

AC-COUPLED STORAGE SYSTEMS

ACS-500 (500 KWAC), ACS-375 (375 KWAC)
AND ACS-250 (250 KWAC)

Yaskawa Solectria Solar is building on its XGI 1500 platform to provide our new robust and reliable Utility-Scale AC-Coupled Storage Systems: ACS-500, ACS-375 and ACS-250.

The ACS-500/375/250 are factory-integrated and tested, scalable building blocks that enable AC-coupled storage at any capacity.

KEY FEATURES

- **Solectria XGI 1500 Inverters** - grid-tied, bi-directional utility-scale inverters, operating in parallel to achieve combined ratings of 500kW, 375kW or 250kW
- **DC Overcurrent Protection** - for the conductors between the XGI 1500 inverters and the battery subsystem (fuses integrated with the battery system or in a separate enclosure, depending on battery supplier).
- **AC Overcurrent Protection** - ACC-1500-500 Combiner with fuses for XGI 1500 inverters AC Output circuits, and a master fuse and switch after bussing.
- **Heila Edge Controller** - provides communication and control interface for the system and ready to drop-ship to the site.
- **Rack-Mounted** - pre-installed on a robust rack, pre-wired, pre-tested and ready to drop-ship to the site
- **Broad Compatibility** - storage technologies w/ voltage output 900-1450 Vdc

ACS-500 AC-COUPLED STORAGE ADVANTAGES

- Flexibility to implement storage at any capacity and independently of PV generation, to achieve overall system goals
- Enhanced energy efficiency with just a single power conversion stage
- Convenient for retrofit applications wherever on-grid energy storage provides a benefit
- **Use Cases:** Time-of use arbitrage, scheduled dispatch, demand charge management, behind-the-meter economic optimization with energy arbitrage and peak shaving, power factor correction, frequency and voltage support

SYSTEM DESCRIPTION

The ACS-500 System includes:

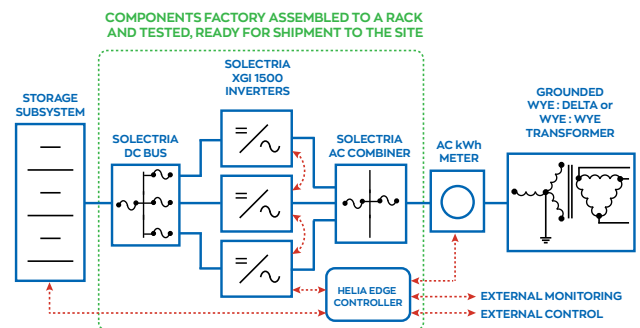
- Solectria XGI 1500 utility-scale string inverters with switching synchronization, operating in parallel from DC bus.
- Overcurrent protection for storage connection to XGI 1500 inverters, either integral to battery subsystem or externally provided.
- Solectria AC Combiner with overcurrent protection for the inverters AC output, bussed outputs, a master fuse and switch.
- Heila Edge Controller to enable scheduling of charge/discharge and operating mode to maximize the economics of the system

Contact sales@solectria.com for assistance with compatible storage systems



BI-DIRECTIONAL XGI 1500 INVERTERS

- XGI 1500-166/166 (166 kW/166 kVA) and XGI 1500-125/125 (125 kW/125 kVA) inverters provide overall system size flexibility
- Bi-directional power flow to charge batteries from the grid and discharge power into the grid
- 99% peak efficiency
- 1500 Vdc; 600 Vac 3-phase
- Designed exclusively for use with battery systems
- CA Rule 21 & HI 14H, UL 1741SA
- Made in the USA with global components
- Buy American Act (BAA) compliant



ACS-500 AC COUPLED STORAGE SYSTEM

TECHNICAL DATA

SPECIFICATIONS

Specifications	Solectria ACS-500	Solectria ACS-375	Solectria ACS-250
Configuration	3 x XGI 1500-166	3 x XGI 1500-125	2 x XGI 1500-125
Absolute Maximum Input Voltage	1500 Vdc		
Battery Operating Voltage Range	860 – 1300 Vdc		
Maximum Operating Battery Current	+ / - 593 Adc	+ / - 445 Adc	+ / - 297 Adc
Nominal AC Voltage	600 Volts AC		
Continuous Real / Apparent Power Output	500 kW / 500 kVA	375 kW / 375 kVA	250 kW / 250 kVA
Maximum AC Current	480 Aac	360 Aac	240 Aac
AC Overcurrent Protection	200 Aac fuses for each Inverter Output; 600 Aac fuses for combined Inverter Output		
Efficiency, CEC weighted average	98.5%		
Warranty	5 Years		
For more information, please visit www.solectria.com .			

Plant Master Controller	ACC-1500-PMC Plant Master Controller
Grid Integration Capabilities	DNP3, Multi-speak, IEEE-2030.5, IEC-61850, OpenADR
Battery, Meter and Sensor Integration Capabilities	Modbus TCP/RTU, CAN bus, BACnet, analog/digital signals
Operational Capabilities	Cloud-based access, data and event logs visualization, archival, reporting, and exporting
Autonomous Operation Capabilities	Local network, all metrics acquired and stored locally
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