



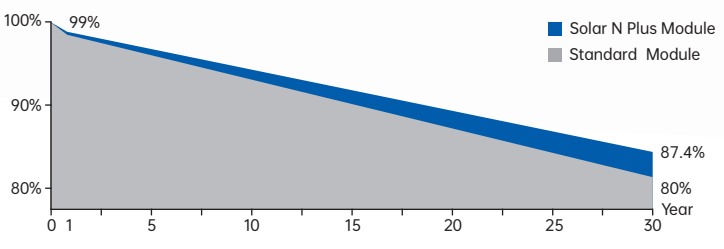
SP-N16/144HG

TOPcon Bifacial 550-595W

- 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

550-595W **SP-N16/144HG**

TOPCON BIFACIAL

SP-N16/144HG 550W SP-N16/144HG 555W SP-N16/144HG 560W SP-N16/144HG 565W SP-N16/144HG 570W SP-N16/144HG 575W SP-N16/144HG 580W SP-N16/144HG 585W SP-N16/144HG 590W SP-N16/144HG 595W

ELECTRICAL CHARACTERISTICS (STC)

Parameter	W	550	555	560	565	570	575	580	585	590	595
Maximum Power (Pmax) / tolerance ±3%	W	550	555	560	565	570	575	580	585	590	595
Power Distribution	W	0~+5									
Maximum Power Voltage (Vmp)	V	43.95	44.15	44.35	44.55	44.75	44.95	45.15	45.35	45.55	45.75
Maximum Power Current (Imp)	A	12.52	12.57	12.63	12.68	12.74	12.79	12.85	12.90	12.96	13.01
Open Circuit Voltage (Voc) / tolerance ±3%	V	51.4	51.6	51.8	52.0	52.2	52.4	52.6	52.8	53.0	53.2
Short Circuit Current (Isc) / tolerance ±4%	A	13.27	13.32	13.37	13.42	13.47	13.52	13.57	13.62	13.67	13.72
Module Efficiency (ηm)	%	21.3	21.5	21.7	21.9	22.1	22.3	22.5	22.6	22.8	23.0
Bifaciality coefficient with tolerance	φIsc= 80%+5%, φVoc= 100%+5%, φPmax= 80%+5%										

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

ELECTRICAL CHARACTERISTICS (BNPI)

Parameter	W	605	610	615	620	625	630	635	640	645	650
Maximum Power (Pmax) / tolerance ±3%	W	605	610	615	620	625	630	635	640	645	650
Maximum Power Voltage (Vmp)	V	43.95	44.15	44.35	44.55	44.75	44.95	45.15	45.35	45.55	45.75
Maximum Power Current (Imp)	A	13.77	13.82	13.87	13.92	13.97	14.02	14.06	14.11	14.16	14.21
Open Circuit Voltage (Voc) / tolerance ±3%	V	51.40	51.60	51.80	52.00	52.20	52.40	52.60	52.80	53.00	53.20
Short Circuit Current (Isc) / tolerance ±4%	A	14.60	14.65	14.71	14.76	14.82	14.87	14.93	14.98	15.04	15.09

E=Front 1000W/m² Rear 135W/m²

ELECTRICAL CHARACTERISTICS (αBSI)

Parameter	A	16.45	16.52	16.58	16.64	16.70	16.76	16.83	16.89	16.95	17.01
Short Circuit Current (Isc)/tolerance ±4%	A	16.45	16.52	16.58	16.64	16.70	16.76	16.83	16.89	16.95	17.01

E=Front 1000W/m² Rear 300W/m²

ELECTRICAL CHARACTERISTICS (NMOT)

Parameter	W	414	418	422	426	430	433	437	441	445	449
Maximum Power (Pmax) / tolerance ±3%	W	414	418	422	426	430	433	437	441	445	449
Maximum Power Voltage (Vmp)	V	40.46	40.64	40.82	41.00	41.18	41.36	41.54	41.72	41.90	42.08
Maximum Power Current (Imp)	A	10.22	10.27	10.32	10.37	10.42	10.47	10.52	10.57	10.62	10.67
Open Circuit Voltage (Voc) / tolerance ±3%	V	48.53	48.73	48.93	49.13	49.33	49.53	49.73	49.93	50.13	50.33
Short Circuit Current (Isc) / tolerance ±4%	A	10.61	10.66	10.71	10.76	10.81	10.86	10.91	10.96	11.01	11.06

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

REAR SIDE POWER GAIN

Gain	Parameter	578W	583W	588W	593W	599W	604W	609W	614W	620W	625W
5%	Max Power	578W	583W	588W	593W	599W	604W	609W	614W	620W	625W
	Efficiency	22.36%	22.56%	22.76%	22.97%	23.17%	23.37%	23.57%	23.78%	23.98%	24.18%
15%	Max Power	633W	638W	644W	650W	656W	661W	667W	673W	679W	684W
	Efficiency	24.48%	24.71%	24.93%	25.15%	25.37%	25.60%	25.82%	26.04%	26.27%	26.49%
25%	Max Power	688W	694W	700W	706W	713W	719W	725W	731W	738W	744W
	Efficiency	26.61%	26.86%	27.10%	27.34%	27.58%	27.82%	28.07%	28.31%	28.55%	28.79%

550-595W SP-N16/144HG

MECHANICAL SPECIFICATIONS

External Dimension (L×W×H)	2278×1134×30mm
Weight	31.5kg
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	4.0mm ² , 300mm or customized length
Connector	Tonglin TL-CABLE01S Pro

APPLICATION CONDITIONS

Maximum System Voltage	DC1500V (IEC)
Maximum Series Fuse Rating	25A
Operating Temperature	-40°C ~ +85°C
Maximum Mechanical load	5400Pa/2400Pa
Hail Test	25mm diameter hail at 23m/s
Application Rating	Class II
Fire Safety Class	Class C

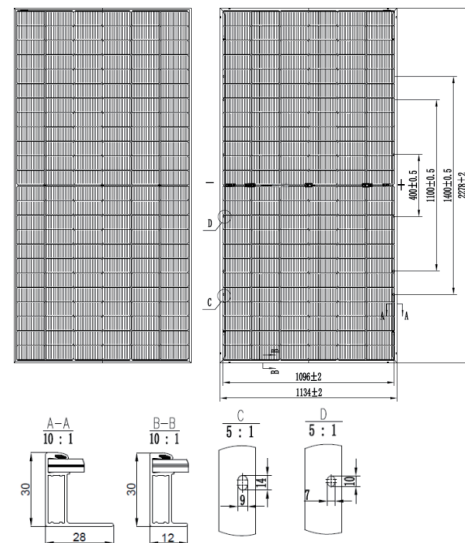
TEMP CHARACTERISTICS

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

PACKING CONFIGURATION

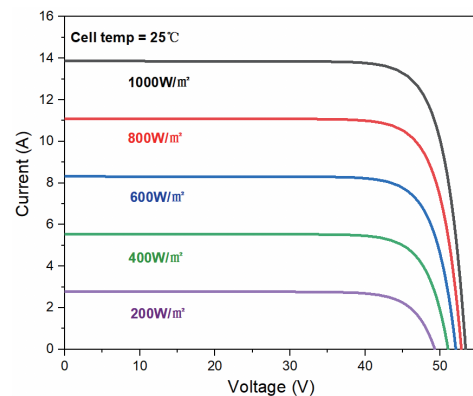
Container	40'HC
Pieces per Pallet	36 pcs
Packaging box Size	2335×1145×1260mm
Pieces per Container	720 pcs

TECHNICAL DRAWING

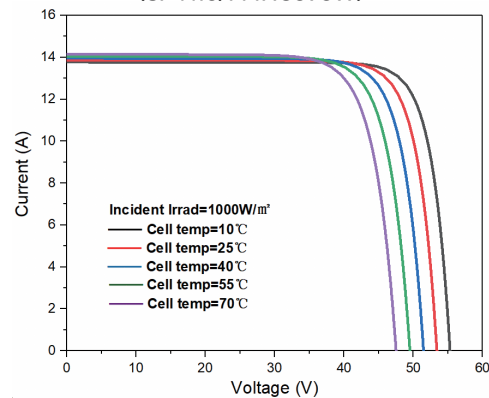


I-V CURVE

I-V characteristics at different irradiance (SP-N16/144HG595W)



I-V characteristics at different temperatures (SP-N16/144HG595W)



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.20240828V3.0