



Energize the Futures

Made in **Malaysia** We are **Omega** Solar !



Omega Solar Sdn. Bhd.

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13600 Prai, Penang, Malaysia

PV Junction Box | PV Connector | AL Frame
PCB Connector | Solar Cable | AL Heatsink
Panel Connector | Inline Fuse Connector

*Energize
the Futures*



ABOUT US

Since its establishment in Penang, Malaysia in 2015, Omega Solar Sdn. Bhd. has become strategic partners with global PV module manufacturing leaders. Omega is core supply for Jinko Solar as well as other industry brands on PV connector, junction box and aluminum frame for more than 9 years.

We are leading global photovoltaic material brand in the solar industry. We own production lines with capacity of 32GW for junction box and 10GW for aluminum frame.

Our VISION is: Energize the Futures !

10+
Years' of experience

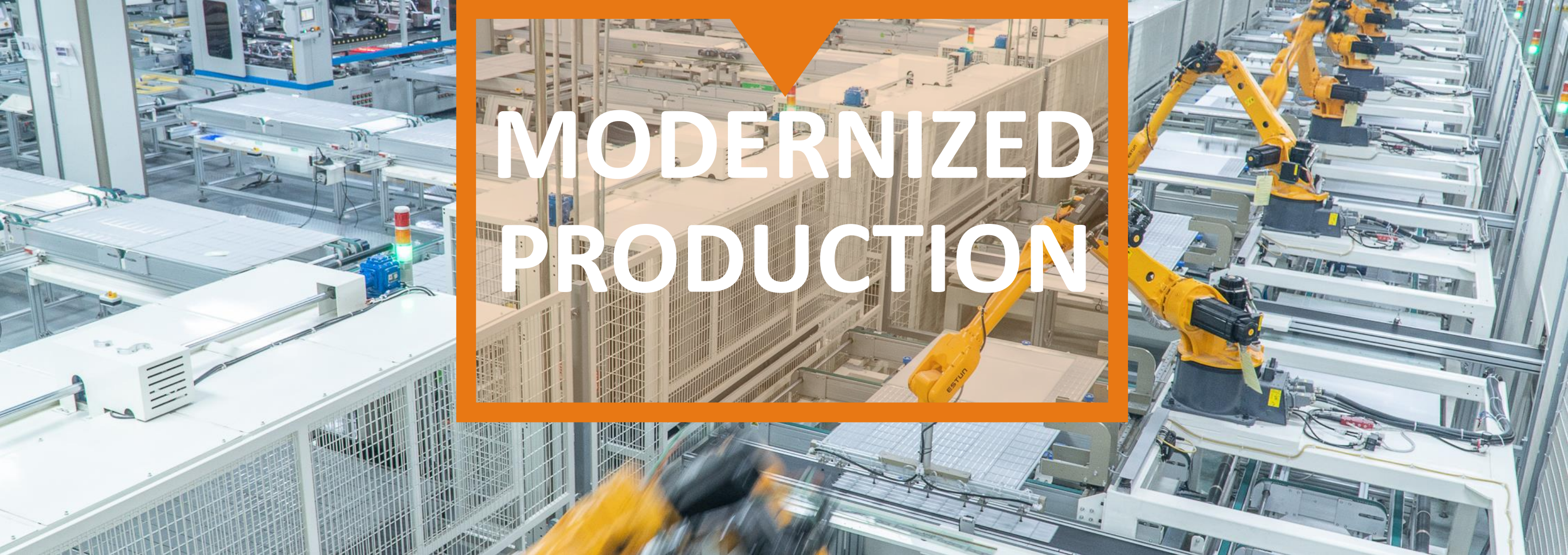
32 GW
Per year for JinKO Solar



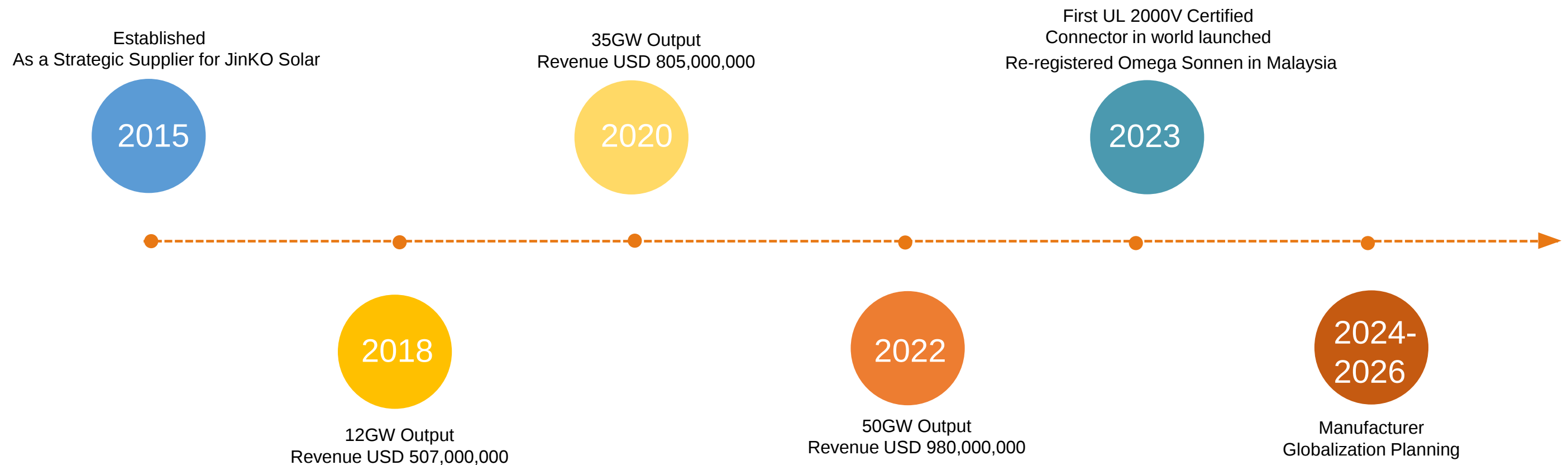
We Together

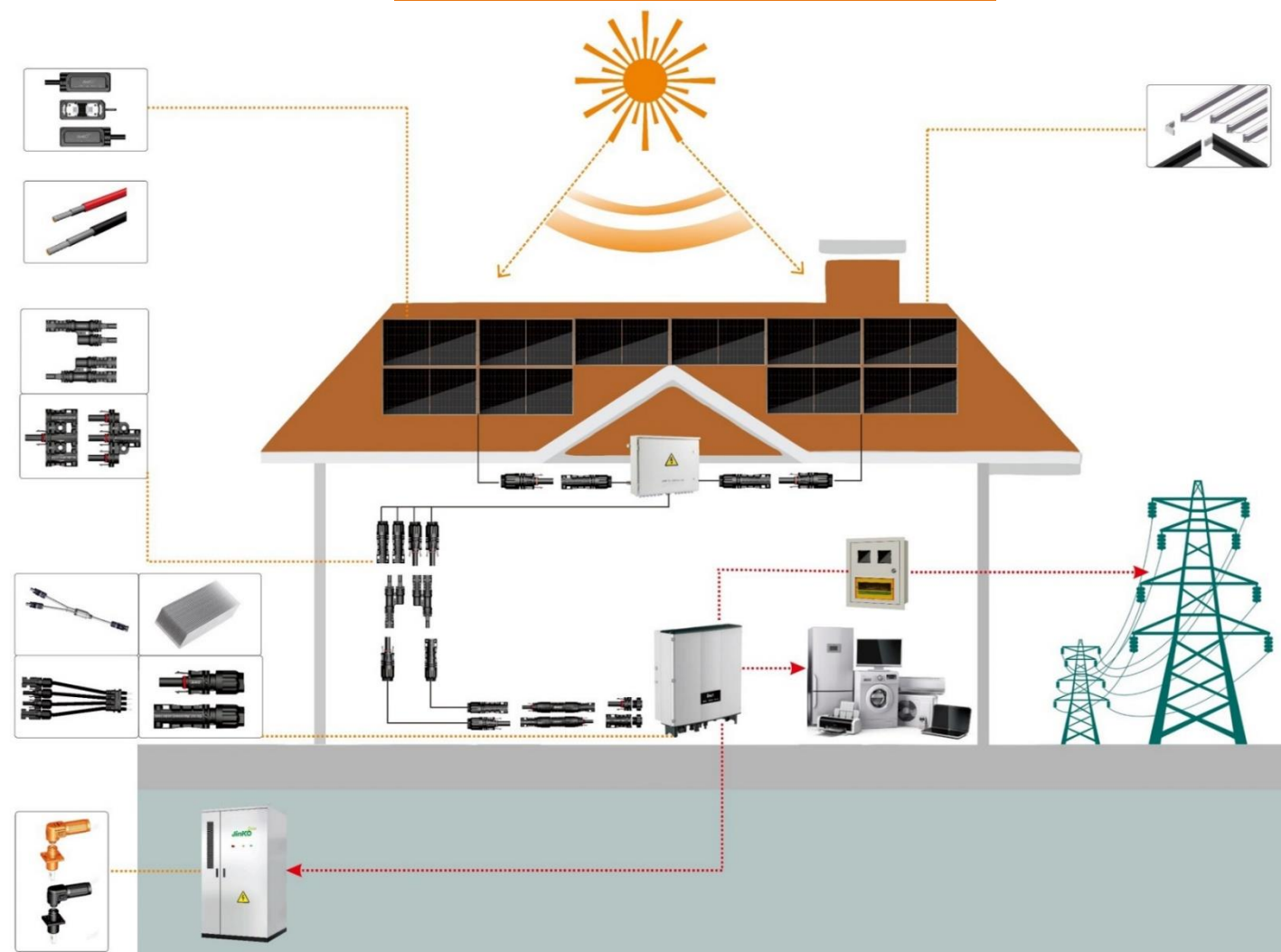
 **Omega Sonnen**
**Global
Network**





MODERNIZED PRODUCTION





CONTENTS

PV Junction Box

Connectors

Solar Panel Frame

Solar Cable

Aluminum Heatsink

PV Material Sourcing

WE SUPPORT SOLAR

Energize the Futures





PV JUNCTION BOX

Total Shipment 200GW by Q4 2023

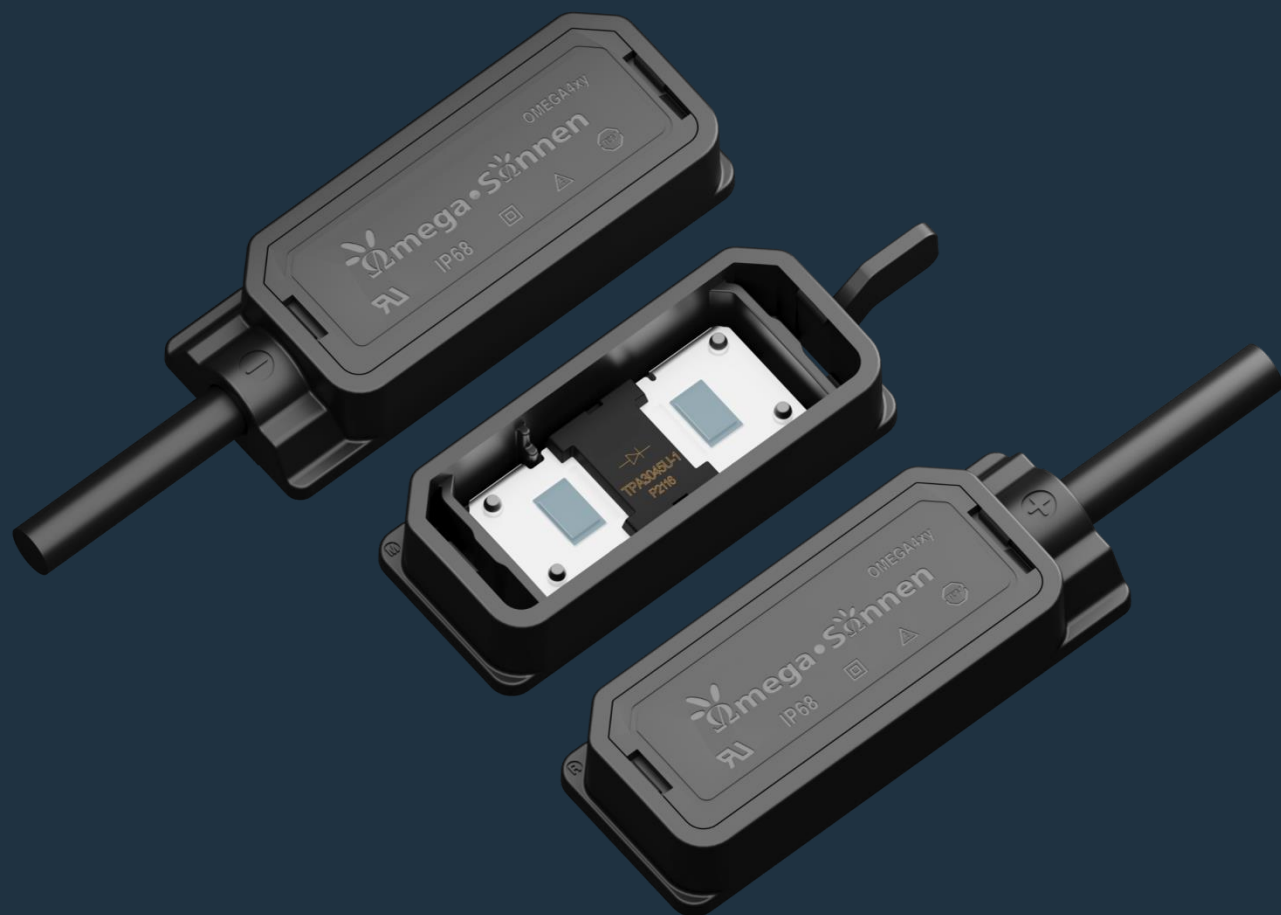
Up to 35A Rated Current

Anti-Harsh Environment

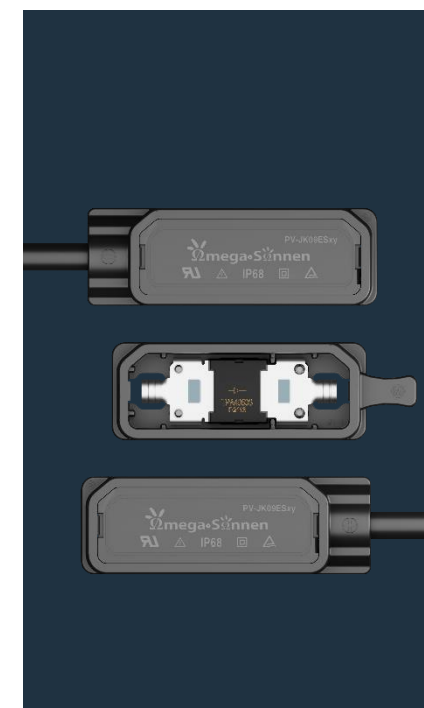
IP68

TÜV Rheinland, TÜV SUD, UL, JET
Approved

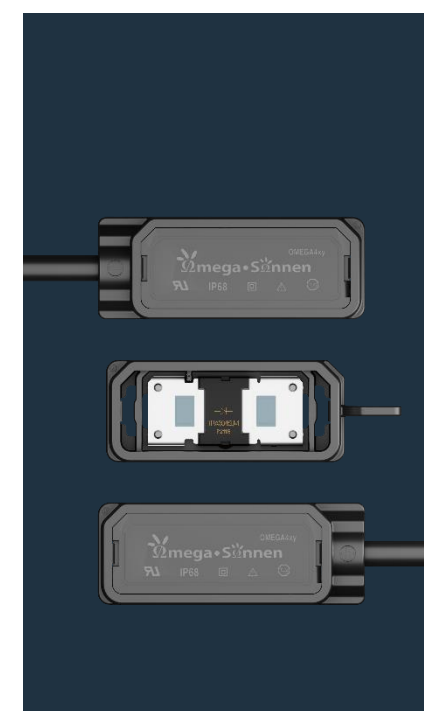
World's First UL 2000V Certified PV
Junction Box



JUNCTION BOX



OMEGA4	
Rated Voltage/ Rated Current	1500V DC/ 1000V DC 20A/25A/30A
Degree of Protection, Mated	IP68
Waterproof Structure	Potting material
The Amount of Potting Glue Filling	≈3 × 7ml
Conduction Material	Cu alloy plating
Insulation Material	PPE/PPO
Connector Locking System	Snap-in
Number of Diodes / Ribbons	3 / 6
Connecting Type of Ribbons	Soldering
Connector System	PV-JK03M2, EVO2, MC4
Certification Standard	TÜV IEC 62790 ; UL3730



PV-JK09ES	
Rated Voltage/ Rated Current	1500V DC/1000V DC 20A/25A/30A/35A
Degree of Protection, Mated	IP68
Waterproof Structure	Potting material
The Amount of Potting Glue Filling	≈3 × 10ml
Conduction Material	Cu alloy plating
Insulation Material	PPE/PPO
Connector Locking System	Snap-in
Number of Diodes / Ribbons	3 / 6
Connecting Type of Ribbons	Soldering
Connector System	PV-JK03M2, EVO2, MC4
Certification Standard	TÜV IEC 62790: UL3730



PV CONNECTOR

Total Shipment 180GW by Q4 2023

Universal used Over 160 Countries

90GW Capacity

Lower Contact Resistance

Anti-Harsh Environment

IP68

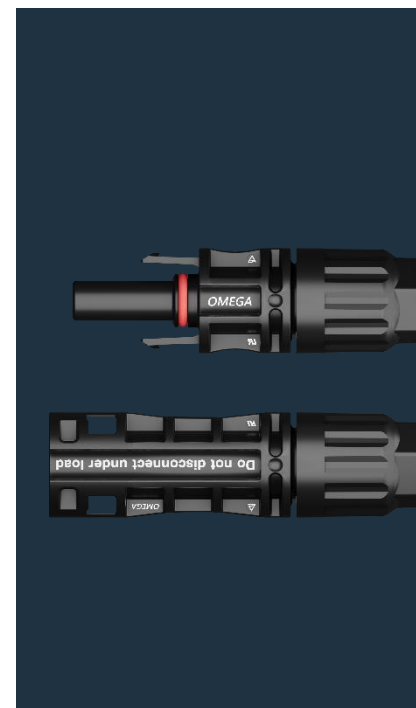
TÜV Rheinland, TÜV SUD, UL, JET
Approved

First PV Connector UL 2000V certified in
the World

TÜV Rheinland AQM Award 2022

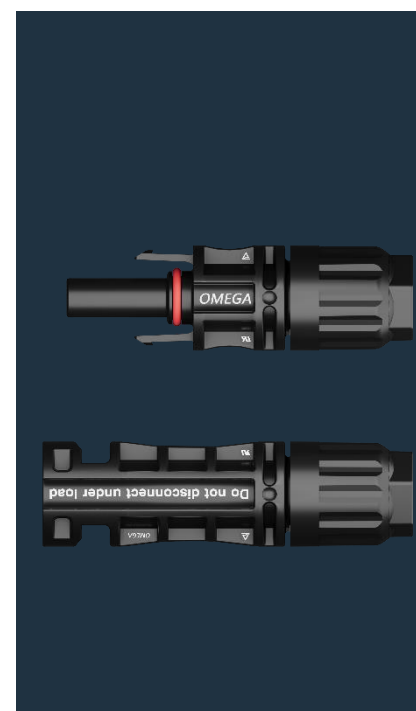


CABLE CONNECTOR



PV-JK03M2

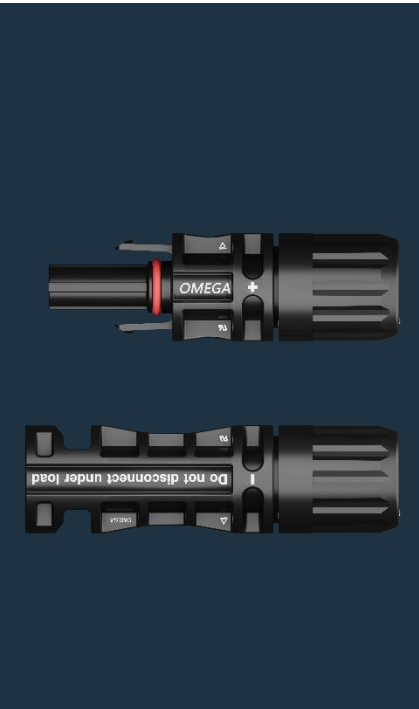
Rated Voltage	1500V DC / 2000V DC
Rated Current	30A (2.5mm ² ;14AWG) 45A (4.0mm ² ;12AWG) 50A (6.0mm ² ;10AWG)
Ambient Temperature range	-40°C~ +85°C
Upper Limiting Temperature	115°C (IEC)
Degree of Protection, Mated	IP68(1m, 2h)
Degree of Protection, Unmated	IP2X
Application Class	Class A
Over Voltage /Pollution Degree	CAT III/2
Contact Resistance	≤0.2mΩ
Protection Class	Class II
Terminal Connection	Crimping
Conduction Material	Copper Alloy, Tin Plated
Insulation Material	PA
Cable Dimensions	Φ4,70mm to Φ8,40mm (IEC) Φ6,20mm to Φ7,20mm (UL)
Certification Standard	TÜV IEC 62852:2014+A1; UL6703;



PV-JK03M3

Rated Voltage	1500V DC
Rated Current	30A (2.5mm ² ;14AWG) 45A (4.0mm ² ;12AWG) 50A (6.0mm ² ;10AWG)
Ambient Temperature range	-40°C~ +85°C
Upper Limiting Temperature	115°C (IEC)
Degree of Protection, Mated	IP68(1m, 2h)
Degree of Protection, Unmated	IP2X
Application Class	Class A
Over Voltage /Pollution Degree	CAT III/2
Contact Resistance	≤0.2mΩ
Protection Class	Class II
Terminal Connection	Crimping
Conduction Material	Copper Alloy, Tin Plated
Insulation Material	PA
Cable Dimensions	Φ4,70mm to Φ8,40mm (IEC) Φ6,20mm to Φ7,20mm (UL)
Certification Standard	TÜV IEC 62852:2014+A1; UL6703;

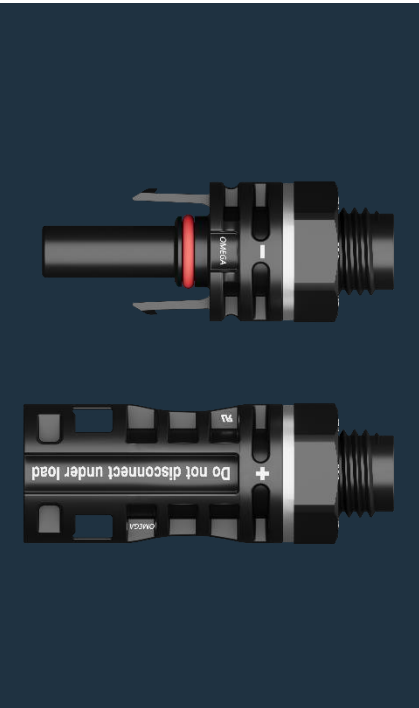
CABLE CONNECTOR



PV-JK03M4	
Rated Voltage	1500V DC
Rated Current	70A
Ambient Temperature range	- 40°C ~ + 85°C
Upper Limiting Temperature	115°C (IEC)
Degree of Protection, Mated	IP68 (1M, 2H)
Degree of Protection, Unmated	IP2X
Contact Resistance of Connectors	≤0.2MΩ
Degree of Protection, `	CLASS II
Terminal Connection	Crimping
Conduction Material	Copper Alloy, Tin Plated
Insulation Material	PA
Certification Standard	TÜV IEC62852:2014 + A1; UL6703



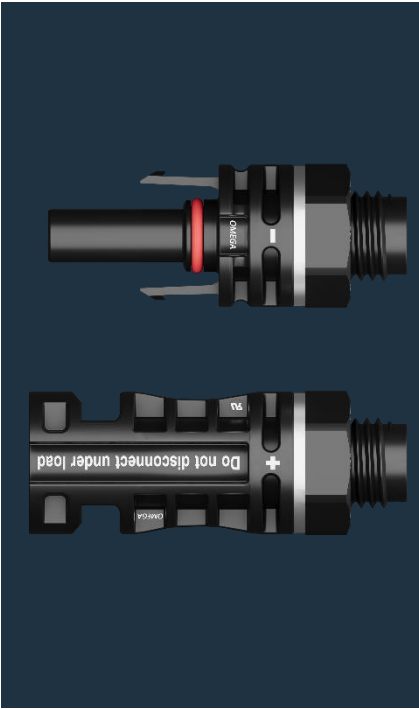
PANEL CONNECTOR



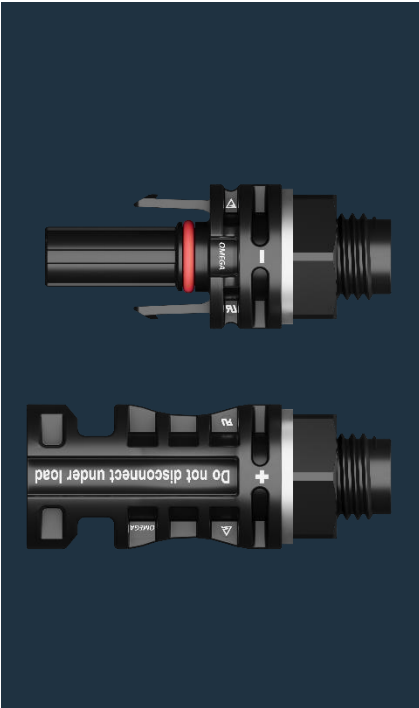
PV-JK02M1	
Rated Voltage	1500V DC (UL)
Rated Current	30A (2.5mm²;14AWG) 45A (4.0mm²;12AWG) 50A (6.0mm²;10AWG)
Ambient Temperature range	-40°C~ +85°C
Upper Limiting Temperature	115°C (IEC)
Degree of Protection, Mated	IP68(1m, 2h)
Degree of Protection, Unmated	IP2X
Application Class	Class A
Over Voltage /Pollution Degree	CATⅢ/2
Contact Resistance	≤0.2mΩ
Protection Class	Class II
Terminal Connection	Crimping
Conduction Material	Copper Alloy, Tin Plated
Insulation Material	PA
Cable Dimensions	Φ3,00mm to Φ7,50mm
Certification Standard	TÜV IEC 62852:2014+A1; UL6703;



PANEL CONNECTOR



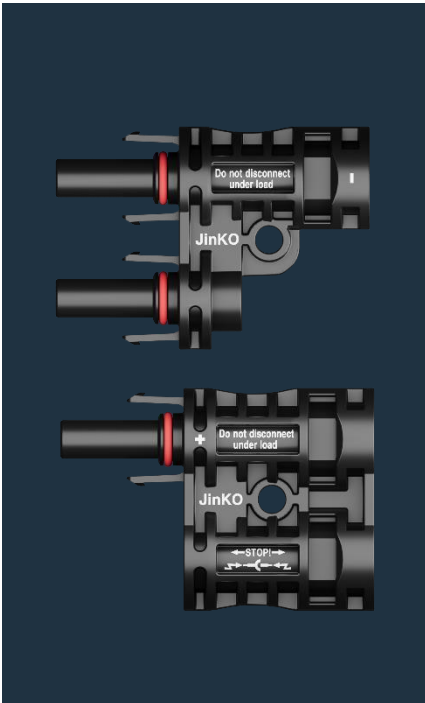
PV-JK02M2	
Rated Voltage	1500V DC
Rated Current	30A (2.5mm²;14AWG) 45A (4.0mm²;12AWG) 50A (6.0mm²;10AWG)
Ambient Temperature range	-40°C~ +85°C
Upper Limiting Temperature	115°C (IEC)
Degree of Protection, Mated	IP68(1m, 2h)
Degree of Protection, Unmated	IP2X
Application Class	Class A
Over Voltage /Pollution Degree	CATⅢ/2
Contact Resistance	≤0.2mΩ
Protection Class	Class II
Terminal Connection	Crimping
Conduction Material	Copper Alloy, Tin Plated
Insulation Material	PA
Cable Dimensions	Φ3,00mm to Φ7,50mm
Certification Standard	TÜV IEC 62852:2014+A1; UL6703



PV-JK02M3	
Rated Voltage	1500V DC
Rated Current	70A
Ambient Temperature range	- 40°C ~ + 85°C
Upper Limiting Temperature	115°C (IEC)
Degree of Protection, Mated	IP68 (1m, 2h)
Degree of Protection, Unmated	IP2X
Contact Resistance of Connectors	≤0.2mΩ
Degree of Protection, Mated	Class II
Conduction Material	Crimping
Insulation Material	Copper Alloy, Tin Plated
Cable Dimensions	PA
Certification Standard	TÜV IEC62852:2014 + A1; UL6703



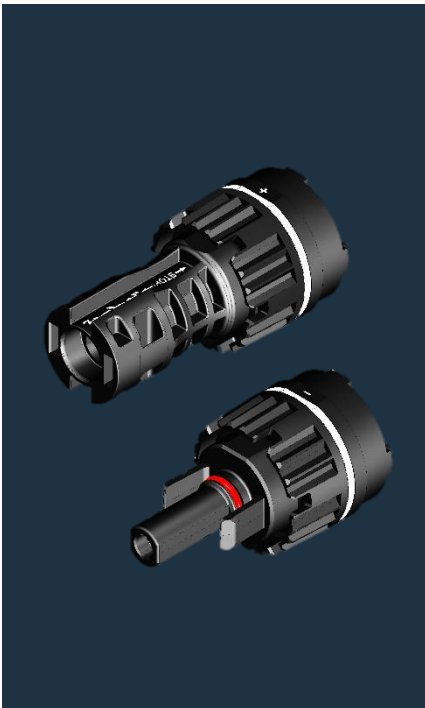
BRANCH CONNECTOR



PV-JK03M2-BP2H&BS2H

Rated Voltage	1500V DC
Rated Current	60A
Ambient Temperature Range	-40°C ~ +85°C
Upper Limit Temperature	115°C (IEC)
Degree Of Protection, Mated	IP68(1m, 2h)
Degree Of Protection, Unmated	IP2X
Application Class	Class A
Over Voltage /Pollution Degree	CAT III/2
Contact Resistance	≤0.3mΩ
Protection Class	Class II
Conduction Material	Copper Alloy, Tin Plated
Insulation Material	PA/PC
Certification Standard	IEC62852:2014/AMD1:2020EN IEC 60947-3:2021

PV PANEL FLEXIBLE CONNECTOR



PV-JC005

Rated Voltage	1500V DC
Rated Current	50A
Ambient Temperature Range	-40°C ~ +85°C
Upper Limit Temperature	115°C (IEC)
Degree Of Protection, Mated	IP68(1m, 2h)
Degree Of Protection, Unmated	IP2X
Application Class	Class A
Over Voltage Category /Pollution Degree	CAT III/2
Contact Resistance	≤0.5mΩ
Protection Class	Class II
Welding Method	Wave soldering
Soldering Temperature	260°C,10second
Conduction Material	Copper, Tin Plated
Insulation Material	PA
Certification Standard	TÜV IEC 62852:2014+A1; UL6703

FUSE CONNECTOR



PV-JK03M2-F

Rated Voltage	1500V DC
Rated Current	25A/30A/32A
Ambient Temperature Range	-40°C ~ +85°C
Upper Limit Temperature	115°C (IEC)
Degree of Protection, Mated	IP68(1m, 2h)
Degree of Protection, Unmated	IP2X
Application Class	Class A
Over Voltage /Pollution Degree	CAT III/2
Contact Resistance	≤0.3mΩ
Protection Class	Class II
Conduction Material	Copper Alloy, Tin Plated
Insulation Material	PA/PC
Certification Standard	IEC62852:2014/AMD1:2020EN IEC 60947-3:2021

ENERGY STORAGE CONNECTOR



EP001&EC001

Rated Voltage	Max1500V DC
Rated Current	150A (35mm² ;1AWG) 200A (50mm² 1/0AWG) 250A (70mm² 2/0AWG)
Ambient Temperature Range	-40°C~+125°C
Upper Limit Temperature	125°C
Degree of Protection, Mated	IP68 (1m,2h)
Degree of Protection, Unmated	Class A
Application Class	CAT III/2
Over Voltage /Pollution Degree	≤0.30mΩ
Contact Resistance	Class II
Terminal Connection	Riveting, Screw Thread, Lock Copper, Bar, Lock Screw
Insulation Material	PA
Certification Standard	TÜV /UL4128/CE



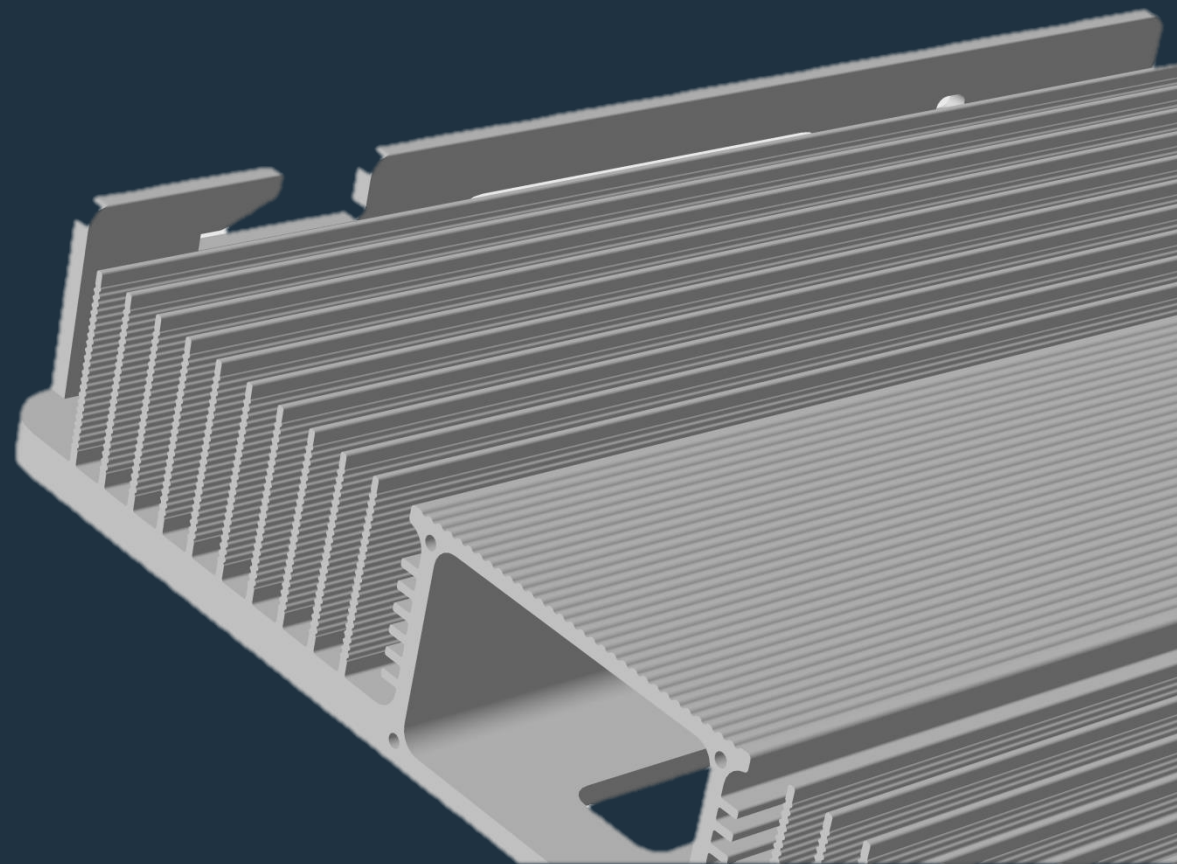
Aluminum Heat Sinks

One-stop Design & Manufacturing
Solutions

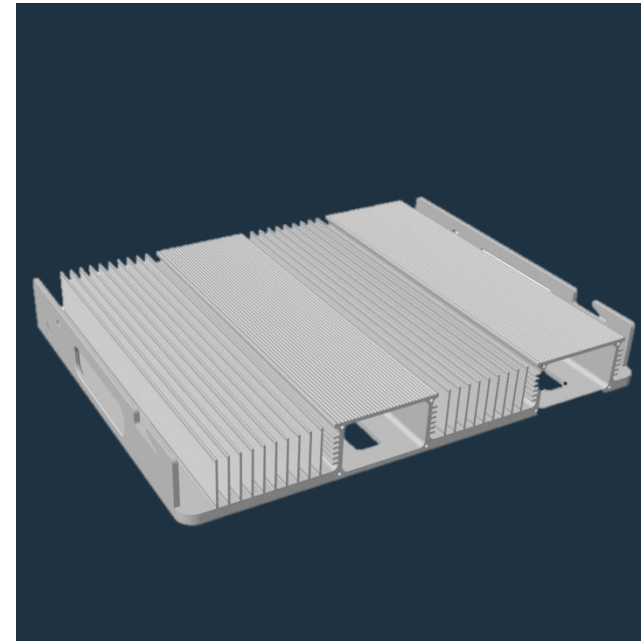
High Performance Custom-made AL
Heat Sink

Fast Shipment Of Standard Extruded
Heat Sink Size

9-year Aluminum Industry Working
Experience



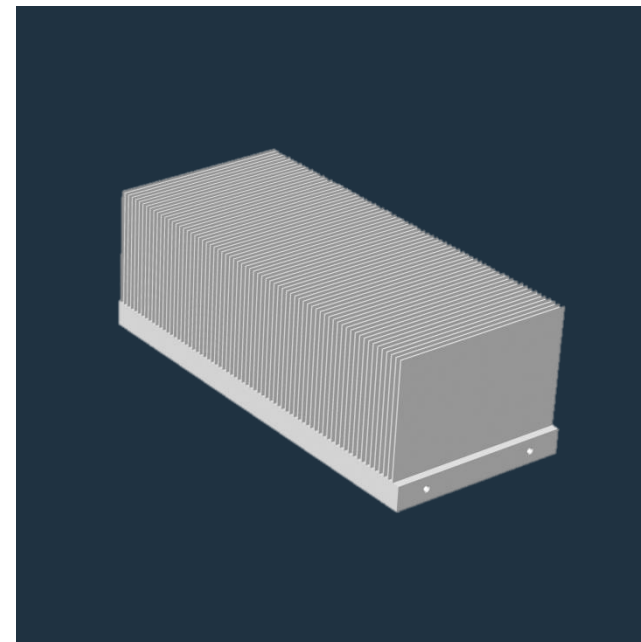
EXTRUDED HEAT SINK



EXTRUDED HEAT SINK

Material: Aluminum 6063-T5
Surface: Silver Anodized
Heatsink extrusion profiles for milling drilling
production
Aluminum heatsink extrusion profiles
customized shape with CNC Machining
customizable

EXTRUDED HEAT SINK



Alloy: 1060/6063
Base thickness: 5-30mm
Fin length: < 550mm
Fin height: < 100mm
Fin thickness: 0.8-5.0mm
Fin gap: 2.5-15mm
Surface: Silver Anodized
Aluminum extrusions 6063-T5, customizable
Heatsink extrusion profiles for milling drilling
production
Aluminum heatsink extrusion profiles customized
shape with CNC Machining



Solar Cable

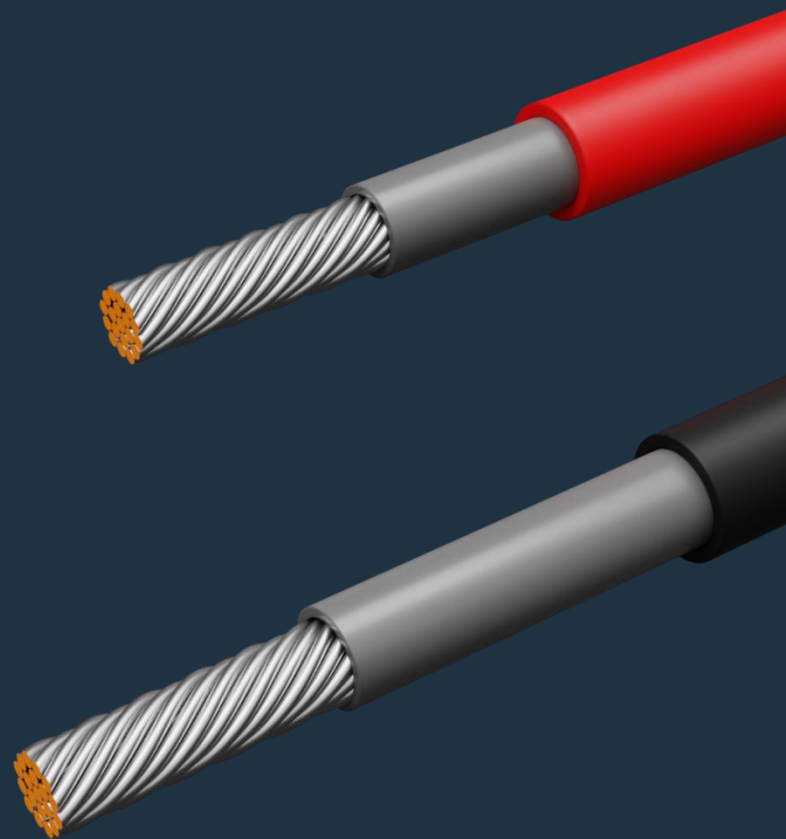
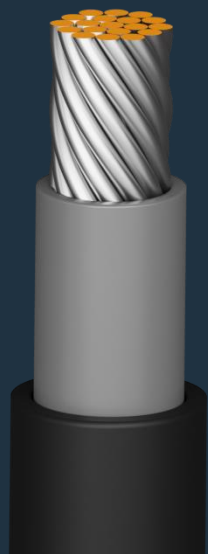
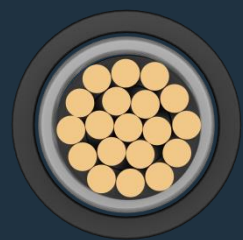
TÜV & UL, IEC 62930, EN 50618 Approved

Conductor φ : 4.0mm² & 6.0mm²

Halogen Free, Low Smoke

High Mechanical Strength

288 Million Meter Capacity (TÜV/UL approved)



SOLAR CABLE

IEC62930 / EN50618 DC 1500V

Number of Cores/ Cross Section	Wire DIA of IEC62930	Wire DIA of EN50618	Safety standard	Certification
1*2.5	5.9mm	5.9mm	IEC 62930 / EN 50618	TÜV
1*4.0	6.6mm	6.6mm	IEC 62930 / EN 50618	TÜV
1*6.0	7.4mm	7.4mm	IEC 62930 / EN 50618	TÜV
1*10.0	8.8mm	8.8mm	IEC 62930 / EN 50618	TÜV

UL4703 DC2000V

Number of Cores / Cross Section	Insulation Resistance (15°C)	Safety standard	Certification
1*14AWG	1310 MΩ·km	UL 4703	UL
1*12AWG	1130 MΩ·km	UL 4703	UL
1*10AWG	950 MΩ·km	UL 4703	UL
1*8AWG	1040 MΩ·km	UL 4703	UL

UL4703 & IEC62930

Number of Cores / Cross Section	Wire DIA.	Safety Standard	Certification
1*14AWG/2.5mm ²	6.3mm	UL4703 & IEC 62930	UL & TÜV
1*12AWG/4.0mm ²	7.0mm	UL4703 & IEC 62930	UL & TÜV
1*10AWG/6.0mm ²	6.3mm	UL4703 & IEC 62930	UL & TÜV
1*8AWG/10.0mm ²	7.0mm	UL4703 & IEC 62930	UL & TÜV

For more detailed information concerning the solar cable range, please contact us.



Solar Panel Frame

180 Million sets Capacity

Full Automatic Production From Raw Material Rod To End Assembly

Multiple Glass Slot Sizes Available

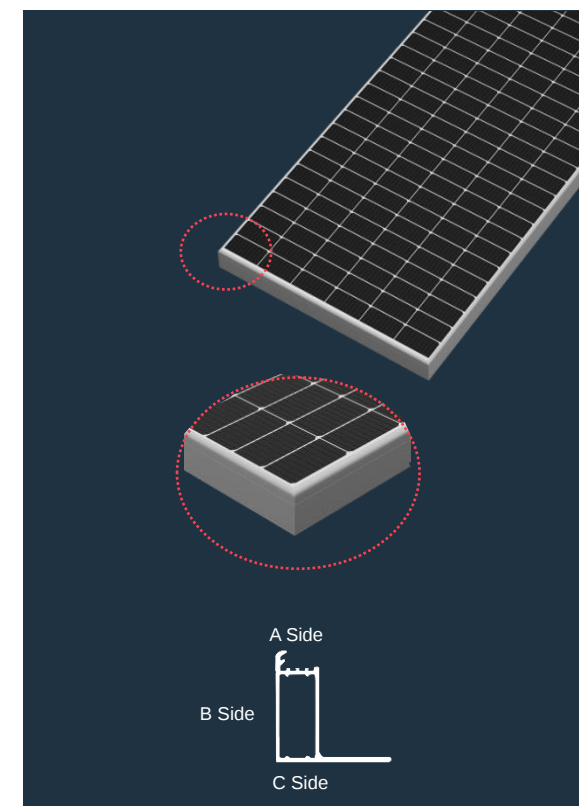
Made In China /Malaysia/Vietnam

Customized Design

9 Years Experience

150 Countries Shipped

SOLAR PANEL FRAME

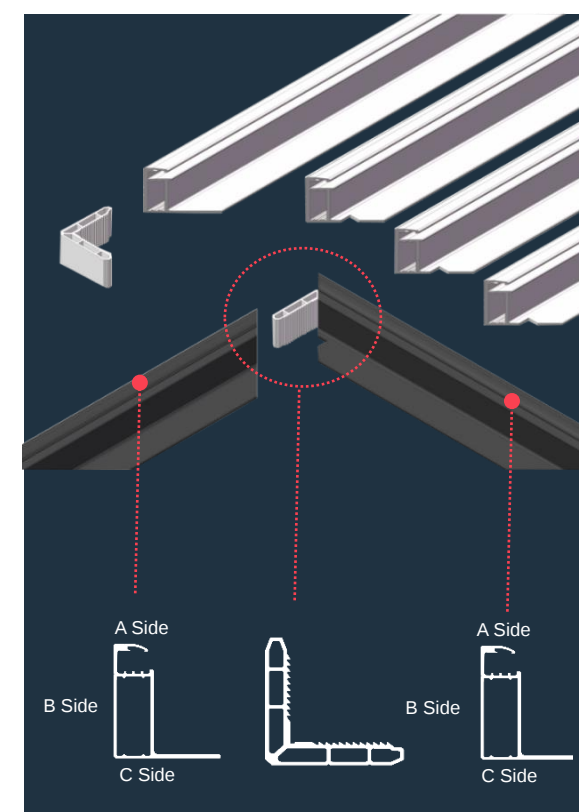


CLEAN PRO FRAME

Cutting size	2278mm, 1134mm
Cutting angle	45°
Material type	AL 6005-T5
Tensile strength	≥260 Mpa
Non proportional extension strength	≥240 Mpa
Elongation after fracture	≥8
Wechsler hardness	≥15
Corrosion resistance	≥Level 9, 24 hours
Reference standard	GB/T 5237.1-2017, GB/T 5237.2-2017
Usage environment	Centralized power station

Product Features:

- AL6005-T5 aluminum alloy material, excellent mechanical properties (tensile strength, elongation after breaking);
- With full screen design, the product is not easy to accumulate dust and easy to clean;
- Suitable for various mounting forms (screw & block mounting).
- Improved module power generation efficiency (6%-15%).



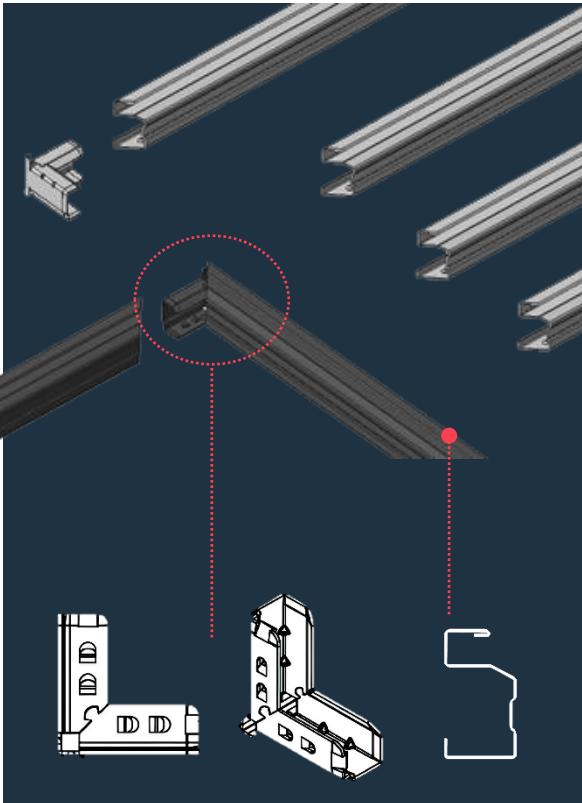
PHOTOVOLTAIC ALUMINUM FRAME

Cutting size	2278mm, 1134mm (customizable)
Cutting angle	45°
Material type	AL 6005-T5
tensile strength	≥260 Mpa
Non proportional extension strength	≥240 Mpa
Elongation after fracture	≥8
Wechsler hardness	≥15
Thickness of anodizing film	AA10 (Level) (customizable)
surface treatment	Sandblasting
Surface color	Silver, Black
Corrosion resistance	≥Level 9, 24 hours
Weatherability	No pulverization on the surface after 300 hours
Reference standard	GB/T 5237.1-2017, GB/T 5237.2-2017

Product Features:

- Al6005-T5 aluminum alloy material, excellent mechanical properties (tensile strength, elongation after break)
- The profile adopts anodic sandblasting oxidation process, which has strong corrosion resistance and oxidation resistance
- Long and short edge preriveting, convenient assembly, save time

SOLAR PANEL FRAME

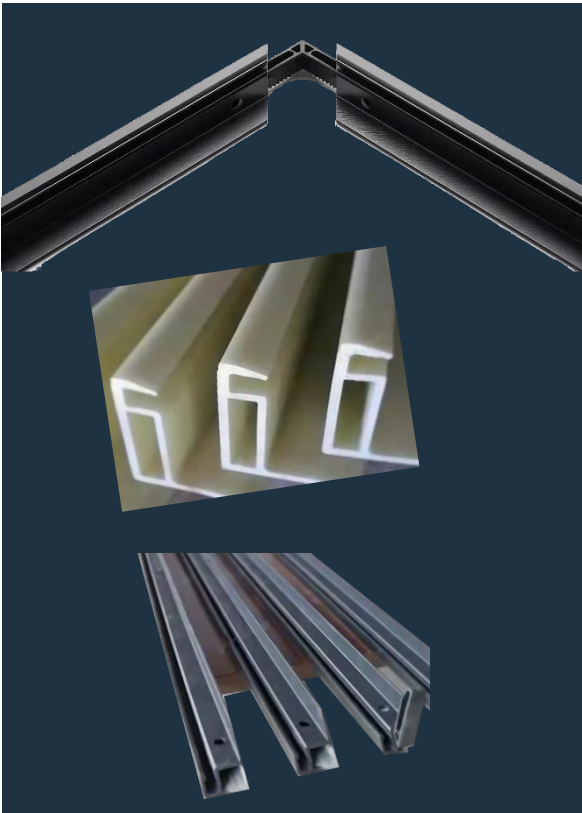


STEEL FRAME

Cutting size	2278mm, 1134mm (customizable)
Cutting angle	45°
Material type	Galvanized aluminum magnesium STEEL
tensile strength	≥490 Mpa
Non proportional extension strength	≥385 Mpa
Elongation after fracture	10%-26%
Coating thickness	≥275g/m2 (customizable)
Surface color	Silver
Weatherability	Neutral salt spray test for 4000 hours without red rust generation

Product Features:

- Adopting galvanized aluminum magnesium steel, with excellent mechanical properties (tensile strength, yield strength);
- The profile adopts an external plating process, which has strong corrosion resistance and oxidation resistance;
- Suitable for various mounting forms (screw & block mounting).



RESIN FRAME

Cutting size	2278mm, 1134mm (customizable)
Cutting angle	45°
Material type	Polyurethane Material
Longitudinal bending strength	≥600 Mpa
Longitudinal tensile strength	≥600 Mpa
surface treatment	Spray coating
Surface color	Black

Product Features:

- Using polyurethane composite materials, it has excellent mechanical properties (tensile strength, yield strength);
- The frame adopts spraying technology, and the material itself has strong corrosion resistance and oxidation resistance ;
- Suitable for various mounting forms (screw & block mounting).



Energize the Futures