



Q-SUN solar

Mercury Series

Mono-Crystalline
580~590W

0~+5W POWER TOLERANCE

- High efficiency N - type Double glass module
- Stronger properties, PID resistance, reduced hot spot loss
- Higher module power, lower BOS costs
- Harsh environmental adaptation
- Bifacial module, more power generation

15 years material warranty **15**

30 years power linear warranty **30**

144

HALF-CUT
CELLS

182
x183.75
mm

RECTANGULAR
CELLS

**Comprehensive 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



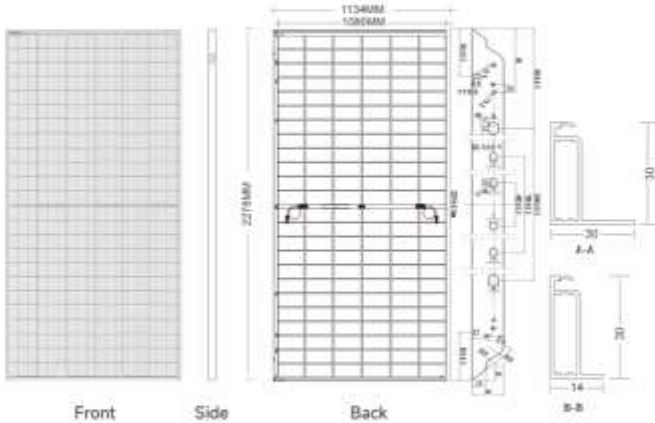
22.8%
MAXIMUM CONVERSION

0~+5W
POWER TOLERANCE

0.4%
0.4% PER YEAR OVER 30 YEARS

Half-Cut Module
LOWER TEMPERATURE COEFFICIENT

Mechanical Diagrams



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

Packing Standard

Container capacity(40HQ)

Pallet size (mm) 37pcs/pallet, 20pallets/ctns, 740pcs/ctn

Electrical Parameters At BNPI

Maximum Power (Pmax)	628	634	639	645	650
Open Circuit Voltage (Voc)	51.22	51.47	51.70	51.93	52.16
Short Circuit Current (Isc135)	15.53	15.59	15.66	15.72	15.78
Maximum Power Voltage (Vmp)	43.21	43.43	43.64	43.85	44.06
Maximum Power Current (Imp)	14.54	14.60	14.65	14.71	14.76
Short Circuit Current (Isc300)	17.30	17.37	17.44	17.51	17.58

Electrical Parameters

Module Type	QN-580HT-06		QN-585HT-06		QN-590HT-06	
	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	580	438	585	442	590	446
Open Circuit Voltage (Voc)	51.70	49.11	51.93	49.33	52.16	49.55
Short Circuit Current (Isc)	14.20	11.36	14.26	11.41	14.32	11.46
Maximum Power Voltage (Vmp)	43.64	41.24	43.85	41.44	44.06	41.64
Maximum Power Current (Imp)	13.29	10.63	13.34	10.67	13.39	10.71
Module Efficiency -ηm (%)	22.5		22.6		22.8	

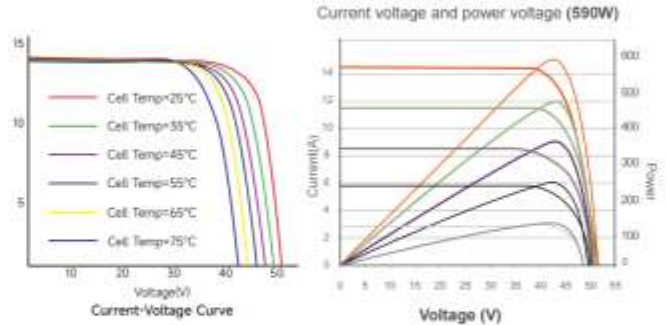
Load Capacity

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

Temperature Coefficient (STC Test)

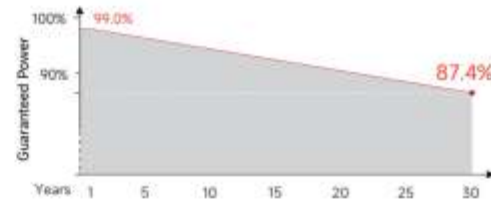
Temperature Coefficient of Isc	+0.04%/°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Pmax	-0.30%/°C

Curve Figure



Specification

Cell Type	mono crystalline 16BB
No. of Cells	144 [2x(6x12)] pcs
Dimension	2278x1134x30mm
Weight	31.2kg
Front Glass	2.0 mm
Back Glass	2.0 mm
Junction Box	IP68
Cable Length	300mm,1200mm(can be customized)



Operation Parameters

Operational Temperature	-40°C~+85°C
Maximum System Voltage	1500VDC (IEC)
Maximum Series Fuse Rating	30A
Power Tolerance	0~+5W
Nominal Operating Cell Temperature (NOCT)	42±2°C
Safety Class	Class II
Refer.Bifacial Factor	80±10%

STC: Irradiance:1000W/m² | Battery temperature: 25°C | Atmospheric=1.5
 NOCT: Irradiance:800W/m² | Ambient temperature: 20°C | Atmospheric=1.5 | Wind speed 1m/s
 BNPI: Rear Irradiance 135W/m² | Bifaciality coefficient 80%±5%

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