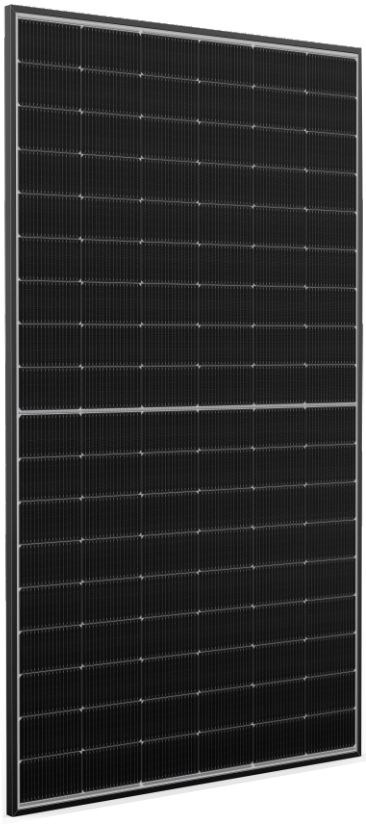
Preliminary 108

n-type TOPCon

HIGH PERFORMANCE BIFACIAL MODULE

RSM108-11-490-515BNDG



The module picture is for reference only

490-515 Wp
Power Output Range

23.2 %
Maximum Efficiency

0~+3 %
Positive power tolerance

1500 VDC
Maximum System Voltage

KEY FEATURES

- Perfect for rooftop scenario application
- Excellent power generation
- Excellent anti-LID & anti-PID performance
- Excellent temperature coefficient (Pmax): -0.29%/°C
- Excellent weak-light performance
- Excellent warranty assurance

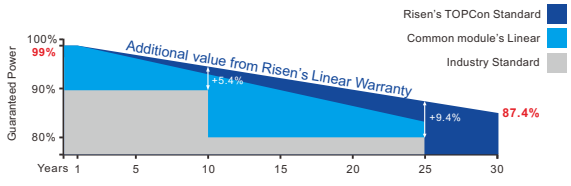
ISO9001
ISO14001
ISO45001
IEC62941

★As there are different certification requirements in different markets, please contact your local Risen Energy sales representative for the specific certificates applicable to the products in the region in which the products are to be used.

LINEAR PERFORMANCE WARRANTY

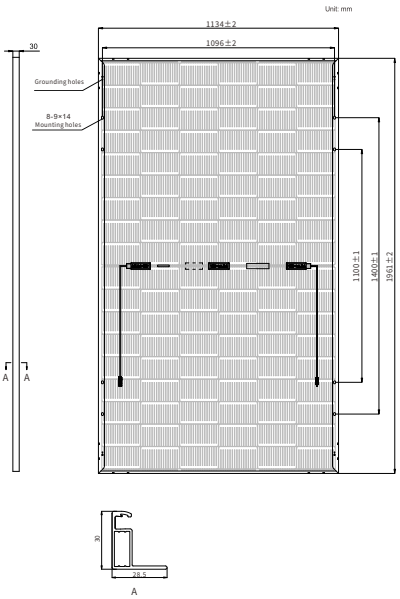
15 years Product Warranty / 30 years Linear Power Warranty

0.4% Annual Degradation over 30 years



★ Please check the valid version of Limited Product Warranty which is officially released by Risen Energy Co., Ltd

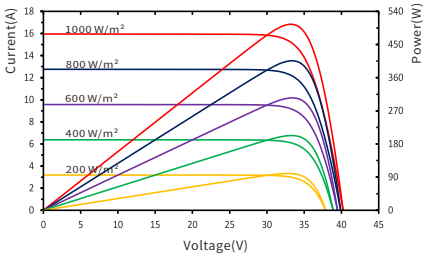
Dimensions of PV Module



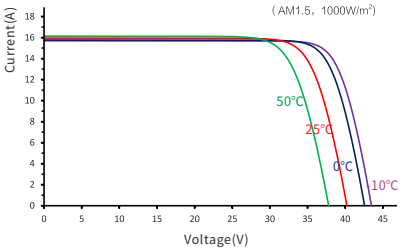
*Note: For specific dimensions and tolerance ranges, please refer to the corresponding detailed module drawings.

RSM108-11-505BNDG

I-V characteristics at different irradiations



I-V characteristics at different temperatures



PACKAGING CONFIGURATION

	40ft(HQ)	20ft
Number of modules per container	864	180
Number of modules per pallet	36	36
Number of pallets per container	24	5
Packaging box dimensions (LxWxH) in mm	1985×1110×1260	
Box gross weight[kg]	1022	

ELECTRICAL DATA (STC)

Model Type	RSM108-11-490-515BNDG					
Rated Power in Watts-Pmax(Wp)	**490**	**495**	**500**	**505**	**510**	**515**
Open Circuit Voltage-Voc(V)	39.61	39.81	40.02	40.22	40.42	40.62
Short Circuit Current-Isc(A)	15.74	15.81	15.88	15.95	16.02	16.08
Maximum Power Voltage-Vmpp(V)	32.65	32.85	33.05	33.25	33.45	33.64
Maximum Power Current-Impp(A)	15.01	15.07	15.13	15.19	15.25	15.31
Module Efficiency (%) ★	22.0	22.3	22.5	22.7	22.9	23.2

STC: Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM1.5 according to EN 60904-3.

Bifacial factor: 80±5(%)　　★Module Efficiency (%): Rounding to the nearest number

Electrical characteristics with 10% rear side power gain

Total Equivalent power -Pmax (Wp)	539	545	550	556	561	567
Open Circuit Voltage-Voc(V)	39.61	39.81	40.02	40.22	40.42	40.62
Short Circuit Current-Isc(A)	17.31	17.39	17.47	17.55	17.62	17.69
Maximum Power Voltage-Vmpp(V)	32.65	32.85	33.05	33.25	33.45	33.64
Maximum Power Current-Impp(A)	16.51	16.58	16.64	16.71	16.78	16.84

Rear side power gain: 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.

ELECTRICAL DATA (NMOT)

Model Type	RSM108-11-490-515BNDG					
Maximum Power-Pmax (Wp)	371.1	374.9	378.7	382.5	386.3	390.0
Open Circuit Voltage-Voc (V)	36.84	37.02	37.22	37.40	37.59	37.78
Short Circuit Current-Isc (A)	12.91	12.96	13.02	13.08	13.14	13.19
Maximum Power Voltage-Vmpp (V)	30.30	30.48	30.67	30.86	31.04	31.22
Maximum Power Current-Impp (A)	12.25	12.30	12.35	12.40	12.44	12.49

NMOT: Irradiance at 800 W/m², Ambient Temperature 20°C, Wind Speed 1 m/s.

MECHANICAL DATA

Solar cells	*n*-type TOPCon
Cell configuration	108cells (6×9+6×9)
Module dimensions	1961×1134×30mm (77.20×44.65×1.18 in)
Weight	27kg (59.52 lb)
Superstrate	2.0mm(0.08 in), High Transmission, AR Coated Heat Strengthened Glass
Substrate	2.0mm(0.08 in), Heat Strengthened Glass
Frame	Anodized Aluminium Alloy, Black
J-Box	Potted, IP68, 1500VDC, 3 Schottky by pass diodes
Cables	4.0mm² , 1400mm(55.12 in) (+), 1400mm(55.12 in) (-) , connector included , or customized length
Connector	MC4 EVO2/PV-SY02/Others
Maximum mechanical test load	5400 Pa (front) / 2400 Pa (back), under certain installation method

TEMPERATURE & MAXIMUM RATINGS

Nominal Module Operating Temperature (NMOT)	44°C±2°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Isc	0.046%/°C
Temperature Coefficient of Pmax	-0.29%/°C
Operational Temperature	-40°C~+85°C
Maximum System Voltage	1500VDC
Max Series Fuse Rating	35A
Limiting Reverse Current	35A