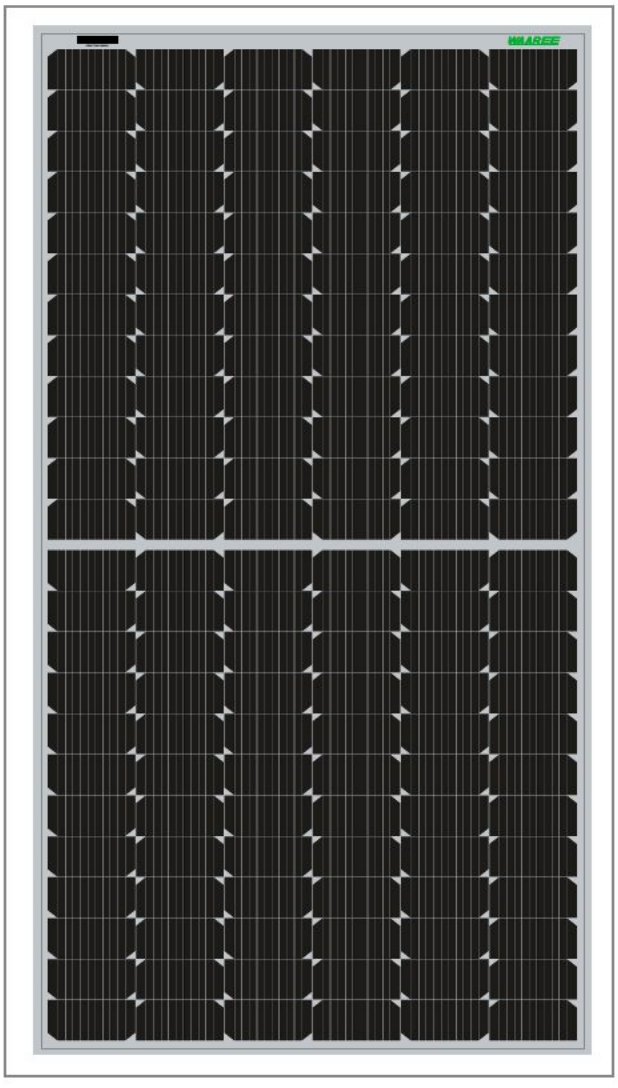
AHNAY SERIES

Bi-55-520 to Bi-55-550

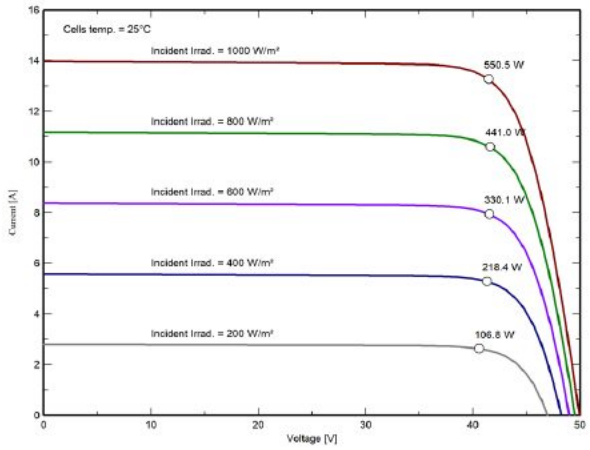
Framed Dual Glass Bifacial Module

WAAREE
One with the Sun

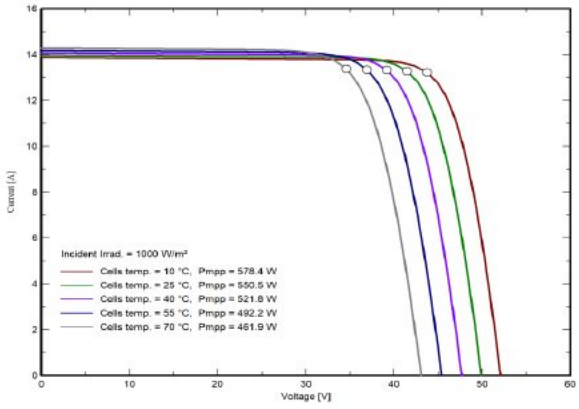
- Highest reliability & enhanced crack tolerant MBB module
- Sustain heavy snow & wind loads (5400 Pa & 2400 Pa)
- Highly efficient Mono PERC M10 cells
- Best in class thermal coefficients
- Highest commercial gains, lower LCOE
- Split junction box improve heat dissipation
- Increase shade tolerance



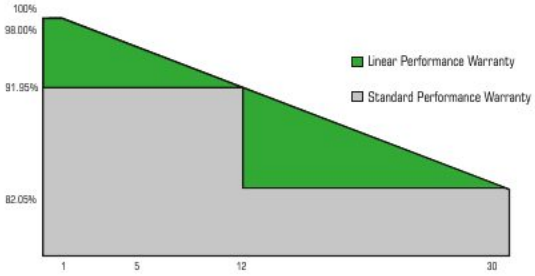
I-V VARIATION WITH IRRADIANCE



I-V VARIATION WITH TEMPERATURE



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



TIER 1 Bloomberg NEW ENERGY FINANCE | IEC | BIS | UL | PV CYCLE | Munich RE

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

AHNAY SERIES

Bi-55-520 to Bi-55-550

Framed Dual Glass Bifacial Module

WAAREE
One with the Sun

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	20.13
Bi-55-525	525	395.6	41.29	37.90	12.73	10.40	13.63	11.00	49.16	46.10	20.32
Bi-55-530	530	399.2	41.45	38.00	12.80	10.45	13.69	11.05	49.31	46.20	20.52
Bi-55-535	535	403.1	41.60	38.20	12.88	10.51	13.76	11.11	49.46	46.40	20.71
Bi-55-540	540	406.7	41.75	38.40	12.95	10.56	13.83	11.16	49.61	46.50	20.90
Bi-55-545	545	410.4	41.90	38.50	13.02	10.62	13.90	11.22	49.76	46.70	21.10
Bi-55-550	550	414.1	42.03	38.80	13.08	10.68	13.96	11.27	49.91	46.80	21.29

*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

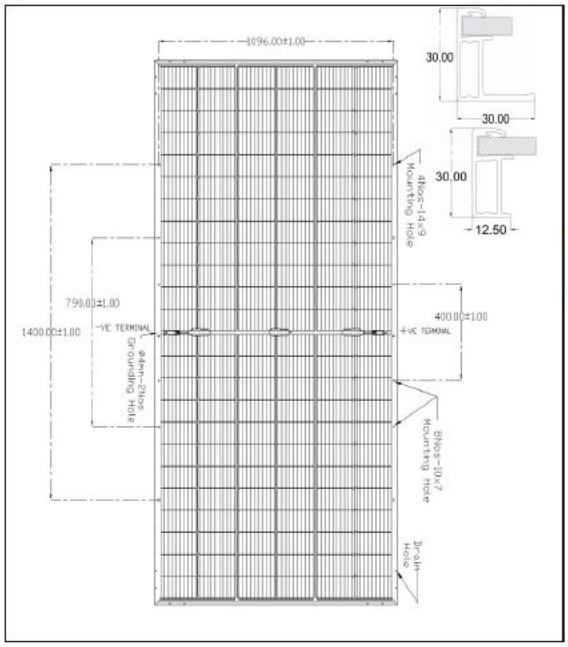
Series Fuse Rating	25 A

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 dependant 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), ß (%/°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)	2278 mm (L) x 1134 mm (W) x 30 mm (T)
Weight	32.3 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 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 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

WEL/E&PD/520-550/144/MPB/HC/10/15.03.2024