

SOLECTRIA® XGI 1500-250 SERIES

PREMIUM 3-PHASE TRANSFORMERLESS UTILITY-SCALE INVERTERS

FEATURES

- NEW and MORE POWERFUL!
 - XGI 1500-250/250-600
 - XGI 1500-225-600 (Selectable: 225kW/225kVA or 225kW/250kVA)
 - XGI 1500-200/200-480
 - XGI 1500-175-480 (Selectable: 175kW/175kVA or 175kW/200kVA)
- Industry-leading maximum DC/AC Ratio of 2.0
- Accepts two input PV Output Circuits, with no overcurrent protection required
- Made in the USA with global components
- Buy American Act (BAA) compliant
- 99.0% peak efficiency
- Flexible solution for distributed and centralized system architecture
- Advanced grid-support functionality Rule 21/UL1741SB
- Robust, dependable and built to last
- Lowest O&M and installation costs
- Access all inverters on site via WiFi from one location
- Remote diagnostics and firmware upgrades
- SunSpec Modbus Certified

OPTIONS

- PV Source Circuit Combiners
- Web-based monitoring
- Extended warranty



Yaskawa Solectria Solar is pleased to introduce its most powerful XGI 1500 inverters, with the XGI 1500-250 models at 600 Vac, and the XGI 1500-200 models for 480 Vac service.



The XGI 1500-250 and XGI 1500-200 feature SiC technology, high power and high efficiency that places them at the top end of the utility-scale string inverters in the market.

Yaskawa Solectria Solar designs all XGI 1500 utility-scale string inverters for high reliability and builds them with the highest quality components -- selected, tested and proven to last beyond their warranty. The XGI 1500 inverters provide advanced grid-support functionality and meet the latest IEEE 1547 and UL 1741 standards for safety.

The XGI 1500 inverters provide ideal solutions for ground-mounted utility-scale PV systems, with models available for service connections at 600 Vac and 480 Vac. Designed and engineered in Lawrence, MA, the SOLECTRIA XGI inverters are assembled and tested at Yaskawa America's facilities in Buffalo Grove, IL. The XGI 1500 inverters are Made in the USA with global components, and are compliant with the Buy American Act.

SOLECTRIA® XGI 1500-250 SERIES TECHNICAL DATA

SPECIFICATIONS

Product Specification		XGI 1500 Inverter Model							
		XGI 1500 250/250-600		XGI 1500 225-600		XGI 1500 200/200-480		XGI 1500 175-480	
DC Input	Absolute Maximum Input Voltage	1500 VDC							
	Maximum Power Voltage Range (MPPT)	860-1250 VDC				750-1250 VDC			
	Operating Voltage Range (MPPT)	860-1450 VDC				750-1450 VDC			
	Number of MPP Trackers	1 MPPT							
	Maximum Operating Input Current	296.7 A		267 A		237.3 A		207.6 A	
	Maximum Operating PV Power	255 kW		230 kW		204 kW		179 kW	
	Maximum DC/AC Ratio Max Rated PV Power	2.0 500 kW		2.22 500 kW		2.5 500 kW		2.86 500 kW	
	Max Rated PV Short-Circuit Current (ΣIsc x 1.25)	800 A							
AC Output	Nominal Output Voltage	600 VAC, 3-Phase				480 VAC, 3-Phase			
	AC Voltage Range	-12% to +10%							
	Continuous Real Output Power	250 kW		225 kW		200 kW		175 kW	
	Continuous Apparent Output Power (kVA)	250		250 225		200		200 175	
	Maximum Output Current (A _{RMS})	240.6		XGI 1500- 225/225: 216.5 225/250: 240.6		240.6		XGI 1500- 175/175: 210.5 175/200: 240.6	
	Fault Current Contribution (1 cycle RMS)	390 A		390 A 351 A		312 A		312 A 273 A	
	Conductor Compatibility	600 kcmil max, Cu or Alum, 1 or 2 conductors with lugs							
	Nominal Output Frequency	60 Hz							
	Power Factor (Unity default)	+/- 0.80 Adjustable							
	Total Harmonic Distortion (THD) @ Rated Load	< 3%							
	Grid Connection Type	3-Ph + N/GND							
	Efficiency	Peak Efficiency	99.0%						
CEC Average Efficiency		98.5%							
Tare Loss		<1 W							
Temperature	Ambient Temperature Range	-40°F to 140°F (-40°C to 60°C)							
	De-Rating Temperature	113°F (45°C)		127°F (53°C)		113°F (45°C)		131°F (55°C)	
	Storage Temperature Range	-40°F to 167°F (-40°C to 75°C)							
	Relative Humidity (non-condensing)	0 - 95%							
	Operating Altitude	9,840 ft (3 km)							
Communications	Advanced Graphical User Interface	WiFi							
	Communication Interface	Ethernet							
	Third-Party Monitoring Protocol	SunSpec Modbus TCP/IP							
	Web-Based Monitoring	Optional							
	Firmware Updates	Remote and Local							
Testing & Certifications	Safety Listings & Certifications	UL 1741, IEEE 1547, UL 1998, UL 1699b Photovoltaic Arc-Fault Circuit Protection Certified							
	Advanced Grid Support Functionality	Rule 21, UL 1741SB							
	Testing Agency	ETL							
	FCC Compliance	FCC Part 15 (Subpart B, Class A)							
Warranty	Standard and Options	5 Years Standard; Option for 10 Years							
Enclosure	Acoustic Noise Rating	73 dBA @ 1 m ; 67dBA @ 3 m							
	DC Disconnect	Integrated 2-Pole 400 A DC Disconnect							
	Mounting Angle	Vertical only							
	Dimensions	Height: 29.5 in. (750 mm) Width: 44.3 in. (1125 mm) Depth: 15.4 in. (390 mm)							
	Weight	290 lbs (131.5 kg)							
	Enclosure Rating and Finish	NEMA 4X, IEC IP66, Type 3R, Polyester Powder-Coated Aluminum							



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AHNAY SERIES

Bi-55-520 to Bi-55-550

Framed Dual Glass Bifacial Module

WAAREE®

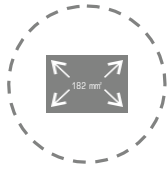
One with the Sun



Highest reliability & enhanced crack tolerant MBB module



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



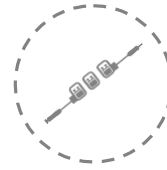
Highly efficient Mono PERC M10 cells



Best in class thermal coefficients



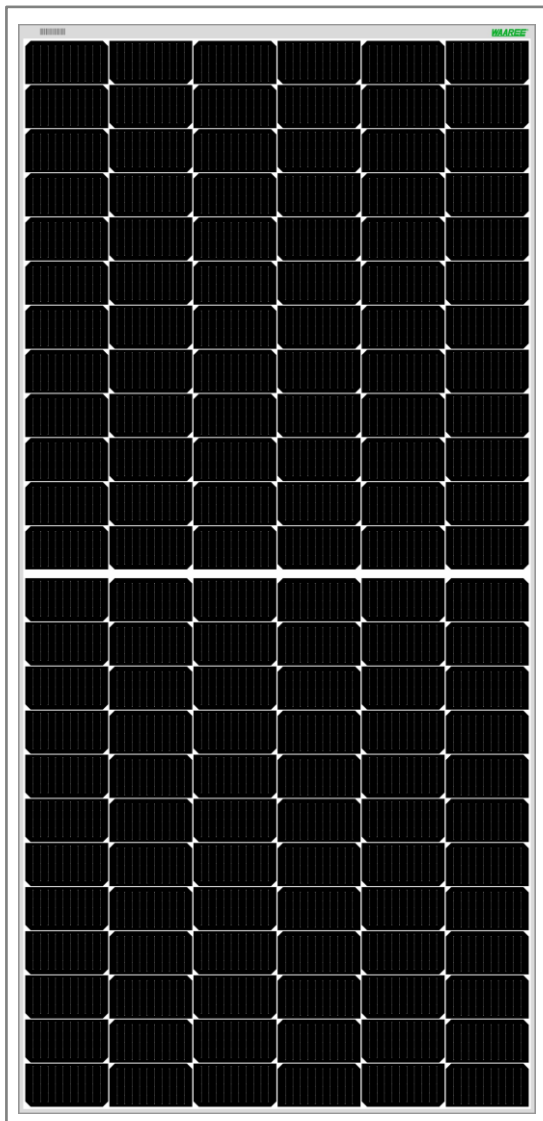
Highest commercial gains, lower LCOE



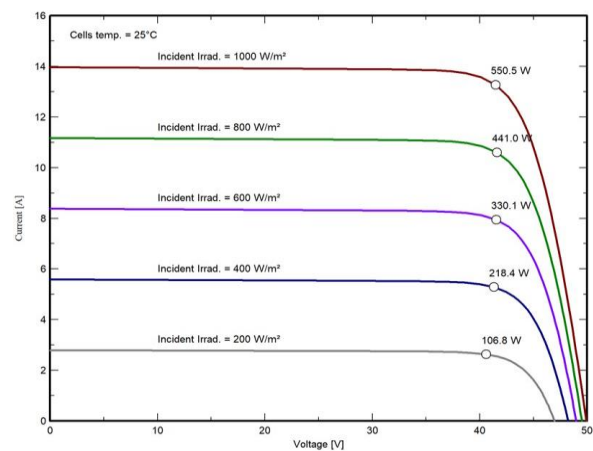
Split junction box improve heat dissipation



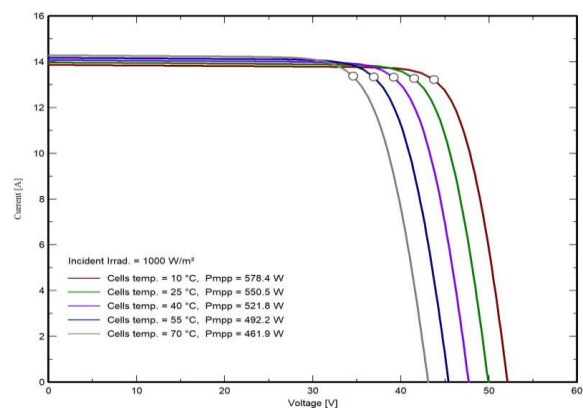
Increase shade tolerance



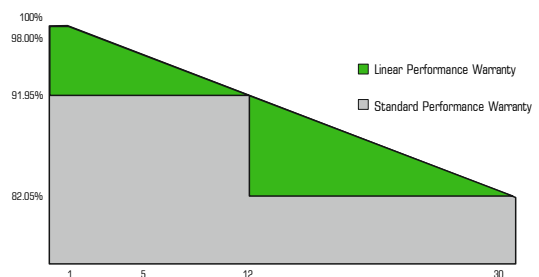
I-V VARIATION WITH IRRADIANCE



I-V VARIATION WITH TEMPERATURE



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



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

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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	20.20
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%.

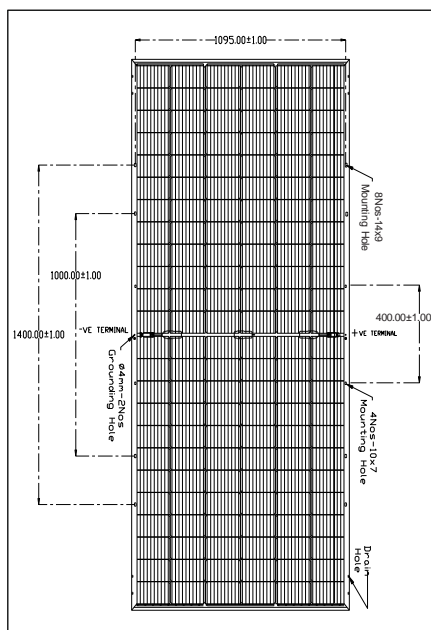
System Voltage	1500 V	Series Fuse Rating	25 A
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BI-FACIAL OUTPUT - BACKSIDE POWER GAIN*

		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 dependant on the power plant design and location

DESIGN SPECIFICATIONS



THERMAL CHARACTERISTICS

Temperature coefficient of Current (Isc), α (%/°C)	0.06
Temperature coefficient of Voltage (Voc), β (%/°C)	-0.33
Temperature coefficient of Power (Pm), γ (%/°C)	-0.39
NOCT (°C)	43 ± 2
Operating temperature range (°C)	-40 to 85
Bifaciality Factor (%)	70 ± 10

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	ES Foundry Mono PERC Bifacial, 91x182 mm
Front Glass (Material / Thickness)	2 mm Low Iron HTAR semi-tempered glass
Back Glass (Material / Thickness)	2 mm Low Iron Printed 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.

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