


Q-SUN solar

Onyx Series

Black Frame Mono-Crystalline 425~450W

0~+5W POWER TOLERANCE

- High efficiency N - type Single glass white back solar Module
- Stronger properties, PID resistance, reduced hot spot loss
- Better temperature coefficient
- Harsh environmental adaptation
- black frame module, aesthetic appearance
- more power generation

25 years material warranty 

30 years power linear warranty 



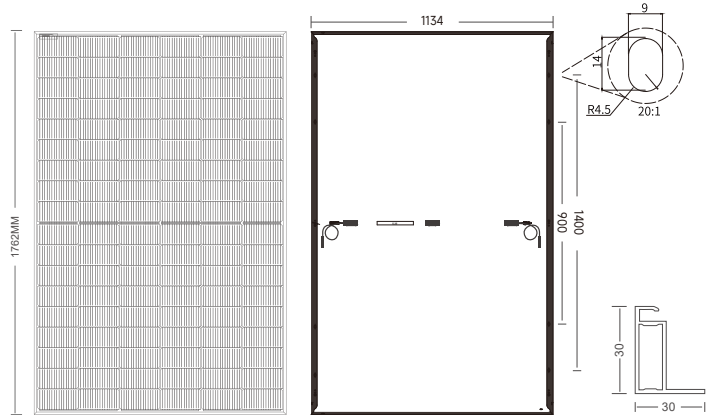
*Subject to the terms and conditions contained in the applicable Q-SUN solar Limited Warranty Statement.
25-year limited product warranty is available only for products installed and operating on rooftops in certain regions.

22.5% MAXIMUM CONVERSION	0~+5W POWER TOLERANCE	0.4% 0.4% PER YEAR OVER 30 YEARS	Half-Cut Module LOWER TEMPERATURE COEFFICIENT
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Specification

Cell Type	Mono Crystalline 16BB
No. of Cells	108 [2x(6x9)] pcs
Dimension	1762×1134×30mm
Weight	25kg±3%
Glass	1.6mm
Frame	Black Anodized Aluminum Alloy
Junction Box	IP68
Cable Length	300mm,1200mm(can be customized)

Mechanical Diagrams



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

Packing Standard

37pcs/pallet

40HQ: 26 pallets/container, 962pcs/container

Electrical Parameters At STC

	QN-425HT-05	QN-430HT-05	QN-435HT-05	QN-440HT-05	QN-445HT-05	QN-450HT-05
Module Type	STC	STC	STC	STC	STC	STC
Peak Power-Pmax (W)	425	430	435	440	445	450
Open Circuit Voltage-Voc (V)	39.08	39.38	39.67	39.96	40.24	40.53
Short Circuit Current-Isc (A)	13.77	13.82	13.88	13.94	14.00	14.06
Maximum Power Voltage-Vmp(V)	32.44	32.70	32.96	33.21	33.46	33.71
Maximum Power Current-mp(A)	13.10	13.15	13.20	13.25	13.30	13.35
Module Efficiency - nm(%)	21.3	21.5	21.8	22.0	22.3	22.5

Electrical Parameters At NOTC

	321	325	329	333	336	340
Maximum Power-Pmax(W)	321	325	329	333	336	340
Open Circuit Voltage-Voc (V)	37.13	37.42	37.69	37.96	38.23	38.50
Short Circuit Current-Isc135 (A)	11.01	11.06	11.11	11.15	11.20	11.25
Maximum Power Voltage-Vmp (V)	30.66	30.9	31.15	31.38	31.62	31.86
Maximum Power Current-Imp (A)	10.48	10.52	10.56	10.60	10.64	10.68

Operating Parameters

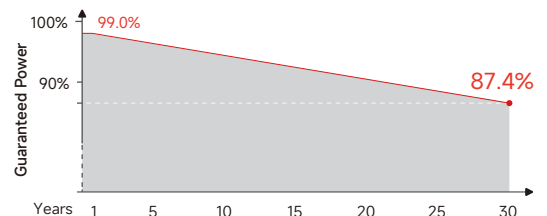
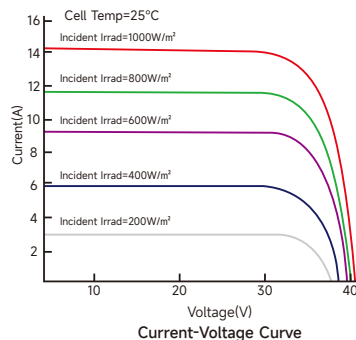
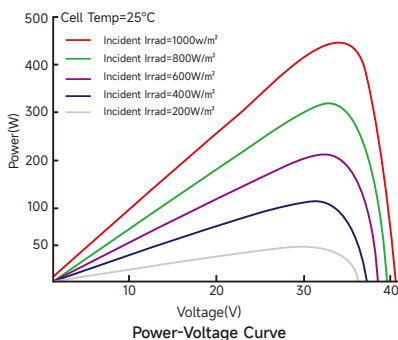
Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	25A
Nominal Operating Cell Temperature	42±2°C
Operational Temperature	-45°C~+85°C
Safety Class	Class II

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
BNPI: Rear Irradiance 135W/m² | Bifaciality coefficient 80%±5%

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