

DC50-12B DATA SHEET



DC50-12B

50AH@20HR
12-Volt

DEEP CYCLE

Maintenance-Free
Sealed AGM Battery

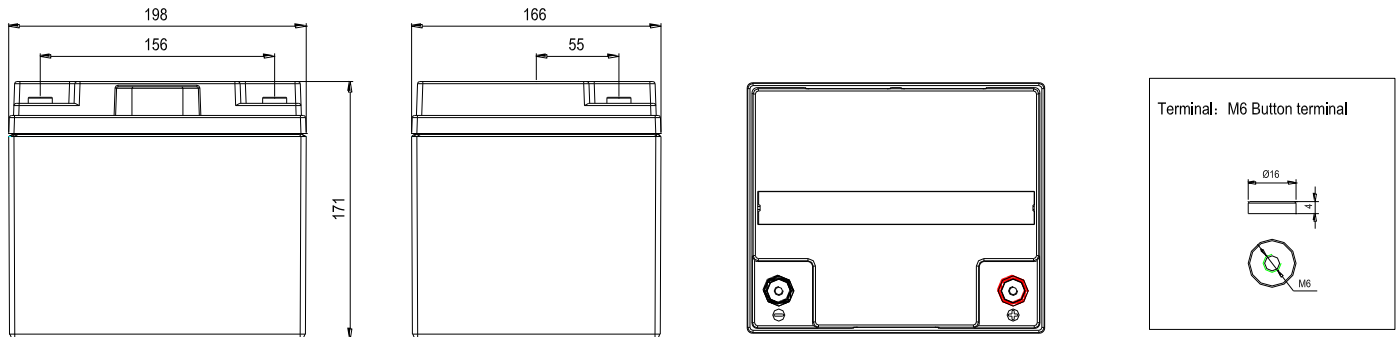
Nominal Specifications			
Battery Model	DC50-12B	Rated Capacity	50AH/20HR
Mechanical Specifications			
Group Size	U1L		
Overall Height (H)	171±2mm	6.73"	
Container Height (h)	171±2mm	6.73"	
Length	198±2mm	7.80"	
Width	166±2mm	6.54"	
Weight	Approx.14.9kg	32.85lbs.	
Terminal Type	M6- Button Terminal		
Terminal Torque	5.6-7.9 N.m		
Container Material	ABS: Standard (UL 94-HB)		

Electrical Specifications	
C100	56AH
C20	50AH
C10	45AH
C5	40AH
CCA	350A
CA or MCA	400A
HPCA	470A
Max. Discharge Current	750A (5s)
Internal Resistance	5.0mΩ
Reserve Capacity	
Reserve @25 AMPS	70 Minutes
Reserve @75 AMPS	/

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.

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)	12.5A	
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

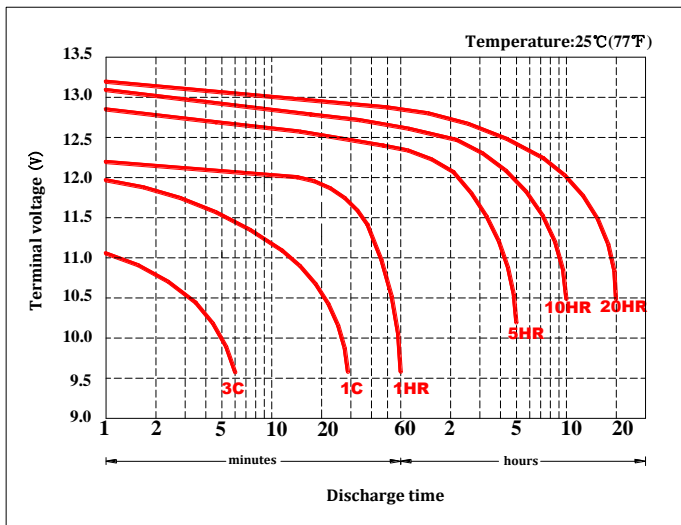
Constant Current Discharge Rating Amperes @ 77°F (25°C)											
Cut off voltage V/cell	15M	30M	45M	1H	2H	3H	5H	8H	10H	12H	20H
1.75V	78	47	37	27	17.3	11.4	8.1	5.3	4.5	3.88	2.50

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

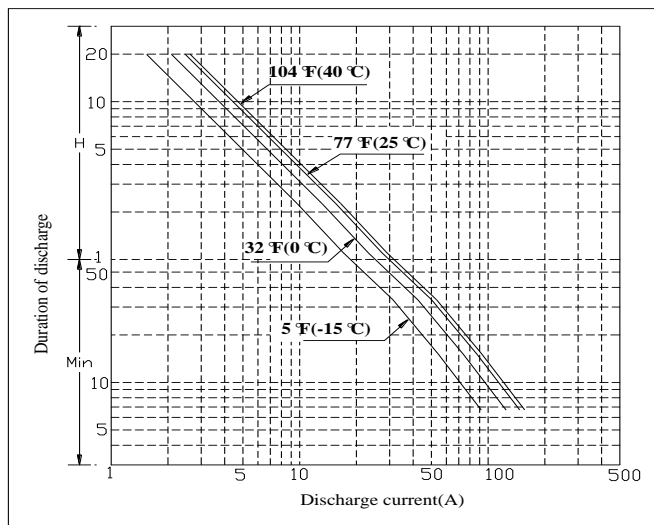


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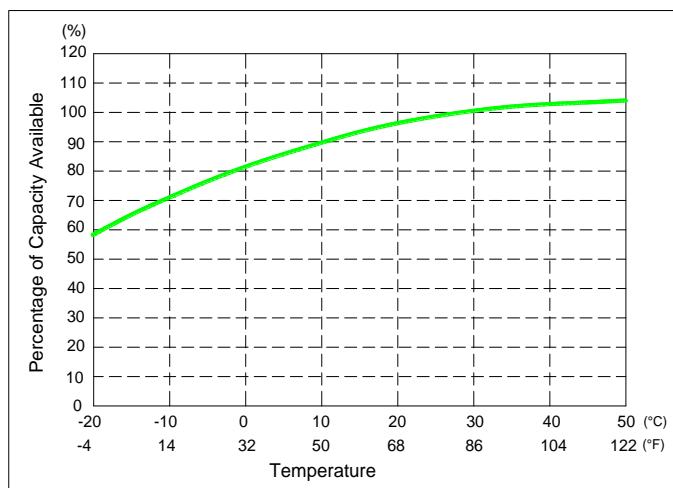
Terminal Voltage(V) and Discharge Time



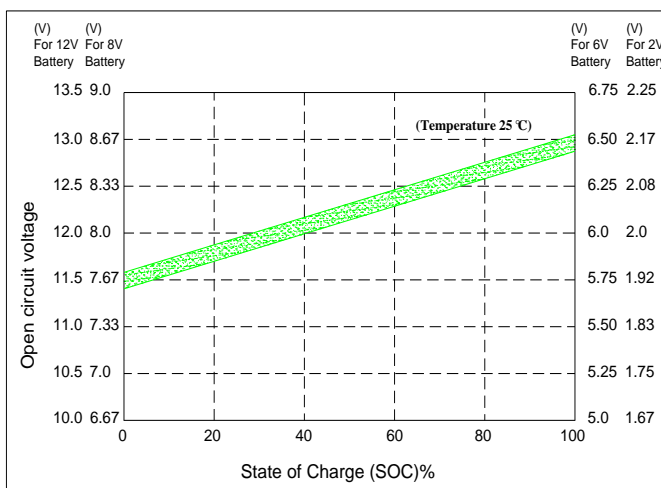
Duration of discharge vs. Discharge current



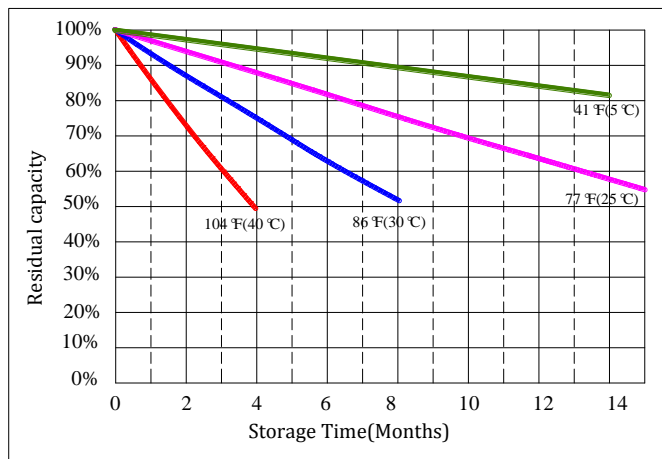
Percent Capacity vs. Temperature



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



Capacity Retention Characteristic



Cycle Life vs. Depth of Discharge(DOD)

