Ceres 100kW Rack Optimizer

Ceres 100kW Rack Optimizer is a high-efficiency DC/DC power module designed for the charging and discharging management of sodium or lithium energy storage batteries. It features comprehensive protection functions, intelligent air-cooling for heat dissipation, no power-level electrolytic capacitors, long lifespan, and high reliability.

High Safety

Functional safety design and strict safety distance. Multiple protection keeps system safe.

High Integration

Higher power density

High Efficiency

Higher charging and discharging Efficiency. Supports multiple modes of operation.

High Quality

Fast short-circuit protection with higher reliability. Supports multiple parallel devices for easy expansion.

Note: Pictures are for reference only, please prevail in kind.

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Specifications

Conversion Efficiency	
Peak Efficiency of Charging / Discharging	99.3%
Charge-Discharge Cycle Efficiency	98.0%
Battery Characteristics	
Maximum Support Voltage	1400 Vdc
Minimum Support Voltage	600 Vdc
Maximum Static Current	100 A
Maximum Dynamic Current	90 A
Maximum Power	100 kW
Bus Characteristics	
Maximum Support Voltage	1500 Vdc
Minimum Support Voltage	330 Vdc
Maximum Current	90 A
Protection characteristics	
Over Voltage/Current Protection (OVP/OCP)	Supported
Environmental Parameters	
Operating Temperature	−4°F to + 131°F (> 122°F derating)
Humidity	0% -95% RH
Operating Altitude	≤ 6500 ft
Noise	< 70 dB @ 3.3 ft
Pollution Degree	PD2
Structural Parameters	
Dimensions (W X H X D)	15 3/8" x 3 1/8" x 15 3/4"
Weight	21.4 lb
Cooling Mode	Intelligent air cooling
Enclosure Material	Metal
Communication Interface	
Communication Protocol	CAN, RS485
Firmware Update Method	Supports online updating
Certification Standards	
Safety	IEC/EN 62477-1 (planning), UL1741 (testing)
EMC	IEC 61000-6-2/-4 (planning), FCC Part15 (testing)

(1) When used in parallel, for a 1500PCS system scenario, the maximum supported voltage on the battery side needs to be derated to a certain extent.
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