

Overall System	
Input to Inverter	CES Battery: <ul style="list-style-type: none"> • DC Bus: 600V • Control Panel: 240V, Split Phase
Continuous Real Power	500kW
Rated Energy Capacity	250kWh
Fuse Ratings	DC String Fuses – 400A AC Control Panel Fuse – 30A Breakers – see electrical schematics
Battery Cells	
Manufacturer	XALT Energy
Technology	Superior Lithium-Polymer
Chemistry	NMC (Nickel Manganese Cobalt) Lithium Ion/Graphite Anode/Cathode
Capacity (Nominal @ C/3)	40Ah
Voltage (Nominal)	3.7V
Voltage (Lower Limit)	2.7V
Voltage (Upper Limit)	4.2V
Charge Current (Max. Continuous)	120A (3C)
Discharge Current (Max. Continuous)	320A (8C)
Pulse Current (Max. 10 sec. Duration)	480A (12C)
Self-discharge*	<1%/month
Cycle Life @ 1C/1C, to 80% of Capacity, 80% DOD or 3.3-4.1V	> 8,000 cycles
Internal Impedance (1kHz AC)	Less than 0.8mΩ
DC Resistance (10s @ 50% SOC)	1.35 mΩ
Peak Power Density (10 Sec., 50% SOC), Gravimetric	1724 W/Kg
Peak Power Density (10 Sec., 50% SOC), Volumetric	3353 W/L
Energy Density, Gravimetric	2.60kWh/Kg
Energy Density, Volumetric	5.90 kWh/L
Charge Temperature Range	0°C to+45°C
Discharge Temperature Range	-20°C to+60°C
Battery Modules	
Energy Capacity	5.3kWh
Configuration	12S3P
Voltage (Nominal)	44.4V
Voltage (Lower Limit)	38.4V
Voltage (Upper Limit)	49.2V
BMS Charge Current Cut-Off	120A
BMS Discharge Current Cut-Off	290A
Height	325mm
Length	660mm
Width	281mm
Weight	55Kg
Thermal Management	Air Cooled
Module Protection	Current limiting cell tabs
BMS Monitoring Parameters	Cell voltage (12) and temperature (6)
Battery Array	
Configuration	4 strings of 12 modules in series (12S4P)
DC Bus Voltage (Nominal)	533V

DC Bus Voltage (Upper Limit)	605V
DC Bus Voltage (Lower Limit, Configurable Alert/Alarm)	461V
Maximum Continuous Current	1150A
Protection	String fuse, contactors, disconnect switches
String Fusing	400A (3 modules per fuse)
String and Master BMS Monitoring Parameters	String current, string state-of-charge (SOC), remaining total kWh, status and alarms
Mechanical	
Height	1,685 mm
Length	5,027 mm (with all doors open) 3,147 mm (with all doors closed)
Width	4,430 mm (with all doors open) 2,236 mm (with all doors closed)
Weight	5200 kg
Mounting	Base frame skid
Enclosure	NEMA3R, single cabinet
Environmental	
Ambient Temperature	-20°C to+60°C
Internal Operating Temperature	0°C to+45°C
Storage Temperature	Continuous: +25°C max < 1 year: -20°C to+25°C < 3 months: +25°C to+40°C < 1 week: +40°C to+60°C
Relative Humidity	95% non-condensing
Cooling/Heating	Active heating and cooling, forced air, ventilation