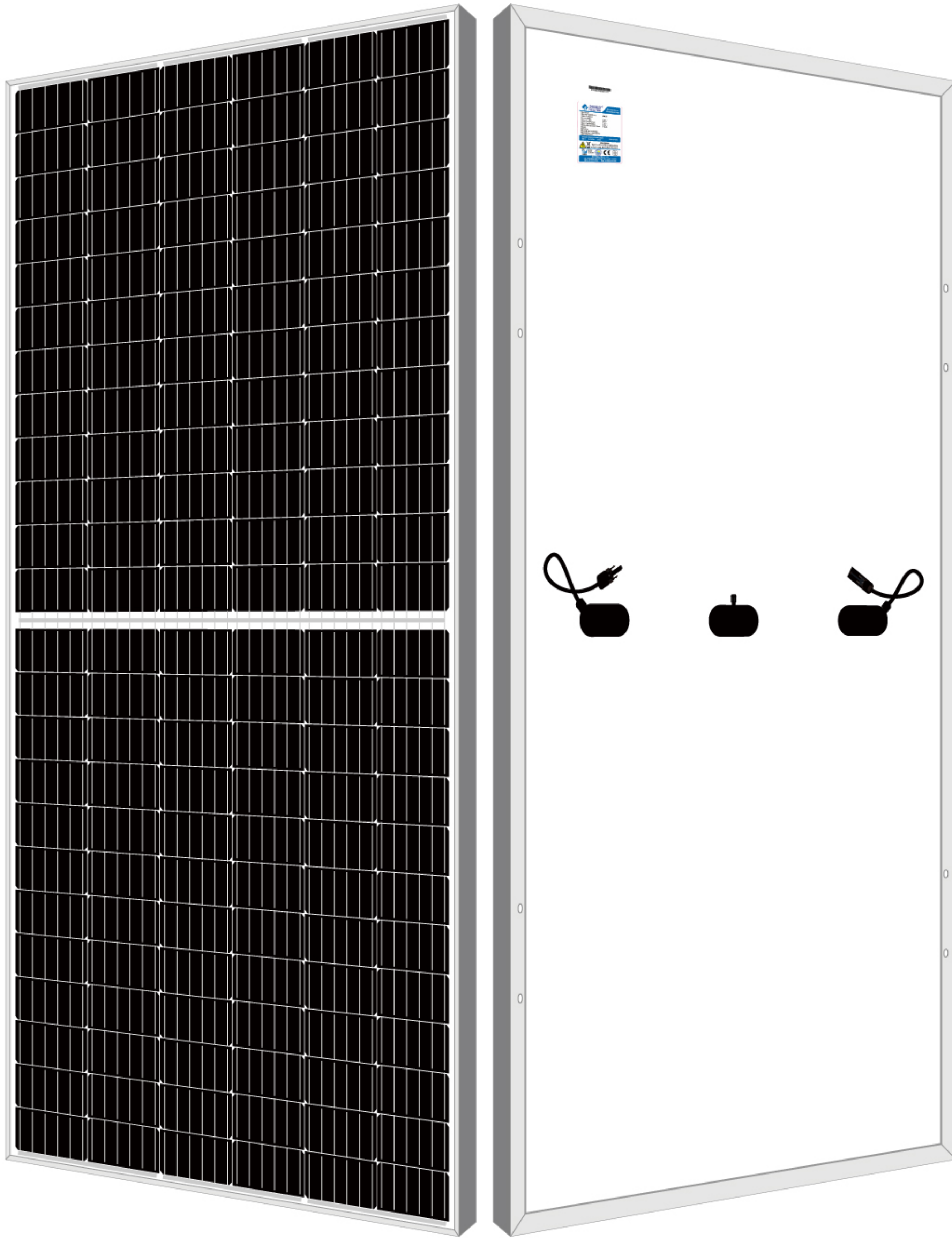




# 420~440 Watt



\*BLACK FRAME/BLACK BACK-SHEET PRODUCTS ARE AVAILABLE UPON REQUEST



## MANAGEMENT SYSTEM



ISO 9001: Quality management system



ISO 14001: Standard for environmental management system

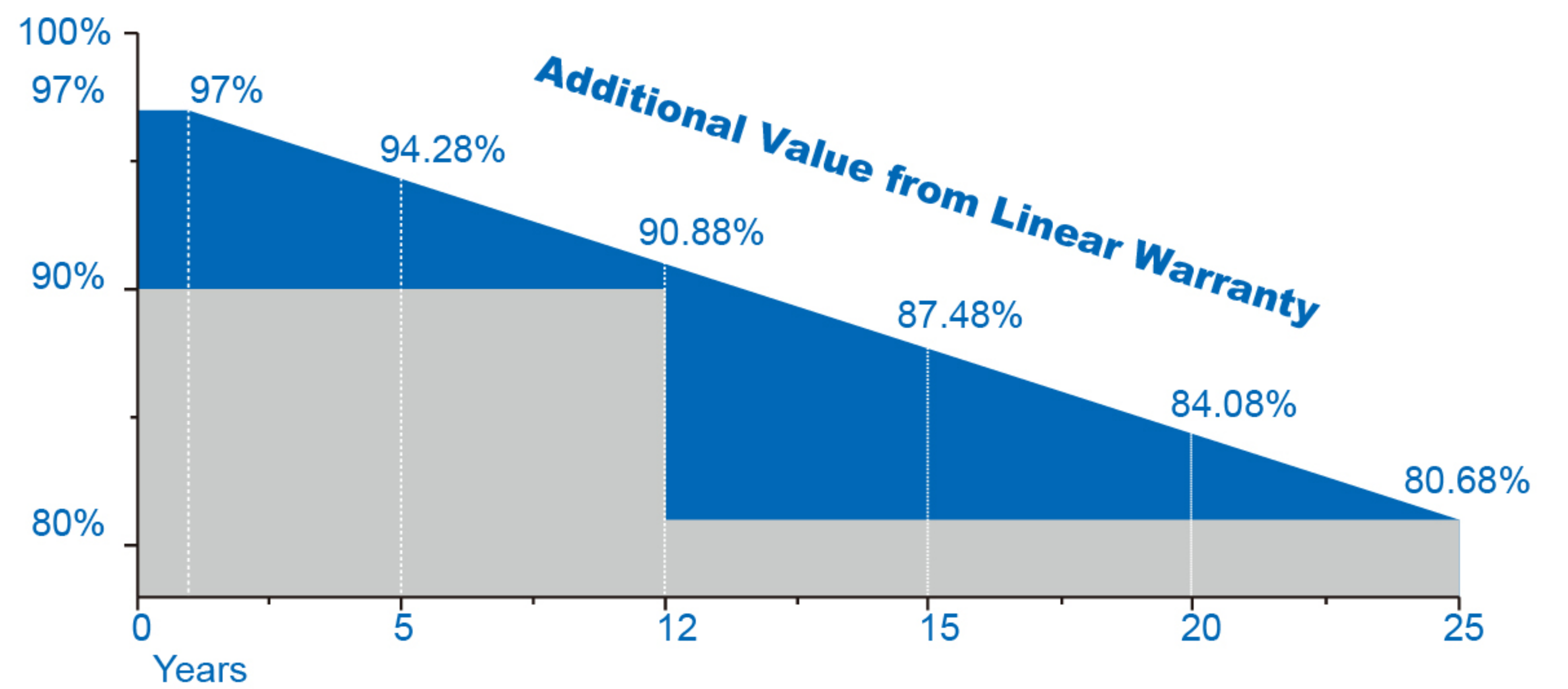


OHSAS 18001: International standard for occupational health and safety assessment system

## PRODUCT CERTIFICATES



## WARRANTY



**10** Years  
Material & Craft  
Quality  
assurance

**12** Years  
90% Output  
Power  
guarantee

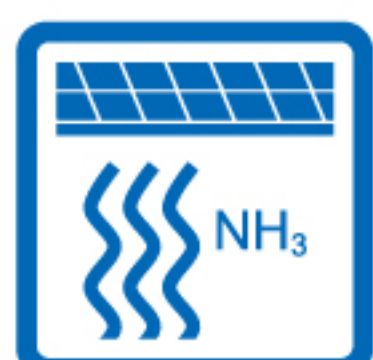
**25** Years  
80% Output  
Power  
guarantee

\*9BB (BUSBAR) PRODUCTS ARE AVAILABLE UPON REQUEST

### Safety



Safety for salt mist corrosion  
(IEC61701, tested in TUV)



Safety for ammonia corrosion  
(IEC62716, tested in TUV)



Safety for fire risk  
(Class A, tested in TUV)

### Key



High stability of the aluminium  
frame



High quality junction box and  
connector systems



100% inspection, to guarantee  
the reliability of solar systems

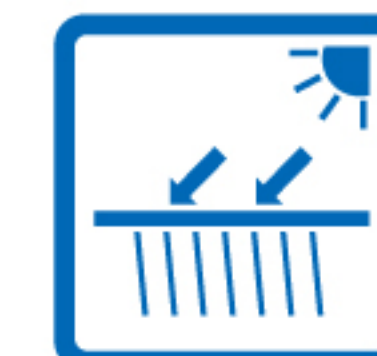
### Technology



Using high efficiency mono  
solar cells



Excellent performance in  
low-light environments



High transmissivity, low-iron  
tempered glass.

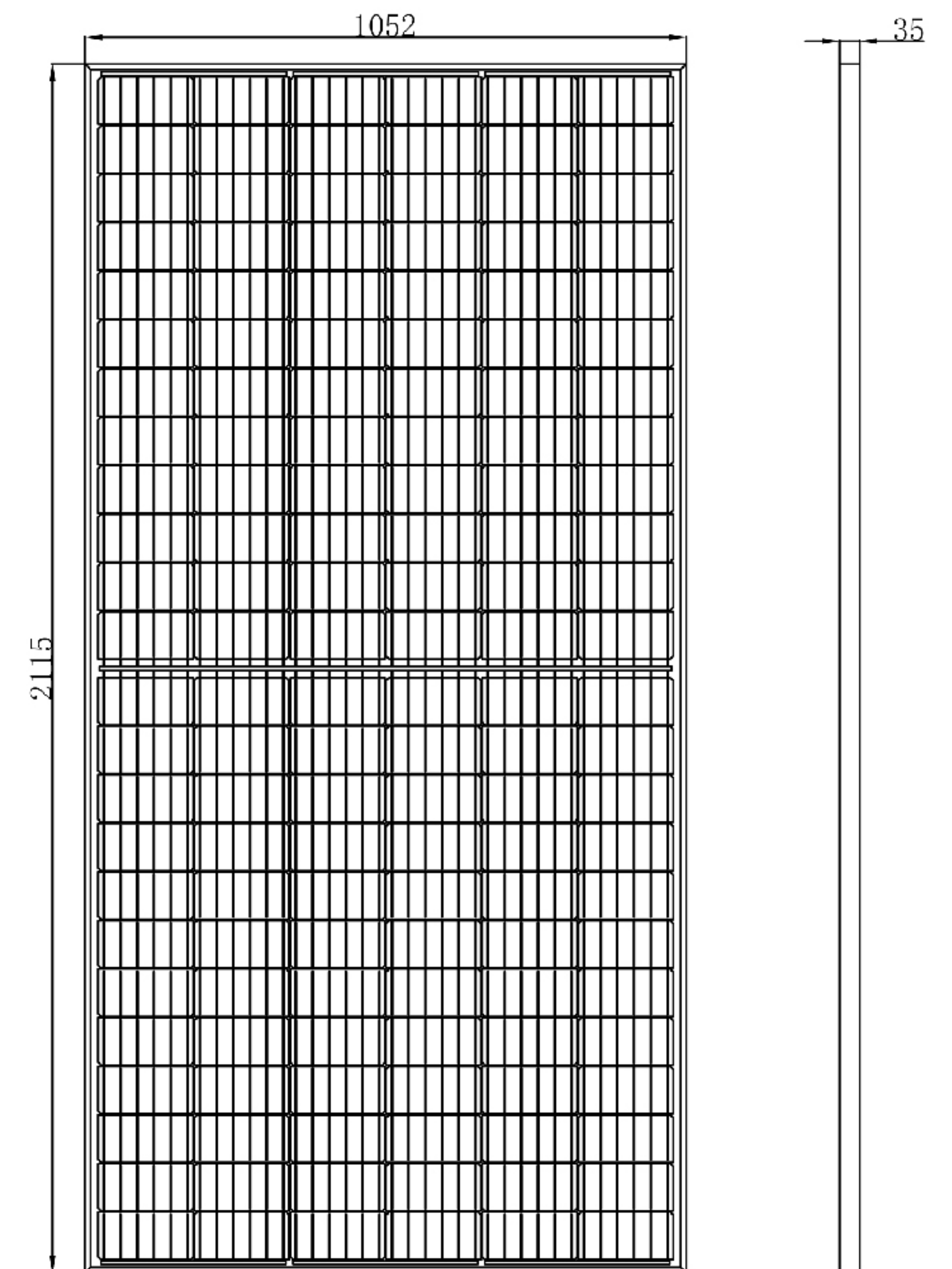


### Electrical Characteristics under STC\*

Module Type	FSM420M672HL	FSM425M672HL	FSM430M672HL	FSM435M672HL	FSM440M672HL
Maximum Power-Pmax (Wp)	420	425	430	435	440
Voltage at Maximum Power-Vmp (V)	40.2	40.4	40.6	40.8	41.0
Current at Maximum Power-Imp (A)	10.45	10.52	10.60	10.67	10.74
Open Circuit Voltage-Voc (V)	48.8	49.0	49.2	49.4	49.6
Short Circuit Voltage-Isc (A)	11.04	11.11	11.19	11.26	11.33
Module Efficiency- $\eta_m$ (%)	18.9	19.1	19.3	19.6	19.8
Power Tolerance(%)	0/+3	0/+3	0/+3	0/+3	0/+3

### Mechanical Characteristics

Cell Type	Mono-crystalline 166 × 83 mm
Number of Cells	144 (72×2)
Dimension	2115×1052×35mm
Weight	24.0kg
Front Glass	Low Iron Tempered Glass
Encapsulant	EVA
Frame	Anodized Aluminum Alloy

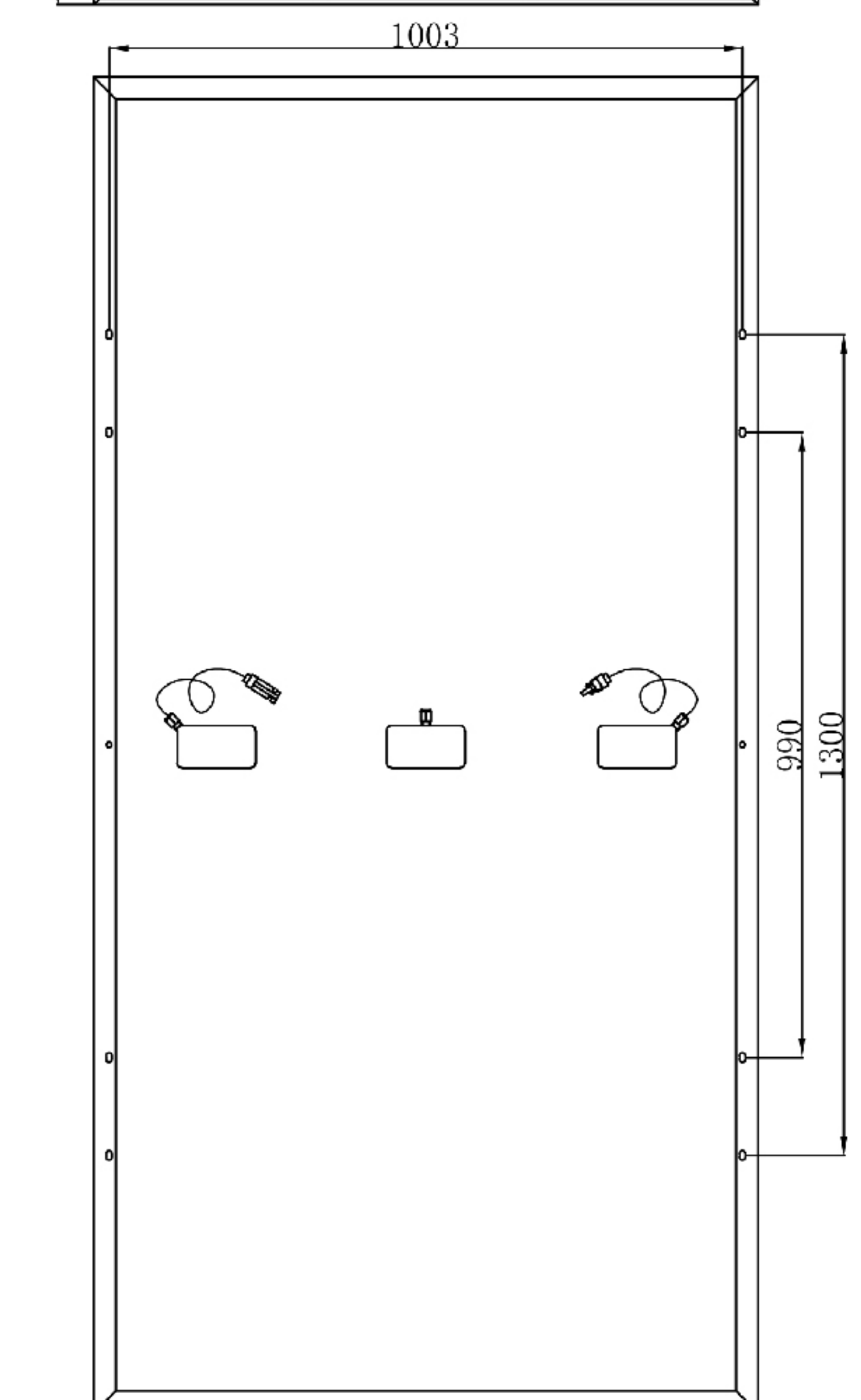


### Temperature Characteristics

NOCT*	45 ± 2°C
Temperature Coefficient of Pmax (%)	-0.370/°C
Temperature Coefficient of Voc (%)	-0.286/°C
Temperature Coefficient of Isc (%)	0.057/°C

### Maximum System Ratings

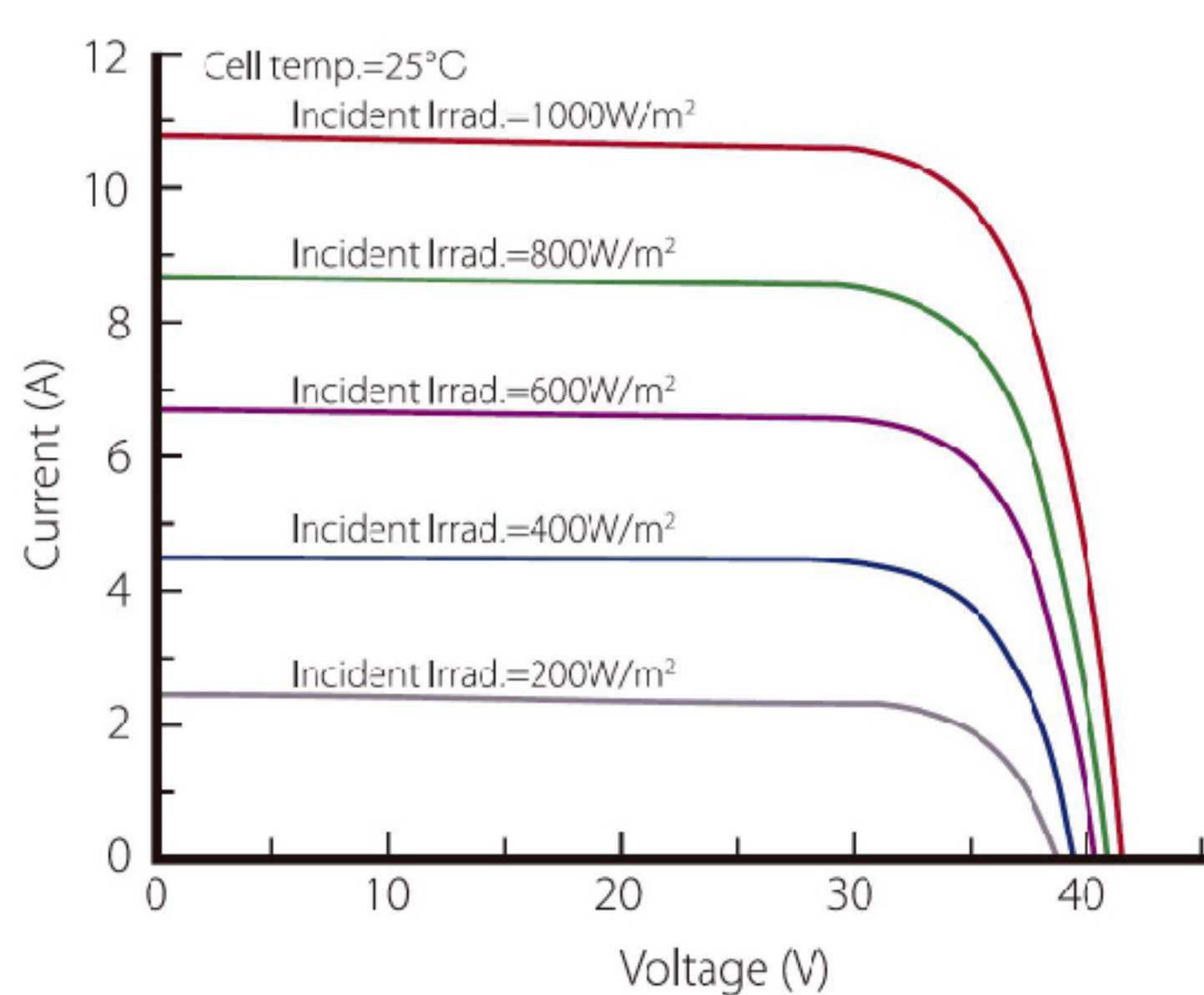
Operating Temperature	-40°C to +85°C
Maximum System Voltage	1000V DC
Maximum Series Fuse Rating	20A



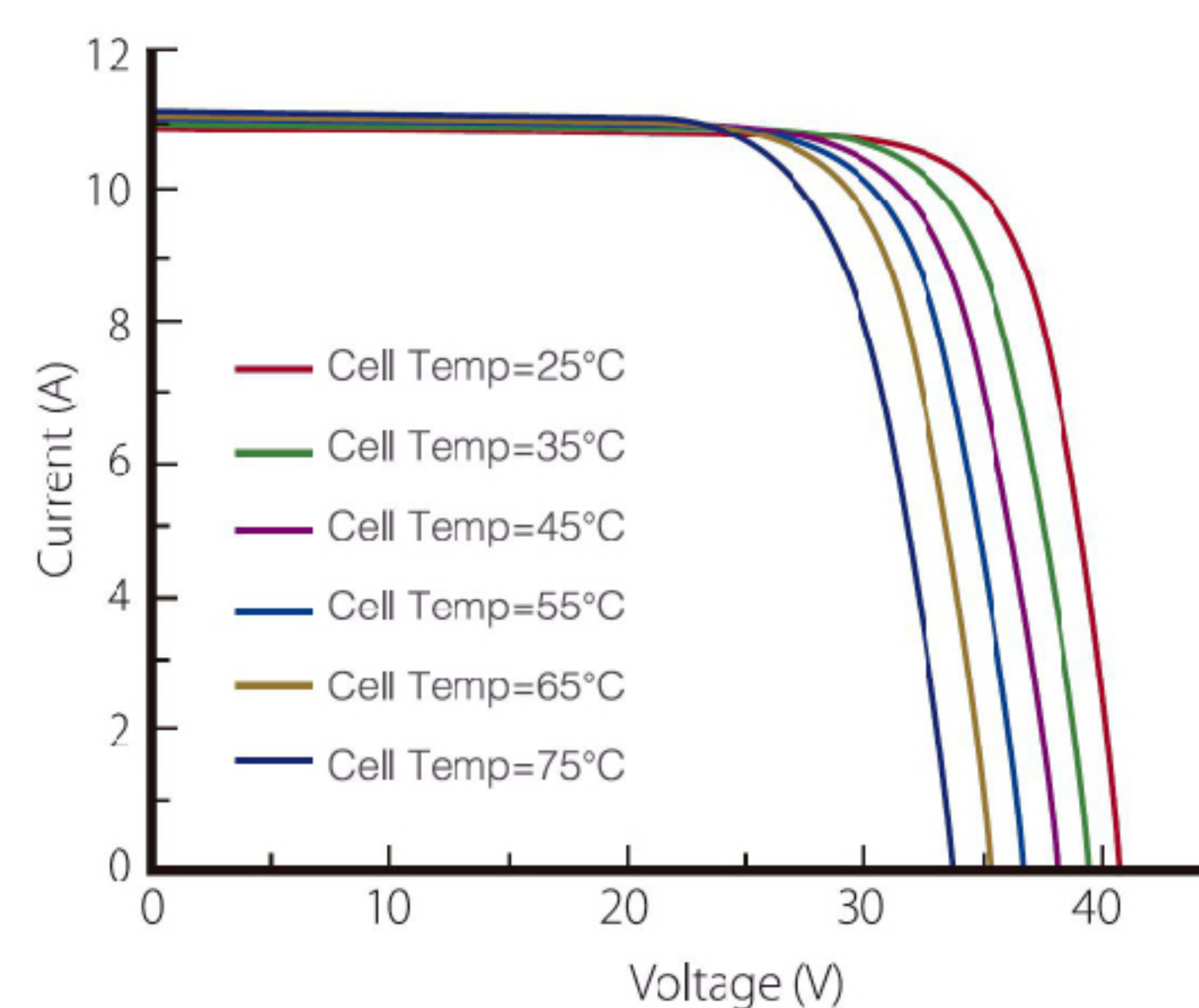
### Warranty

- 10 years product warranty
- 12 years warranty on 90% power output
- 25 years warranty on 80% power output

I-V curve under different irradiation Cell Temp:25°C



I-V curve under different temperature



\*STC (Standard Testing Conditions): Irradiance 1000W/m², cell temperature 25°C, AM=1.5 Power measurement tolerance:0~+3% Specifications are subject to change without further notification FSM-EN-2017V1.0 © Copyright 2017 Finergy