

G1 HIEFF TWIN MONO by SUNPRO

SPxxx-120MG
(xxx=325~345)

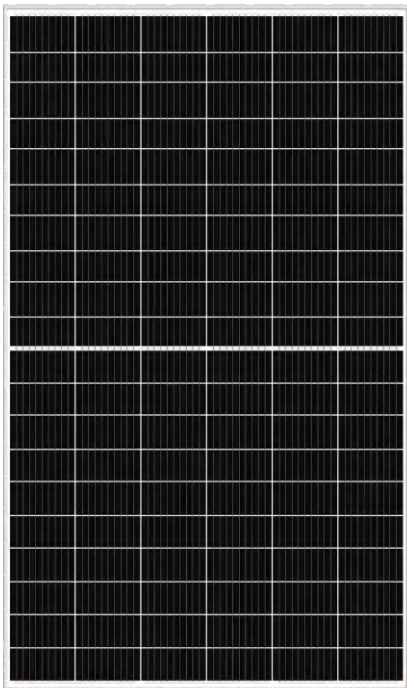
HIGH EFFICIENCY



ISO 14001

ISO 9001

ISO 45001



POWER TOLERANCE

0~+3%



WITHSTAND STRONG SNOW LOAD 8000 Pa/ WIND LOAD 8000 Pa



NEW TECHNOLOGY: HIEFF UP TO 20,41%

Higher yield per surface area,
lower BOS costs, higher power classes,
and an efficiency rate of up to 20.41%.

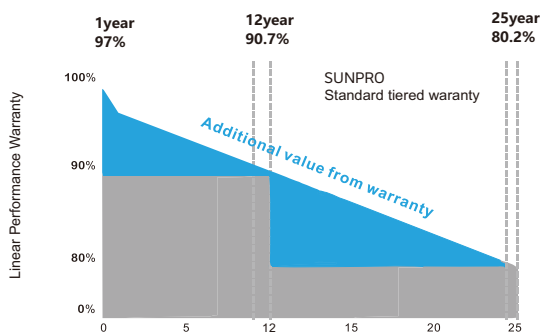


PRODUCT WITH HIEFF BY SUNPRO TECHNOLOGY

SUNPRO DUO combines cutting edge cell separation and innovative 9-busbar design with SUNPRO Technology.

Reliability & Certification

Product Guarantee: **12-year**
Linear Performance Warranty
12-year:90.7% power output
25-year:80.2% power output



Product Specification

Electrical parameters at standard test conditions
(STC:AM=1.5, 1000W/m², Cells Temperature 25°C)

Typical type	325W	335W	340W	345W
Max power(Pmax)	325	335	340	345
Max power voltage(Vmp)	33.6	34.0	34.2	34.5
Max power current(Imp)	9.69	9.85	9.94	10.00
Open circuit voltage (Voc)	40.4	40.7	41.1	41.2
Short circuit current (Isc)	10.30	10.50	10.60	10.62
Module Efficiency(%)	19.25	19.82	20.12	20.41
Max system voltage	DC 1500V(TUV) / DC 1000V(TUV)			
Maximum Series Fuse Rating	20A			

Mechanical Data

Item	Specification
Dimensions	1685x1002x35mm
Weight	18kgs
Front glass	3.2mm tempered glass
	4mm ²
Output cables	symmetrical lengths
	1100mm
Connectors	MC4 compatible IP68
Cell type	Mono-Crystalline PERC Half-Cell
	5BB 9BB 12BB 79.375mmx158.75mm
Number of cells	120 cells

Temperature Characteristics

Item	Specification
Temp.Coeff.of Isc(TK Isc)	0.049%/°C
Temp.Coeff.of Voc(TK Voc)	-0.26%/°C
Temp.Coeff.of Pmax(TK Pmax)	-0.34%/°C
Operating temperature	-40~+85°C
Normal operating cell temperature	45±2°C

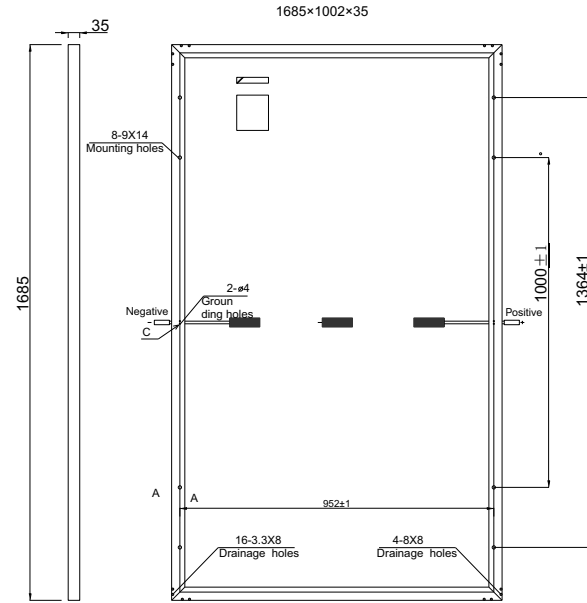
Packing Configuration

Item	Specification
Container	20'GP 40'GP 40'HQ
Pieces per pallet	60 52 66
Pallets per container	6 14 13
Pieces per container	360 728 858

Test, Certifications and Warranties

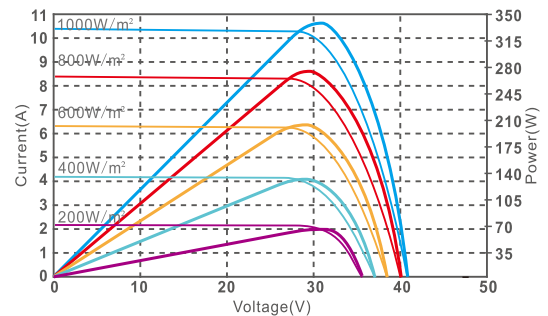
Item	Specification
Standard tests	IEC 61215, IEC 61730, IEC 61701, IEC 62716, PPP 58042B
System certs	ISO 9001, ISO14001, ISO45001
Certifications	TUV, AMMONIA AND SALT MIST CORROSION, ANTI-PID, CE, WEEE, INMERTRO
Extreme wind and snow loads testing	Withstand extreme wind(8000 Pascal) and snow loads(8000 Pascal)
Power tolerance	0~+3%
Junction box	IP68
Warranties	12 years product warranty and 25 years 80% of power

Dimensions and Structure

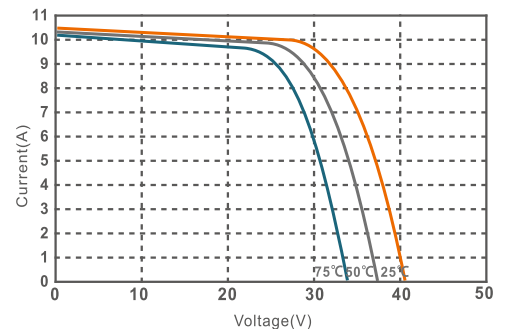


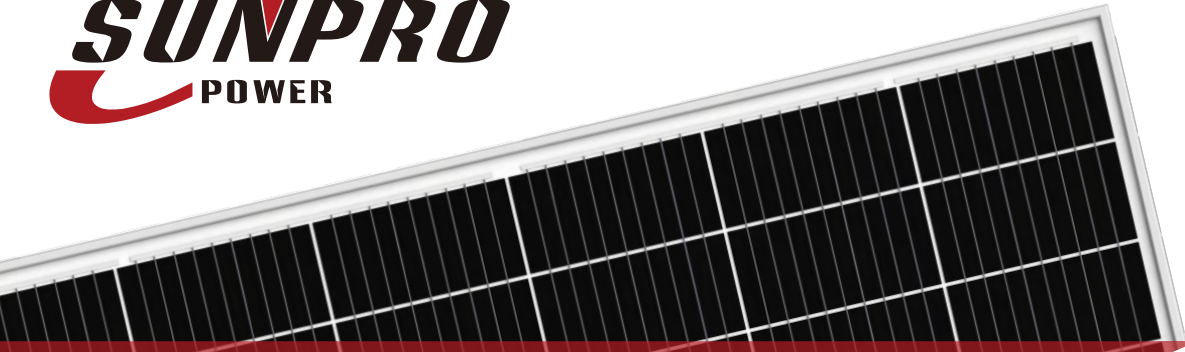
I-V Curve

I-V characteristics at different irradiances



I-V characteristics at different temperature

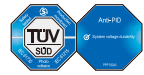




G1 HIEFF TWIN MONO by SUNPRO

SPxxx-144MG
(xxx=400~415)

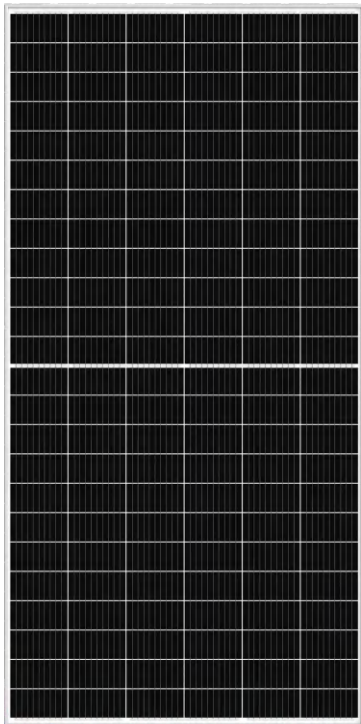
HIGH EFFICIENCY



ISO 14001

ISO 9001

ISO 45001



POWER TOLERANCE

0~+3%



WITHSTAND STRONG SNOW LOAD 5400 Pa/ WIND LOAD 2400 Pa



NEW TECHNOLOGY:

HIEFF UP TO 20,63%

Higher yield per surface area,
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and an efficiency rate of up to 20.63%.

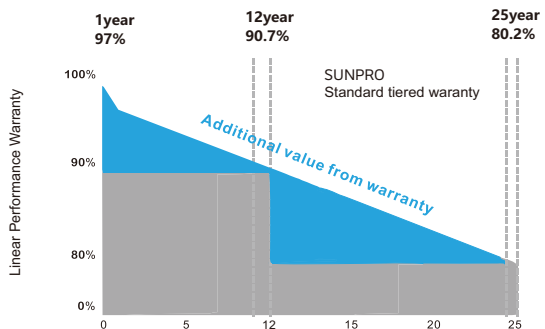


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Reliability & Certification

Product Guarantee: **12-year**
Linear Performance Warranty
12-year:90.7% power output
25-year:80.2% power output



Product Specification

Electrical parameters at standard test conditions
(STC:AM=1.5, 1000W/m², Cells Temperature 25°C)

Typical type	400W	405W	410W	415W
Max power(Pmax)	400	405	410	415
Max power voltage(Vmp)	40.4	40.6	40.8	41.0
Max power current(Imp)	9.91	9.98	10.05	10.13
Open circuit voltage (Voc)	49.3	49.5	49.7	49.9
Short circuit current (Isc)	10.40	10.48	10.55	10.64
Module Efficiency(%)	19.88	20.13	20.38	20.63
Max system voltage	DC 1500V(TUV) / DC 1000V(TUV)			
Maximum Series Fuse Rating	20A			

Mechanical Data

Item	Specification
Dimensions	2008x1002x35mm
Weight	22.5kgs
Front glass	3.2mm tempered glass
	4mm ²
Output cables	symmetrical lengths
	1100mm
Connectors	MC4 compatible IP68
Cell type	Mono-Crystalline PERC Half-Cell
Number of cells	5BB 9BB 12BB 79.375mm x 158.75mm
	144 cells

Temperature Characteristics

Item	Specification
Temp.Coeff.of Isc(TK Isc)	0.049%/°C
Temp.Coeff.of Voc(TK Voc)	-0.26%/°C
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Normal operating cell temperature	45±2°C

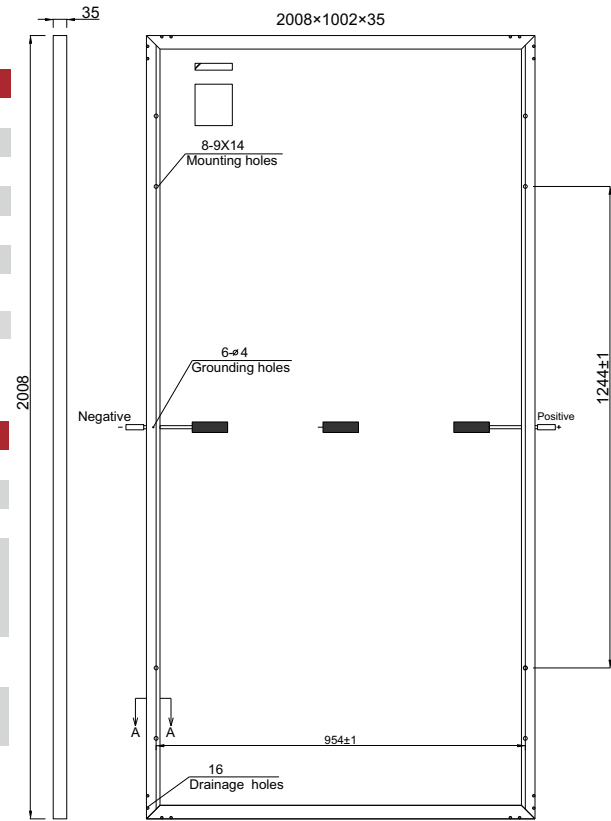
Packing Configuration

Item	Specification
Container	20'GP 40'GP 40'HQ
Pieces per pallet	60 60 64
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Pieces per container	300 660 704

Test, Certifications and Warranties

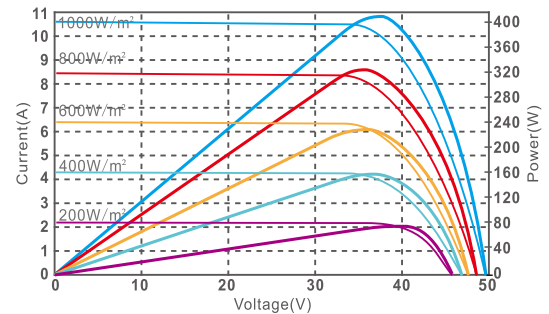
Item	Specification
Standard tests	IEC 61215, IEC 61730, IEC 61701, IEC 62716, PPP 58042B
System certs	ISO 9001, ISO14001, ISO45001
Certifications	TUV, AMMONIA AND SALT MIST CORROSION, ANTI-PID, CE, WEEE, INMERTRO
Extreme wind and snow loads testing	Withstand extreme wind(2400 Pascal) and snow loads(5400 Pascal)
Power tolerance	0~+3%
Junction box	IP68
Warranties	12 years product warranty and 25 years 80% of power

Dimensions and Structure



I-V Curve

I-V characteristics at different irradiances



I-V characteristics at different temperature

