

ASTORIOS

per aspera ad astra



PHOTOVOLTAIC MODULE

ASTR 144HC/M10 Series 530-550 Wp

HALF CUT CELLS

550W
MAXIMUM POWER OUTPUT

21.4%
MAXIMUM MODULE EFFICIENCY



MORE YIELD

PV modules are positive tolerance current lever sorted bringing to increase in energy yield and avoiding solar panel degradation due to mismatch.



HOT SPOTS RISK REDUCTION

Sophisticated electrical design, cells sorting, cutting and soldering technology leads to low hot spot risk and temperature control



HIGH QUALITY GLASS

Additional yield and easy maintenance are provided by high transparent and self-cleaning glass



MULTI BUSBAR TECHNOLOGY

Better light absorption and current collection for better power output



MINIMIZING THE SHADING IMPACT

Better partial-shade tolerance due to separated half panel string wiring



PID RESISTANT

Selected encapsulants, precision in manufacturing quality control makes modules highly PID resistant and snail trails free



SAND, AMMONIA AND SALT MIST RESISTANCE

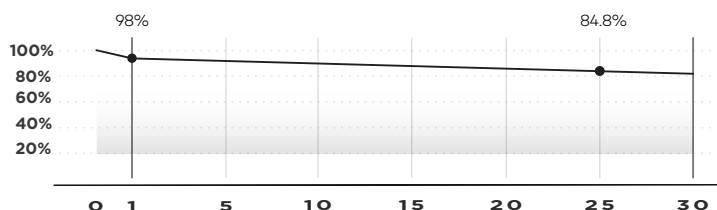
Sand blowing, ammonia and salt mist resistance tests have been passed by international standards to ensure operation in harsh conditions



SUPERIOR SAFETY AND RELIABILITY

Tested to avoid microcracks and welding cracks, can withstand high pressure loads, passed multi-step quality control

PERFORMANCE

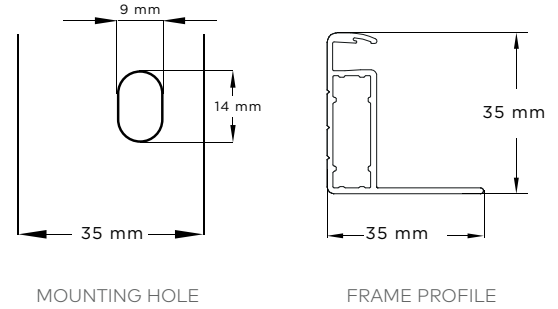
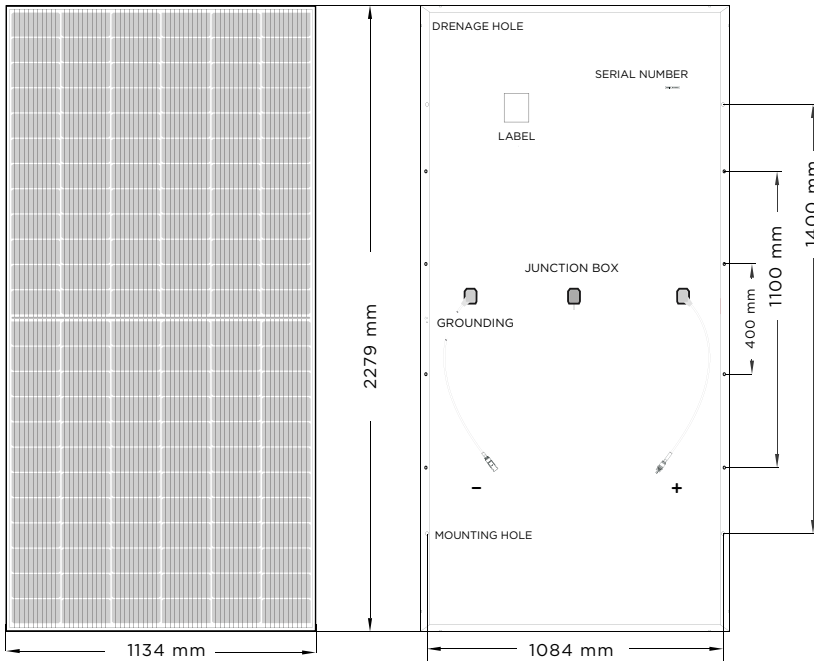


30 YEARS

Performance Guarantee

15 YEARS

Product Warranty



MATERIAL CHARACTERISTICS

Dimensions	2279 x 1134 x 35 mm
Weight	29.4 kg
Number of cells	144 pcs (6*24)
Cells Type	10BB (182 mm)
Glass	3.2 mm, High transparency, AR coated
Frame	Silver, anodized aluminum alloy
Junction box	IP68 Rated, 3 bypass diodes
Connector type	Staubli MC4 / MC4-Evo 2 / MC4 Compatible
Cable	300 mm, 4 mm ²

PACKAGING INFORMATION

One pallet quantity	31 pcs
40 ft HC/HQ container	620 pcs

TEMPERATURE PARAMETERS

Temperature Coefficient of Pmax	-0.35 % / °C
Temperature Coefficient of Voc	-0.27 % / °C
Temperature Coefficient of Isc	+0.048 % / °C
Operating Temperature	-40°C to +85 °C
Normal Operating Cell Temperature (NOCT)	44±2°C

MAXIMUM RATINGS

Max. System Voltage	1500V DC -(H)
Max. Series Fuse Rating	25 A
Uplift load (wind)	2400 Pa*
Downforce load (snow)	5400 Pa*

*For more information please refer to Instruction Manual

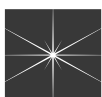
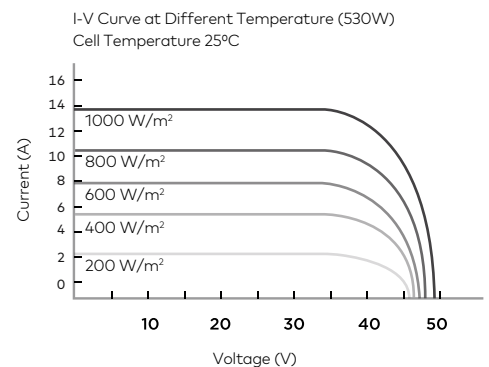
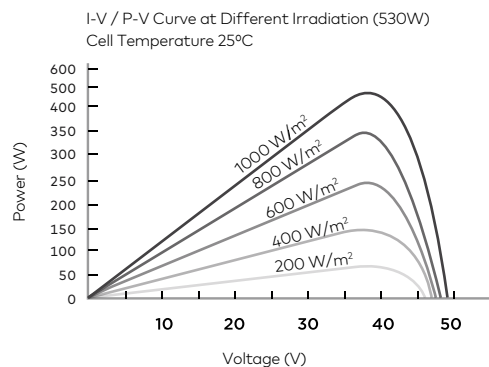
MODULE TYPE	144HC/M10		530 Wp		535 Wp		540 Wp		545 Wp		550 Wp	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
ELECTRICAL CHARACTERISTICS												
Maximum power (Pmax / Wp)	530	394	535	398	540	402	545	406	550	410		
Open circuit voltage (Voc / V)	49.26	46.50	49.40	46.63	49.53	46.75	49.67	46.88	49.80	47.00		
Short circuit current (Isc / A)	13.69	11.06	13.77	11.12	13.85	11.19	13.93	11.25	14.01	11.32		
Maximum power voltage (Vmp / V)	40.74	37.92	40.88	38.05	41.01	38.19	41.15	38.32	41.28	38.46		
Maximum power current (Imp / A)	13.01	10.40	13.09	10.46	13.17	10.52	13.24	10.58	13.32	10.64		
Module efficiency at STC (ηm / %)	20.6		20.8		21.0		21.2		21.4			
Power tolerance (Pmax)	(0,+5) Wp											

STC: Irradiance of 1000 W/m² with spectrum AM 1.5 and a module temperature of 25°C

NMOT: Irradiance 800 W/m², ambient temperature 20°C and wind speed 1 m/s

CERTIFICATES

IEC62716 (Ammonia)
IEC60068-2-68 (Sand)
IEC61215 / 61730 / 61701



ASTORIOS Holding Inc.
16192 Coastal Highway, Lewes,
Delaware 19958, County of Sussex, USA
info@astorios.com