

series
SKYMAX
RM-590W-182M/144TB

N-TOPCon
Bifacial Monocrystalline Module

2279×1134×35/30 182×91

Dimensions (mm) Cell size (mm)

144 CELL **570-590Wp**


Mono TOPCon Power output


1500V DC **22.83%**


Max. system voltage Max. efficiency





KEY FEATURES


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Higher Power Output
Module power increases by 5-25% generally, bringing significantly lower LCOE and higher IRR. 0-5w positive tolerance output warranty.
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Optimal Choice for Ultra-large Power Plants
Contribute to Lower BOS cost and LCOE.
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ZERO LID
N-Type cell is characterized by "0" LID, which generates more power.
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PID Resistance
Excellent Anti-PID performance guarantee via optimized mass-production process and material control.
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Durability Against Extreme Environmental Conditions
High salt mist and ammonia resistance certified by TUV NORD. Lower temperature coefficient and operating temperature.
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More Outstanding Low-light Performance
Higher power output even under low-light environments like on cloudy days
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Enhanced Mechanical Load
Certified to withstand: wind load (2400 Pa) and snow load (5400 Pa).
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EL Full Inspection
Dual-stage 100% EL Inspection.

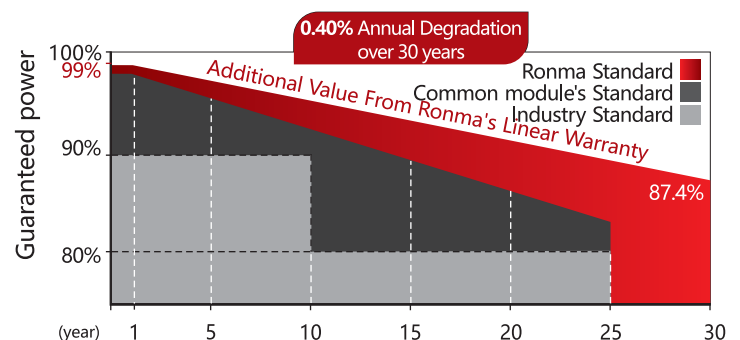


Comprehensive Products and System Certificates

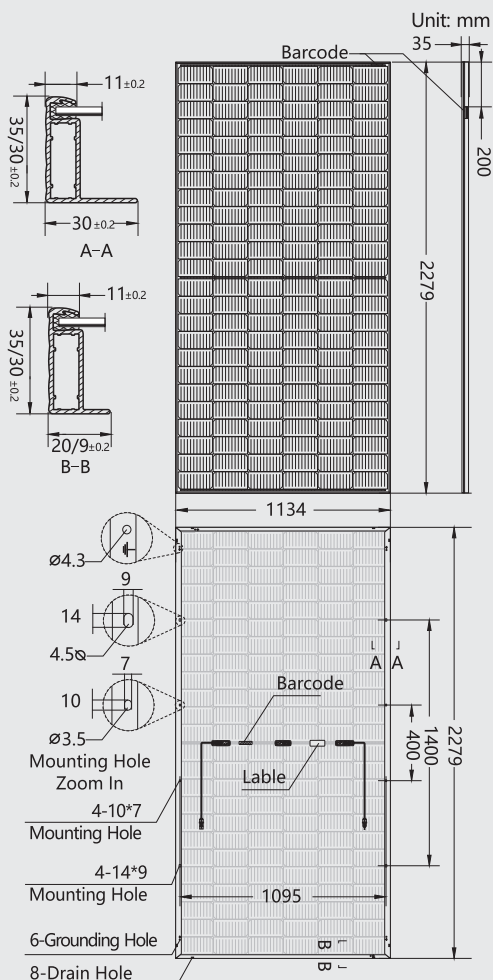
- IEC61215/IEC61730/IEC61701/IEC62716
- ISO 9001: Quality Management System
- ISO 14001: Environmental Management System
- ISO14064: Greenhouse Gases Emissions Verification
- OHSAS 18001: Occupational Health and Safety Management System

LINEAR PERFORMANCE WARRANTY

12-year product warranty / 30-year linear power warranty



Dimensions of PV Module



ELECTRICAL CHARACTERISTICS (STC*)

Model Number	RM-570W-182M/144TB	RM-575W-182M/144TB	RM-580W-182M/144TB	RM-585W-182M/144TB	RM-590W-182M/144TB
Rated Power in Watts-Pmax(Wp)	570	575	580	585	590
Open Circuit Voltage-Voc(V)	51.07	51.27	51.47	51.67	51.87
Short Circuit Current-Isc(A)	14.25	14.31	14.37	14.43	14.49
Max. Power Voltage-Vmpp(V)	42.29	42.44	42.59	42.74	42.89
Max. Power Current-Impp(A)	13.48	13.55	13.62	13.69	13.76
Module Efficiency(%)	22.06	22.25	22.44	22.64	22.83
Maximum system voltage	1500V DC				
Fuse Rating(A)	30				
Temperature coefficient Pmax	-0.29%/°C				
Temperature coefficient Isc	0.045%/°C				
Temperature coefficient Voc	-0.25%/°C				
Refer. Bifacial Factor	80±5%				

*STC: Irradiance 1000W/m², module temperature 25°C, AM=1.5

WORKING CHARACTERISTICS (NOCT*)

Model Number	RM-570W-182M/144TB	RM-575W-182M/144TB	RM-580W-182M/144TB	RM-585W-182M/144TB	RM-590W-182M/144TB
Rated Power in Watts-Pmax(Wp)	429	432	436	440	444
Open Circuit Voltage-Voc(V)	48.51	48.70	48.89	49.08	49.27
Short Circuit Current-Isc(A)	11.50	11.55	11.60	11.65	11.70
Max. Power Voltage-Vmpp(V)	39.65	39.78	39.87	39.99	40.10
Max. Power Current-Impp(A)	10.81	10.87	10.94	11.00	11.06
Power tolerance	0~+3%				
NOCT	45°C±2°C				
Operating Temperature	-40°C~85°C				

*NOCT: Irradiance 800W/m², ambient temperature 20°C, wind speed 1m/s

Electrical characteristics with different rear side power gain

Gain (%)	Pmax(Wp)	Efficiency(%)	5%	15%	25%	
5%	Pmax(Wp)	599	604	609	614	620
	Efficiency(%)	23.16	23.36	23.56	23.77	23.97
15%	Pmax(Wp)	656	661	667	673	679
	Efficiency(%)	23.16	23.36	23.56	23.77	23.97
25%	Pmax(Wp)	713	719	725	731	738
	Efficiency(%)	27.58	27.81	28.05	28.30	28.54

The additional gain from the rear side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

MECHANICAL CHARACTERISTICS

Number of cells	144pcs	Type of frame	Anodized Aluminum Alloy
Size of cell(mm)	182×91	Size of module(mm)	2279×1134×35
Type of cell	N-TOPCon Mono	Weight(kg)	34.0/32.8
Thickness of glass(mm)	2.0	Cables/connectors	4.0mm ² , MC4 compatible
Junction box	IP68	Length of Cabel	+300mm/-300mm(connector included)

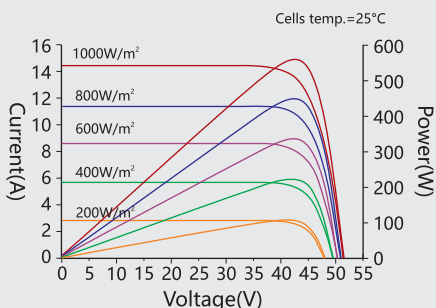
PACKAGING CONFIGURATION

Height of Modules (mm)	35	30
Number of Modules Per Pallet	31	36
Packaging Box Dimensions (l×w×h) (mm)	2300×1120×1260	2300×1120×1260
Box Gross Weight (kg)	1084	1210
Number of Modules Per 40ft (HQ) Container	620	720
Number of Pallets Per 40ft (HQ) Container	20	20

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT
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RM-585W-182M/144TB

I-V characteristics at different irradiances



I-V characteristics at different temperatures

