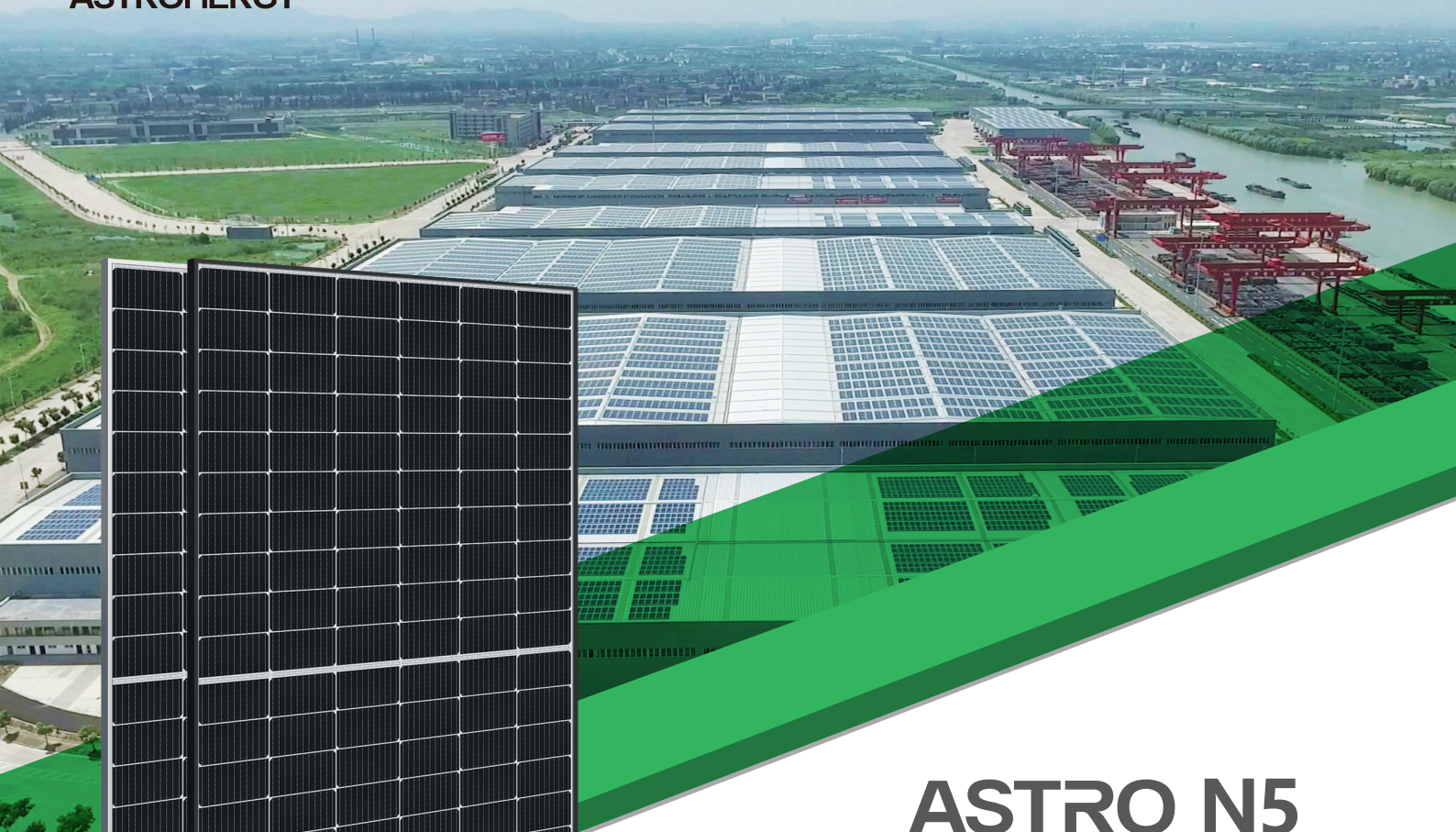




ASTRONERGY



ASTRO N5

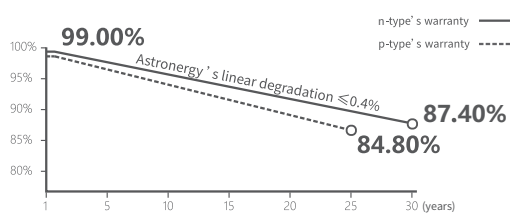
CHSM60N-HC
Monofacial Series(182)

460~480W

Warranty

25 25-year Product Warranty
(special for rooftop market)

30 30-year Linear Power Warranty



Key Features

- TOPCon / Half-cut
- Better temperature coefficient (Pmpp)
- Non-destructive cutting



ISO 9001:2015:ISO Quality Management System
ISO 14001:2015:ISO Environment Management System
ISO 45001:Occupational Health and Safety



Tier 1
BloombergNEF



460~480W

POWER RANGE

0~+5W

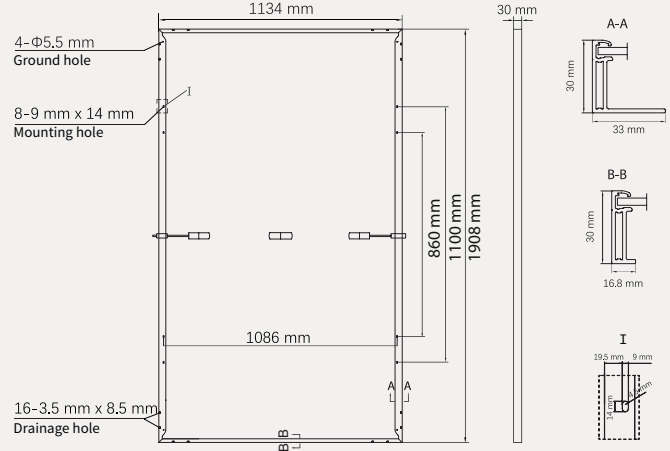
POWER SORTING

22.2%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)	1908 x 1134 x 30 mm
Cell type	n-type mono-crystalline
No. of cells	120 (6*20)
Frame technology	Aluminum, black or silver anodized
Front glass thickness	3.2 mm
Cable length (Including connector)	Portrait: (+)350 mm, (-)250 mm; Customized length
Cable diameter (IEC/UL)	4 mm ² / 12 AWG
① Maximum mechanical test load	5400 Pa (front) / 2400 Pa (back)
Connector type (IEC/UL)	PV-HCB40 (Astronergy) or PV-KST4-EVO2A/ xy, PV-KBT4-EVO2A/xy (Stäubli)
Module weight	23.9 kg
Packing unit	36 pcs / box (Subject to sales contract)
Weight of packing unit (for 40'HQ container)	905 kg
Modules per 40' HQ container	864 pcs

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



Electrical Specifications CHSM60N-HC-XXX(XXX=460-480)

STC: Irradiance 1000W/m², Cell Temperature 25° C, AM=1.5

	460	465	470	475	480
Rated output (Pmpp / Wp)	460	465	470	475	480
Rated voltage (Vmpp / V)	35.08	35.25	35.42	35.59	35.76
Rated current (Impp / A)	13.11	13.19	13.27	13.35	13.42
Open circuit voltage (Voc / V)	41.75	41.95	42.15	42.35	42.55
Short circuit current (Isc / A)	13.81	13.91	14.01	14.11	14.21
Module efficiency	21.3%	21.5%	21.7%	22.0%	22.2%

NMOT: Irradiance 800W/m², Ambient Temperature 20° C, AM=1.5, Wind Speed 1m/s

	345.9	349.7	353.4	357.2	361.0
Rated output (Pmpp / Wp)	345.9	349.7	353.4	357.2	361.0
Rated voltage (Vmpp / V)	33.02	33.18	33.34	33.49	33.66
Rated current (Impp / A)	10.48	10.54	10.60	10.67	10.73
Open circuit voltage (Voc / V)	39.66	39.85	40.04	40.23	40.42
Short circuit current (Isc / A)	11.15	11.23	11.31	11.39	11.47

Power Sorting: 0~+5W Power tolerance: +/- 3%

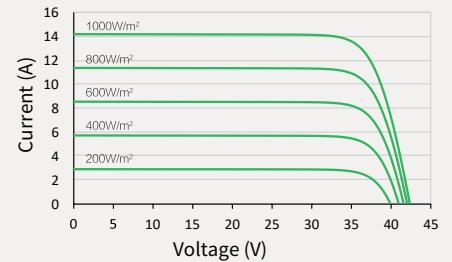
Temperature Ratings (STC) Operating Parameters

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 _{DC}

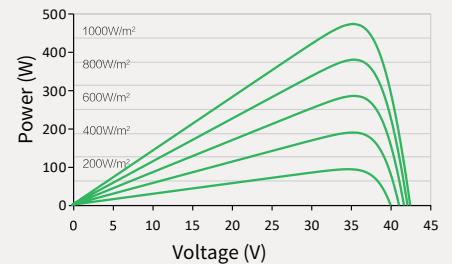
Fire performance: Class C

Curve

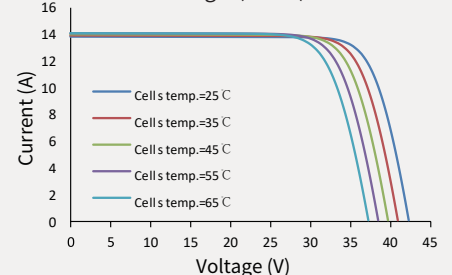
Current-Voltage (475W)



Power-Voltage (475W)



Current-Voltage (475W)



Made in China, Made in Thailand.

© Chint New Energy Technology Co., Ltd. Reserves the right of final interpretation. please contact our company to use the latest version for contract.

<http://www.astronergy.com.au>

202306