

BAK 10S 36V 40000mAh (40Ah) 10S8P 3C Lithium-Ion Rechargeable Ba

SKU / Model: Not specified

PRODUCT OVERVIEW

Specification Details Cell Brand BAK Battery Chemistry Lithium-Ion / NMC Cell Type 21700
Configuration 10S8P Total Cells 80 Nominal Voltage 36V Maximum Charge Voltage 42V Capacity
40000mAh (40Ah) Cell Capacity 5000mAh Nominal Energy Approx. 1440Wh (1.44kWh) Cell Discharge
Rating Up to 3C* BMS JBD HARDWARE BMS BMS Type 10S NMC Connector Custom / As Required
Dimension/weight 125*181*145mm / 5.6kg Applications E-Bike, EV, Scooter, ESS & Industrial

TECHNICAL SPECIFICATIONS

Nominal Voltage: 36V
Capacity: 40000mAh
Energy: 1440Wh
Chemistry: Lithium-Ion
Charging Voltage: 42V
Product Category: 10 Cell 36V Li-Ion Battery Pack (36V~42V)

PRODUCT DESCRIPTION

BAK 10S 36V 40000mAh (40Ah) 10S8P 3C Lithium-Ion Rechargeable Battery Pack The BAK 10S 36V
40000mAh (40Ah) 10S8P 3C Lithium-Ion Rechargeable Battery Pack is a high-capacity NMC
Lithium-Ion battery pack designed for e-bikes, electric scooters, EVs, energy storage
systems, robotics, and other high-power applications. The 10S8P configuration uses 10
cells/groups in series and 8 cells in parallel in each group. When built using 5000mAh BAK
21700 cells, the pack provides approximately 40Ah capacity and 36V nominal voltage. BAK's
published 21700 5000mAh cell specifications list a 3.6V nominal voltage, 4.2V maximum charge
voltage, and up to 3C discharge capability. Key Features BAK Lithium-Ion Cells NMC
Lithium-Ion Chemistry 10S8P Configuration 36V-Class Battery Pack 40000mAh / 40Ah Capacity 3C
Cell Discharge Rating High Energy Capacity Approximately 1.44kWh Nominal Energy Rechargeable
Battery Pack Suitable for E-Bike & EV Applications BMS Protection Available Custom Connector
Options Suitable for OEM & Custom Battery Manufacturing 10S8P Battery Configuration The pack
is arranged as: 10 Series x8 Parallel = 80 Cells Each parallel group: 8 x5000mAh =
40000mAh (40Ah) Nominal pack voltage: 10 x3.6V = 36V Maximum charging voltage: 10 x4.2V =
42V Nominal energy: 36V x40Ah = approximately 1,440Wh 3C High-Performance Cell
Configuration The BAK 21700 5000mAh cell specification identifies a 3C maximum discharge
rate. For an 8P arrangement, the theoretical cell-based current capability can be
substantially higher than typical e-bike requirements. However, the actual safe pack current
must be limited by the selected BMS, nickel/busbar construction, wiring, connectors, thermal
design, and controller requirements. Therefore, the 3C cell rating should not automatically
be treated as the final continuous current rating of the complete battery pack. BMS
Protection A suitable 10S NMC BMS can provide: Overcharge protection Over-discharge

PRODUCT DATASHEET

protection Over-current protection Short-circuit protection Cell voltage monitoring Cell
balancing Temperature monitoring, depending on BMS The BMS current rating should be selected
according to the motor/controller continuous and peak current requirements. Applications
This BAK 10S 36V 40Ah battery pack is suitable for: 36V E-Bikes Electric Scooters Electric
Bicycles Electric Tricycles EV Applications Delivery Vehicles Robotics AGV Systems Solar
Energy Storage Energy Storage Systems Portable Power Systems Industrial Equipment Custom OEM
Battery Packs Advantages 40Ah high-capacity design 10S8P configuration 80-cell pack
configuration Approximately 1.44kWh nominal energy High energy density BAK lithium-ion cells
36V-class system Suitable for long-range applications Multiple BMS options Custom connectors
and enclosure options Suitable for OEM and bulk battery manufacturing Package Includes 1 ×
BAK 10S 36V 40000mAh (40Ah) 10S8P 3C Lithium-Ion Rechargeable Battery Pack