

ASTORIOS

per aspera ad astra

PHOTOVOLTAIC MODULE

ASTR 120HC/12 Series 585-605 Wp

HALF CUT PERC CELLS

605 Wp
MAXIMUM POWER OUTPUT

21.4 %
MAXIMUM MODULE EFFICIENCY



MORE YIELD

PV modules are positive tolerance current level 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

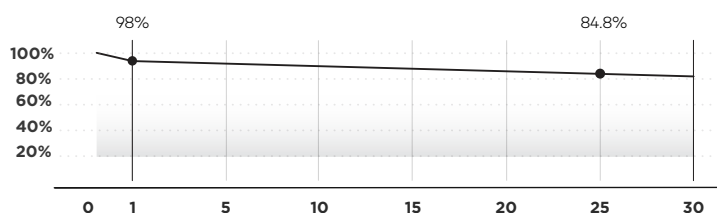
Sand blowing, ammonia and salt mist resistance tests have been passed by international standards to ensure operation in harsh conditions



SUPERIOR SAFETY AND RELIABILITY

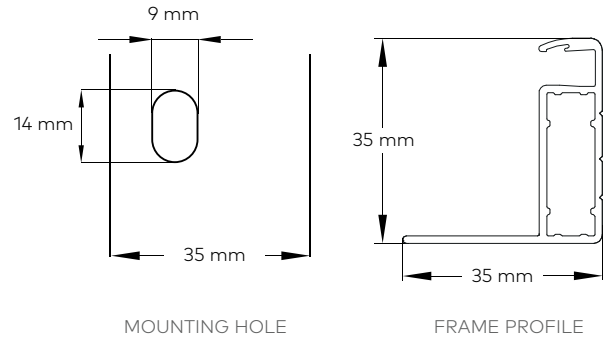
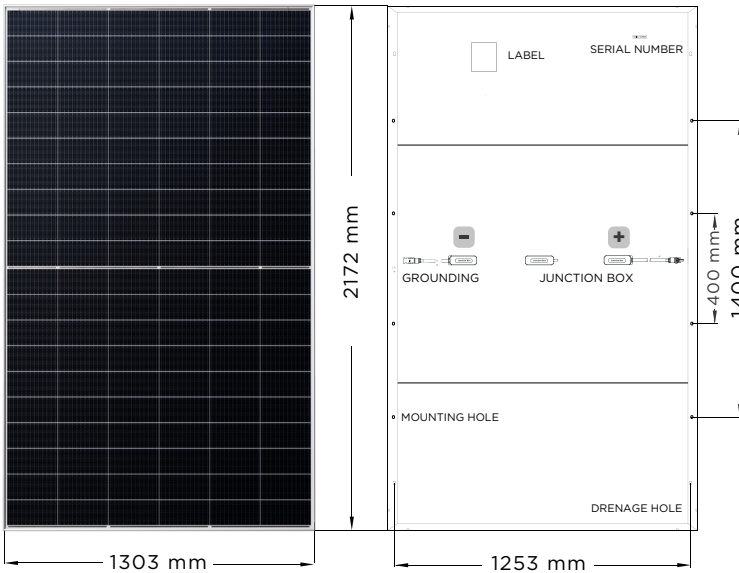
Tested to avoid microcracks and welding cracks, can withstand high pressure loads, passed multi-step quality control

PERFORMANCE



30 YEARS
Performance Guarantee

15 YEARS
Product Warranty



MATERIAL CHARACTERISTICS

Dimensions	2172 x 1303 x 35 mm
Weight	30.9 kg
Glass	3.2 mm AR coated tempered glass, low iron
Number of cells	120 pcs (6x20)
Cells	Mono-crystalline, Half Cut PERC 10BB (210 mm)
Frame	Silver color, Anodized aluminum alloy
Junction box	IP68, 3 diodes
Output cable	4 mm ² , 300 mm
Connector type	Staubli MC4-Evo 2 / MC4 (Original)

TEMPERATURE PARAMETERS

Temperature Coefficient of Pmax	-0.34 % / °C
Temperature Coefficient of Voc	-0.25 % / °C
Temperature Coefficient of Isc	+0.04 % / °C
Operating Temperature	-40°C to +85°C
Normal Operating Cell Temperature (NOCT)	43±2°C

MAXIMUM RATINGS

Max. System Voltage	1500V DC -(H)
Max. Series Fuse Rating	30A
Uplift load (wind)	2400 Pa*
Downforce load (snow)	5400 Pa*

PACKAGING INFORMATION

One pallet quantity	31 pcs
40 ft HC/HQ container	558 pcs

*For more information please refer to Instruction Manual

MODULE TYPE	120HC/12		585 Wp		590 Wp		595 Wp		600 Wp		605 Wp	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Electrical Characteristics												
Maximum power (Pmax / Wp)	585	443	590	447	595	451	600	454	605	458		
Open circuit voltage (Voc / V)	40.9	38.5	41.1	38.7	41.3	38.9	41.5	39.1	41.7	39.3		
Short circuit current (Isc / A)	18.37	14.81	18.42	14.85	18.47	14.88	18.52	14.92	18.57	14.96		
Maximum power voltage (Vmp / V)	33.8	31.5	34.0	31.7	34.2	31.9	34.4	32.0	34.6	32.2		
Maximum power current (Imp / A)	17.31	14.05	17.35	14.09	17.40	14.13	17.44	14.18	17.49	14.22		
Module efficiency at STC (ηm / %)	20.7		20.9		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

- IEC 62716 (Ammonia)
- IEC 60068-2-68 (Sand)
- IEC 61701 (Salt)
- IEC 61215 / 61730

