



# EP CUBE

Residential Energy Storage System **NEW**

EP CUBE PRODUCT INTRODUCTION



FEATURES



Integrated hybrid inverter  
Supports DC and AC input  
Suitable for new and installed PV systems



Modular battery system, Easy to install and transport  
Capacity options from 9.9kWh to 19.9kWh per EP Cube unit,  
and up to 119.9kWh for full system



Lithium iron phosphate batteries  
UL 9540A unit level thermal runaway test certification



Multiple energy storage modes  
Guarantees household power supply  
Seamlessly switch to backup in case of power failure



Supports Wi-Fi and cellular communication  
Remotely monitor generation and consumption  
Receive backup reminders prior to bad weather



Compatible with generators for long-term power outages  
Can be connected to 2@50A EV chargers  
Supports high current, power input and output

**EP CUBE HYBRID INVERTER + BATTERIES**



3-Battery Modules



4-Battery Modules



5-Battery Modules



6-Battery Modules

<b>EP Cube system</b>				
Hybrid inverter			1	
Battery modules	3	4	5	6
Base			1	
<b>Hybrid inverter</b>				
MPPTs			4	
Input current			$I_{mp}$ 16A / $I_{sc}$ 20A per MPPT	
PV maximum input voltage			600V <sub>DC</sub>	
PV DC input voltage range			80V <sub>DC</sub> - 550V <sub>DC</sub>	
MPPT operating voltage			90V <sub>DC</sub> - 550V <sub>DC</sub>	
Allowable DC-AC ratio			2	
Nominal grid voltage			240V <sub>AC</sub>	
Frequency			60Hz	
Maximum AC output, on-grid			7.6 kW	
Battery roundtrip CEC efficiency			93.93%	
Imbalance for split-phase loads			100%, maximum 3.8kW for each phase	
<b>Energy storage</b>				
Total energy	9.9 kWh	13.3 kWh	16.6 kWh	19.9 kWh
<b>AC output, PV + battery</b>				
	7.6 kW	7.6 kW	7.6 kW	7.6 kW
Full Sun, off-grid	31.6A	31.6A	31.6A	31.6A
	22 kVA (10s)	22 kVA (10s)	22 kVA (10s)	22 kVA (10s)
<b>AC output, battery only</b>				
	5 kW	6.5 kW	7.6 kW	7.6 kW
No Sun, off-grid	20.8A	27.0A	31.6A	31.6A
	5.4kVA (10s)	7.2kVA (10s)	9kVA (10s)	10kVA (10s)
<b>Safety &amp; compliance</b>				
Protections	Integrated arc fault circuit interrupter (AFCI), PV RSD *			
	UL 1699B, UL 1741-SB, IEEE 1547, IEEE 2030.5			
Certifications	UL 1642, UL 1973, UL 9540, UL 9540A, UN 38.3			
	FCC Part 15 (Class B)			
	IEEE 693-2005 (high)			
Listing	CEC, HECO **			
<b>General parameters</b>				
Enclosure	NEMA 4X			
Noise	< 50dB @ 1m, front side			
Dimensions	23.62" x 47.64" x 8.66" 600 x 1210 x 220 mm	23.62" x 56.10" x 8.66" 600 x 1425 x 220 mm	23.62" x 64.57" x 8.66" 600 x 1640 x 220 mm	23.62" x 73.03" x 8.66" 600 x 1855 x 220 mm
System weight	286.6 lbs / 130 kg	352.7 lbs / 160 kg	418.9 lbs / 190 kg	485 lbs / 220 kg
Battery module weight	70lbs / 32kg			
Inverter weight	77lbs / 35kg			
Base weight	5.5lbs / 2.5kg			
Mounting options	Floor or wall mount			
Max. elevation	9,843 ft / 3,000 m			
Ambient operating temperature	14°F to 122°F / -10°C to 50°C			
Optimum operating temperature	32°F to 86°F / 0°C to 30°C			
<b>Limited warranty</b>				
System warranty	> 80% capacity, up to 10 years or 6,000 cycles ***			

**Notes:** \* PVRSD support Tigo and APSmart transmitter. \*\* HECO in process \*\*\* Battery capacity warranty up to 10 years or 6,000 cycles (whichever occurs first).

## EP CUBE SYSTEM/TECHNICAL DATA



Smart Gateway

**Grid and load**

Nominal grid voltage	120 / 240V <sub>AC</sub>
Frequency	60 Hz
Overcurrent protection	200A
Short circuit current protection	10 kA

**Microgrid interconnection**

Rated current	200A
Switchover time (on-grid / off-grid)	Seamless

**EP Cube interface \***

Output voltage	120 / 240V <sub>AC</sub>
Overcurrent protection	40A

**Enhanced interface \*\***

Output voltage	120 / 240V <sub>AC</sub>
Overcurrent protection	100A
Generator control request	Yes
Generator start type	2-wire start (I/O)
EV Charger communication (optional)	RS-485

**Communication**

Internet connection	Wifi, Cellular (LTE, 4G)
User interface	EP Cube APP (Android & IOS)

**Safety & compliance**

Certifications	UL1741-SB, ICES-003 (Class B) FCC Part 15 (Class B), FCC ID IEEE 693-2005 (high)
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**General parameters**

Enclosure	NEMA 4X
Noise	< 50dB
Dimensions	23.62" x 23.62" x 7.09" 600 x 600 x 180 mm
Weight	44.1 lbs 20 kg
Mounting options	Wall mount
Max. elevation	9,843 ft / 3,000 m
Ambient operating temperature	-40 °F to 122 °F / -40 °C to 50 °C

**Limited warranty**

System warranty	10 years
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**Notes:** \* The Smart Gateway EP Cube interface includes one EP Cube hybrid connection.  
\*\* The Smart Gateway includes two enhanced interface hardware.

## CONTACT

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