DYNAPOWER
Part of Sensata Technologies

DPS-1000 DC/DC Converter

# The most flexible DC/DC Converter on the market


## POWER CONVERSION FOR SOLAR PLUS STORAGE, HYDROGEN, AND EV APPLICATIONS

**This bi-directional 1000kW DC/DC converter is designed to interface battery energy storage with new and existing 1000V and 1500V central inverter-based applications.**

The DPS-1000 is ideal for utility-scale solar plus storage installations, with maximum flexibility to also meet power conversion needs for hydrogen and EV applications. It offers advanced features including automated clipping recapture and low voltage harvesting that increase project revenues, while its DC-coupled architecture reduces installation and regulatory costs.

This DC/DC converter can operate in voltage, current, and power control modes, and is capable of on-the-fly switching between modes. Designed to be easily scaled, up to 6 units can be paralleled for up to 6MW of power harvesting.

### System Advantages:

- Reduce installation and regulatory costs through DC-coupled architecture
- Scalable power up to 6MW with paralleled units
- Wide DC input voltage range for battery and PV
- Integrated battery overvoltage protection, DC contactor, and precharge on battery port included

### Key Technologies

- Clipping Recapture
- Maximum Power Point Tracking
- Curtailment Recapture
- Energy Time Shifting
- Ramp Rate Control

# TECHNICAL SPECIFICATIONS

## Electrical

| | |
|---|---|
| DC Input Voltage Range (Battery Port): | **100–1500$V_{DC}$** |
| DC Input Voltage Range (PV Port): | **100–1500$V_{DC}$** |
| Maximum Power Rating: | **833kW (@1000$V_{DC}$)**<br>**1000kW (@1200-1500$V_{DC}$)** |
| Maximum Current Rating: | **+/-833$A_{DC}$** |
| Maximum Efficiency: | **99%** |
| Efficiency: | **98.5%** |
| Aux/Controls Power: | **Customer supplied 120V, 1-ph, 60Hz, 1.2kVA service** |
| | **Customer supplied 230V / 277V, 1-ph, 50Hz, 1.2kVA service** |

## Environmental

| | |
|---|---|
| Operating Temp: | **-35 to +60°C** |
| Cooling: | **Forced Air Cooled** |
| Enclosure: | **UL 3R/IP 54** |
| Max Elevation: | **1000 Meters Full Power, 3000 Meters with Derating** |
| Dimensions (L x W x H): | **37.64” x 37.80” x 85.91”** |
| Weight: | **1540 lbs** |
| Cable Connections: | **Side or bottom entry** |

## Certifications & Standards Compliance*

- UL 1741
- CSA C22.2 #107.1
- UL / IEC 62109-1/2
- IEC / EN 61000-6-4
- IEC / EN 61000-6-2
- CISPR 11 2015-6 / EN 55011
- FCC Part 15 Class A

## Hardware Protections

- DC Contactor and Precharge on Battery Port

## Software Protections

- DC Over-voltage / Under-voltage
- DC Over-current
- Over-temperature
- Fuse monitoring

## Options

- Integrated DC Fuses
- DC High Accuracy Metering
- DC Power Circuit SPD
- Insulation Monitoring

## User Interface

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


* Pending

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POWERING A CLEANER PLANET

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