

M10 144 TOPCon N-TYPE GLASS GLASS SOLAR PV

ENVIRONMENTAL FACTORS



Renewable Energy



Green Industry



Energy - Saving



Zero Carbon Emissions



IEC 61215, IEC 61730, IEC 62804 (PID FREE)

PV SOLAR PANEL IMPLEMENTATION AREA



HYBRID PROJECT



LAND PROJECT



ROOF PROJECT



AGRIVOLTAIC PROJECT



OFF-GRID PROJECT



More Compatibility, More Power

565-590 Watts

Enhanced TOPCON Technology

Design with the Highest Voc and Isc Values and Rear

Reflection 30-Year Linear Performance Warranty

12-Year Product Warranty



Less Power Loss by Minimalizing The Shadowing Effect

Half-Cut Technology

Half-Cut TOPCON Technology Cells Reduce Power Losses (+5 Watts)

Provides Better Shade Performance

Triple J-Box Design



Performance Competing with Low Irradiance

High Power Output with M10 Technology

M10(182*91mm) 10BB 24,8% and Above Energy Efficiency

High Power Cells for Longer and Better Performance



Ideal Choice for Commercial Scale Projects

Reduces Costs and Increases Investment Returns

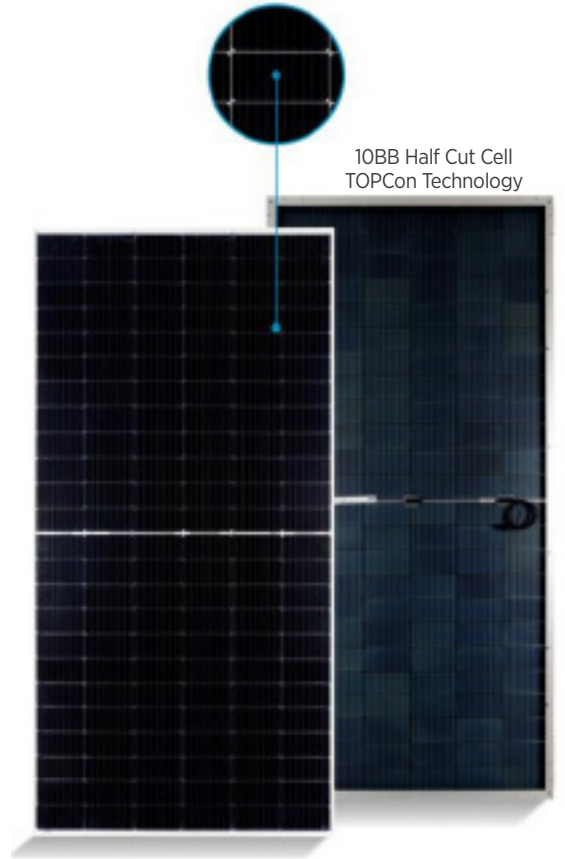
Module Efficiency up to 22,83 %



Harsh Environment Condition

Resistant to Sand, Acid, Alkali, and Hailstones,

3600/5400 Pa Mechanical Load



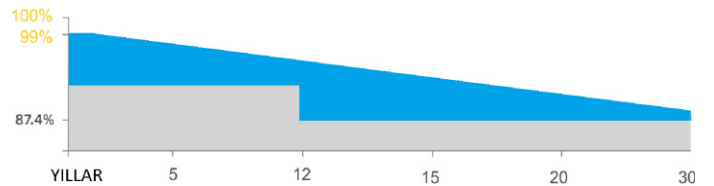
WARRANTY



Product Warranty



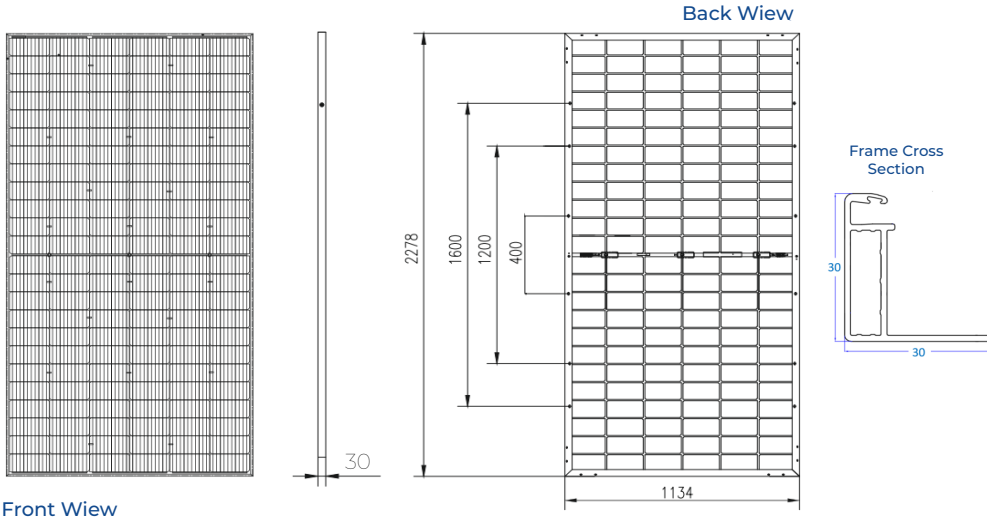
30 year Linear Performance Warranty



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MECHANICAL SPECIFICATION

CELL	
Type	Topcon N-Type Bifacial Technology
Piece	144 pcs Half-cut
Size	182 mm x 91 mm
Busbar	10 Pcs
Maximum Series Fuse	30A
CONNECTION BOX	
Bypass Diode	3 Pcs
Wire Size Range	4 mm ² / 6 mm ² (IEC)
Cable Length	300 / 1200 mm
Connector	Evo2 Staubli
Protection Degree	IP67 / IP68
Rated Voltage	1500V DC
MODULE SIZE	
Length	2278 mm ±1 mm
Width	1134 mm ±1 mm
Frame	30 mm ±0,5 mm
Weight	32 kg ±5%
MOUNTING AREA	
Mounting Hole	12 Pcs
Size	9 x14 mm Radius
Mounting Ranges	1600/1200/400 ±1 mm
Static Grounding	2 Pcs Diameter: 4 mm
GLASS	
Properties	Anti-Reflection Coating, High Transmission, Low Iron, T Glass
Front Glass	2 mm AR - Tempered
Rear Glass	2mm AR Flat Patterned
MECHANICAL	
Snow Load	+5400 Pa
Wind Load	+3600 Pa
Protection Type	Class II
Fire Class	Type 1
Nominal Module Operating Temperature	-40 ~ +85 °C

ELECTRICAL SPECIFICATIONS

Type	565	570	575	580	585	590	
Test Conditions	STC	STC	STC	STC	STC	STC	
Maximum Power (Watt)	P _{MAX}	565	570	575	580	585	590
Open Circuit Voltage(V)	V _{OC} (V)	50.6 ±3%	50.74 ±3%	50.88 ±3%	51.2 ±3%	51.16 ±3%	51.41 ±3%
Short Circuit Current (A)	I _{SC} (A)	14.23 ±3%	14.31 ±3%	14.39 ±3%	14.47 ±3%	14.55 ±3%	14.63 ±3%
Max.Power Voltage (Volt)	V _{MPP} (V)	41.92	42.07	42.22	42.37	42.52	42.67
Max.Power Current (Amper)	I _{MPP} (A)	13.48	13.55	13.62	13.69	13.76	13.83
PV Module Efficiency (%)		21.87	22.07	22.26	22.45	22.64	22.83
Maximum Power Tolerance (Watt)		0 ~ +3					
Temperature Coefficient of I _{sc}		+ 0.041% / °C					
Temperature Coefficient of V _{oc}		- 0.25% / °C					
Temperature Coefficient of P _{max}		-0.29 % / °C					
Bifacial Ratio %		80 ±5%					

STC: Cell temperature : 25°C, Irradiance: 1000 W/m², Air mass: 1.5G
 NOTC Air temperature: 20°C, Irradiance: 800 W/m², Air mass: 1.5G, Wind Speed 1 m/s

BIFACIAL MAXIMUM POWER OUTPUT

Type	565	570	575	580	585	590	
%5 Bifacial Gain	Maximum Power Wp	593	599	604	609	614	620
	Efficiency %	23,0	23,2	23,4	23,6	23,8	24,0
%15 Bifacial Gain	Maximum Power Wp	650	656	661	667	673	679
	Efficiency %	25,2	25,4	25,6	25,8	26,0	26,3
%20 Bifacial Gain	Maximum Power Wp	678	684	690	696	702	708
	Efficiency %	26,2	26,5	26,7	26,9	27,2	27,4
%25 Bifacial Gain	Maximum Power Wp	678	684	690	696	702	708
	Efficiency %	27,3	27,6	27,8	28,1	28,3	28,5

