

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 20 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.
- Integrated Eskom API, to automatically backup batteries based on grid-scheduled outages(Only for South Africa).
- OTA (Over-The-Air) firmware upgrade.

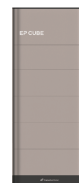
EP CUBE TECHNICAL SPECIFICATION



EP Cube
HES-EU2-S7-10G



EP Cube
HES-EU2-S7-15G



EP Cube
HES-EU2-S7-20G

System components

Type of inverter	Hybrid bidirectional		
Number of inverters (EP-Cube PCS-EU1-7G)	1		
Number of battery modules (EP Cube B2-5G2)	2	3	4
Base (EP Cube Base2-G2)	1		

Hybrid inverter - DC Input (PV)

Max PV input power	10 kW _p
MPPTs	2
Number of inputs per MPPT	1
Max input power per MPPT	5 kW _p
Max PV input voltage	600 V _{DC}
MPPT voltage range	90 V _{DC} - 550 V _{DC}
Max MPPT input current	16 A
Max MPPT short current	20 A
MPPT start-up voltage	120 V _{DC}

Hybrid inverter - AC On-grid

Rated AC output voltage	Single phase / L+N+PE / 230 V _{AC}
Rated grid frequency	50 Hz
Max continuous power (battery + PV)	4.6 kVA
Max continuous current (battery + PV)	19.5 A
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 ¹

Rated AC output voltage	Single Phase / L+N+PE / 230 V _{AC}
Rated output frequency	50 Hz
Max continuous power (battery + PV)	7.6 kVA
Max continuous current (battery + PV)	33 A
Switching-time	< 30ms ²

Battery module

Cell technology	LiFePO ₄		
Number of battery modules	2	3	4
Nominal capacity ³	10 kWh	15 kWh	20 kWh
Max continuous power (battery only)	5 kW	7.6 kW	7.6 kW
DOD	100% ⁴		
Voltage range	43.2 V _{DC} ~ 58.4 V _{DC}		
Nominal voltage	51.2 V _{DC}		
Weight	< 42 kg		
Dimensions (WxHxD)	600 x 532 x 200 mm	600 x 798 x 200 mm	600 x 1064x 200 mm
IP Rating	IP 67 (stacked together)		

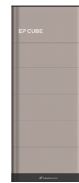
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System

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 1111 x 243 mm	600 x 1378 x 243 mm	600 x 1645 x 243 mm
System weight	122 kg	164 kg	206 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 ⁵		
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 ⁶		
Display	LED & APP		
Installation method	Floor mounted (optional: wall mounted)		
Communication interface	WiFi, ethernet, RS485, CAN, IO, Integrated Eskom 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 ⁷	> 80% capacity, up to 10 years or 6,000 cycles
Accessories ⁸	2 years

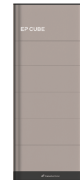
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Certifications

Safety IEC / EN 62109-1, IEC / EN 62109-2, IEC / EN 62477-1, IEC / EN 62619-1, ISO 13849, IEC 60529, UN 38.3

EMC IEC 61000-6-3, IEC / EN 61000-6-1

Grid Standards NRS097-2-1

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. Only in back-up mode in case of grid outage.
2. For reactive loads; time will be shorter for active loads.
3. Test conditions: 100% depth of discharge (DOD), 0.2C rate charge and discharge at 25°C, at the beginning of life.
4. EP Cube will maintain a minimum SOC of 10% during off-grid operation.
5. Performance may be de-rated at extreme operating temperatures.
6. Refer to the installation manual and follow the storage requirements and guidelines.
7. Battery capacity warranty up to 10 years or 6,000 cycles, (whichever occurs first).
8. As per Limited Warranty Statement.

This datasheet applies to South Africa only. Specifications are subject to change without prior notice.

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