

AHNAY SERIES

Bi-54-380 to Bi-54-410

Dual Glass Bifacial module

WAAREE®

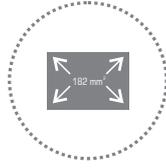
One with the Sun



Highest reliability & enhanced crack tolerant MBB module



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



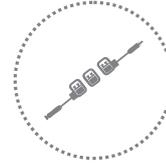
Highly efficient Mono PERC M10 cells



Best in class thermal coefficients



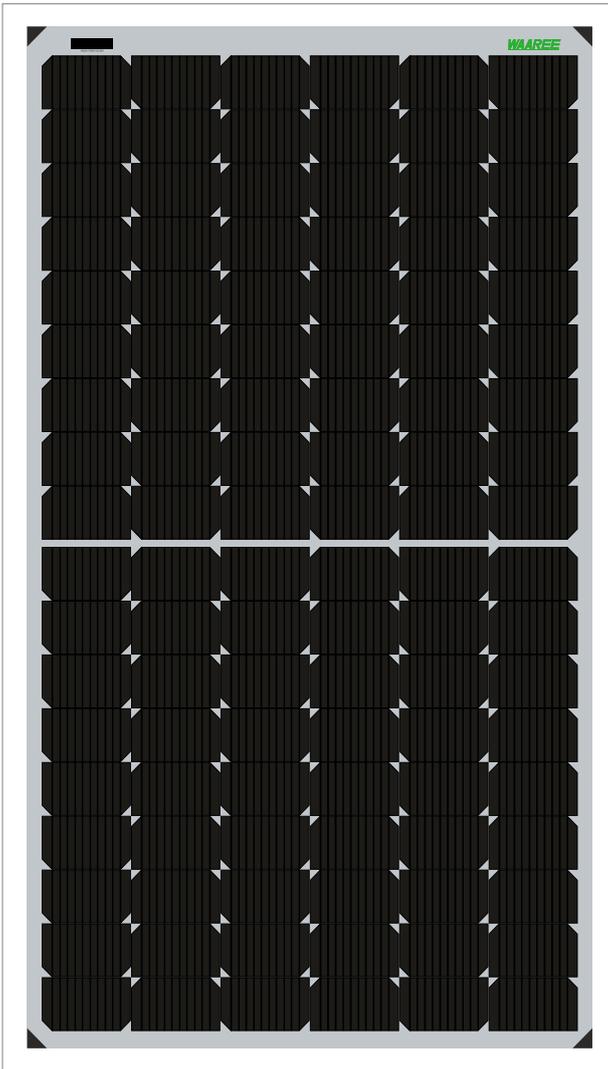
Highest commercial gains, lower LCOE



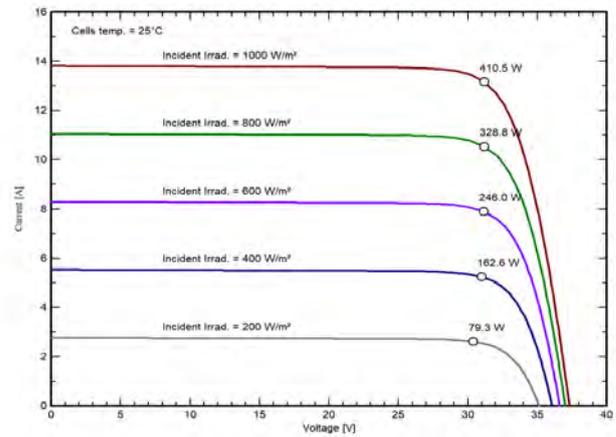
Split junction box improve heat dissipation



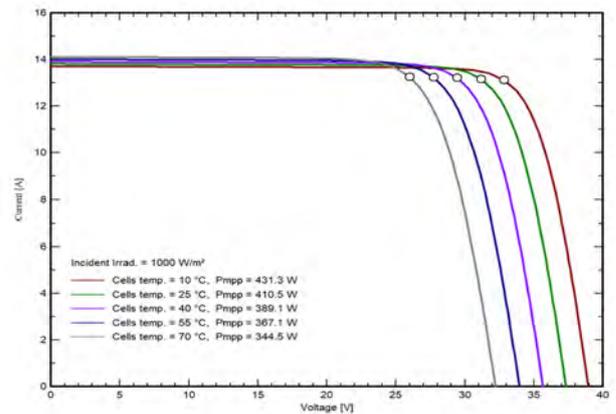
Increase shade tolerance



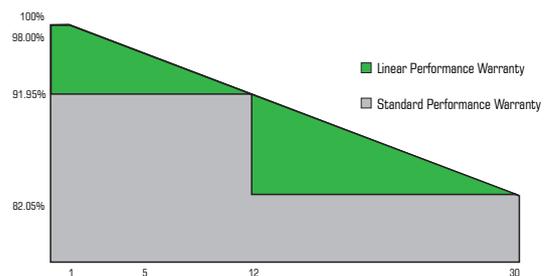
I-V VARIATION WITH IRRADIANCE



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-54-380	380	286.9	30.59	28.20	12.44	10.19	13.34	10.77	36.45	34.20	19.62
Bi-54-385	385	290.6	30.71	28.30	12.55	10.27	13.42	10.83	36.57	34.30	19.88
Bi-54-390	390	294.0	30.82	28.50	12.67	10.33	13.50	10.90	36.69	34.40	20.14
Bi-54-395	395	297.8	31.06	28.70	12.73	10.39	13.58	10.96	36.94	34.70	20.39
Bi-54-400	400	301.3	31.19	28.80	12.84	10.45	13.66	11.02	37.06	34.80	20.65
Bi-54-405	405	304.6	31.31	29.00	12.95	10.51	13.73	11.08	37.18	34.90	20.91
Bi-54-410	410	308.1	31.40	29.20	13.07	10.57	13.81	11.14	37.31	35.00	21.17

*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-54-380	Bi-54-385	Bi-54-390	Bi-54-395	Bi-54-400	Bi-54-405	Bi-54-410
15%	Power Output (W)	437	443	449	454	460	466	472
	Module Efficiency (%)	22.56%	22.86%	23.16%	23.45%	23.75%	24.05%	24.34%
20%	Power Output (W)	456	462	468	474	480	486	492
	Module Efficiency (%)	23.54%	23.85%	24.16%	24.47%	24.78%	25.09%	25.40%
25%	Power Output (W)	475	481	488	494	500	506	513
	Module Efficiency (%)	24.53%	24.85%	25.17%	25.49%	25.82%	26.14%	26.46%
30%	Power Output (W)	494	501	507	514	520	527	533
	Module Efficiency (%)	25.51%	25.84%	26.18%	26.51%	26.85%	27.18%	27.52%

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

MECHANICAL CHARACTERISTICS

Length x Width x Thickness (L x W x T)	1722 mm (L) x 1133 mm (W) x 35 mm (T)
Weight	24.5 kgs
Solar Cells per Module (Units) / Arrangement	108 cells / (9x6 9x6)
Solar Cell Type & Size	Mono PERC, 91 x 182 mm
Front Glass	2.0 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

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

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.

*If you need specific product certificates, and if module installations are to deviate from our guidance specified in our installation manual, please contact your local Waaree sales and technical representatives.

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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