# 125/250 kW Commercial Energy Storage for North America

**CPS Commercial Energy Storage System**

CPS is excited to introduce a turnkey commercial energy storage system (ESS) solution to the North American market.

The new CPS ESS solution integrates 125/250 kW two-hour energy storage building blocks that can be easily expanded to meet any C&I project size. Modular design minmizes the impact of faults and their associated O&M costs. Rack-level management reduces mismatch losses between parallel battery cabinets, and also enables battery mixing and phased replacement. The CPS bi-directional power conversion system (PCS) acts as the mediator between the generation source, the grid, and the battery rack using advanced energy management system (EMS) software.

## C&I Applications

- PV energy shifting and TOU optimization
- Peak shaving with demand-charge management
- Active and reactive power control for grid support service
- Zero-export control

## Key Features

- Fully integrated turnkey energy storage solution
- LFP batteries with high thermal stability and high energy density
- Fully integrated fire protection system
- Smart liquid cooling systems for extended battery cycle life
- Modular design with flexible scalability
- Advanced EMS with project cash flow analysis
- Active control and management
- Full power capacity up to 45°C
- Compact cabinets with flexible layout options
- UL 9540 certified

This device complies with part 15 of the FCC Rules



Chint Power Systems America
1380 Presidential Drive, Suite 100, Richardson, TX 75081
Tel: 855-584-7168 Mail: AmericaSales@chintpower.com Web: www.chintpowersystems.com

| | | |
|---|---|---|
| System Model Name | CPS ES-125 kW / 279.55 kWh | CPS ES-250 kW / 559.1 kWh |
| PCS Cabinet Model Name | CPS ES-125 kW | CPS ES-250 kW |
| Battery Cabinet Model Name | O652280-E | |
| Configurations | (1) CPS ES-125 kW + (1) O652280-E | (1) CPS ES-250 kW + (2) O652280-E |
| **Battery Specifications** | | |
| Battery capacity | 279.55 kWh | 559.1 kWh |
| Rated voltage | 998.4 V | |
| Max charge/discharge rate | 0.5 C | |
| Rack configuration | 1P312S | |
| Operating voltage range | 873-1123.2 V | |
| Overcurrent protection | Yes | |
| Cooling system | Liquid cooling | |
| Battery chemistry | LFP | |
| **Electrical Specifications** | | |
| Rated AC output power | 125 kW | 250 kW |
| Maximum AC output power | 125 kVA | 250 kVA |
| Nominal grid voltage | 480 Vac | |
| Grid voltage range | 422-528 Vac | |
| Nominal grid frequency | 60 Hz | |
| Grid frequency range | 57-63 Hz | |
| Continuous AC power - charge | 125 kVA | 250 kVA |
| Continuous AC power - discharge | 125 kVA | 250 kVA |
| Maximum continuous AC current | 150 A | 300 A |
| Grid connection type | 3 phase/PE/N (neutral optional) | |
| Total harmonic distortion (THD) | <3% (IEEE 519 compliant) | |
| Power factor | >0.99 (-1 to 1) | |
| Maximum efficiency (PCS) | 98.1% | |
| CEC effiency (PCS) | 97.5% | |
| AC connection | 3 phase, 3 wire | |
| **Environment & Certifications** | | |
| Enclosure | PCS cabinet: NEMA 3R<br>Battery cabinet: NEMA 3R | |
| PCS | UL 1741-SA/SB Ed. 3, CSA-22.2 NO.107.1-16, IEEE 1547a-2014, IEEE 1547-2018, FCC PART15 | |
| Battery | UL 1973, UL 9540A | |
| System | UL 9540 | |
| **Equipment Specifications** | | |
| Dimensions (W x H x D) | PCS cabinet: 29.4 x 89.7 x 52.4 in (747 x 2278 x 1330 mm)<br>Battery cabinet: 51.2 x 92.1 x 51.2 in (1300 x 2340 x 1300 mm) | |
| Weight | PCS cabinet: 1344.8 - 1763.7 lbs (0.61 - 0.8 T)<br>Battery cabinet: 6613.9 lbs (3 T) | |
| Lifting provisions | Forklift slots and lifting rings | |
| Fire suppresion | Aerosol | |
| Operating temperature range | -13°F to 131°F / -25°C to 55°C | |
| Storage temperature range | -22°F to 140°F / -30°C to 60°C | |
| Operating altitude | ≤6561.7 ft (2000 m) | |
| Operating humidity | 0-95%, non-condensing | |
| **Operation Parameters** | | |
| Demand charge management | Yes | |
| Self-consumption | Yes | |
| Load shifting | Yes | |
| **Key System Components** | | |
| Bi-directional energy storage inverter | Yes | |
| High-voltage Lithium-ion battery | Yes | |
| DC disconnect (load rated) | Yes | |
| AC disconnect (load rated) | Yes | |
| Climate control system | Yes | |
| Integrated EMS | Yes | |
| **Warranty** | | |
| Standard | 5 years | |
| Extended terms | 10 years | |