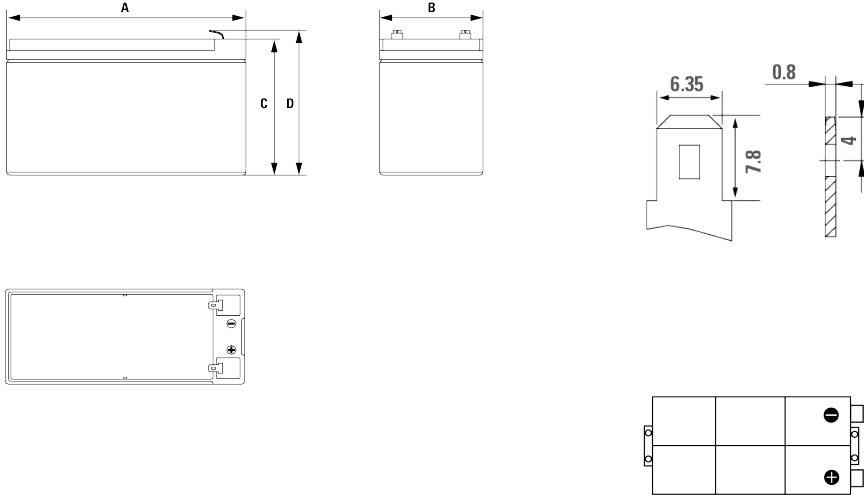




AGM Float Standby Battery

Discover® VRLA AGM Float Standby batteries deliver high reliability in general purpose applications to avoid disruptions in life and productivity. The batteries are maintenance-free and the ideal solution for medical devices, security systems and emergency lighting, among other applications.



BENEFITS

EXTENDED SERVICE LIFE

- Up to 5 year design life
- Low self-discharge rates prolongs shelf life
- 99% gas recombination extends life

EXTREME TEMPERATURES

- Wide ambient operating temperature
- Low temperature operation superior to FLA / Gel batteries

RELIABLE AND SAFE

- Valve Regulated Lead-Acid, AGM
- Maintenance-free, nonspillable, no-gassing
- Flame retardant (UL94:V0) ABS case and cover available

CERTIFIED QUALITY

Discover® manufacturing facilities are fully certified to ISO 9001/14001 and OSHA 18001 standards.

Designed in accordance with and published in compliance with applicable standards, including:

- IEC 60896-21/22
- BS EN 60254-1:2005
- UL, CE Health Safety Certified

SHIPPING CLASSIFICATION

- Classified as a nonspillable battery
- Without restriction for transport by Sea (IMDG amendment 27)
- Without restriction for transport by Air (IATA/ICAO provision 67)
- Without restriction for transport by Ground (STB, DOT-CFR-HMR49)

MECHANICAL SPECIFICATIONS

| | | |
|------------------------|-----------|------|
| Industry Reference | | |
| Length A (in/mm) | 5.9 | 151 |
| Width B (in/mm) | 2.6 | 65 |
| Height C (in/mm) | 3.7 | 95 |
| Total Height D (in/mm) | 4 | 101 |
| Weight (lbs/kgs) | 5.39 | 2.45 |
| Terminal * | F2 | |
| Technology | AGM, VRLA | |

NOTE 1: Dimensions have a ±2 mm (0.08 in) tolerance. Weights may vary.

NOTE 2: Refer to terminal guide on website for torque values.

ELECTRICAL SPECIFICATIONS

| | |
|---------------------------------|--|
| Voltage (V) | 12 |
| Internal Resistance (mΩ) | 25 |
| Short Circuit (A) (20°C / 68°F) | 400 |
| Self-Discharge (20°C / 68°F) | 2-3% per month |
| Charge Temperature | Min: -10°C (14°F) Max: 50°C (122°F) |
| Discharge Temperature | Min: -40°C (-40°F) Max: 50°C (122°F) |
| Storage Temperature | 12 |

NOTE 3: Extra considerations must be given when designing systems for use at maximum temperatures. Internal Resistance is approximate.

NOTE 4:

PERFORMANCE SPECIFICATIONS

| Amp Hours (AH) | | | |
|----------------|------|-------|-------|
| 1 HR | 5 HR | 10 HR | 20 HR |
| 5.8 | 7.7 | 8.5 | 9 |

1HR @ 1.60VPC; 5HR @ 1.75VPC; 10 HR @ 1.80VPC; 20 HR @ 1.80VPC. All at 30°C/86°F

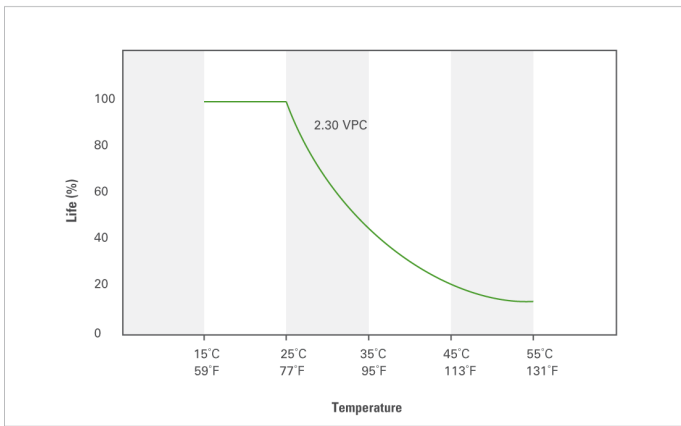
| Discharge Constant Current (Amperes) @ 25°C / 77°F | | | | | | | | | |
|--|-------|--------|--------|--------|------|------|------|-------|-------|
| VPC/Time | 5 MIN | 10 MIN | 15 MIN | 30 MIN | 1 HR | 3 HR | 5 HR | 10 HR | 20 HR |
| 1.60 VPC | 32.50 | 24.00 | 16.80 | 9.90 | 5.80 | 2.33 | 1.60 | 0.90 | 0.48 |
| 1.65 VPC | 31.70 | 23.50 | 16.30 | 9.79 | 5.75 | 2.29 | 1.56 | 0.89 | 0.47 |
| 1.70 VPC | 30.50 | 22.70 | 15.80 | 9.36 | 5.71 | 2.25 | 1.55 | 0.88 | 0.47 |

| | | | | | | | | | |
|----------|-------|-------|-------|------|------|------|------|------|------|
| 1.75 VPC | 29.80 | 21.80 | 14.80 | 8.91 | 5.66 | 2.20 | 1.54 | 0.87 | 0.46 |
| 1.80 VPC | 29.20 | 21.00 | 13.90 | 8.45 | 5.51 | 2.14 | 1.53 | 0.85 | 0.45 |

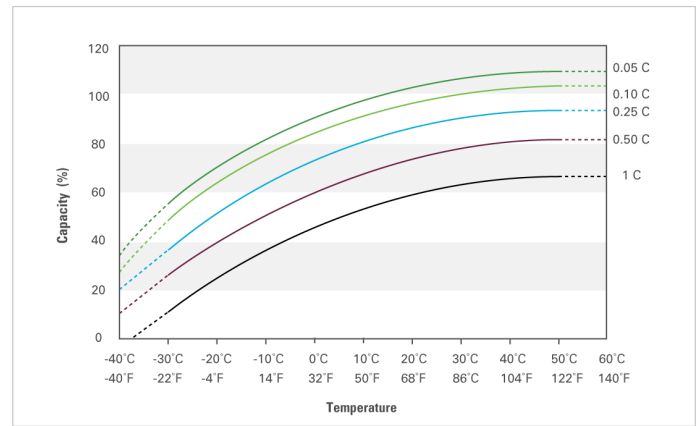
| Discharge Constant Power (Watts) @ 25°C / 77°F | | | | | | | | | |
|--|-------|--------|--------|--------|-------|------|------|-------|-------|
| VPC/Time | 5 MIN | 10 MIN | 15 MIN | 30 MIN | 1 HR | 3 HR | 5 HR | 10 HR | 20 HR |
| 1.60 VPC | 71.70 | 44.80 | 34.60 | 19.60 | 11.50 | 4.34 | 3.10 | | |
| 1.65 VPC | 68.30 | 44.30 | 34.10 | 19.10 | 11.20 | 4.29 | 3.04 | | |
| 1.70 VPC | 64.80 | 42.90 | 32.10 | 18.50 | 11.00 | 4.20 | 2.98 | | |
| 1.75 VPC | 61.40 | 41.10 | 31.20 | 17.60 | 10.70 | 4.08 | 2.92 | | |
| 1.80 VPC | 58.00 | 39.20 | 29.40 | 16.60 | 10.40 | 3.92 | 2.85 | | |



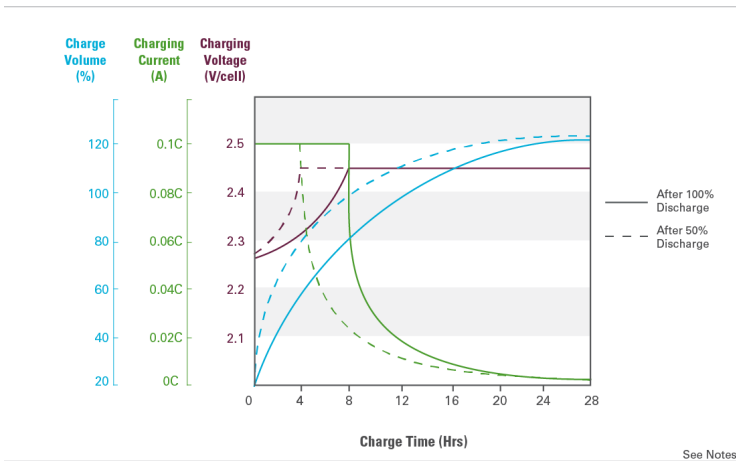
Temperature Effects on Float Life



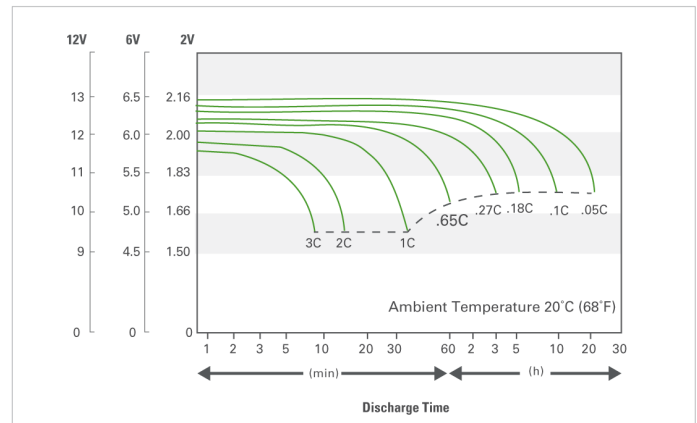
Temperature Effects on Capacity



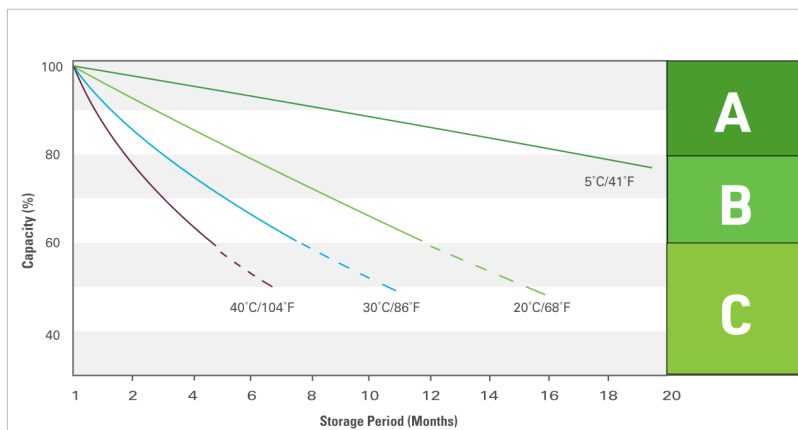
Charge Characteristics (Cyclic)



Discharge Characteristics



Self-Discharge Characteristics



Self Discharge Characteristics

- A** Charging is not necessary unless 100% of capacity is required.
- B** Charging before use is necessary to recover full capacity.
- C** Charge may fail to restore full capacity. Do not let battery reach this state.

NOTES

- ¹ Due to self-discharge characteristics of lead acid battery technologies, batteries should be charged within 6 months of storage to ensure optimum performance, prevent sulphation and permanent capacity loss.
- ² Charge profile recommendations correspond to battery voltages at 25°C (77°F). For temperatures below, adjust +5mVPC/°C (+3mVPC/°F). Temperatures above, adjust -5mVPC/°C (-3mVPC/°F). Temperature compensated charging helps ensure optimum battery runtime and life performance.
- ³ Charge until battery voltage reaches 2.45VPC and hold until current tapers down to 0.01C20 amps. Battery is fully charged under these conditions and charger should be disconnected or switched to "float" voltage. For standby / float use, a constant charge voltage of 2.25-2.30VPC is also acceptable. Hold until the battery seeks its own current level and maintain itself in a fully charged condition.

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