





CONTENTS

Contents.....01/02

DC Solar PV Cable

— Single Core.....05/06
 — Twin Core.....07/08

Solar PV Connector

— 1000V Series
 — T Branch Connector 1000V Series13/14
 — Y Branch Connector 1000V Series.....15/16
 — 1500V Series
 — Y Branch Connector 1500V Series.....17/18

Solar Extension Cable

— Double Ends (DC-DC)25/26
 — Single Ends (DC-00).....25/26

Solar Tool Kits27/28

DC SOLAR PV CABLE



25 years life span / 5 years warranty



TÜV SÜD EN50618:2014 H1Z2Z2-K DC1.5KV **mm² Ningbo Pntech



TÜV SÜD EN50618:2014 H1Z2Z2-K DC1.5KV **mm² Ningbo Pntech



TUV 2 PfG 1169 PV1-F 1x ** mm² AC 0.6/1.0 KV DC 1.8KV Ningbo Pntech



TUV 2 PfG 1169 PV1-F 1x ** mm² AC 0.6/1.0 KV DC 1.8KV Ningbo Pntech



Solar PV Cable is mainly used to interconnect solar panels and inverters in solar system. We use the XLPE material for insulation and jacket so that the cable can resist sun irradiate, it also can be used in high and low temperature environment.

DC SINGLE CORE SOLAR PV CABLE



Cross Section (mm ²)	Conductor Construction (n/mm)	Conductor Stranded OD.(mm)	Cable OD. (mm)	Conductor Max. Resistance AT 20°C (Ω/Km)	Current Carrying Capacity AT 60°C(A)
1.5	30/0.25	1.58	4.80	13.5	25
2.5	49/0.25	1.98	5.30	8.21	36
4	56/0.285	2.35	5.80	5.09	44
6	84/0.285	3.06	6.60	3.39	60
10	80/0.4	4.60	8.00	1.95	82
16	120/0.4	5.60	10	1.24	122
25	196/0.4	6.95	12	0.795	160
35	276/0.4	8.30	13.30	0.565	200

Characteristics

Conductor	Stranded Tinned Copper
Insulation	Halogen Free Cross-linked Polyolefin(XLPO)
Diameter	Halogen Free Cross-linked Polyolefin(XLPO)
Rated Temperature	-40°C up ~ +90°C
Rated Voltage	AC:0.6/1KV DC:1.5KV
Weathering Resistance	Sun Resistant
Standard	2 PfG 1169 08.2007 ; EN 50618:2014 ; NB/T42073-2016

Marking(4mm²)

TÜV SÜD EN50618:2014 H1Z2Z2-K (CQC NB/T42073-2016 PV-YJYJ) DC 1.5KV 1x4mm²

Cable Description



- Cable Full Name: Halogen-free low smoke cross-linked polyolefin insulated and sheathed cables for photovoltaic power generation systems.
- Conductor Structure: EN60228(IEC60228、GB/T3956)Type five conductor and must be tinned copper wire.
- Cable Color: Black or Red (The insulation material shall be extruded halogen-free material, which shall be composed of one layer or several tightly adhered layers. The insulation shall be solid and uniform in material, and the insulation itself, the conductor and the tin layer shall be as far as possible not damaged when the insulation is peeled off)
- Cable Characteristics: Double insulated construction、Higher systems bear voltage、UV radiation、Low and High temperature resistant environment.

Technical Data

Nominal Voltage	DC :1.5KV AC :1.0/1.0KV
Voltage Test On Completed Cable	AC : 6.5KV DC :15KV, 5min
Ambient Temperature	Max.ambient temperature : 90°C Min.temperature for installation and handing:-25°C Max.storage temperature :+40°C
Thermal Endurance Properties	120°C,20000h,elongation at break≥50%
Refer To Short Circuit Allows The Temperature	The permitted short-circuit-temperayure is 250°C referring to a period of 5s
Pressure Test At High Temperature	EN60811-3-1
Damp Heat Test	EN60068-2-78
Resistance Against Alkaline And Acid Solutions	EN60811-2-1
Ozone Resistance At Complete Cable	En50396
Thermal Endurance Test	EN60216-2
Cold Bending Test	EN60811-1-4
Weathering/UV Resistance	EN50289-4-17
Test Of Vertical Flame Propagation At Complete Cable	EN60332-1-2
Halogen Content Test	EN60754-1/EN60754-2

DC TWIN CORE SOLAR PV CABLE



Cross Section (mm ²)	Conductor Construction (n/mm)	Conductor Stranded OD.(mm)	Cable OD. (mm)	Conductor Max.Resistance AT 20°C (Ω/Km)	Current Carrying Capacity AT 60°C(A)
2.5	49/0.25	1.98	11.5x5.4	8.21	36
4	56/0.285	2.35	12.7x5.7	5.09	44
6	84/0.285	3.06	14x6.6	3.39	60

Characteristics

Conductor	Stranded Tinned Copper
Insulation	Halogen Free Cross-linked Polyolefin(XLPO)
Diameter	Halogen Free Cross-linked Polyolefin(XLPO)
Rated Temperature	-40°C up ~ +90°C
Rated Voltage	AC:0.6/1KV DC:1.5KV
Weathering Resistance	Sun Resistant
Standard	VDE-AR-E 2283-4:2011

Marking(2x4mm²)

(+)Ningbo Pntech	TÜV PV1-F 4mm ² 0.9/1.8KVDC WARNING-DO NOT DISCONNECT UNDER LOAD-120°C SOLAR DC CABLE(+)-POLE
(-)Ningbo Pntech	TÜV PV1-F 4mm ² 0.9/1.8KVDC WARNING-DO NOT DISCONNECT UNDER LOAD-120°C SOLAR DC CABLE(-)-POLE

Cable Description

- Cable Full Name: Halogen-free low smoke cross-linked polyolefin insulated and sheathed cables for photovoltaic power generation systems.
- Conductor Structure: EN60228(IEC60228、GB/T3956)Type five conductor and must be tinned copper wire.
- Cable Color: Black or Red (The insulation material shall be extruded halogen-free material, which shall be composed of one layer or several tightly adhered layers. The insulation shall be solid and uniform in material, and the insulation itself, the conductor and the tin layer shall be as far as possible not damaged when the insulation is peeled off)
- Cable Characteristics: Double insulated construction、Higher systems bear voltage、UV radiation、Low and High temperature resistant environment.



Technical Data

Nominal Voltage	DC:1.8KV AC:0.6/1.0KV
Voltage Test On Completed Cable	AC:6.5KV DC:15KV,5min
Ambient Temperature	-40°C up to +90°C
Max.temperature At Conductor	+120°C
Service Life	The expected period of use is 25years (Ambient temperature:-40°C up to +90°C)
Refer To Short Circuit Allows The Temperature	The permitted short-circuit-temperayure is 200°C referring to a period of 5s
Bending Radius	≥4 x φ (D < 8mm) , ≥6 x φ (D≥8mm)
Resistance Against Acid And Allkaline Solution	VDE-AR-E 2283-4:2011
Cold Bending Test	VDE-AR-E 2283-4:2011
Weathering/UV-Resistance	VDE-AR-E 2283-4:2011
Ozone Resistance At Complete Cable	VDE-AR-E 2283-4:2011
Test Under Fire Conditions	VDE-AR-E 2283-4:2011



SOLAR PV CONNECTOR

FEATURES:

- Load Capability with big current and high voltage;
- Lower contact resistance;
- Design of waterproof and dustproof;
- Excellent performances of high-low temperature, fireproof, anti-ultraviolet.



IEC 62852

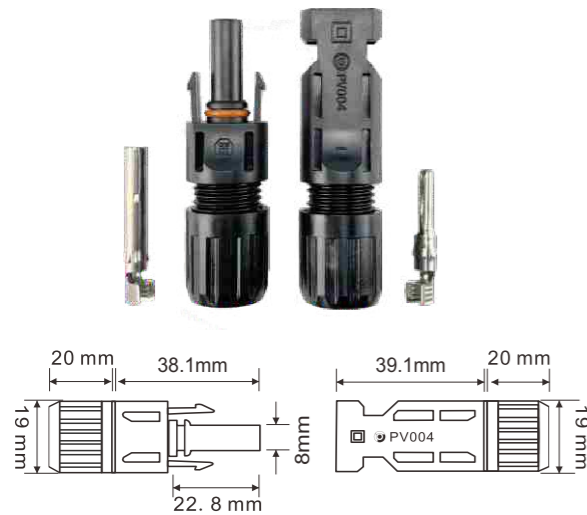
Ten years of quality adhere to the same
Make photovoltaic power stations safer

Solar PV Connector

PV Connector 1000V Series

Solar PV Connector

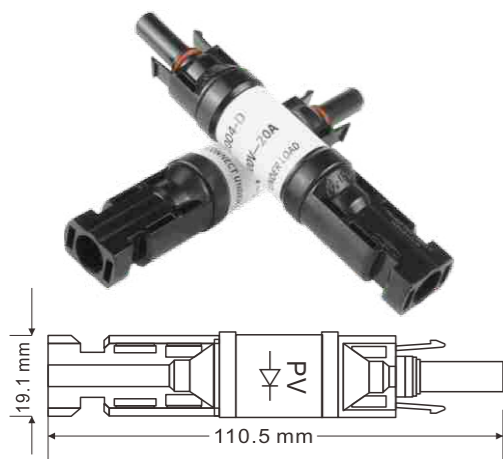
PV004



Type	PV004
Rated Voltage	1000V DC
Rated Current	30A
Standard	IEC 62852
Protection Degree	IP67
Contact Resistance	≤0.5mΩ
Pollution Degree	2
Ambient Temperature	-40°C~+85°C
Cable Cross Section Area	2.5mm ² , 4mm ² , 6mm ²
Insulation Material	PC EXL9330
Flame Class	UL94 V-0

Diode Connector

PV004-D



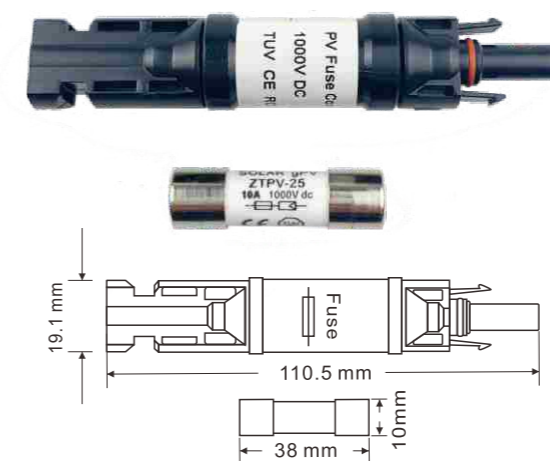
Type	PV004-D
Rated Voltage	1000V DC
Contact Materials	Tin Plated Copper
Rated Current	10A, 15A, 20A
Standard	IEC 62852
Protection Degree	IP67
Contact Resistance	≤0.5mΩ
Pollution Degree	2
Ambient Temperature	-40°C~+85°C
Insulation Material	PPO
Flame Class	UL94 V-0

Solar PV Connector

PV Connector 1000V Series

Fuse Connector

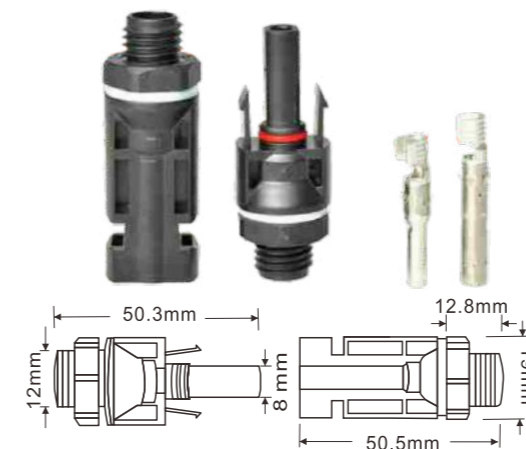
PV004-F



Type	PV004-F
Rated Voltage	1000V DC
Contact Materials	Tin Plated Copper
Rated Current	10A, 15A, 20A
Standard	IEC 62852
Protection Degree	IP67
Contact Resistance	≤0.5mΩ
Pollution Degree	2
Ambient Temperature	-40°C~+85°C
Insulation Material	PPO
Flame Class	UL94 V-0

Plate End Connector

PV004-P

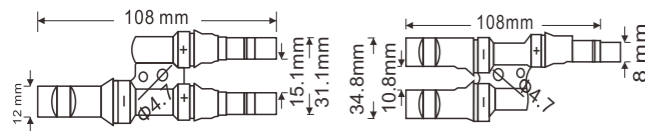


Type	PV004-P
Rated Voltage	1000V DC
Contact Materials	Tin Plated Copper
Rated Current	30A
Standard	IEC 62852
Protection Degree	IP67
Contact Resistance	≤0.5mΩ
Pollution Degree	2
Ambient Temperature	-40°C~+85°C
Thread Size	12mm
Insulation Material	PPO
Flame Class	UL94 V-0

Solar PV Connector

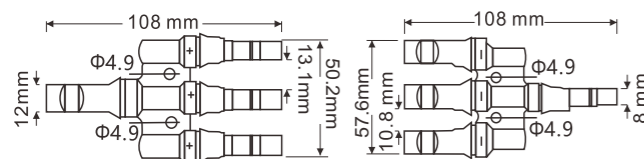
T Type Branch Connector 1000V Series

2 to 1 T Branch Connector



Type	PV004-T2
Rated Voltage	1000V DC
Rated Current	30A
Protection Degree	IP67
Contact Resistance	≤0.5mΩ
Pollution Degree	2
Ambient Temperature	-40°C~+90°C
Contact Materials	Tin Plated Copper
Adapter Connector	PV004/PV005
Insulation Material	PPO
Flame Class	UL94 V-0

3 to 1 T Branch Connector

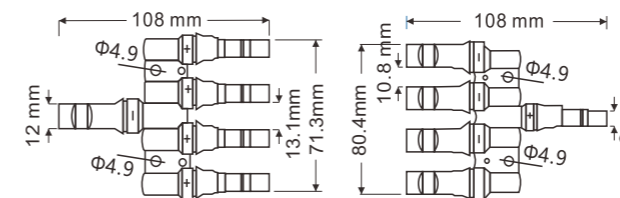


Type	PV004-T3
Rated Voltage	1000V DC
Rated Current	30A
Protection Degree	IP67
Contact Resistance	≤0.5mΩ
Pollution Degree	2
Ambient Temperature	-40°C~+90°C
Contact Materials	Tin Plated Copper
Adapter Connector	PV004/PV005
Insulation Material	PPO
Flame Class	UL94 V-0

Solar PV Connector

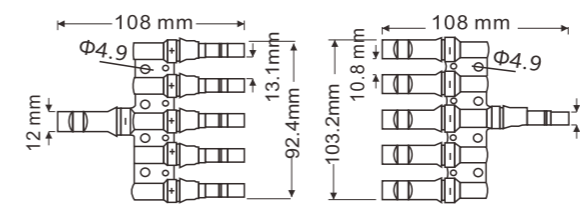
T Type Branch Connector 1000V Series

4 to 1 T Branch Connector



Type	PV004-T4
Rated Voltage	1000V DC
Rated Current	30A
Protection Degree	IP67
Contact Resistance	≤0.5mΩ
Pollution Degree	2
Ambient Temperature	-40°C~+90°C
Contact Materials	Tin Plated Copper
Adapter Connector	PV004/PV005
Insulation Material	PPO
Flame Class	UL94 V-0

5 to 1 T Branch Connector

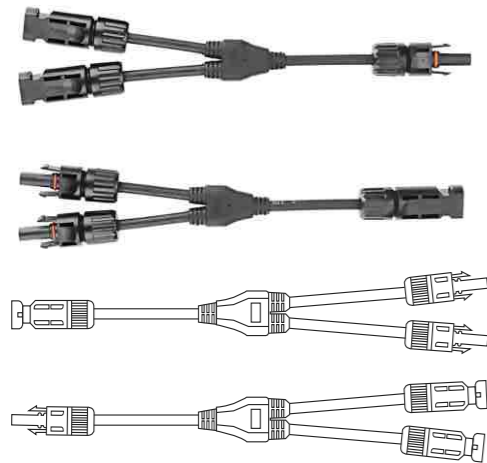


Type	PV004-T5
Rated Voltage	1000V DC
Rated Current	30A
Protection Degree	IP67
Contact Resistance	≤0.5mΩ
Pollution Degree	2
Ambient Temperature	-40°C~+90°C
Contact Materials	Tin Plated Copper
Adapter Connector	PV004/PV005
Insulation Material	PPO
Flame Class	UL94 V-0

Solar PV Connector

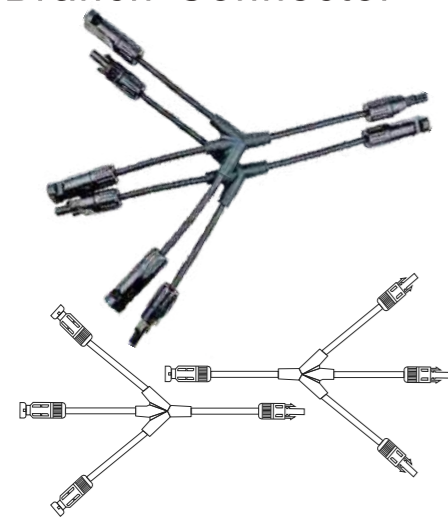
Y Type Branch Connector 1000V Series

2 to 1 Y Branch Connector



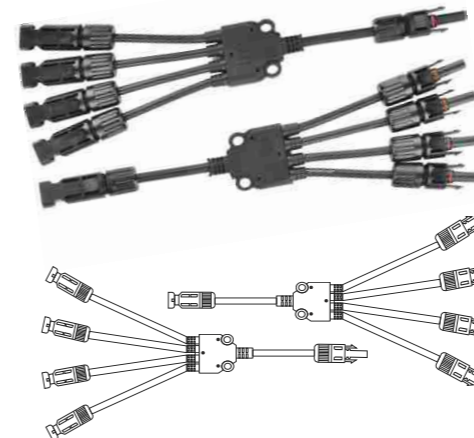
Type	PV004-2T1
Rated Voltage	1000V DC
Rated Current	30A
Protection Degree	IP67
Contact Resistance	≤0.5mΩ
Pollution Degree	2
Ambient Temperature	-40°C~+85°C
Contact Materials	Tin Plated Copper
Insulation Material	PPO/XLPE
Flame Class	UL94 V-0
Input Cable	PV Cable 1X4mm ²
Output Cable	PV Cable 1X4mm ²

3 to 1 Y Branch Connector



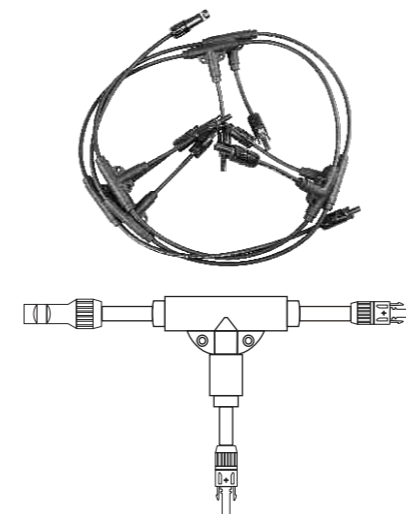
Type	PV004-3T1
Rated Voltage	1000V DC
Rated Current	30A
Protection Degree	IP67
Contact Resistance	≤0.5mΩ
Pollution Degree	2
Ambient Temperature	-40°C~+85°C
Contact Materials	Tin Plated Copper
Insulation Material	PPO/XLPE
Flame Class	UL94 V-0
Input Cable	PV Cable 1X4mm ²
Output Cable	PV Cable 1X4mm ²

4 to 1 Y Branch Connector



Type	PV004-4T1
Rated Voltage	1000V DC
Rated Current	30A
Protection Degree	IP67
Contact Resistance	≤0.5mΩ
Pollution Degree	2
Ambient Temperature	-40°C~+85°C
Contact Materials	Tin Plated Copper
Insulation Material	PPO/XLPE
Flame Class	UL94 V-0
Input Cable	PV Cable 1X4mm ²
Output Cable	PV Cable 1X6mm ²

X to 1 Y Branch Connector

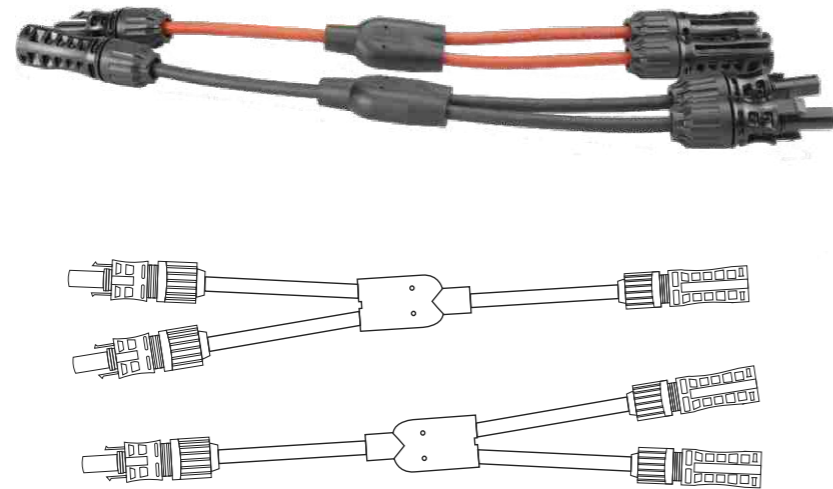


Type	PV004-XT1
Rated Voltage	1000V DC
Rated Current	30A
Protection Degree	IP67
Contact Resistance	≤0.5mΩ
Pollution Degree	2
Ambient Temperature	-40°C~+85°C
Contact Materials	Tin Plated Copper
Insulation Material	PPO/XLPE
Flame Class	UL94 V-0
Input Cable	PV Cable 1X4/6mm ²
Output Cable	PV Cable 1X4/6mm ²

Solar PV Connector

Y Type Branch Connector 1500V Series

2 to 1 Y Branch Connector

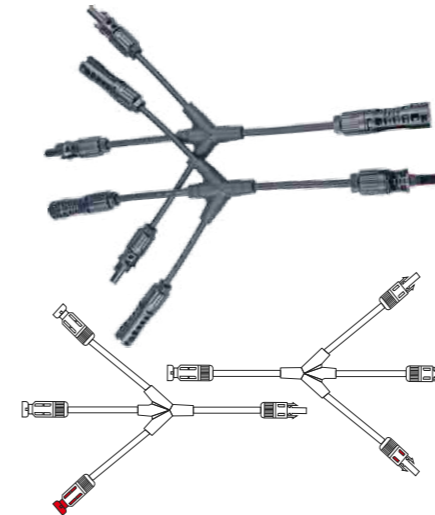


Type	PV005-2T1
Rated Voltage	1500V DC
Rated Current	30A
Protection Degree	IP67
Contact Resistance	≤0.5mΩ
Pollution Degree	2
Ambient Temperature	-40°C~+90°C
Contact Materials	Tin Plated Copper
Insulation Material	PPO/XLPE
Flame Class	UL94 V-0
Input Cable	PV Cable 1X4mm ²
Output Cable	PV Cable 1X4mm ²

Solar PV Connector

Y Type Branch Connector 1500V Series

3 to 1 Y Branch Connector



Type	PV005-3T1
Rated Voltage	1500V DC
Rated Current	30A
Protection Degree	IP67
Contact Resistance	≤0.5mΩ
Pollution Degree	2
Ambient Temperature	-40°C~+90°C
Contact Materials	Tin Plated Copper
Insulation Material	PPO/XLPE
Flame Class	UL94 V-0
Input Cable	PV Cable 1X4mm ²
Output Cable	PV Cable 1X4mm ²

4 to 1 Y Branch Connector



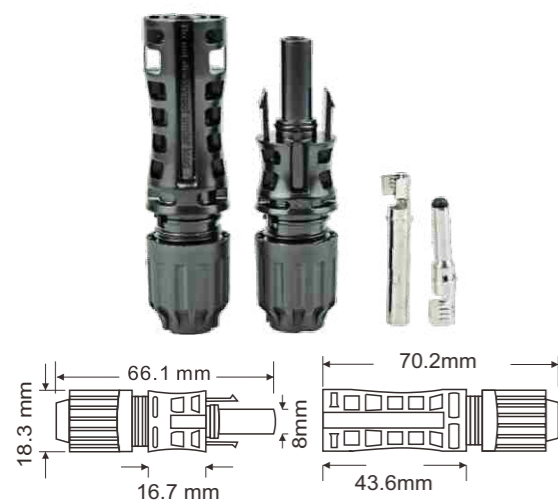
Type	PV005-4T1
Rated Voltage	1500V DC
Rated Current	30A
Protection Degree	IP67
Contact Resistance	≤0.5mΩ
Pollution Degree	2
Ambient Temperature	-40°C~+90°C
Contact Materials	Tin Plated Copper
Insulation Material	PPO/XLPE
Flame Class	UL94 V-0
Input Cable	PV Cable 1X4mm ²
Output Cable	PV Cable 1X6mm ²

Solar PV Connector

Solar PV Connector 1500V Series

Photovoltaic Connector

PV005



Type	PV005
Rated Voltage	1500V DC
Rated Current	30A
Standard	IEC 62852
Protection Degree	IP67
Contact Resistance	$\leq 0.5\text{m}\Omega$
Pollution Degree	2
Ambient Temperature	$-40^{\circ}\text{C}\sim+85^{\circ}\text{C}$
Cable Cross Section Area	2.5mm ² , 4mm ² , 6mm ²
Insulation Material	PC EXL9330
Flame Class	UL94 V-0

Diode Connector

PV005-D



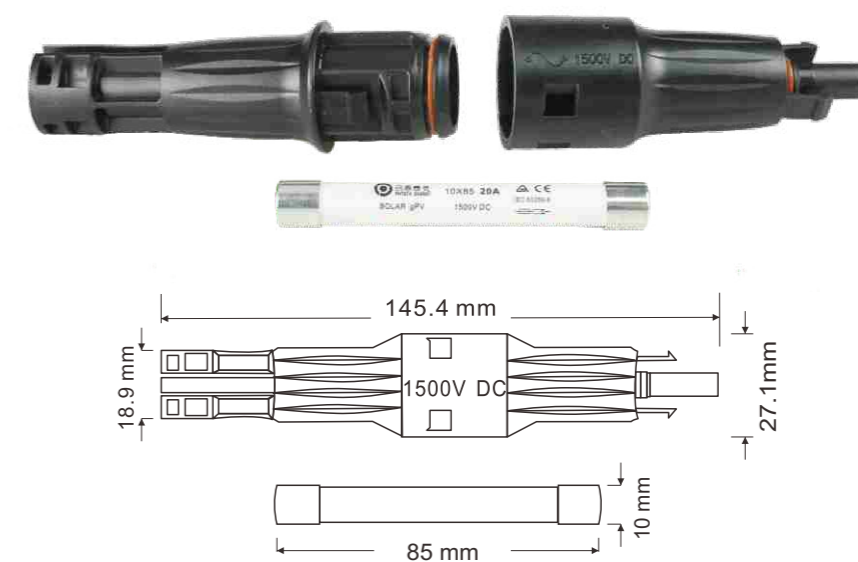
Type	PV005-D
Rated Voltage	1500V DC
Contact Materials	Tin Plated Copper
Rated Current	10A, 15A, 20A
Standard	IEC 62852
Protection Degree	IP67
Contact Resistance	$\leq 0.5\text{m}\Omega$
Pollution Degree	2
Ambient Temperature	$-40^{\circ}\text{C}\sim+85^{\circ}\text{C}$
Insulation Material	PPO
Flame Class	UL94 V-0

Solar PV Connector

Solar PV Connector 1500V Series

Fuse Connector

PV005-F



Type	PV005-F
Rated Voltage	1500V DC
Contact Materials	Tin Plated Copper
Rated Current	15A, 20A, 25A
Standard	IEC 62852
Protection Degree	IP67
Contact Resistance	$\leq 0.5\text{m}\Omega$
Pollution Degree	2
Ambient Temperature	$-40^{\circ}\text{C}\sim+85^{\circ}\text{C}$
Insulation Material	PPO
Flame Class	UL94 V-0

Solar PV Connector

Solar PV Connector 1500V Series



PV005-FA



PV005-FB



PV005-FC



PV005-FD

Solar PV Connector

Solar PV Connector 1500V Series



SOLAR EXTENSION CABLE FOR SOLAR POWER SYSTEM



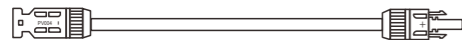
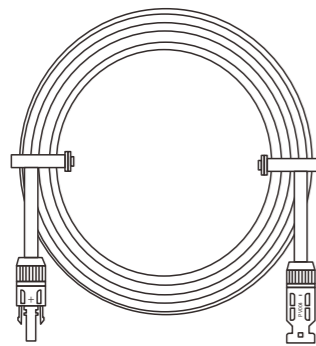
This connector adopts PPO and XLPE as the shell, copper plating tin as the conductor, with dustproof, waterproof, ultraviolet resistanc, light and easy to use, simple installation, safety, long service life and other characteristics. This product is compatible with all standard MC4 connectors and used for solar panel end DC output or extension with solar panel end output connection.

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Solar Extension Cable for Solar Power System

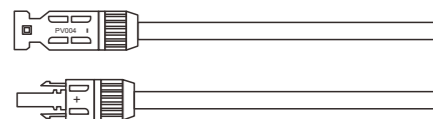
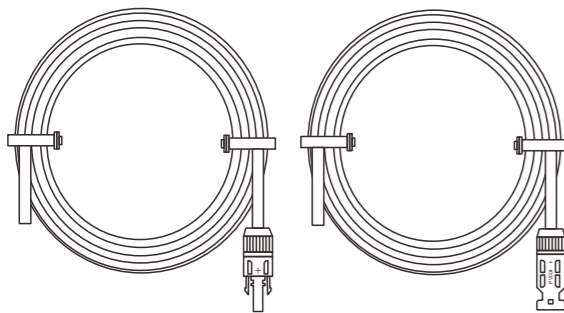
Solar Extension Cable

Solar Extension Cable with Connector(Double Ends)



Type	DC-DC
Rated Voltage	1000V/1500V DC
Rated Current	30A
Protection Degree	IP67
Pollution Degree	2
Ambient Temperature	-40°C~+85°C
Contact Materials	Tin Plated Copper
Insulation Material	PPO/XLPO
Flame Class	UL94 V-0
Cable Type	PV Cable
Cable Length	Customized

Solar Extension Cable with Connector(Single Ends)



Type	DC-00
Rated Voltage	1000V /1500V DC
Rated Current	30A
Protection Degree	IP67
Pollution Degree	2
Ambient Temperature	-40°C~+85°C
Contact Materials	Tin Plated Copper
Insulation Material	PPO/XLPO
Flame Class	UL94 V-0
Cable Type	PV Cable
Cable Length	Customized

Customization Scheme for Solar Extension Cable



Battery Brass Buckle



Solar Street Light



Anderson Joint



O Type DT

The Image Of Different Cable Lengths(Double Ends)



←----- 1M -----→



←----- 5M -----→



←----- 10M -----→



The Image Of Different Cable Lengths(Single Ends)

Solar Tool Kits

Model

C4K-A



- Crimping Pliers(Big)
- Wire Cutters
- Wire Stripper
- Nipper Pliers
- Screw Driver
- Connector Spanner

C4K-B



- Crimping Pliers(Small)
- Wire Cutters
- Wire Stripper
- Nipper Pliers
- Screw Driver
- Connector Spanner

C4K-C

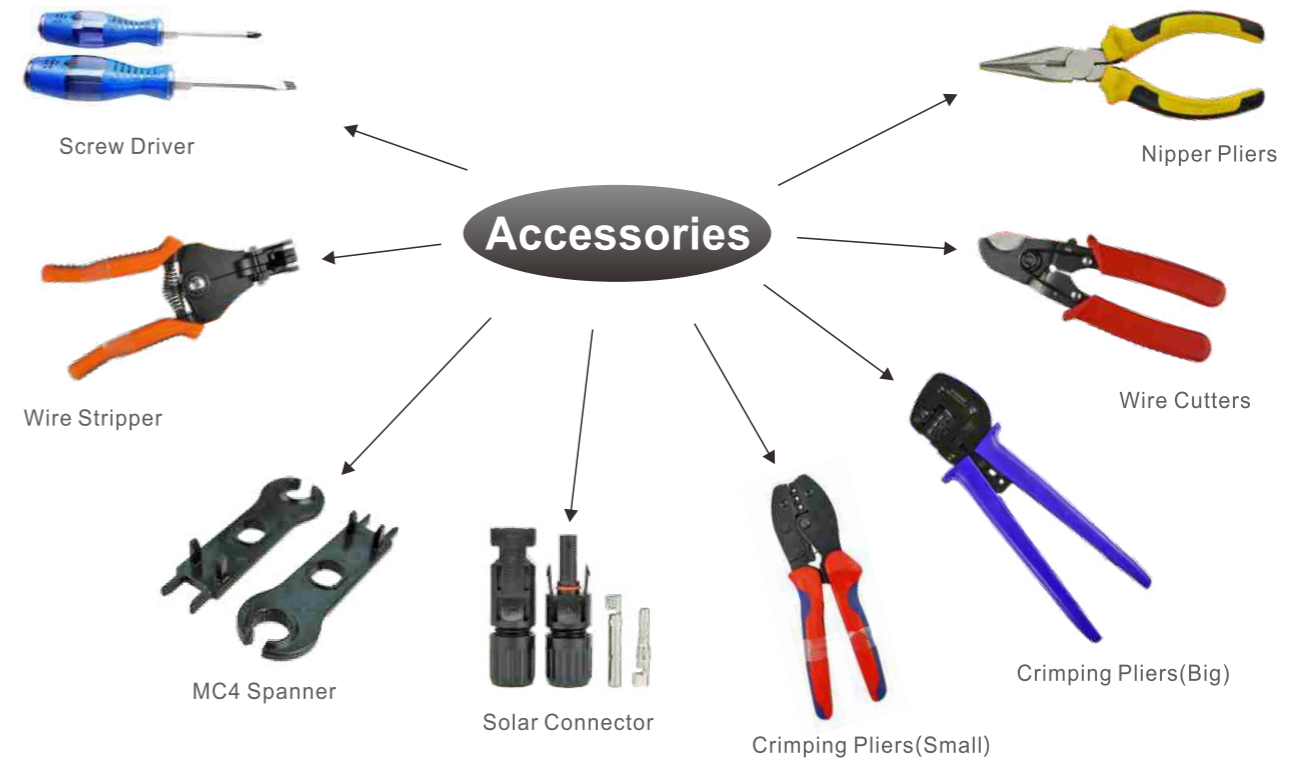


- Crimping Pliers(Big)
- Wire Cutters
- Wire Stripper
- Connector Spanner

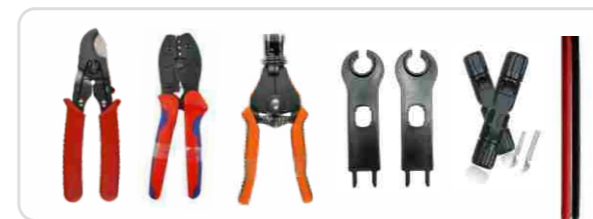
C4K-D



- Crimping Pliers(Small)
- Wire Cutters
- Wire Stripper
- Connector Spanner



Pressure To Demonstrate



Prepare The Tools



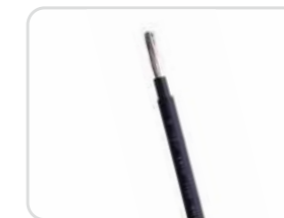
1. Cut The Wire



Use wire cutters to cut out the desired length.



2. Wire Stripping



Use wire strippers to strip out the cable about 1cm.



3. Crimping



Use crimping pliers to fix copper terminals on the end of stripped cable.



4. Combination



Insert the wire with copper terminal into the connector and use spanner to tighten the nut.



5. Docking



Connect the positive and negative terminals of the connector, ensure that the latch is fully inserted and locked.



PV CABLE
PACKAGING

PNTECH

Integrity Management

The Quality Of Bear

