

**Cod. 004121219**

**VRLA BATTERY AGM TECHNOLOGY**

*EXTENDED LIFE (LL)*

Revision 1.0

**Specifications**

**Nominal Voltage (V)** 12V

**Nominal Capacity**

20 hour rate	(0.6A to 10.50V)	<b>12Ah</b>
10 hour rate	(1.14A to 10.50V)	<b>11.4Ah</b>
5 hour rate	(2.04A to 10.20V)	<b>10.2Ah</b>
1 C	(12A to 9.60V)	<b>7.6Ah</b>
3 C	(36A to 9.60V)	<b>4.8Ah</b>

**Weight** Approx. 4.020kg (8.84 Lbs.)

**Internal Resistance (at 1KHz)** Approx. 11 mΩ

**Maximum Discharge Current for**

**5 seconds:** 180A

**Charging Methods at 25°C (77°F)**

Maximum Charging Current: 3.6A

**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 92%

3 month 90%

6 month 80%

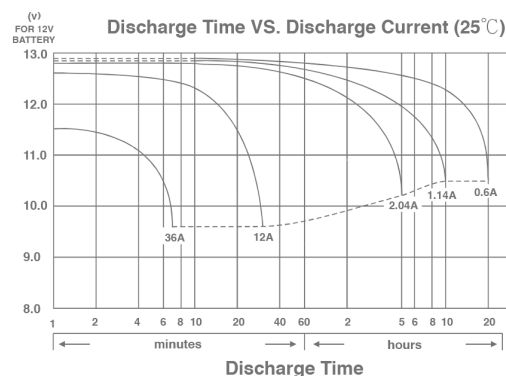
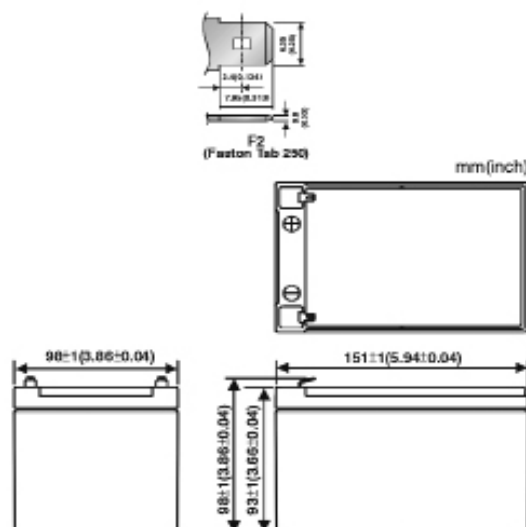
**Case Material ABS UL94HB**

(Option: ABS UL94 V-0 flame retardant)

**Terminal** F2

**ENERGY** Long Life  
**SAFE**

**Dimensions mm (inch)**

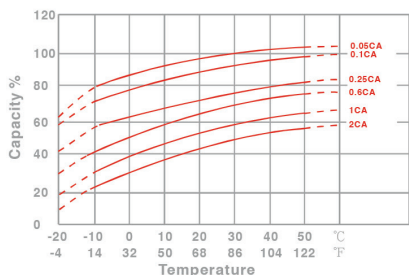


**Cod. 004121219**

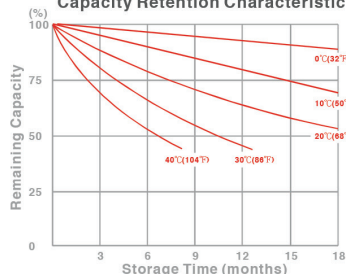
**VRLA BATTERY AGM TECHNOLOGY**  
*EXTENDED LIFE (LL)*

Revision 1.0

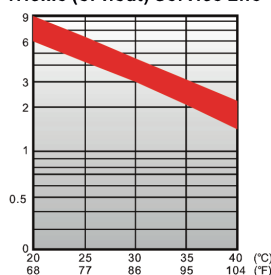
Effect of Temperature on Capacity 25°C(77°F)



Capacity Retention Characteristic



Trickle (or float) Service Life



PERFORMANCE DATA

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

Time	End Voltage	1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
5	min	77.2	84.2	89.3	94.8	97.3	99.7	105
10	min	56.5	60.3	63.0	65.3	66.2	67.5	68.8
15	min	42.2	45.3	47.2	48.5	49.2	49.8	51.0
30	min	26.7	28.0	29.0	30.0	30.3	30.7	31.2
60	min	14.9	15.9	16.6	17.2	17.3	17.5	17.7
120	min	7.80	8.60	9.02	9.22	9.28	9.38	9.52
180	min	5.40	6.15	6.53	6.68	6.97	7.10	7.20
240	min	4.43	4.97	5.22	5.37	5.43	5.52	5.62
300	min	4.12	4.35	4.51	4.65	4.72	4.77	4.83
600	min	2.43	2.55	2.62	2.66	2.68	2.70	2.72
1200	min	1.29	1.31	1.35	1.37	1.39	1.40	1.43

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

Time	End Voltage	1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
5	min	37.8	41.8	44.6	47.5	48.8	50.1	52.7
10	min	28.1	30.3	31.5	32.7	33.2	33.8	34.6
15	min	21.3	22.6	23.7	24.6	25.0	25.4	26.1
30	min	12.6	13.5	14.1	14.6	14.8	15.0	15.3
60	min	8.55	8.74	8.86	8.97	9.02	9.08	9.16
120	min	4.71	4.84	4.95	5.04	5.08	5.13	5.18
180	min	3.14	3.33	3.40	3.46	3.49	3.52	3.56
240	min	2.15	2.26	2.35	2.42	2.45	2.49	2.74
300	min	1.98	2.06	2.12	2.18	2.20	2.23	2.27
600	min	1.19	1.22	1.24	1.26	1.27	1.28	1.29
1200	min	0.619	0.626	0.645	0.654	0.661	0.669	0.683

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

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