

# DC40-12 DATA SHEET



## DC40-12

40AH@20HR

12-Volt

DEEP CYCLE

Maintenance-Free  
Sealed AGM Battery

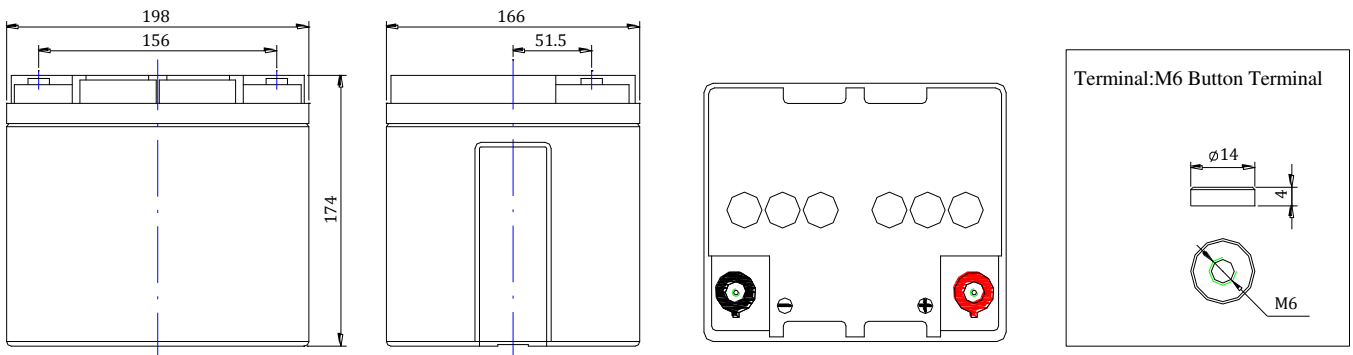
Nominal Specifications			
Battery Model	DC40-12	Rated Capacity	40AH/20HR
Mechanical Specifications			
Group Size	U1L		
Overall Height (H)	174±2mm	6.85"	
Container Height (h)	174±2mm	6.85"	
Length	198±2mm	7.80"	
Width	166±2mm	6.54"	
Weight	Approx.13.6kg	29.98lbs.	
Terminal Type	M6- Button Terminal		
Terminal Torque	5.6-7.9 N.m		
Container Material	ABS: Standard (UL 94-HB)		

Electrical Specifications	
C100	44AH
C20	40AH
C10	36AH
C5	32.8AH
CCA	275A
CA or MCA	325A
HPCA	380A
Max. Discharge Current	600A (5s)
Internal Resistance	7.0mΩ
Reserve Capacity	
Reserve @25 AMPS	53 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)	10A	
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

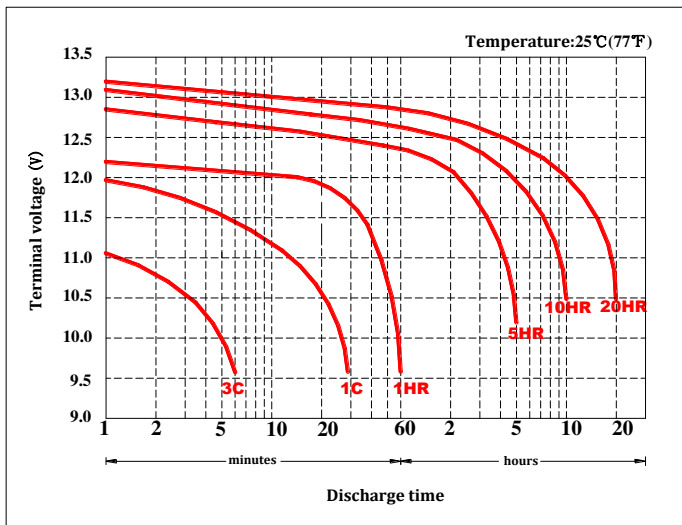
Constant Current Discharge Rating Amperes @ 77°F (25°C)											
Cut off voltage V/cell	15M	30M	45M	1H	2H	3H	5H	8H	10H	12H	20H
1.75V	60	38	28	22.7	12.0	9.1	6.3	4.4	3.60	3.07	2.00

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

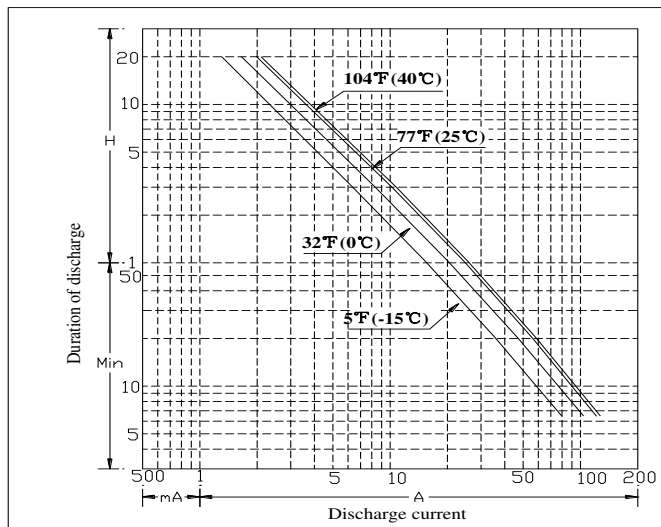


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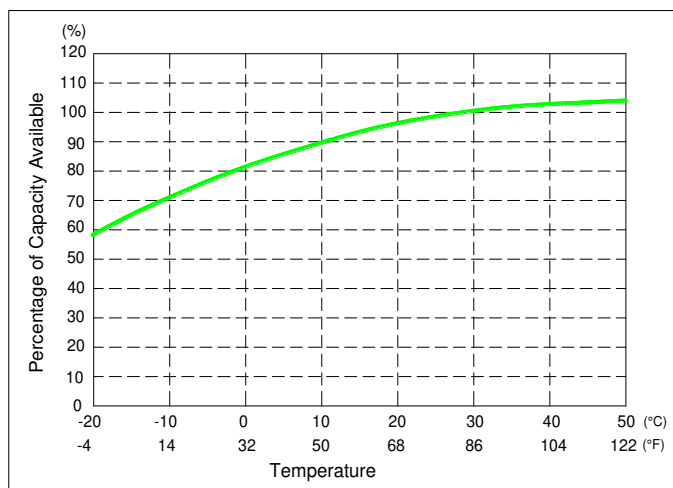
## Terminal Voltage(V) and Discharge Time



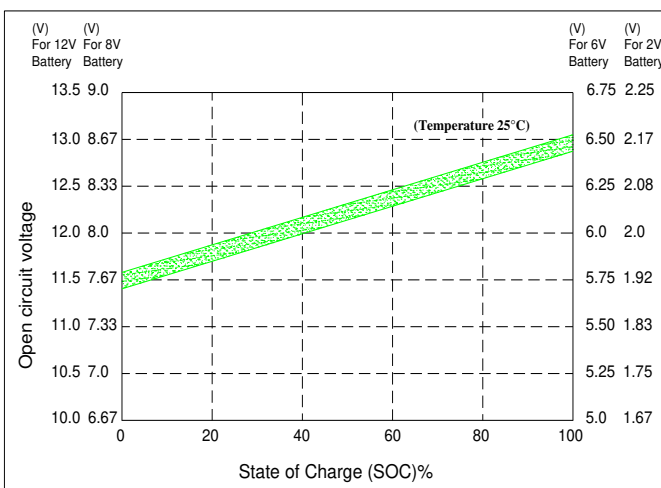
## Duration of discharge vs. Discharge current



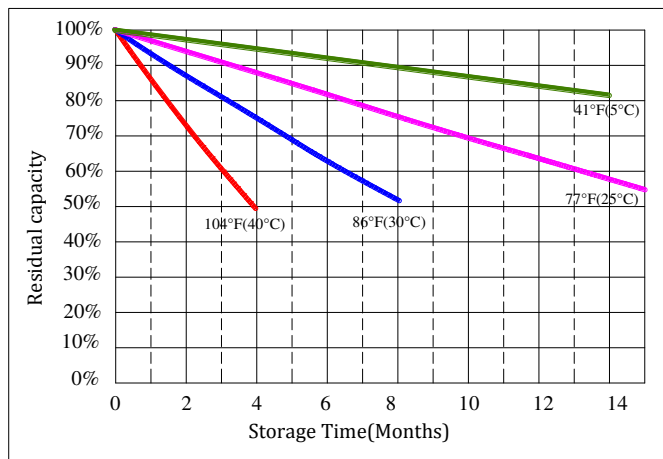
## Percent Capacity vs. Temperature



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



## Capacity Retention Characteristic



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

