

120-450Watt

High efficiency monocrystalline
silicon solar modules

0~+3% tolerance

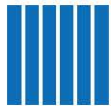
ISO9001:2008, ISO14001:2004, OHSAS18001

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%)



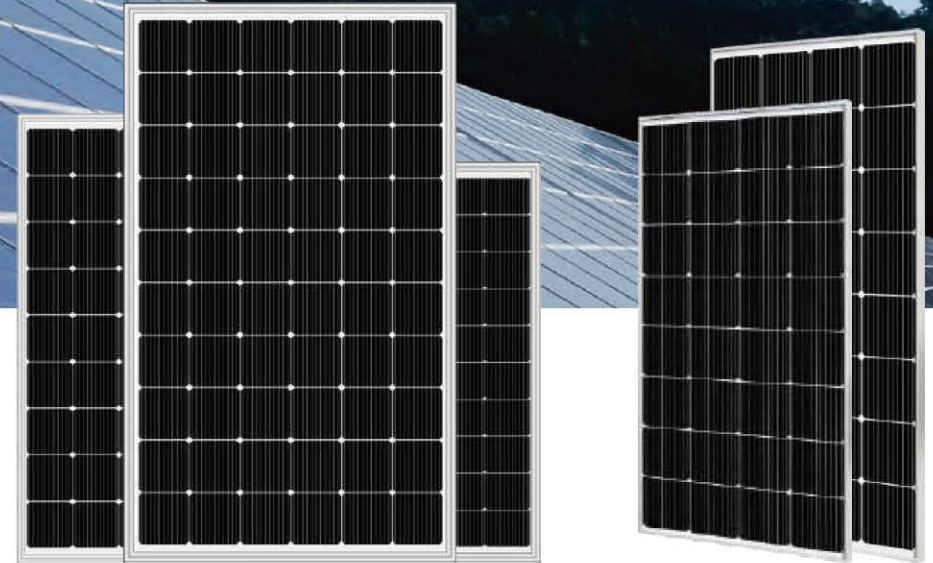
Low light performance

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



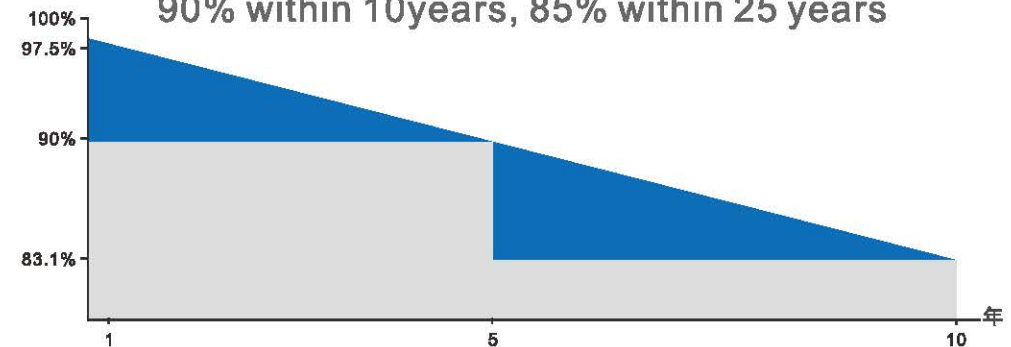
Adaptability of harsh environment

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



Guaranteed output power

90% within 10years, 85% within 25 years

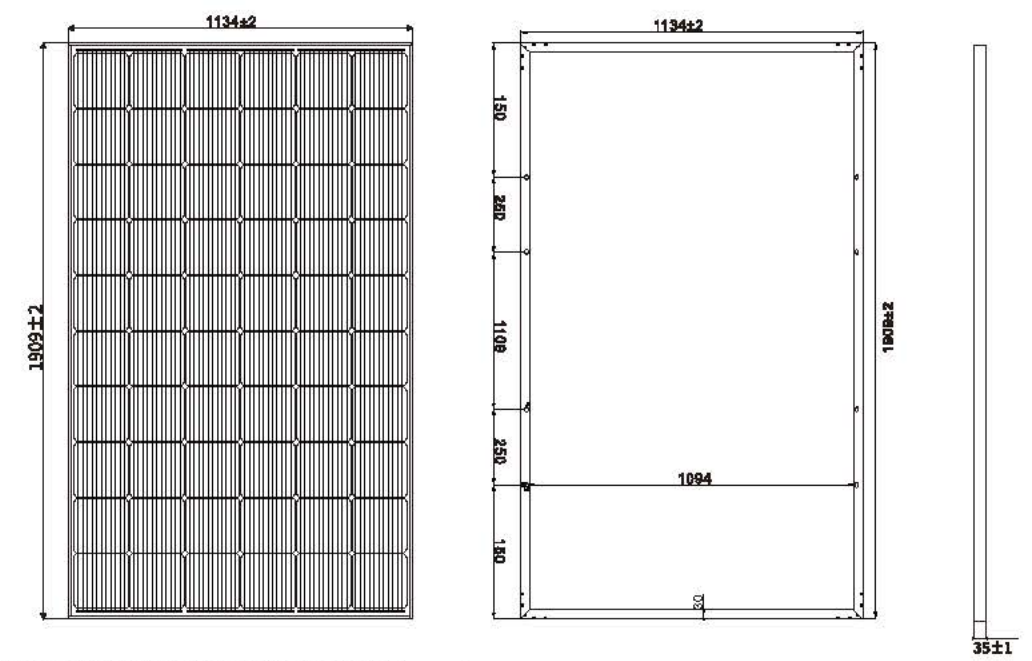




SP450M-60

Comprehensive Certificates

- IEC81215, IEC81730
- 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

Electrical Parameters at (STC)

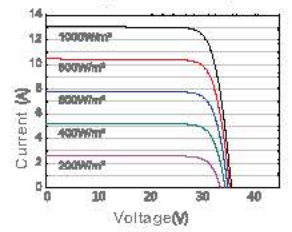
| Module | Power (W) | Module Efficiency (%) | Voltage at Pmax(Vmp) | Current at Pmax(Imp) | Open Circuit Voltage(Voc) | Short Circuit Current(Isc) | Power Tolerance(w) |
|--------|-----------|-----------------------|----------------------|----------------------|---------------------------|----------------------------|--------------------|
| SP450M | 450W | 20.80% | 34.20 | 13.16 | 41.04 | 13.95 | ±3% |

| 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 | IP 67, 3*bypass diode |
| Cable | 4.0mm ² , (+)1000mm/(-)1000mm |
| Connector | Original MC4/Compatible MC4 |
| Mechanical Load | Front 5400PA/back 2400PA |

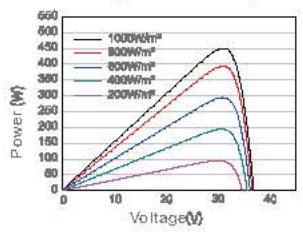
| Packing | |
|----------------|----------------|
| Module Type | SP450M-60 |
| Carton Size | 1930x1160x85mm |
| Number | 2Pcs/Ctn |
| Weight | 46Kg/Ctn |
| Volume | 0.190Cbm/Ctn |
| 20GP Container | 316Pcs |
| 40HQ Container | 736Pcs |

Characteristics

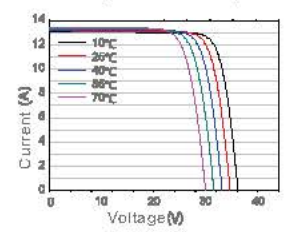
Current Voltage Curve SP450M/60



Power Voltage Curve SP450M/60



Current Voltage Curve SP450M/60



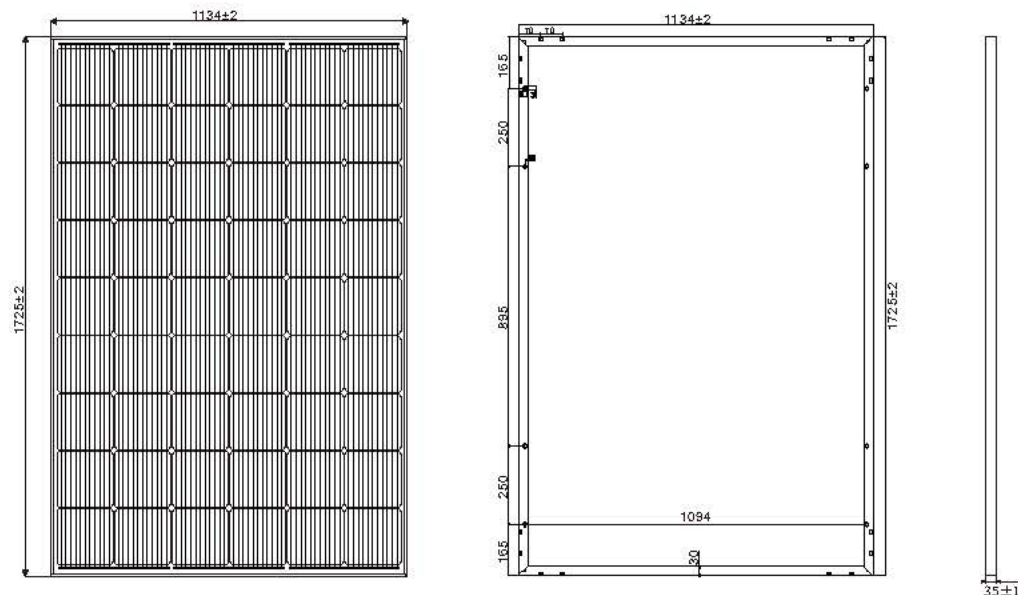
- STC: Light Intensity 1000W/m² Battery temperature: 25°C atmosphere quality=15
- NOCT: Light Intensity 800W/m² Battery temperature: 20°C atmosphere quality=15 wind velocity 1m/s



SP400M-54

Comprehensive Certificates

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

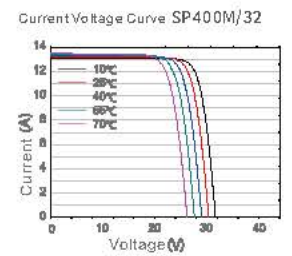
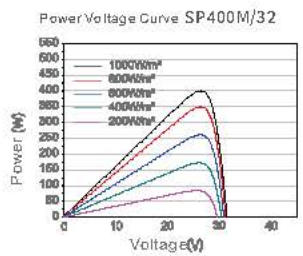
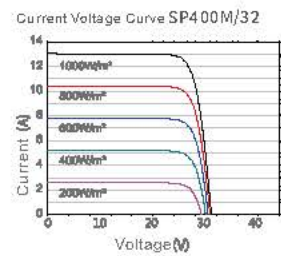


PS: Frame color and cable length can be customized

Electrical Parameters at (STC)

| Module | Power (W) | Module Efficiency(%) | Voltage at Pmax(Vmp) | Current at Pmax(Impp) | 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



| 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°C atmosphere quality=15

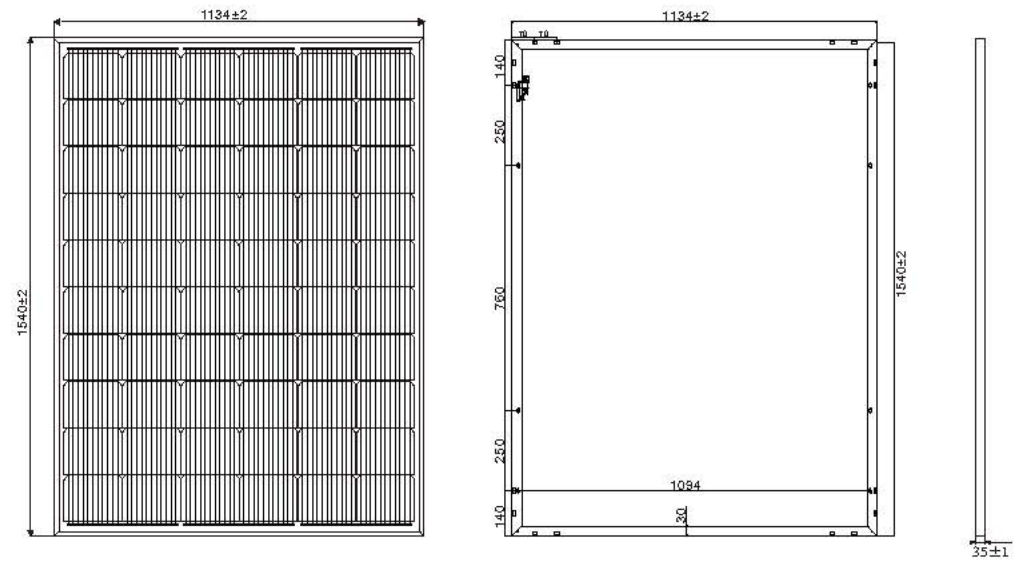
NOCT: Light Intensity 800W/m² Battery temperature: 20°C atmosphere quality=15 wind velocity 1m/s



SP360M-60

Comprehensive Certificates

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

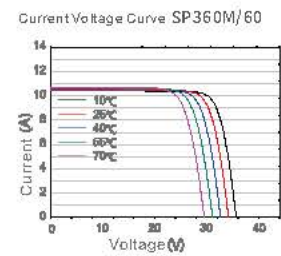
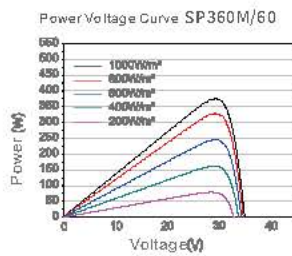
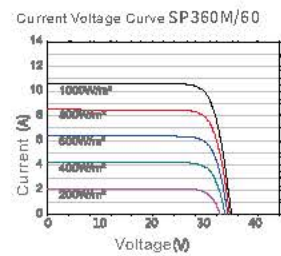


PS: Frame color and cable length can be customized

Electrical Parameters at (STC)

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

Characteristics



| 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 |

STC: Light Intensity 1000W/m² Battery temperature: 25°C atmosphere quality=15

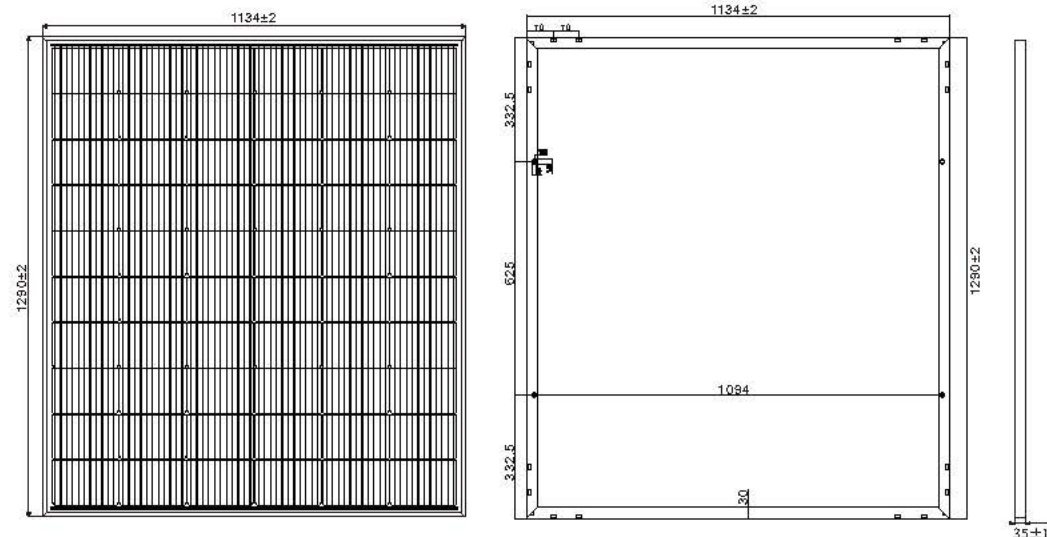
NOCT: Light Intensity 800W/m² Battery temperature: 20°C atmosphere quality=15 wind velocity 1m/s



SP300M-60

Comprehensive Certificates

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

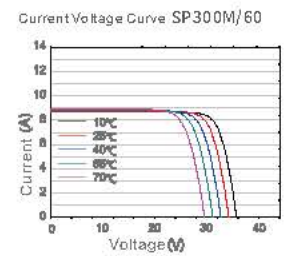
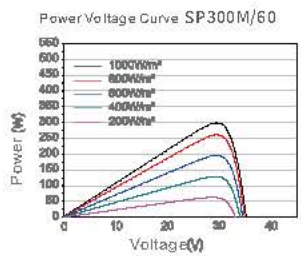
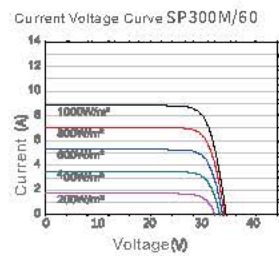


PS: Frame color and cable length can be customized

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% |

Characteristics



| 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 |

STC: Light Intensity: 1000W/m² Battery temperature: 25°C atmosphere quality=15

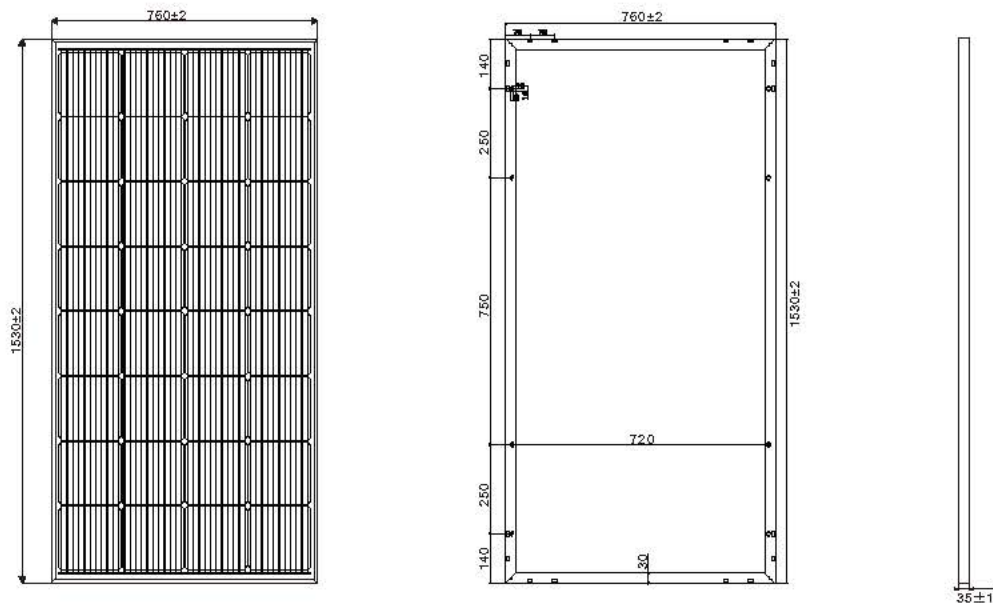
NOCT: Light Intensity: 800W/m² Battery temperature: 20°C atmosphere quality=15 wind velocity 1m/s



SP240M-32

Comprehensive Certificates

- 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

Electrical Parameters at (STC)

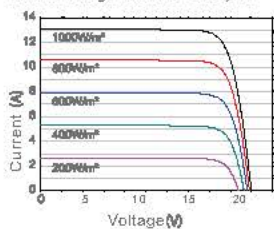
| Module | Power (W) | Module Efficiency(%) | Voltage at Pmax(Vmp) | Current at Pmax(Impp) | Open Circuit Voltage(Voc) | Short Circuit Current(Isc) | Power Tolerance(w) |
|--------|-----------|----------------------|----------------------|-----------------------|---------------------------|----------------------------|--------------------|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

| Mechanical Parameters | |
|-----------------------|--|
| Solar Cell(Type/Size) | MONO(182mm) |
| Solar Cells Number | 32Pcs(4x8) |
| Dimension | 1530x760x35mm |
| Weight | 14.3Kg/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 |

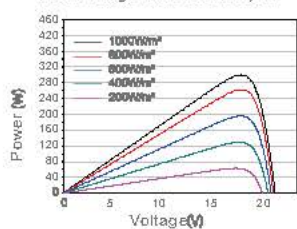
| Packing | |
|----------------|---------------|
| Module Type | SP240M-32 |
| Carton Size | 1550x780x85mm |
| Number | 2Pcs/Ctn |
| Weight | 24Kg/Ctn |
| Volume | 0.100Cbm/Ctn |
| 20GP Container | 532Pcs |
| 40HQ Container | 1356Pcs |

Characteristics

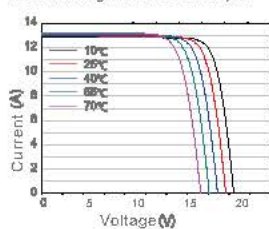
Current Voltage Curve SP240M/32



Power Voltage Curve SP240M/32



Current Voltage Curve SP240M/32



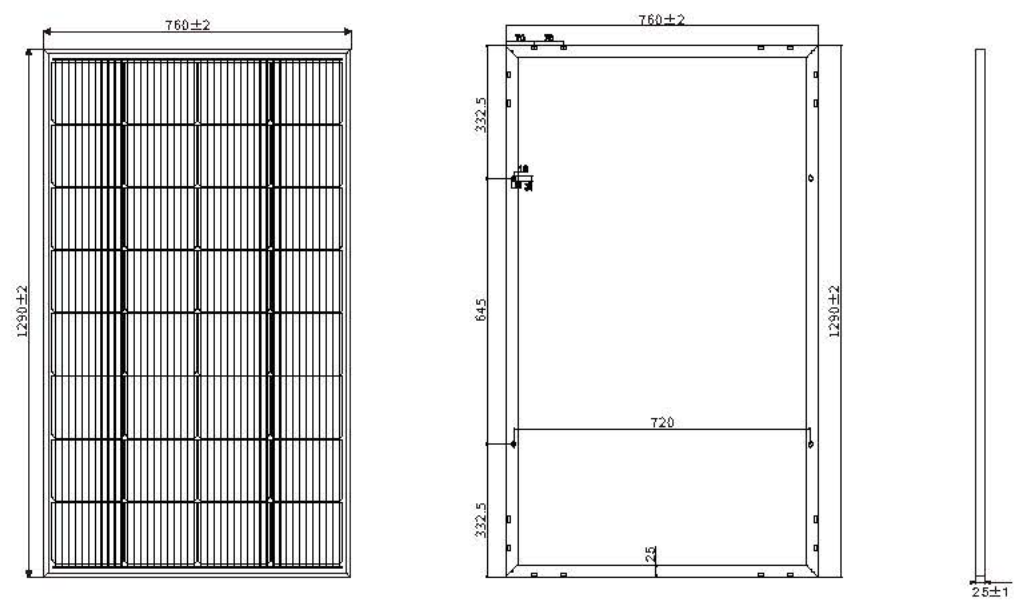
- STC: Light Intensity 1000W/m² Battery temperature: 25°C atmosphere quality=15
- NOCT: Light Intensity 800W/m² Battery temperature: 20°C atmosphere quality=15 wind velocity 1m/s



SP200M-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)

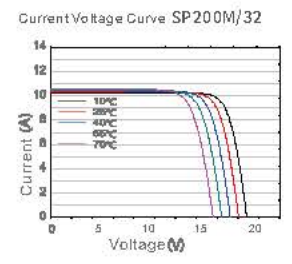
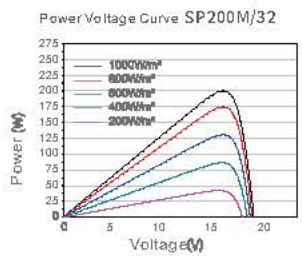
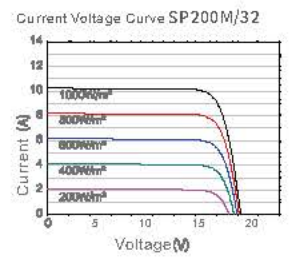
| Module | Power (W) | Module Efficiency(%) | Voltage at Pmax(Vmp) | Current at Pmax(Imp) | Open Circuit Voltage(Voc) | Short Circuit Current(Isc) | Power Tolerance(w) |
|--------|-----------|----------------------|----------------------|----------------------|---------------------------|----------------------------|--------------------|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

PS: Frame color and cable length can be customized

| Mechanical Parameters | |
|-----------------------|--|
| Solar Cell(Type/Size) | MONO(182mm) |
| Solar Cells Number | 32Pcs(4x8) |
| Dimension | 1290x760x30mm |
| Weight | 10.3Kg/Pcs |
| Tempered Glass | 3.2 mm High Permeability Coated |
| Frame | Anodized aluminum alloy |
| Junction Box | IP67, 2* bypass diode |
| Cable | 2.5mm ² , (+)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



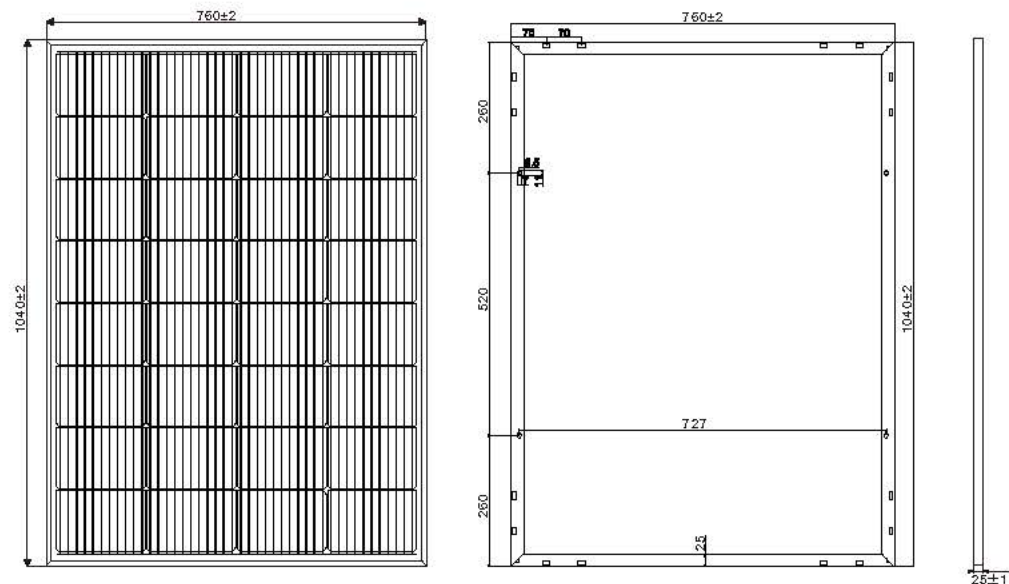
- STC: Light Intensity 1000W/m² Battery temperature: 25°C atmosphere quality=15
- NOCT: Light Intensity 800W/m² Battery temperature: 20°C atmosphere quality=15 wind velocity 1m/s



SP160M-32

Comprehensive Certificates

- 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

Electrical Parameters at (STC)

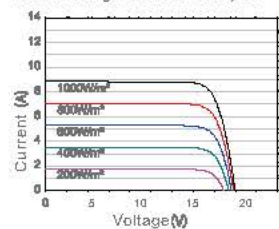
| Module | Power (W) | Module Efficiency(%) | Voltage at Pmax(Vmp) | Current at Pmax(Impp) | Open Circuit Voltage(Voc) | Short Circuit Current(Isc) | Power Tolerance(w) |
|--------|-----------|----------------------|----------------------|-----------------------|---------------------------|----------------------------|--------------------|
| 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 | 2.5mm ² , (+)700mm/(-)700mm |
| Connector | Original MC4/Compatible MC4 |
| Mechanical Load | Front 5400PA/back 2400PA |

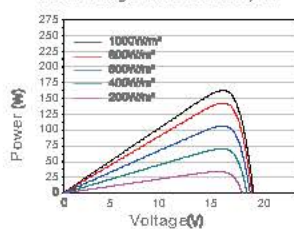
| Packing | |
|----------------|---------------|
| Module Type | SP160M-32 |
| Carton Size | 1060x780x75mm |
| Number | 2Pcs/Ctn |
| Weight | 17Kg/Ctn |
| Volume | 0.062Cbm/Ctn |
| 20GP Container | 984Pcs |
| 40HQ Container | 2280Pcs |

Characteristics

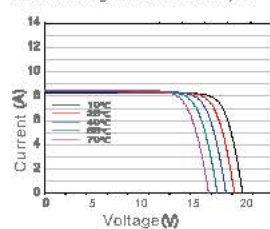
Current Voltage Curve SP160M/32



Power Voltage Curve SP160M/32



Current Voltage Curve SP160M/32



- STC: Light Intensity 1000W/m² Battery temperature: 25°C atmosphere quality=15
- NOCT: Light Intensity 800W/m² Battery temperature: 20°C atmosphere quality=15 wind velocity 1m/s

Module Picture



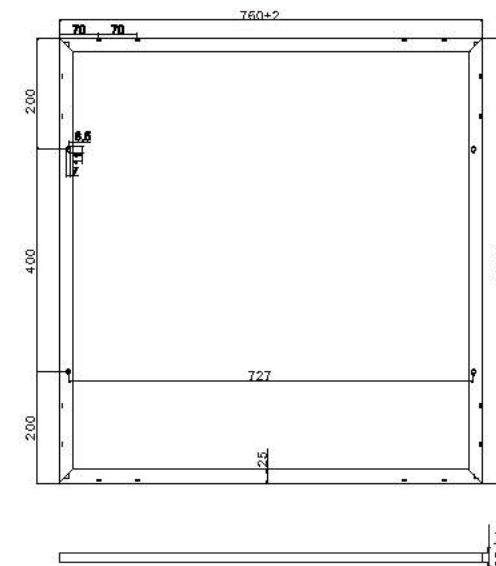
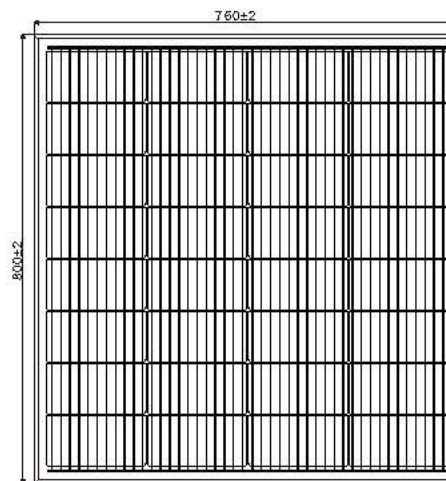
SP120M-32

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)

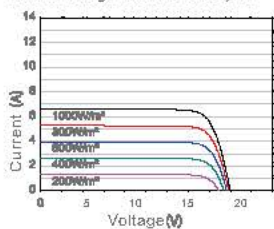
| Module | Power (W) | Module Efficiency (%) | Voltage at Pmax(Vmp) | Current at Pmax(Impp) | Open Circuit Voltage(Voc) | Short Circuit Current(Isc) | Power Tolerance(w) |
|--------|-----------|-----------------------|----------------------|-----------------------|---------------------------|----------------------------|--------------------|
| SP120M | 120W | 19.70% | 18.24 | 6.58 | 21.80 | 6.97 | ±3% |

| Mechanical Parameters | |
|-----------------------|---------------------------------|
| Solar Cell(Type/Size) | MONO(182mm) |
| Solar Cells Number | 32Pcs(4x8) |
| Dimension | 800x760x30mm |
| Weight | 7.30Kg/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 |

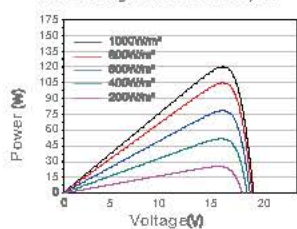
| Packing | |
|----------------|--------------|
| Module Type | SP120M-32 |
| Carton Size | 820x780x75mm |
| Number | 2Pcs/Ctn |
| Weight | 15Kg/Ctn |
| Volume | 0.048Cbm/Ctn |
| 20GP Container | 1284Pcs |
| 40HQ Container | 2880Pcs |

Characteristics

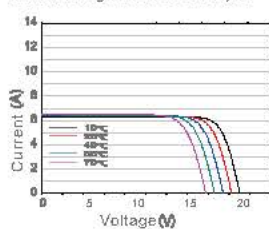
Current Voltage Curve SP120M/32



Power Voltage Curve SP120M/32



Current Voltage Curve SP120M/32



STC: Light Intensity 1000W/m² Battery temperature: 25°C atmosphere quality=15

NOCT: Light Intensity 800W/m² Battery temperature: 20°C atmosphere quality=15 wind velocity 1m/s