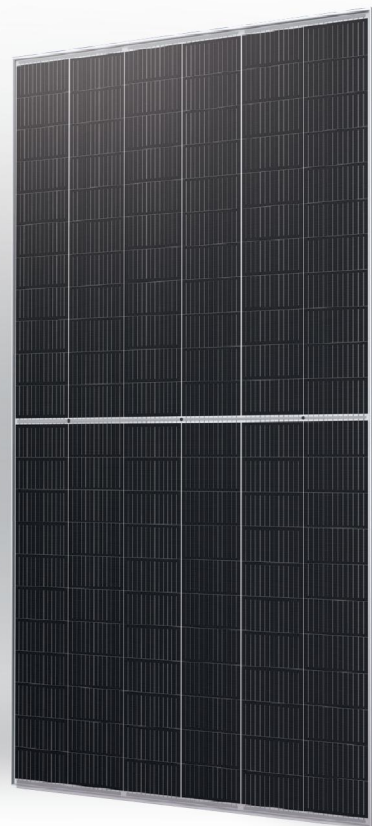


GCL- NT12R/66GDF

605-620W

**Bifacial Dual Glass
Monocrystalline Module**



620W

Maximum Power Output

23.0%

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

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



N type Technology: The N-type Module has better reliability and lower LID/Letid



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

Comprehensive System and Product Certifications

IEC61215, IEC61730

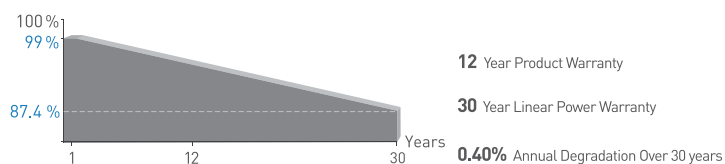
ISO9001:2015 Quality management systems

ISO14001:2015 Environmental management systems

ISO45001:2018 Occupational health and safety management systems

IEC62941:2019 Terrestrial photovoltaic (PV modules - Quality system for PV module manufacturing)

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 & BNPI) | GCL-NT12R/66GDF xxx(xxx=605-620)

Testing Conditions		STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI
Maximum Power	P _{max} (W)	605	665	610	670	615	675	620	680
Maximum Power Voltage	V _{mp} (V)	40.34	/	40.53	/	40.73	/	40.93	/
Maximum Power Current	I _{mp} (A)	15.00	/	15.05	/	15.10	/	15.15	/
Open Circuit Voltage	V _{oc} (V)	47.95	48.10	48.10	48.25	48.25	48.40	48.40	48.55
Short Circuit Current	I _{sc} (A)	15.80	17.45	15.85	17.50	15.90	17.55	15.95	17.60
Module Efficiency	(%)	22.4		22.6		22.8		23.0	

*STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass 1.5 *BNPI: Irradiance of front 1000W/m², rear 135W/m²
 *Measurement uncertainty:±3%[P_{max}]; Voc Tolerance:±3%; I_{sc} Tolerance:±4%

Electrical Specification (NOCT*)

Maximum Power	P _{max} (W)	454.4	457.8	461.3	464.8
Maximum Power Voltage	V _{mp} (V)	37.74	37.90	38.06	38.22
Maximum Power Current	I _{mp} (A)	12.04	12.08	12.12	12.16
Open Circuit Voltage	V _{oc} (V)	45.16	45.30	45.44	45.58
Short Circuit Current	I _{sc} (A)	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)	653.5	658.6	664.3	669.6
Maximum Power Voltage	V _{mp} (V)	40.34	40.53	40.73	40.93
Maximum Power Current	I _{mp} (A)	16.20	16.25	16.31	16.36
Open Circuit Voltage	V _{oc} (V)	47.95	48.10	48.25	48.40
Short Circuit Current	I _{sc} (A)	17.06	17.12	17.17	17.23

Mechanical Data

Number of Cells	132 Cells (6x22)
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
Fire rating	IEC Class C
Wind/ Snow Load	2400Pa/ 5400Pa*
Protection Class	Class II
Bifaciality	P _{max} =80%, Voc=95%, I _{sc} =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

Optional /Connector

Suzhou Bright Photovoltaic Electronic Technology Co.,Ltd.:B01/B05x
 Suzhou Xiong Photovoltaic Technologies Co., Ltd.:XT2,PV-XT101.1, PV-XT101.2
 Staubli Electrical Connectors AG :PV-KST4-EVO2A/xy,PV-KBT4-EVO2A/xy & PV-KST4-EVO2/xy_UR,PV-KBT4-EVO2/xy_UR

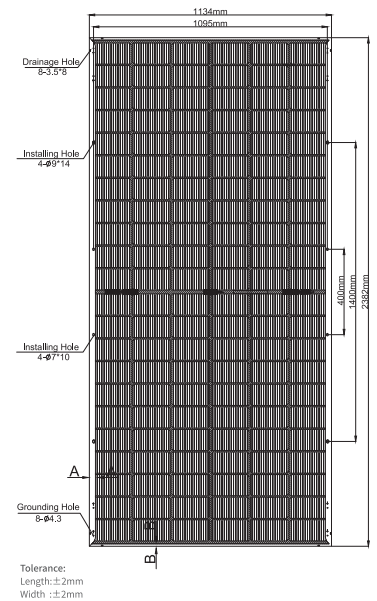
Packaging Configuration

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

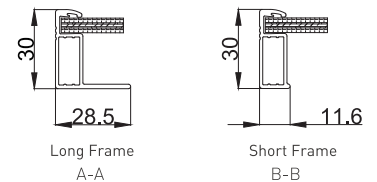
Maximum Ratings

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

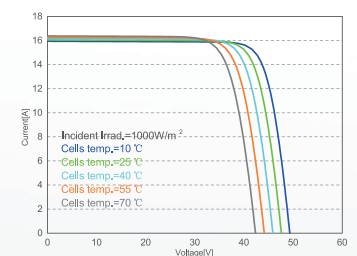
Module Dimension



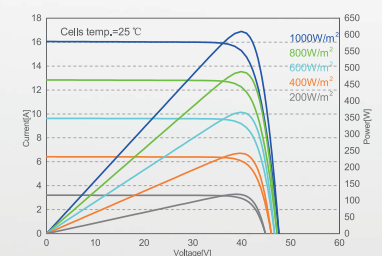
Back View



I-V Curve at Different Temperature (620W)



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



CAUTION: READ INSTALLATION MANUAL BEFORE USING THE PRODUCT

Contact Us for More Information

GCL System Integration Technology Co.,Ltd.
 Jianghai Economic Zone, Nanqiao Town Fengxian District,201406 Shanghai P.R.China
 website: www.gclsi.com email: gclsisales@gclsi.com





Optional/Connector

Serial	Kind of component	Manufacturer	Specification
1	Connector	Suzhou Bright Photovoltaic Electronic Technology Co.,Ltd.	B01
2		Jiangsu Haitian Microelectronics Corp.	PV-HT03x (x=0 or 1 or 2)
3		Hefei GCL System Integration New Energy Technology Co., Ltd.	GCL-01
4			GCL-02
5		Suzhou Xtong Photovoltaic Technologies Co., Ltd.	PV-XT101.1
6			PV-XT101.2
7			XT2
8		Stäubli Electrical Connectors AG	PV-KST4-EVO 2/xy_UR (male)
9			PV-KBT4-EVO 2/xy_UR (female)
10			PV-KST4-EVO2A/xy (male)
11			PV-KBT4-EVO2A/xy (female)

Contact Us for More Information

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Made In China



Bringing Green Power To Life