



## DC90-12

**90AH@20HR**

**12-Volt**

**DEEP CYCLE**

**Maintenance-Free  
Sealed AGM Battery**

### Nominal Specifications

Battery Model	DC90-12	Rated Capacity	90AH/20HR
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### Mechanical Specifications

Group Size	27	
Overall Height (H)	215±2mm	8.46"
Container Height (h)	211±2mm	8.31"
Length	307±2mm	12.09"
Width	169±2mm	6.65"
Weight	Approx.28.8kg	63.49lbs.
Terminal Type	M6- Button Terminal	
Terminal Torque	5.6-7.9 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.

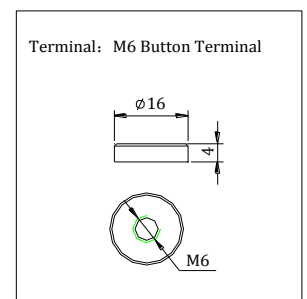
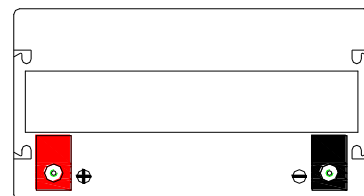
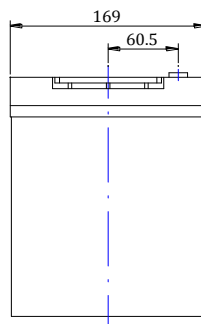
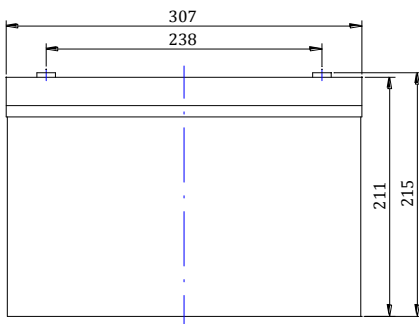
### Electrical Specifications

C100	99AH
C20	90AH
C10	81AH
C5	74 AH
CCA	530A
CA or MCA	630A
HPCA	750A
Max. Discharge Current	1000A (5s)
Internal Resistance	4.2mΩ
<b>Reserve Capacity</b>	
Reserve @25 AMPS	140 Minutes
Reserve @75 AMPS	38 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)	22.5A	
Charging Temperature Compensation	Cycle use	-4mV/cell/°C
	Float use	-3mV/cell/°C

### BATTERY & TERMINAL DIMENSIONS (All units shown in mm)



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

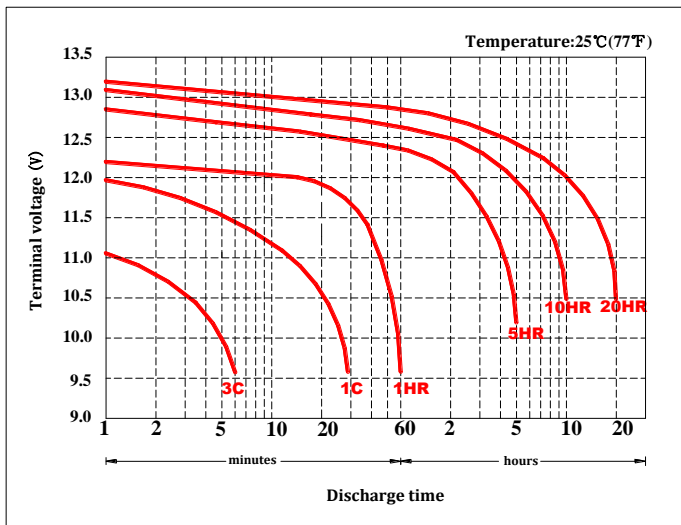
Cut off voltage V/cell	15M	30M	45M	1H	2H	3H	5H	8H	10H	12H	20H
1.75V	130	84	62	51.2	27.1	20.4	14.3	9.8	8.10	6.90	4.50

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

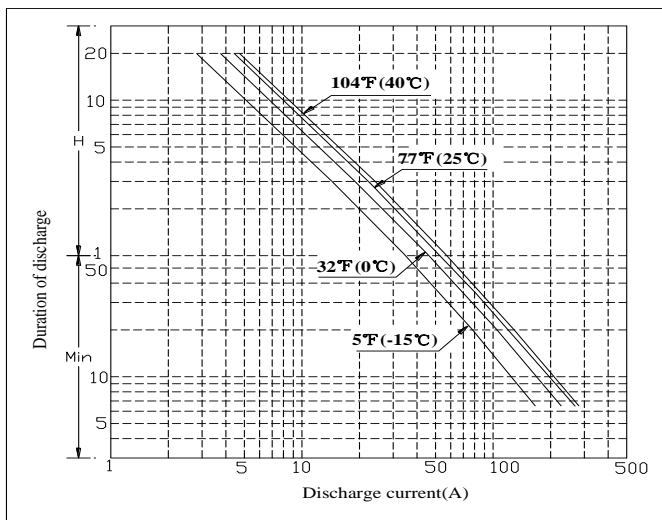


# DC90-12 DATA SHEET

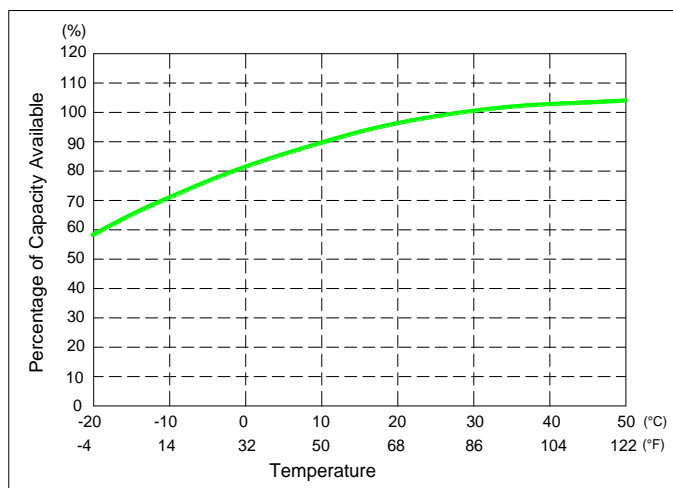
## Terminal Voltage(V) and Discharge Time



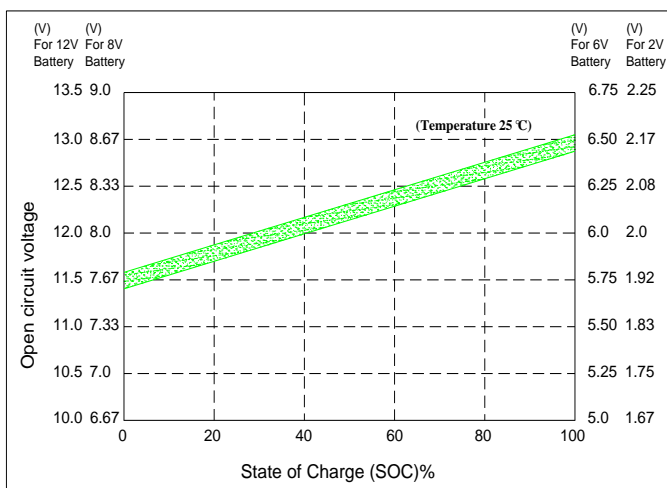
## Duration of discharge vs. Discharge current



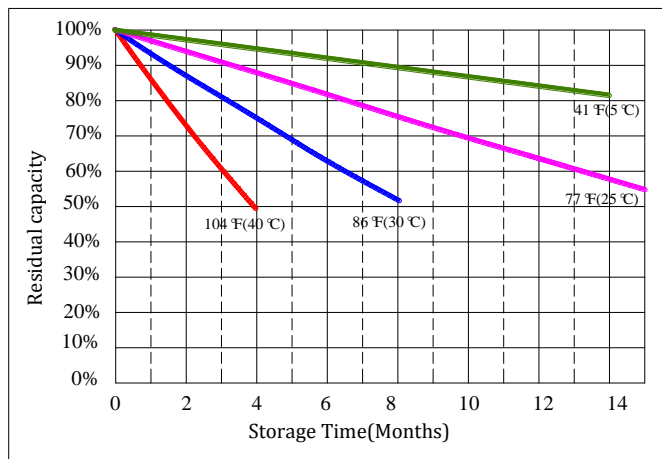
## Percent Capacity vs. Temperature



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



## Capacity Retention Characteristic



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

