

# RUNERGY

## HY-DH96N11-XXX **Monofacial** 470-475W

**23.8%**

Max. Efficiency

**N-Type**

Monofacial & Dual Glass

**96 Pieces**

Half-Cell



### Leading Technology

Based on n-type cell and 210R technology platform; Advanced design and manufacturing process; Industry leading reliability and efficiency of mass production



### High Power

Bifacial higher power output, lower temperature coefficient and better low light performance



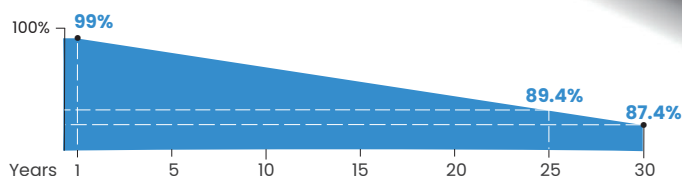
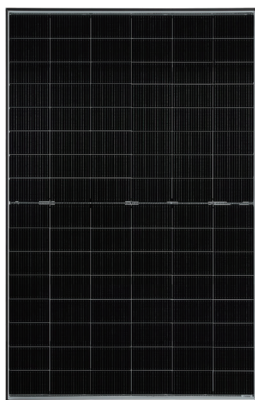
### Long-term Reliability

5400Pa snow load, 2400Pa wind load, and 35mm hail-resistant with 27.2m/s strike



### Stringent Quality Control

Durable product structure; Stringent quality control system; Guaranteed after-sales service to ensure long-term reliability



Runergy N-Type Dual Glass Product Performance (STC) Warranty

• 1st year degradation **<1%**, annual degradation **<0.4%**



25\*-year product warranty



30-year linear power (STC) warranty

IEC61215 / IEC61730 / UL61730 / IEC60068 / ISO9001 / ISO14001 / ISO45001



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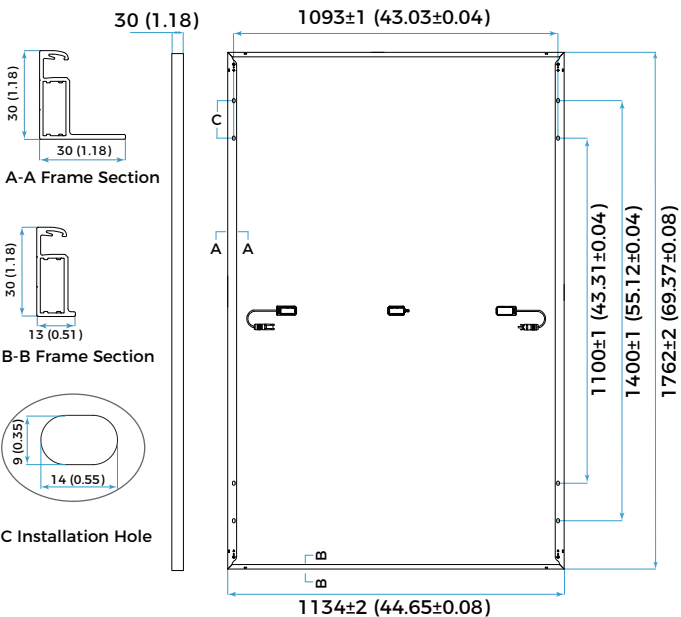
Unit: mm (inch)

Mechanical Parameters

|              |                                                                                                     |
|--------------|-----------------------------------------------------------------------------------------------------|
| Solar Cell   | Mono N-Type 182*210mm                                                                               |
| No. of Cells | 96 (6 × 16)                                                                                         |
| Dimensions   | 1762 × 1134 × 30mm (69.37 x 44.65 x 1.18in)                                                         |
| Weight       | 25kg (55.12lbs)                                                                                     |
| Junction Box | IP68 rated (3 bypass diodes)                                                                        |
| Output Cable | 4mm² (IEC), 12 AWG (UL)<br>±1200mm (47.24in.) or customized                                         |
| Connector    | PV-KST4-EVO2A/xy,PV KBT4-EVO2A/xy (Staubli) or<br>PV-KST4-EVO 2/xy_UR,PV KBT4-EVO 2/xy_UR (Staubli) |
| Front Cover  | 2.0mm AR coated heat-strengthened glass                                                             |
| Back Cover   | 2.0mm heat-strengthened glass                                                                       |
| Frame        | Black-anodized aluminum                                                                             |
| Container    | 36 pcs/pallet,<br>936 pcs/40' HQ (Global)                                                           |

Operating Parameters

|                       |                              |
|-----------------------|------------------------------|
| Max. System Voltage   | DC 1500V (IEC/UL)            |
| Operating Temperature | -40℃ ~ +70℃ (-40°F ~ +158°F) |
| Max. Fuse Rating      | 35A                          |
| Front Max. Loading    | +5400Pa (+112lb/ft²)         |
| Back Max. Loading     | -2400Pa (-50lb/ft²)          |
| Temperature rating    | T98 <sup>th</sup> 70℃        |
| Fire Resistance       | IEC Class A/ UL type 29      |



Electrical Characteristics - STC

Irradiance 1000 W/m², cell temperature 25 °C, AM-1.5, Tolerances: Pmax:±3%,Voc:±3%,Isc:±4%

|                                   |        |       |
|-----------------------------------|--------|-------|
| Maximum Power at STC (Pmax/W)     | 475    | 470   |
| Power Tolerance (W)               | 0 ~ +5 |       |
| Optimum Operating Voltage (Vmp/V) | 30.09  | 29.96 |
| Optimum Operating Current (Imp/A) | 15.79  | 15.69 |
| Open Circuit Voltage (Voc/V)      | 35.91  | 35.78 |
| Short Circuit Current (Isc/A)     | 16.47  | 16.39 |
| Module Efficiency                 | 23.8%  | 23.5% |

Electrical Characteristics - NMOT

Irradiance 800W/m², ambient temperature 20 °C, AM 1.5, wind speed 1m/s, Tolerances: Pmax:±3%,Voc:±3%,Isc:±4%

|                                   |       |       |
|-----------------------------------|-------|-------|
| Maximum Power at NMOT (Pmax/W)    | 363.9 | 360.0 |
| Optimum Operating Voltage (Vmp/V) | 28.81 | 28.69 |
| Optimum Operating Current (Imp/A) | 12.63 | 12.55 |
| Open Circuit Voltage (Voc/V)      | 34.38 | 34.26 |
| Short Circuit Current (Isc/A)     | 13.28 | 13.21 |

Warranty

|                              |           |
|------------------------------|-----------|
| Product Workmanship Warranty | 25* Years |
| Linear Power Output Warranty | 30 Years  |
| First Year Degradation       | 1%        |
| Annual Power Degradation     | 0.4%      |

Temperature Characteristics

|                                      |           |
|--------------------------------------|-----------|
| Nominal Module Operating Temperature | 42 ± 2 °C |
| Nominal Cell Operating Temperature   | 45 ± 2 °C |
| Temperature Coefficient of Pmax      | -0.29%/°C |
| Temperature Coefficient of Voc       | -0.25%/°C |
| Temperature Coefficient of Isc       | 0.045%/°C |

\*The product with 25-year limited product warranty is only available for rooftop installation within Australia with a maximum capacity of 200KW

