GCL-NT10R/54GDF

440-455W

Bifacial Dual Glass Monocrystalline Module

455W	22.8%	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
- Long term reliability tests
- 2x100%ELinspection ensuring defect-free modules

Comprehensive System and Product Certifcations

- IS014001:2015 Environmental management systems
- IS09001:2015 Quality management systems
- IS014001:2015 Environmental management systems
- IS045001:2018 Occupational health and safety management systems
- IEC62941:2019 Terrestria photovoltaicl PV modules Quality system for PV modules

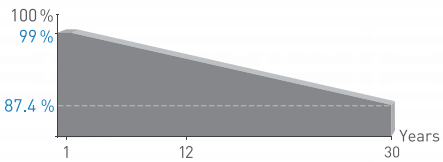
Highly transparent self-cleaning glass brings additional yield and easy maintenance

Ideal choice for residential rooftop

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

Special cutting and soldering technology leads to low hotspot risk

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

Additional Insurance Backed by Swiss RE

* Please refer to GCL for details

GCL

Bifacial Dual Glass Monocrystalline Module | GCL-NT10R/54GDF | 440-455 W

Electrical Specification (STC & BNPI) | GCL-NT10R54GDF xxx(xxx=440~455)

Testing Conditions		STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI
Maximum Power	Pmax(W)	440	485	445	490	450	495	455	500
Maximum Power Voltage	Vmp(V)	32.96	/	33.21	/	33.46	/	33.71	/
Maximum Power Current	Imp(A)	13.35	/	13.40	/	13.45	/	13.50	/
Open Circuit Voltage	Voc(V)	39.50	39.60	39.75	39.85	40.00	40.10	40.25	40.35
Short Circuit Current	Isc(A)	13.85	15.15	13.90	15.20	13.95	15.23	14.00	15.30
Module Efficiency	(%)	22.0		22.3		22.5		22.8	

*STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass 1.5 *BNPI: Irradiance of front 1000W/m²,rear 135W/m²

*Measurement uncertainty:±3%[Pmax]; Voc Tolerance: ±3%; Isc Tolerance:±4%

Electrical Specification (NOCT*)

Maximum Power	Pmax (W)	331.7	335.2	338.7	342.2
Maximum Power Voltage	Vmp (V)	31.23	31.44	31.65	31.86
Maximum Power Current	Imp (A)	10.62	10.66	10.70	10.74
Open Circuit Voltage	Voc(V)	37.22	37.46	37.70	37.94
Short Circuit Current	Isc (A)	11.18	11.22	11.26	11.30

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

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

Maximum Power	Pmax (W)	475.3	480.5	486.2	491.5
Maximum Power Voltage	Vmp (V)	32.96	33.21	33.46	33.71
Maximum Power Current	Imp (A)	14.42	14.47	14.53	14.58
Open Circuit Voltage	Voc(V)	39.50	39.75	40.00	40.25
Short Circuit Current	Isc (A)	14.96	15.01	15.07	15.12

Mechanical Data

Number of Cells	108 Cells (6×18)
Dimensions of Module L*W*H (mm)	1762×1134×30mm (69.37×44.65×1.18 inches)
Weight (kg)	21.5kg
Front Side Glass	1.6mm (0.06 inches), High transparency solar glass
Back Side Glass	1.6mm (0.06 inches), Heat strengthened glass
Frame	Anodized aluminium alloy
J-Box	IP68 Rated
Cable	4.0mm² , Portrait: +300/-200mm length can be customized
Fire rating	IEC Class C
Wind/ Snow Load	2400Pa/ 5400Pa*
Protection Class	ClassII
Bifaciality	φPmax=80%, φVoc=95%, φIsc=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 Isc	+0.045%/°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Pmax	-0.29%/°C

Packaging Configuration

Module per box	36 pieces
Module per 40' container	936 pieces

Optional / Connector

Suzhou Bright Photovoltaic Electronic Technology Co.,Ltd.:B01/ B05x

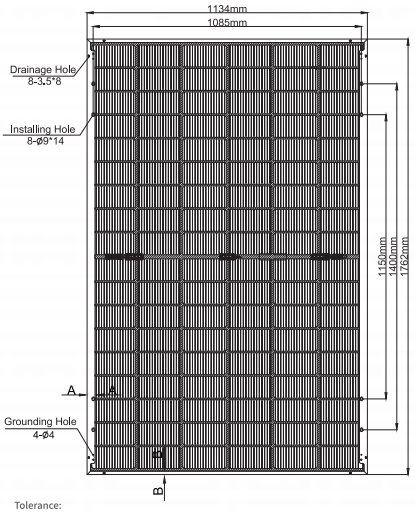
Suzhou Xtong Photovoltaic Technologies Co., Ltd.:XT2,PV-XT101.1 ,PV-XT101.2

Stäubli Electrical Connectors AG :PV-KST4-EVO2A/xy,PV-KBT4-EVO2A/xy & PV-KST4-EVO2/xy_UR,PV-KBT4-EVO2/xy_UR

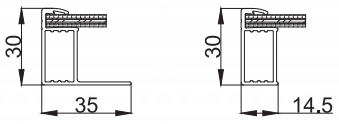
Maximum Ratings

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

Module Dimension

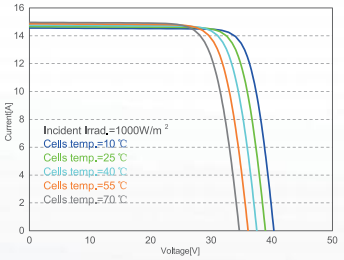


Back View

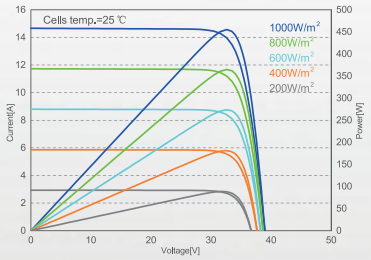


Long Frame A-A | Short Frame B-B

I-V Curve at Different Temperature (455W)



I-V/P-V Curve at Different Irradiation (455W)



CAUTION: READ INSTALLATION MANUAL BEFORE USING THE PRODUCT

Contact Us for More Information

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