

● ● ● MADE
● ● ● IN
● ● ● INDIA



NiRSUN^{Pro}

SERIES

12
YEARS

**12 Years Product
Warranty**
On Materials And
Workmanship*

30
YEARS

30 Years Warranty
for Linear
Performance*



N-TYPE TOPCON 16BB - G12R

600 Wp - 625 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**



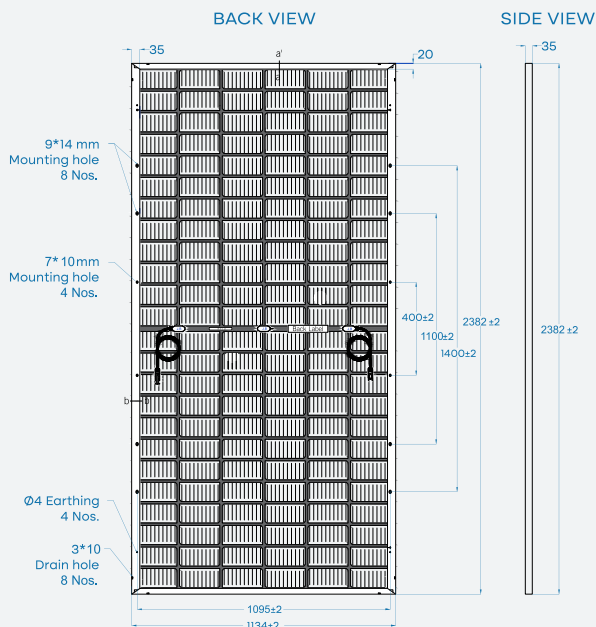
PRODUCT | CERTIFICATES

IS 14286, IEC: 61215, 61730-1 & 11, 62804, 61853-1 & 11, 61701, 62716, 60068-2, 60904, 63342-1, 63343-2, IEC CB, UL 81730-1 & 2
 Quality Management System: ISO 9001:2015
 Environment Management System: ISO 14001: 2015
 Occupational Health and Safety: ISO 45001:2018

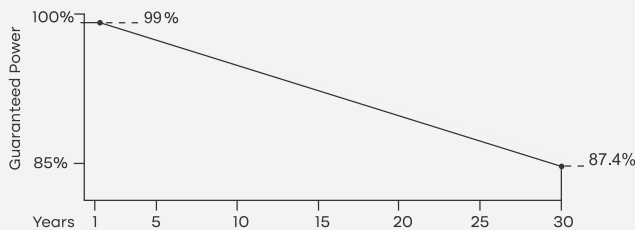
TECHNICAL DATA

ELECTRICAL CHARACTERISTICS*	SEPLG12R132 - 600		SEPLG12R132 - 605		SEPLG12R132 - 610		SEPLG12R132 - 615		SEPLG12R132 - 620		SEPLG12R132 - 625	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Nominal Maximum Power (Pmax)	600	454	605	458	610	462	615	465	620	469	625	473
Optimum Operating Voltage (Vmp)	40.94	38.76	40.74	38.90	40.89	39.04	41.03	39.17	41.17	39.30	41.31	39.44
Optimum Operating Current (Imp)	14.78	11.94	14.85	12.00	14.92	12.05	14.99	12.11	15.06	12.17	15.13	12.22
Open Circuit Voltage (Voc)	47.59	45.43	47.74	45.58	47.89	45.72	48.04	45.86	48.19	46.01	48.34	46.15
Short Circuit Current (Isc)	15.66	12.65	15.72	12.70	15.78	12.75	15.84	12.80	15.90	12.85	15.96	12.89
Module Efficiency	22.2		22.4		22.6		22.8		23.0		23.1	

*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.

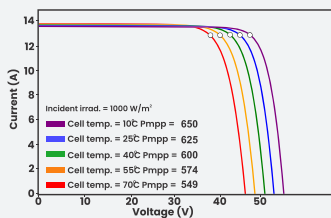


LINEAR PERFORMANCE WARRANTY

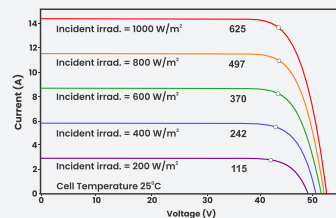


12 Year Mfg. Warranty, 30 Years Performance Warranty

IV Curve Variation with Temperature



IV Curve Variation with Irradiance



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)	630	635	641	646	651	656
Rated Voltage - Vmp(V)	40.60	40.74	40.89	41.03	41.17	41.31
Rated Current - Imp(A)	15.52	15.59	15.67	15.74	15.81	15.89
Open Circuit Voltage - Voc(V)	47.59	47.74	47.89	48.04	48.19	48.34
Short Circuit Current - Isc(A)	16.45	16.51	16.57	16.63	16.70	16.76
Module Efficiency (%)	24.4	24.6	24.8	25.0	25.2	25.4

Capacity rating - Pmax(Wp)	660	666	671	677	682	688
Rated Voltage - Vmp(V)	40.60	40.74	40.89	41.03	41.17	41.31
Rated Current - Imp(A)	16.26	16.34	16.41	16.49	16.57	16.64
Open Circuit Voltage - Voc(V)	47.59	47.74	47.89	48.04	48.19	48.34
Short Circuit Current - Isc(A)	17.23	17.29	17.36	17.43	17.49	17.56
Module Efficiency (%)	25.6	25.8	26.0	26.2	26.4	26.6

MECHANICAL SPECIFICATIONS

Dimensions	2382(L) x 1134(W) x 35(T)
Weight(kg)	33kg
Cell type / No of Cell	(105mm x 182.3mm) 132 Half-cut G12R 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) :	0.0491%/°C
Voltage β (Voc) :	-0.2266%/°C
Power γ (Pmax) :	-0.2701%/°C

PACKING STANDARD

	32FT	40FT
No. of Modules per Container:	248	620
No. of Pallets per Container:	08	20
No. of Modules per Pallet/Weight:	31 Nos/1110kg	
Pallet Dimensions in mm:	2402(L)*1130(W)*1300(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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