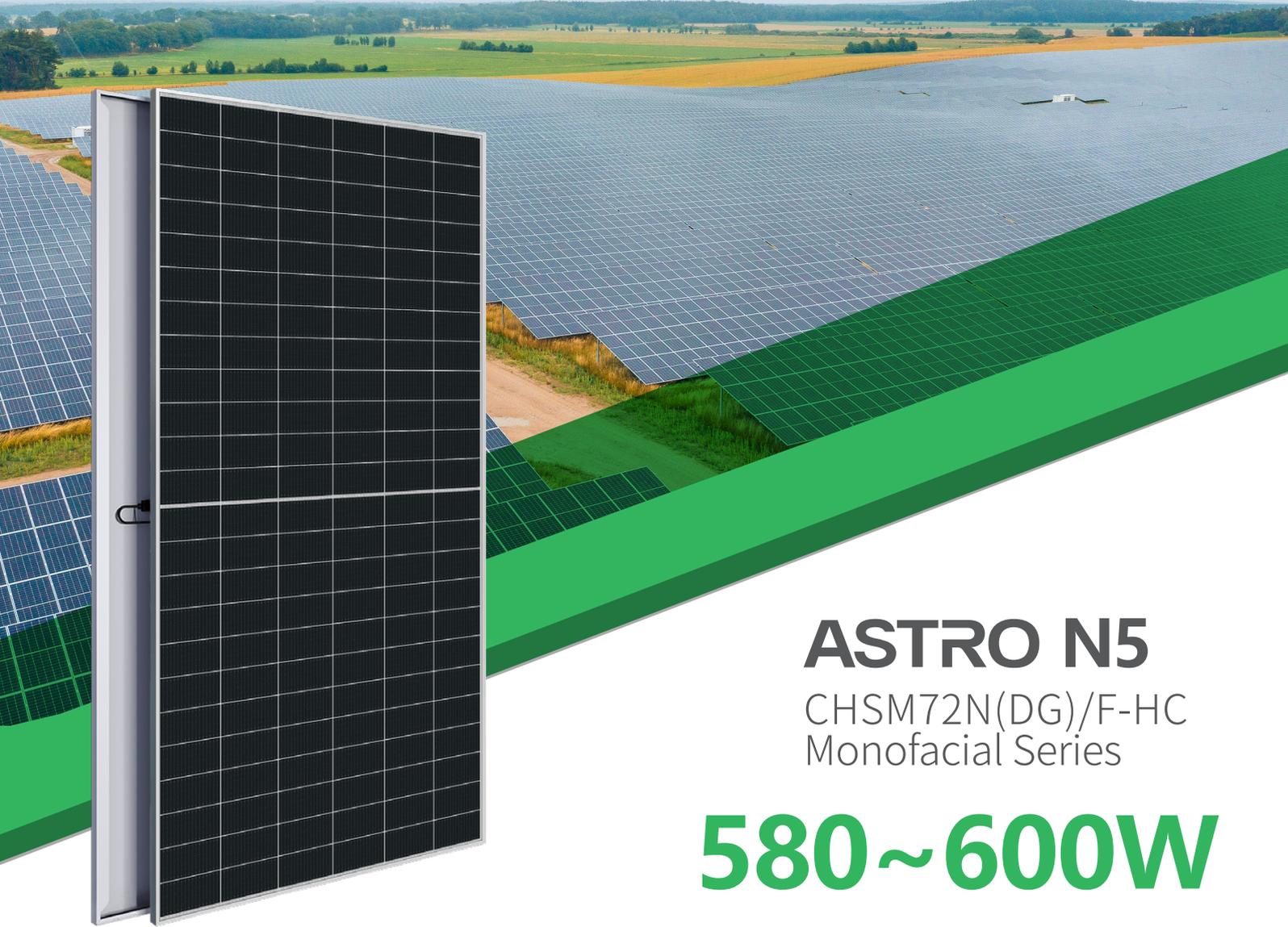




**ASTRONERGY**



# ASTRO N5

CHSM72N(DG)/F-HC  
Monofacial Series

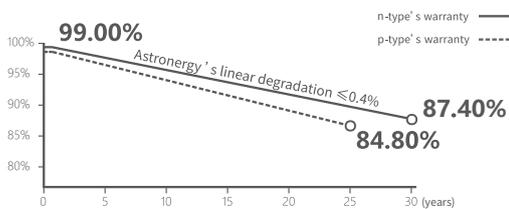
# 580~600W



## Warranty

**15** 15-year Product Warranty

**30** 30-year Linear Power Warranty



### n-type TOPCon 4.0

Novel upgrade, enhancing module efficiency



### SMBB Design

Enhancing current collection, minimizing power loss



### Better Temperature Coefficient

$\leq -0.29\%/^{\circ}\text{C}$ , adapting for high temperature



### Double-layer High-transmittance Glass

Enhancing light transmittance, effectively isolating moisture



IEC 61215, IEC 61730  
ISO 9001:2015:ISO Quality Management System  
ISO 14001:2015:ISO Environment Management System  
ISO 45001:Occupational Health and Safety  
The first solar company which passed the Nord IEC/TS 62941 certification audit



**Tier 1**  
BloombergNEF



**580~600W**

POWER RANGE

**0~+3%**

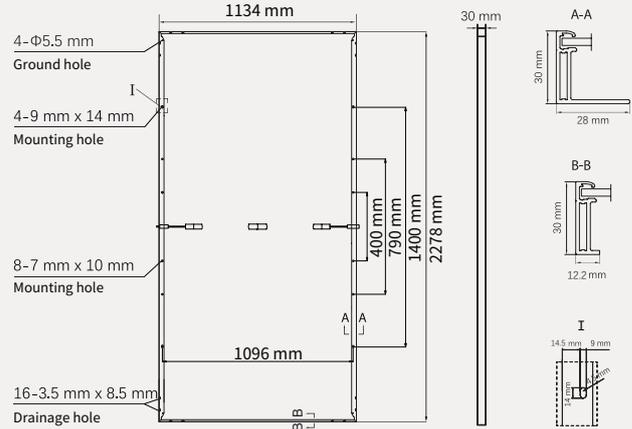
POWER SORTING

**23.2%**MAX MODULE  
EFFICIENCY**≤ 1.0%**FIRST YEAR  
POWER DEGRADATION**≤ 0.4%**YEAR 2-30  
POWER DEGRADATION

## Mechanical Specifications

Outer dimensions (L x W x H)	2278 x 1134 x 30 mm
Cell type	n-type mono-crystalline
No. of cells	144 (6*24)
Frame technology	Aluminum, silver anodized
Front / Back glass	2.0+2.0 mm
Cable length (Including connector)	Portrait: (+)350 mm, (-)250 mm; Customized length
Cable diameter (IEC/UL)	4 mm <sup>2</sup> / 12 AWG
① Maximum mechanical test load	5400 Pa (front) / 2400 Pa (back)
Connector type (IEC/UL)	HCB40 (Standard) / MC4-EVO2A (Optional)
Module weight	32.1 kg
Packing unit	36 pcs / box
Weight of packing unit (for 40'HQ container)	1207 kg
Modules per 40' HQ container	720 pcs (Subject to sales contract)

① Refer to Astronergy crystalline installation manual or contact technical department.  
Maximum Mechanical Test Load=1.5×Maximum Mechanical Design Load.



## Electrical Specifications

**STC:** Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25° C, AM=1.5

	580	585	590	595	600
Rated output (Pmpp / Wp)	580	585	590	595	600
Rated voltage (Vmpp / V)	43.95	44.08	44.20	44.33	44.45
Rated current (Impp / A)	13.20	13.27	13.35	13.42	13.50
Open circuit voltage (Voc / V)	52.30	52.45	52.60	52.75	52.90
Short circuit current (Isc / A)	13.98	14.08	14.18	14.26	14.34
Module efficiency	22.5%	22.6%	22.8%	23.0%	23.2%

**NMOT:** Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20° C, AM=1.5, Wind Speed 1m/s

	436.2	439.9	443.7	447.4	451.2
Rated output (Pmpp / Wp)	436.2	439.9	443.7	447.4	451.2
Rated voltage (Vmpp / V)	41.37	41.49	41.60	41.72	41.84
Rated current (Impp / A)	10.54	10.60	10.66	10.72	10.78
Open circuit voltage (Voc / V)	49.68	49.82	49.96	50.11	50.25
Short circuit current (Isc / A)	11.29	11.37	11.45	11.51	11.58

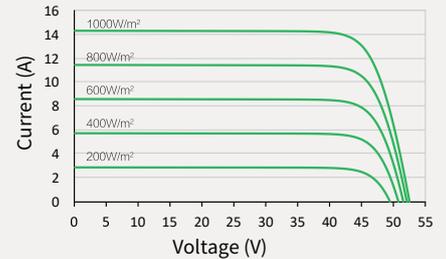
## Temperature Ratings (STC)

Temperature coefficient (Pmpp)	-0.29%/°C	No. of diodes	3
Temperature coefficient (Isc)	+0.043%/°C	Junction box IP rating	IP 68
Temperature coefficient (Voc)	-0.25%/°C	Max. series fuse rating	25 A
Nominal module operating temperature (NMOT)	41±2°C	Max. system voltage (IEC/UL)	1500V <sub>DC</sub>

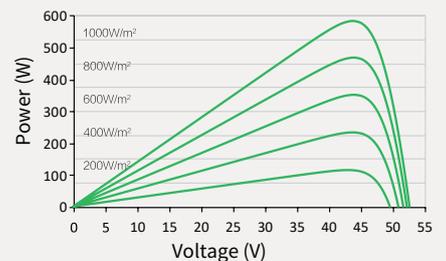
## Operating Parameters

## Curve

Current-Voltage (590W)



Power-Voltage (590W)



Current-Voltage (590W)

