PRODUCT CATALOGUE

AFRICO SOLAR
IMPORTERS & WHOLESALERS

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Solar Energy Accessories

VOLTA

Application

STW-D40 Series Surge Protection Device was designed andmanufactured , complying the standard EN61643-31 , it widely uesdin PV DC combiner box , inverter controller and PV DC cabinet .Rated voltage DC1000V , Maximum discharge current 40KAHigh Energy Varistor , high effective for lightning protection

Feature

Suitable for use in all PV systems
Prewired modular complete unit , consisting of A base part
plug-in protection modules
Plug-in protection module , easily installation and maintainance
High energy varistor , response time less than 25 nanosecond
Optional remote signalling contact (FM) for monitoring device
(Floating changeover contact)
Din rail mounting TH35-7 . 5 / DIN35
Green window will change when fault occurs , also provide
remote alarm terminal
Standard : EN61643-31

Parameter

Electrical Characteristics			
Type			
Pole		2P	3P
Standard		EN61643-31	
Rated Voltage (max continuous a.c. voltage [Ue]		DC800V/DC1000V/DC1200V	
Nominal discharge current (8 / 20) [In]		20KA	
Maximum discharge current (8 / 20) [In]		40KA	
Voltage protection level [Up]		3.2KV/4.0KV/4.4KV	
Response time [TA]		<25ns	
Control and Indication			
Operating State / Fault Indication		Green / Red	
Remote Signalling	Max working voltage(V)	30V DC	
Contact (Optional)	Max working current(A)	1A	
Connection and Installation			
Wire	Hard cabie mm^2	$4mm^2$~$25mm^2$	
	Fiexible cabie mm^2	$4mm^2$~$25mm^2$	
Terminal Screws		M5	
Torque (NM)	Main Circuit	2.5	
	Remote Contact	0.25	
Ingress Protection		IP20	
Installation Environment			
Operating Temperature Range TU		-40°C~85°C	
For Mounting on		TH35-7.5/DIN35	
Relative Humidity		30%~90%	
Weight		0.24kg	0.36kg

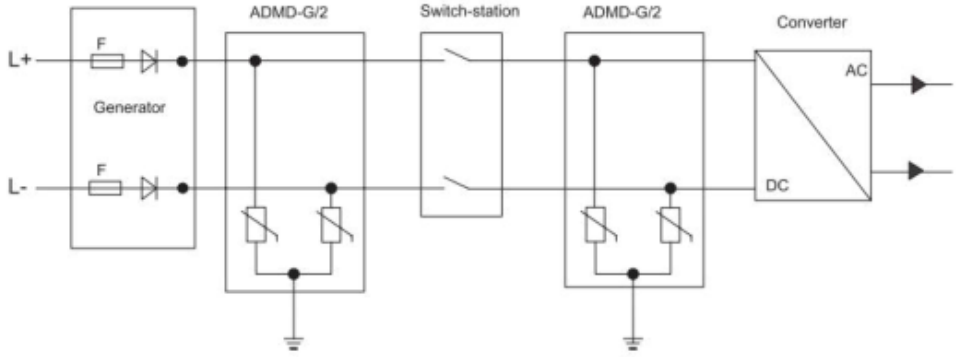
Application

STW-C40 series SPD secondary power surge protectors are designed according to IEC and GB standards. The products with powerful surge release capability, each of the maximum discharge current 10~80kA(8/20μs), applicable to low-voltage distribution system protection at all levels, according to different distribution systems (TT/TN/IT) can choose a variety of combinations.

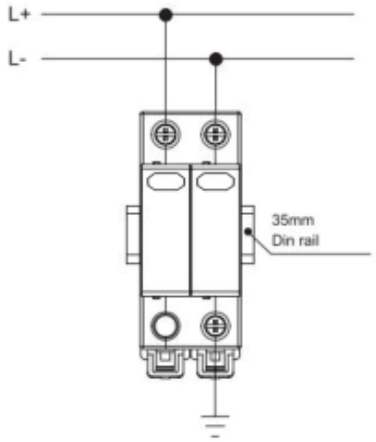
Parameter

Type	STW-C40			
Protection level B,C,D Grade	D,C,B			
Rated Operating Voltage Un(V)	380V/220V			
Max continuous operating voltage Uc/V	275V	320V	385V	385V
Voltage protection level up(KV)	≤1.0	≤1.2	≤1.8	≤2.0
Maximum discharge current Imax(8/20μs)KA	5	10	20	30
Nominal discharge current In(8/20μs)KA	10	20	40	60
Response times	≤25			
Test Standard	IEC61643.1, GB18802.1			
Operating Environment	-40 degree to + 85 degree			
Max Connection Line	35mm2 hard wire/35mm2 strand wire copper line			
Recommended Connection Line	16mm2 hard wire/25mm2 strand wire copper line			
keyword	ac surge protection device			

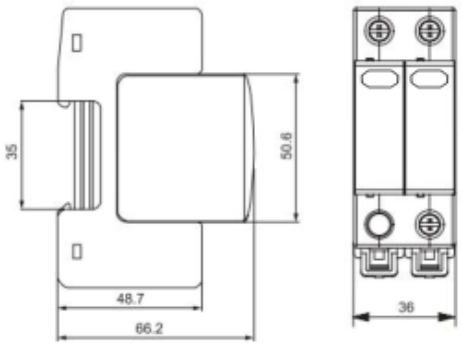
Principal Drawing



Wiring Method



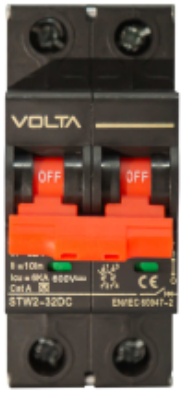
Dimensions(mm)



Scope of application

STW2-63DC series dc circuit breaker is mainly suitable for rated voltage up toand DC1000V , rated current DC 63A and under new energy dc power generation ,storage , custom power system , digital and computer center , communication system , intelligent city (construction , municipal and public facilities) , smart home ,transportation and micro power grid in the areas of low voltage power distribution system .
Conformity to GB / T 14048.2 IEC 60947-2

STW2-63DC series DC miniature circuit breaker are high-performance DC miniature circuit breaker with a single-pole width of 18mm , rated current up to 100A , rated short-circuit breaking capacity up to 10KA , and various technical parameters leading in China.



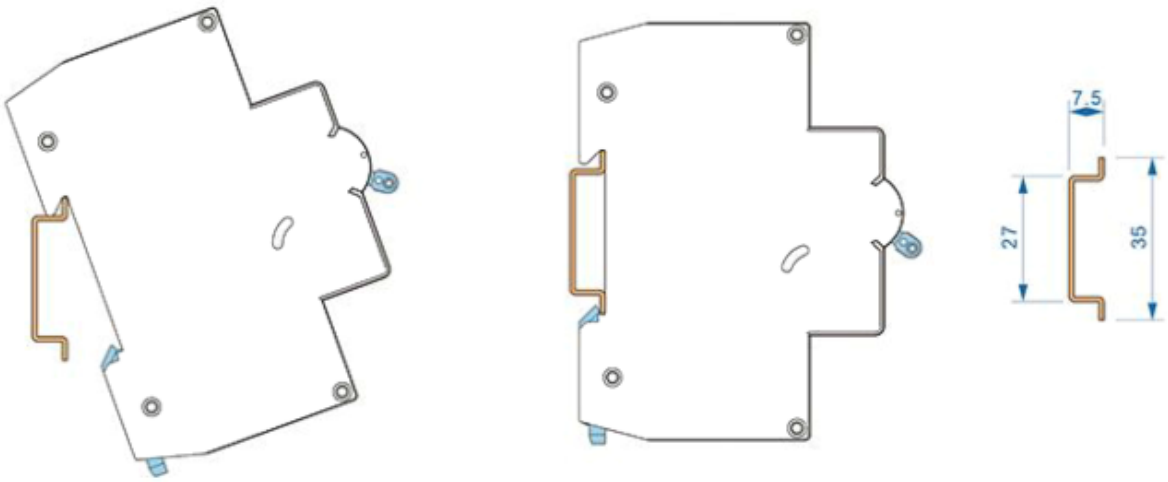
Specifications

STW2 Series circuit breaker	STW2-63DC
Shell frame grade Current(A)	100
Standardards	IEC 60947-2
Rated Insulantion voltage Ui(V)	1000
Rated Impulse Withstand Voltage Uimp（kv）	6
Rated current（A）	16、20、25、32、40、50、63、80、100
Rated voltage	DC250V(1P)、500V(2P)、800V(3P)、1000V(4P)
Electromagnetic trip characteristics	10In+20%
Tripping curves	C : 8in + 20 % D 12in + 20%
Number of poles	1P , 2P , 3P , 4P
Icu	18mm
Ics	10KA
Reference temperature	7.5KA
Unipolar width	30°C
Utilization Category	A
Mechanical life	20000Cycles
Electrical life	2000Cycles
Protection Degree	IP20

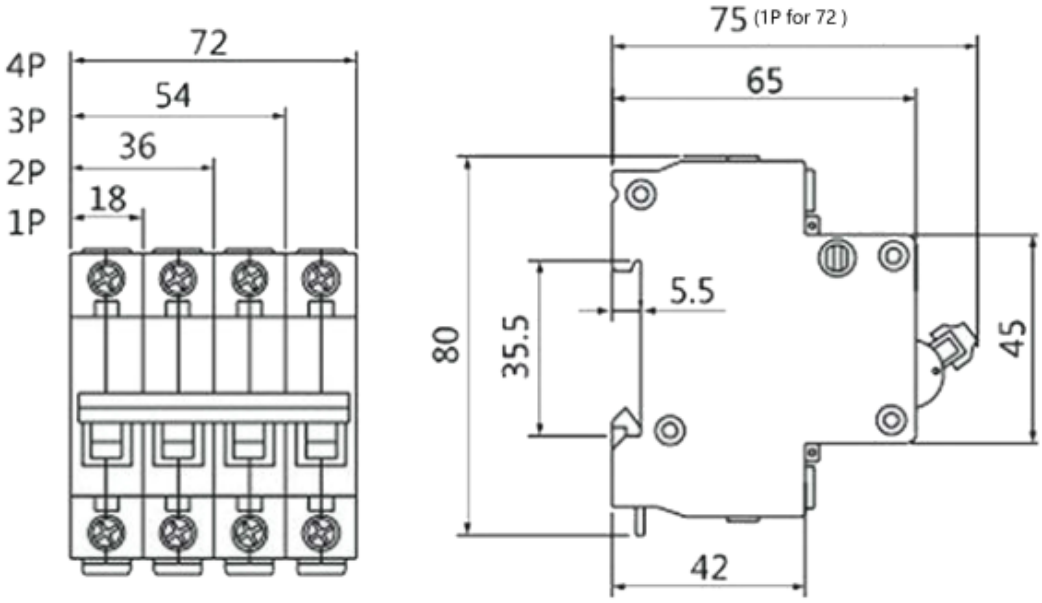
Current trip characteristics

Rated current In(A)	Overload trip feature		Electomagnetic trip action current(A)
	1.05In agreed non-trip time H(cold state)	1.30In agreed trip time H(hot state)	
In≤63	1	1	B(6In±20%) C(6In±20%)
In≥63	2	2	

Mounting



Overall dimensions



Scope of application

STW2-125 series DC miniature circuit breaker have rated working voltageup to 1000V , mainly suitable for overload and short circuit protection of DC power distribution system equipment and electrical equipment with rated current 125A and below , widely used in power , postal , transportation , mining enterprises and various fields , also can be used for infrequent on-off operation . InChina , the shell current and rated short-circuit breaking capacity of our products are the highest in the same category.

STW2-125DC series DC miniature circuit breaker are high-performance DC miniature circuit breaker with a single-pole width of 27mm , rated current up to 125A , rated short-circuit breaking capacity up to 15KA , and various technical parameters leading in China.

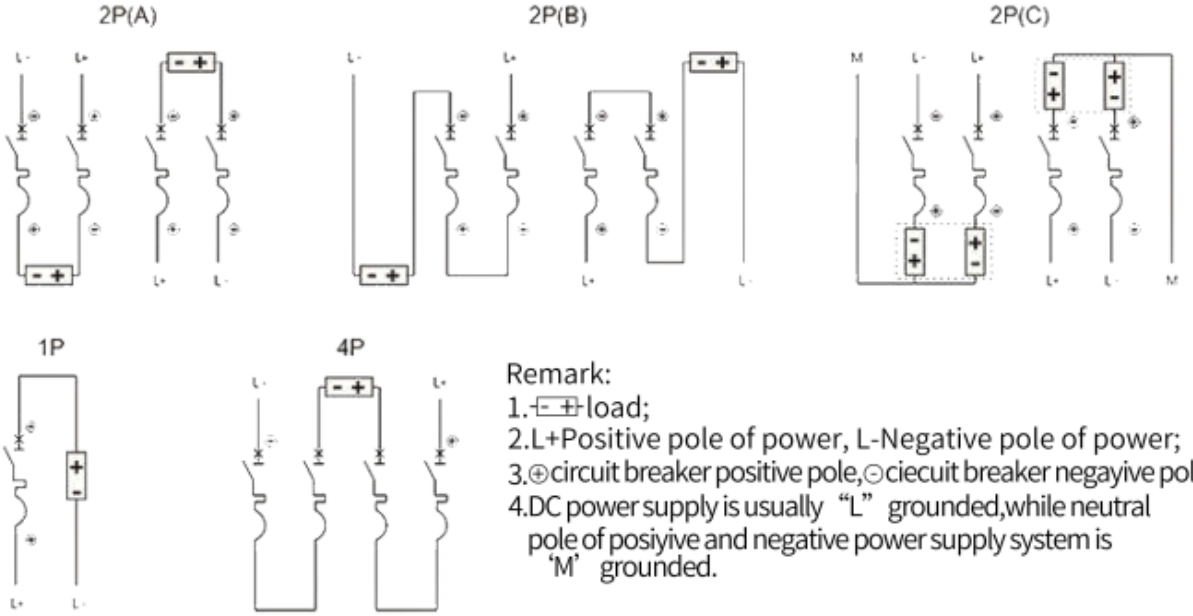
Specifications

STW2 Series circuit breaker	STW2-125DC
Shell frame grade Current (A)	125
Standards	IEC 60947-2
Rated Insulation voltage Ui	1000V
Rated Impulse Withstand Voltage Uimp	6kv
Rated current （A)	32A,40A,50A,63A,80A,100A,125A
Rated voltage	DC250V(1P) , 500V(2P) , 800V(3P),1000V(4P)
Electromagnetic trip characteristics	10In + 20%
Number of poles	1P ,2P,3P,4P
Unipolar width	27mm
Icu	10KA(In≤100A)，15KA(In=125A)
Ics	7.5KA(In≤100A)，10KA（In=125A)
Reference temperature	30°C
Utilization Categpry	A
Mechanical life	20,000 Cycles
Electrical life	2000 Cycles
Protection Degree	IP20

Current trip characteristics

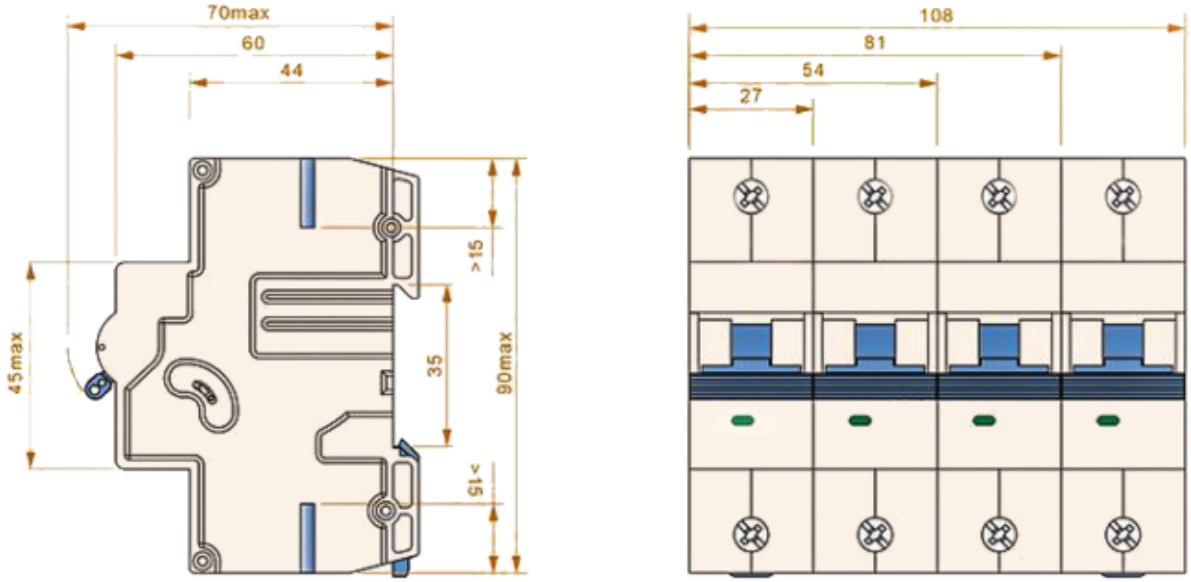
Rated current In(A)	Overload trip feature		Electomagnetic trip action current(A)
	1.05In agreed non-trip time H(cold state)	1.30In agreed trip time H(hot state)	
In≤63	1	1	10In±20%
In≥63	2	2	

Circuit diagram



Remark:
1.⊟load;
2.L+Positive pole of power, L-Negative pole of power;
3.⊕circuit breaker positive pole,⊖ciecuit breaker negayive pole;
4.DC power supply is usually "L" grounded,while neutral pole of posiyive and negative power supply system is 'M' grounded.

Overall dimensions



Scope of application

STW2-63 series miniature circuit breakers have short circuit protection , overload protection , control , isolation and other functions , suitable for ac 50HZ / 60HZ , rated voltage AC240 / 400V , rated current to 63A in industrial , civil construction , energy communication and infrastructure and other fields of low-voltage terminal distribution.

IEC 60898-1 ,GB / T 10963.1

STW2-63 series circuit breakers are characterized by small size , simple structure and high reliability , and can be equipped with auxiliary contact , alarm contact .shunt trip , undervoltage trip , overvoltage trip , over-voltage trip and other accessories , among which the auxiliary and alarm width is 9mm , while the width of other accessories is 18mm.

STW2-63AC series min iature circuit breakers are high-performance smallcircuit breakers with a single-pole width of 18mm , rated current up to100A , rated short-circuit breaking capacity up to 10KA , and various indusry-leading technical parameters

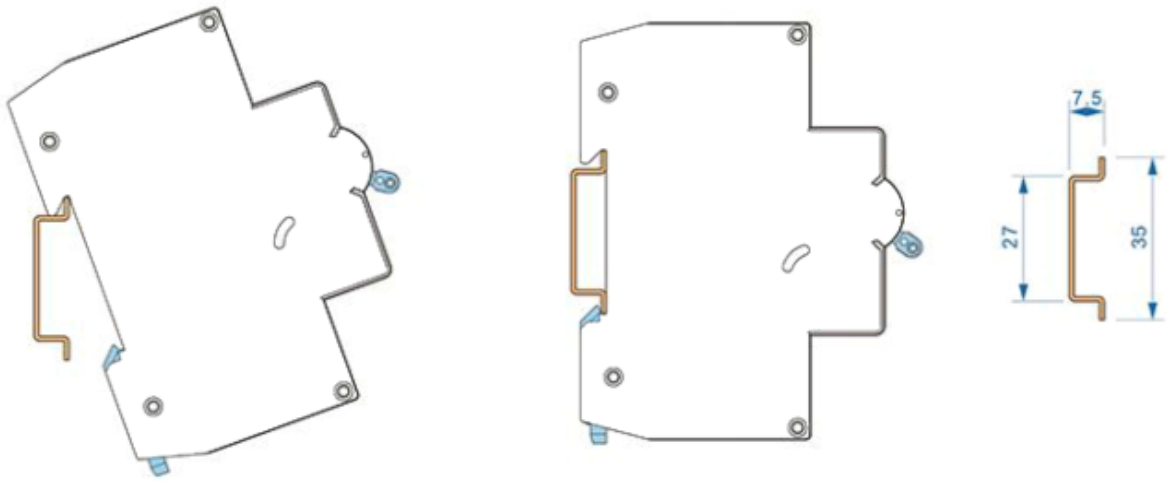
Specifications

STW2 Series circuit breaker	STW2-63AC
Shell frame grade Current(A)	63
Standardards	IEC 60898-1
Rated Insulantion voltage Ui(V)	500
Rated Impulse Withstand Voltage Uimp（kv）	4
Rated current（A）	1、2、3、4、6、10、16、20、25、32、40、50、63
Rated voltage	240/400V（1P、1P+N），400V（2P、3P、4P）
Rated frequency(Hz)	50/60
Themo-magnetic release characteristic	B (3-5in) , C (5-10in) , D (10-20ln)
Number of poles	1P , 1P + N , 2P , 3P , 3P + N , 4P
Unipolar width	18mm
Rated breaking capacity	6KA
Dielectrictest voltage at ind . Freq for 1 min	2kv
Reference temperature	30°C
Mechanical life	20,000 Cycles
Electrical life	4000 Cycles
Protection degree	IP20
erminal size top / bottom for cable (mm2)	25
Connection	From top and bottom

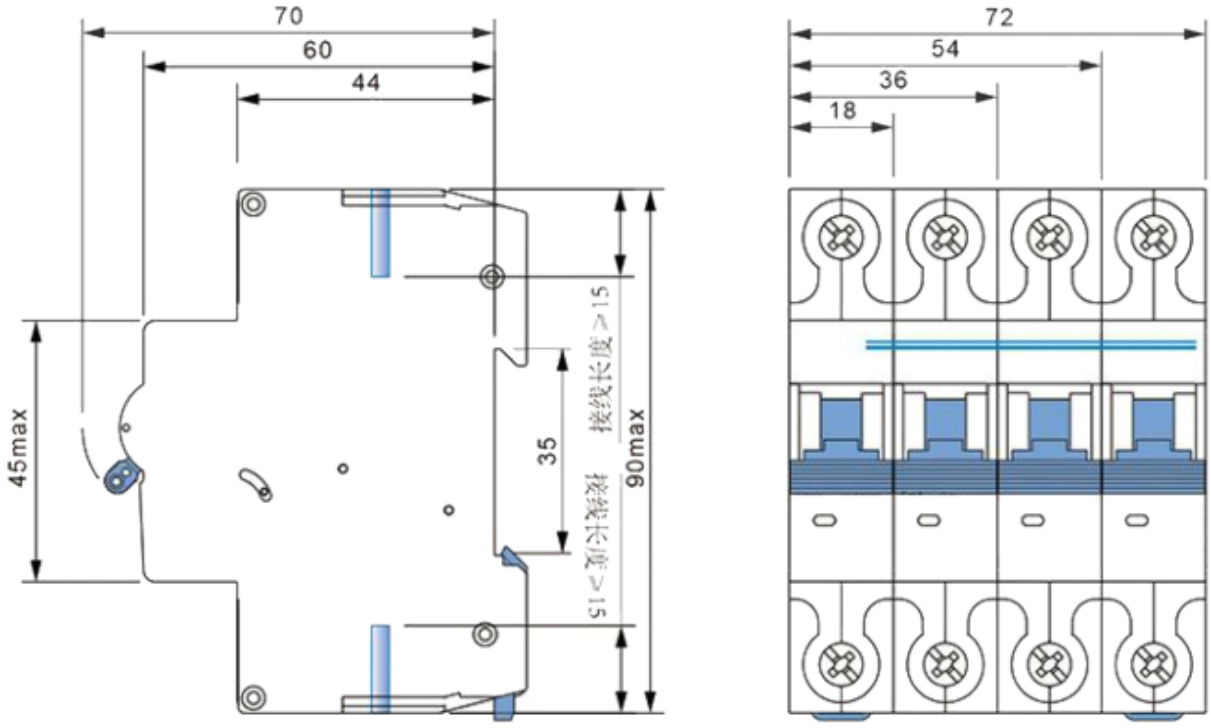
Current trip characteristics

Rated current In(A)	Overload trip feature		Electomagnetic trip action current(A)
	1.13In agreed non-trip time H(cold state)	1.45In agreed trip time H(hot state)	
In≤63	1	1	B(3-5In) C(5-10In) D(10-20In)
In≥63	2	2	

Mounting



Overall dimensions



Application

Residual current circuit breaker is suitable to the circuit of AC50/60Hz.rated voltage 230V for 2 poles and 400V for 4 poles, and rated current up to 63A. When people get the electric shock, or the leakage current of the electrical network exceeds the fixed value, this RCCB can cut off the fault current in short period to protect people safty and the equipments. It is applicable to industrial area, commercial area, tall building and civil house. It complies with standard IEC/EN 61008.1 and GB1696.1

Feature

1).Provides protection against electric shock, earth fault, leakage current;
2).Fire resistant plastic casing endures abnormal heating and strong impact;
3). Improved mechanical and bimetallic system provides more precise tripping
4).Equipped with finger protected in connection terminals;
5). Both terminal wiring and busbar wiring are available
6). Small size and weight, easy installation and wiring, high and durable performance

Detection Waveform Type and Classification

Waveform definition	Waveform	AC Type	A Type	A-SI Type	Tripping current
Sinusoidal exchange	~	✓	✓	✓	0.5~1 I△n
Pulsating half wave	⎍	X	✓	✓	0.5~1. 4 I△n
Pulsating Half wave + diret current (6mA)	⎍	X	✓	✓	max1.4I△n+6mA
Pulsating Half wave + diret current (10mA)	⎍	X	X	✓	max1.4I△n+10mA
High frequency (up to 1KHz)	⎍	X	X	X	150Hz,0.5~2. 4 I△n
		X	X	X	400Hz,0.5~6 I△n
		X	X	X	1000Hz,1~14 I△n
Two phase rectified full wave	⎍	X	X	X	0.5~2 I△n
Three phase rectified full wave	⎍				
Direct current	⎓				

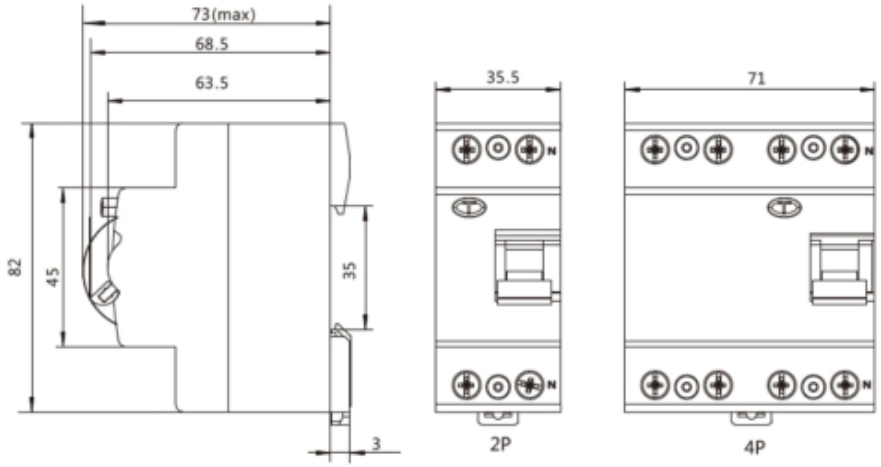
Connection

Rated current	Nominal Section Area of Copper Wire(mm^2)
1~6A	1
10A	1.5
16、20A	2.5
25A	4
32A	6
40、50A	10
63A	16

Technical Data

Electrical features	
Rated current	16A、25、40、63A
Poles	2P 4P
Rated voltage Ue	2P:230V~ 4P:400V~
Insulation voltage Ui	500V
Rated frequency	50/60Hz
Rated sensitivity I△n	0.03A 0.1A 0.3A
Rated residual making and breaking capacity I m	500(In=25-40A) 630(In=63A)
Short-circuit current Inc=I△c	6000A
SCPD fuse	—▭— 6000
Break time under I△n	≤0. 1S
Rated impulse withstand voltage(1.2/50)Uimp	6000V
Dielectric test voltage at and ind.Freq.for 1min	2.5kV
Electrical life and Mechanical life	4000
Pollution degree	2
Installation	
Fault current indicator	NO
Protection Class	IP20
Ambient temperature(with daily average≤35℃)	-5~+40℃
Storage temperature	-25+70℃
Terminal connection type	Cable/U-type busbar/Pin -type busbar
Terminal size top/bottom for cable	25mm² 18-3
Tightening torque	3.0N•m 22
Mounting	On DIN rail FN 60715 (35mm) by means of fast clip device
Connection	From top and bottom

Mounting & dimension



Product Description

The HR18 series fuse type isolation switch has a beautiful appearance, novel and simple structure, and is easy to operate. Its rated insulation voltage is 1000V, rated working voltage is 690V, rated working current is 800A, and rated frequency is 50Hz. It is used as a power switch, isolation switch, emergency switch, and circuit protection in distribution and motor circuits with high short-circuit current, but is generally not used for directly opening and closing a single motor.
The switch complies with IEC60947-3 and GB/T14048.3 standards.

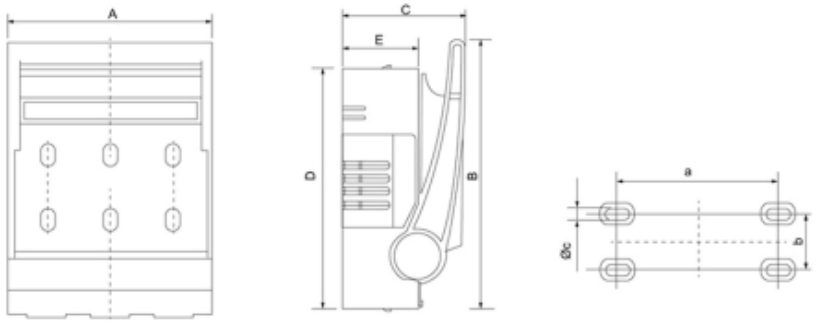
operational condition

The ambient air temperature shall not be higher than+40 ° C or lower than -5 ° C, and the average temperature within 24 hours shall not exceed+35 ° C. The altitude of the working site shall not exceed 2000m. When the ambient air temperature is+40 °C, the relative humidity is not higher than 50%, and the monthly average maximum relative humidity in the wettest month is not higher than 90%. At the same time, the average minimum temperature of the month shall not exceed+25 °C. The pollution level of the surrounding environment is Level 3. The installation category is Class III. The switch is installed in a place free from vibration and impact. Switch protection level | P30

Fuse link

Conventional thermal current	Equipped with fuse link code	Rated current of fuse link (A)
160A	NT00	10、16、25、32、40、50、63、80、100、125、160
250A	NT1	80、100、125、160、200、225、250
400A	NT2	125、160、200、225、250、300、315、355、400
630A	NT3	315、355、400、425、500、630

Appearance and installation dimensions



Switch model	External dimensions (mm)					Installation dimensions		
	A	B	C	D	E	a	b	Øc
HR18-160	105	184	88	160	43	73	25	Ø7
HR18-250	184	268	116	230	66	115	50	Ø11
HR18-400	210	285	129	256	81	140	50	Ø11
HR18-630	250	328	138	315	86	150	50	9

Technical Parameter

				HR18-160		HR18-250		HR18-400		HR18-630		HR18-800
Electrical parameters	Arated operational voltage	Ue	V	AC400	AC690	AC400	AC690	AC400	AC690	AC400	AC690	AC400
	rated working current	Ie	A	160	100	250	200	400	315	630	425	800
	Conventional thermal current	Ith	A	160	100	250	200	400	315	630	425	80
	Rated conditional short-circuit current		KA	100	50	100	50	100	50	100	50	50
	rated insulation voltage	Ui	V	1000		1000		1000		1000		1000
	rated impulse withstand voltage	Uimp	KV	12		12		12		12		12
	Usage level			AC-23B	AC-21B	AC-23B	AC-21B	AC-23B	AC-21B	AC-23B	AC-21B	AC-23B
	Rated frequency		Hz	50/60		50/60		50/60		50/60		50/60
	number of poles			3		3		3		3		3
	Number of electrical lifespans		order	200		200		200		200		100
fuse	Size (RT16/TNH) IEC60629-2 GB 13539.2			00		1		2		3		3
	Working current	In	A	160	125	250	200	400	315	630	425	800
	consumption	P	W	12	12	18	32	28	45	40	50	-
institution	mechanical life		order	1400		1400		800	1400	800		800
	Bus spacing		mm	60		60		60		60		60
protection	front	open		IP20		IP20		IP20		IP20		IP20
		close		IP30		IP30		IP30		IP30		IP30
other	Switch fault, closing signal feedback (micro switch)			Can be added		Can be added		Can be added		Can be added		Can be added
working conditions	ambient temperature		℃	-5~+55								
	way of working			Continuous operation								
	operate			handle								
	Installation form			vertical								
	height		rice	≤ 2000								
	pollution degree			3								
	Overvoltage level			III								

Application

160A 1P 690V NH00 Panel Mount Din Fuse Disconnect

1.GB 14048.3; IEC60947-3
2.Rated voltage: 400Vac 690Vac ;250-1000Vdc
This fuse disconnecting switch is the first combination of current transformer and fuse switch. It is suitable for rated current 160A-630A and rated frequency 50/60HZ. This series of product modularity, small volume, safe and reliable use, high application in low voltage power distribution cabinet installed capacity density, showing very high economy, safety and contingency, not only has the switch and protection function, but also can be extended to other functions, not only is a kind of closed form is more important it is an intelligent system that is widely used in low voltage cable branch box, box type substation, factories, and other areas, is a trend in the future in the field of distribution.

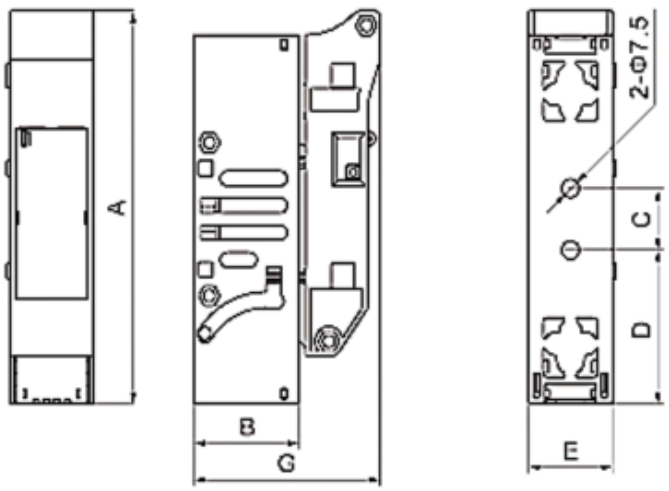
The products meet the standards: GB14048.3, IEC60947-3

Feature

1. union can be closed and broken at the same time;The split can be made by single phase;
2. the operation is safer, the core is installed in the handle, and can be directly used as contact blade;
3. beautiful and practical, seat and body disassembly convenient, and box installation fast, convenient construction;
4. reduce wiring, easy to increase the loop, increase the use rate of the box;
5. resin glass fiber base, V0 class flame retardant, shell protection level up to IP30;
6. the latest products, the highest market utilization, customized bidding style;
7. the instantaneous breaking operation is up to 100kA, with a load capacity of up to 1.3 times of rated current;
8. It can add fuse monitor, signal switch and remote control module.

Parameter

Type	Rated Voltage (V)	Rated Current (A)	Dimension(mm)						
			A	B	C	D	E	F	G
NT00-DC-160A/1P	**AC400/690**	**160**	**159**	**45**	**25**	**62**	**36**	-	**80**
NT00-DC-160A/2P	AC400/690	160	159	45	25	62	72	36	80
NT00-DC-160A/3P	AC400/690	160	159	45	25	62	108	72	80



Application

160A 1P 690V NH00 Panel Mount Din Fuse Disconnect

1.GB 14048.3; IEC60947-3
2.Rated voltage: 400Vac 690Vac ;250-1000Vdc
This fuse disconnecting switch is the first combination of current transformer and fuse switch. It is suitable for rated current 160A-630A and rated frequency 50/60HZ. This series of product modularity, small volume, safe and reliable use, high application in low voltage power distribution cabinet installed capacity density, showing very high economy, safety and contingency, not only has the switch and protection function, but also can be extended to other functions, not only is a kind of closed form is more important it is an intelligent system that is widely used in low voltage cable branch box, box type substation, factories, and other areas, is a trend in the future in the field of distribution.

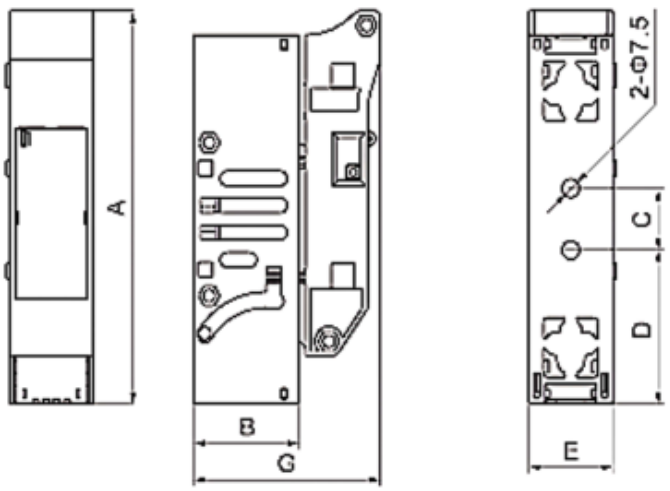
The products meet the standards: GB14048.3, IEC60947-3

Feature

1. union can be closed and broken at the same time;The split can be made by single phase;
2. the operation is safer, the core is installed in the handle, and can be directly used as contact blade;
3. beautiful and practical, seat and body disassembly convenient, and box installation fast, convenient construction;
4. reduce wiring, easy to increase the loop, increase the use rate of the box;
5. resin glass fiber base, V0 class flame retardant, shell protection level up to IP30;
6. the latest products, the highest market utilization, customized bidding style;
7. the instantaneous breaking operation is up to 100kA, with a load capacity of up to 1.3 times of rated current;
8. It can add fuse monitor, signal switch and remote control module.

Parameter

Type	Rated Voltage (V)	Rated Current (A)	Dimension(mm)						
			A	B	C	D	E	F	G
NT00-DC-160A/1P	**AC400/690**	**160**	**159**	**45**	**25**	**62**	**36**	-	**80**
NT00-DC-160A/2P	AC400/690	160	159	45	25	62	72	36	80
NT00-DC-160A/3P	AC400/690	160	159	45	25	62	108	72	80



Application

STWPV-32H Fuse Holder was designed and manufactured , complyingwith the standard LEC60947-3 , IEC60269-6 The rated current up to32A , rated voltage up to DC1000V It applied for PV DC combiner boxinverter etc , with the main function of over-current protection andeffective disconnection

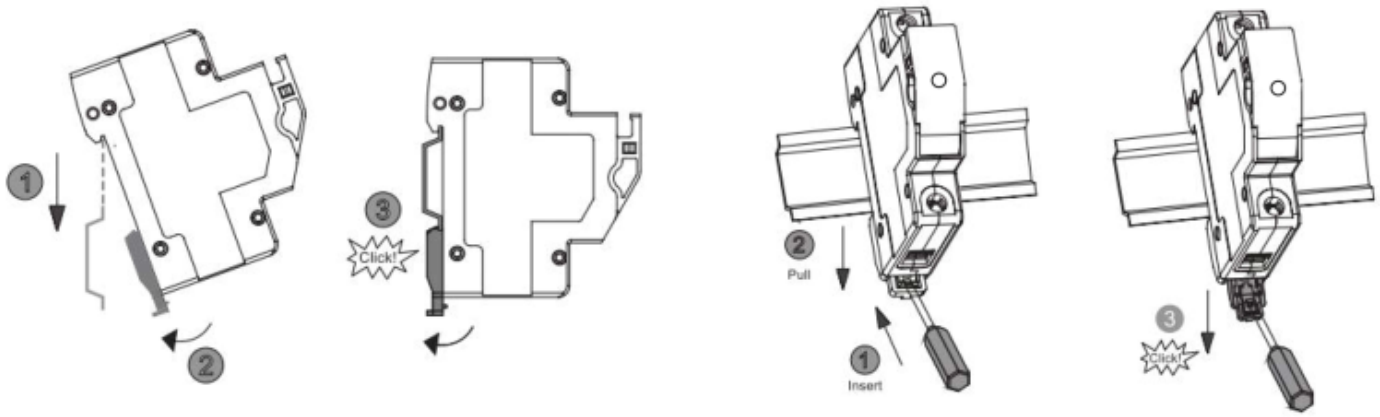
Feature

Special DC fuse for Photovoltaic
Max breaking capacity up to 20 KA , Effective protection
The Innovation replacing fuse Link
With light / without light
Led Indicator , reminding fuse link replacement
Rated Voltage : DC1000V
Rated Current : 32A
Class of Operation : gpv
Be suit for 10x38mm Fuse size
Standard : EC60947-3 . EC60269-6

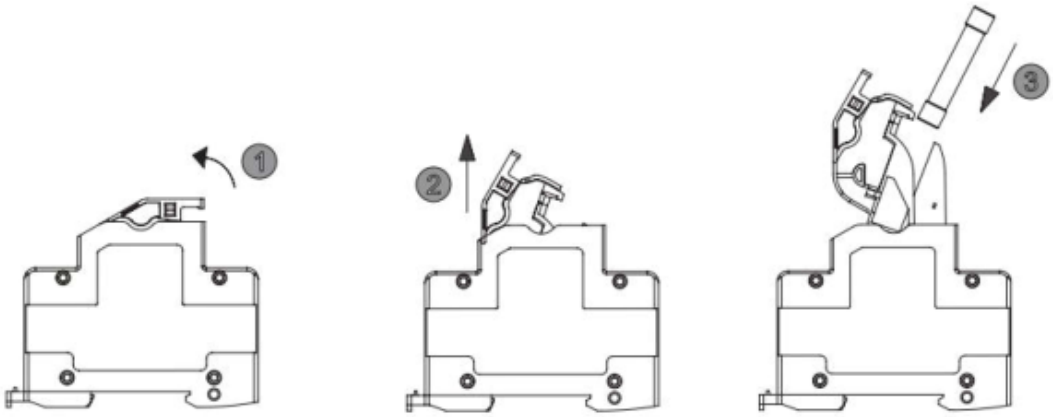
Parameter

Electrical Characteristics		
Type		STWPV-32H
Standard		IEC60947-3 / IEC60269-6
Pole		1P
Rated Working Voltage	Ue	DC 1000V
Rated Current	In	32A
Breaking Capacity		20KA
Max Power Dissipation		3.2W
Rated Impulsed Voltage	Uimp	6KA
Control and Indication		
Operating State / Fault Indication		Indicator Light OFF / Indicator Light ON
Connection and Installation		
Wire		2.5mm²~25mm²
Terminal Screws		M5
Torque	NM	2. 5
Ingress Protection		IP20
Installation Environment		
Fuse Size		10x38mm
Operating Temperature Range	TU	-40℃ ~+85℃
Installation Mode		TH35-7.5/DIN35
Pollution Grade		3
Relative Humidity		+20℃ ≤ 95%,+40℃ ≤ 50%
Weight		0.07kg Per pole
Installation Level		III

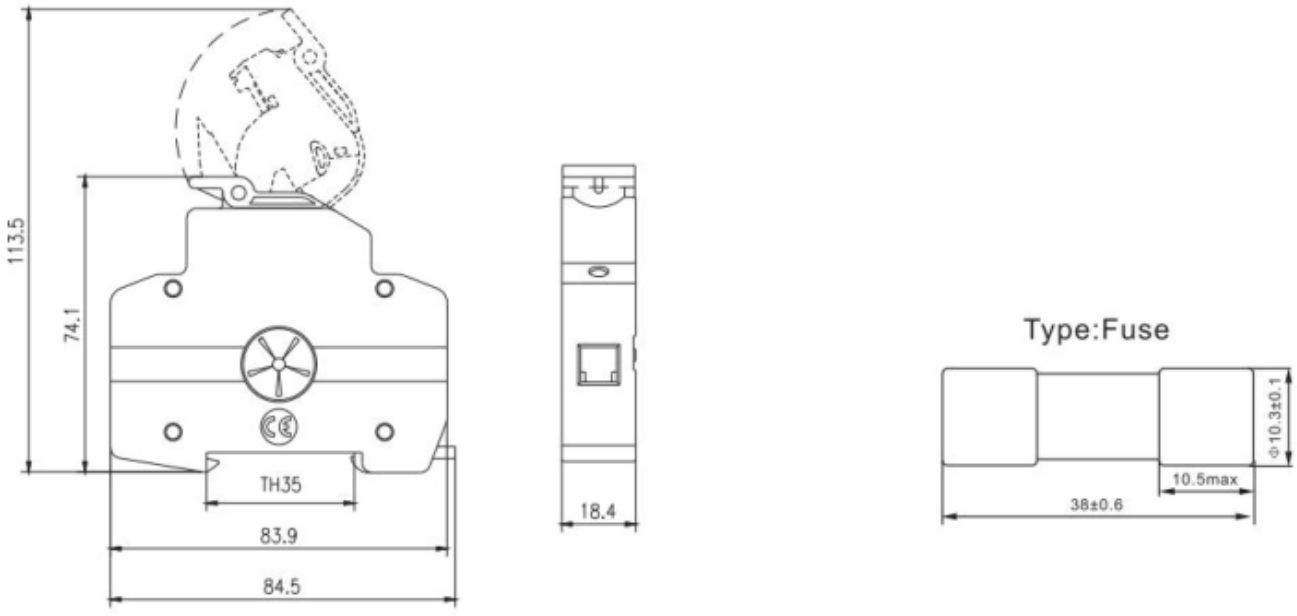
Installation



Replacemet Fuse



Dimensions (mm)



STW-32g PV 1A-20A Photovoltaic Fuse

Standard:IEC 60269-6,GB/T 13539.6

Interrupting Capacity

30,000 amperes at 1000V DC (Time Constant: 1-3ms)

STW-32H

Specifications

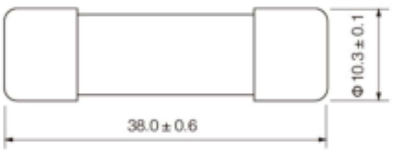
Catalog No.	Current Rating	Safety Approvals
		TUV
32gPV1U0	1A	●
32gPV2U0	2A	●
32gPV3U0	3A	●
32gPV3.5U0	3.5A	●
32gPV4U0	4A	●
32gPV5U0	5A	●
32gPV6U0	6A	●
32gPV8U0	8A	●
32gPV10U0	10A	●
32gPV12U0	12A	●
32gPV15U0	15A	●
32gPV16U0	16A	●
32gPV20U0	20A	●

U0 Denotes For 1000V DC:
● Denotes For Approval ○ Denotes For Pending

Electrical Characteristics

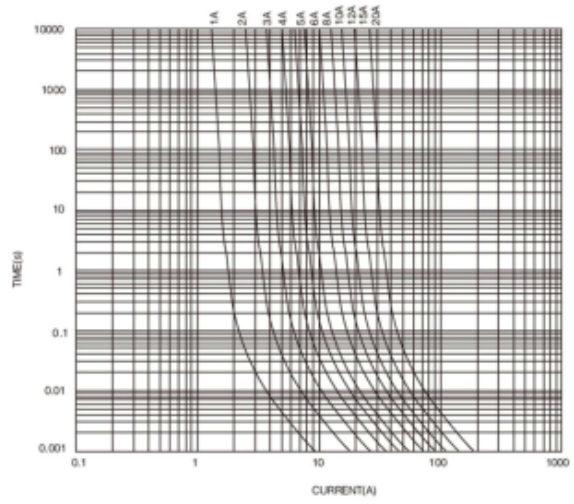
% of Current Rating	Blowing Time
113%	1 hour Min.
145%	1 hour Max.

Dimensions



STW-32g PV

Average I-T Characteristics Curve
(For Reference Only)



Application

This series of fuse links is mainly used in AC 50Hz, rated voltage up to 1140V, rated current up to 1250A and for pro- tecting electric equipment from overload and short-circuit. It can reliably break the min fusion current to any current wit- hin 120KA.

It is also available for the protection of semiconductor parts and equipments against short-circuit(type aR)and prote- ction of motors(type aM).

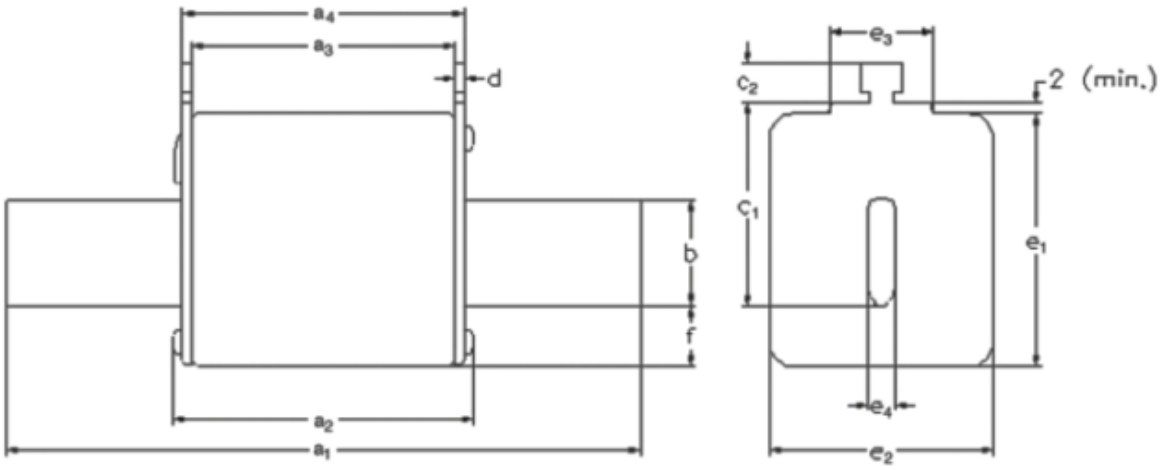
This series of fuse links conforms to GB13539 and IEC 60269 standards.

Feature

It adopts the material with high quality. The arc-extinguishi- ng medium is quartz sand and fuse tube is high strength ceramic. The advanced manufacturing craft work ensures the performance of small power waste stable characteristic for the product. The outline structure and insta lation dime- nsion joints the advanced similar products from domestic and abroad.

Parameter

Size - mm

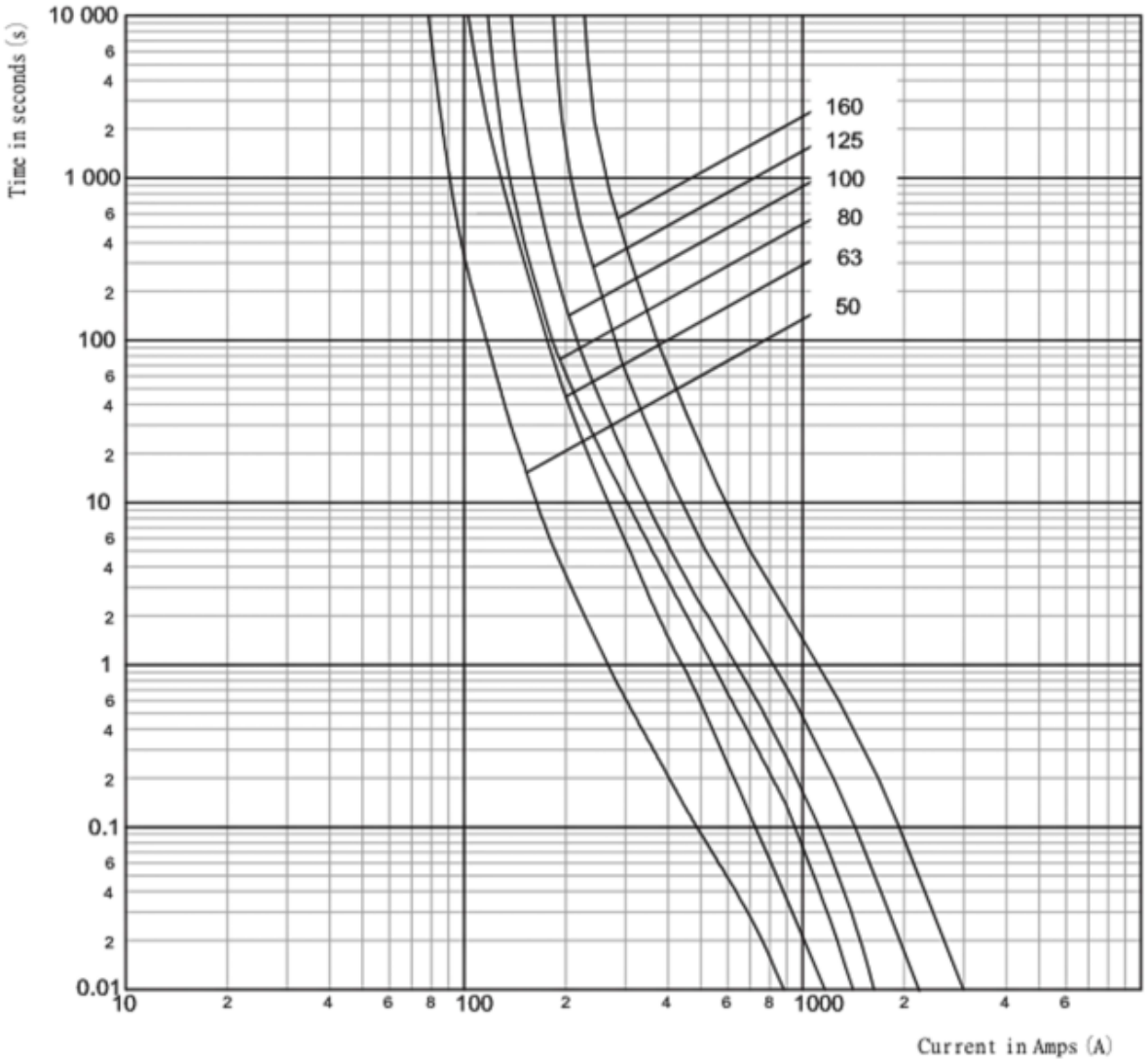


Size	a1	a2	a3	a4	b	c1	c2	d	e1(max)	e2(max)	e3(max)	e4	f(max)
000	78.5	54-6	45.4	49.1	15	35	9.5	1.9	43	21	17	6	7.5
00	76.5	54-6	45.7	49.7	15	34.7	10	1.5	44.5	28.5	18	6	13
0	125	68-8	61	64.7	15	34	9.8	2.7	44	28.5	18	6	12.5
1C	134	68-8	61	64.7	15	34	9.8	2	44	28.5	14	6	12.5
1	134	75-10	62	66	20	40	10.2	2	49	48	18.5	6	11.8
2C	150	75-10	62	66	20	47	10	2.5	47	47	18	6	11.5
2	149	75-10	62.5	67	25	46.3	10	2.3	58.5	58.5	18	6	14
3C	149	75-10	61	66	25	56	10	2.8	59.5	59.5	24	6	16.5
3	150	75-10	62	68	32	60.5	10	3	68	68	18	6	15.5
4	202	Max90	66	71	50	81.5	11	3	95	87	23.5	8	21

NH00/NT00 size Fuse Link Time-Current Curves:

500 Volts gG/gL NH Fuse links

Time-current curves - NH Size 00



NH00/NT00 size Fuse Link Technical Parameter:

Part numbers with metal gripping lugs	Fuse link size	Rated current (Amps)	Rated voltage (V a.c.)	I^2t(Amps^2 Seconds) Minimum pre-arcing	*I 120kA at 500 V a.c.	Watts loss(kg)	Net weight per fuse (kg)
50NH00		50		5970	22200		
63NH00		63		5970	25800		
80NH00	00	80	500	11300	36100	≤12	0.16
100NH00		100		19500	61900		
125NH00		125		25800	129000		
160NH00		160		66000	320000		

Fuse-base with Blade Contacts

NH00B

NH1/2/3B

NH1/2XLB,NH3LB

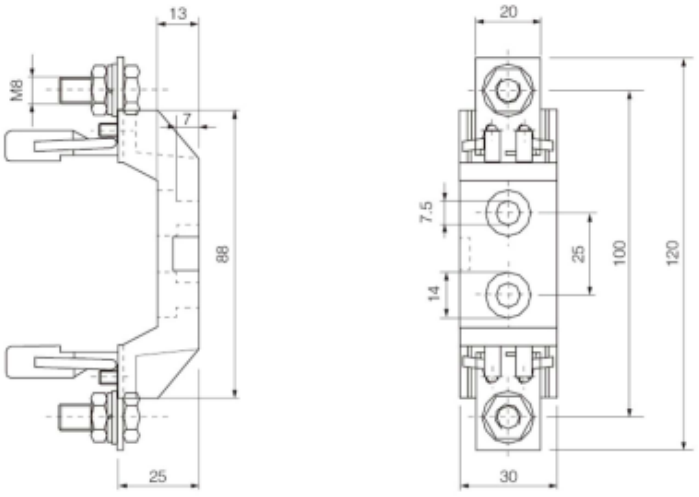
Specifications

Model of product	Applicable fuse link size	Rated voltage	Rated current	Safety Approvals
NH00B	NH000/NH00	690	160	CCC
		1000	160	

Model of product	Applicable fuse link size	Rated voltage	Rated current	Safety Approvals
NH1B	NH01	690	250	CCC
		1000	250	
NH2B	NH02	690	400	
NH3B	NH03	690	630	

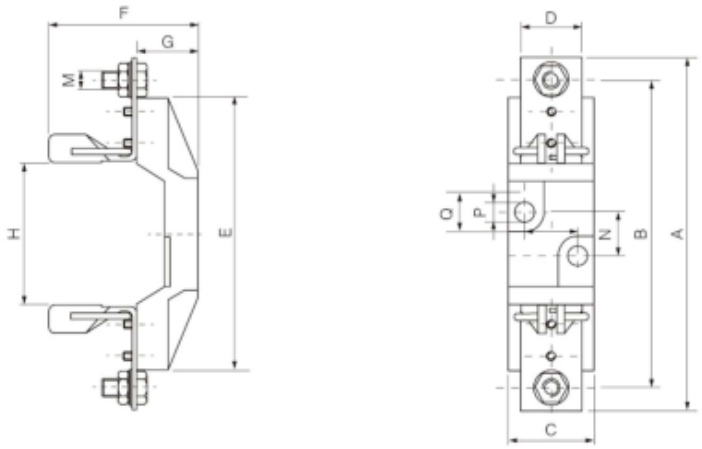
Model of product	Applicable fuse link size	Rated voltage	Rated current	Safety Approvals
NH1XLB	NH1XL	1000	250	
NH2XLB	NH2XL	1000	400	
NH3LB	NH2XL/NH3L	1000	400	TUV
NH3LB	NH2XL/NH3L	1000	630	

Dimensions(mm)



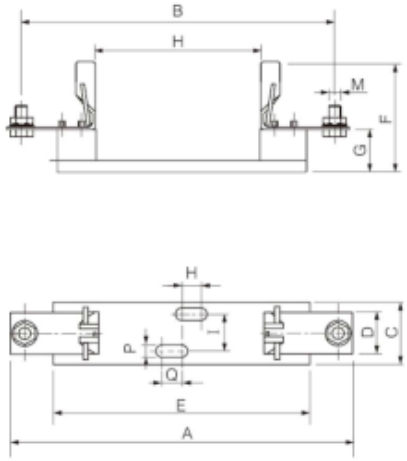
NH00B

Dimensions(mm)



NH1/2/3B

Size	A	B	C	D	E	F	G	H	I	M	N	P	Q
NH1	200	175	60	35	155	85	35	80	30	M10	25	10.5	20.5
NH2	225	200	60	35	155	90	35	80	30	M10	25	10.5	20.5
NH3	240	210	60	35	155	100	35	80	30	M10	25	10.5	20.5



NH1/2XLB, NH3LB

Size	A	B	C	D	E	F	G	H	I	M	N	P	Q
NH1XL	200	175	60	35	155	85	35	80	30	M10	25	10.5	20.5
NH2XL	225	200	60	35	155	90	35	80	30	M10	25	10.5	20.5
NH3XL	240	210	60	35	155	100	35	80	30	M10	25	10.5	20.5

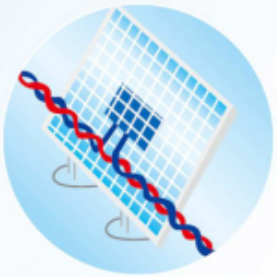
Lightning and surge protection for PV systems installed on buildings

Please take the following measures to protect the PV system from damage of lightning impulse or surge voltage:

- All metal parts (such as framework, support, etc) of PV system must be connected to the main equipotential bus to ensure reliable equipotential connection of the whole system.
- Must keep a safe distance (S) between all parts of PV systems and the external lightning protection system. The external lightning protection system can be connected to the main equipotential bus, fundamental earth screen or ground ring only.
- Adoption of twisted-pair wiring to reduce system jamming.
- For cables from outdoors, the surge protection device should be installed at the entrance of buildings. An all-round and systematic lightning protection should also protect other facilities on buildings from being damaged.

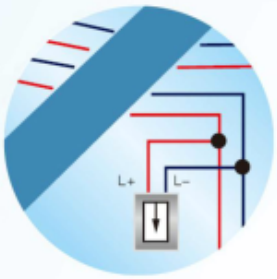
Reasonable wiring:

adoption of twisted-pair wiring with lines as short as possible, to avoid big loop and reduce induced voltage on circuits.



Surge protection device installed on the DC side:

for cables from outdoors, the surge protection device should be installed at the entrance of buildings.

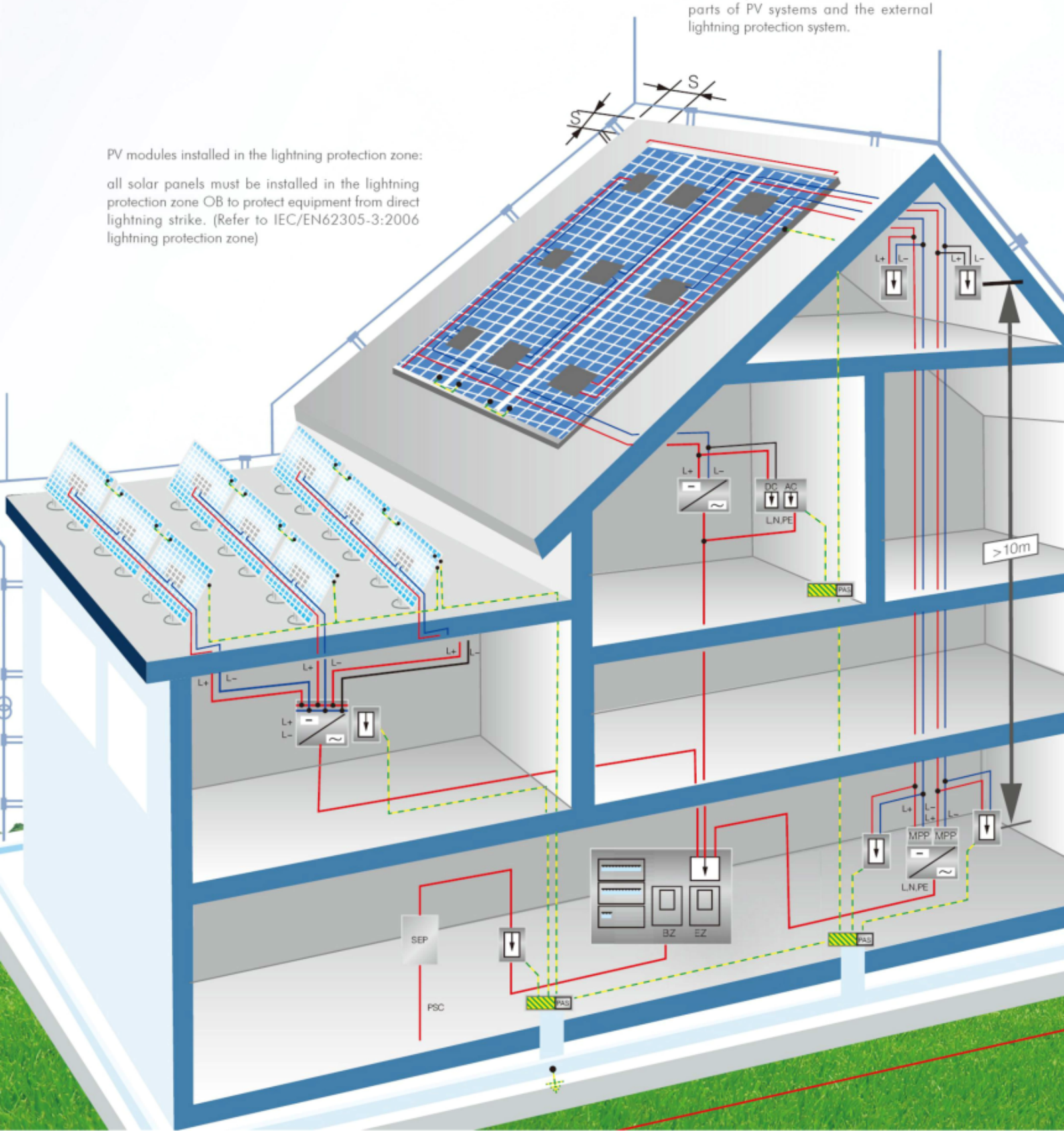


safe distance (S):

must keep a safe distance between all parts of PV systems and the external lightning protection system.

PV modules installed in the lightning protection zone:

all solar panels must be installed in the lightning protection zone OB to protect equipment from direct lightning strike. (Refer to IEC/EN62305-3:2006 lightning protection zone)



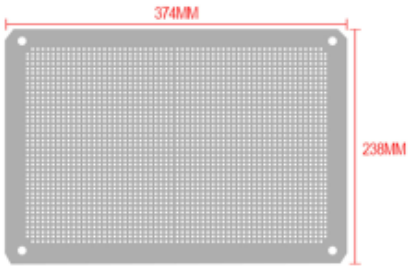
PV Combiner Box

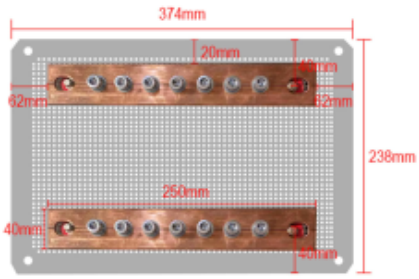
STW-9-PV 1/1

STW-18-PV 2/2

Model	STW-9-PV 1/1	STW-18-PV 2/2
Array string mumber	1	2
Max PV voltage Uocstc	600VDC	600VDC
Max PV current Imppstc	30A	30A
Circuit connection (input / output)	Terminal 6,5/10mm²	Terminal 6,5/10mm²
DC Mini Circuit Breaker	Yes	Yes
Fuse wire protection of branch circuit	Optional	Optional
Type 2 Surge protection device	STW-D40	
Max PV voltage Ucpv	600VDC	
Nominal discharge current In	20KA	
Max discharge current Imax	40KA	
Voltage protection level Up	2.0KV	
Structural parameters		
Shell material	ABS PC	
Ingress protection	IP65	

Battery Busbar Box

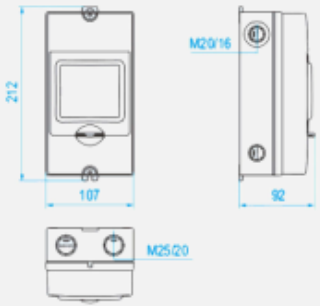




Waterproof box

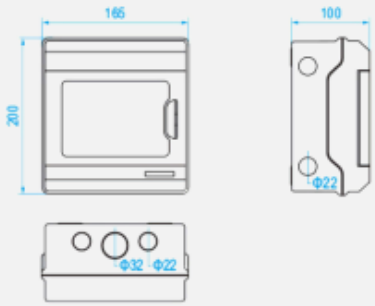
107*212*92MM

STW-4-WAY



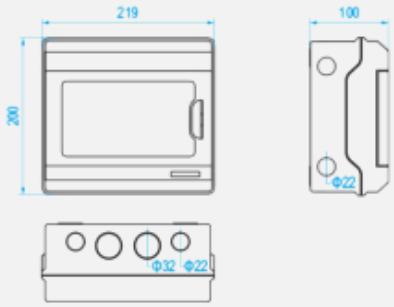
165*200*100MM

STW-6-WAY



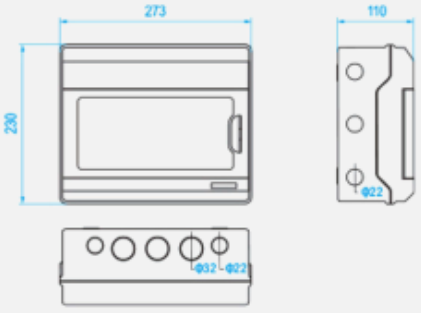
219*200*100MM

STW-9-WAY



273*230*110MM

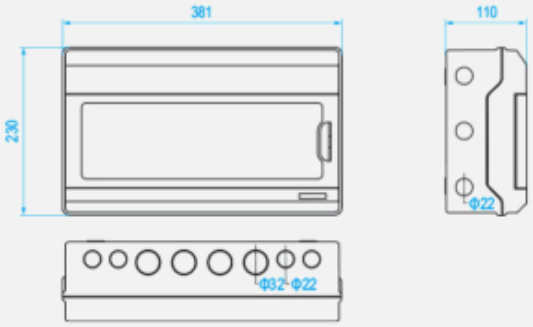
STW-12-WAY



Waterproof box

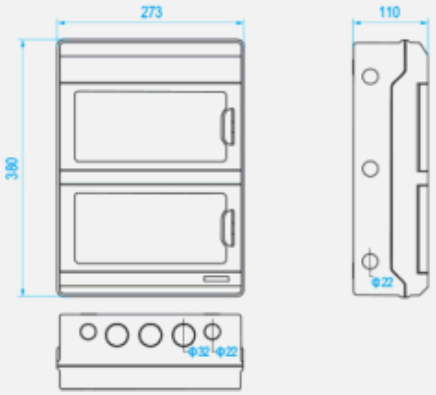
381*230*110MM

STW-18-WAY



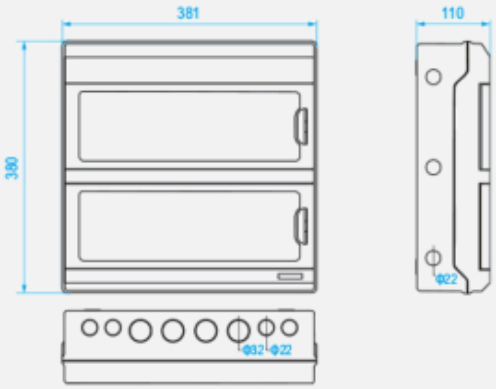
273*380*110MM

STW-24-WAY



381*380*110MM

STW-36-WAY



Function

1. Under voltage protection 210V-140V (adjustable) (default: 160V)
2. Over voltage proteciton 230V-300V (adjustable) (default: 280V)
3. Over current protection 1A-40A/63A (adjustable) (default: 20A)
4. Reconnect time (delay on time): 1s-300s (default: 5s)
5. Voltage meter
6. Ammeter

Rated voltage: 220V; Frequency: 50Hz/60HZ
Over current protection: 1A-40A/63A (adjustable) (default: 20A)
Under-voltage action switch-off value: 210V-145V (adjustable) (default: 160V)
Over-voltage action switch-off value: 230V-300V (adjustable) (default: 280V)
Reconnect time (delay on time): 1s-300s (default: 5s)
Error in real-time current, voltage : ≤5%

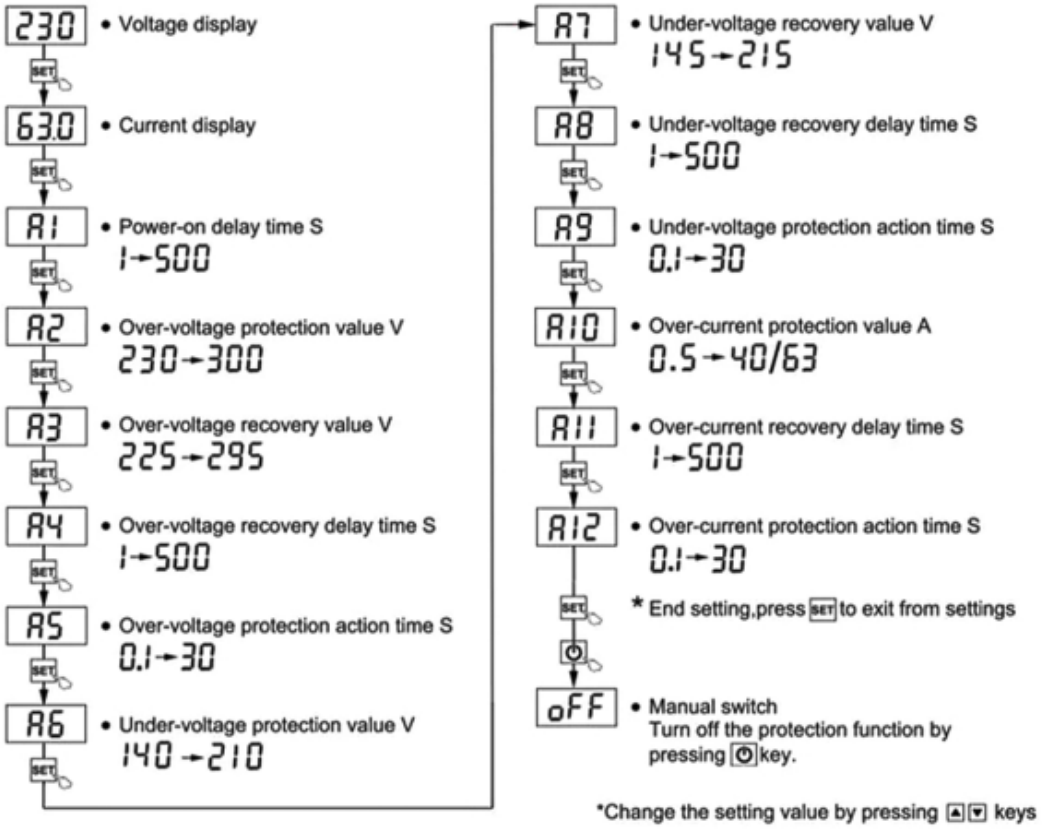
Electrical Features

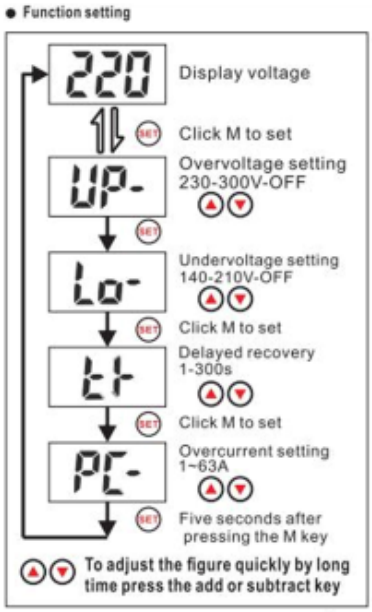
Rated supply voltage	AC220V
Operation voltage range	AC80V ~ 440V(Single phase)
Rated frequency	50 / 60HZ
Overvoltage(> V)setting range	240V ~ 300V(Factory setting 270V)
Undervoltage(< V)setting range	140V ~ 210V(Factory setting 170V)
Overcurrent(> A)setting range	1-40A / 1-63A
Max.power offload(kW)	40A(< 8.8KW) / 63A(< 13.9KW)
Rated insulation voltage	400V
Voltage measurerment accuracy	1%(Not exceeding 1% of the overall range)
Reset delay time	1s ~ 300s(Factory setting 30s)
Starting delay time	1s~300s(Factory setting 2s)
Output contact	1NO
> V and < V trip delay	0.5S
Error	2%

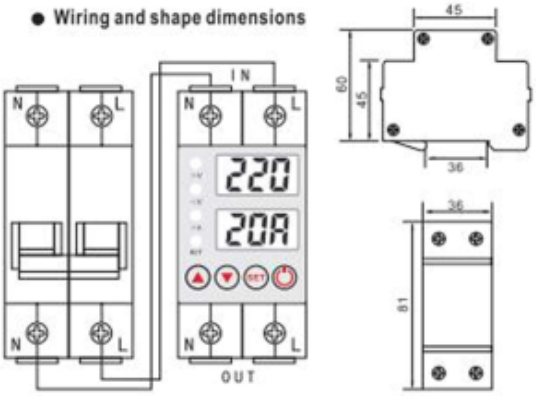
Installation

Mechanical life	10^5
Protection degree	10^6
Oporatintg temperature	-5℃ ~ 55℃
Storage temperature	-30℃ ~ 70℃
Terminal connection type	Cable/pin-tpye busbar/U-type busbar
Humidity	≤50%at40C(without condensnton)
Pollution degree	IP20
Tightening torque	2.5Nm 22In-lbs
Electrical life	3
Terminal size top/bottom for cable/busbar	25mm² 18-3AWG
Mounting	On DIN rail EN60715(35mm) by means of fast clip device
Altitude	≤2000M
Overall and Installation Dimension	81*36*66mm

PRODUCT SETTING







Application

This din rail type LED indicator is applicable to circuit with rated voltage 230/240V and frequency 50/60Hz for visual indication and warning with red, yellow, bule and green color for option.

Feature

1) Flame retardant material high temperature resistance
2) One color indicator (customizable colors) : indicate theworking state clearly
3) Logo highlight : VOLTA quality assurance
4) Upper and lower terminals

Parameter

Breaking Capacity	6ka
Rated Voltage	230V
BCD Curve	C
Rated Frequency (Hz)	50-60Hz
Light source	LED
Color	red/yellow/blue/white/green
Width	9mm
IP degree	IP20

Three combinations of AC current, voltage, and frequency surface

size	model	power supply	measuring range	Display method	Colors
Outline ruler 72 * 72 * 32mm Opening size 68 * 68mm	ENCORE CH72UAF	Two wire No power supply	voltage AC50500 V current AC1-120A 10-99.9Hz	Red LED Nixie tube display character height 0.561INCH (14.30mm)	Red Blue White

CONTENTS