

AK iTopper

N-Type TOPCon Module

420-440W

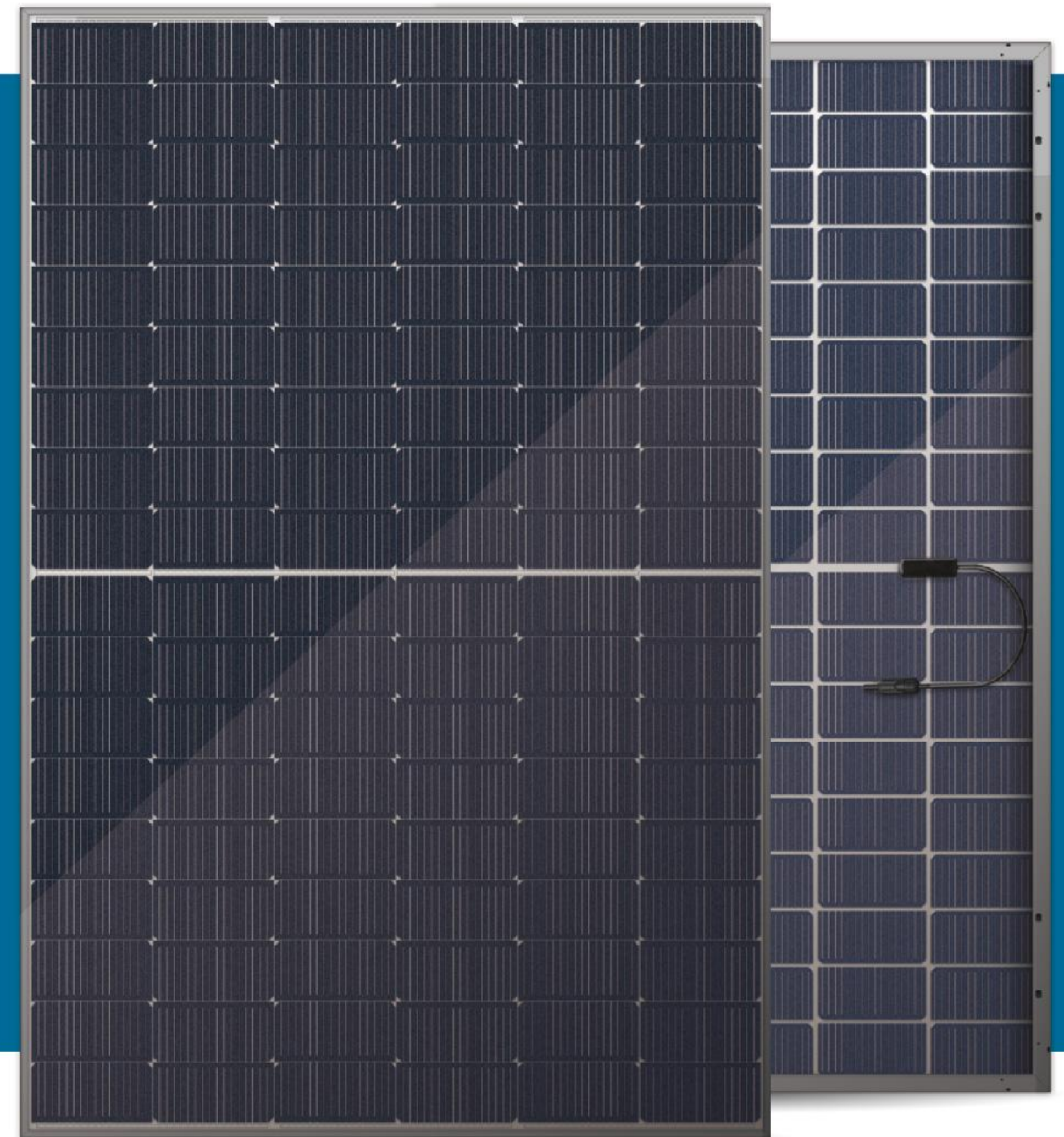
Max. Power Output

0~+3%

Power Tolerance

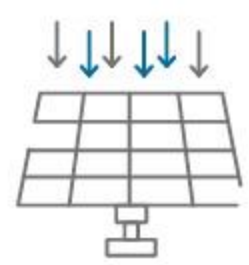
22.53%

Module Efficiency



Topcon Half-cut Bifacial Dual-Glass Module(16BB)
Module type: SK9609TDGDC

Product advantages



TOPCon technology for lower LCOE

The lower temperature coefficient and better low irradiance performance of TOPCon technology can effectively reduce LCOE.



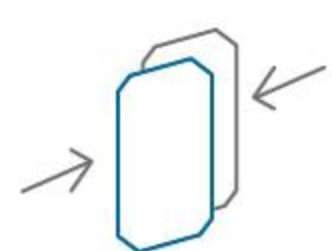
Fire class A, harsh environment adaptability

The module adopt a double glass structure, which can adapt to all kinds of harsh environment, and the fire rating can reach Class A.



30-year power warranty

The average life of dual-glass module is 30 years, 5 years longer than that of single-glass modules.



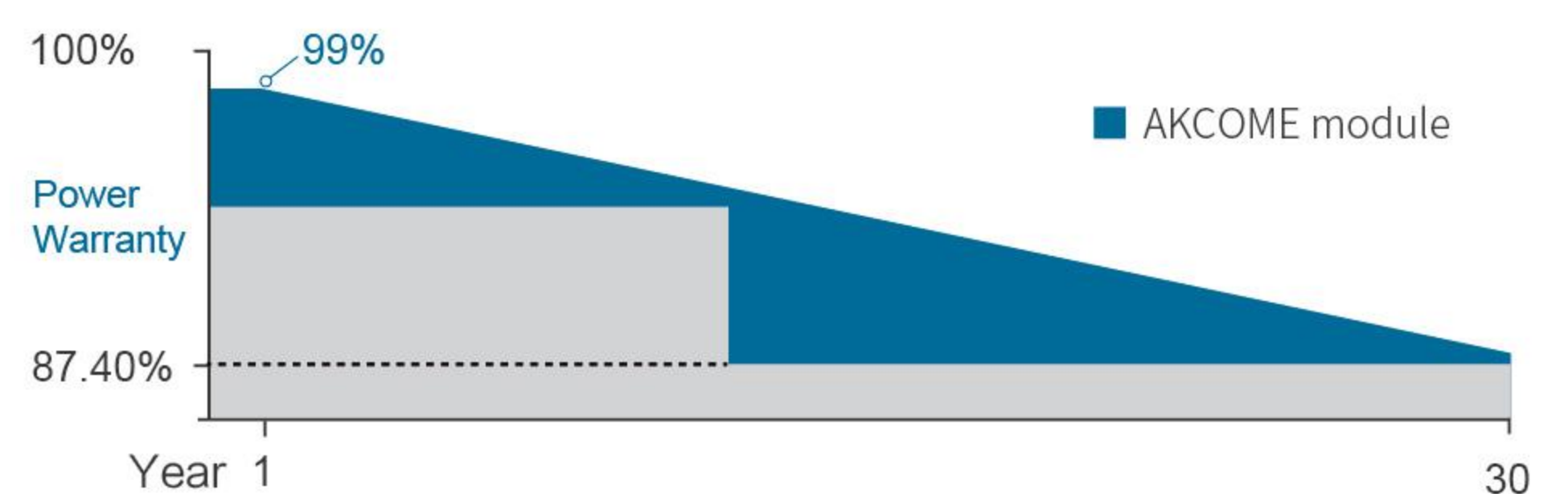
Double-sided power generation, higher income

The dual-glass module has a bifaciality of up to 80% and a power generation gain of 5%-25% on the back side.

LINEAR PERFORMANCE WARRANTY

15 Years product warranty on materials and workmanship

30 Years linear power output warranty



30 years decay \leq **0.40%** annually on average

CERTIFICATES

ISO 9001: 2015
Quality Management System

IEC 61215 / IEC 61730

ISO 14001: 2015
Environmental Management System

ISO 45001 : 2018
Safety Management System

*Certification requirements vary in different markets, please consult with Akcome Optronics sales team for appropriate certification.

ELECTRICAL PARAMETERS @ STC*

Max. Power Output Pmax (W)	420	425	430	435	440
Power Tolerance	0~+3%	0~+3%	0~+3%	0~+3%	0~+3%
Max. Power Voltage Vmp (V)	31.70	31.91	32.12	32.33	32.46
Max. Power Current Imp (A)	13.25	13.32	13.39	13.46	13.56
Open Circuit Voltage Voc (V)	38.32	38.53	38.74	38.95	39.20
Short Circuit Current Isc (A)	14.00	14.08	14.16	14.24	14.28
Module Efficiency(%)	21.51	21.77	22.02	22.28	22.53

*STC (Standard Test Condition): Irradiance 1000W/m², Cell Temperature 25°C, Air Mass 1.5, Measurement Tolerance (±3.0%).

ELECTRICAL CHARACTERISTICS WITH DIFFERENT POWER GAIN @ STC(REFERENCE TO 420W FRONT)

Power Gains	5%	10%	15%	20%	25%
Max. Power Output Pmax (W)	455	477	483	504	525
Max. Power Voltage Vmp (V)	32.70	32.70	31.70	31.70	31.70
Max. Power Current Imp (A)	13.91	14.58	15.24	15.90	16.56
Open Circuit Voltage Voc (V)	38.82	38.32	39.32	39.32	39.32
Short Circuit Current Isc (A)	14.07	15.40	16.10	16.80	17.50

MECHANICAL PARAMETERS

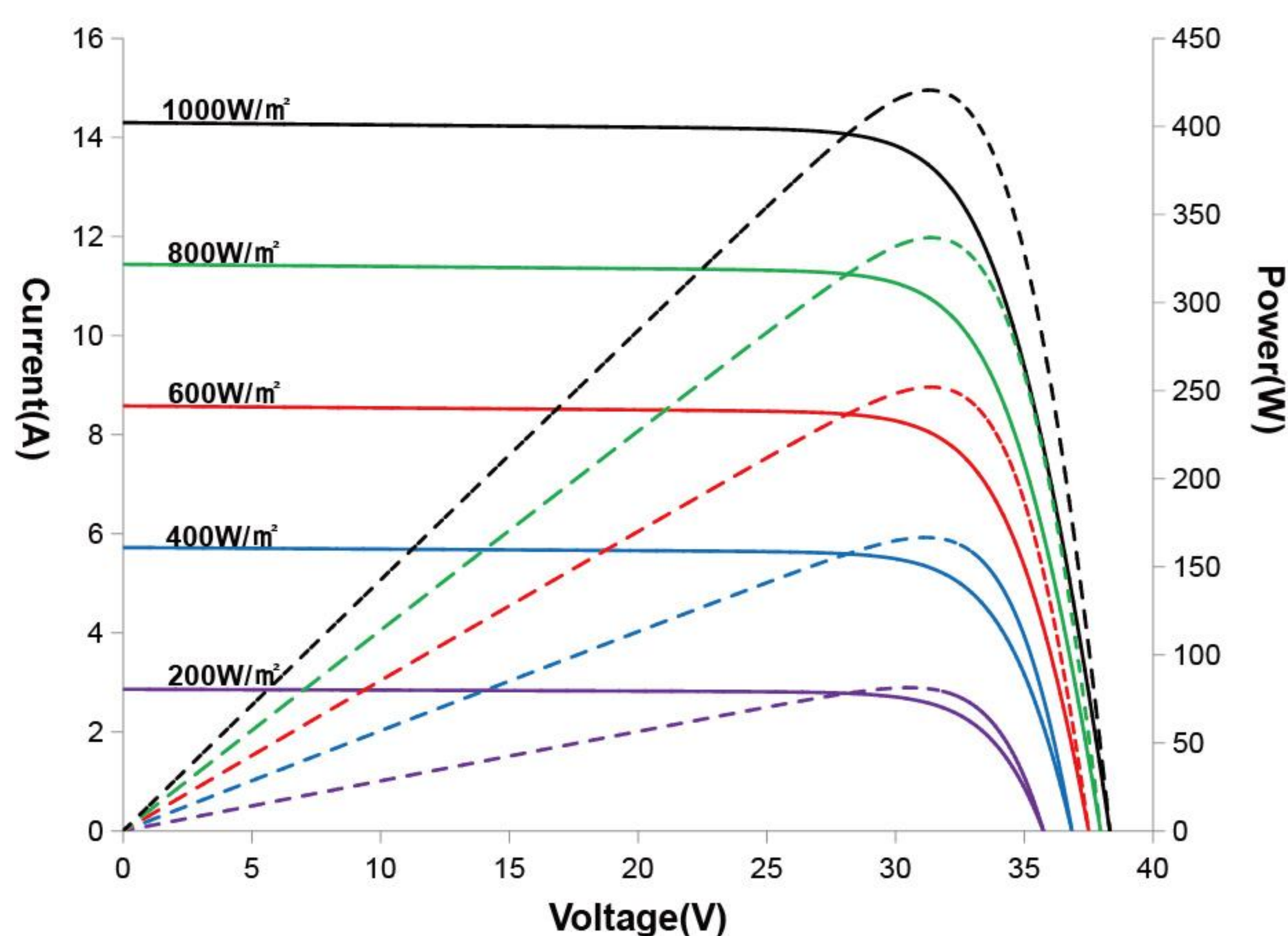
Cell Type	TOPCon 182x91mm
Number of Cells	108pcs(6x18)
Dimensions(L*W*H)	1722x1134x30mm
Weight	24.5kg
Frame	Anodised Aluminum
Junction Box	IP68, 3 bypass diodes
Cable,Length	4.0mm ² , 300mm

TEMPERATURE COEFFICIENTS

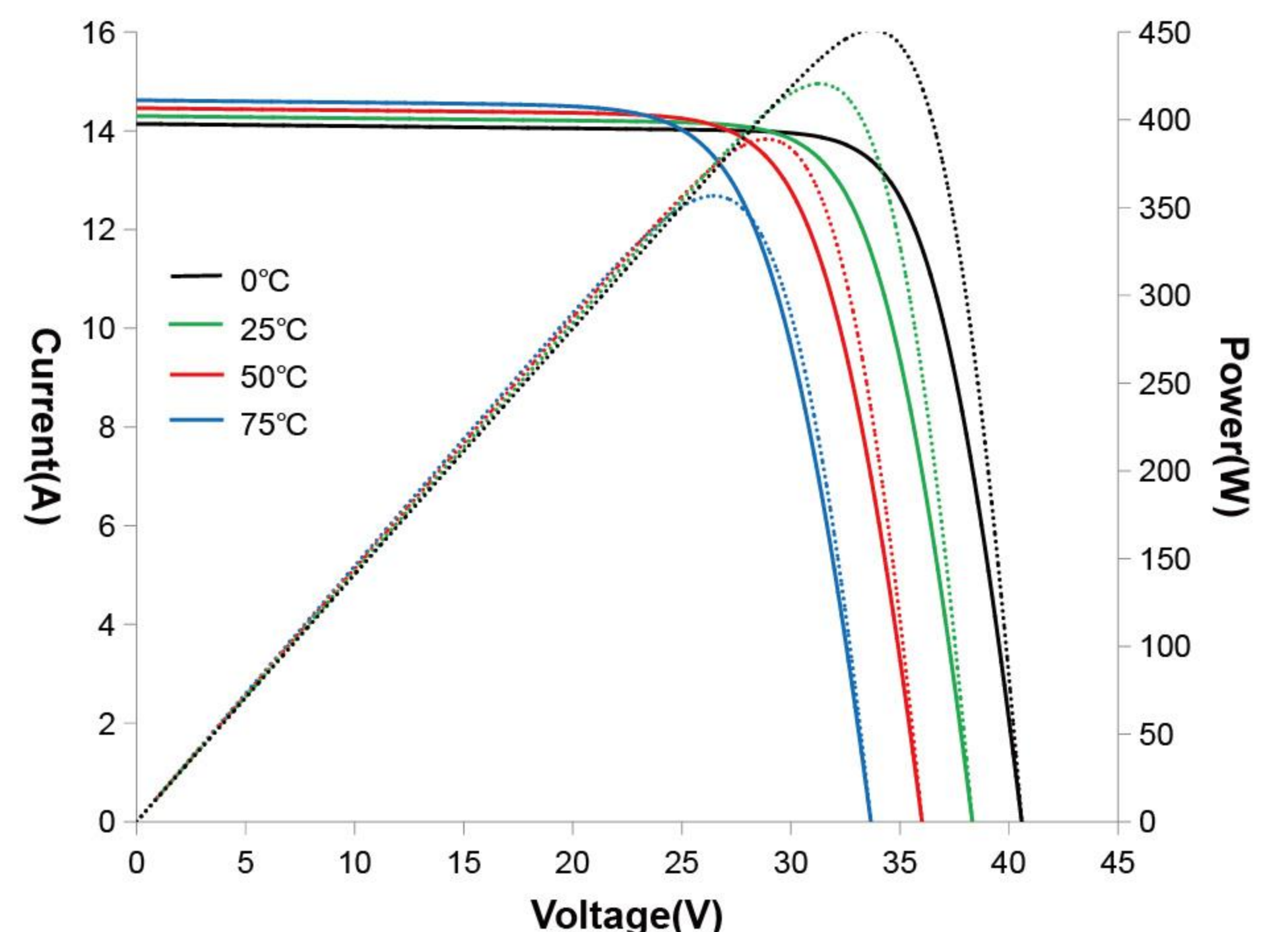
Temperature Coefficients of Pmp	-0.29%/°C
Temperature Coefficients of Voc	-0.25%/°C
Temperature Coefficients of Isc	+0.046%/°C

I-V CURVES

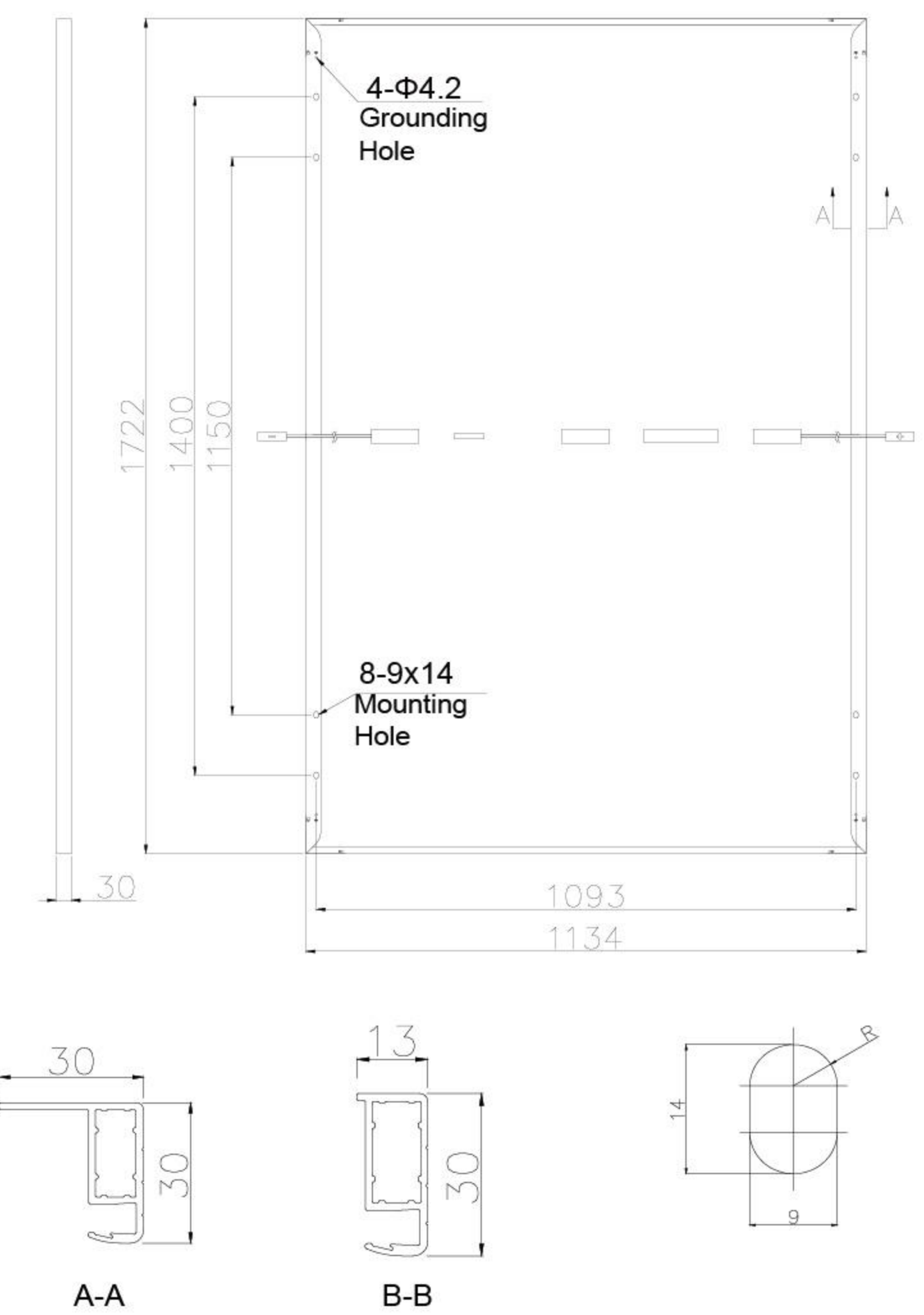
Test temperature 25°C



Irradiance: AM1.5, 1000W/m²



ASSEMBLY DRAWING (Unit:mm)



OPERATING CONDITION

Maximum System Voltage(V)	1500(DC)
Operating Temperature(°C)	-40~+85
Max.Wind Load /Snow Load(Pa)	2400/5400
Max.Series Fuse Rating(A)	30
Fire Rating	Class A
Bifaciality	80±5%
NOCT	45°C±2

PACKAGE INFORMATION

Container 40'HQ	936pcs
Quantity / Pallet	36pcs
Size: 1750×1120×1254mm; Net weight:882kg; Gross weight:924kg	