

**Cod. 00412040**

**VRLA BATTERY AGM TECHNOLOGY**

Revision 4.0

**Specifications**

**Nominal Voltage (V)** 12V

**Nominal Capacity**

20 hour rate	(0.15A to 10.50V)	<b>3Ah</b>
10 hour rate	(0.285A to 10.50V)	<b>2.85Ah</b>
5 hour rate	(0.51A to 10.20V)	<b>2.55Ah</b>
1 C	(3A to 9.60V)	<b>1.7Ah</b>
3 C	(9A to 9.60V)	<b>1.2Ah</b>

**Weight** Approx. 1.4kg (3.08 Lbs.)

**Internal Resistance (at 1KHz)** Approx. 46 mΩ

**Maximum Discharge Current for**

**5 seconds:** 60A

**Charging Methods at 25°C (77°F)**

**Cycle use:**

Charging Voltage 14.4 to 15.0V

Coefficient -5.0mv/°C/cell

Maximum Charging Current: 0.9A

**Standby use:**

Float Charging Voltage 13.50 to 13.80V

Coefficient -3.0mv/°C/cell

**Operating Temperature Range**

Charge -15°C (5°F) to 40 °C (104°F)

Discharge -15°C (5°F) to 50 °C (122°F)

Storage -15°C (5°F) to 40 °C (104°F)

**Charge Retention (shelf life) at 20°C (68°F)**

1 month	<b>98%</b>
3 month	<b>94%</b>
6 month	<b>85%</b>

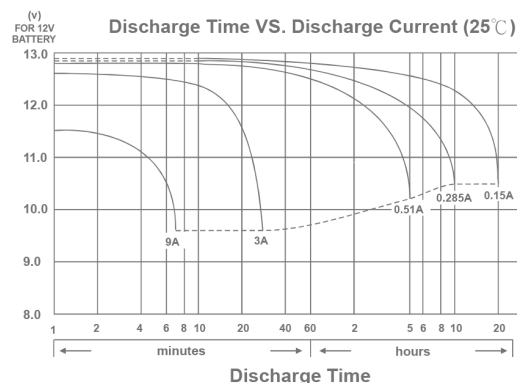
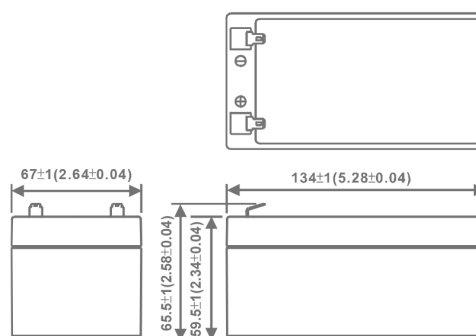
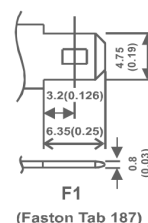
**Case Material ABS UL94HB**

(Option: ABS UL94 V-0 flame retardant)

**Terminal** F1 (Faston Tab 187 or 250)

**ENERGY SAFE**

**Dimensions mm (inch)**

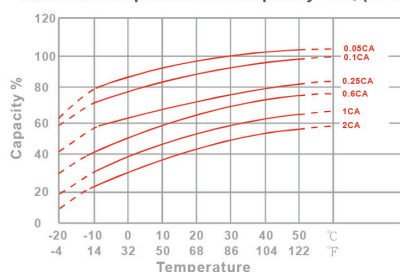


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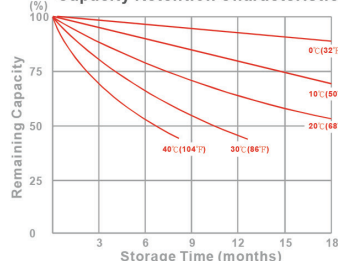
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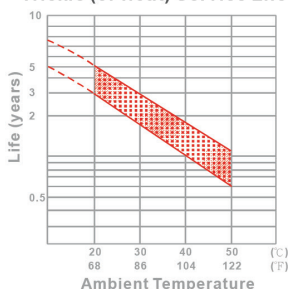
Effect of Temperature on Capacity 25°C (77°F)



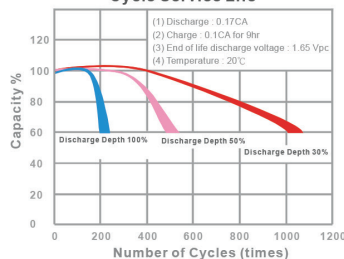
Capacity Retention Characteristic



Trickle (or float) Service Life



Cycle Service Life



**PERFORMANCE DATA**

Discharge Rates in Watts to Various End Voltages at 25°C (77°F)

Time	End Voltage	11.10V	10.80V	10.50V	10.20V	9.90V	9.60V
5	min	114	127	134	138	140	141
10	min	73.5	81.3	86.2	88.7	89.9	90.6
15	min	58.7	64.3	67.7	69.5	70.4	70.9
30	min	31.2	34.2	36.0	37.0	37.4	37.7
60	min	17.2	19.4	20.8	21.5	22.2	22.2
120	min	9.07	10.2	11.0	11.3	11.7	11.7
180	min	7.23	8.13	8.74	9.04	9.34	9.34
240	min	5.81	6.53	7.02	7.26	7.50	7.50
300	min	4.94	5.55	5.97	6.17	6.38	6.38
600	min	2.92	3.28	3.52	3.65	3.77	3.77
1200	min	1.53	1.72	1.85	1.91	1.98	1.98

Discharge Rates in Amperes to Various End Voltages at 25°C (77°F)

Time	End Voltage	11.10V	10.80V	10.50V	10.20V	9.90V	9.60V
5	min	10.2	11.3	12.0	12.3	12.5	12.6
10	min	6.39	7.07	7.49	7.71	7.82	7.88
15	min	5.00	5.47	5.76	5.91	5.99	6.03
30	min	2.62	2.87	3.03	3.11	3.14	3.17
60	min	1.44	1.62	1.74	1.80	1.86	1.86
120	min	0.76	0.85	0.91	0.95	0.98	0.98
180	min	0.60	0.68	0.73	0.75	0.78	0.78
240	min	0.48	0.54	0.58	0.60	0.62	0.62
300	min	0.41	0.46	0.49	0.51	0.53	0.53
600	min	0.24	0.27	0.29	0.30	0.31	0.31
1200	min	0.13	0.14	0.15	0.16	0.16	0.16

All data on the spec. sheet is an average value:

The tolerance range :  $X < 6min (+15\% \sim -15\%)$ ,  $6min \leq X < 10min (+12\% \sim -12\%)$ ,  $10min \leq X < 60min (+8\% \sim -8\%)$ ,  $X \geq 60min (+5\% \sim -5\%)$