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 5 kWh to 30 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.

Safe and reliable battery

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

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.

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.

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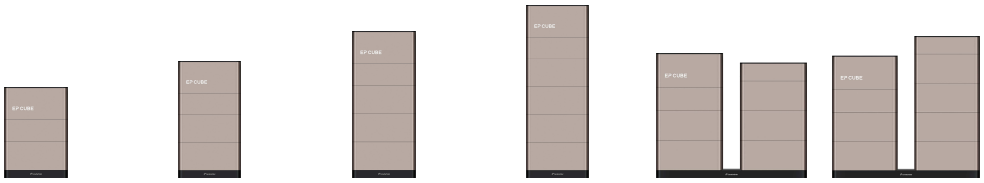
EP CUBE TECHNICAL SPECIFICATION



	EP Cube HES-EU2-S7-05G	EP Cube HES-EU2-S7-10G	EP Cube HES-EU2-S7-15G	EP Cube HES-EU2-S7-20G	EP Cube HES-EU2-S7-25G	EP Cube HES-EU2-S7-30G
System components						
Type of inverter	Hybrid bidirectional					
Number of inverters	1					
Number of battery modules	1	2	3	4	5	6
Base	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	450 V_{DC}		600 V_{DC}			
MPPT voltage range	90 V_{DC} - 400 V_{DC}		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)	3/ 3.6/4/5/5.5/6/7.3/7.6 kVA [1]					
Max continuous current (battery + PV)	13/15.6/16/17.3/21.7/26/31.7/33 A [2]					
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 [3]						
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 [4]					
Battery module						
Cell technology	$LiFePO_4$					
Number of battery modules	1	2	3	4	5	6
Nominal capacity [5]	5 kWh	10 kWh	15 kWh	20 kWh	25 kWh	30 kWh
Max continuous power (battery only)	2.5 kW	5 kW	7.6 kW	7.6 kW	7.6 kW	7.6 kW
DOD	100% [6]					
Voltage range	43.2 V_{DC} ~ 58.4 V_{DC}					
Nominal voltage	51.2 V_{DC}					
Weight	< 42 kg					
Dimensions (WxHxD mm)	600 x 266x 200					
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 mm)	600 x 842 x 243	600 x 1110 x 243	600 x 1377 x 243	600 x 1645 x 243	1350 x 1130 x 243	1300 x 1325 x 243
System weight	82 kg	122 kg	164 kg	206 kg	263 kg	305 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 [7]					
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 [8]					
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 - Disconnector)	Integrated					
Remote stop	Integrated					
Warranty						
Inverter	10 years					
Battery [9]	up to 15 years or 6,000 cycles					
Accessories [10]	2 years					

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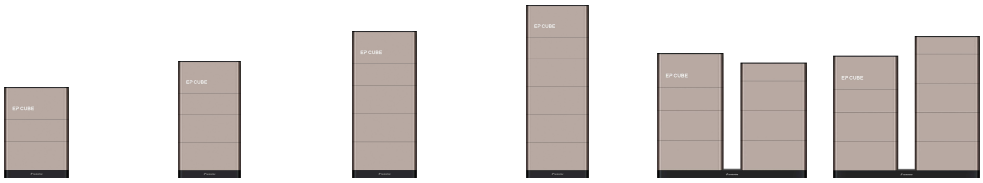

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Certifications	
Safety	IEC / EN 62109-1, IEC / EN 62109-2, IEC / EN 62477-1, IEC / EN 62619-1, ISO 13849, IEC 60529, UN 38.3
EMC	IEC 61000-6-3, IEC / EN 61000-6-1
Grid Standards	G98, G99 typeA Issue 2, G100, UKCA
Accessories	**Model**
EP Cube AC Switch 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 by installers and/or according to the grid code of each country.
2. Rated AC output current is adjustable by installers and/or according to the grid code of each country.
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. For one battery pack installation (5kWh capacity), minimum reserved SOC 15% is recommended for battery health.
6. EP Cube will maintain a minimum SOC of 10% during off-grid operation.
7. Temp. range 0°C to 50°C for batt. charge / Temp. range -20°C to 50°C for batt. discharge / Performance will vary based on temperature and SOC level.
8. Refer to the installation manual and follow the storage requirements and guidelines.
9. Battery capacity warranty up to 15 years or 6,000 cycles (whichever occurs first).
10. As per Limited Warranty Statement.

This datasheet is only for products certified in specific countries. Specifications are subject to change without prior notice.

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