



# Technical specification of lithium iron phosphate battery pack power system for communication

## TN-LFP48100 (BMS with heater)

### Overview

TN 48V series lithium iron phosphate batteries can provide reliable backup power for access network equipment, remote switch, mobile communication, transmission equipment and other systems with their integrated structure design, intelligent centralized monitoring and standardized cabinet installation. The product can realize multi-group parallel connection and provide flexible and effective power system solutions for telecommunication operators.



### Product Features

- ◆ The cells with lithium iron phosphate technology has high safety and long service life.
- ◆ The built-in intelligent BMS battery pack management system can effectively prevent battery overcharge, overdischarge, overcurrent and overtemperature.
- ◆ The built-in intelligent battery equalization control system can effectively improve the consistency of battery packs, prolonging the service life of battery packs.
- ◆ Standard 19-inch box design, easy to install and upgrade
- ◆ RS485/RS232 communication output for monitoring
- ◆ Maintenance free

### Product Parameters

Model	TN-LFP48100(15S)	TN-LFP48100(16S)
<b>General Characteristics</b>		
Nominal voltage	48V	51.2V
Nominal capacity@0.2C	100Ah	100Ah
Nominal energy	4800Wh	5120Wh
Dimesion(W*D*H)	442*435*176mm	442*435*176mm
Weight	46kg	48.3kg
<b>Electrical Characteristics</b>		
Working voltage range	42V~54V	44.8V~57.6V
Recommended charging voltage	52.5V~54V	56V~57.6V
Max.charging current limitation	50A	50A
Charge limit current function (Open)	10A	10A
Max.continue discharging current	50A	50A
Max.peak discharging current	55A,<3S	55A,<3S
Discharging cut-off voltage	42V	44.8V
Faraday charging efficiency	≥98%	≥98%
Energy charging efficiency	≥92%	≥92%
Internal resistance	55mΩ	60mΩ
Self discharge	≤3.5%	≤3.5%
Cycle Life(@25°C,0.2C,80%DOD)	4000 Cycles	4000 Cycles

### Operating Conditions

Operating Temperature	Charge	0°C~45°C
	Discharge	-20°C~45°C
Storage temperature		-10°C~45°C
Storage duration		12 Months @20°C~25°C
Safety standard		UL 1642 at cell level
Water dust resistance		IP30
Storage function		Have
Parallel function		Maximum support 16 groups in parallel, recommended no more than 12 groups

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**TN-LFP48100**  
**48V100Ah**

