

# Blue Carbon

## SOLAR PANEL MONO-CRYSTALLINE

### 12V Series



#### Multiple Main Gate Technology

Better light utilization and current collection, effectively improve product power output and reliability.



#### Better Heat Spot Resistance

By optimizing circuit design and working current, better temperature coefficient and heat spot resistance are obtained.



#### Anti-pid Guarantee

The attenuation rate caused by PID phenomenon is minimized through battery production technology optimization and material control.



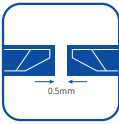
#### Super Mechanical Load

It can carry 5400Pa snow load  
It can bear 2400Pa wind pressure



#### Lossless Cut

Advanced non-destructive cutting technology is applied to effectively reduce the risk of hidden cracks.



#### High Density Package

Improve component conversion efficiency by reducing the spacing between cells.



#### Excellent Product Materials

Excellent product material and process quality assurance



#### Adaptability to Harsh Environments

Third party certification through high salt spray and high ammonia corrosion test, suitable for high temperature and humidity, coastal, desert, lake and other harsh environment.

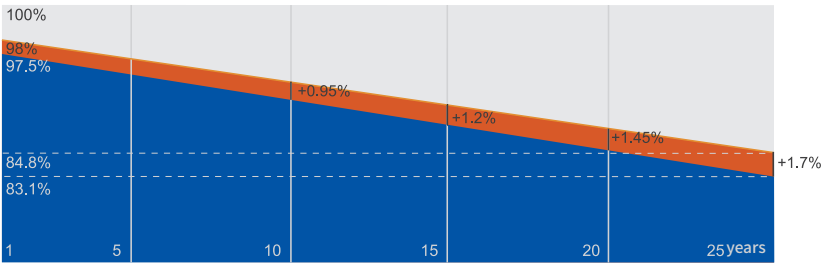
#### COMPREHENSIVE SYSTEM AND PRODUCT CERTIFICATION

IEC61215(2016),IEC61730(2016)  
ISO 9001:2015 / ISO Quality Management System  
ISO 14001:2015 / Environmental Management System  
ISO 45001: 2018 / International Occupational Health and Safety Management System Certification



#### INDUSTRY-LEADING QUALITY ASSURANCE

Linear attenuation of 0.55% per year for 25 years



■ New linear power guarantee ■ Quasi linear power guarantee

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<https://www.bluecarbontech.com.cn/en/>  
<https://bluecarbon.solar>

#### Office Location

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Shandong Province, China

Electrical Parameters

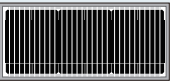
Solar Module Type	BCT20M-12	BCT30M-12	BCT40M-12	BCT50M-12	BCT60M-12	BCT70M-12	BCT80M-12	BCT90M-12	BCT100M-12	BCT110M-12	BCT120M-12	BCT130M-12	BCT140M-12	BCT150M-12	BCT160M-12	BCT170M-12
Maximum Power at STC (Pmax) [W]	20W	30W	40W	50W	60W	70W	80W	90W	100W	110W	120W	130W	140W	150W	160W	170W
Optimum Operating Voltage (Vmp) [V]	21.71V	21.71V	21.71V	21.71V	21.71V	22V	22V	21.89V	21.71V	21.71V	22V	22V	22V	22V	22V	22V
Optimum Operating Current (Imp) [A]	0.92A	1.38A	1.66A	2.30A	2.49A	3.18A	3.64A	4.11A	4.61A	5.07A	5.45A	5.91A	6.36A	6.82A	7.27A	7.73A
Open-Circuit Voltage (Voc) [V]	24.52V	24.52V	24.52V	24.52V	24.52V	24.77V	24.77V	24.70V	24.55V	24.52V	24.77V	24.77V	24.77V	22.47V	24.77V	24.77V
Short-Circuit Current (Isc) [A]	1.02A	1.53A	1.84A	2.55A	2.76A	3.46A	3.95A	4.48A	5.10A	5.61A	5.93A	6.42A	6.91A	7.41A	7.90A	8.40A
Wafer Efficiency[%]	21.8%	21.8%	21.8%	21.8%	21.8%	23%	23%	22.7%	21.9%	21.8%	23%	23%	23%	23%	23%	23%
Temperature Coefficient (Pmax)								-0.34%/°C								
Temperature Coefficient (Voc)								-0.27%/°C								
Temperature Coefficient (Tsc)								+0.045%/°C								
NOCT								45±2°C								
Maximum System Voltage								1000V DC								
Power Tolerance								±3%								

\* Standard test conditions (STC) : irradiance 1000W/m², battery temperature 25°C, AM1.5, power tolerance: ±3%

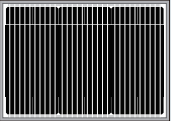
Specification

Solar Module Type	BCT20M-12	BCT30M-12	BCT40M-12	BCT50M-12	BCT60M-12	BCT70M-12	BCT80M-12	BCT90M-12	BCT100M-12	BCT110M-12	BCT120M-12	BCT130M-12	BCT140M-12	BCT150M-12	BCT160M-12	BCT170M-12
Component Size	280×590×25mm	330×590×25mm	430×590×25mm	385×780×25mm	480×780×25/30mm	530×780×30mm	630×780×30mm	690×780×30mm	780×780×30mm	830×780×30mm	880×780×30mm	940×780×30mm	1000×780×30mm	940×780×30mm	1000×780×30mm	730×1134×30mm
Number of Cells	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
Cells Arrangement	6×6	6×6	6×6	6×6	9×4	9×4	9×4	9×4	9×4	9×4	9×4	9×4	9×4	9×4	9×4	6×6
Component Weight	1.83kg	2.16kg	2.81kg	3.33kg	4.15kg	4.57kg	5.36kg	5.97kg	6.73kg	7.16kg	7.56kg	8.11kg	8.63kg	8.11kg	8.63kg	9.16kg
Package size	295×605×120mm/4pcs	345×605×120mm/4pcs	445×605×120mm/4pcs	400×795×120mm/4pcs	495×795×120/140mm/4pcs	545×795×140mm/4pcs	645×795×140mm/4pcs	705×795×140mm/4pcs	795×795×140mm/4pcs	845×795×140mm/4pcs	895×795×140mm/4pcs	955×795×140mm/4pcs	1015×795×140mm/4pcs	955×795×140mm/4pcs	1015×795×140mm/4pcs	745×1149×140mm/4pcs

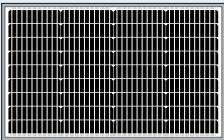
Engineering Drawings



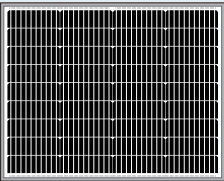
280×590×25mm



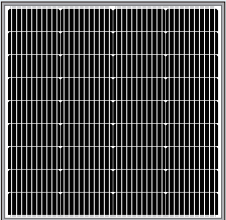
430×590×25mm



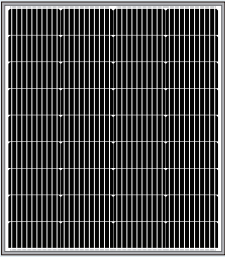
480×780×30mm



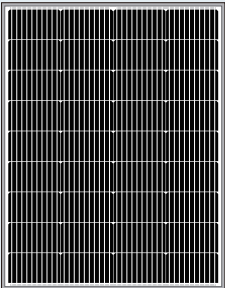
630×780×30mm



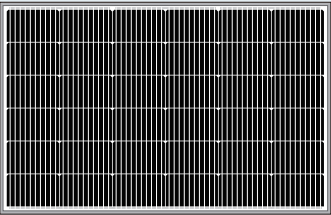
780×780×30mm



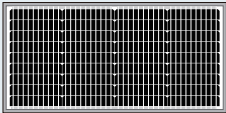
830×780×30mm



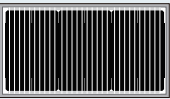
880×780×30mm



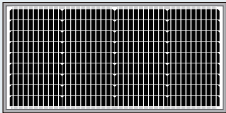
940×780×30mm



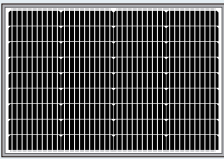
1000×780×30mm



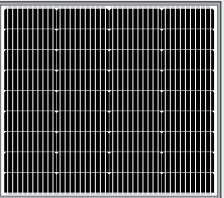
330×590×25mm



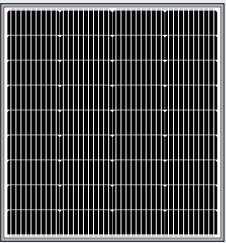
385×780×25mm



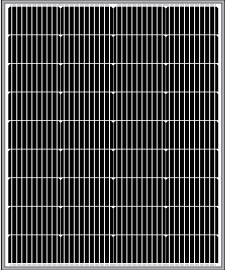
530×780×30mm



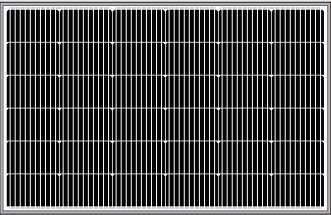
690×780×30mm



730×1134×30mm



880×780×30mm



940×780×30mm

\* 25-year quality assurance; 25-year linear output power guarantee.

\* With the technical progress and product update, the technical parameters of the components of Blue Carbon may differ from the technical parameters contained in this specification. Blue Carbon has the right to adjust the technical parameters at any time without notifying the customer, and the final interpretation of the technical specification belongs to Blue Carbon.