

N-TYPE

SOLARHERO



HERO[®]PV

420-S2 PRO2 Stäubli MC4-EVO2
BIFACIAL DOUBLE GLASS MODULE



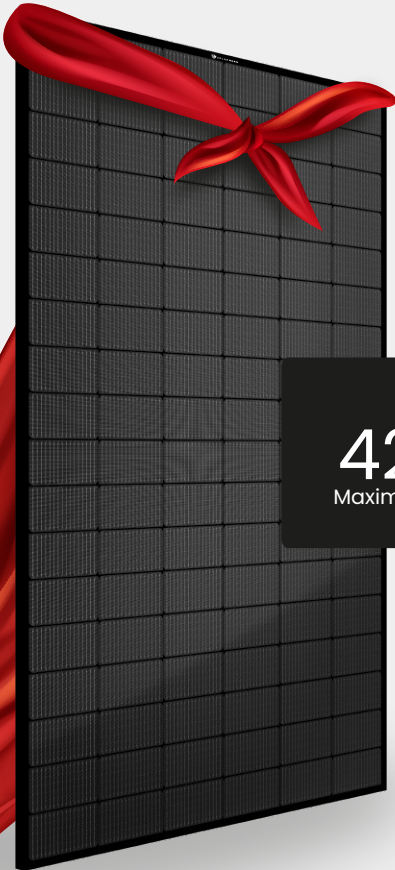
WWW.HEROPV.COM



HERO® FULL-BLACK PRO 420Wp BIFACIAL DOUBLE GLASS MODULE

MODULE TYPE: **420-S2 PRO2**

MODULE POWER: **420Wp**



420Wp
Maximum Power Output

21.5%
Maximum Module Efficiency

-1.00% 1st-year Degradation

-0.40% Annual Degradation

30
YEAR

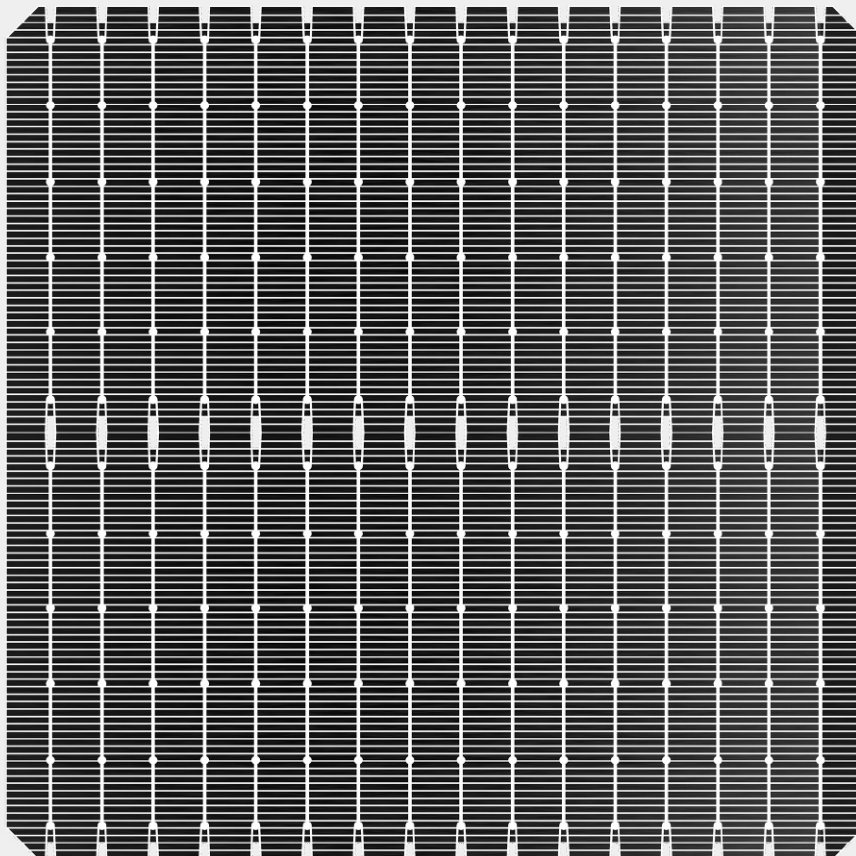
Materials and
workmanship warranty

30
YEAR

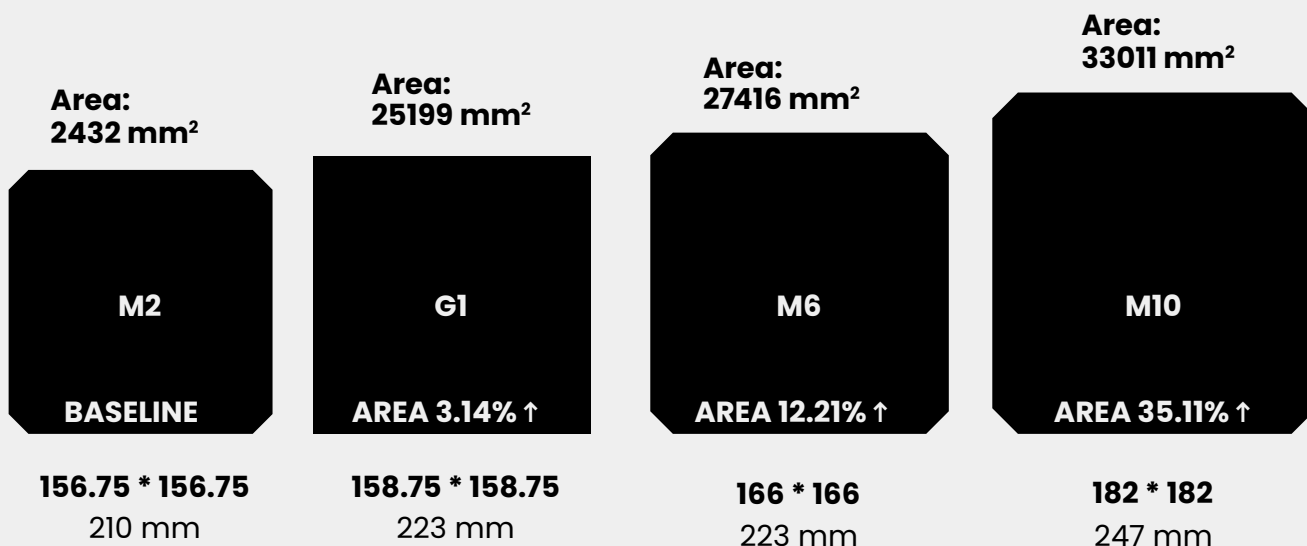
Linear power
warranty



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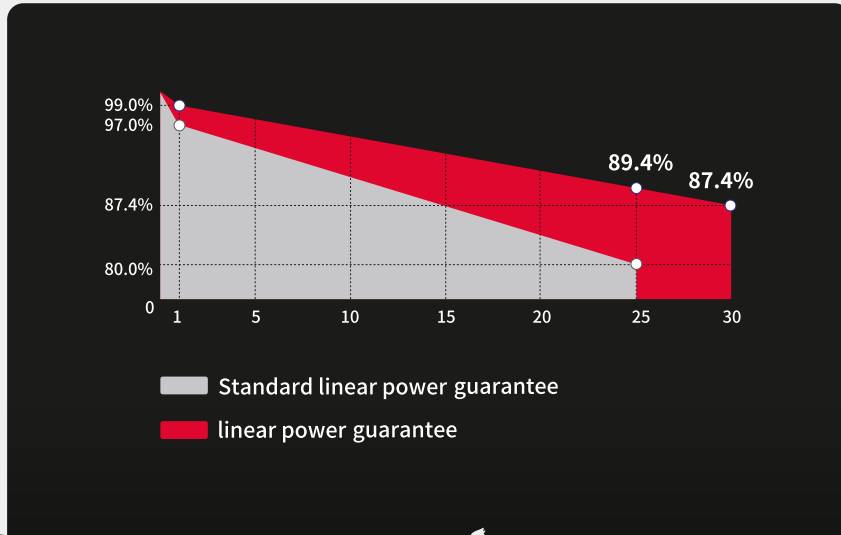
M10



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
- 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

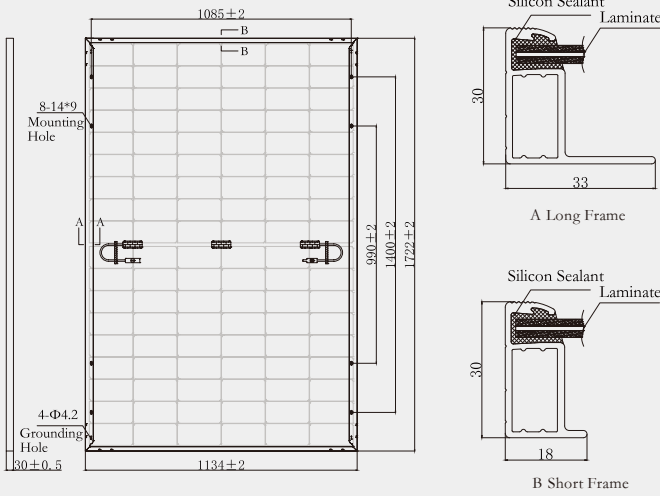
Excellent Appearance and Performance
Both side cell, symmetrical design, low risk of micro-crack

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

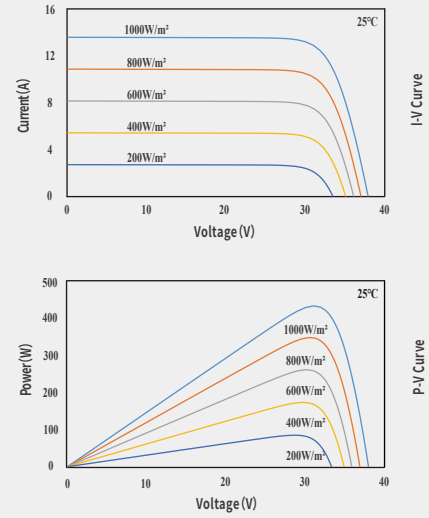
High Reliability
30 years warranty

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/Wp)	420
Open Circuit Voltage(Voc/V)	38.48
Short Circuit Current(Isc/A)	13.78
Operating Voltage(Vmp/V)	32.02
Operating Current(Imp/A)	13.12
Efficiency(%)	21.5

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

MECHANICAL PARAMETERS

Cell Size	N Type 182mm*91mm(TOPCon Cells)
Module Size	1722×1134×30mm
Glass Thickness	2.0mm
Module Weight	23.7Kg
Output Cable	4mm ² , cable length 300mm (can be customized)
Connector	MC4 compatible
Junction Box	IP68, 3 bypass diodes
Frame	Anodized aluminium alloy

ELECTRICAL PROPERTIES (NMOT*)

Nominal Max. Power(Pmax/Wp)	313.0	316.0	319.0	322	325.0
Open Circuit Voltage(Voc/V)	36.37	36.40	36.46	36.52	36.82
Short Circuit Current(Isc/A)	11.10	11.11	11.11	11.12	11.20
Operating Voltage(Vmp/V)	29.82	30.05	30.28	30.51	30.83
Operating Current(Imp/A)	10.50	10.52	10.54	10.56	10.54

NMOT * : Irradiance = 800W/m², 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)	-0.300%/°C
NMOT	42±2°C

BACK POWER GAIN

Power Gain	10%	15%	20%	25%	30%
Nominal Max. Power(Pmax/Wp)	473.0	494.5	516.0	537.5	559.0
Open Circuit Voltage(Voc/V)	38.60	38.60	38.70	38.70	38.70
Short Circuit Current(Isc/A)	15.18	15.87	16.56	17.25	17.94
Operating Voltage(Vmp/V)	32.68	32.68	32.78	32.78	32.78
Operating Current(Imp/A)	14.47	15.13	15.74	16.40	17.05

OPERATING PARAMETERS

Max. System Voltage	DC1500V
Power Tolerance	3%*
Operating Temperature	-40°C ~ +85°C
Max. Fuse Rated Current	30A
Front Static Load	Snow load 5400Pa, Wind Load 2400Pa
Packing Specification	36pcs/Pallet; 216(20GP); 936(40HQ)

Measurement tolerance of the rated power 3% depending on equipment.
The specifications and average values can vary slightly.
A possible light-induced degradation after commissioning is not taken into account.



Product Service

CERTIFICATE

No. Z2 118630 0001 Rev. 01

Holder of Certificate: **SOLAR HERO GmbH**
Rheinpromenade 11
40789 Monheim am Rhein
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.: 701262219901-01

Valid until: 2028-01-15

Date, 2023-03-22

(Zhulin Zhang)

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT



CERTIFICATE

No. Z2 118630 0001 Rev. 01

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=400-435, in steps of 5)

SOLARHERO xxx-S2 PRO1 (xxx=400-435, in steps of 5)

SOLARHERO xxx-S2 PRO2 (xxx=400-435, in steps of 5)

SOLARHERO xxx-S2-B (xxx=530-585, in steps of 5)

SOLARHERO xxx-S2-B PRO (xxx=530-585, in steps of 5)

xxx is standing for rated output power at STC.

Parameters:

Safety Class:	Class II
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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