



# DATASHEET

## Li-Ion Battery Softpack 48V series

### PRODUCT OVERVIEW

The 48V Lithium-Ion Battery Softpack series is a high-performance, lightweight energy storage solution designed for various applications, including e-mobility, energy storage systems, power tools, and more. Equipped with an intelligent Battery Management System (BMS), these battery packs provide enhanced safety, monitoring, and control capabilities. The BMS integrates advanced communication interfaces such as CANBUS, RS485, and UART, allowing seamless connectivity to your system.

### APPLICATIONS



#### eMobility

Bikes, scooters, wheelchairs, and more.



#### Energy Storage

Residential, commercial, off-grid backup systems, and more.



#### Portable Power

Power tools, outdoor applications, and more.

### PROTECTION FEATURES

- Overcharge Protection
- Over-discharge Protection
- Overcurrent Protection
- Short Circuit Protection
- Temperature Monitoring and Protection

### COMMUNICATION INTERFACES

- CANBUS
- RS485
- UART

### ADDITIONAL FEATURES

- State of Charge (SOC) Estimation
- Cell Balancing
- Remote Monitoring Capability

M O D E L

TN13S2P-50-01

TN13S3P-50-01

TN13S4P-50-01

TN13S5P-50-01

**ELECTRICAL SPECIFICATIONS**

Cell Configuration	13S2P	13S3P	13S4P	13S5P
Nominal Voltage	48V	48V	48V	48V
Nominal Capacity	10Ah	15Ah	20Ah	25Ah
Energy	480Wh	720Wh	960Wh	1200Wh
Charge Voltage	54.6V	54.6V	54.6V	54.6V
Cut-off Voltage	39V	39V	39V	39V

**CURRENT PARAMETERS**

Max Continuous Discharge Current	60A	80A	100A	100A
Peak Discharge Current ( $\leq 10$ sec)	100A	120A	120A	180A
Max Charge Current	20A	30A	40A	50A

**PHYSICAL SPECIFICATIONS**

Dimensions (L x W x H)	280 x 80 x 55 mm	280 x 80 x 80 mm	280 x 80 x 105 mm	280 x 80 x 130 mm
Weight	2 kg	3.1 kg	4.1 kg	5.2 kg
Enclosure Material	PVC Shrink Wrap	PVC Shrink Wrap	PVC Shrink Wrap	PVC Shrink Wrap

**ENVIRONMENTAL SPECIFICATIONS**

**PERFORMANCE SPECIFICATIONS**

Operating Temperature	Charge: 0°C to 45°C	Cycle Life	1,000 cycles (at 80% Depth of Discharge, 25°C)
	Discharge: -20°C to 60°C	Designed to Meet	CE, UN 38.3, RoHS, IEC 62133
Storage Temperature	Short-term (< 1 month): -20°C to 45°C	Warranty	12 months
	Long-term (> 1 month): 0°C to 25°C		
Humidity	$\leq 85\%$ RH		

**GOT QUESTIONS?  
GET IN TOUCH WITH US**

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