

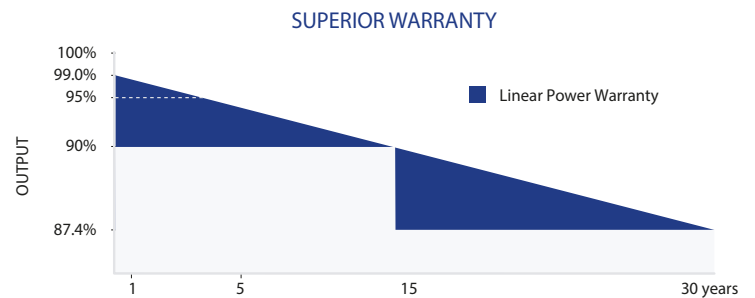


# HELIUS GENESIS

HMF144T10

575W - 590W

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 590W on 2.584m (22%). 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.



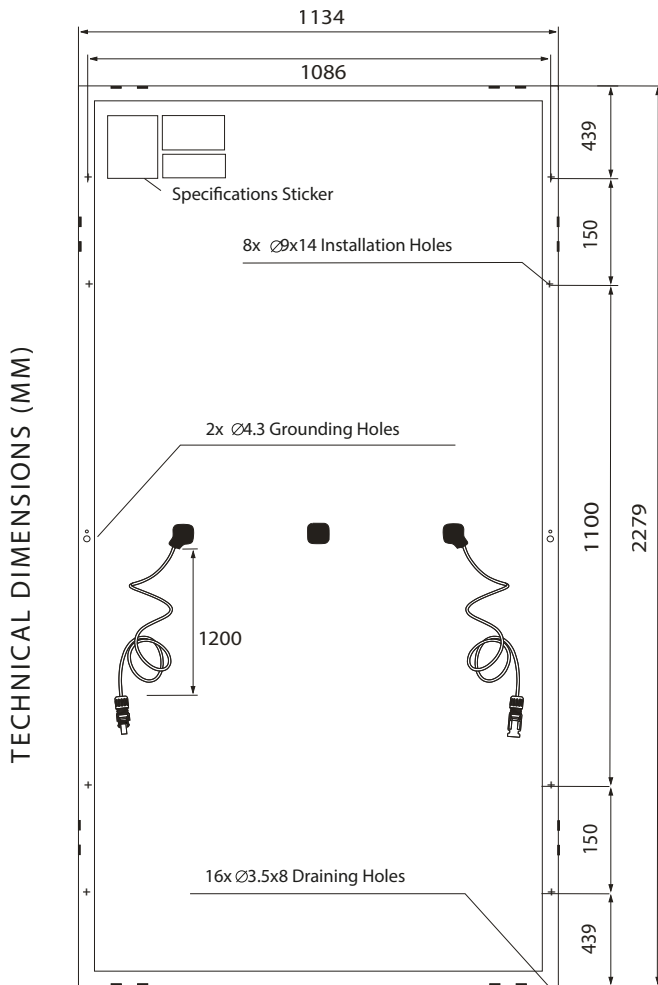
**LIGHT AND RELIABLE**

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





**Helius**  
energy

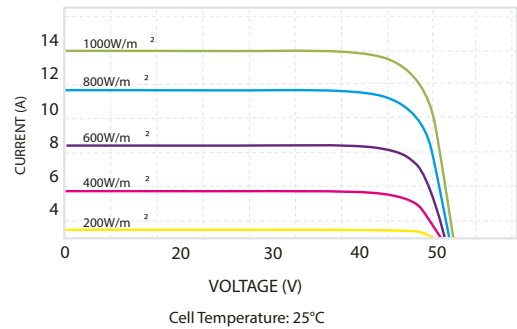


### MECHANICAL CHARACTERISTICS

Dimensions	2279 x 1134 x 35mm
Solar Cells	144 Monocrystalline N-Type Cells
Weight	28 kg
Frame	Anodized Aluminium Alloy
Frontal Glass	3.2mm High Transmission, Low Iron Tempered
J-Box	IP68 / 3 bypass diodes
Cables	4mm / Length 1200mm

### TEMPERATURE CHARACTERISTICS

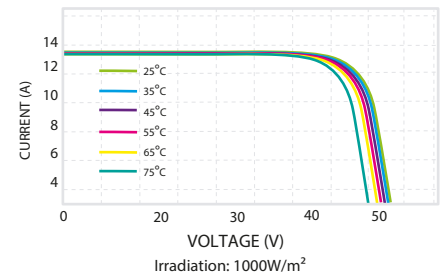
Temperature Coefficient $I_{sc}$	0.045% / °C
Temperature Coefficient $V_{oc}$	-0.26% / °C
Temperature Coefficient $P_{max}$	-0.31% / °C
Nominal Module Operating Temperature NMOT	44°C + -2°C
Operational Temperature	-40°C a +85°C



### ELECTRICAL CHARACTERISTICS

HMF108T10	575HL	580HL	585HL	590HL
Maximum Power $P_{Max}$ (W)	575	580	585	590
Maximum Power Voltage $V_{mp}$ (V)	43.14	43.42	43.70	43.98
Maximum Power Current $I_{mp}$ (A)	13.33	13.47	13.61	13.75
Open Circuit Voltage $V_{oc}$ (V)	51.23	51.74	52.25	52.76
Short Circuit Current $I_{sc}$ (A)	14.16	14.32	14.48	14.64
Module Efficiency	22.28%	22.50%	22.68%	22.86%
Maximum System Voltage	1500VCC			

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



### PACKAGING CONFIGURATION

Modules per Container 40HQ	620 pcs
Pallets per Container 40HQ	20
Modules per Pallet	31
Pallet Dimensions	2306 x 1623 x 1196mm
Gross Weight per Pallet (kg)	885

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