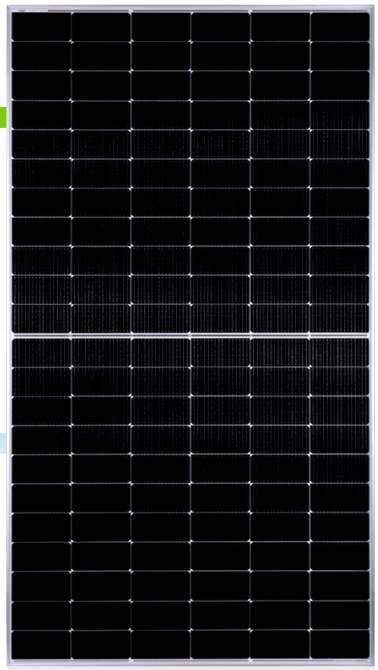
TOPCon BIFACIAL DUAL GLASS

N-TYPE 132 CELL HALF CUT

GTG12R66HXXX - 610 to 635WP



- **23.51%** MODULE CONVERSION EFFICIENCY
- **15 YEARS** PRODUCT WARRANTY*
- **30 YEARS** LINEAR PERFORMANCE WARRANTY**

ASSURED **87.40%** **POWER OUTPUT** AT THE END OF **30TH YEAR**

MADE IN INDIA

KEY FEATURES

- Cutting Edge Manufacturing Technology
- Higher Energy Yield in Hot Conditions Due to Reduced Power Loss at Elevated Temperatures
- 100% String Level EL and Triple Stage EL Testing
- PID Resistance and Minimized LID and LeTID by Adopting Advanced Cell Technology
- Excellent Performance at Dawn, Dusk and Low Light
- Advance MBB Technology Enhances Redundancy, Minimizes Performance Loss from Micro Cracks & Ensures Long-term Durability and Efficiency

QUALITY & RELIABILITY

1. Qualified Premium Quality Raw Materials
2. In-House Laboratory Checks at Multiple Stages
3. IP-68 Junction Box for Long-Term Weather Endurance
4. Suitable for 1500 VDC

CERTIFICATIONS#

IEC 61730 | IEC 61215 | IEC 62804 | IEC 61701 | IEC 61726 | IEC 62782 | IEC 61853-1 & 2 | LID | LeTID | IEC 60068 | IEC 62759 | IS 14286 | IS 61730 – 1 & 2 | UL 61730 – 1 & 2

ISO 9001 - ISO 14001 OHSAS 18001 BUREAU VERITAS Certification

- Manufactured in an ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 certified facility.

#Certifications in process

Technical Data for GTG12R66HXXX - TOPCon Module

Electrical Parameter at STC

Module Type	GTG12R66HXXX					
Peak Power - (0~+4.99 Wp) Pmax(Wp)	610	615	620	625	630	635
Open Circuit Voltage - Voc (V)	48.91	49.04	49.17	49.30	49.43	49.56
Short Circuit Current - Isc (A)	15.91	15.98	16.05	16.12	16.19	16.26
Rated Voltage - Vmp (V)	40.53	40.66	40.79	40.92	41.05	41.18
Rated Current - Imp (A)	15.07	15.14	15.21	15.28	15.35	15.42
Module Efficiency (%)	22.58	22.77	22.95	23.14	23.32	23.51
NOCT - P (Wp)	460	463	467	471	475	479

Under Standard Test Conditions (STC) of irradiance 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.
NOCT irradiance 800 W/m2, ambient temperature 20°C, wind speed 1 m/sec.

Temperature Coefficient (TC)

Temperature Coefficient (Voc)	-0.19% /°C
Temperature Coefficient (Isc)	0.035% /°C
Temperature Coefficient (Pmax)	-0.29% /°C

Packing Configuration Export Market

Container	40'FT
Modules per Pallet	36
Pallets per Container	20
Modules per Container	720

Electrical Parameters at BNPI

Maximum Power - Pmax (Wp)	674	680	685	691	696	702
Maximum Power Current - Imp (A)	16.64	16.72	16.77	16.83	16.87	16.92
Maximum Power Voltage - Vmp (V)	40.50	40.70	40.90	41.10	41.30	41.50
Short-Circuit Current - Isc (A)	17.50	17.58	17.66	17.73	17.81	17.89
Open - Circuit Voltage - Voc (V)	48.96	49.08	49.22	49.36	49.48	49.59

For STC and BNPI, except Pmax, all other parameters have a tolerance of ±3%.
Measurement uncertainty of ±3%.
BNPI: Irradiance front 1000W/m2 and rear 135 W/m2, cell temperature 25°C, AM=1.5.

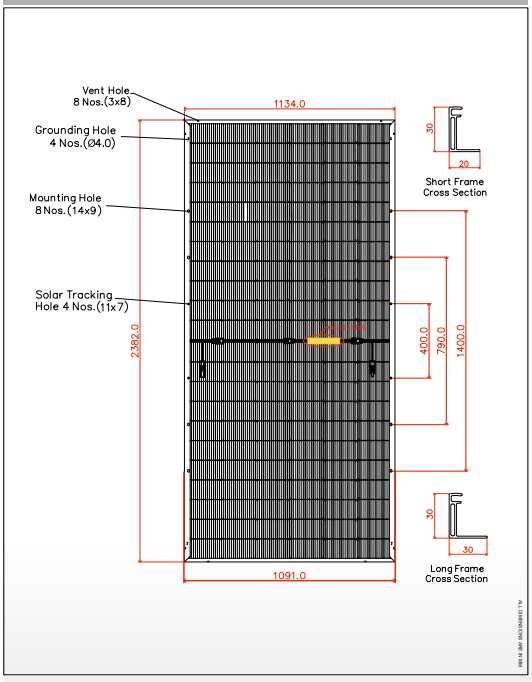
Permissible Operating Conditions

Temperature Range	-40°C to + 85°C
Maximum System Voltage	1500 VDC
NOCT	45± 2°C
Bifaciality	80 ± 5%

Mechanical Specification

Specification	Details
Solar Cells	N-Type Bifacial TOPCon, MBB, 132 Half-Cut
Front Glass	2 mm, High Transmission, ARC Heat Strengthened Glass
Encapsulation	Ultra - Clear PID Free
Backside	2mm High Transmission Mesh Pattern Glass
Frame	Anodized Aluminium Alloy (Silver Color)
Dimensions	(L) 2382 mm x (W) 1134 mm x (H) 30 mm
Weight	~33 kg±3%
J-Box	IP 68 Certified, 3 Diodes
Cable	Solar Cable 4mm² | 400mm length can be Customized
Connectors	MC4-Compatible Connectors
Application Class	Class A
Electrical Safety	Class II
Fire Safety	Class C (Type 38)
Surface Load	Snow Load - 5400 Pa | Wind Load - 2400 Pa
Overcurrent Protection Rating	30 A

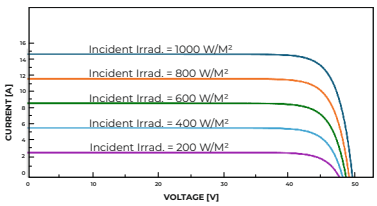
Mechanical Drawing



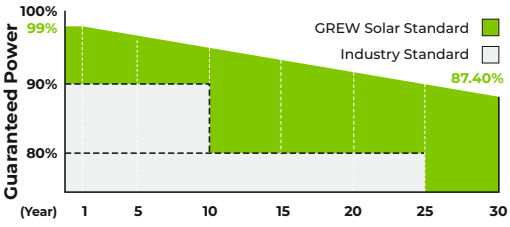
- All measurements are in mm
- Mechanical Tolerance for ≤40mm is ±0.5mm
- Mechanical Tolerance for >40mm is ±2mm

GREW Solar reserves the right to modify the specifications and features outlined in this datasheet at any time without prior notice.

IV Curve



Linear Performance Warranty



*Warranty claims are applicable as per GEPL's manual guidelines.
**Linear Performance Warranty with 1% degradation in the 1st year and only 0.4% from year 2 to 30.

- When unpacking and installing this product, it is crucial to diligently consult the guidelines outlined in the company manual. Doing so will enable you to handle and install the product accurately and mitigate any potential risk of damage.
- Ensure proper disposal of the product as E-waste when it reaches the end of its operational lifespan, to safeguard the environment.

GREW solar™

TDS-GTG12R66HXXX-REV 01-(072025)