



# SGI 225 SGI 250 SGI 266 SGI 300 SGI 500 & SGI 500PE

COMMERCIAL INVERTERS

## FEATURES

- Compliant with NEC 2014 690.11 & 690.12 arc fault and rapid shutdown requirements when coupled with ARCCOM combiner
- 97.5% CEC efficiency
- Parallel power stages
- Fuse and breaker subcombiner options
- Modbus communications
- User-interactive LCD
- Real power curtailment

## OPTIONS

- Uptime guarantee
- Stainless steel enclosure
- Web-based monitoring
- Built-in cellular connectivity

## COMMERCIAL INVERTERS

Yaskawa - Solectria Solar's SMARTGRID 225-500PE series of inverters is compliant with NEC 2014 690.11 & 690.12 arc fault and rapid shutdown requirements. This series boasts an industry leading 97.5% CEC weighted efficiency which translates into significantly greater energy production and cost savings over the lifetime of the system. The SGI line has been deployed in a large number of commercial and utility-scale PV systems across North America ranging from 200kW to multi-MW. Our customers find these to be the most cost-effective, reliable, and efficient inverters in the market. This product family offers utility options such as voltage and frequency ride through, controlled ramp rates, reactive power control, and real power curtailment. Such critical utility options, combined with unsurpassed efficiencies and the lowest nighttime tare losses in the industry, earmark the SGI series as the premier inverter for next generation large commercial systems.



SPECIFICATIONS	SGI 225	SGI 250	SGI 266	SGI 300	SGI 500	SGI 500PE
<b>DC Input</b>						
Absolute Maximum Input Voltage	600 VDC					
Max Power Input Voltage Range (MPPT)*	300-500 VDC					
Maximum Operating Input Current	768 A	853 A	908 A	1026 A	1721 A	1712 A
Maximum PV Power	331.5 kW	325 kW	345.8 kW	390 kW	650 kW	
Strike Voltage	390 V					
<b>AC Output</b>						
Nominal Output Voltage	480 VAC, 3 $\phi$ +/PE					
AC Voltage Range	-12%/+10%					
Continuous Output Power	225 kW	250 kW	266 kW	300 kW	500 kW	
Continuous Output Current	480 VAC	271 A	301 A	320 A	360 A	602 A
	600 VAC	—	240 A	—	—	—
Maximum Backfeed Current	0 A					
Nominal Output Frequency	60 Hz					
Output Frequency Range	57-60.5 Hz					
Power Factor	Adjustable 0.9 leading / 0.9 lagging, factory set at 1					
Fault Current Contribution (1 Cycle RMS)	325.2 A	361.2 A	384 A	432 A	722 A	
Total Harmonic Distortion (THD) @ Rated Load	< 3%					
<b>Performance</b>						
Peak Efficiency	98.0%				97.9%	98.3%
CEC Efficiency (480 VAC)	97.5%				97.0%	97.5%
Tare Loss	28 W				32 W	
Ambient Temperature Range (full power)	-40°F to +122°F (-40°C to +50°C)					
Storage Temperature Range	-40°F to +158°F (-40°C to +70°C)					
Relative Humidity (non-condensing)	5-95%					
Audible Noise	< 60 dBA @ 5 m					
Safety Listings & Certifications	UL 1741/IEEE 1547, CSA C22.2#107.1, FCC part 15 B					
Maintenance Outage Factor	0.1					
Testing Agency	ETL					
<b>Mechanical</b>						
Transformer	Standard, fully-integrated					
AC Breaker/DC Disconnect	Fully-integrated					
Dimensions (H x W x D)	79 in. x 109 in. x 41 in. (2007 mm x 2769 mm x 1042 mm)					
Shading Set Back	137 in. (3480 mm) at 30° solar elevation					
Weight	5170 lbs (2346 kg)	5650 lbs (2563 kg)		6980 lbs (3167 kg)		7107 lbs (3224 kg)
Enclosure Rating	Type 3R					
Enclosure Finish	Polyester powder coated steel; optional 316 stainless steel					
<b>Subcombiner Options</b>						
Fuses or Breakers	6 positions, 225-400 A				8 positions, 225-400 A	
	12 positions, 110-200 A				16 positions, 110-200 A	
Fuses Only	24 positions, 70-100 A				32 positions, 70-100 A	
<b>Communication</b>						
Data Logger Hardware	Standard, Integrated					
SolrenView™ Monitoring Service	Optional					
Optional Revenue Grade Monitoring (Integrated)	400 A				800 A	
Optional SolZone™ Sub-Array Monitoring (DC Current)	6 zones				8 zones	
Optional Cellular Communication	SolrenView AIR					
Communication Interface	RS-485 SunSpec Modbus RTU					
<b>Warranty</b>						
Standard	5 year					
Optional	10, 15, 20 year; extended service agreement; uptime guarantee					

\*At nominal AC voltage