SOLECTRIA® XGI 1500 POWER RACK

1.0 - 2 MWAC FACTORY INTEGRATED AND TESTED

The Solectria[®] XGI 1500 Power Rack is the most robust, scalable building-block for state-of-the-art multi-MW solar plants.



POWER RACK DESIGN

Based around the Solectria XGI 1500 utility-scale string inverters, the Power Rack is designed for high reliability, rapid deployment, and built to the highest standards of quality.

The modular design provides multiple independent MPPT zones per megawatt for improved powerpoint tracking and improves system up time with a simplified maintenance plan.



The XGI 1500 inverters provide advanced grid-support functionality and boast a true peak efficiency above 99%. The XGI 1500 inverters are the most powerful 1500V string inverters in the PV market. Designed and engineered in Lawrence, MA, the new Solectria Power Rack features the XGI 1500 utilityscale string inverters that are Made in the USA with global components and compliant with the Buy American Act.

FEATURES

- Racks designed for up to four, six or eight XGI 1500 utilityscale string inverters, achieving up to 2 MWac in total, premounted and pre-wired on a custom-fabricated strut-based galvanized steel rack
- Fused AC combiner for the output from the XGI 1500 inverters, with a load-break AC disconnect switch
- Pre-assembled and pre-wired AC and communications cabling
- Designed for rapid deployment
- Scalable alternative to central inverters with convenient access for maintenance and service
- True 99.0% peak efficiency
- Advanced grid-support functionality Rule21/UL1741SA
- Lowest O&M and installation costs
- Access all inverters on site via WiFi from one location
- Remote diagnostics and firmware upgrades
- XGI 1500 utility-scale string inverters are Made in the USA with global components and Buy American Act (BAA) compliant

OPTIONS

- PV Source Circuit Combiners: 16, 20, 24, 26, 28 position
- Configurations available using XGI 1500 models at 600 Vac (250 kW and 225 kW), and at 480 Vac (200 kW and 175 kW) Web-based monitoring
- Extended Warranty



SOLECTRIA® XGI 1500 POWER RACK **TECHNICAL DATA**

DESIGN DETAILS

| SOLECTRIA POWER RACK | | | | | | |
|--|--|--|--|--|--|--|
| Inverters | POWER RACK [™] models designed for four, six or eight XGI 1500 inverters, for flexibility in overall rating. The flagship POWER RACKs use the XGI 1500-250/250-600 for overall ratings of 1MW, 1.5MW and 2MW. Options to use any other XGI 1500 models at 600Vac (225kW, 166kW, 150kW, and 125kW) or 480Vac (200kW and 175kW). | | | | | |
| AC Combiner | AC Combiner with fused terminations for XGI 1500 inverter AC output and a load-break disconnect for bussed AC output. Does not include GFP equipment; available as an option. Consult Yaskawa Solectria Solar for further details. | | | | | |
| Rack | Custom fabricated, rugged strut-based galvanized steel rack. | | | | | |
| Factory Assembly, Test & Quality Control | XGI 1500 inverters and AC Combiner secured to the POWER RACK™, AC output wiring run from the inverters to the AC Combiner, communications wiring run between the inverters. Tested in the factory to ensure the POWER RACK™ is ready to go in the field. | | | | | |



| SOLECTRIA POWER RACK WEIGHT SPECIFICATIONS | | | | | | | | |
|--|------------------|----------------------|----------------------------------|--|--|--|--|--|
| Mo del | Inverter Model | Inverter Quantity | Est. Rack Total Weight (lb) * | | | | | |
| XGI-1500-166-PRU-6 | XGI 1500-166/166 | 6 | 4100 | | | | | |
| XGI-1500-xxx-PRU-4 | XGI 1500-xxx | 4 | 3000 | | | | | |
| XGI-1500-xxx-PRU-5 | (where xxx | 5 | 3900 | | | | | |
| XGI-1500-xxx-PRU-6 | can be: | 6 | 4200 | | | | | |
| XGI-1500-xxx-PRU-7 | 175, 200, | 7 | 4900 | | | | | |
| XGI-1500-xxx-PRU-8 | 225, or 250) | 8 | 5200 | | | | | |

* Includes rack, inverters, AC combiner, and all factory wiring and fittings

SPECIFICATIONS

| Specification Data | | POWER RACK MODELS | | | | | |
|---|---|--|-----------------------------|-----------------------------|-----------------------------|-----------------------------|--|
| | | XGI 1500-250-PR4 | XGI 1500-250-PR5 | XGI 1500-250-PR6 | XGI 1500-250-PR7 | XGI 1500-250-PR8 | |
| Configuration | Number of Inverters and Inverter Model | (4) XGI 1500-250 SERIES* | (5) XGI 1500-250 SERIES* | (6) XGI 1500-250 SERIES* | (7) XGI 1500-250 SERIES* | (8) XGI 1500-250 SERIES* | |
| | DC Input to Inverters (field wired) | See SOLECTRIA® XGI 1500 PV COMBINERS datasheet for details on all PV Combiner models | | | | | |
| | AC Connections | Inverter Output Circuits factory-wired to the AC Combiner; Combined AC output available for field wiring | | | | | |
| DC Input (All specificatons are per inverter) | Absolute Max DC Input Voltage | 1500 Vdc | | | | | |
| | Full Power Voltage Range (MPPT) | 860 Vdc - 1250 Vdc | | | | | |
| | Operating Voltage Range (MPPT) | 860 Vdc - 1450 Vdc | | | | | |
| | Number of MPP Trackers | Single MPPT Zone | | | | | |
| | Max Operating PV Current | 296.7 Adc (per XGI 1500-250/250-600 Inverter) | | | | | |
| | Max Operating PV Power | 255 kWdc (per XGI 1500-250/250-600 Inverter) | | | | | |
| ₫ | Max DC/AC Ratio Max Rated PV Power | 2.0 500 kWdc (per XGI 1500-250/250-600 Inverter) | | | | | |
| | Max Rated PV Short-Circuit Current (Σ Isc x 1.25) | 800 Adc (per XGI 1500-250/250-600 Inverter) | | | | | |
| | Nominal AC Output Voltage (Range) | 600 Vac, 3-Phase (-12% to +10%) | | | | | |
| | Continuous Real AC Output Power | 1 MWac total | 1.25 MWac total | 1.5 MWac total | 1.75 MWac total | 2.0 MWac total | |
| put) | Continuous Apparent Output Power | 1 MVA total | 1.25 MVA total | 1.5 MVA total | 1.75 MVA total | 2.0 MVA total | |
| outi | Maximum AC Output Current | 962.4 A total | 1,203 A total | 1,444 A total | 1,684 A total | 1,925 A total | |
| Put ons AC 0 | Nominal Operating AC Frequency | 60 Hz | | | | | |
| AC Output (All specifications are for the combined AC Output) | Power Factor Adjustable Range (Unity default) | +/- 0.80 Adjustable | | | | | |
| | Total Harmonic Distortion (THD) @ Rated Power | < 5% | | | | | |
| | Grid Connection Type | 3-Ph + N/GND | | | | | |
| | Fault Current Contribution (1 cycle RMS) | 144 A (per XGI 1500-250/250-600 Inverter) | | | | | |
| *All specifications in these columns are based on the XGI 1500-250/250-600. Consult SOLECTRIA for more information and specifications for the PowerRack™ using other XGI 1500-250 series inverter models (XGI 1500-225-600, XGI 1500-200/200-480, XGI 1500-175-480) | | | | | | | |

1500-225-600, XGI 1500-200/200-480, XGI 1500-175-480)



Intertek

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