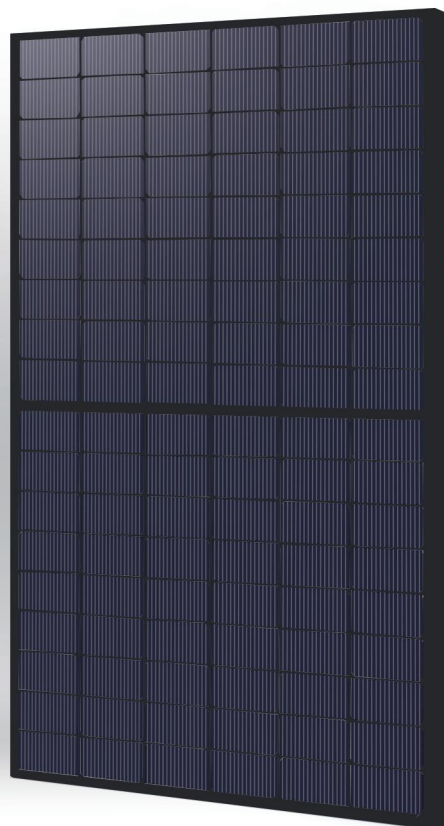


GCL- NT12R/54BGDF

485-505W

**Bifacial Dual Glass
Monocrystalline Module**



505W

Maximum Power
Output

22.70%

Maximum Module
Efficiency

0~+5W

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
- 2x100% EL inspection ensuring defect-free modules



SMBB metallization technology allows more micro-crack and Off-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

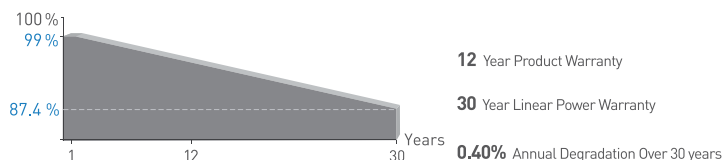


Optimized encapsulating material and strict process control ensure PID resistance



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

Linear Performance Warranty



* Please refer to GCL standard warranty for details

Additional Insurance Backed by Swiss RE

* Please refer to GCL for details



Electrical Specification (STC*)

Maximum Power	P _{max} [W]	485	490	495	500	505
Maximum Power Voltage	V _{mp} [V]	33.06	33.34	33.63	33.92	34.22
Maximum Power Current	I _{mp} [A]	14.67	14.70	14.72	14.74	14.76
Open Circuit Voltage	V _{oc} [V]	39.45	39.74	40.03	40.32	40.61
Short Circuit Current	I _{sc} [A]	15.35	15.38	15.40	15.42	15.44
Module Efficiency	(%)	21.80	22.02	22.25	22.47	22.70

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

Electrical Specification (NOCT*)

Maximum Power	P _{max} [W]	365.8	369.4	373.0	376.5	380.1
Maximum Power Voltage	V _{mp} [V]	31.08	31.33	31.58	31.83	32.08
Maximum Power Current	I _{mp} [A]	11.77	11.79	11.81	11.83	11.85
Open Circuit Voltage	V _{oc} [V]	37.18	37.45	37.72	37.99	38.26
Short Circuit Current	I _{sc} [A]	12.37	12.38	12.39	12.40	12.41

* Irradiance 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s

Electrical characteristics with different power bin (reference to 10% Irradiance ratio)

Maximum Power	P _{max} [W]	523.7	529.4	534.7	540.0	545.5
Maximum Power Voltage	V _{mp} [V]	33.06	33.34	33.63	33.92	34.22
Maximum Power Current	I _{mp} [A]	15.84	15.88	15.90	15.92	15.94
Open Circuit Voltage	V _{oc} [V]	39.45	39.74	40.03	40.32	40.61
Short Circuit Current	I _{sc} [A]	16.58	16.61	16.63	16.65	16.68

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	4.0mm ² , 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

Temperature Ratings

Nominal Operating Cell Temperature (NOCT)	45±2°C
Temperature Coefficient of I _{sc}	+0.045%/°C
Temperature Coefficient of V _{oc}	-0.25%/°C
Temperature Coefficient of P _{max}	-0.29%/°C

Packaging Configuration

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

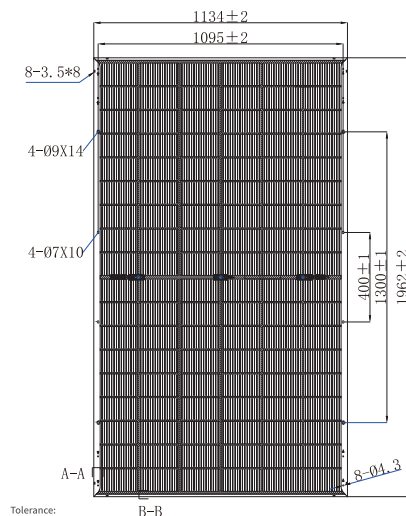
Maximum Ratings

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

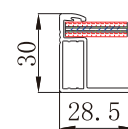
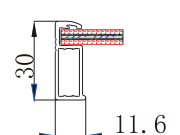
Optional

Connector: ☐ Original MC4

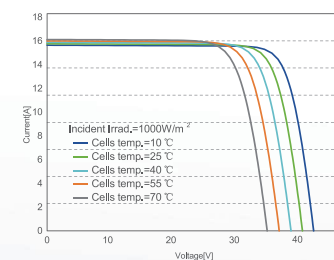
Module Dimension

Tolerance:
Length:±2mm
Width :±2mm

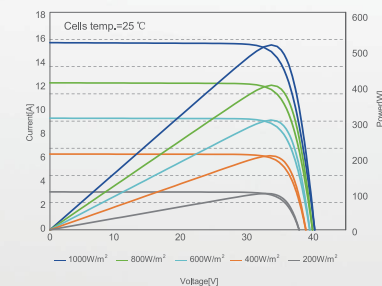
Back View

Long Frame
A-AShort Frame
B-B

I-V Curve at Different Temperature (505W)



I-V/P-V Curve at Different Irradiation (505W)



CAUTION: READ INSTALLATION MANUAL BEFORE USING THE PRODUCT

Contact Us for More Information

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