



**AGM Float Standby Battery**

Discover<sup>®</sup> 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**

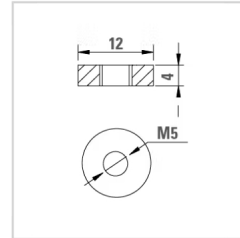
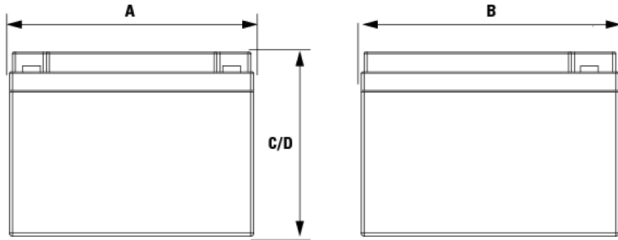
Discover<sup>®</sup> manufacturing facilities are fully certified to ISO 9001/14001 and OSHA 18001 standards.

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

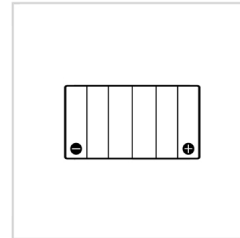
- IEC 60896-21/22
- BS EN 60254-1:2005
- UL, CE Health Safety Certified

**SHIPPING CLASSIFICATION**

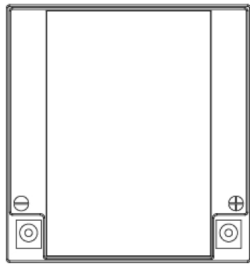
- Classified as a nonspillable battery
- Without restriction for transport by Sea (IMDG amendment 27)
- Without restriction for transport by Air (IATA/ICAO provision 67)
- Without restriction for transport by Ground (STB, DOT-CFR-HMR49)



TERMINAL



LAYOUT



**MECHANICAL SPECIFICATIONS**

Length A (in/mm)	6.5	166
Width B (in/mm)	6.9	175
Height C (in/mm)	4.9	125
Total Height D (in/mm)	4.9	125
Weight (lbs/kgs)	17.1	7.8
Terminal *	F13M5	
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)	12
Short Circuit (A) (20°C / 68°F)	1000
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: -20°C (-4°F)   Max: 50°C (122°F)
Storage Temperature	-20°C (-4°F) to 60°C (140°F)

NOTE 3: Extra considerations must be given when designing systems for use at maximum temperatures.  
NOTE 4: Internal Resistance is approximate.

**PERFORMANCE SPECIFICATIONS**

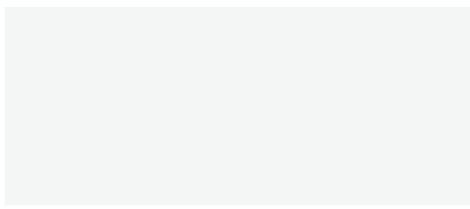
Amp Hours (AH)			
1 HR	5 HR	10 HR	20 HR
16	23	24	26

15MIN @ 1.67VPC; 1HR @ 1.60VPC; 5HR @ 1.75VPC; 10 HR @ 1.80VPC; 20 HR @ 1.80VPC. All at 30°C/86°F

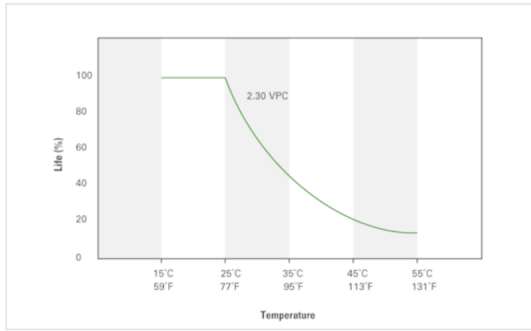
Discharge Constant Current (Amperes) @ 25°C / 77°F									
VPC/Time	5 MIN	10 MIN	15 MIN	30 MIN	1 HR	3 HR	5 HR	10 HR	20 HR
1.60 VPC	102.00	70.00	50.00	29.50	15.80	78.00	4.73	2.48	1.32
1.65 VPC	96.50	66.30	47.70	28.20	15.60	6.84	4.64	2.44	1.32
1.70 VPC	91.00	62.50	45.30	26.90	15.40	6.70	4.55	2.40	1.31
1.75 VPC	85.40	58.50	43.00	26.40	15.10	6.55	4.46	2.35	1.30
1.80 VPC	79.80	54.30	40.80	25.00	14.80	6.40	4.35	2.30	1.28

Discharge Constant Power (Watts) @ 25°C / 77°F									
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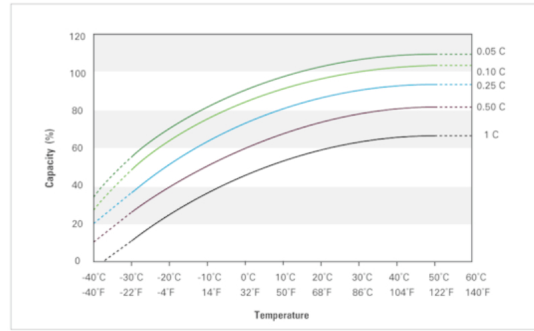
VPC/Time	5 MIN	10 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	5 HR
1.60 VPC	194.00	127.00	94.50	57.80	42.00	33.30	20.60	14.10	8.97
1.65 VPC	182.00	120.00	89.40	54.90	40.10	31.80	20.00	13.80	8.81
1.70 VPC	169.00	112.00	84.20	51.90	38.10	30.30	19.20	13.10	8.63
1.75 VPC	159.00	105.00	79.00	48.90	36.00	28.90	18.50	12.60	8.43
1.80 VPC	146.00	97.30	73.80	45.90	33.90	27.30	17.70	12.00	8.22



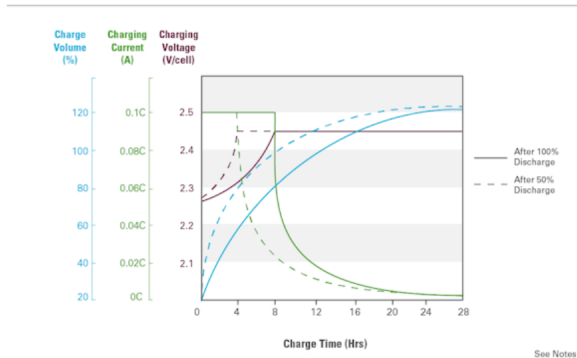
## Temperature Effects on Float Life



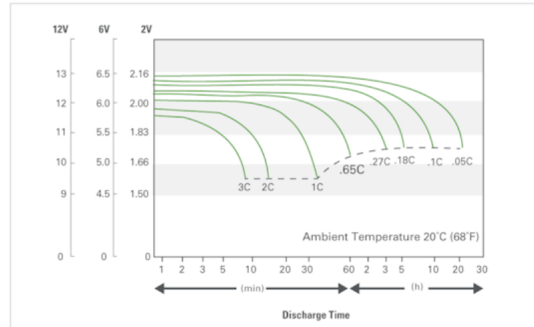
## Temperature Effects on Capacity



## Charge Characteristics (Cyclic)



## Discharge Characteristics



## Self-Discharge Characteristics



## 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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