HearGrow

Solar panels Product Department
Photovoltaic Energy Tech Enterprise



Solar panels Product Department

Guangzhou HearGrow Electric Co., Ltd
Tel:020-36055080
Email: sales@heargrow.com
Address:Lianyuan Road 30, Jianggao Town,
Baiyun District, Guangzhou, China
Web: https://www.HearGrow.com

Guangzhou Weicax Technology co.Ltd



Company Profile

Weicax has 12 years of experience in the production of solar-related products and 5 years of grow lights OEM/ODM production experience.

Weicax independently developed and designed two grow lights brands, Weicax, HearGrow, has been CE, RoHs, FCC, EMC and PSE international certification, in today's market has become well-known products favored by growers around the world.

Weicax has overseas distributors, warehousing and service centers in the United States, Europe, Japan, Thailand,which provides customers with fast delivery and thoughtful after-sales service.We accept OEM/ODM/wholesale/retail services and agent cooperation to meet the different needs of customers.

Whether you are an e-commerce seller, a planting company or an individual planting enthusiast, we have a complete planting plan and supporting products to meet your needs.
Most importantly, we provide reasonable prices, high-quality products and five-star service.Sincerely look forward to becoming your best partner and hope to have more cooperation with you!







Automated factory

The concept of automation is a dynamic development process. With the development of electronic and information technology, especially with the emergence and wide application of computers, the concept of automation has been expanded to use machines (including computers) not only to replace human physical labor, but also to replace or assist mental labor to automatically complete specific tasks.





Certificate

KC CE CB ROHS PSE

REACH FCC IEC UN38.3 MSDS











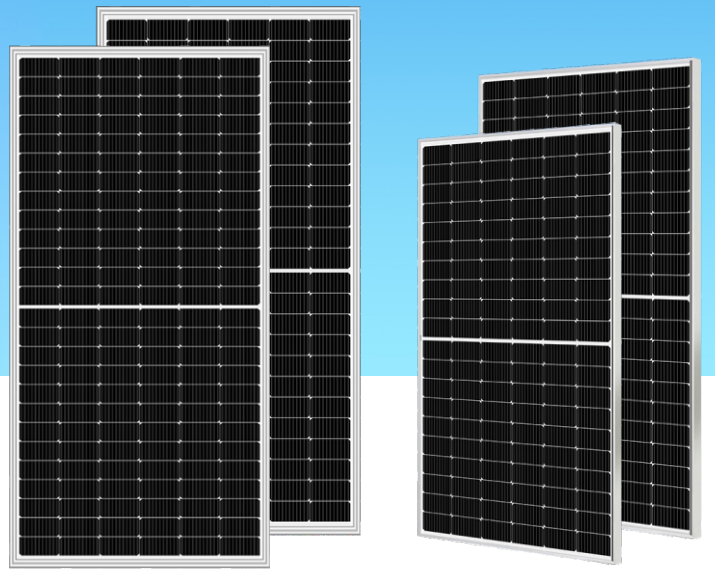
PCENERSYS ISO14001 ISO9001 OHSAS18001 TUV



MSD450-600W

Mono Half-cut Single/Double Glass Module

450-600/MB Series



Solar module features

Multi Busbar Technology
Better light trapping and current collection to improve, Effectively improve the module's power output and reliability。

Higher output power
Module output power increased to 505W.

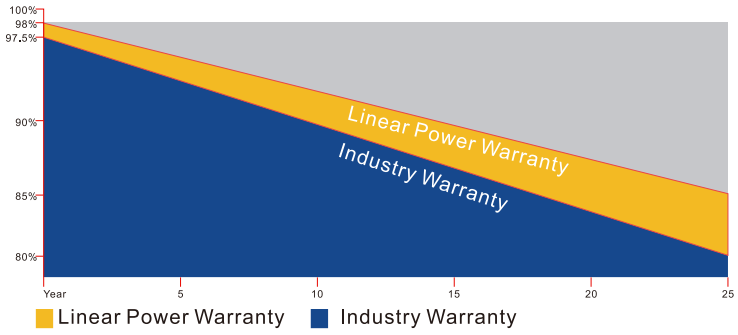
Low light performance
The special solar cell technology has excellent low light power generation performance.

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

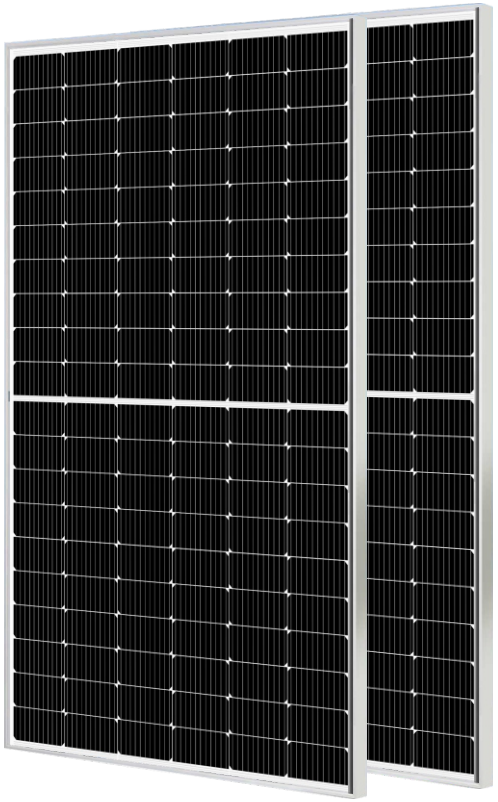
Adaptability to harsh environments
High performance materials are suitable for coastal, farm, desert and other harsh environmental conditions, glass surface is anti-reflective and easy to clean, minimizing power generation losses caused by dirt and dust.

First-class Quality Assurance

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



Module Picture



MSD450M-120

Mono Half-cut Single/Double Glass Module

430-455/MB Series

INTRODUCTION

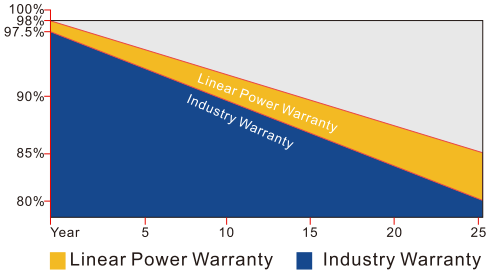
MONO half-cut single / double glass module, assembled with multi-busbar PERC technique and half-cut structure, which can not only absorb the energy from the front of the module, but also absorb the reflected light and the scattered light from the back, offer the advantages of higher power output, reduce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

LCOE save 6-8%

- ↓6% Saving logistics cost
- ↓7% Saving cable cost
- ↓8% Saving bracket cost
- ↓9% Saving labor cost

First-class Quality Assurance

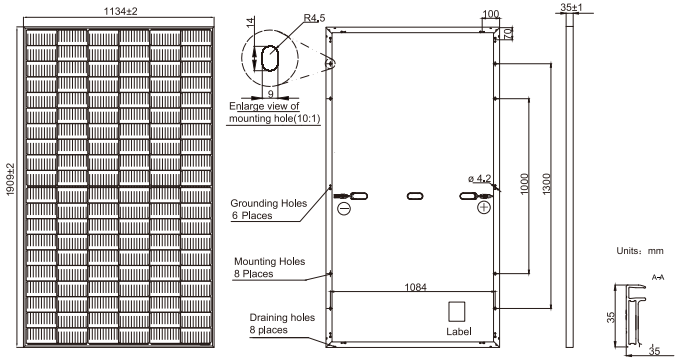
- 10-year warranty for material and technology
- 25-year linear power output warranty



Comprehensive Certificates

- IEC61215, IEC61730
- ISO9001:2015 Quality management systems
- ISO45001:Environmental management systems
- ISO45001:2018 Occupational health and safety management systems

Mechanical Diagrams



PS:Frame color and cable length can be customized

Specifications

Solar Cell(Type/Size)	MONO(182mm)
Solar Cells Number	120pcs(6*10)
Dimensions	1909×1134×35mm
Weight	23.9Kg/Pcs
Structure	3.2 Glass + EVA film + Back
Frame	Anodized Aluminum Alloy
Junction Box	IP68⊠3*Bypass Diode
Cable Cross Section Size	4.0mm²,(+)300mm/(-)400mm
Mechanical Load	Front 5400Pa/Back 2400Pa
Packing Number	31Pcs/Pallet
Packing Volume	2.834Cbm/Pallet
40'HQ Container	744Pcs

Electrical Parameters at STC

Module Type	MSD430P	MSD435P	MSD440P	MSD445P	MSD450P	MSD455P
Rate Maximum Power(Pmax/W)	430	435	440	445	450	455
Module Efficiency(%)	19.90	20.10	20.30	20.60	20.80	21.10
Open Circuit Volatge(Voc/V)	40.65	40.80	40.95	41.10	41.25	41.40
Short Circuit Current(Isc/A)	13.59	13.67	13.74	13.82	13.89	13.97
Voltage at Pmax(Vmp/V)	33.89	30.09	34.28	34.48	34.67	34.87
Current at Pmax(Imp/A)	12.69	12.77	12.84	12.91	12.98	13.05
Power Tolerance	0~+5w					
Temperature Coefficent of Isc	+0.046%°C					
Temperature Coefficent of Voc	-0.276%°C					
Temperature Coefficent of Pmax	-0.350%°C					
STC	Irradiance 1000W/m² Cell Temperature 25°C AM1.5					

Remark: Electrical data in this catalogue does not refer to a single module, and it's not part of the offer. It only serves for the comparison among different module types.

Electrical Parameters at NOCT

Module Type	MSD430P	MSD435P	MSD440P	MSD445P	MSD450P	MSD455P
Rate Maximum Power(Pmax/W)	327	330	333	336	340	343
Open Circuit Voltage(Voc.V)	38.15	38.28	38.40	38.53	38.65	38.77
Short Circuit Current(Isc/A))	10.91	10.95	10.99	11.03	11.08	11.12
Voltage at Pmax(Vmp/V)	31.89	32.05	32.19	32.35	32.51	32.67
Currrnt at Pmax(Imp/A)	10.26	10.30	10.35	10.40	10.46	10.51

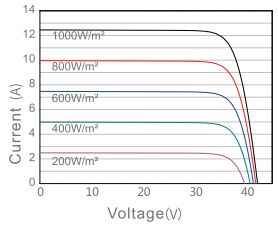
NOCT:Irradiance 800W/m² Ambient Temperature 20°C Wind at 1m/S AM1.5

Operating Conditions

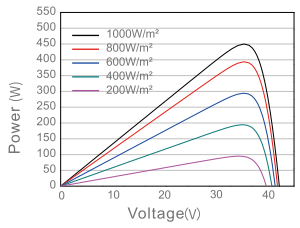
Operating Temperature	-40~+85°C
Maximum System Voltage	1500VDC
NOCT	45±2°C
Fireproof Performance	Glass C
Maximum Series Fuse	25A
Temperature Coefficient of Voc	-0.276%/K
Temperature Coefficient of Isc	+0.046%/K

Characteristics

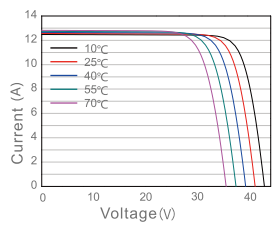
Current Voltage Curve MSD450P



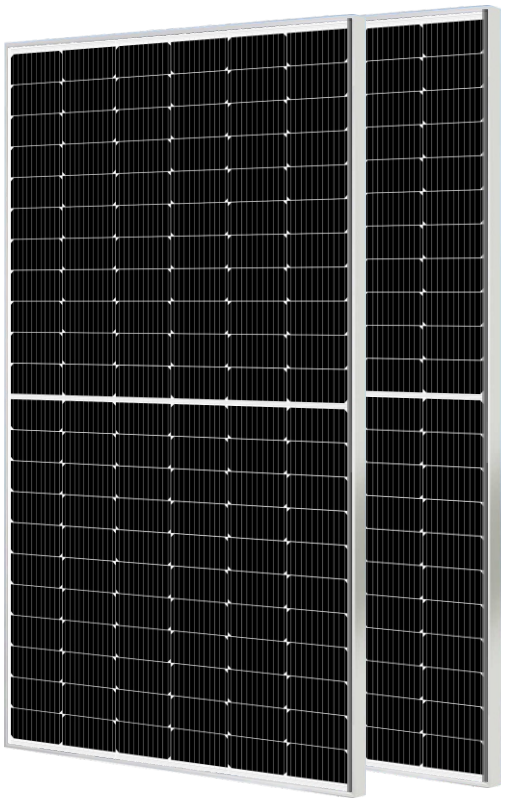
Power Voltage Curve MSD450P



Current Voltage Curve MSD450P



Module Picture



MSD500M-132

Mono Half-cut Single/Double Glass Module

480-505/MB Series

INTRODUCTION

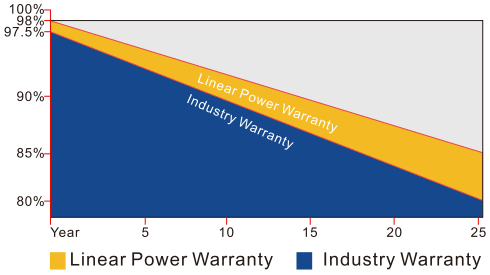
MONO half-cut single / double glass module, assembled with multi-busbar PERC technique and half-cut structure, which can not only absorb the energy from the front of the module, but also absorb the reflected light and the scattered light from the back, offer the advantages of higher power output, reduce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

LCOE save 6-8%

- ↓6% Saving logistics cost
- ↓7% Saving cable cost
- ↓8% Saving bracket cost
- ↓9% Saving labor cost

First-class Quality Assurance

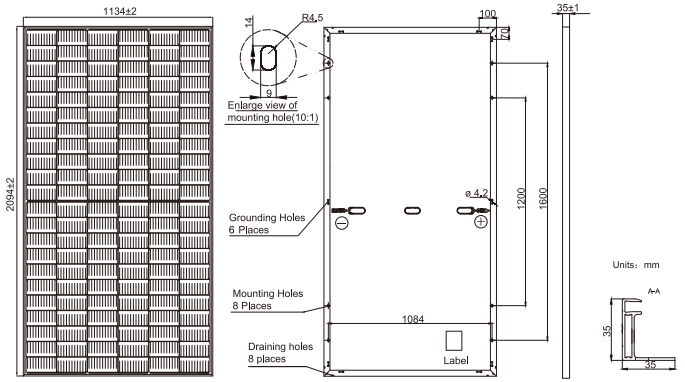
- 10-year warranty for material and technology
- 25-year linear power output warranty



Comprehensive Certificates

- IEC61215, IEC61730
- ISO9001:2015 Quality management systems
- ISO45001:Environmental management systems
- ISO45001:2018 Occupational health and safety management systems

Mechanical Diagrams



PS:Frame color and cable length can be customized

Specifications

Solar Cell(Type/Size)	MONO(182mm)
Solar Cells Number	132pcs(6*22)
Dimensions	2094×1134×35mm
Weight	26.2Kg/Pcs
Structure	3.2 Glass + EVA film + Back
Frame	Anodized Aluminum Alloy
Junction Box	IP68⊠3*Bypass Diode
Cable Cross Section Size	4.0mm²,(+)300mm/(-)400mm
Mechanical Load	Front 5400Pa/Back 2400Pa
Packing Number	31Pcs/Pallet
Packing Volume	3.100Cbm/Pallet
40'HQ Container	682Pcs

Electrical Parameters at STC

Module Type	MSD480P	MSD485P	MSD490P	MSD495P	MSD500P	MSD505P
Rate Maximum Power(Pmax/W)	480	485	490	495	500	505
Module Efficiency(%)	20.20	20.40	20.60	20.80	21.10	21.30
Open Circuit Volatge(Voc/V)	45.02	45.18	45.33	45.49	45.65	45.79
Short Circuit Current(Isc/A)	13.66	13.73	13.79	13.86	13.92	13.99
Voltage at Pmax(Vmp/V)	37.71	37.87	38.02	38.18	38.33	38.50
Current at Pmax(Imp/A)	12.73	12.81	12.89	12.97	13.05	13.12
Power Tolerance	0~+5w					
Temperature Coefficent of Isc	+0.046%°C					
Temperature Coefficent of Voc	-0.276%°C					
Temperature Coefficent of Pmax	-0.350%°C					
STC	Irradiance 1000W/㎡ Cell Temperature 25°C AM1.5					

Remark: Electrical data in this catalogue does not refer to a single module, and it's not part of the offer. It only serves for the comparison among different module types.

Electrical Parameters at NOCT

Module Type	MSD480P	MSD485P	MSD490P	MSD495P	MSD500P	MSD505P
Rate Maximum Power(Pmax/W)	363	366	370	373	377	381
Open Circuit Voltage(Voc.V)	42.16	42.31	42.46	42.60	42.75	42.89
Short Circuit Current(Isc/A))	10.98	11.06	11.12	11.19	11.26	11.33
Voltage at Pmax(Vmp/V)	35.48	35.61	35.73	35.86	35.99	36.11
Currrnt at Pmax(Imp/A)	10.23	10.28	10.36	10.41	10.48	10.56

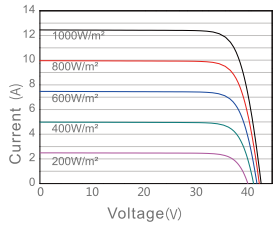
NOCT:Irradiance 800W/㎡ Ambient Temperature 20°C Wind at 1m/S AM1.5

Operating Conditions

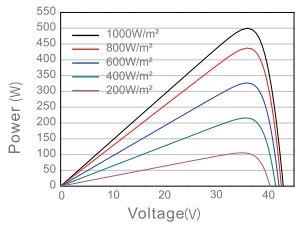
Operating Temperature	-40~+85°C
Maximum System Voltage	1500VDC
NOCT	45±2°C
Fireproof Performance	Glass C
Maximum Series Fuse	25A
Temperature Coefficient of Voc	-0.276%/K
Temperature Coefficient of Isc	+0.046%/K

Characteristics

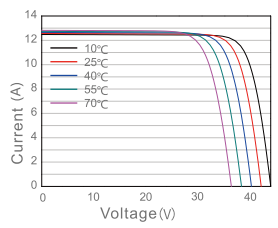
Current Voltage Curve MSD500P



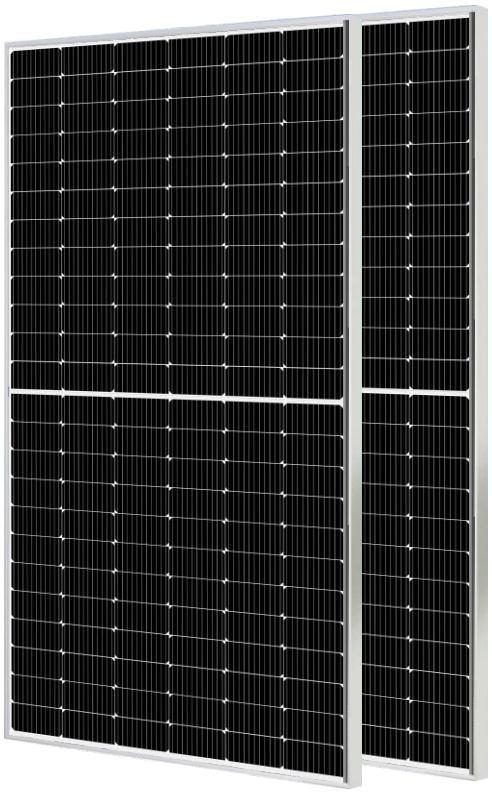
Power Voltage Curve MSD500P



Current Voltage Curve MSD500P



Module Picture



MSD540M-144

Mono Half-cut Single/Double Glass Module

525-550/MB Series

INTRODUCTION

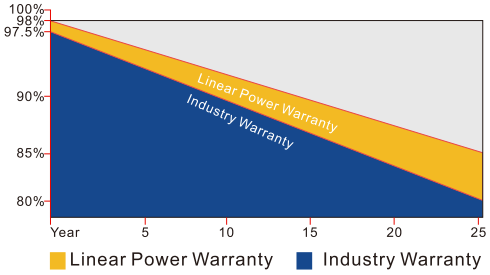
MONO half-cut single / double glass module, assembled with multi-busbar PERC technique and half-cut structure, which can not only absorb the energy from the front of the module, but also absorb the reflected light and the scattered light from the back, offer the advantages of higher power output, reduce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

LCOE save 6-8%

- ↓6% Saving logistics cost
- ↓7% Saving cable cost
- ↓8% Saving bracket cost
- ↓9% Saving labor cost

First-class Quality Assurance

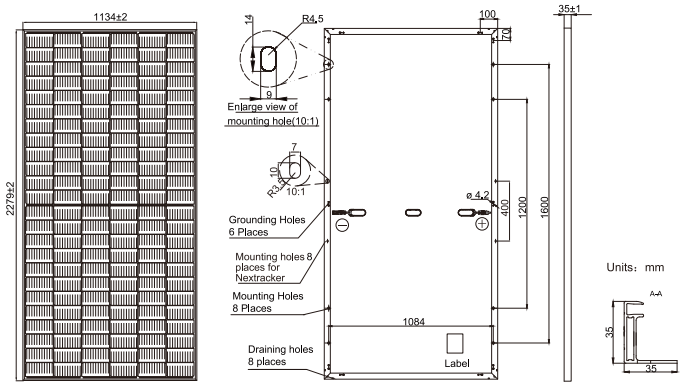
- 10-year warranty for material and technology
- 25-year linear power output warranty



Comprehensive Certificates

- IEC61215,IEC61730
- ISO9001:2015 Quality management systems
- ISO45001:Environmental management systems
- ISO45001:2018 Occupational health and safety management systems

Mechanical Diagrams



PS:Frame color and cable length can be customized

Specifications

Solar Cell(Type/Size)	MONO(182mm)
Solar Cells Number	144pcs(6*24)
Dimensions	2279×1134×35mm
Weight	28.5Kg/Pcs
Structure	3.2 Glass + EVA film + Back
Frame	Anodized Aluminum Alloy
Junction Box	IP68⊠3*Bypass Diode
Cable Cross Section Size	4.0mm²,(+)300mm/(-)400mm
Mechanical Load	Front 5400Pa/Back 2400Pa
Packing Number	31Pcs/Pallet
Packing Volume	3.372Cbm/Pallet
40'HQ Container	620Pcs

Electrical Parameters at STC

Module Type	MSD525P	MSD530P	MSD535P	MSD540P	MSD545P	MSD550P
Rate Maximum Power(Pmax/W)	525	530	535	540	545	550
Module Efficiency(%)	20.30	20.50	20.70	20.90	21.10	21.30
Open Circuit Volatge(Voc/V)	48.95	49.15	49.35	49.55	49.75	49.95
Short Circuit Current(Isc/A)	13.67	13.74	13.82	13.89	13.97	14.05
Voltage at Pmax(Vmp/V)	41.10	41.27	41.45	41.62	41.80	41.97
Current at Pmax(Imp/A)	12.78	12.85	12.91	12.98	13.05	13.11
Power Tolerance	0~+5w					
Temperature Coefficent of Isc	+0.046%°C					
Temperature Coefficent of Voc	-0.276%°C					
Temperature Coefficent of Pmax	-0.350%°C					
STC	Irradiance 1000W/㎡ Cell Temperature 25°C AM1.5					

Remark: Electrical data in this catalogue does not refer to a single module, and it's not part of the offer. It only serves for the comparison among different module types.

Electrical Parameters at NOCT

Module Type	MSD525P	MSD530P	MSD535P	MSD540P	MSD545P	MSD550P
Rate Maximum Power(Pmax/W)	396	400	404	407	411	414
Open Circuit Voltage(Voc.V)	46.00	46.13	46.26	46.38	46.50	46.63
Short Circuit Current(Isc/A))	10.95	10.99	11.03	11.08	11.12	11.17
Voltage at Pmax(Vmp/V)	38.35	38.55	38.76	38.95	39.16	39.31
Currrnt at Pmax(Imp/A)	10.33	10.38	10.43	10.46	10.50	10.53

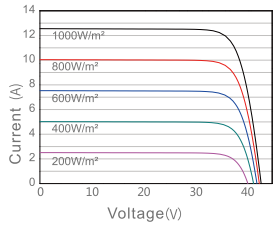
NOCT:Irradiance 800W/㎡ Ambient Temperature 20°C Wind at 1m/S AM1.5

Operating Conditions

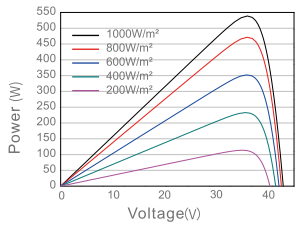
Operating Temperature	-40~+85°C
Maximum System Voltage	1500VDC
NOCT	45±2°C
Fireproof Performance	Glass C
Maximum Series Fuse	25A
Temperature Coefficient of Voc	-0.276%/K
Temperature Coefficient of Isc	+0.046%/K

Characteristics

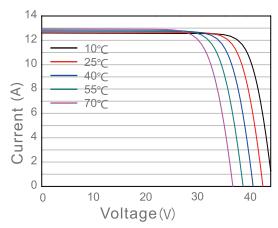
Current Voltage Curve MSD540P



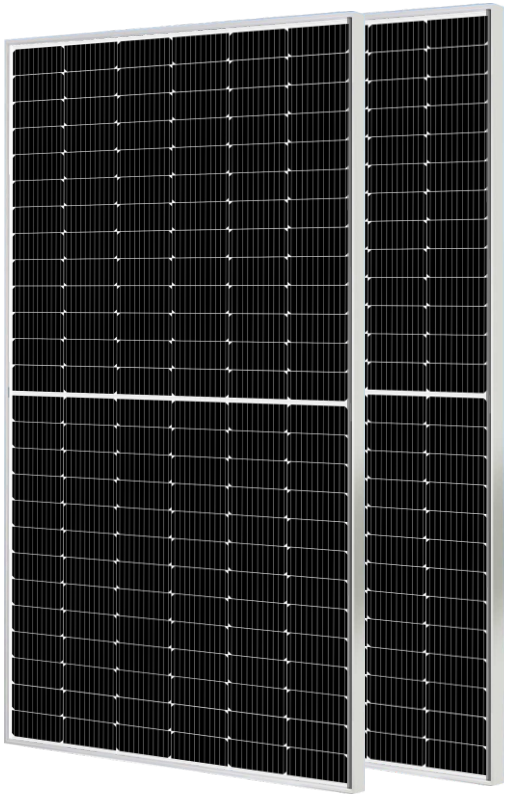
Power Voltage Curve MSD540P



Current Voltage Curve MSD540P



Module Picture



MSD600M-156

Mono Half-cut Single/Double Glass Module

580-600/MB Series

INTRODUCTION

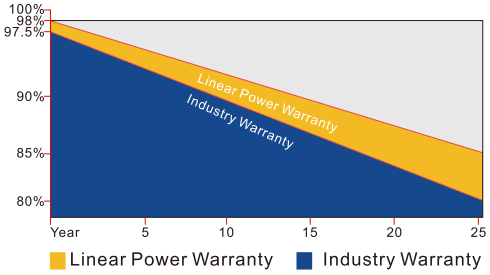
MONO half-cut single / double glass module, assembled with multi-busbar PERC technique and half-cut structure, which can not only absorb the energy from the front of the module, but also absorb the reflected light and the scattered light from the back, offer the advantages of higher power output, reduce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

LCOE save 6-8%

- ↓6% Saving logistics cost
- ↓7% Saving cable cost
- ↓8% Saving bracket cost
- ↓9% Saving labor cost

First-class Quality Assurance

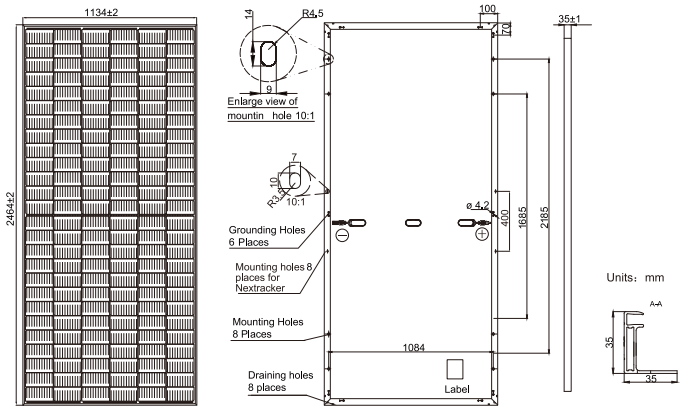
- 10-year warranty for material and technology
- 25-year linear power output warranty



Comprehensive Certificates

- IEC61215, IEC61730
- ISO9001:2015 Quality management systems
- ISO45001:Environmental management systems
- ISO45001:2018 Occupational health and safety management systems

Mechanical Diagrams



PS:Frame color and cable length can be customized

Specifications

Solar Cell(Type/Size)	MONO(182mm)
Solar Cells Number	156pcs(6*26)
Dimensions	2464×1134×35mm
Weight	30.0Kg/Pcs
Structure	3.2 Glass + EVA film + Back
Frame	Anodized Aluminum Alloy
Junction Box	IP68☒3*Bypass Diode
Cable Cross Section Size	4.0mm²,(+)280mm/(-)400mm
Mechanical Load	Front 5400Pa/Back 2400Pa
Packing Number	31Pcs/Pallet
Packing Volume	3.542Cbm/Pallet
40'HQ Container	590Pcs

Electrical Parameters at STC

Module Type	MSD580P	MSD585P	MSD590P	MSD595P	MSD600P
Rate Maximum Power(Pmax/W)	580	585	590	595	600
Module Efficiency(%)	20.70	20.90	20.10	21.30	21.50
Open Circuit Volatge(Voc/V)	53.50	53.65	53.80	53.95	54.10
Short Circuit Current(Isc/A)	13.82	13.89	13.96	14.03	14.10
Voltage at Pmax(Vmp/V)	44.90	45.07	45.22	45.39	45.53
Current at Pmax(Imp/A)	12.92	12.98	13.05	13.11	13.18
Power Tolerance	0~+5w				
Temperature Coefficent of Isc	+0.046%°C				
Temperature Coefficent of Voc	-0.276%°C				
Temperature Coefficent of Pmax	-0.350%°C				
STC	Irradiance 1000W/㎡ Cell Temperature 25°C AM1.5				

Remark: Electrical data in this catalogue does not refer to a single module, and it's not part of the offer. It only serves for the comparison among different module types.

Electrical Parameters at NOCT

Module Type	MSD580P	MSD585P	MSD590P	MSD595P	MSD600P
Rate Maximum Power(Pmax/W)	438	441	445	448	452
Open Circuit Voltage(Voc.V)	50.09	50.22	50.35	50.48	50.60
Short Circuit Current(Isc/A))	11.03	11.08	11.12	11.17	11.22
Voltage at Pmax(Vmp/V)	42.03	42.17	42.39	42.51	42.73
Currrnt at Pmax(Imp/A)	10.42	10.46	10.50	10.54	10.58

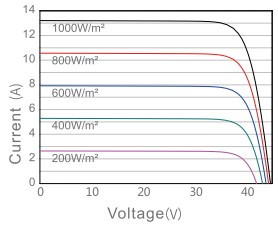
NOCT:Irradiance 800W/㎡ Ambient Temperature 20°C Wind at 1m/S AM1.5

Operating Conditions

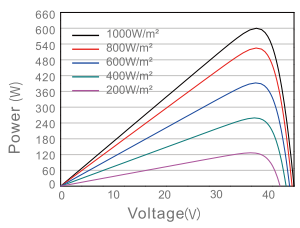
Operating Temperature	-40~+85°C
Maximum System Voltage	1500VDC
NOCT	45±2°C
Fireproof Performance	Glass C
Maximum Series Fuse	25A
Temperature Coefficient of Voc	-0.276%/K
Temperature Coefficient of Isc	+0.046%/K

Characteristics

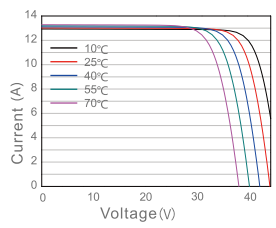
Current Voltage Curve MSD600P



Power Voltage Curve MSD600P



Current Voltage Curve MSD600P



40-450 Watt

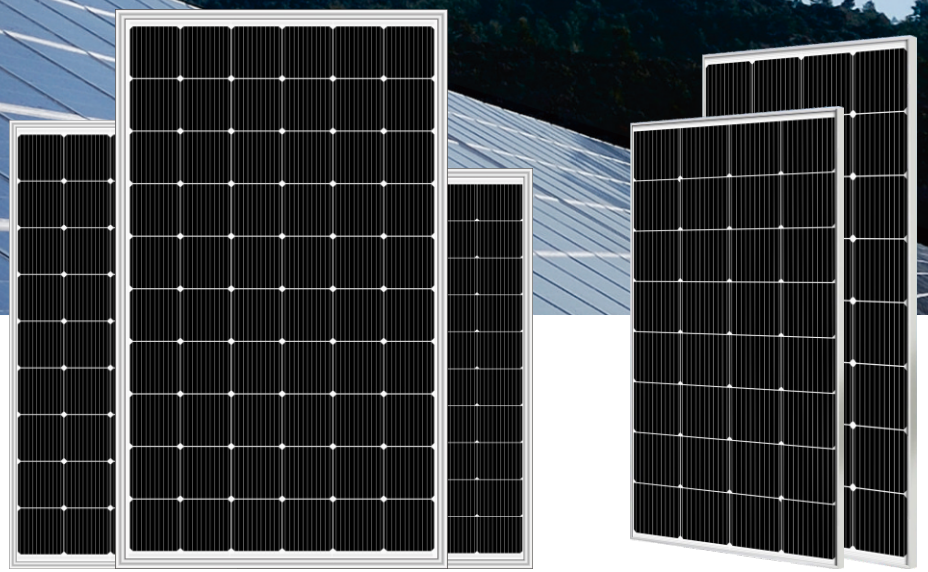
High efficiency monocrystalline silicon solar modules

0~+3% tolerance

ISO9001:2008、ISO14001:2004、OHSAS18001 Factory certificates

IEC61215、IEC61730、UL1703 Product certificates

PERC 182 Cell 450W



Solar module features

PERC 182 cells
Better capability of current collection, larger area of power generation, nice appearance, more suitable for installation on the roof.

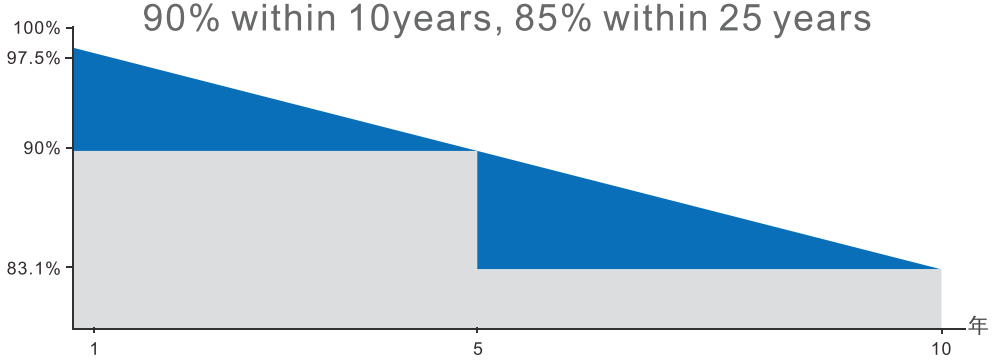
High output power
Using PERC battery structure technology (Low resistance characteristics), output power of 60pcs monocrystalline cells reaches Max 450W (Highest Conversion efficiency to 20.9%)

Low light performance
Using excellent glass and texture surface making of solar cell, outstanding performance can be obtained in low light condition.

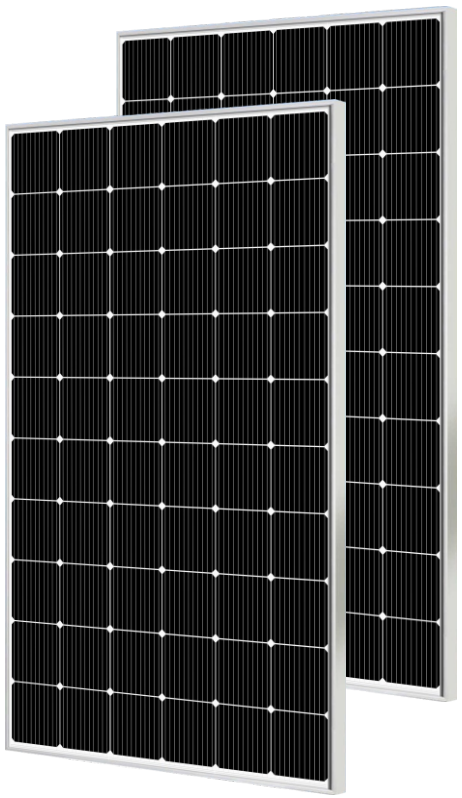
Adaptability of harsh environment
Corrosion tests have certified in high salt fog and high ammonia environment.

Guaranteed output power

90% within 10years, 85% within 25 years



Module Picture



SP450M-60

Comprehensive Certificates

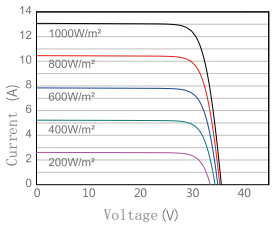
- IEC61215,IEC61730
- ISO9001:2015 Quality management systems
- ISO45001:Environmental management systems
- ISO45001:2018 Occupational health and safety management systems

Electrical Parameters at (STC)

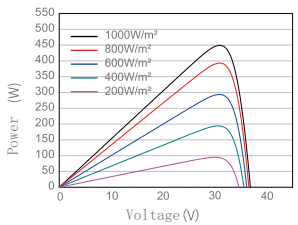
Module	Power (W)	Module Ef ciency(%)	Voltage at Pmax(Vmp)	Current at Pmax(Imp)	Open Circuit Voltage(Voc)	Short Circuit Current(lsc)	Power Tolerance(w)
SP450M	450W	20.80%	34.20	13.16	41.04	13.95	±3%

Characteristics

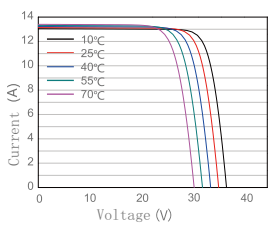
Current Voltage Curve SP450M/60



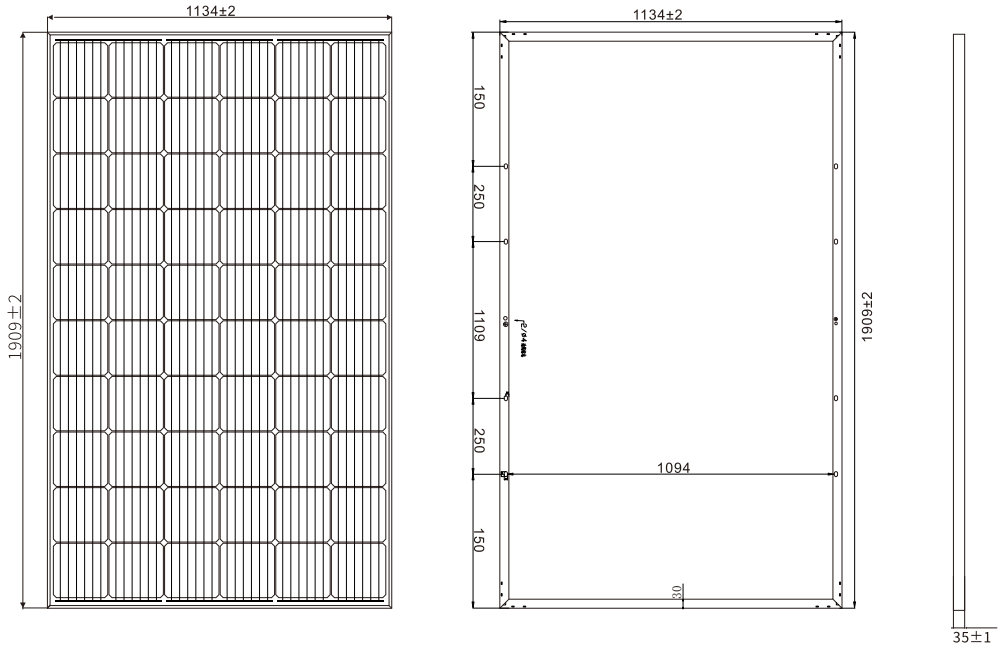
Power Voltage Curve SP450M/60



Current Voltage Curve SP450M/60



Mechanical Diagrams



PS:Frame color and cable length can be customized

Mechanical Parameters	
Solar Cell(Type/Size)	MONO(182mm)
Solar Cells Number	60Pcs(6x10)
Dimension	1909x1134x35mm
Weight	22.9Kg/Pcs
Tempered Glass	3.2 mm High Permeability Coated
Frame	Anodized aluminum alloy
Junction Box	IP67、3*bypass diode
Cable	4.0mm², (+)1000mm/(-)1000mm
Connector	Original MC4/Compatible MC4
Mechanical Load	Front 5400PA/back 2400PA

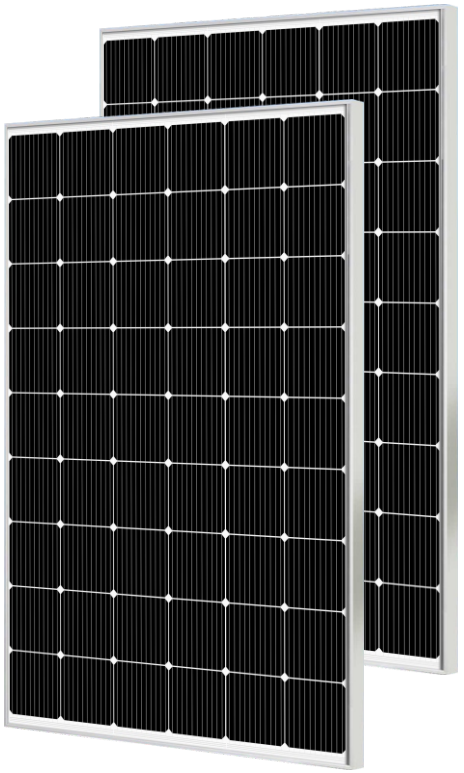
Packing	
Module Type	SP450M-60
Carton Size	1930x1160x85mm
Number	2Pcs/Ctn
Weight	46Kg/Ctn
Volume	0.190Cbm/Ctn
20GP Container	316Pcs
40HQ Container	736Pcs

STC: Light intensity 1000W/m² | Battery temperature:25℃ | atmosphere quality=15

NOCT: Light intensity 800W/m² | Battery temperature:20℃ | atmosphere quality=15 | wind velocity 1m/s

Final explanation rights reserved

Module Picture



SP400M-54

Comprehensive Certificates

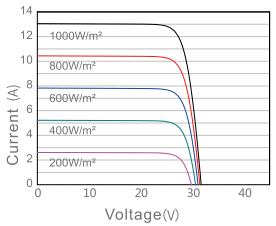
- IEC61215,IEC61730
- ISO9001:2015 Quality management systems
- ISO45001:Environmental management systems
- ISO45001:2018 Occupational health and safety management systems

Electrical Parameters at (STC)

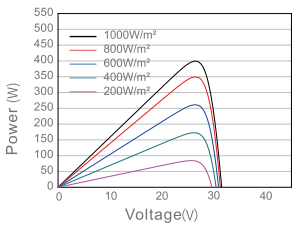
Module	Power (W)	Module Efficiency(%)	Voltage at Pmax(Vmp)	Current at Pmax(Imp)	Open Circuit Voltage(Voc)	Short Circuit Current(Isc)	Power Tolerance(w)
SP400M	400W	20.70%	30.78	13.00	37.02	13.78	±3%

Characteristics

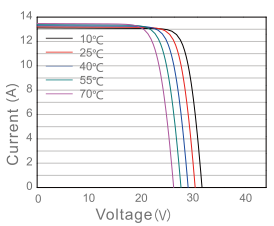
Current Voltage Curve SP400M/32



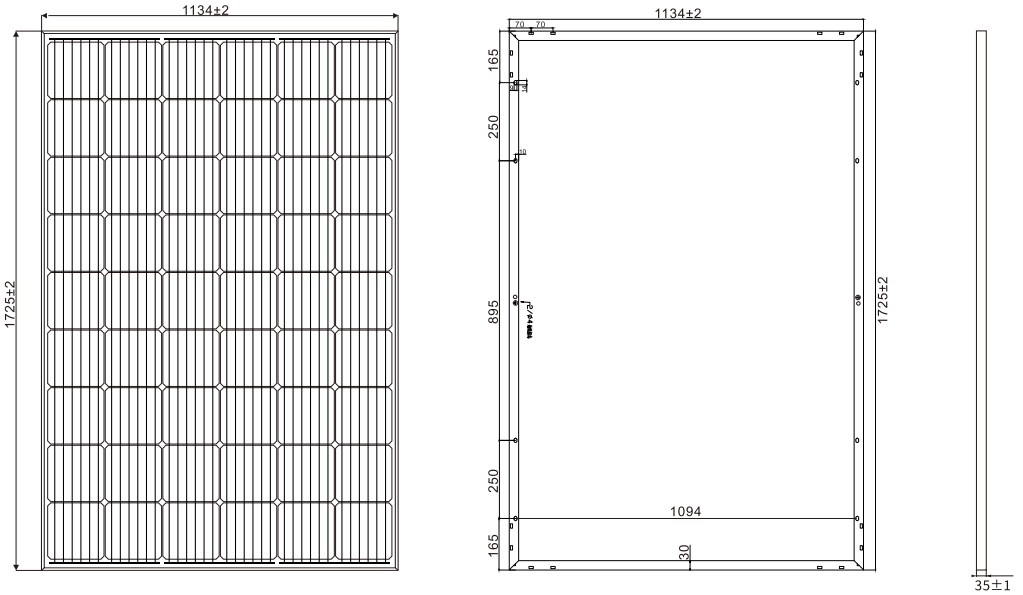
Power Voltage Curve SP400M/32



Current Voltage Curve SP400M/32



Mechanical Diagrams



PS:Frame color and cable length can be customized

Mechanical Parameters	
Solar Cell(Type/Size)	MONO(182mm)
Solar Cells Number	54Pcs(6x9)
Dimension	1725x1134x35mm
Weight	21.3Kg/Pcs
Tempered Glass	3.2 mm High Permeability Coated
Frame	Anodized aluminum alloy
Junction Box	IP67、3*bypass diode
Cable	4.0mm², (+)1000mm/(-)1000mm
Connector	Original MC4/Compatible MC4
Mechanical Load	Front 5400PA/back 2400PA

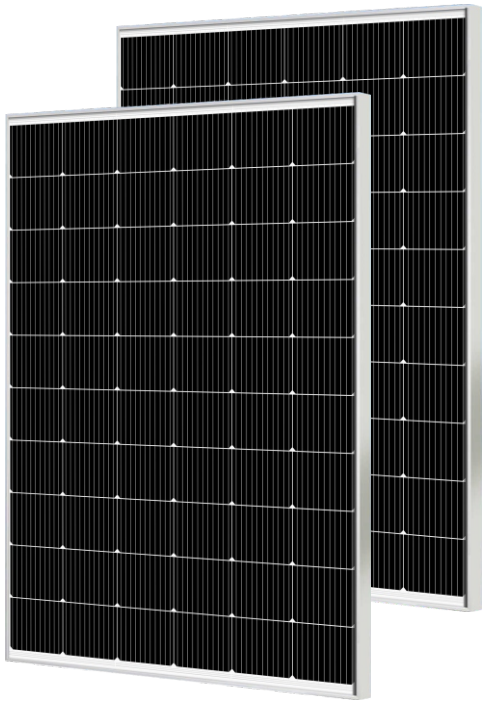
Packing	
Module Type	SP400M-54
Carton Size	1745x1160x85mm
Number	2Pcs/Ctn
Weight	43Kg/Ctn
Volume	0.172Cbm/Ctn
20GP Container	340Pcs
40HQ Container	810Pcs

STC: Light intensity 1000W/m² | Battery temperature:25℃ | atmosphere quality=15

NOCT: Light intensity 800W/m² | Battery temperature:20℃ | atmosphere quality=15 | wind velocity 1m/s

Final explanation rights reserved

Module Picture

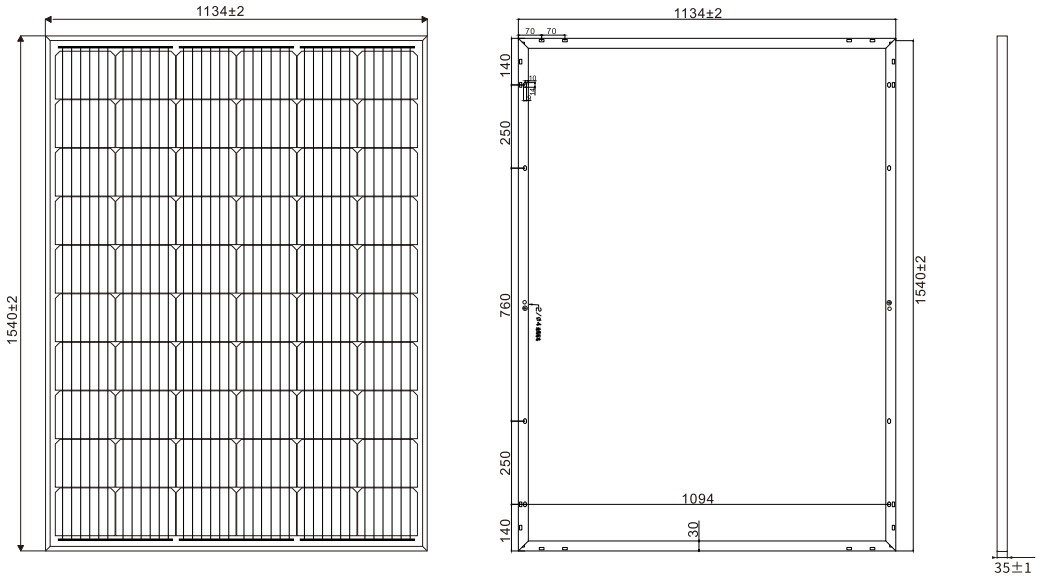


SP360M-60

Comprehensive Certificates

- IEC61215,IEC61730
- ISO9001:2015 Quality management systems
- ISO45001:Environmental management systems
- ISO45001:2018 Occupational health and safety management systems

Mechanical Diagrams



PS:Frame color and cable length can be customized

Electrical Parameters at (STC)

Module	Power (W)	Module Efficiency(%)	Voltage at Pmax(Vmp)	Current at Pmax(Imp)	Open Circuit Voltage(Voc)	Short Circuit Current(Isc)	Power Tolerance(w)
SP360M	360W	20.60%	34.20	10.53A	41.04	11.16	±3%

Mechanical Parameters

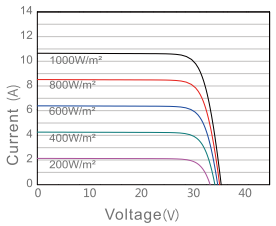
Solar Cell(Type/Size)	MONO(182mm)
Solar Cells Number	60Pcs(6x10)
Dimension	1540x1134x35mm
Weight	18.8Kg/Pcs
Tempered Glass	3.2 mm High Permeability Coated
Frame	Anodized aluminum alloy
Junction Box	IP67、3*bypass diode
Cable	4.0mm², (+)1000mm/(-)1000mm
Connector	Original MC4/Compatible MC4
Mechanical Load	Front 5400PA/back 2400PA

Packing

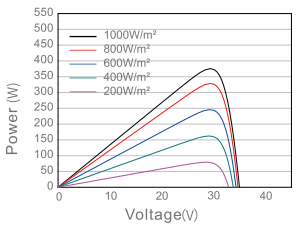
Module Type	SP360M-60
Carton Size	1560x1160x85mm
Number	2Pcs/Ctn
Weight	38Kg/Ctn
Volume	0.153Cbm/Ctn
20GP Container	386Pcs
40HQ Container	902Pcs

Characteristics

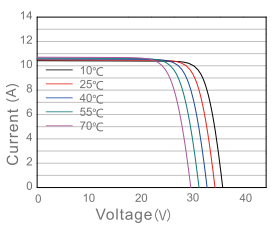
Current Voltage Curve SP360M/60



Power Voltage Curve SP360M/60



Current Voltage Curve SP360M/60



STC: Light intensity 1000W/m2 | Battery temperature:25℃ | atmosphere quality=15

NOCT: Light intensity 800W/m2 | Battery temperature:20℃ | atmosphere quality=15 | wind velocity 1m/s

Final explanation rights reserved

Module Picture

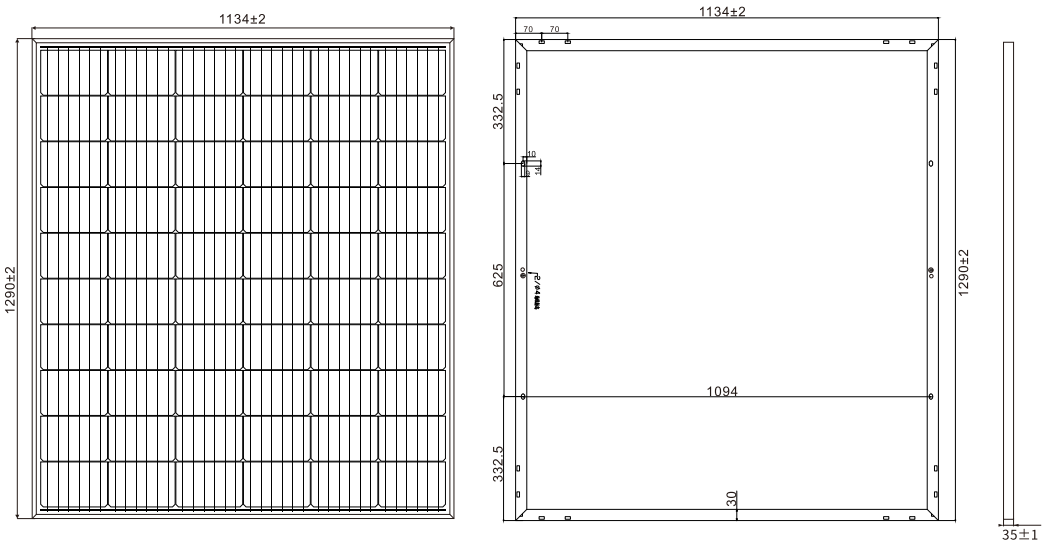


SP300M-60

Comprehensive Certificates

- IEC61215,IEC61730
- ISO9001:2015 Quality management systems
- ISO45001:Environmental management systems
- ISO45001:2018 Occupational health and safety management systems

Mechanical Diagrams



PS:Frame color and cable length can be customized

Electrical Parameters at (STC)

Module	Power (W)	Module Efficiency(%)	Voltage at Pmax(Vmp)	Current at Pmax(Imp)	Open Circuit Voltage(Voc)	Short Circuit Current(Isc)	Power Tolerance(w)
SP300M	300W	20.50%	34.20	8.77	41.04	9.30	±3%

Mechanical Parameters

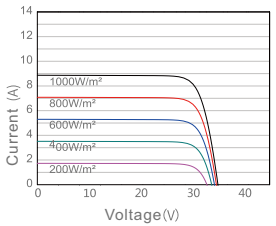
Solar Cell(Type/Size)	MONO(182mm)
Solar Cells Number	60Pcs(6x10)
Dimension	1290x1134x35mm
Weight	14.3Kg/Pcs
Tempered Glass	3.2 mm High Permeability Coated
Frame	Anodized aluminum alloy
Junction Box	IP67、3*bypass diode
Cable	4.0mm², (+)1000mm/(-)1000mm
Connector	Original MC4/Compatible MC4
Mechanical Load	Front 5400PA/back 2400PA

Packing

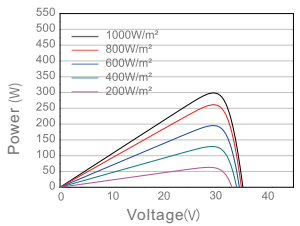
Module Type	SP300M-60
Carton Size	1310x1160x85mm
Number	2Pcs/Ctn
Weight	29Kg/Ctn
Volume	0.129Cbm/Ctn
20GP Container	444Pcs
40HQ Container	1088Pcs

Characteristics

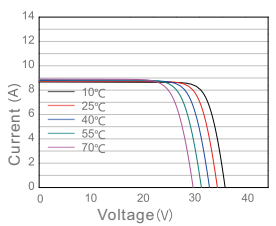
Current Voltage Curve SP300M/60



Power Voltage Curve SP300M/60



Current Voltage Curve SP300M/60

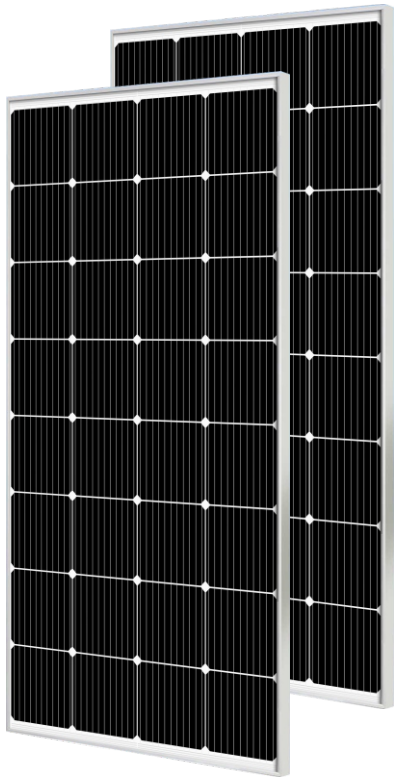


STC: Light intensity 1000W/m² Battery temperature:25℃ atmosphere quality=15

NOCT: Light intensity 800W/m² Battery temperature:20℃ atmosphere quality=15 wind velocity 1m/s

Final explanation rights reserved

Module Picture



SP240M-32

Comprehensive Certificates

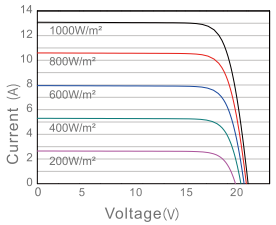
- IEC61215,IEC61730
- ISO9001:2015 Quality management systems
- ISO45001:Environmental management systems
- ISO45001:2018 Occupational health and safety management systems

Electrical Parameters at (STC)

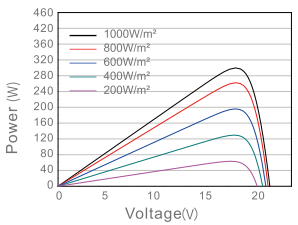
Module	Power (W)	Module Efficiency(%)	Voltage at Pmax(Vmp)	Current at Pmax(Imp)	Open Circuit Voltage(Voc)	Short Circuit Current(Isc)	Power Tolerance(w)
SP240M	240W	20.70%	18.24	13.16	21.80	13.95	±3%

Characteristics

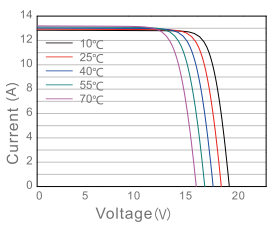
Current Voltage Curve SP240M/32



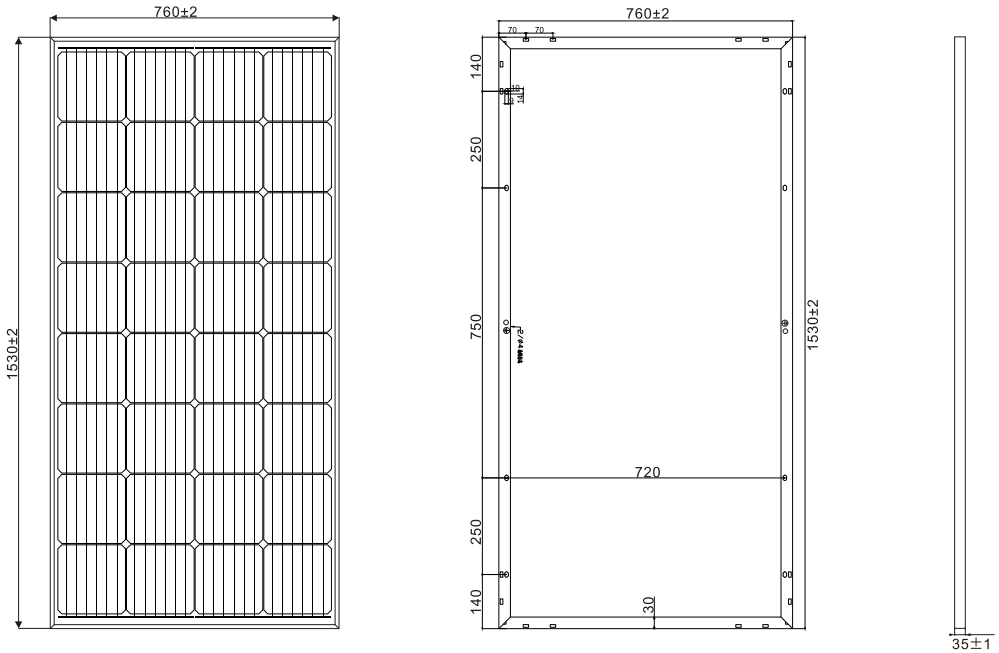
Power Voltage Curve SP240M/32



Current Voltage Curve SP240M/32



Mechanical Diagrams



PS:Frame color and cable length can be customized

Mechanical Parameters

Solar Cell(Type/Size)	MONO(182mm)
Solar Cells Number	32Pcs(4x8)
Dimension	1530x760x35mm
Weight	11.8Kg/Pcs
Tempered Glass	3.2 mm High Permeability Coated
Frame	Anodized aluminum alloy
Junction Box	IP67、3*bypass diode
Cable	4.0mm², (+)1000mm/(-)1000mm
Connector	Original MC4/Compatible MC4
Mechanical Load	Front 5400PA/back 2400PA

Packing

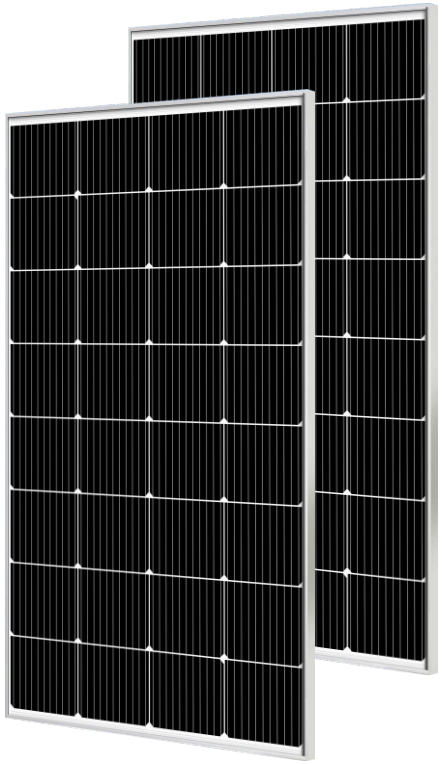
Module Type	SP240M-32
Carton Size	1550x780x85mm
Number	2Pcs/Ctn
Weight	24Kg/Ctn
Volume	0.100Cbm/Ctn
20GP Container	532Pcs
40HQ Container	1356Pcs

STC: Light intensity 1000W/m² | Battery temperature:25℃ | atmosphere quality=15

NOCT: Light intensity 800W/m² | Battery temperature:20℃ | atmosphere quality=15 | wind velocity 1m/s

Final explanation rights reserved

Module Picture

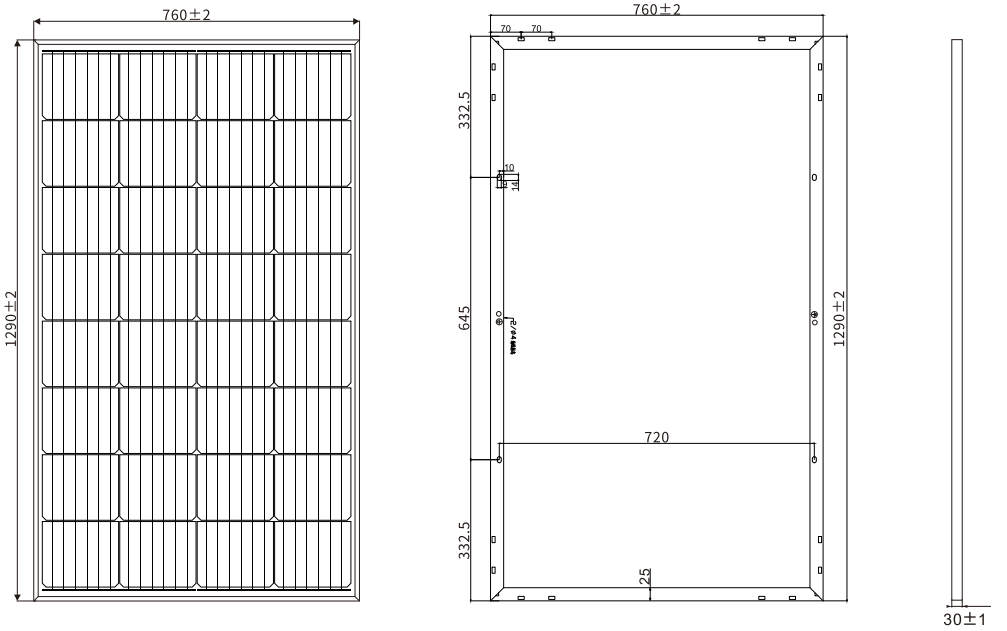


SP200M-32

Comprehensive Certificates

- IEC61215,IEC61730
- ISO9001:2015 Quality management systems
- ISO45001:Environmental management systems
- ISO45001:2018 Occupational health and safety management systems

Mechanical Diagrams



PS:Frame color and cable length can be customized

Electrical Parameters at (STC)

Module	Power (W)	Module Efficiency(%)	Voltage at Pmax(Vmp)	Current at Pmax(Imp)	Open Circuit Voltage(Voc)	Short Circuit Current(Isc)	Power Tolerance(w)
SP200M	200W	20.40%	18.24	10.96	21.80	11.62	±3%

Mechanical Parameters

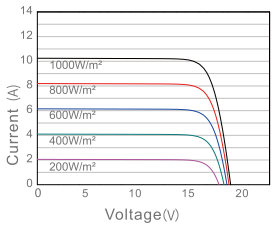
Solar Cell(Type/Size)	MONO(182mm)
Solar Cells Number	32Pcs(4x8)
Dimension	1290x760x30mm
Weight	10.30Kg/Pcs
Tempered Glass	3.2 mm High Permeability Coated
Frame	Anodized aluminum alloy
Junction Box	IP67、2*bypass diode
Cable	2.5mm², (+)700mm/(-)700mm
Connector	Original MC4/Compatible MC4
Mechanical Load	Front 5400PA/back 2400PA

Packing

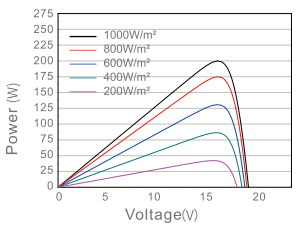
Module Type	SP200M-32
Carton Size	1310x780x75mm
Number	2Pcs/Ctn
Weight	21Kg/Ctn
Volume	0.077Cbm/Ctn
20GP Container	784Pcs
40HQ Container	1836Pcs

Characteristics

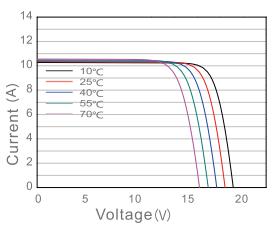
Current Voltage Curve SP200M/32



Power Voltage Curve SP200M/32



Current Voltage Curve SP200M/32

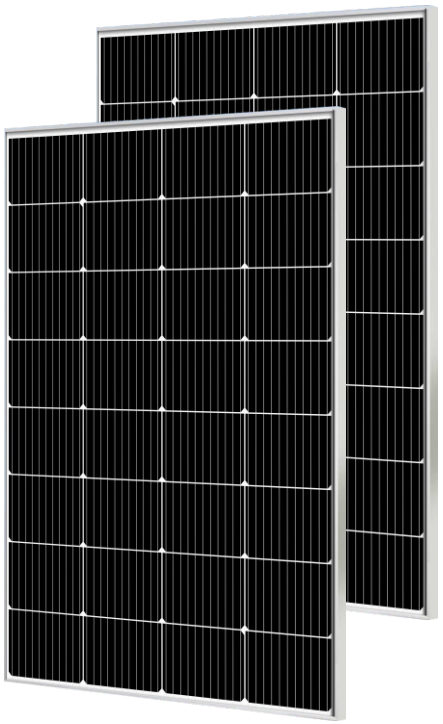


STC: Light intensity 1000W/m² | Battery temperature:25℃ | atmosphere quality=15

NOCT: Light intensity 800W/m² | Battery temperature:20℃ | atmosphere quality=15 | wind velocity 1m/s

Final explanation rights reserved

Module Picture

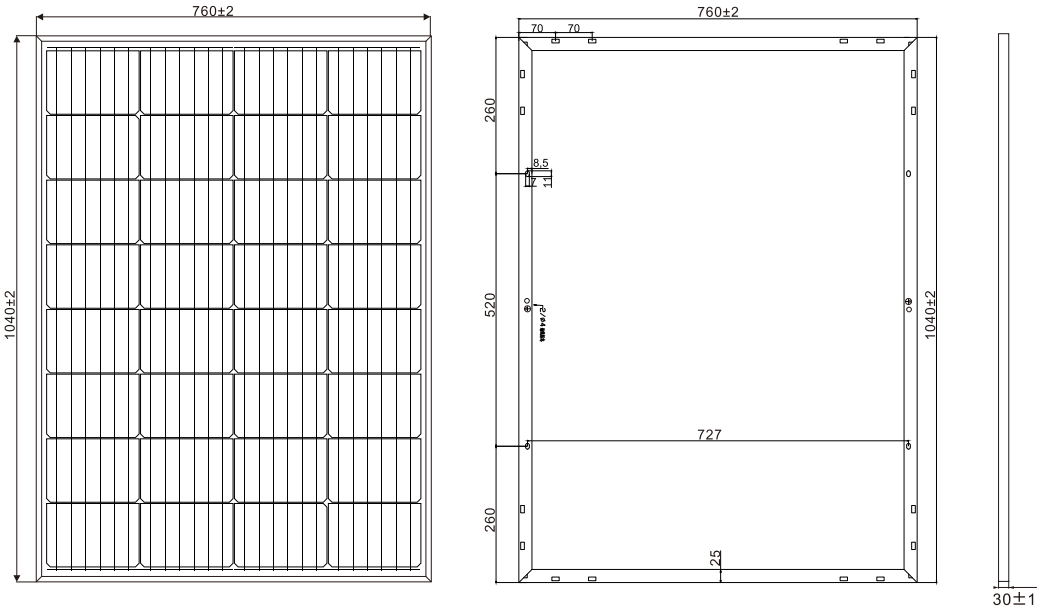


SP160M-32

Comprehensive Certificates

- IEC61215,IEC61730
- ISO9001:2015 Quality management systems
- ISO45001:Environmental management systems
- ISO45001:2018 Occupational health and safety management systems

Mechanical Diagrams



PS:Frame color and cable length can be customized

Electrical Parameters at (STC)

Module	Power (W)	Module Efficiency(%)	Voltage at Pmax(Vmp)	Current at Pmax(Imp)	Open Circuit Voltage(Voc)	Short Circuit Current(Isc)	Power Tolerance(w)
SP160M	160W	20.20%	18.24	8.77	21.80	9.30	±3%

Mechanical Parameters

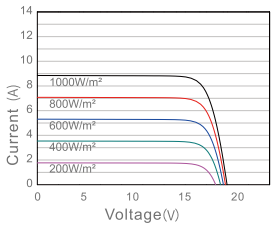
Solar Cell(Type/Size)	MONO(182mm)
Solar Cells Number	32Pcs(4x8)
Dimension	1040x760x30mm
Weight	8.30Kg/Pcs
Tempered Glass	3.2 mm High Permeability Coated
Frame	Anodized aluminum alloy
Junction Box	IP67、2*bypass diode
Cable	2.5mm², (+)700mm/(-)700mm
Connector	Original MC4/Compatible MC4
Mechanical Load	Front 5400PA/back 2400PA

Packing

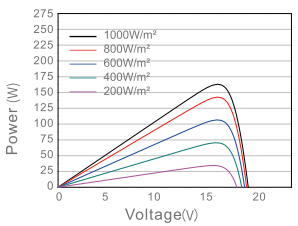
Module Type	SP160M-32
Carton Size	1060x780x75mm
Number	2Pcs/Ctn
Weight	17Kg/Ctn
Volume	0.062Cbm/Ctn
20GP Container	984Pcs
40HQ Container	2280Pcs

Characteristics

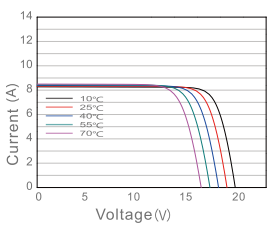
Current Voltage Curve SP160M/32



Power Voltage Curve SP160M/32



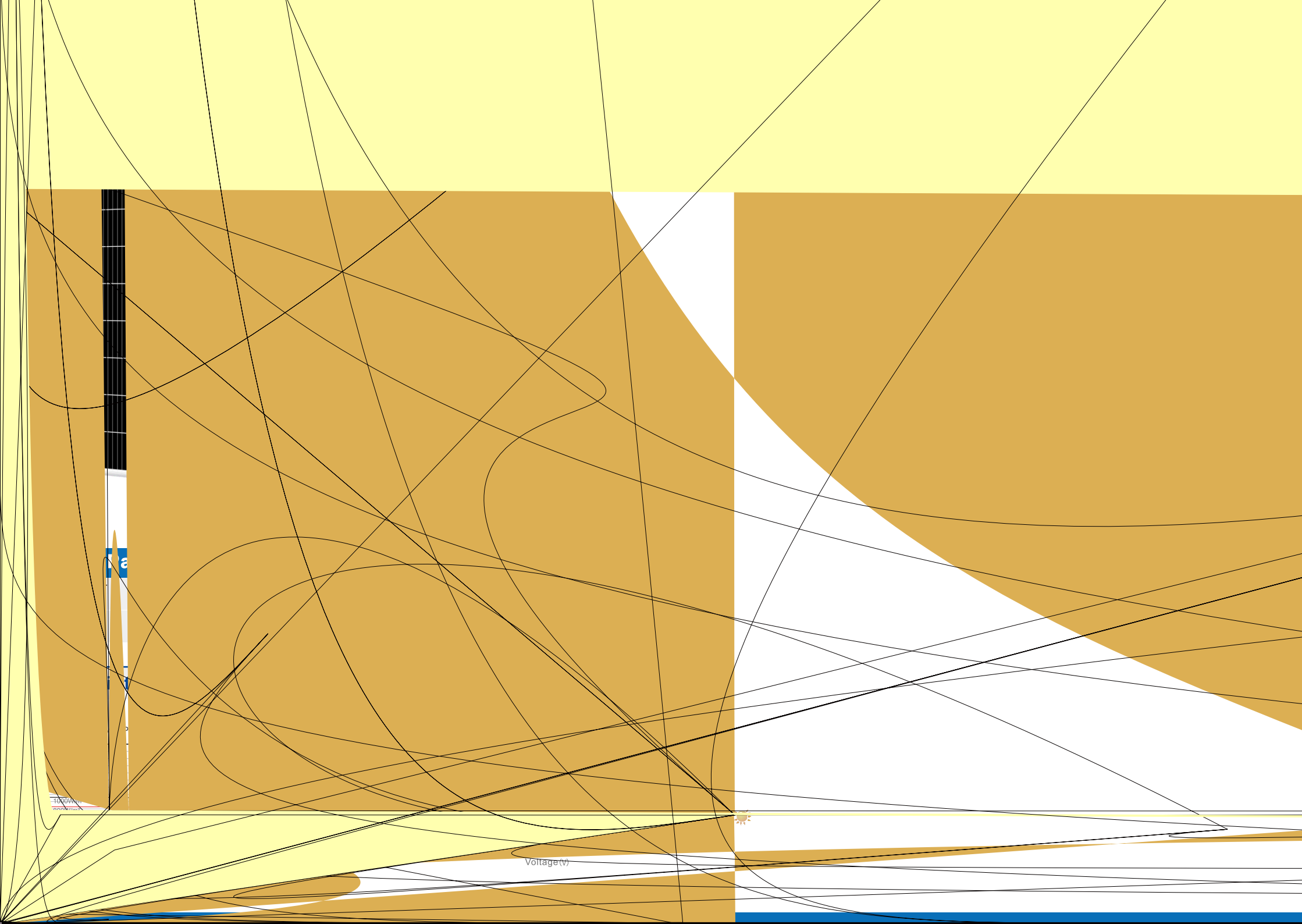
Current Voltage Curve SP160M/32



STC: Light intensity 1000W/m² | Battery temperature:25℃ | atmosphere quality=15

NOCT: Light intensity 800W/m² | Battery temperature:20℃ | atmosphere quality=15 | wind velocity 1m/s

Final explanation rights reserved


1000W/m
Voltage (V)

Module Picture

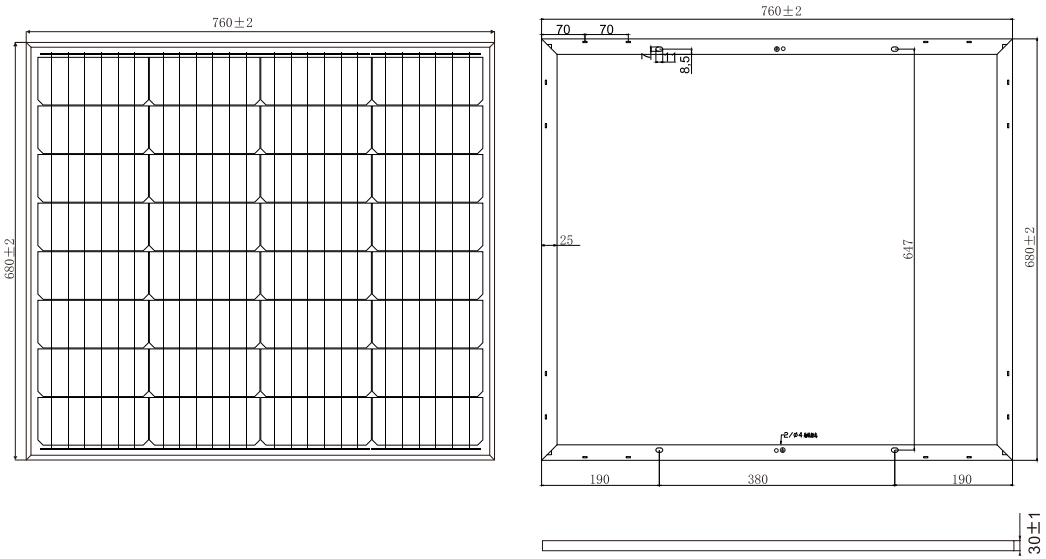


SP100M-32

Comprehensive Certificates

- IEC61215,IEC61730
- ISO9001:2015 Quality management systems
- ISO45001:Environmental management systems
- ISO45001:2018 Occupational health and safety management systems

Mechanical Diagrams



PS:Frame color and cable length can be customized

Electrical Parameters at (STC)

Module	Power (W)	Module Efficiency(%)	Voltage at Pmax(Vmp)	Current at Pmax(Imp)	Open Circuit Voltage(Voc)	Short Circuit Current(Isc)	Power Tolerance(w)
SP100M	100W	19.30%	18.24	5.48	21.80	5.81	±3%

Mechanical Parameters

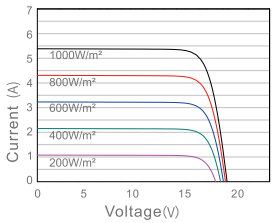
Solar Cell(Type/Size)	MONO(182mm)
Solar Cells Number	32Pcs(4x8)
Dimension	680x760x30mm
Weight	6.30Kg/Pcs
Tempered Glass	3.2 mm High Permeability Coated
Frame	Anodized aluminum alloy
Junction Box	IP67、1*bypass diode
Cable	2.0mm², (+)500mm/(-)500mm
Connector	Original MC4/Compatible MC4
Mechanical Load	Front 5400PA/back 2400PA

Packing

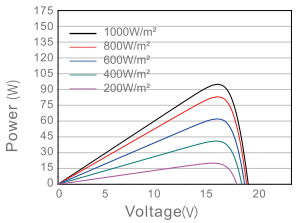
Module Type	SP100M-32
Carton Size	700x780x75mm
Number	2Pcs/Ctn
Weight	13Kg/Ctn
Volume	0.040Cbm/Ctn
20GP Container	1494Pcs
40HQ Container	3366Pcs

Characteristics

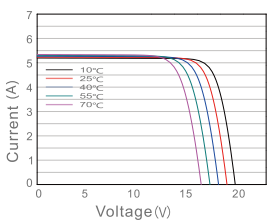
Current Voltage Curve SP100M/32



Power Voltage Curve SP100M/32



Current Voltage Curve SP100M/32

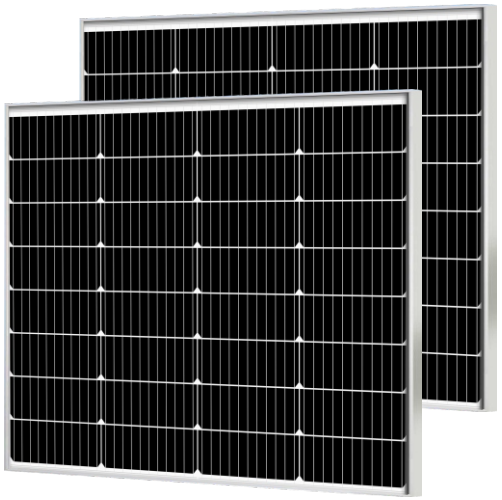


STC: Light intensity 1000W/m² | Battery temperature:25℃ | atmosphere quality=15

NOCT: Light intensity 800W/m² | Battery temperature:20℃ | atmosphere quality=15 | wind velocity 1m/s

Final explanation rights reserved

Module Picture

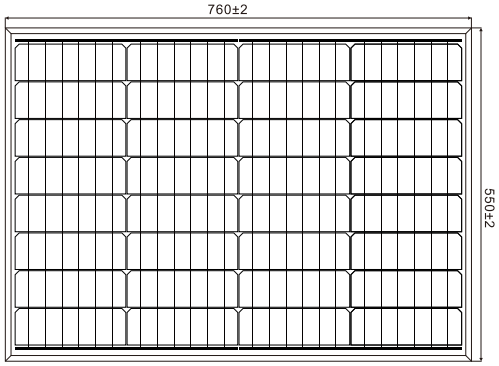


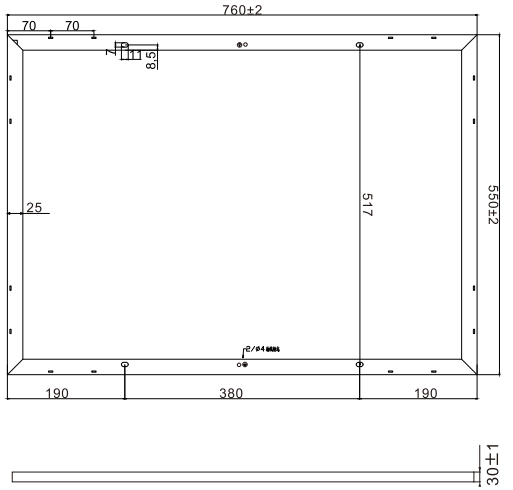
SP080M-32

Comprehensive Certificates

- IEC61215,IEC61730
- ISO9001:2015 Quality management systems
- ISO45001:Environmental management systems
- ISO45001:2018 Occupational health and safety management systems

Mechanical Diagrams





PS:Frame color and cable length can be customized

Electrical Parameters at (STC)

Module	Power (W)	Module Efficiency(%)	Voltage at Pmax(Vmp)	Current at Pmax(Imp)	Open Circuit Voltage(Voc)	Short Circuit Current(Isc)	Power Tolerance(w)
SP080M	80W	19.10%	18.24	4.39	21.80	4.65	±3%

Mechanical Parameters

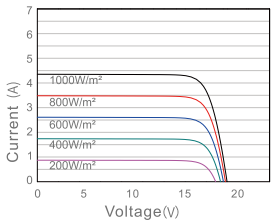
Solar Cell(Type/Size)	MONO(182mm)
Solar Cells Number	32Pcs(4x8)
Dimension	550x760x30mm
Weight	5.30Kg/Pcs
Tempered Glass	3.2 mm High Permeability Coated
Frame	Anodized aluminum alloy
Junction Box	IP67、1*bypass diode
Cable	2.0mm², (+)500mm/(-)500mm
Connector	Original MC4/Compatible MC4
Mechanical Load	Front 5400PA/back 2400PA

Packing

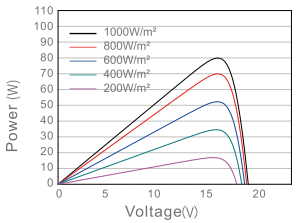
Module Type	SP080M-32
Carton Size	570x780x75mm
Number	2Pcs/Ctn
Weight	11Kg/Ctn
Volume	0.030Cbm/Ctn
20GP Container	1776Pcs
40HQ Container	4032Pcs

Characteristics

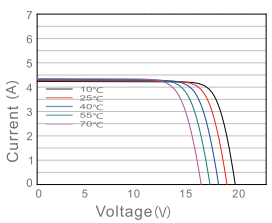
Current Voltage Curve SP080M/32



Power Voltage Curve SP080M/32



Current Voltage Curve SP080M/32

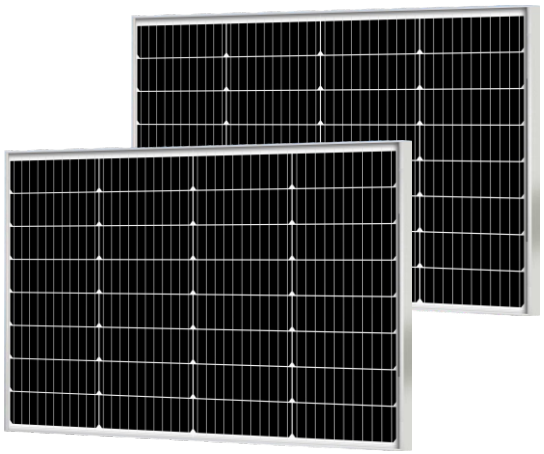


STC: Light intensity 1000W/m² | Battery temperature:25℃ | atmosphere quality=15

NOCT: Light intensity 800W/m² | Battery temperature:20℃ | atmosphere quality=15 | wind velocity 1m/s

Final explanation rights reserved

Module Picture

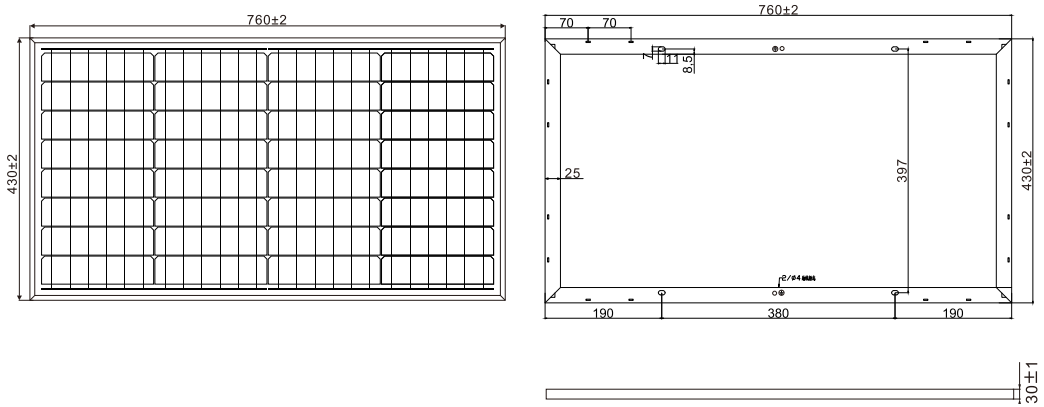


SP060M-32

Comprehensive Certificates

- IEC61215,IEC61730
- ISO9001:2015 Quality management systems
- ISO45001:Environmental management systems
- ISO45001:2018 Occupational health and safety management systems

Mechanical Diagrams



PS:Frame color and cable length can be customized

Electrical Parameters at (STC)

Module	Power (W)	Module Efficiency(%)	Voltage at Pmax(Vmp)	Current at Pmax(Imp)	Open Circuit Voltage(Voc)	Short Circuit Current(Isc)	Power Tolerance(w)
SP060M	60W	18.30%	18.24	3.29	21.80	3.49	±3%

Mechanical Parameters

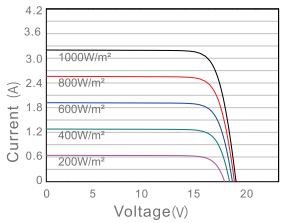
Solar Cell(Type/Size)	MONO(182mm)
Solar Cells Number	32Pcs(4x8)
Dimension	430x760x30mm
Weight	4.30Kg/Pcs
Tempered Glass	3.2 mm High Permeability Coated
Frame	Anodized aluminum alloy
Junction Box	IP67、1*bypass diode
Cable	2.0mm², (+)500mm/(-)500mm
Connector	Original MC4/Compatible MC4
Mechanical Load	Front 5400PA/back 2400PA

Packing

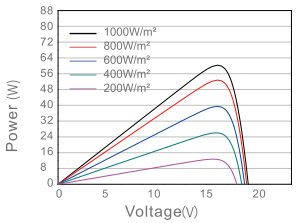
Module Type	SP060M-32
Carton Size	450x780x75mm
Number	2Pcs/Ctn
Weight	9Kg/Ctn
Volume	0.026Cbm/Ctn
20GP Container	2600Pcs
40HQ Container	5340Pcs

Characteristics

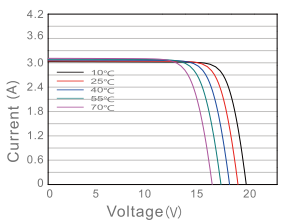
Current Voltage Curve SP060M/32



Power Voltage Curve SP060M/32



Current Voltage Curve SP060M/32

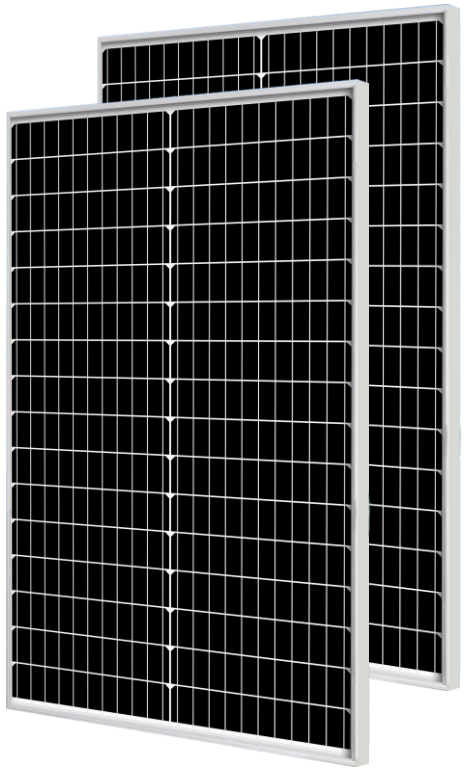


STC: Light intensity 1000W/m² | Battery temperature:25℃ | atmosphere quality=15

NOCT: Light intensity 800W/m² | Battery temperature:20℃ | atmosphere quality=15 | wind velocity 1m/s

Final explanation rights reserved

Module Picture



SP050M-32

Comprehensive Certificates

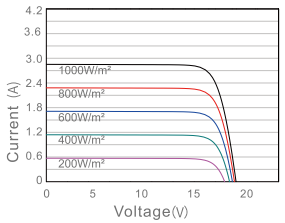
- IEC61215,IEC61730
- ISO9001:2015 Quality management systems
- ISO45001:Environmental management systems
- ISO45001:2018 Occupational health and safety management systems

Electrical Parameters at (STC)

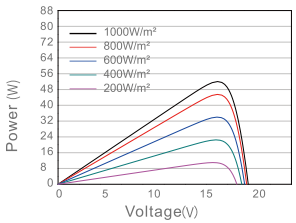
Module	Power (W)	Module Efficiency(%)	Voltage at Pmax(Vmp)	Current at Pmax(Imp)	Open Circuit Voltage(Voc)	Short Circuit Current(Isc)	Power Tolerance(w)
SP050M	50W	18.60%	18.24	2.74	21.80	2.97	±3%

Characteristics

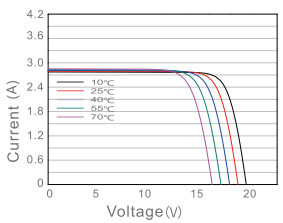
Current Voltage Curve SP050M/32



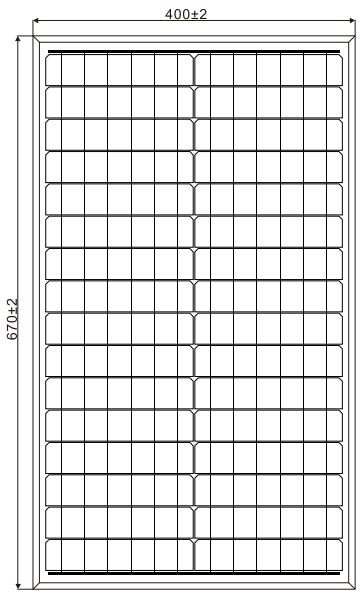
Power Voltage Curve SP050M/32

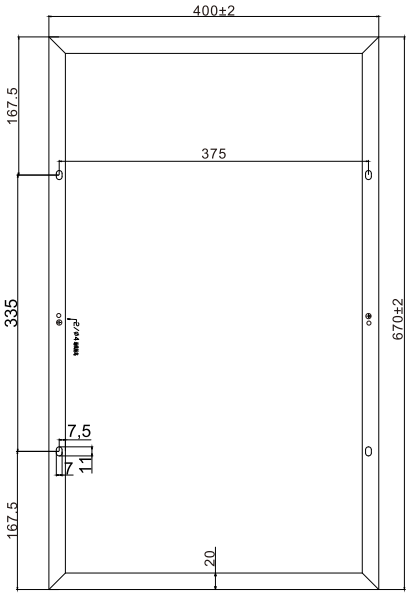


Current Voltage Curve SP050M/32



Mechanical Diagrams







PS:Frame color and cable length can be customized

Mechanical Parameters

Solar Cell(Type/Size)	MONO(182mm)
Solar Cells Number	32Pcs(2x16)
Dimension	670x400x25mm
Weight	3.80Kg/Pcs
Tempered Glass	3.2 mm High Permeability Coated
Frame	Anodized aluminum alloy
Junction Box	IP67、0*bypass diode
Cable	//
Connector	Original MC4/Compatible MC4
Mechanical Load	Front 5400PA/back 2400PA

Packing

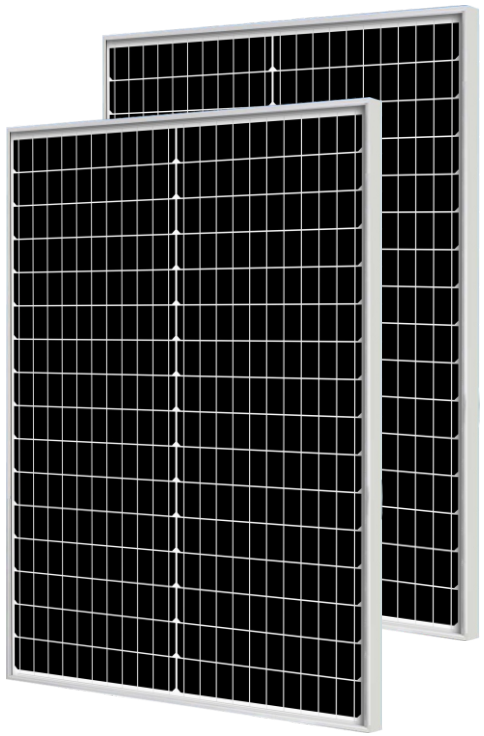
Module Type	SP050M-32
Carton Size	780x430x170mm
Number	5Pcs/Ctn
Weight	20Kg/Ctn
Volume	0.052Cbm/Ctn
20GP Container	2690Pcs
40HQ Container	6540Pcs

STC: Light intensity 1000W/m2 | Battery temperature:25℃ | atmosphere quality=15

NOCT: Light intensity 800W/m2 | Battery temperature:20℃ | atmosphere quality=15 | wind velocity 1m/s

Final explanation rights reserved

Module Picture

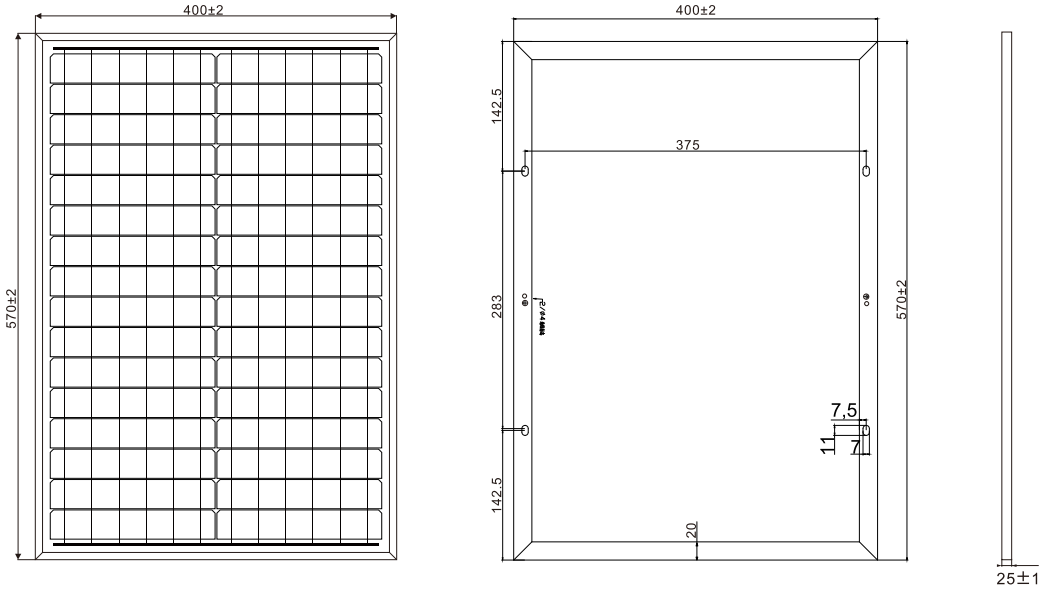


SP040M-32

Comprehensive Certificates

- IEC61215,IEC61730
- ISO9001:2015 Quality management systems
- ISO45001:Environmental management systems
- ISO45001:2018 Occupational health and safety management systems

Mechanical Diagrams



PS:Frame color and cable length can be customized

Electrical Parameters at (STC)

Module	Power (W)	Module Efficiency(%)	Voltage at Pmax(Vmp)	Current at Pmax(Imp)	Open Circuit Voltage(Voc)	Short Circuit Current(Isc)	Power Tolerance(w)
SP040M	40W	17.50%	18.24	2.19	21.80	2.39	±3%

Mechanical Parameters

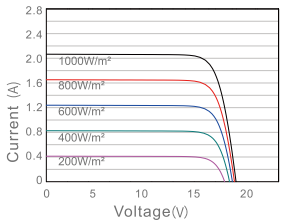
Solar Cell(Type/Size)	MONO(182mm)
Solar Cells Number	32Pcs(2x16)
Dimension	570x400x25mm
Weight	2.80Kg/Pcs
Tempered Glass	3.2 mm High Permeability Coated
Frame	Anodized aluminum alloy
Junction Box	IP67、0*bypass diode
Cable	//
Connector	Original MC4/Compatible MC4
Mechanical Load	Front 5400PA/back 2400PA

Packing

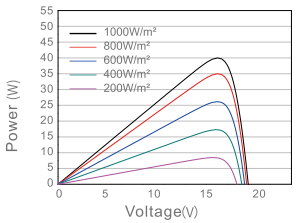
Module Type	SP040M-32
Carton Size	600x430x170mm
Number	5Pcs/Ctn
Weight	15Kg/Ctn
Volume	0.044Cbm/Ctn
20GP Container	3180Pcs
40HQ Container	7730Pcs

Characteristics

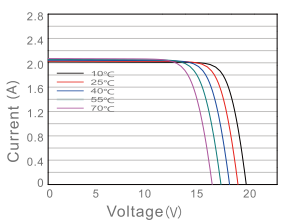
Current Voltage Curve SP040M/32



Power Voltage Curve SP040M/32



Current Voltage Curve SP040M/32



STC: Light intensity 1000W/m² | Battery temperature:25℃ | atmosphere quality=15

NOCT: Light intensity 800W/m² | Battery temperature:20℃ | atmosphere quality=15 | wind velocity 1m/s

Final explanation rights reserved