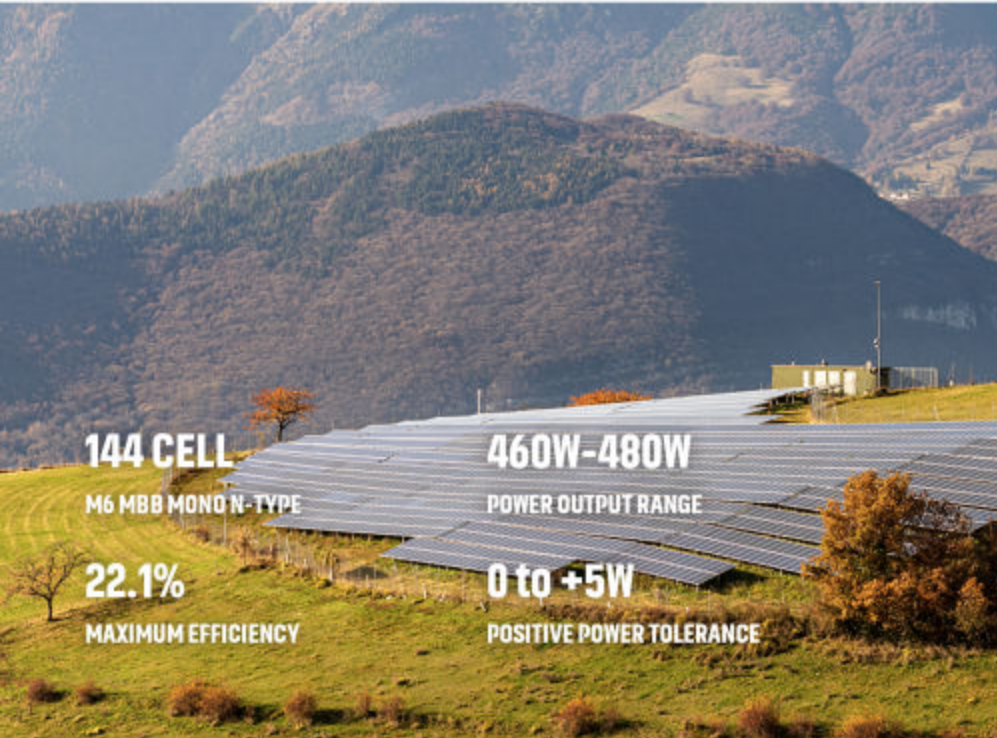
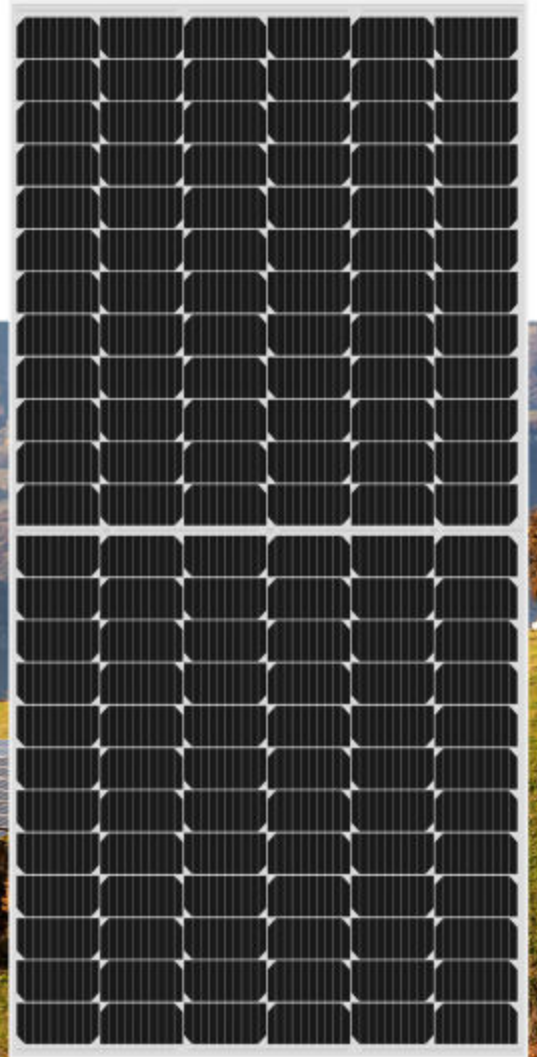


GERMAN BRAND SOLAR PANEL

N-TYPE M6 HALF CELL MONO

460W



144 CELL

M6 MBB MONO N-TYPE

22.1%

MAXIMUM EFFICIENCY

460W-480W

POWER OUTPUT RANGE

0 to +5W

POSITIVE POWER TOLERANCE



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

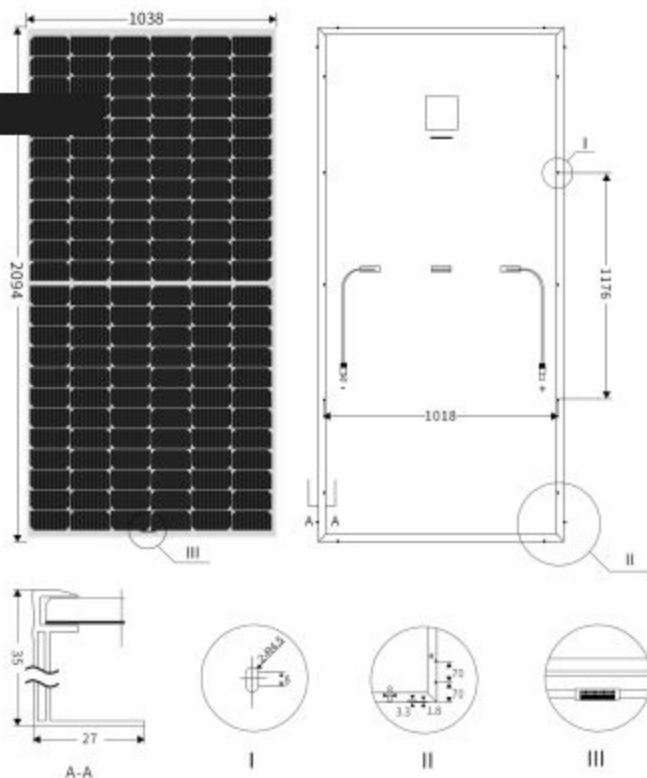
Optimize the property of power generating and reliability of the system

Module Type	HTS-144M6H460		HTS-144M6H465		HTS-144M6H470		HTS-144M6H475		HTS-144M6H480		
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	
Test Environment											
Maximum Power	$P_{max}(W)$	460	340.4	465	344.1	470	347.8	475	351.5	480	355.2
Maximum Power Voltage	$V_{MPP}(V)$	41.59	38.39	41.79	38.57	41.99	38.76	42.19	38.94	42.39	39.12
Maximum Power Current	$I_{MPP}(A)$	11.06	8.86	11.13	8.92	11.19	8.97	11.26	9.03	11.32	9.07
Open Circuit Voltage	$V_{oc}(V)$	50.32	46.8	50.57	47.03	50.81	47.25	51.04	47.47	51.29	47.70
Short Circuit Current	$I_{sc}(A)$	11.67	9.35	11.74	9.41	11.81	9.46	11.88	9.53	11.94	9.57
Tolerance	(W)	0 - +5		0 - +5		0 - +5		0 - +5		0 - +5	
Module Efficiency	(%)	21.2		21.4		21.6		21.9		22.1	

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.

MECHANICAL DATA		TEMPERATURE RATINGS	
Solar Cells	MBB Mono N-Type 166 x 83mm	Nominal Operating Cell Temperature(NOCT)	45±2°C
Cell Orientation	144 Cells (6 x 24)	Temperature Coefficient of P_{max}	-0.36%/°C
Module Dimensions	2094 x 1038 x 35mm	Temperature Coefficient of V_{oc}	-0.28%/°C
Weight	23.5kg	Temperature Coefficient of I_{sc}	+0.048%/°C
Glass	High Transparency, Anti-Reflective, AR Coated and Heat Tempered Solar Glass -3.2mm	MAXIMUM RATING	
Backsheet	White	Operational Temperature	-40 to +85°C
Frame	Silver Anodized Aluminium Alloy (Black Available)	Maximum System Voltage	1500V DC
J-Box	IP 68 Rated	Max Series Fuse Rating	20A
Cables	Photovoltaic Technology Cable 4.0mm ² , 350mm	Mechanical Load	5400pa
Connector	MC4 Compatible	Wind Load	2400pa
PACKAGING CONFIGURATION		Modules per box: 31 pieces	
		Modules per 40' container: 726 pieces	

DIMENSIONS OF PV MODULE



LINEAR PERFORMANCE WARRANTY

12 Year Product Warranty

30 Year Linear Power Warranty

