

Power Pack LiFePO4 12S 36V 42000mAh 12S7P 3C Discharge LFP Batt

SKU / Model: Not specified

PRODUCT OVERVIEW

Specification Details Product Name Power Pack LiFePO4 12S 36V 42000mAh 12S7P 3C Discharge LFP Battery Pack Battery Chemistry LiFePO4 (Lithium Iron Phosphate) Cell Type LiFePO4 Configuration 12S7P Dimensions / Weight Approx. 150 ×280 ×70 mm / 5.5 6.0 kg* Cell Capacity 6000mAh Number of Cells 84 Cells Nominal Cell Voltage 3.2V Nominal Pack Voltage 38.4V Maximum Charge Voltage 43.2V Pack Capacity 42Ah / 42,000mAh Energy Capacity Approx. 1,612.8Wh Cell Discharge Rating 3C Theoretical 3C Current 126A BMS 12S LiFePO4 BMS Battery Type Rechargeable Connector Customised according to application Wire Length Customised Wire Customised according to current requirement

TECHNICAL SPECIFICATIONS

Nominal Voltage: 36V
Capacity: 42000mAh
Energy: 612.8Wh
Chemistry: LFP
Maximum / BMS Current: 126A
Charging Voltage: 43.2V
Product Category: 12 Cell 36 LiFePo4 (LFP) Battery Pack (38.4V-43.8V)

PRODUCT DESCRIPTION

Power Pack LiFePO4 12S 36V 42000mAh 12S7P 3C Discharge LFP Battery Pack The Power Pack LiFePO4 12S 36V 42000mAh 12S7P 3C Discharge LFP Battery Pack is a high-capacity rechargeable Lithium Iron Phosphate (LiFePO4) battery designed for applications requiring reliable energy storage and high discharge capability. The pack uses a 12S7P configuration with 7 cells connected in parallel in each of the 12 series groups. Using 6000mAh cells, it provides a total capacity of 42Ah (42,000mAh). With a 3C discharge rating, the theoretical discharge current is 126A. Actual continuous current capability depends on the selected cells, BMS, wiring, connectors and thermal management. Key Features Battery Chemistry: LiFePO4 (LFP) Configuration: 12S7P Capacity: 42Ah / 42,000mAh Nominal Voltage: 38.4V Maximum Charge Voltage: 43.2V Discharge Rating: 3C Theoretical 3C Current: 126A Total Cells: 84 High-capacity LFP battery pack Good thermal stability Rechargeable design Suitable for high-power applications Custom BMS, connector and enclosure options available 12S7P Battery Configuration The battery uses a 12S7P configuration: 12 cells/groups in series 7 cells in parallel per series group Total cells = 12 ×7 = 84 cells Cell capacity = 6Ah Pack capacity = 6Ah ×7 = 42Ah Nominal voltage = 3.2V ×12 = 38.4V Maximum charge voltage = 3.6V ×12 = 43.2V Energy capacity = 38.4V ×42Ah = 1,612.8Wh 3C Discharge Capability For a 42Ah battery: 42Ah ×3C = 126A Therefore, the theoretical 3C discharge current is 126A. The actual usable continuous current should be determined from the cell manufacturer's continuous-discharge

PRODUCT DATASHEET

rating and the selected BMS rating. BMS Protection A suitable 12S LiFePO4 BMS provides battery protection functions such as: Overcharge protection Over-discharge protection Over-current protection Short-circuit protection Temperature protection Cell voltage monitoring Cell balancing, according to BMS model For a high-current application, the BMS should be appropriately sized for the required continuous and peak current. Connector & Wire The output connector and power cable can be customized according to the application. Possible connector options include: XT60 XT90 Anderson DC connectors Custom high-current connectors For a theoretical 126A 3C application, connector and cable selection should be based on the actual continuous and peak current, not only the theoretical cell rating. Applications Suitable for: Electric vehicles E-bike battery systems Electric scooters Robotics AGV/AMR systems Solar energy storage UPS systems Inverter applications Portable power systems Industrial equipment Custom battery packs OEM/ODM battery projects Advantages High-capacity 42Ah LFP battery 12S7P configuration Approx. 1.61kWh energy capacity 3C high-discharge design Theoretical 126A discharge current LiFePO4 chemistry Good thermal stability Suitable for demanding power applications Custom BMS and connector options Package Includes 1 ×12S7P 42Ah LiFePO4 Battery Pack 12S LiFePO4 BMS Main power wires Output connector according to selected configuration Insulation and battery protection materials Important Charging Information This battery has a nominal voltage of 38.4V and a maximum charging voltage of 43.2V when using a 3.6V-per-cell charging limit. Use a charger specifically compatible with the 12S LiFePO4 configuration. Do not use a standard 42V NMC/Li-ion charger for this battery, as it is designed for a different battery chemistry and series configuration.