

200kW/200kVA, 1500Vdc PCS Energy Storage Inverters



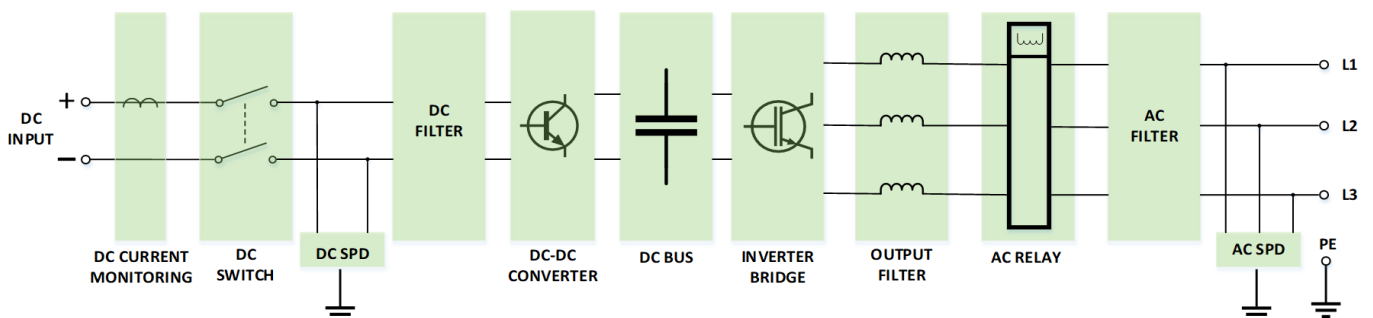
CPS ECB200KTL/US-800

The 200kW/200kVA high-power CPS three-phase energy storage inverter is designed for use in commercial and utility-scale grid-tied energy storage systems. The inverter is optimized to meet the needs of the most demanding energy storage applications including demand charge reduction, power quality, load shifting, and ancillary grid support services such as frequency response and voltage support. The units are advanced and reliable inverters designed specifically for the North American environment and grid. High efficiencies, wide operating voltages, broad temperature ranges and NEMA Type 4X enclosure enable this inverter platform to operate at high performance across many applications.

Key Features

- NFPA 70 and NEC 2017/2020 compliant
- Integrated DC disconnect switch
- Protection functions for enhanced safety and reliability
- Full Power Capacity up to 45°C
- NEMA Type 4X outdoor rated
- Integrated DC-DC Bi-directional converter
- Standard 5-year warranty with extension to 20 years
- Rack mountable up to 1MW per rack
- Wide DC voltage range suitable for different batteries
- Modular design, easy for maintenance

Circuit Diagram



Model Name	CPS ECB200KTL/US-800
DC Input	
Max. DC input voltage	1,500V
Min. DC input voltage	875V
Operating DC input voltage range	950-1500 (45°C)
Max. DC input current	218A
Max. DC input power	207kW
DC disconnection type	Load-rated DC switch
DC surge protection	Type II
AC Output	
Rated AC output power @ PF>0.99	200kVA / 200kW @ 45°C 170kVA / 170kW @ 50°C
Rated output voltage	800Vac
Output voltage range	704-880Vac
Grid connection type	Three-phase / PE
Max. AC output current @ 800Vac	145A
Nom. grid frequency / grid frequency range	60 Hz / 55 – 65 Hz
Adjustable reactive power	-100% – 100%
AC current THD	< 3% (at nominal power)
DC current injection	< 0.5% Inom.
Max. OCPD rating	285A
AC surge protection	Type II
System and Performance	
Max. efficiency	98.0%
CEC efficiency	97.0%
Stand-by consumption	< 30W
Environment	
Enclosure protection degree	NEMA Type 4X
Cooling method	Variable Speed Cooling Fans
Operating temperature range	-22°F to +140°F / -30°C to +60°C (Derating from +113°F / +45°C)
Operating humidity	0 to 100%
Operating altitude	9,842.5ft / 3,000m (No Derating)
Display and Communication	
User interface and display	LED indicators, WiFi + APP
PCS inverter monitoring	CAN / Ethernet / RS485
Modbus data mapping	SunSpec / CPS
Mechanical	
Dimensions (WxHxD)	29.5in x 13.1in x 33.5in (750mm x 332mm x 850mm)
Weight	264.4 lbs / 120kg
AC Termination	Right Angle Plug (Wire Range: 3/0 - 4/0 AWG CU)
DC Termination	Right Angle Plug (Wire Range: 4/0 AWG CU)
Safety	
Certifications and standards	UL 1741, CSA-22.2 NO.107.1-16, IEEE 1547-2018, FCC Part 15
Selectable grid standard	IEEE 1547-2018, IEEE 1547.1-2010
Smart-grid features	Volt-Ride Thru, Freq-Ride Thru, Ramp-Rate, PF, Volt-VAR, Freq-Watt, Volt-Watt
Protective Functions	
Black start	Yes
Reverse polarity protection	Yes
Overvoltage protection	Yes
Grid monitoring	Yes
Ground fault monitoring	Yes
Active / reactive power response time	< 100ms
Warranty	
Standard	5 years
Extended terms	10, 15, 20 years