

420W

M10 HALF CELL MONO

BIFACIAL DOUBLE GLASS

GERMAN BRAND SOLAR PANEL

400W-420W

POWER OUTPUT RANGE

108 CELL

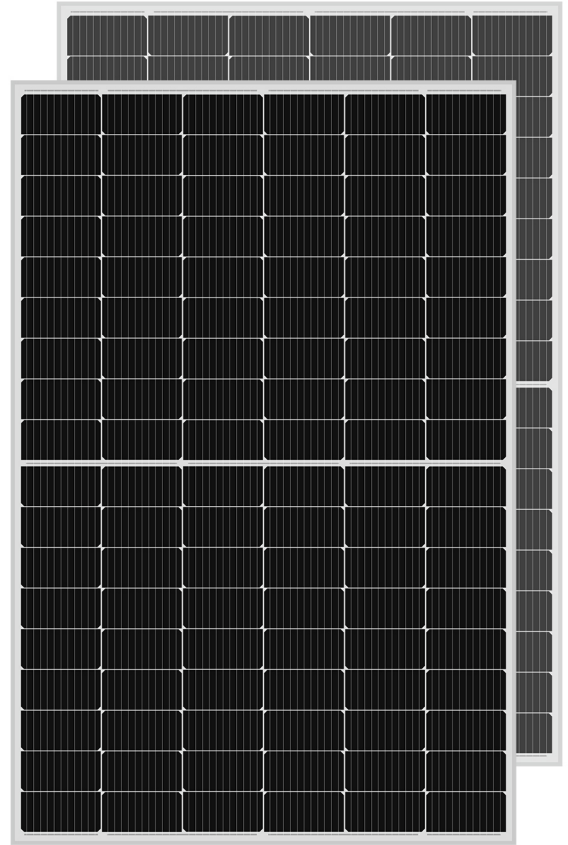
MBB MONO PERC

21.51%

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

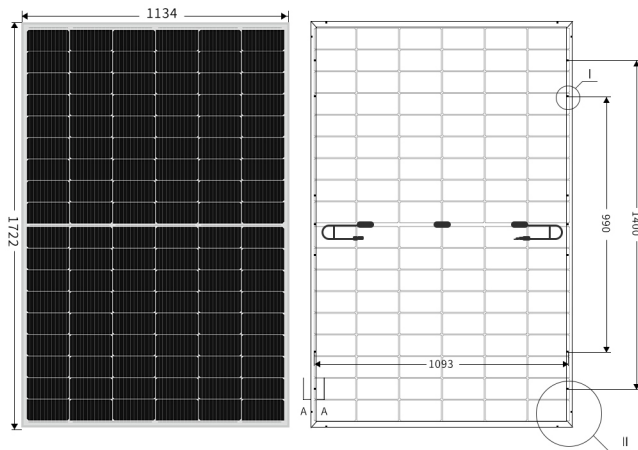
Effectively reduce the risk of heat spot on high efficiency



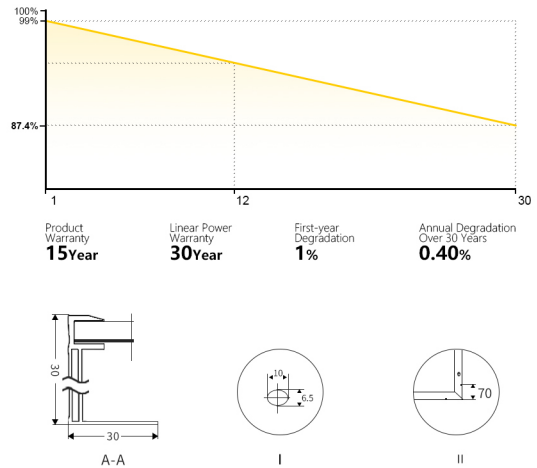
Stronger the physical property

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	108 (6 x 18)
Module Dimensions	1722 x 1134 x 30mm
Weight	23.7kg
Front Glass	2.0mm
Back Glass	2.0mm
Frame	Anodized Aluminium Alloy
J-Box	IP 68 Rated
Cables	4.0mm ² , 350mm or Customized Length
Connector	MC4 Compatible

PACKAGE Modules per Pallet:36 pieces Modules per 40'HQ Container:936 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	25A
Mechanical Load	5400pa
Wind Load	2400pa

MODULE TYPE		HTS-108M10H400DG		HTS-108M10H405DG		HTS-108M10H410DG		HTS-108M10H415DG		HTS-108M10H420DG	
Test Environment		STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power	P _{MAX} (W)	400	298	405	301	410	305	415	309	420	312
Maximum Power Voltage	V _{MPP} (V)	30.42	28.42	30.52	28.56	30.62	28.72	30.79	28.88	30.91	29.01
Maximum Power Current	I _{MPP} (A)	13.15	10.47	13.27	10.55	13.39	10.62	13.48	10.69	13.59	10.76
Open Circuit Voltage	V _{OC} (V)	36.98	34.90	37.06	34.98	37.14	35.05	37.31	35.21	37.43	35.39
Short Circuit Current	I _{SC} (A)	13.78	11.13	13.85	11.19	13.92	11.24	14.01	11.32	14.12	11.38
Tolerance	(W)	0 ± 5		0 ± 5		0 ± 5		0 ± 5		0 ± 5	
Module Efficiency	(%)	20.48		20.74		21.00		21.25		21.51	

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-108M10H400DG	HTS-108M10H405DG	HTS-108M10H410DG	HTS-108M10H415DG	HTS-108M10H420DG
P _{max} (W)	440	445.5	451	456.5	462
V _{oc} (V)	36.98	37.06	37.14	37.31	37.43
I _{sc} (A)	15.28	15.42	15.56	15.66	15.79
V _{mp} (V)	30.42	30.52	30.62	30.79	30.91
I _{mp} (A)	14.46	14.60	14.73	14.83	14.95