



DC90-12

90AH@20HR

12-Volt

DEEP CYCLE

**Maintenance-Free
Sealed AGM Battery**

Nominal Specifications

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

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.

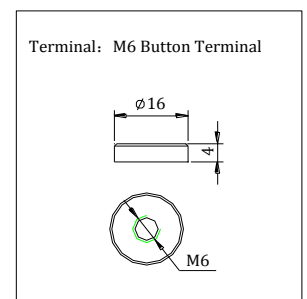
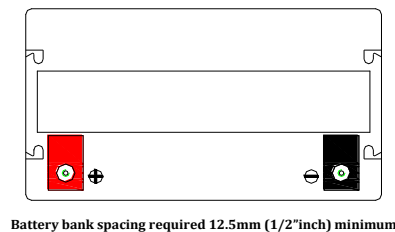
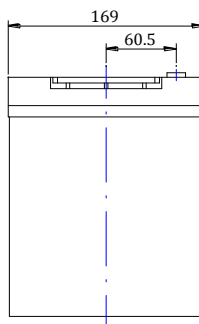
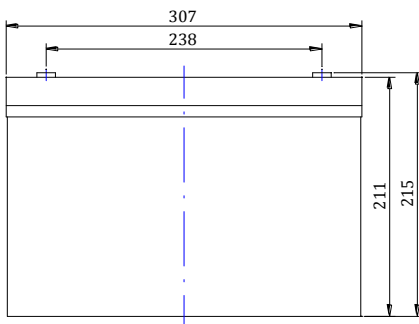
Electrical Specifications

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
Reserve Capacity	
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)

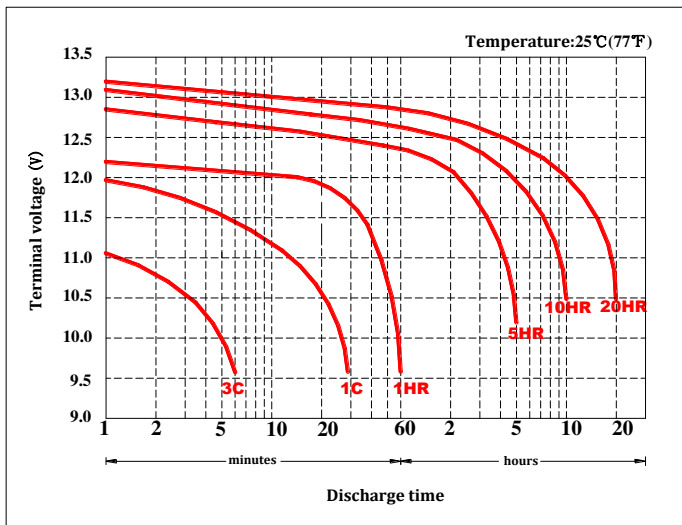
Cut off voltage V/cell	15M	30M	45M	1H	2H	3H	5H	8H	10H	12H	20H
1.75V	130	84	62	51.2	27.1	20.4	14.3	9.8	8.10	6.90	4.50

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

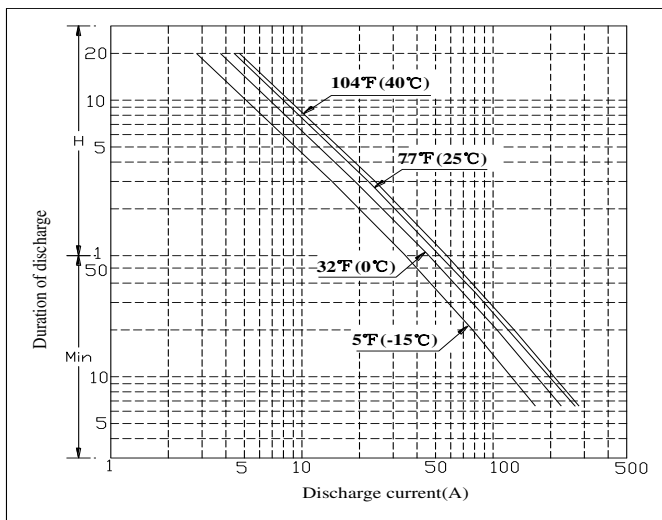


DC90-12 DATA SHEET

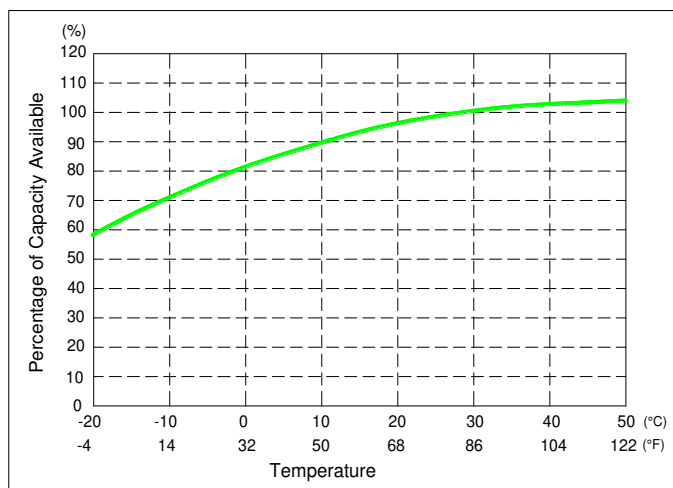
Terminal Voltage(V) and Discharge Time



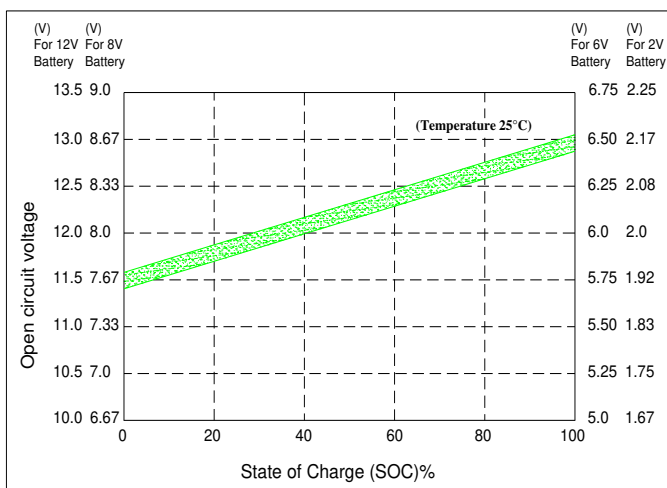
Duration of discharge vs. Discharge current



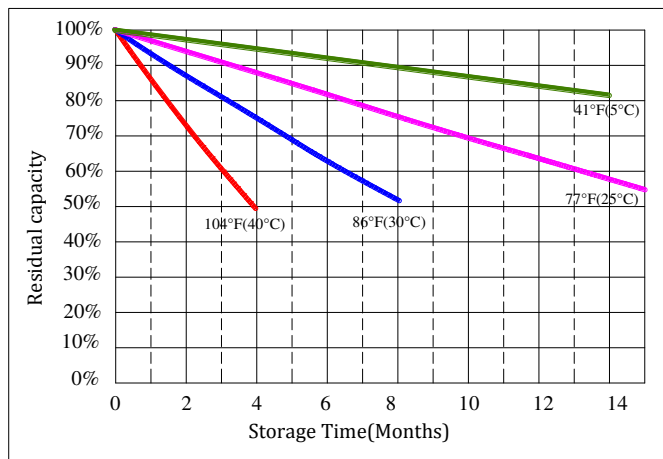
Percent Capacity vs. Temperature



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



Capacity Retention Characteristic



Cycle Life vs. Depth of Discharge(DOD)

