusted according to need.

BHE02 Holder



FEATURES:

ADLER BHE02 holders are designed for AE7, AE8, AEB series fuse.

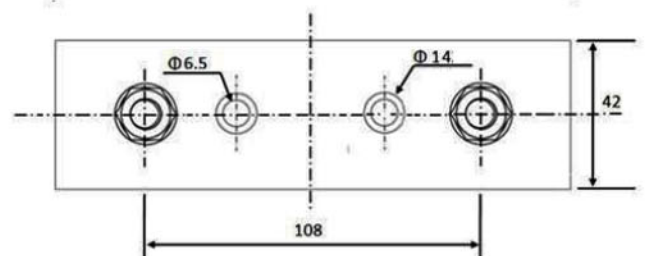
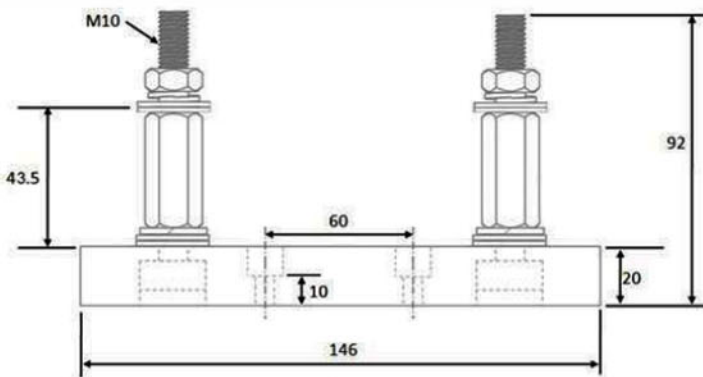
DESCRIPTION:

The BHE02 is suitable for use with automotive equipment, and ADLER AE7, AE8, AEB EV fuse links.

SPECIFICATION:

- Rated Voltage: 1000V AC/DC
- Max. Current: 700A
- Operating temperature: -40°C ~ +120°C
- Pressure: 13~18KV
- Insulation Board Material:
Phenolic resin laminate
- Insulation Resistance: 50,000 MΩ
- Metal Material : stainless steel,
carbon steel
- UL-94 Flame retardant grade : 94HB

DIMENSIONS: MM



Note:

The mounting holes distance 60 can be adjusted according to need.



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