

BAK 13S 48V 40000mAh 13S8P 3C Lithium-Ion Rechargeable Battery Pack

SKU / Model: Not specified

PRODUCT OVERVIEW

Specification Details Cell Brand BAK Battery Chemistry Lithium-Ion / NMC Cell Type 21700 Configuration 13S8P Total Cells 104 Nominal Voltage Approx. 46.8V Battery Class 48V Maximum Charge Voltage 54.6V Capacity 40000mAh (40Ah) Cell Capacity Approx. 5000mAh Nominal Energy Approx. 1872Wh (1.87kWh) Cell Discharge Rating Up to 3C* BMS Application Dependent BMS Type 13S NMC Connector XT60 / XT90 / Anderson / Custom Dimension/weight 158*181*145mm / 7.28kg Applications E-Bike, EV, Scooter, ESS & Industrial

TECHNICAL SPECIFICATIONS

Nominal Voltage: 48V
Capacity: 40000mAh
Energy: 1872Wh
Chemistry: Lithium-Ion
Charging Voltage: 54.6V
Product Category: 13 Cell 48V Li-Ion Battery Pack (46.8V~54.6V)

PRODUCT DESCRIPTION

BAK 13S 48V 40000mAh 13S8P 3C Lithium-Ion Rechargeable Battery Pack The BAK 13S 48V 40000mAh (40Ah) 13S8P 3C Lithium-Ion Rechargeable Battery Pack is a high-capacity NMC Lithium-Ion battery pack designed for 48V-class electric vehicles, e-bikes, electric scooters, energy storage systems, robotics, and industrial applications. The pack uses a 13S8P configuration, consisting of 104 lithium-ion cells when built with 5000mAh cells. Eight cells are connected in parallel in each of the 13 series groups, providing approximately 40Ah capacity. BAK 21700 cells in the 5000mAh/3C class are specified around 3.6V nominal, 4.2V maximum charge voltage and up to 3C discharge capability. Key Features BAK Lithium-Ion Cells NMC Lithium-Ion Chemistry 13S8P Configuration 48V-Class Battery Pack 40000mAh / 40Ah Capacity 3C Cell Discharge Rating Approximately 1.87kWh Nominal Energy 104 Cells in 13S8P configuration High Energy Density Rechargeable Design Suitable for EV and E-Bike Applications BMS Protection Available Custom Connector & Enclosure Options OEM & Bulk Manufacturing Available Battery Configuration 13S8P 13 series groups ×8 cells in parallel = 104 cells Each parallel group contains eight 5000mAh cells: 8 ×5Ah = 40Ah The 13 series groups provide: 13 ×3.6V = 46.8V nominal Maximum charging voltage: 13 ×4.2V = 54.6V Nominal energy: 46.8V ×40Ah = approximately 1,872Wh High-Capacity 40Ah Design The 40Ah capacity provides substantially longer operating time than smaller 48V battery packs. This makes the battery suitable for applications where both high energy capacity and reliable continuous power are required. The BAK 5000mAh 21700 specification lists approximately 18Wh nominal energy per cell, with a 3C maximum discharge rating in the referenced specification. BMS Protection A suitable 13S NMC BMS can be integrated into the battery pack to provide: Overcharge protection Over-discharge

PRODUCT DATASHEET

protection Over-current protection Short-circuit protection Cell voltage monitoring Cell balancing Temperature monitoring, depending on BMS For high-current applications, the BMS rating should be selected according to the controller's continuous and peak current requirements. Applications The BAK 13S 48V 40Ah battery pack is suitable for: 48V E-Bikes Electric Scooters Electric Motorcycles Electric Vehicles Delivery Vehicles Solar Energy Storage Energy Storage Systems Robotics AGV Systems Portable Power Systems Industrial Equipment Custom OEM Battery Packs Advantages High 40Ah capacity 13S8P configuration 104-cell battery design Approximately 1.87kWh energy High energy density BAK lithium-ion cells 48V-class system Suitable for long-range applications BMS options available Custom enclosure and connector options Suitable for OEM and bulk battery manufacturing Package Includes 1 ×BAK 13S 48V 40000mAh (40Ah) 13S8P 3C Lithium-Ion Rechargeable Battery Pack