

LFP Series Lithium-ion Battery













TL-LFP Series Lithium-ion Battery is a series of 48V battery packs utilizing advanced LiFePO4 (Lithium Iron Phosphate) technology and smart integrated BMS with the benefits of long cycle life, light in weight and compact in size, safety and environmental friendly. TL-LFP Series Lithium-ion Battery can be used for a variety of indoor or outdoor applications.

- Telecommunication
- UPS and IDC Datacenter
- Renewable Energy Storage System
- Other Power Backup Systems



Features and Advantages

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|--|---|
|  High Safety Ensured by Integrated Smart BMS |  Excellent Cycle and Calendar Life |
|  High Energy Density by Adopting LFP Cells |  High Cycle Round Trip Efficiency (RTE) |
|  Extendable Capacity through Parallel Connection |  Visual SOC and Alarming Indication |
|  Wide Working Temperature Range |  Low Total Cost of Ownership (TCO) |
|  Perfectly Fits in Telecom Standard 19" Cabinet |  Easy Handling and Installation |

Integrated Smart BMS

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|-------------------------------------|---|
| • Voltage Monitoring and Protection | • Current Sampling and Protection |
| • Heat Management | • Short Circuit Protection and Recovery |
| • Smart SOC Estimation | • Visual LED Indicator |
| • Balancing Function | • Sleep and Wake Function |

General Specifications

Model No.	Number of Cells	Nominal Capacity (Ah) @25±2°C 0.2C	Nominal Voltage (V)	Weight (kg)	Dimension (mm)			Cycle Life@25°C 0.2C/0.2C 80%DOD	Cabinet Size
					Width	Depth	Height		
VHR TL38100LFP	24 Cells	100	38.4	37.0(±2)	330.0	520.0	220.0 (5U)	≥ 5000 Cycles	19"
VHR TL4850LFP	15 Cells	50	48.0	27.0(±2)	440.0	390.0	132.0 (3U)	≥ 5000 Cycles	19"
VHR TL4875LFP	15 Cells	75	48.0	33.0(±2)	440.0	390.0	132.0 (3U)	≥ 3000 Cycles	19"
VHR TL48100LFP-3U	30 Cells	100	48.0	49.0(±2)	440.0	530.0	132.0 (3U)	≥ 5000 Cycles	19"
VHR TL48150LFP	15 Cells	150	48.0	64.0(±2)	440.0	440.0	222.0 (5U)	≥ 5000 Cycles	19"

Operation Parameters

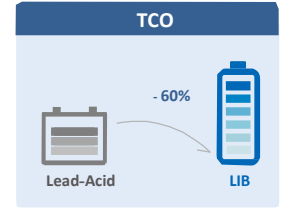
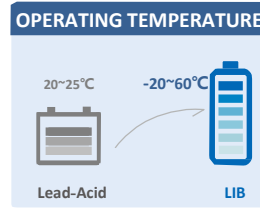
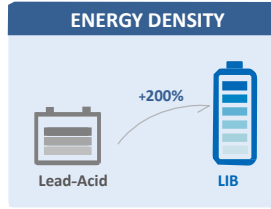
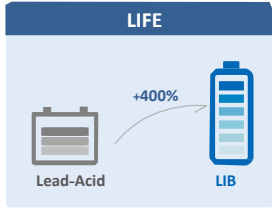
Model No.	Limited Charge Voltage (V)	Discharge Cut-off Voltage (V)	Standard Current (A)		Max Continuous Current (A)		Operation Temperature			Max Relative Humidity
			Charge	Discharge	Charge	Discharge	Charge	Discharge	Storage	
VHR TL38100LFP	43.2	33.0	20.0	20.0	100.0	100.0	0°C ~ 60°C	-20°C ~ 60°C	0°C ~ 40°C	95%
VHR TL4850LFP	54.0	41.0	10.0	10.0	50.0	50.0	0°C ~ 60°C	-20°C ~ 60°C	0°C ~ 40°C	95%
VHR TL4875LFP	54.0	41.0	15.0	15.0	75.0	75.0	0°C ~ 60°C	-20°C ~ 60°C	0°C ~ 40°C	95%
VHR TL48100LFP-3U	54.0	41.0	20.0	20.0	100.0	100.0	0°C ~ 60°C	-20°C ~ 60°C	0°C ~ 40°C	95%
VHR TL48150LFP	54.0	41.0	30.0	30.0	150.0	150.0	0°C ~ 60°C	-20°C ~ 60°C	0°C ~ 40°C	95%

Battery System Panel



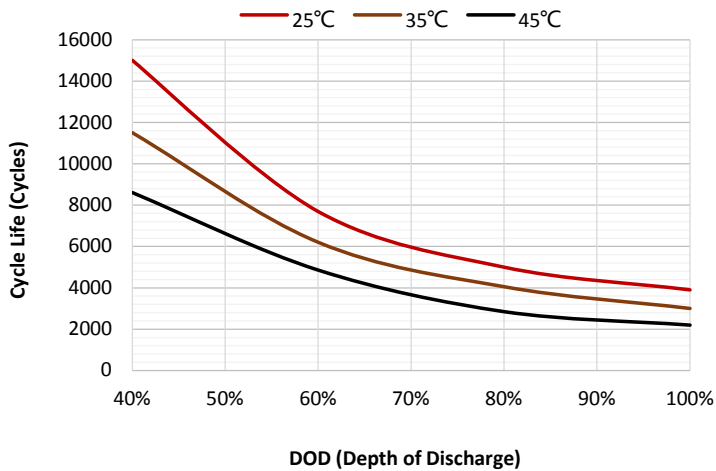
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|---|--|
| I Battery Switch(Switch) | VI Up-link communication(RS-232) |
| II Indicator for capacity Retention(SOC) | VII Cascading telecommunication (RS-485) |
| III Run light(RUN), indicate system operation state | VIII Reset button(RESET)System |
| IV Alarm light(ALM) | IX DRY contact |
| V Address dial number(ADD) | X DC output(Battery Output) |

TL-LFP Series Lithium-ion Battery Advantages

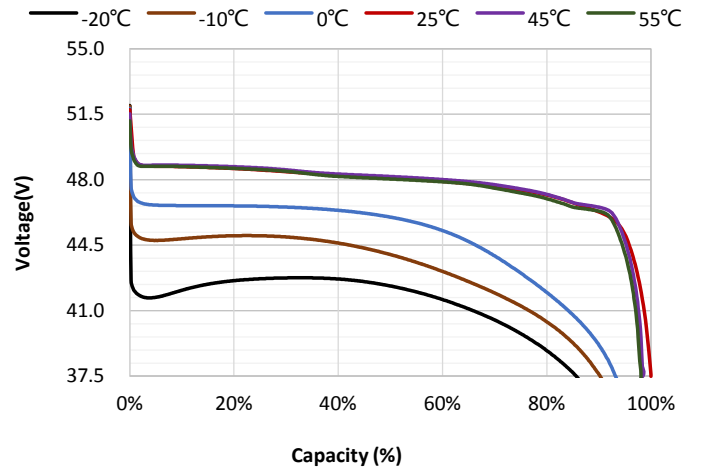


Performance Curves

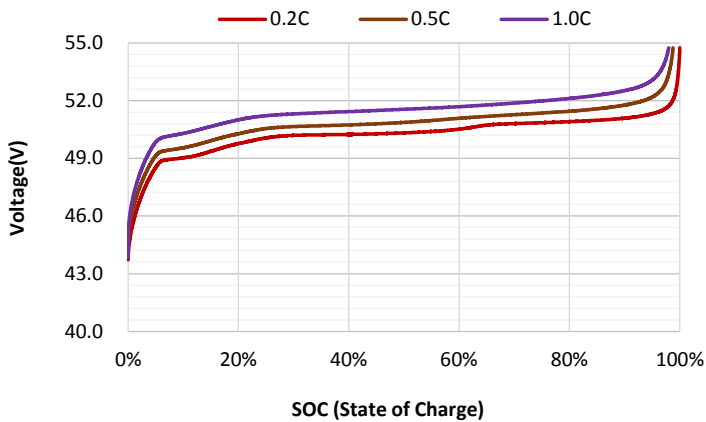
Cycle Life vs. DOD at Different Temperature



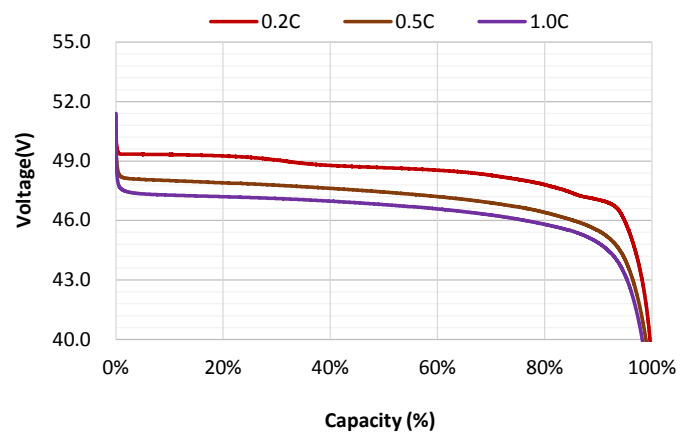
Discharge Curves at Different Temperature



Charge Curves with Different Current Rate



Discharge Curves with Different Current Rate



Standard Compliance

