GCL-NT12R/54GDF

490-510W

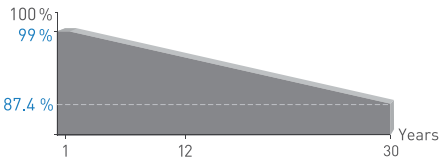
Bifacial Dual Glass Monocrystalline Module

510W	22.92%	0~+5W
Maximum Power Output	Maximum Module Efficiency	Power Output Guarantee

GCL Delivers Reliable Performance Over Time

- World-class manufacturer of crystalline silicon photovoltaic modules
- Fully automatic facility and world-class technology
- Rigorous quality control to meet the highest standard: ISO 9001, ISO 14001 and ISO 45001
- Tested for harsh environments (salt mist, ammonia corrosion and sand blowing test: IEC 61701, IEC 62716, DIN EN 60068-2- 68)
- Long term reliability tests
- 2×100% EL inspection ensuring defect-free modules

Linear Performance Warranty



12 Year Product Warranty

30 Year Linear Power Warranty

0.40% Annual Degradation Over 30 years

* Please refer to GCL standard warranty for details

SMBB metallization technology allows more micro-crack and 0ff-grid to improve reliability;

Higher product power, lower LCOE, improve project yield

N-type wafer, high quality passivation, lower Lid/Letid and annual degradation

sand blowing, salt mist and ammonia test passed to endure harsh environment

Optimized encapsulating material and strict process control ensure PID resistance

Non-destructive cutting technology to reduce the risk of micro-cracks

Additional Insurance Backed by Swiss RE

* Please refer to GCL for details

GCL

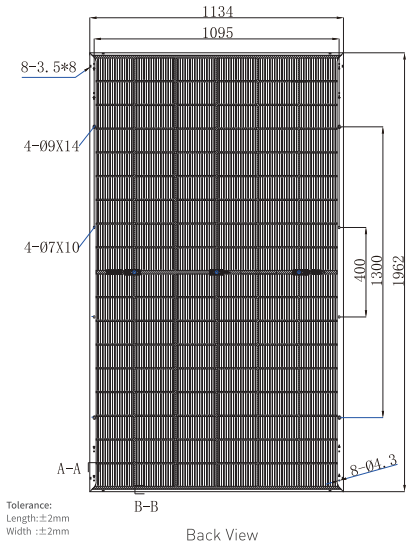
Bifacial Dual Glass Monocrystalline Module | GCL-NT12R/54GDF | 490-510 W

Electrical Specification (STC*)

Maximum Power	Pmax(W)	490	495	500	505	510
Maximum Power Voltage	Vmp(V)	32.76	32.96	33.16	33.36	33.55
Maximum Power Current	Imp(A)	14.96	15.02	15.08	15.14	15.20
Open Circuit Voltage	Voc(V)	39.00	39.15	39.30	39.45	39.60
Short Circuit Current	Isc(A)	15.76	15.82	15.88	15.94	16.00
Module Efficiency	(%)	22.02	22.25	22.47	22.70	22.92

* Irradiance 1000W/m², Cell Temperature 25°C, Air Mass 1.5

Module Dimension



Back View

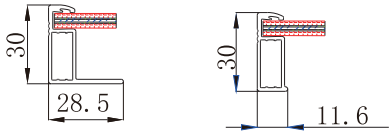
Electrial characteristics with different power bin (reference to 10% Irradiance ratio on module rear)

Maximum Power	Pmax (W)	529.4	534.6	540.2	545.4	550.9
Maximum Power Voltage	Vmp (V)	32.76	32.96	33.16	33.36	33.55
Maximum Power Current	Imp (A)	16.16	16.22	16.29	16.35	16.42
Open Circuit Voltage	Voc(V)	39.00	39.15	39.30	39.45	39.60
Short Circuit Current	Isc (A)	17.02	17.09	17.15	17.22	17.28

Mechanical Data

Number of Cells	108 Cells (6×18)
Dimensions of Module L*W*H (mm)	1962×1134×30mm (77.24×44.65×1.18 inches)
Weight (kg)	27.3kg
Front Side Glass	High transparency solar glass 2.0mm
Back Side Glass	High transparency solar glass 2.0mm
Frame	Anodized aluminium alloy
J-Box	IP68 Rated
Cable	4.0mm² , Portrait: +300/-200mm length can be customized
Number of diodes	3
Wind/ Snow Load	2400Pa/ 5400Pa*
Connector	MC Compatible
Bifaciality(%)	80±5

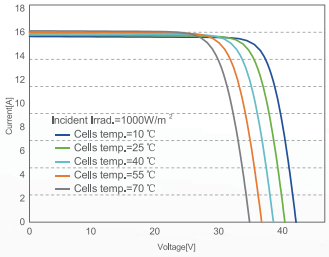
* For more details please check the installation manual of GCLSI



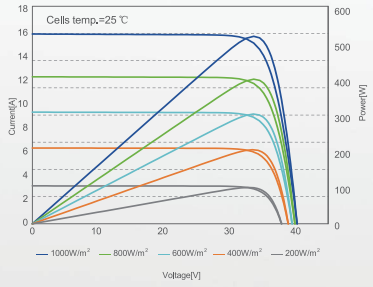
Long Frame
A-A

Short Frame
B-B

I-V Curve at Different Temperature (510W)



I-V/P-V Curve at Different Irradiation (510W)



Temperature Ratings

Temperature Coefficient of Isc	+0.045%/°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Pmax	-0.29%/°C

Maximum Ratings

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC
Max Series Fuse Rating	35A

Packaging Configuration

Module per box	36 pieces
Module per 40' HQ	864 pieces

Optional

Connector:	☐ Original MC4

CAUTION: READ INSTALLATION MANUAL BEFORE USING THE PRODUCT

Contact Us for More Information

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