

ELITE SERIES N TOPCON TECHNOLOGY

BiN-18-605 to BiN-18-635

Framed Glass Transparent Backsheet Bifacial module

WAAREE[®]
One with the Sun



Highest reliability & enhanced crack tolerance MBB module



Sustain heavy snow & wind loads (5400 Pa & 2400 Pa)



Best in class thermal coefficients



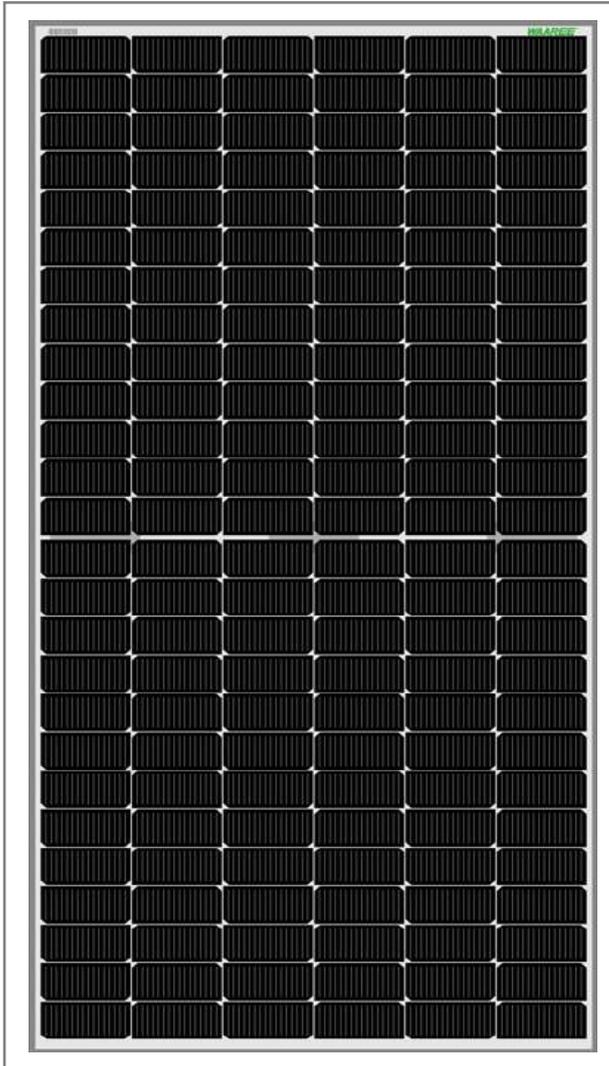
Highest commercial gains, lower LCOE



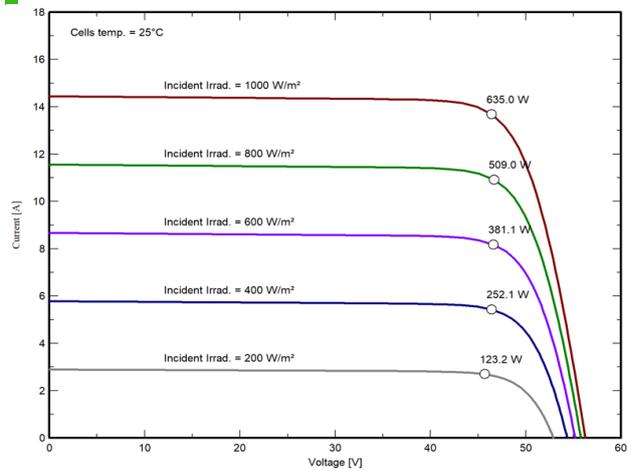
Better weak light performance



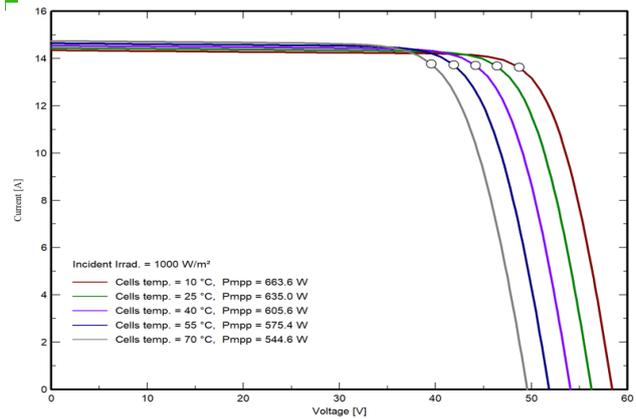
Excellent PID resistance



I-V VARIATION WITH IRRADIANCE



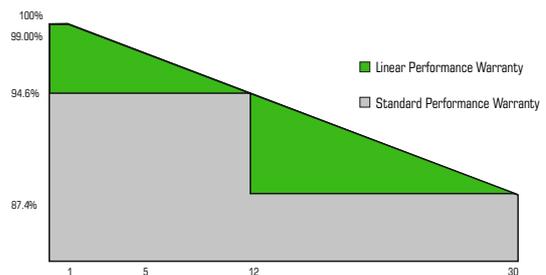
I-V VARIATION WITH TEMPERATURE



The Graphs are for reference purpose only. Please consult Waaree technical team for further clarifications.



IEC 61215, IEC 61730
UL 61730-1, UL 61730-2



ISO 9001:2015 | ISO 14001:2015 | ISO 45001:2018
Independent assessment of factories by BLACK & VEATCH

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ELECTRICAL CHARACTERISTICS

Models	Pmax (W)		Vmp (V)		Imp (A)		Isc (A)		Voc (V)		Module Eff. (%)
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	
BiN-18-605	605	456.8	45.80	42.91	13.21	10.65	14.02	11.30	54.91	52.17	21.64
BiN-18-610	610	460.6	45.93	43.04	13.28	10.70	14.09	11.36	55.07	52.31	21.82
BiN-18-615	615	464.3	46.07	43.17	13.35	10.76	14.16	11.41	55.30	52.54	22.00
BiN-18-620	620	468.1	46.20	43.29	13.42	10.82	14.23	11.47	55.54	52.76	22.18
BiN-18-625	625	471.9	46.33	43.41	13.49	10.87	14.30	11.53	55.77	52.98	22.36
BiN-18-630	630	475.7	46.46	43.53	13.56	10.93	14.37	11.58	56.00	53.20	22.54
BiN-18-635	635	479.4	46.59	43.65	13.63	10.99	14.44	11.64	56.24	53.43	22.72

*Standard Test Conditions (STC) - 1000 W/m² irradiance, Air Mass 1.5 and 25°C cell temperature. Nominal Operating Cell Temperature (NOCT) - 800 W/m² irradiance, Air Mass 1.5, Ambient temperature 20°C and Wind speed 1 m/s. Average power reduction of 4.5% at 200 W/m² as per IEC 60904-1. Measuring Uncertainty ± 3%.

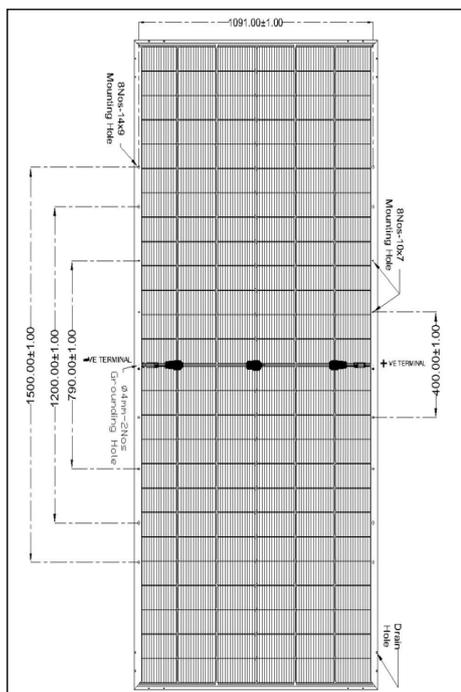
System Voltage	1500 V	Series Fuse Rating	25 A
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BI-FACIAL OUTPUT - BACKSIDE POWER GAIN*

		BiN-18-605	BiN-18-610	BiN-18-615	BiN-18-620	BiN-18-625	BiN-18-630	BiN-18-635
15%	Power Output (W)	695	701	707	713	718	724	730
	Module Efficiency (%)	25.00%	25.21%	25.41%	25.62%	25.83%	25.92%	26.13%
20%	Power Output (W)	726	732	738	744	750	756	762
	Module Efficiency (%)	26.08%	26.30%	26.52%	26.73%	26.95%	27.04%	27.26%
25%	Power Output (W)	756	762	768	775	781	787	793
	Module Efficiency (%)	27.17%	27.40%	27.62%	27.85%	28.07%	28.17%	28.40%
30%	Power Output (W)	786	793	799	806	812	819	825
	Module Efficiency (%)	28.26%	28.49%	28.73%	28.96%	29.20%	29.30%	29.53%

*The bifacial gains are dependent on the power plant design and location

DESIGN SPECIFICATIONS



THERMAL CHARACTERISTICS

Temperature coefficient of Current (Isc), α (%/°C)	0.046
Temperature coefficient of Voltage (Voc), β (%/°C)	-0.26
Temperature coefficient of Power (Pm), γ (%/°C)	-0.31
NOCT (°C)	43 ± 2
Operating temperature range (°C)	-40 to 85
Bifaciality Factor (%)	80 ± 5

MECHANICAL CHARACTERISTICS

Length x Width x Thickness (L x W x T)	2465 mm (L) x 1134 mm (W) x 32 mm (T)
Weight	30.0 kgs
Solar Cells per Module (Units) / Arrangement	156 cells / (13x6 13x6)
Solar Cell Type & Size	TOPCon N-type Mono Bifacial, 91x182mm
Front Glass (Material / Thickness)	3.2 mm Low Iron ARC Tempered glass
Encapsulate	PID Free & UV Resistant
Junction Box (Protection degree / Material)	IP68 / Weatherproof PPO
Cable & Connector (Protection degree / Type)	IP68 rated / MC4 compatible
Cable cross - section & Length	4 mm ² & 500mm
Frame	Anodized Aluminium Alloy

Waaree Energies Ltd. is amongst the top Solar Energy Companies and has the country's largest Solar PV Module manufacturing capacity of 12 GW. In addition, it is committed to provide top notch EPC services, project development, rooftop solutions, solar water pumps and also in an Independent Power Producer. Waaree has its presence in over 350+ locations nationally and 68 countries globally.

12 Years Product Warranty • 30 Years Power Output Warranty

- 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 & Waaree warranty statement for terms & conditions.
- Waaree Reserves the right to change the specifications without prior notice.

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