

VHR TL48100LFP-3U (48V100Ah)

TL-LFP Series Lithium-ion Battery Module

Introduction

HRESYS TL-LFP series is a 48V LiFePO₄ (lithium iron phosphate) battery module. With the advanced LiFePO₄ cell technology and smart BMS, the product have the benefit of long cycle life, small size, light weight, high safety, environmental protection and strong environmental adaptability, it is ideal for backup and energy storage application even in harsh outdoor environments.



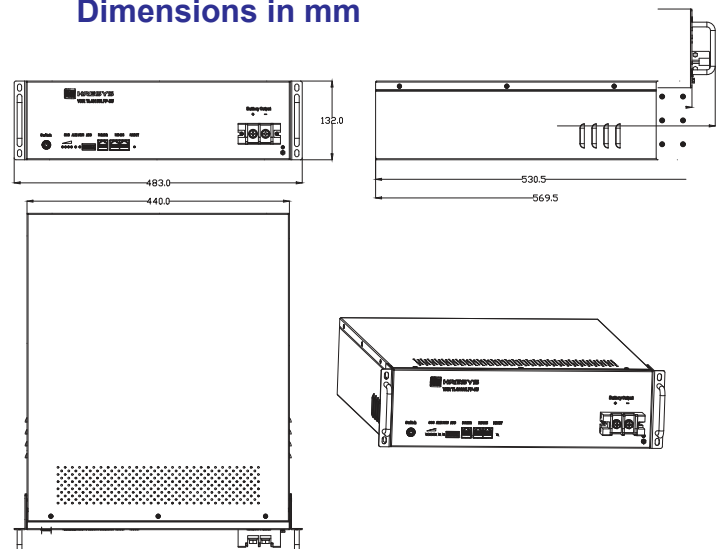
Features and Benefits

- High energy density
- Light weight, ergonomic
- Delivers up to 3X the energy density of conventional lead acid batteries
- Long cycle life
- Proven LiFePO₄ chemistry, maximum cycle life for deep cycle and hybrid application
- Integrated Smart Battery Manage System(BMS)
- Protect internal cells from overcharge, over-discharge, high current, etc. ensure battery safety and reliability
- Equalization and balance each cell, prolong battery life
- Intelligent monitors, remote measure, remote communication, remote control by RS485
- Support parallel connection to increase capacity
- LED status and alarm indication
- Maintenance free
- Fast charge capability

Main Applications

- Telecommunication
- UPS and IDC Data center
- Renewable Energy Storage System

Dimensions in mm



General Specifications

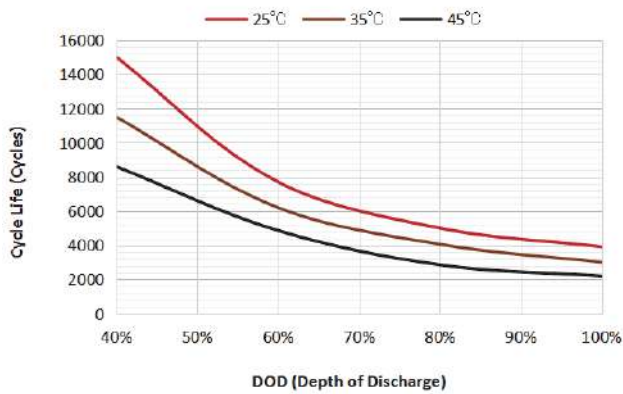
Item	Description
Nominal voltage	48 V
Nominal capacity	100 Ah (0.2C to 41.0V @ 25°C)
Discharge end voltage	41.0 V
Charge voltage	54.0 V
Charge current (Max.)	100 A (1C)
Charge current (Standard)	20 A (0.2C)
Max. Discharge current	100 A (1C)
Dimensions	440 x 530 x 132 (WxDxH in mm) (3U in height)
Weight	46.0 (±2) kg
Design life	15+ years @ 25°C
Communication	RS485

Operation Environment

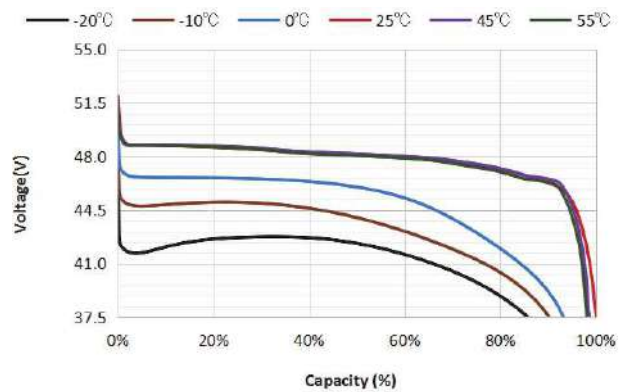
Temperature range	Discharge -20 to +60°C Charge to +60°C Storage -5 to +45°C
Temperature recommendation	Discharge +15 to +35°C Charge +15 to +35°C Storage 0 to +40°C (6 months, >50%SOC)
Humidity	5% to 95%, no condensation

Performance Curve

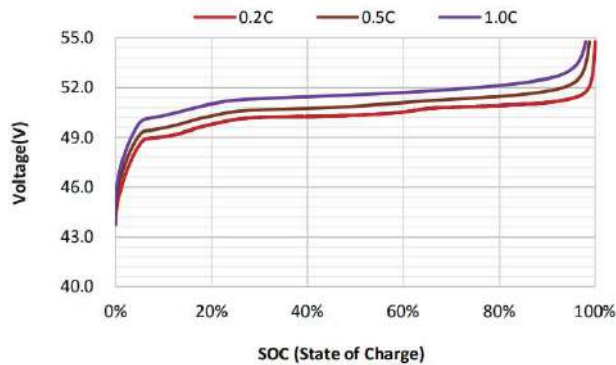
Cycle life vs. DOD at different temperature



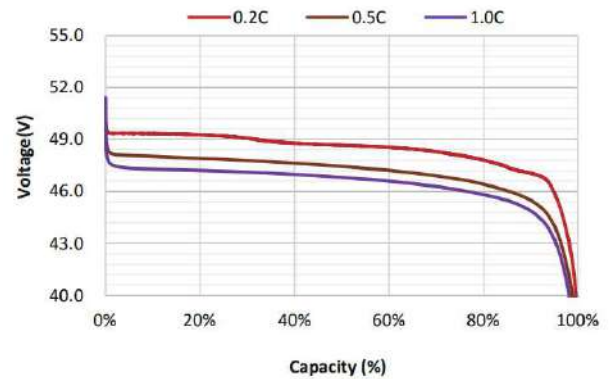
Discharge curve at different temperature



Charge curve with different current rate@25°C



Discharge curve with different current @25°C



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