

AHNAY SERIES

Bi-53-560 to Bi-53-590

Framed dual glass bifacial module

WAAREE[®]

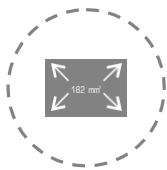
One with the Sun



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



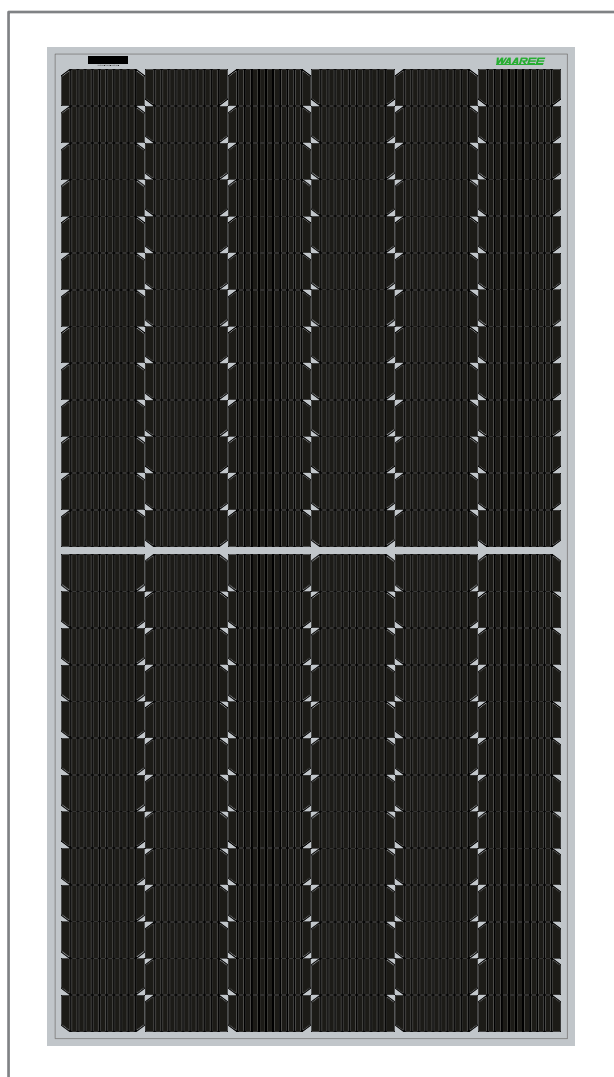
Highest commercial gains, lower LCOE



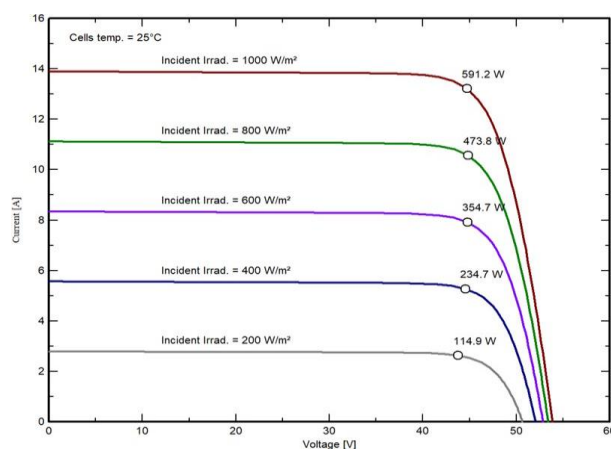
Split junction box improve heat dissipation



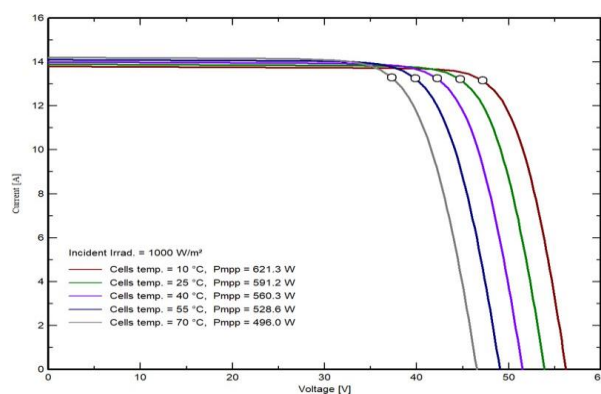
Increase shade tolerance



I-V VARIATION WITH IRRADIANCE



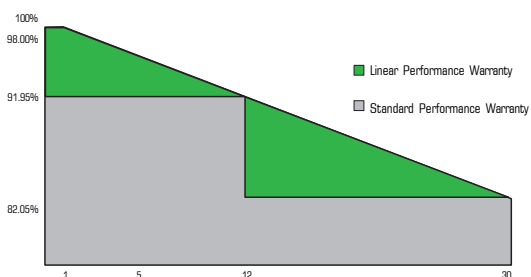
I-V VARIATION WITH TEMPERATURE



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



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	
Bi-53-560	560	422.2	44.56	41.00	12.57	10.29	13.49	10.89	53.07	49.80	20.03
Bi-53-565	565	425.9	44.67	41.20	12.65	10.35	13.55	10.94	53.18	49.90	20.21
Bi-53-570	570	429.1	44.79	41.30	12.73	10.40	13.63	11.00	53.29	50.00	20.39
Bi-53-575	575	432.8	44.93	41.40	12.80	10.45	13.69	11.05	53.45	50.10	20.57
Bi-53-580	580	436.4	45.05	41.60	12.88	10.50	13.76	11.11	53.59	50.30	20.75
Bi-53-585	585	440.4	45.21	41.70	12.95	10.56	13.83	11.16	53.73	50.40	20.93
Bi-53-590	590	443.9	45.34	41.80	13.02	10.61	13.90	11.22	53.87	50.50	21.11

*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%.

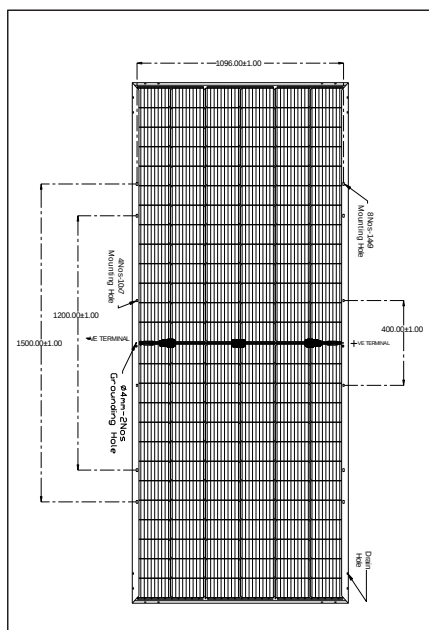
System Voltage	1500 V	Series Fuse Rating	25 A
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BI-FACIAL OUTPUT - BACKSIDE POWER GAIN*

		Bi-53-560	Bi-53-565	Bi-53-570	Bi-53-575	Bi-53-580	Bi-53-585	Bi-53-590
15%	Power Output (W)	644	650	656	661	667	673	679
	Module Efficiency (%)	23.06%	23.26%	23.47%	23.68%	23.88%	24.09%	24.29%
20%	Power Output (W)	672	678	684	690	696	702	708
	Module Efficiency (%)	24.06%	24.28%	24.49%	24.71%	24.92%	25.14%	25.35%
25%	Power Output (W)	700	706	713	719	725	731	738
	Module Efficiency (%)	25.06%	25.29%	25.51%	25.74%	25.96%	26.18%	26.41%
30%	Power Output (W)	728	735	741	748	754	761	767
	Module Efficiency (%)	26.07%	26.30%	26.53%	26.76%	27.00%	27.23%	27.46%

*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

MECHANICAL CHARACTERISTICS

Length x Width x Thickness (L x W x T)	2465 mm (L) x 1134 mm (W) x 35 mm (T)
Weight	35 kgs
Solar Cells per Module (Units) / Arrangement	156 cells / (13x6 13x6)
Solar Cell Type & Size	Mono PERC Bifacial, 91 x 182 mm
Front / Back Glass (Material / Thickness)	2.0 mm Low Iron semi-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

Waaree Energies Ltd. is amongst the top Solar Energy Companies and has the country's largest Solar PV Module manufacturing capacity of 5 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 325+ 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/560-590/156/MPB/HG/02/19.03.2024

For more information, contact Rooftop Solar India.