

RS-108HC Series

**Framed 108 Layout Mono Black
Module PERC Half-Cell: 400-430W**

**108 HALF CELL
MONOC BLACK MODULE**

**400-430W
POWER OUTPUT RANGE**

**22.0%
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 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



PRODUCTS
RS-108HC(cells)

POWER RANGE
400-430W



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



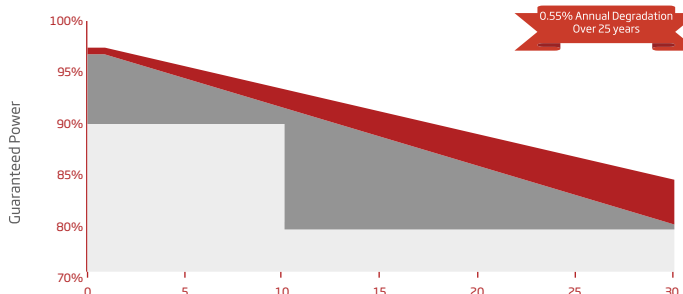
Optimized system performance due to module level current sorting



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

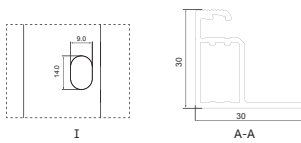
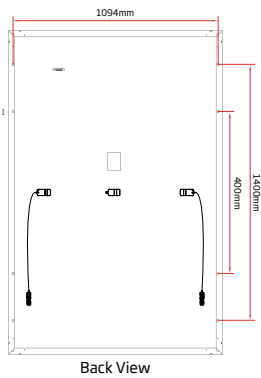
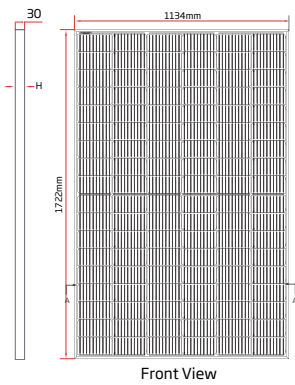
PERFORMANCE WARRANTY

12 year Product Warranty · 30 year Performance Guarantee

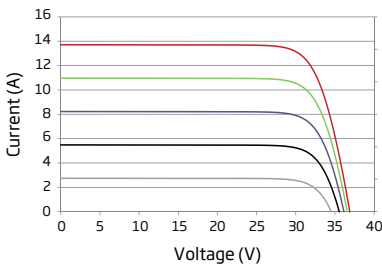


■ Rosen Solar ■ INDUSTRY STAND FOR TIERED WARRANTIES ■ INDUSTRY STAND FOR LINEAR WARRANTIES

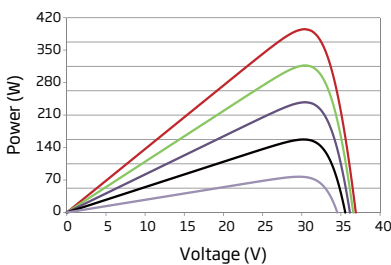
DIMENSIONS OF PV MODULE(mm)



I-V CURVES OF PV MODULE(410W)



P-V CURVES OF PV MODULE(410W)



ELECTRICAL DATA(STC)

| | | | | | | | |
|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|
| Peak Power Watts- $P_{MAX}(Wp)^*$ | 400 | 405 | 410 | 415 | 420 | 425 | 430 |
| Power Output Tolerance- $P_{MAX}(W)$ | 0~+5 | | | | | | |
| Maximum Power Voltage- $V_{MPP}(V)$ | 31.01 | 31.21 | 31.45 | 31.65 | 31.85 | 32.05 | 32.25 |
| Maximum Power Current- $I_{MPP}(A)$ | 12.90 | 12.98 | 13.04 | 13.12 | 13.19 | 13.27 | 13.34 |
| Open Circuit Voltage- $V_{oc}(V)$ | 37.07 | 37.23 | 37.32 | 37.41 | 37.5 | 37.59 | 37.68 |
| Short Circuit Current- $I_{sc}(A)$ | 13.79 | 13.87 | 13.95 | 14.03 | 14.11 | 14.19 | 14.27 |
| Module Efficiency (%) | 20.5% | 20.8 | 21.0 | 21.3 | 21.5 | 21.8 | 22.0 |

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5
*Measuring tolerance: ±3%.

ELECTRICAL PARAMETERS AT NOCT

| | | | | | | | |
|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|
| Maximum Power- $P_{MAX}(Wp)$ | 302 | 306 | 310 | 314 | 318 | 322 | 326 |
| Maximum Power Voltage- $V_{MPP}(V)$ | 29.26 | 29.47 | 29.72 | 29.93 | 30.14 | 30.35 | 30.56 |
| Maximum Power Current- $I_{MPP}(A)$ | 10.32 | 10.38 | 10.43 | 10.50 | 10.57 | 10.64 | 10.71 |
| Open Circuit Voltage- $V_{oc}(V)$ | 34.88 | 35.12 | 35.23 | 35.36 | 35.49 | 35.62 | 35.75 |
| Short Circuit Current- $I_{sc}(A)$ | 11.03 | 11.10 | 11.16 | 11.23 | 11.3 | 11.37 | 11.44 |

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

MECHANICAL DATA

| | |
|-------------------|---|
| Solar Cells | Monocrystalline |
| Cell Orientation | 108 cells (2x54) |
| Module Dimensions | 1722 mm*1134 mm*30 mm |
| Weight | 20.5 kg |
| Glass | 3.2mm, High Transmission, AR Coated Heat Strengthened Glass |
| Backsheet | Black |
| Frame | Black 30mm Anodized Aluminium Alloy |
| J-Box | IP68 rated, 3 diodes |
| Cables | Landscape: N 1400mm/P 1400mm (Opt) |

*Please refer to regional datasheet for specified connector.

TEMPERATURE RATINGS

| | |
|---|------------|
| NOCT (Nominal operating cell temperature) | 45±2°C |
| Temperature Coefficient of P_{MAX} | -0.350%/°C |
| Temperature Coefficient of V_{oc} | -0.28%/°C |
| Temperature Coefficient of I_{sc} | 0.048%/°C |

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

MAXIMUM RATINGS

| | |
|-------------------------|--------------------|
| Operational Temperature | -40~+85°C |
| Maximum System Voltage | 1000/1500VDC (IEC) |
| Max Series Fuse Rating | 25A |

WARRANTY

| |
|-------------------------------|
| 12 year Product Warranty |
| 30 year Performance Guarantee |

(Please refer to product warranty for details)

PACKAGING CONFIGURATION

| |
|---------------------------------------|
| Modules per pallet: 36pieces |
| Modules per 40HQ container: 936pieces |