



National Fire Equipment Ltd.

Model BAT12V33A - 12 Volt - 33 AMP General Purpose Battery

Specification

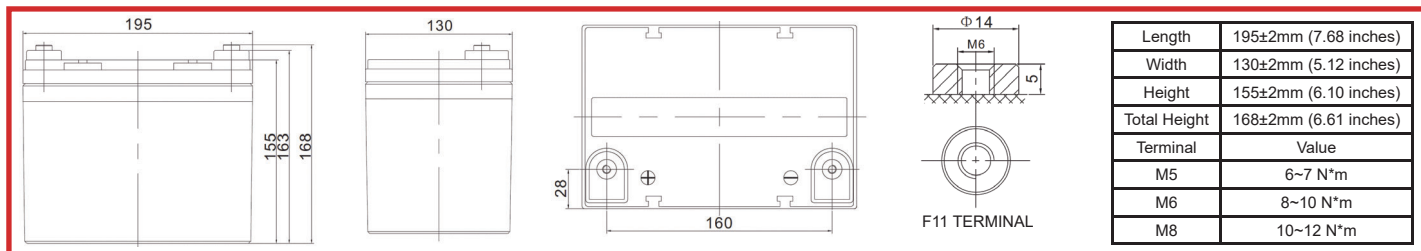
Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	33Ah@10hour-rate to 1.80V per cell @25°C
Weight Approx.	9.9 Kg (Tolerance±3.0%)
Max. Discharge Current	330A (5 sec)
Internal Resistance	Approx. 9.0 mΩ
Terminal	F7(M8)/F11(M6)
Short Circuit Current	825A
Design Life	12 years (Float charging)
Recommended Maximum Charging Current	9.9 A
Reference Capacity	C3 25.6AH C5 29.5AH C10 33.0AH C20 34.0AH
Standby Use Voltage	13.6 V~13.8 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.



RA series is a general purpose battery with 12 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 RA 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



Constant Current Discharge Characteristics : A (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	112.3	79.4	59.8	34.6	20.5	12.3	9.03	7.33	6.19	4.14	3.52	1.80
1.65V	108.3	77.1	58.3	33.9	20.1	12.1	8.91	7.24	6.12	4.09	3.48	1.79
1.70V	103.0	74.0	56.2	32.9	19.6	11.9	8.75	7.12	6.02	4.04	3.44	1.77
1.75V	96.2	69.9	53.5	31.5	19.0	11.6	8.54	6.96	5.90	3.96	3.38	1.74
1.80V	87.6	64.8	50.1	29.8	18.1	11.1	8.26	6.75	5.73	3.87	3.30	1.71
1.85V	77.1	58.4	45.7	27.7	17.0	10.6	7.89	6.47	5.51	3.74	3.20	1.67

Constant Power Discharge Characteristics : WPC (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	112.3	79.4	59.8	34.6	20.5	12.3	9.03	7.33	6.19	4.14	3.52	1.80
1.65V	108.3	77.1	58.3	33.9	20.1	12.1	8.91	7.24	6.12	4.09	3.48	1.79
1.70V	103.0	74.0	56.2	32.9	19.6	11.9	8.75	7.12	6.02	4.04	3.44	1.77
1.75V	96.2	69.9	53.5	31.5	19.0	11.6	8.54	6.96	5.90	3.96	3.38	1.74
1.80V	87.6	64.8	50.1	29.8	18.1	11.1	8.26	6.75	5.73	3.87	3.30	1.71
1.85V	77.1	58.4	45.7	27.7	17.0	10.6	7.89	6.47	5.51	3.74	3.20	1.67



**National Fire
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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
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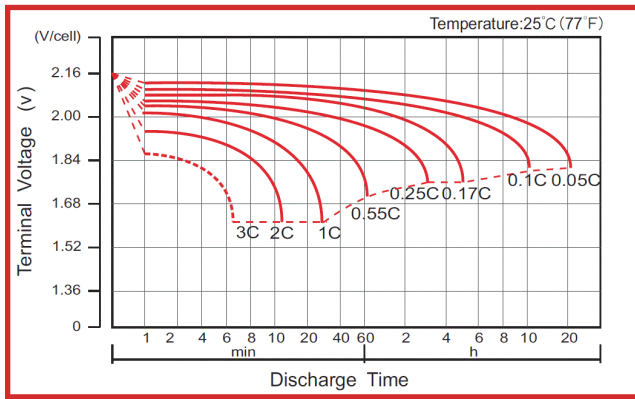
CALGARY: (403) 236-5661

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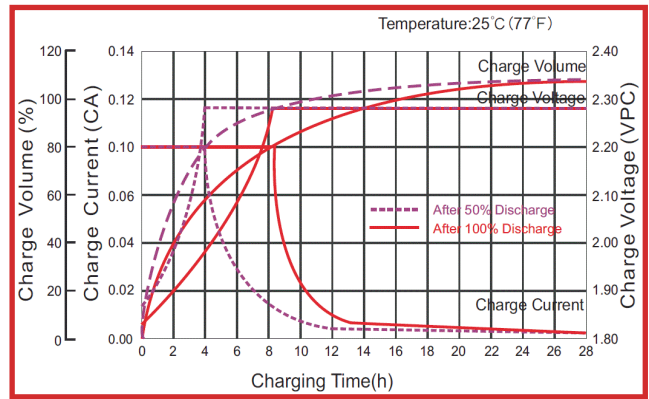
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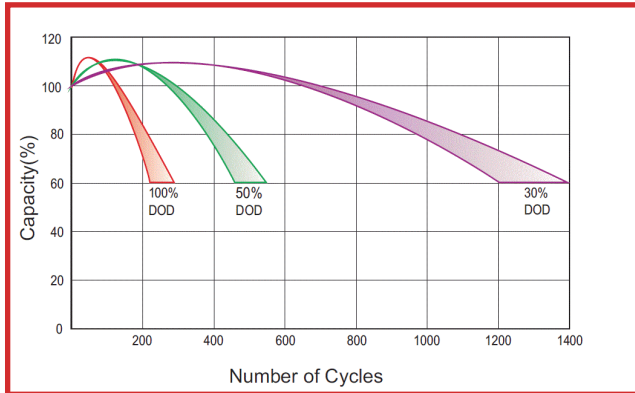
Discharge Characteristics Curve Charge



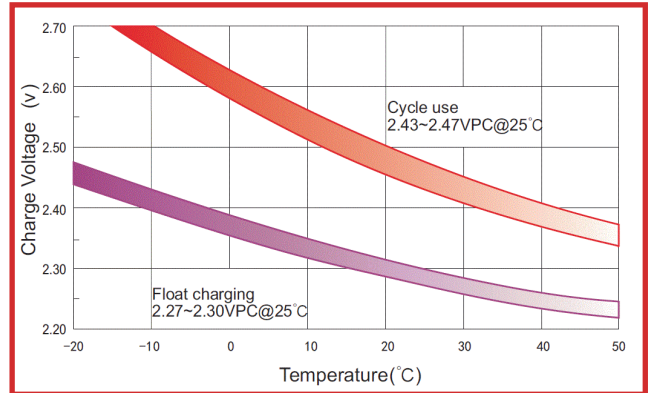
Charge Characteristic Curve For Standby Use



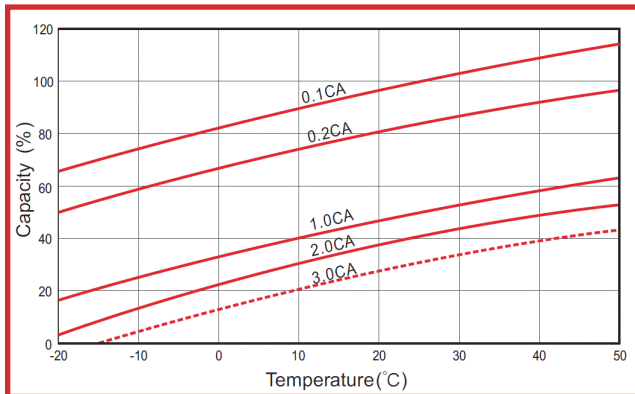
Cycle Life In Relation To Depth Of Discharge



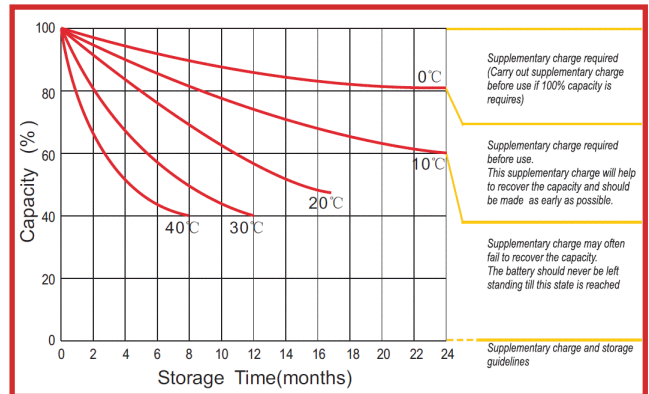
Relationship Between Charging Voltage And Temperature



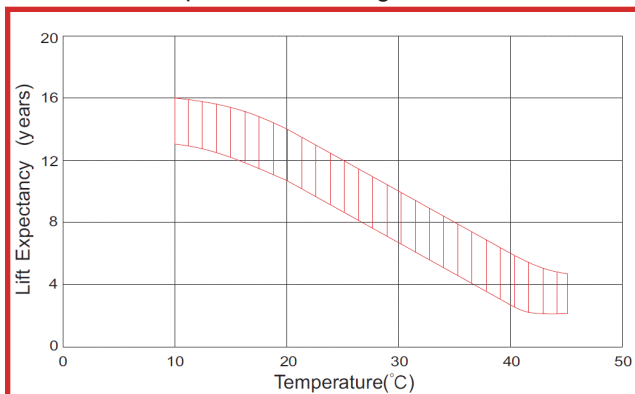
Temperature Effects On Capacity



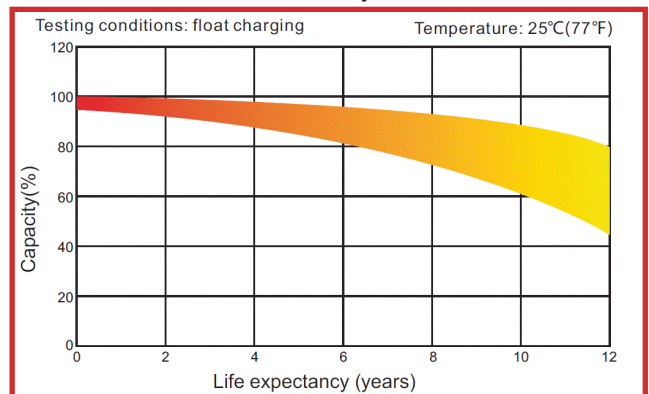
Storage Characteristics



Effect Of Temperature On Long Term Life



Life Characteristics Of Standby Use



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