


Crystal P8


Full Black Mono-Crystalline

405~420W

0~+5W POWER TOLERANCE

- High efficiency PERC single glass full black solar module
- Stronger properties, PID resistance, reduced hot spot loss
- Better temperature coefficient
- Harsh environmental adaptation
- Full black module, aesthetic appearance

12 years material process warranty 

25 years power linear warranty 

A sound quality management system and product certification

IEC61215(2016), IEC61730(2016)

ISO9001:2015: Quality management system

ISO14001:2015: Environmental management system

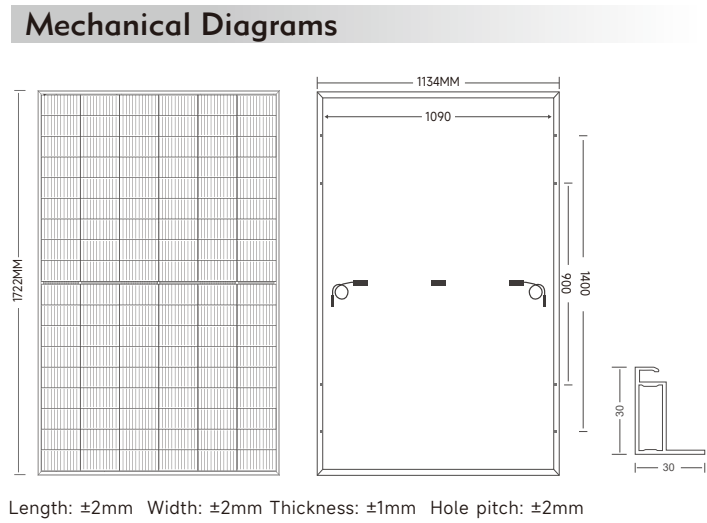
ISO45001:2018: Occupational health and safety management system



21.5% MAXIMUM CONVERSION	0~+5W POWER TOLERANCE	0.55% 0.55% PER YEAR OVER 25 YEARS	Half-Cut Module LOWER TEMPERATURE COEFFICIENT
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Specification

Cell Type	PERC Mono Crystalline, 10BB or 11BB
No. of Cells	108 [2x(6x9)] pcs
Dimension	1722x1134x30mm
Weight	21kg±3%
Glass	3.2 mm Tempered Glass
Back Sheet	Black
Frame	Sliver/Black Anodized Aluminum Alloy
Junction Box	IP68
Cable Length	300mm,1200mm (can be customized)



Packing Standard

36pcs/pallet
40HQ: 26 pallets/container, 936pcs/container

Electrical Parameters At STC

Module Type	QN-405HT-1	QN-410HT-1	QN-415HT-1	QN-420HT-1
Peak Power-Pmax (W)	405	410	415	420
Open Circuit Voltage-Voc (V)	36.89	37.19	37.99	38.48
Short Circuit Current-Isc (A)	13.67	13.69	13.72	13.74
Maximum Power Voltage-Vmp(V)	31.25	31.59	31.90	32.21
Maximum Power Current-mp(A)	12.96	12.98	13.01	13.04
Module Efficiency - nm(%)	20.7	21.0	21.3	21.5

Electrical Parameters At NOCT

	306	310	313	317
Maximum Power-Pmax(W)				
Open Circuit Voltage-Voc (V)	34.96	35.24	36.00	36.46
Short Circuit Current-Isc (A)	11.10	11.16	11.18	11.20
Maximum Power Voltage-Vmp (V)	29.00	29.23	29.51	29.80
Maximum Power Current-Imp (A)	10.56	10.62	10.64	10.66

Operating Parameters

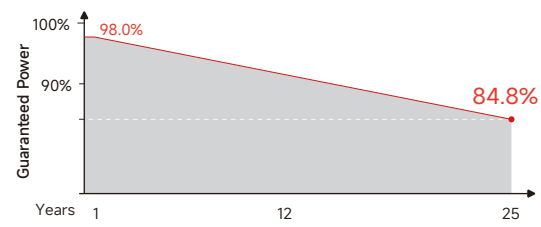
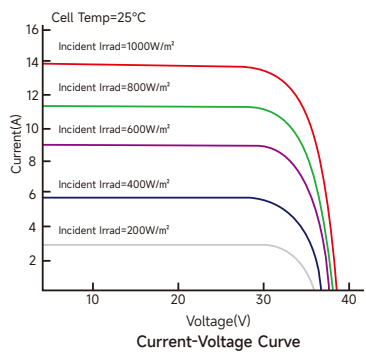
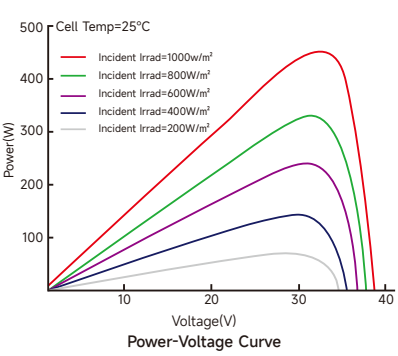
Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	25A
Nominal Operating Cell Temperature	45±2°C
Operational Temperature	-45°C~+85°C
Safety Class	Class II

Temperature Coefficient (STC Test)

Temperature Coefficient of Isc	+0.04%/°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Pmax	-0.34%/°C

Load Capacity

Max Load Front	5400Pa
Max Load Back	2400Pa
Through Hail Testing	25mm Diameter, Impact Speed 23m/s



STC: Irradiance:1000W/m² | Battery temperature: 25°C | Atmospheric=1.5

NOCT: Irradiance:800W/m² | Ambien temperature: 20°C | Atmospheric=1.5 | Wind speed 1m/s

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