

# EP CUBE

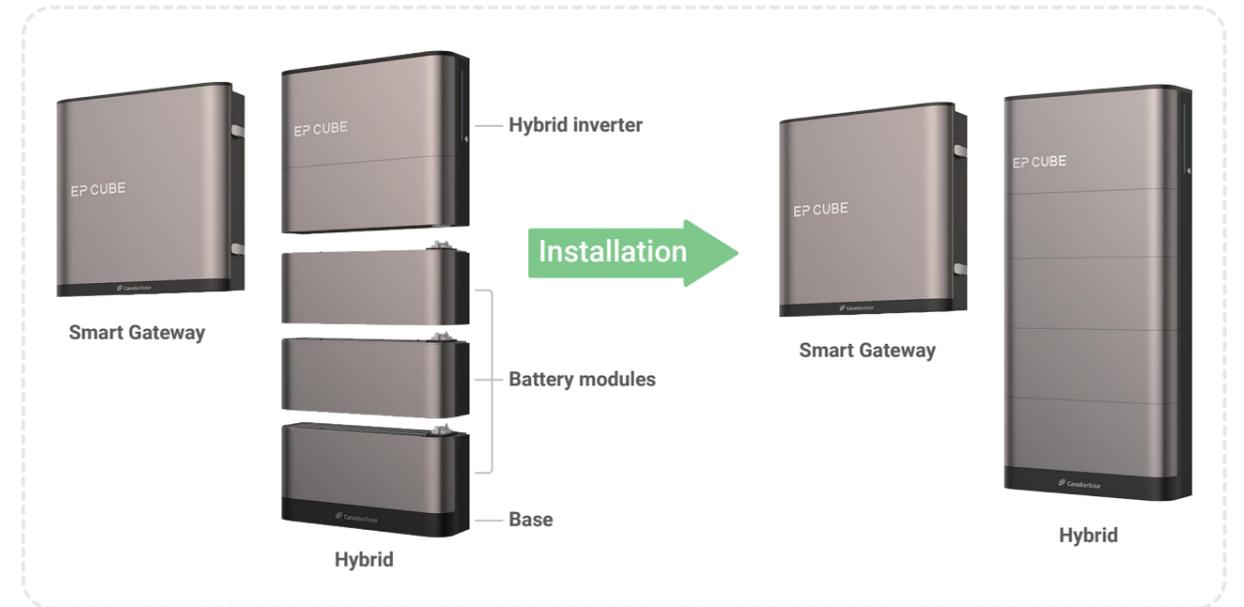




Energy storage

## Save electricity bills.

EP Cube comes with a battery bank that goes up to 19.9kWh per single unit, perfect for homeowners to store excess energy generated by solar system and use it for self consumption.



All-in-one design  
**Less is more.**

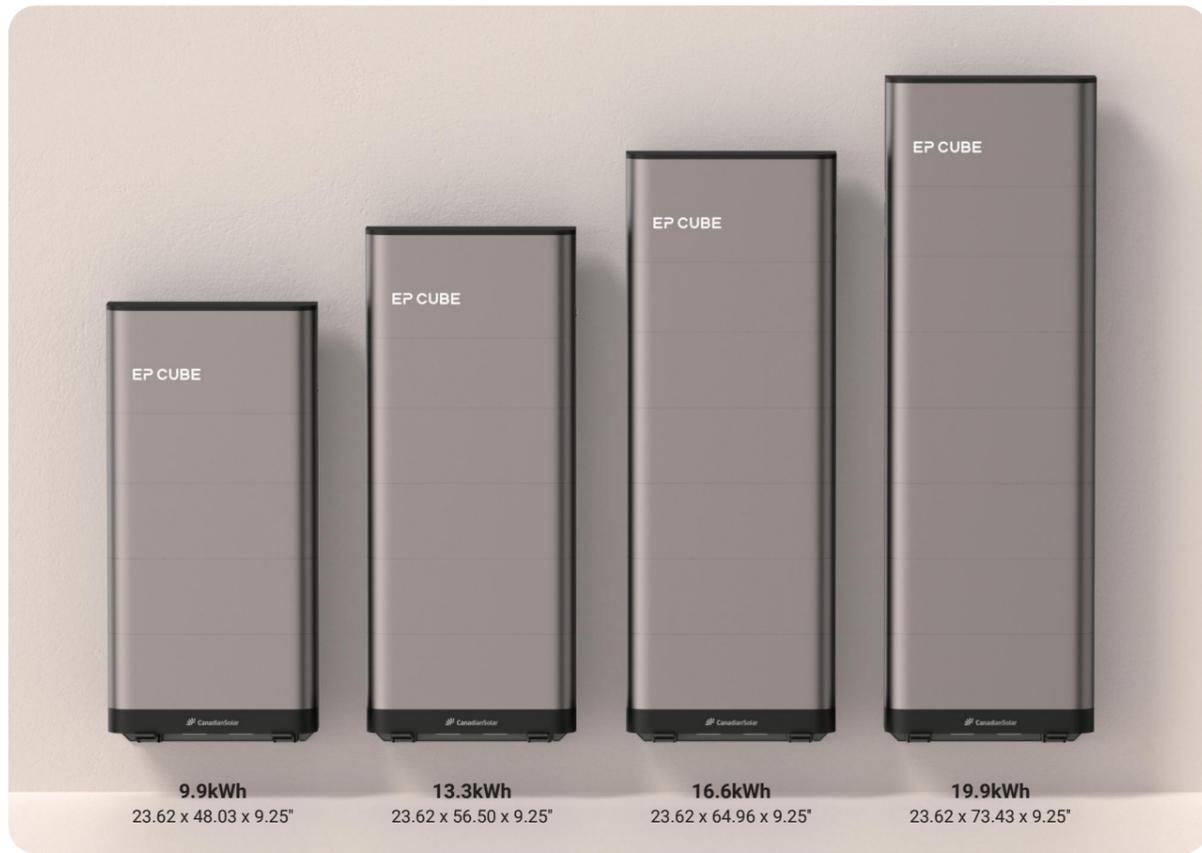
EP Cube integrates a hybrid inverter, storage modules, and puts communication cables and wires together with a quick connector so as to stack modules directly, saving the installation time, space and costs.



Backup protection

## Carry on, without hesitation.

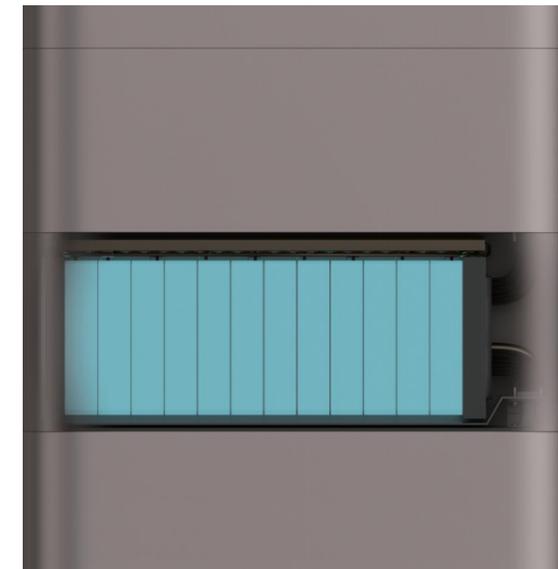
24/7 monitoring function enables it to detect outages and to energize your home seamlessly when the grid goes down, ensuring that the electrical appliances run normally. EP Cube supports a rated output power of 7.6kW, which allows high-power appliances to continue running normally even in the event of a power outage.



Modular battery

**More flexible expansion.**

The storage of EP Cube adopts modular design that allows homeowners to expand battery capacity flexibly. Up to 6 hybrid units can be installed in one single system in parallel, providing up to 119.9kWh energy storage and 45.6KW output power in total (19.9 kWh each), ready for larger scale applications. \*



UL 9540A guarantee

**Safer, more reliable.**

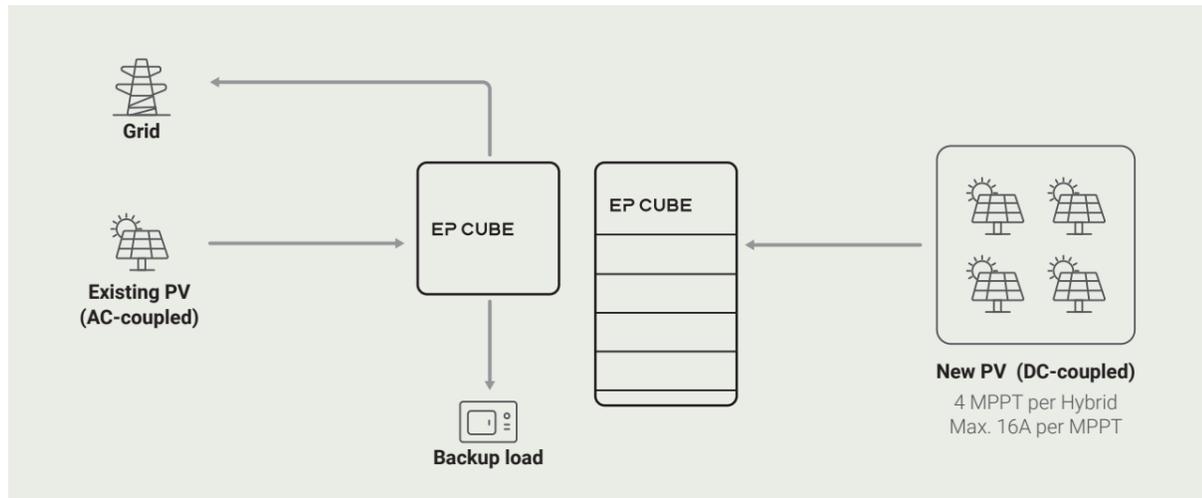
EP Cube using reliable lithium iron phosphate batteries meets the UL 9540A unit level thermal runaway propagation test performance criteria and adopts NEMA 4X electrical enclosure, along with 10-year warranty.



2 EV chargers connected

**2 EVs ready to go.**

EP Cube is capable of being connected to 2 EV chargers as expansion, making it perfect for homeowners who intend to prepare for electric vehicles.

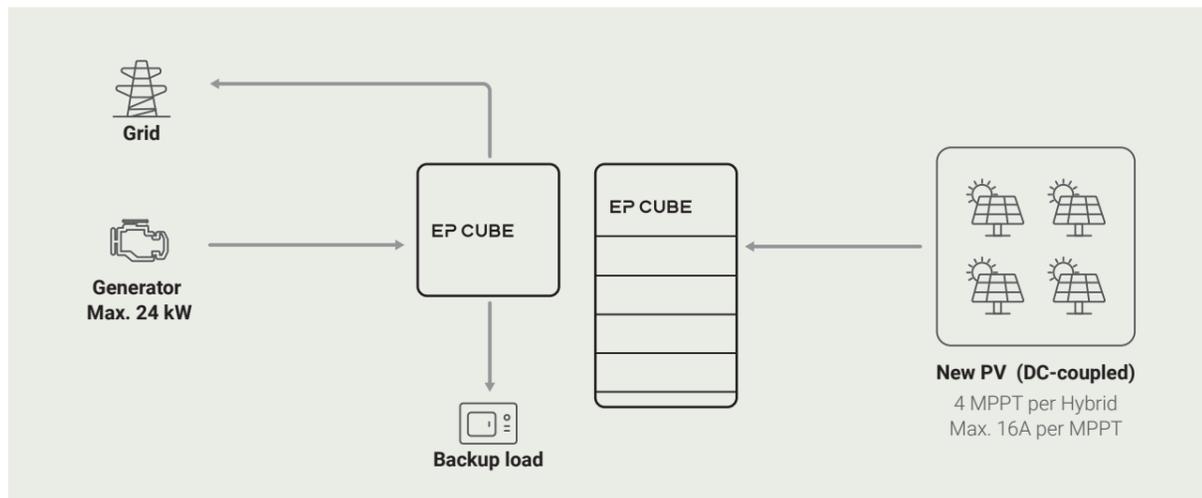


Existing solar compatible

## Applies for new & retrofit PV system.

For homeowners that wish to include new solar systems in the future, EP Cube can take in high power solar directly (4 MPPT per Hybrid, Max. 16A per MPPT).

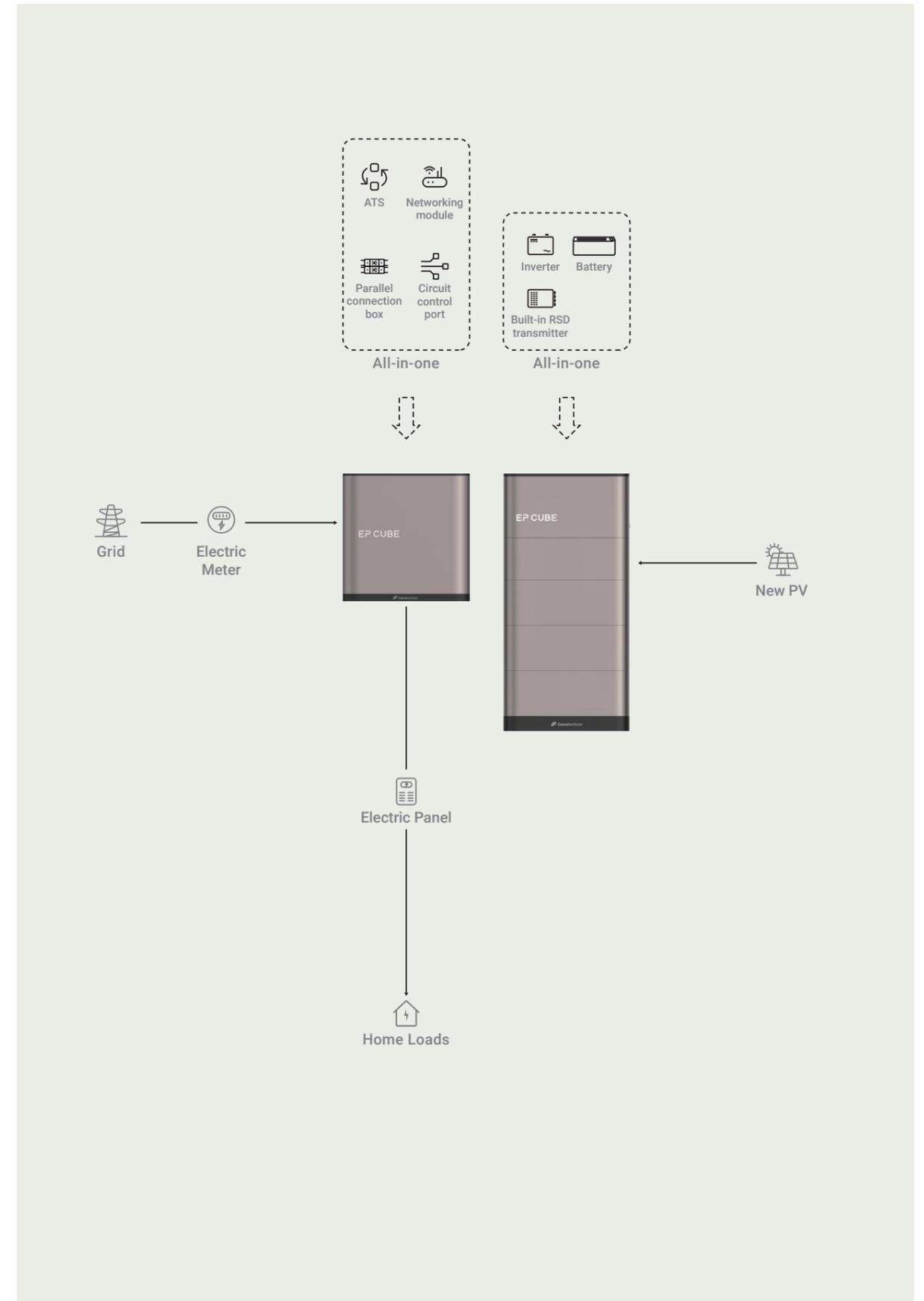
For existing solar system owners, EP Cube offers the choice to integrate existing solar inverters into the system for easier management.



Generator compatible \*

## Consistent backup experience

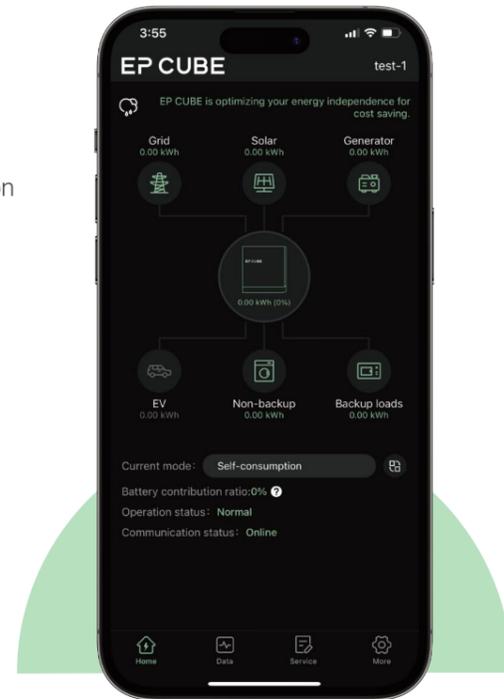
EP Cube is capable of integrating a backup generator of up to 24 kW power rating into the system, providing homeowners with a consistent backup experience.



## Intelligent control

# Home energy management

With the intelligent App, you can monitor the real-time production or consumption of electricity anytime, anywhere.



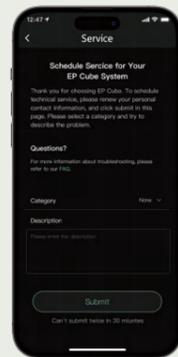
### Product control

Customizing and controlling your EP Cube, switching between different operation modes, and other functions.



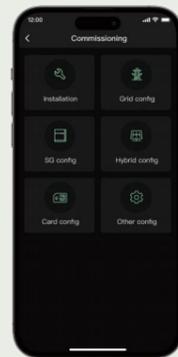
### OTA Update

EP Cube App improves over time with regular over-the-air updates. New functionality and improvements are delivered with updates to EP Cube firmware and to the EP Cube App.



### Service Support

EP Cube App provides easy access to aftersale support, hotline, as well as FAQ document center.



### Installer commissioning

EP Cube App is also the best companion for installers, providing a full set of functionalities for commissioning.

## 3 operation modes

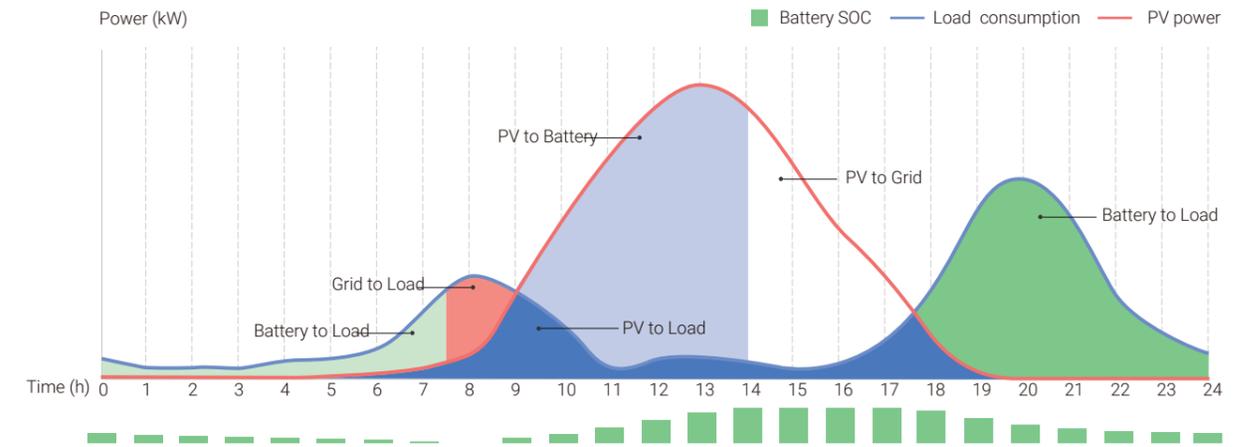
# Meet your specific energy needs

EP Cube has 3 operation modes that are designed to cover a wide range of usage scenarios. Self-consumption mode maximizes the utilization of green energy; TOU mode is best for users with TOU utility rates; Backup mode allows the EP Cube to be used as emergency backup power. Detailed settings under each mode can be adjusted via the mobile APP.



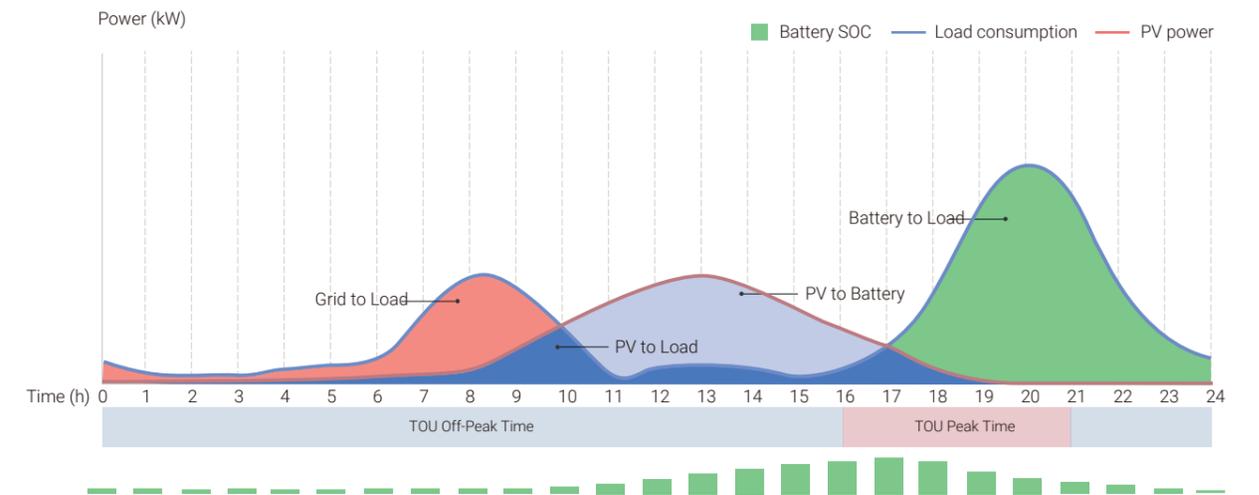
### Self-Consumption Mode

Use stored solar energy to power your home after the sun goes down.



### Time Of Use (TOU) Mode

Time based control, best cost efficiency if your energy costs vary through the day.



### Backup Mode

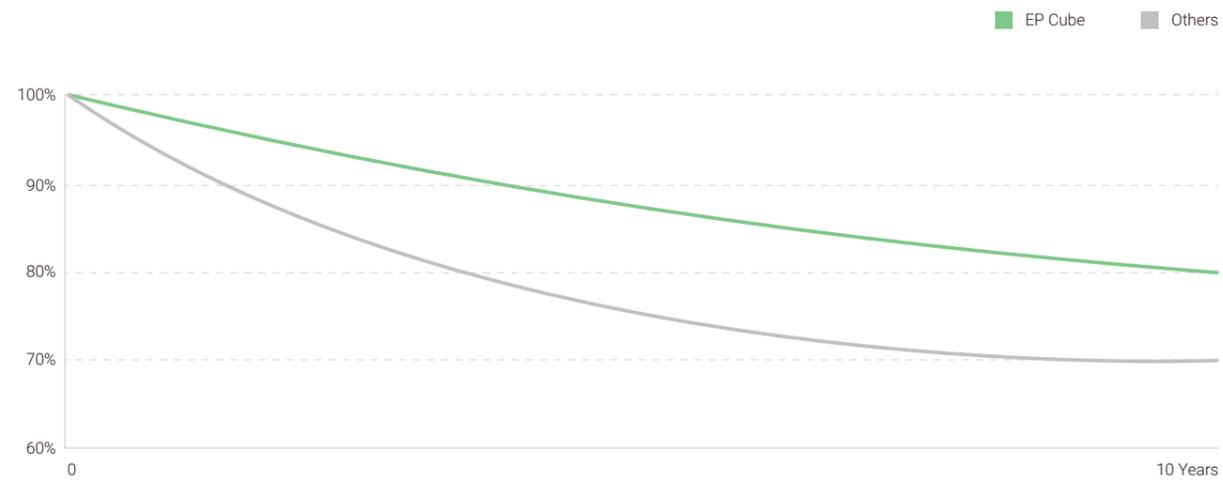
Reserve a portion of battery energy for backup at all times. Weather watch option available for automatic backup in case of extreme weathers that may potentially cause grid outage.

## Long-term warranty

### Durable product, trustworthy service.

EP cube offers a warranty of 80% battery capacity after up to 10 years or 6000 power cycles.

#### RESIDUAL CAPACITY



## FEATURES



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



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



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



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

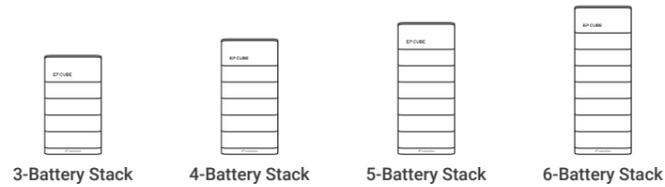


Supports Wi-Fi and Cellular network connection  
Remotely monitor power generation and consumption  
OTA firmware update, continuous function improvement



Compatible with generators for long-term power outages  
Can be connected to 2@60A level 2 EV chargers  
100% green power for electric vehicles

# Hybrid Inverter + Batteries



<b>EP Cube system</b>	Hybrid inverter	1			
	Battery module	3	4	5	6
	Base	1			
	MPPTs	4			
<b>Hybrid inverter</b>	Input current	I <sub>mp</sub> 16A / I <sub>sc</sub> 20A per MPPT			
	PV maximum input voltage	600VDC			
	MPPT operating voltage	90VDC - 550VDC			
	Allowable DC-AC ratio	2			
	Nominal grid voltage	240VAC			
	Frequency	60Hz			
	Maximum AC output, on-grid	7.6 kW			
	Maximum inverter 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
		7.6 kW			
<b>AC output, PV + battery</b>	Full Sun, off-grid	31.6A			
		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
		7.6kVA (10s)	9.7kVA (10s)	11.4kVA (10s)	11.4kVA (10s)
<b>Safety &amp; compliance</b>	Protections	Integrated arc fault circuit interrupter (AFCI), PV RSD *			
	Certifications	UL 1699B, UL 1741-SB, UL 1642, UL 1973, UL 9540, UL 9540A, UN 38.3, UL 60730-1 ANNEX H, UL 1998			
		FCC Part 15 (Class B), IEEE 1547, IEEE 1547-1, IEEE 2030.5, IEEE 693-2005 (high)			
	Listing	CEC, HECO			
<b>General parameters</b>	Enclosure	NEMA 4X			
	Noise	< 50dB @ 1m, front side			
	Dimensions	23.62" x 48.03" x 9.25"	23.62" x 56.50" x 9.25"	23.62" x 64.96" x 9.25"	23.62" x 73.43" x 9.25"
		600 x 1220 x 235 mm	600 x 1435 x 235 mm	600 x 1650 x 235 mm	600 x 1865 x 235 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 **				
Recommended 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 ***			

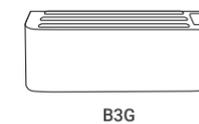
Notes: \* PVRSD support Tigo and APSmart transmitter.  
 \*\* Performance may be de-rated in extreme operating temperatures.  
 \*\*\* Battery capacity warranty up to 10 years or 6,000 cycles (whichever occurs first).

# Smart Gateway + Battery Module



<b>Grid and load</b>	Nominal grid voltage	120 / 240V AC
	Frequency	60 Hz
	Max current	200A
	Short circuit current protection	10 kA
<b>Microgrid interconnection</b>	Rated current	200A
	Switchover time (on-grid / off-grid)	Seamless
<b>EP Cube hybrid interface *</b>	Output voltage	120 / 240V AC
	Overcurrent protection	40A
<b>AC extend interface **</b>	Output voltage	120 / 240V AC
	Max current	100A
	Generator control request	Yes
	Generator start type	2-wire start (I/O)
<b>Communication</b>	EV Charger communication (optional)	RS-485
	Internet connection	Wifi, Cellular (LTE, 4G)
<b>Safety &amp; compliance</b>	User interface	EP Cube APP (Android & IOS)
	Certifications	UL1741, ICES-003 (Class B)
		FCC Part 15 (Class B), FCC ID IEEE 693-2005 (high)
<b>General parameters</b>	Enclosure	NEMA 4X
	Noise	< 50dB
	Dimensions	23.62" x 23.62" x 7.09"
		600 x 600 x 180 mm
	Weight	44.1 lbs
	Mounting options	20 kg
Max. elevation	Wall mount	
Ambient operating temperature	9,843 ft / 3,000 m	
<b>Limited warranty</b>	System warranty	10 years

Notes: \* The Smart Gateway EP Cube interface includes one EP Cube hybrid connection. \*\* The Smart Gateway includes two AC extend interface hardware.



<b>Specifications</b>	Battery technology	Lithium-iron phosphate (LiFePO4)
	Total energy	3.33 kWh
	Nominal voltage	38.4 VDC
	Operation voltage	30~43.8 VDC
	Ambient operating temperature	14°F ~ 122°F / -10 °C ~ 50 °C *
	Recommended operating temperature	32°F ~ 86°F / 0 °C ~ 30 °C
	Storage temperature	-4°F ~ 122°F / -20 °C ~ 50 °C
	Dimensions (W*H*D)	600*220*160 mm
	Weight	< 32kg

Notes: \* Performance may be de-rated in extreme operating temperatures.





[www.epcube.com](http://www.epcube.com)

June 2023 | All rights reserved | EP Cube Catalog\_NA\_English\_V2.2