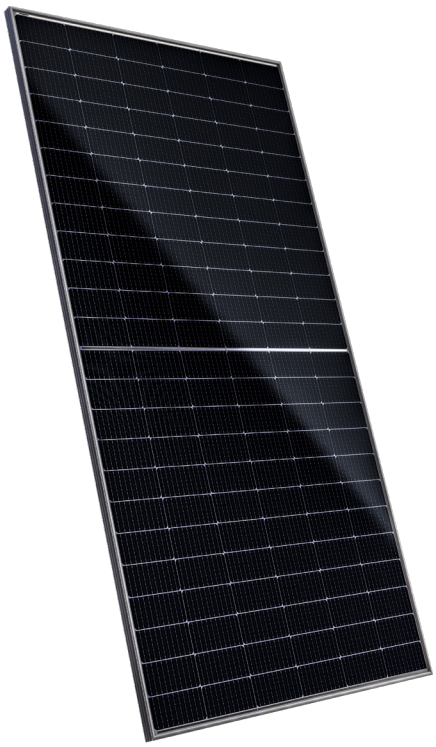


ASTORIOS

per aspera ad astra

PHOTOVOLTAIC MODULE

ASTR **144HC/10** Series **530-550 Wp**

HALF CUT PERC CELLS

550Wp
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

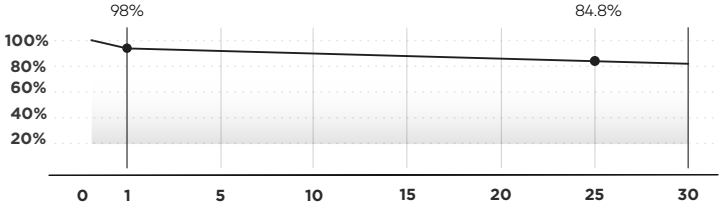
MINIMIZING THE SHADING IMPACT
Better partial-shade tolerance due to separated half panel string wiring

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



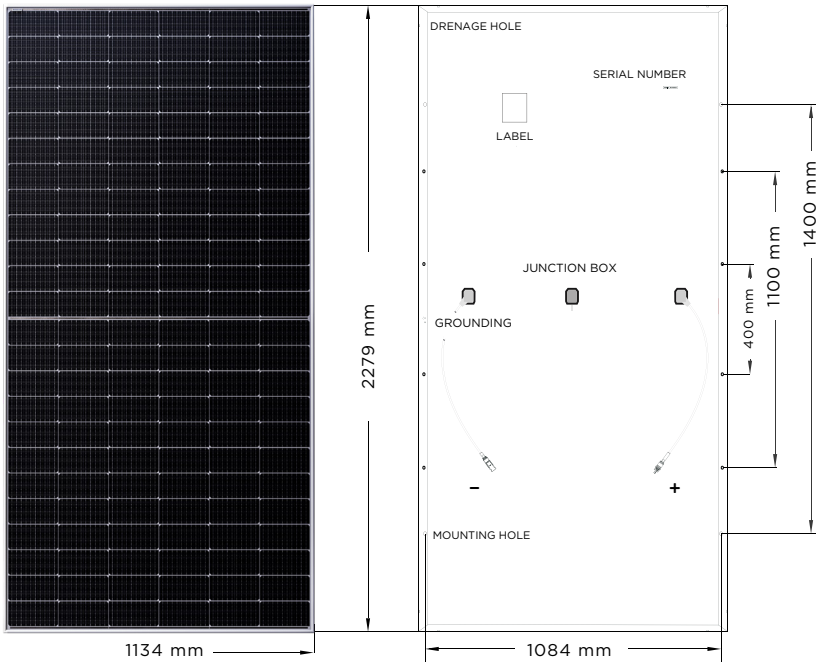
30 YEARS
Performance Guarantee

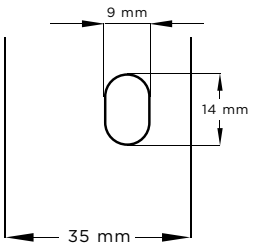
15 YEARS
Product Warranty

info@astorios.com
www.astorios.com

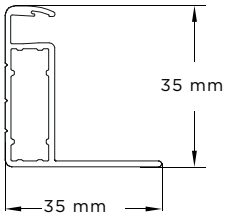
ASTORIOS

per aspera ad astra





MOUNTING HOLE



FRAME PROFILE

MATERIAL CHARACTERISTICS

Dimensions	2279 x 1134 x 35 mm
Weight	29.4 kg
Number Of Cells	144 pcs (6x24)
Cells	Mono-crystalline, Half Cut PERC 10BB (182mm)
Glass	3.2 mm, High transparancy, 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 mm², 300 mm

PACKAGING INFORMATION

	31 pcs
One pallet quantity 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

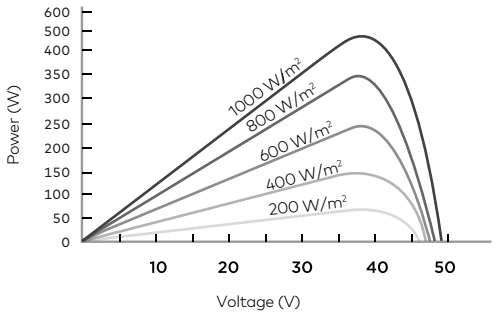
MODULE TYPE 144HC/10	530 Wp		535 Wp		540 Wp		545 Wp		550 Wp	
ELECTRICAL CHARACTERISTICS	**STC**	NMOT	**STC**	NMOT	**STC**	NMOT	**STC**	NMOT	**STC**	NMOT
Maximum power (Pmax / Wp)	**530**	394	**535**	398	**540**	402	**545**	406	**550**	410
Open circuit voltage (Voc / V)	**49.26**	46.50	**49.40**	46.63	**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

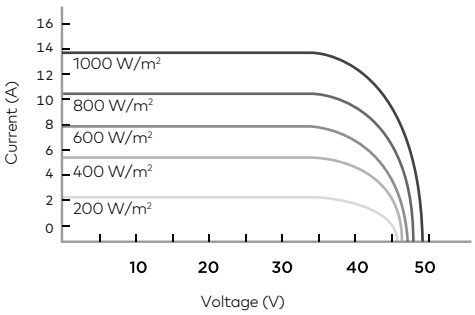
CERTIFICATES

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

P-V Curve at Different Irradiation (530 W)
Cell Temperature 25ºC



I-V Curve (530 W)
Cell Temperature 25ºC



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