



# National Fire Equipment Ltd.

**Model BAT12V4.5A - 12 Volt - 4.5 AMP  
General Purpose Battery**

## Specification

Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	4.5Ah@20hour-rate to 1.75V per cell @25°C
Weight Approx.	Approx. 1.35 Kg (Tolerance±4.0%)
Internal Resistance	Approx. 38 mΩ
Terminal	F1/F2
Max. Discharge Current	45A (5 sec)
Short Circuit Current	230A
Design Life	6~8 years (Float charging)
Recommended Maximum Charging Current	1.36 A
Reference Capacity	C3 3.49AH C5 3.94AH C10 4.23AH C20 4.54AH
Standby Use Voltage	13.7 V~13.9 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.6 V~14.8 V @ 25°C Temperature Compensation: -4mV/°C/Cell
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C±5°C
Self Discharge	RT Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C. Please charge batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.



RT series is a general purpose battery with 6~8 years design life in float service. It meets with IEC, JIS, BS and YDT standards. With advanced AGM valve regulated technology and high purity raw material, the RT series battery maintains high consistency for better performance and reliable standby service life. It is suitable for UPS/ EPS, Telecom, power grid, medical equipment, emergency light and security system applications.



## Dimensions

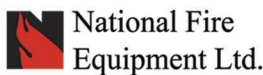
Length	90±1.5mm (3.54 inches)
Width	70±1.5mm (2.76 inches)
Height	101±1.5mm (3.98 inches)
Total Height	107±1.5mm (4.21 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

### Constant Current Discharge Characteristics : A (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V												
1.65V												
1.70V												
1.75V												
1.80V												
1.85V												

### Constant Power Discharge Characteristics : WPC (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V												
1.65V												
1.70V												
1.75V												
1.80V												
1.85V												



TORONTO: (905) 761-6355  
Toll Free: (800) 267-8508  
OTTAWA: (613) 723-6071

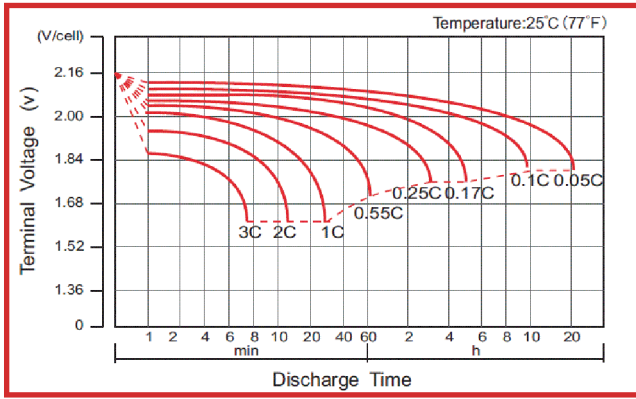
VANCOUVER: (604) 420-1131  
Toll Free: (800)-667-2138  
BURNABY: (604)-299-4498

EDMONTON: (780) 455-3870  
Toll Free: (888)-891-1008  
CALGARY: (403) 236-5661

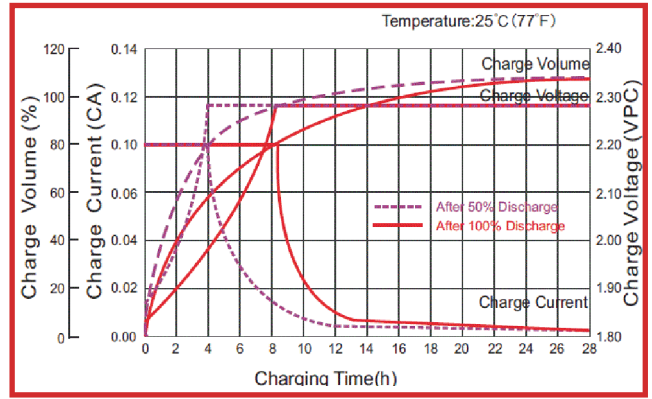
MONCTON: (506) 859-7277  
Toll Free: (877) 816-3473  
MISSISSAUGA: (905) 565-1385

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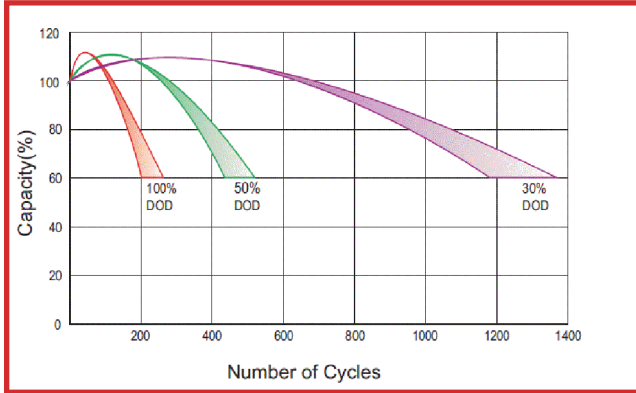
### Discharge Characteristics Curve Charge



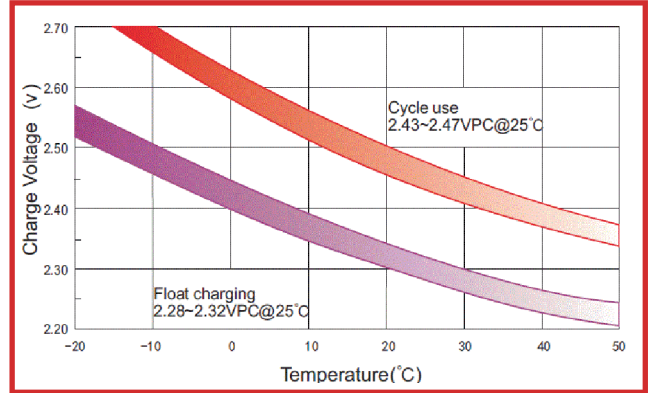
### Charge Characteristic Curve For Standby Use



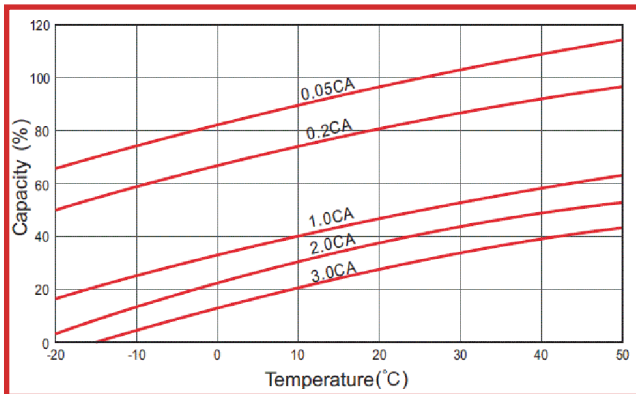
### Cycle Life In Relation To Depth Of Discharge



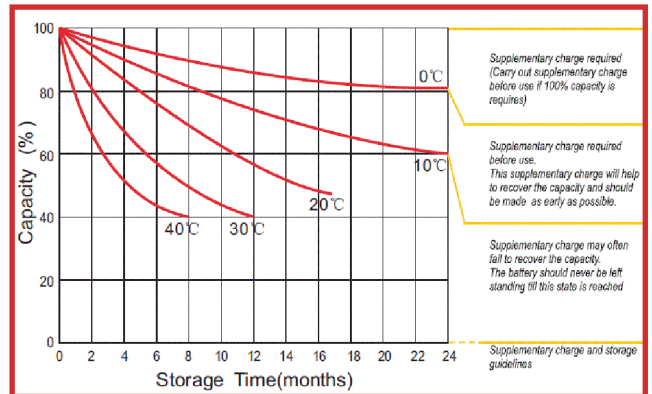
### Relationship Between Charging Voltage And Temperature



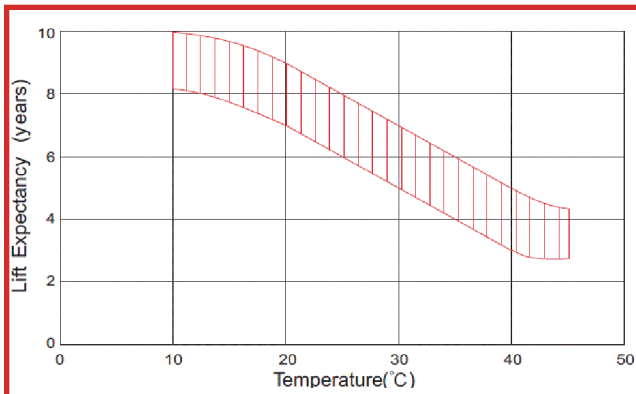
### Temperature Effects On Capacity



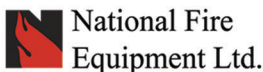
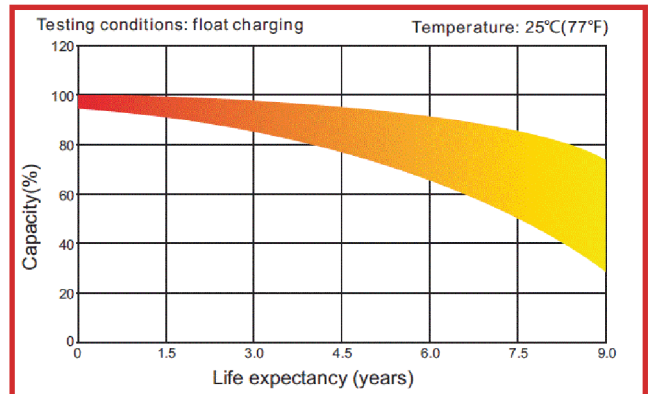
### Storage Characteristics



### Effect Of Temperature On Long Term Life



### Life Characteristics Of Standby Use



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