G U A R D I A N

NON-SPILLABLE RECHARGEABLE BATTERIES

DG 12-32

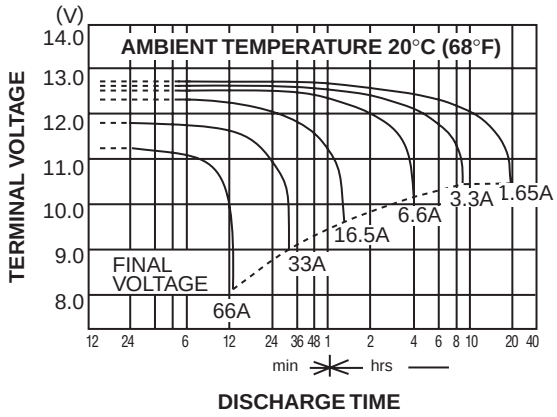
Guardian rechargeable batteries are based on valve-regulated, lead-acid technology. The dilute sulphuric acid electrolyte is completely immobilized in an absorptive glass mat between the plates. Gases generated during overcharge are internally recombined at a high efficiency. The small amount of gas that doesn't recombine is allowed to escape by means of a special one-way vent valve, thus avoiding excessive pressure build-up. As a result of these design features, the battery is leak proof, non-corrosive, maintenance-free, and usable in any position.

PERFORMANCE SPECIFICATIONS

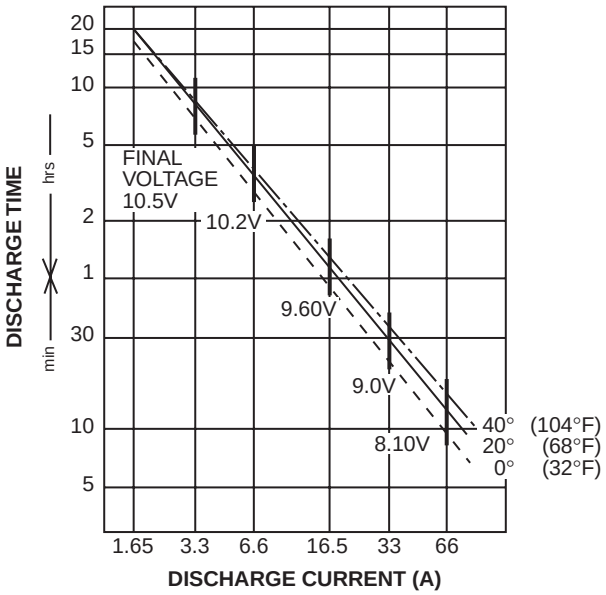
Nominal Voltage	12 volts (6 cells in series)
Nominal Capacity	
20 hour rate (1600mA to 10.50 volts)	32.0 A.H.
10 hour rate (3000mA to 10.50 volts)	30.0 A.H.
5 hour rate (5000mA to 10.20 volts)	25.0 A.H.
1 hour rate (20000mA to 09.00 volts)	20.0 A.H.
Approximate Weight	26.5 pounds (12 kg)
Energy Density (20 hour rate)	1.5 Watt-hours/cubic inch (95.19 Watt-hours/l)
Specific Energy (20 hour rate)	14.9 Watt-hours/pound (33.0 Watt-hours/kg)
Internal Resistance (Fully Charged Battery)	10 milliohms (approximately)
Cold Crank Amperage Rating (0°F)	275 amperes
BCI Group Size	U1
Maximum Discharge Current (5 min.)	140 amperes
Maximum Short-Duration Discharge Current (5 sec.)	500 amperes
Standard Terminals	Type J[1] - Heavy Duty posts for nut and bolt terminals
Vibration Test (2000 cycles/minute, 0.10 inch excursion, 2 hours)	No loss in capacity or performance
Shelf Life – % of nominal capacity at 68°F (20°C)	
1 Month	97%
3 Months	91%
6 Months	83%
Operating Temperature Range	
Charge (temp. compensated)	32°F (0°C) to 122°F (50°C)
Discharge	5°F (–15°C) to 140°F (60°C)
Case	Polypropylene

1 - Model DG12-32JH adds carrying handle.

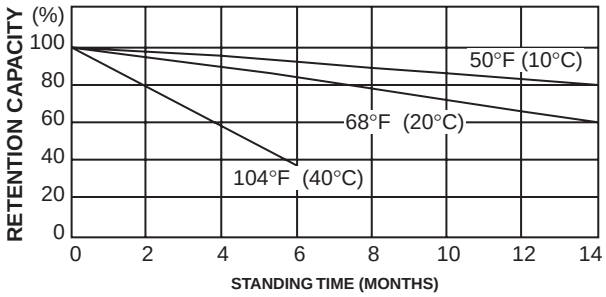
DISCHARGE CHARACTERISTICS



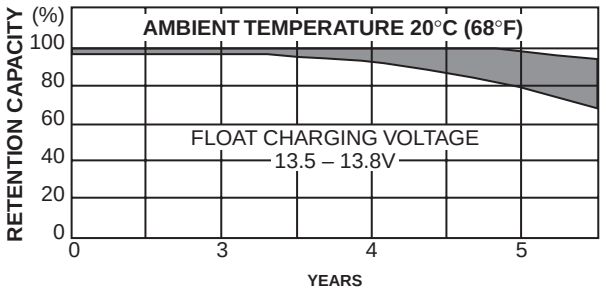
DISCHARGE TIME *vs.* DISCHARGE CURRENT



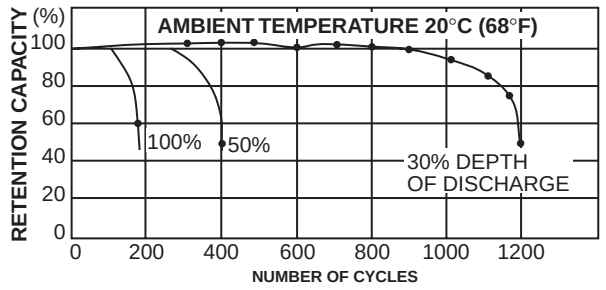
SHELF LIFE AND STORAGE



LIFE CHARACTERISTICS IN STAND-BY USE



LIFE CHARACTERISTICS IN CYCLIC USE



CHARGING

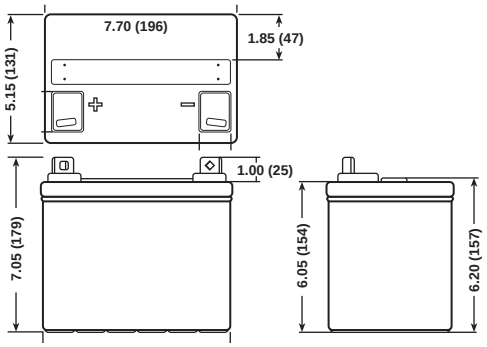
Cycle Applications: Limit initial current to 6600mA. Charge until battery voltage (under charge) reaches 14.40 to 14.70 volts at 68°F (20°C). Hold at 14.40 to 14.70 volts until current drops to approximately 330mA. Battery is fully charged under these conditions, and charger should either be disconnected or switched to "float" voltage.

"Float" or "Stand-By" Service: Hold battery across constant voltage source of 13.50 to 13.80 volts continuously. When held at this voltage, the battery will seek its own current level and maintain itself in a fully charged condition.

NOTE: Due to the self-discharge characteristics of this type of battery, it is imperative that they be charged after 6-9 months of storage, otherwise permanent loss of capacity might occur as a result of sulfation.

PHYSICAL DIMENSIONS

DIMENSIONS: Inches (mm)



Tolerances are ±0.05 in. (±1mm) and ±0.08 in. (±2mm) for height dimensions.

M-0585 Rev. 7-99

DOUGLAS BATTERY
Connect with a leader.

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