



SOLAR N PLUS

SP-N16A/144HG

N-TYPE Bifacial 610-630W



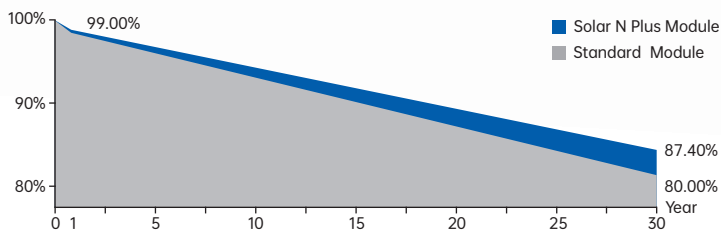
WARRANTY



Guarantee on product material and workmanship



Linear power output warranty



INSURANCE



中国平安
PINGAN

CERTIFICATION



- ISO 9001: 2015/quality management system
- ISO 14001: 2015/environment management system
- ISO 45001: 2018/occupation health safety management system

610-630W

SP-N16A/144HG

ELECTRICAL CHARACTERISTICS (STC)

Maximum Power (Pm)	W	610	615	620	625	630
Power Tolerance	W			0~+5		
Maximum Power Voltage (Vm)	V	44.4	44.6	44.8	45.0	45.2
Maximum Power Current (Im)	A	13.74	13.79	13.84	13.89	13.94
Open Circuit Voltage (Voc)	V	52.2	52.4	52.6	52.8	53.0
Short Circuit Current (Isc)	A	14.66	14.72	14.78	14.84	14.90
Module Efficiency (ηm)	%	22.6	22.8	23.0	23.1	23.3

STC:AM=1.5, irradiance=1000W/m², module temperature=25°C

ELECTRICAL CHARACTERISTICS (NMOT)

Maximum Power (Pm)	W	461	465	469	473	477
Maximum Power Voltage (Vm)	V	42.0	42.2	42.4	42.6	42.8
Maximum Power Current (Im)	A	10.98	11.03	11.07	11.11	11.15
Open Circuit Voltage (Voc)	V	49.4	49.6	49.8	50.0	50.2
Short Circuit Current (Isc)	A	11.82	11.86	11.90	11.94	11.98

NMOT: irradiance=800W/m², environment temperature=20°C, wind speed=1m/s

REAR SIDE POWER GAIN

5%	Max Power	641W	646W	651W	656W	662W
	Efficiency	24.79%	25.00%	25.20%	25.40%	25.61%
15%	Max Power	702W	707W	713W	719W	725W
	Efficiency	27.16%	27.38%	27.60%	27.82%	28.05%
25%	Max Power	763W	769W	775W	781W	788W
	Efficiency	29.52%	29.76%	30.00%	30.24%	30.48%

MECHANICAL SPECIFICATIONS

External Dimension (L×W×H)	2382×1134×30mm
Weight	33kg
Number of Cells	144 (6×24)
Front Glass	2.0mm AR-coating heat-strengthened glass
Rear Glass	2.0mm heat-strengthened glass
Frame	Anodized aluminum alloy, silver color
Junction Box	IP68
Output Cables	4.0mm², 300mm or customized length
Connector	MC4 Compatible

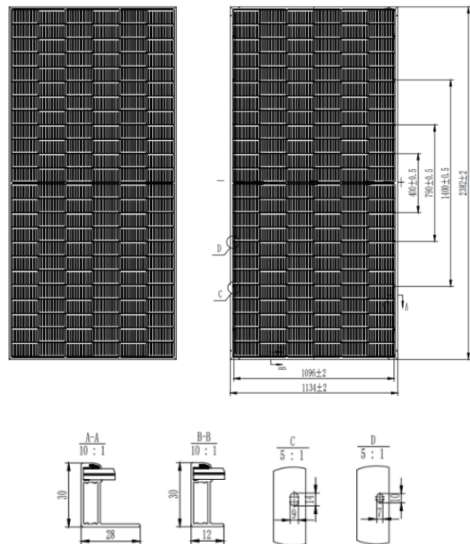
APPLICATION CONDITIONS

Maximum System Voltage	DC1500V (IEC)
Maximum Series Fuse Rating	30A
Operating Temperature	-40°C ~ +85°C
Mechanical Load	5400Pa/2400Pa
Hail Test	25mm diameter hail at 23m/s
Bifaciality	80±5%
Application Rating	Class A

TEMP CHARACTERISTICS

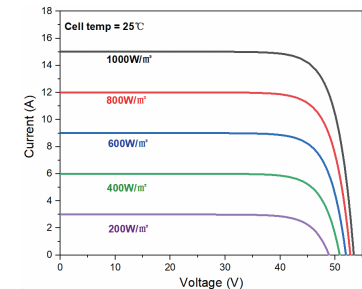
Nominal Module Operating Temperature	42±2°C
Temperature Coefficient of Pmax	-0.29%/°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of ISC	+ 0.045%/°C

TECHNICAL DRAWING

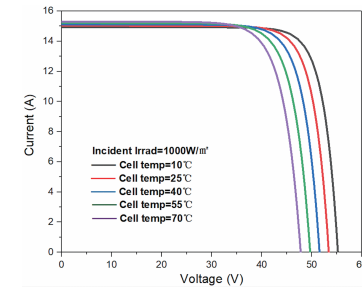


I-V CURVE

I-V characteristics at different irradiance (SP-N16A/144HG630W)



I-V characteristics at different temperatures (SP-N16A/144HG630W)



PACKING CONFIGURATION

Container	40'HC
Pieces per Pallet	37 pcs
Packaging box Size	2439×1145×1260mm
Pieces per Container	740 pcs



SOLAR N PLUS NEW ENERGY TECHNOLOGY CO., LTD

No.1 Jianye road, Zhongxin Suchu Industrial Development Zone, Chuzhou City, 239000, Anhui Province, China
025-52806120
www.solarnplus.com

Solar N Plus reserves the sole right of interpretation.
Version No.20241203V3.2