HYOCIE

Product Selection Data Sheet

Zhejiang Yuxi Electric Co., Ltd.

Preface

Zhejiang Yuxi Electric Co., Ltd.
HYOCIE is our brand.
It means 'Help you order correct items easily.'
HYOCIE begins its transformation in 2024. We will supply more products, and our products are always inseparable from environmental protection and green energy saving.
We look forward to maintaining a long-term cooperative relationship with you. Good service is a wonderful experience we want to pass on to you, whether it is a big, common, or trial order.

We are not a big company, just a small one that is growing. We know that purchasing personnel of some companies will encounter the following problems when looking for products:
Famous brands are expensive, sometimes is so busy, communication is not smooth.
When contacting the factory directly, there is no professional salesperson who can introduce the products.
When communicating with companies integrating industry and trade, a large minimum order quantity is often required.
Every company starts from zero, and so do we. We have also experienced the difficulties that newly established companies, companies that have just developed their business, and small and medium-sized companies encounter when growing their business.

C O N T E N T S

PV accessories

Tools

Solar items

Surge Protective Device (SPD)

Classification of power supply systems

Power supply system is the general term for all equipment and lines from the power plant to the user terminal.
According to the grounding mode of the neutral point in the power supply system and the connection mode between the load neutral point and the ground, the power supply system can be divided into the following types:

IT system: neutral point is not grounded or grounded through high impedance, load neutral point is not directly grounded.

TT system: The neutral point is directly grounded, and the load neutral point is also directly grounded, but there is no common connection point between the two.

TN system: The neutral point is directly grounded, and the load neutral point is connected to the neutral point through the neutral line. According to whether the neutral line and the protection line are separated, it can be divided into TN-C, TN-S and TN-C-S three seed types.

Other types: such as IT-TN, IT-TT and other hybrid power supply systems.

Different types of power supply systems correspond to different overvoltage sources and protection requirements.

For example, in IT systems, because the neutral point is not grounded or grounded through high impedance, when a single phase ground fault occurs in one phase, it does not produce a large short circuit current, nor does it cause overvoltage in other phases. However, when the ground fault occurs at the same time between the two phases, it will cause overvoltage between the two phases and other relative points. Therefore, in IT systems, each one needs to be protected.

Q&A

How to choose SPDs?

Consider the following three factors:
1） Select the SPD combination mode based on the power system and the number of phases.
Commonly used power systems are TN-S, TN-C, TN-C-S, TT, IT.
Corresponding combination mode:

Single-phase TN: 2P, 1P+1

Single-phase TT: 1P+1

Three-phase TN-S: 4P, 3P+1

Three-phase TN-C, IT: 3P

Three-phase TT: 3P+1

Tn-c-s system, that is, the first half is the TN-C system, and the second half is the TN-S system.

2) Set the Uc based on the operating voltage of the system.
When SPD is applied, Uc must be higher than the operating voltage Un of the power supply system (Un is the phase voltage, the voltage between L-N or L-PE). Considering the fluctuations of the power grid, Uc is generally required to be higher than 1.15Un.

3） Select the discharge capacity of the SPD based on the design requirements of the protection level and the SPD installation position

DC SPD

DC SPD protects against lightning surge voltage in the solar system(photovoltaic power supply system).These units must be installed in parallel on the DC networks DC to be protected and provide common, different modes of protection.

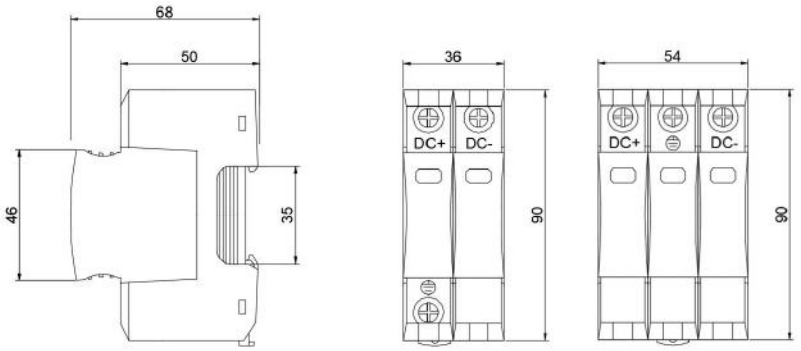
Our SPD: DC SPD T2, DC SPD T1+T2.

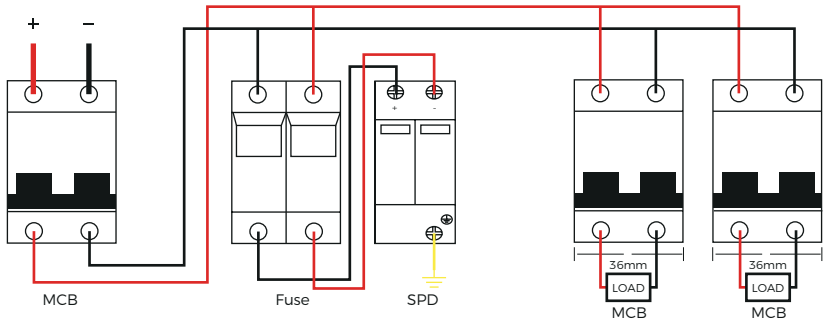
HSP-D40

HSP-D40	Type 2/ Class Ⅱ					
PV specific	EN50539-11					
Pole	2P				3P	
Max. continuous operating voltage (d.c.) (Uc)	500V	600V	800V	1000V	1000V	1500V
Nominal discharge current (8/20μs) (In)	20KA					
Max. discharge current (8/20μs) (Imax)	40KA					
Voltage protection level (Up)	≤3.6KV					≤5.0KV
Response time (ta)	≤25ns					
Short-circuit current rating (Isccr)	1000A					
Operating temperature range (Tu)	-40℃...+80℃					
Operating state/fault indication	Green (good)/ Red (repalce)					
For mounting on	35mm DIN rails					
Cross-sectional area(Min.)	4mm2					
Cross-sectional area(Max.)	35mm2					
Stripping Length/ Tightening torque	10mm/ 3Nm					
Enclosure material	Thermoplastic, UL 94 V-0					
Degree of protection	IP20					

- Remote signaling is optional 

HSP-D40	Type 1+2/ Class Ⅰ+Ⅱ			
PV specific	EN50539-11			
Pole	2P		3P	
Max. continuous operating voltage (d.c.) (Uc)	600V	800V	1000V	1500V
Lightning impulse current (10/350μs) (limp)	7KA/12.5KA			
Nominal discharge current (8/20μs) (In)	20KA			
Max. discharge current (8/20μs) (Imax)	40KA			
Voltage protection level (Up)	≤3.6KV			≤5.0KV
Response time (ta)	≤25ns			
Short-circuit current rating (Isccr)	1000A			
Operating temperature range (Tu)	-40℃...+80℃			
Operating state/fault indication	Green (good)/ Red (repalce)			
For mounting on	35mm DIN rails			
Cross-sectional area(Min.)	4mm2			
Cross-sectional area(Max.)	35mm2			
Stripping Length/ Tightening torque	10mm/ 3Nm			
Enclosure material	Thermoplastic, UL 94 V-0			
Degree of protection	IP20			



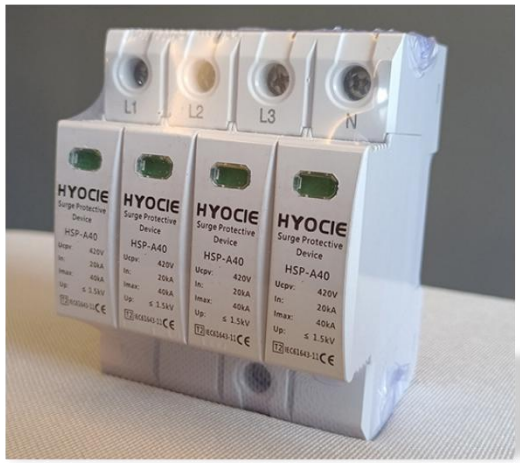


- Remote signaling is optional

AC SPD

AC SPD is used for the class 2 lightning surge overvoltage protection of AC distribution systems to protect electrical and electronic equipment from lightning electromagnetic pulse induced voltages, operating transients and resonant (<100μs) overvoltages.

Widely used in communication equipment, power, security, traffic, industrial control and other fields of power protection.



HSP-D40

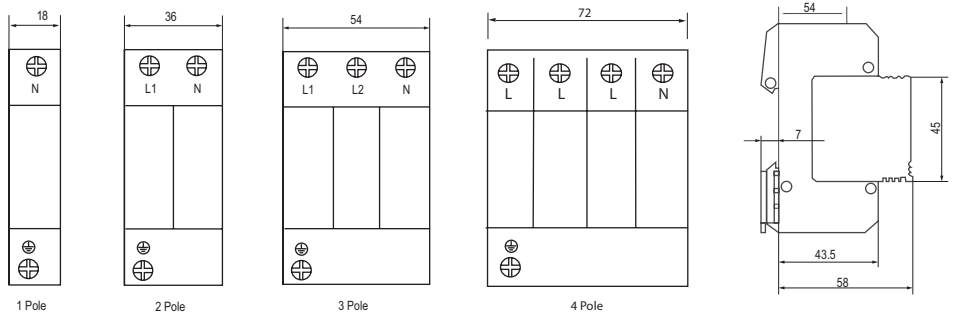
HSP-A	Type 2/ Class Ⅱ			
specific	IEC 61643-11			
Pole	1P 2P 3P 4P			
Max. continuous operating voltage (d.c.) (Uc)	Common: 230/275/385/420V		The maxest up to 440V	
Nominal discharge current (8/20μs) (In)	20KA	30KA	40KA	80KA
Max. discharge current (8/20μs) (Imax)	40KA	60KA/65KA	80KA	160KA
Voltage protection level (Up)	≤1.8kV	≤ 2.5KV	≤2.8kV	≤3.8kV
Response time (ta)	≤25ns			
Max. Back-up fuse	≤125A gL/gG			
Short-circuit current rating (Isccr)	25kArms			
Operating temperature range (Tu)	-40℃...+80℃			
Operating state/fault indication	Green (good)/ Red (repalce)			
For mounting on	35mm DIN rails			
Cross-sectional area(Min.)	4mm2			
Cross-sectional area(Max.)	35mm2			
Stripping Length/ Tightening torque	10mm/ 3Nm			
Enclosure material	Thermoplastic, UL 94 V-0			
Degree of protection	IP20			

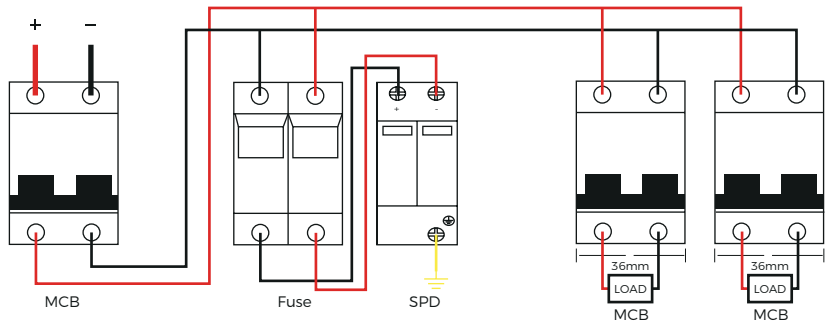
- Remote signaling is optional

HSP-A	Type 1+2/ Class Ⅰ+Ⅱ	
PV specific	IEC 61643-11	
Pole	1P 2P 3P 4P	
Max. continuous operating voltage (d.c.) (Uc)	Commonly used: 230/275/385/420V	The maxest up to 440V
Nominal discharge current (8/20μs) (In)	20KA	30KA
Max. discharge current (8/20μs) (Imax)	40KA	60KA/65KA
Voltage protection level (Up)	≤ 2.5KV	≤ 2.5KV
Response time (ta)	≤25ns	
Max. Back-up fuse	≤125A gL/gG	
Short-circuit current rating (Isccr)	25kArms	
Operating temperature range (Tu)	-40℃...+80℃	
Operating state/fault indication	Green (good)/ Red (repalce)	
For mounting on	35mm DIN rails	
Cross-sectional area(Min.)	4mm2	
Cross-sectional area(Max.)	35mm2	
Stripping Length/ Tightening torque	10mm/ 3Nm	
Enclosure material	Thermoplastic, UL 94 V-0	
Degree of protection	IP20	

- Remote signaling is optional

Dimensions:





DC MCB

The working principle of DC MCB:

DC circuit breaker mainly uses current detection and control technology to achieve fast cutting of direct current circuit. When a fault current occurs in the DC distribution system, the circuit breaker can quickly detect the abnormal current and cut the circuit through the internal mechanism, thereby preventing the fault from expanding and damaging important components.

HYPV-63

Q&A

Why is the general maximum rated current only 63A?

It should take into account the volume of the small circuit breaker, generally 18mm mode, in addition to the current carrying of the dynamic and static contacts of the circuit breaker, but also consider the temperature rise and breaking current, 63A is the optimal solution.

Does the DC MCB have 2P 800V?

Almost all 2P 800V sold on the market are unreal voltages. It is recommended that you purchase 4P 1000V. If you still want to purchase 2P 800V, the simple way to judge is that the volume is larger than the normal MCB, and you have to purchase samples for voltage testing first.

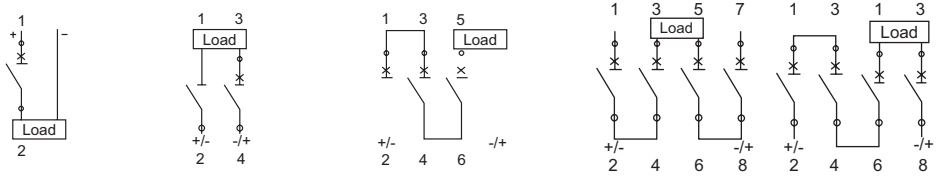
Does MCB have 125A?

Yes, but it is not very stable, it is recommended that you buy MCCB 125A, more secure.

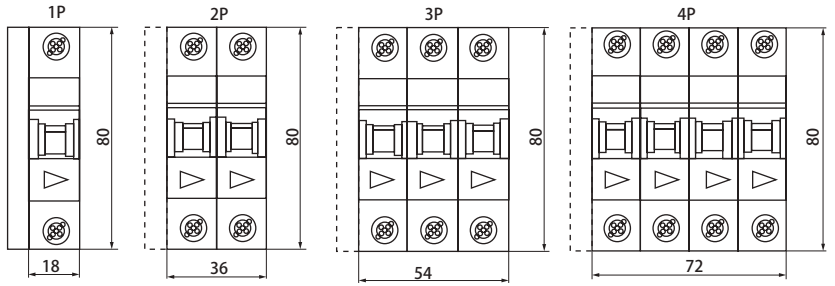
HYPV-63 DC MCB

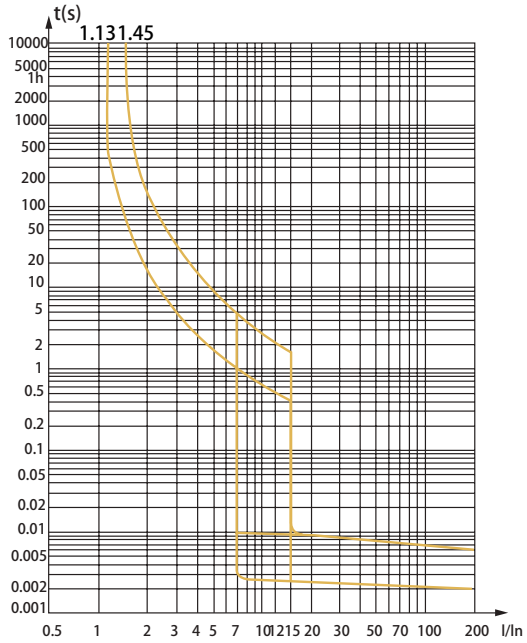
Installation Environment	No obvious shock and vibration			
Pole	1P	2P	3P	4P
Rated Operating Voltage (VDC)	250	500	750	1000
Rated Insulation Voltage Ui (V DC)	1200			
Rated Current In (A)	1, 2, 3, 6, 10, 16, 20, 25, 32, 40, 50, 63A			
Ambient Temperature	-35℃ ~+70℃			
Ultimate Breaking Capacity Icu (kA)	6			
Relative Humidity	≤ 95%			
Curve Type	C(8~12)In			
Pollution Level	Class 2			
Electrical Life (times)	8000			
Mechanical Life (times)	20000			
Trip Type	Thermal-magnetic			

Connection



Dimension:





AC MCB

It is suitable for the overload and short circuit protection of AC 50/60Hz rated voltage 230/400V, rated current to 63A, and can also be used as the infrequent operation conversion of the line under normal circumstances. MCBs are mainly used in industrial, commercial, high-rise and residential and other places.

CHS1-63

CHS1-63	AC MCB Economical Type			
Nominal Frequency	50/60Hz			
Pole	1P	2P	3P	4P
Rated Operating Voltage (VDC)	230/400	400	400	400
Selective Grade	3			
Rated Current In (A)	3, 6, 10, 16, 20, 25, 32, 40, 50, 63			
Ambient Temperature	-5℃ ~+40℃			
Ultimate Breaking Capacity Icu (kA)	4.5KA - 1/2/3P	6KA-4P		
Relative Humidity	≤ 95%			
Curve Type	C(8~12)In			
Pollution Level	Class 2			
Electrical Life (times)	8000			
Mechanical Life (times)	20000			
Enclosed Protective Class	IP20			

AC MCB

It is suitable for the overload and short circuit protection of AC 50/60Hz rated voltage 230/400V, rated current to 63A, and can also be used as the infrequent operation conversion of the line under normal circumstances. MCBs are mainly used in industrial, commercial, high-rise and residential and other places.

According to the type of instantaneous tripping of MCB:

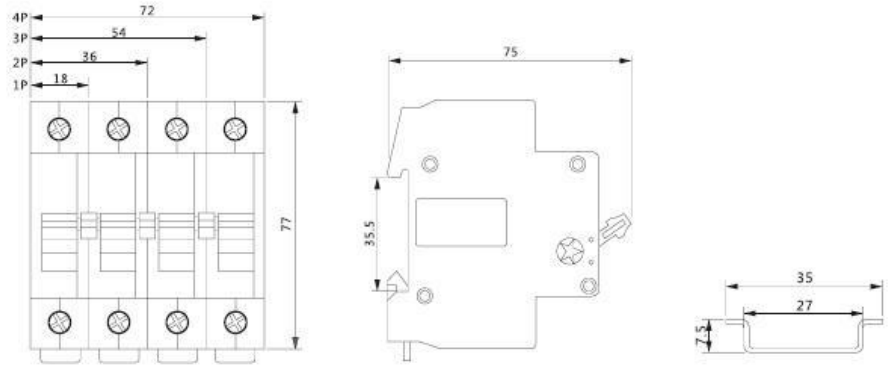
Type B (3In-5In)

Type C (5In-10In)

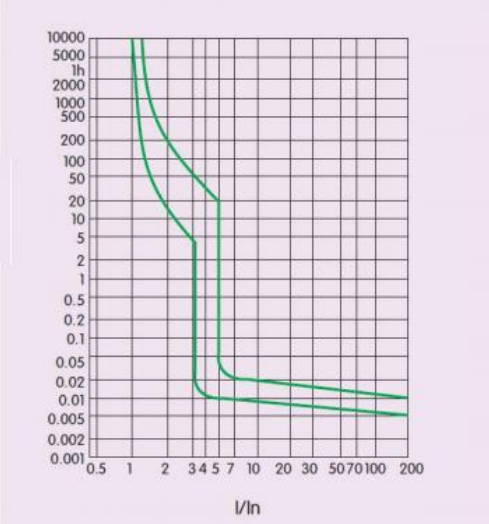
Type D (10In-16In)

HYAC-63

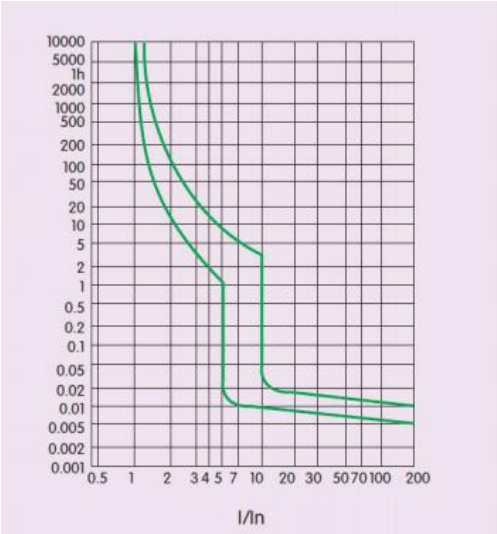
HYAC-63	AC MCB Type B C D				
Nominal Frequency	50/60Hz				
Pole	1P	2P	3P	4P	
Rated Operating Voltage (VDC)	230/400	400	400	400	
Rated Current In (A)	1, 3, 6, 10, 16, 20, 25, 32, 40, 50, 63				
Rated Current of Release(A): 1-63	Initial state	Test current	Specified time	Expected results	
	cold	3In 5In	t ≤ 0.1S t < 0.1S	Trip No trip	Type B
		5In 10In	t ≤ 0.1S t < 0.1S	Trip No trip	Type C
		10In 14In	t ≤ 0.1S t < 0.1S	Trip No trip	Type D
Ultimate Breaking Capacity Icu (kA)	6KA				
Curve Type	B (3In-5In) C (5In-10In) D (10In-16In)				
Pollution Level	Class 2				
Electrical Life (times)	4000				
Mechanical Life (times)	20000				
Enclosed Protective Class	IP20				



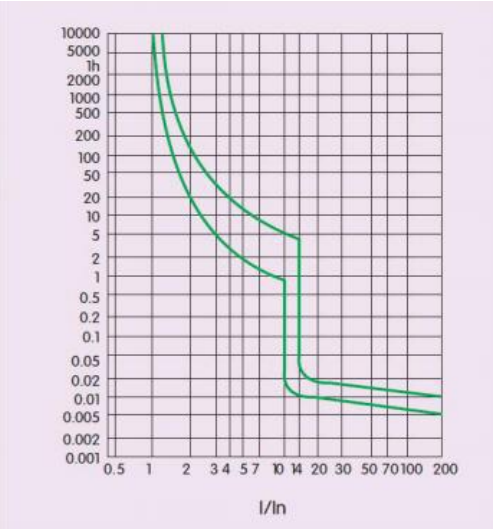
Tripping characteristic curve:



Type B



Type C



Type D

AC RCCB

RCCB residual current protector is the safest protection device used to detect leakage current and trip, which can avoid indirect electric contact and provide protection.

HYACL

HYACL	RCCB	
Nominal Frequency(Hz)	50	
Pole	2P	4P
Rated Operating Voltage (VDC)	240	415
Ui(V)	500	
Rated residual operating current(mA)	10,30,100,300	
Rated Current In (A)	25,40,50,63,80,100	
Ultimate Breaking Capacity Icu (kA)	6	
Uimp(KV)	6	
Pollution Level	Class 3	
Electrical Life (times)	5000-10000	
Mechanical Life (times)	20000	
Enclosed Protective Class	IP20	

DC MCCB

DC Molded Case Circuit Breaker（MCCB) is designed to distribute power and protect the circuit and power equipment against overload in the solar system. Once a fault is detected, the circuit breaker automatically switches off the electrical circuit to prevent damage to wires and avoid the risk of fire. It can also be manually opened under the full rated load without any damage when electrical maintenance needs to be performed.

Engineered for reversible connection, the circuit breaker is allowed to be wired in either direction and functions under bidirectional current. The markings on the handle help identify the contact position of the circuit breaker at a glance.

HPVM

HPVM	DC MCCB	
Test Standard	IEC60947-2	
Pole	2P	3P
Rated Operating Voltage(V): Ue	1000V	1500V
Rated Insulated Voltage (Ui)	1500V	
Rated impulse withstand voltage(kV): Uimp	12KV	
Ultimate breaking capacity (kA rms Icu)	20	
Rated service breaking capacity(KA rms Icu): DC 1000V	16	
Magnetic trip range	320A	
Operating temperature range (Tu)	A	
Connection(Standard)	Front connection	
Type of trip unit	Thermal-Magnetic	
Degree of protection	IP20	

AC MCCB

AC molded-case circuit breaker (AC MCCB) is our independent research and development of a household or industrial low-voltage circuit breaker.
It has the characteristics of compact structure, complete modularization, high break, zero arcs, and so on.

Its rated insulation voltage 800V, suitable for ac 50Hz/60Hz, rated working voltage 690V and below,rated working current to 630A circuit for infrequent conversion and motor infrequent start.Circuit breaker has overload, short circuit and under-voltage protection device, can protect the circuit and power equipment from damage.

HYMB

Q&A

Why does the MCCB make a sizzle noise?

The current passes through the circuit breaker, it will produce a certain magnetic field, and the magnetic field will affect the metal parts in the MCCB, making them have small movement, thus causing noise.

The main reasons include:
1) Poor contact: the poor contact between the plug and the socket of the MCCB.
2) Overload: when the current in the circuit breaker exceeds its rated value, it will cause the circuit breaker itself to heat, electromagnetic force enhancement, thus causing nuisance sound.
3) Aging: aging and damage of internal metal parts.
4) Use of environmental problems: when the plastic shell circuit breaker is installed in humid, high temperature, high humidity or strong vibration environment, will also produce noise.

How to solve it?

Before taking measures to solve the noise, the problem of the circuit line where the MCCB is located is eliminated in advance

1) Check the contact parts: check the contact parts of the plastic-case circuit breaker plug and socket to ensure that the contact parts are clean, no oxide, inserted and tightly connected, so as to avoid the sizzling sound caused by poor contact between the plug and socket.
2.) Reduce overload: In the process of use, the circuit breaker should be avoided as much as possible to continue to work in excess of the rated current to reduce the sizzling noise caused by overload.
3) Replace the aging parts
4. Improve the use environment: If the MCCB is installed in the area with vibration or poor working environment, measures such as shock absorption and fixing can be taken to improve the use environment.

AC MCCB		HYMB-125		HYMB-250		HYMB-400		HYMB-630	
Test Standard		IEC60947-2							
Pole		1P 2P 3P 4P						3P 4P	
Rated current,In		16, 20, 25, 32, 40, 50,63, 80,100,125		100,125,150, 175, 200, 225, 250		250, 300, 315, 350, 400		400, 450, 500, 550, 600, 630	
Rated Operating Voltage,Ue		AC: 415V							
Rated Insulated Voltage (Ui)		AC: 800V							
Rated impulse withstand voltage,Uimp)		8KV							
Rated impulse withstand voltage,Uimp	220/240V	25	38	35	50	75	50	75	50
	380/400V	15	25	25	35	50	35	50	35
	415V	15	25	25	35	50	35	50	35
	550V	10	10	18	20	20	20	20	20
Rated service breaking capacity (kA rms Icu)	220/240V	15	18	18	25	50	25	50	25
	380/400V	7.5	15	13	18	35	18	35	18
	415V	7.5	15	13	18	35	18	35	18
	550V	5	5	9	10	13	10	13	10
Protection function		Overload, Short-circuit							
Type of trip unit		Thermal-Magnetic							
Magnetic trip range		400A							
Utilization category		Mechanical				10000 operations			
		Electrical				4000 operations			
Connection		Standard: Front connection							
Mounting		Screw fixing							
1P		130X25X82		165X45X84					
2P		130X50X82		165X75X84					
3P		130X75X82		165x105x84		257X140X145		257X140X145	
4P		130X100X82		165X140X84		257X185X145		257X185X145	

DC Fuse

The main function of a photovoltaic fuse is to protect the circuits and equipment in a photovoltaic system from damage caused by current overload and short circuit. When the current in the circuit exceeds the rated value, the photovoltaic fuse can quickly cut off the circuit, thereby preventing excessive current from damaging photovoltaic modules, inverters and other electrical components. This cut-off function ensures the stability and safety of the photovoltaic system, while also extending the service life of each component in the system.

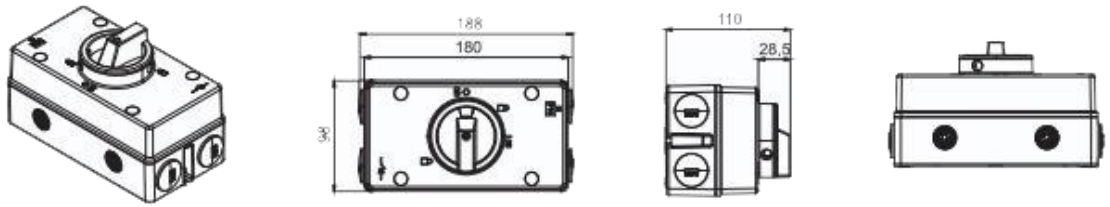
HDF-30

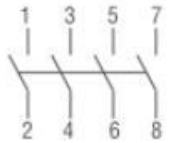
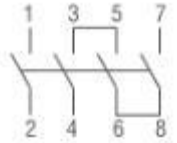
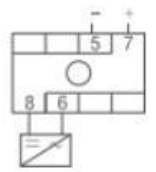
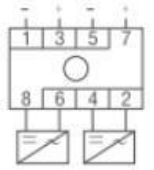
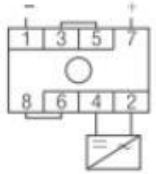
HDF-30B

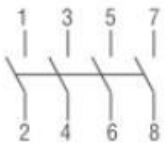
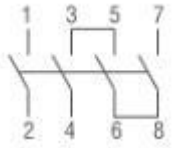
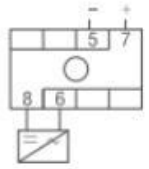
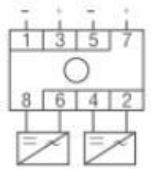
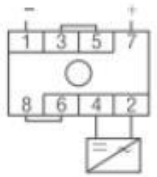
HDF-30&HDF-30B	DC Fuse Link with Holder
Test Standard	EN60269-1, EN60269-6
Fuse Holder Pole	1P
Rated Operating Voltage(V): Ue	1000，1500
Rated Current In (A)	2,3,4,5,6,8,10,12,15,20,25,30
Fuse Link	10*38, 10*85
Rated breaking capacity: (KA)	33
Working Temperature(℃)	-30~+70
Resistance And Damp Hot	Class 2
Altitude(m)	≤ 2000
Relative Humidity	≤ 95%
Installation Class/Type	Class III/DIN rail
The Most High Power Consumption(W)	3.5
Degree of protection	IP20
Optional	With light, without light

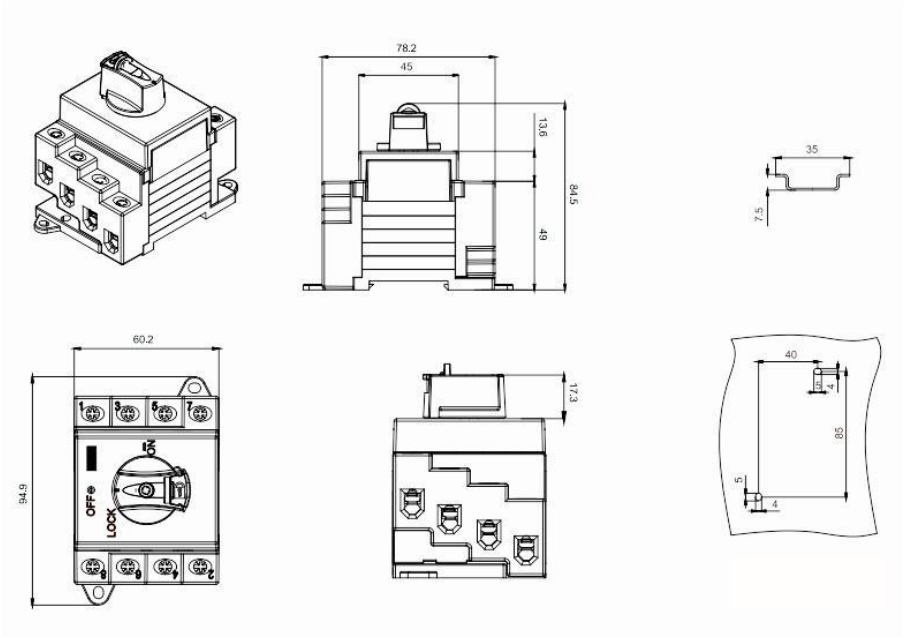
Solar Isolator Switch

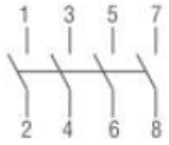
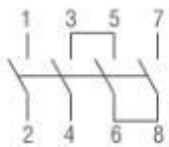
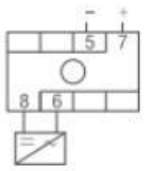
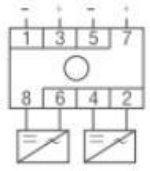
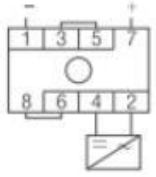
DC isolator switches are mostly used in photovoltaic power station systems to cut off the arc generated by DC power, avoid dangerous accidents and ensure safe operation.

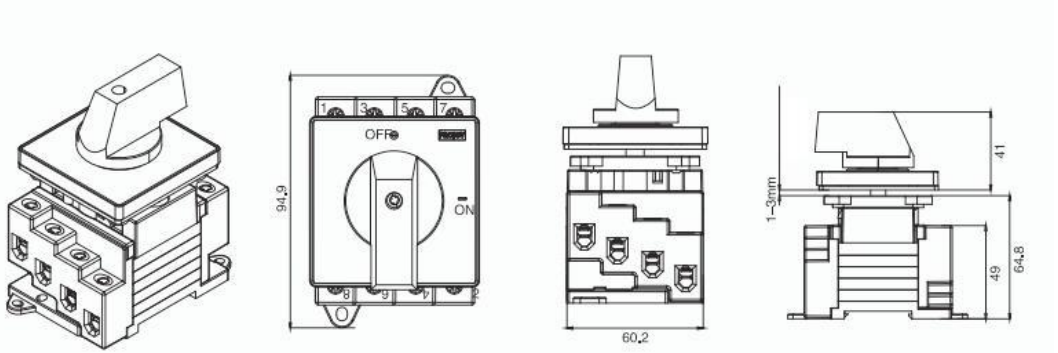


HWDI	Solar Waterproof Isolator Switch		
Rated insulation voltage(Ui) V	1500		
Rated thermal current(Ith) A	32		
Rated impulse withstand voltage(Uimp) V	8000		
Rated short-time withstand current(1s) Icw A	1000		
Mechanical life	10000		
Number of DC Poles	2 or 4		
Working Temperature(℃)	-40~+85		
Pollution degree	2		
Overvoltage category	III		
Degree of protection	IP66		
Available models	2P 16A 1000V	4P 16A 1000V	4S 32A 1000V
			
Wiring Diagram			
			

HBDI	Solar Distribution Cabinet Isolator Switch		
Rated insulation voltage(Ui) V	1500		
Rated thermal current(Ith) A	32		
Rated impulse withstand voltage(Uimp) V	8000		
Rated short-time withstand current(1s) Icw A	1000		
Mechanical life	10000		
Number of DC Poles	2 or 4		
Working Temperature(℃)	-40~+85		
Pollution degree	2		
Overvoltage category	III		
Degree of protection	IP66		
Available models	2P 16A 1000V	4P 16A 1000V	4S 32A 1000V
			
Wiring Diagram			
			



HBDI	Solar Panel Mount Isolator Switch		
Rated insulation voltage(Ui) V	1500		
Rated thermal current(Ith) A	32		
Rated impulse withstand voltage(Uimp) V	8000		
Rated short-time withstand current(1s) Icw A	1000		
Mechanical life	10000		
Number of DC Poles	2 or 4		
Working Temperature(℃)	-40~+85		
Pollution degree	2		
Overvoltage category	III		
Degree of protection	IP66		
Available models	2P 16A 1000V	4P 16A 1000V	4S 32A 1000V
			
Wiring Diagram			
			



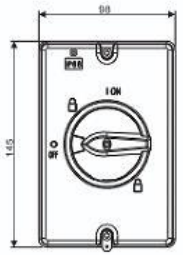
Without lock

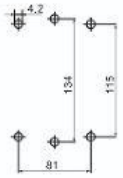
With lock

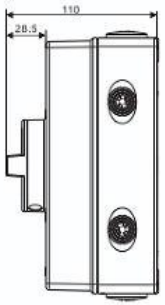
AC Isolator Switch

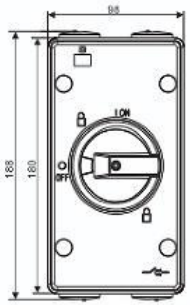
AC isolator switches are used on AC electrical equipment, mainly used to switch AC circuits and isolate AC circuits.

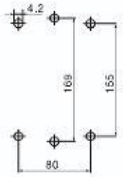
HAWI	AC Waterproof Isolator Switch	
Rated insulation voltage(Ui) V	690	
Rated carry current(Ith) A	20,25,32,40,	63,80
Connection wires	0.5-10mm2	1-16mm2
Number of Poles	3 4	
Degree of protection	IP66	



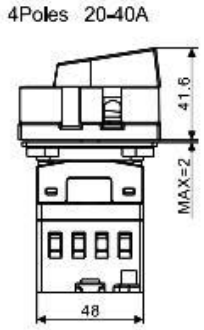


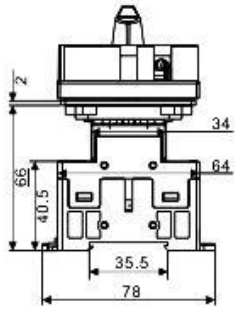


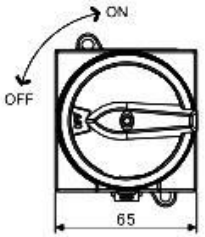


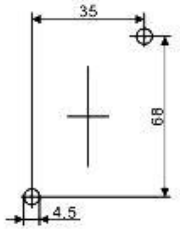


HADI	AC Panel Mount Isolator Switch	
Rated insulation voltage(Ui) V	690	
Rated carry current(Ith) A	20,25,32,40,	63,80
Connection wires	0.5-10mm2	1-16mm2
Number of Poles	3 4	
Degree of protection	IP66	









CB Automatic Transfer Switch(ATS)

Q1-63 automatic transfer switch (ATS) , suitable for AC 50Hz or 60Hz, rated working voltage 400V, rated working power 63A and below dual - circuit power supply system.The two power supplies can be selectively switched as needed. It has short circuit,overload,loss of voltage protection functions, and also has the function of outputting closing signals.It's especially suitable for the installation and use of lighting circuits in office buildings,shopping malls, banks, stations,hospitals and high-rise buildings.

Safeguard:

1)Do not plug or unplug the controller plug when the power is on,otherwise it will cause electric shock hazard or damage.

2)The internal setting parameters of the controller do not need to be changed by the user,otherwise it will cause the damage.

3)The load capacity cannot exceed the rated capacity of the switch,otherwise it will cause the switch to trip or burn out.

4)Do not connect the neutral line (N) to the phase line by mistake. The input phase sequence of the two circuit breakers must be the same .When selecting a three-

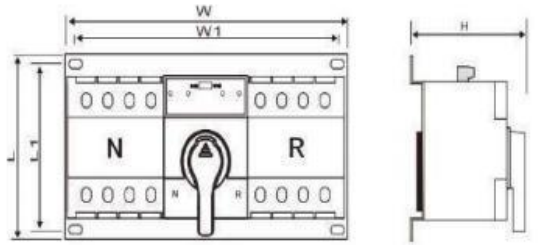
-pole circuit breaker, you must connect the neutral line (NN) of the common power supply separately. To the corresponding terminal on the floor,otherwise the switch

supply separately.To the corresponding terminal on the floor, otherwise the switch will be damaged.The ground wire should be connected reliably to ensure safe use.

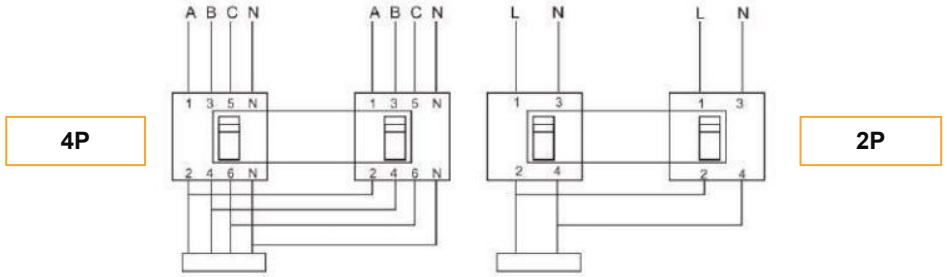
5)Do not be directly installed outdoors to work, otherwise, it will shorten the service life or cause adverse reactions.

6)When the ATS needs to be operated manually, the switch should be placed in the manual position first. NORMAL or READY power. At this time, you can turn the to switch between NORMAL or READY power.When the ATS needs an automatic operation,the button switch should be in the automatic state first,and the NORMAL power supply has priority.

Q1-63	ATS	
Rated voltage(V)	400	
Rated Current In(A)	16,20,25,30,40,50,63	
Pole	2P	4P
Use Category	AC-33iB	
Rated Short-circuit Breaking Capacity	4KA	
Rated Short-circuit Making Capacity	4KA	
Electrical Appliances Class	CB	
Rated Frequency	50/60HZ	
Conversion Insulation Voltage	U= 500V	



	W	W1	L	L1	H
Q1-63/2P	155	135	136	125	115
Q1-63/4P	225	205	136	125	115



4P

2P

Waterproof Distribution Box IP66

Material: ABS+PC

4 way/6 way/9 ways12 way/18 way/24 way/36 way

Integrated sealing ring

HEB	Waterproof distribution box
4 way	30 Pcs/Carton(0.56*0.36*0.44)m
6 way	20 Pcs/Carton(0.56*0.36*0.44)m
9 way	20 Pcs/Carton(0.565*0.43*0.475)m
12 way	20 Pcs/Carton(0.615*0.49*0.59)m
18 way	10 Pcs/Carton(0.6-0.49*0.41)m
24 way	10 Pcs/Carton(0.595*0.4*0.57)m
36 way	5 Pcs/Carton(0.63*0.285*0.55)m

Note:

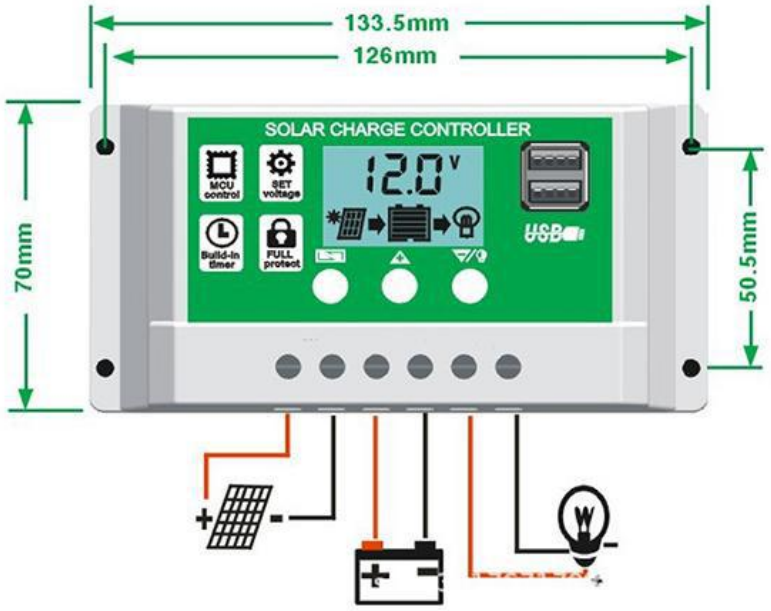
Because the box is a large product, it is usually considered as measurement cargo during transportation, which means that the shipping fee will be higher than the actual weight. Of course, if you only buy 1-2, this will not happen.

PWM Solar Charge Controller

Install the controller as close to the battery as possible to avoid voltage drops caused by too long wires and affecting normal voltage judgment.

When installing for the first time, please set the battery type according to the battery type, and make sure the battery has enough voltage so that the controller can recognize the correct battery type. This controller will generate heat when running. Please install the controller on a flat, well-ventilated surface.

	Solar Charge Controller
Rated voltage(V)	12/24V
Rated Current In(A)	10,20,30,40,50,60
USB	2 USB Output
	Suitable for 3 types of batteries
	Lead-acid battery (12/24V automatic identification) lithium-ion battery (3 strings of 11.1V lithium batteries) lithium iron phosphate battery (4 strings of 12.8V)



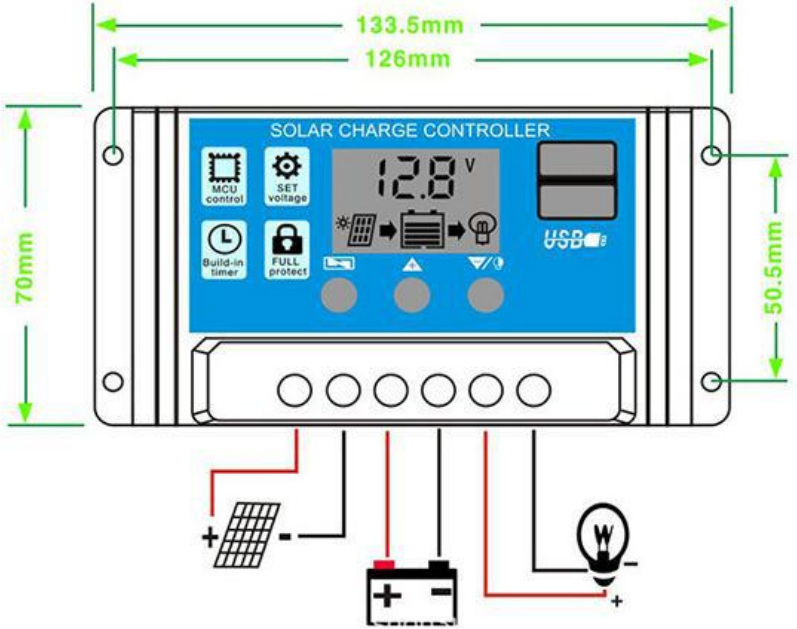
PWM Solar Charge Controller

When first installing, make sure the battery has enough voltage so that the controller recognizes it as the correct battery type.

Install the controller as close to the battery as possible to avoid voltage drops caused by too long wires and affecting normal voltage judgment.

When installing for the first time, please set the battery type according to the battery type, and make sure the battery has enough voltage so that the controller can recognize the correct battery type. This controller will generate heat when running. Please install the controller on a flat, well-ventilated surface.

PWM	Solar Charge Controller
Rated voltage(V)	12/24V automatic identification
Rated Current In(A)	10,20,30,40,50,60
USB	2 USB Output
	Suitable for 3 types of batteries
	Only suitable for all kinds of lead-acid batteries, including open, sealed, gel, etc.



Solar Connector

MC4 connector is a single-contact electrical connector commonly used for solar connecting,rated for 1000V.
The newer versions are rated at 1500V, which allows longer strings to be created.
They are divided into wire ends and board ends.

HMC4

Q&A

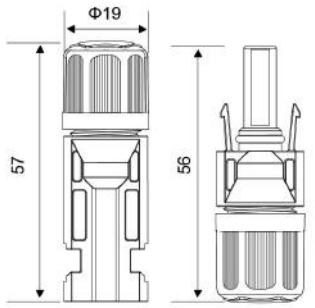
Can MC4 connectors be reused?

MC4 connectors are designed for one-time use. Once crimped and connected in place, it is generally not recommended to disassemble and reuse. If disassembly is necessary, professional disassembly tools should be used and the integrity of the connector should be checked.

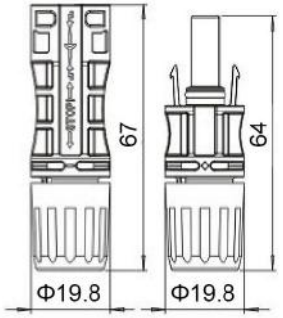
What safety precautions should I take when using MC4 connectors?

When using MC4 connectors, make sure the cable is not powered to avoid electric shock. In addition, use appropriate tools when crimping and connecting, and check the firmness of the connector after processing to avoid looseness that may cause poor electrical contact.

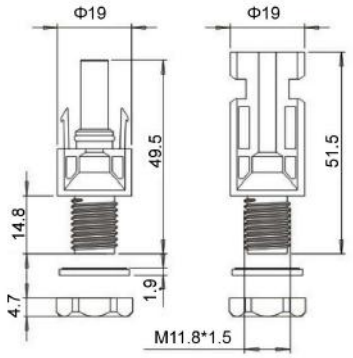
HMC4	Solar Connector
Connector system	Φ4mm
Rated voltage (V)	1000, 1500
Rated Current In (A)	30, 45
Test voltage	6KV(50HZ,1min.)
Ambient temperature range	40°C...+90°C
Upper limiting temperature	+105°C
Degree of protection	IP2X/IP67
Comtact resistance of plug connectors	0.5mΩ
Safety class	II
Contact material	Copper, tin-plated(2.5-6mm2), sliver-plated(10mm2)
Insulation material	PPO
Locking system	Snap-in
Flame class	UL-94-V0



HMC4 30A 1000V



HMC4 45A 1500V



HMC4-P 30A 1000V

Solar T Branch Connector

MC4 branch connector is compatible with 2.5mm2,4mm2 and 6mm2 in solar connection projects. Connecting solar panels in series or parallel quickly and reliably connects the solar lines to the photovoltaic system(solar panels,converters).

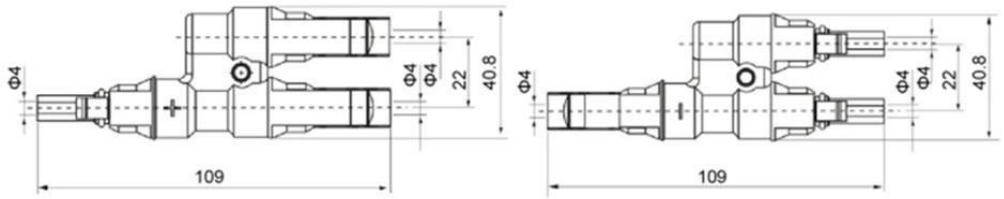
HMC4T

Solar Y Branch Connector

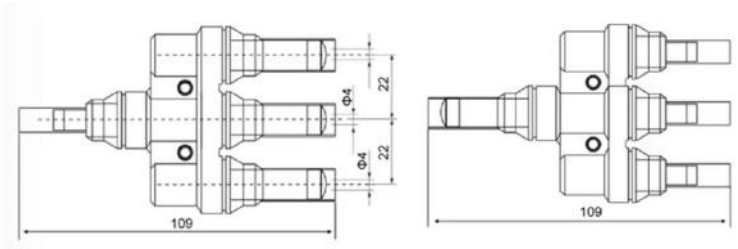
MC4 Y branch connector makes it parallel wire PV modules with multi-contact out put cables.

HMC4Y

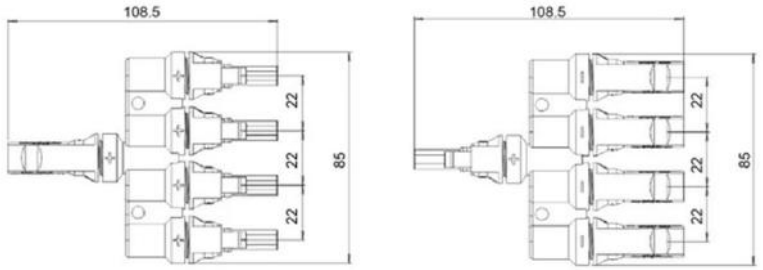
HMC4T	Solar T Branch Connector
Connector system	Φ4mm
Rated voltage (V)	1000
Rated Current In (A)	30
Test voltage	6KV(50HZ,1min.)
Ambient temperature range	40°C...+90°C
Upper limiting temperature	+105°C
Degree of protection	IP67
Comtact resistance of plug connectors	0.5mΩ
Safety class	II
Contact material	Copper, tin-plated
Insulation material	PC/PA
Locking system	Snap-in
Flame class	UL-94-V0



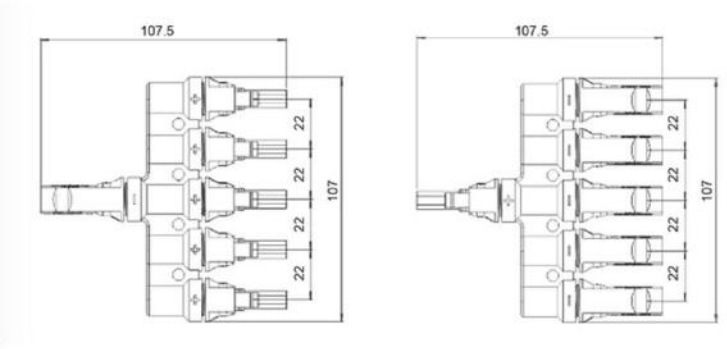
HMC4T-3



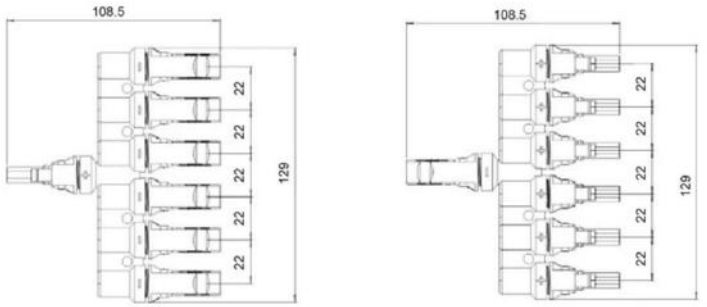
HMC4T-4



HMC4T-5

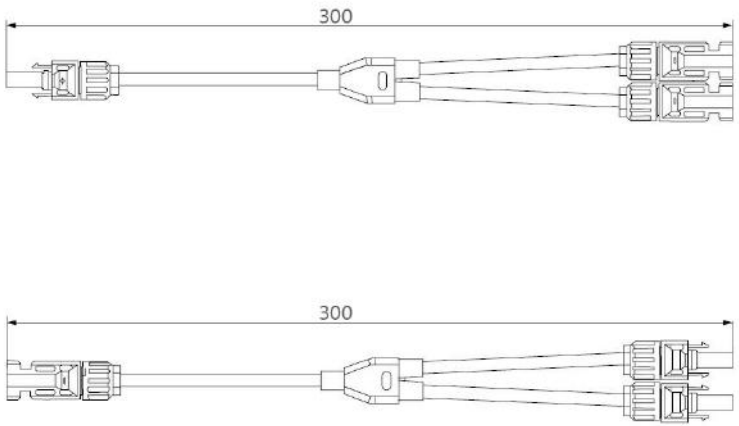


HMC4T-6

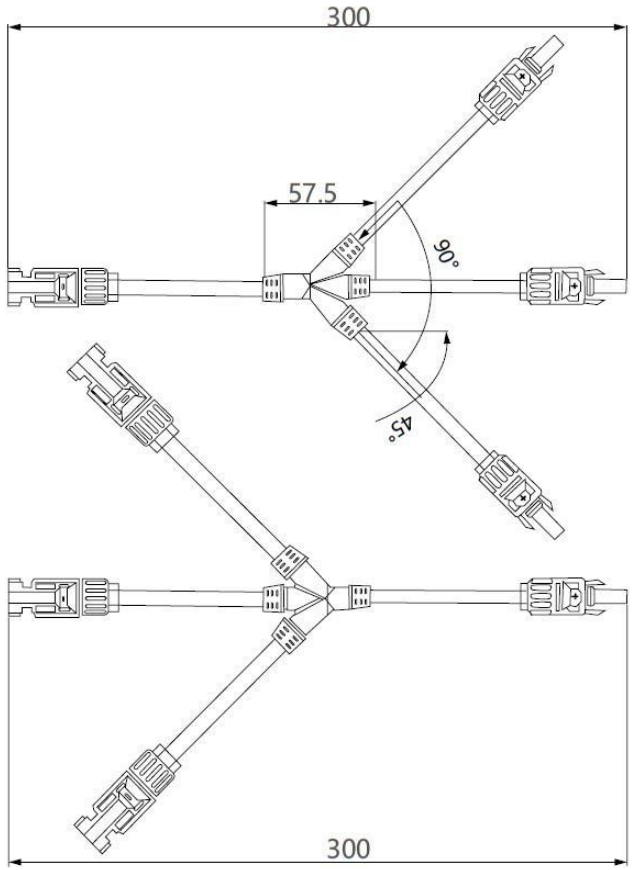


HMC4T-7

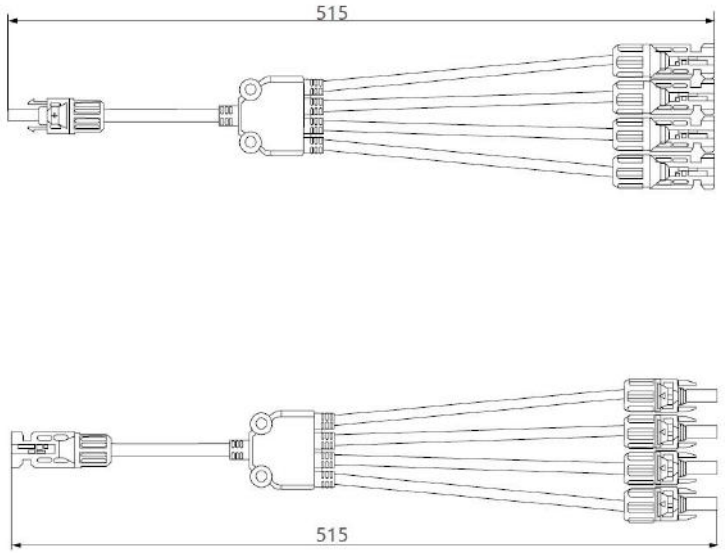
HMC4Y	Solar Y Branch Connector
Connector system	Φ4mm
Rated voltage (V)	1000,1500
Rated Current In (A)	30,45
Test voltage	6KV(50HZ,1min.)
Ambient temperature range	40°C...+90°C
Upper limiting temperature	+105°C
Degree of protection	IP67
Comtact resistance of plug connectors	0.5mΩ
Safety class	II
Contact material	Copper, tin-plated
Insulation material	PPO
Locking system	Snap-in
Flame class	UL-94-V0



HMC4Y-3



HMC4Y-4



HMC4Y-5

Solar Fuse Connector

MC4 fuse connectors are specifically designed to protect photovoltaic strings. These fuse links are capable of interrupting low overcurrents associated with faulted photovoltaic string arrays (reverse current,multi-array fault).

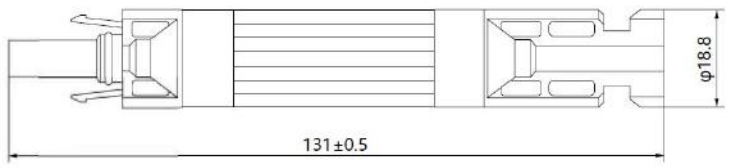
HMC4F

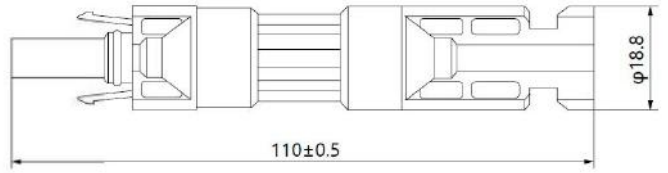
Solar Diode Connector

When solar cell modules are connected in series to form a square cell array, it is necessary to connect an MC4 diode connector antiparallel to the positive and negative output terminals of each cell panel.The role of the diode at this time is to prevent a certain element or a certain part of the element in the square array from being blocked or malfunctioning to stop generating electricity.The component's bypass diode is forward-biased,causing the diode to conduct.The working current of the component string bypasses the faulty component and flows through the diode without affecting the power generation of other normal components. At the same time, it protects the bypass components from damage.

HMC4D

HMC4F	Solar Fuse Connector	HMC4D	Solar Diode Connector
Connector system	Φ4mm	Connector system	Φ4mm
Rated voltage (V)	1000	Rated voltage (V)	1000
Rated Current In (A)	10, 15, 20, 30	Rated Current In (A)	10, 15, 20
Test voltage	6KV(50HZ,1min.)	Test voltage	6KV(50HZ,1min.)
Ambient temperature range	40°C...+90°C	Ambient temperature range	40°C...+90°C
Upper limiting temperature	+105°C	Upper limiting temperature	+105°C
Degree of protection	IP67	Degree of protection	IP67
Comtact resistance of plug connectors	0.5mΩ	Comtact resistance of plug connectors	0.5mΩ
Safety class	II	Safety class	II
Contact material	Copper, tin-plated	Contact material	Copper, tin-plated
Insulation material	PPO	Insulation material	PPO
Locking system	Snap-in	Locking system	Snap-in
Flame class	UL-94-V0	Flame class	UL-94-V0





Solar MC4 Extension Cable

Solar Extension Cable is a solar cable complete with fitted MC4 connectors. Used in photovoltaic power generation and solar systems to interconnect solar panels and electrical components in the photovoltaic system.

PV1-F	2.5mm2	4mm2	6mm2
Rated voltage(V)	1000/1500		
Length	customized	63,80	
Outer diameter(mm)	5.4	6.1	7.2
Overall diameter(mm)	49*0.254	56*0.3	84*0.3
Current temperature	-40°C~+120°C		
Conductor	copper wire structure		
Insulation material	XLPE		
Colors	black/red		

Solar Tools

Solar Wrench

Crimping Range	2.5/4/6mm2
Use	For MC4 connector
AWG	14-10

A2546B

LY-2546B

Solar Wire Stripper

Stripping Range	2.5/4/6mm2
AWG	22-10

HWS

Solar Wire Cutter

Cutting Range	Below 35mm2

HWC

Solar Auto Wire Cutter

Cutting Range	Below 35mm2

700M

Solar Crimping Pliers

Size	119*29*17mm

HSW

Multi-Funtion Solar Wrench

For various solar connecors

HSWM

Solar Tools Kit

Wire cutting & stripping pliers 1
Automatic wire stripper 1
Crimping pliers 1
MC4 wrench 2

Kit-1

Wire stripper 1
Automatic wire stripper 1
Crimping pliers 1
MC4 wrench 2

Kit-2

Wire stripper
Automatic wire stripper 1
Crimping pliers 1
MC4 wrench 2

Kit-3

Wire stripper 1
Automatic wire stripper 1
Crimping pliers 1
Cord cutters 1
MC4 wrench 2

Kit-4

- Wire stripper 1
- Multifunctional wire stripper 1
- Crimping pliers 1
- MC4 wrench 2
- MC4 2

Kit-5

- Wire stripper 1
- Multifunctional wire stripper 1
- Crimping pliers 1
- MC4 wrench 2
- MC4 2

Kit-6

- Wire stripper 1
- Multifunctional wire stripper 1
- Large crimping pliers 1
- MC4 wrench 2
- MC4 2

Kit-7

Solar cycling night light

Solar wall lamp

Solar multifunctional flashlight

Solar power bank

Please visit our website: hyocie.com

If you can't find the product you need in the catalog, but it is on the website, please contact sales@hyocie.com directly.

Zhejiang Yuxi Electric Co., Ltd.