

# 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°C ~ +50°C (5°F ~122°F)
	Charge: -15°C ~ +40°C (5°F ~104°F)
	Storage: -15°C ~ +40°C (5°F ~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°C (77°F); Fully recharging is required before usage, For higher temperatures the time interval will be shorter.

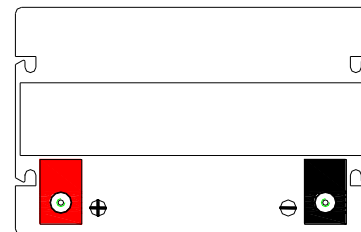
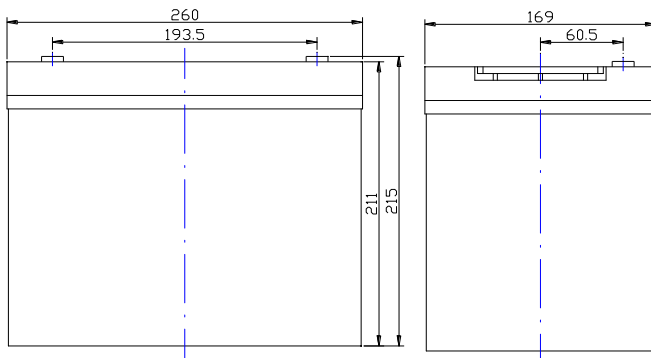
### Electrical Specifications

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
<b>Reserve Capacity</b>	
Reserve @25 AMPS	148 Minutes
Reserve @75 AMPS	34 Minutes

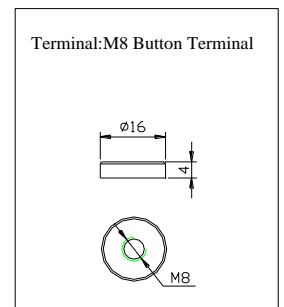
### Charge Voltages

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/°C
	Float use	-3mV/cell/°C

### 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)

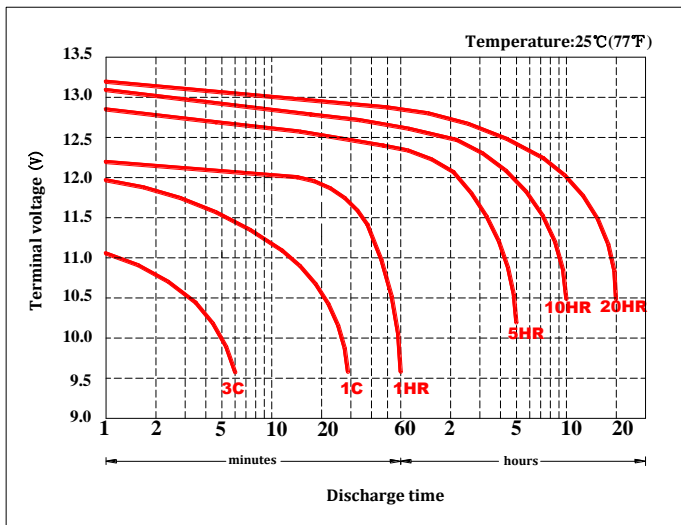
Cut off voltage V/cell	15M	30M	45M	1H	2H	3H	5H	8H	10H	12H	20H
1.75V	123	79	58	48.3	25.6	19.2	13.5	9.2	7.65	6.52	4.25

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

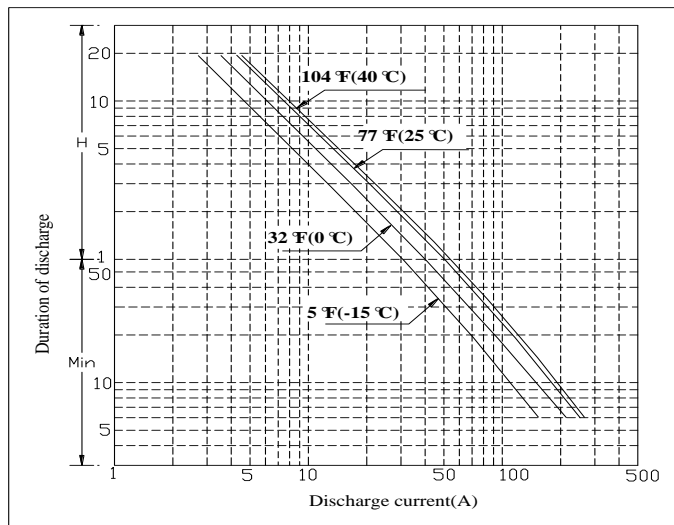


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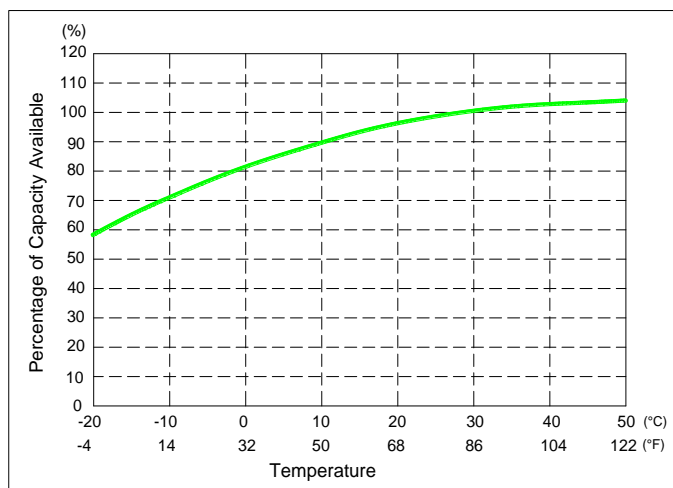
## Terminal Voltage(V) and Discharge Time



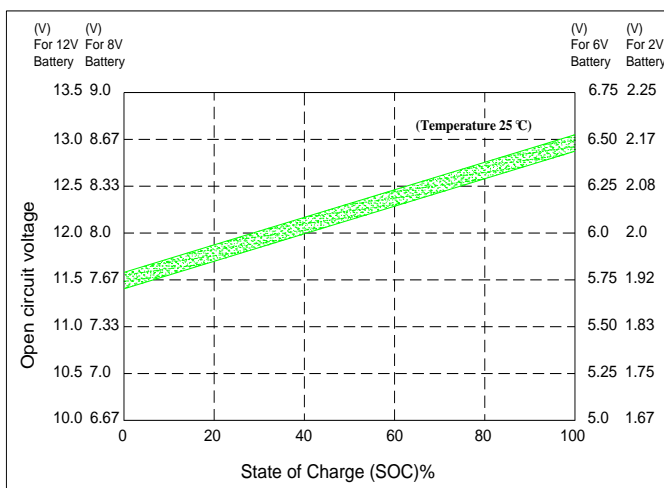
## Duration of discharge vs. Discharge current



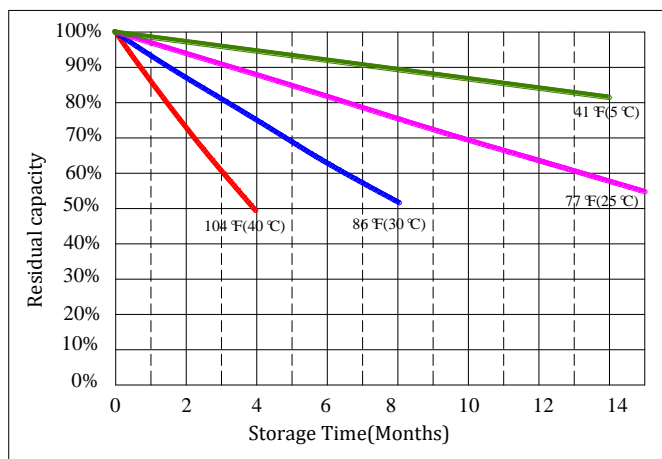
## Percent Capacity vs. Temperature



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



## Capacity Retention Characteristic



## Cycle Life vs. Depth of Discharge(DOD)

