

SGI 225  
SGI 250  
SGI 266  
SGI 300  
SGI 500  
SGI 500PE

**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

**OPTIONS**

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

**OPTIONS FOR UTILITIES**

- Real power curtailment
- VAR support (Reactive power control)
- Voltage ride through
- Frequency ride through



## UTILITY-SCALE INVERTERS

Solectria Renewables' SMARTGRID 225-500PE series of inverters 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 inverters the most cost-effective, reliable and efficient in the market. The SGI product family offers options such as VAR support, voltage and frequency ride through, controlled ramp rates and real power curtailment. 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 next generation large commercial and utility-scale systems.



| SPECIFICATIONS                                    | SGI 225   | SGI 250               | SGI 266               | SGI 300               | SGI 500                 | SGI 500PE             |
|---|---|-----------------------|-----------------------|-----------------------|-------------------------|-----------------------|
| <b>DC Input</b>                                   |   |                       |                       |                       |                         |                       |
| 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                  | 1712 A                |
| Maximum Input Current - Low Voltage Option        | 808 A   | 898 A                 | 956 A                 | 1080 A                | 1812 A                  | 1803 A                |
| <b>AC Output</b>                                  |   |                       |                       |                       |                         |                       |
| Nominal Output Voltage                            | 480 or 600 VAC, 3-Ph, 3 or 4 wire   |                       |                       |                       |                         |                       |
| 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   | 217 A                 | 240 A                 | 256 A                 | 289 A                   | 480 A                 |
| Maximum Backfeed Current                          | 0 A   |                       |                       |                       |                         |                       |
| Nominal Output Frequency                          | 60 Hz   |                       |                       |                       |                         |                       |
| Output Frequency Range                            | 57-63 Hz  |                       |                       |                       |                         |                       |
| Power Factor                                      | Unity, >0.99  |                       |                       |                       |                         |                       |
| Total Harmonic Distortion (THD)                   | <3%   |                       |                       |                       |                         |                       |
| <b>Efficiency</b>                                 |   |                       |                       |                       |                         |                       |
| Peak Efficiency                                   | 98.0%   | 98.0%                 | 98.0%                 | 97.9%                 | 97.9%                   | 98.3%                 |
| CEC Efficiency                                    | 97.5%   | 97.5%                 | 97.5%                 | 97.5%                 | 97.0%                   | 97.5%                 |
| Tare Loss   | 28 W  | 28 W                  | 28 W                  | 28 W                  | 32 W                    |                       |
| <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>Temperature</b>                                |   |                       |                       |                       |                         |                       |
| 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%   |                       |                       |                       |                         |                       |
| <b>Monitoring Options</b>                         |   |                       |                       |                       |                         |                       |
| Web-based Monitoring (Inverter Direct)            | SolrenView  |                       |                       |                       |                         |                       |
| Revenue Grade Monitoring (Integrated)             | 400 A   |                       |                       |                       | 800 A                   |                       |
| Sub-Array Monitoring (SolZone)                    | 6 zones   |                       |                       |                       | 8 zones                 |                       |
| Cellular Communication                            | SolrenView AIR  |                       |                       |                       |                         |                       |
| Third Party Compatibility                         | Standard via MODBUS   |                       |                       |                       |                         |                       |
| <b>Testing &amp; Certifications</b>               |   |                       |                       |                       |                         |                       |
| Safety Listings & Certifications                  | UL 1741/IEEE 1547, IEEE 1547.1, IEEE 62.41.2, IEEE 62.45, IEEE C37.90.2, CSA C22.2#107.1, FCC part 15 B |                       |                       |                       |                         |                       |
| Maintenance outage power factor per IEEE 762-2006 | 0.1   |                       |                       |                       |                         |                       |
| Testing Agency                                    | ETL   |                       |                       |                       |                         |                       |
| <b>Warranty</b>                                   |   |                       |                       |                       |                         |                       |
| Standard  | 5 year  |                       |                       |                       |                         |                       |
| Optional  | 10, 15, 20 year; extended service agreement; uptime guarantee   |                       |                       |                       |                         |                       |
| <b>Enclosure</b>                                  |   |                       |                       |                       |                         |                       |
| 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<br>(2350 kg)   | 5650 lbs<br>(2568 kg) | 5650 lbs<br>(2568 kg) | 5650 lbs<br>(2568 kg) | 6980 lbs<br>(3173 kg)   | 7107 lbs<br>(3230 kg) |
| Enclosure Rating                                  | NEMA 3R   |                       |                       |                       |                         |                       |
| Enclosure Finish                                  | Polyester powder coated steel; Optional stainless steel   |                       |                       |                       |                         |                       |