

ASTORIOS

per aspera ad astra

PHOTOVOLTAIC MODULE

ASTR 144HC/10 Series 530-555 Wp

HALF CUT PERC CELLS

555Wp
MAXIMUM POWER OUTPUT

21.6%
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

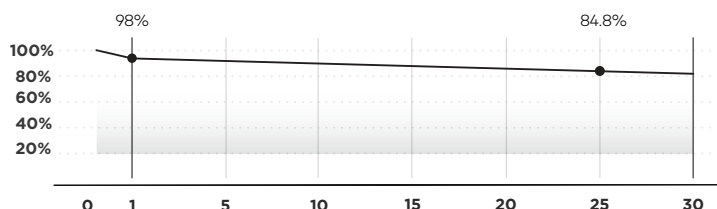
Sand blowing, ammonia and salt mist resistance tests have been passed by international standards to ensure operation in harsh conditions



SUPERIOR SAFETY AND RELIABILITY

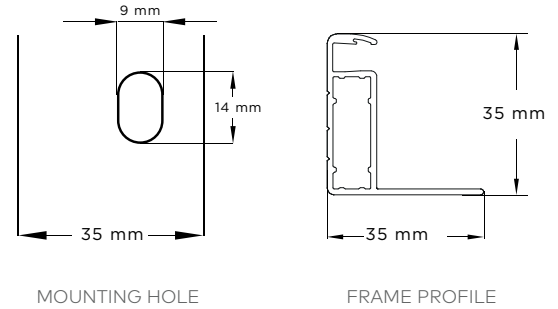
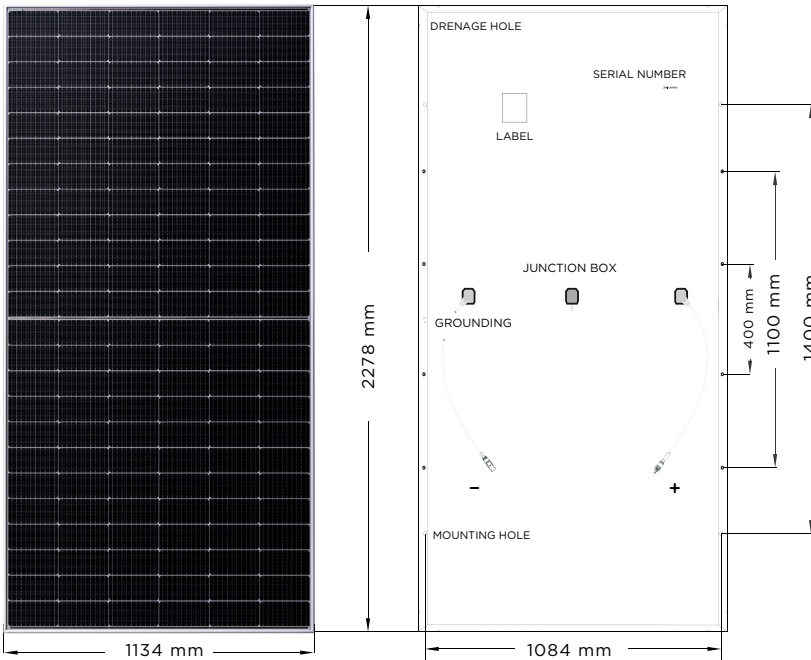
Tested to avoid microcracks and welding cracks, can withstand high pressure loads, passed multi-step quality control

PERFORMANCE



30 YEARS
Performance Guarantee

15 YEARS
Product Warranty



MATERIAL CHARACTERISTICS

Dimensions	2278 x 1134 x 35 mm
Weight	29.0 kg
Number Of Cells	144 pcs (6x24)
Cells	Mono-crystalline, Half Cut PERC 10BB (182mm)
Glass	3.2 mm, High transparency, AR coated
Frame	Silver color, Anodized aluminum alloy
Junction box	IP68 Rated, 3 bypass diodes
Connector type	Staubli MC4-Evo 2 / MC4 (Original)
Cable	4 mm ² , 300 mm

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*

PACKAGING INFORMATION

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

*For more information please refer to Instruction Manual

MODULE TYPE	144HC/10		530 Wp		535 Wp		540 Wp		545 Wp		550 Wp		555 Wp	
	STC	NMOT	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	555	414		
Open circuit voltage (Voc / V)	49.26	46.50	49.34	46.63	49.42	46.75	49.50	46.88	49.62	47.00	49.72	47.12		
Short circuit current (Isc / A)	13.71	11.06	13.79	11.12	13.85	11.19	13.94	11.25	14.03	11.32	14.10	11.39		
Maximum power voltage (Vmp / V)	40.56	37.92	40.63	38.05	40.70	38.19	40.80	38.32	40.90	38.46	41.00	38.62		
Maximum power current (Imp / A)	13.07	10.40	13.17	10.46	13.27	10.52	13.36	10.58	13.45	10.64	13.54	10.72		
Module efficiency at STC (ηm / %)	20.7		20.9		21.1		21.3		21.5		21.6			
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

