

SKYMAX SERIES

RM - 420-460W - 182R/96TB

N-TOPCon

Bifacial Monocrystalline Module

MANUFACTURED BY RONMA SOLAR.

1762×1134×35/30

Dimensions (mm)

96 CELL

Dimensions (mm)

1500V DC

Max. system voltage

420-460Wp

Power output

23.02%

Max. efficiency

Light Redirecting Film

Light Redirecting Film technology ensure the bifaciality and reliability of the module, effectively increasing the power performance.

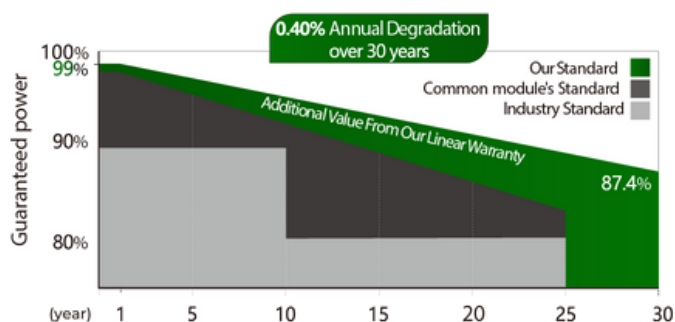
Non-Destructive (NDC) Cutting Tech

The cutting surface is smooth, avoiding the loss of the cells' mechanical structure and ensuring sufficient current.

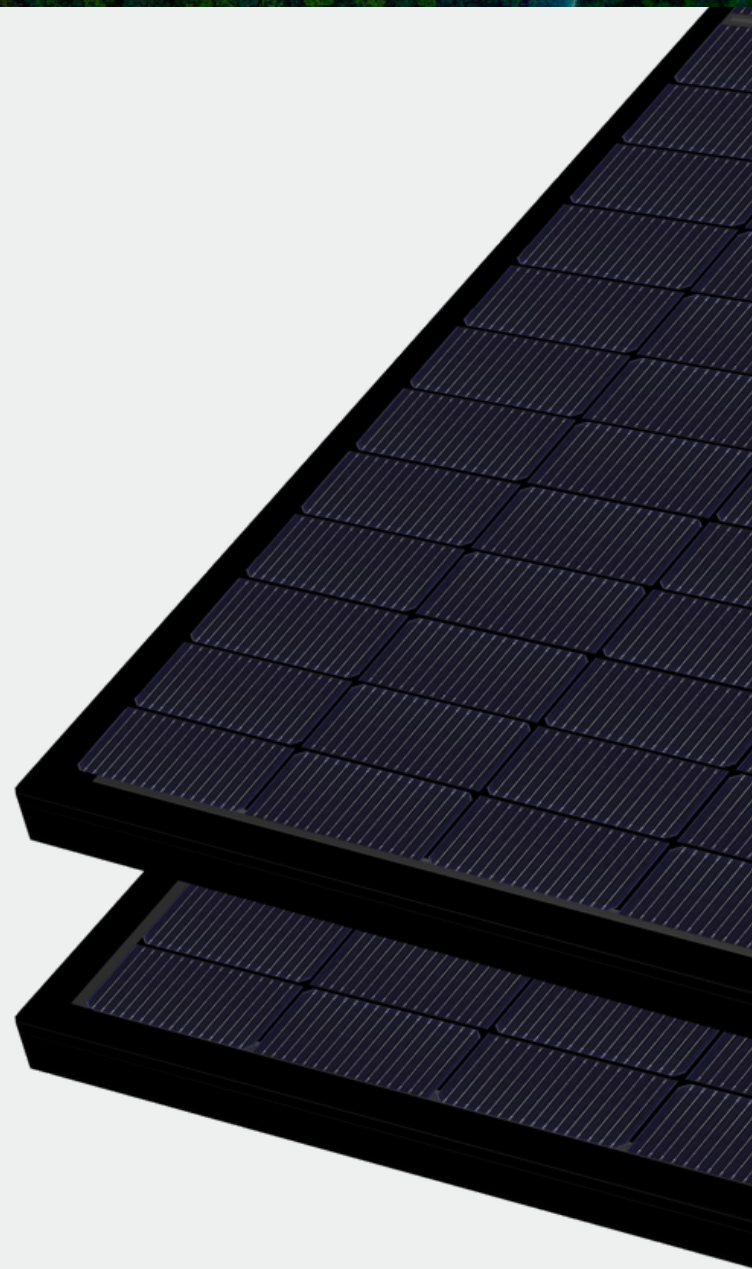
Junction Box Laser Welding Tech

The laser's high energy density and precise positioning control allow it to accurately manage the junction box's welding position and timing, ensuring high-quality welding and reliability, thereby enhancing module safety.

Linear Performance Warranty



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



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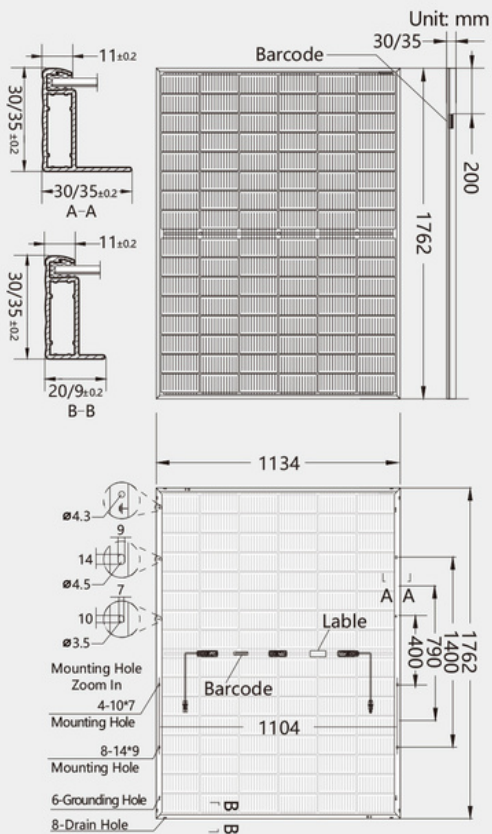
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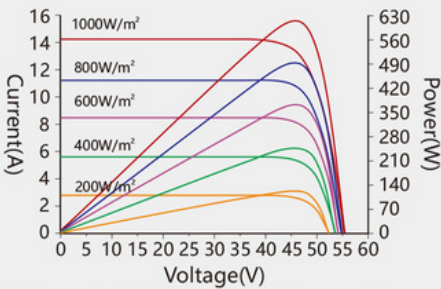
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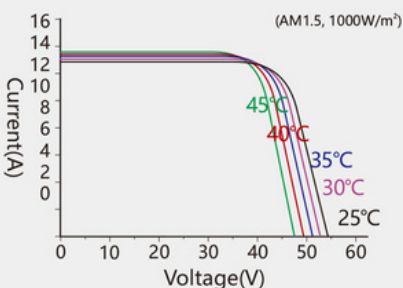
Dimensions of PV Module



RM-460W-182R/96TB
I-V characteristics at different irradiances
Cells temp.=25°C



I-V characteristics at different temperatures



ELECTRICAL CHARACTERISTICS (STC*)

Rated Power in Watts-Pmax (Wp)	420	425	430	435	440	445	450	455	460
Open Circuit Voltage-Voc (V)	34.95	34.13	34.31	34.49	34.67	34.85	35.03	35.21	35.39
Short Circuit Current-Isc (A)	15.75	15.80	15.85	15.90	15.95	16.00	16.05	16.10	16.15
Max. Power Voltage-Vmpp (V)	29.00	29.18	29.36	29.54	29.72	29.90	30.08	30.26	30.44
Max. Power Current-Impp (A)	14.49	14.57	14.65	14.73	14.81	14.89	14.97	15.04	15.12
Module Efficiency (%)	21.02	21.27	21.52	21.77	22.02	22.27	22.52	22.77	23.02
Maximum system voltage	1500V DC								
Fuse Rating(A)	30								
Temperature coefficient Pmax	-0.30%/°C								
Temperature coefficient Isc	0.046%/°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*)

Rated Power in Watts-Pmax (Wp)	315	319	323	327	331
Open Circuit Voltage-Voc (V)	32.20	32.40	32.60	32.80	33.00
Short Circuit Current-Isc (A)	12.80	12.82	12.84	12.86	12.90
Max. Power Voltage-Vmpp (V)	27.00	27.10	27.20	27.30	27.40
Max. Power Current-Impp (A)	11.70	11.80	11.90	11.92	11.96
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

	Pmax(Wp)	Voc/V	Isc/A	Vmpp/V	Impp/A
5%	483	35.39	16.96	30.44	15.88
10%	506	35.39	17.77	30.44	16.63

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	96pcs	Type of frame	Anodized Aluminum Alloy
Size of cell (mm)	182×91	Size of module (mm)	1762×1134×30/35
Type of cell	N-TOPCon Mono	Weight (kg)	25.5
Thickness of glass (mm)	2.0	Cables/connectors	4.0mm², MC4 compatible
Junction box	IP68, 1500V DC, 3 Diodes	Length of Cable	+300mm/-200mm (connector inc.)

PACKAGING CONFIGURATION

Height of Modules (mm)	30	35
Number of Modules Per Pallet	36	31
Packaging Box Dimensions (l×w×h) (mm)	1778×1134×1260	1778×1134×1260
Box Gross Weight (kg)	802	706
Number of Modules Per 40ft (HQ) Container	936	806
Number of Pallets Per 40ft (HQ) Container	26	26

Notes: Read safety and installation instructions before using the product. The data provided in this data sheet are subject to change without notice.