W-SL Series

Energy Storage LiFePO4 Battery

COSUPER
Cool life Super power

Reliable Energy Storage Solution
For 48V System
Max. 16 units Stack

Application

House ESS Communication Station Commerical Backup

Features

- High cycle life. Keep capacity higher than 80% (@>3000 cycles; @78% DOD, @0.5C discharging)
- Completely closed design, no noxious gas during using
- Lithium iron phosphate battery is the safest lithium battery at present. With high thermal stability of the material, it will not cause explosion or combustion due to overcharge, short circuit, impact or excessive temperature
- Excellent temperature compatibility; Work at temperature of -20℃~45℃

Protection

- Short circuit
- Low volt / High volt
- Over-charge / Over discharge
- Over temperature

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Electrical Specification	W48-100SL
Rated voltage	51.2V(45.6~57.6V)
Rated capacity	100 Ah
Min. capacity @0.2C	100 Ah
Rated energy	5120Wh
Output efficiency	> 99%
Energy retention	≥ 90%
Cell capacity difference	≤ 1%

Discharge

Discharge current	0~100A
Over discharge protect	110A
Surge-current protect	110 A（< 10ms)
Low-volt shut down	43.2 V
Low-volt recovery	46.4 V
Output short circuit	≥330A/500us; auto recover after short-circuit removed; Continuous 10 times short circuit lockup, charge battery for unlock.

Charge

Suggested charge current	20~50 A
Max. charge current	50 A
Over-charge alarm/cut-off	60A / 70 A
Suggested charge voltage	54.4~57.6 V
Over-charge protect	58.4V
Over-charge recovery	54.4V

Temperature

Discharge temperature	-20~50℃
Charge temperature	0~50℃
Storage temperature	-20~45℃
BMS over-temp shut down	60℃

Mechanical

Dimension mm (L×W×H)	482×400×177.8 mm
Weight	47±1 kg
Battery cell	Aluminum LFP cube

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Operation Instruction

LED Indicator

SOC				Alarm	Run
●	●	●	●	●	●

LED Blink

Model 1	0.25s / 3.75s		ON -- 0.25s; OFF -- 3.75s
Model 2	0.5s / 0.5s		ON -- 0.5s; OFF -- 0.5s
Model 3	0.5s / 1.5s		ON -- 0.5s; OFF -- 1.5s

Battery Status	Battery Condition	SOC				Alarm	Run	Status Details
		●	●	●	●	●	●	
Battery OFF	Stop working	OFF	OFF	OFF	OFF	OFF	OFF	No working
Battery Standby	Working	According to battery SOC				OFF	Model 1	No load & standby
	Warning	According to battery SOC				Model 3	Model 1	Module low voltage
Charge	Normal	According to battery SOC				OFF	ON	SOC indicator in Model 2
	Warning	According to battery SOC				Model 3	ON	
	Over-volt cutout	ON	ON	ON	ON	OFF	ON	
	Over-temp/current cut out	OFF	OFF	OFF	OFF	ON	OFF	Stop Charging
Discharge	Normal	According to battery SOC				OFF	Model 3	
	Warning	According to battery SOC				Model 3	Model 3	
	Over-temp/current; short circuit cutout	OFF	OFF	OFF	OFF	OFF	OFF	Stop discharge
	Low-volt cutout	OFF	OFF	OFF	OFF	ON	OFF	Stop discharge

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## Parallel Setting

Dial code switch position

ON
OFF

1	2	3	4		
OFF	OFF	OFF	OFF		single unit
ON	OFF	OFF	OFF		2 units parallel
OFF	ON	OFF	OFF		3 units parallel
ON	ON	OFF	OFF		4 units parallel
OFF	OFF	ON	OFF		5 units parallel
ON	OFF	ON	OFF		6 units parallel
OFF	ON	ON	OFF		7 units parallel
ON	ON	ON	OFF		8 units parallel
OFF	OFF	OFF	ON		9 units parallel
ON	OFF	OFF	ON		10 units parallel
OFF	ON	OFF	ON		11 units parallel
ON	ON	OFF	ON		12 units parallel
OFF	OFF	ON	ON		13 units parallel
ON	OFF	ON	ON		14 units parallel
OFF	ON	ON	ON		15 units parallel
ON	ON	ON	ON		16 units parallel

MAX. 16 units Parallel
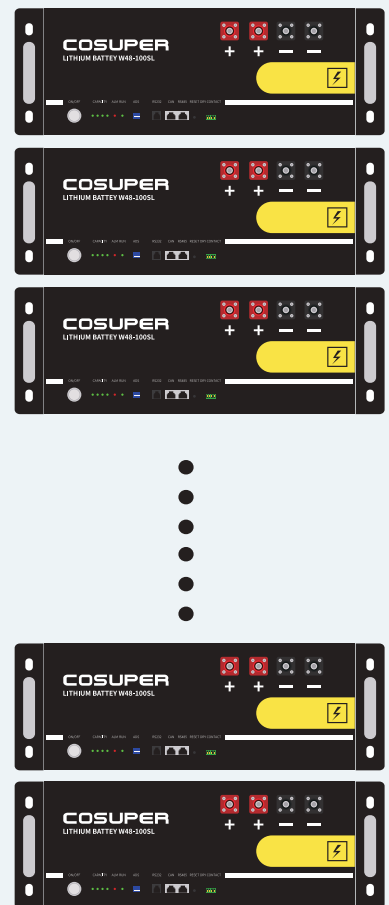
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Energy Storage LiFePO4 Battery
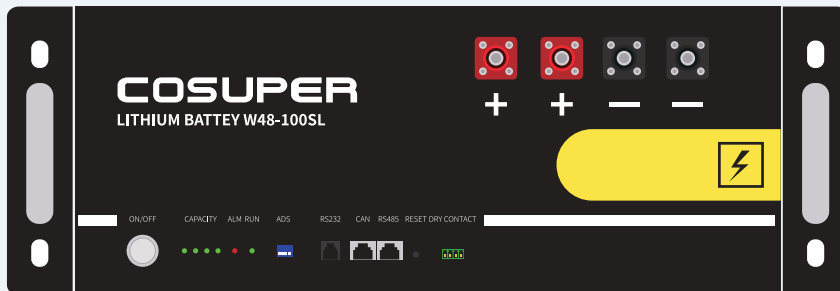
RS232

RS232 communication terminal: (RJ11 port) follow RS232 protocol, for output batteries information

CAN

CAN communication terminal: (RJ45 port) follow CAN protocol, for output batteries information
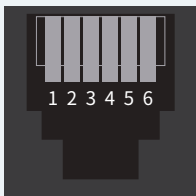
RS485

RS485 communication terminal: (RJ45 port) follow RS485 protocol, for communication between multiple parallel batteries.

RESET

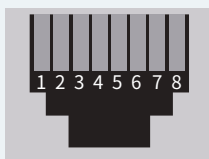Reset: Press more than 3 seconds to restart battery module.

DRY CONTACT

Dry Contact: rovide 1 way input and 1 way output dry contact signal.

RJ11

NO.	PIN
1、2、6 -------------	NC
3--------------------	TX(single face)
4--------------------	RX(single face)
5--------------------	GND

RJ45

NO.	PIN
1、8-----------------	RS485-B
2、7-----------------	RS485-A
3、6-----------------	GND
4--------------------	CAN-H
5--------------------	CAN-L

BMS FUNCTION

Protection & Alarm	Management & Monitor
Charge/Discharge End	Cell Balance
Charge Over Voltage	Intelligent Charge Model
Charge/Discharge Over Current	Charge/Discharge Current Limit
High/Low Temperature	Capacity Retention Calculate
Short Circuit	Administrator Monitor
Power Cable Reverse	Operation Record

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PARALLEL GUIDE

160mm

160mm

210mm

2000mm

2000mm

3500mm