

G12R-66P

N-type Bifacial Double Glass Module

HSM-BD66-GR635~670

670W

Maximum Power Output

24.8%

Maximum Efficiency



Higher energy density;
lower operating temperature



Lower hotspot temperature;
reduce risk of micro-cracks



Refined design,
Busbar-free front side



Comprehensive supply chain integration,
redefining BC standards

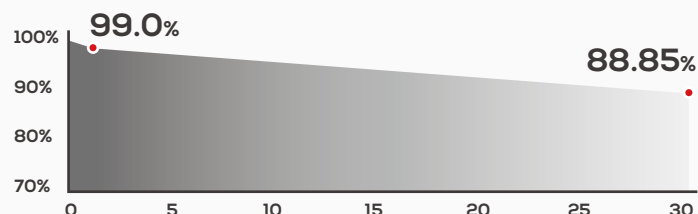
Linear Performance Warranty



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	STC	BNPI	STC	BNPI
Maximum Power	P _{max} (W)	635	685	640	690	645	695	650	700	655	705	660	710	665	715
Open Circuit Voltage	V _{oc} (V)	49.00	49.00	49.10	49.10	49.20	49.20	49.30	49.30	49.40	49.40	49.50	49.50	49.60	49.70
Short Circuit Current	I _{sc} (A)	16.41	17.55	16.48	17.62	16.55	17.69	16.62	17.76	16.69	17.83	16.76	17.90	16.83	18.04
Maximum Power Voltage	V _{mp} (V)	41.70	41.70	41.80	41.80	41.90	41.90	42.00	42.00	42.10	42.10	42.20	42.20	42.30	42.40
Maximum Power Current	I _{mp} (A)	15.23	16.43	15.32	16.51	15.40	16.59	15.48	16.67	15.56	16.75	15.65	16.83	15.73	16.91
Module Efficiency	(%)	23.5		23.7		23.9		24.1		24.2		24.4		24.6	

Electrical Characteristics with Different Bifacial Gain*

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

Bifacial Gain		5%	10%	5%	10%	5%	10%	5%	10%	5%	10%	5%	10%	5%	10%
Maximum Power	P _{max} (W)	667	699	672	704	677	710	683	715	688	721	693	726	698	737
Open Circuit Voltage	V _{oc} (V)	49.00	49.00	49.10	49.10	49.20	49.20	49.30	49.30	49.40	49.40	49.50	49.50	49.60	49.70
Short Circuit Current	I _{sc} (A)	17.23	18.05	17.30	18.13	17.38	18.21	17.45	18.28	17.52	18.36	17.60	18.44	17.67	18.59
Maximum Power Voltage	V _{mp} (V)	41.70	41.70	41.80	41.80	41.90	41.90	42.00	42.00	42.10	42.10	42.20	42.20	42.30	42.40
Maximum Power Current	I _{mp} (A)	15.99	16.75	16.09	16.85	16.17	16.94	16.25	17.03	16.34	17.12	16.43	17.22	16.52	17.39

Temperature Coefficient

Nominal Module Operating Temperature*	43±2°C
Temperature Coefficient of I _{sc}	+0.05%/°C
Temperature Coefficient of V _{oc}	-0.22%/°C
Temperature Coefficient of P _{max}	-0.26%/°C

Operating Parameters

Operating Temperature	-40~+85°C
Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	25A
Power Bifaciality	75±5%

Mechanical Data

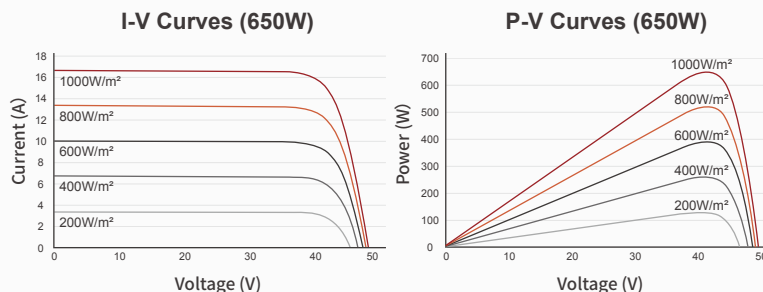
* Please refer to installation manual for details

No. of Cells	132pcs (6×22)
Dimension	2382×1134×30 mm
Weight	32.5kg ±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 , +350mm, -280mm (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

Curve Graph



Engineering Drawing

[Unit: mm]

