

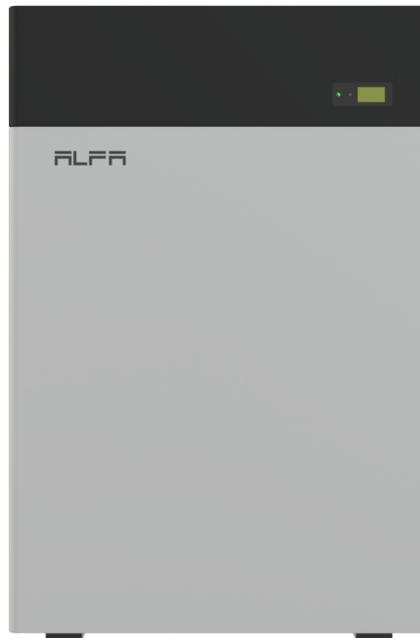


# ALFA Lithium Battery - Model DB

## Product Datasheet

### 1. Product Identification

- Product Name: ALFA Lithium Battery
- Model Number: DB-30k
- Brand: ALFA
- [Product Image Below]



### 2. Technical Specifications

Electrical Specifications:

- Nominal Voltage: 51V
- Capacity: 640Ah
- Total Energy Capacity: 32.7kw
- Float Voltage: 54V (+/-0.2V)
- SOC Cutoff: 10%
- Charging Current: 300A (Recommended), 200A (Max)
- Discharging Current: 300A (Recommended), 200A (Max)



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### BMS Parameters:

- Cell Voltage Protection: Overcharge 3.4V / Over-discharge 2.7V
- Module Voltage Protection: 60V max / 44.8V min
- Over Charging Current Protection: > (10s)
- Over Discharging Current Protection: > (10s)
- Short Circuit Protection: >1000A (<0.1ms)
- Temperature Protection: Charge <-5C/>70C, Discharge <-20C/>75C
- Recovery Conditions: Standard match
- Balancing Method: Active, 2A
- Voltage Accuracy: +/-0.5%, Current: +/-3%, Temperature: +/-3%

### Battery Management System (BMS):

- Communication Protocols: RS485, CAN, UART
- DIP switch configuration supported
- Firmware upgrade capability supported

## 3. Physical Specifications

- Dimensions: 1050mm (H) x 670mm (W) x 300 mm (D)
- Weight: 225 kg
- Housing Material: Galvanized Steel
- Mounting Orientation: Wall-mounted/Floor-mounted
- IP Rating: IP30
- Operating Altitude Limit: <5000m
- Installation Clearance: >=170mm on all sides

## 4. Performance Data

- Cycle Life: >8000 cycles at 80% DoD
- Design Life: 20 years
- Operating Temperature:



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- Charging: 0C to 50C
- Discharging: -20C to 55C
- Storage: 0C to 45C
- Storage Requirements: Store in a cool, dry place

### 5. Safety and Precautions

- Follow proper handling, installation, and usage guidelines
- Ensure all connections are secure. Avoid polarity reversal and shorts
- Proper grounding is mandatory

### 6. Installation Guidelines

- Compatible with standalone or parallel installations
- Use recommended torque values for all terminals
- Use 2/0 AWG (70mm<sup>2</sup>) cables or as required
- Confirm all batteries are fully charged before parallel setup
- Refer to ALFA inverter documentation for wiring requirements

### 7. Communication and Monitoring

- Interfaces: RS485, CAN, UART
- Supports closed-loop communication with compatible inverters
- SOC and status indicators on front panel
- ALM and RUN LED indicators show system status

### 8. Packing Information

- Battery Unit
- Mounting Brackets
- Power Cables (Red & Black)
- Expansion Bolts
- User Manual

- [Include visual packing image if required]

## 9. Warranty and Support

- Warranty Duration: 10 years
- Please visit our homepage for more details
- Contact: (your local supplier)
- Email: [support@alfaenergi.com](mailto:support@alfaenergi.com)

## 10. Compliance & Legal

- Specifications subject to change without notice
- Ensure usage complies with local codes and regulations
- Product for professional installation only

