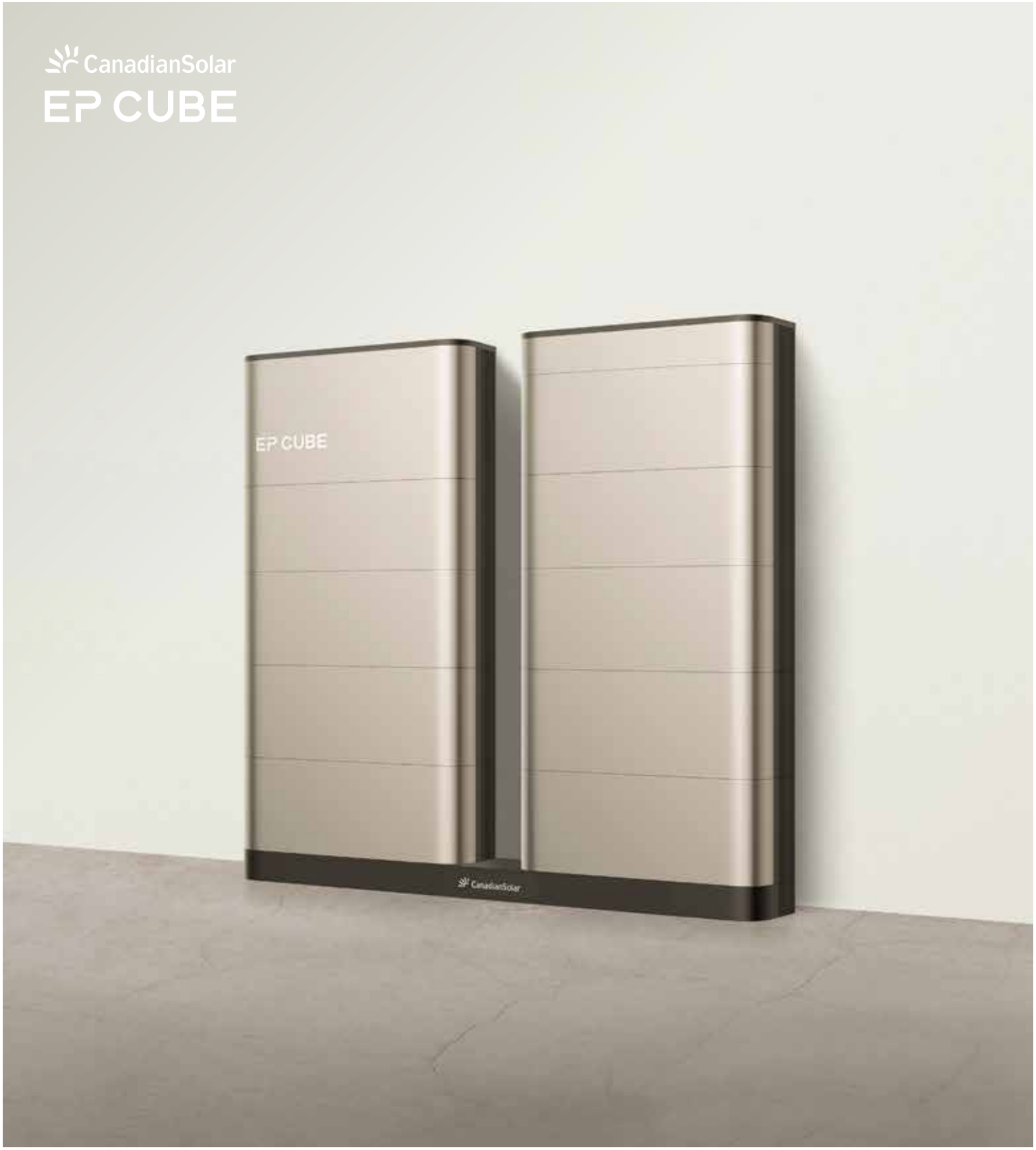
CanadianSolar

EP CUBE



EP CUBE *NEW*

More flexible, more intelligent Residential Energy Storage System

Canadian Solar EMEA GmbH
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The EP Cube is a flexible and intelligent all-in-one home energy storage solution for new and existing solar installations. With unrivalled flexibility and intelligent software management, it is designed to offer a quick and easy installation, simplified logistics, and cost-savings all round to make life easier for homeowners and installers.

FEATURES

Flexible and convenient

- Modular battery makes transport and installation easy.
- Capacity options from 10 kWh to 40 kWh.

Cost-saving

- All-in-one design saves installation time and cost.
- Automates generation and consumption.

Power guarantee

- Automated power supply during grid outage.
- High-power electrical appliances continue to function normally in case of grid blackout.[1]

Safe and reliable battery

- LFP technology.
- Meets highest certification standards.
- IP67 protection.

Perfect compatibility

- Compatible with existing and newly installed PV systems.
- 4 MPPTs, each allowing one string of up to 17A Impp.

Intelligent management

- Monitors generation, storage and consumption of electricity in real time.
- Automatic weather alerts help actively manage stored capacity.
- OTA (Over-The-Air) firmware upgrade.

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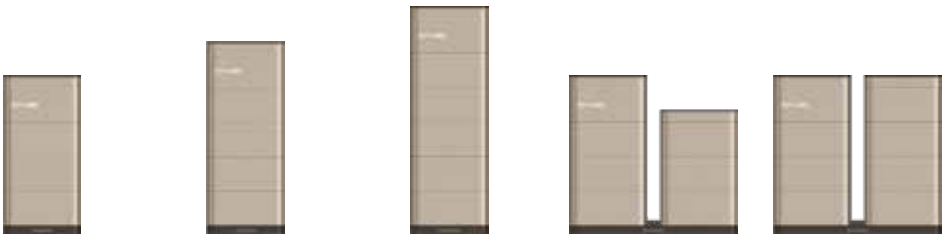
EP CUBE (Three-phase) TECHNICAL SPECIFICATION (Preliminary)



	EP Cube HES-EU2-T12-10G	EP Cube HES-EU2-T12-15G	EP Cube HES-EU2-T12-20G	EP Cube HES-EU2-T12-25G	EP Cube HES-EU2-T12-30G
System components					
Type of inverter	Hybrid bidirectional				
Number of inverters	1				
Number of battery modules [2]	2	3	4	5	6 (up to 8)
Nominal capacity [3]	10 kWh	15 kWh	20 kWh	25 kWh	30 kWh (up to 40kWh)
Max continuous power (battery only)	4.6 kW	7 kW	10 kW	12 kW	12 kW
Dimensions (WxHxD)	600 x 1300 x 250 mm [4]	600 x 1566 x 250 mm [4]	600 x 1844 x 250 mm [4]	1300 x 1300 x 250 mm [5]	1300 x 1300 x 250 mm [5]
System weight	144 kg	186 kg	228 kg	270 kg	312 kg
Base	1				
Hybrid inverter - DC Input (PV)					
Max PV input power	24 kW_p				
MPPTs	4				
Number of inputs per MPPT	1				
Max input power per MPPT	12 kW_p				
Max PV input voltage	1000 V_{DC}				
MPPT voltage range	120 V_{DC} - 850 V_{DC}				
Max MPPT input current	17 A				
Max MPPT short current	24 A				
MPPT start-up voltage	80 V_{DC}				
Hybrid inverter - AC On-grid					
Rated AC output voltage	Three phase / 3 L / N / PE / 400 V_{AC}				
Rated grid frequency	50 Hz				
Max continuous power (battery + PV) [6]	12 kVA				
Max continuous current (battery + PV) [7]	17.4 A				
Output power factor	~1 (adjustable from 0.8 leading to 0.8 lagging)				
Total harmonic distortion @12 kW	< 3% (rated power)				
Hybrid inverter - AC Back-up (optional)					
Rated AC output voltage	Three phase / 3 L / N / PE / 400 V_{AC}				
Rated output frequency	50 Hz				
Max continuous power (battery + PV)	12 kVA				
Max continuous current (battery + PV)	17.4 A				
Switching-time	< 30ms				
Peak off-grid power（PV supplied）	2 times overload(10 S) / 1.2 time overload (5Min)				
Back-up Connections	Three phase (support unbalanced load)				
Battery module					
Cell technology	$LiFeP0_4$				
Voltage range	43.2V~58.4V				
Nominal voltage	51.2 V				
Weight	< 42 kg				
Dimensions (WxHxD)	600 x 266 x 185.5 mm				
IP Rating	IP 67 (stacked together)				

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System	
Applications	Self consumption / TOU / Backup(Optional)
Type of inverter	Hybrid bidirectional
Inverter dimension (WxHxD)	600 x 785 x 285 mm
Inverter weight	< 60 kg
Inverter topology	Transformerless
DC battery protection	Fuse holder incl. fuses (+/-)
Noise	< 30dB@2m
IP Rating	IP 65
Cooling type	Natural cooling
Operating altitude	3,000 m
Operating relative humidity	95% non-condensing
Operating temperature range	- 20°C to 50°C [8]
Recommended operating temperature	0°C to 30°C
Storage temperature	-20°C ~ 0°C and / or 35°C ~ 50°C less than 1 month / 0°C ~ 35°C up to 1 year
Display	LED & APP
Installation method	Floor mounted (optional: wall mounted)[9]
Communication interface	WIFI, RS485, CAN, IO, Ethernet
Protection	
Battery Input Reverse / Polarity Protection	Integrated
Over load Protection (DC-AC side)	Integrated
AC Short Circuit Current Protection /Output Short Circuit Protection	Integrated
Output Over Current Protection	Integrated
DC (PV+Battery) Short Circuit Current Protection	Integrated
AC Surge Protection: Grid and Back-up (SPD Type II)	Integrated
Anti-islanding Protection	Integrated
PV String Input Reverse Polarity Protection	Integrated
Ground Fault Monitoring	Integrated
Temperature Protection (Inverter + Battery)	Integrated
Integrated DC Switch (PV - Disconnector)	Integrated
Remote stop	Integrated
Warranty	
Inverter	10 years
Battery	> 80% capacity, up to 10 years or 6,000 cycles
Accessories [10]	2 years [11]
Certifications	
Safety	IEC / EN 62109-1, IEC / EN 62109-2, IEC / EN 62477-1, IEC / EN 62619-1, ISO 13849, IEC 60529, VDE 2510-50, UN 38.3,IEC 63056
EMC	IEC 61000-6-3, IEC / EN 61000-6-1
Energy efficiency	IEC 61683
Grid standards	VIDE-AR-N 4105, DIN VDE V 0124-100

Notes

1. We need an extra ATS to support our backup mode.
2. Up to 8 pack.
3. Up to 40kWh.
4. Single tower.
5. Two tower.
6. Rated AC output power is adjustable according to the grid code of each country.
7. Rated AC output current is according to the grid code of each country.
8. Performance may be de-rated at extreme operating temperatures.
9. For more details, please check with the installation manual.
10. Accessories includes: Meter, CT.
11. 3 year for Spain.

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