

MONO

POLY

SYSTEM



RS-144HC Series

Framed 144 Layout Mono Module
PERC Half-Cell: 540-560W



144 HALF CELL
MONOCRYSTALLINE MODULE

540-560W
POWER OUTPUT RANGE

21.9 %
MAXIMUM EFFICIENCY

0~+5W
POSITIVE POWER TOLERANCE

Rosen Solar, is one of the world's top ranking manufacturer and installer of solar modules for more than 10 years. 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/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



ISO 9001
Certified
Quality Management System



IEC 61215
IEC 61730
Regular Production
Surveillance



PRODUCTS

RS-144HC(cell)

POWER RANGE

540-560W



Ideal choice for large scale ground installation



Selected encapsulating material and stringent production process control ensure the product is highly PID resistant and snail trails free



Special cutting and soldering technology leads to low hotspot risk



Sand blowing test, salt mist test and ammonia test passed to endure harsh environments



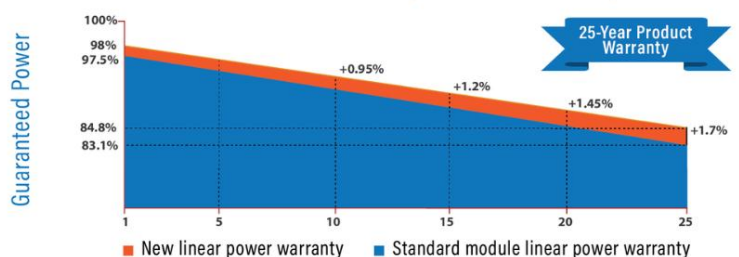
Optimized system performance due to module level current sorting



Highly transparent self-cleaning glass brings additional yield and easy maintenance

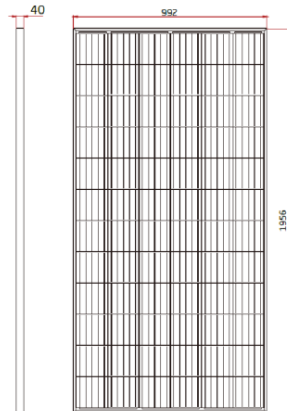
PERFORMANCE WARRANTY

12 Year Product Warranty 25 Year Power Warranty

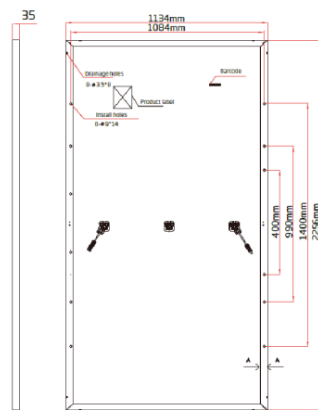


RS-144 Series

144 CELLS MODULE

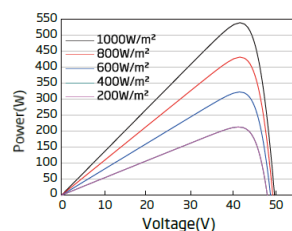
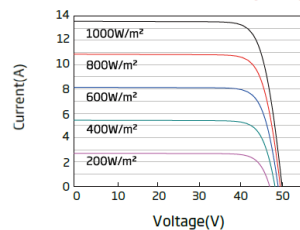
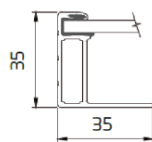


Front View



Back View (Portrait)

Section A-A



ELECTRICAL DATA(STC)

Peak Power Watts-P _{max} (Wp)*	540	545	550	555	560
Power Output Tolerance-P _{max} (W)	0~+5				
Maximum Power Voltage-V _{MPP}	41.64	41.80	41.96	42.12	42.28
Maximum Power Current-I _{MPP} (A)	12.97	13.04	13.11	13.18	13.25
Open Circuit Voltage-V _{oc} (V)	49.60	49.75	49.90	50.05	50.20
Short Circuit Current-I _{sc} (A)	13.86	13.93	14.00	14.07	14.14
Module Efficiency (%)	21.1	21.3	21.5	21.7	21.9

STC: Irradiance 1000W/m², Cell Temperature 25C, Air Mass AM1.5

*Measuring tolerance: ±3%

ELECTRICAL PARAMETERS AT NOCT

Maximum Power-P _{MAX} (Wp)	408	412	416	420	424
Maximum Power Voltage-V _{MPP} (V)	38.99	39.21	39.44	39.67	39.90
Maximum Power Current-I _{MPP} (A)	10.47	10.51	10.55	10.59	10.63
Open Circuit Voltage-V _{oc} (V)	46.43	46.55	46.68	46.81	46.93
Short Circuit Current-I _{sc} (A)	11.09	11.13	11.17	11.21	11.25

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

MECHANICAL DATA

Solar Cells	Monocrystalline, 182 mm
Cell Orientation	144 cells (6*24)
Module Dimensions	2256: 2mm*1134+2mm*35+1 mm (88.81*44.64*1.38 inches)
Weight	27.5 kg
Glass	High Transparency solar glass 3.2 mm (0.13 inches)
Backsheet	White
Frame	Silver Anodized Aluminium Alloy
J-Box	IP 68 rated, 3 diodes
Cables	Photovoltaic Technology Cable 4.0mm ² (0.006 inches ²) Portrait : 300/400 mm (11.81/15.75 inches) Landscape : 1300/1300 mm (51.18/51.18 inches)
Wind/Snow Load	2400Pa/5400Pa*
Connector	MC4 Compatible

ELECTRICAL PARAMETERS AT NOCT

NMOT (Nominal Module Operating temperature)	45 ± 2°C
Temperature Coefficient of P _{max}	-0.350%/°C
Temperature Coefficient of V _{oc}	-0.275%/°C
Temperature Coefficient of I _{sc}	0.045%/°C

(Do not connect Fuse in Combiner Box with two or more strings in parallel connection)

ELECTRICAL PARAMETERS AT NOCT

10 year Product Workmanship Warranty	
25 year Power Warranty	

(Please refer to product warranty for details)

ELECTRICAL PARAMETERS AT NOCT

Operational Temperature	-40~+ 85 °C
Maximum System Voltage	1500V DC
Max Series Fuse Rating	25A

ELECTRICAL PARAMETERS AT NOCT

Modules per Pallet : 31 pieces	
Modules per 40HQ Container : 620 pieces	