



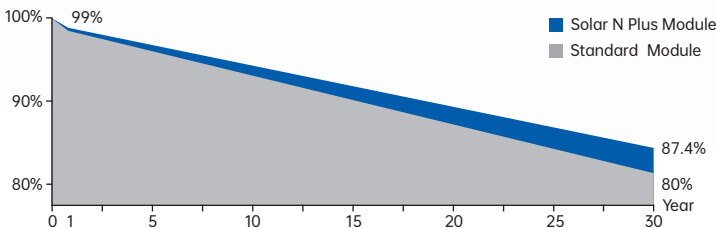
**SP-N16/108HG**

# All-black Bifacial 420-440W

-  **HIGHER EFFICIENCY**
-  **LOWER TEMPERATURE COEFFICIENT**
-  **LOW ATTENUATION, LONG WARRANTY**
-  **HIGHER BIFACIALITY**

## WARRANTY

-  **15 YEARS** Guarantee on product material and workmanship
-  **30 YEARS** Linear power output warranty



## INSURANCE



## CERTIFICATION



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

# 420-440W SP-N16/108HG

## ELECTRICAL CHARACTERISTICS (STC)

Maximum Power (Pm)	W	420	425	430	435	440
Power Tolerance	W	0~+5				
Maximum Power Voltage (Vm)	V	33.3	33.5	33.7	33.9	34.1
Maximum Power Current (Im)	A	12.61	12.69	12.76	12.83	12.91
Open Circuit Voltage (Voc)	V	38.85	39.05	39.25	39.45	39.65
Short Circuit Current (Isc)	A	13.46	13.51	13.56	13.61	13.66
Module Efficiency (ηm)	%	21.5	21.8	22.0	22.3	22.5

STC:AM=1.5, irradiance=1000W/m<sup>2</sup>, module temperature=25°C

## ELECTRICAL CHARACTERISTICS (NMOT)

Maximum Power (Pm)	W	316	320	324	328	332
Maximum Power Voltage (Vm)	V	30.44	30.68	30.92	31.15	31.35
Maximum Power Current (Im)	A	10.38	10.43	10.48	10.53	10.59
Open Circuit Voltage (Voc)	V	36.70	36.90	37.10	37.30	37.50
Short Circuit Current (Isc)	A	10.81	10.86	10.91	10.96	11.00

NMOT: irradiance=800W/m<sup>2</sup>, environment temperature=20°C, wind speed=1m/s

## REAR SIDE POWER GAIN

5%	Max Power	441W	446W	452W	457W	462W
	Efficiency	17.07%	17.27%	17.48%	17.68%	17.88%
15%	Max Power	483W	489W	495W	500W	506W
	Efficiency	18.70%	18.92%	19.14%	19.37%	19.59%
25%	Max Power	525W	531W	538W	544W	550W
	Efficiency	20.32%	20.57%	20.81%	21.05%	21.29%

## MECHANICAL SPECIFICATIONS

External Dimension (L×W×H)	1722×1134×30mm
Weight	24kg
Number of Cells	108 (6×18)
Front Glass	2.0mm AR-coating heat-strengthened glass
Rear Glass	2.0mm heat-strengthened glass
Frame	Anodized aluminum alloy, black color
Junction Box	IP68
Output Cables	4mm <sup>2</sup> , 300mm or customized length
Connector	MC4 Compatible

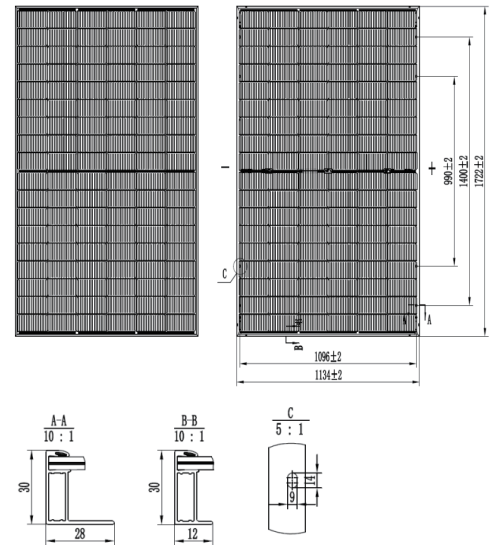
## APPLICATION CONDITIONS

Maximum System Voltage	DC1500V (IEC)
Maximum Series Fuse Rating	25A
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

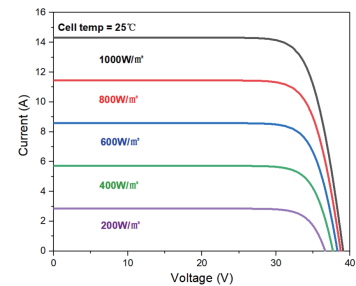
Nominal Module Operating Temperature	42±2°C
Temperature Coefficient of Pmax	-0.29%/°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of ISC	0.045%/°C

## TECHNICAL DRAWING

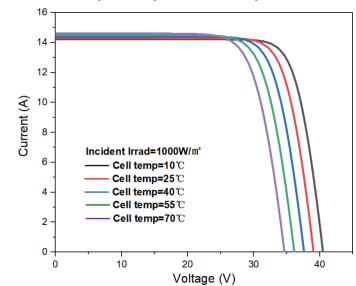


## I-V CURVE

I-V characteristics at different irradiance (SP-N16/108HG440W)



I-V characteristics at different temperatures (SP-N16/108HG440W)



## PACKING CONFIGURATION

Container	40'HC
Pieces per Pallet	36 pcs
Packaging box Size	1779×1145×1260mm
Pieces per Container	936 pcs



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Version No.20240418V2.0