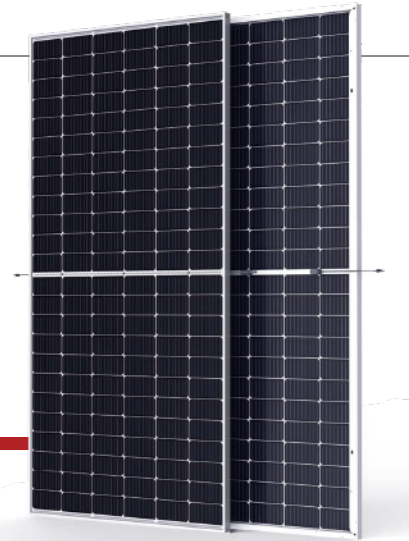


# RS-144 Series

**BIFACIAL DUAL GLASS 144 LAYOUT**  
**PERC Monocrystalline: 525-550W**



**144 LAYOUT**  
**MONOCRYSTALLINE MODULE**

**525-550W**  
**POWER OUTPUT RANGE**

**21.25%**  
**MAXIMUM EFFICIENCY**

**0~+5W**  
**POSITIVE POWER TOLERANCE**

**PRODUCTS**  
 RS-144(cells) | **POWER RANGE**  
 525-550W



### Excellent cells efficiency

MBB technology decreases the distance between bus bars and finger grid line which is benefit to power increase.



### Better Weak Illumination Response

More power output in weak light condition, such as haze, cloudy, and morning



### Anti PID

Improve anti-PID performance through battery process optimization and material control



### Adapt to harsh outdoor environment

Resistant to salt spray/ammonia/Sand dust, adapt to high temperature and humidity environment



### TIER 1

The first tier of global pv module manufacturers



### Comprehensive product and certification system

Comprehensive product and system certification, stricter internal testing than the industry standard



### Double-sided power generation

Double-sided power generation, depending on the installation environment, the rear power generation can be increased up to 25%

Rosen Solar, is one of the world's top ranking manufacturer and installer of solar modules for more than 10years. Facing the increasingly serious situation of world Global warming, we are undertaking more duty and responsibility to provide more reliable and sustainable energy to protect not only human beings but also the Mother Earth. And with modules and systems delivered to more than 150 countries, Rosen is committed to building long term strategy and mutual collaboration with all installers, distributors and partners in energy protection.

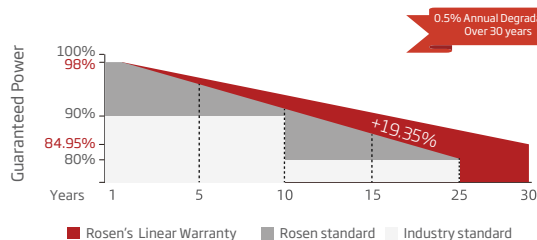
### Comprehensive Products and System Certificates

IEC61215/IEC61730/IEC61701/IEC62716  
 ISO 9001: Quality Management System  
 ISO 14001: Environmental Management System  
 ISO 14064: Greenhouse Gas Emissions Verification  
 OHSAS 18001: Occupation Health and Safety Management System

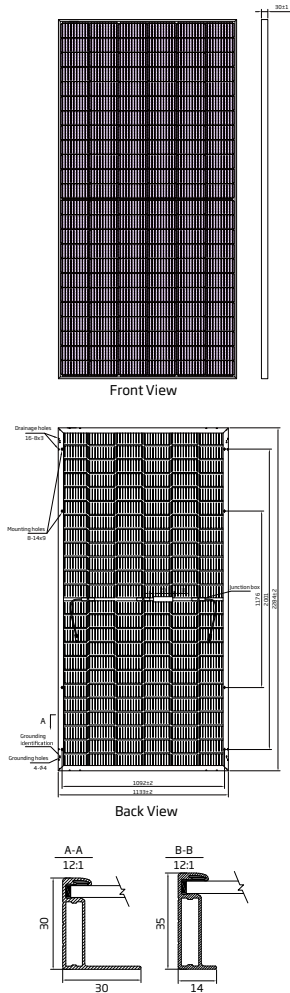


### PERFORMANCE WARRANTY

12 Year Product Warranty · 30 Year Power Warranty



### DIMENSIONS OF PV MODULE(mm)



### ELECTRICAL DATA(STC)

Peak Power Watts - P <sub>MAX</sub> (Wp)*	525	530	535	540	545	550
Power Output Tolerance - P <sub>MAX</sub> (W)	0~+5					
Maximum Power Voltage - V <sub>MPP</sub> (V)	40.90	41.10	41.30	41.50	41.70	41.90
Maximum Power Current - I <sub>MPP</sub> (A)	12.85	12.91	12.96	13.02	13.07	13.13
Open Circuit Voltage - V <sub>OC</sub> (V)	49.20	49.40	49.60	49.80	50.00	50.20
Short Circuit Current - I <sub>SC</sub> (A)	13.59	13.65	13.71	13.77	13.83	13.89
Module Efficiency (%)	20.29	20.48	20.67	20.87	21.06	21.25

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5

\*Measuring tolerance: ±3%.

### ELECTRICAL CHARACTERISTICS WITH 25% REAR SIDE POWER GAIN

Front power P <sub>max</sub> /W	525	530	535	540	545	550
Total power P <sub>max</sub> /W	656	663	669	675	681	688
V <sub>mp</sub> /V(Total)	41.00	41.20	41.40	41.60	41.80	42.00
I <sub>mp</sub> /A(Total)	16.01	16.08	16.15	16.23	16.30	16.37
V <sub>oc</sub> /V(Total)	49.30	49.50	49.70	49.90	50.10	50.30
I <sub>sc</sub> /A(Total)	16.95	17.02	17.10	17.17	17.25	17.32

### ELECTRICAL PARAMETERS AT NMOT

Maximum Power - P <sub>MAX</sub> (Wp)	392.70	396.40	399.90	403.60	406.80	410.80
Maximum Power Voltage - V <sub>MPP</sub> (V)	38.00	38.20	38.40	38.50	38.80	38.90
Maximum Power Current - I <sub>MPP</sub> (A)	10.33	10.38	10.42	10.47	10.49	10.56
Open Circuit Voltage - V <sub>OC</sub> (V)	46.00	46.20	46.30	46.50	46.70	46.90
Short Circuit Current - I <sub>SC</sub> (A)	10.98	11.02	11.07	11.12	11.17	11.22

NMOT: Irradiance 800 W/m<sup>2</sup>, Ambient Temperature 20°C, Wind Speed 1 m/s.

### MECHANICAL DATA

Solar Cells	Monocrystalline, PERC
Cell Orientation	144cells (6*24)
Module Dimensions	2284*1133*30mm
Weight	34kg (Approx)
Glass	2.0mm, High Transmission, AR Coated Heat Strengthened Glass
Encapsulant Material	EVA/POE
Back Glass	2.0mm, Heat Strengthened Glass
Frame	35mm Anodized Aluminium Alloy
J-Box	IP 68, 3 diodes
Cables	4 mm <sup>2</sup> , 350 mm
Connector	MC4-compatible

\*Please refer to regional datasheet for specified connector.

### TEMPERATURE RATINGS

NMOT (Nominal Module Operating Temperature)	44°C ± 2
Temperature Coefficient of P <sub>MAX</sub>	-0.35%/°C
Temperature Coefficient of V <sub>OC</sub>	-0.29%/°C
Temperature Coefficient of I <sub>SC</sub>	0.05%/°C

### MAXIMUM RATINGS

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC (IEC)
Max Series Fuse Rating	30A
Snow/wind pressure	5400Pa/2400Pa

### PACKAGING CONFIGURATION

Modules per pallet:	31 pieces
Modules per 40HQ container:	620 pieces

Refer. Bifacial Factor 70±5%

\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

\*Remark: Electrical data in this catalog do not refer to a single module and they are not part of the offer.

They only serve for comparison among different module types.

