

## Energy Storage for Telecom



### Telecom Battery Systems: Advancing Energy Solutions for the Telecommunications Industry

With the advent of 4G technology, the demand for energy in the telecommunications sector has become increasingly critical, and this demand is poised to rise even further with the rollout of 5G networks. To meet this energy gap, the transition from traditional lead-acid batteries to lithium-ion (Li-Ion) technology is not just beneficial; it is essential.

Lithium-ion batteries offer several advantages over Valve Regulated Lead Acid (VRLA) batteries, including higher power densities, reduced weight, longer lifecycle, and lower total cost of ownership (TCO). They also enable faster charging, integrated monitoring capabilities, and eliminate gas emissions from the batteries. This technological shift represents a revolutionary advancement in the telecommunications industry.

Our lithium-ion battery systems, designed specifically for telecommunications applications, are compatible with UPS and energy storage systems. Manufactured using Lithium Iron Phosphate (LiFePO4) chemistry, these 100Ah batteries provide an extended cycle life and support discharge currents of up to 1C. They are equipped with internal heaters that facilitate charging in temperatures below 0°C.

#### Applications

➤ Load/Peak Shifting

➤ Frequency Regulation

➤ UPS / Bridging Power



## Low Voltage Telecom Batteries



Basic Properties	PBT-48100
Cell Type	LiFePO <sub>4</sub> - Prismatic
Nominal Voltage	48V
Nominal Capacity	100Ah
Nominal Energy Capacity	4.8kWh
Operating Voltage Range	40V - 54.75V
Maximum Charge Voltage	54.75V
Standard Charge/Discharge Current	50A / 50A
Max. Cont. Charge/Discharge Current	100A / 100A
Limited Charge Current	10A
Cycle Life (*)	≥6000 cycles
Normal Operating Temperature	25°C
Charging Temperature	-20-55°C
Discharging Temperature (**)	-20-55°C
Storage Temperature	-20-60°C
Residual Capacity Loss	Per month ± 3% (25°C ± 2C)
Warranty	10 years
Functional Properties	
Communication	RS485
Scalability	Max. 8 units in parallel
Cooling	Natural
Integrated Heater	Yes
BMS Protections	UV, OV, OC, UT, OT, SC
LED Indicators	Alarm, Run, SOC
High Current Protection	Externally Replaceable Fuse
Mechanical Properties	
Protection Level	IP20
Humidity	5% - 85% RH (non-condensing)
Altitude	<3000m
Dimension (WxDxH) (without connector and handle)	446x400x176 mm (19 Inches - 4U)
Weight	42.5±1 kg
Power Terminals	Screw Terminals

(\*) Test Conditions: 25°C, 70% SOH

(\*\*) Performance may vary in different conditions