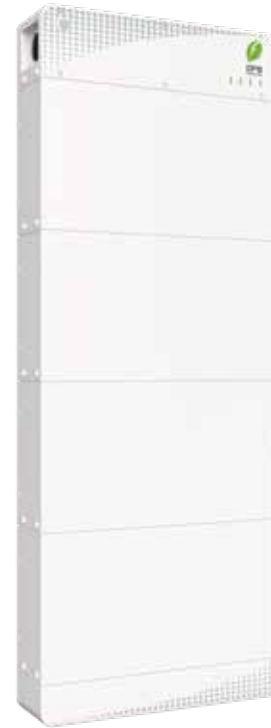


CPS Power Leaf Residential Energy Storage for North America



CPS ECH7.6-12K/US Residential Hybrid PCS

CPS ESSR-05-20KL1/US Residential Battery

CPS is excited to introduce a turnkey residential energy storage system (ESS) to the North American market. The new Power Leaf residential ESS will integrate modular energy storage blocks with an all-in-one hybrid PCS inverter. The Power Leaf solution will be scalable from 7.6 kW/5 kWh to 12 kW/20 kWh with a single PCS energy storage inverter and up to four stackable battery units.

High energy density, flexible configuration, and an advanced energy management system (EMS) enables seamless transfer between grid-tied and off-grid modes, making the Power Leaf an ideal solution for whole-home or partial-home backup. The all-in-one hybrid PCS energy storage inverter can be AC or DC coupled with an onsite PV array and has a generator input terminal allowing flexibility.

Key Features

- Fully integrated turnkey ESS solution
- LFP batteries with high thermal stability and high energy density
- Parallel up to 60 kWh of energy storage with no junction boxes required
- Simple installation and O&M with a separable PCS wire-box and stackable batteries
- 200 A AC passthrough for whole home backup
- Advanced EMS with configurable modes
- Multiple PCS MPPTs for boosted PV production
- Full power capacity up to 113° (45°C)
- Compact cabinets with flexible layout options
- UL 9540 certified

CPS ECH7.6-12K/US Residential Hybrid PCS Data

Product Model	CPS ECH7.6K/US	CPS ECH9.6K/US	CPS ECH11.4K/US	CPS ECH12K/US
PV Input				
Max. PV input power	11.4 kW	14.4 kW	17.1 kW	18 kW
Max. PV input voltage	600 V _{DC}			
PV operational voltage	120-550 V _{DC}			
MPPT voltage (full load)	150-450 V _{DC}			
Startup voltage	150 V _{DC}			
Number of MPPTs	3			
Number of strings per MPPT	2			
Max. PV input current per MPPT	30 A			
Short-circuit current per MPPT	40 A			
AC Output (Grid)				
Max. input current (on grid)	200 A			
Max. input apparent power	48 kVA			
Max. output current	31.7 A	40 A	47.5 A	50 A
Max. output apparent power	7.6 kVA	9.6 kVA	11.4 kVA	12 kVA
Output voltage range	180-264 V			
Output frequency and voltage	60 Hz; 120 / 240 / 208 Vac			
Grid type	Split phase; 2 phase, 3 line			
THDI	< 3% (rated power)			
Power factor	> 0.99 (adjustable ±0.8)			
Backup Port				
Max. output current (on grid)	200 A			
Max. output current (off grid)	31.7 A	40 A	47.5 A	50 A
Max. output apparent power (off grid)	7.6 kVA	9.6 kVA	11.4 kVA	12 kVA
Rated output frequency and range	60 Hz; 120 / 240 / 208 Vac			
THDV	< 3% (rated power)			
Switching time	20 ms			
General Data				
Operational temperature range	-13°F to 140°F (-25°C to 60°C) / humidity up to 100%			
Cooling	Fans			
Audible noise	< 45 dB			
Weight	138.3 lb (62.7 kg)			
Dimensions (H × W × D)	36 × 20.4 × 9.3 in (912 × 518 × 234 mm)			
Supported communication interfaces	CAN, RS485, Wi-Fi			
Protection degree	NEMA 4X			
Max. efficiency	97.5%			
CEC efficiency	96.5%			
Surge protection	Type II			
Standard Compliance				
PV certifications	UL 1699B, UL 1741-SA, UL 9540, IEEE 1547, IEEE 1547.1, FCC Part 15			
Warranty				
Standard	10 years			

CPS ESSR-05-20KL1/US Residential Battery Data

Product Model	CPS ESSR-05KL1/US	CPS ESSR-10KL1/US	CPS ESSR-15KL1/US	CPS ESSR-20KL1/US
General Data				
Nominal voltage	51.2 V			
Operating voltage range	44.8-57.6 V			
Max. current	50 A	100 A	150 A	200 A
Max. power	2.5 kW	5 kW	7.5 kW	10 kW
Rated energy	5 kWh	10 kWh	15 kWh	20 kWh
Usable energy	5 kWh	10 kWh	15 kWh	20 kWh
Depth of discharge	Up to 100%			
Discharging temperature range	14°F to 122°F (-10°C to 50°C)			
Charging temperature range	32°F to 122°F (0°C to 50°C)			
Operating humidity range	5-95%			
Communication	CAN			
Installation Specifications				
Max. parallel extensions	Up to 60 kWh			
Weight	132.3 lb (60 kg)	229.3 lb (104 kg)	326.3 lb (148 kg)	423.3 lb (192 kg)
Dimensions (H × W × D)	26.4 × 7.1 × 25.6 in (670 × 180.3 × 650 mm)	26.4 × 7.1 × 40.2 in (670 × 180.3 × 1020 mm)	26.4 × 7.1 × 54.8 in (670 × 180.3 × 1391.9 mm)	26.4 × 7.1 × 69.3 in (670 × 180.3 × 1760 mm)
Protection	IP65			
Standard Compliance				
PV certifications	UL 1973, UL 9540, UL 9540A			
Warranty				
Standard	10 years			