



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 6.6 kWh to 19.9 kWh.



### Power guarantee

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



### Perfect compatibility

- Compatible with existing and newly installed PV systems.
- Allows up to 16A DC PV input per MPPT.
- Compatible with maximum 7.4 kW EV chargers.



### 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 TECHNICAL SPECIFICATION



EP Cube  
HES-EU1-706G



EP Cube  
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HES-EU1-720G

### System components

Type of inverter	Hybrid bidirectional				
Number of inverters	1				
Number of battery modules	2	3	4	5	6
Base	1				

### Hybrid inverter - DC Input (PV)

Max PV input power	10 kW <sub>p</sub>
MPPTs	2
Number of inputs per MPPT	1
Max input power per MPPT	5 kW <sub>p</sub>
Max PV input voltage	600 V <sub>DC</sub>
MPPT voltage range	90 V <sub>DC</sub> - 550 V <sub>DC</sub>
Max MPPT input current	16 A
Max MPPT short current	20 A
MPPT start-up voltage	120 V <sub>DC</sub>

### Hybrid inverter - AC On-grid

Rated AC output voltage	Single phase / L+N+PE / 230 V <sub>AC</sub>
Rated grid frequency	50 Hz
Max continuous power (battery + PV)	7.6 kVA <sup>1</sup>
Max continuous current (battery + PV)	33 A <sup>2</sup>
Output power factor	~1 (adjustable from 0.8 leading to 0.8 lagging)
Total harmonic distortion @7.6 kW	< 3% (rated power)

### Hybrid inverter - AC Back-up<sup>3</sup>

Rated AC output voltage	Single Phase / L+N+PE / 230 V <sub>AC</sub>
Rated output frequency	50 Hz
Max continuous power (battery + PV)	7.6 kVA
Max continuous current (battery + PV)	33 A
Switching-time	< 30ms <sup>4</sup>

### Battery module

Cell technology	LiFePO <sub>4</sub>				
Number of battery modules	2	3	4	5	6
Nominal capacity <sup>5</sup>	6.6 kWh	9.9 kWh	13.3 kWh	16.6 kWh	19.9 kWh
Max continuous power (battery only)	3 kW	5 kW	6.5 kW	7.6 kW	7.6 kW
DOD	100% <sup>6</sup>				
Voltage range	30 V <sub>DC</sub> ~ 43.8 V <sub>DC</sub>				
Nominal voltage	38.4 V <sub>DC</sub>				
Weight	< 35 kg				
Dimensions (WxHxD)	600 x 215 x 165 mm				
IP Rating	IP 67 (stacked together)				

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### System

Applications	Self consumption / TOU / Backup				
Type of inverter	Hybrid bidirectional				
Inverter dimension (WxHxD)	600 x 505 x 243 mm				
Inverter weight	< 38 kg				
Inverter topology	Transformerless				
DC battery protection	Fuse holder incl. fuses (+/-)				
Dimensions (WXHXD)	600 x 1006 x 243 mm	600 x 1221 x 243 mm	600 x 1436 x 243 mm	600 x 1651 x 243 mm	600 x 1866 x 243 mm
System weight	111.5 kg	146.5 kg	181.5 kg	216.5 kg	251.5 kg
Noise	< 30 dB				
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>7</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 <sup>8</sup>				
Display	LED & APP				
Installation method	Floor mounted (optional: wall mounted)				
Communication interface	WiFi, ethernet, RS485, CAN, IO, API				

### 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 - Disconnecter)	Integrated
Remote stop	Integrated

### Warranty

Inverter	10 years
Battery <sup>9</sup>	> 80% capacity, up to 10 years or 6,000 cycles
Accessories <sup>10</sup>	2 years <sup>11</sup>

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### 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, G99 type A, G100, UKCA

### Accessories

### Model

EP Cube AC Switch Box	EP CUBE ASB1-40
EP Cube Smart Meter	EP Cube 1PHM1
EP Cube Wall-mount Kit	EP Cube Wall-mount Kit1

### Notes

1. Rated AC output power is adjustable according to the grid code of each country. (6kW for CEI 0-21; 4.6kW for VDE-AR-N 4105; 7.3kW for G99)
2. Rated AC output current is according to the grid code of each country. (26.1A for CEI 0-21; 19.5A for VDE-AR-N 4105; 31.7A for G99)
3. Only in back-up mode in case of grid outage.
4. For reactive loads; time will be shorter for active loads.
5. Test conditions: 100% depth of discharge (DOD), 0.2C rate charge and discharge at 25°C, at the beginning of life.
6. EP Cube will maintain a minimum SOC of 15% during off-grid operation.
7. Performance may be de-rated at extreme operating temperatures.
8. Refer to the installation manual and follow the storage requirements and guidelines.
9. Battery capacity warranty up to 10 years or 6,000 cycles, (whichever occurs first).
10. As per Limited Warranty Statement.
11. 3 year for Spain.

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