Solar RONMA
— Light Our Future —

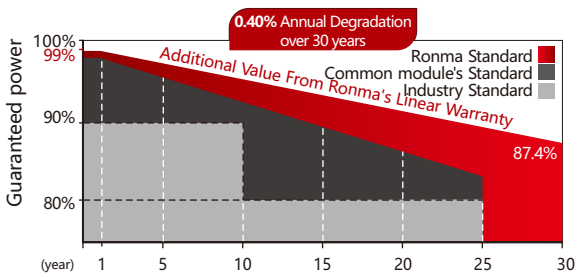
series
SKYMAX
RM-640W-182M/156TB

N-TOPCon
Bifacial Monocrystalline Module

- Light Redirecting Film: Ronma TOPCON modules use gap Light Redirecting Film technology to ensure the bifaciality and reliability of the module, meanwhile effectively increasing the power performence.
- No-Destructive Cutting: Ronma cells-cutting is using NDC (non-destructive) cutting technology, the cutting surface is smooth, which avoids the loss of the mechanical structure of the cells and ensures sufficient current.
- Junction Box Laser Welding Technology: Ronma uses the high energy density and precise positioning control capabilities of the laser to achieve high-quality welding. It can accurately control the junction box welding position and welding time to ensure welding quality and reliability, to improve module safety.

2465×1134×35/30	**182×91**
Dimensions (mm)	Cell size (mm)
156 CELL	**610-640Wp**
Mono TOPCon	Power output
1500V DC	**22.89%**
Max. system voltage	Max. efficiency

LINEAR PERFORMANCE WARRANTY
15-year product warranty / 30-year linear power warranty



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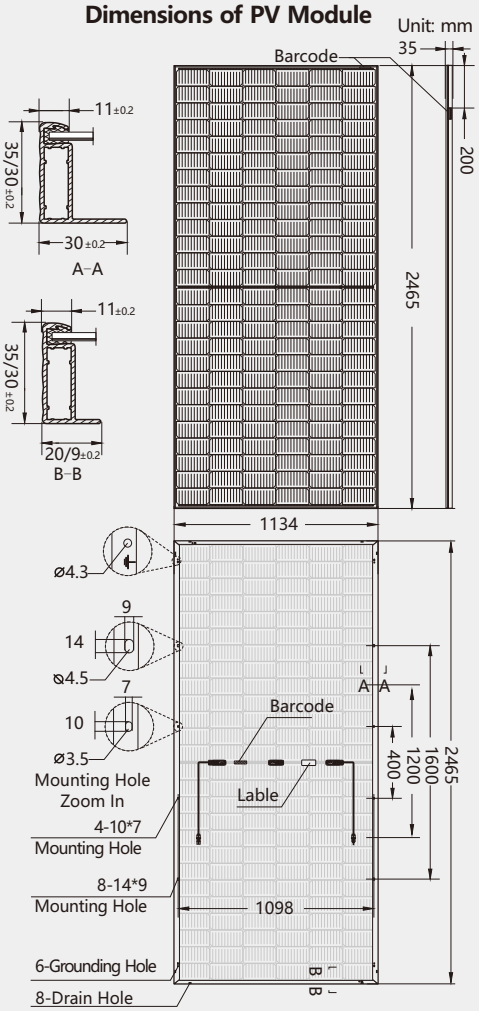
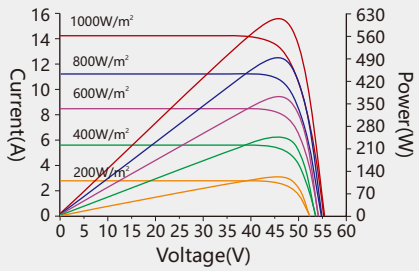
Dimensions of PV Module



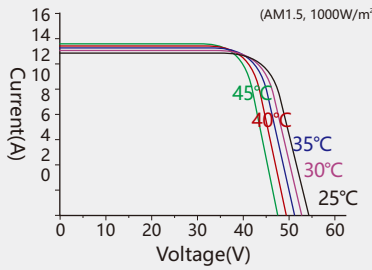
RM-615W-182M/156TB

I-V characteristics at different irradiations

Cells temp.=25°C



I-V characteristics at different temperatures



ELECTRICAL CHARACTERISTICS (STC*)

Rated Power in Watts-Pmax(Wp)	610	615	620	625	630	635	640
Open Circuit Voltage-Voc(V)	55.31	55.44	55.58	55.72	55.86	55.99	56.12
Short Circuit Current-Isc(A)	14.03	14.11	14.19	14.27	14.35	14.43	14.51
Max. Power Voltage-Vmpp(V)	45.60	45.77	45.93	46.10	46.27	46.44	46.61
Max. Power Current-Impp(A)	13.38	13.44	13.50	13.56	13.62	13.68	13.71
Module Efficiency(%)	21.82	22.00	21.18	22.36	22.54	22.72	22.89
Maximum system voltage	1500V DC						
Fuse Rating(A)	30						
Temperature coefficient Pmax	-0.30%/℃						
Temperature coefficient Isc	0.046%/℃						
Temperature coefficient Voc	-0.25%/℃						
Refer. Bifacial Factor	80±5%						

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

WORKING CHARACTERISTICS (NOCT*)

Rated Power in Watts-Pmax(Wp)	455	459	462	466	470	474	477
Open Circuit Voltage-Voc(V)	52.41	52.54	52.66	52.79	52.93	53.10	53.29
Short Circuit Current-Isc(A)	11.26	11.33	11.39	11.46	11.52	11.58	11.62
Max. Power Voltage-Vmpp(V)	42.23	42.35	42.46	42.57	42.68	42.86	43.05
Max. Power Current-Impp(A)	10.77	10.83	10.89	10.95	11.01	11.07	11.11
Power tolerance	0~+3%						
NOCT	45℃±2℃						
Operating Temperature	-40℃~85℃						

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

Electrical characteristics with different rear side power gain

5%	Pmax(Wp)	635	641	646	651	656
	Efficiency(%)	22.73	22.91	23.10	23.29	23.48
15%	Pmax(Wp)	696	702	707	713	719
	Efficiency(%)	24.89	25.10	25.30	25.51	25.71
25%	Pmax(Wp)	756	763	769	775	781
	Efficiency(%)	27.05	27.28	27.50	27.73	27.95

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	156pcs	Type of frame	Anodized Aluminum Alloy
Size of cell(mm)	182×91	Size of module(mm)	2465×1134×35/30
Type of cell	N-TOPCon Mono	Weight(kg)	34
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 included)
			Length can be customized

PACKAGING CONFIGURATION

Height of Modules (mm)	35	30
Number of Modules Per Pallet	31	36
Packaging Box Dimensions (l×w×h) (mm)	2485×1120×1260	1260×1120×2595
Box Gross Weight (kg)	1080	1250
Number of Modules Per 40ft (HQ) Container	496	576
Number of Pallets Per 40ft (HQ) Container	16	16

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT

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Ronma Solar Group
Web: www.ronmasolar.com
E-mail: info@ronmasolar.com