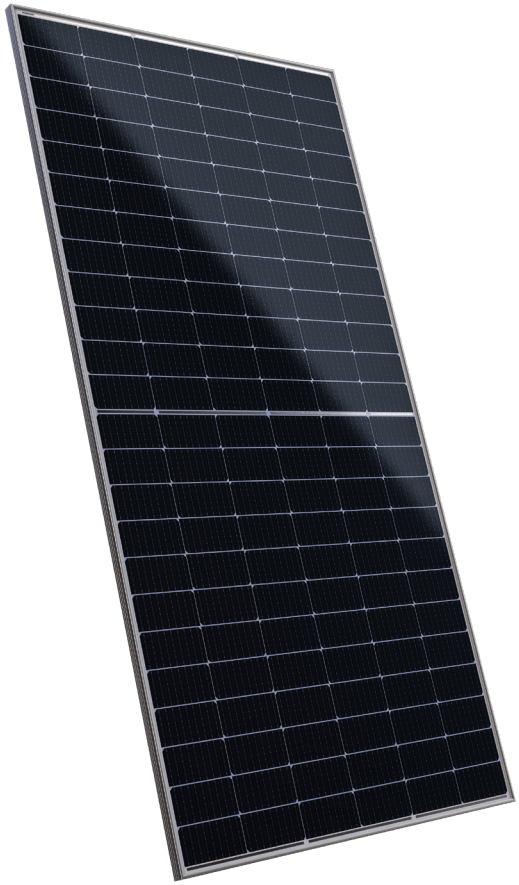

ASTORIOS

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HIGH EFFICIENCY PHOTOVOLTAIC MODULE

ASTR **144HCN/10** Series **565-585 Wp**

TOPCON N-TYPE HALF CUT CELLS

585 Wp
MAXIMUM POWER OUTPUT

22.65%
MAXIMUM MODULE EFFICIENCY

NEGLIGIBLE LID IMPACT

TOPCon cells exhibit an almost zero susceptibility to Light Induced Degradation, ensuring sustained high efficiency over time despite exposure to sunlight

HOT SPOTS RISK REDUCTION

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

HIGH EFFICIENCY

N-type cells technology provides the highest efficiency modern multi busbar configuration at affordable cost.

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

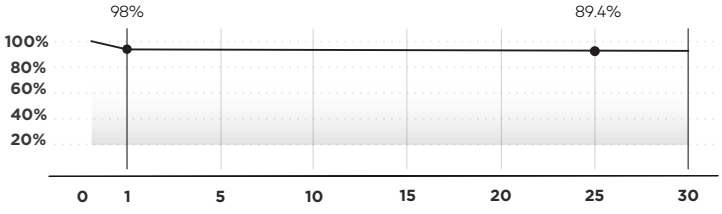
SAND, AMMONIA AND SALT MIST RESISTANCE

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

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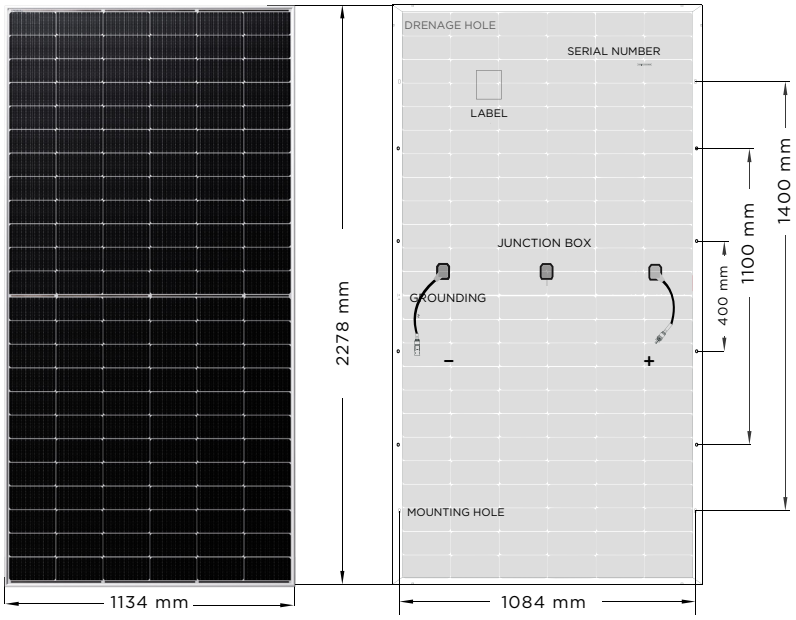
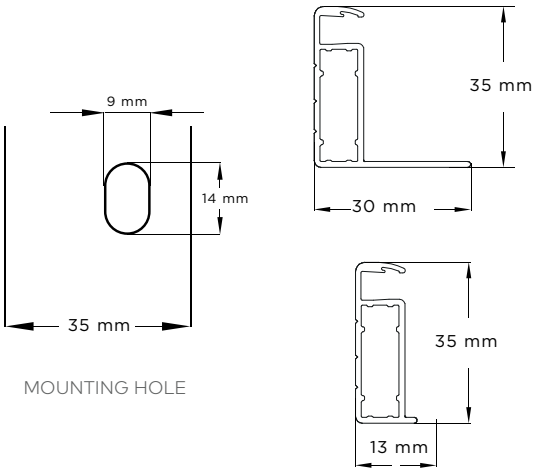




MATERIAL CHARACTERISTICS

Dimensions	2278 x 1134 x 35 mm
Weight	29.4 kg
Number of Cells	144 pcs (6x24)
Glass	3.2mm, High transparancy, AR coated
Cell Layout	Mono-crystalline, Half Cut N-Type 16BB/10 BB (182 mm)
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

PACKAGING INFORMATION

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

TEMPERATURE PARAMETERS

Temperature Coefficient of Pmax	-0.29 % / °C
Temperature Coefficient of Voc	-0.25% / °C
Temperature Coefficient of Isc	+0.045 % / °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	2400 Pa*
Uplift load (wind)	5400 Pa*
Downforce load (snow)	25 A

*For more information please refer to Instruction Manual

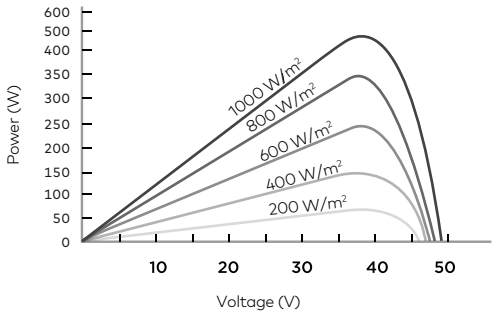
MODULE TYPE 144HCN/10	565 Wp		570 Wp		575Wp		580 Wp		585 Wp	
ELECTRICAL CHARACTERISTICS	**STC**	NMOT	**STC**	NMOT	**STC**	NMOT	**STC**	NMOT	**STC**	NMOT
Maximum power (Pmax / Wp)	**565**	425	**570**	429	**575**	432	**580**	436	**585**	440
Open circuit voltage (Voc / V)	**50.60**	48.06	**50.74**	48.20	**50.88**	48.33	**51.02**	48.46	**51.16**	48.60
Short circuit current (Isc / A)	**14.23**	11.49	**14.31**	11.55	**14.39**	11.62	**14.47**	11.68	**14.55**	11.75
Maximum power voltage (Vmp / V)	**41.92**	39.38	**42.07**	39.51	**42.22**	39.60	**42.37**	39.69	**42.52**	39.81
Maximum power current (Imp / A)	**13.48**	10.79	**13.55**	10.85	**13.62**	10.92	**13.69**	10.99	**13.76**	11.05
Module efficiency at STC (ηm / %)	**21.87**		**22.07**		**22.26**		**22.45**		**22.65**	
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

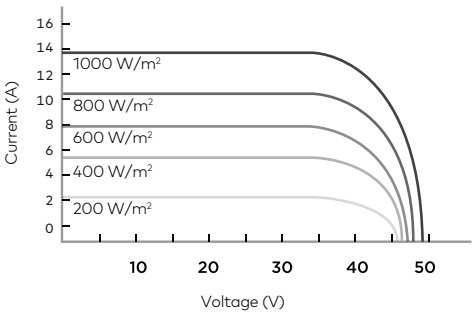
CERTIFICATES

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

P-V Curve at Different Irradiation (560 W)
Cell Temperature 25°C



I-V Curve (560 W)
Cell Temperature 25°C



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