

MADE
IN
INDIA

SUNBND
Energy Pvt Ltd

NiRSUN+ SERIES

12
YEARS

12 Years Product
Warranty
On Materials And
Workmanship*

30
YEARS

30 Years Warranty
for Linear
Performance*



N-TYPE TOPCON 16BB- M10R

570 Wp - 595 Wp

BIFACIAL (GLASS TO GLASS)



Extra Power/High Saving



Extra Life With Up to
30% Additional Power



Double-Sided
Power Generation



Excellent anti-LeTID
& anti-PID performance



Lower temperature
coefficient



Lower LCOE
& system cost



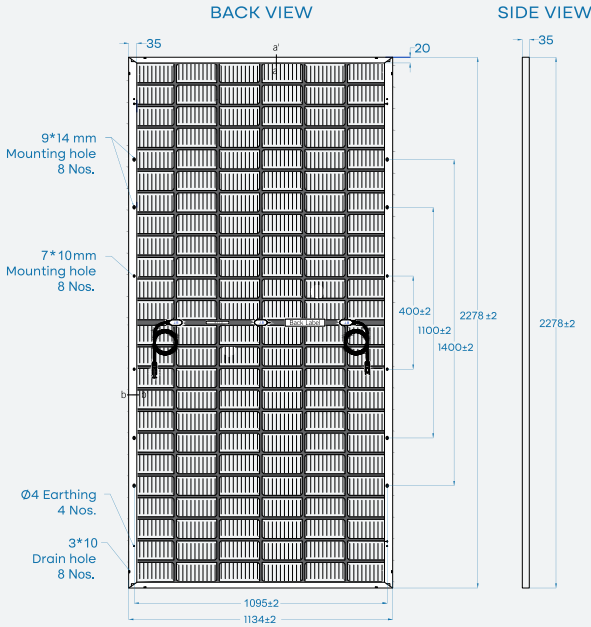
PRODUCT | CERTIFICATES

IS 14286, IEC: 61215, 61730-1 & 11, 62804, 61853-1 & 11, 61701, 62716, 60068-2, 60904, 63343-2, IEC CB, UL 61730-1 & 2
Quality Management System: ISO 9001:2015
Environment Management System: ISO 14001: 2015
Occupational Health and Safety: ISO 45001:2018

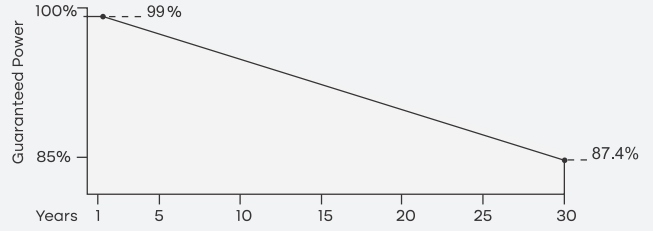
TECHNICAL DATA

ELECTRICAL CHARACTERISTICS**	SEPL16BGGN144-570		SEPL16BGGN144-575		SEPL16BGGN144-580		SEPL16BGGN144-585		SEPL16BGGN144-590		SEPL16BGGN144-595	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Nominal Maximum Power (Pmax)	570	432	575	435	580	439	585	443	590	447	595	451
Optimum Operating Voltage (Vmp)	45.69	43.62	45.83	43.75	45.97	43.89	46.11	44.02	46.25	44.16	46.39	44.29
Optimum Operating Current (Imp)	12.48	10.10	12.55	10.15	12.62	10.21	12.69	10.27	12.76	10.32	12.83	10.38
Open Circuit Voltage (Voc)	51.95	49.60	52.10	49.74	52.25	49.88	52.40	50.03	52.55	50.17	52.70	50.31
Short Circuit Current (Isc)	13.67	11.06	13.73	11.11	13.79	11.16	13.85	11.21	13.91	11.26	13.97	11.30
Module Efficiency	22.1		22.3		22.5		22.6		22.8		23.0	

*STC (Standard Test Conditions): Irradiance 1000W/m², Temperature 25°C. Spectrum at AM 1.5G *NMOT (Nominal Module Operating Temperature): Irradiance 800W/m², Ambient temperature 20°C, Spectrum at AM 1.5G, Wind speed at 1m/s.

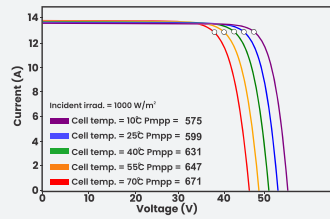


LINEAR PERFORMANCE WARRANTY

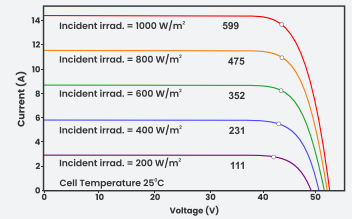


12 Year Mfg. Warranty, 30 Years Performance Warranty

IV Curve Variation with Temperature



IV Curve Variation with Irradiance



IV Curves for Front-Side Illumination of 595 Wp Panel

BIFACIAL OUTPUT – BACKSIDE POWER GAIN @ STC* [Bifaciality Factor: 75% ± 10%]

[Note: The bifacial gain depends on the power plant design and site conditions. Electrical component ratings should be selected as per actual Bifacial gain at site (module currents indicated below)]

	Capacity rating - Pmax(Wp)	Rated Voltage - Vmp(V)	Rated Current - Imp(A)	Open Circuit Voltage - Voc(V)	Short Circuit Current - Isc(A)	Module Efficiency (%)
5%	599	45.69	13.10	51.95	14.35	23.2
	604	45.83	13.17	52.10	14.42	23.4
	609	45.97	13.25	52.25	14.48	23.6
	614	46.11	13.32	52.40	14.54	23.8
	620	46.25	13.39	52.55	14.61	24.0
	625	46.39	13.47	52.70	14.67	24.2
10%	627	45.69	13.72	51.95	15.04	24.3
	633	45.83	13.80	52.10	15.10	24.5
	638	45.97	13.88	52.25	15.17	24.7
	644	46.11	13.96	52.40	15.24	24.9
	649	46.25	14.03	52.55	15.30	25.1
	655	46.39	14.11	52.70	15.37	25.3

MECHANICAL SPECIFICATIONS

Dimensions	2278(L) x 1134(W) x 35(T)
Weight(kg)	31.50kg
Cell type / No of Cell	(91.87mm x 182.2mm) 144 Half cut M10R N-type TOPcon Bifacial Solar cells
Frame	Anodized Aluminum Alloy (6005, Temper T6, Silver color)
Front Cover	Low Iron semi-Tempered AR coated Glass (2 mm thick)
Encapsulate	PID resistant and UV resistant Polymeric Film
Back Cover	Low Iron semi-Tempered Glass (2 mm thick)
Junction Box	30A Split Junction Box (3 nos. with individual Bypass Diode) - Weatherproof (IP68)
Bypass Diode	60 A, 45 V, 200 °C max. junction temperature
Cable	4 sq. mm, 300 mm length (Customized cable length available on request)
Connectors	Mc4 Type
Application Class Rating	Class A
Safety Class Rating	Class II
Mechanical Load Test	5400 Pa-Front; 2400 Pa-Back (as per IEC & UL)
Mounting Holes Pitch (Y)-mm	[A] 1400, [B] 1100, (Holes at 400 mm Y-pitch for tracker can be provided on customer request)
Mounting Holes Pitch (X)-mm	1095

MAXIMUM OPERATING CONDITIONS

Operating Temperature:	-40°C to +85°C
Maximum System Voltage:	1500V
Maximum Series Fuse Rating:	30 A

TEMPERATURE COEFFICIENTS

Current α (Isc) :	0.0571%/°C
Voltage β (Voc) :	-0.2263%/°C
Power γ (Pmax) :	-0.2665%/°C

PACKING STANDARD

	19FT	20FT	40FT
No. of Modules per Container:	224	224	616
No. of Pallets per Container:	8	8	22
No. of Modules per Pallet/Weight:	28 Nos/930 Kg		
Pallet Dimensions in mm:	2300(L)*1000(W)*1280(H)		

ELECTRICAL PERFORMANCE [Note: Power tolerance: 0 ~ +4.99 W. Power measurement uncertainty: < ±3%. Average value of NMOT: 44.00 ± 2 °C]

Caution: Please read safety and installation instructions before using the product. # Warranty: Linear performance warranty for 30 years, with degradation up to 1% in 1st year and 0.4%/year from year 2 to year 30. # Please read SUNBOND warranty documents thoroughly. Disclaimer: Specifications included in the datasheet are subject to change without prior notice owing to continuous innovation in the Product development and Activities. SUNBOND ENERGY PVT.LTD. reserves the right to make any adjustment to the information described here. Dataset contained in this specification do not form a representative of a single module data. # T&C Apply.

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