

ELITE SERIES N TOPCON TECHNOLOGY

BiN-10-610 to BiN-10-630

Framed Glass Transparent Backsheet Bifacial module

WAAREE[®]

One with the Sun



Highest reliability & enhanced crack tolerance MBB module



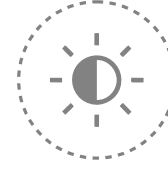
Sustain Heavy snow & wind loads (5400 Pa & 2400 Pa)



Best in class thermal coefficients



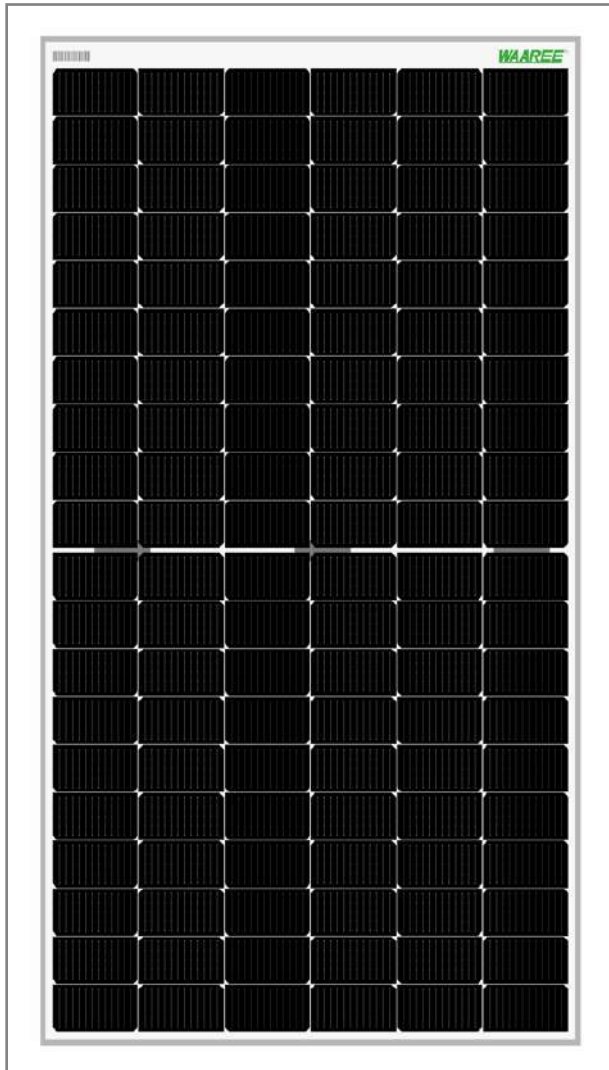
Highest commercial gains, lower LCOE



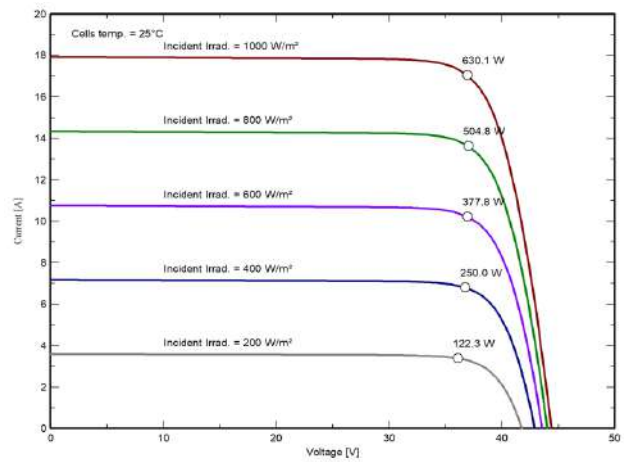
Better weak light performance



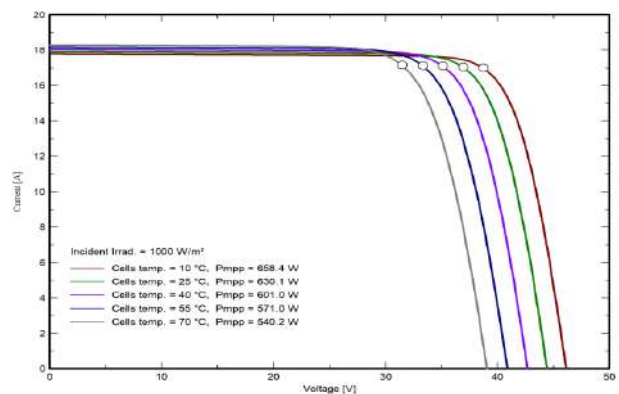
Excellent PID resistance



I-V VARIATION WITH IRRADIANCE



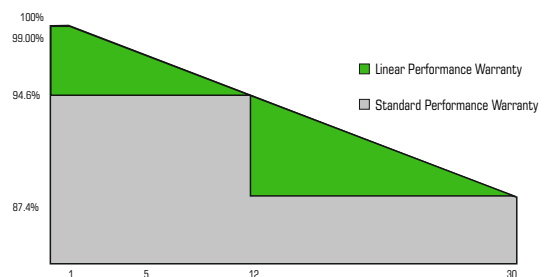
I-V VARIATION WITH TEMPERATURE



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

www.waaree.com

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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-10-610	610	462.4	35.16	32.94	17.35	13.98	18.35	14.79	42.30	40.40	21.39
BiN-10-615	615	466.2	35.37	33.14	17.39	14.02	18.39	14.82	42.51	40.60	21.57
BiN-10-620	620	470.0	35.57	33.33	17.43	14.05	18.43	14.85	42.72	40.80	21.74
BiN-10-625	625	473.8	35.78	33.52	17.47	14.08	18.47	14.89	42.93	41.00	21.92
BiN-10-630	630	477.5	35.98	33.71	17.51	14.11	18.51	14.92	43.14	41.20	22.09

*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%.

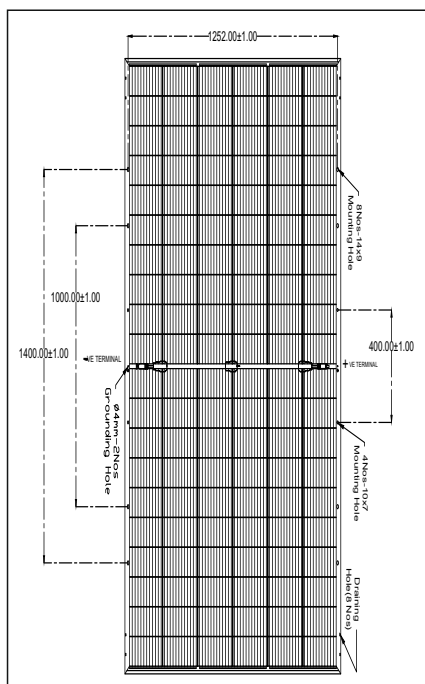
System Voltage	1500 V	Series Fuse Rating	30 A
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BI-FACIAL OUTPUT - BACKSIDE POWER GAIN*

		BiN-10-610	BiN-10-615	BiN-10-620	BiN-10-625	BiN-10-630
15%	Power Output (W)	701	707	713	719	724
	Module Efficiency (%)	24.59%	24.80%	25.00%	25.21%	25.40%
20%	Power Output (W)	732	738	744	750	756
	Module Efficiency (%)	25.67%	25.88%	26.09%	26.30%	26.51%
25%	Power Output (W)	762	769	775	781	787
	Module Efficiency (%)	26.73%	26.96%	27.17%	27.40%	27.61%
30%	Power Output (W)	793	799	806	812	819
	Module Efficiency (%)	27.80%	28.04%	28.26%	28.49%	28.72%

*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

MECHANICAL CHARACTERISTICS

Length x Width x Thickness (L x W x T)	2190 mm (L) x 1302 mm (W) x 35 mm (T)
Weight	31 kgs
Solar Cells per Module (Units) / Arrangement	120 cells / (10x6 10x6)
Solar Cell Type & Size	TOPCon N-type Bifacial, 105 x 210 mm
Front Glass	3.2 mm Low Iron and Tempered glass with ARC coating
Rear Cover	Transparent Backsheet
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

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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WEL/E&PD/610-630/120/BiN-10/HQ/01/11.12.2023