

SUN60P-30F

270W/275W/280W/
285W

POLY CRYSTALLINE MODULE

IEC61215 / IEC61730 / IEC61701 /
IEC62716 / IEC62804

Ministry of Industry and Information entrusted the CTC tested the solar module samples randomly detected in Hainan base. The first-year standard is $\leq 2.5\%$, the actual attenuation rate of Sunergy is 1.88%. The second-year standard is $\leq 0.7\%$, the actual attenuation rate of Sunergy is 0.38%.



IP68 junction box, connector

IP68 junction box and connector have a high degree of waterproof, effectively resist the harsh environment;



15A current

The junction box carries a current of 15A, ensuring high current flow through the modules;



Super strong frame

Glue-spilled tank has a double-layer waterproof, cross-section with hook-shaped aluminum frame, enhanced by 10% of the mechanical load strength;



Current division

The module refines the current division, thus effectively reducing the loss of up to 2% due to mismatch and increasing the power output of the system;



Salt spray, ammonia and PID test

Excellent salt spray resistance, anti-ammonia and anti PID, TUV, SUD certification approved;



Strong mechanical load capacity

Passed the 2400pa wind load and 5400pa snow load test, ensuring that the module has a stable mechanical life;

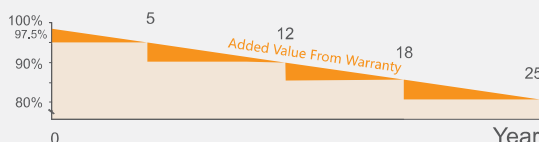


Color classification

Modules are packaged according to color classification, to achieve consistent appearance after installation;

LINEAR PERFORMANCE WARRANTY

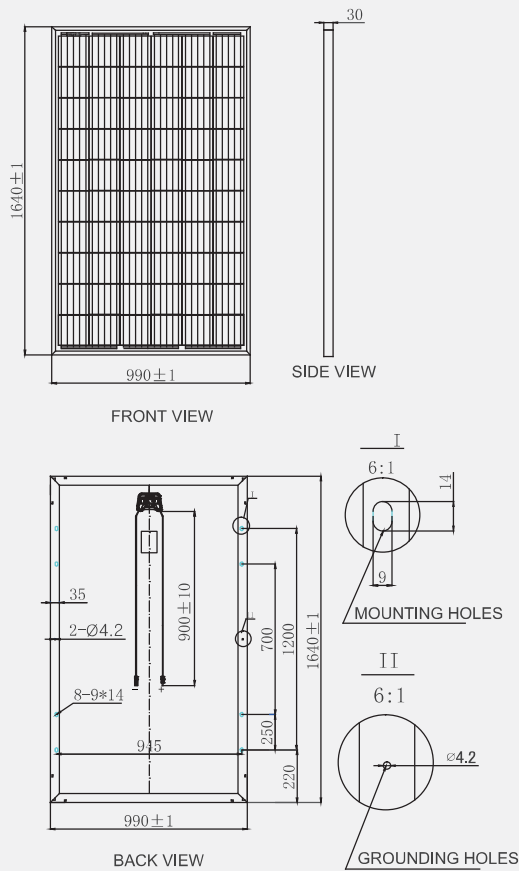
- 12 Years Manufacturing Warranty
- 12 Years 90% Power Output
- 25 Years 80% Power Output



QUALIFICATIONS AND CERTIFICATES



MECHANICAL DRAWINGS



MECHANICAL SPECIFICATION

Cell Type	Poly Crystalline 156.75x156.75mm
Number Of Cells	60 (6x10)
Dimensions(AxBxC)	1640x990x30mm
Weights	18.5kg
Front Glass	3.2mm Tempered Low Iron Glass
Frame	Anodized Aluminum
Junction Box	IP68,with Bypass Diodes
Connector	Mc4 Compatible
Output Cables	Tuv,±length 900mm,4.0mm ²

ELECTRICAL CHARACTERISTICS

Maximum Power At STC(Pmax)	270W	275W	280W	285W
Short Circuit Current(Isc)	9.06A	9.18A	9.29A	9.38A
Open Circuit Voltage(Voc)	37.2V	38.0V	38.5V	38.7V
Maximum Power Current(Imp)	8.65A	8.76A	8.86A	8.96A
Maximum Power Voltage(Vmpp)	31.2V	31.4V	31.6V	31.8V
Module Efficiency	16.63%	16.94%	17.25%	17.55%
Power Tolerance	0~+3%	0~+3%	0~+3%	0~+3%

STC: 1000W/m² irradiance, 25°C cell temperature, AM1.5.

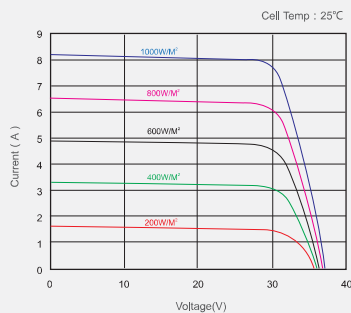
NOCT

Maximum Power At STC(Pmax)	200.0	203.7	207.4	211.1
Short Circuit Current(Isc)	7.33	7.43	7.52	7.59
Open Circuit Voltage(Voc)	34.4	35.1	35.6	35.8
Maximum Power Current(Imp)	6.89	6.99	7.07	7.14
Maximum Power Voltage(Vmpp)	29.0	29.2	29.3	29.6

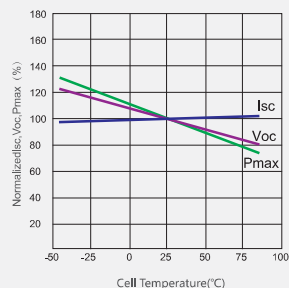
NOCT: Irradiance at 800W/m², Ambient Temperature 20°C, wind speed 1m/s.

I-V CURVES

I-V Curves at SUN275-60P at different Irradiances



Power voltage current curve at different temperature



SYSTEM INTEGRATION PARAMETERS

Maximum System Voltage	VDC 1000V
Maximum Series Fuse	15A
Increased Snowload Acc.to Iec 61215	5400Pa
Operating Temperature	-40~+85°C
Number Of Bypass Diodes	3

TEMPERATURE CHARACTERISTICS

Normal Operating Cell Temperature(Noct)	45°C±2°C
Temperature Coefficient Of Pmax	-0.41%/°C
Temperature Coefficient Of Voc	-0.33%/°C
Temperature Coefficient Of Isc	0.06%/°C

PACKING CONFIGURATION

Container	20' GP	40' GP/40' HQ
Pieces Per Pallet	35	35/35
Pallets Per Container	14	28/28
Pieces Per Container	468	980/1050

SUN 72P-35F

320W/325W/330W/
335W/340W

POLY CRYSTALLINE MODULE

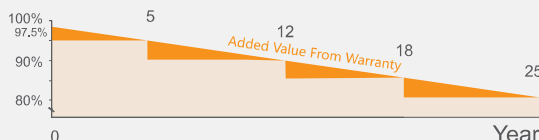
IEC61215 / IEC61730 / IEC61701 /
IEC62716 / IEC62804

Ministry of Industry and Information entrusted the CTC tested the solar module samples randomly detected in Hainan base. The first-year standard is $\leq 2.5\%$, the actual attenuation rate of Sunergy is 1.88%. The second-year standard is $\leq 0.7\%$, the actual attenuation rate of Sunergy is 0.38%.



LINEAR PERFORMANCE WARRANTY

- 12 Years Manufacturing Warranty
- 12 Years 90% Power Output
- 25 Years 80% Power Output



IP68 Junction Box, Connector

IP68 junction box and connector have a high degree of waterproof, effectively resist the harsh environment;



15A current

The junction box carries a current of 15A, ensuring high current flow through the modules;



Super strong frame

Glue-spilled tank has a double-layer waterproof, cross-section with hook-shaped aluminum frame, enhanced by 10% of the mechanical load strength;



Current division

The module refines the current division, thus effectively reducing the loss. Of up to 2% due to mismatch and increasing the power output of the system;



Salt spray, ammonia and PID test

Excellent salt spray resistance, anti-ammonia and anti PID, TUV, SUD certification approved;



Strong mechanical load capacity

Passed the 2400pa wind load and 5400pa snow load test, ensuring that the module has a stable mechanical life;



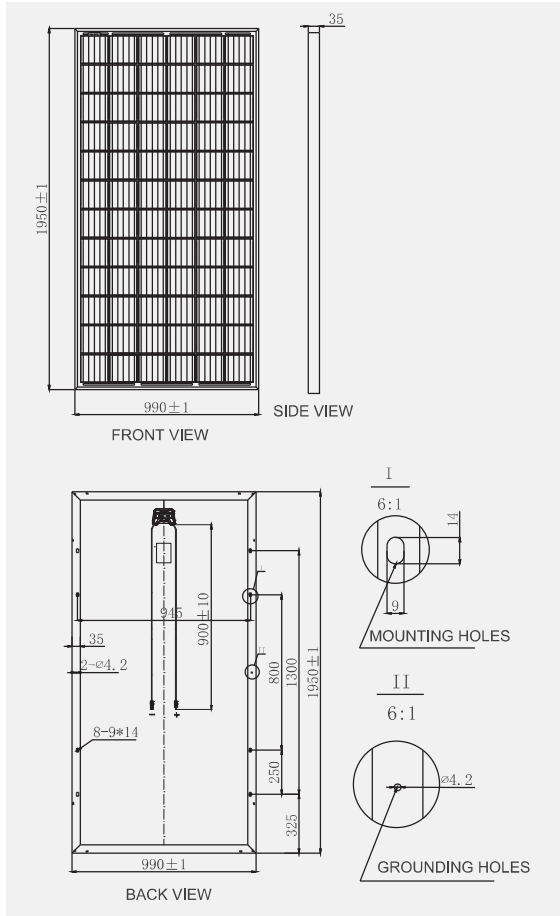
Color classification

Modules are packaged according to color classification, to achieve consistent appearance after installation;

QUALIFICATIONS AND CERTIFICATES



MECHANICAL DRAWINGS



MECHANICAL SPECIFICATION

Cell Type	Poly Crystalline 156.75x156.75mm
Number Of Cells	72 (6x12)
Dimensions(AxBxC)	1950x990x35mm
Weights	22.5kg
Front Glass	3.2mm Tempered Low Iron Glass
Frame	Clear Anodized Aluminum Alloy
Junction Box	Ip68,with Bypass Diodes
Connector	Mc4 Compatible
Output Cables	Tuv,±length 900mm,4.0mm ²

ELECTRICAL CHARACTERISTICS

Maximum Power At STC(Pmax)	320W	325W	330W	335W	340W
Short Circuit Current(Isc)	9.03A	9.10A	9.22A	9.31A	9.37A
Open Circuit Voltage(Voc)	44.6V	44.9V	45.5V	46.1V	46.4V
Maximum Power Current(Imp)	8.53A	8.62A	8.73A	8.82A	8.90A
Maximum Power Voltage(Vmp)	37.5V	37.7V	37.8V	38.0V	38.2V
Module Efficiency	16.58%	16.84%	17.09%	17.35%	17.61%
Power Tolerance	0~+3%	0~+3%	0~+3%	0~+3%	0~+3%

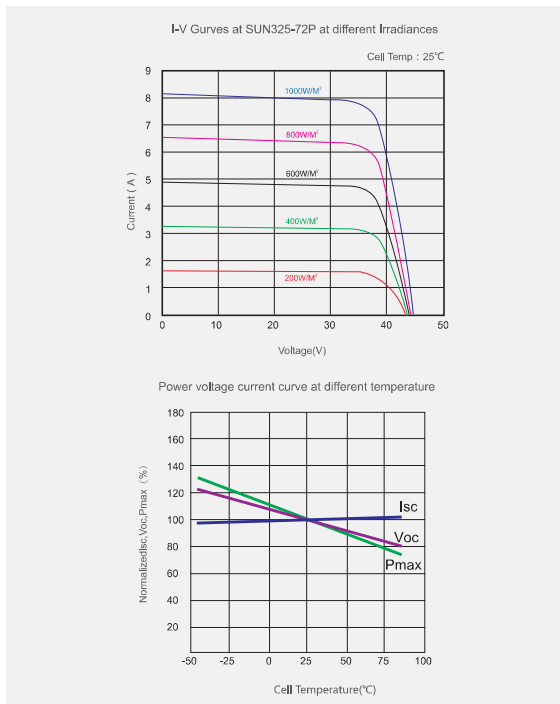
STC: 1000W/m² irradiance, 25°C cell temperature, AM1.5.

NOCT

Maximum Power At STC(Pmax)	237.1	240.8	244.5	248.2	251.9
Short Circuit Current(Isc)	7.31	7.37	7.46	7.54	7.59
Open Circuit Voltage(Voc)	41.2	41.5	42.1	42.6	42.9
Maximum Power Current(Imp)	6.87	6.92	7.02	7.08	7.13
Maximum Power Voltage(Vmp)	34.5	34.8	34.8	35.0	35.3

NOCT: Irradiance at 800W/m², Ambient Temperature 20°C, wind speed 1m/s.

I-V CURVES



SYSTEM INTEGRATION PARAMETERS

Maximum System Voltage	VDC 1000V
Maximum Series Fuse	15A
Increased Snowload Acc.to Iec 61215	5400Pa
Operating Temperature	-40~+85°C
Number Of Bypass Diodes	3

TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature(Noct)	45°C±2°C
Temperature Coefficient Of Pmax	-0.41%/°C
Temperature Coefficient Of Voc	-0.33%/°C
Temperature Coefficient Of Isc	0.06%/°C

PACKING CONFIGURATION

Container	20' GP	40' GP/40' HQ
Pieces Per Pallet	30	30/30
Pallets Per Container	10	24/24
Pieces Per Container	300	720/768

SUN60M-30F

**280W/285W/290W/
295W/300W/305W/
310W**

MONO CRYSTALLINE MODULE

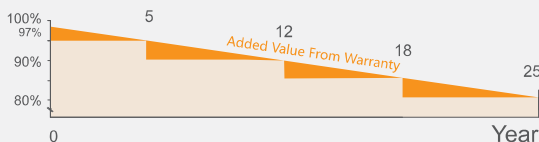
IEC61215 / IEC61730 / IEC61701 /
IEC62716 / IEC62804

Power
Space
Technology



LINEAR PERFORMANCE WARRANTY

- 12 Years Manufacturing Warranty
- 12 Years 90% Power Output
- 25 Years 80% Power Output



IP68 junction box, connector

IP68 junction box and connector have a high degree of waterproof, effectively resist the harsh environment;



15A current

The junction box carries a current of 15A, ensuring high current flow through the modules;



Super strong frame

Glue-spilled tank has a double-layer waterproof, cross-section with hook-shaped aluminum frame, enhanced by 10% of the mechanical load strength;



Current division

The module refines the current division, thus effectively reducing the loss of up to 2% due to mismatch and increasing the power output of the system;



Salt spray, ammonia and PID test

Excellent salt spray resistance, anti-ammonia and anti PID, TUV, SUD certification approved;



Strong mechanical load capacity

Passed the 2400pa wind load and 5400pa snow load test, ensuring that the module has a stable mechanical life;



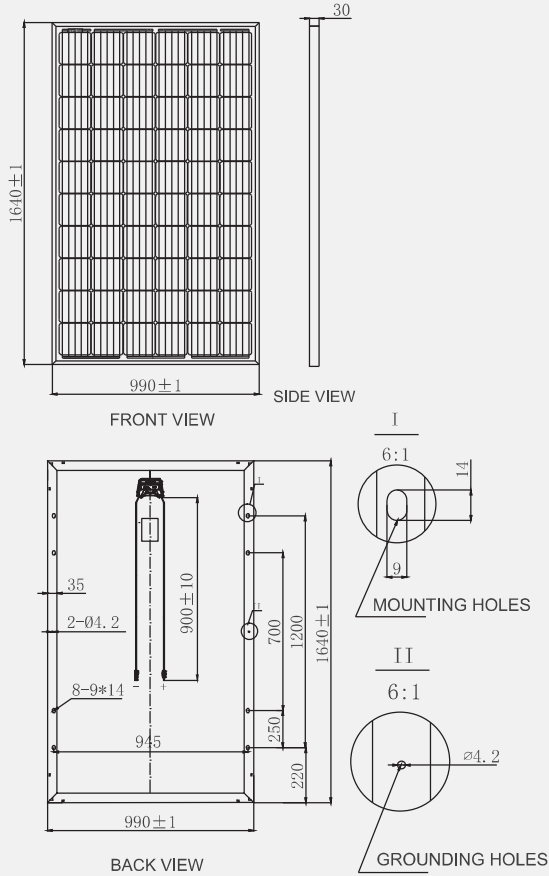
Color classification

Modules are packaged according to color classification, to achieve consistent appearance after installation;

QUALIFICATIONS AND CERTIFICATES



MECHANICAL DRAWINGS



MECHANICAL SPECIFICATION

Cell Type	Mono Crystalline 156.75x156.75mm
Number Of Cells	60 (6x10)
Dimensions(AxBxC)	1640x990x30mm
Weights	18.5kg
Front Glass	3.2mm Tempered Low Iron Glass
Frame	Clear Anodized Aluminum Alloy
Junction Box	IP68, with Bypass Diodes
Connector	Mc4 Compatible
Output Cables	Tuv, ±length 900mm, 4.0mm ²

ELECTRICAL CHARACTERISTICS

Maximum Power At STC(Pmax)	280W	285W	290W	295W	300W	305W	310W
Short Circuit Current(Isc)	9.35A	9.48A	9.58A	9.72A	9.78A	9.89A	9.96A
Open Circuit Voltage(Voc)	38.2V	38.7V	39.2V	39.6V	39.8V	40.1V	40.3V
Maximum Power Current(Imp)	8.72A	8.85A	8.95A	9.08A	9.17A	9.30A	9.40A
Maximum Power Voltage(Vmpp)	32.1V	32.2V	32.4V	32.5V	32.7V	32.8V	33.0V
Module Efficiency	17.25%	17.55%	17.86%	18.17%	18.48%	18.79%	19.09%
Power Tolerance	0~+3%	0~+3%	0~+3%	0~+3%	0~+3%	0~+3%	0~+3%

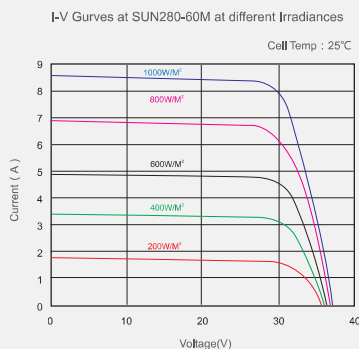
STC: 1000W/m² irradiance, 25°C cell temperature, AM1.5.

NOCT

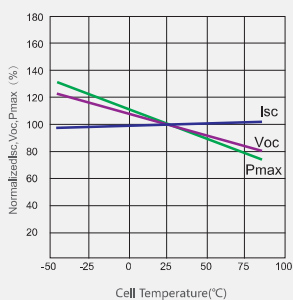
Maximum Power At STC(Pmax)	208.7	212.4	216.2	219.9	223.6	227.4	231.1
Short Circuit Current(Isc)	7.57	7.68	7.76	7.87	7.92	8.01	8.06
Open Circuit Voltage(Voc)	35.3	35.8	36.2	36.6	36.8	37.1	37.3
Maximum Power Current(Imp)	7.18	7.27	7.35	7.46	7.51	7.59	7.64
Maximum Power Voltage(Vmpp)	29.1	29.2	29.4	29.5	29.8	30.0	30.2

NOCT: Irradiance at 800W/m², Ambient Temperature 20°C, wind speed 1m/s.

I-V CURVES



Power voltage current curve at different temperature



SYSTEM INTEGRATION PARAMETERS

Maximum System Voltage	VDC 1000V
Maximum Series Fuse	15A
Increased Snowload Acc.to Iec 61215	5400Pa
Operating Temperature	-40~+85°C
Number Of Bypass Diodes	3

TEMPERATURE CHARACTERISTICS

Normal Operating Cell Temperature(Noct)	45°C±2°C
Temperature Coefficient Of Pmax	-0.40%/°C
Temperature Coefficient Of Voc	-0.29%/°C
Temperature Coefficient Of Isc	0.05%/°C

PACKING CONFIGURATION

Container	20' GP	40' GP/40' HQ
Pieces Per Pallet	35	35/35
Pallets Per Container	14	28/28
Pieces Per Container	468	980/1050



SUNERGY

SUNERGY USA WORKS LLC

www.sunergyworks.com

SUN72M-35F

360W/365W/370W/
375W/380W

MONO CRYSTALLINE MODULE

IEC61215 / IEC61730 / IEC61701 /
IEC62716 / IEC62804

Exquisite
Workmanship
Excellent Quality.



IP68 junction box, bonnector

IP68 junction box and connector have a high degree of waterproof, effectively resist the harsh environment



15A current

The junction box carries a current of 15A, ensuring high current flow through the modules



Super strong frame

Glue-spilled tank has a double-layer waterproof, cross-section with hook-shaped aluminum frame, enhanced by 10% of the mechanical load strength



Current division

The module refines the current division, thus effectively reducing the loss of up to 2% due to mismatch and increasing the power output of the system



Salt spray, ammonia and PID test

Excellent salt spray resistance, anti-ammonia and anti PID, TUV, SUD certification approved



Strong mechanical load capacity

Passed the 2400pa wind load and 5400pa snow load test, ensuring that the module has a stable mechanical life

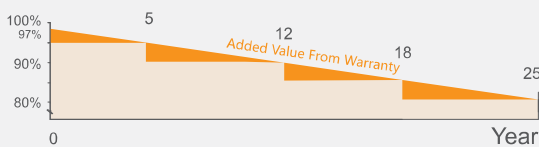


Color classification

Modules are packaged according to color classification, to achieve consistent appearance after installation

LINEAR PERFORMANCE WARRANTY

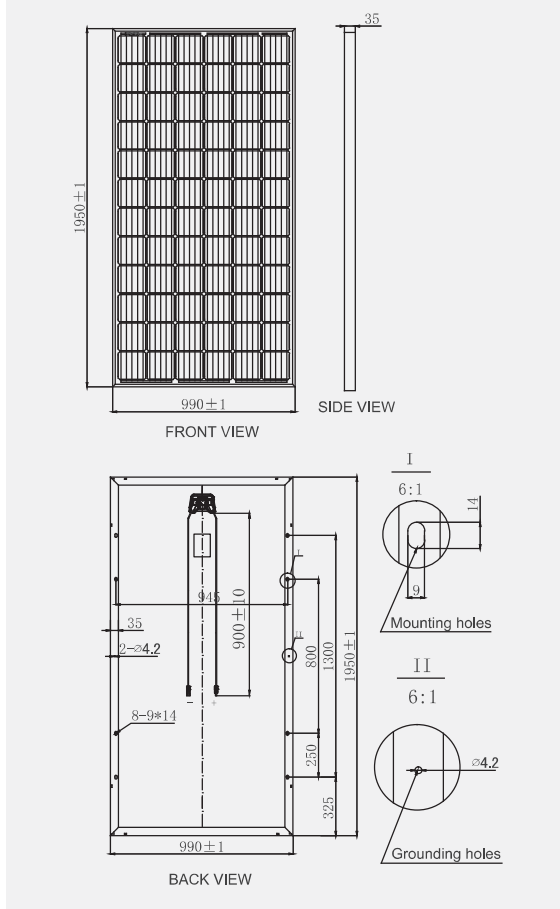
- 12 Years Manufacturing Warranty
- 12 Years 90% Power Output
- 25 Years 80% Power Output



QUALIFICATIONS AND CERTIFICATES



MECHANICAL DRAWINGS



MECHANICAL SPECIFICATION

Cell Type	Mono Crystalline 156.75x156.75mm
Number Of Cells	72 (6x12)
Dimensions(AxBxC)	1950x990x35mm
Weights	22.5kg
Front Glass	3,2mm Tempered Low Iron Glass
Frame	Clear Anodized Aluminum Alloy
Junction Box	IP68,with Bypass Diodes
Connector	Mc4 Compatible
Output Cables	Tuv,±length 900mm,4.0mm ²

ELECTRICAL CHARACTERISTICS

Maximum Power At STC(Pmax)	360W	365W	370W	375W	380W
Short Circuit Current(Isc)	9.75A	9.82A	9.85A	9.89A	9.97A
Open Circuit Voltage(Voc)	47.9V	48.1V	48.3V	48.5V	48.7V
Maximum Power Current(Imp)	9.25A	9.34A	9.41A	9.45A	9.52A
Maximum Power Voltage(Vmp)	38.9V	39.1V	39.3V	39.7V	39.9V
Module Efficiency	18.65%	18.91%	19.17%	19.43%	19.68%
Power Tolerance	0~+3%	0~+3%	0~+3%	0~+3%	0~+3%

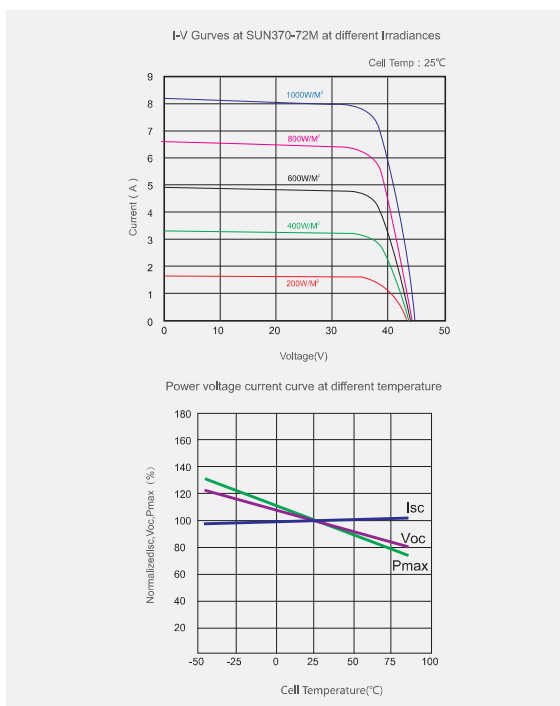
STC: 1000W/m² irradiance, 25°C cell temperature, AM1.5.

NOCT

Maximum Power At STC(Pmax)	268.3	272.1	275.8	279.5	283.3
Short Circuit Current(Isc)	7.89	7.95	7.97	8.01	8.07
Open Circuit Voltage(Voc)	44.3	44.5	44.7	44.8	45.0
Maximum Power Current(Imp)	7.48	7.54	7.56	7.59	7.65
Maximum Power Voltage(Vmp)	35.9	36.1	36.5	36.8	37.0

NOCT: Irradiance at 800W/m² , Ambient Temperature 20°C , wind speed 1m/s .

I-V CURVES



SYSTEM INTEGRATION PARAMETERS

Maximum System Voltage	VDC 1000V
Maximum Series Fuse	15A
Increased Snowload Acc.to Iec 61215	5400Pa
Operating Temperature	-40~+85°C
Number Of Bypass Diodes	3

TEMPERATURE CHARACTERISTICS

Norminal Operating Cell Temperature(Noct)	45°C±2°C
Temperature Coefficient Of Pmax	-0.40%/°C
Temperature Coefficient Of Voc	-0.29%/°C
Temperature Coefficient Of Isc	0.05%/°C

PACKING CONFIGURATION

Container	20' GP	40' GP/40' HQ
Pieces Per Pallet	30	30/30
Pallets Per Container	10	24/24
Pieces Per Container	300	720/768

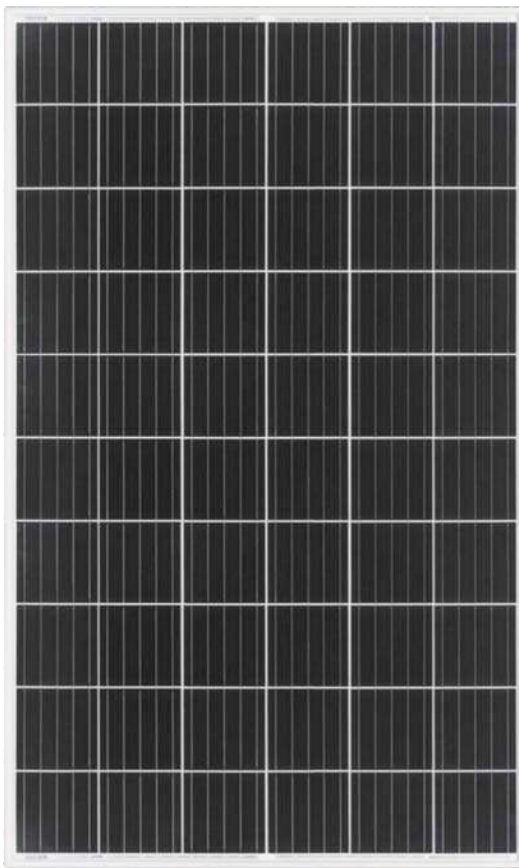
SUN60M-F-30F

**315W/320W/325W/
330W**

MONO CRYSTALLINE MODULE

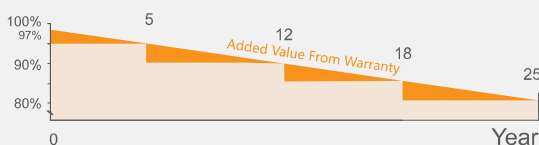
IEC61215 / IEC61730 / IEC61701 /
IEC62716 / IEC62804

Power
Space
Technology



LINEAR PERFORMANCE WARRANTY

- 12 Years Manufacturing Warranty
- 12 Years 90% Power Output
- 25 Years 80% Power Output



IP68 junction box, connector

IP68 junction box and connector have a high degree of waterproof, effectively resist the harsh environment;



15A current

The junction box carries a current of 15A, ensuring high current flow through the modules;



Super strong frame

Glue-spilled tank has a double-layer waterproof, cross-section with hook-shaped aluminum frame, enhanced by 10% of the mechanical load strength;



Current division

The module refines the current division, thus effectively reducing the loss of up to 2% due to mismatch and increasing the power output of the system;



Salt spray, ammonia and PID test

Excellent salt spray resistance, anti-ammonia and anti PID, TUV, SUD certification approved;



Strong mechanical load capacity

Passed the 2400pa wind load and 5400pa snow load test, ensuring that the module has a stable mechanical life;



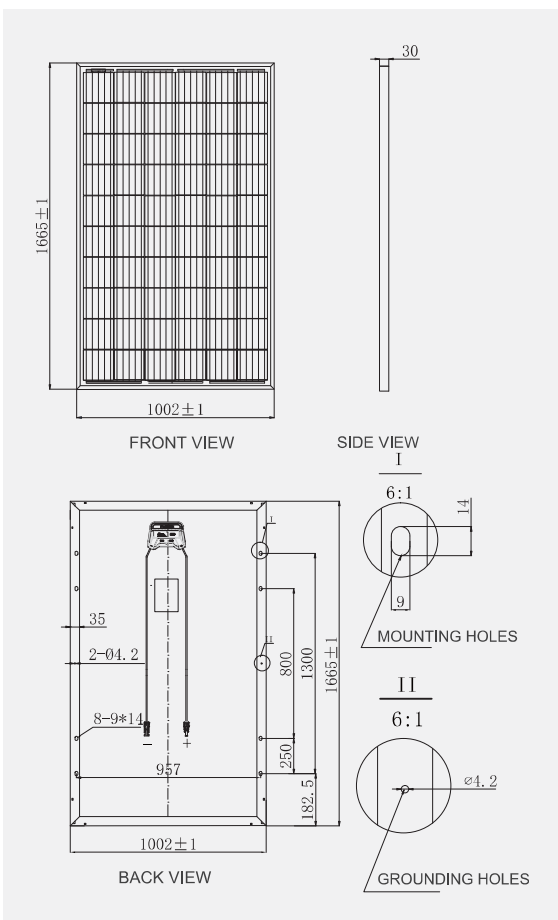
Color classification

Modules are packaged according to color classification, to achieve consistent appearance after installation;

QUALIFICATIONS AND CERTIFICATES



MECHANICAL DRAWINGS



MECHANICAL SPECIFICATION

Cell Type	Mono Crystalline 158.75x158.75mm
Number Of Cells	60 (6x10)
Dimensions(AxBxC)	1665x1002x30mm
Weights	19.0kg
Front Glass	3.2mm Tempered Low Iron Glass
Frame	Clear Anodized Aluminum Alloy
Junction Box	IP68, with Bypass Diodes
Connector	Mc4 Compatible
Output Cables	Tuv, ±length 900mm, 4.0mm ²

ELECTRICAL CHARACTERISTICS

Maximum Power At STC(Pmax)	315W	320W	325W	330W
Short Circuit Current(Isc)	10.05A	10.14A	10.23A	10.30A
Open Circuit Voltage(Voc)	40.6V	41.0V	41.3V	41.6V
Maximum Power Current(Imp)	9.49A	9.58A	9.67A	9.76A
Maximum Power Voltage(Vmpp)	33.2V	33.4V	33.6V	33.8V
Module Efficiency	18.88%	19.18%	19.48%	19.78%
Power Tolerance	0~+3%	0~+3%	0~+3%	0~+3%

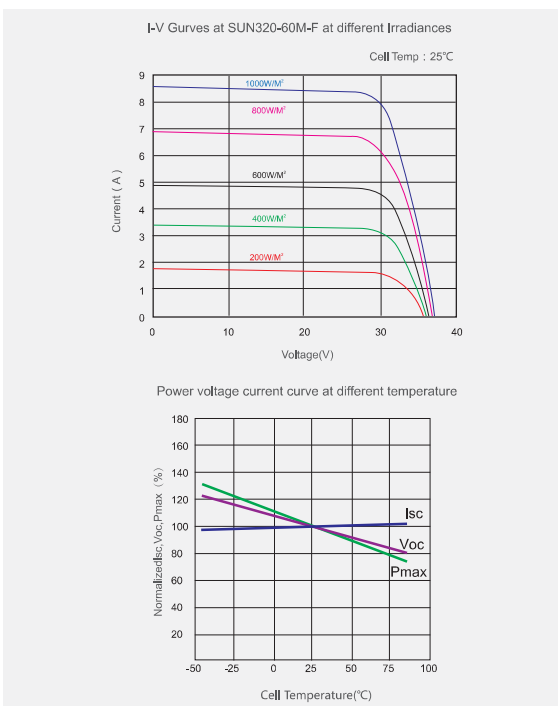
STC: 1000W/m² irradiance, 25°C cell temperature, AM1.5.

NOCT

Maximum Power At STC(Pmax)	234.8	238.5	242.3	246.0
Short Circuit Current(Isc)	8.14	8.21	8.28	8.34
Open Circuit Voltage(Voc)	37.5	37.9	38.2	38.5
Maximum Power Current(Imp)	7.71	7.78	7.85	7.90
Maximum Power Voltage(Vmpp)	30.4	30.7	30.9	31.1

NOCT: Irradiance at 800W/m², Ambient Temperature 20°C, wind speed 1m/s.

I-V CURVES



SYSTEM INTEGRATION PARAMETERS

Maximum System Voltage	VDC 1000V
Maximum Series Fuse	15A
Increased Snowload Acc.to Iec 61215	5400Pa
Operating Temperature	-40~+85°C
Number Of Bypass Diodes	3

TEMPERATURE CHARACTERISTICS

Normal Operating Cell Temperature(Noct)	45°C±2°C
Temperature Coefficient Of Pmax	-0.40%/°C
Temperature Coefficient Of Voc	-0.29%/°C
Temperature Coefficient Of Isc	0.05%/°C

PACKING CONFIGURATION

Container	40' HQ
Pieces Per Pallet	35
Pallets Per Container	28
Pieces Per Container	980

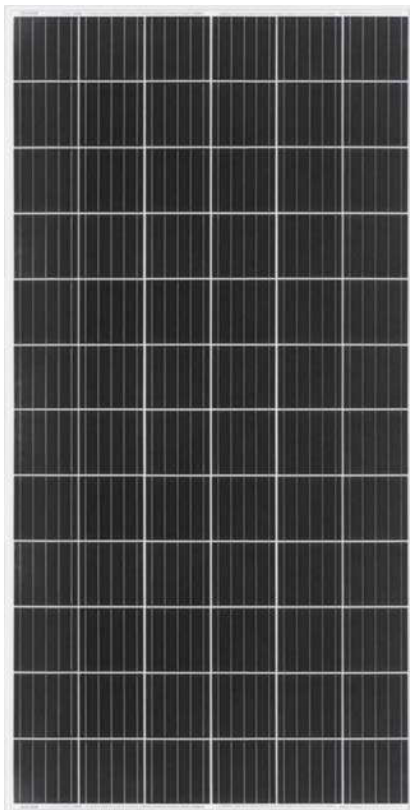
SUN72M-F-35F

380W/385W/390W/
395W/400W

MONO CRYSTALLINE MODULE

IEC61215 / IEC61730 / IEC61701 /
IEC62716 / IEC62804

Exquisite
Workmanship
Excellent Quality.



IP68 junction box, connector

IP68 junction box and connector have a high degree of waterproof, effectively resist the harsh environment



15A current

The junction box carries a current of 15A, ensuring high current flow through the modules



Super strong frame

Glue-spilled tank has a double-layer waterproof, cross-section with hook-shaped aluminum frame, enhanced by 10% of the mechanical load strength



Current division

The module refines the current division, thus effectively reducing the loss of up to 2% due to mismatch and increasing the power output of the system



Salt spray, ammonia and PID test

Excellent salt spray resistance, anti-ammonia and anti PID, TUV, SUD certification approved



Strong mechanical load capacity

Passed the 2400pa wind load and 5400pa snow load test, ensuring that the module has a stable mechanical life

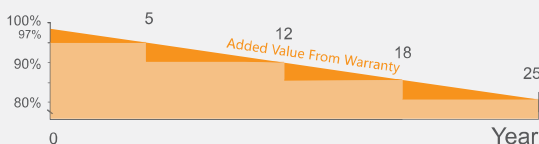


Color classification

Modules are packaged according to color classification, to achieve consistent appearance after installation

LINEAR PERFORMANCE WARRANTY

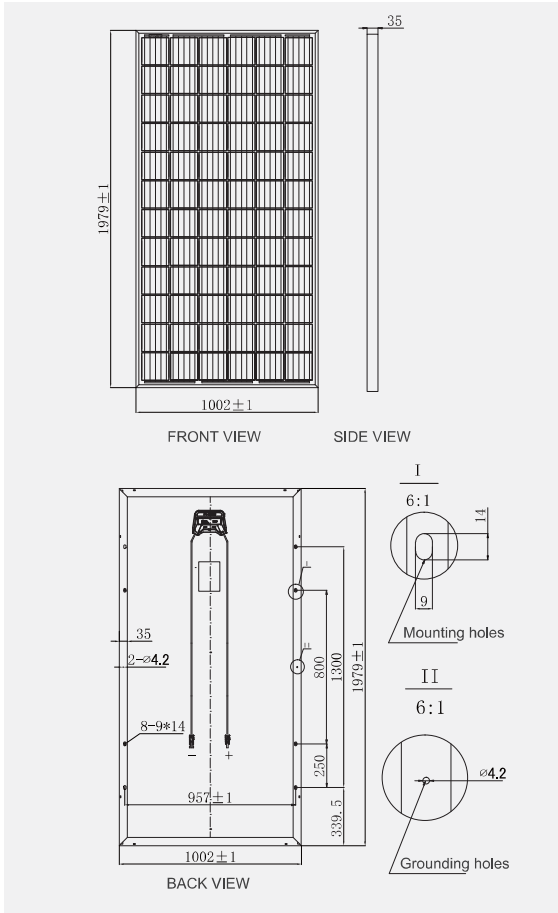
- 12 Years Manufacturing Warranty
- 12 Years 90% Power Output
- 25 Years 80% Power Output



QUALIFICATIONS AND CERTIFICATES



MECHANICAL DRAWINGS



MECHANICAL SPECIFICATION

Cell Type	Mono Crystalline 158.75x158.75mm
Number Of Cells	72 (6x12)
Dimensions(AxBxC)	1979x1002x35mm
Weights	23.0kg
Front Glass	3,2mm Tempered Low Iron Glass
Frame	Clear Anodized Aluminum Alloy
Junction Box	IP68,with Bypass Diodes
Connector	Mc4 Compatible
Output Cables	Tuv,±length 900mm,4.0mm ²

ELECTRICAL CHARACTERISTICS

Maximum Power At STC(Pmax)	380W	385W	390W	395W	400W
Short Circuit Current(Isc)	9.97A	10.08A	10.14A	10.24A	10.31A
Open Circuit Voltage(Voc)	48.7V	48.9V	49.2V	49.4V	49.7V
Maximum Power Current(Imp)	9.52A	9.60A	9.68A	9.78A	9.85A
Maximum Power Voltage(Vmp)	39.9V	40.1V	40.3V	40.4V	40.6V
Module Efficiency	19.16%	19.42%	19.67%	19.92%	20.17%
Power Tolerance	0~+3%	0~+3%	0~+3%	0~+3%	0~+3%

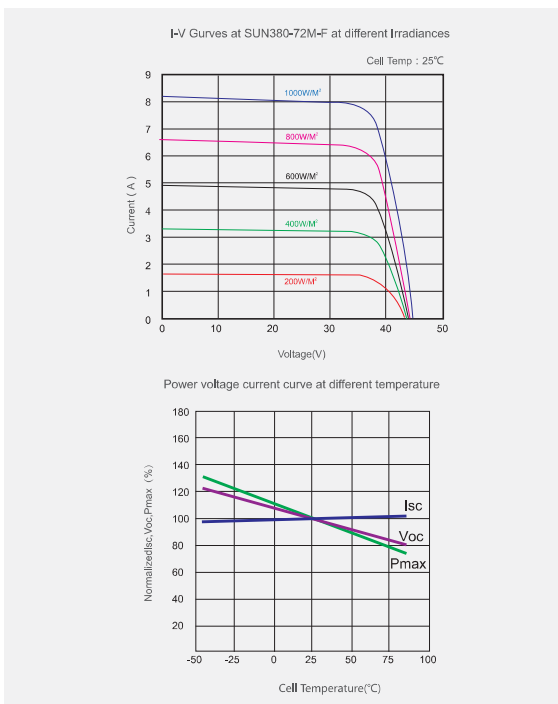
STC: 1000W/m² irradiance, 25°C cell temperature, AM1.5.

NOCT

Maximum Power At STC(Pmax)	283.3	287.0	290.7	294.4	298.2
Short Circuit Current(Isc)	8.07	8.16	8.21	8.29	8.35
Open Circuit Voltage(Voc)	45.0	45.2	45.5	45.7	46.0
Maximum Power Current(Imp)	7.65	7.74	7.78	7.86	7.91
Maximum Power Voltage(Vmp)	37.0	37.1	37.4	37.5	37.7

NOCT: Irradiance at 800W/m², Ambient Temperature 20°C, wind speed 1m/s.

I-V CURVES



SYSTEM INTEGRATION PARAMETERS

Maximum System Voltage	VDC 1000V
Maximum Series Fuse	15A
Increased Snowload Acc.to Iec 61215	5400Pa
Operating Temperature	-40~+85°C
Number Of Bypass Diodes	3

TEMPERATURE CHARACTERISTICS

Norminal Operating Cell Temperature(Noct)	45°C ± 2°C
Temperature Coefficient Of Pmax	-0.40%/°C
Temperature Coefficient Of Voc	-0.29%/°C
Temperature Coefficient Of Isc	0.05%/°C

PACKING CONFIGURATION

Container	40' HQ
Pieces Per Pallet	30
Pallets Per Container	22
Pieces Per Container	660