



FORCDYNO

Committed to High Quality Solar Solutions

ABOUT US

Committed to High Quality Service

We are committed to providing high-end industrial solutions that meet all your requirements. We also pride ourselves on delivering exceptional customer support.

What sets FORCDYNO apart from the other players, in the market, is its urge for growth through delivery of excellent products and service to all its customers within quick time.

Thorough research & development, stringent quality control & sophisticated testing procedures & facility is the back-bone of our organization.





FORCDYNO

Solar Solutions



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SOLAR SOLUTIONS

ELITE SERIES N TOPCON TECHNOLOGY

BiN-08-565 to BiN-08-595

Framed Dual Glass 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



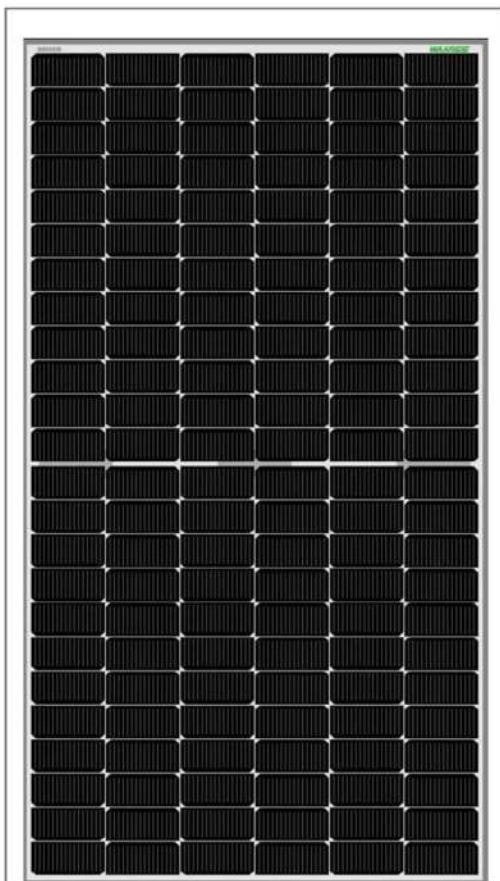
Highest commercial gains, lower LCOE



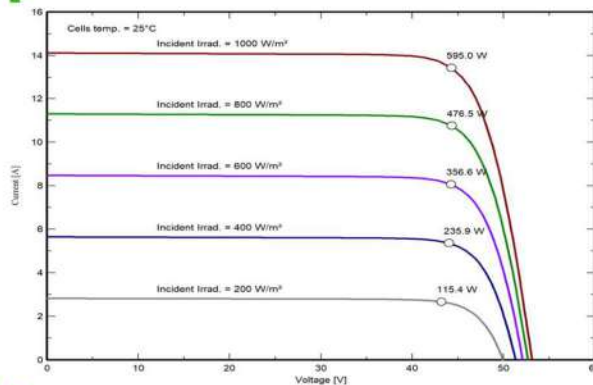
Better weak light performance



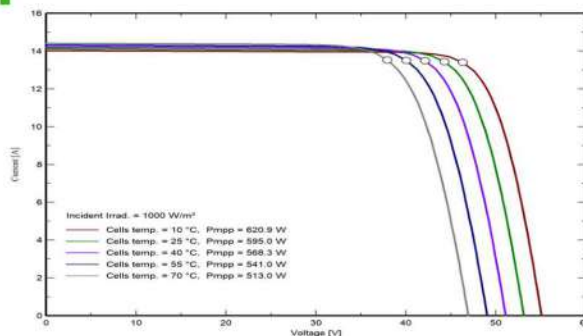
Excellent PID resistance



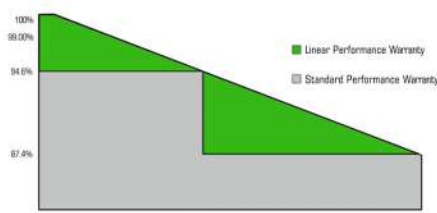
I-V VARIATION WITH IRRADIANCE



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

SOLAR SOLUTIONS

ELITE SERIES N TOPCON TECHNOLOGY

BiN-08-565 to BiN-08-595

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ELECTRICAL CHARACTERISTICS

	Pmax (W)		Vmp (V)		Imp (A)		Isc (A)		Voc (V)		Module Eff. (%)
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	
BiN-08-565	565	426.6	43.56	40.60	12.97	10.48	13.75	11.10	51.90	49.31	21.87
BiN-08-570	570	430.4	43.71	40.74	13.04	10.54	13.81	11.14	52.10	49.50	22.07
BiN-08-575	575	434.1	43.86	40.88	13.11	10.59	13.87	11.19	52.30	49.69	22.26
BiN-08-580	580	437.9	44.01	41.01	13.18	10.65	13.93	11.24	52.50	49.88	22.45
BiN-08-585	585	441.7	44.15	41.15	13.25	10.71	13.99	11.29	52.70	50.07	22.65
BiN-08-590	590	445.5	44.29	41.28	13.32	10.76	14.05	11.34	52.90	50.26	22.84
BiN-08-595	595	449.2	44.44	41.41	13.39	10.82	14.11	11.39	53.10	50.45	23.03

*Standard Test Conditions (STC) - 1000 W/m² irradiance, Air Mass 1.5 and 25°C cell temperature. Nominal Module Operating Temperature (NMOT) - 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%.

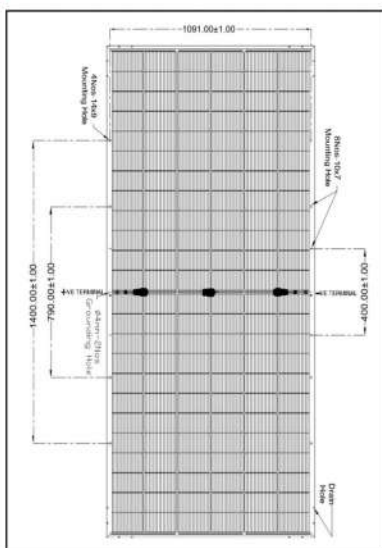
System Voltage	1500 V	Series Fuse Rating	30 A
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BI-FACIAL OUTPUT - BACKSIDE POWER GAIN*

		BiN-08-565	BiN-08-570	BiN-08-575	BiN-08-580	BiN-08-585	BiN-08-590	BiN-08-595
15%	Power Output (W)	650	656	661	667	673	679	684
	Module Efficiency (%)	25.15%	25.38%	25.60%	25.82%	26.05%	26.27%	26.48%
20%	Power Output (W)	678	684	690	696	702	708	714
	Module Efficiency (%)	26.24%	26.48%	26.71%	26.94%	27.18%	27.41%	27.64%
25%	Power Output (W)	706	713	719	725	731	738	744
	Module Efficiency (%)	27.34%	27.59%	27.83%	28.06%	28.31%	28.55%	28.79%
30%	Power Output (W)	735	741	748	754	761	767	774
	Module Efficiency (%)	28.43%	28.69%	28.94%	29.19%	29.45%	29.69%	29.94%

*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)	-0.30
NMOT (°C)	43 ± 2
Operating temperature range (°C)	-40 to 85
Bifaciality Factor (%)	80 ± 10

MECHANICAL CHARACTERISTICS

Length x Width x Thickness (L x W x T)	2278 mm (L) x 1134 mm (W) x 33 mm (T)
Weight	32.5 kgs
Solar Cells per Module (Units) / Arrangement	144 cells / (12x6 12x6)
Solar Cell Type & Size	TOPCon N-type Mono Bifacial, 91x182mm
Front Glass (Material / Thickness)	2 mm Low Iron ARC semi-tempered glass
Back Glass (Material / Thickness)	2 mm Low Iron Printed semi-tempered glass
Encapsulate	PID & 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

SOLAR SOLUTIONS

AHNAY SERIES

Bi-55-520 to Bi-55-550
Framed Dual Glass Bifacial Module

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Highest reliability & enhanced crack tolerant MBB module



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



Highly efficient Mono PERC M10 cells



Best in class thermal coefficients



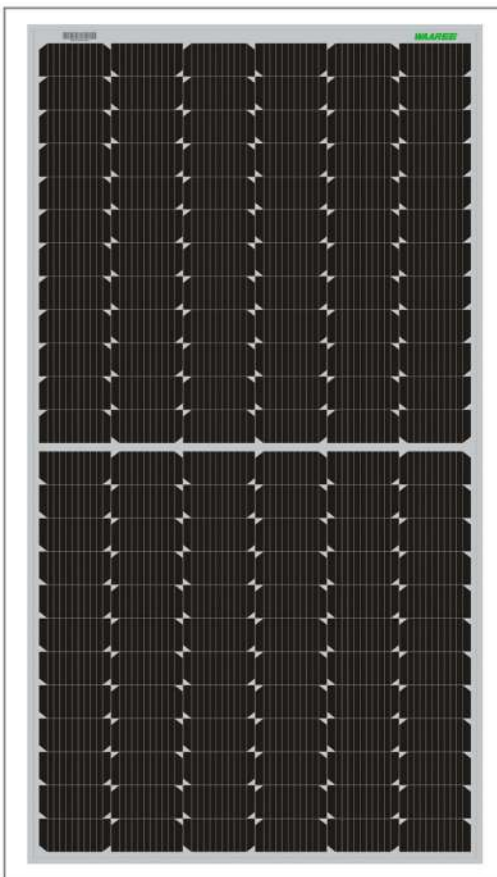
Highest commercial gains, lower LCOE



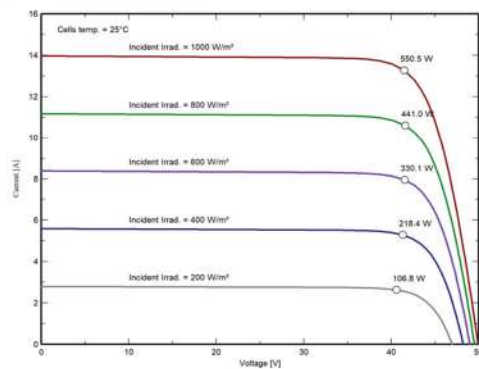
Split junction box improve heat dissipation



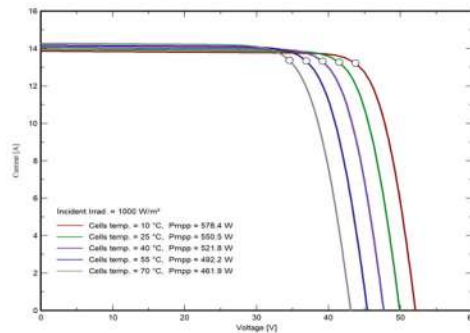
Increase shade tolerance



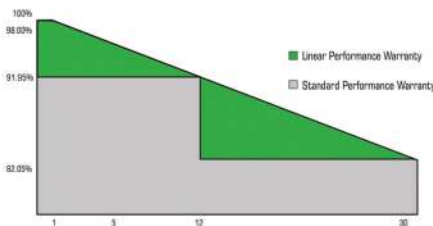
I-V VARIATION WITH IRRADIANCE



I-V VARIATION WITH TEMPERATURE



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



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

SOLAR SOLUTIONS

AHNAY SERIES

Bi-55-520 to Bi-55-550

Framed Dual Glass Bifacial Module

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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	
Bi-55-520	520	391.9	41.14	37.70	12.65	10.34	13.55	10.94	49.01	46.00	20.20
Bi-55-525	525	395.6	41.29	37.90	12.73	10.40	13.63	11.00	49.16	46.10	20.39
Bi-55-530	530	399.2	41.45	38.00	12.80	10.45	13.69	11.05	49.31	46.20	20.59
Bi-55-535	535	403.1	41.60	38.20	12.88	10.51	13.76	11.11	49.46	46.40	20.78
Bi-55-540	540	406.7	41.75	38.40	12.95	10.56	13.83	11.16	49.61	46.50	20.98
Bi-55-545	545	410.4	41.90	38.50	13.02	10.62	13.90	11.22	49.76	46.70	21.17
Bi-55-550	550	414.1	42.03	38.80	13.08	10.68	13.96	11.27	49.91	46.80	21.36

*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%.

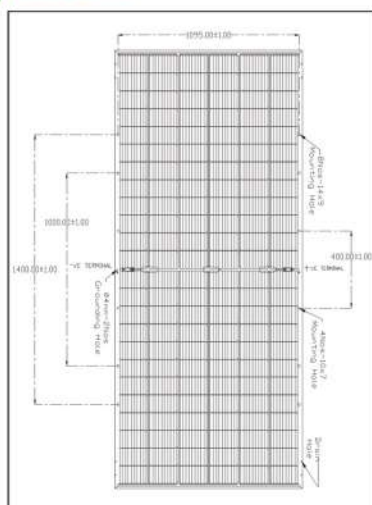
System Voltage	1500 V	Series Fuse Rating	25 A
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BI-FACIAL OUTPUT - BACKSIDE POWER GAIN*

		Bi-55-520	Bi-55-525	Bi-55-530	Bi-55-535	Bi-55-540	Bi-55-545	Bi-55-550
15%	Power Output (W)	598	604	610	615	621	627	632
	Module Efficiency (%)	23.23%	23.45%	23.68%	23.90%	24.12%	24.35%	24.56%
20%	Power Output (W)	624	630	636	642	648	654	660
	Module Efficiency (%)	24.24%	24.47%	24.71%	24.94%	25.17%	25.41%	25.63%
25%	Power Output (W)	650	656	663	669	675	681	687
	Module Efficiency (%)	25.25%	25.49%	25.74%	25.98%	26.22%	26.46%	26.70%
30%	Power Output (W)	676	683	689	696	702	709	715
	Module Efficiency (%)	26.26%	26.51%	26.77%	27.02%	27.27%	27.52%	27.77%

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

DESIGN SPECIFICATIONS



THERMAL CHARACTERISTICS

Temperature coefficient of Current (Isc), α (%/°C)	0.05
Temperature coefficient of Voltage (Voc), β (%/°C)	-0.25
Temperature coefficient of Power (Pm), γ (%/°C)	-0.34
NOCT (°C)	43 ± 2
Operating temperature range (°C)	-40 to 85
Bifaciality Factor (%)	70 ± 5

MECHANICAL CHARACTERISTICS

Length x Width x Thickness (L x W x T)	2272 mm (L) x 1133 mm (W) x 35 mm (T)
Weight	32.5 kgs
Solar Cells per Module (Units) / Arrangement	144 cells / (12x6 12x6)
Solar Cell Type & Size	Mono PERC Bifacial, 91 x 182 mm
Front / Back Glass (Material / Thickness)	2.0 mm Low Iron 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

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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.



FORCDYNO

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THANKS

Thank you