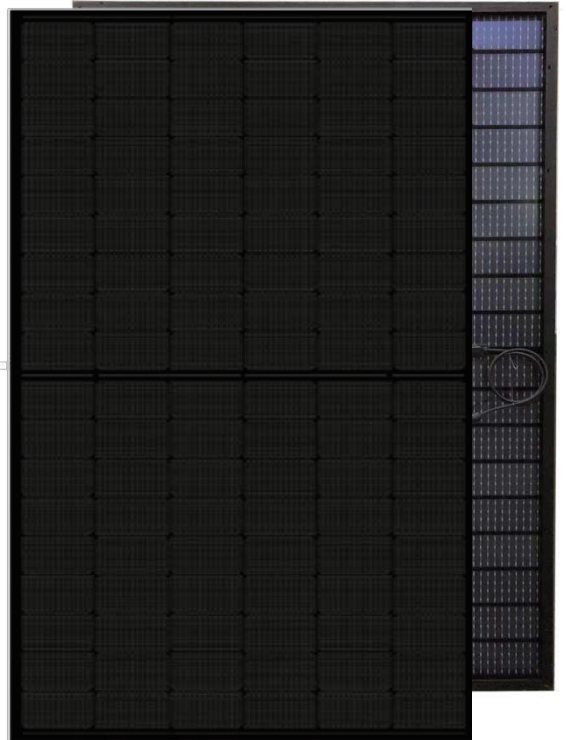


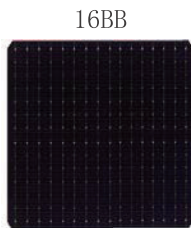
## N type Mono-crystalline 420-440 Watt



0~+3% POWER TOLERANCE

High efficiency N - type Double glass black grid solar module

### Cell Busbar



### Module characteristics



#### Stronger properties

Passes the wind load test of 2400Mpa and the snow load test of 5400Mpa



#### Better attenuation

N-type, Components have better reliability and lower LID/LETID attenuation



#### PID resistance

The attenuation probability of PID phenomenon is minimized through battery production technology optimization and material control



#### Harsh environmental adaptation

Third party certification passed high salt spray and high ammonia corrosion test



#### Multiple grid and Half cell technique

More light utilization and current collection capabilities, effectively improving product power output and reliability



### Long and reliable quality assurance

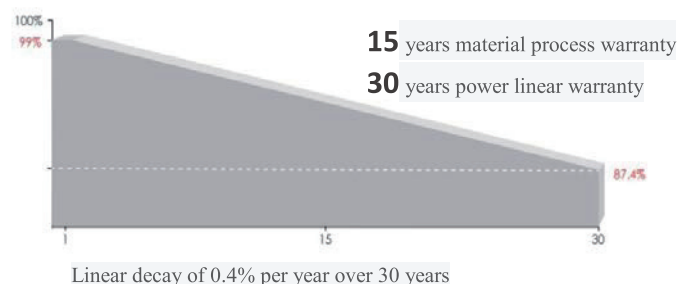
IEC61215 (2016), IEC61730 (2016)

ISO9001:2015: Quality management system

ISO14001:2015: Environmental management system

ISO45001:2018: Occupational health and safety management system

Power output



## Electrical Parameters

Model Type	QN-420HD-1		QN-425HD-1		QN-430HD-1		QN-435HD-1		QN-440HD-1	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	420	318	425	322	430	326	435	330	440	334
Open Circuit Voltage (Voc)	38.76	36.2	39.04	36.4	39.53	36.6	40.02	36.8	38.7	37
Short Circuit Current (Isc)	13.54	11.27	13.56	11.33	13.57	11.38	13.58	11.43	14.32	11.18
Maximum Power Voltage (Vmp)	32.3	30.0	32.6	30.2	32.9	30.3	33.1	30.5	32.8	30.7
Maximum Power Current (Imp)	13.02	10.62	13.06	13.20	13.09	10.74	13.13	10.82	13.42	10.88
Module Efficiency - $\eta_m$ (%)	21.0		21.3		21.5		21.8		22.0	
Operational Temperature	-40°C~+85°C									
Maximum System Voltage	1500VDC									
Maximum Series Fuse Rating	25A									
Power Tolerance	0~+3%									
Temperature Coefficient of Pmax	-0.310%/°C									
Temperature Coefficient of Voc	-0.260%/°C									
Temperature Coefficient of Isc	+0.046%/°C									
Nominal Operating Cell Temperature	45±2°C									
Fire Protection	Double Glass									
Max Load (Front/back)	5400Mpa/2400Mpa									

STC: Irradiance 1000W/m<sup>2</sup>

Battery temperature 25°C

Atmospheric quality =1.5

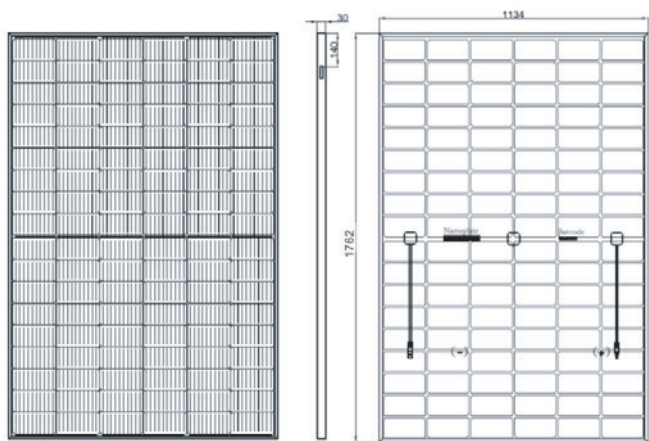
NOCT: Irradiance 800W/m<sup>2</sup>

Ambient emperature 25°C

Atmospheric quality =1.5

Wind speed 1m/S

## Mechanical Diagrams



Front

Side

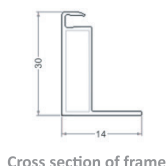
Back

Length: ± 2mm

Width: ± 2mm

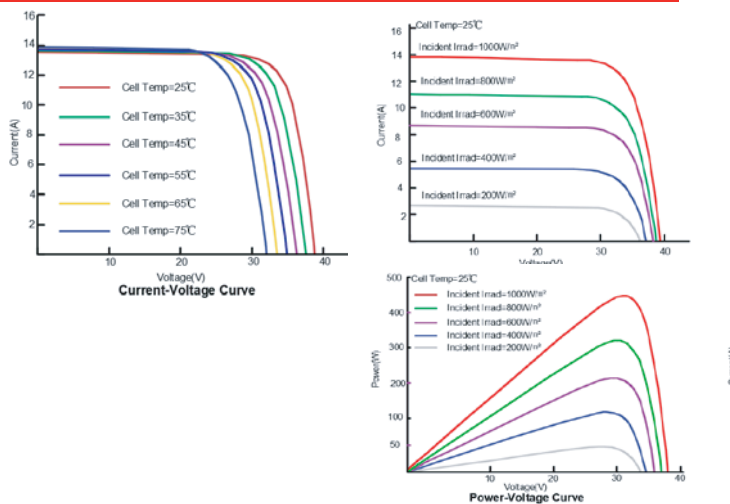
Thickness: ± 1mm

Hole pitch: ± 2mm



Cross section of frame

## Curve figure



## Specification

Cell type N type mono crystalline 16BB

Half-cell quantity 108 (6×18) pcs

Dimension 1762×1134×30mm

Weight 25.3kg ± 3%

Front glass 2.0 mm Tempered Glass

Back glass 2.0mm, float, transparent/grid optional

Frame Black Anodized Aluminum Alloy

Junction Box IP68

Cable 1200mm

## Packing standard

36pcs/pallet, Each pallet size: 1797x1110x1245mm

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

The company reserves the right of final interpretation

Hersteller (manufacturer): Q-SUN Anhui Co. Ltd.