

# Delta Lithium-ion Battery Module

## HV Energy Storage Application

### DBSHV50S

**High voltage design applied for high power application.**

Delta DBS48V50S battery module is an excellent energy source with a long service life for applications such as commercial energy storage system and renewable energy storage system. Its ready-to-go design provides the advantages of flexible and easy configuration of the battery system ranging from 48V to 900V based on the application requirement.

To ensure the safety and reliability of the battery module, it has a built-in Cell Monitor Unit (CMU) to manage the cell balance and collect individual cell temperature, voltage information. The CMU of each module communicates with the central BMU (Battery Management Unit) to protect battery modules from abnormal conditions, such as over temperature, over charging or over-discharging. The built-in interface of communication allows remote monitoring and control by Energy Management System (EMS) to perform functions of peak shaving, time shifting, utility ancillary services etc.



Front side

Back side

#### Special Features

##### High Safety

- Certification: UN38.3, UL1973
- Built-in CMU (Cell Monitor Unit) to monitor individual cell voltage, temperature and manage cell balance
- Built-in isolated CAN Bus among CMUs & BMU for high voltage battery string operation

##### Easy installation and Service

- Plug-in power bus connection
- High voltage protection during installation and service
- Isolated CAN Bus cable (loop connection or daisy chain) for high voltage battery string

##### Excellent Manageability

- A Delta designed BMU (Battery Management Unit) is provided to manage and protect individual cell of each module
- Multi-units or multi-sites management is feasible with BMU plus extra master-slave control

##### Flexible Capacity Expansion

- Series Expansion up to ~900VDC
- Parallel expansion up to MWh capacity

Order P/N: HBM100A01401A00

#### Product Specification

Nominal Voltage	51.8 V
Nominal Capacity	50 Ah
Nominal Energy	2.59 KWh
Dimension (mm)	199 (W)x 187 (H)x 537 (L)
Weight	Approx. 24 Kg
Certifications	UN 38.3, UL1973
Cycle Life@25°C	≥4,000 cycles <sup>*1</sup>
Operating Temperature	Charge: 0°C to +45°C Discharge: -20°C to +45°C
Interface	CAN 2.0B (500 kHz)
Discharge Rate	Max. 4C (200 A)

\*1) SOC range is 90% to 10%. SOC means "State Of Charge".



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## Applications

- Residential & Commercial energy storage
- Utility level energy storage and ancillary services



BMU



DBS48V50S  
Module



### Cabinet / Container

Scale : from 10KWh to MWh



Single cabinet



Cabinets in parallel



MWh-Class Container