

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:

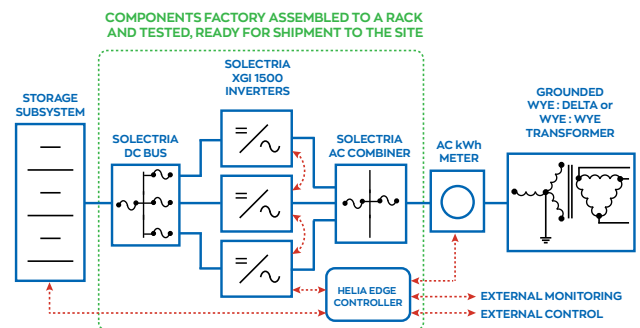
- Solectria XGI 1500 utility-scale string inverters with switching synchronization, operating in parallel from DC bus.
- Overcurrent protection for storage connection to XGI 1500 inverters, either integral to battery subsystem or externally provided.
- Solectria AC Combiner with overcurrent protection 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

Solectria Inverter Specifications	XGI 1500-166	XGI 1500-125	3 x XGI 1500-166	3 x XGI 1500-125	2 x XGI 1500-125
Absolute Max Input Voltage	1500 Vdc				
Max Power Voltage Range (MPPT)	860-1250 Vdc				
Max. PV Rated Power (STC)	332 kWdc		1.25 MWdc		
Operating Voltage Range	860 - 1450 Vdc				
Max Operating Input Current	197.7 A	148.3 A	593.1 A	444.9 A	296.6 A
Nominal Output Voltage	600 Vac				
Continuous Real / Apparent Power Output	166 kW / 166 kVA	125 kW / 125 kVA	498 kW / 498 kVA	375 kW / 375 kVA	250 kW / 250 kVA
Maximum AC Output Current	160 A	120 A	480 A	360 A	240 A
CEC Avg / Peak Efficiency	98.5% / 99.0%	98.5% / 98.9%	98.5% / 99.0%	98.5% / 98.9%	98.5% / 98.9%
Certifications	CA Rule 21 & HI 14H, UL 1741SA				
Warranty	5 Years				
For more information, please visit www.solectria.com . *XGI 1500-250/250 available in Q1 2022					

AC Re-Combiner Specifications	ACC-1500-3-200A	ACC-1500-3-150	ACC-1500-2-150
DC-Coupled Storage System Compatibility	ACS-500	ACS-375	ACS-250
XGI 1500 Inverter Connections	3 positions, 200 A fuse	3 positions, 150 A fuse	2 positions, 150 A fuse
Main Fuse and Switch Rating	600 A fuse, 600 A switch	500 A fuse, 600 A switch	300 A fuse, 600 A switch
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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