

HRESYS Lithium-ion Battery



TL-LFP Series

www.aesonpower.com.au

VHR TL48100LFP-3U

TL-LFP Series Lithium-ion Battery Module



Introduction:

The HRESYS TL-LFP series is a non-managed 48V LiFePO₄ (Lithium-Iron Phosphate) battery module. With advanced LiFePO₄ cell technology and a smart Battery Management System (BMS), the product offers the benefits of long cycle life, small size, lightweight design, high safety standards, and environmental protection. It is well-suited for use in solar battery systems, power backup systems, and energy storage applications.

Features and Benefits:

- Proven LiFePO₄ chemistry ensures fire safety and maximizes cycle life for deep cycle and hybrid applications.
- Integrated Smart Battery Management System (BMS) with high energy density.
- BMS technology ensures battery safety and reliability by preventing overcharging, over-discharging, and high current situations.
- Equalizing and balancing of each cell prolongs battery life.
- Intelligent monitoring, telemetry, remote communication, and control via RS485.
- The capability of parallel connections of modules allows for increasing capacity.
- LED indication for module status and alarms.
- Maintenance free and fast charge capability.
- 10 Years Warranty

Specification:

Item	Parameters	Note
Nominal Capacity	100Ah	
Nominal Voltage	48V	
Charge & Discharge efficiency	>98%	0.5C Charge; 1C Discharge;
Self-discharge/month	≤3%	
Dimension (L * W * H, mm)	483 * 469 * 133	3U in Height
Weight (Kg)	43 ± 2	
Cycle Life	≥6000	@25°C 80%DoD @25°C 60%EOL
Design Life	15 + years	@25°C
Discharge Voltage	41V ~ 50V	
Charge Voltage	49V ~ 54.5V	
Standard Charge Current	20A	0.2C
Max. Continuous Charge/Discharge Current	100A	1C
Peak Charge / Discharge Current	105A	@15min
	150A	@10s
Communication	RS485, CAN, RS232	
Battery Cell Technology	Lithium Iron Phosphate	Cobalt-free
Enclosure Protection Rating	IP20	
Working Temperature	Discharge: -20°C~ 60°C Charge: 0°C~ 60°C Storage: -5°C~ 45°C	
Humidity	5% ~ 95% (RH)	No Condensation
Short Current	<2000A/1ms	
Application: On Grid/ On Grid + Backup/ Off Grid		
Certification: UN38.3 / IEC62619 / IEC 62040/ CE / CEC / MSDS		

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