

GCL- NT10/72GDF

580-595 W

**Bifacial Dual Glass
Monocrystalline Module**



595W

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

☞ 2×100% EL inspection ensuring defect-free modules

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)



High conversion efficiency
due to top quality wafers and
advanced cell technology



Ideal choice for
large scale ground
installation

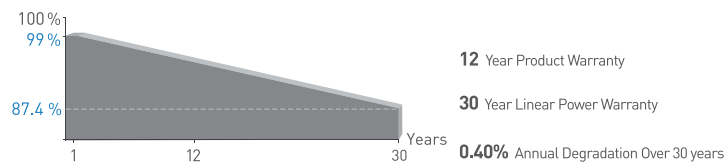


N type technology: The
N-type module has better
reliability and lower
LID/LETID



Ideal choice for large
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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-NT10/72GDF xxx(580~595)

Testing Conditions		STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI
Maximum Power	P _{max} (W)	580	635	585	640	590	645	595	650
Maximum Power Voltage	V _{mp} (V)	43.75	/	43.95	/	44.15	/	44.35	/
Maximum Power Current	I _{mp} (A)	13.26	/	13.31	/	13.37	/	13.42	/
Open Circuit Voltage	V _{oc} (V)	51.90	52.00	52.05	52.15	52.20	52.30	52.35	52.45
Short Circuit Current	I _{sc} (A)	14.01	15.39	14.07	15.45	14.13	15.51	14.19	15.57
Module Efficiency	(%)	22.5		22.6		22.8		23.0	

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

Electrical Specification (NOCT*)

Maximum Power	P _{max} (W)	436.6	440.3	444.1	447.9
Maximum Power Voltage	V _{mp} (V)	41.11	41.30	41.50	41.70
Maximum Power Current	I _{mp} (A)	10.62	10.66	10.70	10.74
Open Circuit Voltage	V _{oc} (V)	49.30	49.45	49.60	49.75
Short Circuit Current	I _{sc} (A)	11.31	11.36	11.41	11.46

* 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)	626.5	631.6	637.5	642.6
Maximum Power Voltage	V _{mp} (V)	43.75	43.95	44.15	44.35
Maximum Power Current	I _{mp} (A)	14.32	14.37	14.44	14.49
Open Circuit Voltage	V _{oc} (V)	51.90	52.05	52.20	52.35
Short Circuit Current	I _{sc} (A)	15.13	15.20	15.26	15.33

Mechanical Data

Number of Cells	144 Cells (6×24)
Dimensions of Module L*W*H (mm)	2278×1134×30mm (89.68×44.65×1.18 inches)
Weight (kg)	31.2 kg
Front Side Glass	2.0mm [0.08 inches], Anti-Reflection Coating
Back Side Glass	2.0mm [0.08 inches], Heat Strengthened Glass
Frame	Anodized aluminium alloy
J-Box	IP68 Rated
Cable	4.0mm ² , Portrait: +300/-200mm length can be customized
Fire rating	IEC Class C
Wind/ Snow Load	2400Pa/ 5400Pa*
Protection Class	ClassII
Bifaciality	φ P _{max} =80% φ V _{oc} =95% φ 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

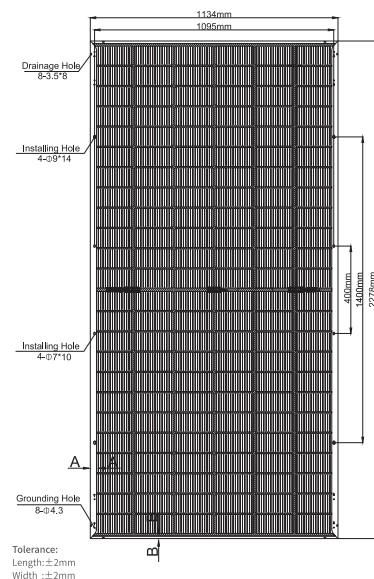
Maximum Ratings

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC
Max Series Fuse Rating	30A

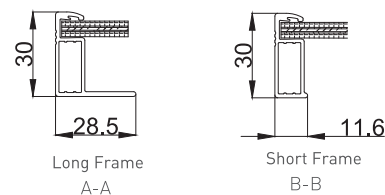
Packaging Configuration

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

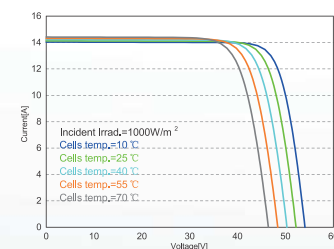
Module Dimension



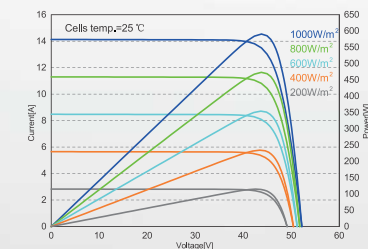
Back View



I-V Curve at Different Temperature (595W)



I-V-P Curve at Different Irradiation (595W)



CAUTION: READ INSTALLATION MANUAL BEFORE USING THE PRODUCT

Contact Us for More Information

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Made in China



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)

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