



DC PRODUCT SERIES

PRODUCT CATALOG



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Due to the continuous updating of product technology, all data should be based on the latest confirmation of the company's technical departments.

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DC PRODUCT SERIES

DC Combiner Box Selection



EXCB1/EXCB3 PV Combiner Box



EXCB1



EXCB3

Overview

Suitable for PV system, equipped with a surge protector and isolator fuses, providing isolation, leakage and grounding protection.

Specification

Model Number	1/1		2/1		2/2		3/1	
Input	1 string		2 string		2 string		3 string	
Output	1 string		1 string		2 string		1 string	
Max Voltage	600V	1000V	600V	1000V	600V	1000V	600V	1000V
Max Current Input (Eachstring)	30A	30A	30A	30A	30A	30A	30A	30A
Max Current Output (Eachstring)	30A	30A	63A	63A	30A	30A	63A	63A
Enclosure								
Material	PC/ABS							
Degree of Protection	IP65/IP66							
Impacts	Ik10							
Input Cable Glands	PG09, 2.5-16							
Output Cable Gland	PG21, 2.5-16							
Environment								
Operating temperature	-25°C~+60°C							

Model Number	3/3		4/2		6/2		6/3	
Input	3 string		4 string		6 string		6 string	
Output	3 string		2 string		2 string		3 string	
Max Voltage	600V	1000V	600V	1000V	1000V	1000V	1000V	1000V
Max Current Input (Eachstring)	30A	30A	30A	30A	20A	20A	30A	30A
Max Current Output (Eachstring)	30A	30A	63A	63A	63A	63A	63A	63A
Enclosure								
Material	PC/ABS							
Degree of Protection	IP65/IP66							
Impacts	Ik10							
Input Cable Glands	PG09, 2.5-16							
Output Cable Gland	PG21, 2.5-16							
Environment								
Operating temperature	-25°C~+60°C							

DC Combiner Box Selection



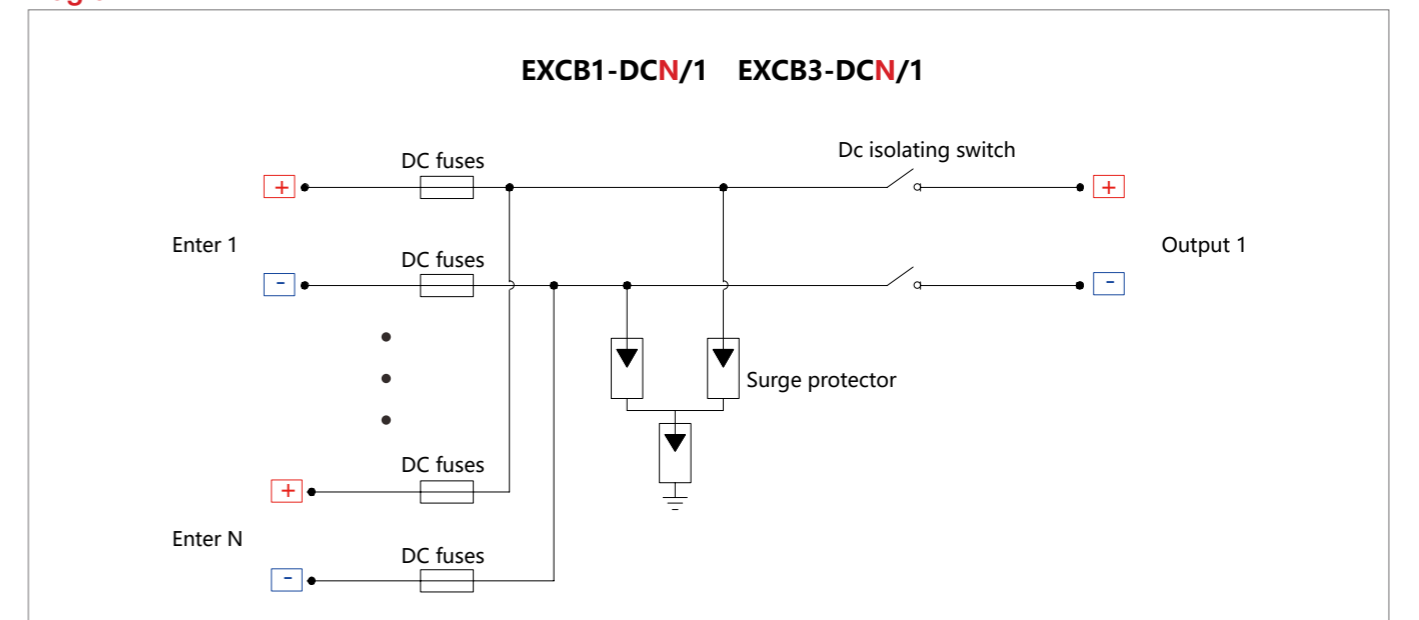
EXCB1/EXCB3 PV Combiner Box

EXCB1/3 PV DC Combiner Box (1 Way Output)

Technical Parameters

Model	EXCB1/3-DC 1-1	EXCB1/3-DC 2-1	EXCB1/3-DC 3-1	EXCB1/3-DC 4-1	EXCB1/3-DC 6-1
DC SPD					
Maximum working voltage	600V/1000 V				
Maximum discharge current	40 kA				
Executive Standard	EN 50539-II Type 2				
Certification	CE, TUV				
DC isolated switch/DC MCB					
Rated insulation pad	1000V				
Rated current	32A	32A	32A	63A	63A/80A
Classification	DC-PV1/DC-PV2				
Executive Standard	IEC/EN 60947-3, UL508I				
Certification	CE, TUV, CB, TUV Australia Approval				
DC fuse					
Rated working voltage	1000V				
Rated current	15-32A(Optional)				
Dimensions (W*H*D)	Φ10 * 38 mm				
Executive Standard	TUV, CE, CB				
Environmental parameters					
Operating temperature	-20°C~+60°C				
Humidity	99%				
Altitude	2000m(2000m Above derating)				
Installation method	Wall-mounted installation				

Diagram



DC Combiner Box Selection



EXCB1/EXCB3

PV Combiner Box

MDJB PV DC Combiner Box (2 Way/4 Way Output)

Technical Parameters

Model	EXCB1/3-DC 2-2	EXCB1/3-DC 4-2	EXCB1/3-DC 6-2
Basic parameters			
DC input string	2 String	4 String	6 String
DC output string	2 String	2 String	2 String
Maximum DC input voltage	1000V		
Maximum DC short-circuit current	15A~32A(Optional)		
Maximum DC output current	32A	32A	32A
DC monitoring	Optional		
Enclosure			
Cabinet material	PC/ABS	PC/ABS	PC/ABS
Anti-UV	Yes	Yes	Yes
Foreign body protection level	IK10		
Collision protection level	IP65		
Dimensions (W*H*D)	Customized		
DC input port	Pg09, 2.5~4 mm ²		
DC output port	Pg25, 4~6 mm ²	Pg25, 4~6 mm ²	Pg25, 6~10 mm ²
DC surge protection			
Maximum working voltage	1000V		
Maximum discharge current	40 kA		
Executive Standard	EN 50539-11 Type 2		
Certification	CE, TUV, CB		
DC isolated switch/DC MCB			
Rated insulation pad	1000V		
Rated current	32A	32A	40A
Classification	DC-PV1/DC-PV2		
Executive Standard	IEC/EN 60947-3, UL508I		
Certification	CE, TUV, CB		
DC fuse			
Rated working voltage	1000 V		
Rated current	15 A~32A(Optional)		
Dimensions (W*H*D)	Φ10 * 38 mm		
Executive Standard	CE, TUV, CB		
Environmental parameters			
Operating temperature	-20°C~+60°C		
Humidity	99%		
Altitude	2000m(2000m Above derating)		
Installation method	Wall-mounted installation		

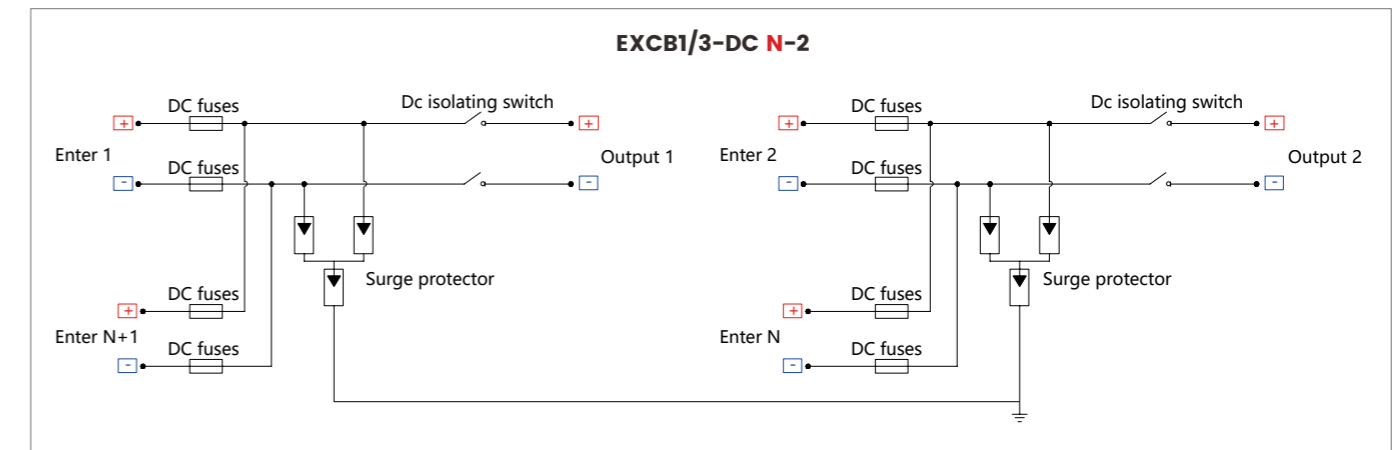
DC Combiner Box Selection



EXCB1/EXCB3

PV Combiner Box

Diagram



DC Combiner Box Selection

HUXLD-4/1 6/1 12/1 PV Combiner Box



Application Scope

The HUXLD-4/1 6/1 12/1 lightning protection combiner box combines the DC input and sink of the 4/6/12-channel photovoltaic module string into one output, each line is equipped with a fuse, and the output is equipped with a lightning arrester and a circuit breaker, which greatly simplifies the DC power distribution cabinet and the reverse input wiring for the transformer. It provides lightning protection, short circuit protection and grounding protection. The intelligent lightning protection combiner box is equipped with a flow monitoring unit, which can monitor the current input by each photovoltaic cell string, the summed output voltage, the temperature inside the box, the state of the lightning arrester, and the state of the circuit breaker. It can be customized according to user requirements.

Features

High reliability

- Use PV fuses.
- Use PV surge protectors.
- Use PV DC breaker or rotary isolation switch.
- Technical Specifications for Photovoltaic Confluence Equipment* CGC/GF 037:2014.

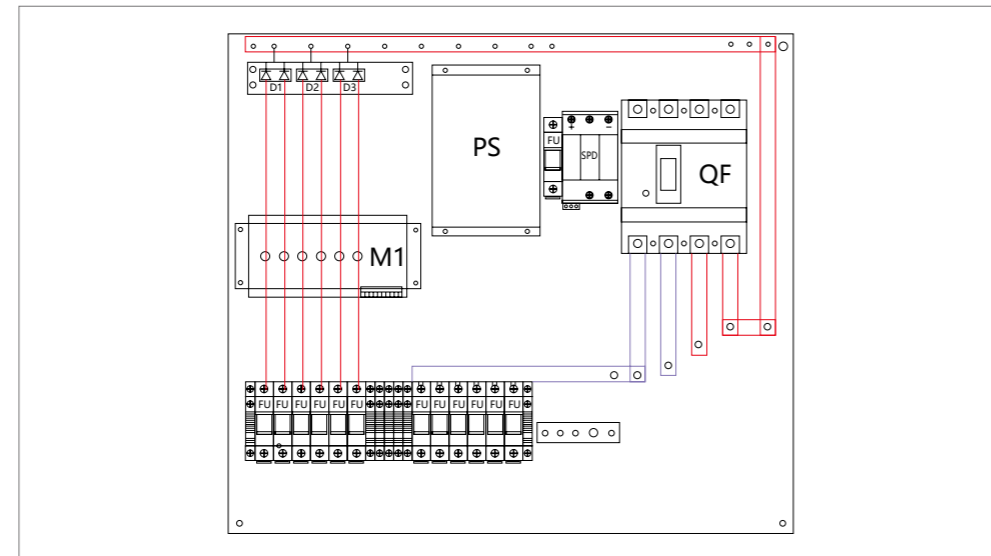
Strong adaptability

- Ip65 protection, waterproof, dust proof and UV resistant.
- Strict high and low temperature test, suitable for a wide area.
- The installation is simple, the system wiring is simplified, and the wiring is convenient.
- The box is made of metal materials such as cold rolled steel plate.

Flexible configuration

- Applicable to monocrystalline silicon, polycrystalline silicon, thin film photovoltaic modules,
- can modify the current level of photovoltaic fuses, circuit breakers, rotary isolating switches.

Diagram



DC Combiner Box Selection

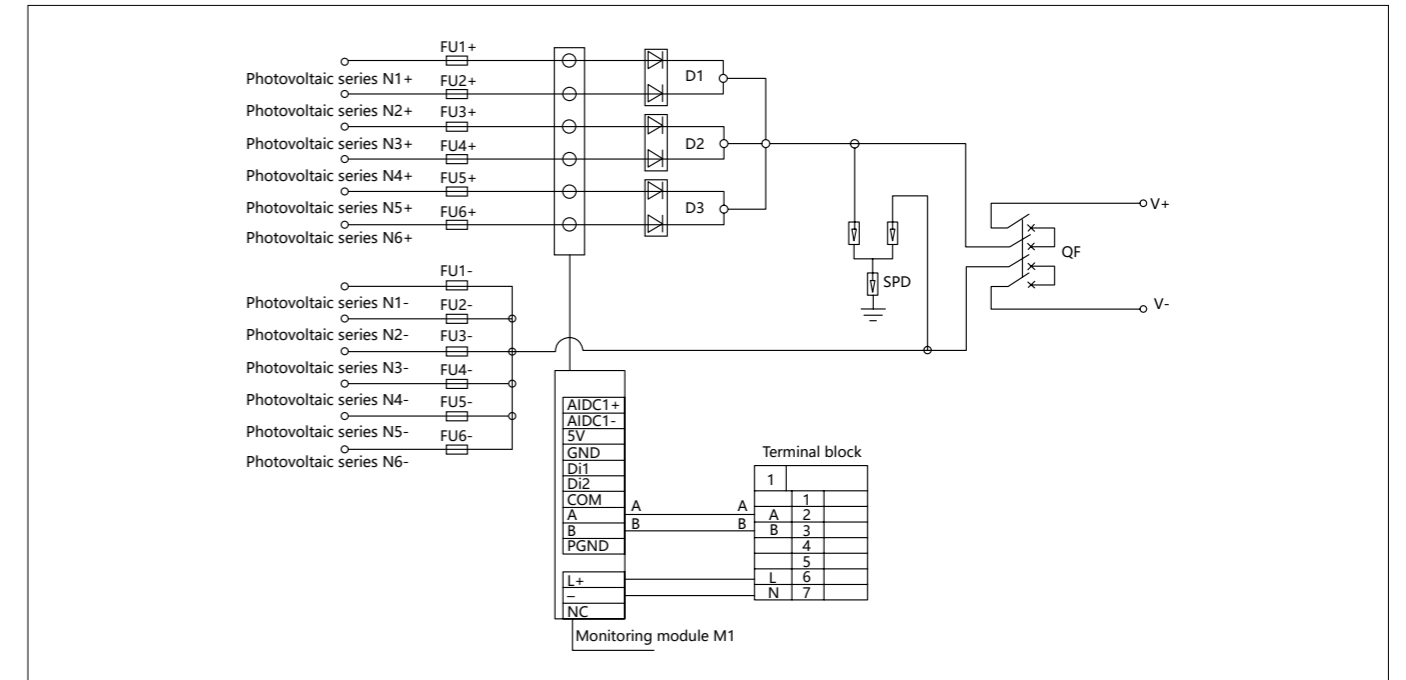
HUXLD-4/1 6/1 12/1 PV Combiner Box

Technical Parameters

Name	HUXLD-4/1 6/1 12/1
Electrical parameters	
System maximum DC voltage	1500
Maximum input current per channel	15A
Maximum number of input channels	4/6/12
Maximum output switching current	100A
Number of inverter MPPT	N
Number of output channels	1
Lightning protection	
Test category	II pole protection
Nominal discharge current	20kA
Maximum discharge current	40kA
Voltage protection level	3.8kV
Maximum continuous operating voltage	1500V
Number of poles	3P
Structural features	Pluggable module

Name	HUXLD-4/1 6/1 12/1
System	
Protection level	IP65
Output switch	DC circuit breaker (standard) / DC rotary isolating switch (optional)
SMC4 waterproof connector	Standard
Photovoltaic DC fuse	Standard
Photovoltaic DC fuse	Standard
Monitoring module	Optional
Anti-reverse diode	Optional
Box material	Metal
Installation method	Wall-mounted
Operating temperature	-25°C~+55°C
Altitude	2000 meter
Allow relative humidity	0~95%, no condensation

Diagram



DC Combiner Box Selection

HUXLD-16/1 PV Combiner Box



Application Scope

The HUXLD-PV16/1 lightning protection combiner box combines the DC input and sink of the 16-channel photovoltaic module string into one output, each line is equipped with a fuse, and the output is equipped with a lightning arrester and a circuit breaker, which greatly simplifies the DC power distribution cabinet and the reverse input wiring for the transformer. It provides lightning protection, short circuit protection and grounding protection. The intelligent lightning protection combiner box is equipped with a flow monitoring unit, which can monitor the current input by each photovoltaic cell string, the summed output voltage, the temperature inside the box, the state of the lightning arrester, and the state of the circuit breaker. It can be customized according to user requirements.



Features

High reliability

- Use PV fuses.
- Use PV surge protectors.
- Use PV DC breaker or rotary isolation switch.
- Technical Specifications for Photovoltaic Confluence Equipment* CGC/GF 037:2014.

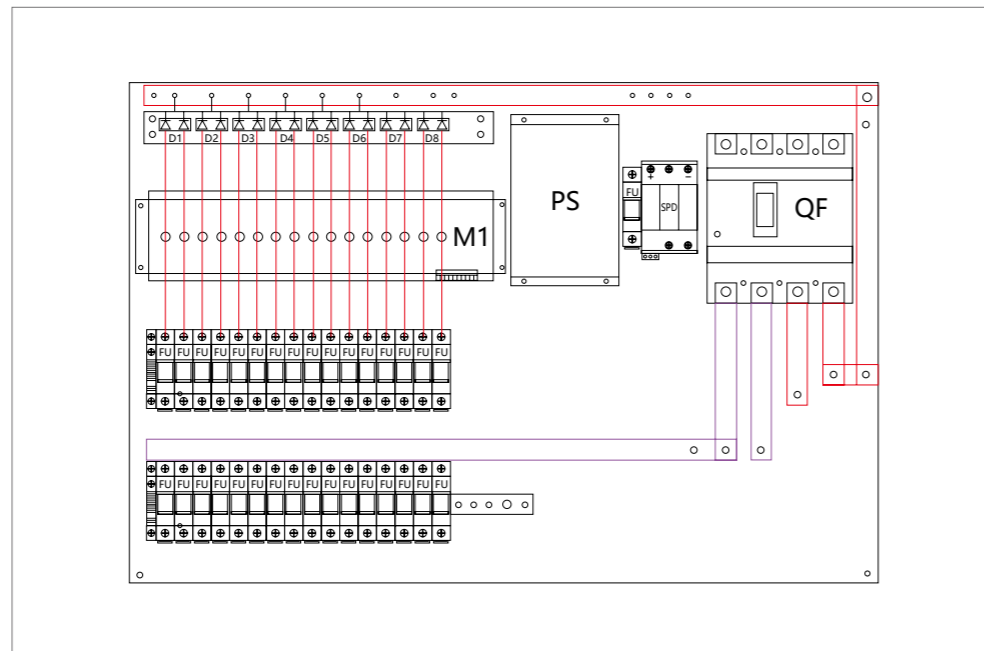
Strong adaptability

- IP65 protection, waterproof, dust proof and UV resistant.
- Strict high and low temperature test, suitable for a wide area.
- The installation is simple, the system wiring is simplified, and the wiring is convenient.
- The box is made of metal materials such as cold rolled steel plate.

Flexible configuration

- Applicable to monocrystalline silicon, polycrystalline silicon, thin film photovoltaic modules, can modify the current level of photovoltaic fuses, circuit breakers, rotary isolating switches.

Diagram



DC Combiner Box Selection

HUXLD-16/1 PV Combiner Box

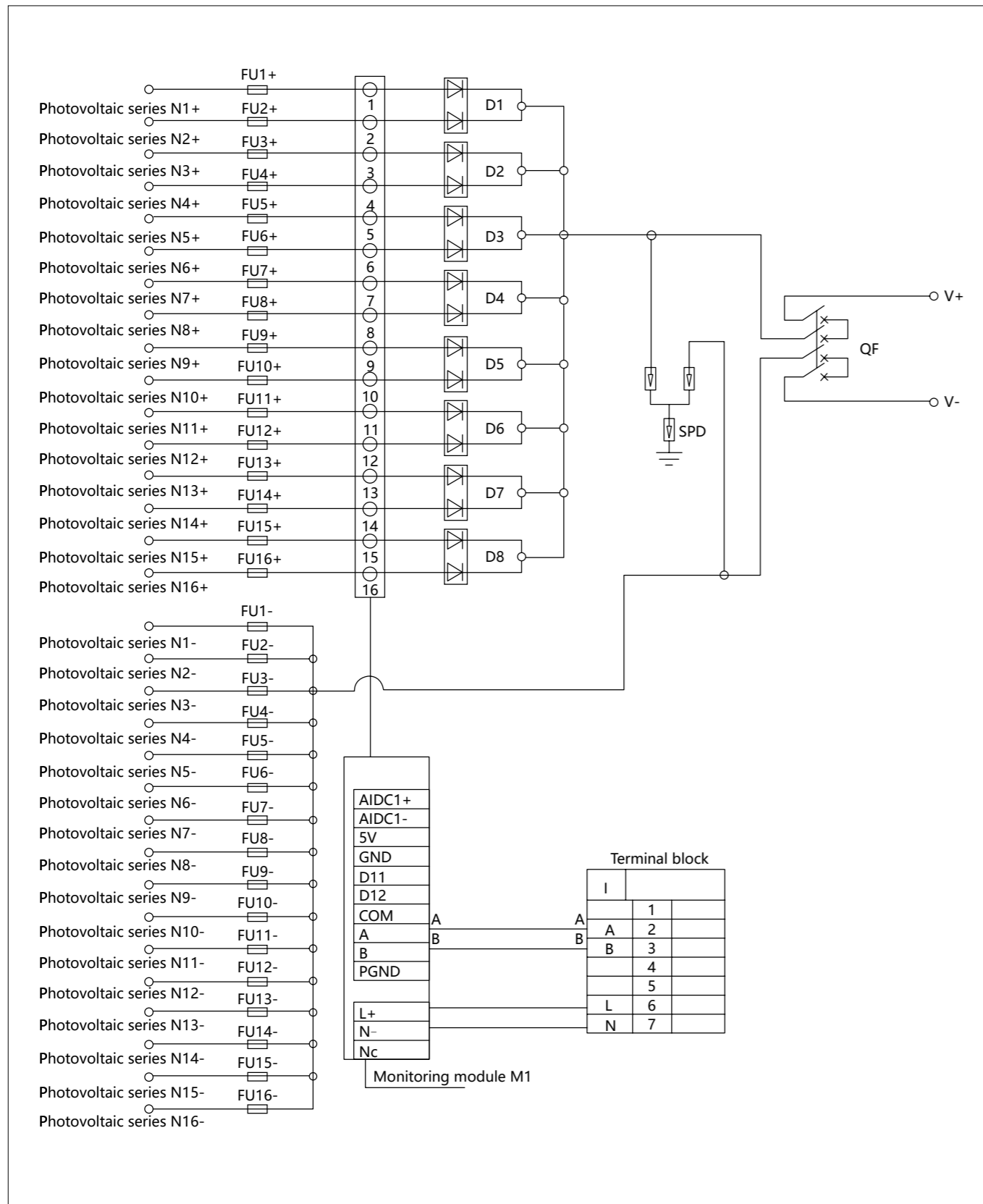
Technical Parameters

Name	HUXLD-PV16/1
Electrical parameters	
System maximum DC voltage	1500
Maximum input current per channel	15A
Maximum number of input channels	16
Maximum output switching current	200A
Number of inverter MPPT	N
Number of output channels	1
Lightning protection	
Test category	II pole protection
Nominal discharge current	20kA
Maximum discharge current	40kA
Voltage protection level	3.8kV
Maximum continuous operating voltage	1500V
Number of poles	3P
Structural features	Pluggable module
System	
Protection level	IP65
Output switch	DC circuit breaker (standard) / DC rotary isolating switch (optional)
SMC4 waterproof connector	Standard
Photovoltaic DC fuse	Standard
Photovoltaic DC surge protector	Standard
Monitoring module	Optional
Anti-reverse diode	Optional
Box material	Metal
Installation method	Wall-mounted
Operating temperature	-25 ~+ 55
Altitude	2000 meter
Allow relative humidity	0~95%, no condensation

DC Combiner Box Selection

HUXLD-16/1 PV Combiner Box

Diagram



DC Combiner Box Selection

HUXLD-24/1 PV Combiner Box



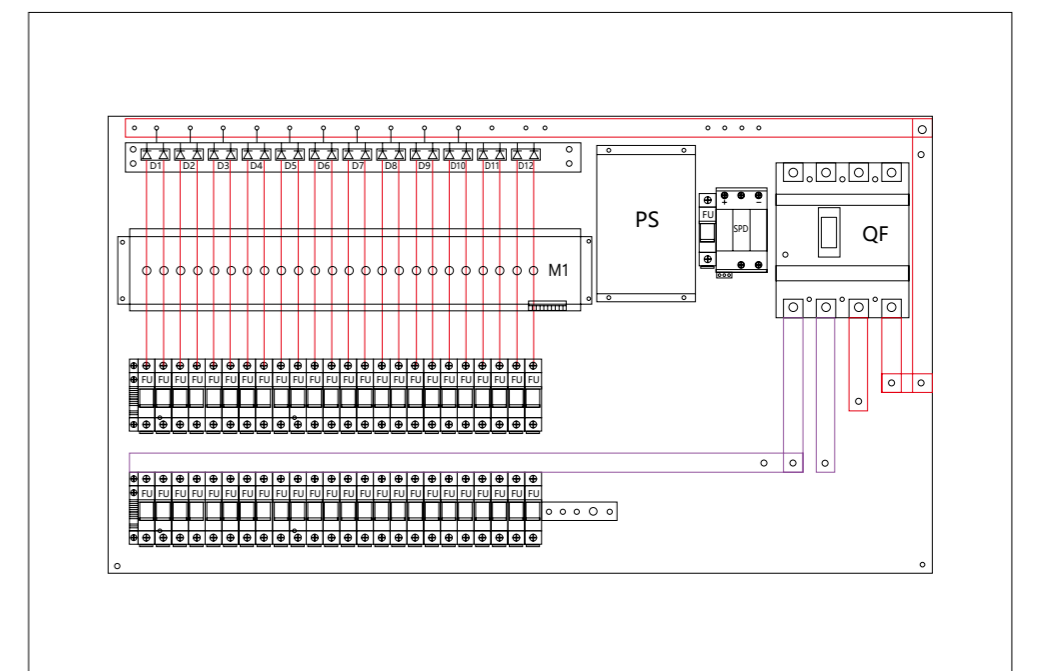
Application Scope

The HUXLD-24/1 lightning protection combiner box combines the DC input and sink of the 24-channel photovoltaic module string into one output, each line is equipped with a fuse, and the output is equipped with a lightning arrester and a circuit breaker, which greatly simplifies the DC power distribution cabinet and the reverse input wiring for the transformer. It provides lightning protection, short circuit protection and grounding protection. The intelligent lightning protection combiner box is equipped with a flow monitoring unit, which can monitor the current input by each photovoltaic cell string, the summed output voltage, the temperature inside the box, the state of the lightning arrester, and the state of the circuit breaker. It can be customized according to user requirements.

Features

- High reliability**
 - Use PV fuses.
 - Use PV surge protectors.
 - Use PV DC breaker or rotary isolation switch.
 - Technical Specifications for Photovoltaic Confluence Equipment" CGC/GF 037:2014.
- Strong adaptability**
 - Ip65 protection, waterproof, dust proof and UV resistant.
 - Strict high and low temperature test, suitable for a wide area.
 - The installation is simple, the system wiring is simplified, and the wiring is convenient.
 - The box is made of metal materials such as cold rolled steel plate.
- Flexible configuration**
 - Applicable to monocrystalline silicon, polycrystalline silicon, thin film photovoltaic modules, can modify the current level of photovoltaic fuses, circuit breakers, rotary isolating switches.

Diagram



DC Combiner Box Selection



HUXLD-24/1

PV Combiner Box

Technical Parameters

Name	HUXLD-24/1
Electrical parameters	
System maximum DC voltage	1500
Maximum input current per channel	15A
Maximum number of input channels	24
Maximum output switching current	400A
Number of inverter MPPT	N
Number of output channels	1
Lightning protection	
Test category	II pole protection
Nominal discharge current	20kA
Maximum discharge current	40kA
Voltage protection level	3.8kV
Maximum continuous operating voltage	1500V
Number of poles	3P
Structural features	Pluggable module
System	
Protection level	IP65
Output switch	DC circuit breaker (standard) / DC rotary isolating switch (optional)
SMC4 waterproof connector	Standard
Photovoltaic DC fuse	Standard
Photovoltaic DC surge protector	Standard
Monitoring module	Optional
Anti-reverse diode	Optional
Box material	Metal/SMC
Installation method	Wall-mounted
Operating temperature	-25 ~+ 55
Altitude	2000 meter
Allow relative humidity	0~95%, no condensation

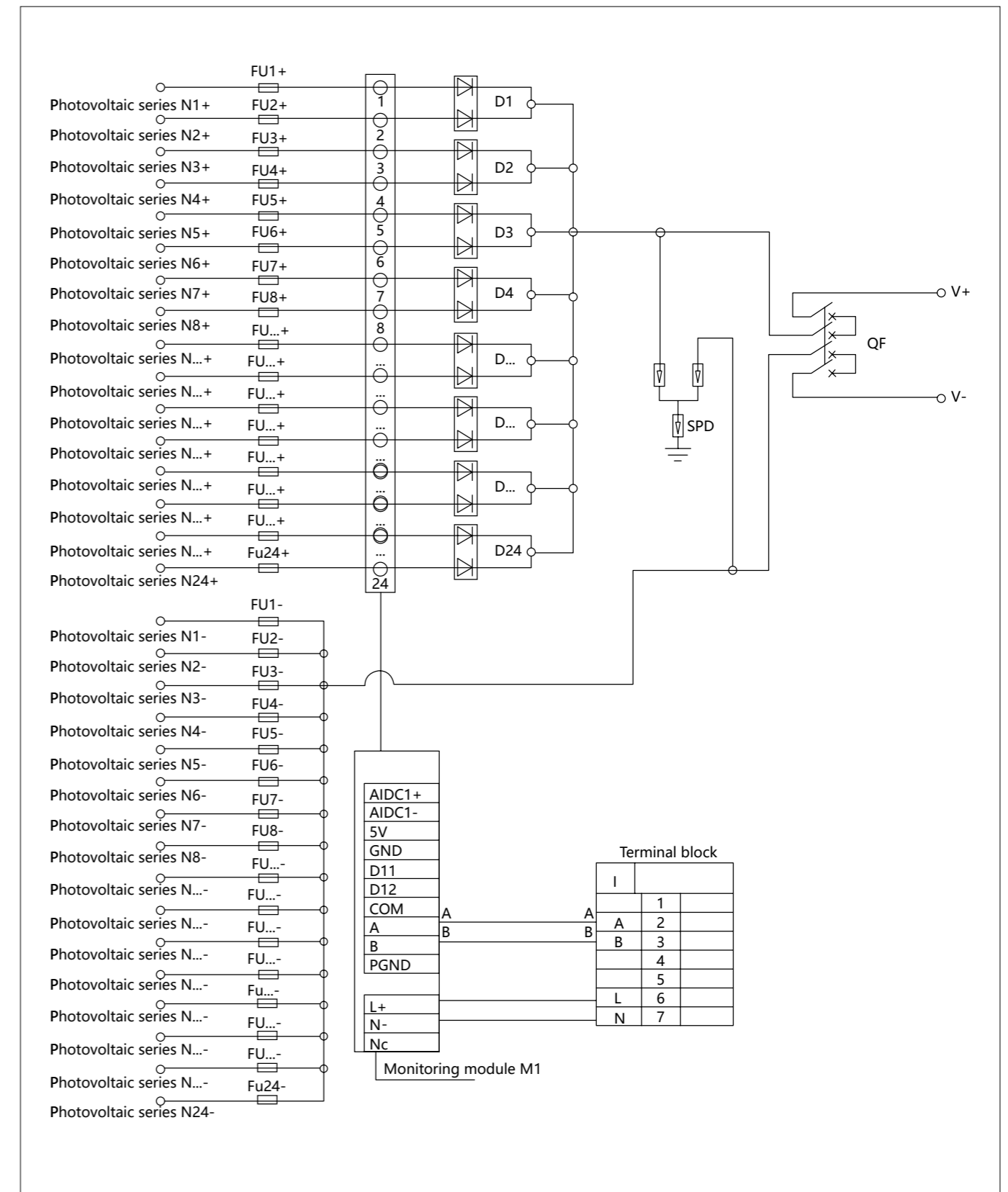
DC Combiner Box Selection



HUXLD-24/1

PV Combiner Box

Diagram



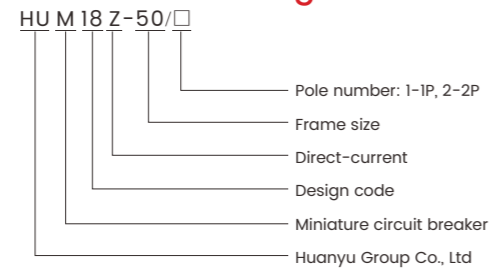
HUM18Z-50 DC MCB



Application range

The HUM18Z-50 series miniature DC circuit breaker is a new product developed on the basis of the HUM18-63 series high breaking miniature circuit breaker. The product is with reliable performance, high breaking ability, accurate protection and small size. It is widely used in communications, electric locomotive and other industries. Circuit breakers are mainly used in power line and power equipment with DC rated voltage of 220V/440V, rated current to 50A for over current protection, and can also be used for infrequent on-off operation. The product conforms to the standard: GB10963.2, IEC60898-2.

Model and Meaning



Normal working condition

- The upper limit of ambient air temperature is not more than +40°C, the lower limit is not less than -5°C, and the average value of 24h is not more than +35°C.
- Installation ≤2000m.
- The relative atmospheric humidity at the installation site does not exceed 50% at a maximum ambient temperature of 40°C, a higher relative humidity is allowed at a lower temperature and an average monthly maximum relative humidity is not more than 90%, while the average monthly temperature does not exceeds 25°C, and the condensation on the surface of the product caused by the temperature change should be taken into account.
- Class of pollution: class 2.
- Installation category: II, III.

Structure characteristics

- The upper limit of ambient air temperature is not more than +40°C, the lower limit is not less than -5°C, and the average value of 24h is not more than +35°C.
- Installation ≤2000m.
- The relative atmospheric humidity at the installation site does not exceed 50% at a maximum ambient temperature of 40°C, a higher relative humidity is allowed at a lower temperature and an average monthly maximum relative humidity is not more than 90%, while the average monthly temperature does not exceeds 25°C, and the condensation on the surface of the product caused by the temperature change should be taken into account.
- Class of pollution: class 2.
- Installation category: II, III.

Main technical parameters

1. Basic technical parameters

Frame size	Rated voltage (Ue)	Time constant	Rated current (In) (A)	Rated limit short circuit breaking capacity (Icn) (A)	Pole number	Release type
50	220V(1P) 440V(2P)	t ≤ 4ms	6, 10, 16, 20 25, 32, 40, 50	6000	1P 2P	B, C

2. Tripping characteristic of the circuit breaker

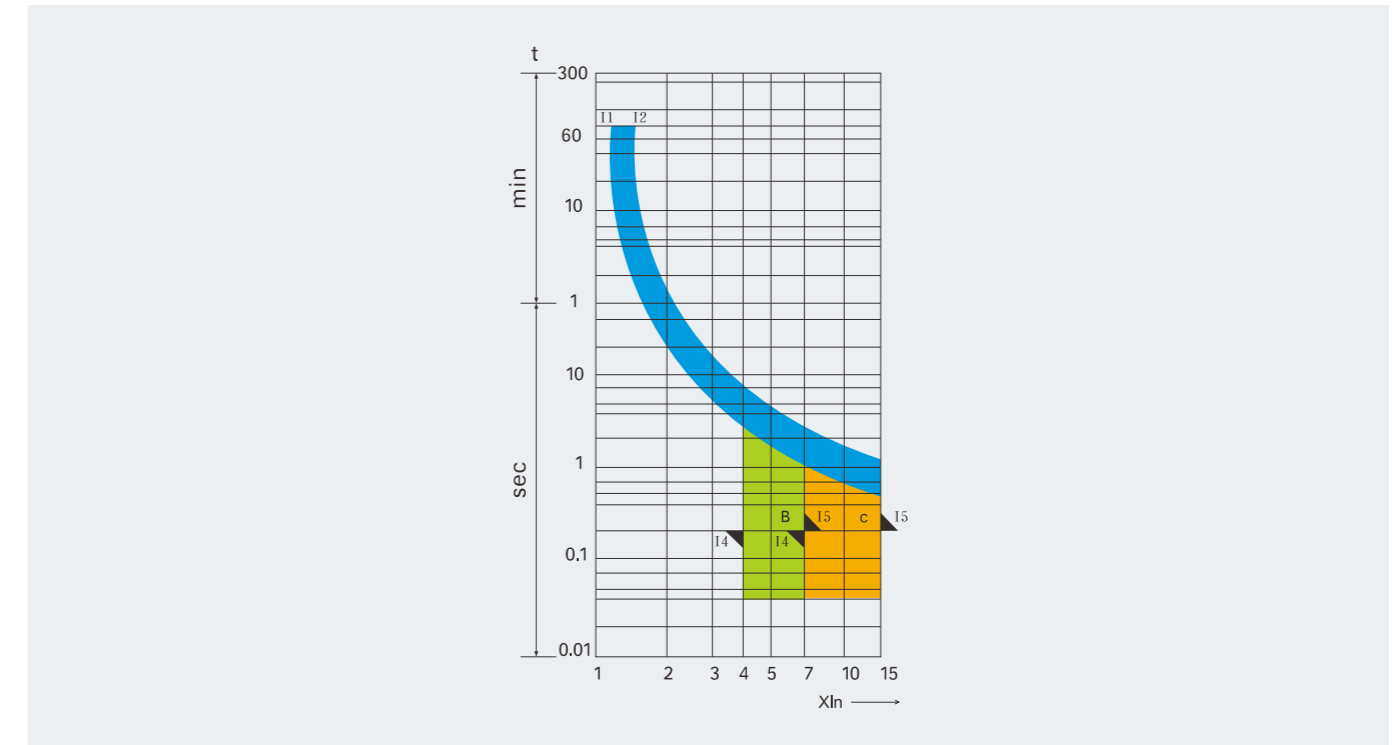
Release type		B	C	Tripping time	Expecting result	Ambient temperature
Thermal release	I1	1.13In	1.13In	≤1h	Non-tripping	30°C~35°C
	I2	1.45In	1.45In	<1h	Tripping	
Magnetic release	I4	4In	7In	≤0.1s	Non-tripping	Normal temperature
	I5	7In	15In	<0.1s	Tripping	

HUM18Z-50 DC MCB

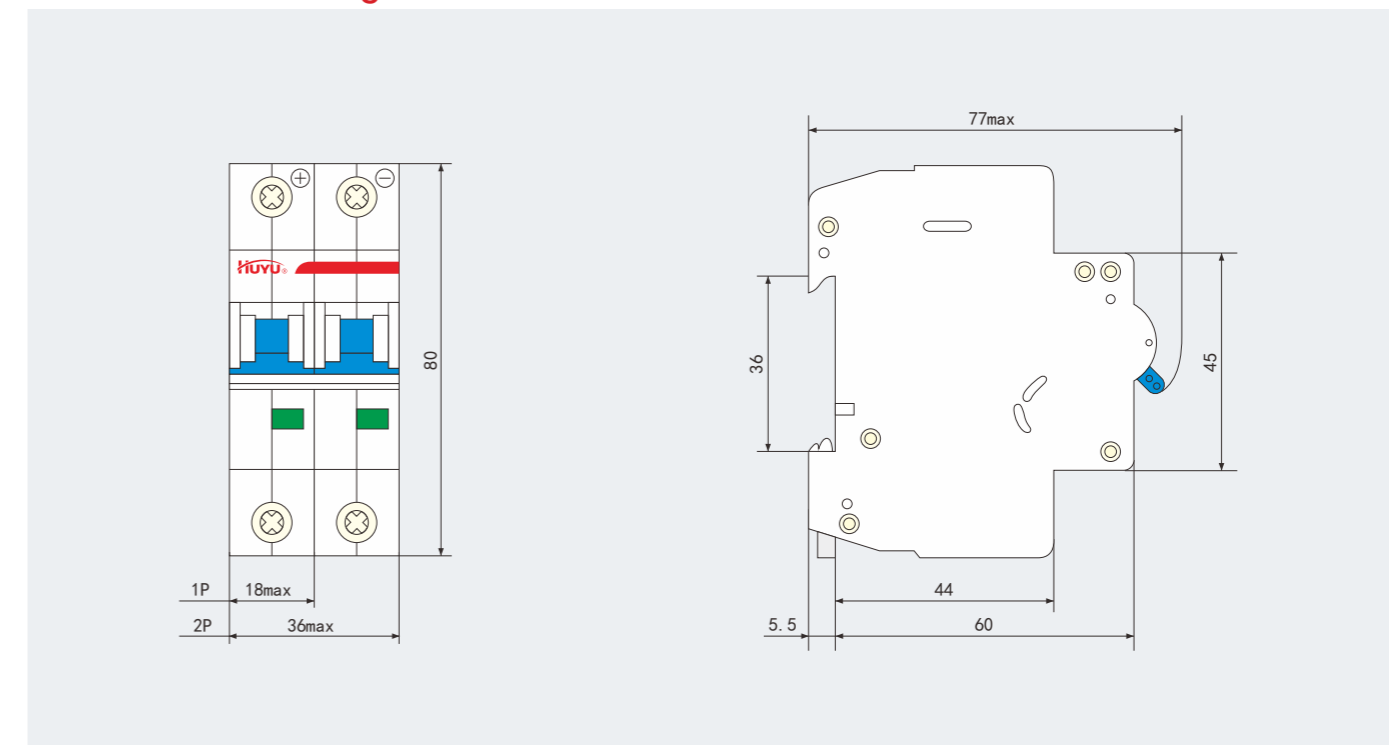
3. Sectional area of copper conductor corresponding to circuit breaker

Rated current In (A)	≤6	10	16, 20	25	32	40, 50
Traverse sectional area (mm²)	1	1.5	2.5	4	6	10

4. The tripping characteristic curve of the circuit breaker



Overall and mounting dimensions



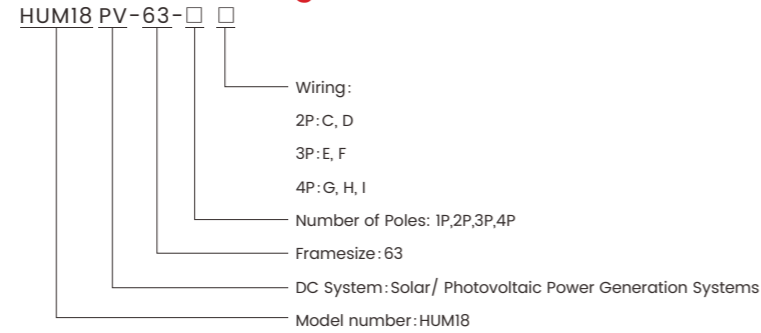
HUM18PV-63 DC MCB



Application Scope

HUM18PV-63 Series DC Miniature Circuit Breakers
 Application: Solar / Photovoltaic Power Generation Systems
 Standard: IEC 60947-2
 Certifications: CB, CE, CCC, TUV

Model and Meaning



Main technical data

Product model	HUM18PV-63
Standard	IEC60947-2
Certificate	CB, CE, CCC, TUV
Electrical characteristics	
Number of poles	1P, 2P, 3P, 4P
Rated current (A)	1, 2, 3, 4, 5, 6, 10, 16, 20, 25, 32, 40, 50, 63
Rated voltage (V)	DC250V(1P); DC500V(2P); DC750V(3P); DC1000V(4P)
Rated frequency (Hz)	50
Type	DC
Rated short-circuit breaking capacity I _{cu} (A)	10000
Operating short-circuit breaking capacity I _{cs} (A)	7500
Insulation voltage U _i (V)	1000
Rated impulse withstand voltage U _{imp} (1.2/50) (kV)	4(1P, 2P), 6(3P, 4P)
Tripping curve	10I _n ±20%
Electrical life (times)	10000
Mechanical life (times)	20000
Normal operation conditions and installation features	
Anti-humidity	*RH: <50% at +40; RH: <90% in the wettest month (<25°C)*
Benchmark ambient temperature (°C)	30
Operating ambient temperature (°C)	-25~+70
Applicable altitude height (m)	≤2000m
Max. wiring capacity (mm ²)	25
Max. ultimate torque (N·m)	2
Incoming method	Top-in, Bottom-out
Mounting method	TH35-7.5 standard rail mounting
Pollution degree	2

HUM18PV-63 DC MCB

Tripping characteristics

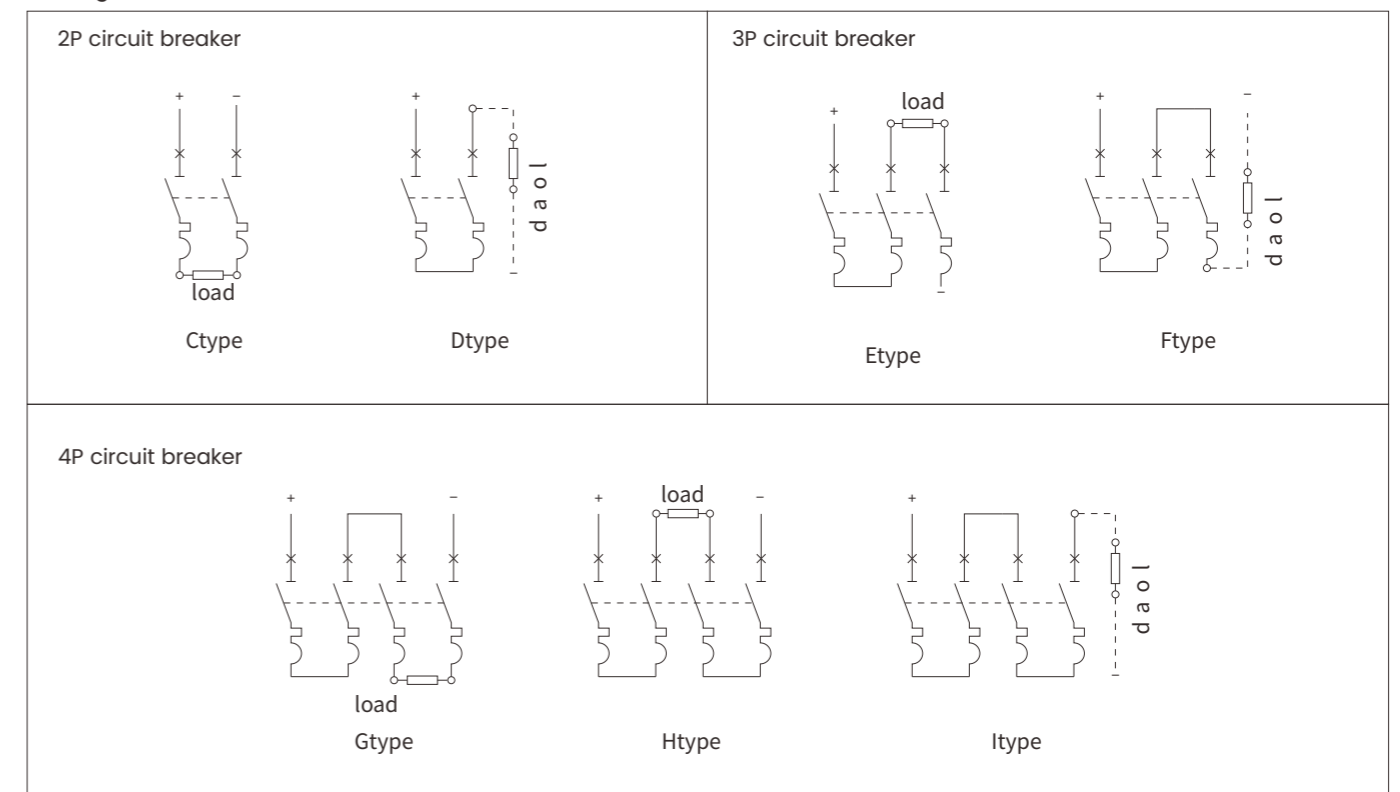
Tripping characteristics

Overcurrent tripping characteristics	Rated current (A)	Initial State	Testing Current (a)	Tripping Time (t)	Expected Result	Ambient Temperature
Timedelay	≤63	cold state	1.05I _n	≥1h	No tripping	30°C±2°C
		Thermal State (instantly Following The Above Experiment)	1.30I _n	<1h	Trip	
Instant Protection		Cold State	8I _n	≤0.2s	No tripping	Room Temperature
		12I _n	<0.2s	Trip		

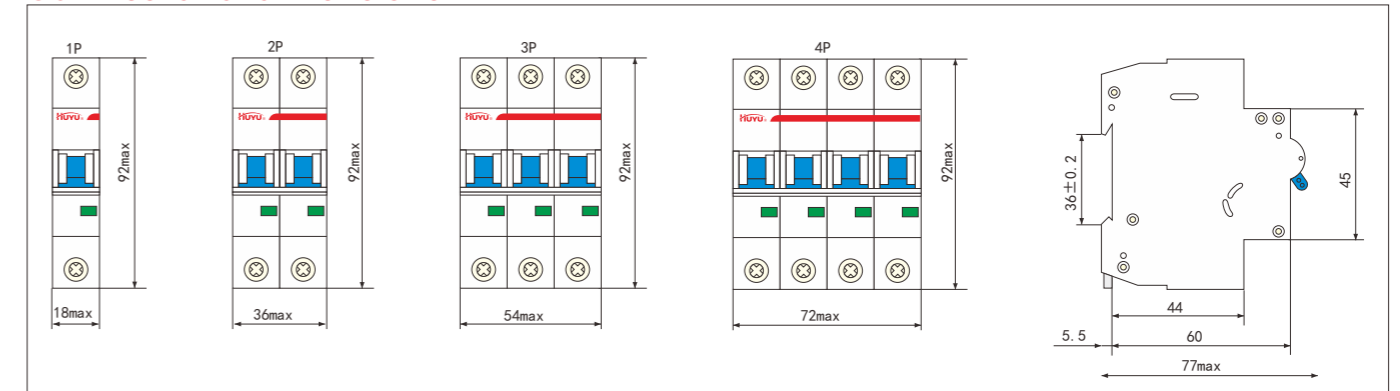
Rated dispersion coefficient when used in combiner box

Number of main circuits	2, 3	4, 5	6-9	>10
Rated dispersion coefficient	0.8I _n	0.85I _n	0.8I _n	0.8I _n

Wiring



Outlines and dimensions



HUB9NEZ-80/80(H) DC MCB



Application Scope

The HUB9NEZ-80 DC Circuit Breaker (hereinafter referred to as the "Circuit Breaker") is designed for use in DC operating environments. It is suitable for circuits with a rated operating voltage of up to DC 1000V and a rated operating current of up to 80A, where it serves to provide overload and instantaneous protection. The Circuit Breaker features both overload and short-circuit protection functions, safeguarding lines and power supply equipment against damage. The product is designed in compliance with the following standards: IEC/EN 60947-2, IEC/EN 60947-2 Annex P, GB/T 14048.2, GB/T 14048.2-2020 Annex P, and UL 489.

Model and Meaning



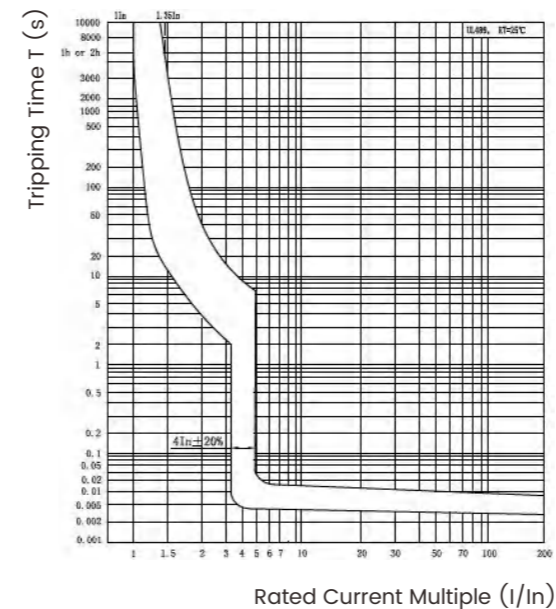
Example (UL Version): HUB9NEZ-80/C/80/2P/G/D/UL/MX+OF DC12-24V (Passive)
Example (General Version): HUB9NEZ-80H/C/80/2P/G/D/MX+OF DC12-24V (Passive)

HUB9NEZ-80/80(H) DC MCB

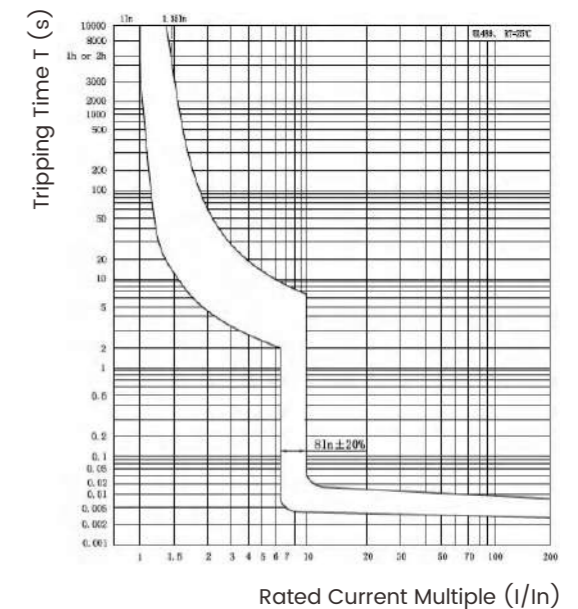
DC Circuit Breaker Technical Parameters

Model	HUB9NEZ-80/HUB9NEZ-80H			
Rated current I _n (A)	16, 20, 25, 32, 40, 50, 63, 80			
Number of poles	1P	2P	3P	4P
Rated operated voltage U _e (V)	TUV: DC250V/300V	TUV: DC500V/600V UL: DC500V	TUV: DC750V/900V UL: DC750V	TUV: DC1000V/1200V UL: DC1000V
Rated insulation Voltage U _i (V)	1000			
Rated impulse withstand voltage U _{imp} (kV)	6			
Tripping characteristics	B : 4In (±20%) C : 8In (±20%)			
Tripping type	Thermal magnetic type			
Ultimate breaking capacity I _{cu} (kA)	TUV:10/6, UL:10			
Operation breaking capacity I _{cs} (kA)	TUV:7.5/6, UL:6			
Electrical lifetime(time)	1500			
Mechanical lifetime(time)	10000			
Over-voltage level	III			
Pollution degree	3			
Protection grade	IP40, Wiring terminal IP20			
Damp and heat resistance	Class 2			
Relative humidity	≤95%			
Wiring ability	14~4 AWG or 1.5mm ² -25mm ²			
Wiring torque(N·m)	3.5			
Ambient temperature (°C)	-30~70			
Installation method	DIN			
Altitude(m)	≤2000			
Overall dimension(mm)	Width : 71.2(4P), 53.4(3P), 35.6(2P), 17.8(1P)			
	Height : 90			
	Depth : 77			
UL Standard accessory (phase board)	4P: 8 pcs, 3P: 6 pcs, 2P: 4 pcs			
Phase board dimension(mm)	Width : 17.8, Height : 54, Depth : 31.6			

Model and Meaning



Curve B: 4In (±20%)
B-Characteristic
 . Suitable for purely resistive loads and slightly inductive circuits
 . Applicable rated current range: 16A to 80A
 . Instantaneous tripping range: 4In ±20%



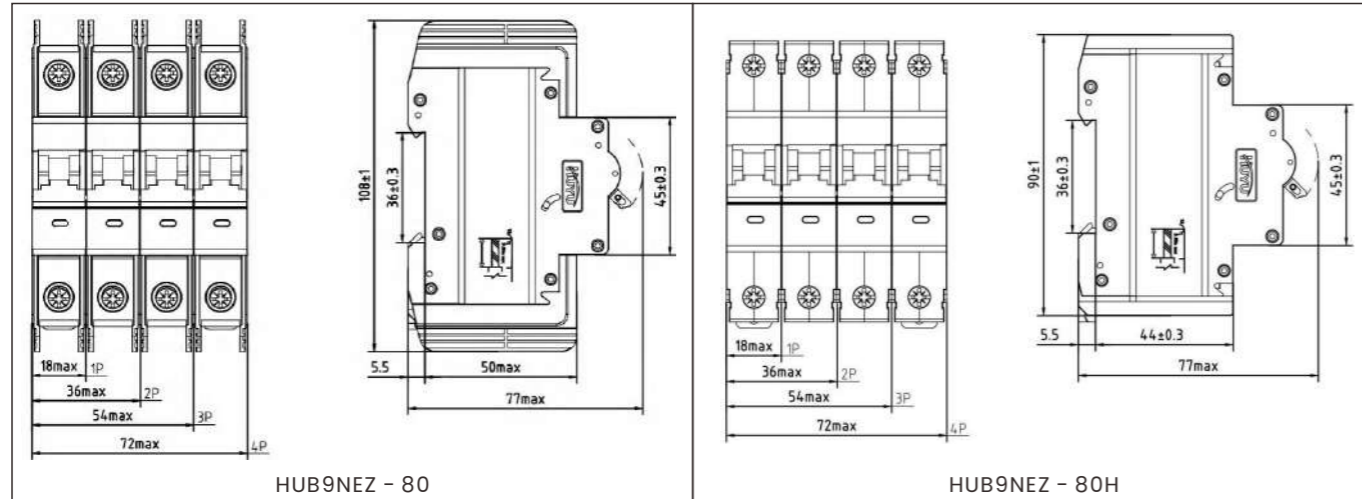
C-Curve: 8In (±20%)
C-Characteristic
 . Suitable for general-purpose loads and power distribution circuits
 . Applicable rated current range: 16A to 80A
 . Instantaneous tripping range: 8In ±20%

HUB9NEZ-80/80(H)

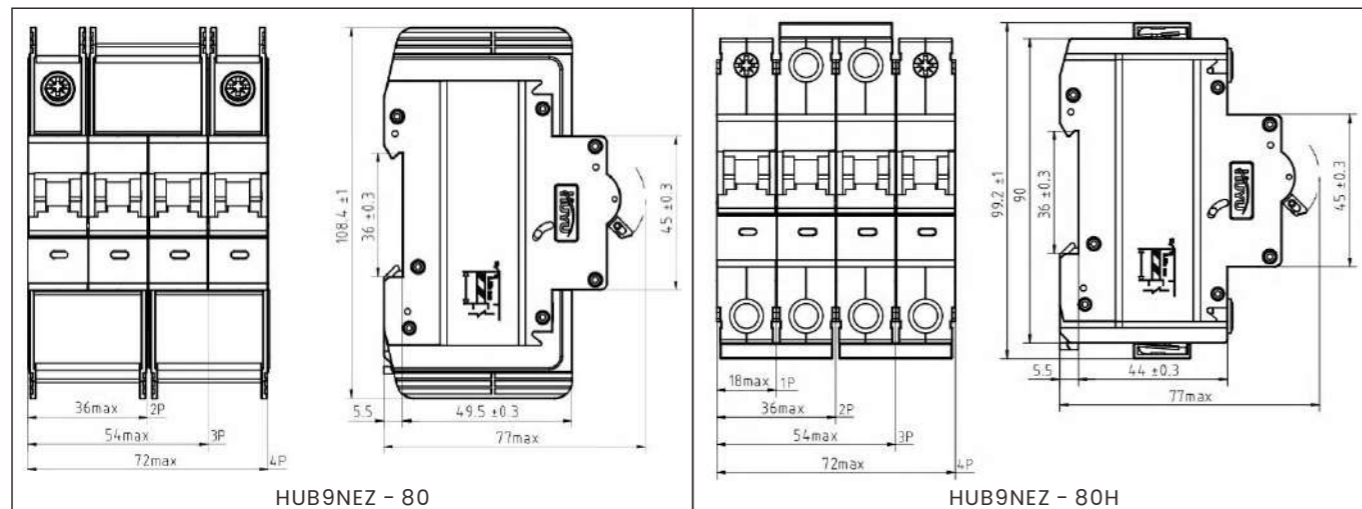
DC MCB

Dimensions and Installation

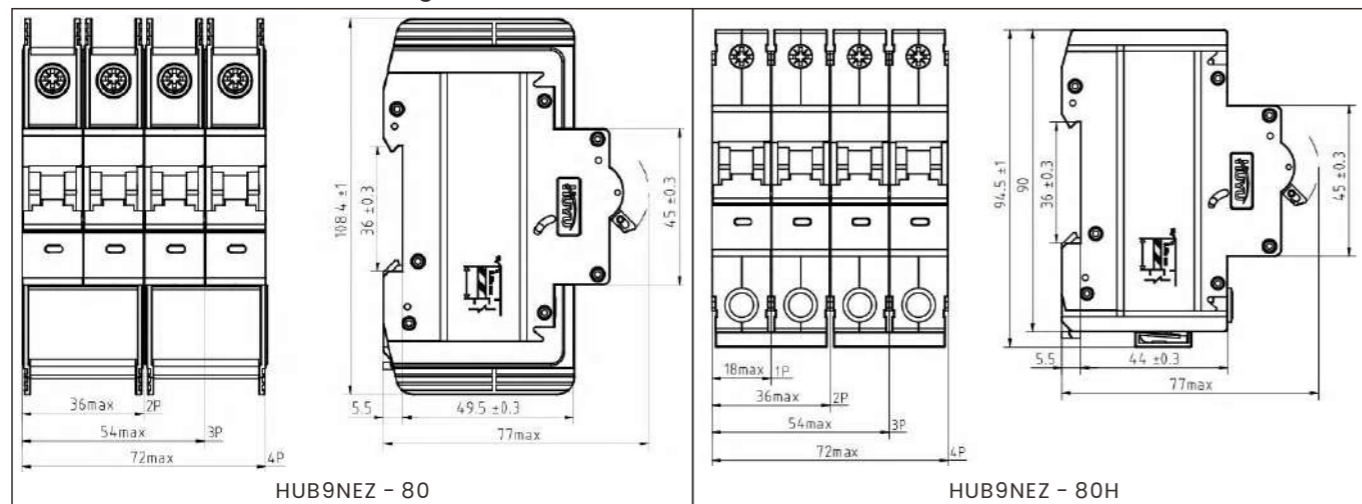
1. Circuit Breaker (See Figure)



2. Circuit Breaker + Shorting Bar (Grounded DC Network)



3. Circuit Breaker + Busbar (Non-grounded DC Network)



HUB9NEZ-80/80(H)

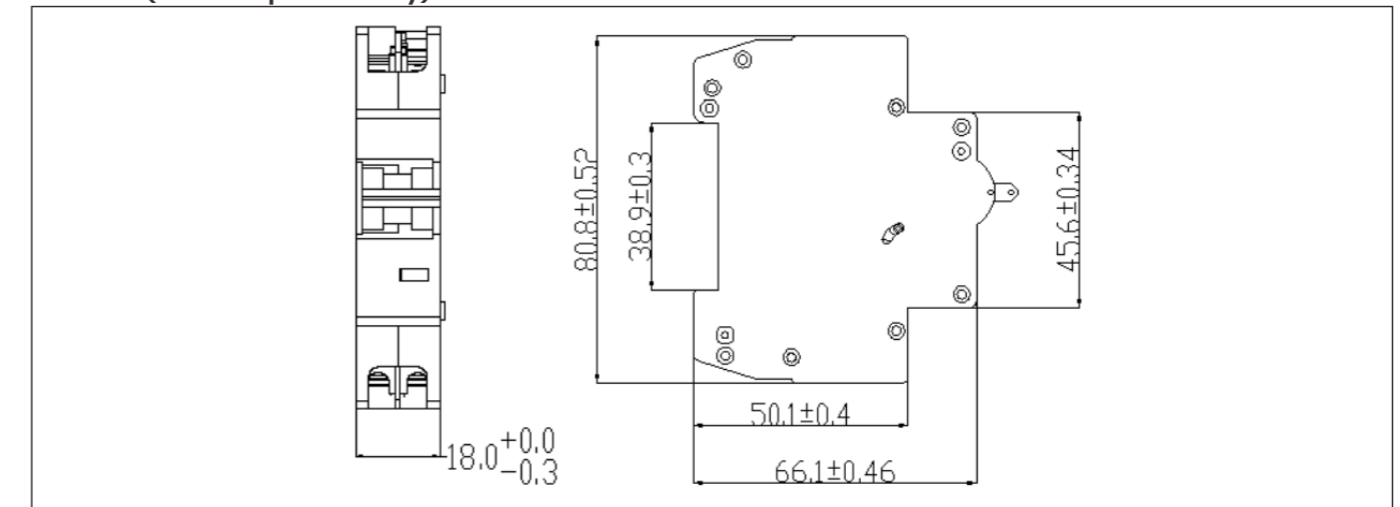
DC MCB

Shunt + Auxiliary (MX+OF) – Technical Specifications

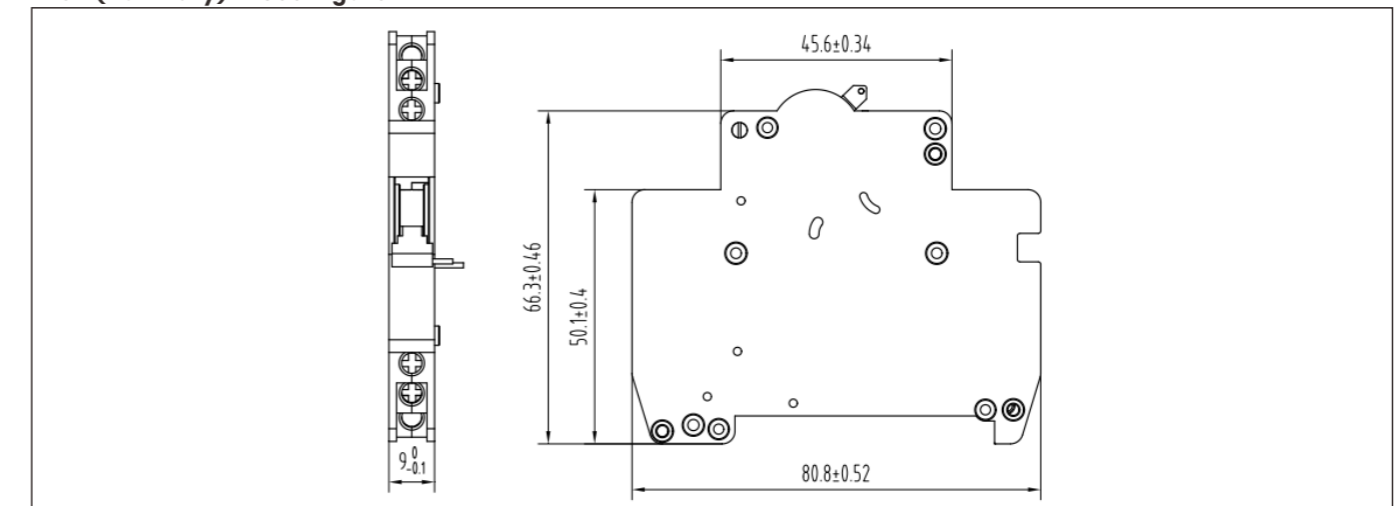
Name	MX+OF (Integrated Shunt Trip + Auxiliary Contact)
Rated Insulation Voltage U_i (V)	415
Rated Control Voltage U_s (V)	DC: 12-24
	DC: 24-48
	DC: 48-60
Tripping Power Consumption (W)	DC: 12V-24V; Minimum tripping power consumption: 25W
	DC: 24V-48V; Minimum tripping power consumption: 45W
	DC: 48V-48V; Minimum tripping power consumption: 50W
Pick-up Voltage	(0.7-1.1) U_s
Auxiliary Contact OF	6A 240VAC / 1A 130VDC

Accessory Outline and Mounting Dimensions

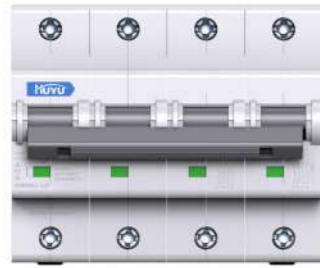
1. MX+OF (Shunt Trip + Auxiliary)



2. OF (Auxiliary) – See Figure 10.



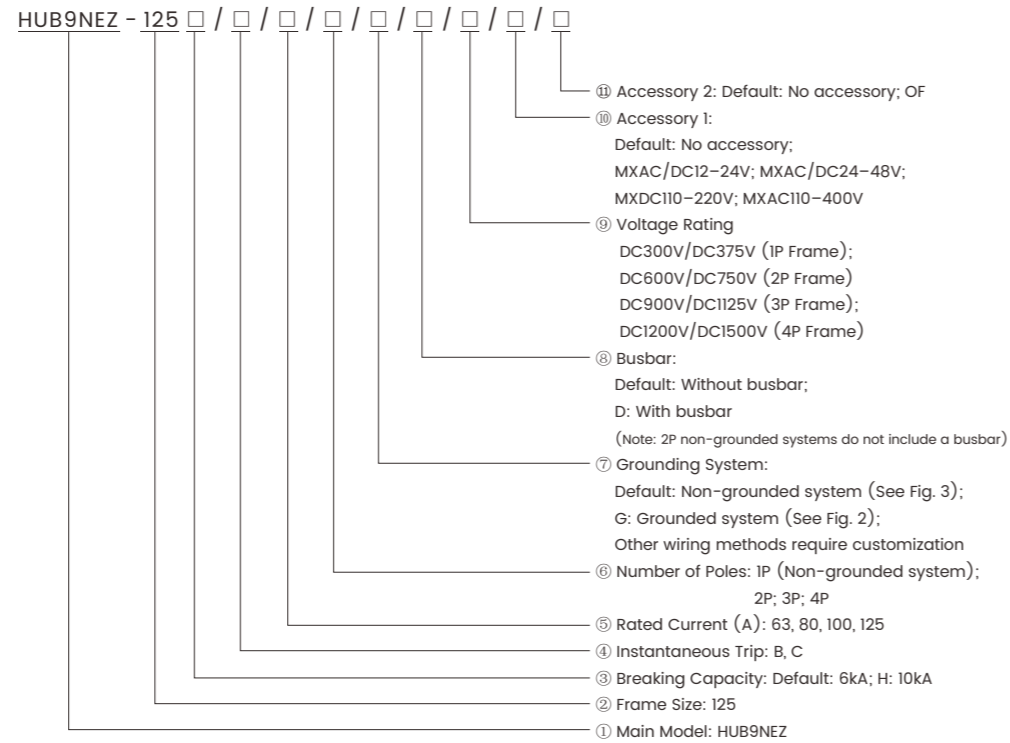
HUB9NEZ-125 DC MCB



Application Scope

The HUB9NEZ-125(H) DC Circuit Breaker (hereinafter referred to as "the Circuit Breaker") is designed for use in DC operating environments. It serves as a device for overload and instantaneous protection in circuits with a rated operating voltage of up to DC 1500V and a rated operating current ranging from 63A to 125A. Equipped with both overload and short-circuit protection functions, the Circuit Breaker effectively safeguards lines and power supply equipment against damage. The product is designed in compliance with the following standards: IEC/EN 60947-2, IEC/EN 60947-2 Annex P, and GB/T 14048.2.

Model and Meaning

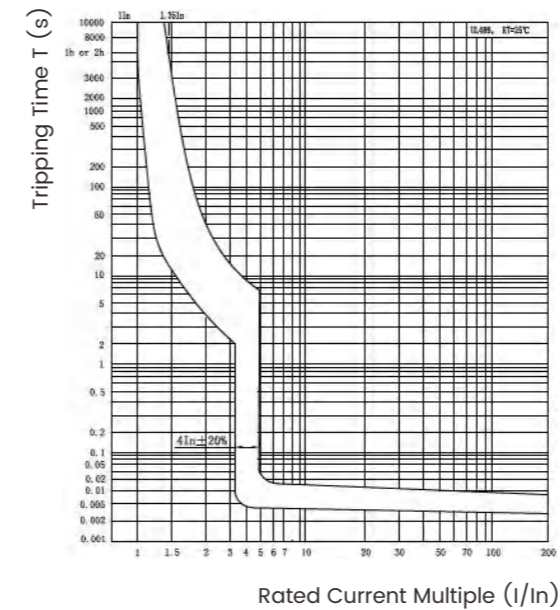


HUB9NEZ-125 DC MCB

DC Circuit Breaker Technical Parameters

Model	HUB9NEZ-125/HUB9NEZ-125H			
Rated current I _n (A)	63, 80, 100, 125			
Number of poles	1P	2P	3P	4P
Rated operated voltage U _e (V)	DC300V/375V	DC600V/750V	DC900V/1125V	DC1200V/1500V
Rated insulation Voltage U _i (V)	1500			
Rated impulse withstand voltage U _{imp} (kV)	6			
Tripping characteristics	B : 4I _n (1±20%) C : 8I _n (1±20%)			
Tripping type	Thermal magnetic type			
Ultimate breaking capacity I _{cu} (kA)	Ordinary type : 6 ; H type : 10			
Operation breaking capacity I _{cs} (kA)	Ordinary type : 6 ; H type : 7.5			
Electrical lifetime(time)	1500			
Mechanical lifetime(time)	10000			
Over-voltage level	III			
Pollution degree	3			
Protection grade	Ip40, Wiring terminal IP20			
Damp and heat resistance	Class 2			
Relative humidity	≤95%			
Wiring ability	16-50			
Wiring torque (N·m)	3.5			
Ambient temperature (°C)	-30 85			
Installation method	DIN			
Altitude (m)	≤2000			
Overall dimension (mm)	Width: 108(4P), 81(3P), 54(2P), 27(1P)			
	Height 92			
	Depth 82			

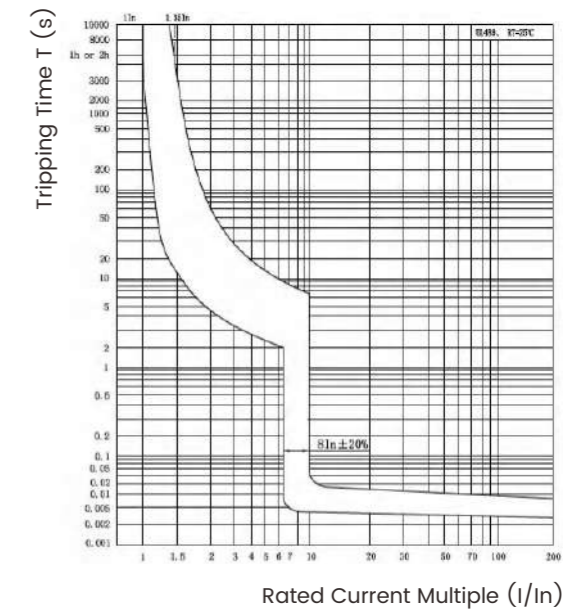
Model and Meaning



B-Curve: 4I_n (±20%)

B-Characteristic

- Suitable for purely resistive loads and slightly inductive circuits.
- Applicable rated current range: 63A to 125A.
- Instantaneous tripping range: 4I_n ±20%.



C-Curve: 8 I_n (±20%)

C-Characteristic

- Suitable for general-purpose loads and power distribution circuits
- Applicable rated current range: 63 A to 125 A
- Instantaneous tripping range: 8 I_n ±20%

HUB9NEZ-125

DC MCB

Dimensions and Installation

1. Overall installation dimensions for the circuit breaker and accessories are shown in Figure 6 and Table 6.

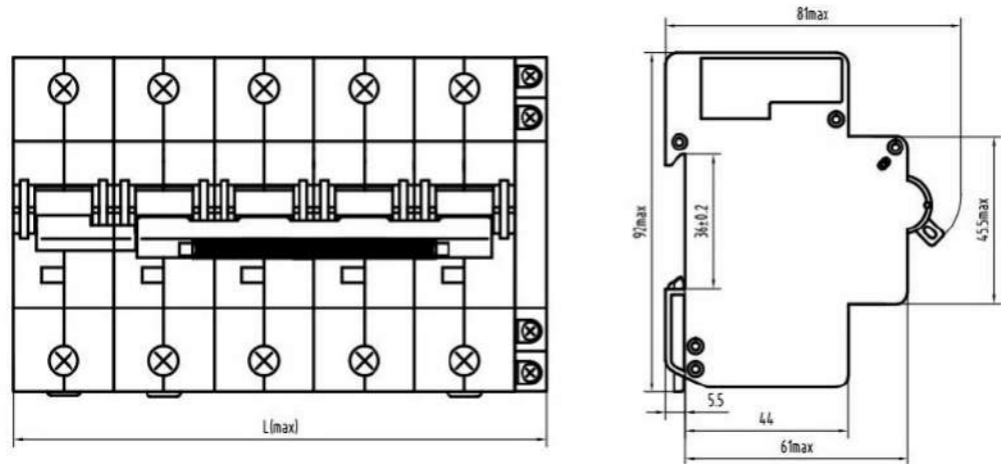
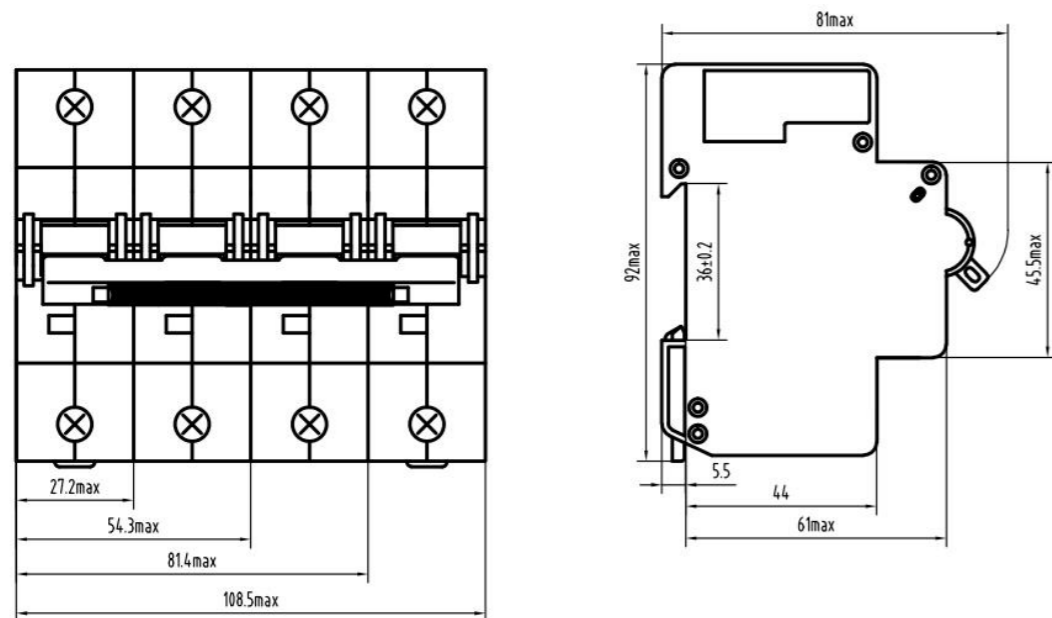


Figure 6: Circuit Breaker and Accessories — Installation Dimensions

Table 6: Circuit Breaker and Accessory Installation Dimensions

Poles	Appendix <i>L(max)</i>	Circuit Breaker Body + MX Shunt Trip Unit	Circuit Breaker Body + OF Auxiliary Contact	Circuit Breaker Body + MX Shunt Trip + OF Auxiliary Contact
1P		54.4	36.2	63.4
2P		81.6	63.4	90.6
3P		108.8	90.6	117.8
4P		136	117.8	145

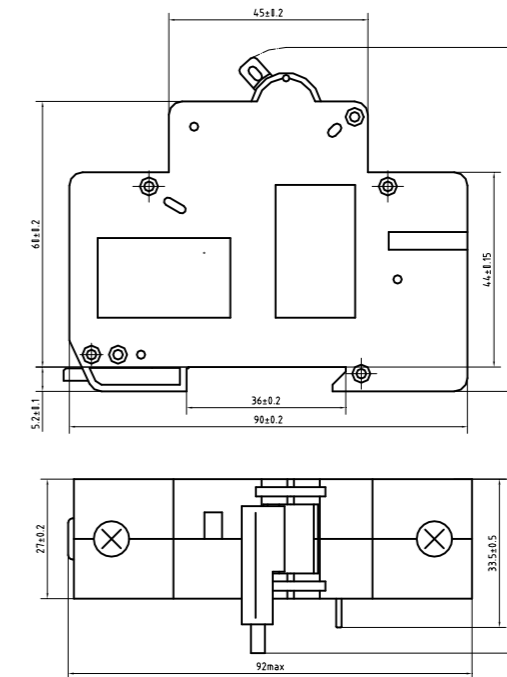
2. Circuit Breaker Outline and Mounting Dimensions



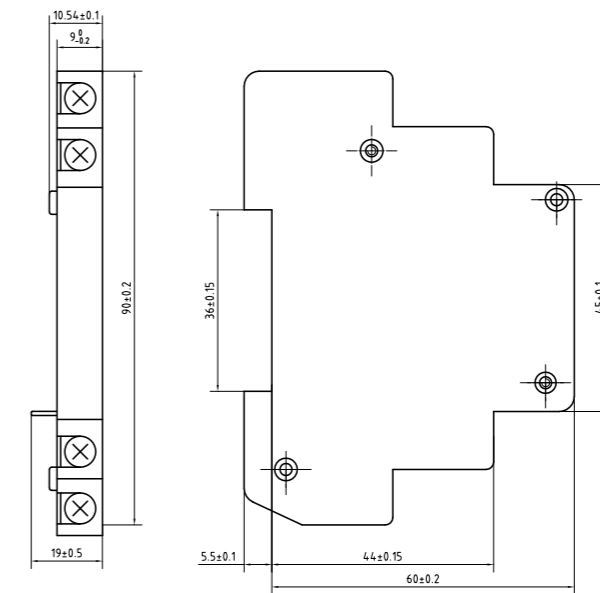
HUB9NEZ-125

DC MCB

3. Accessory Dimensions and Mounting Dimensions



MX (Shunt Trip) Dimensional Drawing



OF (Auxiliary) Outline Dimensions

HYRT3Z DC Fuse Holder



Application Scope

HYRT3Z series DC fuse holder is a fuse assembly that integrates isolator and switch functions. It must be used with fuse cores of corresponding specifications. It is prohibited to operate with load. It has obvious current limiting characteristics and can be used for short-circuit and overload protection in electrical devices to achieve the best safety guarantee of the line.

This series of products is designed and manufactured in accordance with IEC 60947-3 standard, with a rated current of up to 32A and a rated voltage of up to 1000V DC.

Applicable to:

- Photovoltaic DC combiner
- Inverter system
- Low-voltage DC distribution line

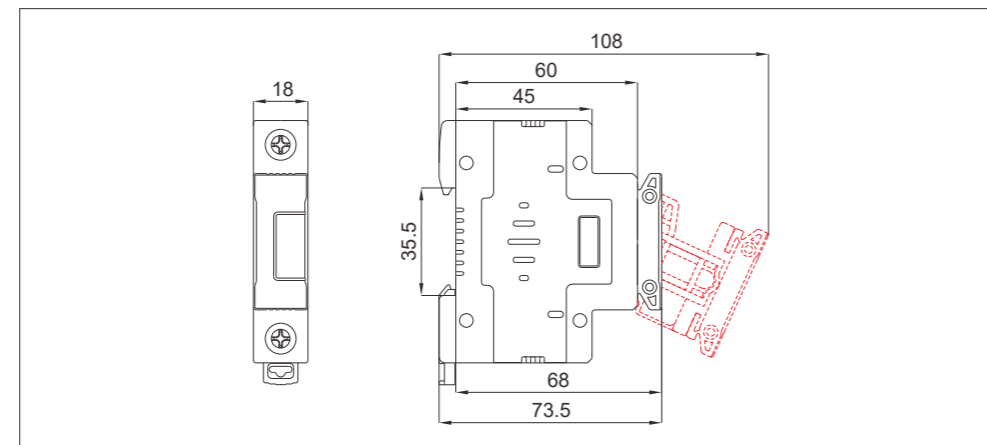
Main functions:

- Overcurrent protection
- Effective circuit disconnection

Main Technical Parameter

Fuse Base Model	Compatible Fuse Size	Rated Voltage	Rated Current (Max)	Power Loss
HYRT3Z-32	10×38mm	1000V DC	32A	6W
HYRT3Z-32L (with light)				

Product Dimensions



HYRT3Z-1038 Applicable Fuse Model



Technical Specifications

Standards: IEC 60269-6, UL 248-19

Rated Voltage: 1000V DC

Rated Current: 1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 16, 20, 25, 30, 32A

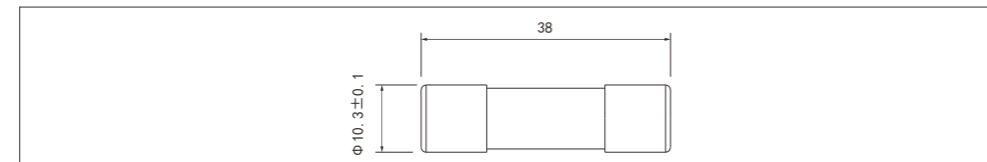
Breaking Capacity: 33kA

Construction: Cylindrical body with enforced arc-quenching design

Main Technical Parameter

Model	Fuse Size	Rated Voltage	Rated Current	Breaking Capacity
HYRT3Z-1038	10×38mm	1000V DC	1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 16, 20, 25, 30, 32A	33kA

Product Dimensions



HYRT2Z DC Fuse Holder



Application Scope

The HYRT2Z series DC fuse holder is a DC fuse component that integrates the functions of an isolator and a switch. It must be used with a fuse link, features a clear current-limiting characteristic, and complies with the IEC60947-3 standard.

Main Functions:

- Short-circuit and overload protection
- Overcurrent protection
- Effective circuit disconnection (non-load operation)

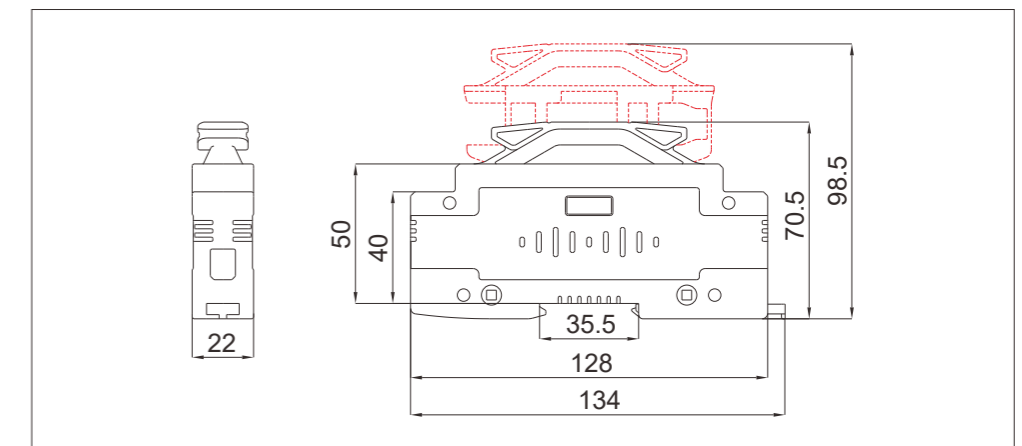
Applications:

- Photovoltaic (PV) DC combiner boxes
- PV inverters
- Low-voltage DC distribution lines and systems (rated up to 50A, 1500V DC)

Main Technical Parameter

Fuse Base Model	Compatible Fuse Size	Rated Voltage	Rated Current (Max)	Power Loss
HYRT2Z-50	10x85mm	1500V DC	35A	16W
	14x85mm		50A	

Product Dimensions



HYRT2Z-1085 HYRT2Z-1485 Applicable Fuse Model



Technical Specifications

Standard: IEC60269-6, UL248-19

Rated voltage: 1500V DC

Rated current: (HYRT2Z-1085) 1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 16, 20,

(HYRT2Z-1485) 15, 16, 20, 25, 32, 32, 25, 40, 45, 50A

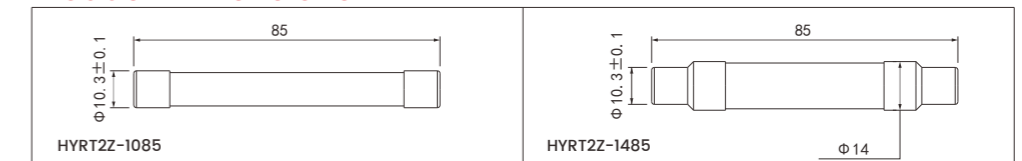
Breaking capacity: 50kA

Structure: cylindrical, with forced arc extinguishing characteristics

Main Technical Parameter

Model	Fuse Size	Rated Voltage	Rated Current	Breaking Capacity
HYRT2Z-1085	10×85mm	1500V DC	1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 16, 20, 25, 30, 32, 35A	50kA
HYRT2Z-1485	14×85mm		15, 16, 20, 25, 30, 32, 35, 40, 45A	

Product Dimensions



DC Components

EXU3DC-I+II

DC Surge Protective Device



Application Scope

Installed at Ipz0-1 and above, it protects low-voltage equipment from lightning and surge damage, and is suitable for various power supply systems of PSD I+II (B+C)
Designed according to IEC 61643-1

Main functions:

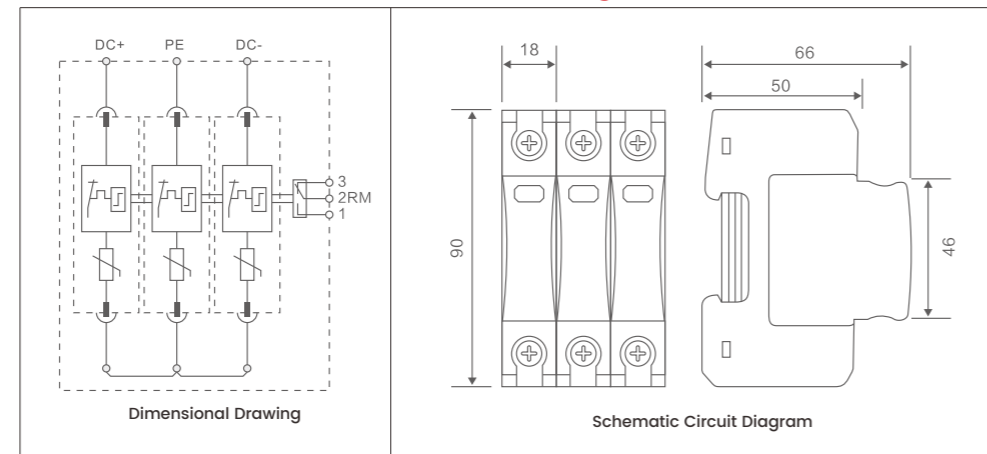
- Pluggable module for easy installation and maintenance
- Large discharge capacity and fast response
- Dual thermal disconnect device for more reliable protection
- Multi-function terminal for wire and busbar connection
- When a fault occurs, the green window turns red, and a remote alarm terminal is triggered.

Main Technical Parameter

model	EXU3DC-I+II /3P
Maximum continuous operating voltage	800VDC/1000VDC/1200VDC
Surge current	7kA
Nominal discharge current	20kA
Maximum discharge current	50kA
Voltage protection level	4.2kV/4.5kV/5.0kV
Continuous current	32A fuse will not be triggered at 2kA rms 255V
Response time	≤100ns
Maximum backup fuse	200A gL/gG
Maximum backup fuse	125A gL/gG
TOV voltage	355V/5sec
Operating temperature range (parallel circuit)	-40°C...+80°C
Operating temperature range (series circuit)	-40°C...+60°C
Installation wire cross-sectional area	35mm² solid/50mm² flexible
Installation method	35mm DIN rail
Casing material	Purple (module) / light gray (base) thermoplasti,UL94-V0
Specification	2 mods
Test standard	IEC 61643-1; YD/T 1235.1
Certification	CE ROHS ISO9001 CQC TUV
Remote signal installation connection type	Switching contact
Exchange capacity	250V/0.5A
Exchange capacity	250V/0.1A; 125V/0.2A; 75V/0.5A
Remote signal end wire cross-sectional area	Max.1.5mm² solid/flexible

model	EXU3DC-I+II /3P
Packing unit	1pc(s)
Weight	288g

Product Dimensions/Schematic Diagram



DC Components

EXU3DC-II

DC Surge Protective Device



Application Scope

Installed at Ipz0 -1 and above, protecting low voltage equipment from lightning and surge damage
Applicable to various power supply systems of PSD I+II (B+C)
Designed according to IEC 61643-1

Main functions:

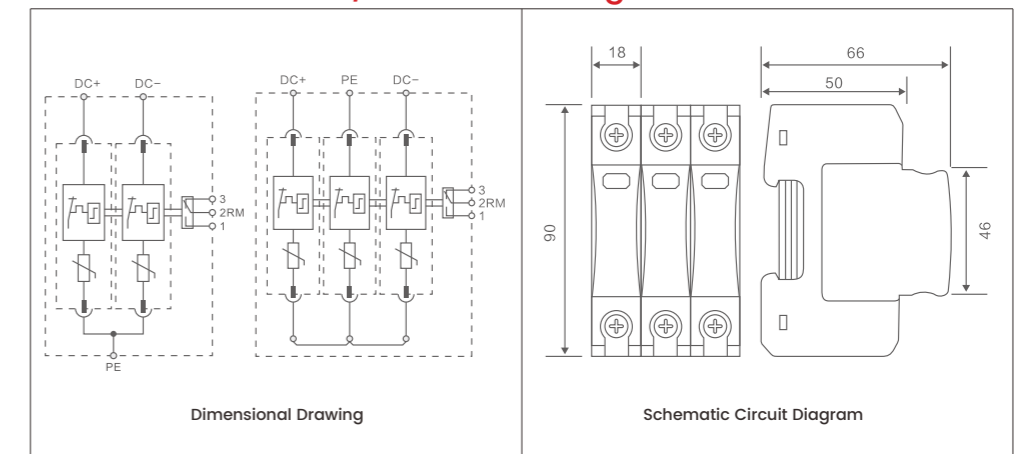
- Pluggable module for easy installation and maintenance
- Large discharge capacity and fast response
- Dual thermal disconnect device for more reliable protection
- Multi-function terminal for wire and busbar connection
- When a fault occurs, the green window turns red and a remote alarm terminal is triggered

Main Technical Parameter

model	EXU3DC-II/2P	EXU3DC-II/3P
Maximum continuous operating voltage	800VDC/1000VDC/1200VDC	
Nominal discharge current	20kA	
Maximum discharge current	40kA	
Voltage protection level	3.2kV/4.0kV/4.4kV	
Response time	≤25ns	≤25ns
Maximum backup fuse	125A gL/gG	125A gL/gG
Operating temperature range (parallel circuit)	-40°C...+80°C	-40°C...+80°C
Installation wire cross-sectional area	1.5mm²~ 25mm² solid/35mm² flexible	
Installation method	35mm DIN rail	
Casing material	Purple (module)/light gray (base) thermoplastic, UL94-V0	
Specification	1 mod	
Test standard	IEC 61643-1;YD/T 1235.1	
Certification	CE ROHS ISO9001 CQC TUV	
Remote signal installation connection type	Switching contact	
Exchange capacity	250V/0.5A	
Exchange capacity	250V/0.1A; 125V/0.2A; 75V/0.5A	
Remote signal end wire cross-sectional area	Max.1.5mm² solid/flexible	

model	EXU3DC-II/2P	EXU3DC-II/3P
Packing unit	2pc(s)	1pc(s)
Weight	206g	283g

Product Dimensions/Schematic Diagram



EXU3DC-II+III DC Surge Protective Device



Application Scope

Installed at Ipz0 -1 and above, protecting low voltage equipment from lightning and surge damage
Applicable to various power supply systems of PSD I+II (B+C).
Designed according to IEC 61643-1

Main functions:

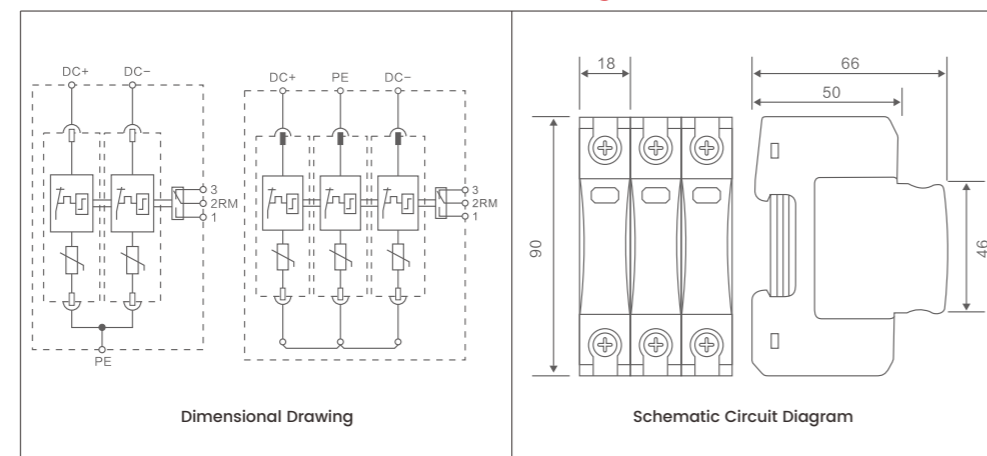
- Pluggable module for easy installation and maintenance
- Large discharge capacity and fast response
- Dual thermal disconnect device for more reliable protection
- Multi-function terminal for wire and busbar connection
- When a fault occurs, the green window turns red and a remote alarm terminal is triggered.

Main Technical Parameter

model	EXU3DC-II+III/2P	EXU3DC-II+III/3P
Maximum continuous operating voltage	800VDC/1000VDC/1200VDC	
Nominal discharge current	10kA	
Maximum discharge current	40kA	
Voltage protection level	3.2kV/4.0kV/4.4kV	
Response time	≤25ns	≤25ns
Maximum backup fuse	125A gl/gG	125A gl/gG
Operating temperature range (parallel circuit)	-40°C...+80°C	-40°C...+80°C
Installation wire cross-sectional area	1.5mm ² ~ 25mm ² solid/35mm ² flexible	
Installation method	35mm DIN rail	
Casing material	Purple (module)/light gray (base) thermoplastic, UL94-V0	
Specification	1 mod	
Test standard	IEC 61643-1;YD/T 1235.1	
Certification	CE ROHS ISO9001 CQC TUV	
Remote signal installation connection type	Switching contact	
Exchange capacity	250V/0.5A	
Exchange capacity	250V/0.1A; 125V/0.2A; 75V/0.5A	
Remote signal end wire cross-sectional area	Max.1.5mm ² solid/flexible	

model	EXU3DC-II+III/2P	EXU3DC-II+III/3P
Packing unit	2pc(s)	1pc(s)
Weight	198g	297g

Product Dimensions/Schematic Diagram



EXG3DC-32/EXBG3DC-32 PV Switch-disconnector



Application Scope

EXG3DC series photovoltaic DC disconnect switches are suitable for power systems with rated voltage DC1200V and below and rated current 32A and below. The product can be used for infrequent connection and disconnection, and can isolate and disconnect lines, and can disconnect 1-4 MPPT lines at the same time. It is suitable for isolating lines in DC transmission and distribution systems, such as cutting off the DC circuit between solar panels and inverters.

Main functions:

- IEC/EN 60947-3 and AS 60947.3 standards
- Use category: DC-PV1, DC-PV2
- Non-polarity
- Protection level: Rail type (Ip20), housing (IP66) UV resistant
- Lockable
- UV resistant and V0 flame retardant materials
- Arc extinguishing time 2ms

Main Technical Parameter

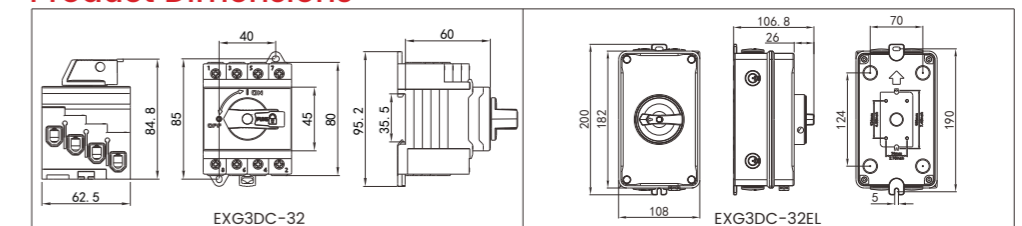
Model	EXG3DC-32 / EXBG3DC-32
Function	Isolation, control
Standard	IEC60947-3, AS60947.3
Use category	DC-PV1 / DC-PV2
Level	4P
Rated frequency	DC
Rated operating voltage (Ue)	300V/600V/800V/1000V/1200V
Rated insulation voltage (Ui)	1200V
Rated short-time withstand current (Icw)	1kA/1S(4, 4S, 4B) , 1.7kA/1S(2H)
Rated impulse withstand voltage (Uimp)	8.0kV
Overtoltage category	II
Polarity	Mechanically non-polar, "+" and "-" polarity can be interchanged.
Service life/number of operations	
Mechanical life	9700
Electrical life	300
Installation Environment	
Protection level	IP20
Storage temperature	-40°C~+85°C
Installation type	Vertical or horizontal
Degree of pollution	3



Wiring interchange-corresponding Diagram:

	4-Poles	4 pole with input and output on top	4 pole with input and output on bottom	4 pole with input on top and output on bottom
Specifications	4P	2T	4B	4S
Contacts Wiring Graph				
Switching Example				

Product Dimensions



Combiner Box Enclosure

EXEBIH

PV Combiner Box Enclosure

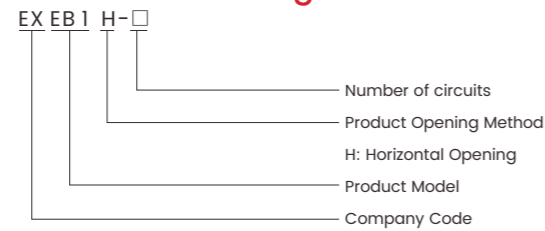


Application Scope

The base and cover are made of high-quality new PC material; the transparent front cover is also made of new PC material. These components feature excellent toughness, high strength, good impact resistance, and long service life.

- Suitable for indoor and outdoor environments, with waterproof, dustproof, and corrosion-resistant performance.
- Standards complied: GB/T 17466.1, GB/T 17466.24, IEC 60529 IP65
- Patent Numbers: 202221500007.6, 202230368813.1, 202230368814.6

Model and Meaning



Product Advantages Description



IP65 Protection Design
Sealed design, screws inside for better waterproofing



Latch Structure
Stronger locking structure



Label Position Reserved
Reserved space for control function labels



Lock Slot Design
Supports anti-theft lock installation



Circuit Partition Design
Removable left/right baffles for easy wiring



Captive Screws
Screws stay in place when loosened



Flexible Knockout Openings
Free to open cable entry holes



Copper Terminal Assembly
Passed 960°C glow wire test

EXCBIS Series Surface Mounted Waterproof Distribution Box Product Data Summary Table

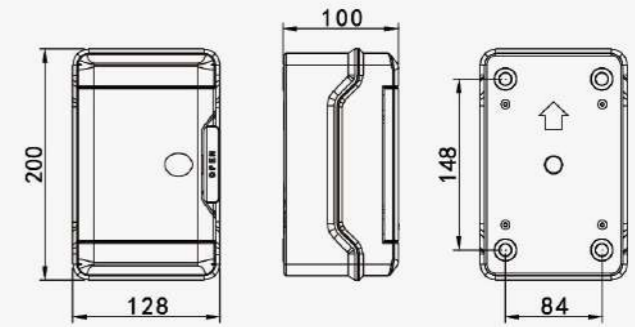
Model	Number of Circuits	Rows	Dimensions (mm) (H × W × D)	Zero and Ground Row Configuration	Mounting Method
EXEBIH-4	4 Circuits	1	128*200*100	Zero row: 3 holes Ground row: 3 holes	Surface / Wall-mounted
EXEBIH-6	6 Circuits	1	164*200*100	Zero row: 5 holes Ground row: 5 holes	Surface / Wall-mounted
EXEBIH-9	9 Circuits	1	218*200*100	Zero row: 5 holes Ground row: 5 holes	Surface / Wall-mounted
EXEBIH-13	13 Circuits	1	296*230*120	Zero row: 8 holes Ground row: 8 holes	Surface / Wall-mounted
EXEBIH-15	15 Circuits	1	332*230*120	Zero row: 8 holes Ground row: 8 holes	Surface / Wall-mounted
EXEBIH-18	18 Circuits	1	386*230*120	Zero row: 8 holes Ground row: 8 holes	Surface / Wall-mounted
EXEBIH-26	26 Circuits	2	296*390*130	Zero row: two 8 holes Ground row: two 8 holes	Surface / Wall-mounted
EXEBIH-39	39 Circuits	3	296*550*130	Zero row: two 8 holes Ground row: two 8 holes	Surface / Wall-mounted

Combiner Box Enclosure

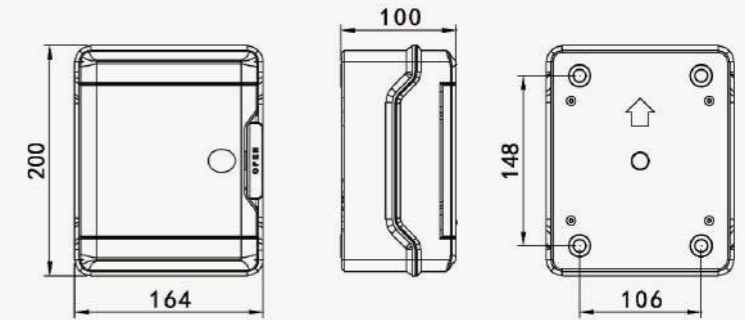
EXEBIS

PV Combiner Box Enclosure

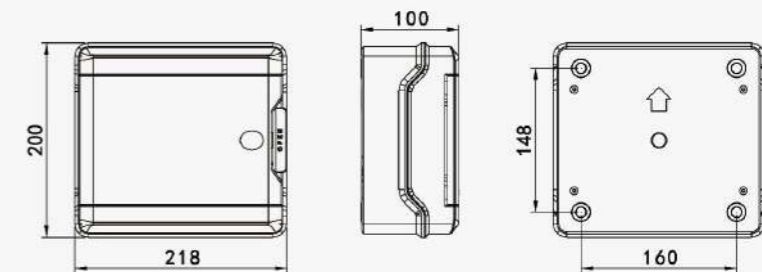
EXEBIH-4



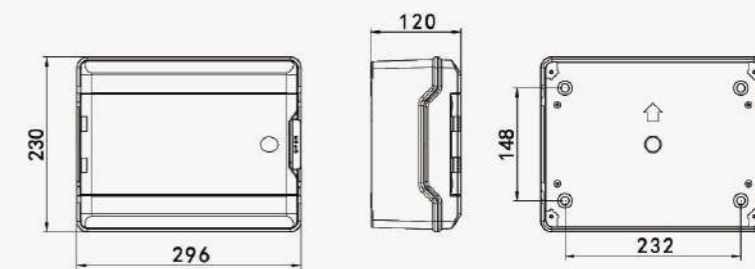
EXEBIH-6



EXEBIH-9



EXEBIH-13



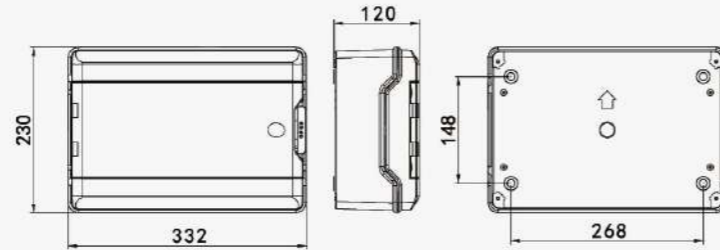
Combiner Box Enclosure



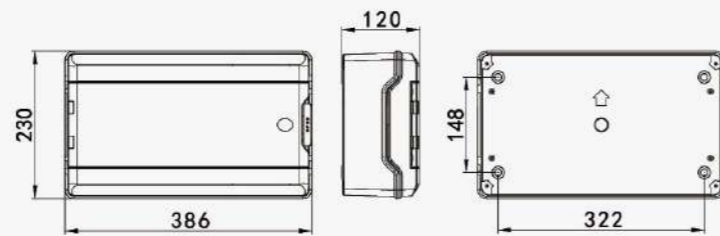
EXEBIH

PV Combiner Box Enclosure

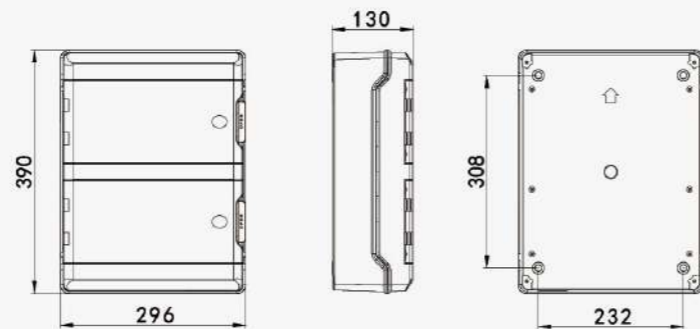
EXEBIH-15



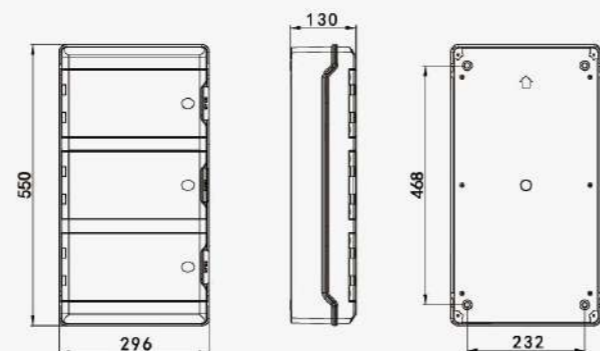
EXEBIH-18



EXEBIH-26



EXEBIH-39



Combiner Box Enclosure



EXEBIS

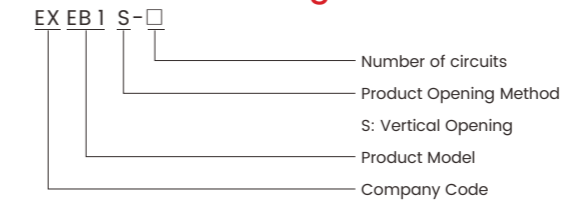
PV Combiner Box Enclosure

Application Scope

The bottom case and front frame are made of virgin ABS, while the transparent cover is made of virgin PC. They offer excellent toughness, strength, impact resistance, and a long service life. Suitable for indoor and outdoor use, including waterproofing, dustproofing, and corrosion resistance.

- Compliant with: GB/T 17466.1; GB/T 17466.24; IEC 60529 IP65
- Patent Number: 202230220346.8

Model and Meaning



Product Advantages Description



IP65 Protection
Sealed cover and base for strong waterproofing.



Buckle
Reinforced for secure fastening.



Hinged Cover
Opens ≥115°, stable, ≥500 cycles.



Installation Kit
4 expansion tubes
4 self-tapping screws.



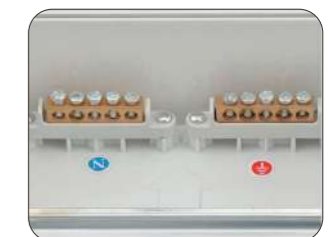
Circuit Baffles
Built-in, retractable, removable.



Face Frame
Captive screws outside waterproof strip.



Knockout Holes
Marked for easy sizing, with positioning hole.



Copper Terminals
Passed 960 °C glow-wire test.

EXCBIH Series Surface Mounted Waterproof Distribution Box Product Data Summary Table

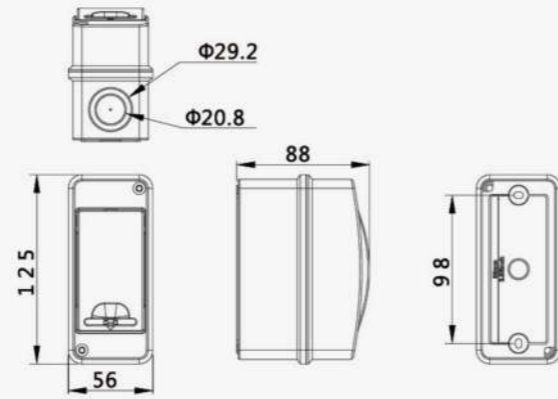
Model	Number of Circuits	Rows	Dimensions (mm) (H × W × D)	Zero and Ground Row Configuration	Mounting Method
EXEBIS-2	2 Circuits	1	56*125*88	/	Surface / Wall-mounted
EXEBIS-5	5 Circuits	1	129*170*95	Neutral bar: 3 holes Earth bar: 3 holes	Surface / Wall-mounted
EXEBIS-8	8 Circuits	1	183*170*95	Neutral bar: 5holes Earth bar: 5 holes	Surface / Wall-mounted
EXEBIS-12	12 Circuits	1	255*200*105	Neutral bar: 8 holes Earth bar: 8 holes	Surface / Wall-mounted
EXEBIS-15	15 Circuits	1	309*200*105	Neutral bar: 8 holes Earth bar: 8 holes	Surface / Wall-mounted
EXEBIS-18	18 Circuits	1	363*200*110	Neutral bar: 8 holes Earth bar: 8 holes	Surface / Wall-mounted
EXEBIS-24	24 Circuits	2	270*360*110	Neutral bar: 2 pcs × 8 holes Earth bar: 2 pcs × 8 holes	Surface / Wall-mounted

Combiner Box Enclosure

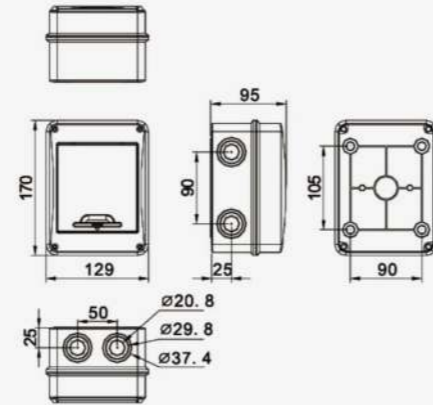


EXEBIS PV Combiner Box Enclosure

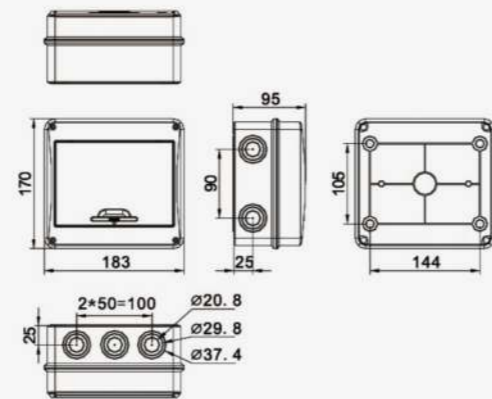
EXEBIS-2



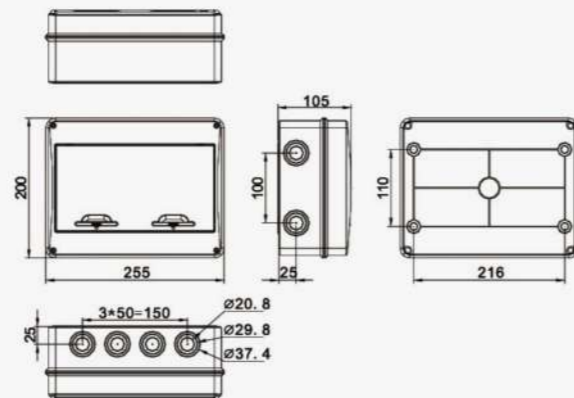
EXEBIS-5



EXEBIS-8



EXEBIS-12

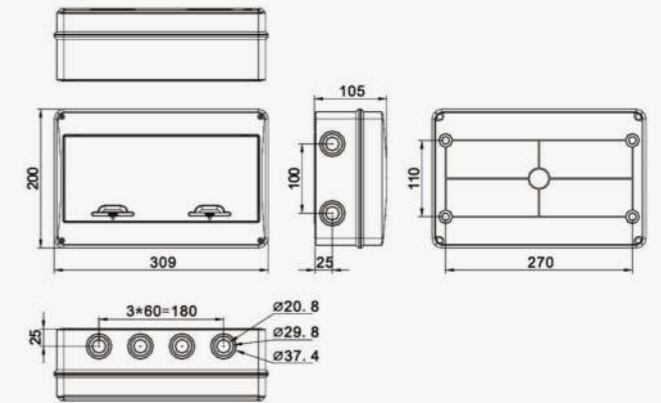


Combiner Box Enclosure

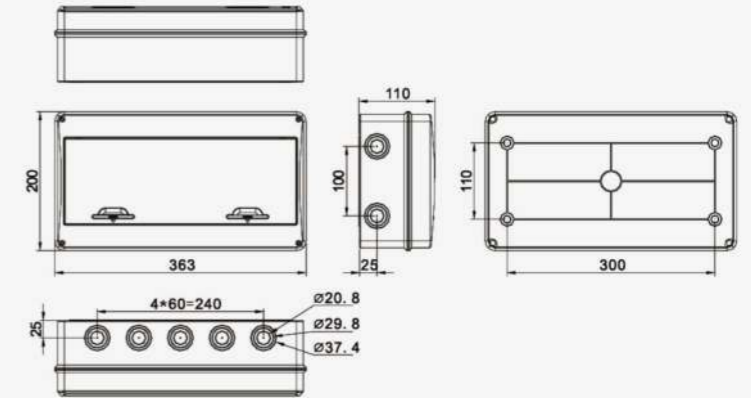


EXEBIS PV Combiner Box Enclosure

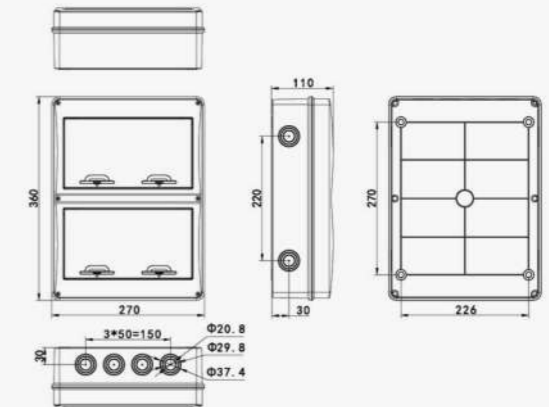
EXEBIS-15



EXEBIS-18



EXEBIS-24



Combiner Box Enclosure



EXEB3H

PV Combiner Box Enclosure



Application Scope

Features

- IP66 waterproof, dustproof, and anti-corrosion protection
- UV resistant
- Withstands 650 °C glow-wire test

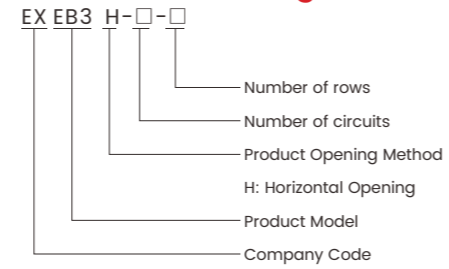
Customization & Installation

- Openings can be customized to customer requirements
- Complete range of specifications
- Easy and convenient installation

Standards

- IEC 60670-24, GB/T 17466.24

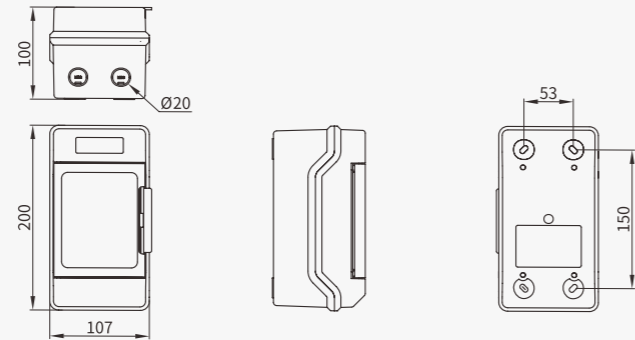
Model and Meaning



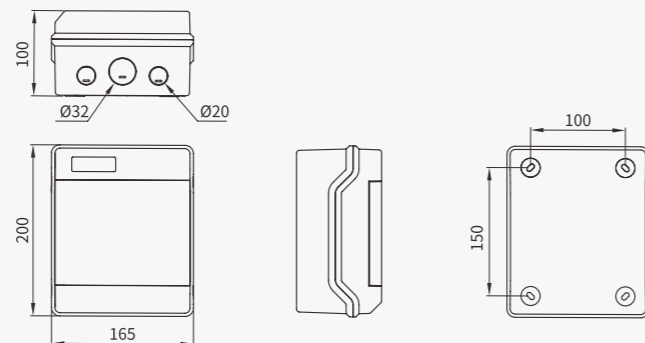
EXCB3S Series Surface Mounted Waterproof Distribution Box Product Data Summary Table

Model	Number of Circuits	Rows	Dimensions (mm) (H × W × D)	Zero and Ground Row Configuration	Mounting Method
EXEB3H-4	4 Circuits	1	200*107*100	Zero row: 3 holes Ground row: 3 holes	Surface / Wall-mounted
EXEB3H-6	6 Circuits	1	200*165*100	Zero row: 5 holes Ground row: 5 holes	Surface / Wall-mounted
EXEB3H-9	9 Circuits	1	200*219*100	Zero row: 5 holes Ground row: 5 holes	Surface / Wall-mounted
EXEB3H-12	12 Circuits	1	229*273*109	Zero row: 8 holes Ground row: 8 holes	Surface / Wall-mounted
EXEB3H-18	18 Circuits	1	229*381*109	Zero row: 8 holes Ground row: 8 holes	Surface / Wall-mounted
EXEB3H-24	24 Circuits	2	381*274*109	Zero row: 8 holes Ground row: 8 holes	Surface / Wall-mounted
EXEB3H-36-2	72 Circuits	2	397*381*125	Zero row: two 8 holes Ground row: two 8 holes	Surface / Wall-mounted
EXEB3H-36-3	108 Circuits	3	532*274*109	Zero row: two 8 holes Ground row: two 8 holes	Surface / Wall-mounted

EXEB3H-4



EXEB3H-6



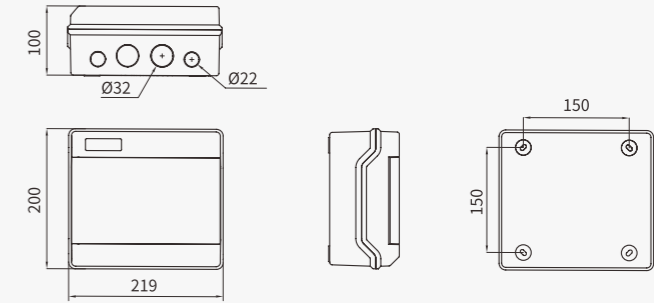
Combiner Box Enclosure



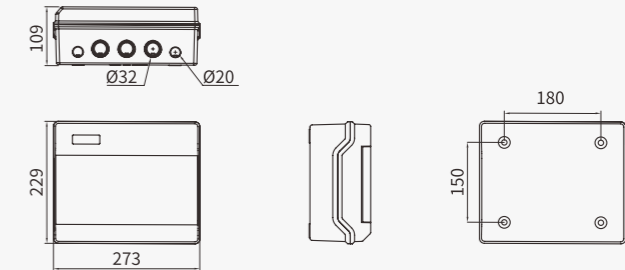
EXEB3H

PV Combiner Box Enclosure

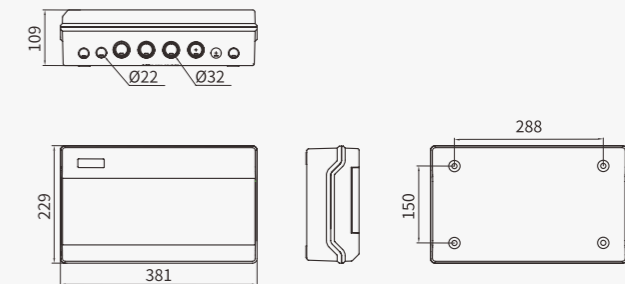
EXEB3H-9



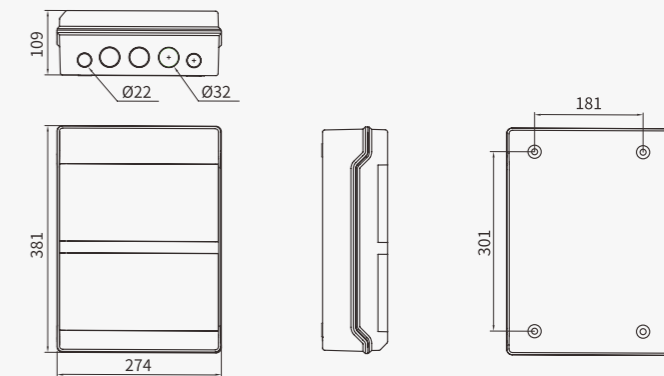
EXEB3H-12



EXEB3H-18



EXEB3H-24



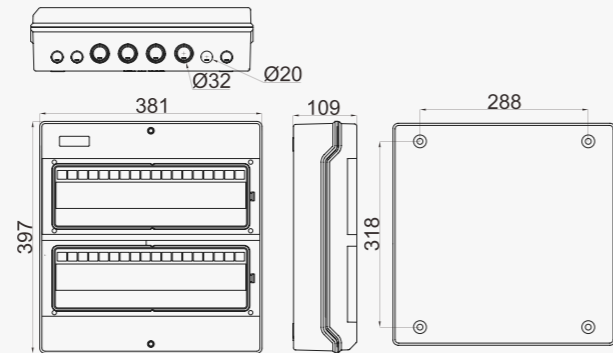
Combiner Box Enclosure



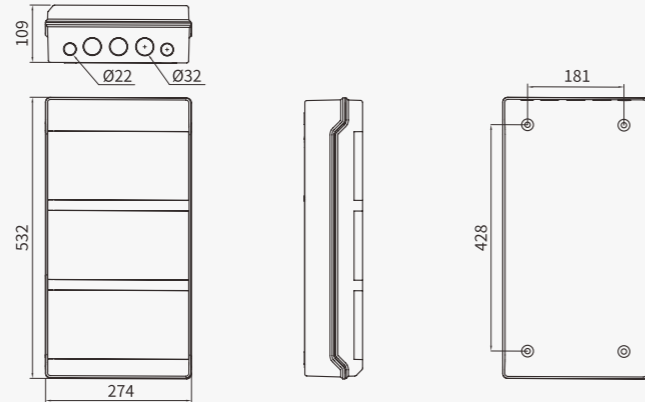
EXEB3H

PV Combiner Box Enclosure

EXEB3H-36-2



EXEB3H-36-3



Combiner Box Enclosure



EXEB3S

PV Combiner Box Enclosure



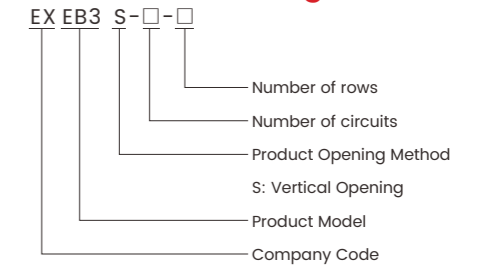
Application Scope

- Protection**
- IP66 waterproof and dustproof
 - UV resistant
 - Compliant with 650°C glow wire test

- Customization & Specifications**
- Customizable knockouts available upon request
 - Available in various specifications
 - Easy and flexible installation

- Applications & Standards**
- Suitable for demanding environments requiring waterproof, dustproof, and anti-corrosion protection
 - Complies with IEC 60670-24 and GB/T 17466.24 standards

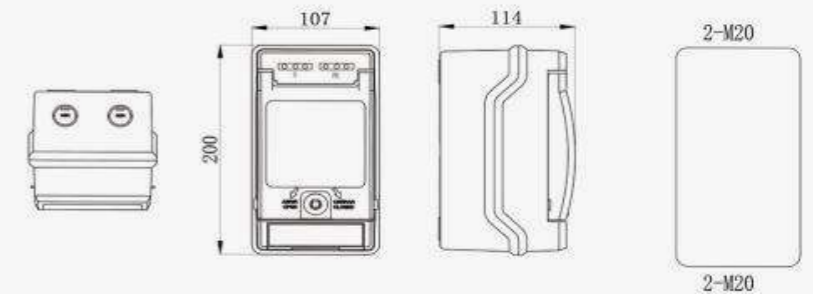
Model and Meaning



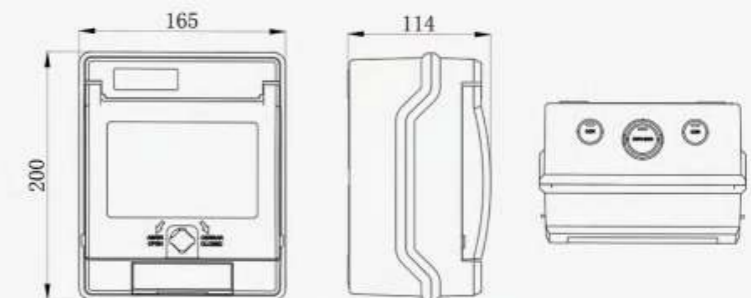
EXCB3 Series Surface Mounted Waterproof Distribution Box Product Data Summary Table

Model	Number of Circuits	Rows	Dimensions (mm) (H × W × D)	Zero and Ground Row Configuration	Mounting Method
EXEB3S-4	4 Circuits	1	200*107*114	Zero row: 3 holes Ground row: 3 holes	Surface / Wall-mounted
EXEB3S-6	6 Circuits	1	200*165*114	Zero row: 5 holes Ground row: 5 holes	Surface / Wall-mounted
EXEB3S-9	9 Circuits	1	200*219*114	Zero row: 5 holes Ground row: 5 holes	Surface / Wall-mounted
EXEB3S-12	12 Circuits	1	229*272.5*125	Zero row: 8 holes Ground row: 8 holes	Surface / Wall-mounted
EXEB3S-18	18 Circuits	1	229*381*125	Zero row: 8 holes Ground row: 8 holes	Surface / Wall-mounted
EXEB3S-24	24 Circuits	1	379*272.5*125	Zero row: 8 holes Ground row: 8 holes	Surface / Wall-mounted
EXEB3S-36-2	72 Circuits	2	397*381*125	Zero row: two 8 holes Ground row: two 8 holes	Surface / Wall-mounted
EXEB3S-36-3	108 Circuits	3	529*272.5*125	Zero row: two 8 holes Ground row: two 8 holes	Surface / Wall-mounted

EXEB3S-4



EXEB3S-6



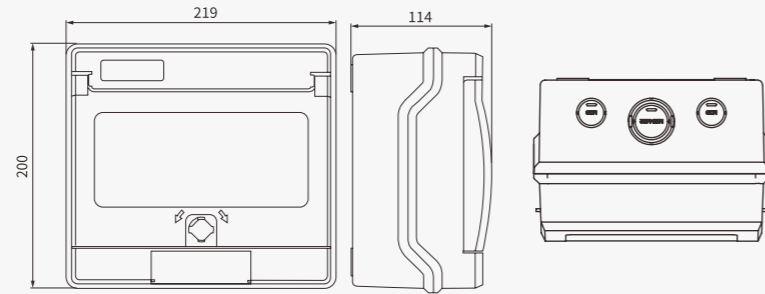
Combiner Box Enclosure



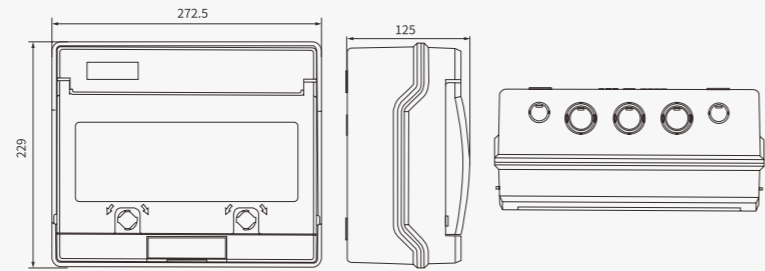
EXEB3S

PV Combiner Box Enclosure

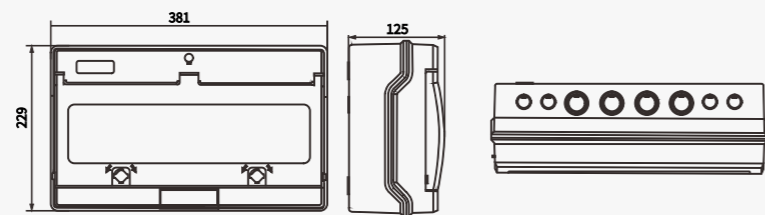
EXEB3S-9



EXEB3S-12



EXEB3S-18



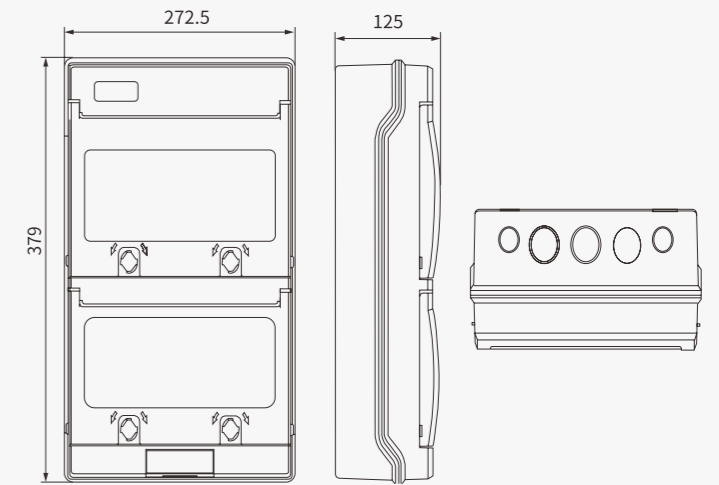
Combiner Box Enclosure



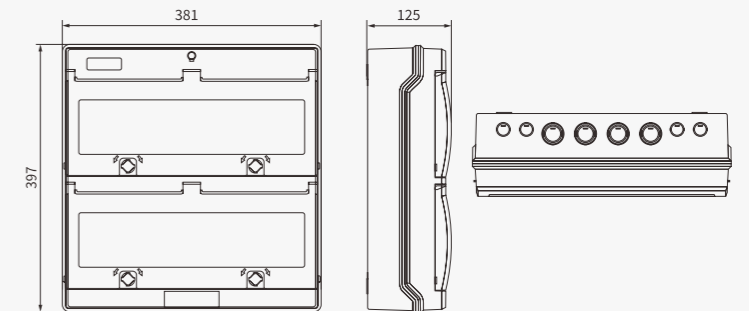
EXEB3S

PV Combiner Box Enclosure

EXEB3S-24



EXEB3S-36-2



EXEB3S-36-3

