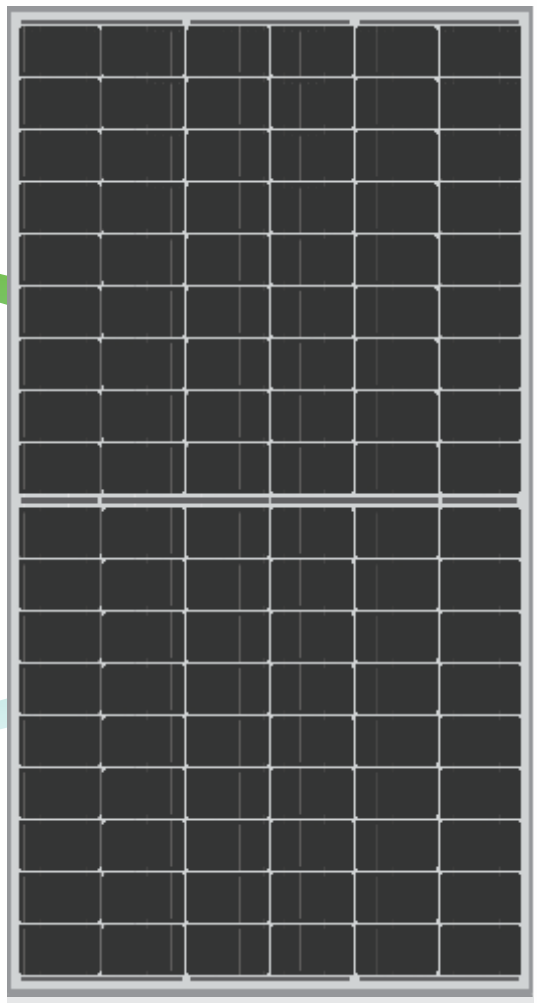
Grew™

A CHIRIPAL GROUP VENTURE

TOPCON BIFACIAL DUAL GLASS

N-TYPE 108 CELL HALF CUT

GTG54HM10XXX - 420 to 440WP



30 YEARS LINEAR PERFORMANCE WARRANTY*

15 YEARS PRODUCT WARRANTY**

22.50% MODULE CONVERSION EFFICIENCY

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

MADE IN INDIA

KEY FEATURES

- Cutting Edge Manufacturing Technology
- Excellent Performance @ Dawn, Dusk and Low Light
- 100% String Level EL and Triple Stage EL Testing
- Positive Tolerance @ 0~5W
- PID resistance by adopting advanced cell technology and qualified Raw Materials
- Better Shading Performance

QUALITY & RELIABILITY

1. Qualified Premium Quality Raw Materials
2. Inhouse Laboratory Checks at multiple stages
3. IP-68 Junction Box for long-term weather endurance
4. Suitable for 1500 VDC

CERTIFICATIONS

IEC 61730 I IEC 61215 IEC 62804 (PID) I IEC 61701 (Salt Mist) I IEC 61726 (Ammonia) IEC 62782 I IEC 61853-1 & 2 (PAN file) I LID, LeTID I IEC 60068 (Sand & Dust) I IEC 62759 (Transportation)

R 84004332 — IS 14286, IS 61730 – 1 & 2

UL 61730 – 1 & 2, UL 61703

ISO 9001, ISO 14001, ISO 45001

ALMM, CE

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

Technical Data for GTG54HM10XXX TOPCON Module

Electrical Parameter at STC

Module Type	GTG54HM10XXX				
Capacity rating – Pmax (Wp**)	420	425	430	435	440
Power Tolerance (Wp)	0-+4.99	0-+4.99	0-+4.99	0-+4.99	0-+4.99
Open circuit voltage - Voc(V)	38.99	39.11	39.23	39.35	39.47
Short circuit current - Isc(A)	13.78	13.82	13.89	13.95	14.01
Rated voltage - Vmp(V)	32.24	32.38	32.51	32.65	32.78
Rated current - Imp(A)	13.03	13.13	13.23	13.33	13.43
Module efficiency (%)	21.48	21.73	21.99	22.25	22.51
NOCT P (Wp**)	302	305	309	312	316

Under Standard Test Conditions (STC) of irradiance 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.
Except Pmax, all other parameters have a tolerance of ±3%.
****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

Container	20'FT	32'FT	40'FT
Modules per Pallet	31	31	31
Pallets per Container	10	20	28
Modules per Container	310	620	868

Electrical Parameters with Rear Side Power Gain Chart

440 WP	STC	10%	15%	20%	25%
Peak Power, (0~+4.99 Wp) Pmax(Wp)	440	485	505	530	550
Maximum Voltage, Vmpp (V)	32.78	32.91	32.98	33.04	33.08
Maximum Current, Impp (A)	13.43	14.73	15.32	16.03	16.63
Open Circuit Voltage, Voc (V)	39.47	39.47	39.47	39.47	39.47
Short Circuit Current, Isc (A)	14.01	14.57	14.71	14.85	14.99
Module Efficiency (%)	22.50	24.79	25.82	27.08	28.12

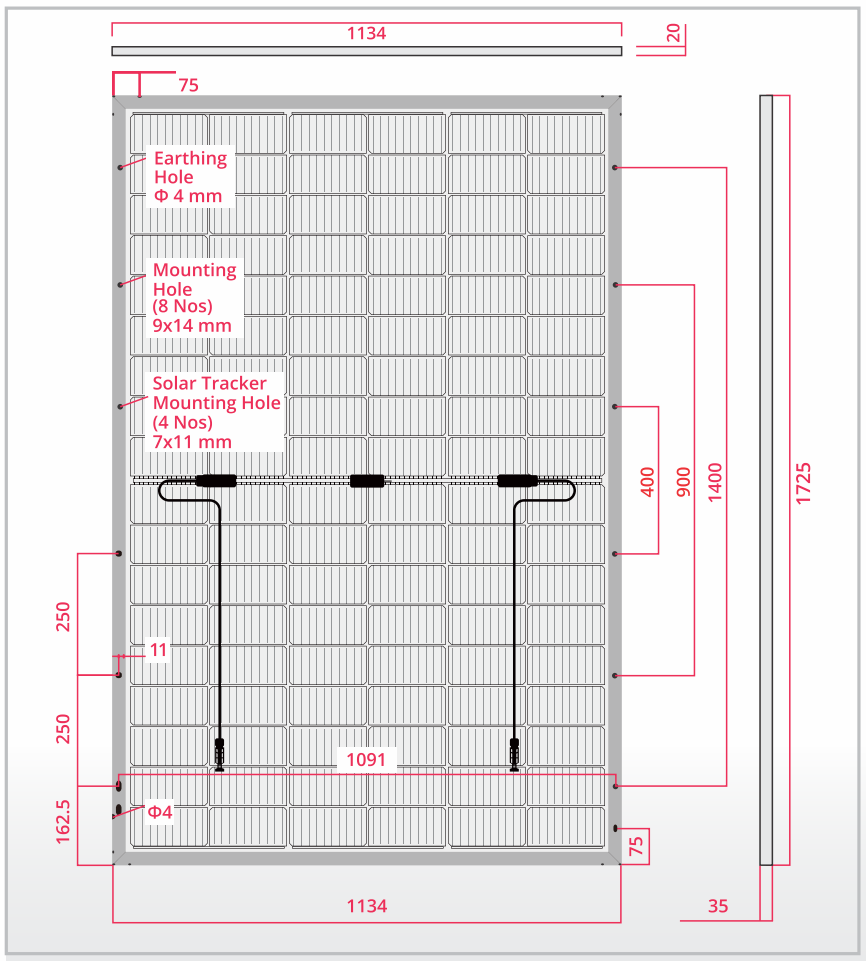
Permissible Operating Conditions

Temperature range	-40°C to + 85°C
Maximum system voltage	1500 VDC
NOCT	47± 2°C
Hail resistance	Maximum diameter of 25 mm with velocity 23 m/s
Bifaciality	80 ± 5%

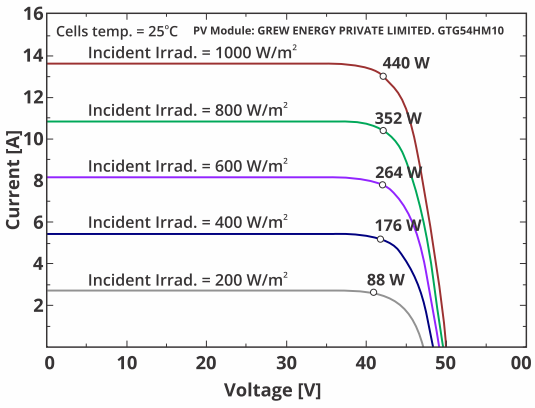
Mechanical Specification

Specification	Details
Solar cells	n-Type Bifacial TOPCON, MBB, 108 Half-Cut
Front glass	2 mm, High Transmission, ARC Tempered Glass
Encapsulation	Ultra - clear PID free EPE
Backside	2mm High Transmission Mesh Pattern Glass
Frame	Anodized Aluminium Alloy
Dimensions	(L) 1725 mm x (W) 1134 mm x (H) 35mm
Weight	~28 kg±3%
J-box	IP 68 certified, 3 Diodes
Cable	Solar cable 4mm², "400mm, 1200mm, can be Customization option."
Connectors	MC4-compatible connectors
Application Class	Class A
Electrical Safety	Class II
Fire Safety	Class C (Type 1)
Surface load	(Snow load 5400 Pa, wind load 2400 Pa).

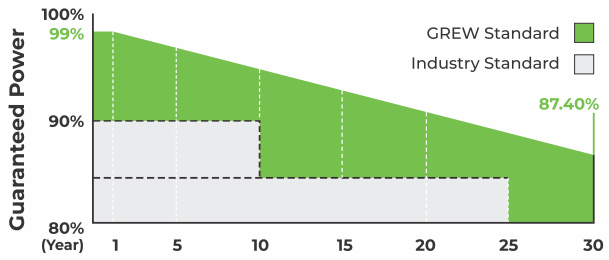
Drawing (Measurements are in mm)



IV Curve



Linear Performance Warranty



- Ensure proper disposal of the product as E-waste when it reaches the end of its operational lifespan to safeguard the environment.
- 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 mitigating any potential risks of damage.

• All Measurements are in mm Mechanical Tolerance 0±2mm

*Linear Performance Warranty with 1% degradation in the 1st year, and only 0.4% from year 2 to 30.

**Warranty claims applicable as per GREW's manual guidelines

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TDS-GTG54HM10XXX-D001-Rev 01-26092024

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