

AHNAY SERIES

Bi-56-425 to Bi-56-455
Dual Glass Bifacial module

WAAREE[®]

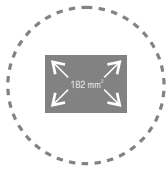
One with the Sun



Highest reliability & enhanced crack tolerant MBB module



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



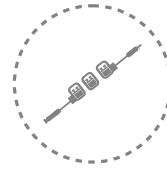
Highly efficient Mono PERC M10 cells



Best in class thermal coefficients



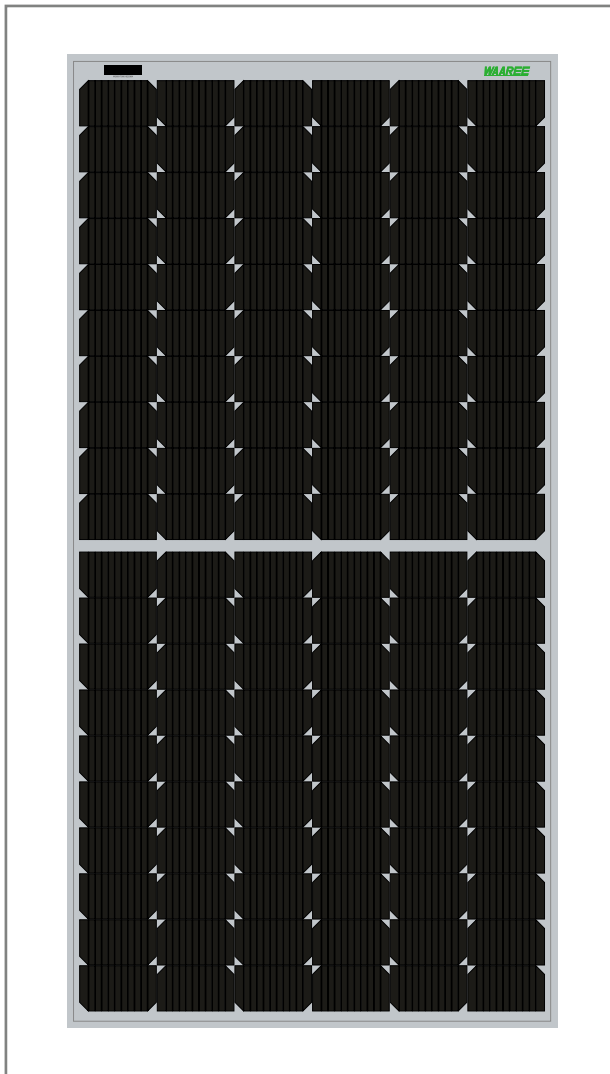
Highest commercial gains, lower LCOE



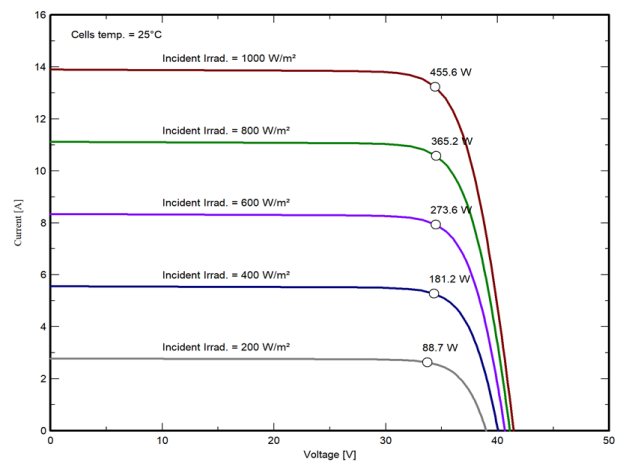
Split junction box improve heat dissipation



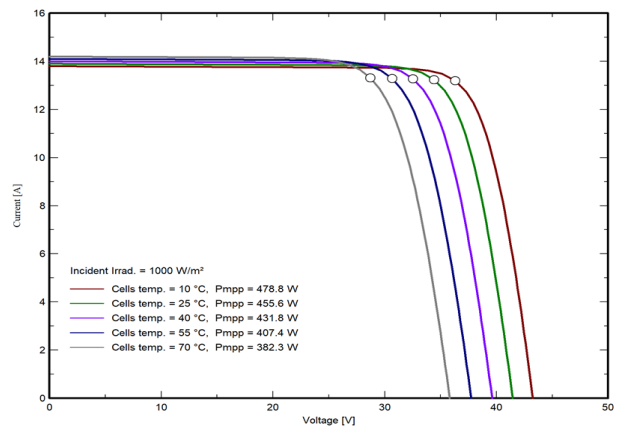
Increase shade tolerance



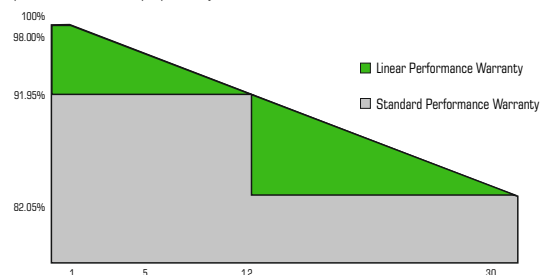
I-V VARIATION WITH IRRADIANCE



I-V VARIATION WITH TEMPERATURE



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



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	
Bi-56-425	425	320.8	34.12	31.40	12.47	10.21	13.36	10.78	40.63	38.10	19.69
Bi-56-430	430	324.6	34.24	31.50	12.57	10.30	13.48	10.88	40.77	38.30	19.92
Bi-56-435	435	328.1	34.38	31.70	12.67	10.36	13.55	10.94	40.90	38.40	20.15
Bi-56-440	440	331.7	34.52	31.80	12.76	10.42	13.64	11.01	41.04	38.50	20.39
Bi-56-445	445	335.1	34.65	32.00	12.85	10.49	13.72	11.07	41.18	38.60	20.62
Bi-56-450	450	338.9	34.79	32.10	12.95	10.56	13.81	11.14	41.31	38.70	20.85
Bi-56-455	455	340.5	34.89	32.20	13.05	10.62	13.89	11.21	41.45	38.90	21.08

*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%.

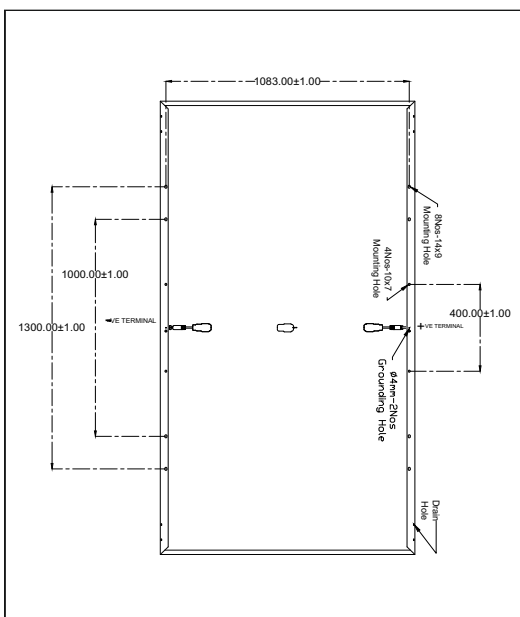
System Voltage	1500 V	Series Fuse Rating	25 A
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BI-FACIAL OUTPUT - BACKSIDE POWER GAIN*

		Bi-56-425	Bi-56-430	Bi-56-435	Bi-56-440	Bi-56-445	Bi-56-450	Bi-56-455
15%	Power Output (W)	488	494	500	506	511	517	523
	Module Efficiency (%)	22.64%	22.90%	23.17%	23.44%	23.71%	23.97%	24.24%
20%	Power Output (W)	510	516	522	528	534	540	546
	Module Efficiency (%)	23.62%	23.90%	24.18%	24.46%	24.74%	25.02%	25.29%
25%	Power Output (W)	531	537	543	550	556	562	568
	Module Efficiency (%)	24.61%	24.90%	25.18%	25.48%	25.77%	26.06%	26.35%
30%	Power Output (W)	552	559	565	572	578	585	591
	Module Efficiency (%)	25.59%	25.89%	26.19%	26.50%	26.80%	27.10%	27.40%

*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)	-0.27
Temperature coefficient of Power (Pm), γ (%/°C)	-0.35
NOCT (°C)	43 ± 2
Operating temperature range (°C)	-40 to 85

MECHANICAL CHARACTERISTICS

Length x Width x Thickness (L x W x T)	1905 mm (L) x 1133 mm (W) x 35 mm (T)
Weight	29.5 kgs
Solar Cells per Module (Units) / Arrangement	120 cells / (10x6 10x6)
Solar Cell Type & Size	Mono PERC Bifacial, 91 x 182 mm
Front Glass	2 mm Low Iron and Tempered glass with ARC coating
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
Bifaciality Factor (%)	70 ± 5
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.z