



# EP CUBE <sup>NEW</sup>

More flexible, more intelligent Residential Energy Storage System



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

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### Flexible and convenient

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



### Power guarantee

- Automated power supply during grid outage.
- High-power electrical appliances continue to function normally in case of grid blackout.<sup>1</sup>



### Perfect compatibility

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



### Cost-saving

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



### Safe and reliable battery

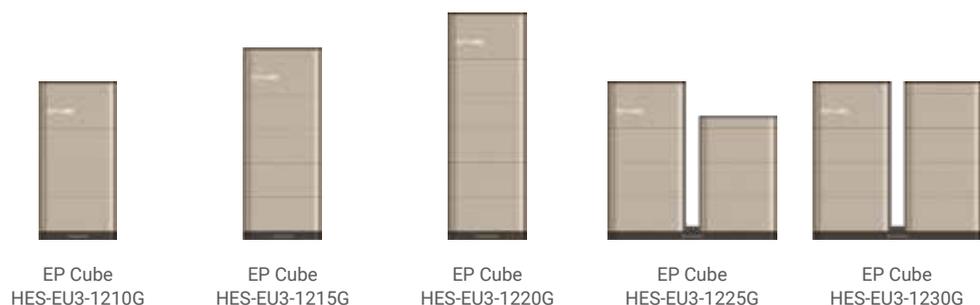
- LFP technology.
- Meets highest certification standards.
- IP67 protection.



### 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.

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



System components					
Type of inverter	Hybrid bidirectional				
Number of inverters	1				
Number of battery modules <sup>2</sup>	2	3	4	5	6 (up to 8)
Nominal capacity <sup>3</sup>	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 1122 x 250 mm <sup>4</sup>	600 x 1388 x 250 mm <sup>4</sup>	600 x 1654 x 250 mm <sup>4</sup>	1300 x 1228 x 250 mm <sup>5</sup>	1300 x 1228 x 250 mm <sup>5</sup>
System weight	140 kg	180 kg	220 kg	260 kg	300 kg
Base	1				
Hybrid inverter - DC Input (PV)					
Max PV input power	24 kW <sub>p</sub>				
MPPTs	4				
Number of inputs per MPPT	1				
Max input power per MPPT	12 kW <sub>p</sub>				
Max PV input voltage	1000 V <sub>DC</sub>				
MPPT voltage range	120 V <sub>DC</sub> - 850 V <sub>DC</sub>				
Max MPPT input current	17 A				
Max MPPT short current	24 A				
MPPT start-up voltage	80 V <sub>DC</sub>				
Hybrid inverter - AC On-grid					
Rated AC output voltage	Three phase / 3 L / N / PE / 380 / 400 V <sub>AC</sub>				
Rated grid frequency	50 Hz				
Max continuous power (battery + PV) <sup>6</sup>	12 kVA				
Max continuous current (battery + PV) <sup>7</sup>	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 / 380 / 400 V <sub>AC</sub>				
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	LiFePO <sub>4</sub>				
Voltage range	43.2V~58.4V				
Nominal voltage	51.2 V				
Weight	< 40 kg				
Dimensions (WxHxD)	600 x 266 x 185.5 mm				
IP Rating	IP 67 ( stacked together )				

System	
Applications	Self consumption / TOU / Backup(Optional)
Type of inverter	Hybrid bidirectional
Inverter dimension (WxHxD)	600 x 366 x 250 mm
Inverter weight	< 40 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 <sup>8</sup>
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) <sup>9</sup>
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 Protection Integrated	Integrated
Output Over Current Protection Integrated	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 - Disconnecter)	Integrated
Remote stop	Integrated

Warranty	
Inverter	10 years
Battery	> 80% capacity, up to 10 years or 6,000 cycles
Accessories <sup>10</sup>	2 years <sup>11</sup>

Certifications	
Safety	IEC / EN 62109-1, IEC / EN 62109-2, IEC / EN 62477-1, IEC / EN 62619-1, IEC 60730 Annex H, IEC 60529, VDE 2510-50, UN 38.3
EMC	IEC 61000-6-3, IEC / EN 61000-6-1
Energy efficiency	IEC 61683
Grid standards	NTS 2.1 Type (A), UNE 217001, UNE 217002, RD 244, CEI 0-21, 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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