

Mercury Series

Black Frame Mono-Crystalline

440~460W

0~+5W POWER TOLERANCE

- High efficiency N - type Double glass solar module
- Stronger properties, PID resistance, reduced hot spot loss
- Better temperature coefficient
- Harsh environmental adaptation
- Bifacial module, more power generation

25 years material warranty **25**

30 years power linear warranty **30**

108

HALF-CUT
CELLS

182
x188
mm

RECTANGULAR
CELLS



*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.

23%
MAXIMUM CONVERSION

0~+5W
POWER TOLERANCE

0.4%
0.4% PER YEAR OVER 30 YEARS

Half-Cut Module
LOWER TEMPERATURE COEFFICIENT

Specification

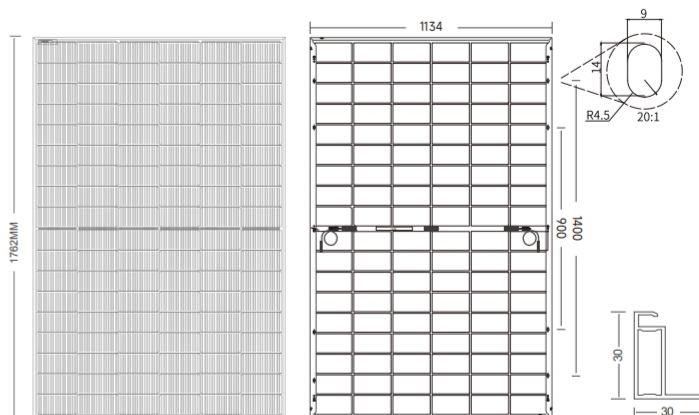
Cell Type	Mono Crystalline 16BB
No. of Cells	108 [2x(6x9)] pcs
Dimension	1762×1134×30mm
Weight	25.0kg±3%
Front Glass	2.0mm
Back Glass	2.0mm
Frame	Anodized Aluminum Alloy
Junction Box	IP68
Cable Length	300mm,1200mm(can be customized)

Packing Standard

37pcs/pallet

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

Mechanical Diagrams



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

Electrical Parameters

Module Type	QN-440HT-05		QN-445HT-05		QN-450HT-05		QN-455HT-05		QN-460HT-05	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Peak Power-Pmax (W)	440	333	445	336	450	340	455	344	460	348
Open Circuit Voltage-Voc (V)	39.42	37.45	39.70	37.72	39.98	37.98	40.08	38.08	40.37	38.35
Short Circuit Current-Isc (A)	14.13	11.30	14.19	11.35	14.25	11.4	14.30	11.44	14.36	11.49
Maximum Power Voltage-Vmp(V)	32.74	30.94	32.99	31.18	33.23	31.4	33.48	31.64	33.72	31.87
Maximum Power Current-mp(A)	13.44	10.75	13.49	10.79	13.54	10.83	13.59	10.87	13.64	10.91
Module Efficiency - nm(%)	22.0		22.3		22.5		22.8		23.0	

Electrical Parameters At BNPI

Maximum Power-Pmax(W)	485	491	496	502	507
Open Circuit Voltage-Voc (V)	39.42	39.70	39.98	40.08	40.37
Short Circuit Current-Isc135 (A)	15.58	15.64	15.71	15.77	15.84
Short Circuit Current-Isc300 (A)	17.35	17.42	17.49	17.57	17.64
Maximum Power Voltage-Vmp (V)	32.74	32.99	33.23	33.48	33.72
Maximum Power Current-Imp (A)	14.82	14.87	14.93	14.98	15.04

Operating Parameters

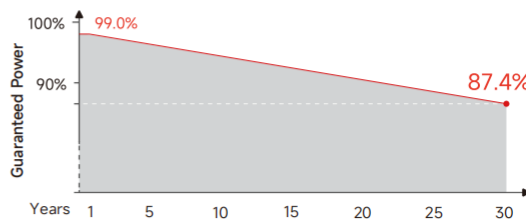
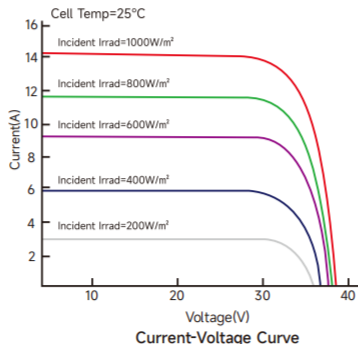
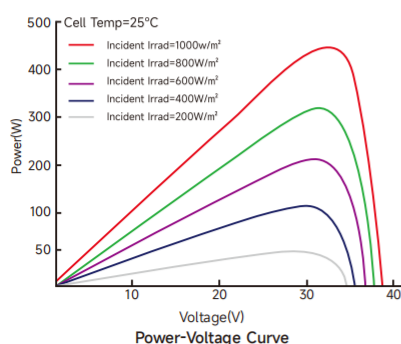
Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	25A
Nominal Operating Cell Temperature	42±2°C
Operational Temperature	-45°C~+85°C
Safety Class	Class II
Refer.Bifacial Factor	80%+10%

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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