

## HiMAX 5N

# 610-640W

## SP640M-78H

N-type TOPCon Solar Module

### 10-30% Additional Power Generation

30 years lifespan brings 10-30% additional power generation comparing with conventional P-type module.

### ZERO LID (Light Induced Degradation)

N-type solar cell has no LID naturally which can increase power generation.

### Higher Reliability

Adopted SunEvo latest S-TOPCo 2.0 technology, No polysilicon wrap around, Full electrical isolation, Zero leakage current; Much Safer for roof.

### Better Weak Illumination Response

Higher power output even under low-light environments like on cloudy or foggy days.

### Better Temperature Coefficient

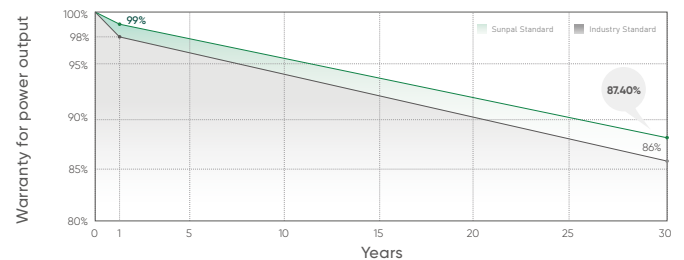
Higher power generation under working conditions, thanks to passivating contact cell technology.

### Quality Management System and Product Certification

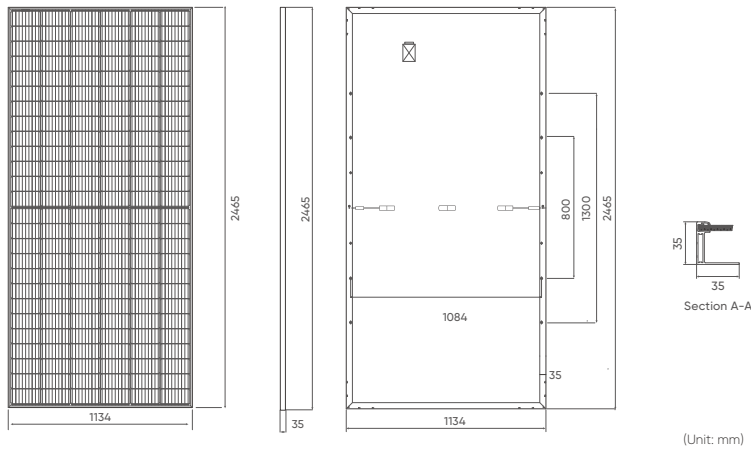
IEC61215/61730, IEC62804(PID), IEC61701(Salt),  
IEC62716 (Ammonia), IEC60068-2-68(Sand),  
ISO 9001:2015/quality management system,  
ISO 14001:2015/environmental management system,  
ISO 45001:2018/occupation health safety management system,  
ISO 50001:2011/energy management system,  
IEC TS 62941-2016/PV industry quality management system.

### Quality Guarantee

**25 YEAR** Materials Warranty      **30 YEAR** Power Warranty



Drawings



Mechanical Characteristics

Solar Cells	N-type Mono
No. of Cells	156(6×26)
Dimensions	2465 × 1134 × 35mm
Weight	30.0kg
Glass	3.2mm coated tempered glass
Frame	Anodized aluminium alloy
Junction Box	Ip68 rated (3 by pass diodes)
Output Cables	4mm <sup>2</sup> , 300mm (+) / 300mm (-), Length can be customized
Connectors	Mc4 compatible
Mechanical load test	5400Pa
Packaging	31pcs/box, 124pcs/20'GP, 496pcs/40'HQ

Electrical Parameters (STC\*)

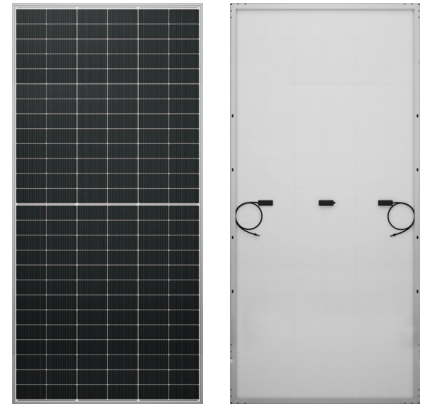
Module Type: SP640M-78H	610	615	620	625	630	635	640
Maximum power (Pmax/W)	610	615	620	625	630	635	640
Open Circuit Voltage (Voc/V)	55.25	55.40	55.55	55.70	55.84	55.98	56.12
Short Circuit Current (Isc/A)	14.10	14.17	14.24	14.31	14.38	14.45	14.52
Voltage at Maximum power (Vmpp/V)	45.73	45.86	45.99	46.13	46.26	46.39	46.52
Current Maximum Power (Impp/A)	13.34	13.41	13.48	13.55	13.62	13.69	13.76
MODULE EFFICIENCY (%)	21.82	22.00	22.18	22.36	22.54	22.72	22.90

Electrical Parameters (NMOT\*)

Maximum power (Pmax)	459	463	467	471	475	479	483
Open Circuit Voltage (Voc/V)	52.50	52.66	52.82	52.98	53.13	53.28	53.43
Short Circuit Current (Isc/A)	11.41	11.47	11.53	11.59	11.65	11.71	11.77
Voltage at Maximum power (Vmpp/V)	42.34	42.48	42.61	42.74	42.87	43.00	43.13
Current Maximum Power (Impp/A)	10.84	10.90	10.96	11.02	11.08	11.14	11.20

1. Standard Test Conditions [STC]: irradiance 1000W/m<sup>2</sup>; AM 1.5; ambient temperature 25°C according to EN 60904-3;  
 2. Nominal Module Operating Temperature (NMOT): irradiance 800W/m<sup>2</sup>; wind speed 1m/s, ambient temperature 20°C.  
 3. Tolerance of Pm: 0/+5W, Measuring uncertainty of power: ±3%. Performance deviation of Voc [V], Isc [A], Vm [V] and Im [A]: ±3%.

Product Image



Operating Characteristics

Operating Module Temperature	-40°C to +85°C
Maximum System Voltage	1500 DC (IEC)
Maximum Series Fuse Rating	25A
Power Tolerance	0/+5W

Temperature Characteristics

Nominal Operating Temperature (NMOT)	45±2°C
Temperature Coefficient of Pmax	-0.29%/°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Isc	+0.045%/°C

I-V Curve

