



# National Fire Equipment Ltd.

**Model BAT12V7A - 12 Volt - 7 AMP  
General Purpose Battery**

## Specification

Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	7Ah@20hour-rate to 1.75V per cell @25°C
Weight Approx.	Approx. 2.0 Kg (Tolerance±4.0%)
Internal Resistance	Approx. 30 mΩ
Terminal	F1/F2
Max. Discharge Current	70A (5 sec)
Short Circuit Current	340A
Design Life	6~8 years (Float charging)
Recommended Maximum Charging Current	2.1A
Reference Capacity	C3 5.43AH C5 6.13AH C10 6.58AH C20 7.04AH
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

Dimensions: 90mm (width), 70mm (height), 107mm (total height), 101mm (depth), 72mm (terminal spacing), 26mm (terminal height), 4.75mm (terminal width), 6.35mm (terminal depth), 3.15mm (terminal offset), 0.8mm (terminal thickness).

F2 TERMINAL

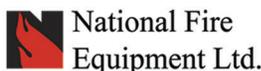
Depth	66mm (2.59 inches)
Width	149mm (5.86 inches)
Height	91mm (3.58 inches)
Total Height	94mm (3.69 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

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

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	26.92	17.74	13.22	7.650	4.465	2.634	1.915	1.525	1.287	0.860	0.701	0.364
1.65V	25.95	17.21	12.87	7.482	4.382	2.596	1.890	1.506	1.273	0.852	0.694	0.362
1.70V	24.68	16.52	12.42	7.260	4.273	2.545	1.856	1.481	1.253	0.840	0.685	0.358
1.75V	23.06	15.62	11.82	6.969	4.129	2.477	1.811	1.447	1.226	0.825	0.673	0.352
1.80V	21.01	15.62	11.06	6.593	3.941	2.388	1.752	1.403	1.192	0.804	0.658	0.346
1.85V	18.49	14.47	10.10	6.111	3.698	2.272	1.674	1.345	1.146	0.777	0.637	0.336

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

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	46.34	30.60	23.46	14.10	8.47	5.07	3.71	2.97	2.52	1.71	1.40	0.73
1.65V	45.85	30.48	23.32	14.00	8.40	5.03	3.69	2.95	2.50	1.69	1.39	0.72
1.70V	44.10	29.58	22.69	13.66	8.22	4.95	3.63	2.91	2.47	1.67	1.37	0.72
1.75V	41.94	28.47	21.93	13.25	7.99	4.84	3.56	2.85	2.43	1.64	1.35	0.71
1.80V	38.88	26.85	20.80	12.66	7.66	4.69	3.45	2.78	2.36	1.61	1.32	0.69
1.85V	34.82	24.62	19.26	11.85	7.24	4.48	3.32	2.67	2.28	1.56	1.28	0.68



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Toll Free: (800) 267-8508  
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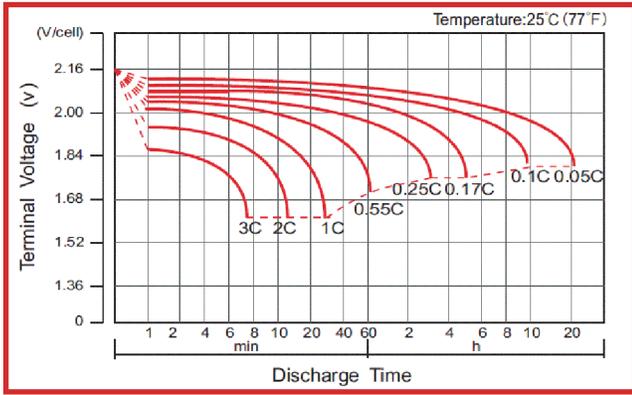
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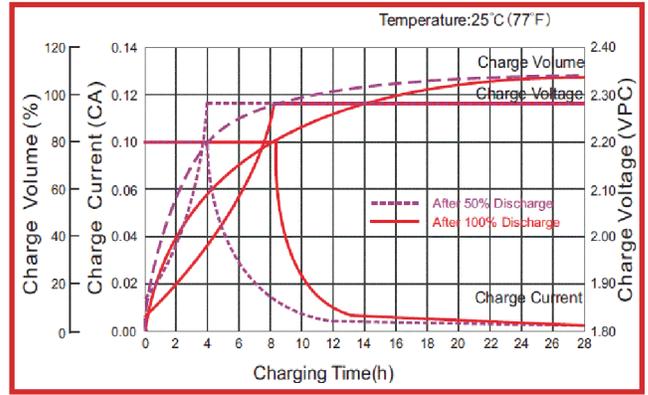
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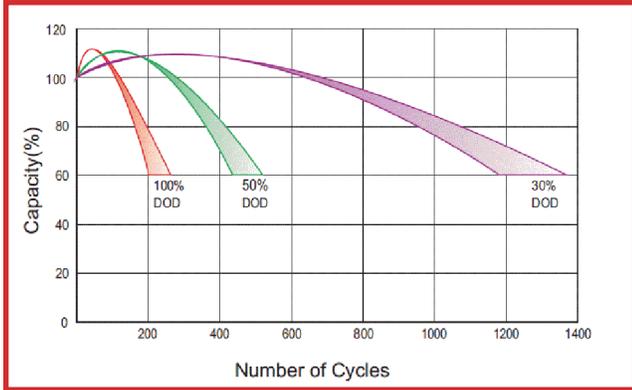
### Discharge Characteristics Curve Charge



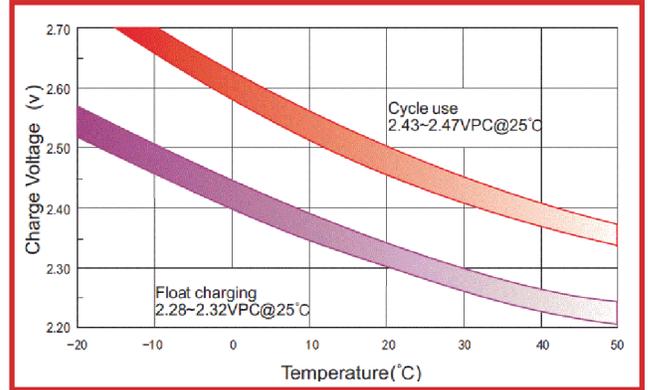
### Charge Characteristic Curve For Standby Use



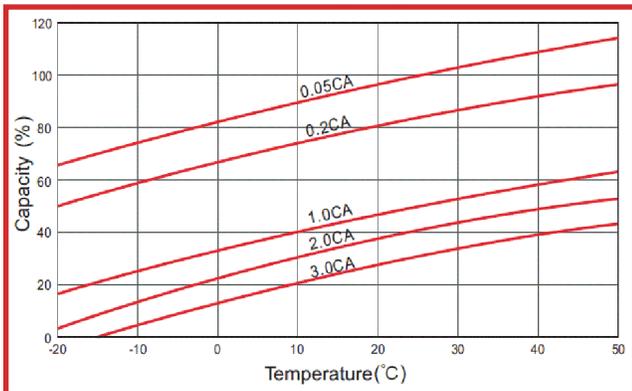
### Cycle Life In Relation To Depth Of Discharge



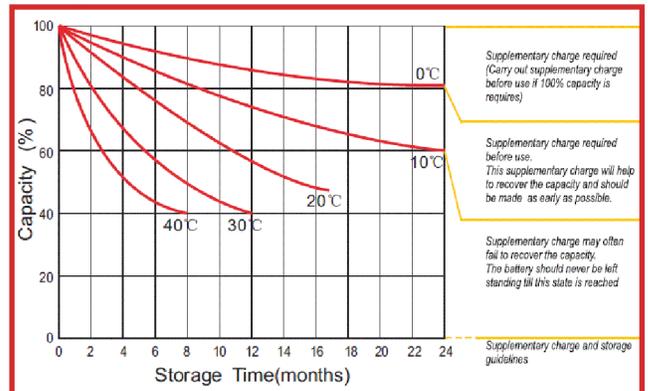
### Relationship Between Charging Voltage And Temperature



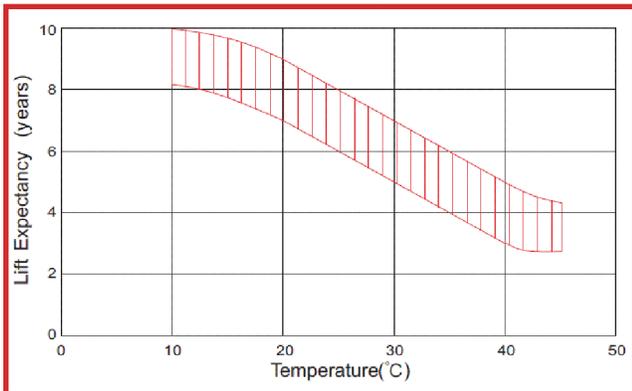
### Temperature Effects On Capacity



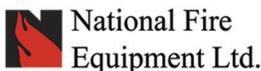
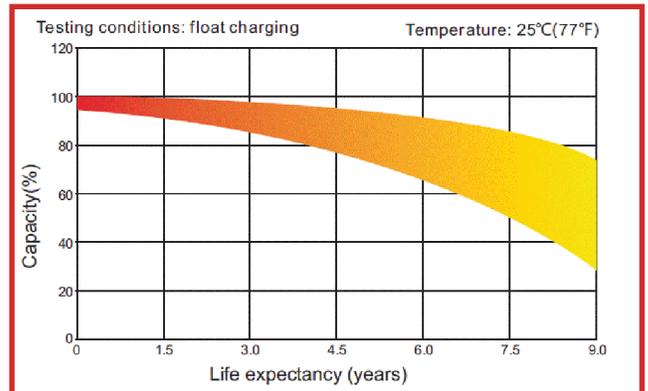
### Storage Characteristics



### Effect Of Temperature On Long Term Life



### Life Characteristics Of Standby Use



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