ASTRONERGY
A CHINT COMPANY

ASTRO 5s

Create Sustainable and Efficient Green Energy

CHSM54M(BL)-HC
Monofacial Series (182)

390~405W

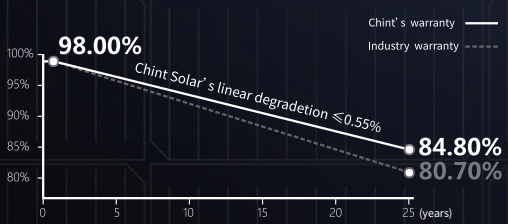
PERC+ / Multi-busbar / Half-cut

Non-destructive cutting

PID resistance

All black

Assist carbon neutrality CO_2



12-year Product Warranty

25-year Linear Power Warranty

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.

2021 TOP Performance PVEL

Tier 1 BloombergNEF

Underwritten by International Insurer

390~405W	0~+5W	20.7%	≤ 2.0%	≤ 0.55%
POWER RANGE	POWER TOLERANCE	MAX MODULE EFFICIENCY	FIRST YEAR POWER DEGRADETION	YEAR 2-25 POWER DEGRADETION

Electrical Specifications

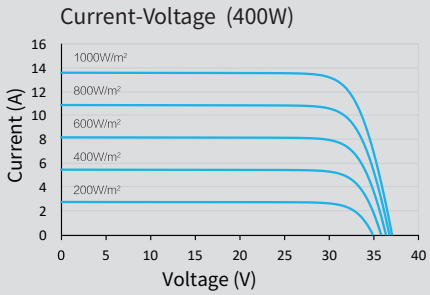
STC: Irradiance 1000W/m², Cell Temperature 25° C, AM=1.5

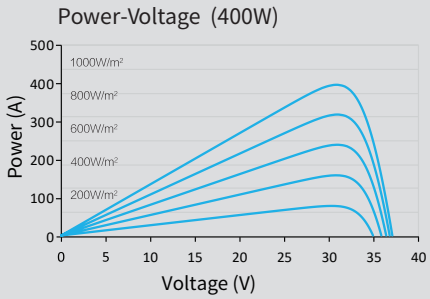
Rated output (Pmpp / Wp)	390	395	400	405
Rated voltage (Vmpp / V)	30.76	30.92	31.09	31.26
Rated current (Impp /A)	12.68	12.77	12.86	12.96
Open circuit voltage (Voc / V)	36.60	36.80	37.00	37.20
Short circuit current (Isc /A)	13.40	13.52	13.65	13.76
Module efficiency	20.0%	20.2%	20.5%	20.7%

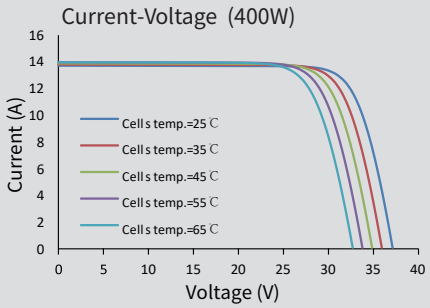
NMOT: Irradiance 800W/m², Ambient Temperature 20° C, AM=1.5, Wind Speed 1m/s

Rated output (Pmpp / Wp)	291.5	295.2	298.9	302.7
Rated voltage (Vmpp / V)	28.66	28.82	28.98	29.13
Rated current (Impp /A)	10.17	10.24	10.32	10.39
Open circuit voltage (Voc / V)	34.59	34.78	34.97	35.15
Short circuit current (Isc /A)	10.87	10.97	11.07	11.17

Curve







Temperature Ratings (STC)

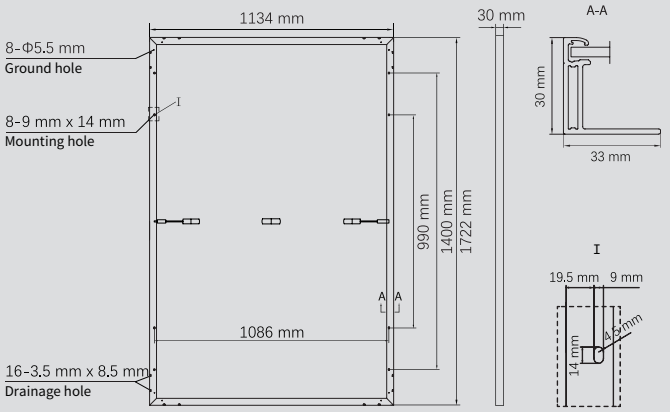
Temperature coefficient (Pmpp)	-0.35%/°C
Temperature coefficient (Isc)	+0.045%/°C
Temperature coefficient (Voc)	-0.27%/°C
Nominal module operating temperature (NMOT)	41±2°C

Operating Parameters

No. of diodes	3
Junction box IP rating	IP 68
Max. series fuse rating	25 A
Max. system voltage (IEC/UL)	1000V_{DC}

Mechanical Specifications

Outer dimensions (L x W x H)	1722 x 1134 x 30 mm
Cell Type	P type Mono-crystalline
No. of cells	108 (6*18)
Frame technology	Aluminum, black anodized
Front glass thickness	3.2 mm
Cable length (IEC/UL)	Portrait: 300 mm; Landscape: 1200 mm
Cable diameter (IEC/UL)	4 mm² / 12 AWG
① Maximum mechanical test load	5400 Pa (front) / 2400 Pa (back)
Connector type (IEC/UL)	HCB40 / MC4 (optional)
Module weight	21.6 kg (Tolerance +/- 1.0kg)
Packing unit	36 pcs / box (Subject to sales contract)
Weight of packing unit (for 40'HQ container)	821 kg
Modules per 40' HQ container	936 pcs



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

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