

CanadianSolar
EP CUBE



EP CUBE 2.0

More Flexible, More Intelligent Residential Energy Storage System **NEW**

EP CUBE PRODUCT INTRODUCTION



FEATURES



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



Modular and stackable design, easy to install and transport
Capacity options from 5kWh to 40kWh per EP Cube unit and up to 120kWh for full system.



Comprehensively guarantee household power supply
Seamlessly switch to backup in case of power outage



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



Supports Wi-Fi, Cellular and Ethernet network connection
Remotely monitor power generation and consumption
OTA firmware update, continuous function improvement

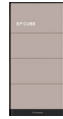


Compatible with generators for long-term power outages
Can be connected to 2@40A Level 2 EV chargers
100% green power for electric vehicles

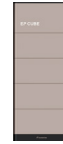
EP CUBE HYBRID INVERTER + BATTERIES



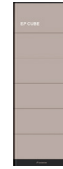
EP Cube2 UL-S-5G



EP Cube2 UL-S-10G



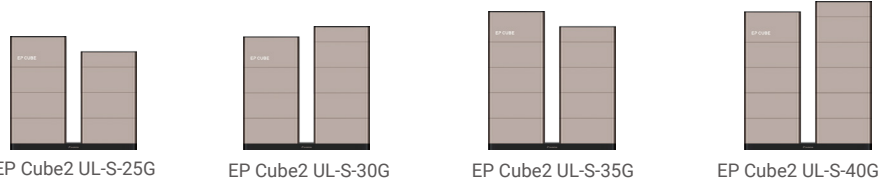
EP Cube2 UL-S-15G



EP Cube2 UL-S-20G

EP Cube system				
Hybrid inverter			1	
Battery module	1	2	3	4
Base			1	
Hybrid inverter				
MPPTs			6	
Input current	I_{mp} 16A / I_{sc} 25A per MPPT			
Withstand PV Voltage	600V _{DC}			
PV DC Input Voltage Range	60 – 550V _{DC}			
PV DC MPPT Voltage Range	60 – 480V _{DC}			
Allowable DC-AC ratio	2			
Nominal grid voltage	208V/240V _{AC}			
Frequency	60Hz			
Black start	Yes			
Maximum AC output, on-grid	11.5 kW			
Overcurrent Protection Device	60A			
Maximum inverter CEC efficiency	96.5%			
Imbalance for split-phase loads	100%, maximum 5.75kW for each phase			
Communication Module				
Internet connection	Wi-Fi, Ethernet, Cellular (LTE, 4G)			
User interface	EP Cube APP (Android & IOS), HMI			
Energy storage and power				
Total energy	5.0 kWh	10.0 kWh	15.0 kWh	20.0 kWh
Maximum Battery Only Continuous Charge Power/Current	3kW/12.5A(240V) 3kW/14.4A(208V)	5kW/20.8A(240V) 5kW/24.0A(208V)	6kW/25A(240V) 6kW/28.8A(208V)	6kW/25A(240V) 6kW/28.8A(208V)
Maximum Battery Only Continuous Discharge Power/Current	3kW/12.5A(240V) 3kW/14.4A(208V)	8kW/33A(240V) 8kW/38.5A(208V)	11.5kW/48A(240V) 9.9kW/48A(208V)	11.5kW/48A(240V) 9.9kW/48A(208V)
Maximum Continuous Discharge Power/Current(full sun)	11.5kW/48A(240V), 9.9kW/48A(208V)			
LRA(1s)	TBD	TBD	185A	185A
Safety & compliance				
Protections	Integrated arc fault circuit interrupter (AFCI), PV RSD			
Certifications	UL 1699B, UL 1741-SB, IEEE 1547, IEEE 1547-1, IEEE 2030.5, UL 1998, UL 1642, UL 1973, UL 9540, UL 9540A, UN 38.3, UL 60730-1 ANNEX H, FCC Part 15 (Class B), IEEE 693-2005 (high), UL1741-CRD-PCS, UL 3741			
Listing	CEC, HECO, SGIP, LUMA			
General parameters				
Enclosure	NEMA 4X			
Operating Noise @ 1 m	30dB(A) night time(low consumption) <60dB(A) maximum			
Dimensions	600*937*220mm	600*1204*220mm	600*1471*220mm	600*1738*220mm
System weight	198lbs/89.8kg	293lbs/132.8kg	387lbs/175.8kg	482lbs/218.8kg
Battery module weight	95lbs / 43kg			
Inverter weight	95lbs / 43kg			
Base weight	8.4lbs / 3.8kg			
Mounting options	Floor or wall mount			
Max. elevation	9,843 ft / 3,000 m			
Operating temperature	14°F to 122°F / -10°C to 50°C *			
Limited warranty				
System warranty	> 80% capacity, up to 10 years or 6,000 cycles **			
Notes				
* Performance may be de-rated in extreme operating temperatures.				
** Battery capacity warranty up to 10 years or 6,000 cycles (whichever occurs first)				

EP CUBE HYBRID INVERTER + BATTERIES



EP Cube system				
Hybrid inverter				1
Battery module	5	6	7	8
Base				1
Hybrid inverter				
MPPTs				6
Input current		I_{mp} 16A / I_{sc} 25A per MPPT		
Withstand PV Voltage		600V _{DC}		
PV DC Input Voltage Range		60 – 550V _{DC}		
PV DC MPPT Voltage Range		60 – 480V _{DC}		
Allowable DC-AC ratio		2		
Nominal grid voltage		208V/240V _{AC}		
Frequency		60Hz		
Black start		Yes		
Maximum AC output, on-grid		11.5 kW		
Overcurrent Protection Device		60A		
Maximum inverter CEC efficiency		96.5%		
Imbalance for split-phase loads		100%, maximum 5.75kW for each phase		
Communication Module				
Internet connection		Wi-Fi, Ethernet, Cellular (LTE, 4G)		
User interface		EP Cube APP (Android & IOS), HMI		
Energy storage and power				
Total energy	25.0 kWh	30.0 kWh	35.0 kWh	40.0 kWh
Maximum Battery Only Continuous Charge Power/Current		6kW/25A(240V) 6kW/28.8A(208V)		
Maximum Battery Only Continuous Discharge Power/Current		11.5kW/48A(240V) 9.9kW/48A(208V)		
Maximum Continuous Discharge Power/Current(full sun)		11.5kW/48A(240V), 9.9kW/48A(208V)		
LRA(1s)		185A		
Safety & compliance				
Protections		Integrated arc fault circuit interrupter (AFCI), PV RSD		
Certifications		UL 1699B, UL 1741-SB, IEEE 1547, IEEE 1547-1, IEEE 2030.5, UL 1998, UL 1642, UL 1973, UL 9540, UL 9540A, UN 38.3, UL 60730-1 ANNEX H, FCC Part 15 (Class B), IEEE 693-2005 (high), UL1741-CRD-PCS, UL 3741		
Listing		CEC, HECO, SGIP, LUMA		
General parameters				
Enclosure		NEMA 4X		
Operating Noise @ 1 m		30dB(A) night time(low consumption) <60dB(A) maximum		
Dimensions	1350*1204*220mm	1350*1307*220mm	1350*1471*220mm	1350*1570*220mm
System weight	594lbs/269.6kg	689lbs/312.6kg	784lbs/355.6kg	879lbs/398.6kg
Battery module weight		95lbs / 43kg		
Inverter weight		95lbs / 43kg		
Long Base weight		17.6lbs / 8kg		
Mounting options		Floor		
Max. elevation		9,843 ft / 3,000 m		
Operating temperature		14°F to 122°F / -10°C to 50°C *		
Limited warranty				
System warranty		> 80% capacity, up to 10 years or 6,000 cycles **		

Notes

- * Performance may be de-rated in extreme operating temperatures.
- ** Battery capacity warranty up to 10 years or 6,000 cycles (whichever occurs first)

EP CUBE SMART GATEWAY



SGNA2-200GX

Grid and load

Nominal grid voltage	240/208V _{AC}
Grid Type	Split phase 2W+N+PE
Frequency	60 Hz
Max current	200A
Non-Backup port	125A
Short circuit current protection	25 kA*

Microgrid interconnection

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

EP Cube hybrid interface **

Output voltage	120/208V, 120/240V
Overcurrent protection	60A

AC extend interface

Output voltage	120/208V, 120/240V _{AC}
Max current	80A
Generator control request	Yes
Generator start type	2-wire start (I/O)
EV Charger communication	RS485
Maximum number of smart breakers supported	5

Communication Module

Internet connection	Wi-Fi, Ethernet, Cellular (LTE, 4G)
User interface	EP Cube APP (Android & IOS), HMI

Safety & compliance

Certifications	UL1741, ICES-003 (Class B), FCC Part 15 (Class B), FCC ID, IEEE 693-2005 (high), UL 67, UL 896A, UL1741-CRD-PCS CSA C22.2#205, CSA C22.2#29, CSA C22.2#0.19, UL 916
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General parameters

Enclosure	NEMA 3R
Outlet Type	Bottom, Back, Top, Side
Operating Noise @1m	<30dB(A)
Dimensions	560*720*170mm
Weight	55lbs/25kg
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

- * Refer to the installation manual for allowable main and branch breakers combinations.
- ** The Smart Gateway includes one pre-installed EP Cube hybrid breaker, up to three hybrid breakers can be installed.

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