

ESS-12 LIFEPO4 BATTERY DATA SHEET(51.2V/220Ah)

Canbus/RS485/RS232 protocol compatible



Design Life: 10 years
Warranty: 5 years

Length	Width	Height
446mm	250mm	751mm
17.6in	9.9in	29.6in

BMS PROTECTION		
Balance	Current	30mA
	Activate volt	>3.4V/cell & Cell Voltage difference > 30mV
High temperature protection(MOSFET)	Protection	115°C / 239°F
	Alarm	90°C / 194°F
	Release	85°C / 185°F
High temperature protection (cell)	Protection	65°C / 149°F (charge)
		70°C / 158°F (discharge)
	Alarm	60°C / 140°F (charge)
		65°C / 149°F (discharge)
	Release	55°C / 131°F (charge)
		60°C / 140°F (discharge)
Low temperature protection (cell)	Protection	0°C / 32°F (charge)
		-20°C / -4°F (discharge)
	Alarm	5°C / 41°F (charge)
		-15°C / 5°F (charge)
	Release	5°C / 41°F (charge)
		-15°C / 5°F (discharge)
Heating (option)	Activate	Temp ≤5°C & Charge current ≥4A
	Release	Temp >15°C & Charge current <4A
Over-charge	Protection	58.4V (3.65V/cell)
	Alarm	57.6V (3.6V/cell)
	Release	54.08V (3.38V/cell) or SOC < 96% or Discharge >2A
Over-discharge	Protection	43.2V (2.7V/cell)
	Alarm	44.8V (2.8V/cell)
	Release	47.2V (2.95V/cell) or charge the battery
Primary over-current	Protection	210A(1S)
	Alarm	205A
	Release	Automatic release after 60S
Secondary over-current	Protection	260A(0.5S)
	Release	Automatic release after 60S or charge current >1A
Short-circuit	Protection	800A
	Release	Remove load or charge the battery
Lose Efficacy	Activate	cell volt difference > 1V (battery can't charge & discharge)
BMS record	Capacity	≥ 1000 records

BATTERY TECH DATA

Stored energy	11264Wh	
Rated capacity	220Ah	
Nominal voltage	51.2V	
Volt range	43.2-57.6V	
Charge time	Standard	2.2h
	Rapid	1.5h
Charge method	Standard	100A/56V
	CC-CV	200A/56V
Max discharge current	Peak(0.5S)	210A(0.5S)
	Continuous	200A
Cycle life	80%	>7000 cycles
	0.5C, 23°C/73°F	
Operating temperature range	Charge	0°C~60°C / 32°F~140°F
	Discharge	-10°C~60°C / -4°F~140°F
	Storage(1month)	-20°C~45°C / -4°F~113°F
	Storage(6month)	0°C~35°C / 32°F~95°F
Communication port	RS232/RS485/CAN	
Approx weight	100kg / 220lbs	

Max 16 batteries in parallel connection. Series connection is not available.

APPLICATION SCENARIOS



HOME