

HY-WH108N8

# 415-435W

108 Pieces | HALF-CELL | N-Type

**RUNERGY**  
MADE IN CHINA/THAILAND



**22.3%**  
Max. Efficiency  
**N-Type**  
Single Glass



### High Conversion Efficiency

Module efficiency up to 22.3% based on N-Type wafer and advanced N-Type cell technology



### Excellent Energy Yield

More power output in field operation due to better thermal behaviors, weak-light performance and bifaciality



### Outstanding Anti-degradation

Unsusceptible to LID and less annual degradation due to special characteristics of N-Type



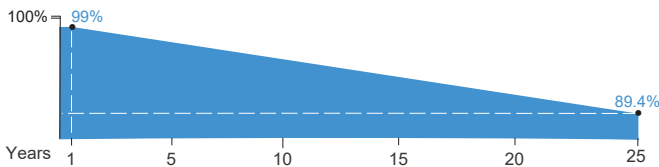
### Quality Guarantee

High module quality ensures long-term reliability



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

Evidence for IEC61701/62716/60068 is available on request.



Runergy N-Type Single Glass Product Performance Warranty

warranty for materials and workmanship



warranty for extra linear power output

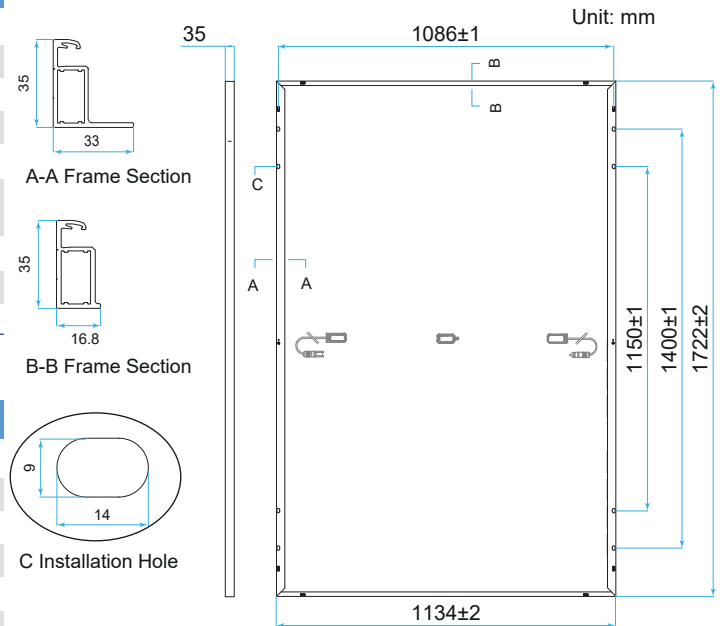


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## Mechanical Parameters

Solar Cell	Mono N-Type 182 mm
No. of Cells	108 (6 × 18)
Dimensions	1722 × 1134 × 35mm
Weight	20.7kg
Junction Box	IP68 rated (3 bypass diodes)
Output Cable	4mm <sup>2</sup> (IEC), 12 AWG(UL) (-/+1200mm or customized)
Connector	RY01, QC4.10, GT4, PV-KST4-EVO 2/xy_UR, PV-KBT4-EVO 2/xy_UR
Front Cover	3.2mm AR Tempered glass
Container	31 pcs/Pallet, 806 pcs/40' HC



## Operating Parameters

Max. System Voltage	DC 1500V (IEC/UL)
Operating Temperature	-40°C ~ +85°C
Max. Fuse Rating	25A
Frontside Max. Loading	5400Pa
Backside Max. Loading	2400Pa
Fire Resistance	IEC Class C

## Electrical Characteristics - STC

Irradiance 1000 W/m<sup>2</sup>, ambient temperature 25 °C, AM1.5, , Test uncertainty for Pmax: ±3%

	435	430	425	420	415
Maximum Power at STC (Pmax/W)	435	430	425	420	415
Power Tolerance (W)			0 ~ +5		
Optimum Operating Voltage (Vmp/V)	32.06	31.88	31.70	31.51	31.32
Optimum Operating Current (Imp/A)	13.57	13.49	13.41	13.33	13.25
Open Circuit Voltage (Voc/V)	38.68	38.49	38.30	38.11	37.92
Short Circuit Current (Isc/A)	14.31	14.23	14.15	14.07	13.99
Module Efficiency	22.3%	22.0%	21.8%	21.5%	21.3%

## Electrical Characteristics - NMOT

Irradiance 800 W/m<sup>2</sup>, ambient temperature 20 °C, AM1.5, wind speed 1 m/s.

	332.0	328.2	324.4	320.5	316.7
Maximum Power at NMOT (Pmax/W)	332.0	328.2	324.4	320.5	316.7
Optimum Operating Voltage (Vmp/V)	30.69	30.52	30.35	30.17	29.98
Optimum Operating Current (Imp/A)	10.82	10.75	10.69	10.63	10.56
Open Circuit Voltage (Voc/V)	37.03	36.85	36.67	36.48	36.30
Short Circuit Current (Isc/A)	11.51	11.45	11.38	11.32	11.25

## Temperature Characteristics

Nominal Module Operating Temperature	42 ± 2 °C
Nominal Cell Operating Temperature	45 ± 2 °C
Temperature Coefficient of Pmax	-0.31%/°C
Temperature Coefficient of Voc	-0.26%/°C
Temperature Coefficient of Isc	0.05%/°C

## Warranty

Product Workmanship Warranty	15Years
Linear Power Output Warranty	25 Years
First Year Degradation	1%
Annual Power Degradation	0.4%

Current-Voltage & Power-Voltage Curve (430W)

