es elite solar
HC series

30 years warranty

BLACK EDITION

450W | 470W

The ELITE SOLAR Half cut series is the most powered module with highest efficiency. Multibus-bar permit to reduce the degradation of the cells and increase the power generated from sun.

Feature

Durability Against Extreme Environmental Conditions

RESISTANT

High salt mist and ammonia resistance
Certified by TUV NORD

PID Resistance

PID RESISTANT

Excellent Anti-PID performance guarantee limited power degradation for mass production. (Potential Induced Degradation) under the test conditions.

High Efficiency

CONVERSION

Higher module conversion efficiency (up to 21.27%) benefit from half cell structure (low resistance charcteristic).

Low-light Performance

LOW LIGHT

Advanced glass and cell surface textured design ensure excellent performance in low-light environment.

Severe Weather Resilience

2400 Pa
5400 Pa

Certified to withstand : Wind load (2400 pascal) and snow load (5400 pascal).

QUALIFICATIONS AND CERTIFICATES

About Elite-Solar

Enginering of elite-solar gmbH recherche and development allow to acheive the maximum effeciency. By the HC series, elite-solar are positionned at the leader on the market with innovation and commitment to the industry.

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H6-450 I H6-455 I H6-460 I H6-465 I H6-470

Electrical Properties (STC*)

Maximum Power (Pmax)	[W]	450	455	460	465	470
MPP Voltage (Vmpp)	[V]	41.4	41.6	41.8	42.0	42.2
MPP Current (Impp)	[A]	10.87	10.94	11.01	11.08	11.15
Open Circuit Voltage (Voc)	[V]	50.0	50.3	50.6	50.9	51.02
Short Circuit Current (Isc)	[A]	11.36	11.43	11.50	11.57	11.64
Module Efficiency	[%]	20.22	20.45	20.67	20.90	21.12
Operating Temperature	[°C]	-40~+85				
Maximum System Voltage	[V]	VDC 1500				
Maximum Series Fuse Rating	[A]	20				
Number of Bypass Diodes		3				
Power Tolerance	[%]	0~+5				

The nameplate power output is measured and determined by elite-solar at its sole and absolute direction.
* STC (Standard Test Condition): Irradiance 1.000W/m², cell temperature 25°C, AM 1.5 (Measurement Tolerance ± 3%, Electrical Parameter Tolerance: ± 5%)

Electrical Properties (NOCT*)

Maximum Power	[W]	338.3	342.0	345..8	349.5	354.0
MPP Voltage	[V]	38.9	39.1	39.3	39.5	39.7
MPP Current (Impp)	[A]	8.70	8.75	8.85	8.90	8.95
Open Circuit Voltage	[V]	46.6	46.9	47.2	47.5	48.0
Short Circuit Current	[A]	9.18	9.24	9.30	9.36	9.42

* NOCT (Nominal Operating Cell Temperature): Irradiance 800W/m², ambient temperature 20°C, wind speed 1 m/s

Temperature Characteristics

Norminal Operating Cell Temperature(Noct)	[°C]	45±2
Temperature Coefficient Of Pmax	[%/°C]	-0.035
Temperature Coefficient Of Voc	[%/°C]	-0.272
Temperature Coefficient Of Isc	[%/°C]	+0.044

Mechanical Properties

Cells	6 x 24
Cell Type	Monocrystalline
Cell Dimensions	166 x 83 mm
Number of Busbar	9 (Multi Wire Busbar)
Dimensions (L x W x H)	2102x1040x35mm 82,75x40,94x1.39in
Front Load	5,400 Pa
Rear Load	4,000 Pa
Weight	23Kg
Connector Type	MC4 Compatible
Junction Box	Split Junction Box (IP68 ,three diode)
Cables	4.0mm²,+300mm,-300mm Customized Length
Glass	3.2mm Tempered Low Iron Glass
Frame	Anodised Aluminium / Black anodised optional

* Please refer to the installation manual for the details

Certifications and Warranty

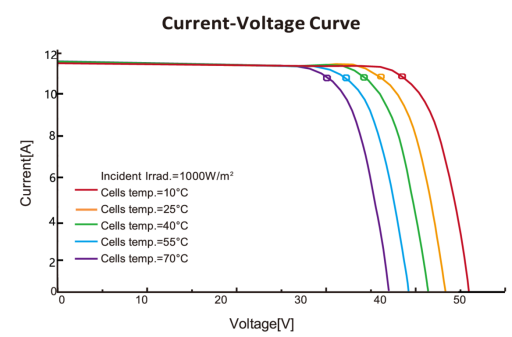
Certifications	UL 1703
	IEC 61215, IEC 61730-1/-2
	IEC 61701 SALT Corrosion
	IEC 62716 AMONIA Corrosion
	ISO 9001

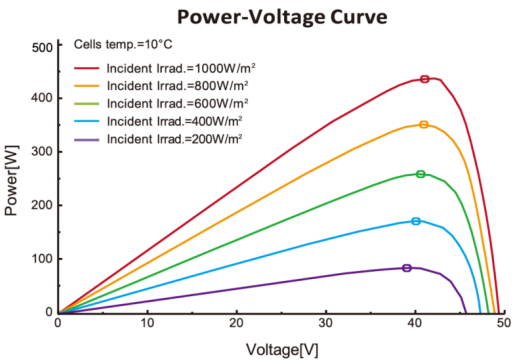
Product Warranty	15 Years
Output Warranty of Pmax	Linear Warranty*

* 1) 1st year: 98%, 2) After 1st year: 0.5% annual degradation, 3) 80% for 30 years

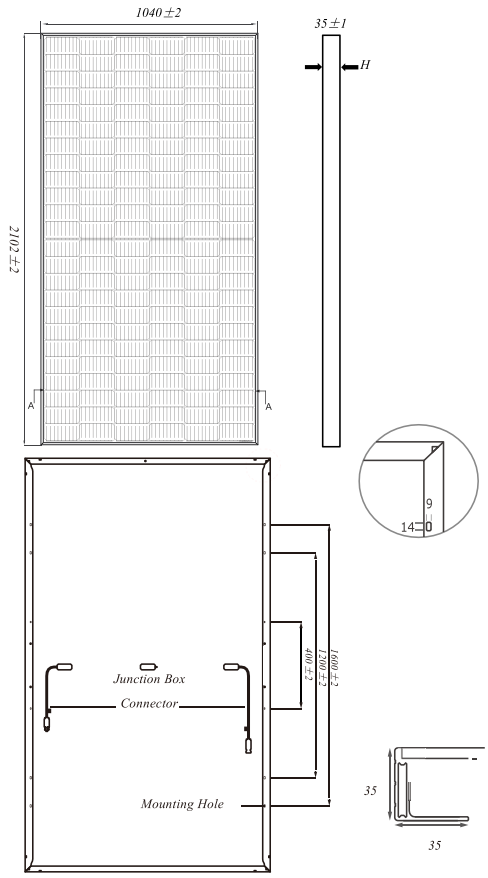
Characteristic Curves

I-V Curves for H6-450 at different Irradiances





Dimensions (mm)



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