

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.

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Voltage

20 HR

10 HR

5 HR

1 HR

15 MIN

**Charge Temperature** 

**Discharge Temperature** 

Maximum Discharge\*

Internal Resistance

Short Circuit 20°C (68°F)





**ELECTRICAL SPECIFICATIONS** 

21/

0.3 mΩ

2150 Ah

2000 Ah

1790 Ah

1230 Ah

-10°C (14°F) to 50°C (122°F)

-20°C (-4°F) to 50°C (122°F)

-40°C (-40°F) to 60°C (140°F)

## **MECHANICAL SPECIFICATIONS**

Length (A)	19.3 in	490 mm			
Width (B)	13.8 in	350 mm			
Height (C)	13.6 in	345 mm			
Total Height (D)	15.04 in	382 mm			
Weight	270.6 lbs	123 kgs			
Terminal (Opt'l)	F10				
Cells	1				
Electrolyte	AGM				

TERMINAL TORQUE: Please refer to our document, located in the Resources webpage (discoverbattery.com/resources).

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

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

End Point V/C	5 MIN	10 MIN	15 MIN	30 MIN	1 HR	3 HR	5 HR	10 HR	20 HR
1.60V	-	3620	2725	2100	1230	545	384	214	-
1.65V	-	3430	2295	2008	1205	535	378	211	-
1.70V	-	3240	2460	1910	1180	520	370	208	-
1.75V	-	3040	2320	1810	1150	500	358	204	-
1.80V	-	2830	2180	1710	1120	480	345	200	-

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

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	End Point V/C	5 MIN	10 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	5 HR
	1.60V	-	5754	4654	3543	2673	2206	1488	1018	706
	1.65V	-	5422	4404	3365	2551	2130	1431	1001	701
	1.70V	-	5084	4152	3185	2422	2052	1368	987	692
	1.75V	-	4750	3892	3000	2290	2023	1338	966	678
	1.80V	-	4416	3636	2812	2160	1908	1274	904	663

### **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, OS, and TUV standards
- ETTS Germany
  Euro Bat classification for Environmental Stewardship Standards



#### **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

100

80

60

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**



Discover<sup>®</sup> attempts to ensure the correctness of the product description and data contained herein. We reserve the right to change designs, specifications and pricing at any time without notice or obligation. It is the responsibility of the reader of this information to verify any and all information presented herein.