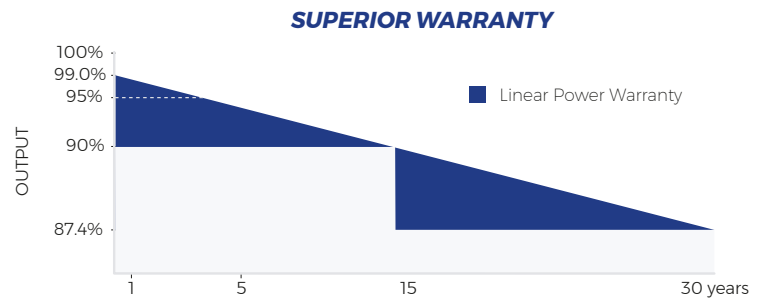




# HELIUS GENESIS

**HMB144T10R**  
580W - 600W

**PREMIUM N-TYPE MONOCRYSTALLINE CELLS**  
**MBB HALF CELL TECHNOLOGY**



INMETRO, IEC 61215, IEC 61730, IEC TS 62804, IEC 61701  
ISO 9001:2008 - ISO 14001:2004 - OSHAS 18001:2007



**SUPERIOR QUALITY**

With MBB technology and half cell design, Helius Energy panels reduce cover of cell by busbars and improve current collection ability on cloudy days.



**HIGH EFFICIENCY AND POWER DENSITY**

High conversion efficiency and up to 600W. More gain power per square meter.



**PERFORMANCE WARRANTY**

With up to 30 years of solar generation, Helius Energy warranty can guarantee the longevity of your project.



**FIRE-PROOF PERFORMANCE**

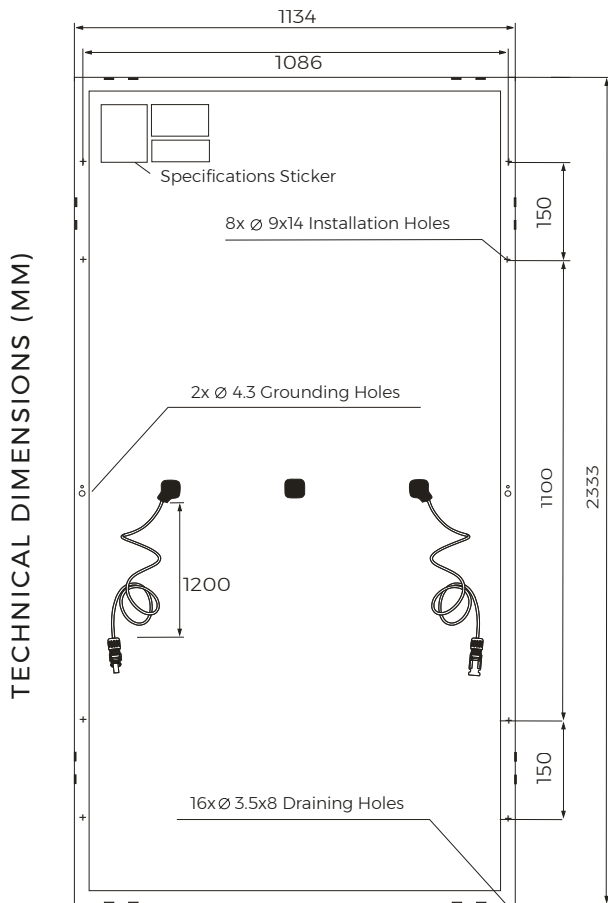
Modules are approved and tested under IEC 61730 and Class C Fire Test.



**LIGHT AND RELIABLE**

Much lighter modules with thicker frames to ensure module resilience. Modules could be applied under ammonia, salt mist, high temperature, high humidity condition.

RECOGNIZED FOR **Tier 1**

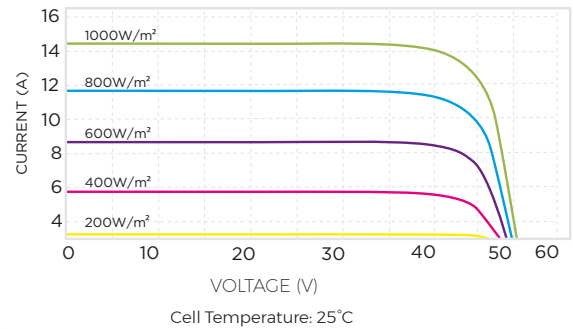


### MECHANICAL CHARACTERISTICS

Dimensions	2333 x 1134 x 30mm
Solar Cells	144 Monocrystalline N-Type Cells
Weight	32.2 kg
Frame	Anodized Aluminium Alloy
Glass	2.0 mm + 2.0mm High Transmission, Low Iron Tempered
J-Box	IP68 / 3 bypass diodes
Cables	4mm / Length 1200mm or Customized

### TEMPERATURE CHARACTERISTICS

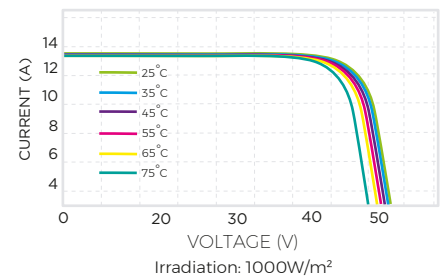
Temperature Coefficient I <sub>sc</sub>	0.045% / °C
Temperature Coefficient V <sub>oc</sub>	-0.25% / °C
Temperature Coefficient P <sub>max</sub>	-0.30% / °C
Nominal Module Operating Temperature NMOT	44 °C +2 °C
Operational Temperature	-40 °C --+85 °C



### ELECTRICAL CHARACTERISTICS

HMF44T10R	580HL	585HL	590HL	595HL	600HL
Maximum Power P <sub>Max</sub> (W)	580	585	590	595	600
Maximum Power Voltage V <sub>mp</sub> (V)	43.06	43.22	43.42	43.62	43.82
Maximum Power Current I <sub>mp</sub> (A)	13.47	13.53	13.59	13.62	13.70
Open Circuit Voltage V <sub>oc</sub> (V)	51.60	51.8	52.00	52.12	52.29
Short Circuit Current I <sub>sc</sub> (A)	14.23	14.32	14.35	14.40	14.44
Module Efficiency	22.1%	22.2%	22.3%	22.4%	22.5%
Maximum System Voltage	1500VCC				
Maximum Series Fuse	25A				

Test Conditions: 1000W/m<sup>2</sup>, 25°C, AM =1.5



### ELECTRICAL CHARACTERISTICS WITH REAR POWER GAIN (590W)

	10%	20%	30%
P <sub>max</sub> Gain (%)	10%	20%	30%
Maximum Power P <sub>Max</sub> (W)	649	708	767
Maximum Power Voltage V <sub>mp</sub> (V)	43.42	43.42	43.42
Maximum Power Current I <sub>mp</sub> (A)	14.94	16.30	17.66

### PACKAGING CONFIGURATION

Modules per Container 40HQ	720 pcs
Pallets per Container 40HQ	20
Modules per Pallet	36
Pallet Dimensions	2376 x 1260 x 1196mm
Gross Weight per Pallet (kg)	1170

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DECEMBER 2024

