

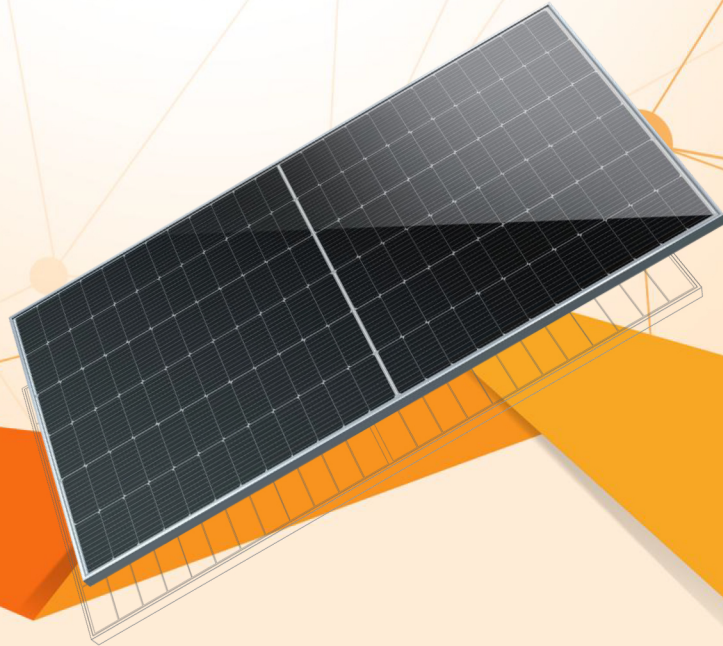


WORLD ENERGY

TOPCon Mono-crystalline PV Module

182 Cell-16BB | Non-destructive Cut | Bifacial

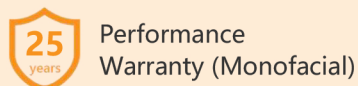
Module Type: WE580M10NHB-144 **N**TYPE



High Power High Compatibility

Outstanding performance in weak-light conditions, lower operating temperature

Different types of modules are suitable for various application scenarios



Mono-crystalline Solar PV Modules



M182-72N
TOPCon

580W

WE580M10NHB-144

22.5%

Module efficiency

TOPCon Mono-crystalline Bifacial Module

Electrical Specifications

Module Type		WE580M10NHB-144	
STC: AM1.5 Temperature 25°C Irradiance 1000 W/m ²	Peak Power(Pmax)±3%	(W)	580
	Power Tolerance	(W)	0~+5
	Max.Power Voltage(Vmp)	(V)	43.68
	Max.Power Current(Imp)	(A)	13.28
	Open-circuit Voltage(Voc)±3%	(V)	51.84
NMOT: AM1.5 Temperature 20°C Wind speed 1m/s Irradiance 800 W/m ²	Short-circuit Current(Isc)+3%	(A)	13.83
	Peak Power(Pmax)±3%	(W)	433.8
	Max.Power Voltage(Vmp)	(V)	40.62
	Max.Power Current(Imp)	(A)	10.68
	Open-circuit Voltage(Voc)	(V)	48.21
Short-circuit Current(Isc)	(A)	11.39	
Operating Temperature	(°C)	-40~+85	
Max. Series Fuse Rating	(A)	30	
Max. System Voltage(DC)	(V)	1500 (IEC)	

Mechanical Specifications

Solar Cells	N-Mono-182*91mm
Arrangement	Type-6*12*2
Front Glass	2.0mm tempered glass
Back Glass	2.0mm tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP68, 3 diodes
Cables	4.0mm ² photovoltaic cables
Connectors	MC4 compatible/IP68
Maximum Load Capacity	Snow-5400Pa/Wind-2400Pa
Safety Rate	Class II (IEC)
Fire Rate	Class C (TUV)

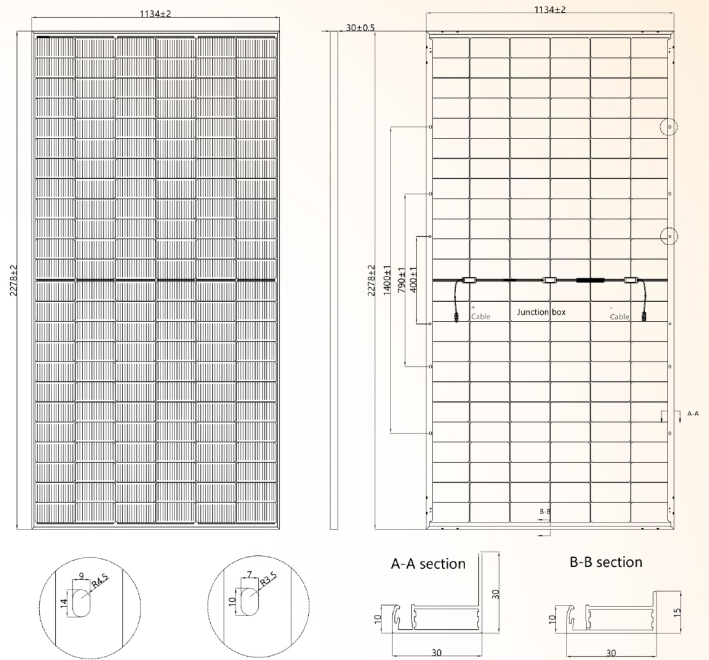
Packing Configuration

Package Weight & Size	1152Kg/pallet & 2310*1140*1265mm		
20'GP Container	2 pcs/carton	155 cartons/20'GP	310 pcs
40'HQ Container	37 pcs/pallet	20 pallets/40'HQ	740 pcs
13.5m Land Truck	37 pcs/pallet	22 pallets/truck	814 pcs

Dimensions of PV Module

Module Dimensions 2278*1134*30mm

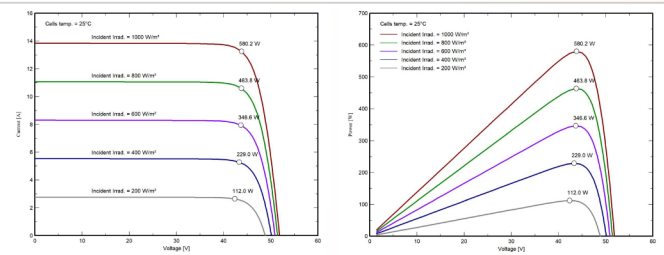
Module Weight 30.3 kg(±3%)



Temperature Characteristics

Temperature Coefficient (Pmax)	δ[%/°C]	-0.30
Temperature Coefficient (Voc)	β[%/°C]	-0.25
Temperature Coefficient (Isc)	α[%/°C]	+0.05
Nominal Operating Cell Temperature	NMOT	45°C±2°C

I-V & P-V Curves



Current-Voltage Characteristic

Power-Voltage Characteristic

Different Backside Power Gain

Power Gain	5%	15%	25%	
Maximum Power(Pmax)	(W)	609.0	667.0	725.0
Max.Power Voltage(Vmp)	(V)	43.68	43.68	43.68
Max.Power Current(Imp)	(A)	13.94	15.27	16.60
Open-circuit Voltage(Voc)	(V)	51.84	51.84	51.84
Short-circuit Current(Isc)	(A)	14.87	16.29	17.70



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