

EV506G-250

DATA SHEET



EV Traction Gel Industrial Battery Block

Discover® EV Traction GEL Batteries provide superior integrity and reliability. The maintenance-free, thick plate construction, designed to deliver excellent cycle life and very good run times at high operating voltages in tough industrial use with regular discharges, makes the EV Gel Series an excellent choice for robust industrial applications.

Benefits & Features

Maintenance-Free Clean & Green® choice of Original Equipment Manufacturers.

Traction heavy duty grid design (PbCaSn) gives consistent active material adhesion and corrosion resistance.

High impact reinforced copolymer and polypropylene cases with flat top designs.

A recognized gas recombination efficiency of greater than 99.9%.

Multiple terminal, configuration options and carrying handles available with most models.

Classified as a non-spillable battery and is not restricted for transportation by:

- Air (IATA/ICAO provision 67)
- Surface (DOT-CFR-HMR49)
- Water (per IMDG amendment 27)

Compatible with sensitive electronic equipment.

Comprehensive design to conserve resources, improve safety and reduce waste. 98% recyclable.

Certified Quality

Designed in accordance with and published in compliance with applicable BCI, IEC and BS EN standards, including:

- IEC60896-21/22
- BS EN 60254-1:2005
- AS/NZS 4029.2:2000 BS EN 60254-1:2005 (MOD)

Discover® and its facilities and products are certified to multiple standards:

- ISO, UL, QS, and TUV standards
- ETTS Germany
- Euro Bat classification for Environmental Stewardship Standards

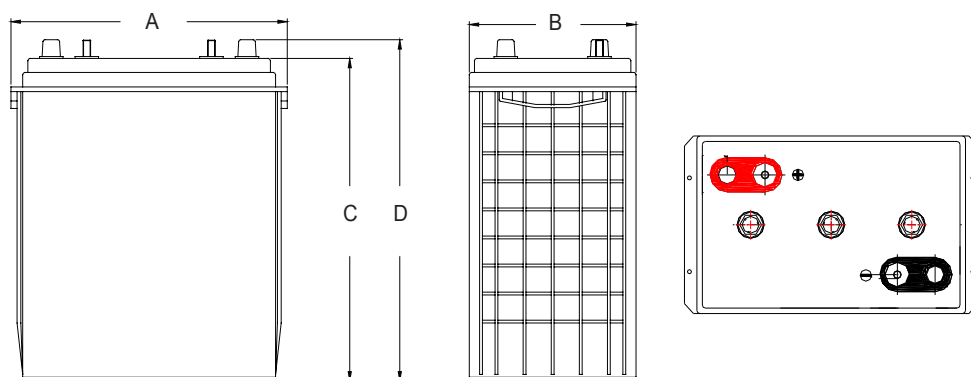


Contact Us

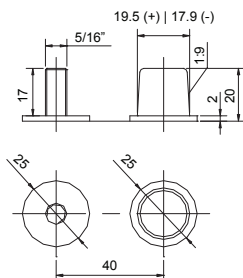


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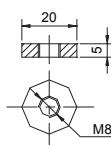
Mechanical Drawings



Terminal (AM)



Optional Terminal (M8)



Mechanical Specifications

| | | |
|--------------------|---------|--------|
| Industry Reference | 902-305 | |
| Length (A) | 11.6 in | 295 mm |
| Width (B) | 7.1 in | 180 mm |
| Height (C) | 13.6 in | 245 mm |
| Total Height (D) | 14.4 in | 365 mm |
| Weight | 99 lbs | 45 kgs |
| Terminal (Opt'l)* | AM (M8) | |
| Cells | 3 cells | |
| Electrolyte | Gel | |

Electrical Specifications

| | |
|------------------------------|-------------------------------------|
| Volts | 6 V |
| 80% DOD Voltage Cutoff | 5.9 V |
| RINT | 1.35 mOhms |
| Short Circuit (-68°F 20°C) | 4080 A |
| Self Discharge | <3% of capacity month @ 20°C (68°F) |
| Charging | -20°C (-4°F) 60°C (140°F) |
| Discharge | -10°C (14°F) 60°C (140°F) |
| Storage | -20°C (-4°F) 60°C (140°F) |

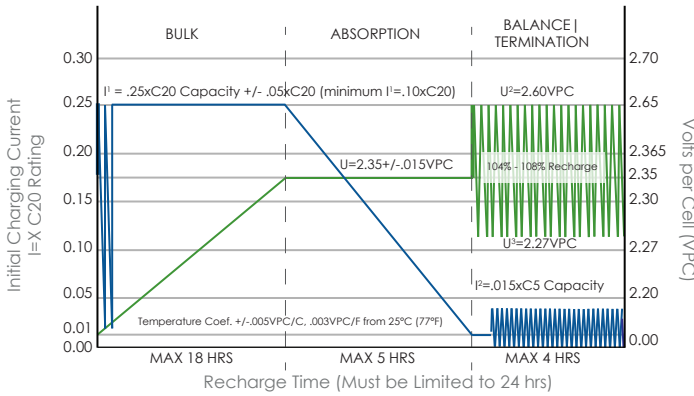
*TERMINAL TORQUE: Please refer to our document, located in the Resources webpage (www.discover-energy.com/resources/).

Electrical Specifications

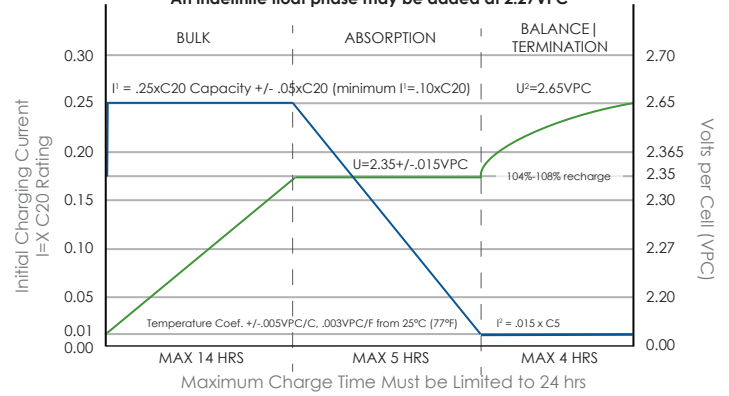
| Amp Hours (AH) | | | | | | Minutes of Discharge | | | | |
|----------------|-------|-------|------|------|------|----------------------|------|------|------|-------|
| 100 HR | 20 HR | 10 HR | 5 HR | 3 HR | 1 HR | @25A | @56A | @75A | @85A | @100A |
| 330 | 285 | 270 | 250 | 230 | 190 | 675 | 275 | 200 | 165 | 140 |

| Max Charge Discharge Currents | Peak (5 seconds) | Peak (10 seconds) | Max Continuous | Recommended Max Continuous |
|---------------------------------|------------------|-------------------|----------------|----------------------------|
| Charge | 1C10Hr | 0.75C10Hr | 0.5C10Hr | 0.3C10Hr |
| Discharge | 2C10Hr | 1.5C10Hr | 1C10Hr | 0.5C10Hr |

Constant Current IUI Pulse Termination

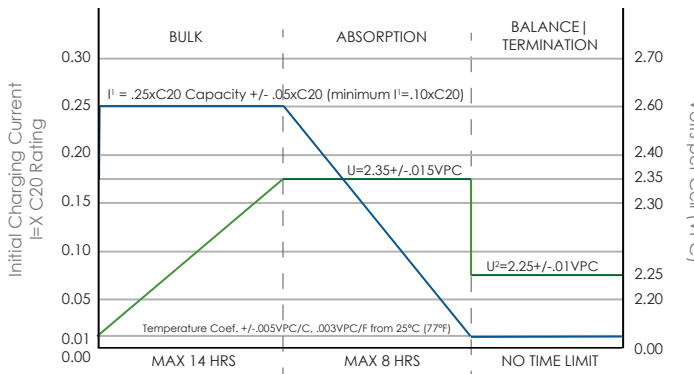


Constant Current IUI

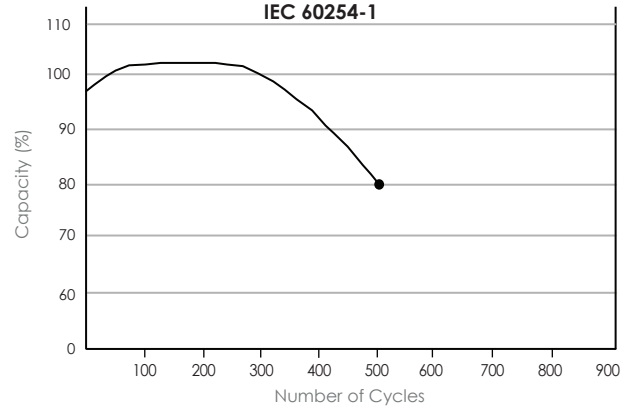


NOTE 1: This algorithm uses a pulse termination criterion. As a safety precaution during the Finish phase, if the average cell voltage, or volts per cell (vpc), exceeds U2 and the charger output has been on for more than 30 seconds, the output is shut off until the vpc falls to U3. The finish phase then resumes and this "pulsing" continues until the target overcharge (104% - 108%) is reached.
NOTE 2: Due to self-discharge characteristics of lead acid battery technologies, all batteries must be charged within 6 months of storage to prevent a possible permanent loss of capacity as a result of sulfation.

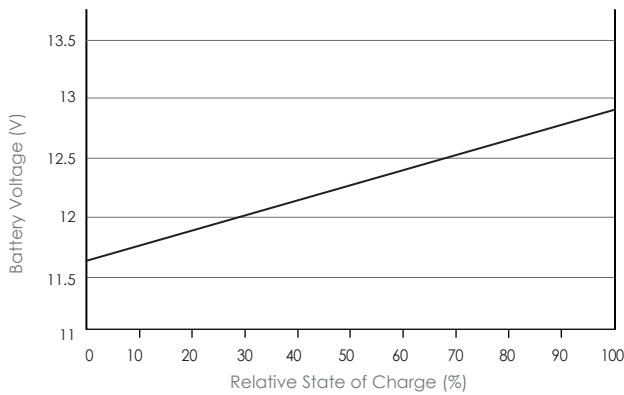
Voltage Regulated IUI



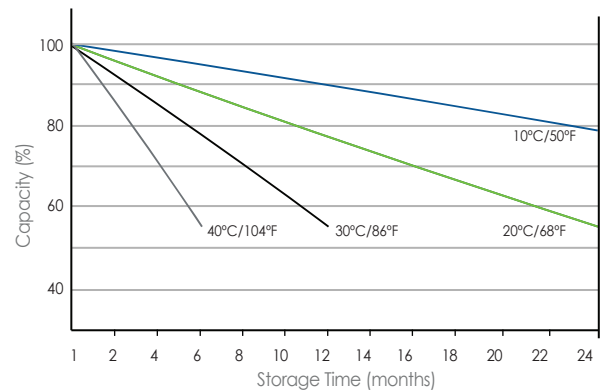
Cycle Service Life in Relation to Depth Discharge



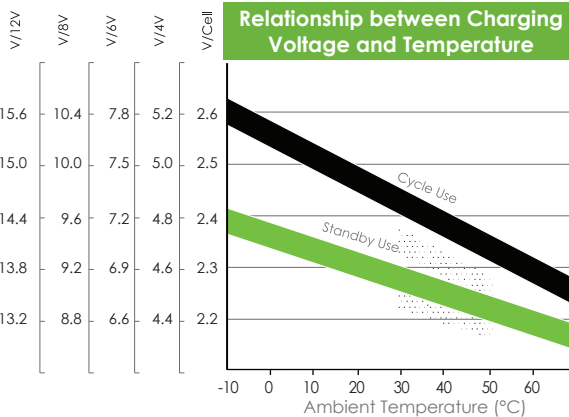
Relationship of OCV and SOC (20°C)



Storage Time in Relation to Self-Discharge



Relationship between Charging Voltage and Temperature



Temperature Effects on Capacity

