

DPS-i DC-Coupled Battery Energy Storage System

Reduce costs and complexity with fully integrated DC-coupled solar plus storage.

Our DPS-i is a fully integrated DC-coupled battery energy storage system designed to provide reliable, flexible, and cost-effective storage for central inverter-based solar power plants.

This compact system integrates our highly efficient DPS-500 DC-DC converter with Li-Ion batteries in 1, 2, 4, or 6 hour configurations. The DPS-i enables clipping and curtailment recapture of excess PV energy while reducing the balance of plant cost for system integrators. This integrated storage system is easily deployed on a concrete pad, crushed stone or on the ground with a forklift and minimal labor, reducing system installation costs.

Multiple DPS-i systems can be paralleled together to meet the sizing needs of any utility-scale solar plus storage installation.

Features

- DPS-500 DC-to-DC Converter
- Li-ion Batteries in Outdoor Rated NEMA 3R/IP 54 Enclosures
- System Level Integrating Controller
- Integrated Battery Overvoltage Protection
- DC Contactor and Precharge on Battery Port Included
- Integrated DC Disconnect and DC Fusing
- Fire Suppression System







TECHNICAL SPECIFICATIONS

Batteries

Discharge Duration	1 to 6 hours
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Electrical

DC Input Voltage Range (Battery Por	t) 100-1500V _{DC}
DC Input Voltage Range (PV Port)	100-1500V _{DC}
Maximum Continuous Power Rating	500kW
Maximum Continuous Current Ratin	g +/-500A _{DC}
Maximum Efficiency	99%
Average Efficiency	98.2%
Aux/Controls Power	Customer supplied 120V, 1-ph, 60Hz, 1kVA service
	Customer supplied 230V, 1-ph, 50Hz, 1kVA service

Environmental

Operating Temp	-25 to +55°C
Cooling (DPS Converter)	Forced Air Cooled
Enclosure	NEMA 3R/IP 54
Max Elevation	1000 Meters full power 3000 Meters with Derating

Certifications & Standards Compliance

Batteries	UL 1973
	UL 9540A
Power Conversion	UL 1741
	IEC 62109-1
	IEC / EN 61000-6-4
	IEC / EN 61000-6-2
	CISPR 11 / EN 55011
	FCC Part 15 Class A
	IEEE Std C37.90.2

Hardware Protections

DC Disconnect	DC Contactor and Precharge on
DC Fusing	Battery Port

Software Protections

DC Over-voltage	Over-temperature
DC Under-voltage	Fuse failure
DC Over-current	

Key Technologies

Clipping Recapture	Low Voltage Harvesting
Curtailment & Outage Recapture	Ramp Rate Control+
Energy Time Shifting	

User Interface

Remote Communications	Modbus TCP/IP
Local Indicators	Lamps on front panel indicating
	operation mode & alarm/fault status



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12-2021 US