



Q-SUN solar

Qrystal **N8**

Full Black Mono-Crystalline

430~450W

0~+5W POWER TOLERANCE

High efficiency N - type Double glass black grid solar module ●

Stronger properties, PID resistance, reduced hot spot loss ●

Better temperature coefficient ●

Harsh environmental adaptation ●

Full black module, aesthetic appearance ●

Bifacial module, more power generation ●

25 years product warranty 

30 years power linear warranty 



*Subject to the terms and conditions contained in the applicable Q-SUN solar Limited Warranty Statement.
25-year limited product warranty is available only for products installed and operating on rooftops in certain regions.

22.5%
MAXIMUM CONVERSION

0~+5W
POWER TOLERANCE

0.4%
0.4% PER YEAR OVER 30 YEARS

Half-Cut Module
LOWER TEMPERATURE COEFFICIENT

Specification

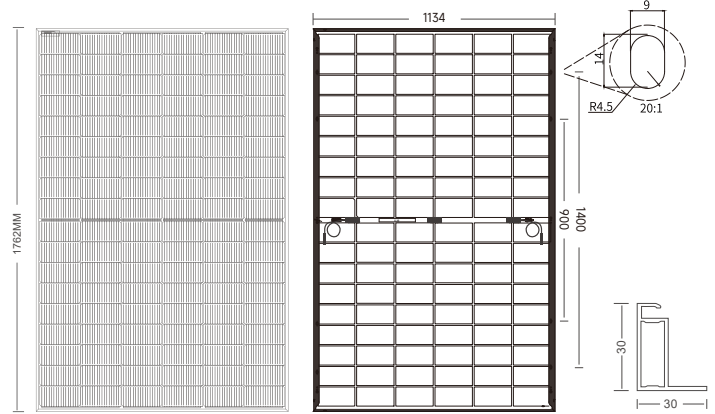
Cell Type	Mono Crystalline 16BB
No. of Cells	108 [2x(6×9)] pcs
Dimension	1762×1134×30mm
Weight	25kg±3%
Front Glass	2.0mm
Back Glass	2.0mm
Frame	Black Anodized Aluminum Alloy
Junction Box	IP68
Cable Length	300mm,1200mm(can be customized)

Packing Standard

36pcs/pallet

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

Mechanical Diagrams



Length: ±2mm Width: ±2mm Thickness: ±1mm Hole pitch: ±2mm

Electrical Parameters At STC

Module Type	QN-430HD-1	QN-435HD-1	QN-440HD-1	QN-445HD-1	QN-450HD-1
Peak Power-Pmax (W)	430	435	440	445	450
Open Circuit Voltage-Voc (V)	39.53	40.02	39.40	39.61	39.92
Short Circuit Current-Isc (A)	13.57	13.58	13.79	13.86	13.94
Maximum Power Voltage-Vmp(V)	32.85	33.14	33.58	33.81	34.06
Maximum Power Current-mp(A)	13.09	13.13	13.10	13.16	13.21
Module Efficiency - nm(%)	21.5	21.8	22.0	22.3	22.5

Electrical Parameters At NOCT

Maximum Power-Pmax(W)	325	329	333	336	340
Open Circuit Voltage-Voc (V)	37.55	38.02	37.43	37.62	37.91
Short Circuit Current-Isc (A)	10.86	10.86	11.03	11.09	11.15
Maximum Power Voltage-Vmp (V)	31.04	31.31	31.74	31.95	32.19
Maximum Power Current-Imp (A)	10.47	10.50	10.48	10.53	10.57

Operating Parameters

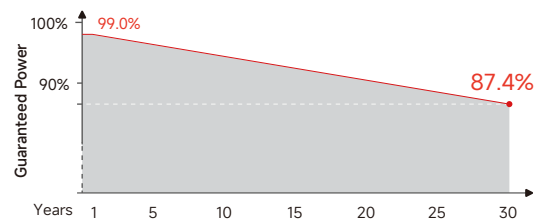
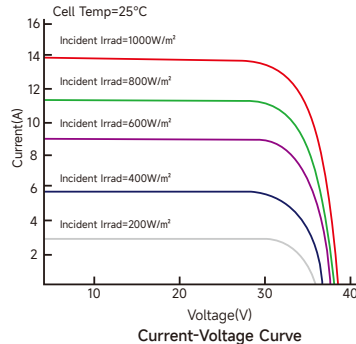
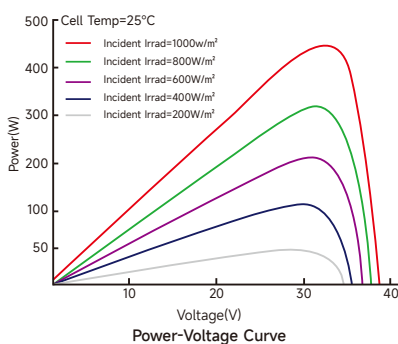
Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	25A
Nominal Operating Cell Temperature	42±2°C
Operational Temperature	-45°C~+85°C
Safety Class	Class II

Temperature Coefficient (STC Test)

Temperature Coefficient of Isc	+0.04%/°C
Temperature Coefficient of Voc	-0.24%/°C
Temperature Coefficient of Pmax	-0.29%/°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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