

Intelligent Lithium Energy Storage System

ESM-48150B1 Datasheet



Introduction

ESM-48150B1 is an energy storage module based on innovative Li-ion technology. It is especially designed for telecom sites with advanced features: long lifespan, wide range of charging voltage, fast charging, intelligent management, and software anti-theft. ESM-48150B1 can be paralleled with lead-acid battery directly, which helps customers fully reuse the legacy batteries when site expands.



ESM-48150B1

Features

- Intelligent software anti-theft design^① and buzzer alarm
- Long cycle life with 3500 cycles 85% DOD, 35°C
- Easy maintenance with SOC (state of charge) and SOH (state of health) detection (SOH requires NetEco license)

Specifications

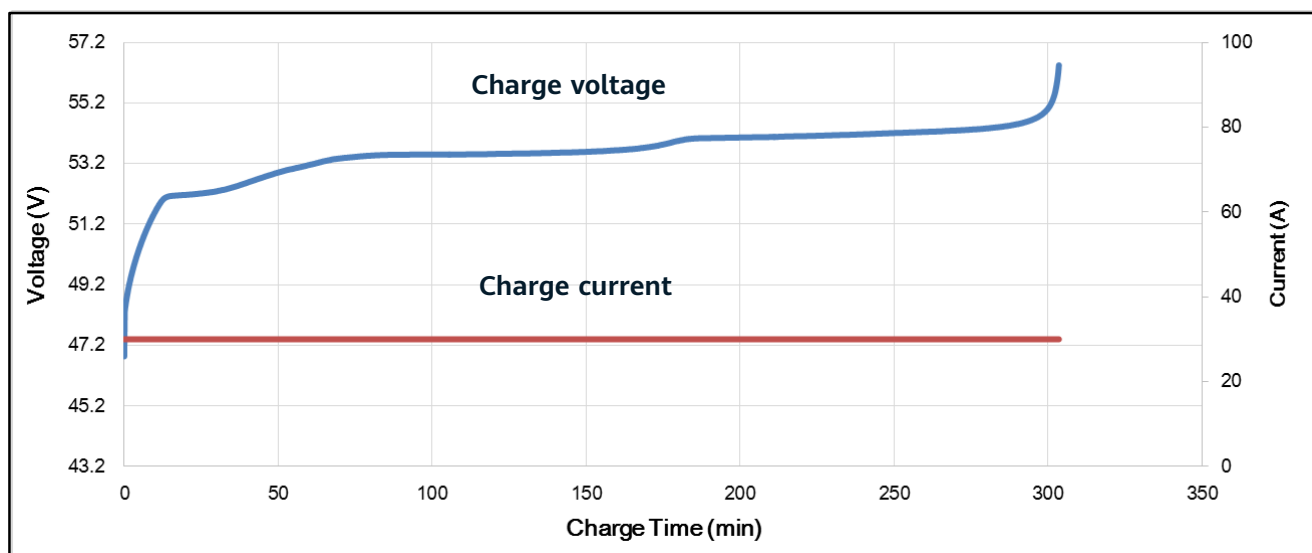
Item		Description
Basic Parameters	Product model	ESM-48150B1
	Cathode material	LiFePO ₄
	Nominal voltage	51.2 Vdc
	Nominal charging voltage	56.4 Vdc
	Max. Charging / Discharging Current Limited	100 A / 100 A @ 35°C
	Cycle life	3500 cycles @ 85% DOD, 35°C
	Nominal capacity	150 Ah@0.2C,48V, 35° C (7200 Wh @ 1440W, 35°C)
	Weight	Approx. 65kg
	Dimension (W×D×H)	442 mm×560 mm×160 mm (excluding mounting ear)
	Self discharge @ 25°C	Less than 5% after 90 days storage
	Terminal	M6, torque 4 N•m
	Installation type	Standard 19" rack, Air conditioning system or direct ventilation cabinet
	Protection & Alarm	Over temperature, overcurrent, short circuit, overcharge, overdischarge, etc.
	Certification	CE, UN38.3
	Design life	15 years

^① The software lock function will only be available when ESM-48150B1 is connected to Huawei's specified energy controller (SMU02B/SMU02C)

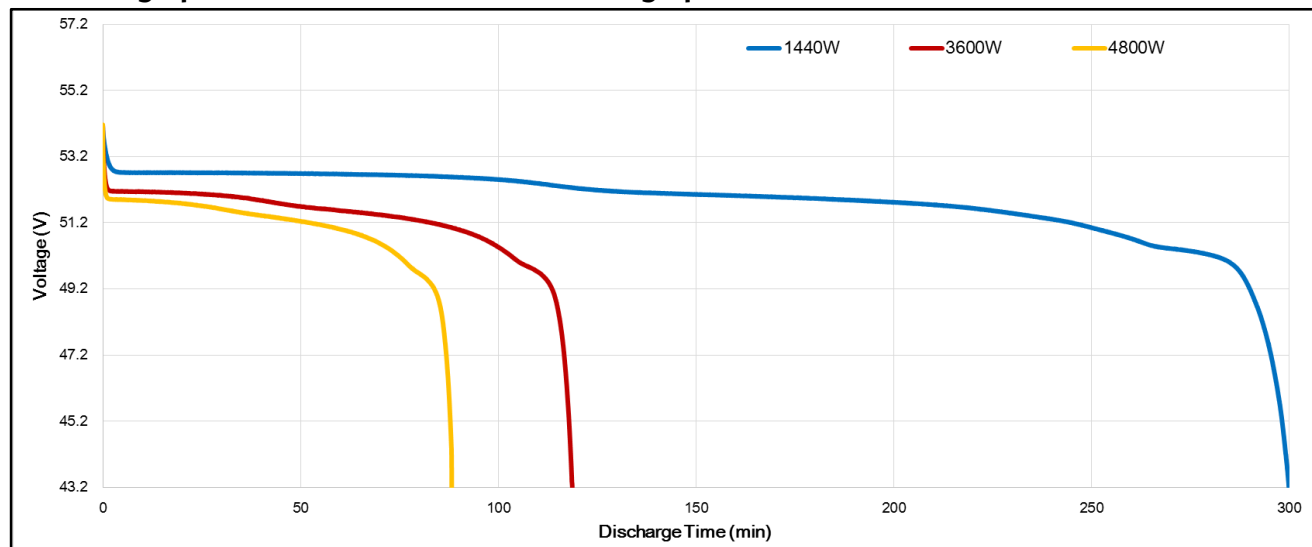
Item		Description
Environment	Storage Temperature ^②	Storage: 0°C to 40°C
	Transportation Temperature	-40°C to 60°C
	Operating Temperature ^③	Charging: 0°C to 45°C; Discharging: -20°C to 45°C
	Relative Humidity	5% to 95%
	Atmospheric pressure	61kPa~113kPa

- ① The software lock function will only be available when BoostLi is connected to Huawei's specified energy controller (SMU02B/SMU02C/ECC500S/ECC500)
- ② The recommended storage temperature is 20 ~ 30°C, the battery life would be reduced if battery is stored in high temperature. (The recharging interval should be 12 months when temperature is below 30°C, and it should be 8 months when temperature is 30 ~ 40°C)
- ③ Charging and discharging current may be derated or battery will be protected when battery is out of the temperature range
- ④ When the output power of battery reaches to the maximum value, over temperature protection may be triggered, which shortens the battery discharging time.
- ⑤ The parameters in this datasheet are based on the date of production, and may be affected by external environment factors, such as temperature, transportation, and storage.

Charge curve @ 0.2C, 35°C



Discharge performance @ different discharge power @ 35°C



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