DC50-12A DATA SHEET

DC50-12A

50AH@20HR
12-Volt

DEEP CYCLE

Maintenance-Free
Sealed AGM Battery

Nominal Specifications

Battery Model	DC50-12A	Rated Capacity	50AH/20HR

Mechanical Specifications

Group Size	47	
Overall Height (H)	190±2mm	7.48″
Container Height (h)	190±2mm	7.48″
Length	241±2mm	9.49″
Width	175±2mm	6.89″
Weight	Approx.18.5kg	40.79lbs.
Terminal Type	AP- Auto Post 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	41AH
CCA	440A
CA or MCA	575A
HPCA	690A
Max. Discharge Current	750A (5s)
Internal Resistance	5.0mΩ

Reserve Capacity

Reserve @25 AMPS	85 Minutes
Reserve @75 AMPS	17 Minutes

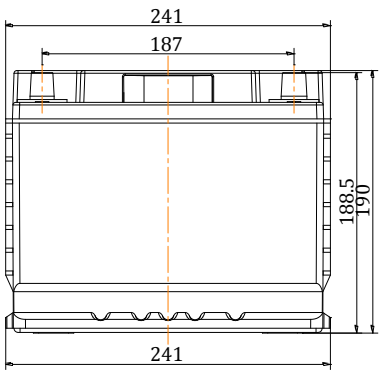
Temperature Range Specifications

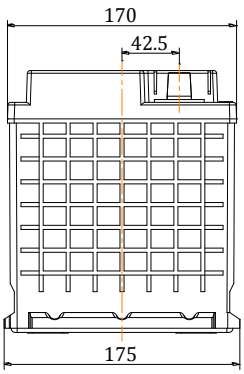
Operating Temperature Range	Discharge : -15℃ ~+ 50℃ (5℉~122℉)
	Charge: -15℃ ~ +40℃ (5℉~104℉)
	Storage: -15℃ ~ +40℃ (5℉~104℉)
Recommended Operating Temperature Range	+74℉(23℃) to +80℉(27℃)
Self-Discharge	Less than 10% after 90 days, can be stored up to 6 months at 25℃ (77℉);Fully recharging is required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

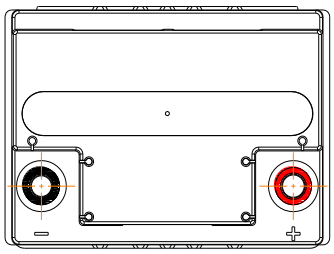
Charge Voltages

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/℃
	Float use	-3mV/cell/℃

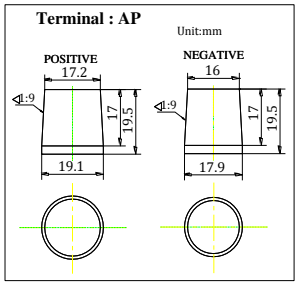
BATTERY & TERMINAL DIMENSIONS (All units shown in mm)







Battery bank spacing required 12.5mm (1/2"inch) minimum



Constant Current Discharge Rating Amperes @ 77℉(25℃)

Cut off voltage V/cell	15M	30M	45M	1H	2H	3H	5H	8H	10H	12H	20H
1.75V	80	55	38	27.8	17.5	11.6	8.0	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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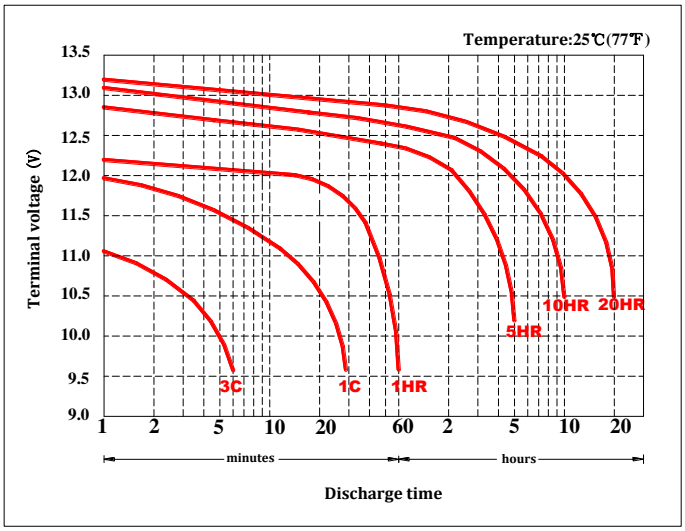
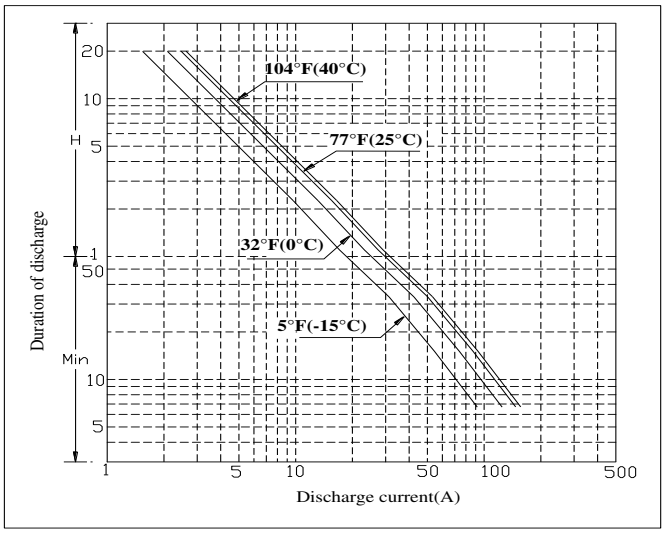
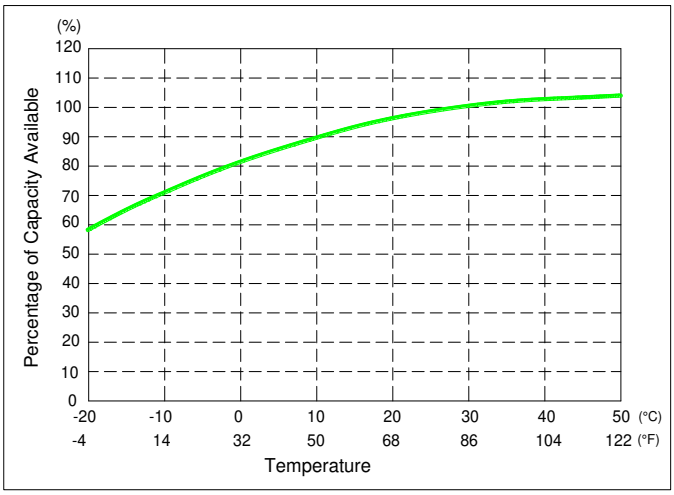
Terminal Voltage(V) and Discharge Time



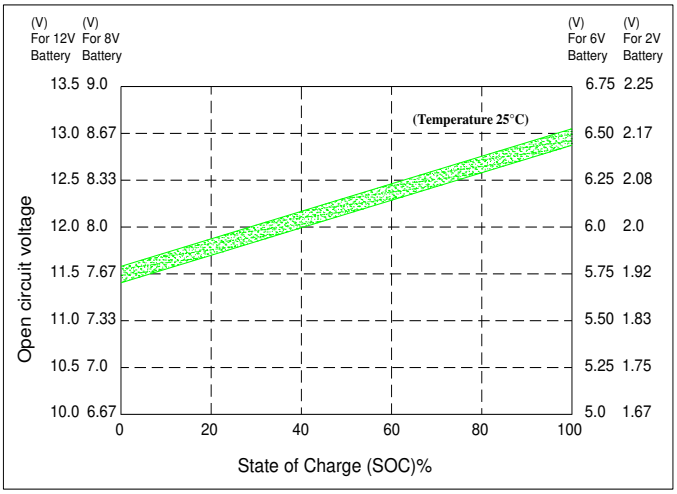
Duration of discharge vs. Discharge current



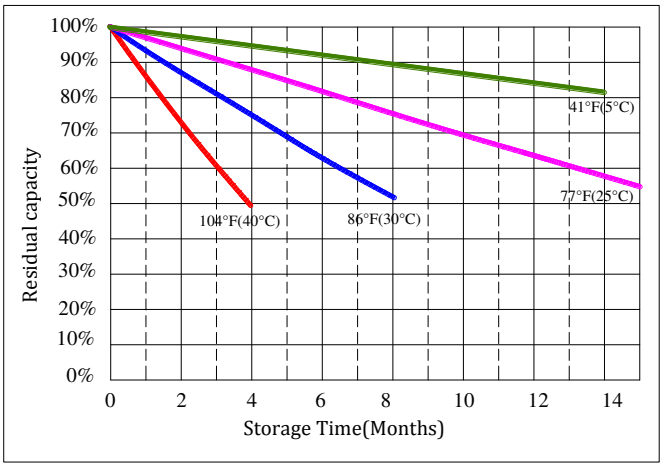
Percent Capacity vs. Temperature



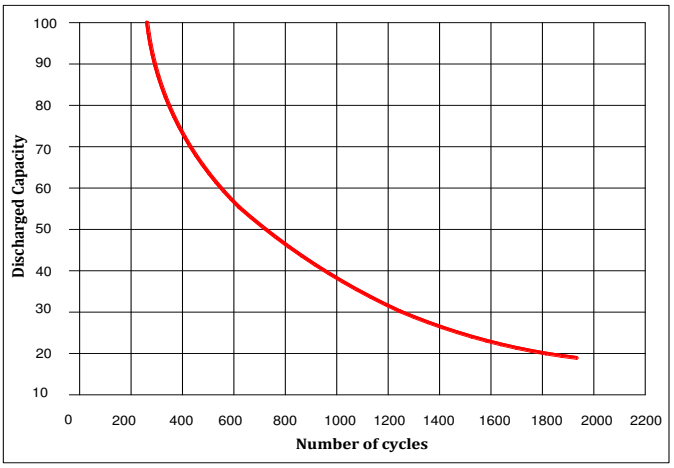
State of Charge(SOC) vs Open Circuit Voltage(OCV)



Capacity Retention Characteristic



Cycle Life vs. Depth of Discharge(DOD)



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