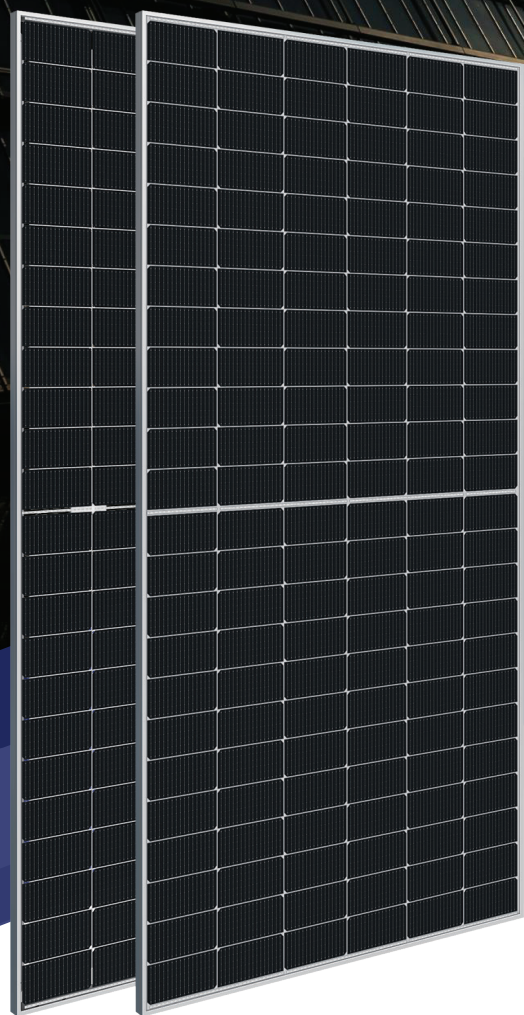




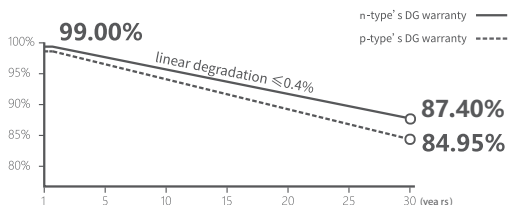
ALPHA N5 Bi-Facial Series

590~620W

Warranty

12 12-year Product Warranty

30 30-year Linear Power Warranty



Key Features

- TOPCon / Half-cut
- Low temperature coefficient (Pmpp)
- Non-destructive cutting
- PID resistance
- Low BOS cost & LCOE
- Bifacial gain



590~620W

POWER RANGE

0~+5W

POWER SORTING

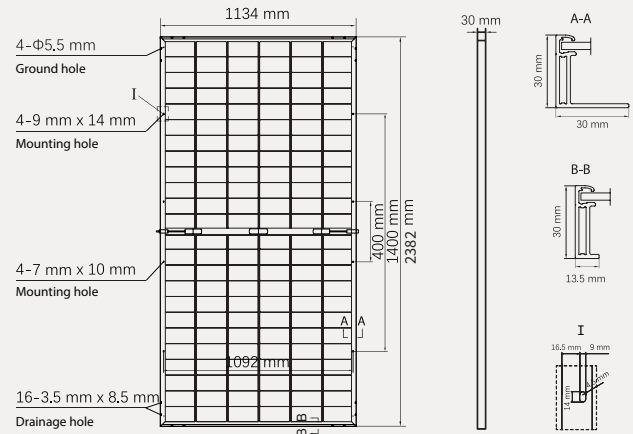
22.95%

MAX MODULE
EFFICIENCY $\leq 1.0\%$ FIRST YEAR
POWER DEGRADATION $\leq 0.4\%$ YEAR 2-30
POWER DEGRADATION

Mechanical Specifications

Cell Type	182.2mm x 105mm N-Type Bi-Facial
No. of Cells	132 Cells
Dimensions	2382x1134x30mm
Weight	33.7kg
Front Glass	2.0mm AR coating tempered glass
Back Glass	2.0mm Glazed glass
Frame	Anodized Aluminium Alloy
Junction box	IP 68 3 diodes
Output cables	4mm ² , symmetrical lengths 1300mm
Max Wind Load/Snow Load	2400Pa / 5400Pa
Weight of packing unit (for 40'HQ container)	1215 kg
Modules per 40' HQ container	720 pcs

① Refer to crystalline installation manual or contact technical department.
Maximum Mechanical Test Load=1.5×Maximum Mechanical Design Load.



Electrical Specifications

STC: Irradiance 1000W/m², Cell Temperature 25° C, AM=1.5

Peak Power(Pmax)	590.00	595.00	600.00	605.00	610.00	615.00	620.00
Maximum Power Voltage(Vmp)	42.67	40.02	40.27	40.5	40.73	40.95	41.2
Maximum Power Current(Imp)	13.83	14.87	14.9	14.94	14.98	15.02	15.05
Open Circuit Voltage(Voc)	51.30 ± 3%	47.99 ± 3%	48.24 ± 3%	48.5 ± 3%	48.76 ± 3%	49.01 ± 3%	49.25 ± 3%
Short Circuit Current(Isc)	14.63 ± 3%	15.74 ± 3%	15.78 ± 3%	15.81 ± 3%	15.85 ± 3%	15.88 ± 3%	15.92 ± 3%
Module Efficiency(%)	22.83	22.03	22.21	22.4	22.58	22.77	22.95

NMOT: Irradiance 800W/m², Ambient Temperature 20° C, AM=1.5, Wind Speed 1m/s

Peak Power(Pmax)	421.00	425.00	429.00	433.00	437.00
Maximum Power Voltage(Vmp)	39.25	39.38	39.51	39.64	39.77
Maximum Power Current(Imp)	10.73	10.79	10.85	10.91	10.97
Open Circuit Voltage(Voc)	47.94 ± 3%	48.06 ± 3%	48.20 ± 3%	48.32 ± 3%	48.46 ± 3%
Short Circuit Current(Isc)	11.42 ± 3%	11.49 ± 3%	11.55 ± 3%	11.61 ± 3%	11.68 ± 3%

Electrical Specifications (Integrated power)

Pmpp gain	5%	10%	5%	10%	5%	10%	5%	10%	5%	10%	5%	10%
Pmpp / Wp	625	655	630	660	635	666	641	671	646	677	651	682
Vmpp / V	40.0	40.0	40.3	40.3	40.5	40.5	40.8	40.8	41.1	41.1	41.4	41.4
Impp / A	15.63	16.38	15.66	16.40	15.69	16.43	15.71	16.46	15.73	16.48	15.74	16.49
Voc / V	48.1	48.1	48.4	48.4	48.7	48.7	49.0	49.0	49.3	49.3	49.6	49.6
Isc / A	16.55	17.34	16.59	17.38	16.62	17.41	16.65	17.45	16.68	17.48	16.71	17.50

Electrical characteristics with different rear power gain (reference to 620W)

Temperature Ratings (STC)

Operating Parameters

Temperature coefficient (Pmpp)	-0.29%/°C	No. of diodes	3
Temperature coefficient (Isc)	+0.04%/°C	Junction box IP rating	IP 68
Temperature coefficient (Voc)	-0.24%/°C	Max. series fuse rating	35 A
Nominal module operating temperature (NMOT)	43±2	Max. system voltage (IEC/UL)	1500V _{DC}

Curve

