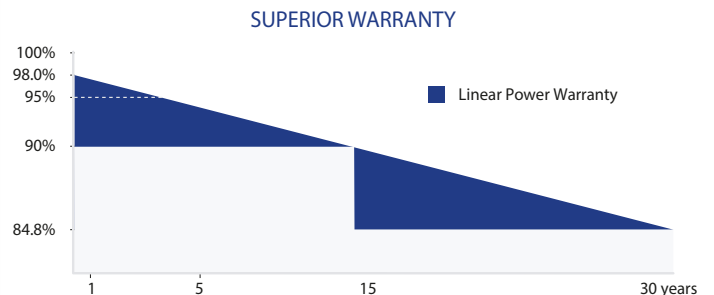


HELIUS TITAN

HMF132M12
680W - 700W

PREMIUM 210MM 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 700W on 3.1m (22.56%). 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.



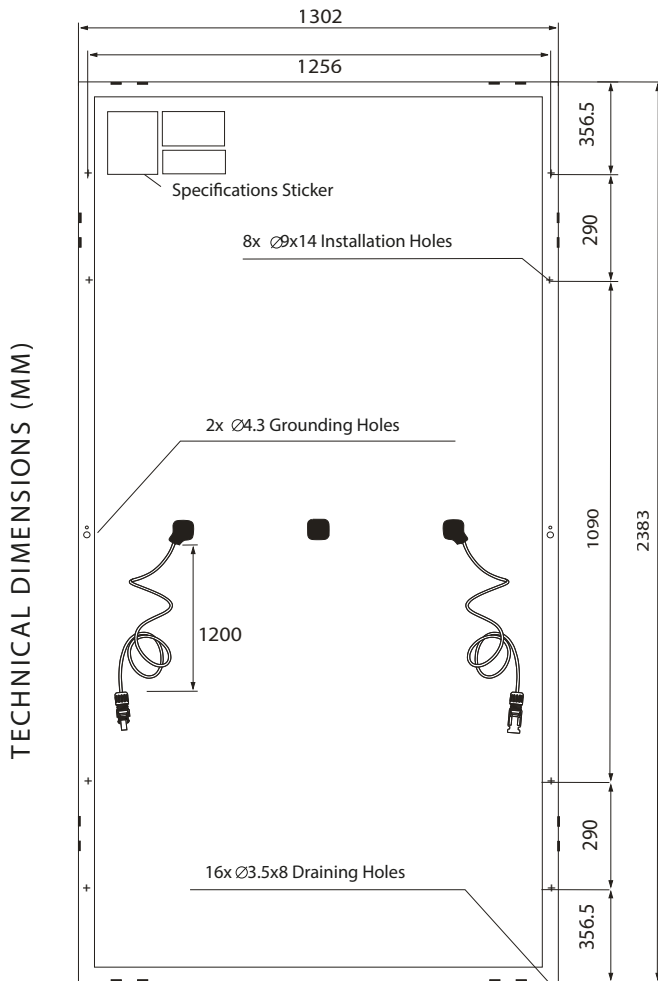
LIGHT AND RELIABLE

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

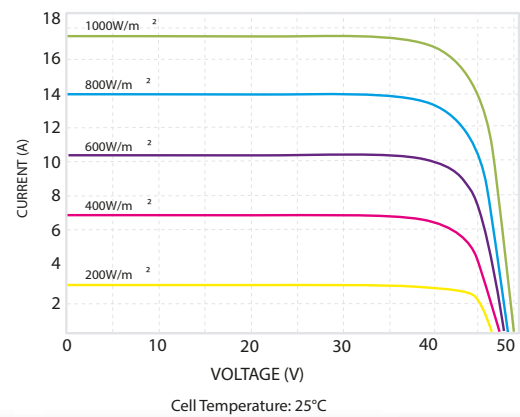


MECHANICAL CHARACTERISTICS

Dimensions	2383 x 1302 x 35mm
Solar Cells	132 Cells
Weight	34.2 kg
Frame	Anodized Aluminium Alloy
Frontal Glass	3.2 mm High Transmission, Low Iron Tempered
J-Box	IP68 / 3 bypass diodes
Cables	4mm / Length 1200mm

TEMPERATURE CHARACTERISTICS

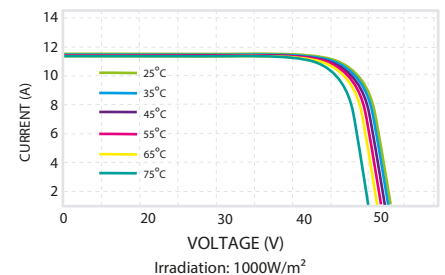
Temperature Coefficient Isc	0.04% / °C
Temperature Coefficient Voc	-0.24% / °C
Temperature Coefficient Pmax	-0.26% / °C
Nominal Module Operating Temperature NMOT	44°C + -2°C
Operational Temperature	-40°C a +85°C



ELECTRICAL CHARACTERISTICS

HMF132M12	680HL	685HL	690HL	695HL	700HL
Maximum Power PMax (W)	680	685	690	695	700
Maximum Power Voltage Vmp (V)	41.49	41.65	41.80	41.95	42.10
Maximum Power Current Imp (A)	16.39	16.45	16.51	16.57	16.63
Open Circuit Voltage Voc (V)	49.50	49.66	49.82	49.98	50.13
Short Circuit Current Isc (A)	17.19	17.25	17.31	17.37	17.43
Module Efficiency	21.92%	22.08%	22.24%	22.40%	22.56%
Maximum System Voltage	1500VCC				

Test Conditions: 1000W/m², 25°C, AM=1.5



PACKAGING CONFIGURATION

Modules per Container 40HQ	527 pcs
Pallets per Container 40HQ	20
Modules per Pallet	31
Pallet Dimensions	1350 x 1145 x 2500mm
Gross Weight per Pallet (kg)	1240

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JANUARY 2023