

D25000 DATASHEET

Valve Regulated Lead Acid Battery

Discover[®] AGM Series VRLA Industrial Batteries provide superior high integrity and reliability for commercial, industrial, and private applications. The maintenance-free Valve Regulated Lead Acid (VRLA) construction make Discover[®] Standard AGM Series Batteries the definitive choice for mobility and Home Medical Equipment (HME), solar and renewable energy, electronics and security, marine and RV, and utility applications.

MECHANICAL DRAWINGS

MECHANICAL SPECIFICATIONS

Length (A)

Width (B)

Height (C)

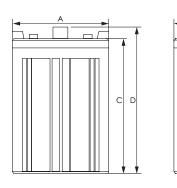
Weight

Cells

Electrolyte

Total Height (D)

Terminal (Opt'l)



9 49 in

6.89 in

13.0 in

14.4 in

68.2 lbs

F10

1

AGM

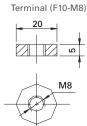
241 mm

175 mm

330 mm

365 mm

31 kgs



0

ELECTRICAL SPECIFICATIONS

| Voltage | 2 V | | | | | |
|---------------------------|-------------------------------|--|--|--|--|--|
| Internal Resistance | 0.8 mΩ | | | | | |
| Short Circuit 20°C (68°F) | - | | | | | |
| 20 HR | 540 Ah | | | | | |
| 10 HR | 500 Ah | | | | | |
| 5 HR | 440 Ah | | | | | |
| 1 HR | 300 Ah | | | | | |
| 15 MIN | - | | | | | |
| Charge Temperature | -10°C (14°F) to 50°C (122°F) | | | | | |
| Discharge Temperature | -20°C (-4°F) to 50°C (122°F) | | | | | |
| Maximum Discharge* | -40°C (-40°F) to 60°C (140°F) | | | | | |

BENEFITS & FEATURES

Tank formed lead-tin-calcium plates deliver consistent dependable performance and promote long life.

Maintenance-free technology.

99% gas recombination for extended life in float applications.

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)

• Ground (STB, DOT-CFR-HMR49)

Water (per IMDG amendment 27)

Flame retardant ABS case and cover with UL94 V0 rating available.

UL924 recognized flame arresting low pressure safety vents.

98% recyclable.

Up to 12 year design life in float service.

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



End Point V/C 5 MIN 10 MIN 15 MIN

DISCHARGE CONSTANT CURRENT (AMPERES AT 25°C/77°F)

TERMINAL TORQUE: Please refer to our document, located in the

*CAUTION: Extra considerations must be given to depths of discharge, operating voltages and currents when designing systems for use at maximum temperatures.

Resources webpage (discoverbattery.com/resources).

| End Point V/C | 5 MIN | 10 MIN | 15 MIN | 30 MIN | 1 HR | 3 HR | 5 HR | 10 HR | 20 HR |
|---------------|-------|--------|--------|--------|------|------|------|-------|-------|
| 1.60V | - | 937 | 711 | 500 | 300 | 134 | 94.5 | 53.8 | - |
| 1.65V | - | 888 | 677 | 480 | 290 | 130 | 92.5 | 53.1 | - |
| 1.70V | - | 837 | 642 | 460 | 278 | 126 | 90.5 | 52.2 | - |
| 1.75V | - | 785 | 606 | 432 | 266 | 122 | 88.0 | 51.2 | - |
| 1.80V | - | 733 | 570 | 405 | 253 | 115 | 85.0 | 50.0 | - |

DISCHARGE CONSTANT POWER (WATTS AT 25°C/77°F)

| End Point V/C | 5 MIN | 10 MIN | 15 MIN | 30 MIN | 45 MIN | 1 HR | 2 HR | 3 HR | 5 HR |
|---------------|-------|--------|--------|--------|--------|------|------|------|------|
| 1.60V | - | 1546 | 1156 | 930 | 771 | 625 | 378 | 270 | 167 |
| 1.65V | - | 1457 | 1094 | 883 | 736 | 599 | 361 | 260 | 164 |
| 1.70V | - | 1366 | 1030 | 836 | 699 | 572 | 345 | 247 | 161 |
| 1.75V | - | 1276 | 967 | 787 | 661 | 543 | 330 | 236 | 157 |
| 1.80V | - | 1187 | 903 | 738 | 623 | 514 | 304 | 217 | 149 |

CHARGE AND DISCHARGE

| Max Charge / Discharge Currents | Peak (5 seconds) | Peak (10 seconds) | Max Continuous |
|------------------------------------|---------------------|----------------------|-------------------|
| Charge | 1c20 | 0.75c20 | 0.25c20 |
| Discharge | 15c20 | 10c20 | 0.5c20 |

Float (Stand-By) Use: Hold a constant voltage of 2.25vpc to 2.30vpc continuously. When held at this voltage, the battery will seeks its own current level and maintain itself in a fully charged condition.

Cyclic Use: Limit initial currents to 0.25C20 amps. Charge until battery voltage reaches 2.40 to 2.45vpc. Hold at 2.40 to 2.45vpc until current drops to under 0.01C20 amps. Battery is fully charged under these conditions, and charger should be disconnected or switched to "float" voltage.

Charging is not necessary unless 100% of capacity is required.

Charging before use is necessary to recover full capacity

Charge may fail to restore full capacity. Do not let battery reach this state.

5°C/41°F

20°C/68°F

Temperature Coefficient: Adjust charging voltage to +/- 0.005vpc (C, 0.003vpc/F) from 25°C (77°F).

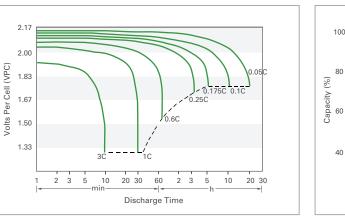
40°C/104°F 30°C/86°F

SELF-DISCHARGE CHARACTERISTICS

40

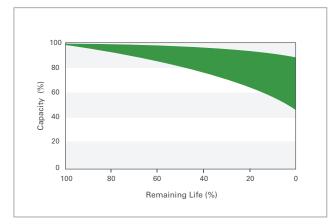
1

2 4 6 8 10 12 14 16 18 20



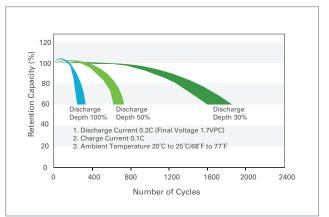
LIFE CHARACTERISTICS IN STAND-BY USE

DISCHARGE CHARACTERISTICS (20°C/68°F)

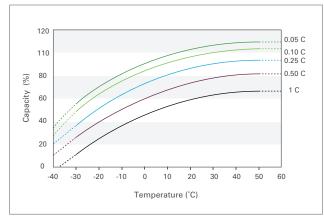


LIFE CHARACTERISTICS IN CYCLIC USE (CYCLIC MODELS ONLY)

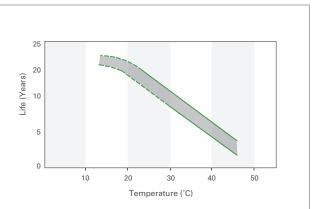
Storage Period (Months)



TEMPERATURE EFFECTS ON CAPACITY



TEMPERATURE EFFECTS ON FLOAT LIFE



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