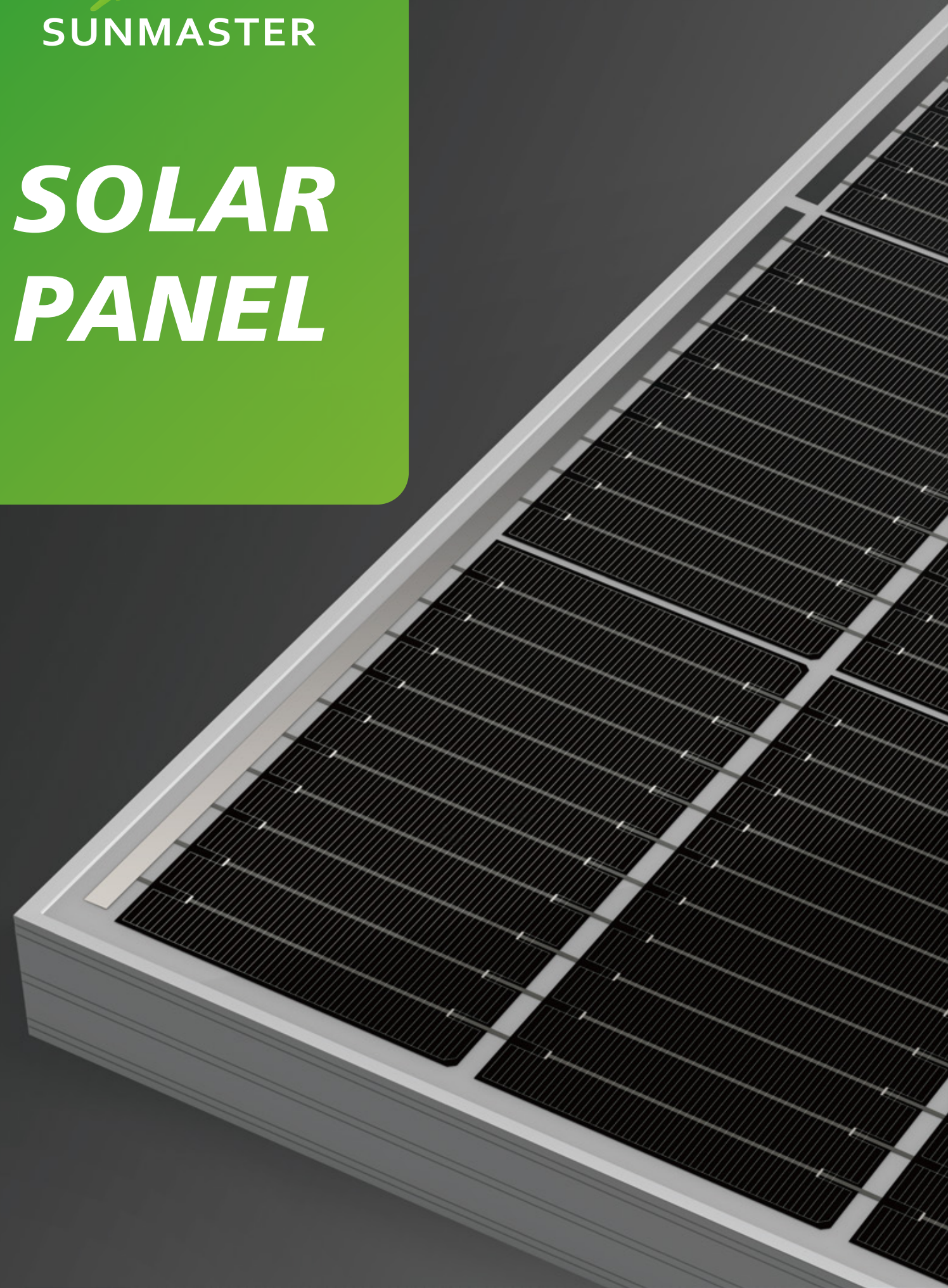




SUNMASTER

SOLAR PANEL

More
+ Power
Less Expense



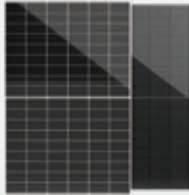
SunMaster Solar Co., Ltd
Via Angelo Moro 61, San Donato Milanese, Italy
Europe Branch:
Mob: +39 348 350 4129



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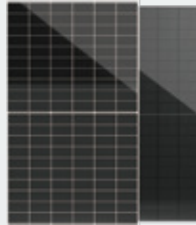
P³

166mm solar cell
300-345W



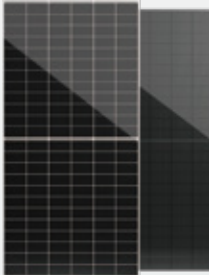
P⁵

166mm solar cell
350-385W



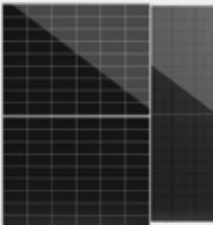
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166mm solar cell
435-465W



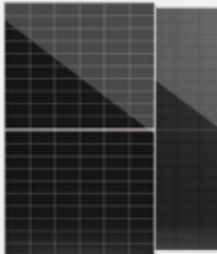
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182mm solar cell
400-415W



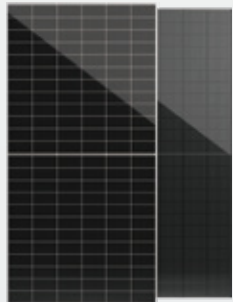
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182mm solar cell
450-465W



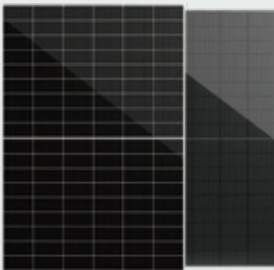
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182mm solar cell
525-550W



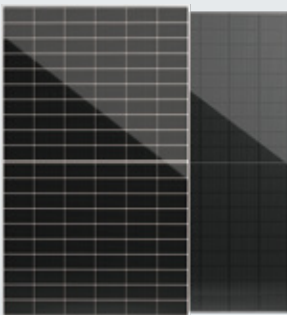
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210mm solar cell
520-545W



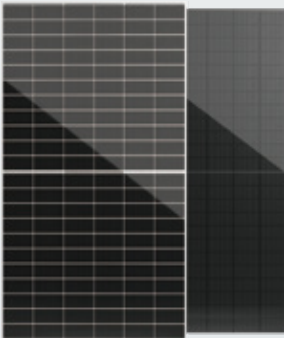
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210mm solar cell
580-605W



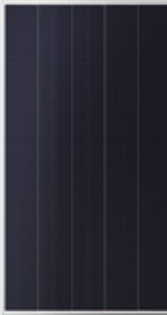
P¹⁹

210mm solar cell
640-665W



P²¹

Shingled PV Module
405-670W



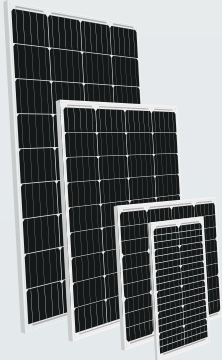
P²²

Bifacial PV Module
360-550W



P²³

Customized Size
10-360W

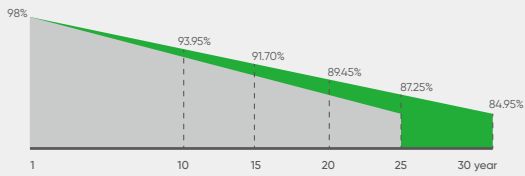


SunMaster 3

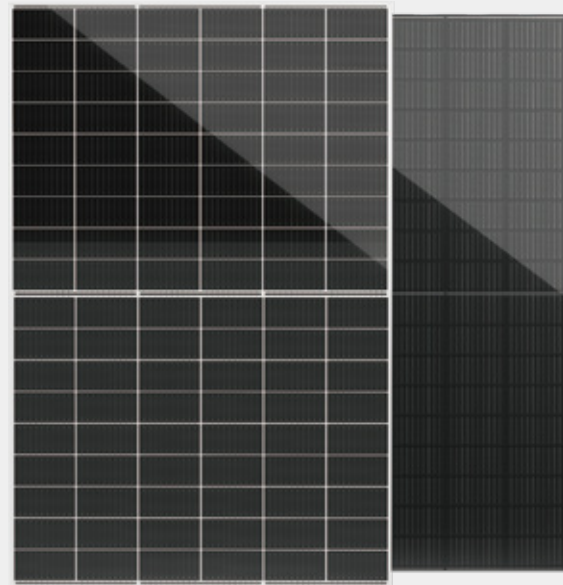
SM300-345W(108)

166mm Cells Mono
PERC with MBB & Half-cut
Technology

Quality Guarantee



▶ Sunmaster solar linear power output guarantee
▶ Standard linear power output guarantee



Standard

All Black

300-345W **-0.55%** **30years**
power attenuation Power warranty

Comprehensive Products and System Certificates



IEC 61215 / IEC 61730 / CE / INMETRO

ISO 9001-

2015/Quality management system

ISO 14001-

2015/Standards for environmental management system

ISO 45001-

2018/International standards for occupational health & safety

Key Features

- Optimal Process Design**
166mm+9BB+Half-cut, higher power output
- Select Grade A Crystalline Silicon Solar Cells**
Grade A crystalline silicon solar cells make high-power output with cost-effective
- Stable Generation Performance**
Power attenuation: first year ≤2%, 0.55% per year from 2-25
- Process Upgraded**
PID Resistant
Lower risk of hot spot and stronger anti-PID ability
- Higher Power Gains and Lower Losses**
Excellent low irradiance performance and low shadow loss
- Strong Environmental Adaptability and Great Durability**
Certified by Dust-Sand, Salt-Mist, Ammonia etc. weather resistance tests and enhanced mechanical load: wind load (2400 Pa) and snow load (5400 Pa)

Mechanical Characteristic

Cell type	Monocrystalline PERC 166*83mm
Number of cells	108(6x18)
Module dimensions	1590x1038x35mm (62.60x40.87x1.38inches)
Weight	16.5kg (36.63lbs)
Front cover	3.2mm(0.13inches) tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction box	≥IP68 & UL
Cable	4mm ² (0.006inches ²), Portrait: 300mm (11.8inches); Landscape: 1200mm (47.24inches)
Connector	MC4 or MC4 compatible

Temperature Characteristics

Nominal Operating Cell Temperature (NOCT)	43°C±2°C
Temperature Coefficients of Pmax	-0.36% / °C
Temperature Coefficients of Voc	-0.28% / °C
Temperature Coefficients of Isc	0.05% / °C

Packaging

Standard packaging	31pcs/pallet
Module quantity per 20' container	186pcs
Module quantity per 40' container	868pcs(HQ)

Electrical Characteristics at STC

Maximum Power (Pmax)	300W	305W	310W	315W	320W	325W	330W	335W	340W	345W
Open Circuit Voltage (Voc)	34.26V	34.47V	34.68V	34.87V	35.06V	35.25V	35.44V	35.63V	35.82V	36.01V
Short Circuit Current (Isc)	10.37A	10.44A	10.51A	10.57A	10.64A	10.71A	10.78A	10.85A	10.92A	10.99A
Voltage at Maximum Power (Vmp)	30.23V	30.44V	30.64V	30.85V	31.05V	31.26V	31.46V	31.67V	31.87V	32.08V
Current at Maximum Power (Imp)	9.93A	10.02A	10.12A	10.22A	10.32A	10.41A	10.51A	10.60A	10.70A	10.79A
Module Efficiency(%)	19.17	19.34	19.51	19.68	19.85	20.02	20.19	20.36	20.53	20.70

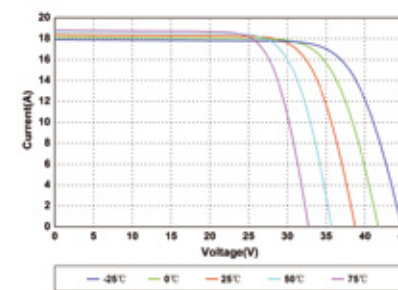
Operating Temperature	-40°C to +85°C
Maximum System Voltage	1000V DC/1500V DC
Fire Resistance Rating	Type 1(in accordance with UL1703)/Class C(IEC61730)
Maximum Series Fuse Rating	25A
STC Irradiance 1000W/m ² , Cell temperature 25°C, AM1.5; Tolerance of Pmax ±3%; Measurement Tolerance ±3%	

Electrical Characteristics at NOCT

Maximum Power (Pmax)	225W	228W	231W	234W	237W	240W	243W	246W	249W	252W
Open Circuit Voltage (Voc)	33.2V	33.4V	33.6V	33.8V	34.0V	34.2V	34.4V	34.6V	34.8V	35.0V
Short Circuit Current (Isc)	8.49A	8.54A	8.59A	8.64A	8.69A	8.74A	8.79A	8.84A	8.89A	8.94A
Voltage at Maximum Power (Vmp)	27.51V	27.72V	27.91V	28.12V	28.38V	28.64V	28.90V	29.16V	29.42V	29.68V
Current at Maximum Power (Imp)	8.18A	8.23A	8.28A	8.32A	8.37A	8.42A	8.46A	8.51A	8.56A	8.60A

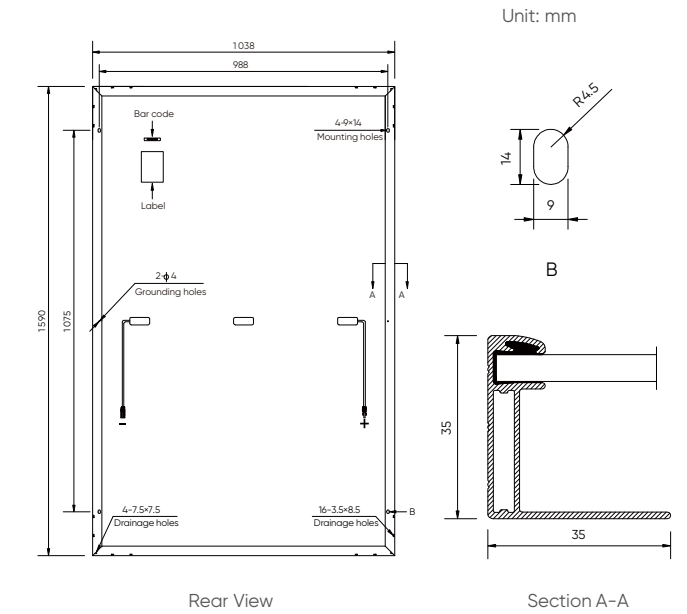
NOCT: Irradiance 800W/m², Ambient temperature 20°C, Wind Speed 1m/s

IV Curves



Current-Voltage and Power-Voltage Curves at Different Irradiances

Engineering Drawings



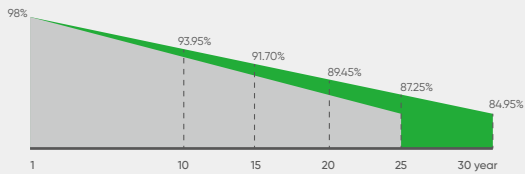
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SunMaster 3M

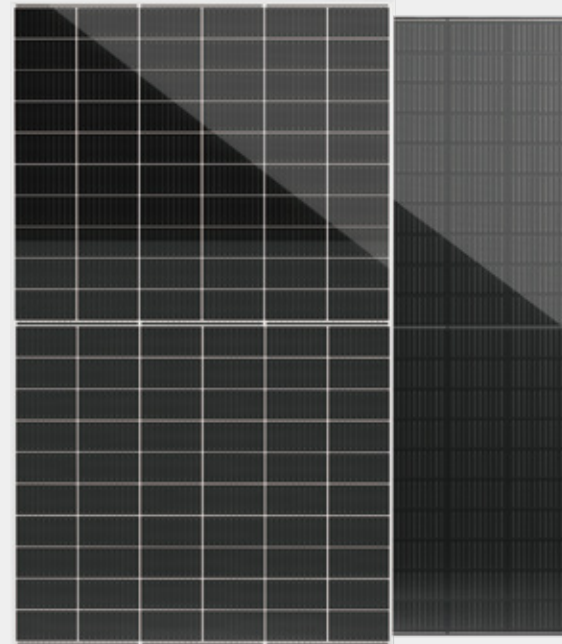
SM350-385W(120)

166mm Cells Mono
PERC with MBB & Half-cut
Technology

Quality Guarantee



▲ Sunmaster solar linear power output guarantee
▬ Standard linear power output guarantee



Standard

All Black

350-385W **-0.55%** **30years**
power attenuation Power warranty

Comprehensive Products and System Certificates



IEC 61215 / IEC 61730 / CE / INMETRO

ISO 9001-

2015/Quality management system

ISO 14001-

2015/Standards for environmental management system

ISO 45001-

2018/International standards for occupational health & safety

Key Features

- Optimal Process Design**
166mm+9BB+Half-cut, higher power output
- Select Grade A Crystalline Silicon Solar Cells**
Grade A crystalline silicon solar cells make high-power output with cost-effective
- Stable Generation Performance**
Power attenuation: first year ≤2%, 0.55% per year from 2-25
- Process Upgraded**
PID Resistant
Lower risk of hot spot and stronger anti-PID ability
- Higher Power Gains and Lower Losses**
Excellent low irradiance performance and low shadow loss
- Strong Environmental Adaptability and Great Durability**
Certified by Dust-Sand, Salt-Mist, Ammonia etc. weather resistance tests and enhanced mechanical load: wind load (2400 Pa) and snow load (5400 Pa)

Mechanical Characteristic

Cell type	Monocrystalline PERC 166*83mm
Number of cells	120(6x20)
Module dimensions	1756x1039x35mm (69.13x40.91 x1.38inches)
Weight	18.5kg (41.07bs)
Front cover	3.2mm(0.13inches) tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction box	≥IP68 & UL
Cable	4mm ² (0.006inches ²), Portrait: 300mm (11.81inches); Landscape: 1200mm (47.24inches)
Connector	MC4 or MC4 compatible

Temperature Characteristics

Nominal Operating Cell Temperature (NOCT)	43°C±2°C
Temperature Coefficients of Pmax	-0.36% /°C
Temperature Coefficients of Voc	-0.28% /°C
Temperature Coefficients of Isc	0.25% /°C

Packaging

Standard packaging	31pcs/pallet
Module quantity per 20'container	186pcs
Module quantity per 40'container	806pcs(HQ)

Electrical Characteristics at STC

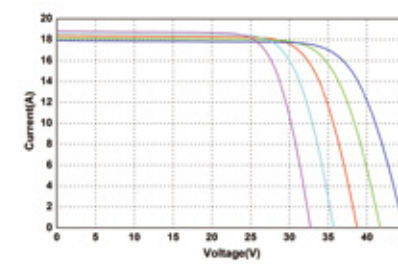
	350W	355W	360W	365W	370W	375W	380W	385W
Maximum Power (Pmax)	350W	355W	360W	365W	370W	375W	380W	385W
Open Circuit Voltage (Voc)	40.8V	41.0V	41.2V	41.4V	41.6V	41.8V	42.0V	42.2V
Short Circuit Current (Isc)	11.02A	11.09A	11.16A	11.23A	11.3A	11.37A	11.44A	11.51A
Voltage at Maximum Power (Vmp)	33.8V	34.0V	34.2V	34.3V	34.6V	34.8V	35.0V	35.2V
Current at Maximum Power (Imp)	10.36A	10.45A	10.53A	10.62A	10.70A	10.78A	10.86A	10.94A
Module Efficiency(%)	19.18	19.46	19.73	20.01	20.28	20.55	20.83	21.10
Operating Temperature	-40°C to +85°C							
Maximum System Voltage	1000V DC/1500V DC							
Fire Resistance Rating	Type 1(in accordance with UL1703)/Class C(IEC61730)							
Maximum Series Fuse Rating	25A							
STC Irradiance 1000W/m ² , Cell temperature 25°C, AM1.5; Tolerance of Pmax ±3%; Measurement Tolerance ±3%								

Electrical Characteristics at NOCT

	259W	263W	267W	271W	275W	279W	283W	287W
Maximum Power (Pmax)	259W	263W	267W	271W	275W	279W	283W	287W
Open Circuit Voltage (Voc)	37.4V	37.6V	37.8V	38.0V	38.2V	38.4V	38.6V	38.8V
Short Circuit Current (Isc)	8.91A	8.97A	9.03A	9.09A	9.15A	9.21A	9.27A	9.33A
Voltage at Maximum Power (Vmp)	30.8V	31.0V	31.2V	31.4V	31.6V	31.8V	32.0V	32.2V
Current at Maximum Power (Imp)	8.41A	8.49A	8.56A	8.64A	8.71A	8.78A	8.85A	8.92A

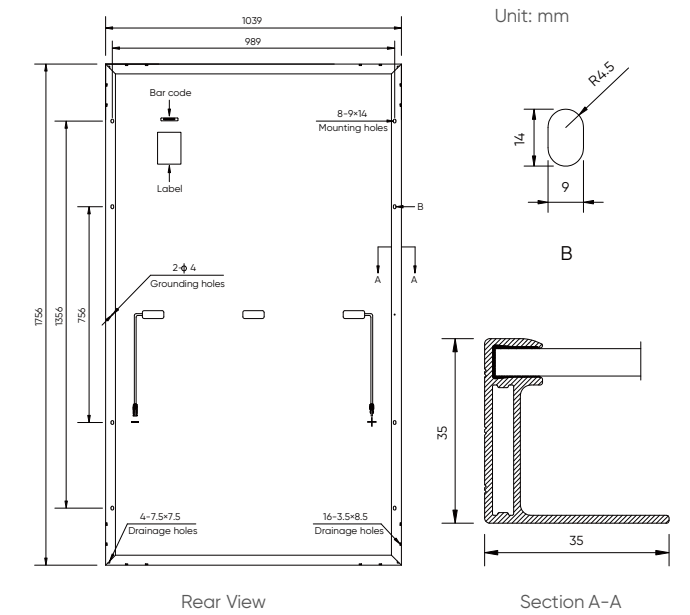
NOCT: Irradiance 800W/m², Ambient temperature 20°C, Wind Speed 1m/s

IV Curves



Current-Voltage and Power-Voltage Curves at Different Irradiances

Engineering Drawings



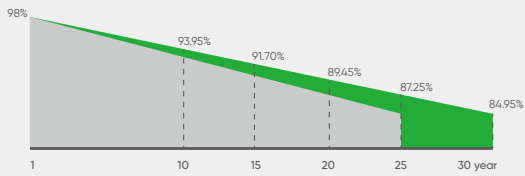
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SunMaster 4L

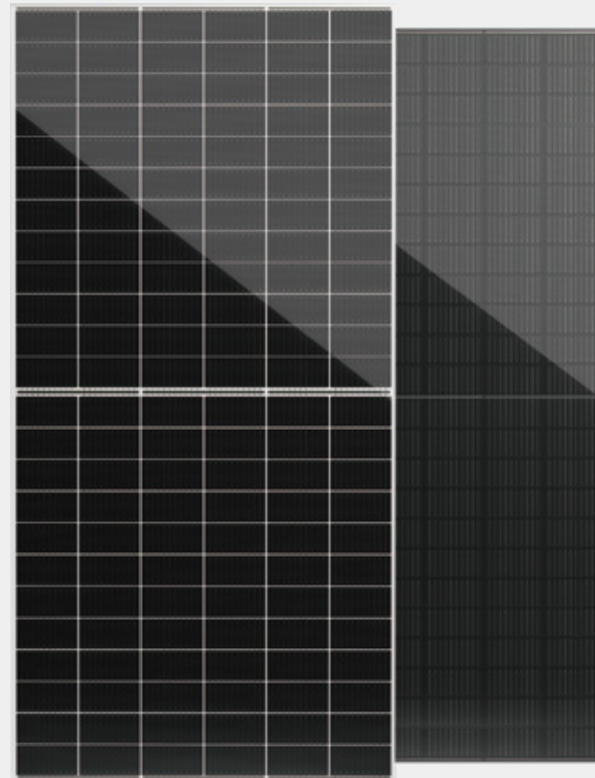
SM435-465W(144)

166mm Cells Mono
PERC with MBB & Half-cut
Technology

Quality Guarantee



▶ Sunmaster solar linear power output guarantee
▶ Standard linear power output guarantee



Standard

All Black

435-465W

-0.55%
power attenuation

30years
Power warranty

Comprehensive Products and System Certificates



IEC 61215 / IEC 61730 / CE / INMETRO

ISO 9001-

2015/Quality management system

ISO 14001-

2015/Standards for environmental management system

ISO 45001-

2018/International standards for occupational health & safety

Key Features

- Optimal Process Design**
166mm+9BB+Half-cut, higher power output
- Select Grade A Crystalline Silicon Solar Cells**
Grade A crystalline silicon solar cells make high-power output with cost-effective
- Stable Generation Performance**
Power attenuation: first year ≤2%, 0.55% per year from 2-25
- Process Upgraded**
PID Resistant
Lower risk of hot spot and stronger anti-PID ability
- Higher Power Gains and Lower Losses**
Excellent low irradiance performance and low shadow loss
- Strong Environmental Adaptability and Great Durability**
Certified by Dust-Sand, Salt-Mist, Ammonia etc. weather resistance tests and enhanced mechanical load: wind load (2400 Pa) and snow load (5400 Pa)

Mechanical Characteristic

Cell type	Monocrystalline PERC 166*83mm
Number of cells	144(6x24)
Module dimensions	2102x1039x35mm (82.76x40.94x1.38inches)
Weight	22kg (48.84lbs)
Front cover	3.2mm(0.13inches) tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction box	≥IP68 & UL
Cable	4mm ² (0.006inches ²), Portrait: 300mm (11.81inches); Landscape: 1200mm (47.24inches)
Connector	MC4 or MC4 compatible

Temperature Characteristics

Nominal Operating Cell Temperature (NOCT)	43°C±2°C
Temperature Coefficients of Pmax	-0.36% /°C
Temperature Coefficients of Voc	-0.28% /°C
Temperature Coefficients of Isc	0.25% /°C

Packaging

Standard packaging	31pcs/pallet
Module quantity per 20' container	155pcs
Module quantity per 40' container	682pcs(HQ)

Electrical Characteristics at STC

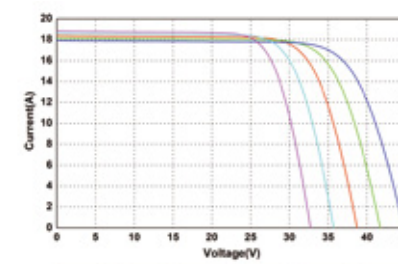
Maximum Power (Pmax)	435W	440W	445W	450W	455W	460W	465W
Open Circuit Voltage (Voc)	49.6V	49.8V	50.0V	50.2V	50.4V	50.6V	50.8V
Short Circuit Current (Isc)	11.10A	11.16A	11.22A	11.28A	11.34A	11.40A	11.46A
Voltage at Maximum Power (Vmp)	41.2V	41.4V	41.6V	41.8V	42.0V	42.2V	42.4V
Current at Maximum Power (Imp)	10.56A	10.63A	10.70A	10.77A	10.84A	10.91A	10.97A
Module Efficiency(%)	19.9	20.13	20.36	20.58	20.81	21.04	21.27
Operating Temperature	-40°C to +85°C						
Maximum System Voltage	1000V DC/1500V DC						
Fire Resistance Rating	Type 1(in accordance with UL1703)/Class C(IEC61730)						
Maximum Series Fuse Rating	20A						
STC Irradiance 1000W/m ² , Cell temperature 25°C, AM1.5; Tolerance of Pmax ±3%; Measurement Tolerance ±3%							

Electrical Characteristics at NOCT

Maximum Power (Pmax)	323W	327W	331W	335W	339W	343W	347W
Open Circuit Voltage (Voc)	45.6V	45.8V	46.0V	46.2V	46.4V	46.6V	46.8V
Short Circuit Current (Isc)	8.99A	9.04A	9.09A	9.14A	9.19A	9.24A	9.29A
Voltage at Maximum Power (Vmp)	37.4V	37.6V	37.8V	38.0V	38.2V	38.4V	38.6V
Current at Maximum Power (Imp)	8.64A	8.70A	8.76A	8.82A	8.88A	8.94A	8.99A

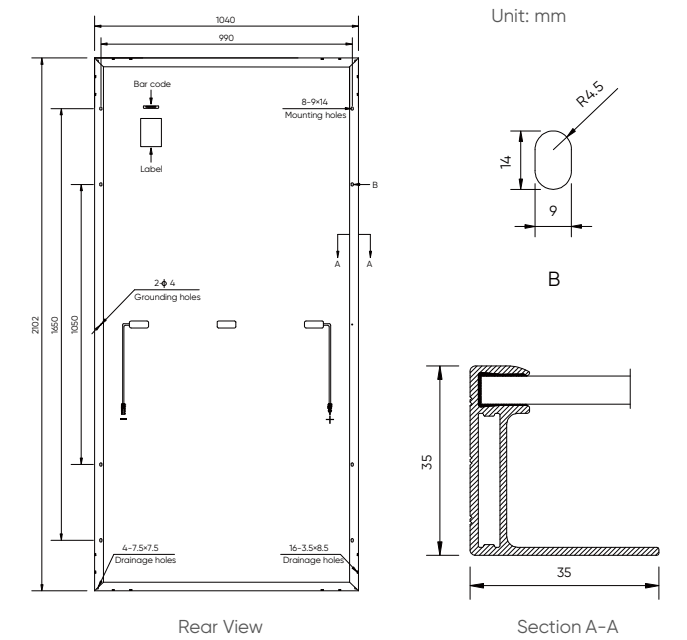
NOCT: Irradiance 800W/m², Ambient temperature 20°C, Wind Speed 1m/s

IV Curves

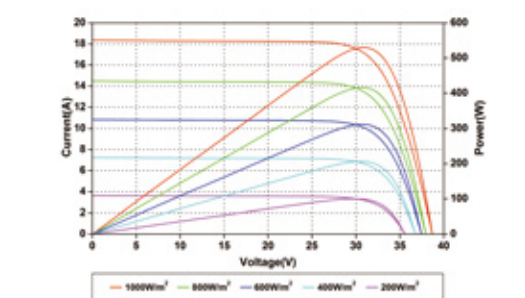


Current-Voltage and Power-Voltage Curves at Different Irradiances

Engineering Drawings



Specifications in this datasheet are subject to change without prior notice.



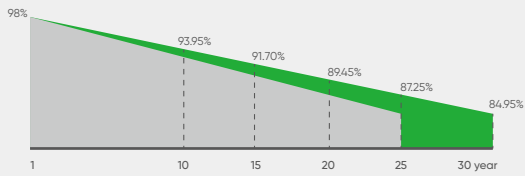
Current-Voltage Curves at Different Temperatures

SunMaster 4

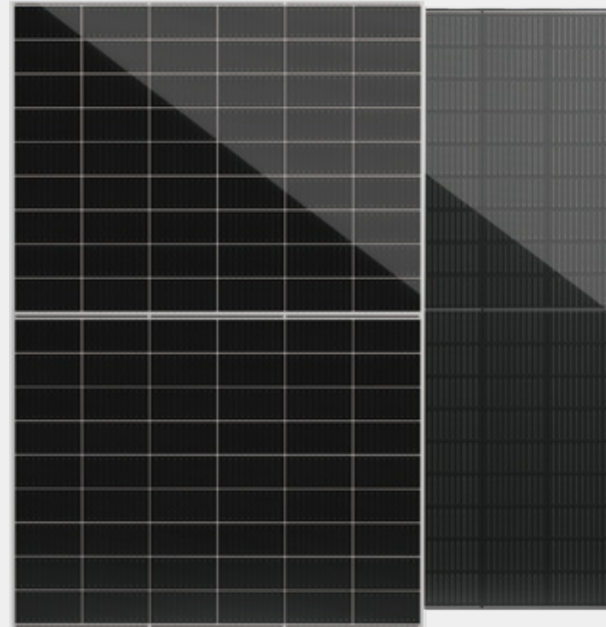
SM400-415W(108)

182mm Cells Mono
PERC with MBB & Half-cut
Technology

Quality Guarantee



▶ Sunmaster solar linear power output guarantee
▶ Standard linear power output guarantee



Standard

All Black

400-415W

-0.55%
power attenuation

30years
Power warranty

Comprehensive Products and System Certificates



IEC 61215 / IEC 61730 / CE / INMETRO

ISO 9001-

2015/Quality management system

ISO 14001-

2015/Standards for environmental management system

ISO 45001-

2018/International standards for occupational health & safety

Key Features

- Optimal Process Design**
166mm+9BB+Half-cut, higher power output
- Select Grade A Crystalline Silicon Solar Cells**
Grade A crystalline silicon solar cells make high-power output with cost-effective
- Stable Generation Performance**
Power attenuation: first year ≤2%, 0.55% per year from 2-25
- Process Upgraded**
PID Resistant
Lower risk of hot spot and stronger anti-PID ability
- Higher Power Gains and Lower Losses**
Excellent low irradiance performance and low shadow loss
- Strong Environmental Adaptability and Great Durability**
Certified by Dust-Sand, Salt-Mist, Ammonia etc. weather resistance tests and enhanced mechanical load: wind load (2400 Pa) and snow load (5400 Pa)

Mechanical Characteristic

Cell type	Monocrystalline PERC 182*91mm
Number of cells	108(6x18)
Module dimensions	1722x1134x35mm (67.80x44.65x1.38inches)
Weight	20.0kg (44.4lbs)
Front cover	3.2mm(0.13inches) tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction box	≥IP68 & UL
Cable	4mm ² (0.006inches ²), Portrait: 300mm (11.8inches); Landscape: 1200mm (47.24inches)
Connector	MC4 or MC4 compatible

Temperature Characteristics

Nominal Operating Cell Temperature (NOCT)	43°C±2°C
Temperature Coefficients of Pmax	-0.36% / °C
Temperature Coefficients of Voc	-0.28% / °C
Temperature Coefficients of Isc	0.05% / °C

Packaging

Standard packaging	31pcs/pallet
Module quantity per 20'container	186pcs
Module quantity per 40'container	806pcs(HQ)

Electrical Characteristics at STC

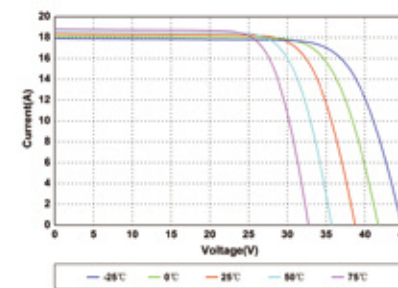
Maximum Power (Pmax)	400W	405W	410W	415W
Open Circuit Voltage (Voc)	37.2V	37.4V	37.6V	37.8V
Short Circuit Current (Isc)	13.7A	13.76A	13.82A	13.88A
Voltage at Maximum Power (Vmp)	31.0V	31.2V	31.4V	31.6V
Current at Maximum Power (Imp)	12.91A	12.99A	13.06A	13.14A
Module Efficiency(%)	20.49	20.74	21.00	21.25
Operating Temperature	-40°C to +85°C			
Maximum System Voltage	1000V DC/1500V DC			
Fire Resistance Rating	Type 1(in accordance with UL1703)/Class C(IEC61730)			
Maximum Series Fuse Rating	25A			
STC Irradiance 1000W/m ² , Cell temperature 25°C, AM1.5; Tolerance of Pmax ±3%; Measurement Tolerance ±3%				

Electrical Characteristics at NOCT

Maximum Power (Pmax)	300W	304W	308W	312W
Open Circuit Voltage (Voc)	34.2V	34.4V	34.6V	34.8V
Short Circuit Current (Isc)	11.10A	11.15A	11.2A	11.25A
Voltage at Maximum Power (Vmp)	28.2V	28.4V	28.6V	28.8V
Current at Maximum Power (Imp)	10.64A	10.71A	10.77A	10.84A

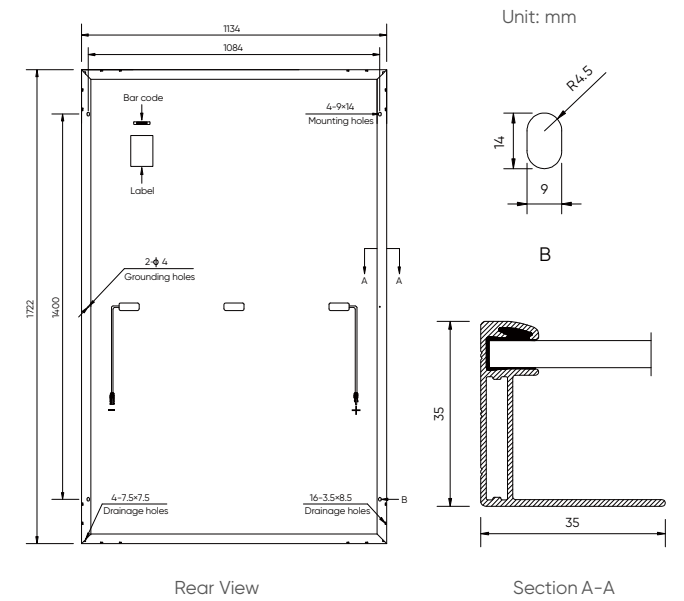
NOCT: Irradiance 800W/m², Ambient temperature 20°C, Wind Speed 1m/s

IV Curves



Current-Voltage and Power-Voltage Curves at Different Irradiances

Engineering Drawings



Rear View

Section A-A

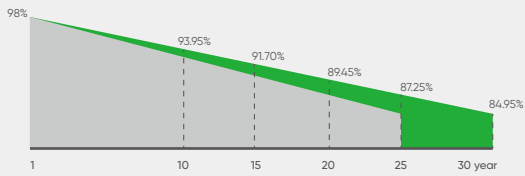
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SunMaster 4M

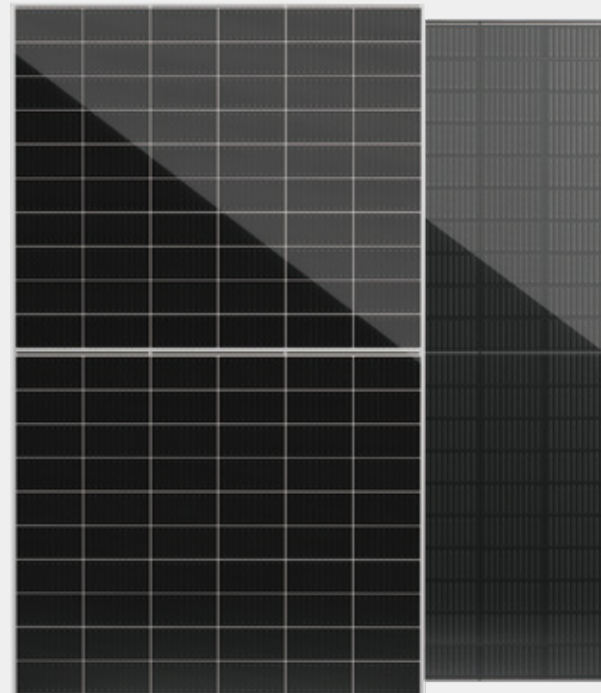
SM450-465W(120)

182mm Cells Mono PERC with MBB & Half-cut Technology

Quality Guarantee



▶ Sunmaster solar linear power output guarantee
 ▶ Standard linear power output guarantee



Standard

All Black

450-465W **-0.55%** **30years**
 power attenuation Power warranty

Comprehensive Products and System Certificates



IEC 61215 / IEC 61730 / CE / INMETRO

ISO 9001-

2015/Quality management system

ISO 14001-

2015/Standards for environmental management system

ISO 45001-

2018/International standards for occupational health & safety

Key Features

- Optimal Process Design**
166mm*9BB+Half-cut, higher power output
- Select Grade A Crystalline Silicon Solar Cells**
Grade A crystalline silicon solar cells make high-power output with cost-effective
- Stable Generation Performance**
Power attenuation: first year ≤2%, 0.55% per year from 2-25
- Process Upgraded**
PID Resistant: Lower risk of hot spot and stronger anti-PID ability
- Higher Power Gains and Lower Losses**
Excellent low irradiance performance and low shadow loss
- Strong Environmental Adaptability and Great Durability**
Certified by Dust-Sand, Salt-Mist, Ammonia etc. weather resistance tests and enhanced mechanical load: wind load (2400 Pa) and snow load (5400 Pa)

Mechanical Characteristic

Cell type	Monocrystalline PERC 182*91mm
Number of cells	120(6x20)
Module dimensions	1908x1134x35mm (75.12x44.65x1.38inches)
Weight	22kg (48.84lbs)
Front cover	3.2mm(0.13inches) tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction box	≥IP68 & UL
Cable	4mm ² (0.006inches ²), Portrait: 300mm (11.8inches); Landscape: 1200mm (47.24inches)
Connector	MC4 or MC4 compatible

Temperature Characteristics

Nominal Operating Cell Temperature (NOCT)	43°C±2°C
Temperature Coefficients of Pmax	-0.36% /°C
Temperature Coefficients of Voc	-0.28% /°C
Temperature Coefficients of Isc	0.05% /°C

Packaging

Standard packaging	31pcs/pallet
Module quantity per 20' container	186pcs
Module quantity per 40' container	744pcs(HQ)

Electrical Characteristics at STC

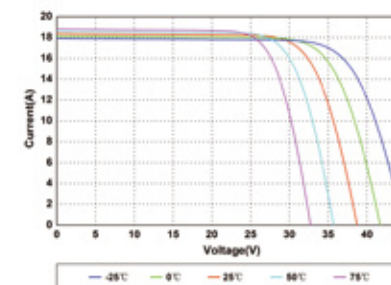
Maximum Power (Pmax)	450W	455W	460W	465W
Open Circuit Voltage (Voc)	41.4V	41.6V	41.8V	42V
Short Circuit Current (Isc)	13.80A	13.85A	13.90A	13.95A
Voltage at Maximum Power (Vmp)	34.6V	34.8V	35.0V	35.2V
Current at Maximum Power (Imp)	13.01A	13.08A	13.15A	13.22A
Module Efficiency(%)	20.57	21.08	21.03	21.26
Operating Temperature	-40°C to +85°C			
Maximum System Voltage	1000V DC/1500V DC			
Fire Resistance Rating	Type 1(in accordance with UL1703)/Class C(IEC61730)			
Maximum Series Fuse Rating	25A			
STC Irradiance 1000W/m ² , Cell temperature 25°C, AM1.5; Tolerance of Pmax ±3%; Measurement Tolerance ±3%				

Electrical Characteristics at NOCT

Maximum Power (Pmax)	336W	340W	344W	348W
Open Circuit Voltage (Voc)	38.2V	38.4V	38.6V	38.8V
Short Circuit Current (Isc)	11.18A	11.22A	11.26A	11.33A
Voltage at Maximum Power (Vmp)	31.5V	31.7V	31.9V	32.1V
Current at Maximum Power (Imp)	10.67A	10.73A	10.79A	10.85A

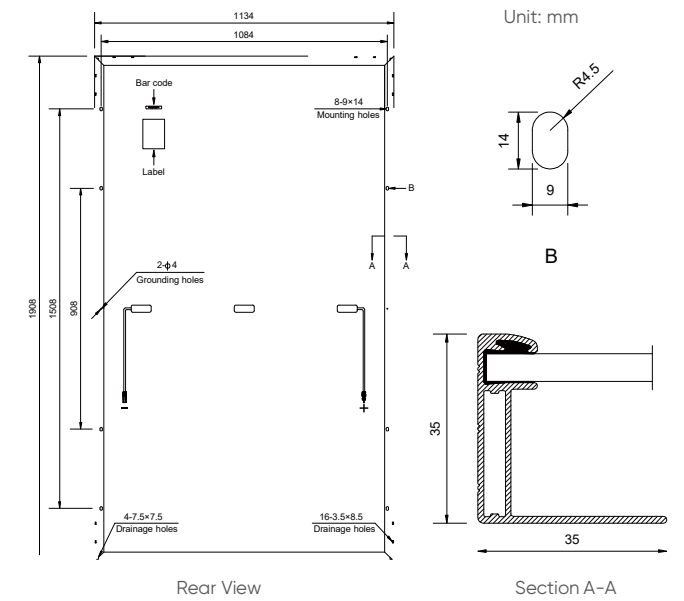
NOCT: Irradiance 800W/m², Ambient temperature 20°C, Wind Speed 1m/s

IV Curves



Current-Voltage and Power-Voltage Curves at Different Irradiances

Engineering Drawings



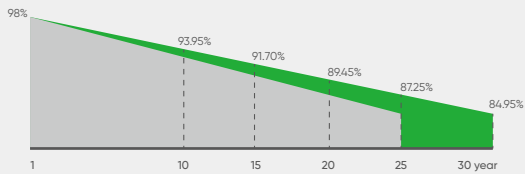
Specifications in this datasheet are subject to change without prior notice.

SunMaster 5L

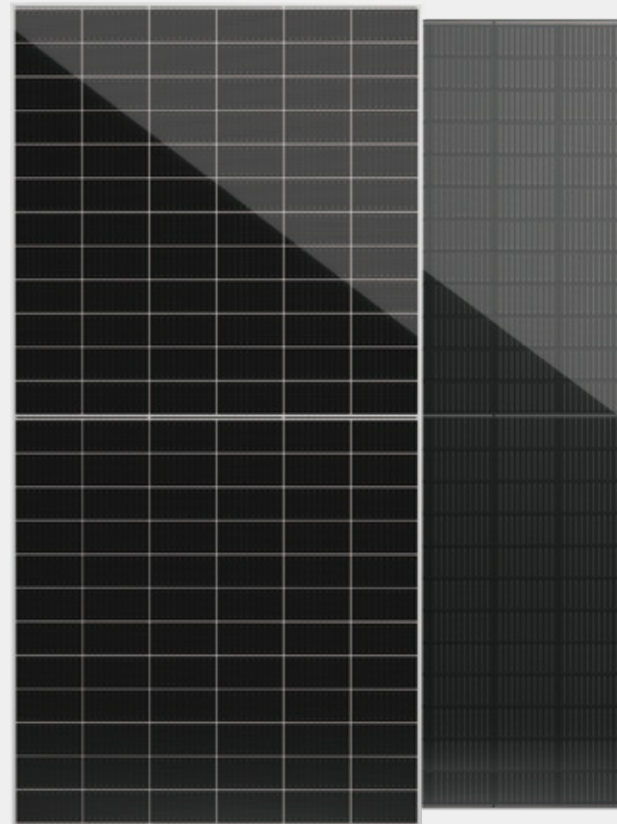
SM525-550W(144)

182mm Cells Mono
PERC with MBB & Half-cut
Technology

Quality Guarantee



▶ Sunmaster solar linear power output guarantee
▶ Standard linear power output guarantee



Standard

All Black

525-550W

-0.55%
power attenuation

30years
Power warranty

Comprehensive Products and System Certificates



IEC 61215 / IEC 61730 / CE / INMETRO

ISO 9001-

2015/Quality management system

ISO 14001-

2015/Standards for environmental management system

ISO 45001-

2018/International standards for occupational health & safety

Key Features

- Optimal Process Design**
166mm+9BB+Half-cut, higher power output
- Select Grade A Crystalline Silicon Solar Cells**
Grade A crystalline silicon solar cells make high-power output with cost-effective
- Stable Generation Performance**
Power attenuation: first year ≤2%, 0.55% per year from 2-25
- Process Upgraded**
PID Resistant
Lower risk of hot spot and stronger anti-PID ability
- Higher Power Gains and Lower Losses**
Excellent low irradiance performance and low shadow loss
- Strong Environmental Adaptability and Great Durability**
Certified by Dust-Sand, Salt-Mist, Ammonia etc. weather resistance tests and enhanced mechanical load: wind load (2400 Pa) and snow load (5400 Pa)

Mechanical Characteristic

Cell type	Monocrystalline PERC 182*91mm
Number of cells	144(6x24)
Module dimensions	2279x1134x35mm (89.72x44.65x1.38inches)
Weight	26kg (57.72lbs)
Front cover	3.2mm(0.13inches) tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction box	≥IP68 & UL
Cable	4mm ² (0.006inches ²), Portrait: 300mm (11.8inches); Landscape: 1300mm (51.18inches)
Connector	MC4 or MC4 compatible

Temperature Characteristics

Nominal Operating Cell Temperature (NOCT)	43°C±2°C
Temperature Coefficients of Pmax	-0.36% /°C
Temperature Coefficients of Voc	-0.28% /°C
Temperature Coefficients of Isc	0.05% /°C

Packaging

Standard packaging	31pcs/pallet
Module quantity per 20' container	155pcs
Module quantity per 40' container	620pcs(HQ)

Electrical Characteristics at STC

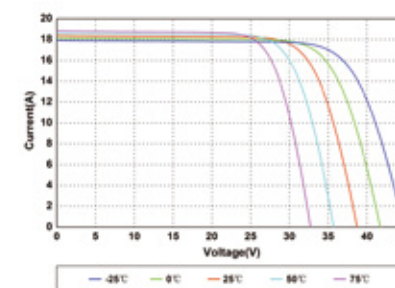
Maximum Power (Pmax)	525W	530W	535W	540W	545W	550W
Open Circuit Voltage (Voc)	49.0V	49.2V	49.4V	49.6V	49.8V	50.0V
Short Circuit Current (Isc)	13.74A	13.78A	13.82A	13.86A	13.90A	13.94A
Voltage at Maximum Power (Vmp)	40.8V	41.0V	41.2V	41.4V	41.6V	41.8V
Current at Maximum Power (Imp)	12.88A	12.93A	12.99A	13.05A	13.11A	13.16A
Module Efficiency(%)	20.31	20.51	20.7	20.89	21.09	21.28
Operating Temperature	-40°C to +85°C					
Maximum System Voltage	1000V DC/1500V DC					
Fire Resistance Rating	Type 1(in accordance with UL1703)/Class C(IEC61730)					
Maximum Series Fuse Rating	25A					
STC Irradiance 1000W/m ² , Cell temperature 25°C, AM1.5; Tolerance of Pmax ±3%; Measurement Tolerance ±3%						

Electrical Characteristics at NOCT

Maximum Power (Pmax)	391W	395W	399W	403W	407W	411W
Open Circuit Voltage (Voc)	45.1V	45.3V	45.5V	45.7V	45.9V	46.1V
Short Circuit Current (Isc)	11.13A	11.16A	11.19A	11.22A	11.25A	11.28A
Voltage at Maximum Power (Vmp)	37.1V	37.3V	37.5V	37.7V	37.9V	38.1V
Current at Maximum Power (Imp)	10.54A	10.59A	10.64A	10.69A	10.74A	10.79A

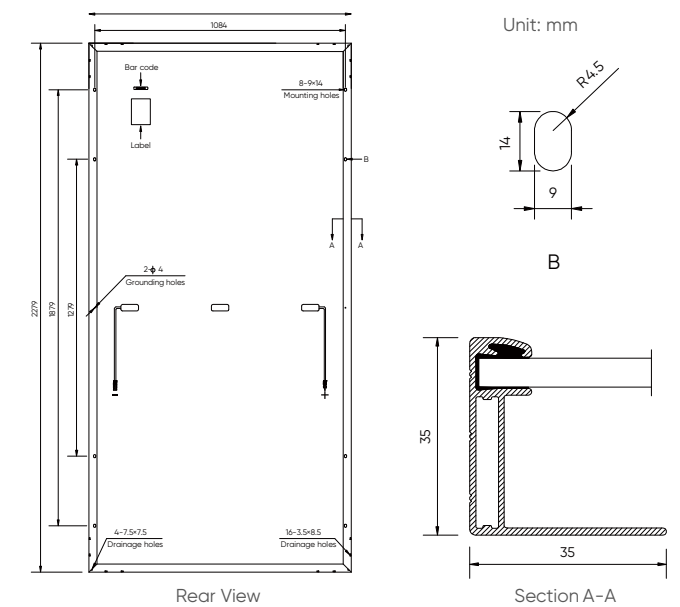
NOCT: Irradiance 800W/m², Ambient temperature 20°C, Wind Speed 1m/s

IV Curves

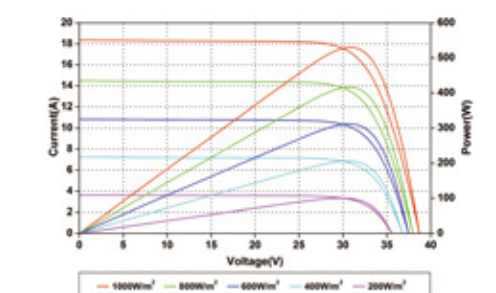


Current-Voltage and Power-Voltage Curves at Different Irradiances

Engineering Drawings



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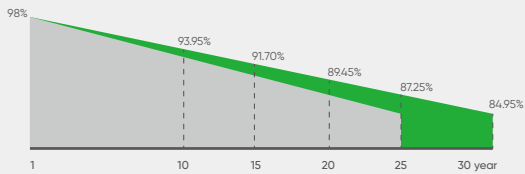
Current-Voltage Curves at Different Temperatures

SunMaster 5

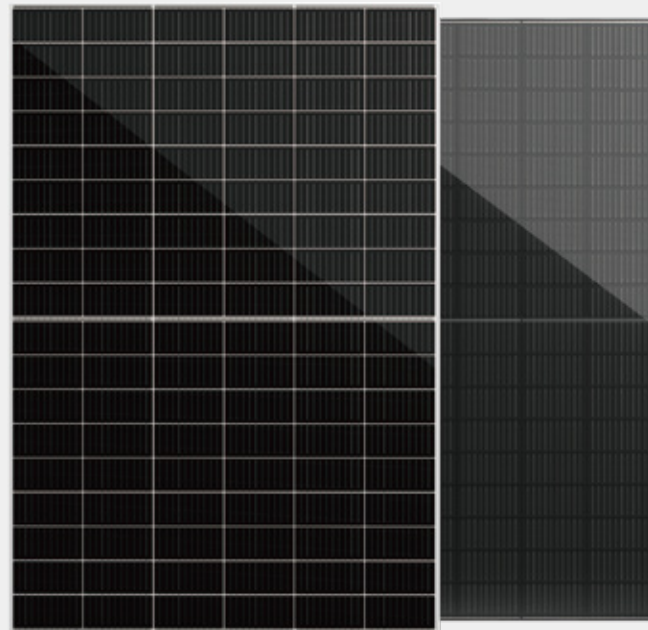
SM520-545W(108)

210mm Cells Mono
PERC with MBB & Half-cut
Technology

Quality Guarantee



▶ Sunmaster solar linear power output guarantee
▶ Standard linear power output guarantee



Standard

All Black

520-545W **-0.55%** **30years**
power attenuation Power warranty

Comprehensive Products and System Certificates



IEC 61215 / IEC 61730 / CE / INMETRO

ISO 9001-

2015/Quality management system

ISO 14001-

2015/Standards for environmental management system

ISO 45001-

2018/International standards for occupational health & safety

Key Features

- Optimal Process Design**
166mm+9BB+Half-cut, higher power output
- Select Grade A Crystalline Silicon Solar Cells**
Grade A crystalline silicon solar cells make high-power output with cost-effective
- Stable Generation Performance**
Power attenuation: first year ≤2%, 0.55% per year from 2-25
- Process Upgraded**
PID Resistant
Lower risk of hot spot and stronger anti-PID ability
- Higher Power Gains and Lower Losses**
Excellent low irradiance performance and low shadow loss
- Strong Environmental Adaptability and Great Durability**
Certified by Dust-Sand, Salt-Mist, Ammonia etc. weather resistance tests and enhanced mechanical load: wind load (2400 Pa) and snow load (5400 Pa)

Mechanical Characteristic

Cell type	Monocrystalline PERC 210*105mm
Number of cells	108 (6*18)
Module dimensions	1960x1303x35mm (77.17x51.30x1.38inches)
Weight	26kg (57.72lbs)
Front cover	3.2mm(0.13inches) tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction box	≥IP68 & UL
Cable	4mm ² (0.006inches ²), Portrait: 300mm (11.8inches); Landscape: 1200mm (47.24inches)
Connector	MC4 or MC4 compatible

Temperature Characteristics

Nominal Operating Cell Temperature (NOCT)	43°C±2°C
Temperature Coefficients of Pmax	-0.36% /°C
Temperature Coefficients of Voc	-0.28% /°C
Temperature Coefficients of Isc	0.05% /°C

Packaging

Standard packaging	31pcs/pallet
Module quantity per 20' container	248pcs
Module quantity per 40' container	527pcs(HQ)

Electrical Characteristics at STC

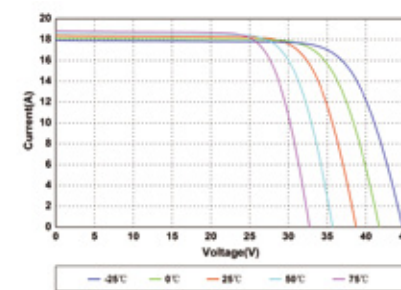
Maximum Power (Pmax)	520W	525W	530W	535W	540W	545W
Open Circuit Voltage (Voc)	36.9V	37.1V	37.3V	37.5V	37.7V	37.9V
Short Circuit Current (Isc)	18.2A	18.25A	18.30A	18.35A	18.40A	18.45A
Voltage at Maximum Power (Vmp)	30.5V	30.7V	30.9V	31.1V	31.3V	31.5V
Current at Maximum Power (Imp)	17.05A	17.11A	17.16A	17.21A	17.26A	17.31A
Module Efficiency(%)	20.36	20.56	20.75	20.95	21.14	21.34
Operating Temperature	-40°C to +85°C					
Maximum System Voltage	1000V DC/1500V DC					
Fire Resistance Rating	Type 1(in accordance with UL1703)/Class C(IEC61730)					
Maximum Series Fuse Rating	30A					
STC Irradiance 1000W/m ² , Cell temperature 25°C, AM1.5; Tolerance of Pmax ±3%; Measurement Tolerance ±3%						

Electrical Characteristics at NOCT

Maximum Power (Pmax)	390W	394W	398W	402W	406W	410W
Open Circuit Voltage (Voc)	34.0V	34.2V	34.4V	34.6V	34.8V	35.0V
Short Circuit Current (Isc)	14.75A	14.79A	14.83A	14.87A	14.91A	14.95A
Voltage at Maximum Power (Vmp)	27.8V	28.0V	28.2V	28.4V	28.6V	28.8V
Current at Maximum Power (Imp)	14.03A	14.08A	14.12A	14.16A	14.20A	14.24A

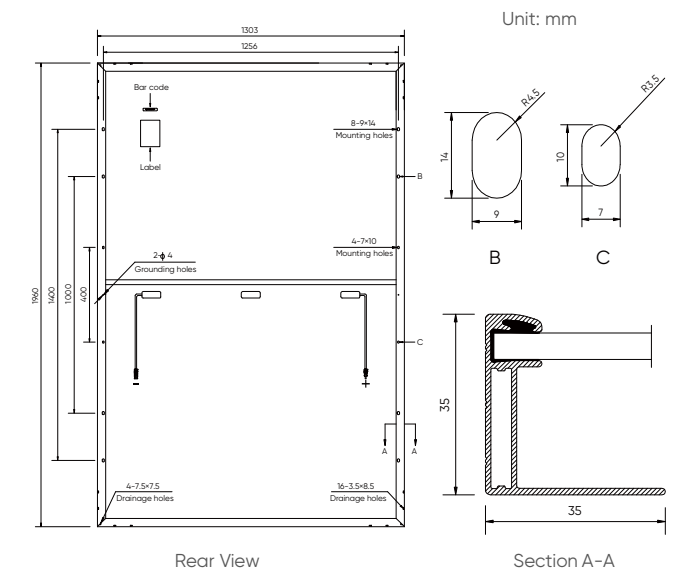
NOCT: Irradiance 800W/m², Ambient temperature 20°C, Wind Speed 1m/s

IV Curves

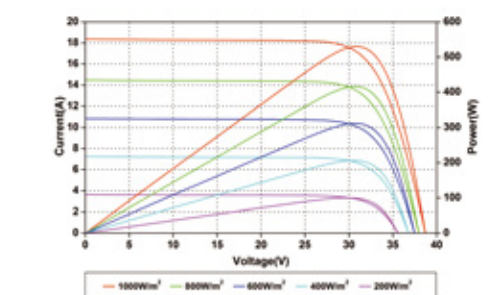


Current-Voltage and Power-Voltage Curves at Different Irradiances

Engineering Drawings



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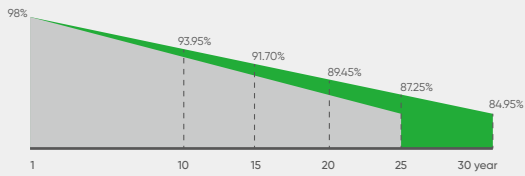
Current-Voltage Curves at Different Temperatures

SunMaster 5M

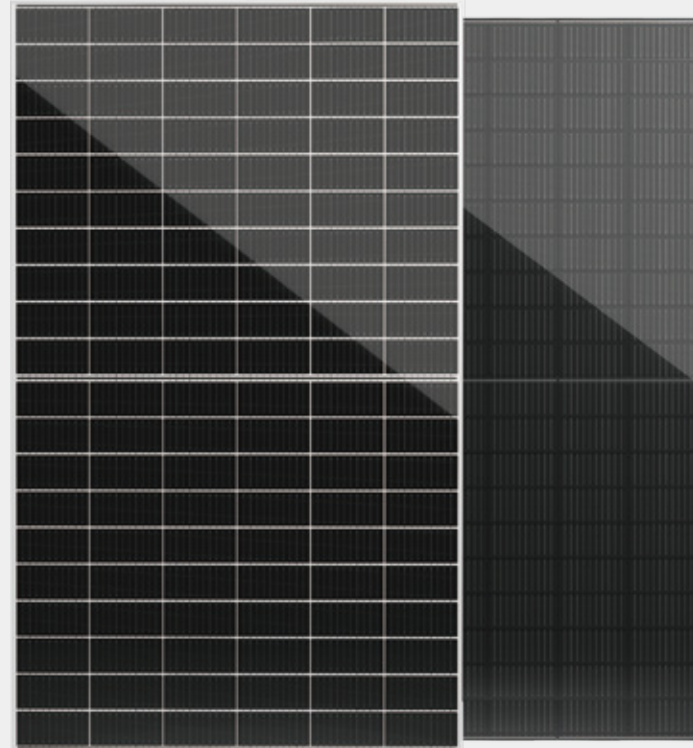
SM580-605W(120)

210mm Cells Mono
PERC with MBB & Half-cut
Technology

Quality Guarantee



▶ Sunmaster solar linear power output guarantee
▶ Standard linear power output guarantee



Standard

All Black

580-605W **-0.55%** **30years**
power attenuation Power warranty

Comprehensive Products and System Certificates



IEC 61215 / IEC 61730 / CE / INMETRO

ISO 9001-

2015/Quality management system

ISO 14001-

2015/Standards for environmental management system

ISO 45001-

2018/International standards for occupational health & safety

Key Features

- Optimal Process Design**
166mm+9BB+Half-cut, higher power output
- Select Grade A Crystalline Silicon Solar Cells**
Grade A crystalline silicon solar cells make high-power output with cost-effective
- Stable Generation Performance**
Power attenuation: first year ≤2%, 0.55% per year from 2-25
- Process Upgraded**
PID Resistant
Lower risk of hot spot and stronger anti-PID ability
- Higher Power Gains and Lower Losses**
Excellent low irradiance performance and low shadow loss
- Strong Environmental Adaptability and Great Durability**
Certified by Dust-Sand, Salt-Mist, Ammonia etc. weather resistance tests and enhanced mechanical load: wind load (2400 Pa) and snow load (5400 Pa)

Mechanical Characteristic

Cell type	Monocrystalline PERC 210*105mm
Number of cells	120 (6*20)
Module dimensions	2172x1303x35mm (85.51x51.30x1.38inches)
Weight	28.5kg (63.27lbs)
Front cover	3.2mm(0.13inches) tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction box	≥IP68 & UL
Cable	4mm ² (0.006inches ²), Portrait: 300mm (11.81inches); Landscape: 1300mm (51.18inches)
Connector	MC4 or MC4 compatible

Temperature Characteristics

Nominal Operating Cell Temperature (NOCT)	43°C±2°C
Temperature Coefficients of Pmax	-0.36% /°C
Temperature Coefficients of Voc	-0.28% /°C
Temperature Coefficients of Isc	0.05% /°C

Packaging

Standard packaging	31pcs/pallet
Module quantity per 20' container	155pcs
Module quantity per 40' container	527pcs(HQ)

Electrical Characteristics at STC

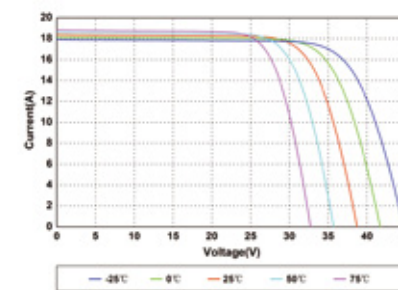
	580W	585W	590W	595W	600W	605W
Maximum Power (Pmax)	580W	585W	590W	595W	600W	605W
Open Circuit Voltage (Voc)	40.8V	41.0V	41.2V	41.4V	41.6V	41.8V
Short Circuit Current (Isc)	18.25A	18.30A	18.35A	18.40A	18.45A	18.50A
Voltage at Maximum Power (Vmp)	33.9V	34.1V	34.3V	34.5V	34.7V	34.9V
Current at Maximum Power (Imp)	17.11A	17.16A	17.21A	17.25A	17.30A	17.34A
Module Efficiency(%)	20.49	20.67	20.85	21.02	21.2	21.38
Operating Temperature	-40°C to +85°C					
Maximum System Voltage	1000V DC/1500V DC					
Fire Resistance Rating	Type 1(in accordance with UL1703)/Class C(IEC61730)					
Maximum Series Fuse Rating	30A					
STC Irradiance 1000W/m ² , Cell temperature 25°C, AM1.5; Tolerance of Pmax ±3%; Measurement Tolerance ±3%						

Electrical Characteristics at NOCT

	435W	439W	443W	447W	451W	455W
Maximum Power (Pmax)	435W	439W	443W	447W	451W	455W
Open Circuit Voltage (Voc)	38.4V	38.6V	38.8V	39.0V	39.2V	39.4V
Short Circuit Current (Isc)	14.78A	14.82A	14.86A	14.90A	14.94A	14.98A
Voltage at Maximum Power (Vmp)	31.4V	31.6V	31.82V	32.0V	32.2V	32.4V
Current at Maximum Power (Imp)	13.86A	13.90A	13.94A	13.97A	14.01A	14.05A

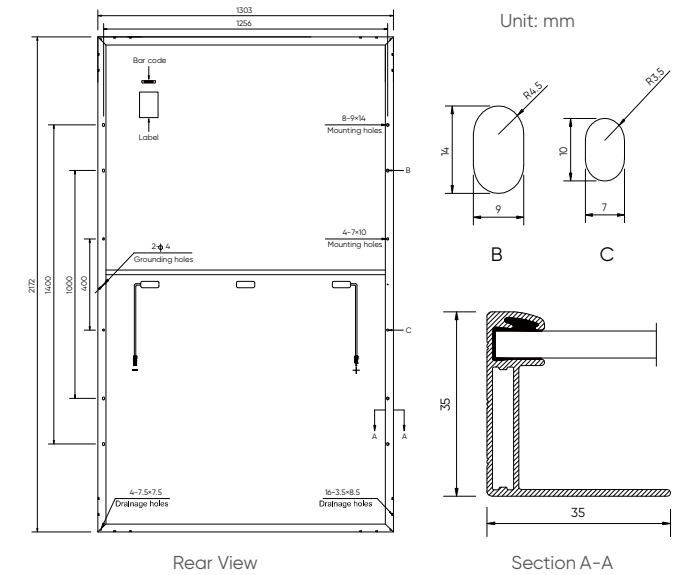
NOCT: Irradiance 800W/m², Ambient temperature 20°C, Wind Speed 1m/s

IV Curves

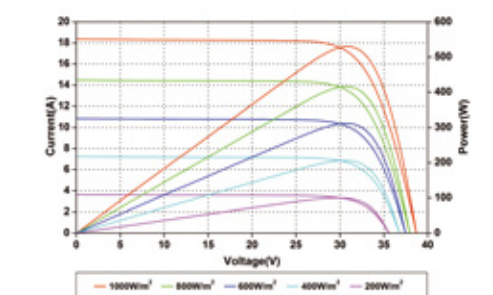


Current-Voltage and Power-Voltage Curves at Different Irradiances

Engineering Drawings



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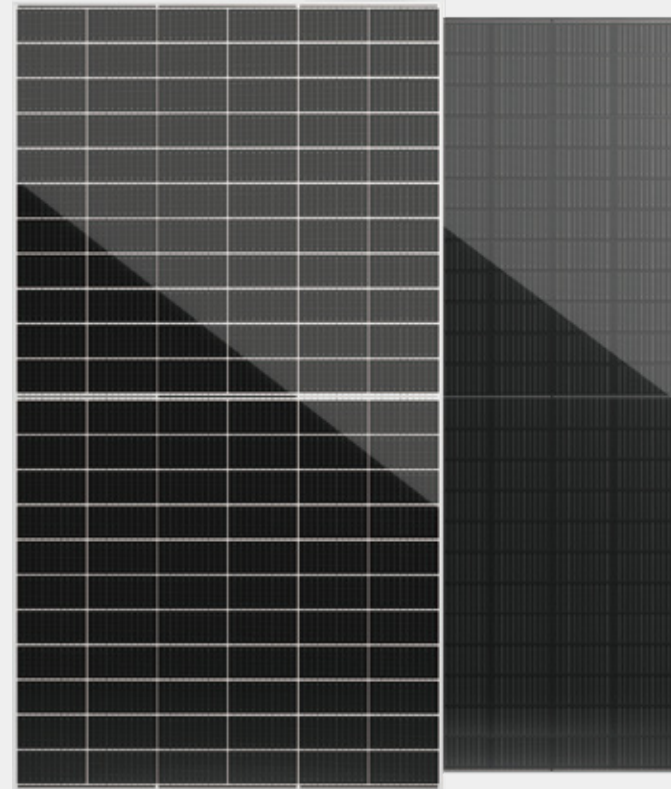
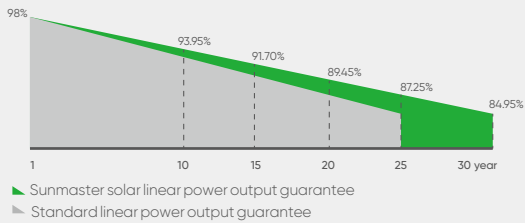
Current-Voltage Curves at Different Temperatures

SunMaster 6

SM640-665W(120)

210mm Cells Mono
PERC with MBB & Half-cut
Technology

Quality Guarantee



Standard

All Black

640-665W **-0.55%** **30years**
power attenuation Power warranty

Comprehensive Products and System Certificates



IEC 61215 / IEC 61730 / CE / INMETRO

ISO 9001-

2015/Quality management system

ISO 14001-

2015/Standards for environmental management system

ISO 45001-

2018/International standards for occupational health & safety

Key Features

- Optimal Process Design**
166mm+9BB+Half-cut, higher power output
- Select Grade A Crystalline Silicon Solar Cells**
Grade A crystalline silicon solar cells make high-power output with cost-effective
- Stable Generation Performance**
Power attenuation: first year ≤2%, 0.55% per year from 2-25
- Process Upgraded**
PID Resistant
Lower risk of hot spot and stronger anti-PID ability
- Higher Power Gains and Lower Losses**
Excellent low irradiance performance and low shadow loss
- Strong Environmental Adaptability and Great Durability**
Certified by Dust-Sand, Salt-Mist, Ammonia etc. weather resistance tests and enhanced mechanical load: wind load (2400 Pa) and snow load (5400 Pa)

Mechanical Characteristic

Cell type	Monocrystalline PERC 210*105mm
Number of cells	132 (6*22)
Module dimensions	2384x1303x35mm (93.86x51.30x1.38inches)
Weight	31.5kg (69.93lbs)
Front cover	3.2mm(0.13inches) tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction box	≥IP68 & UL
Cable	4mm ² (0.006inches ²), Portrait: 300mm (11.8inches); Landscape: 1400mm (55.12inches)
Connector	MC4 or MC4 compatible

Temperature Characteristics

Nominal Operating Cell Temperature (NOCT)	43°C±2°C
Temperature Coefficients of Pmax	-0.36% /°C
Temperature Coefficients of Voc	-0.28% /°C
Temperature Coefficients of Isc	0.05% /°C

Packaging

Standard packaging	31pcs/pallet
Module quantity per 20' container	124pcs
Module quantity per 40' container	527pcs(HQ)

Electrical Characteristics at STC

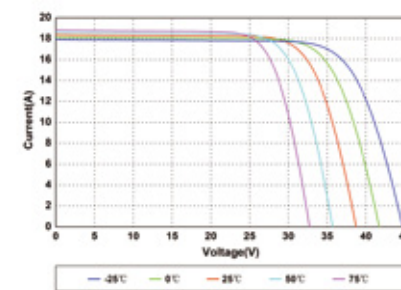
	640W	645W	650W	655W	660W	665W
Maximum Power (Pmax)	640W	645W	650W	655W	660W	665W
Open Circuit Voltage (Voc)	45.1V	45.3V	45.5V	45.7V	45.9V	46.1V
Short Circuit Current (Isc)	18.26A	18.31A	18.36A	18.41A	18.46A	18.51A
Voltage at Maximum Power (Vmp)	37.3V	37.5V	37.7V	37.9V	38.1V	38.3V
Current at Maximum Power (Imp)	17.16A	17.21A	17.26A	17.31A	17.36A	17.41A
Module Efficiency(%)	20.6	20.76	20.92	21.09	21.25	21.41
Operating Temperature	-40°C to +85°C					
Maximum System Voltage	1000V DC/1500V DC					
Fire Resistance Rating	Type 1(in accordance with UL1703)/Class C(IEC61730)					
Maximum Series Fuse Rating	30A					
STC Irradiance 1000W/m ² , Cell temperature 25°C, AM1.5; Tolerance of Pmax ±3%; Measurement Tolerance ±3%						

Electrical Characteristics at NOCT

	480W	484W	488W	492W	496W	500W
Maximum Power (Pmax)	480W	484W	488W	492W	496W	500W
Open Circuit Voltage (Voc)	41.5V	41.7V	41.9V	42.1V	42.3V	42.5V
Short Circuit Current (Isc)	14.79A	14.83A	14.87A	14.91A	14.95A	14.99A
Voltage at Maximum Power (Vmp)	33.9V	34.1V	34.3V	34.5V	34.7V	34.9V
Current at Maximum Power (Imp)	14.16A	14.20A	14.23A	14.27A	14.30A	14.33A

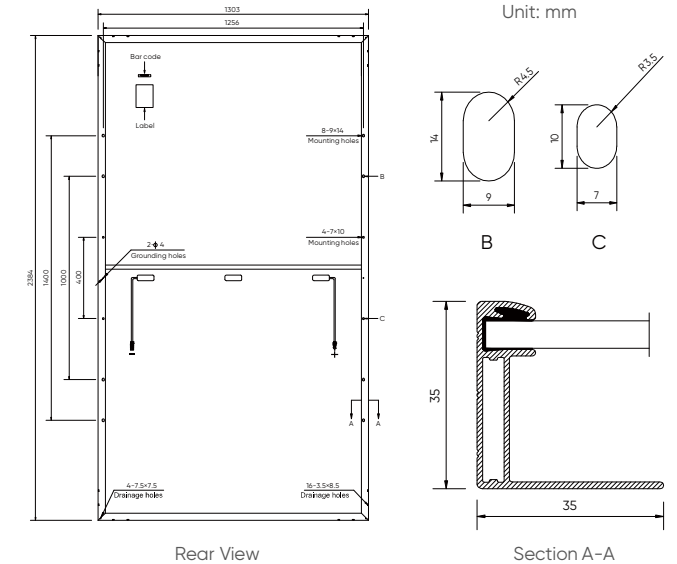
NOCT: Irradiance 800W/m², Ambient temperature 20°C, Wind Speed 1m/s

IV Curves



Current-Voltage and Power-Voltage Curves at Different Irradiances

Engineering Drawings



Specifications in this datasheet are subject to change without prior notice.

405-670W

Shingled PV Module

Based on M10-210mm wafer, best choice for ultra-large power plants. Advanced module technology delivers superior module efficiency. Globally validated bifacial energy yield. High module quality ensures long-term reliability.



Super Performance & Stable Returns
Low hot spot & anti-PID, to ensure module operation optimally



Various Application Scenarios
Strong weather resistance, easy installation in deserts, coastal areas, mountains and various roofs

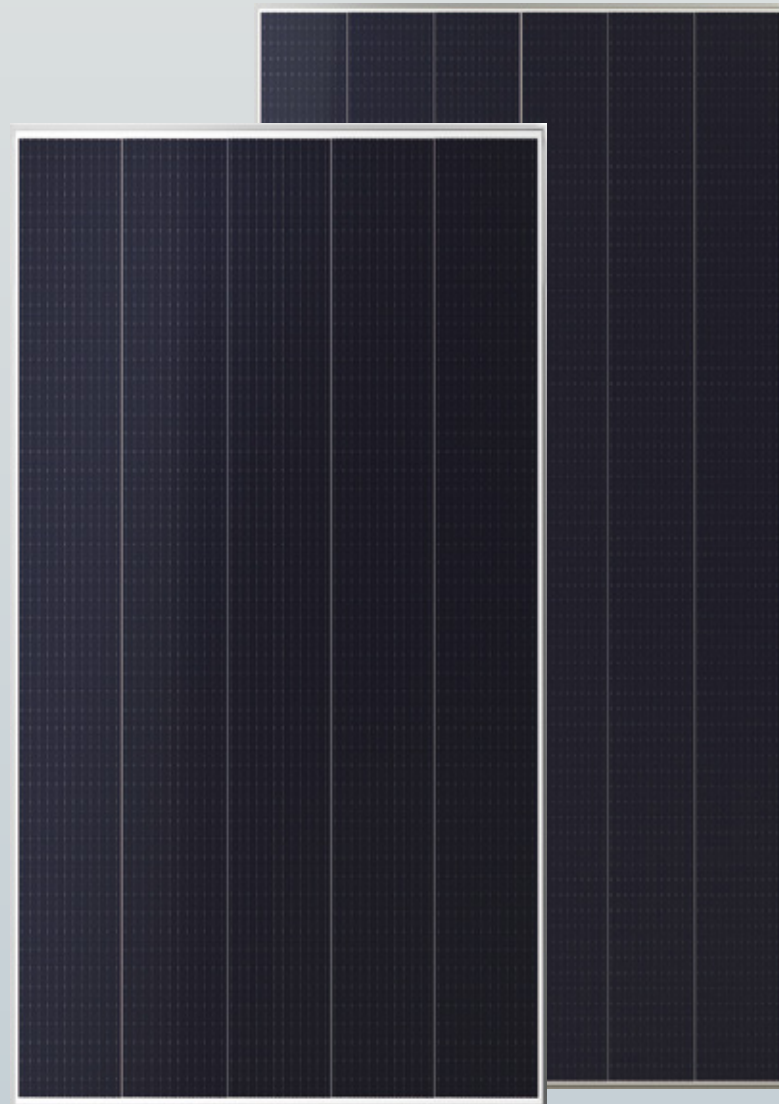


Technology & Process Upgrade
210+10BB+half-cell, higher power generation with the same installation

Comprehensive Products & System Certificates



Module	Maximum Power	Size / Weight
SM-SPSG-405-425M12	405-425W	1808*1086*30mm/21kg
SM-SPSG-495-520M12	495-520W	2275*1086*35mm/26.1kg
SM-SPSG-535-560M12	535-560W	2384*1086*35mm/27kg
SM-SPDG-530-555M12	530-555W	2384*1092*35mm/32.2kg
SM-SPDG-585-610M12	585-610W	2185*1303*35mm/35.5kg
SM-SPDG-645-670M12	645-670W	2384*1303*35mm/38.3kg



360-550W

Bifacial PV Module

Based on M10-210mm wafer, best choice for ultra-large power plants. Advanced module technology delivers superior module efficiency. Globally validated bifacial energy yield. High module quality ensures long-term reliability.



PERC technology
The PERC technology features were the reduction of rear surface recombination by a combination of dielectric surface passivation and reduced metal/semiconductor contact area while simultaneously increasing rear surface reflection by use of a dielectrically displaced rear metal reflector.



Special frame design with anti-fouling patent
155-degree angle, excellent anti-fouling performance, improve long-term power generation performance



Bifacial cell technology
Generate electricity from backside of solar cell with environmental light reflections, brings additional 5%-25% more power generation.



Split module design
Better performance in shading conditions with split module design



9 busbar cell technology
Increased cell bus-bar means more paths for electric charges, so there would be less resistance losses and more emitted electrons can be captured, thus it can increase power output by 2%.



Half-cut cell technology
Through reducing length of cell spacing, two half-cut cells can provide higher electric current, thus enhance 3% of power output. The output of two 9 bus-bar half-cut cells is even higher than one 12 bus-bar full cell.



Ultra high strength frame
Specially designed for "Jethru Du Pro" bifacial dual-glass series, passed 7200 Pa (front) mechanical load test, reducing shading with no C side design for Split module design short frame. (Note: *120 Cells series)

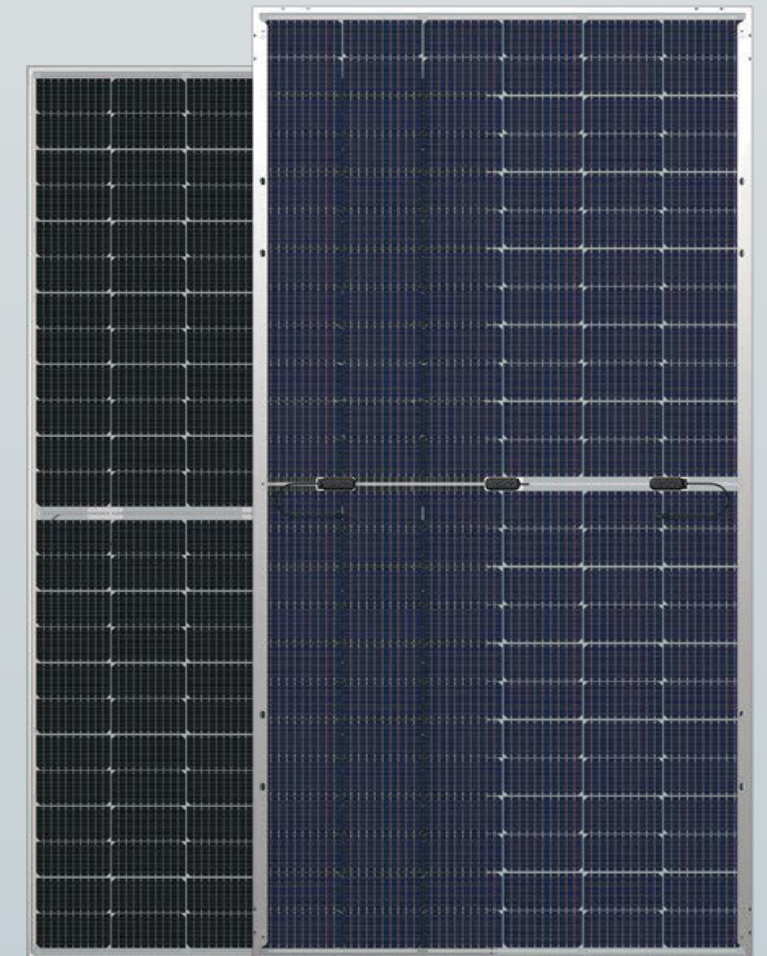


1500V DC
High system voltage of J-box and glasses, reduce PV system cost.

Comprehensive Products & System Certificates



Module	Maximum Power
SM-DG-360-385M6	360-385W
SM-DG-440-465M6	440-465W
SM-DG-525-550M8	525-550W



Customized Size

Mono-crystalline 10-360W

Quality Guarantee

- 10-year product workmanship warranty
- 10-year guarantee for 90% rated power
- 25-year guarantee for 80% rated power



Excellent power generation performance
Guaranteed 0~+3% positive rated power tolerance ensures more power generation every day



Stable mechanical performance
Passed rigorous hail test, Withstands 5400Pa snow and 2400Pa wind loads.



Long weather resistance
Excellent anti-PID(Potential Induced Degradation), Certified in fireproofing for safety.



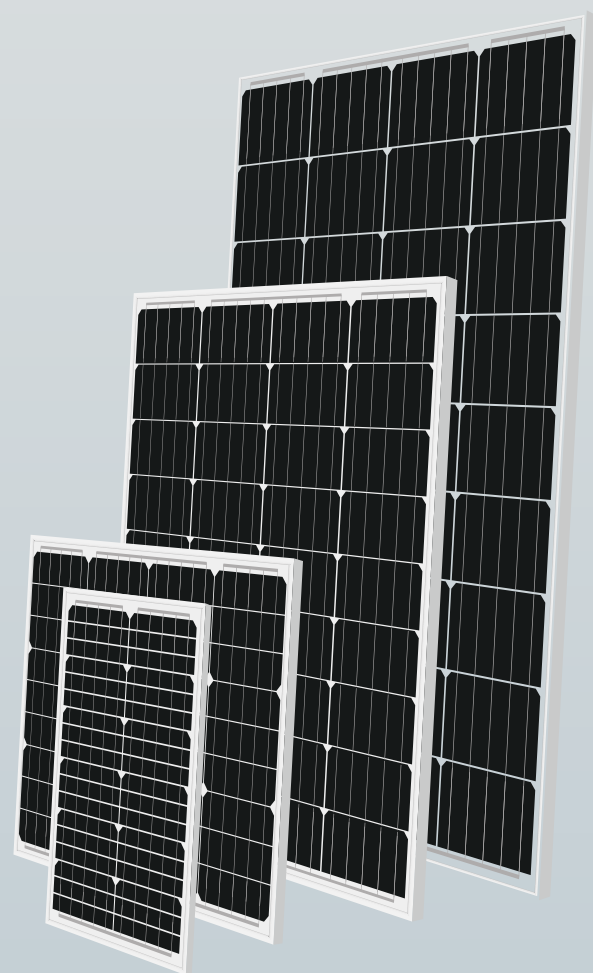
Superior quality control
ISO 9001:2015 Quality Management System 100% EL and appearance inspection



Lower temperature coefficient,
Improved temperature coefficient decreases power loss in the high temperature application.



Low-light Performance
Advanced glass and solar cell surface texturing allow for excellent performance in low-light environments.



10W~50W ELECTRICAL DATA(STC)

Module	SM10M	SM20M	SM30M	SM40M	SM50M	SM60M
Peak Power Watts(Pmax/W)	10	20	30	40	60	60
Power Output Tolerance(W)	0 ~ +3%					
Maximum Power Voltage(Vmp/V)	18.1	18.1	18.4	18.6	18.6	18.6
Maximum Power Current(Imp/A)	0.55	1.10	1.63	2.15	2.69	3.23
Open Circuit Voltage(Voc/V)	22.1	22.1	22.6	22.8	22.8	22.8
Short Circuit Current(Isc/A)	0.60	1.19	1.76	2.32	2.90	3.48
Module Dimension(mm)	496*190*25	496*350*25	656*350*25	425*665*30	500*665*30	600*665*30
Module Weight(Kg)	1.2	2.0	2.5	3.4	4.0	4.8

55W~80W ELECTRICAL DATA(STC)

Module	SM70M	SM80M	SM90M	SM100M	SM110M	SM120M
Peak Power Watts(Pmax/W)	70	80	90	100	110	120
Power Output Tolerance(W)	0 ~ +3%					
Maximum Power Voltage(Vmp/V)	18.6	18.6	18.4	18.4	18.6	18.0
Maximum Power Current(Imp/A)	3.76	4.30	4.89	5.43	5.91	6.67
Open Circuit Voltage(Voc/V)	22.8	22.8	22.6	22.6	22.8	22.0
Short Circuit Current(Isc/A)	4.06	4.65	5.28	5.87	6.39	7.1
Module Dimension(mm)	650*665*30	770*665*30	870*665*30	1000*665*30	1000*665*30	1120*665*30
Module Weight(Kg)	5.2	5.7	6.5	7.5	7.5	8.2

85W~110W ELECTRICAL DATA(STC)

Module	SM150M	SM160M	SM180M	SM200M	SM250M	SM270M
Peak Power Watts(Pmax/W)	150	160	180	200	250	270
Power Output Tolerance(W)	0 ~ +3%					
Maximum Power Voltage(Vmp/V)	18.2	18.3	18.4	18.6	31	32
Maximum Power Current(Imp/A)	8.25	8.75	9.79	10.8	8.07	8.44
Open Circuit Voltage(Voc/V)	22.3	22.4	22.4	22.6	37.2	38.0
Short Circuit Current(Isc/A)	8.7	8.8	10.44	11.5	8.94	9.8
Module Dimension(mm)	1470*660*30	1470*660*30	1470*660*30	1580*808*35	1640*980*35	1640*992*35
Module Weight(Kg)	10.5	10.5	10.5	14.2	16.2	17.5

120~280W ELECTRICAL DATA(STC)

Module	SM280M	SM300M	SM320M	SM330M	SM350M	SM360M
Peak Power Watts(Pmax/W)	280	300	320	330	350	360
Power Output Tolerance(W)	0 ~ +3%					
Maximum Power Voltage(Vmp/V)	32	32	36.5	36.7	36.9	37.1
Maximum Power Current(Imp/A)	8.75	9.38	8.77	8.99	9.49	9.7
Open Circuit Voltage(Voc/V)	38.0	39.0	43.8	43.9	44.3	44.5
Short Circuit Current(Isc/A)	9.8	9.9	10.52	10.55	10.62	10.71
Module Dimension(mm)	1640*992*35	1640*992*35	1956*992*35	1956*992*35	1956*992*35	1956*992*35
Module Weight(Kg)	17.5	17.5	19.5	19.5	19.5	19.5

STC:Irradiance 1000W/m²,Cell Temperature 25°C,Air Mass AM1.5.

*Measuring tolerance: ±3%.

Specifications in this datasheet are subject to change without prior notice.