



Model: OP48V100 LiFePO4 Battery Specification

Orient Power

The OP48V100LiFePO4 Jakiper Battery

One of the highest quality and safest lithium ion technology at the fairest price on the market.

ELECTRICAL PERFORMANCE

Model	OP48V100
Nominal Voltage	51.2 V
Nominal Capacity	100 Ah
Energy	5120 Wh
Resistance	< 50mΩ
Self Discharge	< 3%
Cells	3.2V 100Ah Cells

CHARGE PERFORMANCE

Recommended Charge Current	20 A
Maximum Charge Current	100 A
Recommended Charge Voltage	56(initial charge)-58.4 V (after 30 cycles)
BMS Charge Cut-Off Voltage	> 59.2 V (3.7 V/Cell)
Reconnect Voltage	< 54.08 V (3.38 V/Cell)
Balancing Voltage	> 54.4 V (3.4 V/Cell)

DISCHARGE PERFORMANCE

Maximum Continuous Discharge Current	100 A
BMS Discharge Current High Warning	125 A
BMS Discharge Cut-Off Current	130 A (1000ms)
Low Voltage Warning	44.8 V (2.8 V/Cell*16)
BMS Discharge Cut-Off Voltage	<40 V (1 s) (2.5 V/Cell*16)
Reconnect Voltage	>46.4 V (2.9 V/Cell)
Short Circuit Protection	300 μs

80%DOD, discharge with standard 0.5C, the cycle life is 7000 times.



SMART Battery Management System

MECHANICAL PERFORMANCE

Dimension (LxWxH)	442x460x177mm
Approx. Weight	48 Kg
Terminal Type	M8x4
Terminal Torque	106 ~ 132 in-lbs (12 ~ 15 N·m)
Case Material	Steel
Recommended Connection Wire	6 AWG

TEMPERATURE PERFORMANCE

Temperature Sensor Quantity	6 pcs
Discharge Temperature	- 4 ~ 140 °F (- 20 ~ 60 °C)
Charge Temperature	23 ~ 131 °F (- 5 ~ 55 °C)
Storage Temperature	23 ~ 95 °F (- 5 ~ 35 °C)
BMS High Temperature Cut-Off	149 °F (65 °C)
Reconnect Temperature	140 °F (60 °C)

Lithium Upgrade and Install Tips

- Consult with your battery supplier or dealer to confirm compatibility with your system components, including converters, solar charge controllers and inverter chargers.
- Only purchase lithium batteries that have a Battery Management System built in.

Benefits

- At least double the power in the same physical space of lead acid.
- Can be discharged 100% vs lead acid recommended 50% depth of discharge.
- Can be installed indoors with no hydrogen gases generated, also no terminal corrosion.
- About 1/5 the weight of a lead acid battery, resulting in a significant weight reduction over your current battery bank
- Output voltage is flat during most of the discharge cycle, increasing efficiency of your system.
- Can be charged up to 5 times faster than lead acid.
- Last 10 times longer than lead acid.
- Holds a charge for up to 1 year (without a load) without the need for a trickle charger. Great for unattended storage.



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