

PR-iBAT-T48100-3US1

Chargeable Battery 48V 100A

PROSE



Part number

PR-iBAT-T48100-3US1	chargeable battery 48V 100A, 3U
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Features

Longer Cycle Life	Offers up to 10 times longer cycle life and 5 times longer float/calendar life than lead acid battery helping to minimize replacement cost and reduce total cost of ownership.
Lighter Weight	About 40% of the weight of a comparable lead acid battery, A “drop in” replacement for lead acid battery.
Higher Power	Delivers twice power of lead acid battery, even high discharge rate, while maintain high energy capacity.
Wider Temperature Range	-20°C~55°C.
Superior Safety	Lithium iron phosphate chemistry eliminates the risk of explosion or combustion due to high impact, over charging or short circuit situation.
No Memory Effect	Support unstable partial state of charge (UPSOC) (charge/discharge) utilization.

Mechanical data

Nominal Voltage	48V
Nominal Capacity	100Ah (0.2C, 25°C)
Energy	4800Wh
Internal Resistance (ACR)	≤100mΩ (without BMS)
Cycle Life	≥3500 cycles @25°C, 80% DoD
Design Life	≥10 years @25°C
Self-Discharge (30 days)	≤2%@25°C
Efficiency of Charge	≥98%
Efficiency of Discharge	≥100% @ 0.2C
	≥96% @1C
Charge Voltage	54.4-58V
Charge Mode	0.2C to 54V, then 54V charge current to 0.02C (CC/CV)

Max. Continuous Charge Current	100A
Max. Continuous Discharge Current	100A
Discharge Cut-off Voltage	42.5V±0.5V
Water Dust Resistance	IP40
Case	Iron (Insulation painting)
Dimensions (W*D*H) (excluding hanger and handle bar)	442*411*133mm
Max. Weight	40kg
Parallel in maximum	15pcs

Working Environment

Charge Temperature Range	0℃-55℃
Discharge Temperature Range	-20℃-55℃
Optimum Operation Temperature	10℃~35℃
Storage Temperature	0℃~40℃, ≤85% Relative Humidity

General Functions

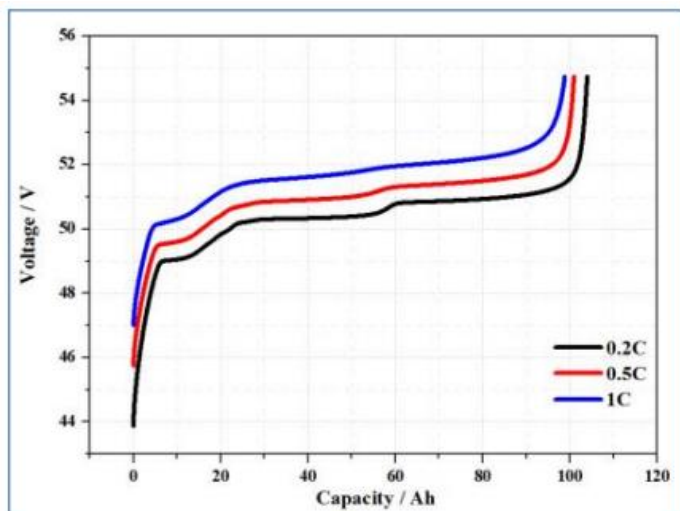
Parallel Communication	CAN
Battery with Equipment	CAN/RS485
Battery Debugging Communication	RS485
Communication protocol	Modbus, SNMP
Interface	RS485, CAN
Dry Contact	PIN1 to PIN2: Normally closed, open during fault protection PIN3 to PIN4: Normally closed, open during low power
Gyroscope anti-theft	Keep battery tilt more than 15° to turn on anti-theft, the lock the battery Unlock by authorized operators (password)
GPS location support	Support GPS module with SIM and eSIM, can be installed by operator at the site
SOC Light	4 * LED
Charge Current limit	When the charging current exceeds the set value, turn on the current limit and limit the current to 15A

Qualifications

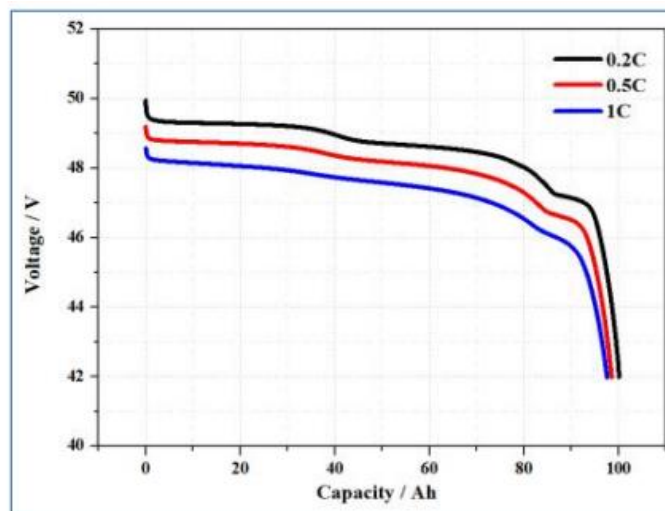
Passed ISO9001, ISO14001, ISO45001, UL1642, CE, ROHS, IEC62619, IEC62620, UN38.3

Battery cell cost advantage

Curves



Charge curves at different C-Rate @25°C



Discharge curves at different C-Rate @25°C

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