DC-COUPLED STORAGE SYSTEMS

PVS-500 (500 kWAC), PVS-375 (375 kWAC) AND PVS-250 (250 kWAC)

SMART and SGIP Ready

Yaskawa Solectria Solar's PVS-500, PVS-375 and PVS-250 provide the most robust and reliable Utility-Scale DC-Coupled Energy Storage Systems in the industry. A Solectria® PVS DC-Coupled Energy Storage System comes with Solectria XGI 1500 inverters, a Heila Edge Plant Master Controller and a bi-directional Dynapower DPS 500 DC/DC converter. Having the energy storage and the PV array on the same inverter allows this DC-coupled system to put the excessive PV production in storage and discharge to the grid at select times and conditions to maximize the value of the system.

Dynapower Bi-Directional DC/DC Converters

- DPS-500 (500 kWdc) used in all DC-Coupled Storage systems
- 98.2% average efficiency
- 1500 Vdc
- Integrated fusing and switchgear
- Optimized for the Solectria XGI 1500 Inverters

MODELS AND KEY FEATURES

Model	Features
PVS-500	3 Solectria XGI 1500-166/166 Inverters rated at 498 kWac
	DC Re-combiner with up to 5 PV Array Inputs, allowing up to 1.25 MWdc and a DC/AC ratio of 2.5
PVS-375	3 Solectria XGI 1500-125/125 Inverters rated at 375 kWac
	DC Re-combiner with up to 5 PV Array Inputs, allowing up to 1.25 MWdc and a DC/AC ratio of 3.3
PVS-250	2 Solectria XGI 1500-125/125 Inverters rated at 250 kWac
	DC Re-combiner with up to 5 PV Array Inputs, allowing up to 1.25 MWdc and a DC/AC ratio of 5.0
ALL MODELS	Dynapower DPS-500 DC/DC converter to interface the battery system
	Heila Edge controller to optimize energy utilization

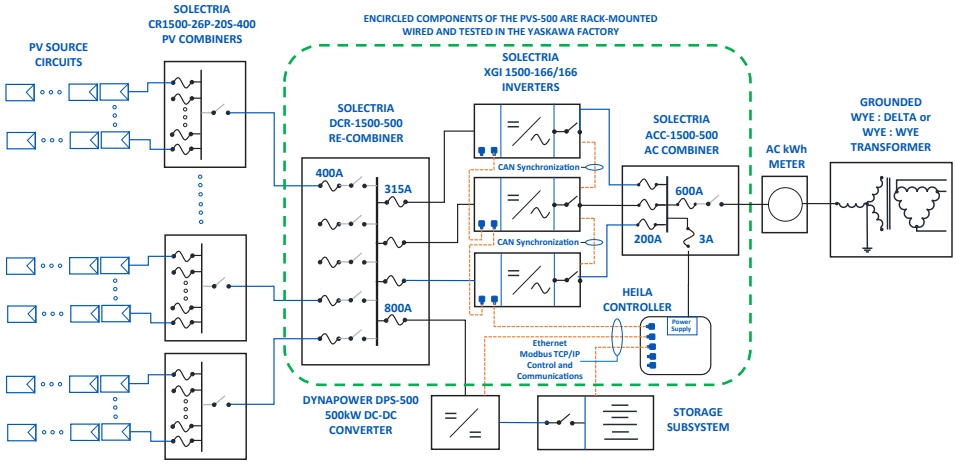
ADVANTAGES OF DC-COUPLED STORAGE

- Solar Peak Energy Re-capture
- Low-Voltage Harvesting
- Demand Charge Management
- Energy Time-Shifting
- Capacity Firming
- Ramp-Rate Control

SYSTEM DESCRIPTION

The PVS Systems include:

- Optional: Solectria 1500 VDC PV Source-Circuit Combiners with 400 A switch
- Solectria XGI 1500 utility-scale string inverters with synchronized switching, operating in parallel from the DC bus
- Solectria DC Re-combiner that serves as the overall DC Bus in the system
- Solectria AC Combiner with fusing for the inverter AC outputs, a combined output fuse and master switch
- Heila Edge controller, provides control and communications to optimize the system
- Dynapower's advanced DPS-500 DC/EDC converter that interfaces a storage subsystem*



* Storage subsystem not included. Contact sales@solectria.com for assistance with compatible storage subsystems.

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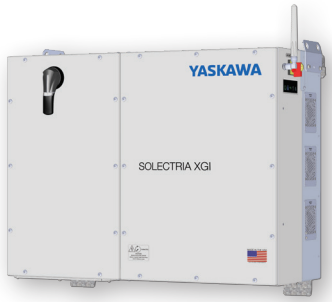
PVS-500 / PVS-375 / PVS-250
DC-COUPLED STORAGE SYSTEMS TECHNICAL DATA

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



Dynapower Converter Specifications	DPS-500
DC Input Voltage Range (Battery Port)	550 – 1500 Vdc
DC Input Voltage Range (PV Port)	550 – 1500 Vdc
Max Continuous Power Rating	500 kWdc
Max Continuous Current Rating	+/- 500 A
Avg Efficiency	98.2%
Operating Temperature Range	-25 to +50°C

For more information, please visit www.dynapower.com

PV Combiner Specifications	CR1500-26P-20S-400 1500V PV Combiners
Input Wire Compatibility	14 – 4 AWG
Output Wire Compatibility	Compression Terminal, 1 or 2 cond, 1/0 – 500 kcmil, 1 cond, 750 kcmil
Fuse Rating, Positions	20A, 26 Positions
Fuse Configuration	Positive Polarity Fused
Integrated DC Disconnect	400 A, 2-pole

For more information, please visit www.solectria.com

DC Re-Combiner Specifications	DCR-1500-500 (3 x XGI 1500-166)	DCR-1500-375 (3 x XGI 1500-125)	DCR-1500-250 (2 x XGI 1500-125)
PV Output Circuit Connections	5 positions, 400 A fuse and Disconnect	5 positions, 400 A fuse and Disconnect	5 positions, 400 A fuse and Disconnect
DC/DC Converter Connection	1 position, 800 A fuse	1 position, 800 A fuse	1 position, 800 A fuse
XGI 1500 Inverter Connections	3 positions, 315 A fuse	3 positions, 250 A fuse	3 positions, 250 A fuse

For more information, please visit www.solectria.com

AC Re-Combiner Specifications	ACC-1500-3-200A	ACC-1500-3-150	ACC-1500-2-150
DC-Coupled Storage System Compatibility	PVS-500	PVS-375	PVS-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

HEILA Edge Controller Specifications	HEILA Edge 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 Operational Capabilities	Local network, all metrics acquired and stored locally

For more information, please visit www.solectria.com

IT'S PERSONAL

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