

G12R-66P

N-type Bifacial Double Glass Module

HSM-ND66-GR620~645

645W

Maximum Power Output

23.9%

Maximum Efficiency



Superior Customer Value

- Container space utilization saves shipping costs
- Low-voltage design optimizes BOS cost



High Energy Yield

- Consistent high yield in varying conditions
- Enhanced thermal resistance and bifacial power generation



Long-term Reliability

- Resistant to harsh environmental conditions

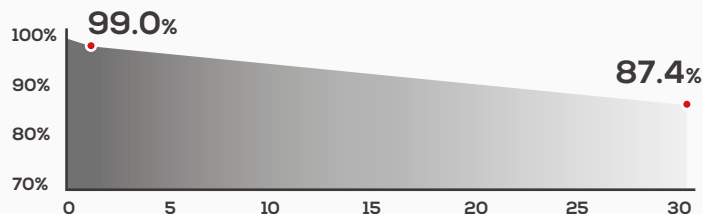
Linear Performance Warranty



15 Years
Product Warranty



30 Years Linear
Performance Warranty



Comprehensive Products and System Certificates



IEC 61215 / IEC 61730 ISO 9001:2015 ISO 45001:2018 ISO 14001:2015

Electrical Parameters (STC* & BNPI*)

* STC: Irradiance 1000W/m², Cell Temperature 25°C, AM1.5, Measuring Tolerance: ±2%* BNPI: Back Irradiance 135W/m², Cell temperature 25°C, Atmospheric quality AM 1.5G, Wind speed 1m/s

Testing Condition		STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI
Maximum Power	P _{max} (W)	620	685	625	690	630	695	635	701	640	706
Open Circuit Voltage	V _{oc} (V)	48.94	49.11	49.16	49.30	49.38	49.50	49.60	49.74	49.82	49.96
Short Circuit Current	I _{sc} (A)	16.05	17.73	16.10	17.77	16.14	17.81	16.18	17.86	16.22	17.90
Maximum Power Voltage	V _{mp} (V)	40.98	41.00	41.18	41.20	41.40	41.40	41.62	41.63	41.84	41.82
Maximum Power Current	I _{mp} (A)	15.13	16.71	15.18	16.75	15.22	16.79	15.26	16.84	15.30	16.88
Module Efficiency	(%)	23.0		23.1		23.3		23.5		23.7	

Electrical Characteristics with 10% Bifacial Gain*

* The additional gain from the back side depends on mounting (structure, height, tilt angle etc.) and albedo of the ground

Maximum Power	P _{max} (W)	682	688	693	699	704	710
Open Circuit Voltage	V _{oc} (V)	48.94	49.16	49.38	49.60	49.82	50.04
Short Circuit Current	I _{sc} (A)	17.66	17.71	17.75	17.80	17.84	17.89
Maximum Power Voltage	V _{mp} (V)	40.98	41.18	41.40	41.62	41.84	42.06
Maximum Power Current	I _{mp} (A)	16.64	16.70	16.74	16.79	16.83	16.87

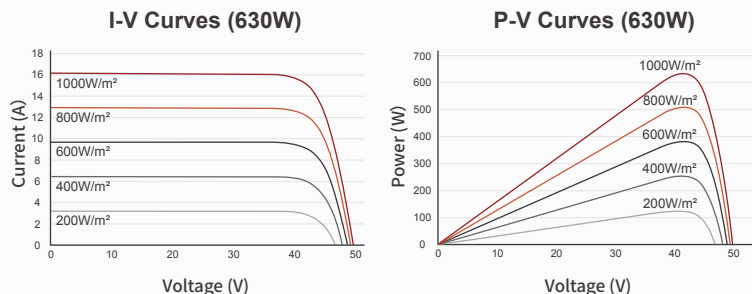
Temperature Coefficient

Nominal Module Operating Temperature*	43±2°C
Temperature Coefficient of I _{sc}	+0.045%/°C
Temperature Coefficient of V _{oc}	-0.24%/°C
Temperature Coefficient of P _{max}	-0.28%/°C

Operating Parameters

Operating Temperature	-40~+85°C
Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	30A
Power Bifaciality	80±5%

Curve Graph



Engineering Drawing

[Unit: mm]

Mechanical Data

* Please refer to installation manual for details

No. of Cells	132pcs (6×22)
Dimension	2382×1134×30 mm
Weight	32.6 kg ±3%
Front Glass	2.0mm, Heat Strengthened, AR coating Glass
Back Glass	2.0mm, Heat Strengthened Glass
Frame	Anodized Aluminium Alloy
J-Box	IP68, three diodes
Cables	4.0mm ² , +300mm, -200mm (can be customized)
Maximum Static Load	Front: 5400Pa/Back: 2400Pa*
Fire Rating	IEC Class C

Packaging Configuration

Modules per Pallet	36pcs
Modules per 40'HQ Container	720pcs
Pallets per 40'HQ Container	20pcs

