RUNERGY

MADE IN THAILAND/CHINA

TIER 1 HY-DH144N8

570-590W

22.8%	N-Type	144 Pieces
Max. Efficiency	**Bifacial** & Dual Glass	Half-Cell



High Conversion Efficiency

Module efficiency up to 22.8% based on N-Type wafer and advanced N-Type cell technology

Excellent Energy Yield

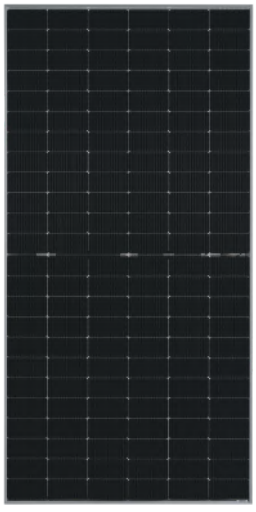
More power output in field operation due to better thermal behaviors, weak-light performance and bifaciality

Outstanding Anti-degradation

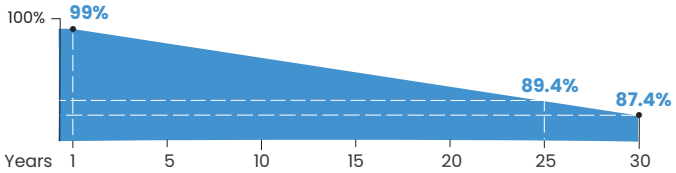
Unsusceptible to LID and less annual degradation due to special charateristics of N-Type

Quality Guarantee

High module quality ensures long-term reliability







Runergy N-Type Dual Glass Product Performance Warranty

- **12 Years** warranty for materials and workmanship
- **30 Years** warranty for extra linear power output
- 1st year <**1%**, annual degradation <**0.4%**

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

Intertek

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

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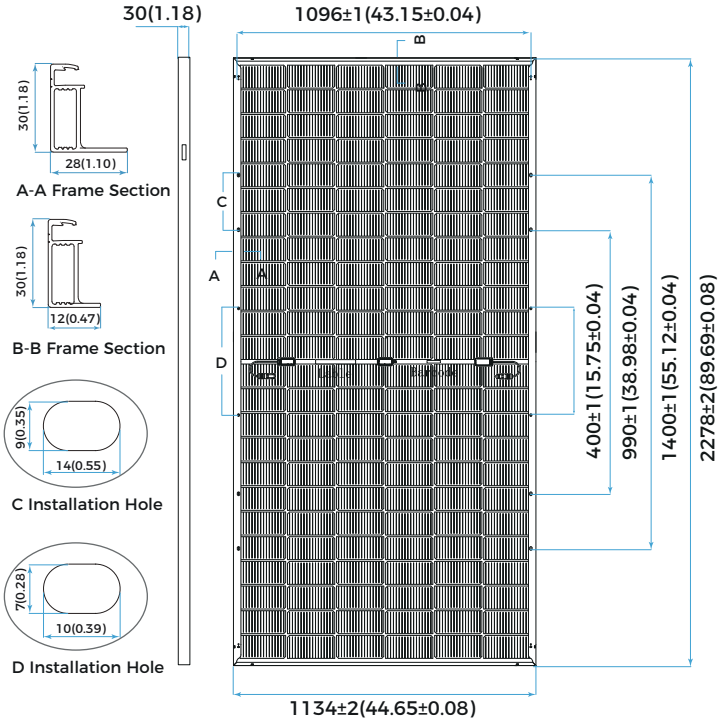
Unit: mm(inch)

Mechanical Parameters

Solar Cell	Mono N-Type 182mm
No. of Cells	144 (6 × 24)
Dimensions	2278 × 1134 × 30mm(89.69× 44.65 × 1.18in.)
Weight	32kg(70.55lbs)
Junction Box	IP68 rated (3 bypass diodes)
Output Cable	4mm² (IEC), 12 AWG(UL) +400/-200mm (+15.75/-7.87in.) or customized
Connector	PV-KST4-EVO 2/xy_UR, PV-KBT4-EVO 2/xy_UR
Front Cover	2.0mm (0.079in.)semi-tempered AR glass
Back Cover	2.0mm (0.079in.)semi-tempered glass
Container	36 pcs/Pallet, 720 pcs/40' HQ

Operating Parameters

Max. System Voltage	DC 1500V（IEC/UL）
Operating Temperature	-40˚C ~ +85˚C(-40°F ~ +185°F)
Max. Fuse Rating	30A
Frontside Max. Loading	5400Pa(112lb/ft²)
Backside Max. Loading	2400Pa(50lb/ft²)
Bifaciality	80%±10% (Pmax) 98%±2%(Voc) 80%±10%(Isc)
Fire Resistance	IEC Class A



Electrical Characteristics - STC

Irradiance 1000 W/m², cell temperature 25 ˚C, AM1.5, , Test uncertainty for Pmax: ±3%,Isc: ±4%,Voc: ±3%

Maximum Power at STC (Pmax/W)	590	585	580	575	570
Power Tolerance (W)			0 ~ +5		
Optimum Operating Voltage (Vmp/V)	44.43	44.22	44.04	43.83	43.62
Optimum Operating Current (Imp/A)	13.28	13.23	13.17	13.12	13.07
Open Circuit Voltage (Voc/V)	52.37	52.16	51.97	51.74	51.52
Short Circuit Current (Isc/A)	13.89	13.85	13.80	13.75	13.70
Module Efficiency	22.8%	22.6%	22.5%	22.3%	22.1%

Electrical Characteristics - NMOT

Irradiance 800 W/m², ambient temperature 20 ˚C, AM1.5, wind speed 1 m/s.

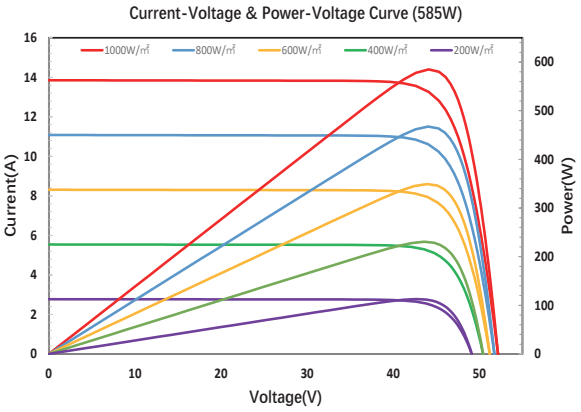
Maximum Power at NMOT (Pmax/W)	451.9	448.1	444.2	440.4	436.6
Optimum Operating Voltage (Vmp/V)	42.54	42.34	42.17	41.97	41.77
Optimum Operating Current (Imp/A)	10.62	10.58	10.53	10.49	10.45
Open Circuit Voltage (Voc/V)	50.14	49.94	49.76	49.54	49.33
Short Circuit Current (Isc/A)	11.20	11.16	11.12	11.08	11.04

Rearside Power Gain (Reference to 585W Front)

Rearside Power Gain	5%	15%	25%
Maximum Power (Pmax/W)	614	673	731
Optimum Operating Voltage (Vmp/V)	44.22	44.32	44.32
Optimum Operating Current (Imp/A)	13.89	15.18	16.50
Open Circuit Voltage (Voc/V)	52.16	52.26	52.26
Short Circuit Current (Isc/A)	14.54	15.90	17.28
Module Efficiency	23.8%	26.1%	28.3%

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