

# 30kW

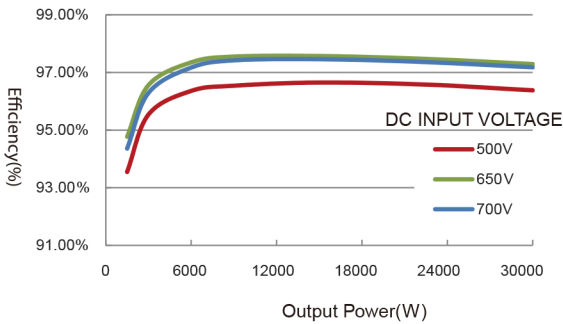
## Energy Storage Inverter

The CPS 30kW energy storage inverter is designed for use in commercial and industrial scale grid-tied energy storage systems. The inverter is optimized to meet the needs of the most demanding behind the meter energy storage applications including demand charge reduction, power quality, load shifting, and ancillary grid support services such as frequency response and voltage support. The CPS 30kW energy storage inverter is designed specifically for the North American environment and is based on the same platform as the >40,000 CPS commercial string inverters already operating on the US grid. High efficiency, parallel operation, wide operating voltages, broad temperature ranges and a NEMA 4X enclosure make this an ideal building block for any commercial or industrial energy storage application. The CPS 30kW energy storage inverters ship with touch safe fusing, monitoring, and load break AC and DC disconnect switches.

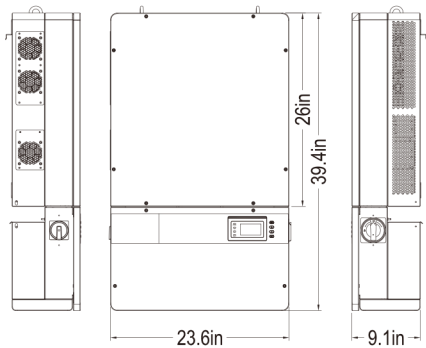


### Efficiency Curve

CPS ECB 30KTL-O/US



### Dimensions



### High Efficiency

- Maximum efficiency of 98% Discharge; 97.6% Charge
- 3-level topology with advanced controls
- Transformerless design

### High Reliability

- “Electrolyte-free design” for long-term reliability
- Standard warranty: 2 years, extension up to 10 or 25 years
- Advanced thermal design with variable speed fans
- Ground-fault detection and interruption circuit

### Broad Adaptability

- NEMA 4X, suitable for indoor and outdoor applications
- Utility interactive controls: Active power derating, reactive power control
- Optional CPS Flex Gateway enables remote FW upgrades Separate wiring box design
- Integrated load break AC and DC disconnects
- Advanced Smart-Grid features (CA Rule 21)
- 150ms response to set point commands
- Compatible with high voltage Li-Ion battery racks

Model Name	CPS ECB30KTL-O/US
DC Input	
Nominal DC Input Power	31kW
Max. DC Input Voltage[1]	900Vdc
Operating DC Input Voltage Range[2]	250-900Vdc
Operating Current(Imp)	70A
DC Disconnection Type	Load rated DC switch
AC Output GRID	
Rated AC Output Power	29.99kW
Rated Output Voltage	480Vac
Output Voltage Range[3]	422-528Vac
Grid Connection Type	3Φ/PE (Neutral Optional)
Nominal AC Output Current @480Vac	36A
Rated Output Frequency	60 Hz ±5%
Power Factor	>0.99 (±0.8 adjustable)
Current THD	<3%
AC Disconnection Type	Load rated AC switch
DC Output	
Rated DC Output Power	20kW
Output Voltage Range	0~900V
OFF GRID	
Rated Output Voltage	480 Vac, 3P3W(In 3P4W case, an external Dyn Transformer is required)
AC voltage range	422-528Vac
Rated Output Power	29.99 kVA/29.99 kW with linear load
	24 kVA with non-linear/RCD load
Rated Output Frequency	60 Hz ±5%
Output Voltage THD	<3% @ 12.5~100% liner load
	< 5% @ 12.5~100% non-liner load
Output Voltage Regulation	<10%, at dynamic; Recovering within tolerance in 100ms
Automatic switchover time	20ms
System	
Topology	Transformerless
Max. Efficiency	98.00%
Stand-by	<20W
Environment	
Protection Degree	NEMA 4X
Cooling	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	0-95%, non-condensing
Operating Altitude	13123.4ft / 4000m (derating from 6561.7ft / 2000m)
Display and Communication	
Display	LCD + LED
Communication	Standard: RS485 (Modbus) Ethernet CAN Optional: TCP/IP card
Mechanical Data	
Dimensions (WxHxD)	600×1000×230mm
Weight	Converter:122lbs/55kg; wirebox:20lbs/9kg
AC Termination	Screw Clamp Terminal Block(Wire range:#8~1AWG CU,#6~1AWG AL)
DC Termination	Screw Clamp Terminal Block(Wire range:#4~1AWG CU,#3~1AWG AL)
Safety	
Safety and EMC Standard	IEEE 1547, Rule 21; FCC PART15
Grid Standard	IEEE1547: 2003(R2008), IEEE1547.1-2005(R2011).CA Rule21
1) Exceeding the Max. DC Input Voltage may cause permanent damage to the equipment. 2) The "Output Voltage Range" and "Output Frequency Range" may differ according to the specific grid standard.	