Discover®
Innovative Battery Solutions

D27A-100D

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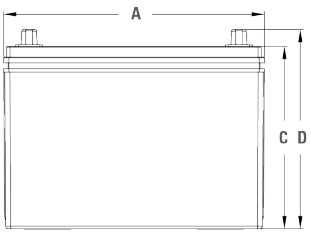
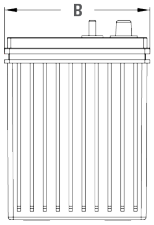
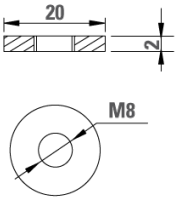
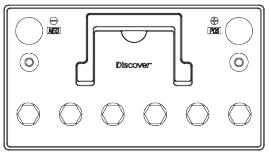
AGM Mobile Deep Cycle Battery

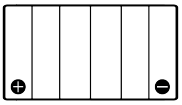
Discover® VRLA AGM Mobile Deep Cycle batteries are built for mobile applications that undergo frequent vibration and require large power demands such as RV, Caravan, Marine and Home Medical Equipment. The batteries are safe, nonspillable, maintenance-free and are trusted by boat and recreational vehicle owners.











FEATURES

ENHANCED ALLOYS

- Thick plates with graphite enhanced alloys deliver maximum runtime over operational life

AUTOMATED THROUGH-THE-PARTITION WELD

- Improved intercell weld consistency, and less lead waste than manual welding process
- Supports higher current loads and lowers internal resistance

POLYPROPYLENE CASE

- High heat resistance and durability (key industry models)
- High pressure relief valves reduce water loss and extend life
- Integrated flame arrestors prevent fire and explosion

BENEFITS

ENHANCED RUNTIME

- Consistent amp hour capacity over lifetime
- High operational voltage over lifetime

EXTENDED SERVICE LIFE

- Low self-discharge rates prolongs shelf life
- 99% gas recombination extends life
- Long life superior to general purpose cyclic batteries

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
- Spark and explosion tested (SAE J1495)

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	BCI: 27 JIS1: D31R	
Length A (in/mm)	12.1	308
Width B (in/mm)	6.8	172
Height C (in/mm)	8.3	212
Total Height D (in/mm)	8.4	214
Weight (lbs/kgs)	61	27.8
Terminal *	F10M8	
Technology	AGM	

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 (m?)	4.44
Short Circuit (A) (20°C / 68°F)	2700
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	-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 and Short Circuit is approximate.

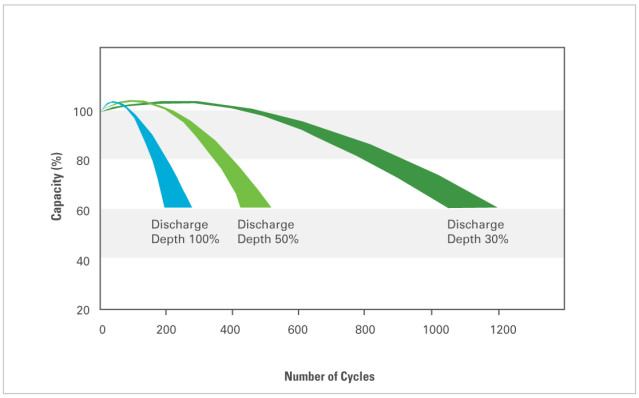
PERFORMANCE SPECIFICATIONS

Amp Hours (AH)			Minutes of Discharge		Cranking Amps	
5 HR	10 HR	20 HR	@25A	@75A	CA (0°C/32°F)	CCA (-18°C/0°F)
82	94	100	180		830	690

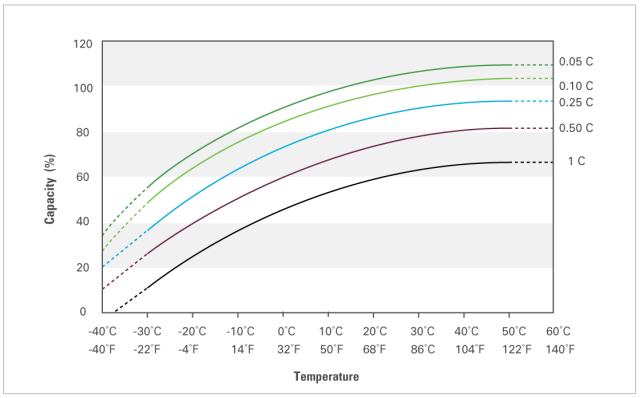
Capacities: 1.75VPC at 30°C/86°F

ISO 14001
DIN ISO 9001/QS9000

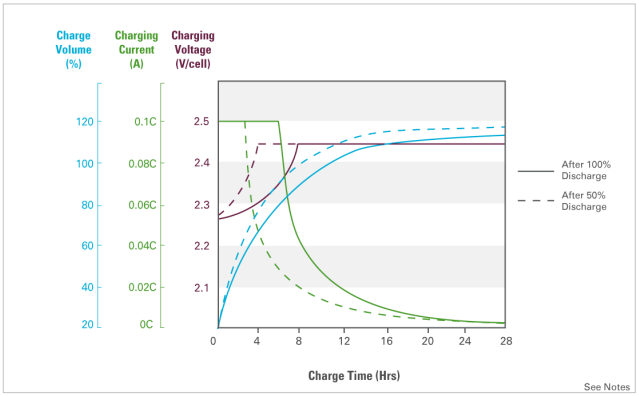
Cycle Life Characteristics



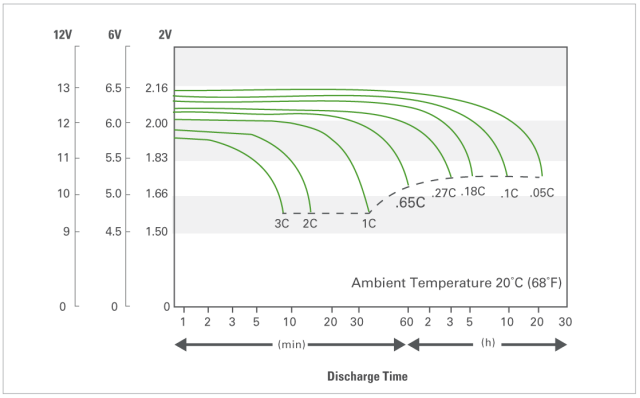
Temperature Effects on Capacity



Charge Characteristics



Discharge Characteristics



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.