

GCL- NT12R/66GDF

595-620W

**Bifacial Dual Glass
Monocrystalline Module**



620W

Maximum Power
Output

22.95%

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



Ideal choice for large
scale ground installation



Non-destructive cutting,
reduce potential micro crack
risk

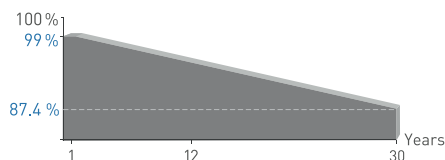


Sand blowing test, salt
mist test and ammonia
test passed to endure
harsh environments



N type technology: The
N-type module has better
reliability and lower
LID/LETID

Linear Performance Warranty



12 Year Product Warranty

30 Year Linear Power Warranty

0.40% Annual Degradation Over 30 years



Selected encapsulating
material and stringent
production process control
ensure the product is highly
PID resistant and snail
trails free



Large size silicon wafer
module can reduce the cost of
PV support bracket, combining
manifolds, cable, land and so
on, thus thinning the LCOE

* 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]	595	600	605	610	615	620
Maximum Power Voltage	V _{mp} [V]	39.94	40.14	40.34	40.53	40.73	40.93
Maximum Power Current	I _{mp} [A]	14.90	14.95	15.00	15.05	15.10	15.15
Open Circuit Voltage	V _{oc} [V]	47.65	47.80	47.95	48.10	48.25	48.40
Short Circuit Current	I _{sc} [A]	15.70	15.75	15.80	15.85	15.90	15.95
Module Efficiency	(%)	22.03	22.21	22.40	22.58	22.77	22.95

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

Electrical Specification (NOCT*)

Maximum Power	P _{max} [W]	447.5	451.0	454.4	457.8	461.3	464.8
Maximum Power Voltage	V _{mp} [V]	37.42	37.58	37.74	37.90	38.06	38.22
Maximum Power Current	I _{mp} [A]	11.96	12.00	12.04	12.08	12.12	12.16
Open Circuit Voltage	V _{oc} [V]	44.88	45.02	45.16	45.30	45.44	45.58
Short Circuit Current	I _{sc} [A]	12.68	12.72	12.76	12.80	12.84	12.88

* 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]	642.6	648.3	653.5	658.6	664.3	669.6
Maximum Power Voltage	V _{mp} [V]	39.94	40.14	40.34	40.53	40.73	40.93
Maximum Power Current	I _{mp} [A]	16.09	16.15	16.20	16.25	16.31	16.36
Open Circuit Voltage	V _{oc} [V]	47.65	47.80	47.95	48.10	48.25	48.40
Short Circuit Current	I _{sc} [A]	16.96	17.01	17.06	17.12	17.17	17.23

Mechanical Data

Number of Cells	132 Cells (6×22)
Dimensions of Module L*W*H (mm)	2382×1134×30mm (93.78×44.65×1.18 inches)
Weight (kg)	32.6 kg
Front Side Glass	2.0mm (0.08 inches), Heat strengthened glass
Back Side Glass	2.0mm (0.08 inches), Heat strengthened glass
Frame	Anodized aluminium alloy
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

Maximum Ratings

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

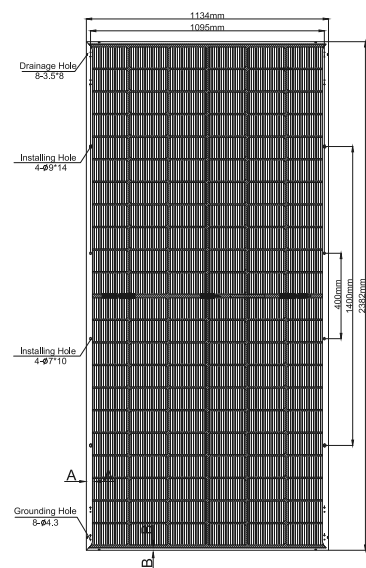
Optional

Connector: ☐ Original MC4

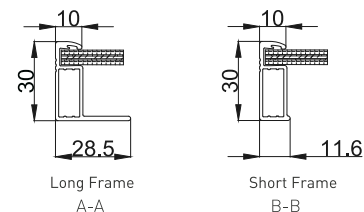
Packaging Configuration

Module per box	36 pieces
Module per 40' container	720 pieces

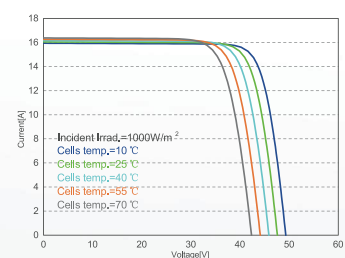
Module Dimension



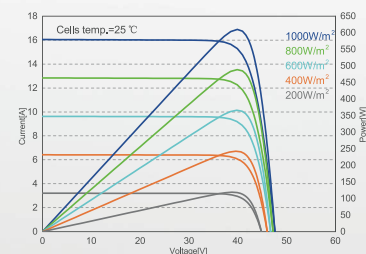
Back View



I-V Curve at Different Temperature (620W)



I-V/P-V Curve at Different Irradiation (620W)



CAUTION: READ INSTALLATION MANUAL BEFORE USING THE PRODUCT

Contact Us for More Information

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