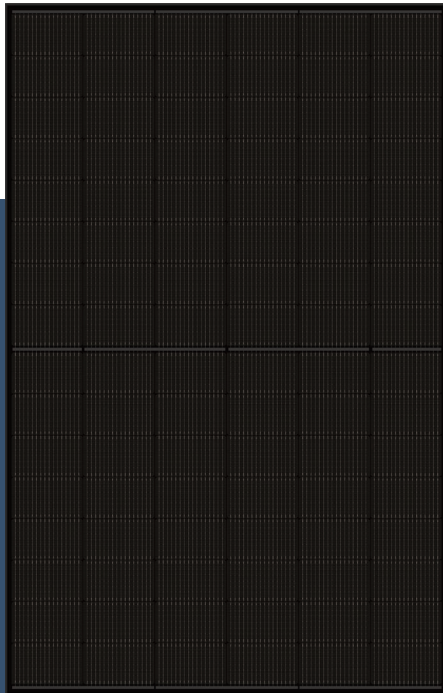


## Bifacial Double Glass Module (Black Pro)

DAS-DH96NE

# 435W~460W



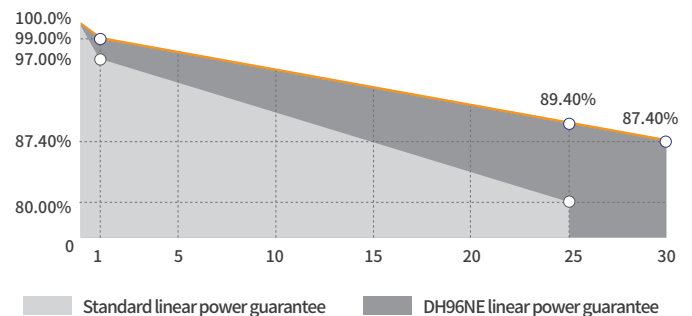
### Key Features

- 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**  
 Passed 3\*IEC standard test, 15 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 scenes, such as BIPV, snow field, vertical installation, high humidity, strong wind and desert region

Maximum Power Output	Maximum Module Efficiency	Power Output Tolerance
<b>460W</b>	<b>23.0%</b>	<b>0~+5W</b>

### Product and Quality Certifications

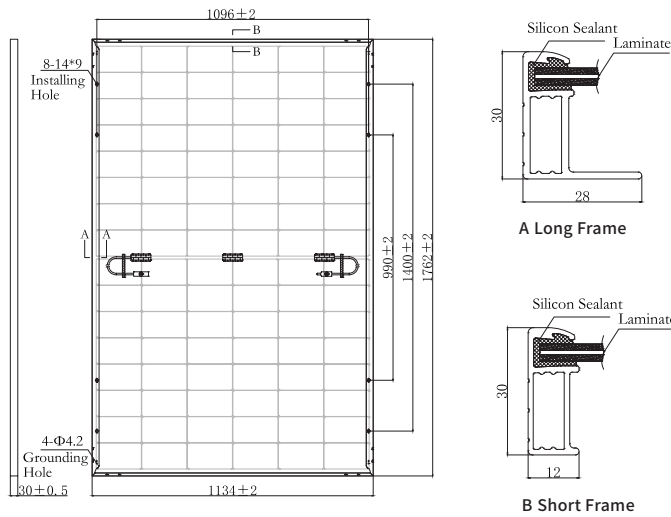
- IEC 61215, IEC 61730
- ISO 9001: Quality Management System
- ISO 14001: Environment Management System
- ISO 45001: Occupational Health and Safety Management System
- IEC 62716, IEC 61701: Ammonia, Salt mist corrosion test
- IEC TS 62804-1, IEC 60068-2-68: PID test, Dust and Sand test



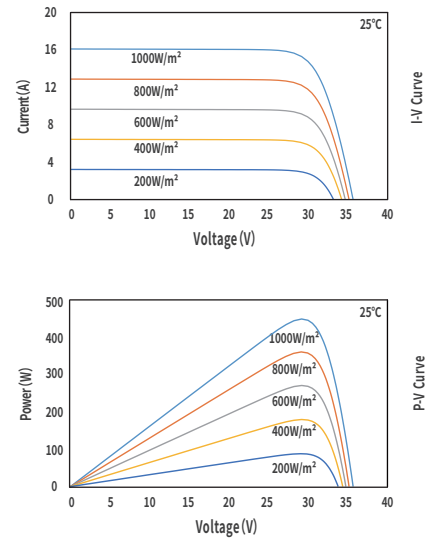
### Leading product and power warranty

**-1.00%** 1st-year Degradation **-0.40%** Annual Degradation **15** Materials and workmanship warranty **30** Linear power warranty

## Engineering Drawing (mm)



## Characteristic Curves(450W)



## Electrical Parameters (STC \*)

Nominal Max. Power(Pmax/W)	435	440	445	450	455	460
Open Circuit Voltage(Voc/V)	34.72	34.92	35.11	35.30	35.50	35.68
Short Circuit Current(Isc/A)	15.86	15.94	16.01	16.08	16.16	16.22
Operating Voltage(Vmp/V)	29.48	29.65	29.83	30.02	30.22	30.41
Operating Current(Imp/A)	14.76	14.84	14.92	14.99	15.06	15.13
Efficiency(%)	21.8	22.0	22.3	22.5	22.8	23.0

STC \*: Irradiance = 1000 W/m<sup>2</sup>, Cell Temperature = 25°C, AM = 1.5  
Test condition is based on the front side

## Mechanical Parameters

Cell Type	N Type
Module Size	1762×1134×30mm
Glass Thickness	1.6mm + 1.6mm
Module Weight	21.6Kg
Output Cable	4mm <sup>2</sup> , cable length 1200mm (can be customized)
Connector	Original MC4 Series
Junction Box	IP68, 3 bypass diodes
Frame	Anodized aluminium alloy (Black)

## Electrical Parameters (NMOT \*)

Nominal Max. Power(Pmax/W)	331	335	339	343	347	350
Open Circuit Voltage(Voc/V)	33.24	33.44	33.62	33.80	33.99	34.16
Short Circuit Current(Isc/A)	12.79	12.85	12.91	12.96	13.03	13.08
Operating Voltage(Vmp/V)	27.86	28.02	28.19	28.37	28.56	28.74
Operating Current(Imp/A)	11.90	11.96	12.03	12.08	12.14	12.20

NMOT \*: Irradiance = 800 W/m<sup>2</sup>, Ambient Temperature = 20°C, AM = 1.5,  
Wind Speed = 1 m/s  
Test condition is based on the front side

## 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

## Backside Power Gain (For 450W)

Power Gain	10%	15%	20%	25%	30%
Nominal Max. Power(Pmax/W)	495.0	517.5	540.0	562.5	585.0
Open Circuit Voltage(Voc/V)	35.30	35.30	35.40	35.40	35.40
Short Circuit Current(Isc/A)	17.69	18.49	19.30	20.10	20.90
Operating Voltage(Vmp/V)	30.02	30.02	30.12	30.12	30.12
Operating Current(Imp/A)	16.49	17.24	17.93	18.67	19.42

## Operating Parameters

Max. System Voltage	DC1500V
Power Tolerance	0 ~ +5 W
Operating Temperature	-40°C ~ +85°C
Max. Fuse Rated Current	30A
Bifaciality	80%±5%
Static Load	Front 5400Pa, Back 2400Pa
Packing Data	36 pcs/Pallet; 216(20GP); 936(40HQ)