UTILITY-SCALE INVERTERS



SGI **225**SGI **250**SGI **266**SGI **300**SGI **500**

FEATURES

- 97.5% CEC efficiency
- Highest CEC efficiency in the industry
- Built-in redundancy
- Fully-integrated design
- Customizable subcombiners
- 480 VAC or 600 VAC
- MODBUS communications
- User-interactive LCD display

OPTIONS

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

OPTIONS FOR UTILITIES

- Low voltage ride through
- VAR support
- Controlled ramp rate
- Remote power control



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Solectria Renewables' SMARTGRID 225-500 kW series of inverters boasts an industry leading 97.5% CEC weighted efficiency which translates into significantly greater energy generation per year for utility-scale PV systems. The SGI series of transformer based inverters are rugged and durable with the transformer providing galvanic isolation between the PV array and the grid. The SMARTGRID series features five power classes, 225 kW, 250 kW, 266 kW, 300 kW and 500 kW, and offers utility options such as VAR support, low voltage ride through, controlled ramp rate and remote power control. Such critical utility options, combined with unsurpassed efficiencies and the lowest nighttime tare loss in the industry, earmark the SGI Series as the premier inverter for the next generation of large commercial and utility-scale systems.





SPECIFICATIONS		SGI 225	SGI 250	SGI 266	SGI 300	SGI 500
DC Input						
Absolute Maximum Input Voltage		625 VDC				
MPPT Input Voltage Range		300-500 VDC				
MPPT Input Voltage Range - Low Voltage Option		285-500 VDC				
Maximum Operating Input Current		768 A	853 A	908 A	1026 A	1721 A
Maximum Input Current - Low Voltage Option		808 A	898 A	956 A	1080 A	1812 A
AC Output						
Nominal Output Voltage		480 or 600 VAC, 3-Ph				
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
continuous output current	600 VAC	217 A	240 A	256 A	289 A	480 A
Maximum Backfeed Current		0 A				
Nominal Output Frequency		60 Hz				
Output Frequency Range		59.3-60.5 Hz				
Power Factor		Unity, >0.99				
Total Harmonic Distortion (THD)		(3%				
Efficiency						
Peak Efficiency		98.0%	98.0%	98.0%	97.9%	97.9%
CEC Efficiency		97.5%	97.5%	97.5%	97.5%	97.0%
Tare Loss		28 W	28 W	28 W	28 W	32 W
Subcombiner Options						
		6 positions, 225-400 A				8 positions, 225-400 A
		12 positions, 110-200 A				16 positions, 110-200 A
		24 positions, 70-100 A				32 positions, 70-100 A
Temperature						
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%				
Monitoring Options						
Web-based Monitoring (Inverter Direct)				SolrenView		
Revenue Grade Monitoring (Integrated)		400 A	400 A	400 A	400 A	800 A
Sub-Array Monitoring (SolZone)		6 zones	6 zones	6 zones	6 zones	8 zones
Cellular Communication		SolrenView AIR				
Third Party Compatibility		Standard via MODBUS				
Testing & Certifications						
Safety Listings & Certifications	UL1741/IEEE1547,IEEE1547.1,IEEE62.41.2,IEEE62.45,IEEEC37.90.2,CSAC22.2#107.1,FCCpart15B					
Maintenance outage power factor per IEEE 762-2006		0.1				
Testing Agency		ETL				
Warranty						
Standard		5 year				
Optional		10, 15, 20 year; extended service agreement; uptime guarantee				
Enclosure						
Transformer		Standard, fully-integrated (internal); External optional				
AC Breaker/DC Disconnect		Fully-integrated (internal)				
Dimensions (H x W x D)		79 in. x 109 in. x 41 in. (2007 mm x 2769 mm x 1041 mm)				
Shading Set Back		137" (3480 mm) at 30° solar elevation				
Weight		5170 lbs (2350 kg)	5650 lbs (2568 kg)	5650 lbs (2568 kg)	5650 lbs (2568 kg)	6980 lbs (3173 kg)
Enclosure Rating		NEMA 3R				
Enclosure Finish		Polyester powder coated steel; Optional stainless steel				





