



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.



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

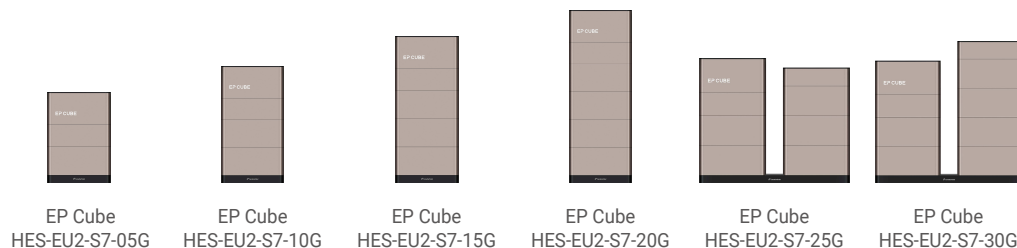
- LFP technology.
- Meets highest certification standards.
- IP67 protection.



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



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)					

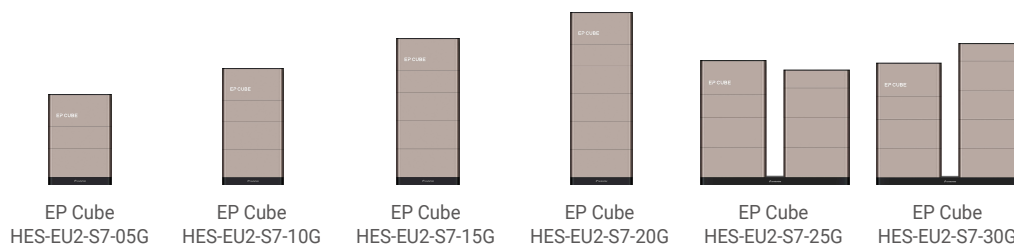
Hybrid inverter - AC Back-up³

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)					

EP CUBE TECHNICAL SPECIFICATION



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					

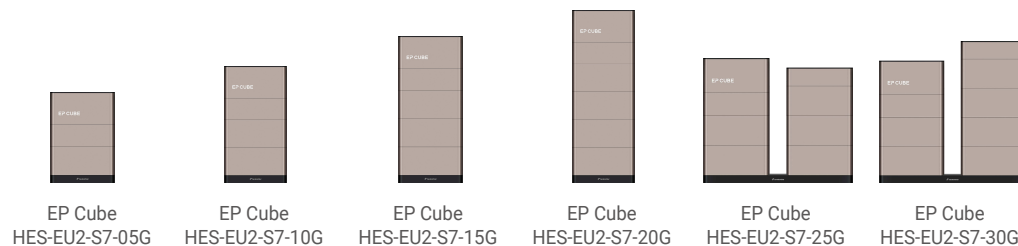
Protection

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 - Disconnecter)	Integrated
Remote stop	Integrated

Warranty

Inverter	10 years
Battery ⁹	up to 15 years or 6,000 cycles
Accessories ¹⁰	2 years

EP CUBE TECHNICAL SPECIFICATION



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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