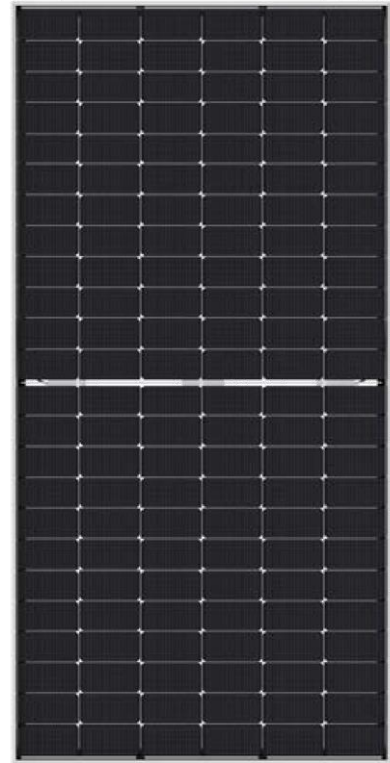


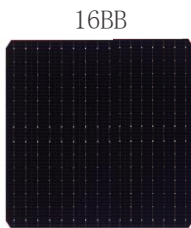
N type Mono-crystalline 545-570 Watt



0~+3% POWER TOLERANCE

High efficiency N - type Double glass solar module

Cell Busbar



Module characteristics



Double power generation

For higher power output, backside power generation can be increased by up to 25%



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



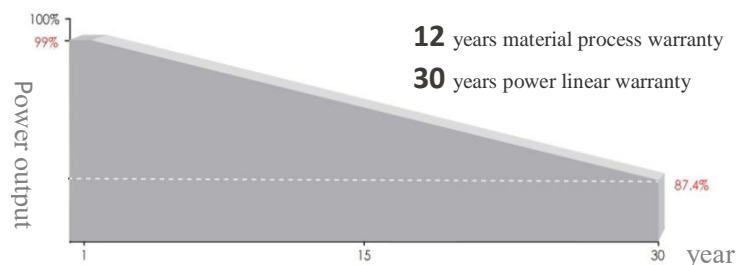
Multiple grid and Half cell technique

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



Linear decay of 0.4% per year over 30 years

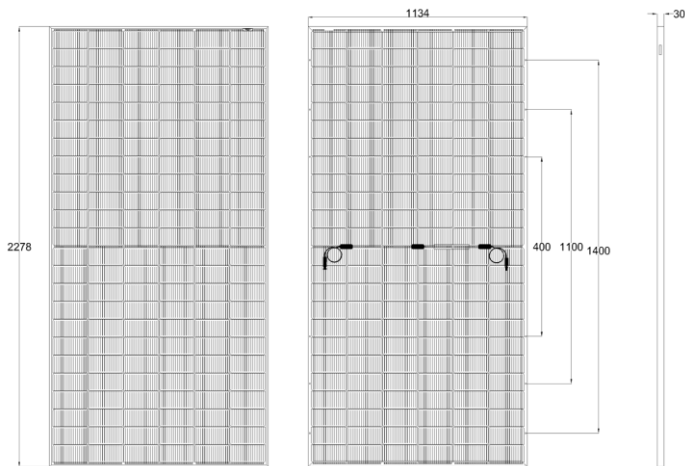
Electrical Parameters

Model Type	MSP545HN		MSP550HN		MSP555HN		MSP560HN		MSP565HN		MSP570HN	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	545	410	550	413	555	417	560	421	565	425	570	429
Open Circuit Voltage (Voc)	50.08	47.58	50.21	47.70	50.34	47.82	50.47	47.94	50.60	48.06	50.74	48.20
Short Circuit Current (Isc)	13.91	11.24	13.99	11.30	14.07	11.36	14.15	11.42	14.23	11.49	14.31	11.55
MaximumPowerVotag (Vmp)	41.38	38.86	41.51	38.99	41.64	39.12	41.77	39.25	41.92	39.38	42.07	39.51
MaximumPowerCurrent (Imp)	13.18	10.55	13.26	10.61	13.33	10.67	13.41	10.73	13.48	10.79	13.55	10.85
ModuleEfficiency - η_m (%)	21.1		21.3		21.5		21.7		21.9		22.1	
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											
Safety Class	Class II											
Max Load (Front/back)	5400Mpa/2400Mpa											
Double rate	75±10%											
STC: Irradiance 1000W/m ²	Battery temperature 25°C			Atmospheric quality =1.5								
NOCT:Irradiance 800W/m ²	Ambient emperature 25°C			Atmospheric quality =1.5						Wind speed 1m/S		

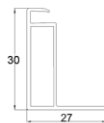
Two-sided power gain (take 15% irradiation ratio on the back side as an example)

Maximum power	627Wp	633Wp	638Wp	644Wp	650Wp	656Wp
Irradiation ratio	15%					

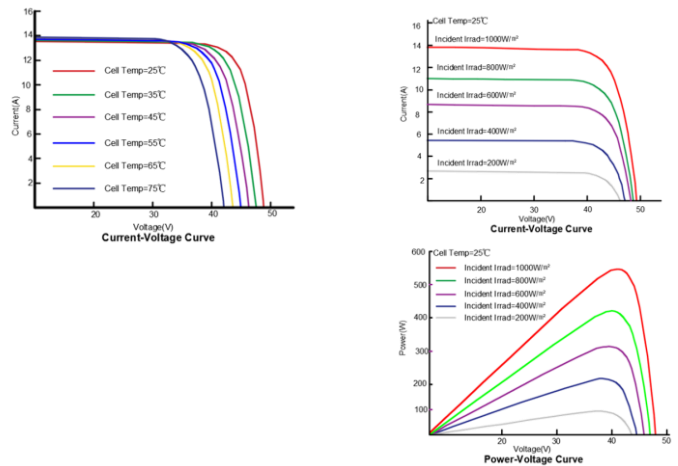
Mechanical Diagrams



- Length: ± 2mm
- Width: ± 2mm
- Thickness: ± 1mm
- Hole pitch: ± 2mm



Curve figure



Specification

Cell type	N type mono crystalline 16BB
Half-cell quantity	144 (6×24)
Dimension	2278 (±2) × 1134 × 30
weight	32kg±3%
Front glass	2.0 mm, Coated toughened
Back glass	2.0mm, Transparent/grid optional
Frame	Slivery/black Anodized Aluminum Alloy
Junction Box	IP68
Cable	300mm (can be customized)

Packing standard

35pcs/pallet, Pallet size: 2333 × 1130 × 1245mm
 40GP:20pallets/container, 700pcs/container.

The Macsun Solar company reserves the right of final