

# SGI 500XTM & SGI 750XTM

## 1000VDC Utility-Scale Central Inverters

### Features

- Compliant with NEC 2014 690.11 & 690.12 arc-fault and rapid shutdown requirements when coupled with ARCCOM combiner
- 98% CEC efficiency
- Parallel power stages
- Fuse and breaker subcombiner options
- Modbus communications
- User-interactive LCD

### Options

- Stainless steel enclosure
- Web-based monitoring
- Built-in cellular connectivity
- AC breaker with shunt trip
- Revenue grade metering

### Options for Utilities

- Real power curtailment
- Reactive power control
- Voltage & frequency ride through
- Controlled ramp rates
- DMS tie-in
- Rule 21 compliant
- Power limiting



Yaskawa Solectria Solar's SMARTGRID series inverters are optimized for high efficiency, reliability, and economy. Available in two power classes, 500 kW and 750 kW, these inverters are designed for direct connection to an external transformer for large commercial or utility-scale applications. They are robust, outdoor rated inverters that can be configured in pairs with a 3-winding transformer to achieve 1MW or 1.5 MW. The SGI 500/750 XTM 1000VDC inverters are compliant with NEC 2014 690.11 & 690.12 arc-fault and rapid shutdown requirements. Available utility-scale options include advanced grid management features such as voltage and frequency ride through, reactive power control, real power curtailment and power factor control. Listed to UL1741SA with 98% CEC weighted efficiency, the SGI 500/750XTM inverters set a new standard for large scale power conversion.

MADE IN THE USA



With U.S. and Global Components

# SGI 500/750XTM

## Specifications

	SGI 500XTM	SGI 750XTM
<b>DC Input</b>		
Absolute Maximum Input Voltage	1000 VDC	
Maximum Power Input Voltage Range (MPPT)*	545-820 VDC	
Operating Voltage Range	545-1000 VDC	
Maximum Operating Input Current	965 A	1445 A
Maximum PV Power	700 kW	1050 kW
Strike Voltage	700 V	
<b>AC Output</b>		
Nominal Output Voltage	380 VAC, 3-Ph + N/GND	
AC Voltage Range	-12/+10%	
Continuous Output Power	500 kW (498 kW / 450 kW)**	750 kW
Continuous Output Current	760 A (757 A / 684 A)**	1140 A
Maximum Backfeed Current	0 A	
Nominal Output Frequency	60 Hz	
Output Frequency Range	57-60 Hz	
Power Factor	Adjustable -0.85 to +0.85, factory set at 1	
Fault Current Contribution (1 Cycle RMS)	912 A	1368 A
Total Harmonic Distortion (THD) @ Rated Load	<3%	
<b>Efficiency</b>		
Peak Efficiency	98.3%	
CEC Efficiency	98.0%	
Tare Loss	89 W	123 W
<b>Temperature</b>		
Ambient Temperature Range	-40°F to +122°F (-40°C to +50°C)	
Storage Temperature Range	-40°F to +122°F (-40°C to +50°C)	
Relative Humidity (non-condensing)	5-95%	
<b>Data Monitoring</b>		
Optional SolrenView Web-Based Monitoring	Integrated	
Optional Revenue Grade Monitoring	800 A	1600 A
Optional SolZone Sub-Array Monitoring (DC Current)	1 zone per protected input (up to 16 zones)	
Optional Cellular Communication	SolrenView AIR	
External Communication Interface	RS-485 SunSpec Modbus RTU	
<b>Testing &amp; Certifications</b>		
Safety Listings & Certifications	UL 1741SA/IEEE 1547, CSA C22.2#107.1	
Testing Agency	ETL	
<b>Warranty</b>		
Standard	5 year	
Optional	10, 15 or 20 year; Extended Service Agreement; Uptime Guarantee	
<b>Dedicated External Transformer</b>		
Dedicated External Transformer	Required, provided by customer to Solectria's specifications	
Transformer Type	Self cooled, step up, pad mount	
Output Voltage	Typical: 2.4-36.0 kV, 3-Ph	
<b>Enclosure</b>		
dBA (Decibel) Rating	<67 dBA @ 10 m	
DC Disconnect (Integrated)	Standard	
AC Disconnect/Breaker (Integrated)	Optional disconnect, breaker or breaker with shunt trip	
Dimensions (H x W x D)	82 in. x 109 in. x 41 in. (2083 x 2769 x 1042 mm)	
Shading Set Back	137 in. (3480 mm) at 30° solar elevation	
Weight (Shipping)	3080 lbs (1398 kg)	3570 lbs (1620 kg)
Enclosure Rating	Type 3R	
Enclosure Finish	Polyester Powder Coated Steel; Optional 316 Stainless Steel	

\*At nominal AC voltage

\*\*Power limiting examples

**SOLECTRIA SOLAR**

**Yaskawa Solectria Solar**

360 Merrimack Street  
Lawrence, MA 01843  
[solectria.com](http://solectria.com)

1-978-683-9700  
Email: [inverters@solectria.com](mailto:inverters@solectria.com)

DOCR-070245-N | April 2019  
© 2019 Yaskawa Solectria Solar