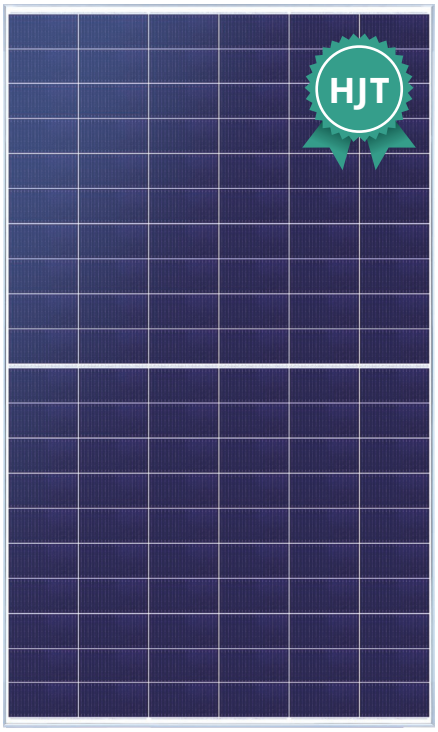


PHONO

625-645W

Helios Module Series

N-HJT HIGH EFFICIENCY MONO M12-20B-G

Bloomberg NEW ENERGY FINANCE Tier1 TOP PERFORMER 2023 PVEL kiwa PV MODULE RELIABILITY SCORECARD

Excellent Power Generation Performance

- 210mm wafer with SMBB cell technology
- Over 85% bifaciality and up to 30% additional power generation
- Competitive high-temperature performance with ameliorated temperature coefficient (-0.24%/℃)
- Better weak illumination response of HJT technology leads higher power generation

Consistent Reliability

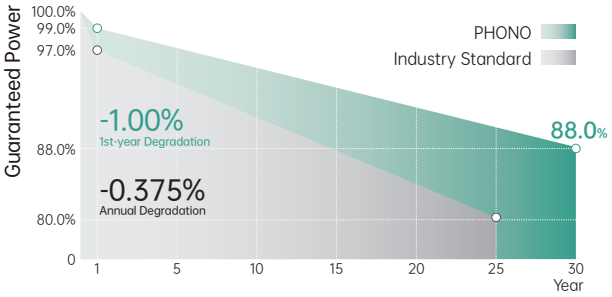
- N-type with lower LID and LeTID
- Industry-leading cell technology of TCO thin film contributes to excellent anti-PID characteristic
- Sealing with PIB based sealant to achieve stronger water resistancegreater air impermeability and longer module lifespan

Shorter Payback Time

- Lower BoS cost ensure a better LCOE

More Environmentally Friendly

- Low temperature welding technology & shorter manufacturing process contributes to lower carbon emissions



15-year
Product Warranty

30-year
Linear Performance Warranty

MANAGEMENT SYSTEM CERTIFICATES

IEC 61215, IEC 61730

ISO 9001
2015 / Quality management system

ISO 14001
2015 / Standards for environmental management system

ISO 45001
2018 / International standards for occupational health & safety

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Electrical Typical Values

Model	PS625M13GFH-20/USH		PS630M13GFH-20/USH		PS635M13GFH-20/USH		PS640M13GFH-20/USH		PS645M13GFH-20/USH	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Rated Power (Pmpp)	625	475	630	479	635	483	640	487	645	491
Rated Current (Impp)	16.51	13.31	16.57	13.36	16.63	13.41	16.69	13.45	16.75	13.50
Rated Voltage (Vmpp)	37.86	35.71	38.03	35.87	38.19	36.02	38.35	36.18	38.51	36.33
Short Circuit Current (Isc)	17.31	13.95	17.37	14.00	17.43	14.05	17.49	14.10	17.55	14.15
Open Circuit Voltage (Voc)	45.13	43.07	45.30	43.23	45.48	43.41	45.65	43.57	45.82	43.73
Module Efficiency (%)	22.08		22.26		22.44		22.61		22.79	

STC (Standard Testing Conditions): Irradiance 1000W/m², AM 1.5, Cell Temperature 25°C

NOCT (Nominal Operation Cell Temperature): Irradiance 800W/m², Ambient Temperature 20°C , Spectra at AM1.5, Wind at 1m/s

BSTC

Maximum Power (Pmax)	690	695	700	705	710
Optimum Operating Current (Impp)	18.23	18.28	18.33	18.39	18.44
Optimum Operating Voltage (Vmpp)	37.86	38.03	38.19	38.35	38.51
Short Circuit Current (Isc)	19.11	19.16	19.21	19.27	19.32
Open Circuit Voltage (Voc)	45.13	45.30	45.48	45.65	45.82

BSTC:Front Side Irradiation 1000W/m², Back Side Reflection Irradiation 135W/m² , AM 1.5, Ambient Temperature 25°C

Mechanical Characteristics

Cell Type	HJT Monocrystalline
Dimension (L × W × H)	Length: 2172mm (85.51 inch) Width: 1303mm (51.30 inch) Height: 35mm (1.38 inch)
Weight	35.3kg (77.82 lbs)
Glass	2.0mm/2.0mm toughened glass
Frame	Anodized Aluminium Alloy
Cable (Including Connector)	4mm² (IEC), (+): 300mm,(-): 300mm or Customized Length
Junction Box	IP 68 Rated

Temperature Ratings

Voltage Temperature Coefficient	-0.24%/°C
Current Temperature Coefficient	+0.04%/°C
Power Temperature Coefficient	-0.24%/°C
Power Tolerance	0~+3%
NOCT	44±2°C
Bifaciality	85±5%

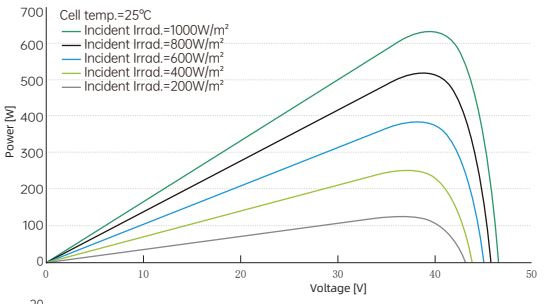
Absolute Maximum Rating

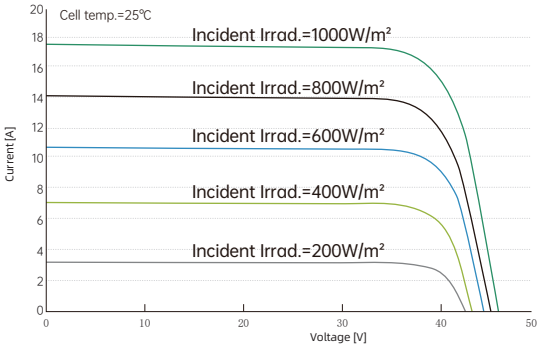
Operating Temperature	From -40 to + 85°C
Hail Diameter @ 80km/h	Up to 25mm
Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Maximum Series Fuse Rating	30A
PV Module Classification	II
Fire Rating (IEC 61730)	C
Maximum System Voltage	DC 1500V

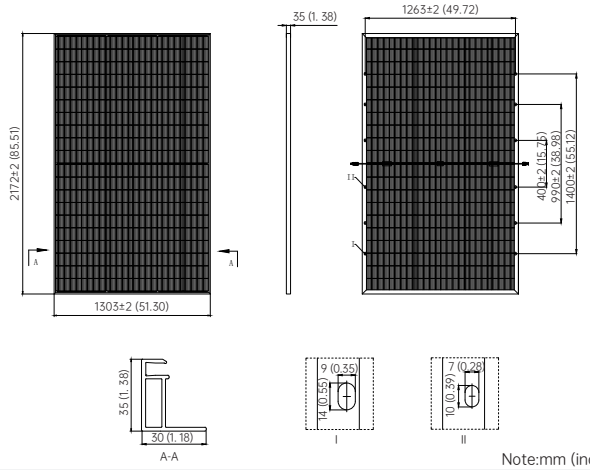
Packing Configuration

Container	40' HQ
Pieces/Container	558
Pcs/Pallet	31
Pallets/Container	18

Electrical Characteristics







Note:mm (inch)

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