

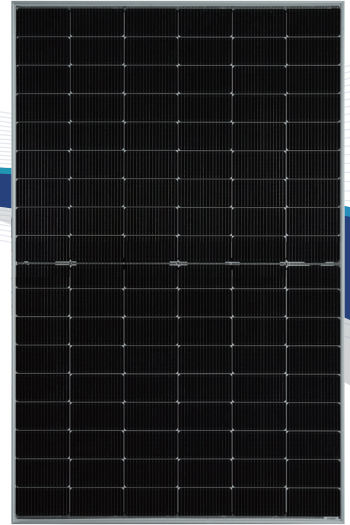
Preliminary coming soon

HY-DH108N12

# 425-445W

108 Pieces | HALF-CELL | N-Type

## RUNERGY



**21.8%**  
Max. Efficiency  
**N-Type**  
Bifacial & Dual Glass



### High Conversion Efficiency

Module efficiency up to 21.8% 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, LeTID and less annual degradation due to special characteristics of N-Type

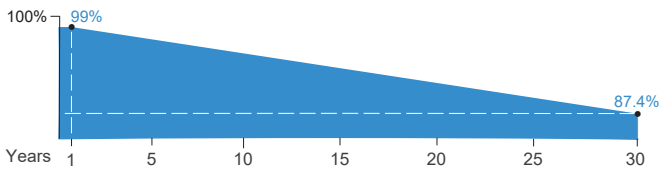


### Quality Guarantee

High module quality ensures long-term reliability



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



Runergy N-Type Dual Glass Product Performance Warranty

**15** Years Product Warranty

**30** Years Linear Power Warranty

**1%** First Year Degradation

**0.4%** Annual Power Degradation

Jiangsu Runergy New Energy Technology Co., Ltd.  
58 Xiangjiang Road, Economic Development Zone,  
Yancheng City, Jiangsu Province, 224000, China

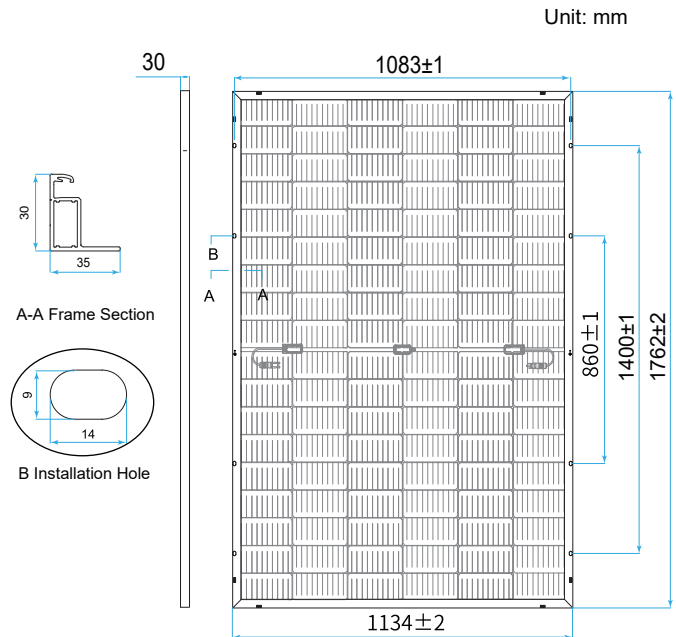
sales-inform@runergy.cn  
www.runergy-solar.com

## Mechanical Parameters

Solar Cell	Mono N-Type 182.2× 186.8mm
No. of Cells	108 (6 × 18)
Dimensions	1762 × 1134 × 30mm
Weight	22.0kg
Junction Box	IP68 rated (3 bypass diodes)
Output Cable	4mm <sup>2</sup> (IEC), 12 AWG(UL) (-/+1200mm or customized)
Connector	RY01 or similar
Front Cover	1.6mm semi-tempered AR glass
Back Cover	1.6mm semi-tempered glass
Container	36 pcs/Pallet, 936 pcs/40' HC

## Operating Parameters

Max. System Voltage	DC 1500V (IEC/UL)
Operating Temperature	-40°C ~ +85°C
Max. Fuse Rating	30A
Frontside Max. Loading	5400Pa
Backside Max. Loading	2400Pa
Bifaciality	80%±10%
Fire Resistance	IEC Class A



## Electrical Characteristics - STC

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

Maximum Power at STC (Pmax/W)	445	440	435	430	425
Power Tolerance (W)			0 ~ +5		
Optimum Operating Voltage (Vmp/V)	33.04	32.81	32.59	32.38	32.18
Optimum Operating Current (Imp/A)	13.47	13.41	13.35	13.28	13.21
Open Circuit Voltage (Voc/V)	39.61	39.38	39.16	38.95	38.75
Short Circuit Current (Isc/A)	13.92	13.86	13.80	13.73	13.66
Module Efficiency	21.8%	21.6%	21.3%	21.1%	20.8%

## Electrical Characteristics - NMOT

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

Maximum Power at NMOT (Pmax/W)	340.9	337.0	333.2	329.3	325.6
Optimum Operating Voltage (Vmp/V)	31.64	31.42	31.20	31.00	30.81
Optimum Operating Current (Imp/A)	10.77	10.73	10.68	10.62	10.57
Open Circuit Voltage (Voc/V)	37.93	37.71	37.50	37.29	37.10
Short Circuit Current (Isc/A)	11.22	11.17	11.12	11.07	11.01

## Rearside Power Gain (Reference to 445W Front)

Rearside Power Gain	5%	15%	25%
Maximum Power (Pmax/W)	467	512	538
Optimum Operating Voltage (Vmp/V)	33.04	33.14	33.14
Optimum Operating Current (Imp/A)	14.14	15.44	16.78
Open Circuit Voltage (Voc/V)	39.61	39.71	39.71
Short Circuit Current (Isc/A)	14.62	15.97	17.36
Module Efficiency	23.4%	25.6%	26.9%

## 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

