



Implementation of telecommunications systems

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## 19" Rackable LiFePO4 Batteries 48V, 50-200Ah, 3U-6U



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## Application:

- >> Industrial backup power systems
- >> Uninterruptible Power Supply (UPS)
- >> Telecom, Data Center
- >> Grid or renewable energy storage
- >> Yachts/campers/photovoltaic installations

## The battery has a BMS function that protects it against:

- >> overcharging
- >> over-discharge
- >> reverse polarity
- >> overheating
- >> short circuit

## Front panel indicators and ports:

- >> RS232 and RS485 communication ports
- >> SOC LED display
- >> RESET button
- >> ADDR switch
- >> Fuse
- >> Ground terminal
- >> Alarm



Parameters	Z-BT-LI-50Ah-48V	Z-BT-LI-100Ah-48V	Z-BT-LI-200Ah-48V
Rated voltage	48V	48V	48V
Maximum charge voltage	57V $\pm$ 0,2V	57V $\pm$ 0,2V	57V $\pm$ 0,2V
Charge Voltage in Floating Mode	51...52V $\pm$ 0.2V	51...52V $\pm$ 0.2V	51...52V $\pm$ 0.2V
Final discharge voltage	40.5V	40.5V	40.5V
Minimum allowable final discharge voltage	37.5V	37.5V	37.5V
Rated capacity	50Ah	100Ah	200Ah
Storage energy capacity	2.7kWh	5.4kWh	10.8kWh
Rated charging current	0.2C (10A, adjust.)	0.2C (20A, adjust.)	0.1C (20A, adjust.)
Rated discharge current	0.5C (25A, adjust.)	0.5C (50A, adjust.)	0.3C (60A, adjust.)
Maximum discharge current	1C (50A)	1C (100A)	0.5C (100A)
Internal resistance	$\leq$ 45 m $\Omega$	$\leq$ 40 m $\Omega$	$\leq$ 90 m $\Omega$
Charge temperature	0°C to 55°C	0°C to 55°C	0°C to 55°C
Discharge temperature	-20°C to 55°C	-20°C to 55°C	-20°C to 55°C
Optimal storage temperature	-10°C to 45°C	-10°C to 45°C	-10°C to 45°C
Permissible ambient humidity during operation	$\leq$ 85%	$\leq$ 85%	$\leq$ 85%
Permissible humidity of the environment during storage	5% ~ 95%	5% ~ 95%	5% ~ 95%
Height	3U	3U	6U
Profile	19"	19"	19"
Depth	420 mm	460 mm	460 mm
IP code	IP20	IP20	IP20
Cycle life	$\geq$ 3000 cycles ( $\geq$ 80% SOC)	$\geq$ 3000 cycles ( $\geq$ 80% SOC)	$\geq$ 3000 cycles ( $\geq$ 80% SOC)
Weight	24 kg	41 kg	78 kg

## Advantages of LiFePO4 energy bank:

- >> LiFePO4 energy banks can be charged with a much higher current than gel or AGM models, which significantly shortens the charging time
- >> Half-weighted and deliver more power than traditional lead-acid, gel or AGM batteries
- >> High efficiency (approx. 95%) and low internal resistance allows for quick charging with low energy losses
- >> They ensure the use of 100% of the nominal capacity regardless of the discharge current
- >> The service life of LiFePO4 energy banks is about 3000 cycles (full charge and discharge) or more depending on the battery discharge
- >> LiFePO4 energy bank can operate in a very wide temperature range. It retains performance at both -10 and 45 degrees Celsius
- >> LiFePO4 energy bank is non-toxic, non-polluting and free of rare earth metals, which makes them environmentally friendly

## According to EN/IEC standards:

- EN 61000-6-1:2007 Electromagnetic compatibility. Part 6. Common standards. Section 1. Noise immunity
- EN 61000-6-3:2007+A1:2011 Electromagnetic compatibility. Part 6. Common standards. Section 3. Emission for residential, commercial and industrial environments.
- IEC 62620:2014, IDT Secondary cells and batteries containing alkaline or other non-acid electrolytes – Secondary lithium