

Shenzhen Solarparts Inc. Version 2022B.112

80-450W

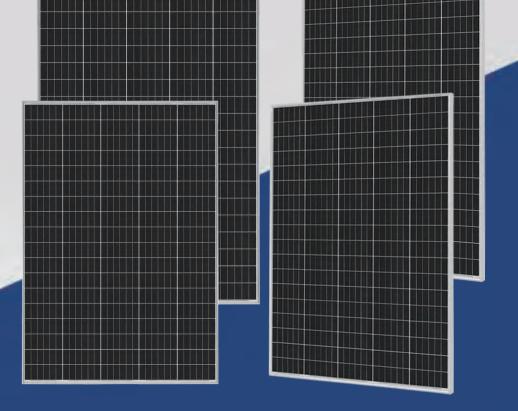
Mono solar module in 210mm cell spec sheet











80-450 Mono solar module in 210mm cell spec sheet

Solar module features

Multi Busbar Technology

Better light trapping and current collection to improve, Effectively improve the module's power output and reliability.



Low light performance

The special solar cell technology has excellent low light power generation performance.



Better resistance to hot spots

The use of half cell structure and special circuit design is less shade loss with better temperature coefficient and thermal spot resistance ability

RESISTANT

Adaptability to harsh environments

High performance materials are suitable for coastal, farm, desert and other harsh environmental conditions, glass surface is anti-reflective and easy to clean, minimizing power generation losses caused by dirt and dust.

First-class Quality Assurance

- 25-year linear power output warranty
- 10-year warranty for material and technology



80-450 Mono solar module in 210mm cell spec sheet

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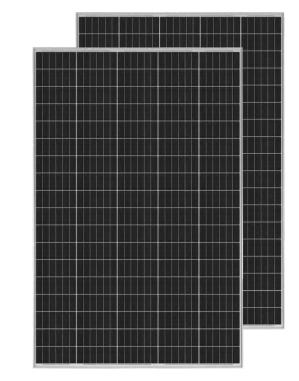
QN-210M45050.94

INTRODUCTION

qnhalf-cut single / double glass module, assembled with multi-busbar PERC technique and half-cut structure, which can not only absorb the energy from the front of the module, but also absorb the reflected light and the scattered light from the back, offer the advantages of higher power output, reduce shading effect on the energy generation, enhance the mechanical load bearing capacity as well.

LCOE save 6-8%

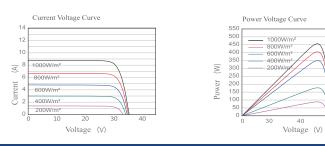


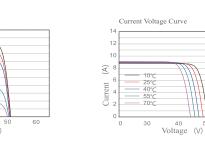


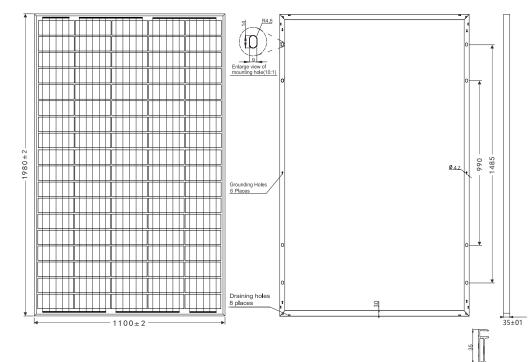
Electrical Parameters at (STC)									
Power (W)	Module Efficiency(%)	Voltage at Pmax(Vmp)	Current at Pmax(Imp)	Open Circuit Voltage(Voc)	Short Circuit Current(lsc)	Power Tolerance(w)			
450W	20.66%	50.94	8.83	61.56	9.35	±3%			

• IEC61215, IEC61730

- ISO9001:2015 Quality management systems
- ISO45001: Environmental management systems
- ISO45001:2018 Occupational health and safety management systems







PS:Frame color and cable length can be customized

Mechanical Parameters				
Solar Cell(Type/Size)	MONO(210mm)			
Solar Cells Number	90Pcs(5x18)			
Dimension	1980x1100x35mm			
Weight	Kg/Pcs			
Tempered Glass	3.2 mm High Permeability Coated			
Frame	Anodized aluminum alloy			
Junction Box	IP67、3*bypass diode			
Cable	4.0mm ² , (+) 1000mm/ (-) 1000mm			
Connector	Original MC4/Compatible MC4			
Mechanical Load	Front 5400PA/back 2400PA			

Light intensity1000W/m2 STC:

60

50



Module Type

Carton Size

Number Weight

Volume

20GP Container

40HQ Container

NOCT: 💥 Light intensity 800W/m2



Packing

QN-210M45050.94

1995x1155x85mm

2Pcs/Ctn

Kg/Ctn

Cbm/Ctn

Pcs

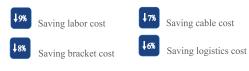
Pcs

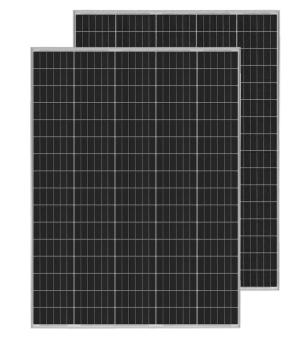
QN-210M40045.28

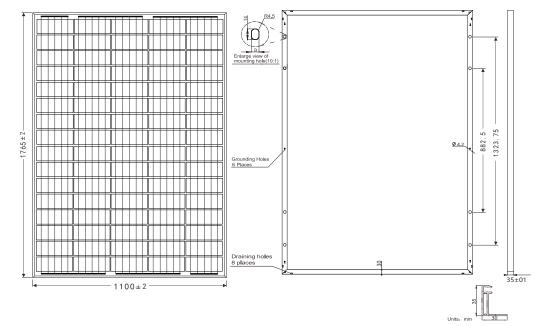
INTRODUCTION

 $qnhalf-cut\,single\,/\,double\,glass\,module,\,assembled\,with$ multi-busbar PERC technique and half-cut structure, which can not only absorb the energy from the front of the module, but also absorb the reflected light and the scattered light from the back, offer the advantages of higher power output, reduce shading effect on the energy generation, enhance the mechanical load bearing capacity as well.

LCOE save 6-8%







PS:Frame color and cable length can be customized

Mechanica	al Parameters
Solar Cell(Type/Size)	MONO(210mm)
Solar Cells Number	80Pcs(5x16)
Dimension	1765x1100x35mm
Weight	Kg/Pcs
Tempered Glass	3.2 mm High Permeability Coated
Frame	Anodized aluminum alloy
Junction Box	IP67、3*bypass diode
Cable	4.0mm ² , (+) 1000mm/ (-) 1000mm
Connector	Original MC4/Compatible MC4
Mechanical Load	Front 5400PA/back 2400PA

temperature:25°C	0	atmosphere o

Module Type

Carton Size

Number Weight

Volume

20GP Container

40HQ Container

NOCT: 💥 Light intensity 800W/m2

STC:

Light intensity1000W/m2



Packing

QN-210M40045.28

1780x1115x85mm

2Pcs/Ctn

Kg/Ctn

Cbm/Ctn

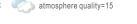
wind velocity 1m/s

Pcs

Pcs

Battery temperature:20°C C atmosphere quality=15

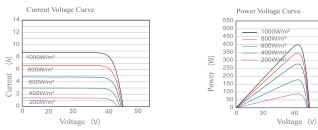
Battery

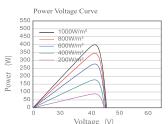


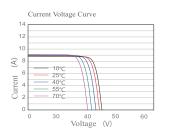
Electrical	Parameters at (S	ГC)				
Power (W)	Module Efficiency(%)	Voltage at Pmax(Vmp)	Current at Pmax(Imp)	Open Circuit Voltage(Voc)	Short Circuit Current(lsc)	Power Tolerance(w)
400W	20.60%	45.28	8. 83	54.72	9.35	±3%

• IEC61215, IEC61730

- ISO9001:2015 Quality management systems
- ISO45001: Environmental management systems
- ISO45001:2018 Occupational health and safety management systems





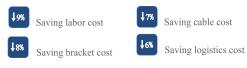


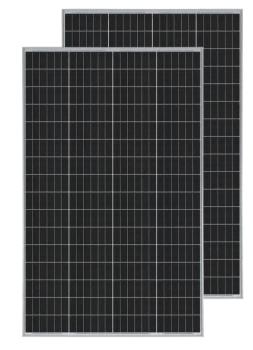
QN-210M32036.2

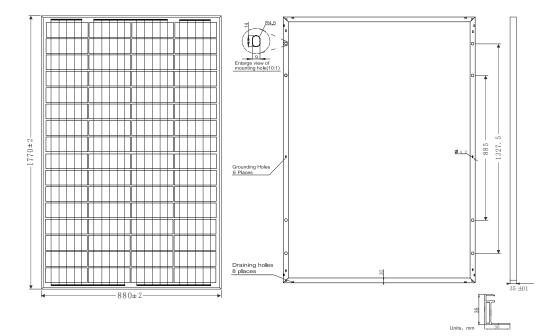
INTRODUCTION

qnhalf-cut single / double glass module, assembled with multi-busbar PERC technique and half-cut structure, which can not only absorb the energy from the front of the module, but also absorb the reflected light and the scattered light from the back, offer the advantages of higher power output, reduce shading effect on the energy generation, enhance the mechanical load bearing capacity as well.

LCOE save 6-8%







Battery temperature:25°C C atmosphere quality=15

Battery temperature:20°C C atmosphere quality=15 wind velocity 1m/s

PS:Frame color and cable length can be customized

STC: <u>iiii</u> Light intensity1000W/m2

NOCT: 💥 Light intensity 800W/m2

Mechanica	ll Parameters
Solar Cell(Type/Size)	MONO(210mm)
Solar Cells Number	64Pcs(4x16)
Dimension	1770x880x35mm
Weight	Kg/Pcs
Tempered Glass	3.2 mm High Permeability Coated
Frame	Anodized aluminum alloy
Junction Box	IP67、3*bypass diode
Cable	4.0mm ² , (+) 1000mm/ (-) 1000mm
Connector	Original MC4/Compatible MC4
Mechanical Load	Front 5400PA/back 2400PA

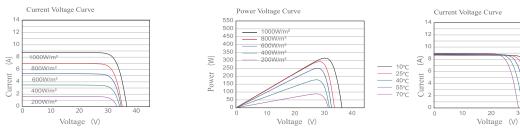
	i aoning
Module Type	QN-210M32036.2
Carton Size	1785x885x85mm
Number	2Pcs/Ctn
Weight	Kg/Ctn
Volume	Cbm/Ctn
20GP Container	Pcs
40HQ Container	Pcs

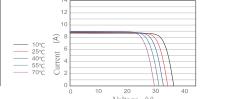
Packing

Electrical	Parameters at (S)	IC)				
Power (W)	Module Efficiency(%)	Voltage at Pmax(Vmp)	Current at Pmax(Imp)	Open Circuit Voltage(Voc)	Short Circuit Current(lsc)	Power Tolerance(w)
320W	20.54%	36.20	8. 83	43.77	9.35	±3%

• IEC61215, IEC61730

- ISO9001:2015 Quality management systems
- ISO45001: Environmental management systems
- ISO45001:2018 Occupational health and safety management systems



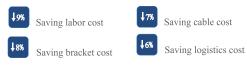


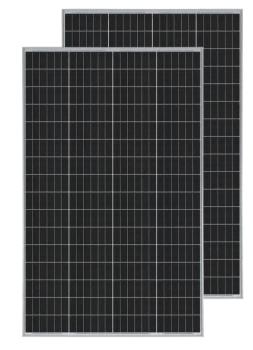
QN-210M32036.2

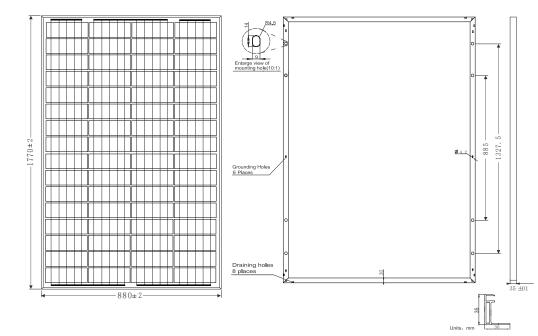
INTRODUCTION

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LCOE save 6-8%







Battery temperature:25°C C atmosphere quality=15

Battery temperature:20°C C atmosphere quality=15 wind velocity 1m/s

PS:Frame color and cable length can be customized

STC: <u>iiii</u> Light intensity1000W/m2

NOCT: 💥 Light intensity 800W/m2

40

Mechanica	al Parameters
Solar Cell(Type/Size)	MONO(210mm)
Solar Cells Number	64Pcs(4x16)
Dimension	1770x880x35mm
Weight	Kg/Pcs
Tempered Glass	3.2 mm High Permeability Coated
Frame	Anodized aluminum alloy
Junction Box	IP67、3*bypass diode
Cable	4.0mm ² , (+) 1000mm/ (-) 1000mm
Connector	Original MC4/Compatible MC4
Mechanical Load	Front 5400PA/back 2400PA

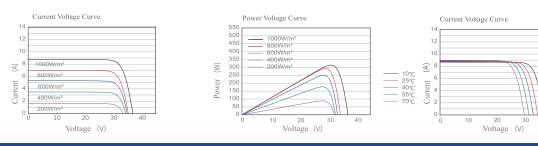
	i aviiing
Module Type	QN-210M32036.2
Carton Size	1785x885x85mm
Number	2Pcs/Ctn
Weight	Kg/Ctn
Volume	Cbm/Ctn
20GP Container	Pcs
40HQ Container	Pcs

Packing

Electrical	Parameters at (S	IC)				
Power (W)	Module Efficiency(%)	Voltage at Pmax(Vmp)	Current at Pmax(Imp)	Open Circuit Voltage(Voc)	Short Circuit Current(lsc)	Power Tolerance(w)
320W	20.54%	36.20	8. 83	43.77	9.35	±3%

• IEC61215, IEC61730

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- ISO45001: Environmental management systems
- ISO45001:2018 Occupational health and safety management systems



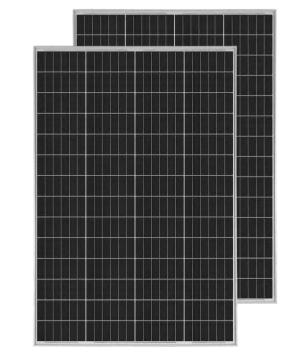
QN-210M28031.7

INTRODUCTION

qnhalf-cut single / double glass module, assembled with multi-busbar PERC technique and half-cut structure, which can not only absorb the energy from the front of the module, but also absorb the reflected light and the scattered light from the back, offer the advantages of higher power output, reduce shading effect on the energy generation, enhance the mechanical load bearing capacity as well.

LCOE save 6-8%

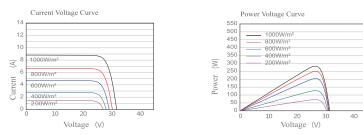


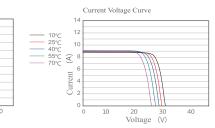


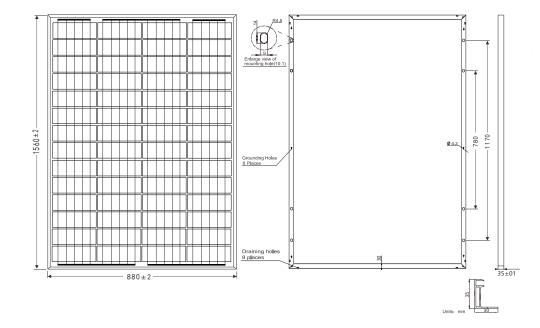
Electrical Parameters at (STC)								
Power (W)	Module Efficiency(%)	Voltage at Pmax(Vmp)	Current at Pmax(Imp)	Open Circuit Voltage(Voc)	Short Circuit Current(lsc)	Power Tolerance(w)		
280W	20.39%	31.70	8.83	38.30	9.35	±3%		

• IEC61215, IEC61730

- ISO9001:2015 Quality management systems
- ISO45001: Environmental management systems
- ISO45001:2018 Occupational health and safety management systems







PS:Frame color and cable length can be customized

Mechanica	1 Parameters
Solar Cell(Type/Size)	MONO(210mm)
Solar Cells Number	56Pcs(4x14)
Dimension	1560x880x35mm
Weight	Kg/Pcs
Tempered Glass	3.2 mm High Permeability Coated
Frame	Anodized aluminum alloy
Junction Box	IP67、3*bypass diode
Cable	4.0mm ² , (+) 1000mm/ (-) 1000mm
Connector	Original MC4/Compatible MC4
Mechanical Load	Front 5400PA/back 2400PA

	Packing
Module Type	QN-210M28031.7
Carton Size	1575x895x85mm
Number	2Pcs/Ctn
Weight	Kg/Ctn
Volume	Cbm/Ctn
20GP Container	Pcs
40HQ Container	Pcs

STC: WE Light intensity 1000W/m2

Battery temperature:25°C 《 atmosphere quality=15

NOCT: 🎬 Light intensity 800W/m2

I Battery temperature:20℃ C atmosphere quality=15 🖤 wind velocity 1m/s

Mechanical Diagrams

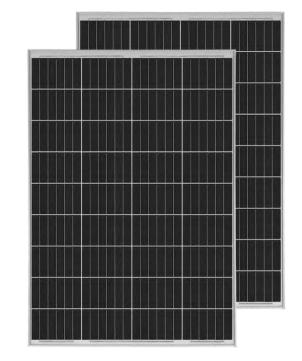
QN-210M24020.38

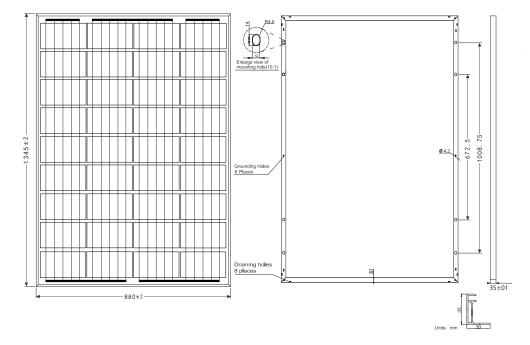
INTRODUCTION

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LCOE save 6-8%







PS:Frame color and cable length can be customized

Mechanica	al Parameters
Solar Cell(Type/Size)	MONO(210mm)
Solar Cells Number	36Pcs(4x9)
Dimension	1345x880x35mm
Weight	Kg/Pcs
Tempered Glass	3.2 mm High Permeability Coated
Frame	Anodized aluminum alloy
Junction Box	IP67、3*bypass diode
Cable	4.0mm ² , (+) 1000mm/ (-) 1000mm
Connector	Original MC4/Compatible MC4
Mechanical Load	Front 5400PA/back 2400PA

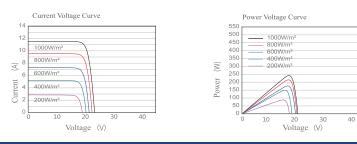
QN-210M24020.38
1360x895x85mm
2Pcs/Ctn
Kg/Ctn
Cbm/Ctn
Pcs
Pcs

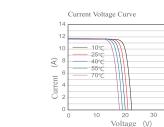
Packing

Electrical	Parameters at (S	ГC)				
Power (W)	Module Efficiency(%)	Voltage at Pmax(Vmp)	Current at Pmax(Imp)	Open Circuit Voltage(Voc)	Short Circuit Current(lsc)	Power Tolerance(w)
240W	20.27%	20.38	11.77	24.62	12.47	± 3%

• IEC61215, IEC61730

- ISO9001:2015 Quality management systems
- ISO45001: Environmental management systems
- ISO45001:2018 Occupational health and safety management systems





ge Curve				Connecto	or
\mathcal{M}				Mechani	cal
				STC:	Ą
20	30	40		NOCI	F:

40

: Light intensity 1000W/m2 📗 Battery temperature:25°C 🛛 🥐 atmosphere quality=15

Light intensity 800W/m2

Battery temperature:20°C C atmosphere quality=15 wind velocity 1m/s

Mechanical Diagrams

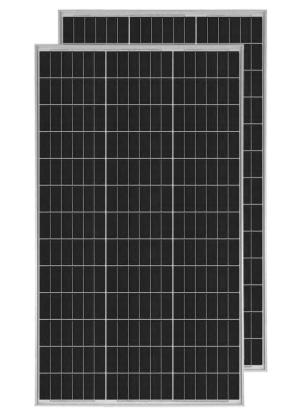
QN-210M20022

INTRODUCTION

qnhalf-cut single / double glass module, assembled with multi-busbar PERC technique and half-cut structure, which can not only absorb the energy from the front of the module, but also absorb the reflected light and the scattered light from the back, offer the advantages of higher power output, reduce shading effect on the energy generation, enhance the mechanical load bearing capacity as well.

LCOE save 6-8%

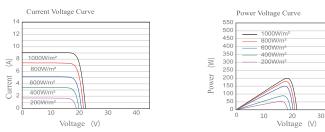


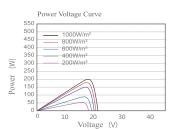


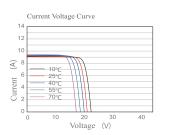
Electrical	Parameters at (ST	ГC)				
Power (W)	Module Efficiency(%)	Voltage at Pmax(Vmp)	Current at Pmax(Imp)	Open Circuit Voltage(Voc)	Short Circuit Current(lsc)	Power Tolerance(w)
200W	19.87%	22	9.09	26.67	9.36	±3%

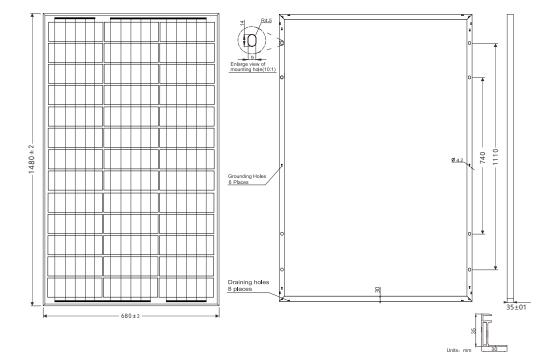
• IEC61215, IEC61730

- ISO9001:2015 Quality management systems
- ISO45001: Environmental management systems
- ISO45001:2018 Occupational health and safety management systems









PS:Frame color and cable length can be customized

Mechanica	al Parameters
Solar Cell(Type/Size)	MONO(210mm)
Solar Cells Number	39Pcs(3x13)
Dimension	1480x680x35mm
Weight	Kg/Pcs
Tempered Glass	3.2 mm High Permeability Coated
Frame	Anodized aluminum alloy
Junction Box	IP67、3*bypass diode
Cable	4.0mm ² , (+) 1000mm/ (-) 1000mm
Connector	Original MC4/Compatible MC4
Mechanical Load	Front 5400PA/back 2400PA

Packi	ng
Module Type	QN-210M20022
Carton Size	1495x695x85mm
Number	2Pcs/Ctn
Weight	Kg/Ctn
Volume	Cbm/Ctn
20GP Container	Pcs
40HQ Container	Pcs

Battery temperature:25°C C atmosphere quality=15

NOCT: 💥 Light intensity 800W/m2

STC: <u>Uight intensity1000W/m</u>2

Battery temperature:20°C C atmosphere quality=15 wind velocity 1m/s

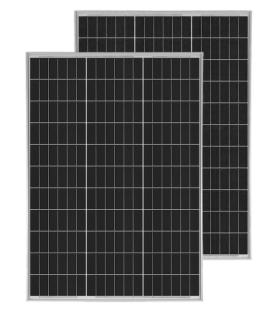
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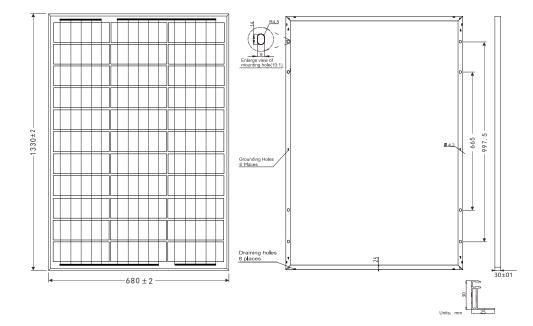
INTRODUCTION

qnhalf-cut single / double glass module, assembled with multi-busbar PERC technique and half-cut structure, which can not only absorb the energy from the front of the module, but also absorb the reflected light and the scattered light from the back, offer the advantages of higher power output, reduce shading effect on the energy generation, enhance the mechanical load bearing capacity as well.

LCOE save 6-8%







Battery temperature:25°C C atmosphere quality=15

Battery temperature:20°C C atmosphere quality=15 wind velocity 1m/s

PS:Frame color and cable length can be customized

STC: <u>Uight intensity1000W/m</u>2

NOCT: 💥 Light intensity 800W/m2

Mechanica	al Parameters
Solar Cell(Type/Size)	MONO(210mm)
Solar Cells Number	33Pcs(3x11)
Dimension	1330x680x30mm
Weight	Kg/Pcs
Tempered Glass	3.2 mm High Permeability Coated
Frame	Anodized aluminum alloy
Junction Box	IP67、3*bypass diode
Cable	4.0mm ² , (+) 1000mm/ (-) 1000mm
Connector	Original MC4/Compatible MC4
Mechanical Load	Front 5400PA/back 2400PA

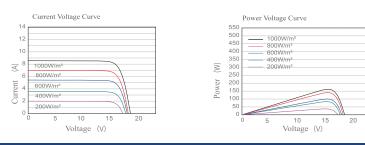
1 401	8
Module Type	QN-210M16018.68
Carton Size	1345x695x75mm
Number	2Pcs/Ctn
Weight	Kg/Ctn
Volume	Cbm/Ctn
20GP Container	Pcs
40HQ Container	Pcs

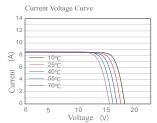
Packing

Electrical	Parameters at (S	ГC)				
Power (W)	Module Efficiency(%)	Voltage at Pmax(Vmp)	Current at Pmax(Imp)	Open Circuit Voltage(Voc)	Short Circuit Current(lsc)	Power Tolerance(w)
160W	17.69%	18.68	8.56	22.57	9.07	±3%

• IEC61215, IEC61730

- ISO9001:2015 Quality management systems
- ISO45001: Environmental management systems
- ISO45001:2018 Occupational health and safety management systems





Curi	rent Volta	ige Curve		
	— 10°C		\mathcal{M}	
-	- 25°C			
=	- 55°C			
	— 70°€		-1111	
0	5	10 Voltage	15 (V)	20

	i aoning
dule Type	QN-210M16018
ton Size	1345x695x75
mber	2Pcs/
eight	Kg/
ume	Cbm/
GP Container	
IQ Container	

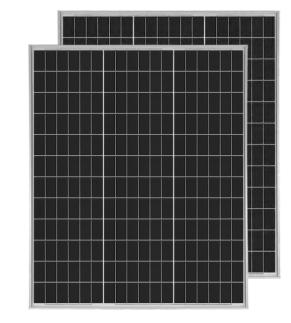
QN-210M12020.38

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qnhalf-cut single / double glass module, assembled with multi-busbar PERC technique and half-cut structure, which can not only absorb the energy from the front of the module, but also absorb the reflected light and the scattered light from the back, offer the advantages of higher power output, reduce shading effect on the energy generation, enhance the mechanical load bearing capacity as well.

LCOE save 6-8%





Short Circuit

Current(lsc)

6.23

Power

 $\pm 3\%$

Tolerance(w)

Cec

Open Circuit

Voltage(Voc)

24.62

Enlarge view of mounting hole(10.1)
 Grounding Hotes
Draining holes 8 places V Units: mm

PS:Frame color and cable length can be customized

Mechanica	al Parameters
Solar Cell(Type/Size)	MONO(210mm)
Solar Cells Number	36Pcs(3x12)
Dimension	920x680x30mm
Weight	Kg/Pcs
Tempered Glass	3.2 mm High Permeability Coated
Frame	Anodized aluminum alloy
Junction Box	IP67、3*bypass diode
Cable	4.0mm ² , (+) 1000mm/ (-) 1000mm
Connector	Original MC4/Compatible MC4
Mechanical Load	Front 5400PA/back 2400PA

1 401	B
Module Type	QN-210M12020.38
Carton Size	935x695x75mm
Number	2Pcs/Ctn
Weight	Kg/Ctn
Volume	Cbm/Ctn
20GP Container	Pcs
40HQ Container	Pcs

Packing

• IEC61215, IEC61730

Power

(W)

120W

Electrical Parameters at (STC)

Module

19.18%

Efficiency(%)

- ISO9001:2015 Quality management systems
- ISO45001: Environmental management systems
- ISO45001:2018 Occupational health and safety management systems

Voltage at

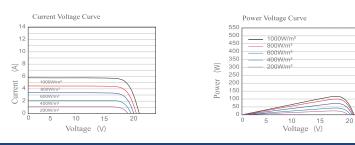
Pmax(Vmp)

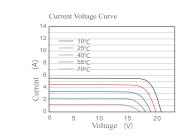
20.38

Current at

Pmax(Imp)

5.88





		_	
- 1	Light intensity1000W/m2		Battery temperature:25°C

NOCT: 🎬 Light intensity 800W/m2

STC:



Battery temperature:20°C C atmosphere quality=15 wind velocity 1m/s

Mechanical Diagrams

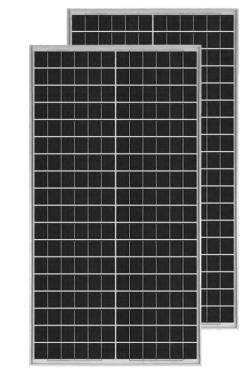
QN-210M10020.38

INTRODUCTION

qnhalf-cut single / double glass module, assembled with multi-busbar PERC technique and half-cut structure, which can not only absorb the energy from the front of the module, but also absorb the reflected light and the scattered light from the back, offer the advantages of higher power output, reduce shading effect on the energy generation, enhance the mechanical load bearing capacity as well.

LCOE save 6-8%

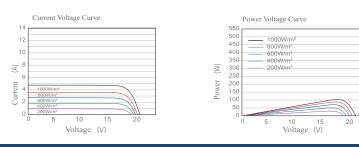


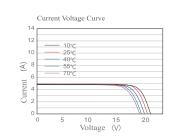


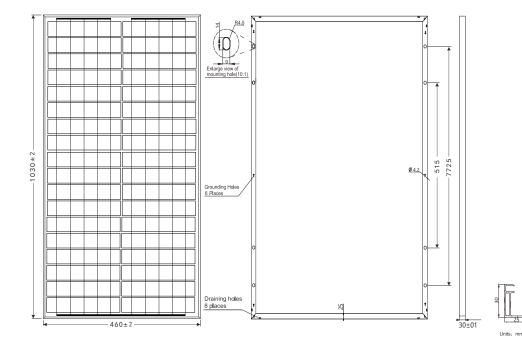
Electrical Parameters at (STC)						
Power (W)	Module Efficiency(%)	Voltage at Pmax(Vmp)	Current at Pmax(Imp)	Open Circuit Voltage(Voc)	Short Circuit Current(lsc)	Power Tolerance(w)
100W	21.1%	20.38	4. 90	24.62	5.94	±3%

• IEC61215, IEC61730

- ISO9001:2015 Quality management systems
- ISO45001: Environmental management systems
- ISO45001:2018 Occupational health and safety management systems







PS:Frame color and cable length can be customized

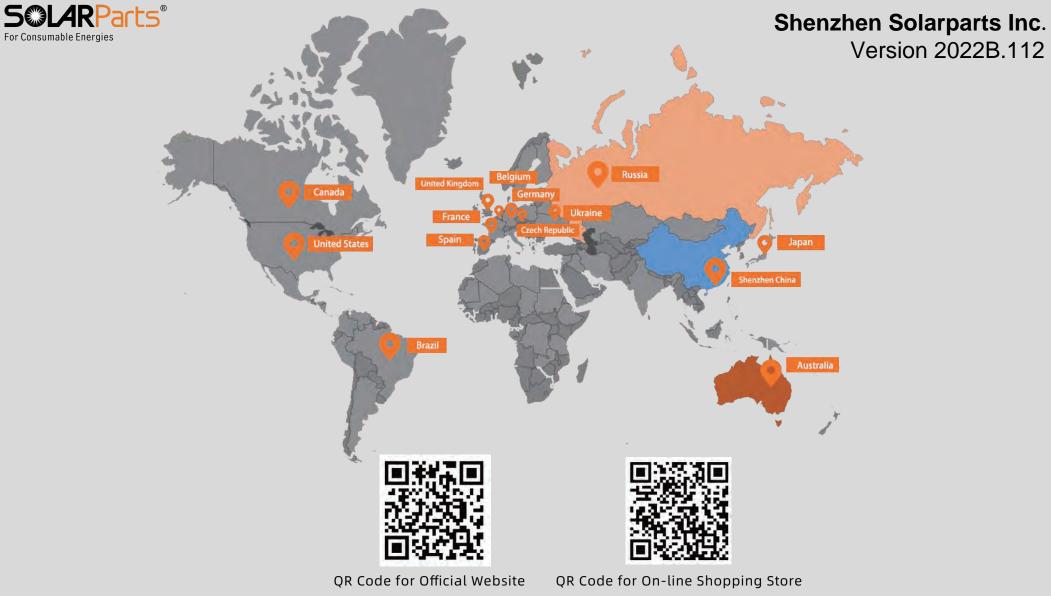
Mechanical Parameters		
Solar Cell(Type/Size)	MONO(210mm)	
Solar Cells Number	36Pcs(2x18)	
Dimension	1030x460x30mm	
Weight	Kg/Pcs	
Tempered Glass	3.2 mm High Permeability Coated	
Frame	Anodized aluminum alloy	
Junction Box	IP67、3*bypass diode	
Cable	4.0mm ² , (+) 1000mm/ (-) 1000mm	
Connector	Original MC4/Compatible MC4	
Mechanical Load	Front 5400PA/back 2400PA	

	Packing
Module Type	QN-210M10020.38
Carton Size	1045x475x75mm
Number	2Pcs/Ctn
Weight	Kg/Ctn
Volume	Cbm/Ctn
20GP Container	Pcs
40HQ Container	Pcs

I Battery temperature:25°C C atmosphere quality=15

NOCT: 💥 Light intensity 800W/m2 🕼 Battery temperature: 20°C 🧼 atmosphere quality=15 🛒 wind velocity 1m/s

STC: <u>iiii</u> Light intensity1000W/m2



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CONTACT US

Company: Shenzhen Solarparts Inc.

Address : 4th FlorBuilding A3Xinglian Industrial ParkPingxing North Road Pinghu Town Longgang District.Shenzhen518112 China Phone : +86-755-28720791 Fax: +86-75585233441 Mobile: +86-13923729619 Email: Philip@isolarparts.com Website : www.isolarparts.com