

DCS Series

DCS12-200 12V200Ah



DCS series deep cycle battery is made of special high-tin corrosion-resistant alloy, It has optimized positive grid structure design and special negative active material improving charge acceptance ability and reducing negative plate sulphation. It is optimal battery for a wide range of household energy storage systems and suitable for partial state of charge (PSOC) applications.

Benefits

- Very long life according to EUROBAT Classification
- More than 3000 cycles at 70% DOD
- Special negative active material formula, improve the charge acceptance ability, reduce the negative plate sulphation, more suitable for the partial state of charge (PSOC) application
- Modular design and horizontal installation, compact structure, saving the installation area and space, easy installation, convenient maintenance

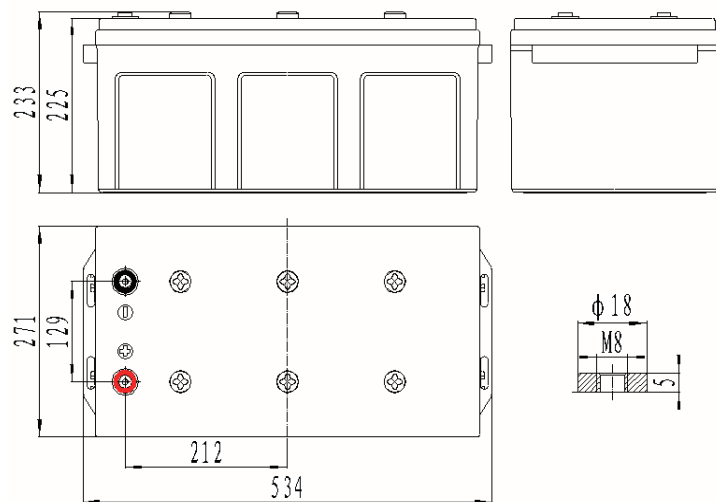
Applications

- Household energy storage system
- Solar and wind energy system
- Emergency system
- Other cycling systems

Standards

- IEC 60896-21/22
- IEC61427
- EUROBAT guide

Drawing



Specifications

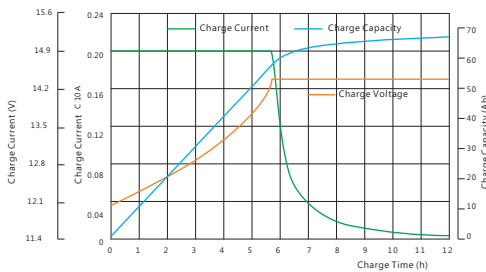
| | | | | |
|------------------------------------|---|--------------------|-----------------------|---------------------|
| Battery Model | DCS12-200 | | | |
| Design Life (years, 25°C) | 15 | | | |
| Capacity (Ah, 25°C) | 10HR (20.0A, 1.80V) | 5HR (34.0A, 1.80V) | 3HR (50A, 1.80V) | 100HR(2.27A, 1.80V) |
| | 200 | 170 | 150 | 227 |
| Dimensions (mm) | Length | Width | Height | Total Height |
| | 534 | 271 | 225 | 233 |
| Approx. Weight (kg) | 84.5 | | | |
| Reference Internal Resistance (mΩ) | 2.3 ±15% (full charged @ 25°C,testing device:HIOKI BT3562) | | | |
| Short Circuit Current (A) | 4000 | | | |
| Self-Discharge (25°C) | ≤1% per month | | | |
| Charge Voltage (V/cell, 25°C) | Cycle use | | Float use | |
| | 2.40 (-3.5mV/°C/cell), max charge current: 60A | | 2.25 (-3.5mV/°C/cell) | |

Discharge Data

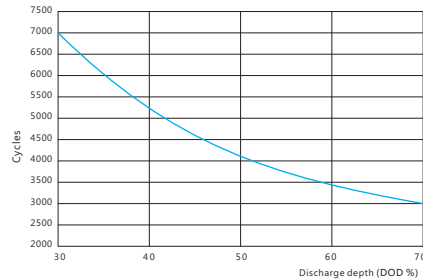
| Constant Current Discharge Data (25°C, A) | | | | | | | | | | | |
|---|------|------|------|------|------|------|------|------|------|------|------|
| End Voltage (V/cell) | h | | | | | | | | | | |
| | 1 | 2 | 3 | 5 | 8 | 10 | 20 | 50 | 100 | 120 | 240 |
| 1.70 | 113 | 73.2 | 54.4 | 36.8 | 25.2 | 21.4 | 11.3 | 4.68 | 2.38 | 2.00 | 1.02 |
| 1.75 | 110 | 71.5 | 52.8 | 36.0 | 24.7 | 21.0 | 11.0 | 4.60 | 2.34 | 1.98 | 1.00 |
| 1.80 | 104 | 69.0 | 50.0 | 34.0 | 23.4 | 20.0 | 10.5 | 4.43 | 2.27 | 1.95 | 0.98 |
| 1.85 | 98.8 | 65.8 | 48.0 | 32.0 | 22.0 | 19.2 | 10.0 | 4.24 | 2.16 | 1.88 | 0.96 |
| 1.90 | 88.3 | 58.5 | 43.6 | 28.8 | 20.0 | 17.4 | 9.12 | 3.86 | 1.98 | 1.75 | 0.88 |
| 1.95 | 77.8 | 51.7 | 37.2 | 24.8 | 17.0 | 15.0 | 7.70 | 3.22 | 1.62 | 1.43 | 0.73 |

| Constant Power Discharge Data (25°C, W/cell) | | | | | | | | | | | |
|--|-----|-----|------|------|------|------|------|------|------|------|------|
| End Voltage (V/cell) | h | | | | | | | | | | |
| | 1 | 2 | 3 | 5 | 8 | 10 | 20 | 50 | 100 | 120 | 240 |
| 1.70 | 205 | 132 | 98.5 | 67.0 | 46.4 | 39.6 | 20.8 | 8.82 | 4.60 | 3.93 | 2.02 |
| 1.75 | 200 | 130 | 96.6 | 65.8 | 45.4 | 39.0 | 20.6 | 8.72 | 4.52 | 3.88 | 1.98 |
| 1.80 | 192 | 128 | 93.0 | 63.6 | 44.2 | 38.0 | 20.0 | 8.50 | 4.42 | 3.80 | 1.95 |
| 1.85 | 184 | 124 | 91.2 | 61.0 | 42.2 | 37.2 | 19.4 | 8.30 | 4.22 | 3.72 | 1.90 |
| 1.90 | 170 | 113 | 84.6 | 56.2 | 39.0 | 34.0 | 17.8 | 7.56 | 3.92 | 3.47 | 1.75 |
| 1.95 | 152 | 100 | 72.8 | 48.6 | 33.4 | 29.5 | 15.2 | 6.34 | 3.20 | 2.84 | 1.46 |

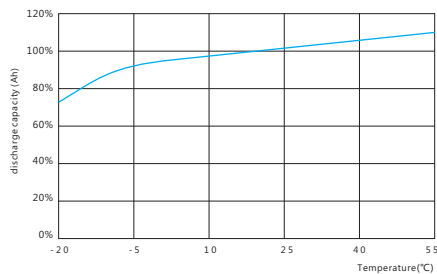
Performance Curve



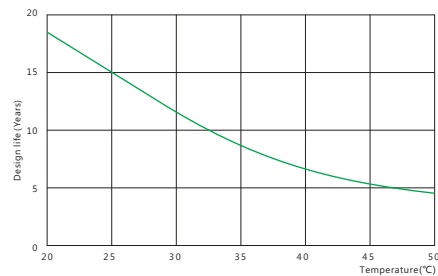
Charging characteristic



Cycle life vs. discharge depth



Discharge capacity vs. temperature



Design life vs. temperature

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