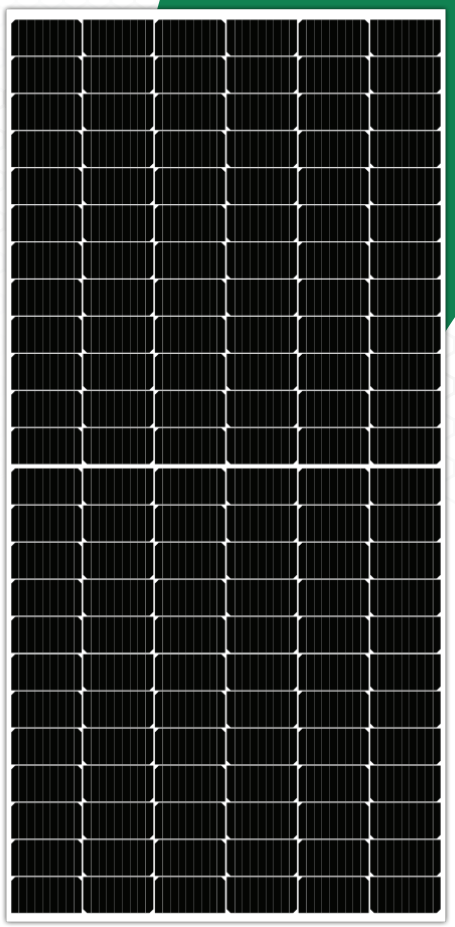
ib SOLAR™

Switch to SOLAR for a Brighter Tomorrow

VALOR SERIES

N-TOPCon

600Wp-625Wp



Key Features

- Higher power output with N-Type cells.
- Guaranteed consistent performance.
- Better energy in low-light conditions.
- Improved high-temp energy yield (-0.30%/°C).
- Up to 23.12% efficiency, 10-30% higher than P-type.
- 16BB — Enhanced performance with MBB (16BB) N-TOPCon design.
- Durable under 2400 Pa wind and 5400 Pa snow load.
- 100% — 100% defect-free through rigorous testing.
- Increased energy with 80±5% bifaciality.

Warranty

12 YEARS

30 YEARS

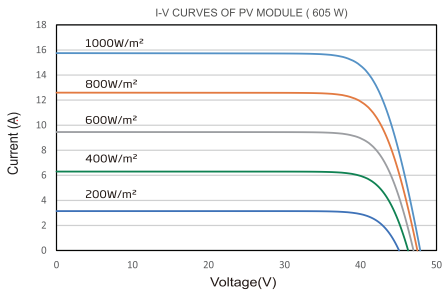
Product Warranty: 12 Years: Materials & Workmanship
Linear Performance Warranty: 30 Years
First Year Degradation: Up to 1.0%
Annual Degradation (Years 2-30): 0.40%

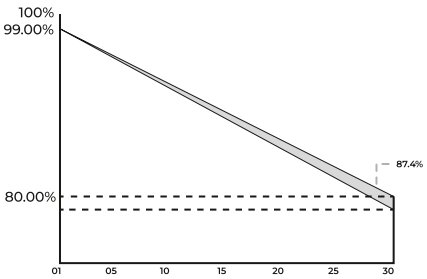
Certifications

IS-14286 R-93017612 | ALMM | MAKE IN INDIA | IEC | MNRE | ISO

IEC 61215 || IEC 61730 || IEC 61701 || UL 61215 || UL 61730 || IS 14286 || IEC 62716 || IEC 62804 || IEC 62782 || IEC 60068-2-68 || IEC 61853-182

I-V Characteristics At Different Irr





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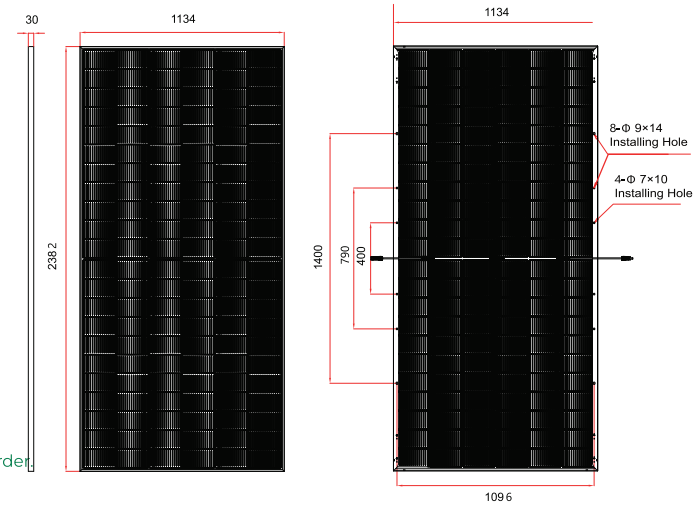
MODULE MECHANICAL DATA

SPECIFICATION DATA

Cell Type	N-TOPCon, 132 Cells
Dimensions	2382x1134x30 mm
Weight	33.5 Kgs
Front Cover	2.00 mm
Rear Cover	2.00 mm
Frame Material	"Silver Anodized Aluminum Profile,
J-Box	IP68, 3 diodes
Cable	350 mm, 4 mm²
Connectors	Mc4 Compatible Connector



- The specifications included in this datasheet are subject to change without notice.
- The electrical data given here is for reference purpose only.
- Please confirm your exact requirements with the sales representative while placing your order.
- Refer installation Manual instructions & IB Solar warranty statement for terms & conditions.

ELECTRICAL DATA PERFORMANCE

Module Type		600Wp		605Wp		610Wp		615Wp		620Wp		625Wp	
Conditions	**Unit**	**STC**	**NOCT**	**STC**	**NOCT**	**STC**	**NOCT**	**STC**	**NOCT**	**STC**	**NOCT**	**STC**	**NOCT**
Peak Power, Pmax (Wp)	W	600	451	605	455	610	458	615	462	620	466	625	470
Voltage at Maximum power, Vmp	V	40.11	38.02	40.31	38.21	40.51	38.40	40.71	38.59	40.91	38.78	41.11	38.97
Current at maximum power, Imp	A	14.96	11.87	15.01	11.91	15.06	11.94	15.11	11.98	15.16	12.02	15.21	12.06
Open circuit voltage, Voc	V	47.98	45.49	48.18	45.67	48.38	45.86	48.58	46.05	48.78	46.24	48.98	46.43
Short circuit current, Isc	A	15.85	12.80	15.90	12.84	15.95	12.88	16.00	12.92	16.05	12.96	16.10	13.00
Module Efficiency (%)		**22.19%**		**22.38%**		**22.56%**		**22.75%**		**22.93%**		**23.12%**	

Operating Temperature (℃)	-40°C~+85°C	Temperature coefficients of Isc (α)	+0.046%/°C
Maximum system voltage	1500 VDC	Nominal operating cell temperature	45±2°C
Maximum series fuse rating	35A	Fire Safety	Class-C
Power tolerance (Wp)	0~+3%	Protection Class II	Class-A
Temperature coefficient of Pmax (γ)	-0.30%/°C	Safety Class	Class-II
Temperature coefficient of Voc (ß)	-0.26%/°C		

STC: Irradiance 1000W/m², module temperature 25°C, AM =1.5; NOCT: Irradiance 800W/m², ambient temperature 20°C, AM=1.5, wind Speed 1m/s. Average power reduction of 4.5% at 200W/m² as per IEC 60904- 1. Except Pmax, all other parameters have tolerance of +/-5%, measurement uncertainty +/-3%.

BI-FACIAL OUTPUT - BACKSIDE POWER GAIN*

Bifacial Gain	Measurement	Unit	600Wp	605Wp	610Wp	615Wp	620Wp	625Wp
5%	Peak Power (Pmax)	W	630	635	641	646	651	656
	Module Efficiency	%	23.30	23.15	23.69	23.89	24.08	24.27
10%	Peak Power (Pmax)	W	660	666	671	677	682	688
	Module Efficiency	%	24.41	24.62	24.82	25.02	25.23	25.43
15%	Peak Power (Pmax)	W	690	696	702	707	713	719
	Module Efficiency	%	25.52	25.74	25.95	25.95	26.37	26.59

*Power gain from the rear side depends on the ground reflectance (Albedo) & Bifaciality factor.

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