

N-TYPE

SOLARHERO



HERO[®] FULL-BLACK PRO

430W BIFACIAL DOUBLE GLASS MODULE



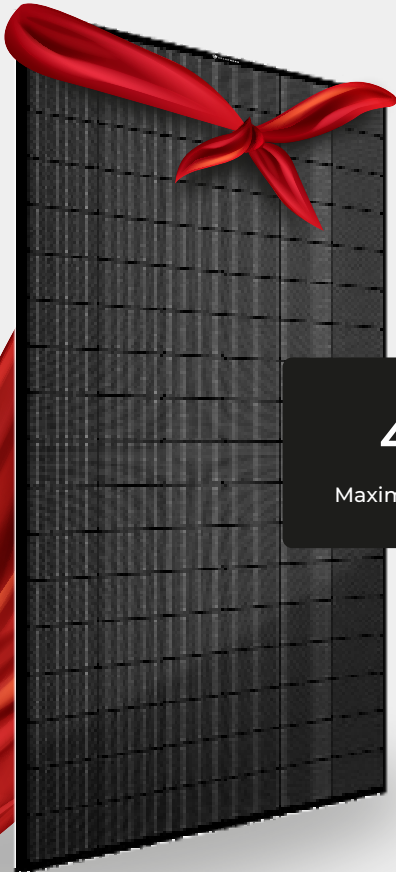
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HERO® FULL-BLACK PRO 430W BIFACIAL DOUBLE GLASS MODULE

MODULE TYPE: M10 16BB N-TYPE 430W

MODULE POWER: 430W



430W

Maximum Power Output

22.0%

Maximum Module Efficiency

0~+5W

Power Output Tolerance

-1.00% 1st-year Degradation

-0.40% Annual Degradation

**30
YEAR**

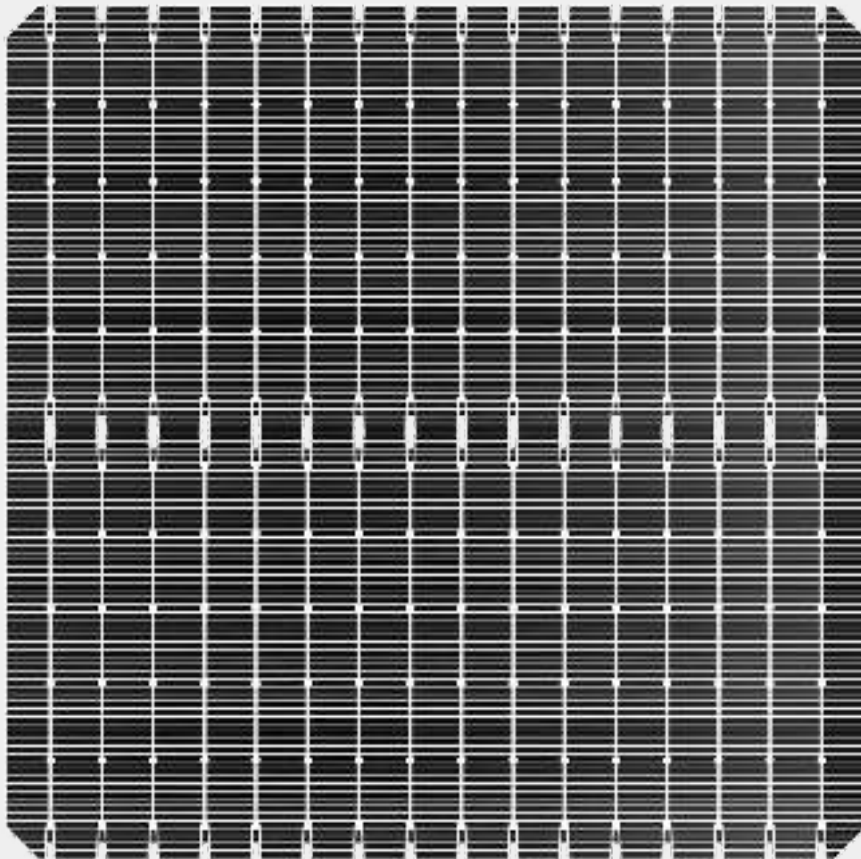
Materials and
workmanship warranty

**30
YEAR**

Linear power
warranty



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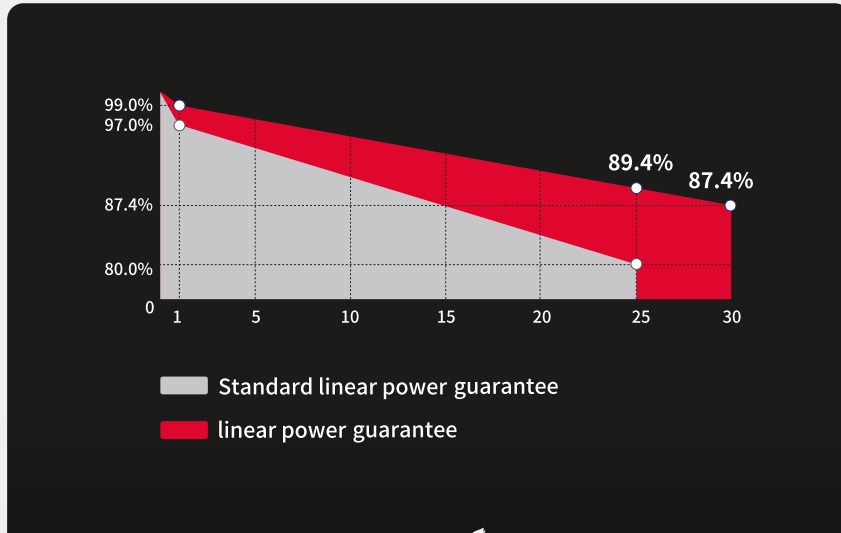
M10



N-type cells have many advantages, they are resistant to light induced degradation due to the presence of phosphorus instead of boron within the silicon. This immunity leads to a longer carrier lifetime of the cell and a more efficient, powerful system.

Product and Quality Certifications

- IEC 61215, IEC 61730
- ISO 9001:2015 Quality Management System
- ISO 14001:2015 Environment 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



Key Features



High Efficiency

Module efficiency leading in industry, up to 22.0%



Double Sided Power Generation

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



Excellent Appearance and Performance

Both side cell, symmetrical design, low risk of micro-crack



Better Temperature Coefficient

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



High Reliability

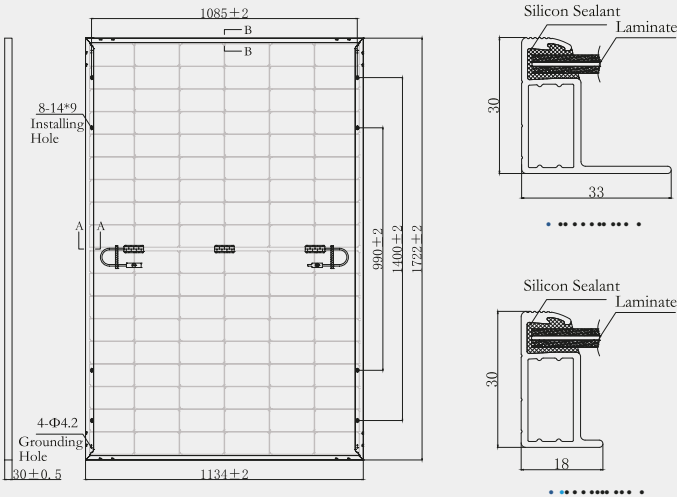
30 years warranty



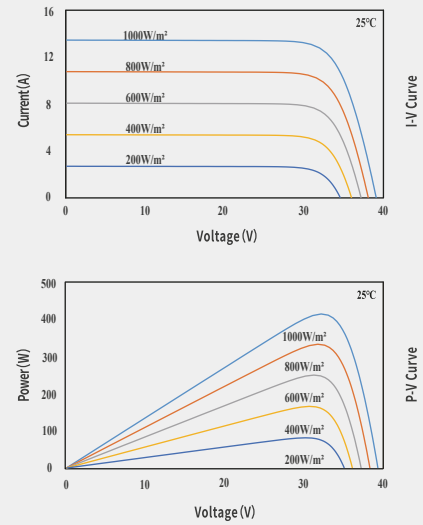
Extensive Application Scenes

More extensive application scenes, such as BIPV, snow field, vertical installation, high humidity, strong wind and desert region

ENGINEERING DRAWING (MM)



CHARACTERISTIC CURVES



ELECTRICAL PROPERTIES (STC*)

Testing Condition	Front Side
Nominal Max. Power(Pmax/W)	430
Open Circuit Voltage(Voc/V)	38.49
Short Circuit Current(Isc/A)	14.23
Operating Voltage(Vmp/V)	31.88
Operating Current(Imp/A)	13.49
Efficiency(%)	22.0

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

MECHANICAL PARAMETERS

Cell size	N Type 182mm*91mm
Module size	1722×1134×30mm
Glass Thickness	2.0mm
Module Weight	24.3Kg
Output Cable	4mm², cable length 1200mm (can be customized)
Connector	MC4 compatible
Junction Box	IP68, 3 bypass diodes
Frame	Anodized aluminium alloy

ELECTRICAL PROPERTIES (NMOT*)

Testing Condition	Front Side
Nominal Max. Power(Pmax/W)	326.5
Open Circuit Voltage(Voc/V)	36.40
Short Circuit Current(Isc/A)	11.47
Operating Voltage(Vmp/V)	30.10
Operating Current(Imp/A)	10.87

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

TEMPERATURE COEFFICIENTS

Short Circuit Current(Isc)	+0.045%/°C
Open Circuit Voltage(Voc)	-0.250%/°C
Nominal Max. Power(Pmax)	-0.300%/°C
NMOT	42±2°C

BACK POWER GAIN

	10%	15%	20%	25%	30%
Power Gain					
Nominal Max. Power(Pmax/W)	473.0	494.5	516.0	537.5	554.0
Open Circuit Voltage(Voc/V)	38.60	38.70	38.80	38.80	38.90
Short Circuit Current(Isc/A)	15.70	16.44	17.18	17.93	18.50
Operating Voltage(Vmp/V)	31.70	31.60	31.60	31.60	31.50
Operating Current(Imp/A)	14.94	15.64	16.33	17.04	17.58

OPERATING PARAMETERS

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



Product Service

CERTIFICATE

No. Z2 118630 0001 Rev. 00

Holder of Certificate: **SOLAR HERO GmbH**

Beckhauser Str. 6
40699 Erkrath
GERMANY

Certification Mark:



Product:

Crystalline Silicon Terrestrial Photovoltaic (PV) Modules
Mono-crystalline Silicon Photovoltaic Module

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition, the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: 701262219901-00

Valid until: 2027-10-12

Date, 2022-11-03

(Zhulin Zhang)

CERTIFICATE

No. Z2 118630 0001 Rev. 00

Model(s):

All electrical data is shown as relative to this test conditions:
front side irradiance 1000 W/m², 25 °C, AM 1.5

SOLARHERO xxx-S1 (xxx=385-415, in steps of 5)

SOLARHERO xxx-S1 PRO1 (xxx=385-415, in steps of 5)

SOLARHERO xxx-S1 PRO2 (xxx=385-415, in steps of 5)

SOLARHERO xxx-S1-B (xxx=410-465, in steps of 5)

SOLARHERO xxx-S1-B PRO (xxx=410-465, in steps of 5)

SOLARHERO xxx-S2 (xxx=400-430, in steps of 5)

SOLARHERO xxx-S2 PRO1 (xxx=400-430, in steps of 5)

SOLARHERO xxx-S2 PRO2 (xxx=400-430, in steps of 5)

SOLARHERO xxx-S2-B (xxx=530-575, in steps of 5)

SOLARHERO xxx-S2-B PRO (xxx=530-575, in steps of 5)

xxx is standing for rated output power at STC.

Parameters:

Safety Class:	ClassII
Max. System Voltage:	1500V DC
Test Laboratory:	Yangzhou Opto-Electrical Product Testing Institute No.10 West Kaifa Road, Yangzhou, 225009 Jiangsu P.R.China
Construction:	Framed or Frameless, with Junction box, cable and connector.
Fire Safety Class:	Class C according to UL790

Tested according to:

IEC 61215-1:2016
IEC 61215-1-1:2016
IEC 61215-2:2016
IEC 61730-1:2016
IEC 61730-2:2016
EN 61215-1:2016
EN 61215-1-1:2016
EN 61215-2:2017
EN IEC 61730-1:2018
EN IEC 61730-1:2018/AC:2018-06
EN IEC 61730-2:2018
EN IEC 61730-2:2018/AC:2018-06



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