# SOLECTRIA® XGI1500-250-DCG SERIES

PREMIUM 3-PHASE TRANSFORMERLESS UTILITY-SCALE INVERTERS WITH GROUNDED DC INPUT

#### **FEATURES**

- NEW!
  - XGI 1500-250/250-600-DCG
  - XGI 1500-225-600-DCG
  - · XGI 1500-200/200-480-DCG
  - XGI 1500-175-480-DCG
- · Grounded DC Input!
  - Compatible with First Solar PV modules
  - Grounded DC input prevents potential-induced-degradation for any PV modules affected
- Industry-leading maximum DC/AC Ratio of 2.0
- Accepts two input PV Source Circuits, with no overcurrent protections
- 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 the new XGI 1500-DCG series inverters, featuring a grounded DC input, with two models at 600 Vac and two at 480 Vac



The XGI 1500-DCG Series inverters feature SiC technology, high power and high efficiency that places them at the top end of the utilityscale 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-DCG SERIES TECHNICAL DATA

### **SPECIFICATIONS**

Absolute Maximum Input Voltage Maximum Power Voltage Range (MPPT) Operating Voltage Range (MPPT) Se0-1250 VDC T50-1250 VDC	PRODUCT SPECIFICATION		XGI 1500 INVERTER MODEL					
Maximum Dever Voltage Range (MPPT)   860-1250 VDC   750-1250 VDC   Number of MPP Trackers   860-1450 VDC   1MPT								
Operating Voltage Range (APPT)   860-1450 VDC   750-1450 VDC   Number of MPD Trackers   1 MPT		Absolute Maximum Input Voltage						
Number of MPP Trackers	DC Input	Maximum Power Voltage Range (MPPT)	860-1250	860-1250 VDC 750-1250 VDC				
Maximum Operating Input Current   296.7 A   267.A   237.3 A   207.6 A   Maximum Operating Input Current   255 kW   2.30 kW   2.04 kW   179 kW   Maximum DC/AC Ratio   Max Rated PV Power   2.0   500 kW   2.2   500 kW   2.5   500 kW   2.86   500 kW   2.5		Operating Voltage Range (MPPT)	860-1450	O VDC	750-1450	VDC		
Maximum Operating PV Power   255 kW   230 kW   204 kW   179 kW		Number of MPP Trackers						
Maximum Operating PV Power		Maximum Operating Input Current	296.7 A	267 A	237.3 A	207.6 A		
Max Roted PV Short-Circuit Current (7]sc x 1.25)   Nominal Output Voltage		Maximum Operating PV Power	255 kW	230 kW	204 kW	179 kW		
Nominal Output Voltage		Maximum DC/AC Ratio   Max Rated PV Power	2.0   500 kW	2.22   500 kW	2.5   500 kW	2.86   500 kW		
AC Voltage Range			800 A					
Continuous Apaprant Output Power		Nominal Output Voltage	600 VAC, 3-Phase 480 VAC, 3-Phase					
Continuous Apaprant Output Power		AC Voltage Range	·					
AC Output    Maximum Output Current (A <sub>nus</sub> )   240.6   225/225:215.5   240.6   175/775:210.5   175/775:210.5   225/225:215.0   240.6   175/775:210.5   225/250:240.6   175/775:210.5   225/250:240.6   175/775:210.5   225/250:240.6   175/200:240.6   175/200:240.6   175/200:240.6   175/200:240.6   225/250:240.6   175/200:240.6   225/250		Continuous Real Output Power	250 kW	225 kW 200 kW		175	175 kW	
Maximum Output Current (A <sub>nus</sub> )   240.6   225/25: 216.5   240.6   175/175: 210.5   175/200: 240.6   275/250: 240.6   175/175: 210.5   175/200: 240.6   275/250: 240.6   175/20		Continuous Apparent Output Power (kVA)	250	250 225	200	200	175	
Fault Current Contribution (1 cycle RMS)	AC Output	Maximum Output Current (A <sub>RMS</sub> )	240.6	225/225: 216.5 240.6		175/175: 210.5		
Nominal Output Frequency   60 Hz		Fault Current Contribution (1 cycle RMS)	390 A	390 A 351 A	312 A	312 A	273 A	
Power Factor (Unity default) Total Harmonic Distortion (THD)® Rated Load Grid Connection Type Peak Efficiency Peak Efficiency Tire Loss Ambient Temperature Range Peak Imperature Range Peak Imperatur		Conductor Compatibility	600 kcm	il max, Cu or Alum	, 1 or 2 conductors wit	h lugs		
Total Harmonic Distortion (THD)@ Related Load Grid Connection Type  Peak Efficiency  Efficiency  Efficiency  Efficiency  CEC Average Efficiency  Ambient Temperature Range  De-Rating Temperature Range  Storage Temperature Range  Peating Temperature Range  Storage Temperature Range  Advanced Graphical User Interface  Communications  Time Party Monitoring Protocol Web-Based Monitoring Firmware Updates  Testing & Certifications  Testing & Certifications  Warranty  Acoustic Noise Rating DC Disconnect Mounting Angle  Enclosure  Find Harmonic Distortion  Age on April 1918  Age on April 1918  Ale 290 lbs (131.5 kg)  Listed Type 3R, Self-Certified NEMA 4X and IEC IP66,  Enclosure  Testing Angle Stendard Stendard  Direction Stendard April 1918  Testing Angle Dimensions  Weight  Perclosure Rating and Finish Listed Type 3R, Self-Certified NEMA 4X and IEC IP66,		Nominal Output Frequency	60 Hz					
CTHD  @ Rated Load   S-Ph + N/GND			+/- 0.80 Adjustable					
Peak Efficiency		(THD) @ Rated Load						
CEC Average Efficiency			•					
Tare Loss Ambient Temperature Range De-Rating Temperature Storage Temperature Range Relative Humidity (non-condensing) Operating Altitude Advanced Graphical User Interface Communications Third-Party Monitoring Protocol Firmware Updates  Certifications Testing & Certifications Testing Agency Testing Agency Advanced Grid Support Functionality Testing Agency Acoustic Noise Rating Acoustic Noise Rating DC Disconnect Mounting Angle  Enclosure Dimensions Ambient Temperature Range Advanced Graphical User Interface Aurige Listed Type 3R, Self-Certified NEMA 4X and IEC IP66, Finelosure Rating and Finish  Advanced Graphical User Interface Tilia -40°F to 140°F (-40°C to 60°C) 113°F (45°C) 113°F (45°C) 127°F (53°C) 113°F (45°C) 127°F (53°C) 127°F (	Efficiency	•						
Ambient Temperature Range De-Rotting Temperature De-Rotting Temperature Range Relative Humidity (non-condensing) Operating Altitude Advanced Graphical User Interface Communications Third-Party Monitoring Protocol Web-Based Monitoring Firmware Updates Certifications  Testing & Certifications Testing & Certifications  Warranty Standard and Options Acoustic Noise Rating DC Disconnect Mounting Angle  Enclosure  Meight  Ambient Temperature Range -40°F to 140°F (-40°C to 60°C) 113°F (45°C) 127°F (53°C) 131°F (55°C) 127°F (53°C) 113°F (45°C) 131°F (55°C) 127°F (53°C) 113°F (45°C) 131°F (65°C) 127°F (53°C) 113°F (45°C) 131°F (65°C) 127°F (53°C) 113°F (45°C) 131°F (65°C) 131°F (65°								
De-Rating Temperature   113°F (45°C)   127°F (53°C)   113°F (45°C)   131°F (55°C)	Temperature							
Temperature Storage Temperature Range		·						
Operating Altitude Advanced Graphical User Interface Communications Third-Party Monitoring Protocol Web-Based Monitoring Firmware Updates Safety Listings & Certifications  Testing & Certifications  Testing Advanced Grid Support Functionality Testing Agency FCC Compliance FCC Compliance FCC Compliance FCC Compliance Acoustic Noise Rating DC Disconnect Mounting Angle Find Support Functionality Find Standard and Options Find Standard and Potents FCC Compliance FCC Compliance FCC Part 15 (Subpart B, Class A) For Standard St		-		-40°F to 167°F	(-40°C to 75°C)			
Advanced Graphical User Interface Communication Interface Third-Party Monitoring Protocol Web-Based Monitoring Firmware Updates Safety Listings & Certifications  Testing & Certifications  Testing Agency FCC Compliance FCC Compliance Standard and Options Acoustic Noise Rating DC Disconnect Mounting Angle  Enclosure  Advanced Graphical User Interface Ethernet Ethernet SunSpec Modbus TCP/IP SunSpec Modbus TCP/IP SunSpec Modbus TCP/IP SunSpec Memote and Local UL 1741, IEEE 1547, UL 1998 UL 1699b Photovoltaic Arc-Fault Circuit Protection Certified  Rule 21, UL 1741SB  ETL FCC Compliance FCC Part 15 (Subpart B, Class A) Standard and Options Syears Standard; Option for 10 Years Acoustic Noise Rating T3 dBA @ 1 m; 67dBA @ 3 m DC Disconnect Mounting Angle Height: 29.5 in. (750 mm)   Width: 44.3 in. (1125 mm)   Depth: 15.4 in. (390 mm) Weight Proclosure Rating and Finish Listed Type 3R, Self-Certified NEMA 4X and IEC IP66,		Relative Humidity (non-condensing)	O - 95%					
Communications Interface Ethernet  Third-Party Monitoring Protocol SunSpec Modbus TCP/IP  Web-Based Monitoring Optional Firmware Updates Remote and Local  Safety Listings & Certifications UL 1741, IEEE 1547, UL 1998 UL 1699b Photovoltacy Arc-Fault Circuit Protection Certified  Testing & Certifications Rule 21, UL 1741SB  Testing Agency ETL  FCC Compliance FCC Part 15 (Subpart B, Class A)  Standard and Options 5 Years Standard; Option for 10 Years  Acoustic Noise Rating 73 dBA @ 1 m; 67dBA @ 3 m  DC Disconnect Integrated 2-Pole 400 A DC Disconnect  Mounting Angle Vertical only  Height: 29.5 in. (750 mm)   Width: 44.3 in. (1125 mm)    Dimensions Depth: 15.4 in. (390 mm)  Weight Listed Type 3R, Self-Certified NEMA 4X and IEC IP66,		Operating Altitude	•					
Third-Party Monitoring Protocol Web-Based Monitoring Firmware Updates Safety Listings & Certifications  Testing & Certifications  Testing Advanced Grid Support Functionality Testing Agency FCC Compliance FCC Part 15 (Subpart B, Class A)  Standard and Options Acoustic Noise Rating DC Disconnect Mounting Angle  Enclosure  Dimensions  Third-Party Monitoring Protocol SunSpec Modbus TCP/IP Optional Remote and Local Remote and Local UL 1741, IEEE 1547, UL 1998 UL 1699b Photovoltaic Arc-Fault Circuit Protection Certified  Rule 21, UL 1741SB  ETL FCC Part 15 (Subpart B, Class A) FCC Part 15 (Sub	Communications	•						
Web-Based Monitoring Firmware Updates Remote and Local  UL 1741, IEEE 1547, UL 1998 UL 1699b Photovoltaic Arc-Fault Circuit Protection Certified  Testing & Certifications  Testing Agency FCC Compliance FCC Part 15 (Subpart B, Class A)  Standard and Options Acoustic Noise Rating DC Disconnect Mounting Angle FINCE Mounting Angle FINCE FINCE Meight FINCE								
Firmware Updates  Safety Listings & Certifications  Lesting & Certifications  Advanced Grid Support Functionality  Testing Agency FCC Compliance FCC Compliance FCC Part 15 (Subpart B, Class A)  Standard and Options Acoustic Noise Rating DC Disconnect Mounting Angle  Enclosure  Dimensions  Firmware Updates  Remote and Local  UL 1741, IEEE 1547, UL 1998  UL 1699b Photovoltaic Arc-Fault Circuit Protection Certified  Rule 21, UL 1741SB  FTL FCC Part 15 (Subpart B, Class A)  5 Years Standard; Option for 10 Years 73 dBA @ 1 m; 67dBA @ 3 m  DC Disconnect Mounting Angle Integrated 2-Pole 400 A DC Disconnect Vertical only Height: 29.5 in. (750 mm)   Width: 44.3 in. (1125 mm)   Depth: 15.4 in. (390 mm) Veight Listed Type 3R, Self-Certified NEMA 4X and IEC IP66,			·					
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 FCC Compliance FCC Part 15 (Subpart B, Class A)  Warranty Standard and Options FCC Part 15 (Subpart B, Class A)  Standard and Options FCC Part 15 (Subpart B, Class A)  Acoustic Noise Rating FCC Part 15 (Subpart B, Class A)  Integrated 2-Pole 400 A DC Disconnect Mounting Angle Finclosure  Dimensions Weight Finclosure Rating and Finish  UL 1741, IEEE 1547, UL 1998 UL 1699b Photovoltaic Arc-Fault Circuit Protection Certified  Integrated 2-Foult 15 (Subpart B, Class A)  Finclosure Rating and Finish  UL 1699b Photovoltaic Arc-Fault Circuit Protection Certified  Integrated 2-Foult 15 (Subpart B, Class A)  Finclosure Rating and Finish  UL 1741, IEEE 1547, UL 1998  UL 1699b Photovoltaic Arc-Fault Circuit Protection Certified  FINISH UL 1741SB  UL 1741, IEEE 1547, UL 1998  UL 1699b Photovoltaic Arc-Fault Circuit Protection Certified			-					
Safety Listings & Certifications  UL 1699b Photovoltaic Arc-Fault Circuit Protection Certified  Rule 21, UL 1741SB  Testing Agency FCC Compliance FCC Part 15 (Subpart B, Class A)  Warranty Standard and Options Acoustic Noise Rating DC Disconnect Mounting Angle  Enclosure  Dimensions Weight  Enclosure Rating and Finish  UL 1699b Photovoltaic Arc-Fault Circuit Protection Certified  UL 1699b Photovoltaic Arc-Fault Circuit Protection Certified  UL 1699b Photovoltaic Arc-Fault Circuit Protection Certified  Rule 21, UL 1741SB  FTL FCC Compliance FCC Part 15 (Subpart B, Class A) FCC Part 15 (Subpart B, Class A) FTL FCC Part 15 (Subpart B, Class A) FTL FCC Part 15 (Subpart B, Class A) FTL FTL FCC Part 15 (Subpart B, Class A) FTL FTL FCC Part 15 (Subpart B, Class A) FTL FTL FTL FCC Part 15 (Subpart B, Class A) FTL		Firmware Opaates						
Testing & Certifications  Testing Agency FCC Compliance FCC Compliance FCC Part 15 (Subpart B, Class A)  Warranty Standard and Options Acoustic Noise Rating DC Disconnect Mounting Angle FINION FINIO	Testing & Certifications	Safety Listings & Certifications						
FCC Compliance FCC Part 15 (Subpart B, Class A)  Warranty Standard and Options Acoustic Noise Rating DC Disconnect Mounting Angle FEnclosure Dimensions Weight FCC Part 15 (Subpart B, Class A) FC Part 15 (Subpart B, Class A) F		Advanced Grid Support Functionality						
Standard and Options Acoustic Noise Rating DC Disconnect Mounting Angle  Enclosure  Dimensions Weight  Enclosure Rating and Finish  5 Years Standard; Option for 10 Years 73 dBA @ 1 m; 67dBA @ 3 m Integrated 2-Pole 400 A DC Disconnect Vertical only Height: 29.5 in. (750 mm)   Width: 44.3 in. (1125 mm)   Depth: 15.4 in. (390 mm) 290 lbs (131.5 kg) Listed Type 3R, Self-Certified NEMA 4X and IEC IP66,		Testing Agency	ETL					
Acoustic Noise Rating DC Disconnect Mounting Angle  Enclosure  Dimensions  Weight  Acoustic Noise Rating T3 dBA @ 1 m; 67dBA @ 3 m  Integrated 2-Pole 400 A DC Disconnect Vertical only  Height: 29.5 in. (750 mm)   Width: 44.3 in. (1125 mm)   Depth: 15.4 in. (390 mm)  290 lbs (131.5 kg)  Listed Type 3R, Self-Certified NEMA 4X and IEC IP66,		·	FCC Part 15 (Subpart B, Class A)					
DC Disconnect Mounting Angle  Enclosure  Dimensions  Weight  Enclosure Rating and Finish  Integrated 2-Pole 400 A DC Disconnect Vertical only  Height: 29.5 in. (750 mm)   Width: 44.3 in. (1125 mm)   Depth: 15.4 in. (390 mm) 290 lbs (131.5 kg) Listed Type 3R, Self-Certified NEMA 4X and IEC IP66,	Warranty	•	5 Years Standard; Option for 10 Years					
Mounting Angle  Vertical only  Height: 29.5 in. (750 mm)   Width: 44.3 in. (1125 mm)    Depth: 15.4 in. (390 mm)  Weight  Enclosure Rating and Finish  Listed Type 3R, Self-Certified NEMA 4X and IEC IP66,	Enclosure							
Height: 29.5 in. (750 mm)   Width: 44.3 in. (1125 mm)     Depth: 15.4 in. (390 mm)   Weight								
Enclosure  Dimensions  Depth: 15.4 in. (390 mm)  290 lbs (131.5 kg)  Enclosure Rating and Finish  Listed Type 3R, Self-Certified NEMA 4X and IEC IP66,		Mounting Angle	•					
Weight 290 lbs (131.5 kg)  Enclosure Rating and Finish 290 lbs (131.5 kg)  Listed Type 3R, Self-Certified NEMA 4X and IEC IP66,		Dimensions						
Enclosure Rating and Finish  Listed Type 3R, Self-Certified NEMA 4X and IEC IP66,		Weight	•					
Enclosure Rating and Finish								
Polyester Powder Codted Aluminum		Enclosure Rating and Finish	Polyester Powder-Coated Aluminum					





