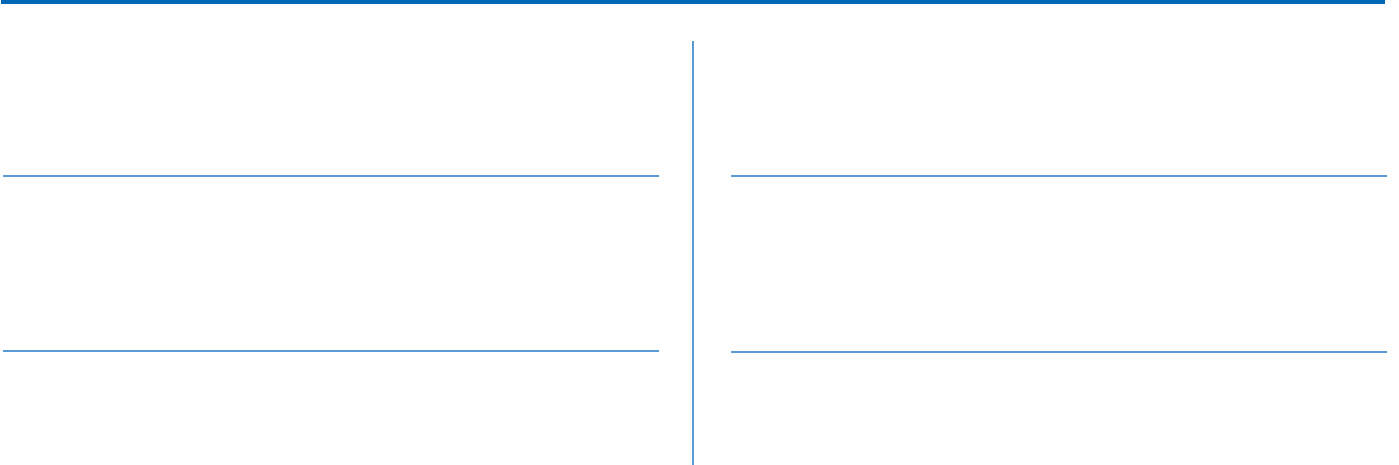
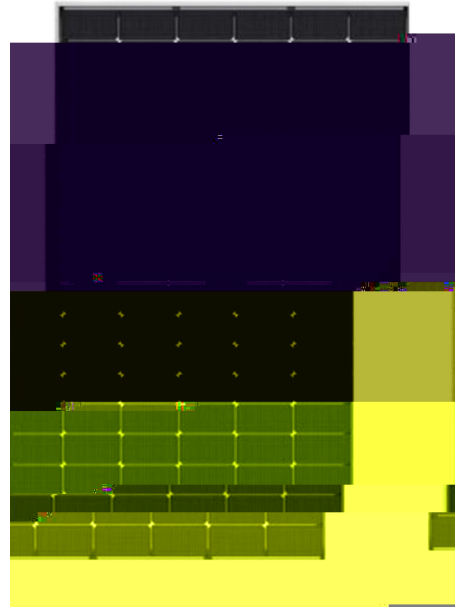

Maximum module efficiency

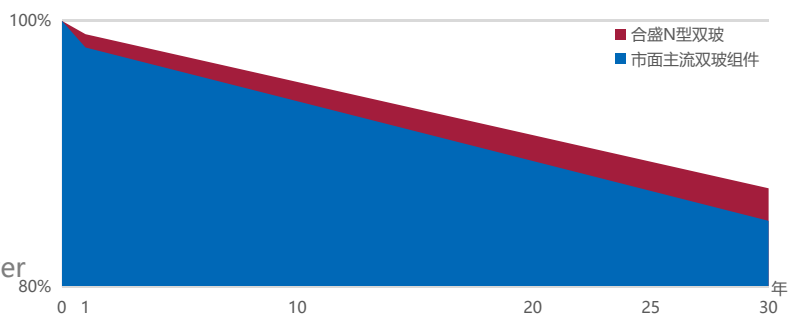


12

- 12-year product warranty
- 1% 1st-year power degradation

30

- 30-year linear power warranty
- 0.4% annual power degradation



IEC61215(2016), IEC61730(2016)

ISO9001:2015: Quality Management System (QMS)

ISO14001:2015: Environmental Management System

ISO45001:2018:Occupational Health and Safety Management System





Mechanical Parameters

Cell type	N-type Monocrystalline solar cells
Number of half cell	108 (6×18)
Dimensions	1722×1134×30mm
Weight	20.5kg
Front Glass	1.6mm anti-reflective coating glass
Back Glass	1.6mm Heat-strengthened glass
	Anodized aluminum alloy
Junction box	IP68
Output cable	4.0mm ² ; + 400/-200mm or customised
Size of each pallet	1778×1140×1250mm

Electrical performance parameters

Module Type

HS-54TBB 420-440-S3

Test Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	420	316	425	319	430	322	435	327	440	329
Optimum Operating Voltage (Vmp/V)	32.02	30.05	32.35	30.28	32.68	30.51	33.01	30.83	33.34	31.04
Optimum Operating Current (Imp/A)	13.12	10.52	13.14	10.54	13.16	10.56	13.18	10.54	13.20	10.60
Open Circuit Voltage (Voc/V)	38.48	36.40	38.54	36.46	38.60	36.52	38.64	36.82	38.88	36.69
Short Circuit Current (Isc/A)	13.78	11.11	13.79	11.11	13.80	11.11	13.82	11.20	13.88	11.27
Module Efficiency (%)	21.6%		21.8%		22.0%		22.3%		22.5%	22.5%
Operating Temperature Range (°C)	-40°C ~ +85°C									
Maximum System Voltage	1500V DC (IEC)									
Maximum Rated Fuse Current	25A									
Power Tolerance	0~+5W									
Temperature Coefficient of peak power (Pmax)	-0.29%/°C									
Temperature Coefficient of open circuit voltage(Voc)	-0.25%/°C									
Temperature Coefficient of short-circuit current(Isc)	0.043%/°C									
Nominal Operating Temperature of cell (NOTC)	45±2°C									
Bifaciality(BiFi)	80±5%									

Parameters of bifacial power generation (Backside Power Gain)

5%	Maximum power(Pmax)	441Wp	446Wp	452Wp	457Wp	462Wp
	Module efficiency(%)	22.6%	22.9%	23.1%	23.4%	23.7%
10%	Maximum power(Pmax)	462Wp	468Wp	473Wp	479Wp	484Wp
	Module efficiency(%)					