

DC85-12 DATA SHEET



DC85-12

85AH@20HR

12-Volt

DEEP CYCLE

**Maintenance-Free
Sealed AGM Battery**

Nominal Specifications

Battery Model	DC85-12	Rated Capacity	85AH/20HR
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Mechanical Specifications

Group Size	24	
Overall Height (H)	215±2mm	8.46"
Container Height (h)	211±2mm	8.31"
Length	260±2mm	10.24"
Width	169±2mm	6.65"
Weight	Approx.25.1kg	55.34lbs.
Terminal Type	M8- Button Terminal	
Terminal Torque	9.6-10.7 N.m	
Container Material	ABS Standard UL 94-HB	

Temperature Range Specifications

Operating Temperature Range	Discharge: -15 ~ +50 (5 ~ 122 °F)
	Charge: -15 ~ +40 (5 ~ 104 °F)
	Storage: -15 ~ +40 (5 ~ 104 °F)
Recommended Operating Temperature Range	+74 °F (23 °C) to +80 °F (27 °C)
Self-Discharge	Less than 10% after 90 days, can be stored up to 6 months at 25 (77 °F); Fully recharging is required before usage, For higher temperatures the time interval will be shorter.

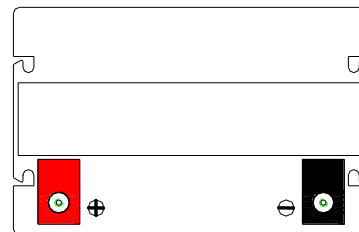
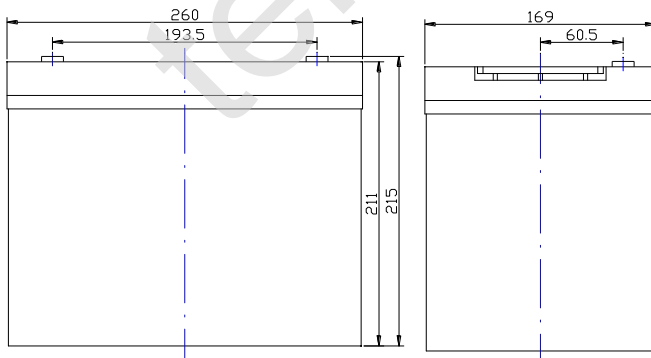
Electrical Specifications

C100	94AH
C20	85AH
C10	76.5AH
C5	69.5 AH
CCA	510A
CA or MCA	600A
HPCA	710A
Max. Discharge Current	1000A (5s)
Internal Resistance	4.5mΩ
Reserve Capacity	
Reserve @25 AMPS	148 Minutes
Reserve @75 AMPS	34 Minutes

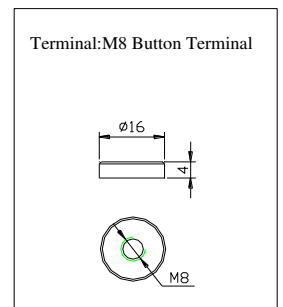
Charge Voltages

Float Charging Voltage	13.5 to 13.8 VDC/unit @ (25°C)	
Equalization and Cycle Service Charging Voltage	14.3 to 14.5 VDC/unit @ (25°C)	
Maximum Charge Current(A)	21.3A	
Charging Temperature Compensation	Cycle use	-4mV/cell/
	Float use	-3mV/cell/

BATTERY & TERMINAL DIMENSIONS (All units shown in mm)



Battery bank spacing required 12.5mm (1/2"inch) minimum



Constant Current Discharge Rating Amperes @ 77 °F (25 °C)

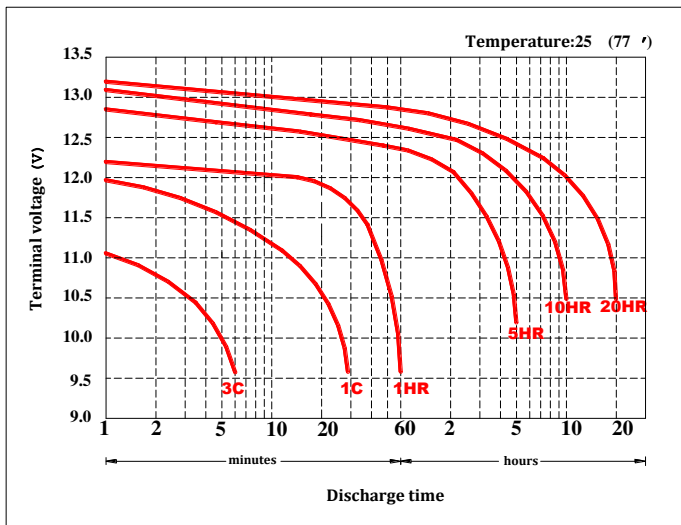
Cut off voltage V/cell	15M	30M	45M	1H	2H	3H	5H	8H	10H	12H	20H
1.75V	123	79	58	48.3	25.6	19.2	13.5	9.2	7.65	6.52	4.25

Note The above data are average values, and can be obtained with 3 charge/discharge cycles. These are not minimum values.

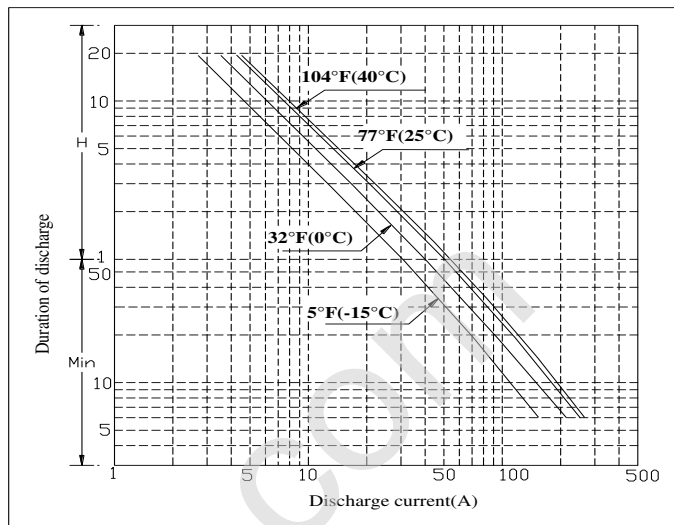


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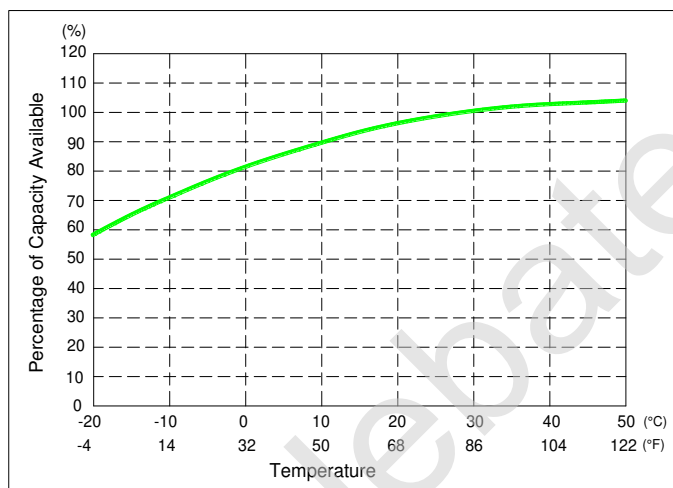
Terminal Voltage(V) and Discharge Time



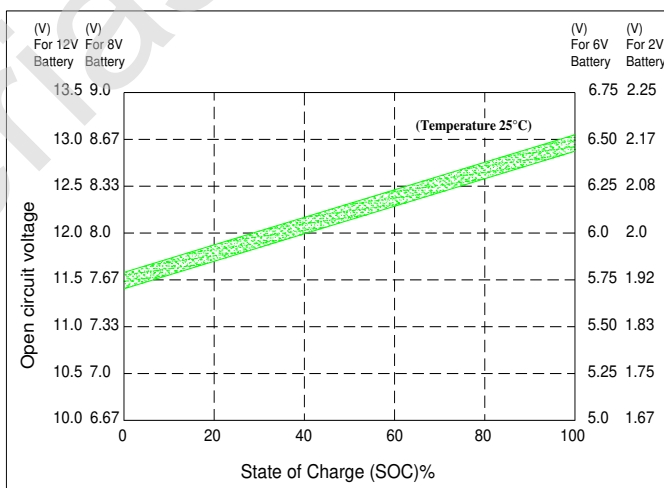
Duration of discharge vs. Discharge current



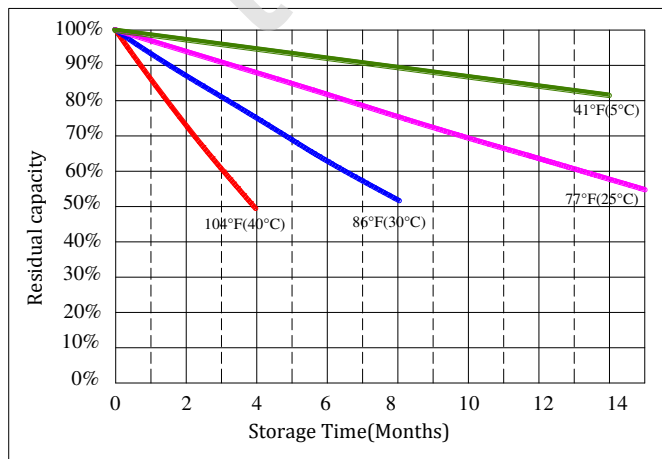
Percent Capacity vs. Temperature



State of Charge(SOC) vs Open Circuit Voltage(OCV)



Capacity Retention Characteristic



Cycle Life vs. Depth of Discharge(DOD)

