

670W

G12 HALF CELL MONO

BIFACIAL TRANSPARENT BACKSHEET

GERMAN BRAND SOLAR PANEL

650W-670W

POWER OUTPUT RANGE

132 CELL

MBB MONO PERC

21.57%

MAXIMUM EFFICIENCY

0 to +5W

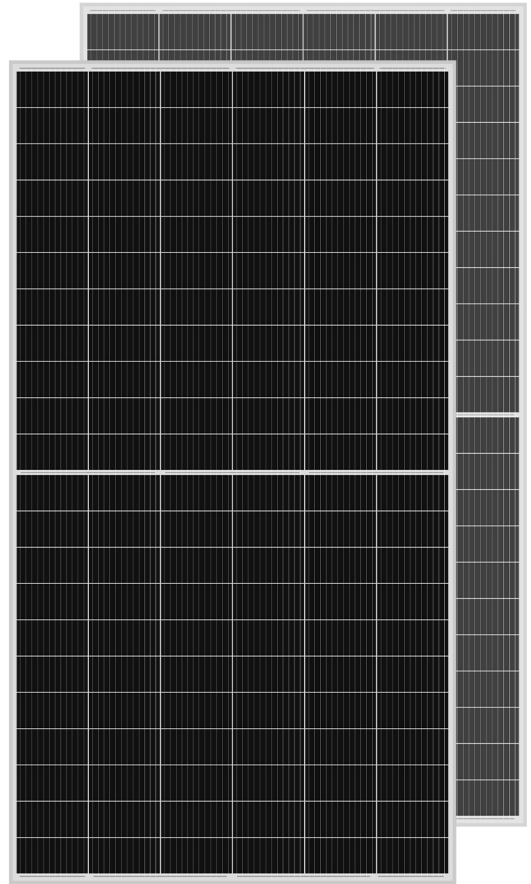
POSITIVE POWER TOLERANCE



Product
Warranty



Output
Warranty



Higher Efficiency



Lower LID



German Technology



Sand Resistant



Environmentally Friendly



Stable Performance



Higher Output of Power

Effectively reduce the unit cost of PV solar system by watt



Optimize the temperature coefficient

Improve the performance under the condition of shadow and low temperature coefficient



Reduce the shadow loss on the power output

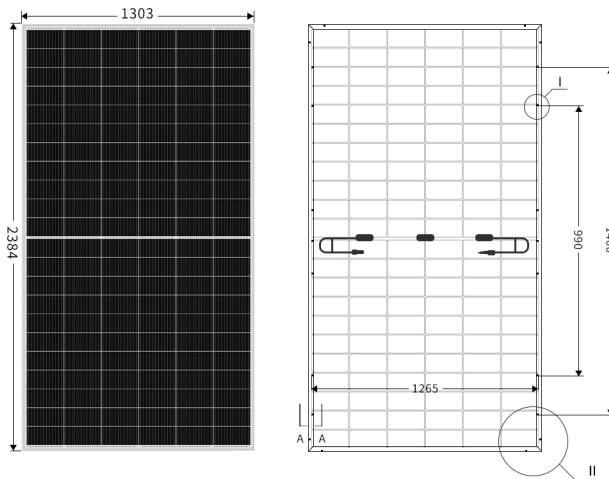
Effectively reduce the risk of heat spot on high efficiency



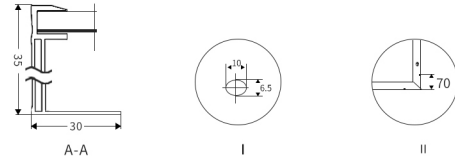
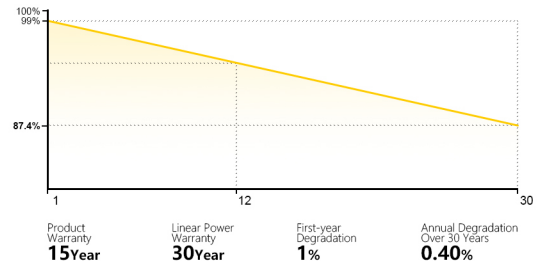
Stronger the physical property

Optimize the property of power generating and reliability of the system

DIMENSIONS OF PV MODULE



LINEAR PERFORMANCE WARRANTY



MECHANICAL DATA

Solar Cells	Mono PERC
Cell Orientation	132 (6 x 22)
Module Dimensions	2384 x 1303 x 35mm
Weight	33.5kg
Glass	Anti-Reflective, AR Coated and Heat Tempered Solar Glass-3.2mm
Backsheet	Transparent
Frame	Anodized Aluminium Alloy
J-Box	IP 68 Rated
Cables	4.0mm ² , 350mm or Customized Length
Connector	MC4 Compatible

PACKAGE Modules per Pallet:31 pieces Modules per 40'HQ Container:558 pieces

TEMPERATURE RATINGS

Nominal Operating Cell Temperature(NOCT)	45±2°C
Temperature Coefficient of P _{MAX}	-0.35%/°C
Temperature Coefficient of Voc	-0.28%/°C
Temperature Coefficient of Isc	+0.048%/°C

MAXIMUM RATINGS

Operational Temperature	-40°C to +85°C
Maximum System Voltage	1500V DC
Max Series Fuse Rating	30A
Mechanical Load	5400pa
Wind Load	2400pa

Module Type		HTS-132G12H650		HTS-132G12H655		HTS-132G12H660		HTS-132G12H665		HTS-132G12H670	
Test Environment		STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power	P _{MAX} (W)	650	492.07	655	495.85	660	499.64	665	503.42	670	507.21
Maximum Power Voltage	V _{MPP} (V)	36.79	34.24	37.00	34.43	37.21	34.63	37.42	34.82	37.63	35.02
Maximum Power Current	I _{MPP} (A)	17.67	14.37	17.71	14.40	17.74	14.42	17.78	14.46	17.81	14.48
Open Circuit Voltage	V _{OC} (V)	44.34	41.79	44.59	42.03	44.85	42.26	45.10	42.50	45.35	42.74
Short Circuit Current	I _{SC} (A)	18.76	15.11	18.80	15.15	18.84	15.17	18.88	15.21	18.91	15.23
Tolerance	(W)	0 ± 5		0 ± 5		0 ± 5		0 ± 5		0 ± 5	
Module Efficiency	(%)	20.93		21.09		21.25		21.41		21.57	

STC: Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM1.5 according to EN 60904-3.
Average efficiency reduction of 4.5% at 200W/m² according to EN 60904-1
NOCT: Irradiance at 800 W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

BIFACIAL OUTPUT-REAR SIDE POWER GAIN 10% FOR REFERENCE

Module Type	HTS-132G12H650	HTS-132G12H655	HTS-132G12H660	HTS-132G12H665	HTS-132G12H670
P _{max} (W)	715	720.5	726	731.5	737
V _{oc} (V)	44.34	44.59	44.85	45.10	45.35
I _{sc} (A)	20.53	20.57	20.61	20.65	20.69
V _{mp} (V)	36.79	37.00	37.21	37.42	37.63
I _{mp} (A)	19.43	19.47	19.51	19.55	19.59