

SmartLi Series

INTRODUCTION

SmartLi is a battery energy storage system developed by Huawei for UPS, which has the features of safety and reliability, long lifespan, space saving and easy maintenance. LFP is the safest cell of Li-ion battery. The unique active current balance control technology supports the mix use of new and old batteries, which reduces Capex (Capital Expenditure). Three-level BMS system realizes intelligent battery management with Huawei UPS and Network management system, which reduces Opex (Operating Expense).

APPLICATION SCENARIOS

- Data centers in headquarter or disaster recovery data centers
- Internet data centers
- Large cloud computing data centers

FEATURES & VALUE

Reliable

- Long cycle lifespan, cycle lifetime can be up to 5000 times
- Highly stable LFP cell, no fire after thermal runaway
- Three-level BMS system ensures reliability
- Battery Module-level fire extinguishing, precise and quick fire fighting

Efficient

- High power density, saving 70% footprint
- Smart BMS system, saving 80% routine O&M costs

Simple

- Active current balance control, supporting new and old battery cabinets mixed using, flexible to expand
- Smart active voltage balance control, Battery strings of different numbers of lithium batteries can be connected in parallel^②
- Automatic grouping and capacity check, reducing manual capacity test costs and avoiding power failure risks



SmartLi 3.0 ST

SPECIFICATIONS

	Item	Description
Basic Parameters	Product Model	SmartLi
	Battery Cell Material	LiFePO4(6C)
	Charging Current	≤ 1C, 0.5C by default
	Maximum discharge current (battery module)	459A
	Maximum discharge current (battery cabinet)	630A (6+6) (7+7) (8+8), 315A (6+0) (7+0) (8+0)
	Cycle Life	5000 cycles @ 50% DOD
	Nominal Capacity	162Ah / 82.94kWh (8+8) ; 162Ah / 72.57kWh (7+7) ; 162Ah / 62.20kWh (6+6) ;
	Capacity for calculating the backup time ^②	153Ah / 78.33kWh (8+8) ; 153Ah / 68.54kWh (7+7) ; 153Ah / 58.75kWh (6+6) ;
	Weight	1100kg (8+8) ; 1000kg (7+7) ; 900kg (6+6)
	Dimension (W*D*H)	600mm*850mm*2000mm
	Self Discharge	≤5% (0-30°C/3 months)
	Fire protection	Module-level
	Communication Interface	FE, RS485, Dry contacts
	Protection	Over temperature, over current, short circuit, over charge/discharge, etc.
	Design Life	15 years
	Certification	UL1642, UL1973, UN38.3, UL9540A, IEC62619, IEC62133, IEC62477, IEC62040
Compatibility	Huawei UPS, third-party UPS/HVDC	
Discharge capability	300 kW@10 minutes or 200 kW@15 minutes (7+7, 20-30°C)	
IP Protection Level	IP21 according to IEC60529 standard	
Environment	Storage Temperature	0°C - 40°C
	Transportation Temperature	-40°C to 60°C
	Operating Temperature	0°C - 40°C (20-25°C is recommended)
	Relative Humidity	5% - 95%
	Max. Operating Altitude	0 - 4000m. Derating is required if the altitude exceeds 1000 m*

^② The backup time is calculated based on the capacity 68.54 kWh and the capacity under different backup time or discharge rates. 68.54kWh=25.5Ah*3*2*3.2V*20*7 (The battery cell is 27 Ah. The margin is calculated based on the reserved 25.5 Ah. For details, refer to the battery cell certification report.)