

**DC220-12****220AH@20HR****12-Volt****DEEP CYCLE****Maintenance-Free  
Sealed AGM Battery****Nominal Specifications**

Battery Model	DC220-12	Rated Capacity	220AH/20HR
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**Mechanical Specifications**

Group Size	4D	
Overall Height (H)	222±2mm	8.74"
Container Height (h)	218±2mm	8.58"
Length	522±2mm	20.55"
Width	242±2mm	9.53"
Weight	Approx.66kg	145.5lbs.
Terminal Type	M8-Button Terminal	
Terminal Torque	9.6-10.7 N.m	
Container Material	ABS: Standard (UL 94-HB)	

**Temperature Range Specifications**

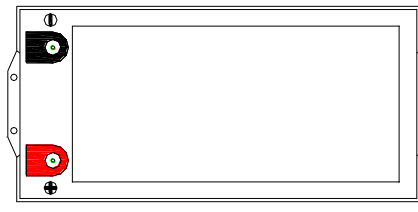
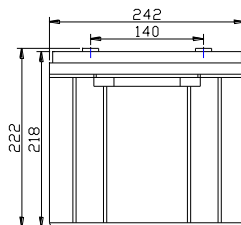
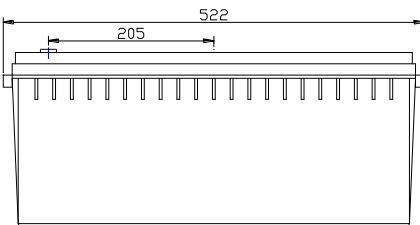
Operating Temperature Range	Discharge : -15°C ~+ 50°C (5°F ~122°F)
	Charge: -15°C ~ +40°C (5°F ~104°F)
	Storage: -15°C ~ +40°C (5°F ~104°F)
Recommended Operating Temperature Range	+74°F (23°C) to +80°F (27°C)
Self-Discharge	Less than 10% after 90 days, can be stored up to 6 months at 25°C (77°F); Fully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

**Electrical Specifications**

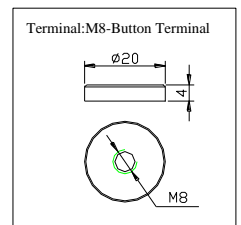
C100	240AH
C20	220AH
C10	189AH
C5	175AH
CCA	1150A
CA or MCA	1380A
HPCA	1650A
Max. Discharge Current	2200A (5s)
Internal Resistance	2.5mΩ
<b>Reserve Capacity</b>	
Reserve @25 AMPS	415Minutes
Reserve @75 AMPS	110Minutes

**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)	55A	
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)**

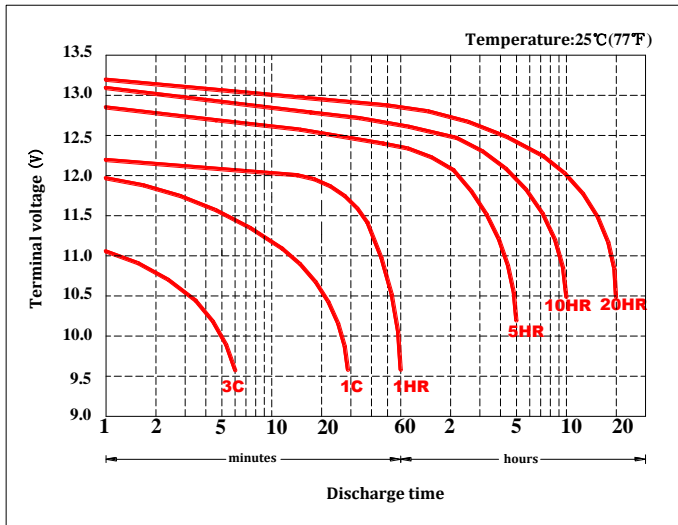
Cut off voltage V/cell	15M	30M	45M	1H	2H	3H	5H	8H	10H	12H	20H
1.75V	320	196	144	119.4	63.2	47.5	33.3	22.8	18.90	16.10	11.0

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

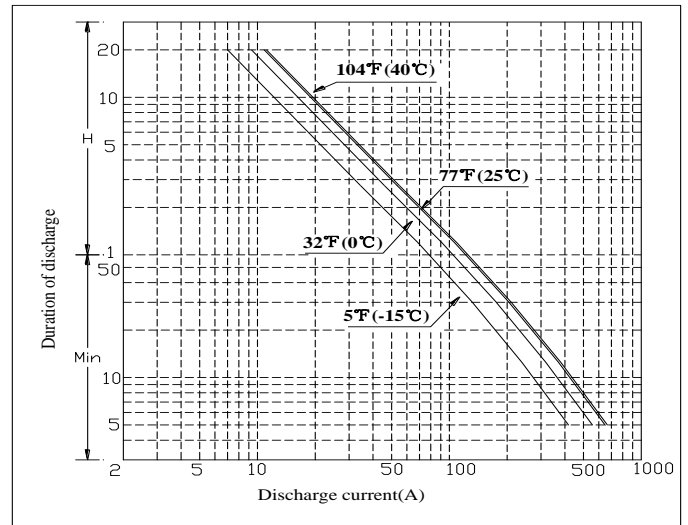


# DC220-12 DATA SHEET

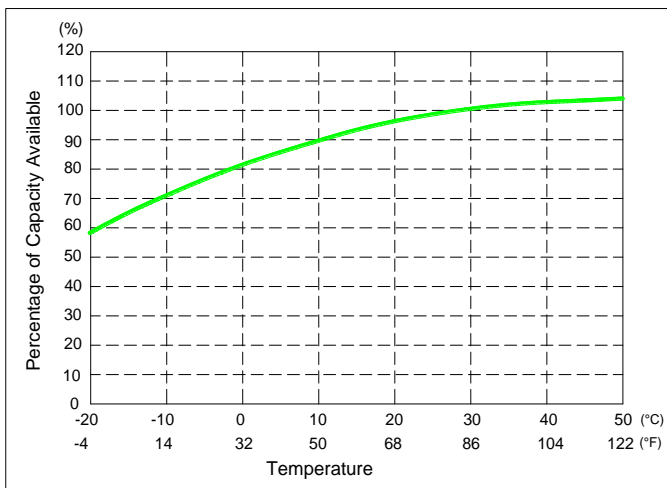
## Terminal Voltage(V) and Discharge Time



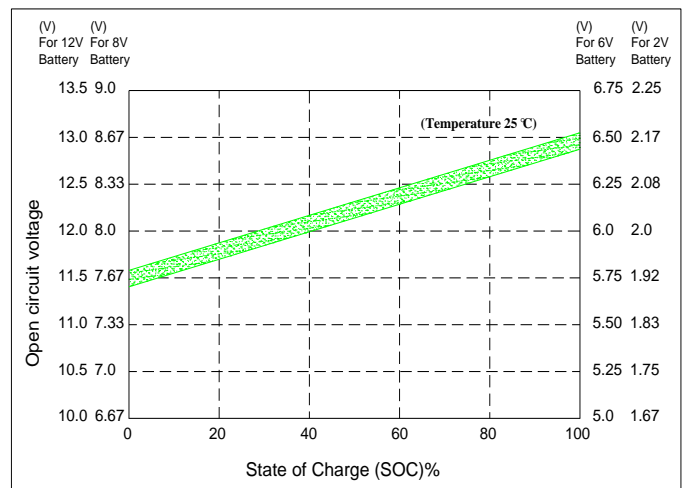
## Duration of discharge vs. Discharge current



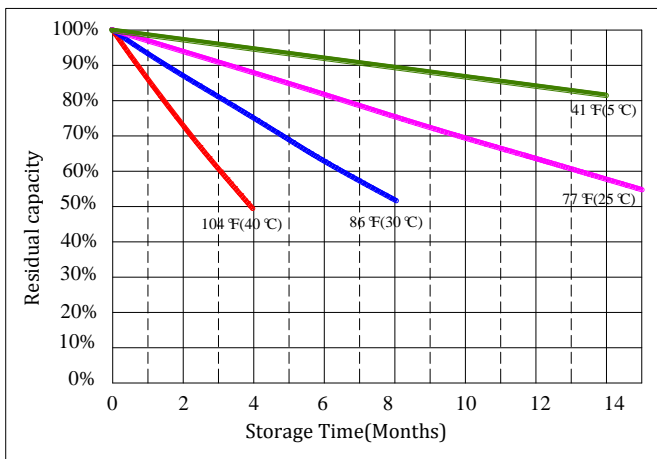
## Percent Capacity vs. Temperature



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



## Capacity Retention Characteristic



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

