



MOREDAY



MORE THAN SOLAR

MINDIAN ELECTRIC CO., LTD.

Add: Malujiao Industrial Zone, North Baixiang town, Yueqing, Zhejiang, China.

Sales call: 0577-62860666 0577-62860667

Http: www.moredaydc.com

E-mail: info@moreday.com

MDYB220222

WWW.MOREDAYDC.COM

MOREDAY

MOREDAY



Company renderings, subject to actual conditions

COMPANY PROFILE

Founded in 2009, Moreday Solar is a R&D and manufacturing company integrating photovoltaics and new energy industry. The original intention of Moreday Solar is to bring more clean energy to the world and enjoy a better life.

The company's main products: photovoltaic convergence and grid-connected products, low-voltage electrical, energy storage and application products, solar power transmission and distribution products and solar system manufacturing.

The company takes solar energy sharing as its vision, technological innovation as its driving force, customer-oriented, and has obtained more than 30 national patents. Its products have passed CQC, CE, CB, TUV, ROHS and other certifications, and ISO9001 quality system certification, with more than 1,000 services. Customers, the products are exported to more than 50 countries in Europe, America, Southeast Asia, the Middle East and other regions.

We hope to work with more partners to bring solar energy to every region of the world, promote the widespread use of green and clean energy, and leave more day for the earth



President's thoughts

As we look back on 2020, I am proud of how we adapted to the challenges that came our way. We took care of our employees, provided for our customers and partners, and prospered along the way.

We are optimistic about our resilience, flexibility, and solid business processes, reflecting the best in sustainability.

Sustainability is at our core at MOREDAY and our purpose remains to advance a sustainable future for all. As part of our commitment, we released our Reports on the development of the photovoltaic field in the next five years and better sustainable approaches. As we work towards an equitable energy future for all, we are aware of the importance of mobilizing the world to reduce the carbon footprint and electrify the planet.

We will continue to work hard to deliver high quality products that produce clean energy, save our customers money, and provide them with complete energy independence. Looking forward in 2021, we are excited about the strength in worldwide demand for solar, the ramp of our solar systems and upcoming new products, the higher levels of customer service, and our ongoing digital transformation efforts.

As always, I thank our employees, customers, partners, and shareholders for their continued support.

we will continue with our mission to deliver technology solutions that make clean energy affordable, reliable and accessible to all.

To be continued, More than solar



Dedao Huang
President and CEO

Oct.20, 2021

Enterprise honor and qualification



PATENT FOR INVENTION

UTILITY MODEL PATENT CERTIFICATE

DESIGN PATENT CERTIFICATE

TECHNOLOGY-BASED ENTERPRISE



ISO14001

ISO9001

ISO45001



- Member of Asian Photovoltaic Industry Association
- National high-tech enterprise
- Well-known brands in China's photovoltaic industry in 2019
- Caring for employees and caring enterprises in 2020

- 2019-2020 SNEC Megawattjade Award
- 2020 Outstanding Photovoltaic Enterprise
- Chinese technology-based SMEs
- Zhejiang Promise-keeping 3A Enterprise



CE



CQC

MOREDAY

Corporate Partner



Product Catalogue

PV Product

MDCDB PV Combiner And Distribution Box	01
MDDB AC Distribution Box	04
MDJB PV DC Combiner Box	06
MDHL PV AC Combiner Box	09
MDX-20 PV Grid-Connected Distribution Box	11
MDX-200 PV Grid-Connected Distribution Box	12
MDXLD-4/16/1 12/1 PV DC Combiner Box	13
MDXLD-16/1 PV DC Combiner Box	15
MDXLD-24/1 PV DC Combiner Box	18
MDJB-4B DC COMBINER BOX	21
MDJB-6B DC COMBINER BOX	23
MDB1Z-63/MDB1Z-100 DC MCB	25
MDB2Z-63 DC MCB	28
MDB1-63 AC MCB	30
MDB1-100 AC MCB	32
MDB7 Miniature Automatic Reclosing Circuit Breakers	34
MDM8L PV Plastic Smart Circuit Breakers	35
MDM1Z/5Z DC MCCB	36
MDM6Z DC MCCB	38
MDM1 AC MCCB	40
MDSP 600/1000/1500V PV DC SPD	43
MD1-40 AC SPD	44
MD1-C40 AC SPD	45
MDIS-40/40A PV DC Isolation Switch	46
MDIS-40MD PV DC Isolation Switch	47
MDF1 AC Isolation Switch	48
MDPV-30/32 PV Fuses	50
Solar DC Connector	52
Branch Connector	54
PV Accessories	58

EC Charger

Type2 Wallbox AC EV Charger	60
Type2 Portable AC EV Charger	61
CNS Wallbox AC EV Charger (MDAC3)	62
CNS Wallbox AC EV Charger (MDAC4)	63
CNS Wallbox AC EV Charger (MDAC5)	64
CNS DC Charging Pile Series (MDDC1)	65
CNS DC Charging Pile Series (MDDC 30kW/40kW)	66
CNS DC Charging Pile Series (MDDC 60kW/80kW)	67
CNS DC Charging Pile Series (MDDC 120kW/160kW)	68
Charger Spares	69



MDCDB PV Combiner And Distribution Box



Overview

Suitable for household and industrial and commercial photovoltaic power generation systems;
 Integrated DC junction box and AC distribution box;
 Maximum suitable for 6kW single-phase photovoltaic power generation system;
 Maximum applicable to 20kW three-phase photovoltaic power generation system;
 Meet customer's customized needs.

Model	Voltage	Maximum system power	Optional
MDCDB-S3	600V	3kW	1. Meter
MDCDB-S6	600V	6kW	2. AC fuses
MDCDB-T10	1000V	10kW	3. Overvoltage protection device
MDCDB-T20	1000V	20kW	4. other

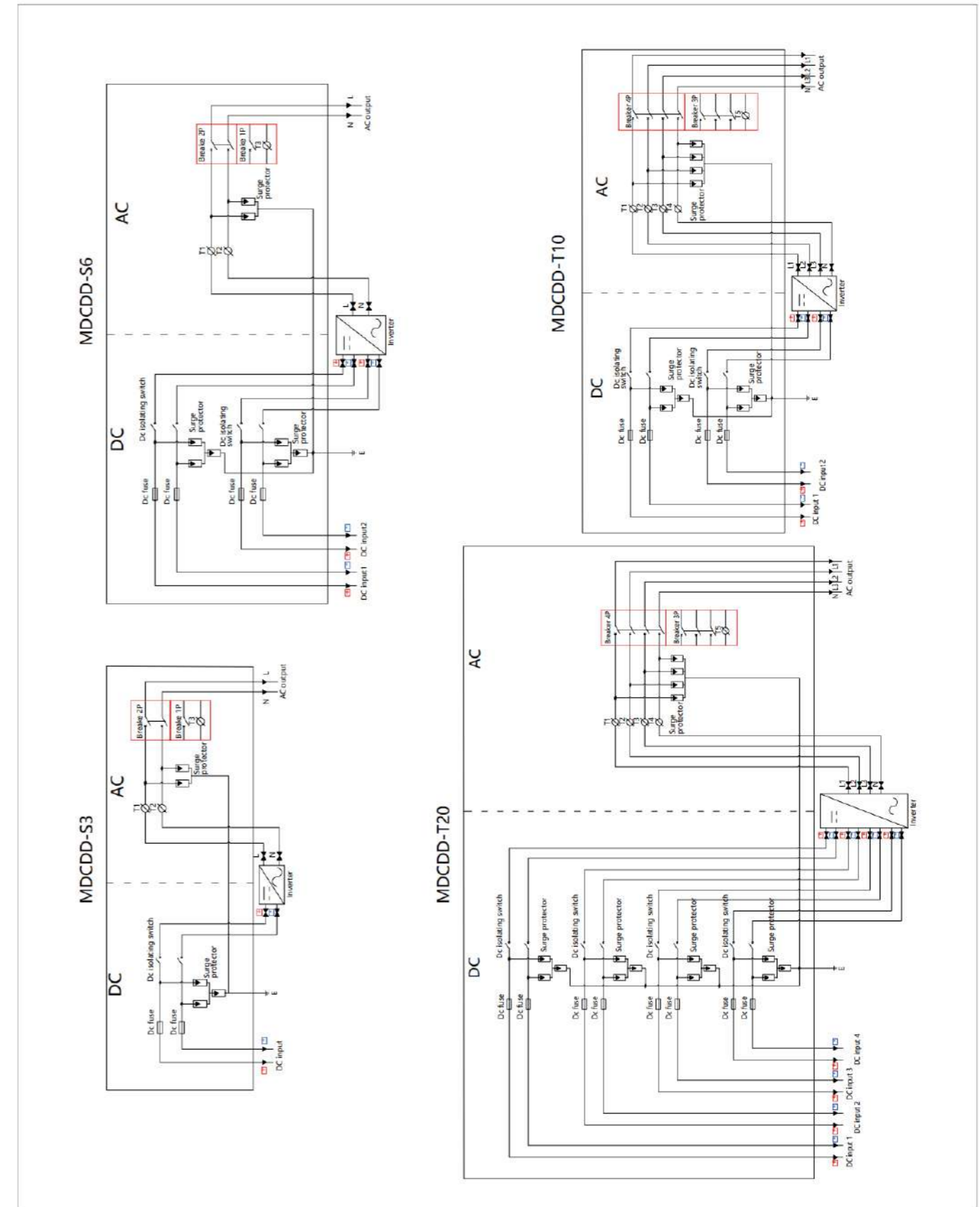
Technical Parameters

Model	MDCDB-1	MDCDB-2	MDCDB-3	MDCDB-4
Basic parameters				
DC input string	1 string	2 string	2 string	4 string
DC output string	1 string	2 string	2 string	4 string
Maximum DC input voltage	600V	600V	1000V	1000V
Maximum DC short circuit current	15A to 32A (Optional)			
Maximum DC output current	32A			
Rated AC voltage	220 / 230 / 240V AC	220 / 230 / 240V AC	220 / 400 / 415V AC	220 / 400 / 415V AC
Rated AC current	13.6A/16A	27.3A/32A	15.2A/20A	30.4A/40A
Rated frequency	50/60 Hz			
Optional function				
Meter	Optional			
AC fuses	Optional			
Overvoltage protection device	Optional			
DC monitoring	Optional			
AC leakage protector	Optional			

Technical Parameters

Model	MDCDB-1	MDCDB-2	MDCDB-3	MDCDB-4
Enclosure				
Cabinet material	PC+ABS			
Anti-UV	Yes			
Foreign body protection level	IP65			
Collision protection level	IK10			
Dimensions (W*H*D)	Customized			
DC input port	Pg09, 2.5 to 4mm ²			
DC output port	Pg09, 2.5 to 4mm ²			
AC input port	Pg25, 2.5 to 6mm ²	Pg25, 2.5 to 10mm ²	Pg25, 2.5 to 6mm ²	Pg25, 2.5 to 10mm ²
AC output port	Pg25, 2.5 to 6mm ²	Pg25, 2.5 to 10mm ²	Pg25, 2.5 to 6mm ²	Pg25, 2.5 to 10mm ²
DC isolated switch				
Rated insulation voltage	600V	600V	1000V	1000V
Rated current	32A			
Classification	DC-PV1/DC-PV2			
Executive Standard	IEC/EN 60947-3, UL508I			
Certification	CE, TUV, SAA, CB			
DC surge protection				
Maximum working voltage	1000V			
Maximum discharge current	40kA			
Executive Standard	EN 50539-11 Type 2			
Certification	CE, TUV, UL			
DC fuse				
Rated working voltage	1000V			
Rated current	15 to 32A(Optional)			
Dimensions (W*H*D)	Φ10 * 38mm			
Executive Standard	UL, CE, CB			
AC surge protection				
Rated voltage	230V AC	230V AC	400V AC	400V AC
Maximum discharge current	40kA			
Executive Standard	IEC/EN 61643-11			
Certification	CE			
AC circuit breaker				
Circuit breaker type	1P/2P	1P/2P	3P/4P	3P/4P
Rated current	16A	32A	20A	20A
Rated voltage	220/230/240V AC	220/230/240V AC	380/400/415V AC	380/400/415V AC
Rated frequency	50/60Hz			
Environmental parameters				
Operating temperature	-20°C to +60°C			
Humidity	99%			
Altitude	2000m (2000m Above derating)			
Installation method	Wall-mounted installation			

Diagram





MDDDB AC Distribution Box

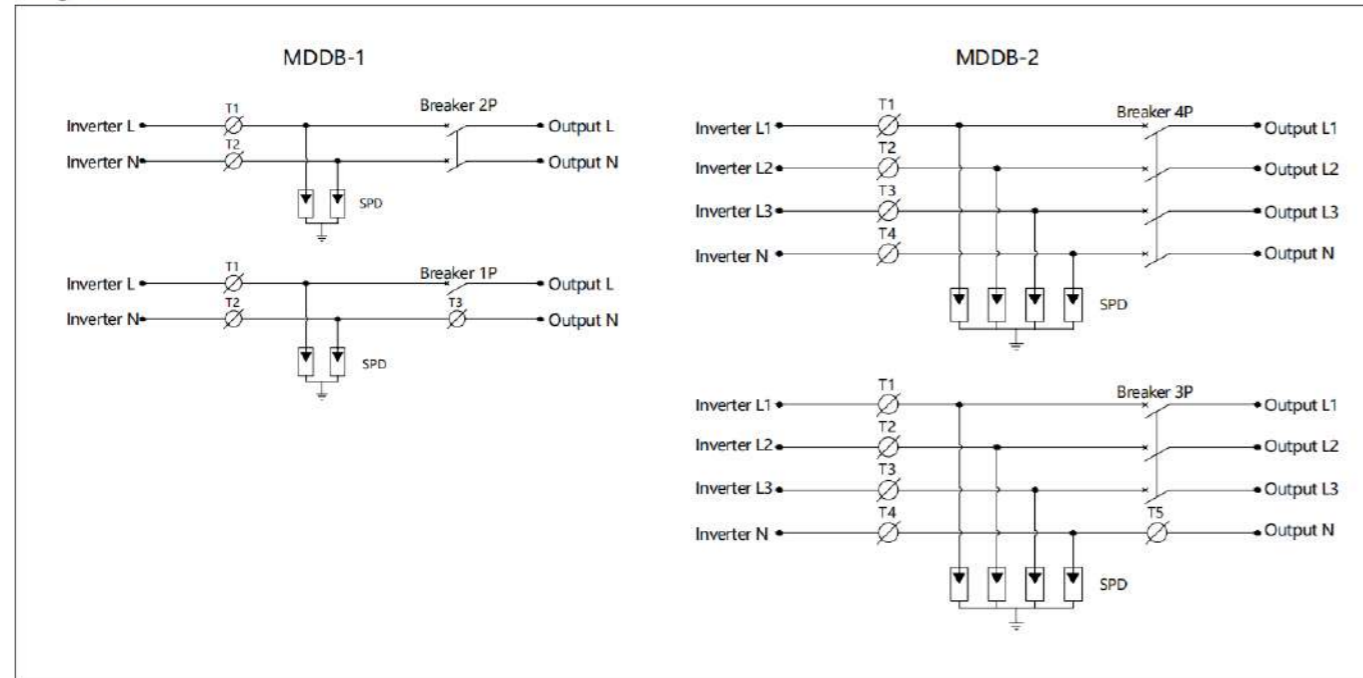


Overview

Suitable for household and industrial and commercial photovoltaic power generation systems;
 Maximum suitable for 6kW single-phase photovoltaic power generation system;
 Maximum applicable to 20kW three-phase photovoltaic power generation system;
 Meet customer's customized needs.

Model	Grid type	Maximum system power	Optional
MDDDB-1	Single-phase grid	6kW	1. Electric energy meter 2. AC fuses
MDDDB-2	Three-phase grid	16kW	3. Over-under voltage protection device 4. Others

Diagram



Technical Parameters

Model	MDDDB-1	MDDDB-2
Basic parameters		
Rated voltage	220/230/240V AC	380/400/415V AC
Rated current	32A	40A
Rated frequency	50/60Hz	
Enclosure		
Cabinet material	PC/ABS/Stainless steel (optional)	
Foreign body protection level	IP65	
Collision protection level	IK10	
Dimensions (W×H×D)	Customized	
AC input port	Pg25, 2.5 to 10mm ²	
AC output port	Pg25, 2.5 to 10mm ²	
AC circuit breaker		
Circuit breaker type	1P / 2P	3P / 4P
Rated current	50 A	50 A
Rated voltage	220 / 230 / 240V AC	380 / 400 / 415V AC
Rated frequency	50 / 60 Hz	
AC surge protection		
Rated voltage	230V AC	400V AC
Maximum discharge current	40 kA	
Executive Standard	IEC/EN 61643-11	
Certification	CE	
Environmental parameters		
Operating temperature	-20°C to +60°C	
Humidity	99%	
Altitude	2000 m	
Installation method	Wall-mounted installation	
Optional function		
Meter	Optional	
AC fuses	Optional	
Overvoltage protection device	Optional	
AC leakage protector	Optional	



MDJB-A



MDJB-B

MDJB PV DC Combiner Box



Dimensions (unit:mm)

Distribution box (MDJB-A)		L*W*H(mm)	Distribution box (MDJB-B)		L*W*H(mm)
8 Ways		245x235x125	4 Ways		107x210x92
12 Ways		315x235x125	6 Ways		185x200x100
18 Ways		425x235x125	9 Ways		220x200x110
24 Ways		315x405x125	12 Ways		270x230x110
			18 Ways		375x230x110
			24 Ways		270x375x110
			36 Ways		270x530x110

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							

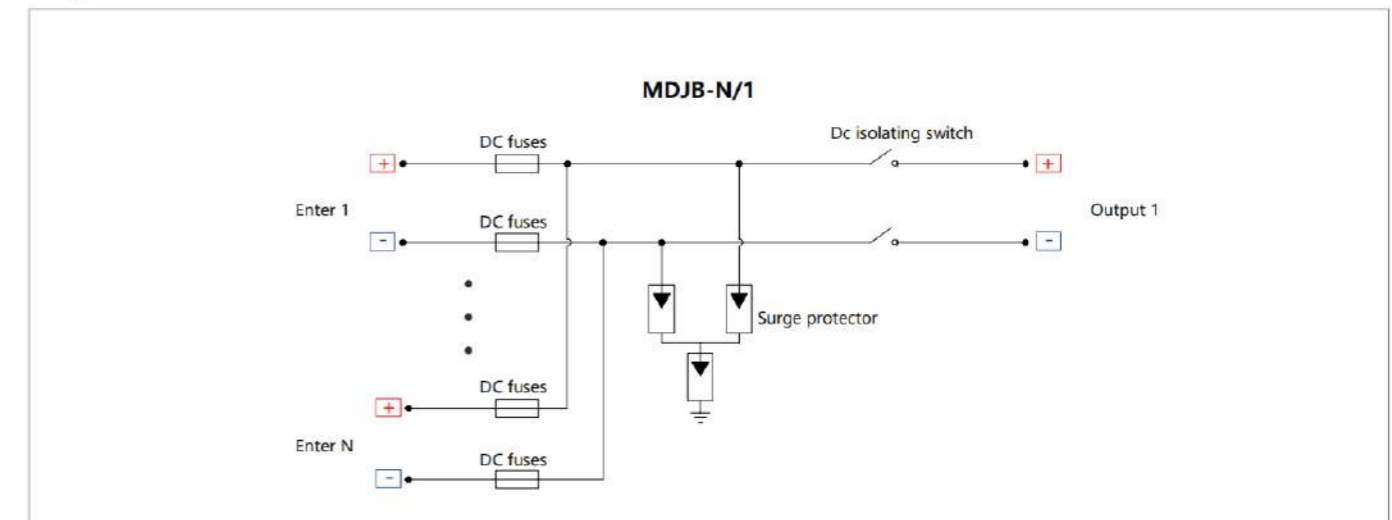
Model Number	3/3		4/2		6/2		6/3	
Input	3 string		4 string		6 string		6 string	
Output	3 string		2 string		2 string		3 string	
Max Voltage	600V	1000V	600V	1000V	1000V	1000V	1000V	1000V
Max Current Input (Eachstring)	30A	30A	30A	30A	20A	30A	30A	30A
Max Current Output (Eachstring)	30A	30A	63A	63A	63A	63A	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							

MDJB PV DC Combiner Box (1 Way Output)

Technical Parameters

Model	MDJB-1/1	MDJB-2/1	MDJB-3/1	MDJB-4/1	MDJB-6/1
DC surge protection					
Maximum working voltage	1000V				
Maximum discharge current	40 kA				
Executive Standard	EN 50539-11 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

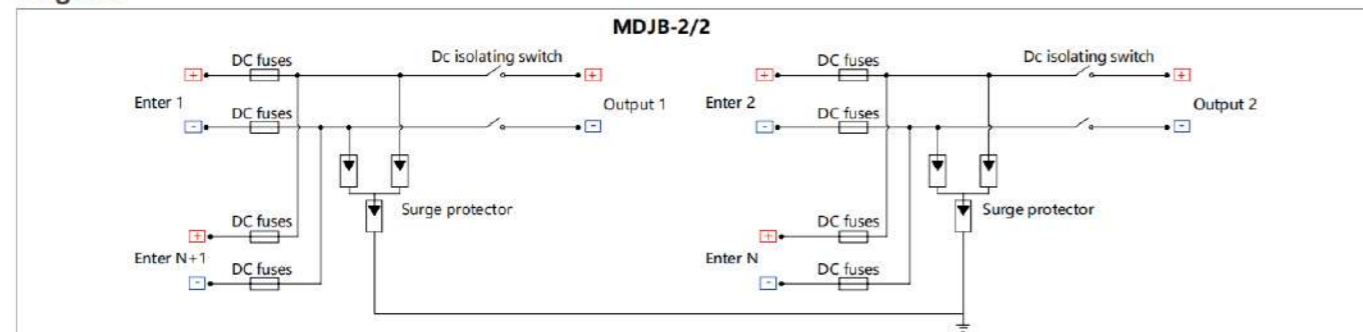


MDJB PV DC Combiner Box (2 Way/4 Way Output)

Technical Parameters

Model	MDJB-2/2	MDJB-4/2	MDJB-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	15A~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		

Diagram



MDHL PV AC Combiner Box



Overview

MDHL PV AC combiner box is an important part of PV series string power generation system, which is responsible for string inverter and AC power distribution cabinet or step-up transformer. The product can access up to 4/6/8 PV inverters. It can be customized according to user requirements.

Features

High reliability

Use photovoltaic special AC surge protector

The photovoltaic special AC circuit breaker is used, and the rated voltage can reach 690V AC.

Strong adaptability

IP65 protection, waterproof, dust proof and UV resistant.

Strict high and low temperature test, suitable for a wide area.

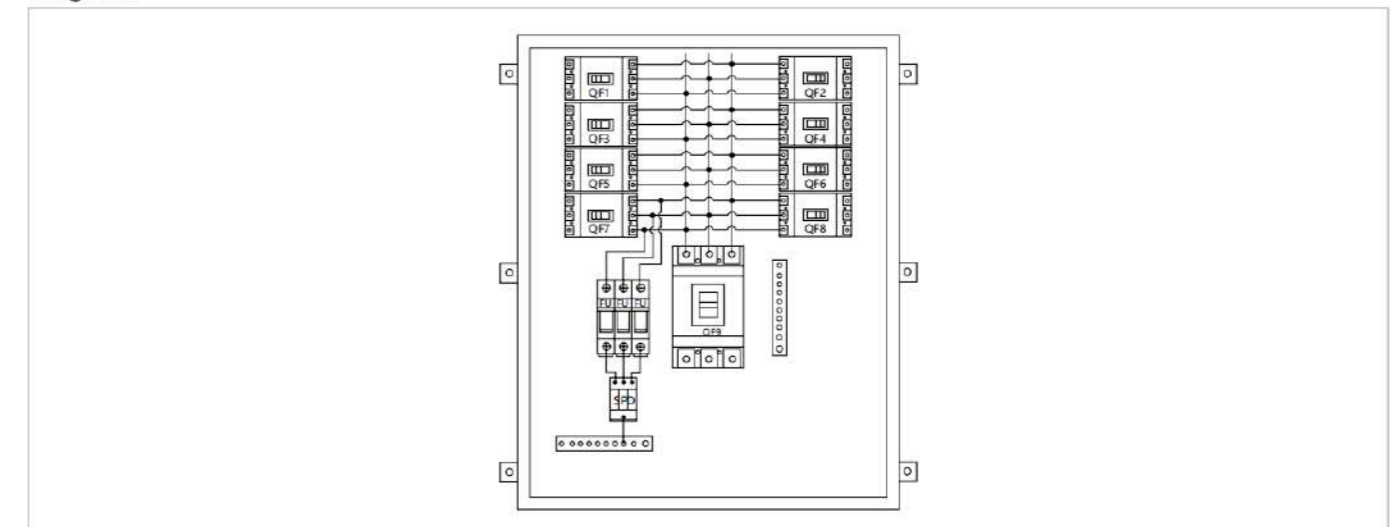
The installation is simple, the system wiring is simplified, and the wiring is convenient.

The box is made of a metal material such as cold rolled steel.

Flexible configuration

It is suitable for the AC output of 1~50KW PV string inverter. According to the capacity of the inverter, the current level of the circuit breaker can be modified.

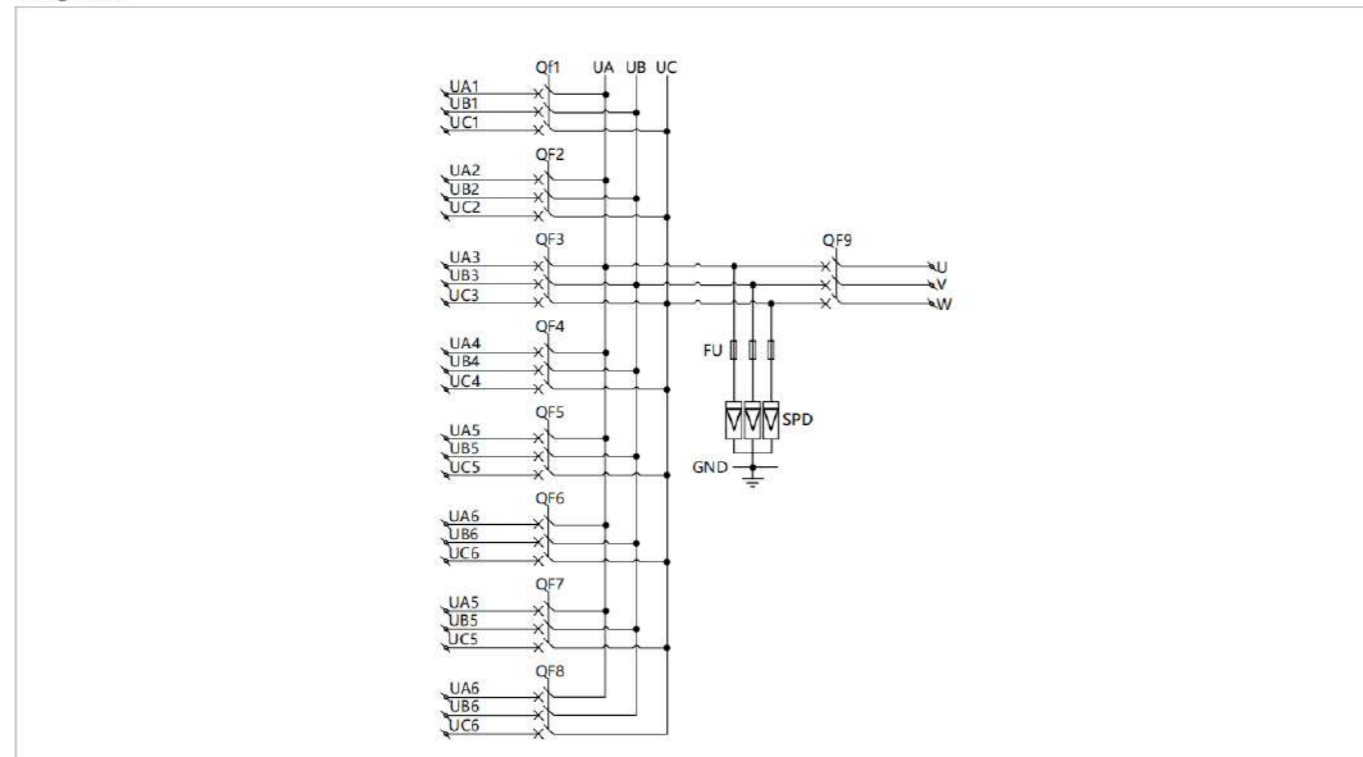
Diagram



Technical Parameters

Product number	MDHL-4/1	MDHL-6/1	MDHL-8/1
Number of input channels	4	6	8
Maximum input voltage	690V AC		
Input current per channel	0~250A	0~200A	0~100A
Highest output current	800A		
Un Rated working voltage Un	480V AC		
Up Voltage protection level Up	≤3.2kV		
Nominal flow capacity In (8/20μs)	20kA (Can be selected according to customer requirements)		
Maximum flow capacity I _{max} (8/20μs)	40kA (Can be selected according to customer requirements)		
Response time	<25ns		
Temperature and humidity	Working temperature: -40~+85°C, humidity 95%, no condensation, no corrosive gas		
Altitude	≤4000m		
Input and output switch	Breaker		
Surge protector	Standard		
Box material	Hot-dip galvanized steel sheet/stainless steel/cold rolled steel sheet/engineering plastic		
Box protection level	IP65		
Cable connector protection rating	IP66		
Volume (width × height × depth)	900mm×1000mm×200mm	700mm×1000mm×200mm	800mm×1000mm×200mm

Diagram



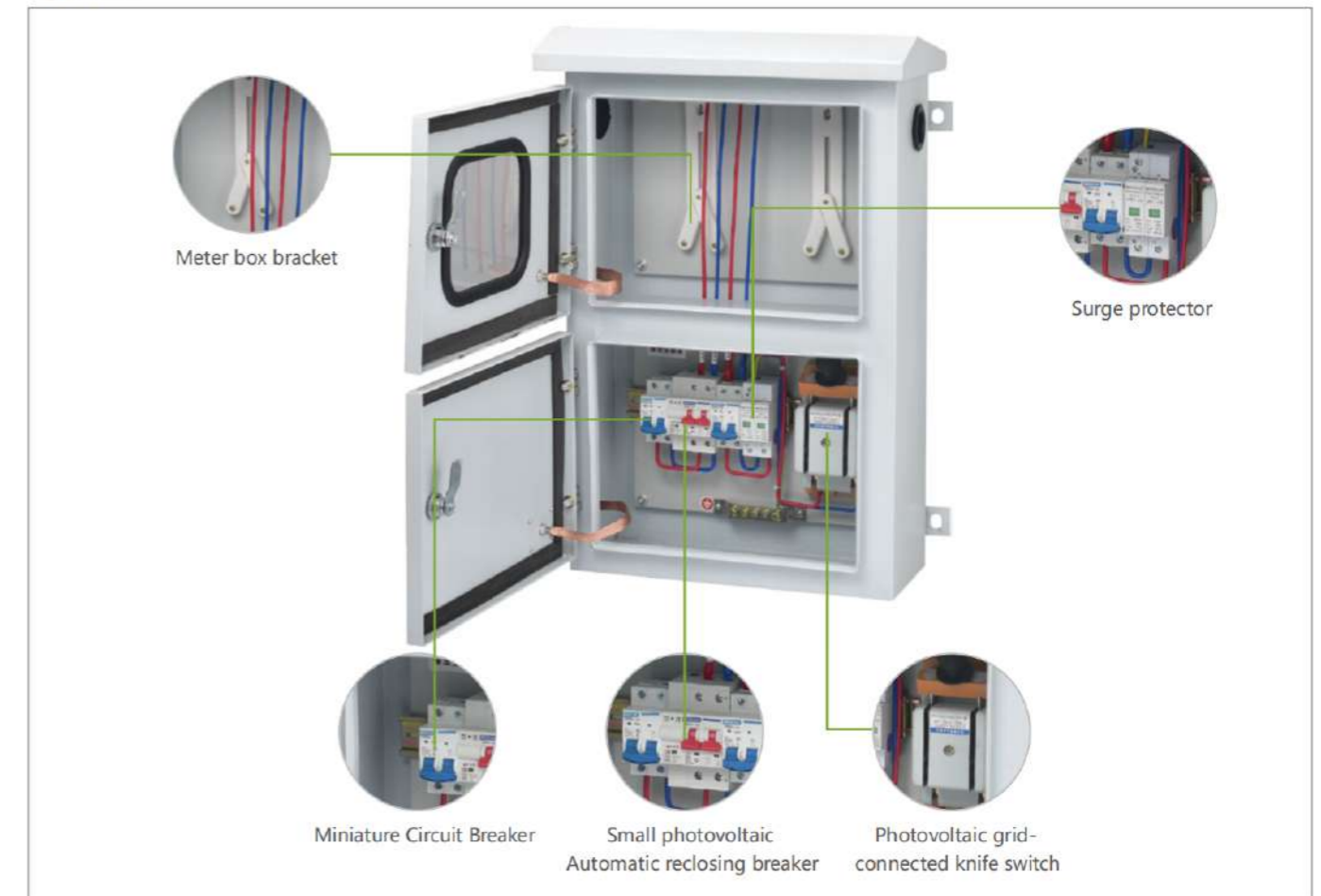
MDX-20 PV Grid-Connected Distribution Box



Features

Rainproof / waterproof / anti-corrosion
 Size: 650×400×180mm
 Power: 3~10KW

Optional





MDX-200 PV Grid-Connected Distribution Box

CE RoHS CB

Features

Rainproof / waterproof / anti-corrosion
 Size: 500×600×200mm
 Power: 8-50KW

Optional



MDXLD-4/1 6/1 12/1 PV DC Combiner Box

△ CE RoHS CB

Overview

The MDXLD-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.

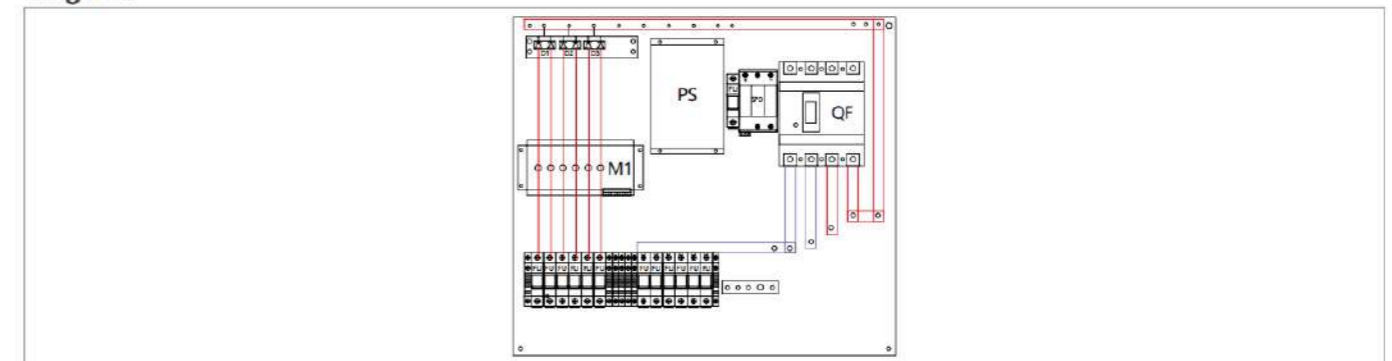
Strong adaptability

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

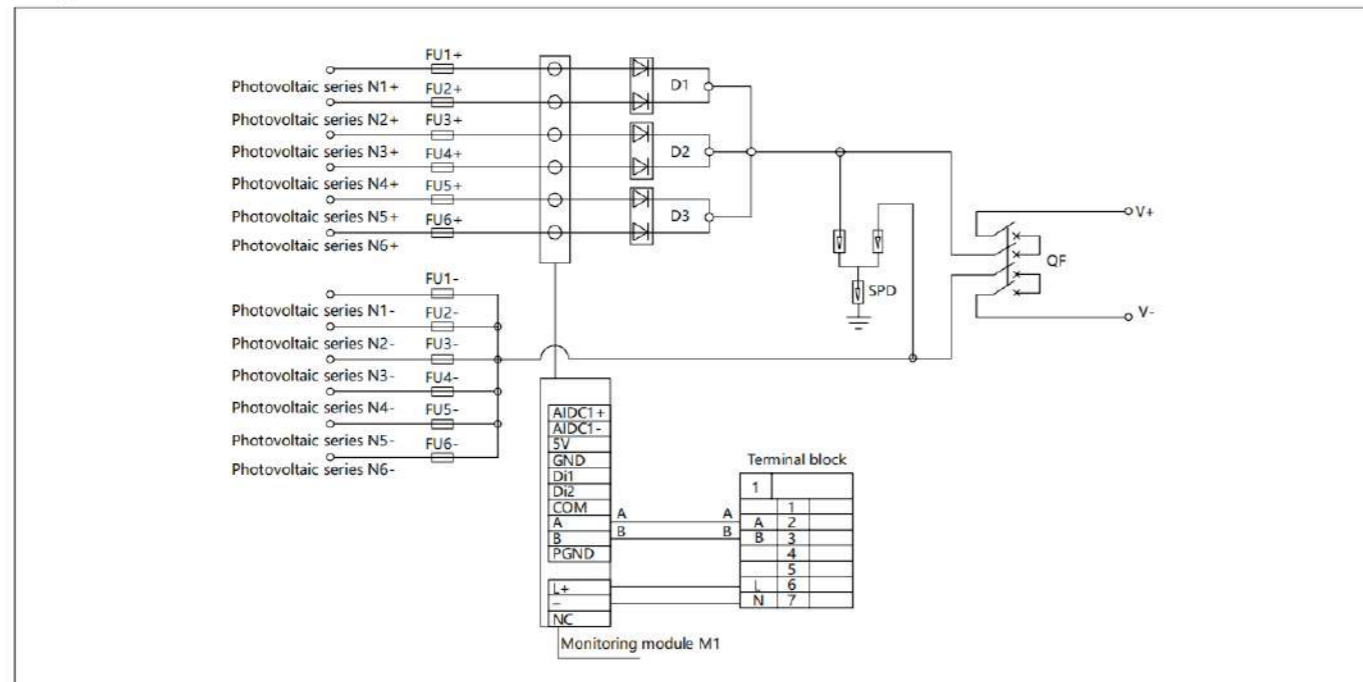


Technical Parameters

Name	MDXLD-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	MDXLD-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



MDXLD-16/1 PV DC Combiner Box



Overview

The MDXLD-PV 16/1 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.

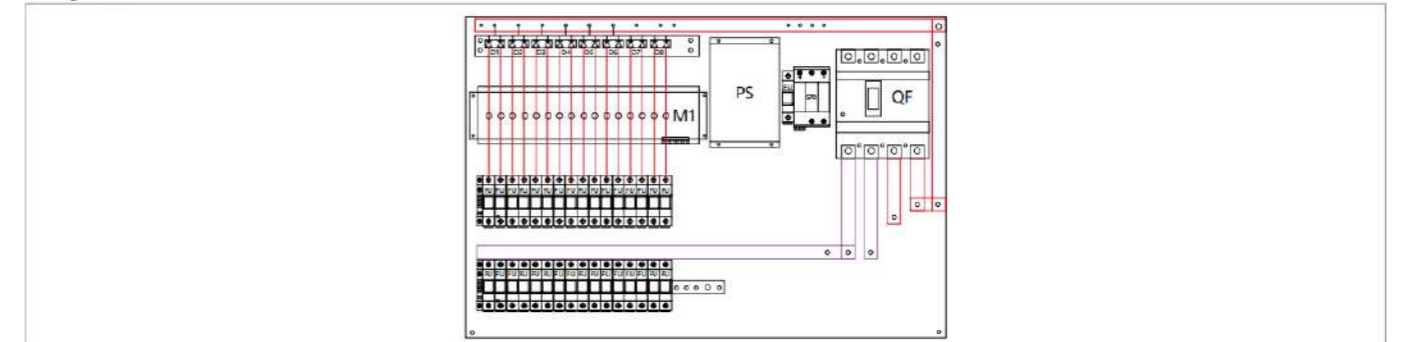
Strong adaptability

- 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.

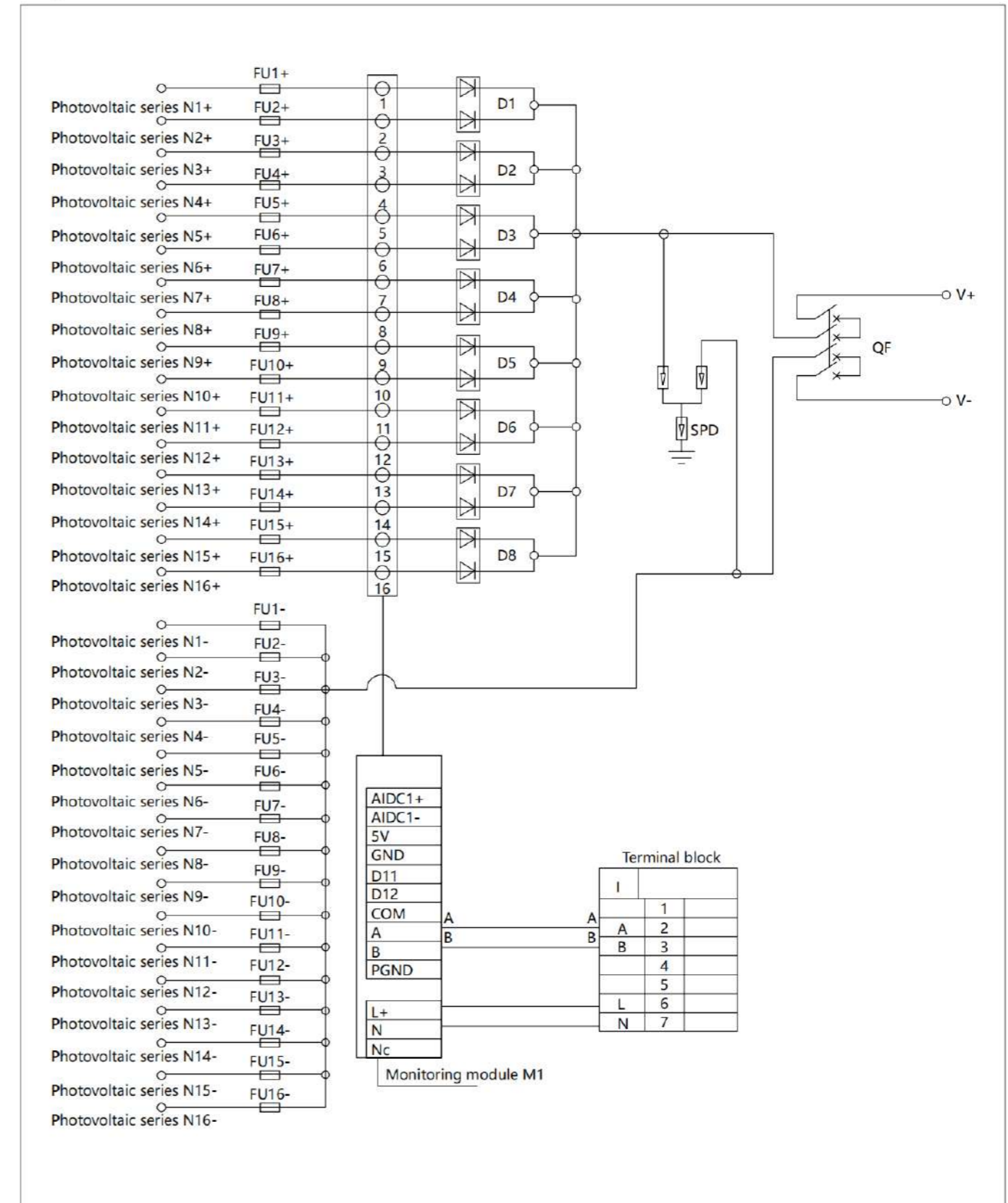
Diagram



Technical Parameters

Name	MDXLD-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°C~+ 55°C
Altitude	2000 meter
Allow relative humidity	0~95%, no condensation

Diagram





MDXLD-24/1 PV DC Combiner Box



Overview

The MDXLD-PV24/1 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.

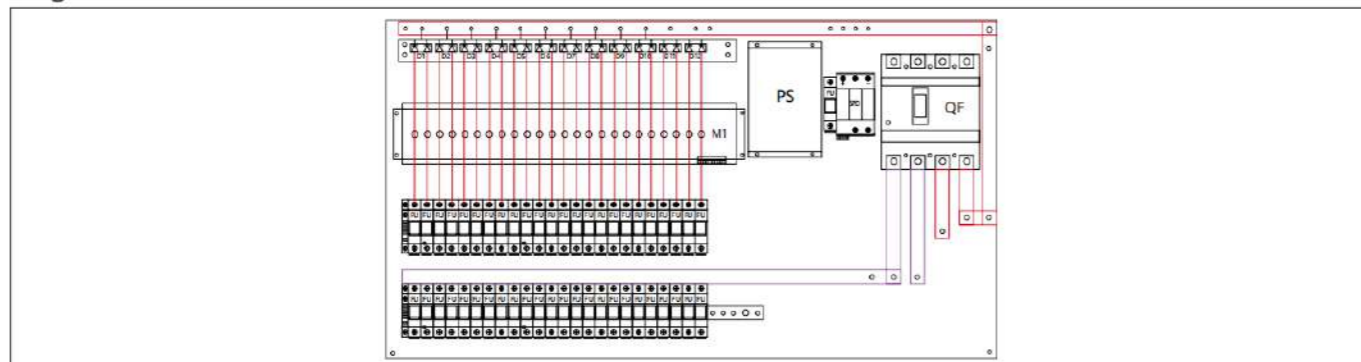
Strong adaptability

- 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.

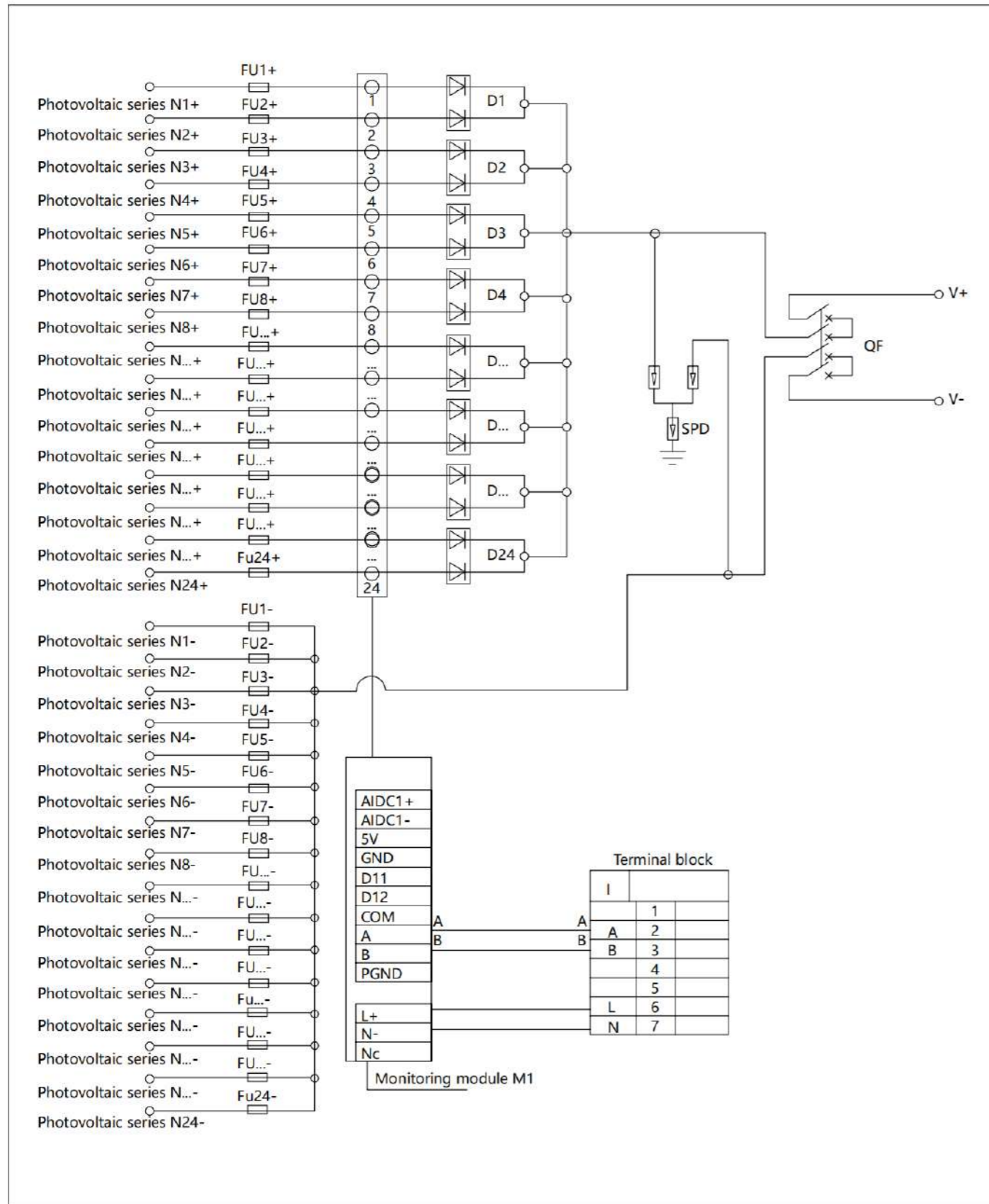
Diagram



Technical Parameters

Name	MDXLD-PV24/1
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	
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°C → 55°C
Altitude	2000 meter
Allow relative humidity	0~95%, no condensation

Diagram



MDJB-4B DC COMBINER BOX



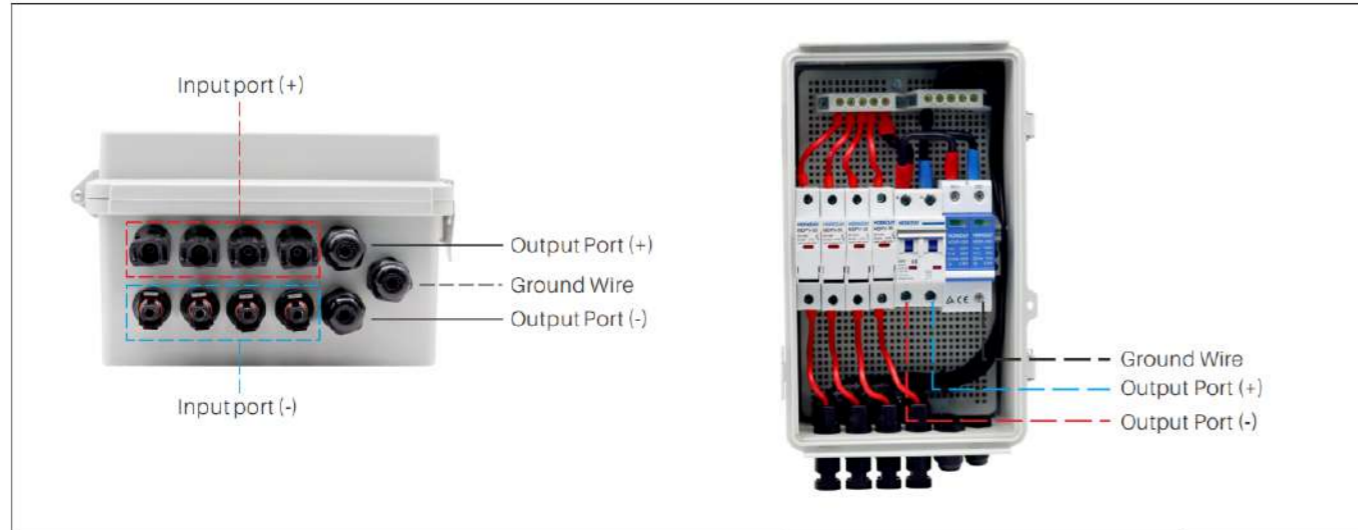
Features

1. The PV combiner box is suitable for photovoltaic grid-connected and off-grid power generation systems.
2. It is configured with photovoltaic dedicated high-voltage lightning arrester, DC fuse and circuit breaker to provide short circuit fault protection and lightning protection.
3. It has protect function of over-voltage and over-current so as to avoid damage to photovoltaic panels and inverters when the fault occurs.
4. It's also used to reduce the connection of the photovoltaic array to the inverter, optimize the system structure, improve the reliability and maintainability of the system, make the photovoltaic system at its best.
5. IP65 design, waterproof, anti dust and anti ultraviolet.
6. Strict test for high and low temperature, used widely.
7. The simple installation, the simplified system wiring, the convenient wiring

Technical Specification

DC string box	
Product Name	DC combiner box
Model Code	MDJB-PV4/1
Rated Voltage	500V~600V
Operation	10A
Input	4strings
output	1string
Temperature range	-25°C~+60°C
Enclosure	
IP Protection Class (IEC60529)	IP65
Materials	Polycarbonate / ABS
Spec	UV resistance and Flame retardant
DC Circuit Breaker	
Rated Voltage	500V~600V
Rated Current	63A
DC SPD	
Max Operating Voltage	1000V
Max Discharge Current	40KA
Nominal discharge current	20KA
DC Fuse	
Rated Voltage	1000V
Fuse link	15A 10*38mm ²
Finger safe touch	YES

Insatallation



Instruction

1. Box Input: Connect the panel connectors (module output and combiner input), make sure the negative wire of module output connected to the blue area (as the picture instructed); the positive wire of module output connected to the red area (as the picture instructed).
2. Box Output: Connect PV wires to the output terminals of DC circuit breaker (both "+" and "-"; as the picture instructed), connect the ground wire to the ground terminal of DC arrester. All the output wires separately pass through the cable glands, make sure all the cable glands properly tightened.

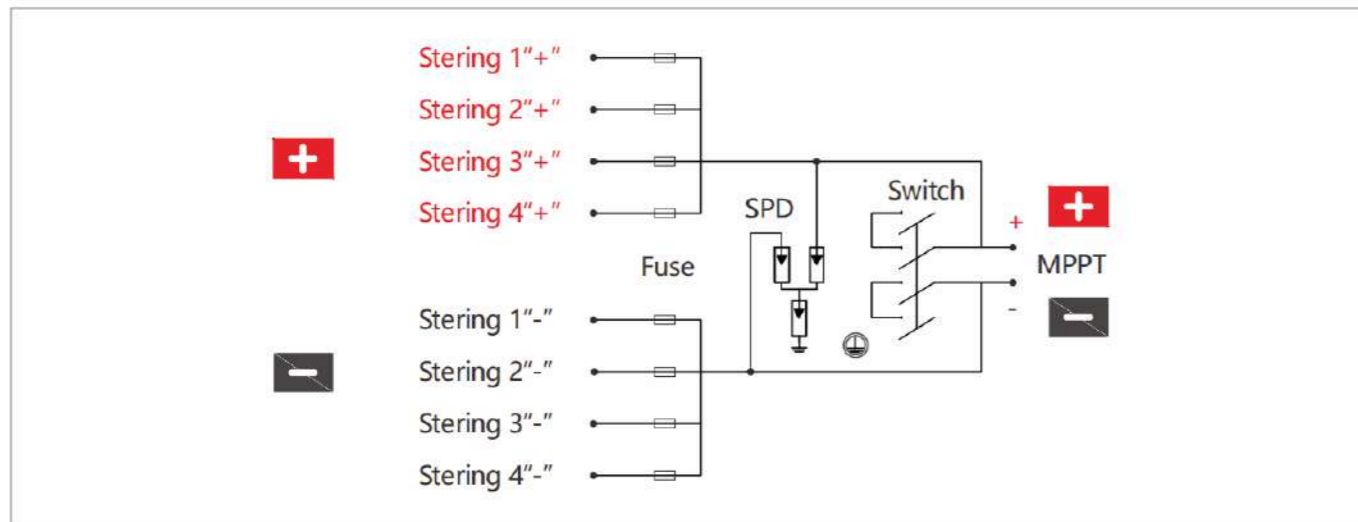
Notice:

1. All connections must be carried out under the state of power failure.
2. Let the professional electrical engineer carry on connecting line.
3. The flammable and explosive are forbidden in the installing concourse.

Warranty & Service

Standard Combiner Boxes come with 3 year warranty, except on the consumables such as fuses. If you have any question, just feel free to contact me.

Wiring diagram



MDJB-6B DC COMBINER BOX



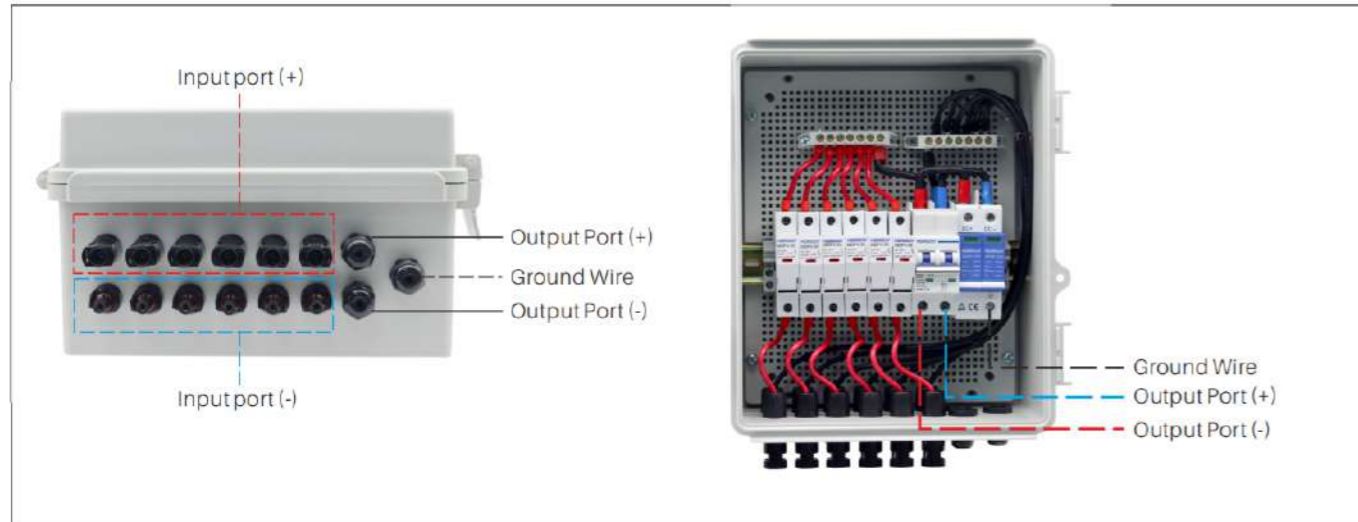
Features

1. The PV combiner box is suitable for photovoltaic grid-connected and off-grid power generation systems.
2. It is configured with photovoltaic dedicated high-voltage lightning arrester, DC fuse and circuit breaker to provide short circuit fault protection and lightning protection.
3. It has protect function of over-voltage and over-current so as to avoid damage to photovoltaic panels and inverters when the fault occurs.
4. It's also used to reduce the connection of the photovoltaic array to the inverter, optimize the system structure, improve the reliability and maintainability of the system, make the photovoltaic system at its best.
5. IP65 design, waterproof, anti dust and anti ultraviolet.
6. Strict test for high and low temperature, used widely.
7. The simple installation, the simplified system wiring, the convenient wiring

Technical Specification

DC string box	
Product Name	DC combiner box
Model Code	MDJB-PV6/1
Rated Voltage	500V~600V
Operation	10A
Input	6strings
output	1string
Temperature range	-25°C~+60°C
Enclosure	
IP Protection Class (IEC60529)	IP65
Materials	Polycarbonate / ABS
Spec	UV resistance and Flame retardant
DC Circuit Breaker	
Rated Voltage	500V~600V
Rated Current	63A
DC SPD	
Max Operating Voltage	1000V
Max Discharge Current	40KA
Nominal discharge current	20KA
DC Fuse	
Rated Volitage	1000V
Fuse link	15A 10*38mm ²
Finger safe touch	YES

Insatallation



Instruction

1. Box Input: Connect the panel connectors (module output and combiner input), make sure the negative wire of module output connected to the blue area (as the picture instructed); the positive wire of module output connected to the red area (as the picture instructed).
2. Box Output: Connect PV wires to the output terminals of DC circuit breaker (both "+" and "-"; as the picture instructed), connect the ground wire to the ground terminal of DC arrester. All the output wires separately pass through the cable glands, make sure all the cable glands properly tightened.

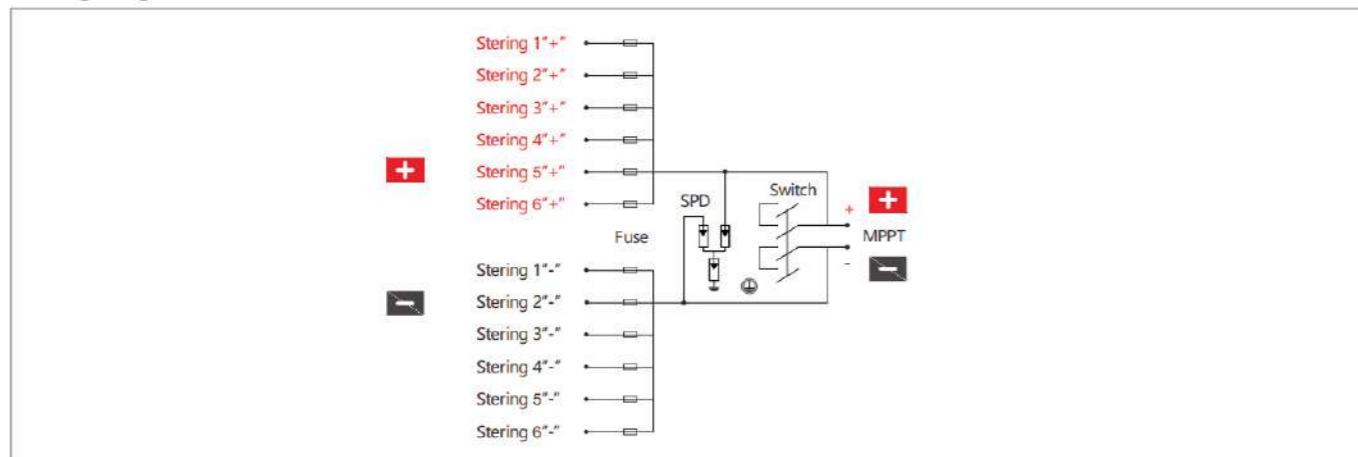
Notice:

1. All connections must be carried out under the state of power failure.
2. Let the professional electrical engineer carry on connecting line.
3. The flammable and explosive are forbidden in the installing concourse.

Warranty & Service

Standard Combiner Boxes come with 3 year warranty, except on the consumables such as fuses. If you have any question, just feel free to contact me.

Wiring diagram



MDB1Z-63



MDB1Z-100

MDB1Z-63/MDB1Z-100
DC MCB



Overview

Dc circuit breaker limited current performance, can accurately protect relay protection, automatic device from overload, short circuit and other faults. Advantages of current limiting and arcextinguishing capabilities of dc circuit breakers.

Technical Specification

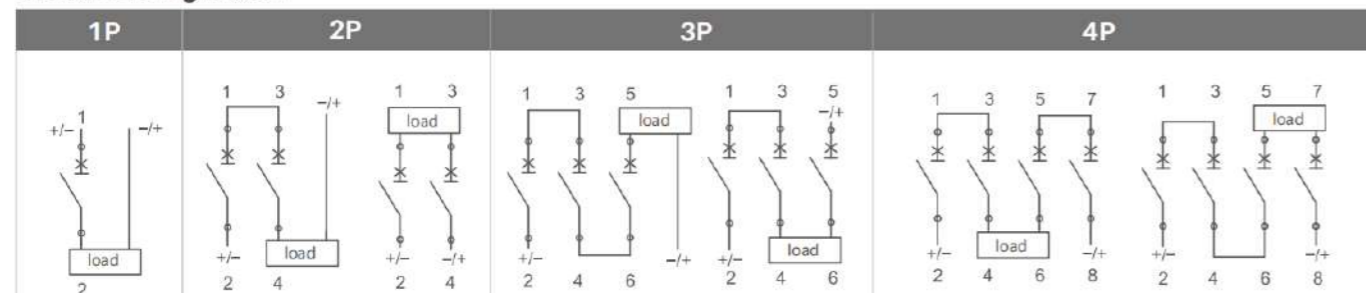
		MDB1Z-63			
Pole		1P	2P	3P	4P
Rated Working Voltage Ue		250V DC	600V DC	800V DC	1000V DC
Frame Current		63A			
Rated Current In		63A, 50A, 40A, 32A, 25A, 20A, 16A, 10A			
Rated Insulation Voltage Ui		1000V			
Rated Impulse Withstand Voltage Uimp		6kV			
Tripping Characteristics		B/C			
Tripping Type		Thermal Magnetic			
Rated Ultimate Short-Circuit Breaking Capacity Icu		6kA			
Rated Service Short-Circuit Interrupting Capacity Ics		6kA			
Electrical Life	Actual	> 1500 Cycles			
	Standard	300 Cycles			
Mechanical Life	Actual	> 10000 Cycles			
	Standard	9700 Cycles			
Overvoltage Category		III			
Pollution Degree		3			
Ingress Protection		IP40; Wiring port IP20			
Resistance to humidity and heat		Class 2			
Relative Humidity		≤ 95 %			
Vibration		acc. to IEC60068-2-6			
Shocks		acc. to IEC60068-2-27			
Terminal capacity		2.5~35mm ²			
Fastening Torque of Terminals		2.0~3.5 Nm			
Ambient Temperature		-30°C~70°C			
Storage Temperature		-40°C~85°C			
Installation Method		DIN			
Elevation		≤2000m			
Dimension	Width:	72mm			
	High:	87.5mm			
	Depth:	81mm			
Weight		0.12kg/Pole			

Technical Specification

MDB1Z-100

Pole		2P	4P
Rated Working Voltage U_e		600V DC	1000V DC
Frame Current		100A	
Rated Current I_n		63A, 80A, 100A	
Rated Insulation Voltage U_i		1000V	
Rated Impulse Withstand Voltage U_{imp}		6kV	
Tripping Characteristics		B/C	
Tripping Type		Thermal Magnetic	
Rated Ultimate Short-Circuit Breaking Capacity I_{cu}		15kA($I_n \leq 100A$)	
Rated Service Short-Circuit Interrupting Capacity I_{cs}		10kA($I_n \leq 100A$)	
Electrical Life	Actual	> 1500 Cycles	
	Standard	300 Cycles	
Mechanical Life	Actual	> 10000 Cycles	
	Standard	9700 Cycles	
Overvoltage Category		III	
Pollution Degree		3	
Ingress Protection		IP40; Wiring part IP20	
Resistance to humidity and heat		Class 2	
Relative Humidity		$\leq 95\%$	
Vibration		acc. to IEC60068-2-6	
Shocks		acc. to IEC60068-2-27	
Terminal capacity		2.5-35mm ²	
Fastening Torque of Terminals		2.0-3.5 Nm	
Ambient Temperature		-30°C ~ 70°C	
Storage Temperature		-40°C ~ 85°C	
Installation Method		DIN	
Elevation		$\leq 2000m$	
	Dimension		Width: 72mm
			High: 87.5mm
Weight		Depth: 81mm	
		0.12kg/Pole	

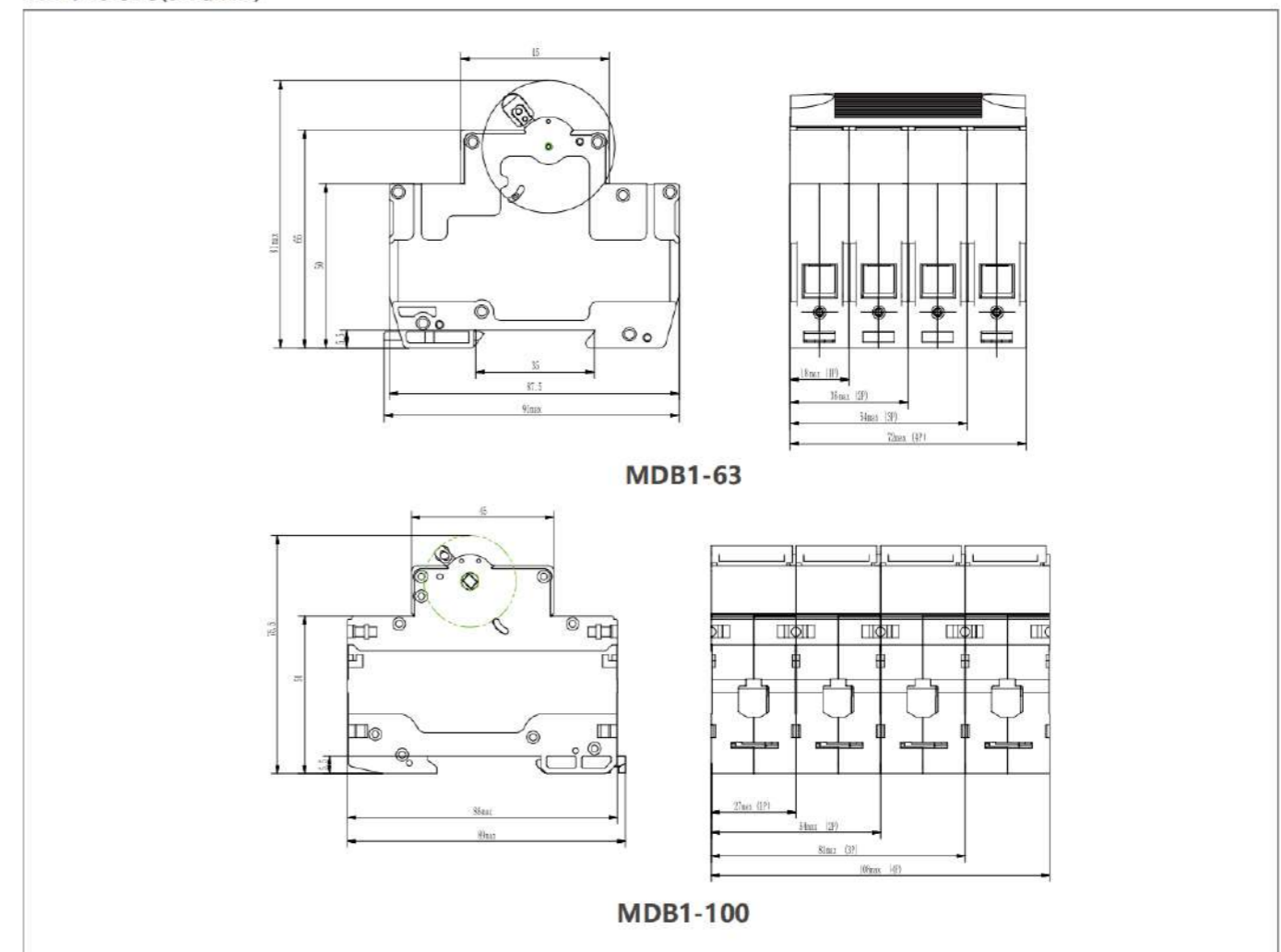
Contact Configuration



Standard time-current band

Test	Instantaneous release type	DC test current	Starting state	Tripping or non-tripping time limit	Expected results	Remarks
	B, C	1.13I _n	Cold state	$t \geq 1h (I_n \leq 63A)$	No tripping	/
b	B, C	1.45I _n	Followed by a test	$t < 1h (I_n \leq 63A)$	Tripping	The current rises steadily within 5S
c	B, C	2.55I _n	Cold state	$1s < t < 60s (I_n \leq 63A)$ $1s < t < 60s (I_n \leq 63A)$	Tripping	/
d	B, C	4I _n	Cold state	$0.1s < t < 45s (I_n \leq 32A)$ $0.1s < t < 90s (I_n \leq 32A)$	Tripping	Close the auxiliary switch to turn on the power
		7I _n		$0.1s < t < 15s (I_n \leq 32A)$ $0.1s < t < 30s (I_n \leq 32A)$		
e	B, C	7I _n	Cold state	$t < 0.1s$	Tripping	
		15I _n				

Dimensions (unit:mm)





MDB2Z-63 DC MCB



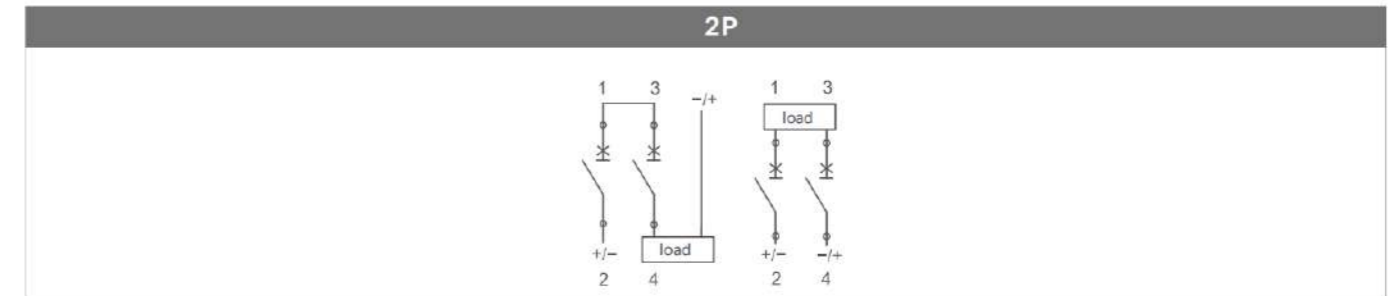
Overview

Dc circuit breaker limited current performance, can accurately protect relay protection, automatic device from overload, short circuit and other faults. Advantages of current limiting and arc extinguishing capabilities of dc circuit breakers.

Technical Specification

Pole		2P
Rated Working Voltage Ue		800V/1000V DC
Frame Current		63A
Rated Current In		63A, 50A, 40A, 32A, 25A, 20A, 16A, 10A
Rated Insulation Voltage Ui		800V/1000V
Rated Impulse Withstand Voltage Uimp		6kV
Tripping Characteristics		B/C
Tripping Type		Thermal Magnetic
Rated Ultimate Short-Circuit Breaking Capacity Icu		6kA
Rated Service Short-Circuit Interrupting Capacity Ics		6kA
Electrical Life	Actual	> 1500 Cycles
	Standard	300 Cycles
Mechanical Life	Actual	>10000 Cycles
	Standard	9700 Cycles
Overvoltage Category		III
Pollution Degree		3
Ingress Protection		IP40; Wiring port IP20
Resistance to humidity and heat		Class 2
Relative Humidity		≤ 95 %
Vibration		acc. to IEC60068-2-6
Shocks		acc. to IEC60068-2-27
Terminal capacity		2.5~35mm ²
Fastening Torque of Terminals		2.0~3.5 Nm
Ambient Temperature		-30°C~70°C
Storage Temperature		-40°C~85°C
Installation Method		DIN
Elevation		≤2000m
Dimension	Width: 72mm	
	High: 87.5mm	
	Depth: 81mm	
Weight		0.12kg/Pole

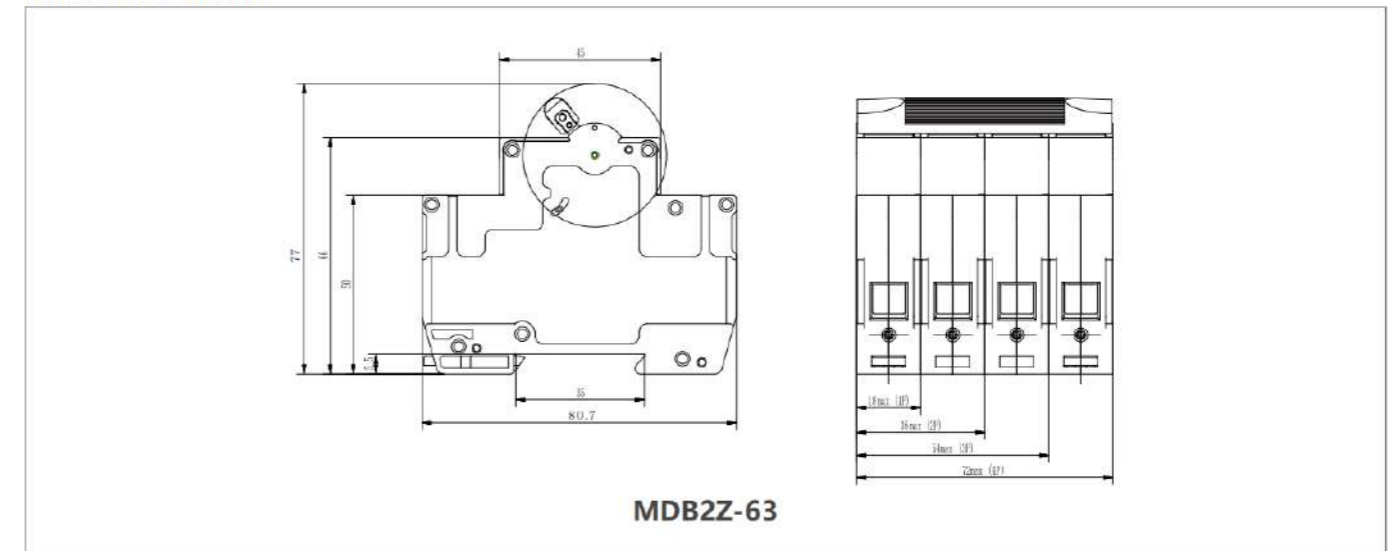
Contact Configuration



Standard time-current band

Test	Instantaneous release type	DC test current	Starting state	Tripping or non-tripping time limit	Expected results	Remarks
	B, C	1.13In	Cold state	$t \geq 1h (I_n \leq 63A)$	No tripping	/
b	B, C	1.45In	Followed by a test	$t < 1h (I_n \leq 63A)$	Tripping	The current rises steadily within 5S
c	B, C	2.55In	Cold state	$1s < t < 60s (I_n \leq 63A)$ $1s < t < 60s (I_n \leq 63A)$	Tripping	/
d	B, C	4In	Cold state	$0.1s < t < 45s (I_n \leq 32A)$ $0.1s < t < 90s (I_n \leq 32A)$	Tripping	Close the auxiliary switch to turn on the power
				$0.1s < t < 15s (I_n \leq 32A)$ $0.1s < t < 30s (I_n \leq 32A)$		
e	B, C	7In	Cold state	$t < 0.1s$	Tripping	
		15In				

Dimensions(unit:mm)





MDB1-63 AC MCB



Overview

Suitable for industrial, commercial, high-rise and civil residences circuit protection.

Features

- Up to 63A current rating
- Current limiting design
- Three levels of short-circuit protection, categorized by B, C and D curves.
- Captive screws cannot be lost
- Contact position indicator (red/green)
- Easy installation on DIN rail

Technical Specification

Specifications	
Rated voltage(V)	230/400V(1P), 400V(2P, 3P, 4P)
Rated current(A)	6, 10, 16, 20, 25, 32, 40, 50, 63
Poles	1P, 2P, 3P, 4P
Rated breaking capacity(A)	4500
Tripping characteristics	Table 1
Mechanical & Electrical life	4000
Tripping characteristics	B, C, D
Tightening torque (N·m)	2.5
Pollution Degree	2
Protection class	Ip20
Overvoltage category	II
Standards	IEC60898-1, GB/T10963.1
Compliant certification	CCC

Wiring Diagram

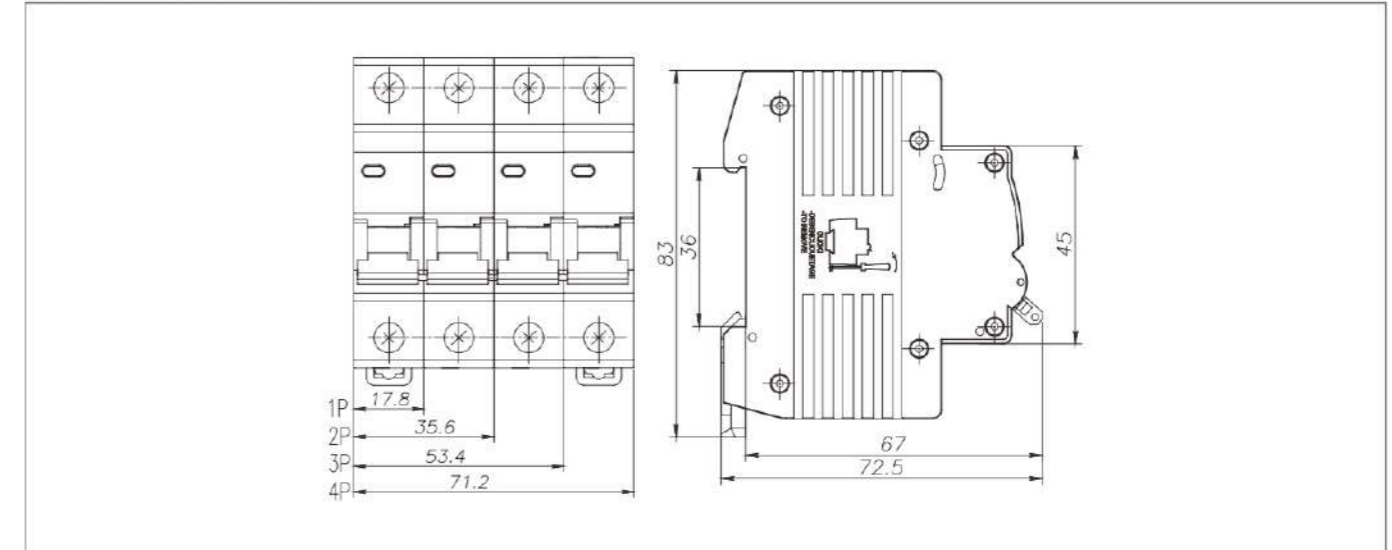


Table 1: Tripping characteristics (Reference temp.30°C)

Item	Rated current (A)	Initial status	Test current In(A)	Time limit for tripping or non-tripping	Expected result	Remarks
Delay	≤63	Cold	1.13In	≤1h	Non-tripping	
Delay	≤63	Following previous test	1.45In	<1h	Tripping	Current smoothly rises to specified value within 5s
Delay	≤32	Cold	2.55In	1<t<60s	Tripping	
Delay	>32	Cold	2.55In	1<t<120s	Tripping	
Instantaneous	Any value	Cold	3, 5, 10In	≤0.1s	Non-tripping	B, C, D
Instantaneous	Any value	Cold	5, 10, 20In	<0.1s	Tripping	B, C, D

Note: The term "cold" means that the test is carried out at a reference calibration temperature without load before the test.

Dimensions (unit:mm)





MDB1-100 AC MCB



Overview

Suitable for industrial, commercial, high-rise and civil residences circuit protection.

Features

- Up to 63A current rating
- Current limiting design
- Three levels of short-circuit protection, categorized by B, C and D curves.
- Captive screws cannot be lost
- Contact position indicator (red/green)
- Easy installation on DIN rail

Technical Specification

Specifications	
Rated voltage(V)	230V(1P), 400V(2~4P)
Rated current(A)	63A, 80A, 100A
Poles	1P, 2P, 3P, 4P
Rated breaking capacity Icn(A)	Icu=Ics=6000A
Rated impulse withstand voltage Uimp(V)	6000V
Tripping characteristics	Table 1
Mechanical & Electrical life	8500&1500(Operating frequency : 120 /h)
Pollution Degree	2
Tightening torque(N·m)	2.5
Protection class	IP20
Overvoltage category	II & III
Standards	IEC 60947-2 , GB/T14048.2
Compliant certification	CCC

Wiring Diagram

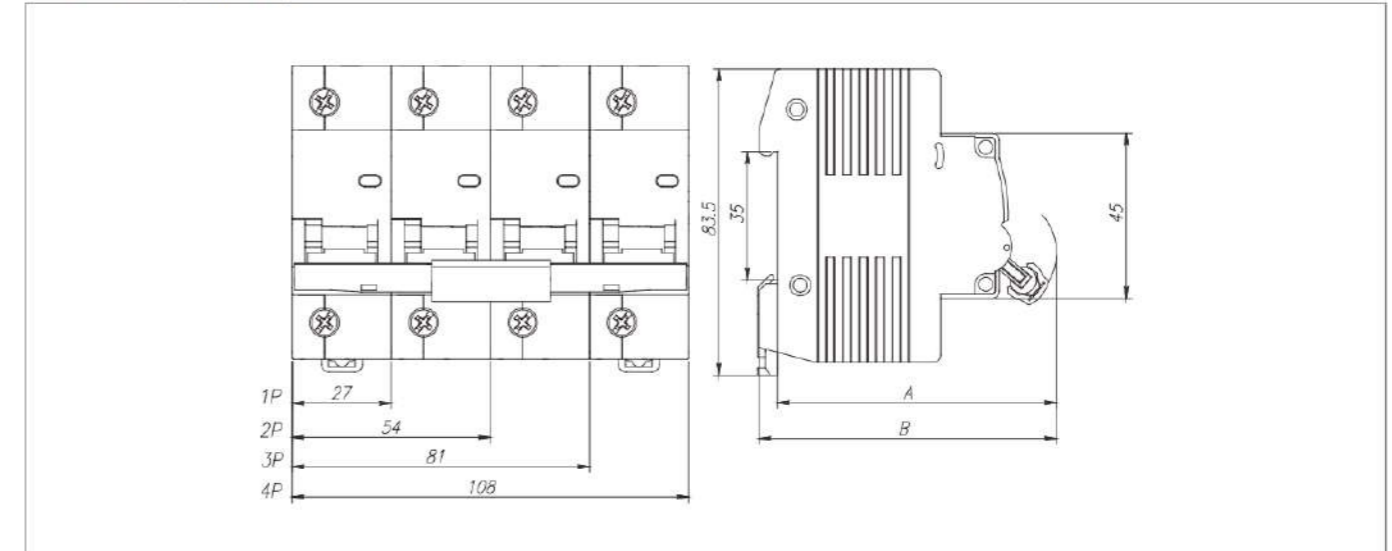


Table 1: Tripping characteristics (Reference temp.30°C)

Item	Test current In(A)	Initial status	Time limit for tripping or non-tripping	Expected result	Remarks
a	1.05In	Cold	$t \leq 1h (In \leq 63A)$ $t \leq 2h (In > 63A)$	Non-tripping	
b	1.3In	Following Item a test	$t < 1h (In \leq 63A)$ $t < 2h (In > 63A)$	Tripping	Current smoothly rises to specified value within 5s
c	2In	Cold	$0 < t < 300s$	Tripping	
d	8In	Cold	$t \leq 0.2s$	Non-tripping	
e	12In	Cold	$t < 0.2s$	Tripping	

Note: The term "cold" means that the test is carried out at a reference calibration temperature without load before the test.

Dimensions(unit:mm)





MDB7 Miniature Automatic Reclosing Circuit Breakers



Overview

MDB7-100 ARD Electric energy meter external circuit breaker (hereinafter referred to as circuit breaker) is suitable for AC 50Hz, rated working voltage up to 400V, rated current to 100A, long-distance control breaking or closing operation of the line, at the same time The line acts as an overload and short circuit protection, and can also be used as an infrequent operation conversion of the line. At present, it is widely used in intelligent prepaid meters to control the closing and breaking of lines. Meet the standard: GB10963.1, IEC60898-1.

Technical Specification

Project	Parameter	Project	Parameter
Number of poles	2P、4P	Instantaneous trip type	C
Features	Short circuit protection, overload protection, isolated, remote split/close control	Rated short-circuit breaking capacity	$I_{cs}=I_{cn}=6000A$
Rack rated current value I_{nm}	100A	Mechanical life	10000
Rack rated current value I_{nm}	230V AC(2P)/400V AC(4P)	Electrical life	6000
Rated current I_n	32A, 40A, 50A, 63A,80A,100A	Overcurrent tripping characteristics	See Table 1 and Figure 1

Remote control function

Project	Parameter	Project	Parameter
Closing time	$t_{cs} \leq 3s$	Split/close switch	Phase line power
Power-on delay	$t_{d} \leq 4s$	Phase leakage current	$I_L \leq 0.2mA$
Control level voltage	220V AC $\pm 30\%$	Control signal indicator	Have
Control level current	$I_c \leq 1mA$	Feedback signal	Have
Closing module power take-off mode	Take power before the control line meter, take power after closing/opening the short timetable	Split/close operation mode	Built-in shaft drive



MDM8L PV Plastic Smart Circuit Breakers



Overview

PV plastic smart circuit breakers (hereinafter referred to as: circuit breaker) is a circuit breaker integrating residual current relay, contactor and molded case circuit breaker. It is suitable for three-phase four-wire neutral point grounding power supply and demand system. Or the ground fault of the electrical equipment, over current, short circuit, phase loss and over voltage protection. It can also prevent electrical fires and electrical equipment damage caused by ground faults of electrical circuits or electrical equipment and provide indirect contact protection for personal electric shock hazards.

The product complies with the GB14048.2-2008 GB/T22387-2008 standard.

The photovoltaic molded case intelligent circuit breaker is equipped with RS485 serial interface, which can set the protection characteristic parameters through the programmer, and can meet the requirements of communication networking.

The main technical parameters

Specification model	MDM8L-125	MDM8L-250	MDM8L-400	MDM8L-630	MDM8L-800
Rated Voltage(V)	380V	380V	380V	380V	380V
Shelf current $I_n(A)$	125	250	400	630	800
Rated current I_r (standard type)	40、63、80、100、125	100、160、200、250	250、315、350、400	400、500、630	630、700、800
Rated current I_r (electronic)	(0.4-1.0) $\times I_n$ + off (can be adjusted every 0.1In)				
Rated ultimate short-circuit breaking capacity I_{cu} (kA)	30	35	50	65	65
Rated operating short-circuit breaking capacity I_{es} (kA)	15	22	35	42	42
Rated residual short-circuiting (breaking) capability $I_{\Delta n}$ (kA)	7.5	8.75	12.5	16.25	16.25
Rated residual operating current $I_{\Delta n}$ (standard type)	75mA/150mA/300mA/500mA		100mA/200mA/300mA/500mA	100mA/300mA/500mA/800mA	
	Leakage alarm, automatic tracking				
Rated residual operating current $I_{\Delta n}$ (electronic)	50mA/100mA/300mA/500mA/800mA/1000mA/leakage alarm, automatic tracking				
Rated residual nonoperating current	0.5 $I_{\Delta n}$				
Residual current breaking time	$\leq 0.2S$ S-type 0.6S 1S				
Limit no drive time	$\Delta t > 0.06s$ (2 $I_{\Delta n}$) (S-type)				
Undervoltage action value (standard type)	145V $\pm 5\%$ (automatically close after voltage recovery)				
Overvoltage action value (standard type)	280V $\pm 5\%$ (automatically close after voltage recovery)				



MDM1Z/5Z DC MCCB



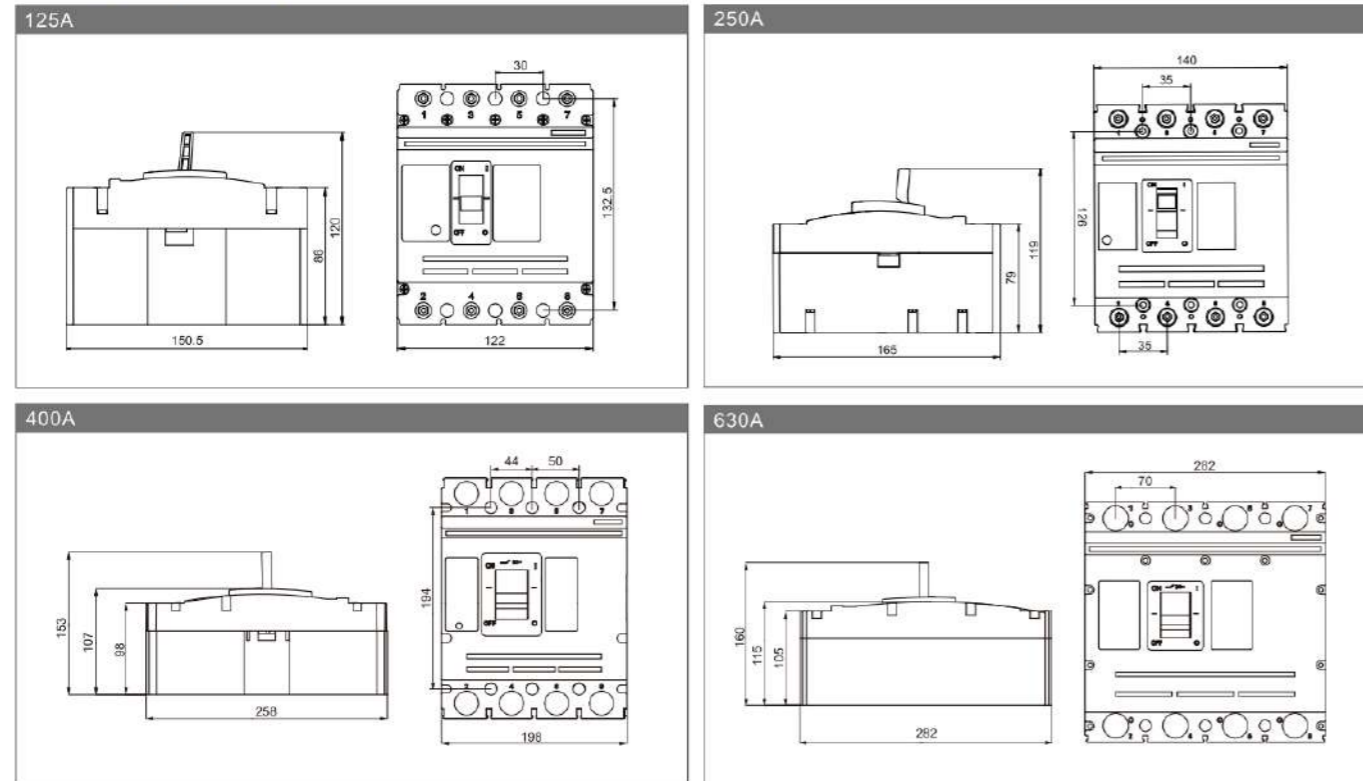
MDM1Z-125 MDM1Z-250 MDM5Z-400

Overview

MDM1Z PV DC Moulded Case Circuit Breaker (MCCB) are mainly used in large solar power system, which are applied for solar DC combiner box, inverter and DC power distribution cabinet. Rated voltage up to 1000V DC, current up to 630A, with the function of overload protection and short-circuit protection.

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

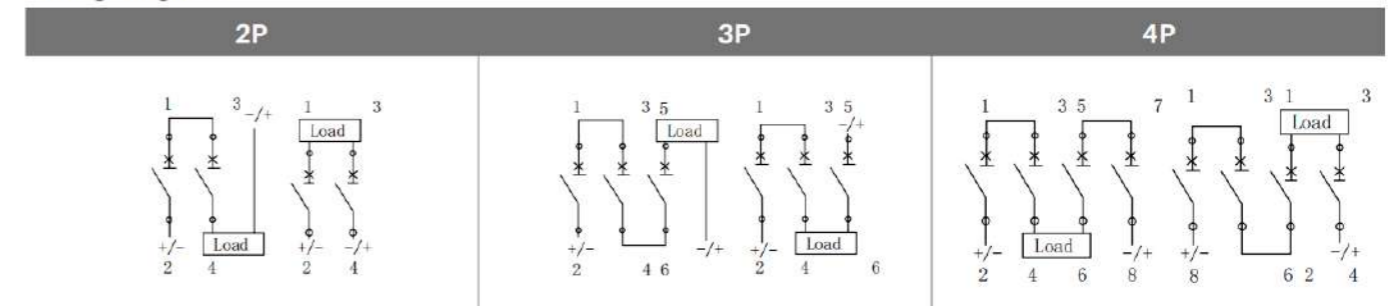
Dimensions(unit:mm)



Technical Specification

BD series PV DC MCCB						
Type	MDM1Z-125		MDM1Z-250		MDM5Z-400	MDM5Z-630
Pole	2P	4P	2P	4P	4P	4P
Max Rated Current	125A	125A	250A	250A	400A	630A
Electrical Characteristics						
Rated Working Voltage	Ue	600V DC	1000V DC	600V DC	1000V DC	1000V/1500V DC
Rated Current	In(A)	63/80/100/125		125/160/200/250		250/300/315 350/400
Rated Insulated Voltage	Ui	1000V DC				
Rated Impulsed Voltage	Uimp	8kV				
1 Min Power Frequency Withstand Voltage		3.8 kV	3.8 kV	3.8 kV	3.8 kV	3.8 kV
Ultimate Breaking Capacity	Icu	20 KA	20 KA	20 KA	20 KA	20 KA
Run Breaking Capacity	Ics	15 KA	15 KA	15 KA	15 KA	15 KA
Protection						
Tripping Type	Thermal Magnetic Type					
Control And Indication						
Control Mode	Manual	Direct (RHD)		Optional		
		Extended (ERH)		Optional		
	MOD			Optional		
Shunt Release (SHT)						Optional
Auxiliary Release						Optional
Terminal End Cover						Yes
Interphase Barriers						Yes
Service Life/Cycle Operation						
Mechanical	14000		14000		5000	5000
Electrical	5000		5000		1500	1500
Size(LxWxH)	150.5x65x92.5	150.5x122x92.5	165x75x108	165x140x108	258x198x107	282x282x115
Ingress Protection	All Sides IP40, Connection Terminal IP20					
Installation Environment						
Comply With	IE C60947-2/GB14048.2					
Storage Temperature	-40°C~+85°C					

Wiring Diagram





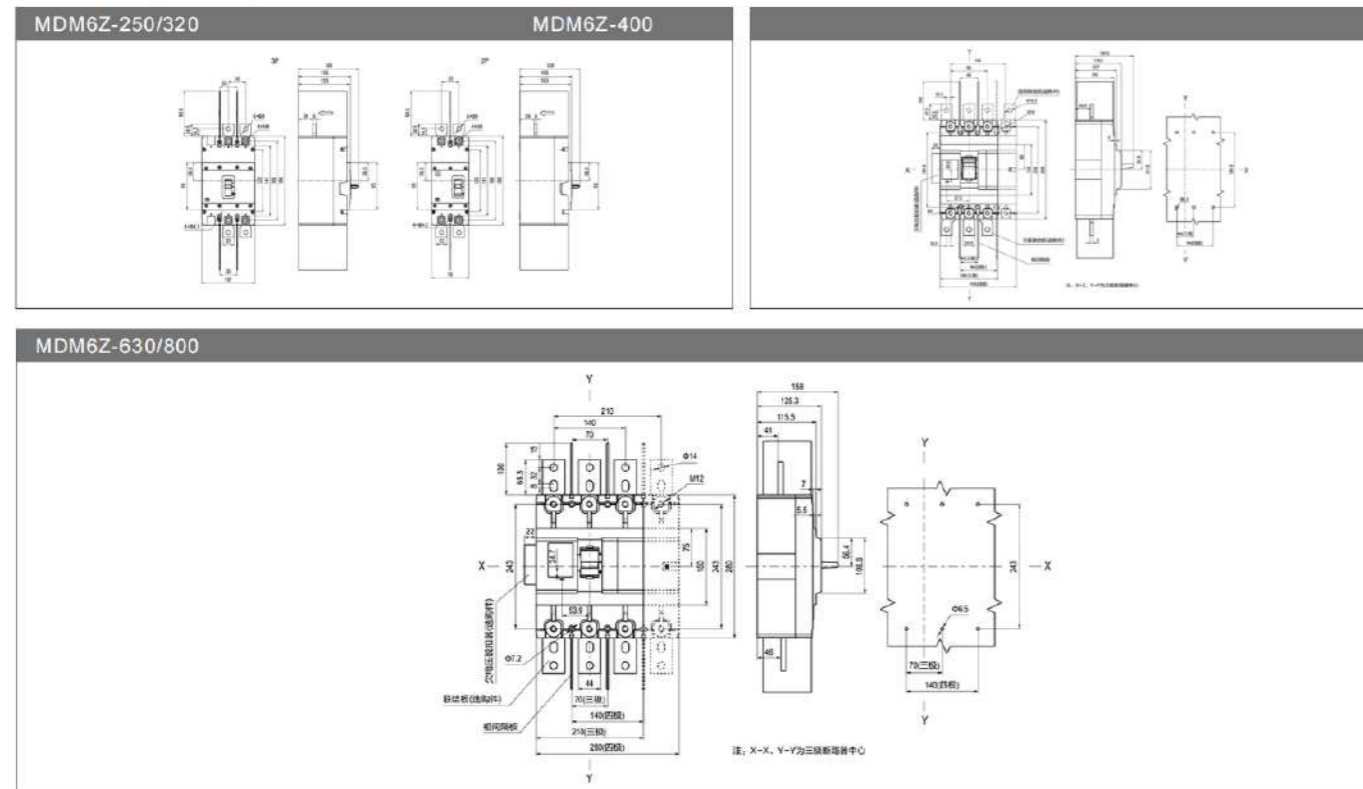
MDM6Z DC MCCB

CE CQC

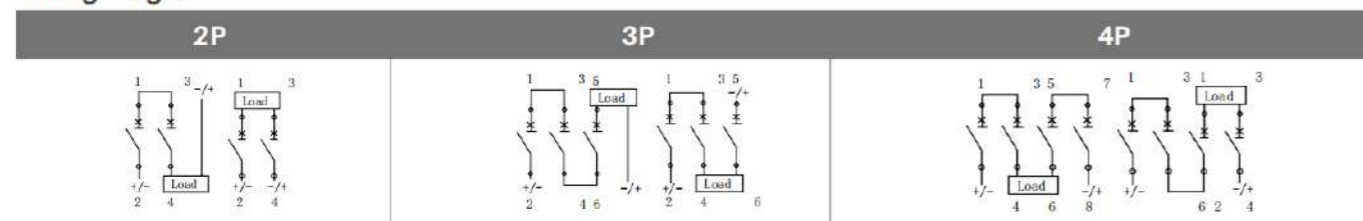
Overview

MDM6Z series molded case circuit breaker, rated voltage up to DC 1500V, current up to 400A. The breaking capacity of DC 1500V is up to 10kA, which can reliably protect the system against short circuit.

Dimensions(unit:mm)



Wiring Diagram



Technical Specification

Frame	MDM6Z-250		MDM6Z-320	MDM6Z-400				
	Number Of Poles	2		3	2		3	
Rated working voltage Ue(V)	DC500	DC1000	DC1500	DC250/500	DC750/1000	DC1250/1500	DC1250/1500	
Rated insulation voltage Ui(V)	DC1250		DC1500	DC1500				
Rated impulse withstand voltage Uimp(kV)	8		12	12				
Rated current In(A)	63, 80, 100, 125, 140, 160, 180, 200, 225, 250		280, 315, 320	225, 250, 315, 350, 400				
Rated Ultimate Short-circuit Breaking Capacity Icu(ka)	H type	50	20	20	65	35	15	15 (2-pole String) 20 (3-pole String)
	R type	/	/	/	70	40	20	20 (2-pole String) 25 (3-pole String)
Rated Operating Short-circuit Breaking Capacity Ics(ka)	Ics=100%Icu							
Wiring	Top In And Bottom Out, Bottom In And Top Out (2p, 320/3p) Bottom In And Bottom Out, Top In And Top Out (3p)							
Use Category	A							
Whether It Has Isolation Function	Tool							
Ambient Temperature	-35°C~+70°C							
Mechanical Life (times)	20000			10000				
Electrical Life (times)	3000	2000	1500	1000	1000	700	500	
Standards Compliant	IECJEN60947-2、GB/T14048.2							
Appendix	Excitation, Auxiliary, Alarm, Manual Operation, Electric Operation							
Certified	CCC, CE, TUV							
Size (L x W x H)	180x76x126(2P) 180x107x126(3P)			250x124x165(2P) 250x182x165(3P)				

Frame	MDM6Z-630				MDM6Z-800				
	Number Of Poles	2		3	2		3		
Rated working voltage Ue(V)	DC250/500	DC750/1000	DC1250/1500	DC1250/1500	DC250/500	DC750/1000	DC1250/1500	DC1250/1500	
Rated insulation voltage Ui(V)	DC1500								
Rated impulse withstand voltage Uimp(kV)	12			12					
Rated current In(A)	500 630			700 800					
Rated Ultimate Short-circuit Breaking Capacity Icu(ka)	H type	65	35	15	15 (2-pole String) 20 (3-pole String)	65	35	15	15 (2-pole String) 20 (3-pole String)
	R type	70	40	20	20 (2-pole String) 25 (3-pole String)	70	40	20	20 (2-pole String) 25 (3-pole String)
Rated Operating Short-circuit Breaking Capacity Ics(ka)	Ics=100%Icu								
Wiring	Top In And Bottom Out, Bottom In And Top Out (2p, 320/3p) Bottom In And Bottom Out, Top In And Top Out (3p)								
Use Category	A								
Whether It Has Isolation Function	Tool								
Ambient Temperature	-35°C~+70°C								
Mechanical Life (times)	5000			5000					
Electrical Life (times)	1000	1000	700	500	1000	1000	700	500	
Standards Compliant	IECJEN60947-2、GB/T14048.2								
Appendix	Excitation, Auxiliary, Alarm, Manual Operation, Electric Operation								
Certified	CCC, CE, TUV								
Size (L x W x H)	250x124x165(2P) 250x182x165(3P)			250x124x165(2P) 250x182x165(3P)					

Remarks: 320 frame does not matter H: high breaking, R: current limiting type.



MDM1 AC MCCB

CE CAC

Overview

MDM1 series plastic case circuit breakers (hereinafter referred to as circuit breakers) are the result of one of the new circuit breakers researched and developed by international advanced design and manufacturing technology. Its rated insulation voltage is 1000V, suitable for AC 50Hz, the rated working voltage is 690V and below, (SHRM1-63 is 400V), infrequent operation in circuits with rated working current up to 800A. It is used for switching and infrequent starting of the motor. Circuit breaker with overload, short circuit and undervoltage protection function, can protect the circuit and power supply equipment from damage.

Features

- ◆ The insulating parts are made of high-strength DMC unsaturated polyester glass fiber plastic, and the proportion of aluminum hydroxide content is appropriately increased to improve the flame retardant performance of the product.
- ◆ The conductive system adopts advanced silver-plating process, increasing the thickness of silver-plating to improve the current-carrying capacity and heat dissipation of the product.
- ◆ The accessories of circuit breakers are selected from professional manufacturers that meet national standards. Further improve product reliability.
- ◆ The operating mechanism "three buckles" (locking, rebuckling, and jumping) adopts advanced professional technology to ensure the hardness and toughness of the "three buckles".
- ◆ Further improve the reliability and stability of the product.
- ◆ The metal parts of the product adopt the environmental protection electroplating process, which conforms to the EU environmental protection standards.
- ◆ Circuit breakers are classified into three types according to their rated ultimate short-circuit breaking capacity (Icu): L type (standard type), M type (higher breaking type), and H type (high breaking type). The circuit breaker has the advantages of small size, high breaking, short arcing (zero arcing in some specifications), anti-vibration and other characteristics.
- ◆ This circuit breaker can be installed vertically (ie vertical installation) or horizontally (ie horizontal installation).
- ◆ This circuit breaker has isolation function, and its corresponding symbols are.

Normal working conditions

- ◆ Ambient medium temperature: not higher than +40°C (+45°C for common products) and not lower than -5°C, and the average value of 24h does not exceed +35°C (+40°C for common products);
- ◆ Installation site: the altitude does not exceed 2000m;
- ◆ Installation site: The relative humidity of the air does not exceed 50% when the maximum temperature is +40°C, and can have a higher relative humidity at lower temperatures, such as 90% at 20°C; Condensation should take special measures;
- ◆ Pollution level: Level 3;
- ◆ Installation category: The installation category of the main circuit of the circuit breaker and the undervoltage release is III, and the installation category of the other auxiliary circuits and control circuits is II;
- ◆ The circuit breaker can withstand the influence of humid air, salt mist, oil mist, mold and nuclear radiation;
- ◆ The maximum inclination of the circuit breaker installation is ±22.5°;
- ◆ The circuit breaker can work reliably under earthquake conditions (4g);
- ◆ The circuit breaker should be installed in a place where there is no explosion hazard, no conductive dust, and no enough to corrode metals and damage insulation;
- ◆ The circuit breaker should be installed in a place free from rain and snow.

Protection features

The thermal release of the circuit breaker has inverse time characteristics; the electromagnetic release is instantaneous, and the characteristics are shown in Table 3 (for power distribution) and Table 4 (for motor protection).

Table 3 (for power distribution)

Rated operating current of release (A)	Thermal release (reference temperature 40°C)		Electromagnetic release operating current (A)
	1.05In (cold state) non-action time (h)	1.30In (hot state) operating time (h)	
10<In≤63	≥1	<1	10In±20%
63<In≤100	≥2	<2	10In±20%
100<In≤800	≥2	<2	5In±20% 10In±20%

Note: There is no 5In electromagnetic trip unit in the 100A and 125A specifications of SHRM1-250.

Table 4 (for motor protection)

Rated operating current of release (A)	Thermal release (reference temperature 40°C)				Electromagnetic release operating current (A)
	1.0In (cold state) non-action time (h)	1.20In (hot state) operating time (h)	1.50In (cold state) non-action time (h)	7.20In (hot state) operating time (h)	
10≤In≤205	≥2	≤2	4min	4s<T≤10s	12In±20%
225<In≤800			8min	6s<T≤20s	

MDM1-125 (L, M, H) front wiring (two-pole, three-pole, four-pole) (X-X, Y-Y are the center of the three-pole circuit breaker)

Model	H	H1
MDM1-125L	68	86
MDM1-125M, H	86	104
MDM1-125 four-pole		

Thickness of undervoltage release: for A, B type m=12 C type m=21
Hole size of front wiring installation board

Main technical performance indicators

Frame current (A)	63			125(100)				250				400			
model	MDM1-63L	MDM1-63M	MDM1-63H	MDM1-125L	MDM1-125M	MDM1-125H	MDM1-250L	MDM1-250M	MDM1-250H	MDM1-400L	MDM1-400M	MDM1-400H			
Rated current In(A)	(6), 10, 16, 20, 25, 32, 40, 50, 63			(10), 10, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125				100, 125, 140, 160, 180, 200, 225, 250				225, 250, 315, 350, 400			
Number of poles (P)	3	3	4	3	3	4	3	3	4	4	3	3	4	4	
Rated insulation voltage Ui(V)	AC500			AC1000				AC1000				AC800			
Rated impulse withstand voltage Uimp(V)	6000			8000				8000				8000			
Rated working voltage Ue(V)	AC400			AC400	AC400	AC400	AC400	AC400	AC400	AC400	AC400	AC400	AC400	AC400	AC400
Arc distance(mm)	0			0(≥50)				≥50				≥100			
Rated ultimate short-circuit breaking capacity Lcu(kA)	AC400V	AC690V		25	50	35	50	80	35	50	80	50	65	100	
Rated operating short-circuit breaking capacity Lcs(kA)	AC400V	AC690V		18	35	22	35	50	25	35	50	35	42.5	65	
Operational performance (times)	powerups	nopower		6000				3000				2000			
				8500				7000				4000			
Dimensions (mm)	W	78	78	103	92	92	122	92	107	107	142	107	150	198	150
	L	135	135	150	150			165	165			257			
	H	73.5	81.5	68	86			86	103			106.5			

Frame current (A)	630			800			1250					
model	MDM1-630L	MDM1-630M	MDM1-630H	MDM1-800L	MDM1-800H	MDM1-1250L	MDM1-1250M	MDM1-1250H				
Rated current In(A)	400, 500, 630			630, 700, 800			800, 1000, 1250					
Number of poles (P)	3	3	4	3	4	3	3	4	3			
Rated insulation voltage Ui(V)	AC800			AC800			AC800					
Rated impulse withstand voltage Uimp(V)	8000			8000			8000					
Rated working voltage Ue(V)	AC400	AC400	AC400	AC400	AC400	AC400	AC400	AC400	AC400			
Arc distance(mm)	≥100			≥100			≥100					
Rated ultimate short-circuit breaking capacity Lcu(kA)	AC690V	AC400V		50	65	100	85	100	85			
							30		30			
Rated operating short-circuit breaking capacity Lcs(kA)	AC690V	AC400V		35	42.5	65	50	80	50			
							20		20			
Operational performance (times)	powerups	nopower		1500			1000			1500		
				4000			2500			4000		
Dimensions (mm)	W	182	240	182	210	280	210	210	280	210		
	L	270			280	280	280	470				
	H	110			115.5	115.5	115.5	191				

Note: The limit breaking and arcing distance includes horizontal and vertical installation.
 * MDM1-125 arcing distance is divided into 0° arcing and 50mm, which should be specified when ordering.
 There is no 0° arcing in the 690V specification of the four-pole circuit breaker.



MDSP 600/1000/1500V PV DC SPD

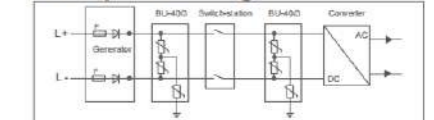
CE REHS CB

Overview

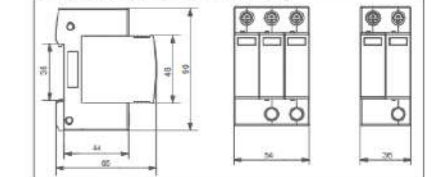
DC Surge Arrester BUD-40/3 is a Type 2 DC Surge Protection Device for DC side to protect the terminal devices in PV system from over voltage, like solar panels or inverters. Available for 600Vdc, 1000Vdc, 1500Vdc.

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

Principal Drawing



Dimensions (unit:mm)



Technical Specification

PV DC Surge Protection Device	
Modules	2/3 modules
Standard	IEC/EN 61643-31
Electrical Characteristics	
Open Voltage	Uoc Max 600/1000V/1500V
Max Continuous Operational Voltage	Uc 600/1000V/1500V
Nominal Discharge Current	In(8/20)µs 20KA
Maximum Discharge Current	Imax(8/20)µs 40KA
Voltage Protection Level Up	Up ≤3.5KV
Response Time	tA <25ns
Indication	
Operating State/fault Indication	Green/Red
Plug-in Protection Module	YES
Type of remote signalling contact	changeover contact
Remote Signalling Max Working Voltage	30VDC
Remote Signalling Max Working Current	1A
Connection And Installation	
Cross sectional area	min 1.5 mm² solid /flexible
Cross sectional area	max 35 mm² stranded I 25 mm² flexible
Connection	mm² By screw terminal 4-25 mm²
Torque(Nm)	Main Circuit 2.5
	Remote Contact 0.25
For mounting on 35 mm DIN rails	
Place of installation	indoor installation
Degree of Protection	Ip20
Installation Environment	
Operating Temperature Range	TU -40°C~+70°C
Relative Humidity	30%~90%
Weight kg	0.234/0.294/0.327



MD1-40 AC SPD

CE RoHS CB



MD1-C40 AC SPD

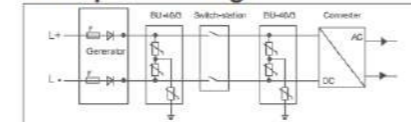
CE RoHS CB

Overview

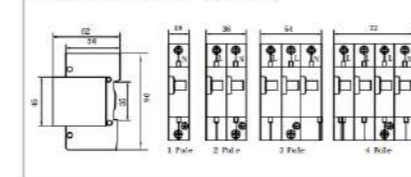
Surge protection device (in short SPD, alias: surge suppressor surge arrester) is suitable for TN-S, TN-C-S, TT, IT etc, power supply system of AC 50/60Hz, <380V, installed on the joint of LPZ1 or LPZ2 and LPZ3. It's designed according to IEC61643-1, GB18802.1, it adopts 35mm standard rail, there is a failure release mounted on the module of surge protection device. When the SPD fails in breakdown for over heat and over-current, the failure release will help electric equipments separate from the power supply system and give the indications signal, green means normal, red means abnormal, it also could be replaced for the module when has operating voltage.

- Inside over-current and over-heat protection, temperature control open circuit.
- Module design, convenient installation, could be replaced online.
- Time of response <25ns.
- The color of visible window shows operating status, green means normal, red means abnormal.

Principal Drawing



Dimensions (unit:mm)



Technical Specification

AC Surge Protection Device				
Model	MD1-40			
Electrical Characteristics				
Maximum continuous operating voltage Uc	175V AC	275V AC	275V AC	275V AC
Poles	1P	1P	2P	4P
Nominal discharge current In(8/20) s	10kA	20kA	20kA	20kA
Maximum discharge current Imax(8/20) s	20kA	40kA	40kA	40kA
Voltage protection level Up	1.2kV	1.8kV	1.8kV	1.8kV
Response Time	≤25ns			
Standard	IEC/EN 61643-11			
Control and Indication				
Operating State/fault Indication	Green/Red			
Protection Module	Plug-in			
Connection and Installation				
Hard cable mm ²	4~25			
Flexible cable mm ²	4~16			
Terminal Screws	M5			
General Data				
Dimension (W*H*D)	18*68*90mm	36*68*90mm	72*68*90mm	
Operating Temperature Range	-40°C~+70°C			
Relative humidity	≤95%(25°C)			
Installation mode	TH35-7.5/DIN35			
Ingress protection	IP20			

Overview

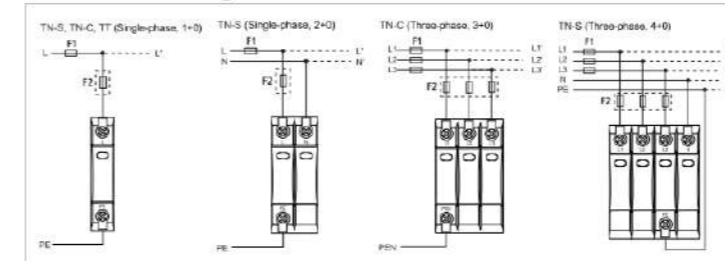
The AC Surge Protector Device MD1-C series is a group of Class I+II Surge Protective Devices. They are intended as a protection against indirect and low-intensity direct hits of lightning strokes. In standard three-phase TN-C grid, they provide protection to LPL III, IV requirements given in EN 62305 with total lightning current introduced into the electrical installation of 25kA and total lightning stroke current 25 or 50kA based on physical configuration and mutual position of grounding point of the lightning rod, grounding point of the electrical installation and place of SPD installation.

- Suitable for protection of electrical installations against transient overvoltage and indirect lightning strikes.
- Plug-in module design.
- Time of response < 25 ns.
- Indication window and optional remote-signaling contact helps users to know the status of device

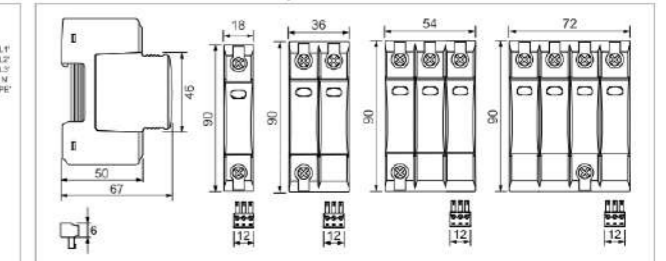
Technical Specification

PV AC Surge Protection Device						
SPD according to EN61643-11/IEC 61643-11						
Type 1+2/Class I+II						
Nominal AC Voltage Un (50/60Hz V~)	230V	230V	230V	230V	230V	400V
Maximum Continuous Operating Voltage Uc(V~)	275V	320V	385V	385V	385V	420V
Voltage protection Level Up(V~)kV	≤1.0	≤1.2	≤1.8	≤2.0	≤2.2	≤2.8
Nominal Discharge Current In (8/20s)kA	5	10	20	30	40	60
Maximum Discharge Current IImax(8/20s)kA	10	20	40	60	80	100
Response Time (ns)	<25					
Test Standard	IEC61643.1, GB18802.1					
Operating Environment (centigrade)	-40°C~+70°C					
Max Connection Line	35mm ² hard wire/35mm ² strand wire copper line					
Recommended Connection L line	16mm ² hard wire/25mm ² strand wire copper line					
Installation	Standard Rail 35mm					
Material of Outer Covering	Burning-proof Nylon					

Connection Diagram



Dimensions (unit:mm)





MDIS-40/40A PV DC Isolation Switch



MDIS-40MD PV DC Isolation Switch

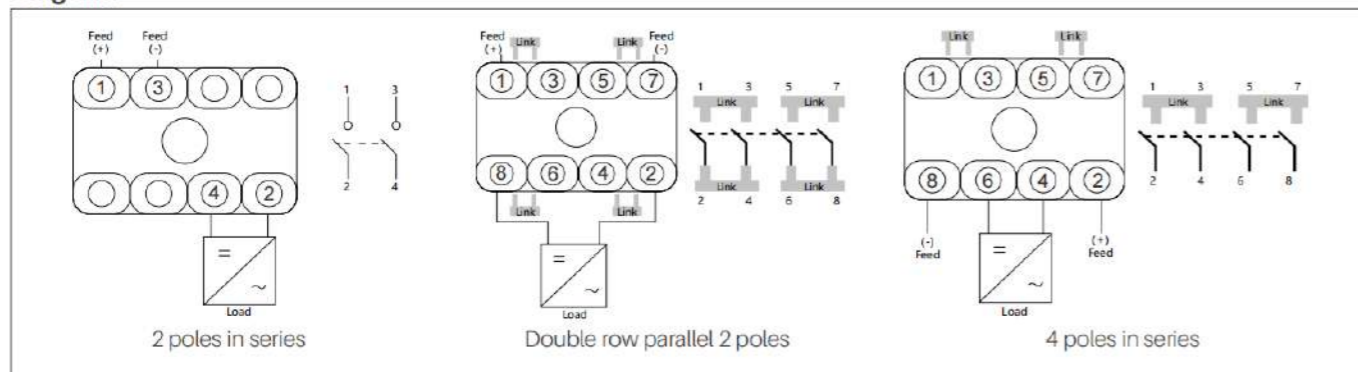


2 Poles connected in series	Ratings (DC21)	600V	700V	800V	900V	1000V	1200V
	MDIS-40-16A DC	16A	16A	16A	13A	9A	
	MDIS-40-25A DC	25A	23A	20A	16A	11A	
	MDIS-40-32A DC	32A	27A	23A	20A	13A	
2 Poles in parallel connected in series with 2Poles in parallel	Ratings (DC21)	600V	700V	800V	900V	1000V	1200V
	MDIS-40-16A DC	16A	16A	16A	13A	9A	16A
	MDIS-40-25A DC	25A	23A	20A	16A	11A	25A
	MDIS-40-32A DC	32A	27A	23A	20A	13A	32A
4 poles connected in series	Ratings (DC21)	600V	700V	800V	900V	1000V	1200V
	MDIS-40-16A DC	16A	16A	16A	13A	9A	16A
	MDIS-40-25A DC	25A	23A	20A	16A	11A	25A
	MDIS-40-32A DC	32A	27A	23A	20A	13A	32A

The main technical parameters

Photovoltaic DC Isolated switch	Rated current 16A 25A 32A
Product number MDIS-40-16/25/32A DC	Rated voltage 1200V
Opening method Handle 90° Rotary switch	Dimensions 83mm*61mm*46mm
Ambient temperature -5°C ~40°C	Installation method Rail mounting inside the distribution box
Switch body plastic part nylon	VO Switch body plastic flame retardant VO
Switch body energized part copper	The handle is connected to the main body

Diagram

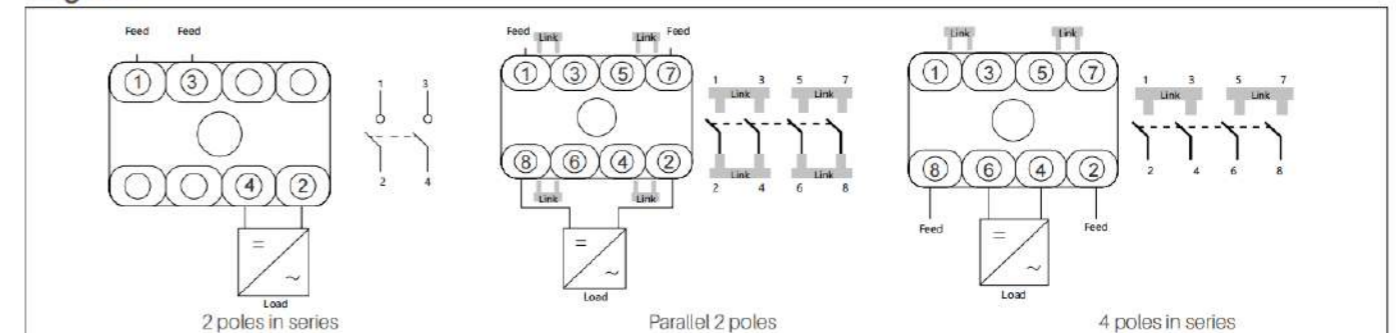


2 Poles connected in series	Ratings (DC21)	600V	700V	800V	900V	1000V	1200V
	MDIS-40-16A DC	16A	16A	16A	13A	9A	
	MDIS-40-25A DC	25A	23A	20A	16A	11A	
	MDIS-40-32A DC	32A	27A	23A	20A	13A	
2 Poles in parallel connected in series with 2Poles in parallel	Ratings (DC21)	600V	700V	800V	900V	1000V	1200V
	MDIS-40-16A DC	16A	16A	16A	13A	9A	16A
	MDIS-40-25A DC	25A	23A	20A	16A	11A	25A
	MDIS-40-32A DC	32A	27A	23A	20A	13A	32A
4 poles connected in series	Ratings (DC21)	600V	700V	800V	900V	1000V	1200V
	MDIS-40-16A DC	16A	16A	16A	13A	9A	16A
	MDIS-40-25A DC	25A	23A	20A	16A	11A	25A
	MDIS-40-32A DC	32A	27A	23A	20A	13A	32A

The main technical parameters

Photovoltaic DC Isolated switch	Rated current 16A 25A 32A
Product number MDIS-40MD-16/25/32A DC	Rated voltage 1200V
Opening method Handle 90° Rotary switch	Housing material PC+ABS
Ambient temperature -5°C ~40°C	Shell waterproof rating IP66NW
Shell flame rating V1	Housing environment Outdoor UV (UV)
Switch body energized part copper	Inlet hole size M20 knockout hole
Switch body plastic part nylon	Switch body plastic flame retardant VO

Diagram





MDF1 AC Isolation Switch



Overview

AC Isolator Switch with super waterproof and dustproof function, can effectively prevent entry of dust, oil, in the rain or strong water will not affect the use of product performance; have anti-corrosive, UV protection, cold resistant, high temperature resistant, anti-aging characteristics. Included in the range is single, double and triple pole switches from 20A to 63A. The base mounted mechanism provides for easier termination and more wiring room.

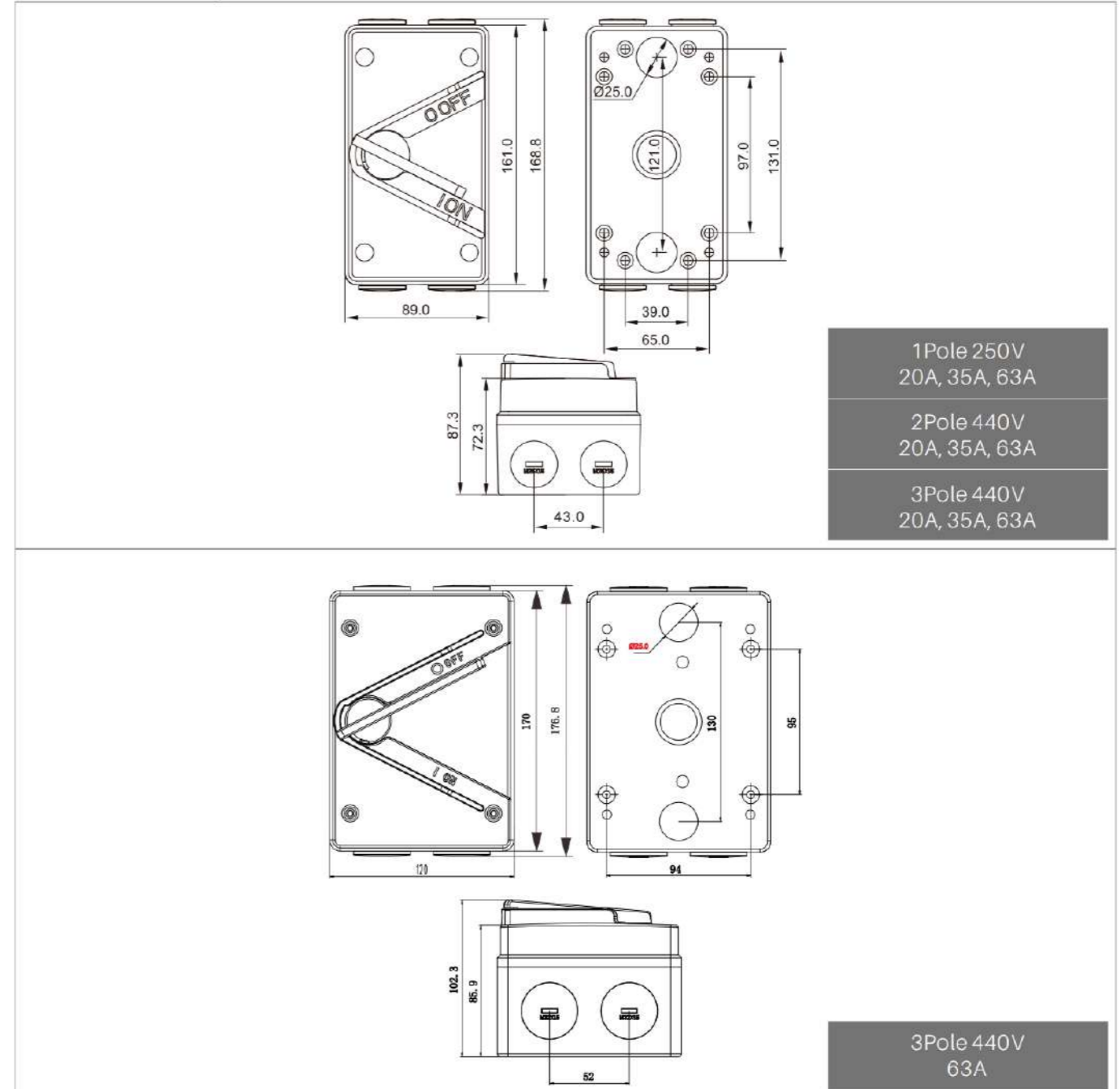
Features

- High visibility ON/OFF indication
- 4pcs screws for high strength locking
- IP66 & UV Resistance
- Conduit entries on top and bottom
- Pad-lockable handle

Technical Parameters

Type	MDF1								
Pole	1Pole			2Pole			3Pole		
Rated operational current (Ie)	20A	35A	63A	20A	35A	63A	20A	35A	63A
Rated operational voltage (Uie)	250V	250V	250V	440V	440V	440V	440V	440V	440V
Standard	IEC60947.3 AC-22A								
Rated frequency	50Hz								
Rated insulation voltage (U)	1000V								
Rated impulse withstand voltage (Uimp)	2.5kV								
Short time withstand current (Icw)	750A								
Short circuit making capacity (Icm)	1.98kA								
Free air thermal current (Ith)	Same as Ie								
Enclosed thermal current (Ithe)	Same as Ie								
Dielectric properties	800V								
Mechanical life	10000								
Electrical life	1500								
Protection degree	IP66								
UV Resistance	Yes								
Color	Gray								
Conduit entries	4xM25						4xM32		
Padlock max diameter	8mm								
Max. cable size (Mains)	25mm ²								
Max. cable size (N/E)	16mm ²								
Approved	SAA, RCM, CE								
Rated operation current (AS3133)	Locked rotor 3Ø, "M" rating			Locked rotor 1Ø, "M" rating					
	120A for 20A			140A for 20A					
	180A for 35A			180A for 35A					
	200A for 63A			200A for 63A					

Dimensions(unit:mm)





MDPV-30/32 PV Fuses



Overview

The MDPV-30/32 series of photovoltaic fuses are mainly used in the solar photovoltaic power generation DC combiner box to break the line overload and short-circuit current generated by the current feedback of the solar panel photovoltaic modules and inverters that may generate solar energy, thereby protecting. For the use of solar photovoltaic panels, fuses can also be optionally used in any other DC circuit for line overload and short circuit protection of electrical components.

Use environment

The upper limit of ambient air temperature does not exceed +90°C, and the lower limit of air temperature is not lower than -40°C; The altitude of the installation site does not exceed 3000m; At a maximum temperature of +40°C, the relative humidity of the air does not exceed 50%, allowing higher humidity at lower temperatures, for example, up to 90% at +25°C. Special measures should be taken for condensation that occasionally occurs due to temperature changes; In a medium free of explosion hazard, and where there is no sufficient gas or conductive dust to corrode the metal and destroy the insulation; Pollution degree 3.

Terminals /connection

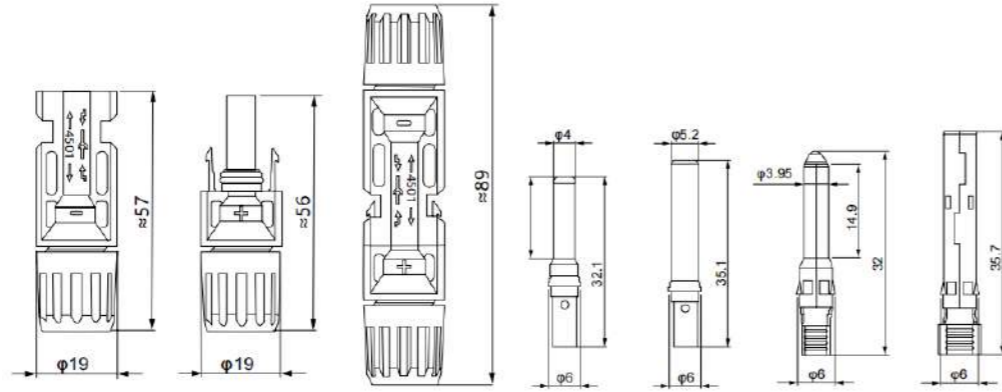
Type designation	MDPV-32	MDPV-30
Type designation	---	---
Type of Terminal	Pillar terminal	Pillar terminal
Material/plating of the terminal	Zinc plated Steel	Zinc plated Steel
Material/plating of the washer	Zinc plated Copper	Zinc plated Copper
Material/plating of the screw	Zinc plated Iron	Zinc plated Iron
Type of conductor	Flexible: 2.5mm ² -6mm ² , Copper type; hard wire: 2.5mm ² -6mm ²	
Connectable conductors ISO(mm ²) or AWG number metric equivalent (mm ²)	2.5mm ² -6mm ²	2.5mm ² -6mm ²
Number of conductors per terminal	1	1
Required preparation of the conductor	Example: No prepared conductor	
Max. Stripping length (mm)	8mm	8mm
Tightening torque (N·m)	2Nm, M5	2Nm, M5

Technical Parameters

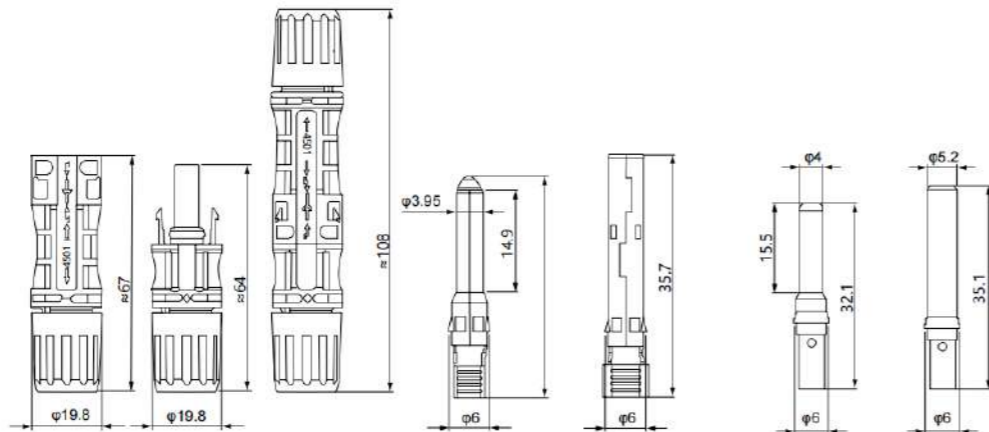
Type designation	MDPV-32	MDPV-30
Ambient temperature	-5C~+40C	-5C~+40C
Contact material	Copper (T2Y)	Copper (T2Y)
Contact form	Form U	Form U
Interrupting medium	Air	Air
-method of operation		
-suitability for isolation	suitable	suitable
-degree of protection		
-kind of current	DC	DC
in the case of a.c., number of phases and rated frequency		
-breaking arrangement for fused devices	Double Break	Double Break
Rated and limiting values, main circuit	/	/
-rated operational voltage U _e (V);	1500VDC	1000VDC
-rated insulation voltage U _i (V);	1800VDC	1200VDC
-rated impulse withstand voltage U _{imp} (kV);	8kV	6kV
Rated operational voltage U _e	1500 VDC	1000 VDC
Rated operational current I _e	32A	30A
Insulation voltage	1800 V	1200 V
Conventional free air thermal current (I _{th})	32A	30A
Conventional enclosed thermal current (I _{the})	32A	30A
Utilization category	DC-20A	DC-20A
Rated short-time withstand current	--	--
Rated short-circuit making current	--	--
Conditional short-circuit current	25 kA	20kA
Short circuit protective device	Tested with fuse-link: YRPV-32 (SOLAR, gPV, 10x85, DC 1500V, 32A, Interrupting Capacity: 25kA)	Tested with fuse-link: YRPV-30 (SOLAR, gPV, 10x38, DC 1000V, 30A, Interrupting Capacity: 20kA)
IP code	Ip20	Ip20
Pollution degree	3	3
Suitability for isolation	-	-

Solar DC Connector

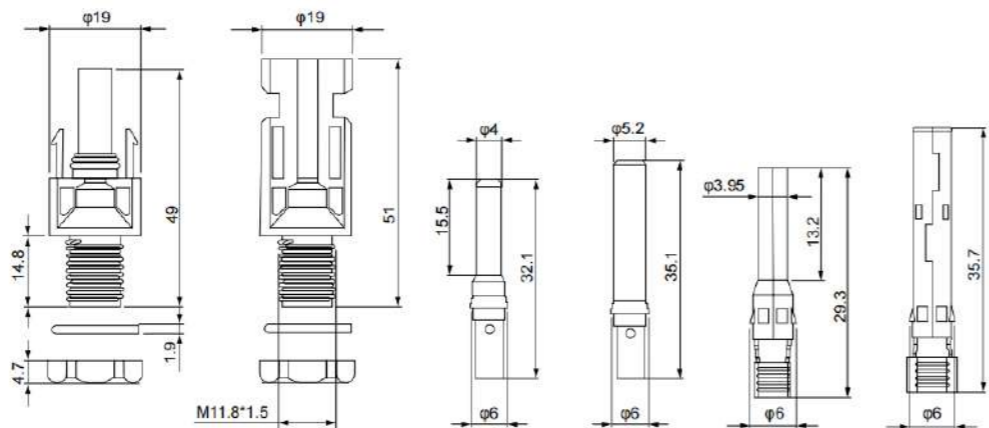
MD-MC4(1000V)



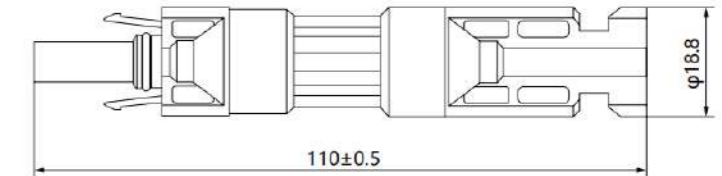
MD-MC4(1500V)



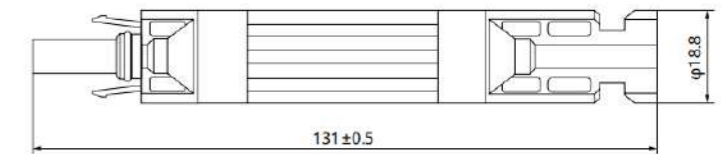
PV-MD-MC4-S



10A/15A/20A Solar Panel Connector With Diode



10A/15A/20A/30A Solar Panel Connector With PV Fuse



Overview

DC connector MD-MC4 series are applicable for use in connection for photovoltaic devices like DC combiner box, Inverters, String Combiner Boxes, etc, double electric shock free protection for load closure and disconnection, can meet quick connection and anti vibration function. rainproof, moisture-proof, dust-proof and durable. waterproof grade IP67, high heat resistance, wear resistance, durability, corrosion resistance, thick copper inner core, high quality material selection.

Technical data

Model	MD-MC4(1000V)	MD-MC4(1500V)	PV-MD-MC4-S	10A/15A/20A With Diode	10A/15A/20A/30A With PV Fuse
Connector system	Φ4mm				
Rated voltage	1000V DC(IEC) ¹ 1500V DC(IEC) ¹		1000V DC(IEC) ¹		
Rated current	17A,22A,30A(1.5mm ² ,16AWG; 2.5mm ² ,14AWG; 4mm ² ,12AWG; 6mm ² ,10AWG)		10A,15A,20A(1.5mm ² ,2.5mm ² ; 14AWG,4mm ² ; 6mm ² ; 12AWG,10AWG)		
Test voltage	6kV(50Hz,1min.)				
Temperature Range	-40°C~+90°C(IEC) -40°C~+75°C(UL)				
Upper Temperature Limit	+105°C(IEC)				
Degree of protection,mated	IP67				
unmated	IP2X				
Contact resistance of plug connectors	0.5mΩ				
Safety class	II				
Contact material	Messing, verzinkt Copper Alloy, tin plated				
Insulation material	PC/PPO				
Locking system	Snap-in				
Flame class	UL-94-V0				
Salt mist spray test,degree of severity 5	IEC 60068-2-52				

Branch Connector

PV-MDT2 



Technical drawings for PV-MDT2 show a main connector with two branch ports. Dimensions include a total width of 107.5mm and a branch port spacing of 41mm.

PV-MDT3 



Technical drawings for PV-MDT3 show a main connector with three branch ports. Dimensions include a total width of 63mm and a branch port spacing of 22mm.

PV-MDT4 



Technical drawings for PV-MDT4 show a main connector with four branch ports. Dimensions include a total width of 85mm and a branch port spacing of 22mm.

PV-MDT5 



Technical drawings for PV-MDT5 show a main connector with five branch ports. Dimensions include a total width of 107mm and a branch port spacing of 22mm.

PV-MDT5 



Technical drawings for PV-MDT5 show a main connector with five branch ports. Dimensions include a total width of 129mm and a branch port spacing of 22mm.

Overview

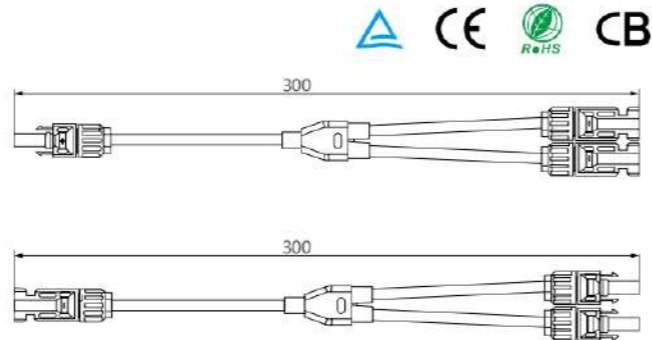
DC connector MD-MC4 series are applicable for use in connection for photovoltaic devices like DC combiner box, Inverters, String Combiner Boxes, etc, double electric shock free protection for load closure and disconnection, can meet quick connection and anti vibration function. rainproof, moisture-proof, dust-proof and durable. waterproof grade IP67, high heat resistance, wear resistance, durability, corrosion resistance, thick copper inner core, high quality material selection.

Technical data

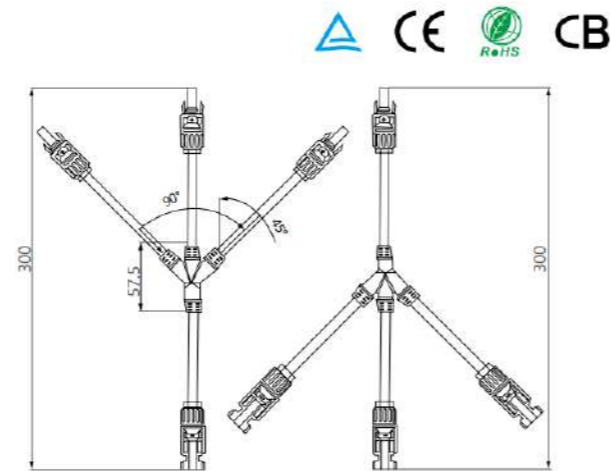
Insulation Material	PPO
Contact Material	Copper, Tin plated
Suitable Current	30A
Rated Voltage	1000V (TUV) 600V (UL)
Test Voltage	6kV (TUV50Hz, 1min)
Contact Resistance	<0.5mΩ
Degree Of Protection	IP 67
Temperature Range	-40°C~ + 85°C
Flame Class	UL94-V0
Safety Class	II
Pin Dimensions	Φ4mm

Branch Connector

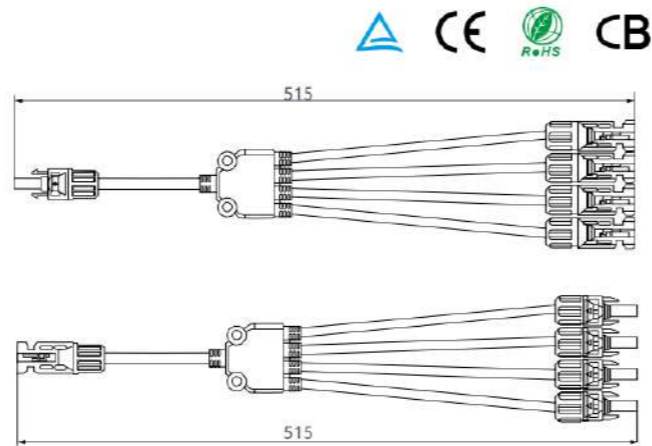
PV-MDY2



PV-MDY3



PV-MDY4



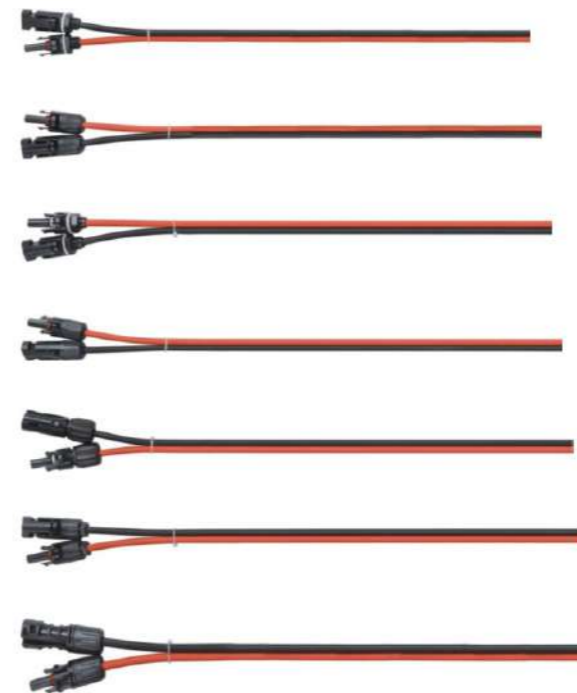
Overview

DC connector MD-MC4 series are applicable for use in connection for photovoltaic devices like DC combiner box, Inverters, String Combiner Boxes, etc, double electric shock free protection for load closure and disconnection, can meet quick connection and anti vibration function. rainproof, moisture-proof, dust-proof and durable. waterproof grade IP67. high heat resistance, wear resistance, durability, corrosion resistance, thick copper inner core, high quality material selection.

Technical data

Connector system	Φ4mm
Rated voltage	1000V DC(IEC) ¹
Rated current	30A
Test voltage	6kV(50Hz, 1min.)
Temperature Range	-40°C--+90°C (IEC)-40°C--+75°C (UL)
Upper Temperature Limit	+105°C(IEC)
Degree of protection, mated	IP67
unmated	IP2X
Contact resistance of plug connectors	0.5mΩ
Safety class	II
Contact material	Messing, verzinkt Copper Alloy, tin plated
Insulation material	PC/PA
Locking system	Snap-in
Flame class	UL-94-V0
Salt mist spray test, degree of severity 5	IEC 60068-2-52

2.5m² 14AWM, 4m², 6m² 12AWM, 10AWM PV MDC Cable



2.5m², 4m², 6m² PV MDC Cable Extension cord processing customization



PV Accessories

PV-MDT Photovoltaic Connector Kit



PV-MDS Tow-set spanners

MD-MC4(1500V)Specidized	MD-MC4(1000V)Specidized	MD-MC4(1000V)
		
PV-MDS1	PV-MDS2	PV-MDS3

PV-MDT3 Crimping Tool

► Main Specoality

Suitable for crimping the cable of 2.5~6.0mm²(AWG10-14);Suitable for solar system installation site,flexible application



► Main Specoality

Suitable for crimping the cable of 2.5~6.0mm²(AWG10-14); Suitable for solar system installation site,flexible application



PV-MDT5 Crimping Tool

► Main Specoality

Suitable for crimping the cable of 2.5~6.0mm²(AWG10-14); Suitable for solar system installation site,flexible application



PV-MDT6 Stripping Tool

► Main Specoality

Suitable for crimping the cable of 2.5~6.0mm²(AWG10-14);Suitable for solar system installation site,flexible application





Type2 Wallbox AC EV Charger

CE

IEC 62196-2 Connector

Data			
Model	MDAC132EN	MDAC316EN	MDAC332EN
Working voltage	AC230V	AC400V(L1+L2+L3+N+PE)	AC400V(L1+L2+L3+N+PE)
Frequency	50HZ	50HZ	50HZ
Rated power	7kW	11kW	22kW
Power supply circuit	1-phase	3-phase	3-phase
Rated Maximum Power	32A	16A	32A
IP Degree	IP65	IP65	IP65
Use environment			
Working temperature	-30°C — +50°C		
Working humidity	5%~ 95%HR		
The cooling way	Natural air cooling		
Display function			
Display parameters	Charge voltage, charge current, charge quantity, fault code.		
Physical size			
Fuselage size	355*250*93mm		
Installation mode	Column mounted (floor mounted) or wall mounted Install optional		

Product performance
 Over voltage protection, Undervoltage protection, Overload protection, Leakage Protection, Ground protection, Over temperature protection, Lightning protection, Short circuit protection



Type2 Portable AC EV Charger

CE

IEC 62196-2 Connector

Data		
Model	MDAC116EN-P	MDAC132EN-P
Working voltage	AC230V	AC230V
Frequency	50HZ	50HZ
Rated power	3.5kW	7kW
Power supply circuit	1-phase	1-phase
Rated Maximum Power	16A	32A
IP Degree	IP65	IP65
Working Environment		
Environment temperature	-25°C ~ +50°C	
Relative humidity	0-95% non-condensing	
Maximum altitude	<2000m	
Cooling	Natural air cooling	
Function		
Bluetooth	No	
APP	No	
2.8 inch LED	Yes	
RCD	TypeA	
LED Indicator light	Yes	
Intelligent power adjustment	Yes	
Fuselage size	200*90*55mm	230*110*60mm





CNS Wallbox AC EV Charger

Sheet Metal/Operations/Home Edition
CE



CNS Wallbox AC EV Charger

Operation Edition/Normal Edition
CE

Product Name	Product Specifications	Operation version, normal version(MDAC3-7kW)	Simple Version (Home Version MDAC3-7kWS)
Charging Equipment	Installation method	Column type, wall-mounted type	
	route	down in down out	
	Input voltage	AC220V±10%, single-phase three-wire system (L+N+PE)	
	input frequency	50±1Hz	
	The output voltage	Single-phase AC220V	
	Rated current	32A	
	output method	Wiring method C	
	Specification size mm (L×W×H)	390×260×125mm	
	cable length	5m	
Feature Design	HMI	4.3-inch display/indicator	none
	Measurement method	Have	
	charging method	Swipe card to charge/scan code to charge	Plug and charge/swipe card charging
	charging settings	none	
	payment method	Credit card payment/scan code payment	none
	way of communication	Ethernet/4G network, ordinary version can not be connected to the Internet	485 (reserved)
Safety Design	Protective function	Overvoltage protection, undervoltage alarm, overcurrent protection, short circuit protection, Over temperature protection, lightning protection, emergency stop protection, leakage protection, Relay adhesion detection, CP detection	
	security function	Withstand voltage: AC 2kV, insulation resistance: > 10MΩ	
	safety standard	GB/T20234-2015, GB/T18487-2015, GB/T27930-2015, NB/T33008-2018, NB/T33002-2018	
Environmental Design	Operating temperature	-20°C~+50°C	
	Relative humidity	5%-95% non-condensing cream	
	Storage temperature	-40°C~+70°C	
	working altitude	≤2000m	
	Protection class	IP54	
	noise control	<60dB	

Product Name	Product Specifications	High version (MDAC4-7kW)
Charging Equipment	Installation method	Wall-mounted
	route	down in down out
	Input voltage	AC220V±10%, single-phase three-wire system (L+N+PE)
	input frequency	50±1Hz
	The output voltage	Single-phase AC220V
	Rated current	32A
	output method	Wiring method C
	Specification size mm (L×W×H)	390×260×125mm
	cable length	5m
Feature Design	HMI	4.3 inch display/touch screen + indicator light
	Measurement method	Have
	charging method	Swipe card to charge/scan code to charge
	charging settings	none
	payment method	Credit card payment/scan code payment
	way of communication	Ethernet/4G network, ordinary version can not be connected to the Internet
Safety Design	Protective function	Overvoltage protection, undervoltage alarm, overcurrent protection, short circuit protection, Over temperature protection, lightning protection, emergency stop protection, leakage protection, Relay adhesion detection, CP detection
	security function	Withstand voltage: AC 2kV, insulation resistance: > 10MΩ
	safety standard	GB/T20234-2015, GB/T18487-2015, GB/T27930-2015, NB/T33008-2018, NB/T33002-2018
Environmental Design	Operating temperature	-20°C~+50°C
	Relative humidity	5%-95% non-condensing cream
	Storage temperature	-40°C~+70°C
	working altitude	≤2000m
	Protection class	IP55
	noise control	<60dB



CNS Wallbox AC EV Charger

14kw-double Charging-wall Mounted



CNS DC Charging Pile Series

Wall-mounted



Product Name	Product Specifications	14kw-Dual Gun-Wall Mounted(MDAC5)		14kw-dual gun-floor-standing(MDAC5)	
		425*300*117(mm) [Plug and charge, swipe card start, 4G operation]		1400*300*150(mm) [Plug and charge, swipe card start, 4G operation]	
Charging Equipment	Equipment size	425*300*117(mm) [Plug and charge, swipe card start, 4G operation]		1400*300*150(mm) [Plug and charge, swipe card start, 4G operation]	
	Installation method	Floor mounted/Wall mounted			
	route	down line, down line			
	Equipment weight (net weight)	29kg			
	cable length	5M			
	Input voltage	AC220V+20%			
	input frequency	50Hz			
	rated power	14kw			
	Measurement accuracy	Level 1			
	The output voltage	AC220V+20%			
	Output current	32A+32A			
	Standby power consumption	<5W			
	Feature Design	HMI	4.3 inch color touch screen/LED indicator		
Safety Design	Safety standards	GB/T20234, GB/T18487, NB/T33008, NB/T33002			
	Protective function	Overvoltage protection, undervoltage protection, short circuit protection, overload protection, Grounding protection, over temperature protection, low temperature protection, lightning protection, Leakage Protection			
Environmental Design	Applicable environment	Home/Commercial/Indoor/Outdoor			
	Operating temperature	-20°C - +55°C			
	Working humidity	5% ~ 95% non-condensing			
	working altitude	< 2000m			
	Protection class	IP54			
	cooling method	Free cooling			
	MTTBF	30,000 hours			
special protection	UV resistant design				

Product Specifications	Contents of Technical Instructions (MDDC1)	
	rated power	20kW
output maximum current	50A	80A
Constant power output voltage range	DC400-750V	DC300-1000V
Dimensions(W×H×D) Without uprights	600×450×210mm	650×550×250mm
Start method	Plug and Charge	
charging mode	Automatic charging, by time, by power, by amount, etc.	
Display method	7-inch touch display	
Network background	Support State Grid, Cloud Quick Charge, Xiaoju, Weijingyun and other cloud platforms	
Host computer communication	Ethernet (standard)/4G (speed-dating)	
Protective function	Short circuit, over temperature, over current, leakage, input over and under voltage, etc.	
charging method	full power charge	
Input voltage	AC380V±20%	
input frequency	50Hz±10%Hz	
number of guns	single gun	
gun line length	Standard 5 meters (optional)	
Output voltage range	DC150-750V adjustable	
Output voltage error	≤±0.5%	
Output current error	≤±1%	
Voltage regulation accuracy	≤±0.5%	
Steady flow accuracy	≤±1%	
Harmonic content	≤±5%	
power factor	≥0.99	
efficiency	≥95%	
Electric energy metering	Grade 1.0 meets GB standard	
Insulation resistance	≥20MΩ	
noise	≤60dB	
Protection class	Ip54	
Use environment	outdoor or indoor	
cooling method	air cooling	
Operating temperature	-20°C~+50°C	
Storage temperature	-40°C~+70°C	
Relative humidity	5%~95%	
Altitude	≤2000m	
Installation method	Wall Mount/Vertical Mount	



CNS DC Charging Pile Series

floor-standing



CNS DC Charging Pile Series

floor-standing



Product Specifications	Contents of Technical Instructions (MDDC)	
rated power	30kW	40kW
number of guns	single and double guns	single and double guns
Single gun output maximum current	63A/80A	80A/125A
Stake line length	Standard 5 meters (optional)	
Constant power output voltage range	DC400~750V (optional)	
Dimensions	1720×550×200mm (W×H×D)	
Display method	7-inch touch display	
Host computer communication	Ethernet/4G (Speed Dating)	
charging mode	Automatic charging, by time, by power, by amount, etc.	
Start method	Swipe IC card, scan QR code (APP, WeChat, etc.)	
Protective function	Short circuit, over temperature, over current, leakage, over and under voltage, etc.	
charging method	Full power charging, AB equalizing charging, wheel charging	
Network background	Support cloud platforms such as State Grid, Cloud Quick Charge, Xiaoju, Weijingyun, etc.	
Input voltage	AC380V±20%	
Input frequency	50Hz±10%Hz	
Output voltage range	DC150-750V adjustable	
Output voltage error	≤±0.5%	
Output current error	≤±1%	
Voltage regulation accuracy	≤±0.5%	
Steady flow accuracy	≤±1%	
Harmonic content	≤±5%	
power factor	≥0.99	
efficiency	≥95%	
Electric energy metering	Grade 1.0 meets GB standard	
Insulation resistance	≥100M	
noise	≤60dB	
Protection class	Ip54	
Use environment	outdoor or indoor	
cooling method	air cooling	
operating temperature	-20°C~+50°C	
Storage temperature	-40°C~+70°C	
Relative humidity	5%~95%	
Altitude	≤2000m	
Installation method	Floor installation	

Product Specifications	Contents of Technical Instructions (MDDC)	
rated power	60kW	80kW
number of guns	single and double guns	single and double guns
Single gun output maximum current	125A/200A	200A
Stake line length	Standard 5 meters (optional)	
Constant power output voltage range	DC300~1000V (Optional)	DC400~750V (Optional)
Dimensions	1700×750×400mm (W×H×D)	
Display method	7-inch touch display	
Host computer communication	Ethernet/4G (Speed Dating)	
charging mode	Automatic charging, by time, by power, by amount, etc.	
Start method	Swipe IC card, scan QR code (APP, WeChat, etc.)	
Protective function	Short circuit, over temperature, over current, leakage, over and under voltage, etc.	
charging method	Full power charging, AB equalizing charging, wheel charging	
Network background	Support cloud platforms such as State Grid, Cloud Quick Charge, Xiaoju, Weijingyun, etc.	
Input voltage	AC380V±20%	
Input frequency	50Hz±10%Hz	
Output voltage range	DC150-750V adjustable	
Output voltage error	≤±0.5%	
Output current error	≤±1%	
Voltage regulation accuracy	≤±0.5%	
Steady flow accuracy	≤±1%	
Harmonic content	≤±5%	
power factor	≥0.99	
efficiency	≥95%	
Electric energy metering	Grade 1.0 meets GB standard	
Insulation resistance	≥100M	
noise	≤60dB	
Protection class	Ip54	
Use environment	outdoor or indoor	
cooling method	air cooling	
Operating temperature	-20°C~+50°C	
Storage temperature	-40°C~+70°C	
Relative humidity	5%~95%	
Altitude	≤2000m	
Installation method	Floor installation	



CNS DC Charging Pile Series

floor-standing



Product Specifications	Contents of Technical Instructions (MDDC)	
rated power	120KW	160KW
Single gun output maximum current	250A	
Double gun output maximum current	150A*2	200A*2
Dimensions	1700*750*550mm(W*H*D)	
payment method	Swipe card, WeChat scan code, password	
charging method	Automatic charging, by time, by power, by amount, etc.	
Display method	7-inch touch display	
Networking	Ethernet/4G (Speed Dating)	
Network background	Support State Grid, Cloud Quick Charge, Xiaoju, Weijingyun and other cloud platforms	
Protective function	Short circuit, over temperature, over current, leakage, input over and under voltage, etc.	
Input voltage	AC380V±20%	
input frequency	50Hz±10%Hz	
number of guns	double gun	
gun line length	Standard 5 meters (optional)	
Output voltage range	DC150-750V adjustable	
Output voltage error	≤±0.5%	
Output current error	≤±1%	
Voltage regulation accuracy	≤±0.5%	
Steady flow accuracy	≤±1%	
Harmonic content	≤±5%	
power factor	≥0.99	
efficiency	≥95%	
Electric energy metering	Grade 1.0 meets GB standard	
Insulation resistance	≥100MΩ	
noise	≤65dB	
Protection class	Ip54	
Use environment	outdoor or indoor	
cooling method	air cooling	
Operating temperature	-20°C~+50°C	
storage temperature	-40°C~+70°C	
Relative humidity	5%~95%	
Altitude	≤2000m	
Installation method	Floor installation	

Charger Spares



Type 2 to GB T



Type 2 Charging



Adaptor for GB/European Standard



GB Charging



Plug Can Be Customized