

# ASTORIOS

per aspera ad astra



## HETEROJUNCTION BIFACIAL, DOUBLE GLASS PHOTOVOLTAIC MODULE

ASTR 100HCHD/12 Series 530-555 Wp

**555Wp**

MAXIMUM POWER OUTPUT

**23.1%**

MAXIMUM MODULE EFFICIENCY



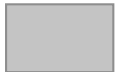
### NEGLECTIBLE LID IMPACT

HJT is subject to minimal LID due to the absence of boron-oxygen complexes and superior surface passivation, enhancing stability and efficiency under sunlight exposure



### 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



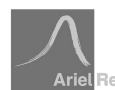
### SAND, AMMONIA AND SALT MIST RESISTANCE

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



### SUPERIOR SAFETY AND RELIABILITY

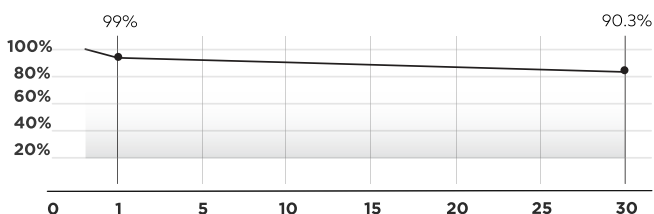
Tested to avoid microcracks and welding cracks, can withstand high pressure loads, passed multi-step quality control



### REINSURANCE COVERAGE

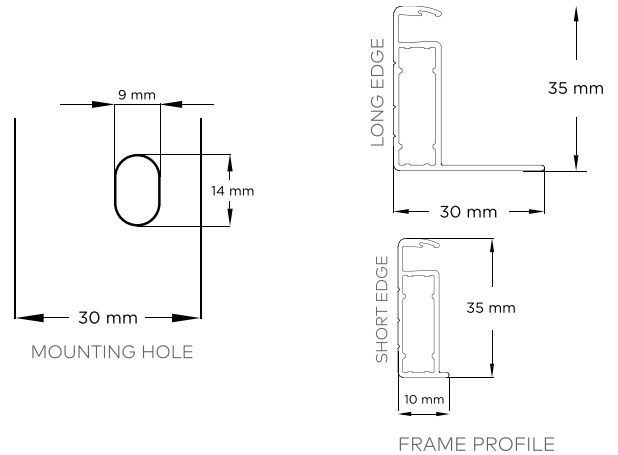
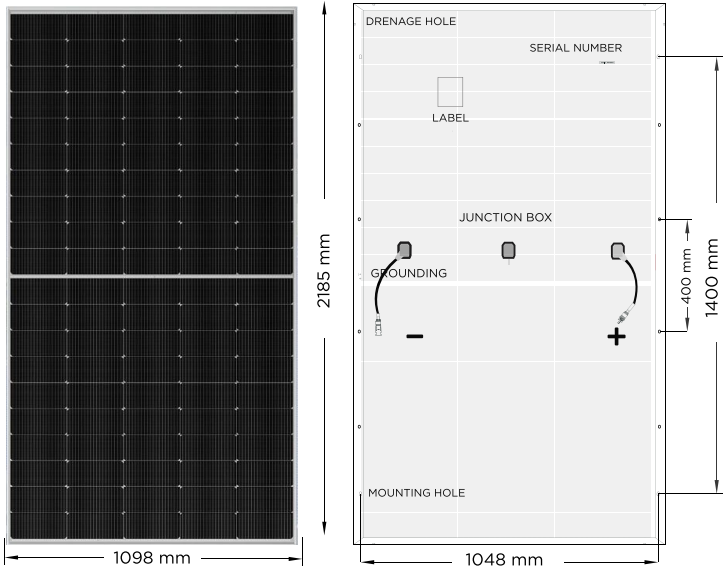
Reinsured for 30 years of performance guarantee by Ariel Re (Syndicate 1910 at Lloyd's)

## PERFORMANCE



**30 YEARS**  
Performance Guarantee

**20 YEARS**  
Product Warranty



## MATERIAL CHARACTERISTICS

Dimensions	2185 x 1098 x 35 mm
Weight	29.7kg
Number of cells	100 pcs (5x20)
Glass front/rear	2mm, High transparency, AR coated
Cell layout	HJT Mono 18BB/20BB
Frame	Silver color, anodized aluminum alloy
Junction box	IP68 Rated, 3 bypass diodes
Connector type	Staubli MC4-Evo 2 / MC4 (Original)
Cable	4 mm <sup>2</sup> , 300 mm

## TEMPERATURE PARAMETERS

Temperature Coefficient of Pmax	-0.243 % / °C
Temperature Coefficient of Voc	-0.223 % / °C
Temperature Coefficient of Isc	+0.026 % / °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	35A
Uplift load (wind)	2400 Pa*
Downforce (snow)	5400 Pa*

## PACKAGING INFORMATION

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

\*For more information please refer to Instruction Manual

MODULE TYPE 100HCHD/12	530 Wp		535 Wp		540 Wp		545 Wp		550 Wp		555 Wp	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
<b>ELECTRICAL CHARACTERISTICS</b>												
Maximum power (Pmax/Wp)	530	405	535	409	540	413	545	417	550	421	555	425
Open circuit voltage (Voc / V)	37.87	34.20	38.10	34.40	38.33	34.60	38.56	34.80	38.79	35.00	38.85	35.20
Short circuit current (Isc / A)	17.49	14.30	17.55	14.50	17.61	14.70	17.67	14.90	17.73	15.10	17.79	15.30
Maximum power voltage (Vmp / V)	31.78	29.70	31.96	29.90	32.14	30.10	32.33	30.30	32.52	30.50	32.71	30.70
Maximum power current (Imp / A)	16.68	13.64	16.74	13.68	16.81	13.72	16.87	13.76	16.93	13.81	16.99	13.87
Module efficiency at STC (ηm / %)	22.10		22.30		22.50		22.70		22.90		23.10	
Power tolerance (Pmax)	0-+3%											

NMOT: Irradiance 800 W/m<sup>2</sup>, ambient temperature 20°C and wind speed 1 m/s

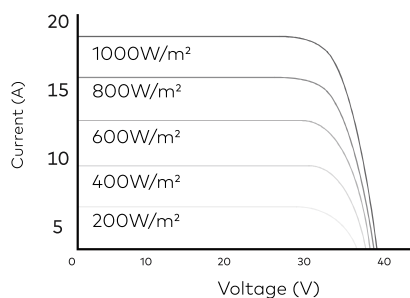
STC: Irradiance of 1000 W/m<sup>2</sup> with spectrum AM 1.5 and a module temperature of 25°C

## CERTIFICATES

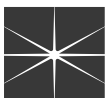
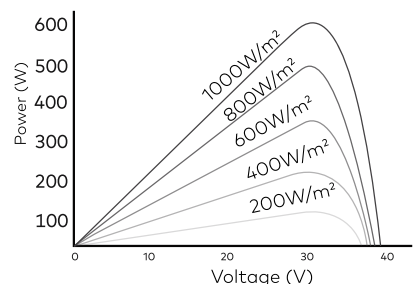
IEC62716 (Ammonia)  
IEC60068-2-68 (Sand)  
IEC61215 / 61730 / 61701



I-V Curve at Different Temperature (550 W)



P-V Curve (550 W)



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