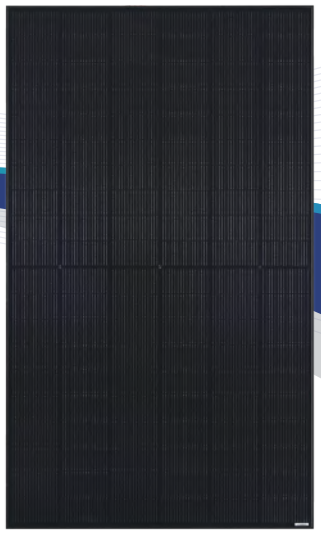
RUNERGY

MADE IN THAILAND/CHINA

HY-DH120N8B

460-480W

120 Pieces | HALF-CELL | N-Type



22.2%
Max.Efficiency

N-Type
Bifacial & Dual Glass

High Conversion Efficiency

Module efficiency up to 22.2% 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

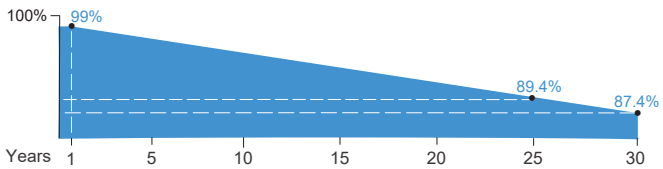
Quality Guarantee

High module quality ensures long-term reliability

Intertek

Munich RE

IEC61215 / IEC61730 / UL61730
IEC61701 / IEC62716 / IEC60068
ISO9001 / ISO14001/ ISO45001
Evidence for IEC61701/62716/60068 is available on request.



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

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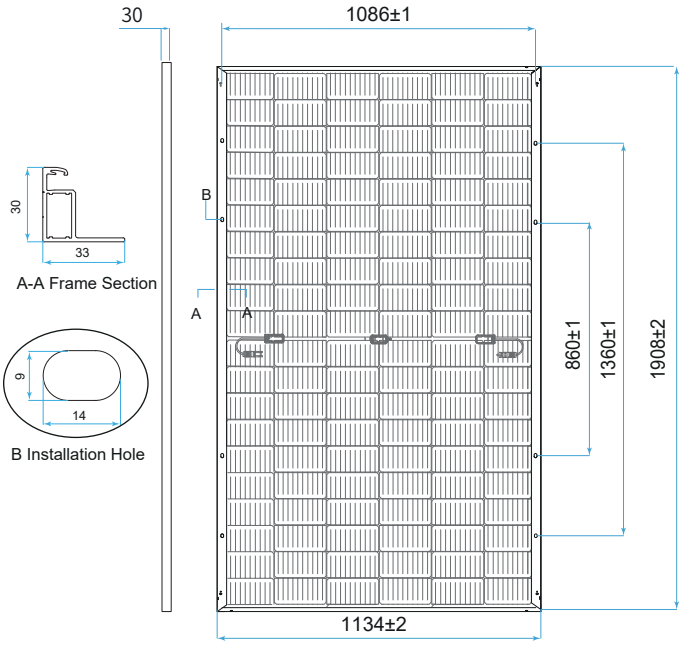
RUNERGY

HY-DH120N8B-460/480

Mechanical Parameters

Solar Cell	Mono N-Type 182 mm
No. of Cells	120(6 × 20)
Dimensions	1908 × 1134 × 30mm
Weight	26.5kg
Junction Box	IP68 rated (3 bypass diodes)
Output Cable	4mm² (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	2.0mm semi-tempered AR glass
Back Cover	2.0mm semi-tempered glass
Container	36 pcs/Pallet, 792 pcs/40' HC

Unit: mm



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% (Pmax) 98%±2%(Voc) 80%±10%(Isc)
Fire Resistance	IEC Class A

Electrical Characteristics - STC

Irradiance 1000 W/m², ambient temperature 25 °C, AM1.5, Test uncertainty for Pmax: ±3%

Maximum Power at STC (Pmax/W)	480	475	470	465	460
Power Tolerance (W)			0 ~ +5		
Optimum Operating Voltage (Vmp/V)	35.38	35.12	35.05	34.89	34.72
Optimum Operating Current (Imp/A)	13.57	13.49	13.41	13.33	13.25
Open Circuit Voltage (Voc/V)	42.71	42.54	42.38	42.22	42.05
Short Circuit Current (Isc/A)	14.31	14.23	14.15	14.07	13.99
Module Efficiency	22.2%	21.9%	21.7%	21.5%	21.3%

Electrical Characteristics - BNPI

Maximum Power at NMOT (Pmax/W)	525	520	515	510	505
Optimum Operating Voltage (Vmp/V)	35.25	35.05	34.97	34.89	34.72
Optimum Operating Current (Imp/A)	14.98	14.84	14.80	14.75	14.67
Open Circuit Voltage (Voc/V)	42.73	42.48	42.40	42.32	42.15
Short Circuit Current (Isc/A)	15.83	15.69	15.65	15.60	15.51

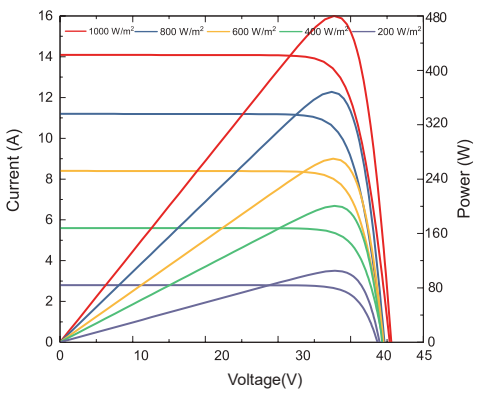
Rearside Power Gain (Reference to 480W Front)

Rearside Power Gain	5%	15%	25%
Maximum Power (Pmax/W)	504	552	600
Optimum Operating Voltage (Vmp/V)	35.38	35.48	35.48
Optimum Operating Current (Imp/A)	14.25	15.56	16.91
Open Circuit Voltage (Voc/V)	42.71	42.81	42.81
Short Circuit Current (Isc/A)	15.03	16.42	17.85
Module Efficiency	23.3%	25.5%	27.7%

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

Current-Voltage & Power-Voltage Curve（480W）



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