RUNERGY

HY-DH96N11 Bifacial

440-460W

23.0%	N-Type	96 Pieces
Max. Efficiency	Bifacial & Dual Glass	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

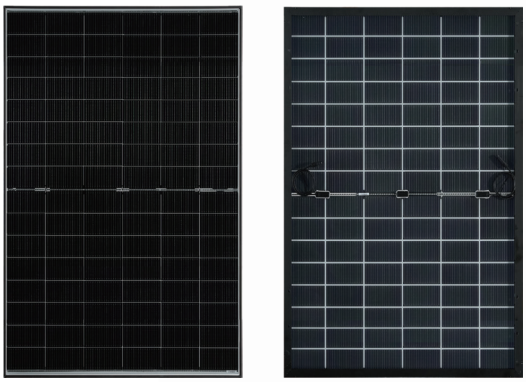
Bifacial higher power output, lower temperature coefficient and better low light performance; Significantly enhanced power output and lower LCOE

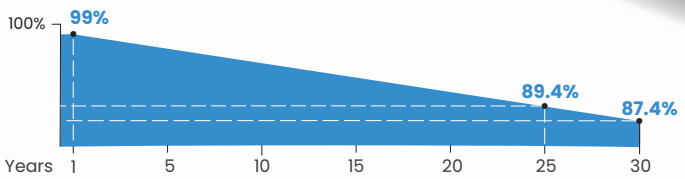
Long-term Reliability

Unsusceptible to LID, LeTID and lower PID degradation; 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 Warranty

- 1st year degradation <1%, annual degradation <0.4%

25 — 25-year product warranty

30 — 30-year linear power warranty

IEC61215 / IEC61730 / UL61730 / IEC61701 / IEC62716 / IEC60068 / ISO9001 / ISO14001 / ISO45001

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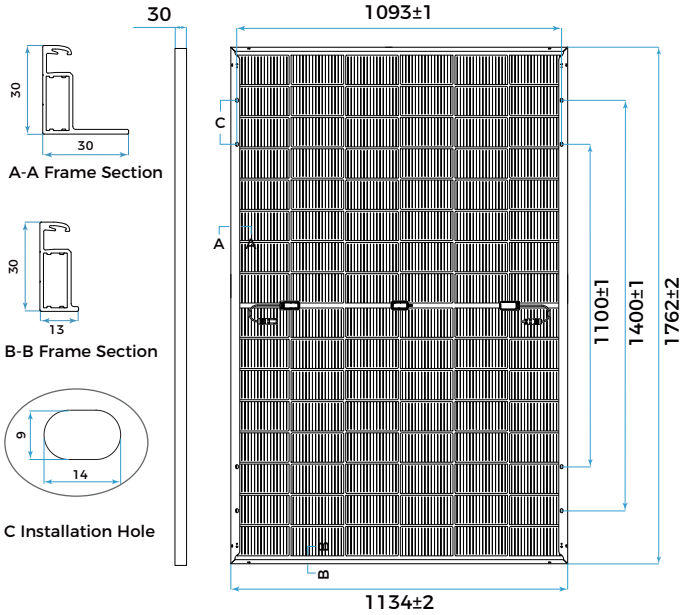
HY-DH96N11 440-460

Mechanical Parameters

Solar Cell	Mono N-Type 182*210mm
No. of Cells	96 (6 × 16)
Dimensions	1762 × 1134 × 30mm
Weight	25kg
Junction Box	IP68 rated (3 bypass diodes)
Output Cable	4mm² (IEC), 12 AWG (UL) ±1200mm or customized
Connector	MC4-EVO2 or similar
Front Cover	2.0mm AR coated heat-strengthened glass
Back Cover	2.0mm heat-strengthened glass
Frame	Black-anodized aluminum
Container	36 pcs/pallet, 936 pcs/40' HQ (Global)

Unit: mm



Operating Parameters

Max. System Voltage	DC 1500V（IEC/UL
Operating Temperature	-40˚C ~ +85˚C
Max. Fuse Rating	35A
Front/Back Max. Loading	5400Pa/2400Pa
Bifaciality	80%±5%
Hail Test	35mm, 27.2 m/s.
Fire Resistance	IEC Class A/ UL Type 29

Electrical Characteristics - STC

Irradiance 1000 W/m², cell temperature 25 ˚C, AM-1.5, Test uncertainty for Pmax: ±3%

Maximum Power at STC (Pmax/W)	460	455	450	445	440
Power Tolerance (W)			0 ~ +5		
Optimum Operating Voltage (Vmp/V)	29.70	29.57	29.44	29.30	29.16
Optimum Operating Current (Imp/A)	15.49	15.39	15.29	15.19	15.09
Open Circuit Voltage (Voc/V)	35.52	35.39	35.26	35.12	34.98
Short Circuit Current (Isc/A)	16.23	16.15	16.07	15.99	15.91
Module Efficiency	23.0%	22.8%	22.5%	22.3%	22.0%

Electrical Characteristics - BNPI

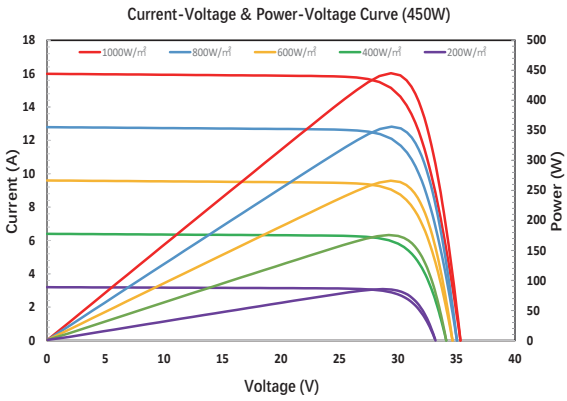
Irradiance: front 1000W/m², rear 135W/m², Cell temperature 25 ˚C, AM-1.5.

Maximum Power at BNPI (Pmax/W)	506	501	496	341	484
Optimum Operating Voltage (Vmp/V)	29.70	29.57	29.44	28.05	29.16
Optimum Operating Current (Imp/A)	17.05	16.94	16.83	12.15	16.61
Open Circuit Voltage (Voc/V)	35.61	35.48	35.35	33.63	35.07
Short Circuit Current (Isc/A)	17.89	17.80	17.72	12.89	17.54

Rearside Power Gain

(Reference to 450W Front)

Rearside Power Gain	5%	15%	25%
Maximum Power (Pmax/W)	473	518	563
Optimum Operating Voltage (Vmp/V)	29.50	29.54	29.57
Optimum Operating Current (Imp/A)	16.02	17.52	19.02
Open Circuit Voltage (Voc/V)	35.32	35.36	35.39
Short Circuit Current (Isc/A)	16.84	18.42	20.01
Module Efficiency	23.6%	25.9%	28.2%



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

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HY-DH96N11-Bifacial-EU-Ver25Q4

Specifications included in this datasheet are subject to change without notice.