



Bifacial Double Glass Module (Black Pro)

PB-DH96NE-440

PB-DH96NE-450

PB-DH96NE-460



Key Features



High Efficiency

Leading module efficiency in industry, up to 23.0%



Excellent Appearance and Performance

Bifacial solar cell, symmetrical design, low risk of micro-crack



High Reliability

25 years materials warranty, 30 years power warranty



Excellent Rear Side Power Generation

Bifaciality is up to 80%, up to 30% more energy yield than conventional modules



Better low irradiance performance

Higher power output even under low irradiance environments like on cloudy or foggy days



Extensive Application Scenes

More extensive application, snow field, high humidity and strong wind

Maximum Power Output
460W

Maximum Module Efficiency
23.0%

Power Binning
0~+5W

Product and Quality Certifications

IEC 61215, IEC 61730

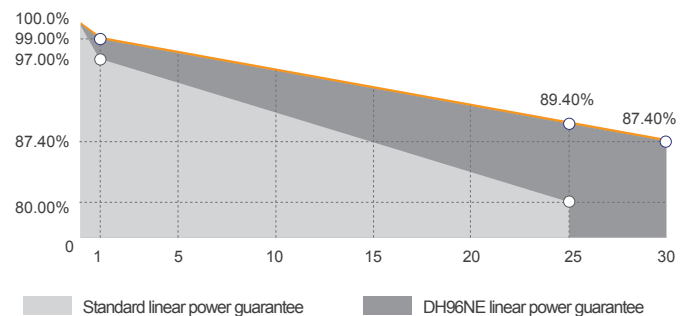
ISO 9001: Quality Management System

ISO 14001: Environment Management System

ISO 45001: Occupational Health and Safety Management System



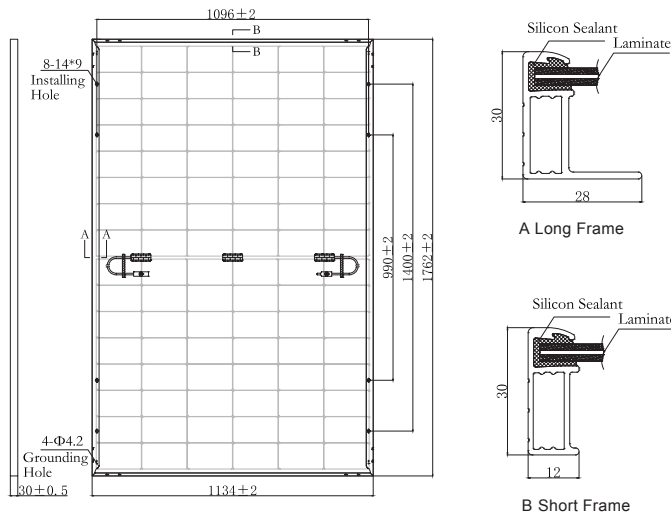
Safety Class: Class II Fire Safety: Class C



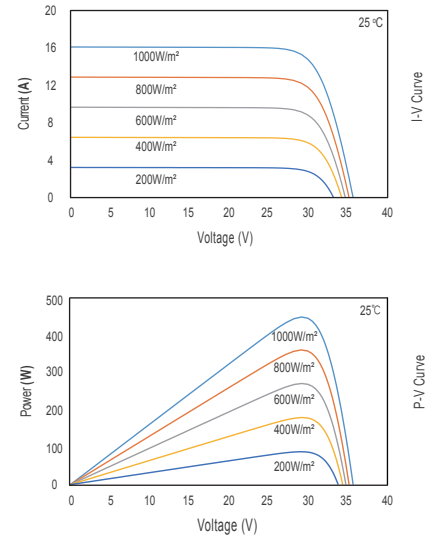
Leading product and power warranty

1.00% 1st-year Degradation 0.40% Annual Degradation 25 Years Materials and workmanship warranty 30 Years Linear power warranty

Engineering Drawing (mm)



Characteristic Curves(460W)



Electrical Parameters (STC *)

Nominal Max. Power(Pmax/W) ±3%	440	450	460
Open Circuit Voltage(Voc/V) ±3%	34.92	35.30	35.68
Short Circuit Current(Isc/A) ±5%	15.94	16.08	16.22
Operating Voltage(Vmp/V)	29.65	30.02	30.41
Operating Current(Imp/A)	14.84	14.99	15.13
Efficiency(%)	22.0	22.5	23.0
Isc-BSI (±5%)	19.69	19.87	20.04

STC * : Irradiance = 1000 W/m², Cell Temperature = 25°C, AM = 1.5
Test condition is based on the front side

Electrical Parameters (NMOT *)

Nominal Max. Power(Pmax/W) ±3%	335	343	350
Open Circuit Voltage(Voc/V) ±3%	33.44	33.80	34.16
Short Circuit Current(Isc/A) ±5%	12.85	12.96	13.08
Operating Voltage(Vmp/V)	28.02	28.37	28.74
Operating Current(Imp/A)	11.96	12.08	12.20

NMOT * : Irradiance = 800 W/m², Ambient Temperature = 20°C, AM = 1.5,
Wind Speed = 1 m/s
Test condition is based on the front side

Electrical Parameters (BNPI*)

Nominal Max. Power(Pmax/W) ±3%	485	495	505
Open Circuit Voltage(Voc/V) ±3%	34.92	35.30	35.68
Short Circuit Current(Isc/A) ±5%	17.63	17.78	17.94
Operating Voltage(Vmp/V)	29.65	30.02	30.41
Operating Current(Imp/A)	16.42	16.59	16.74

BNPI * : front irradiance=1000W/m², rear irradiance=135W/m²,
Cell Temperature = 25°C, AM = 1.5
Pmax bifaciality coefficient 80±5%, Voc bifaciality coefficient 95±5%
Isc bifaciality coefficient 80±5%

Mechanical Parameters

Cell Type	N Type
Module Size	1762×1134×30mm
Glass Thickness	1.6mm + 1.6mm
Module Weight	21.6Kg
Output Cable	4mm², cable length 1200mm (can be customized)
Connector	See Note
Junction Box	IP68, 3 bypass diodes
Frame	Anodized aluminium alloy (Black)

Connector*:

- 1.PV-DA01M2-XY / PV-DA02M2-XY (DAS Solar)
- 2.PV-ZH202B (Zhejiang Zhonghuan)
- 3.PV-KST4-EVO2/xy_UR,PV-KBT4-EVO2/xy_UR (Staubli)
- 4.PV-KST4-EVO2A/xy,PV-KBT4-EVO2A/xy (Staubli)
- 5.PV-JK03M2/xy (Plug+Socket) (Jinko)

Temperature Coefficients

Short Circuit Current(Isc)	+0.045%/°C
Open Circuit Voltage(Voc)	-0.250%/°C
Nominal Max. Power(Pmax)	-0.280%/°C
NMOT	42±2°C

Operating Parameters

Max. System Voltage	DC1500V
Power Measurement Tolerance	±3%
Module[T98] max[°C]	70
Max. Fuse Rated Current	30A
Fire Safety Class	Class C
Test Load	Front 5400Pa, Back 2400Pa
Packing Data	36 pcs/Pallet ; 216(20GP) ; 936(40HQ)