


**LIVEN LV Series**

AGM (Absorbent Glass Material) technology with gas recombination. VRLA (Valve Regulated Lead Acid Battery). Maintenance-Free Sealed Lead Acid Battery. Battery with 5 years design life in float service.

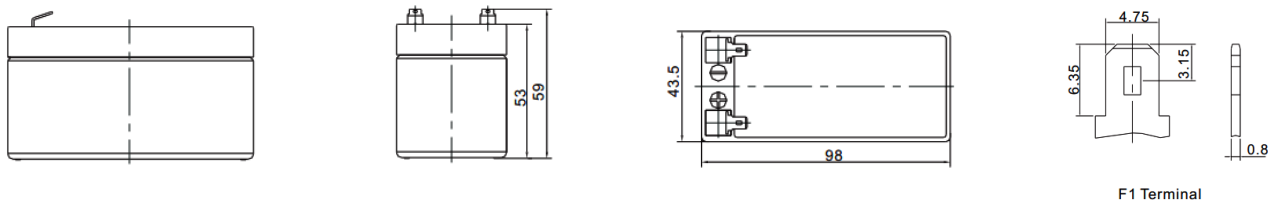
Cycle use 1: Up to 260 cycles at 100% DOD.  
 Cycle use 2: Up to 500 cycles at 50% DOD.

**Applications:**

- Telecommunications
- Uninterrupted Power Supplies
- Medical equipments
- Emergency backup power supply
- Alarm and security system
- Communication power supply
- DC power supply

**Dimensions:**

Length	98±1.5mm (3.86in)
Width	43.5±1.5mm (1.71in)
Height	53±1.5mm (2.09in)
Total Height	59±1.5mm (2.32in)

**Technical Drawings:**

**Constant Current Discharge (CC, Unit: A) at 25°C (77°F)**

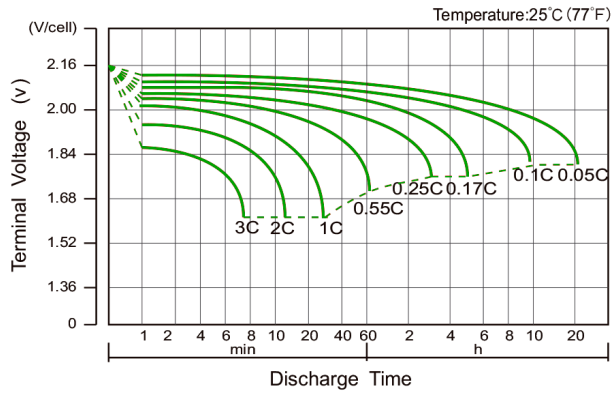
F.V./ Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
<b>1.60V</b>	5.154	3.361	2.480	1.435	0.829	0.489	0.356	0.283	0.239	0.160	0.130	0.068
<b>1.65V</b>	4.968	3.261	2.415	1.404	0.814	0.482	0.351	0.280	0.236	0.158	0.129	0.067
<b>1.70V</b>	4.726	3.130	2.329	1.362	0.794	0.473	0.345	0.275	0.233	0.156	0.127	0.066
<b>1.75V</b>	4.415	2.960	2.218	1.307	0.767	0.460	0.336	0.269	0.228	0.153	0.125	0.065
<b>1.80V</b>	4.022	2.743	2.075	1.237	0.732	0.443	0.325	0.261	0.221	0.149	0.122	0.064
<b>1.85V</b>	3.540	2.471	1.895	1.146	0.687	0.422	0.311	0.250	0.213	0.144	0.118	0.061

**Constant Power Discharge (CP, Unit: W/Battery) at 25°C (77°F)**

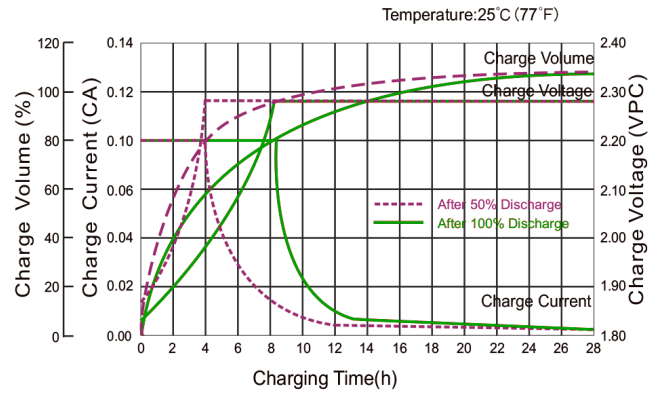
F.V./ Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
<b>1.60V</b>	53.22	34.80	26.40	15.90	9.42	5.64	4.14	3.30	2.82	1.92	1.56	0.84
<b>1.65V</b>	52.68	34.68	26.28	15.78	9.36	5.58	4.08	3.30	2.76	1.86	1.56	0.78
<b>1.70V</b>	50.64	33.66	25.56	15.36	9.18	5.52	4.02	3.24	2.76	1.86	1.50	0.78
<b>1.75V</b>	48.18	32.40	24.66	14.94	8.88	5.40	3.96	3.18	2.70	1.86	1.50	0.78
<b>1.80V</b>	44.64	30.54	23.40	14.22	8.52	5.22	3.84	3.12	2.64	1.80	1.44	0.78
<b>1.85V</b>	40.02	27.96	21.66	13.32	8.04	4.98	3.72	3.00	2.52	1.74	1.44	0.78

Specifications:	
<b>Cells Per Unit</b>	6
<b>Voltage Per Unit</b>	12V
<b>Nominal Capacity</b>	1.3Ah @20hour-rate to 1.75V per cell @25°C
<b>Weight</b>	Approx. 0.52Kg ±2% (1.15lbs)
<b>Internal Resistance</b>	Approx. 95mΩ
<b>Terminal</b>	F1
<b>Max. Discharge Current</b>	13A (5sec)
<b>Short Circuit Current</b>	68A
<b>Design Life</b>	5 years (Float charging) Eurobat (20°C): 3-5 years
<b>Recommended Maximum Charging Current</b>	0.39A
<b>Standby Use Voltage</b>	13.5V~13.8V @ 25°C Temperature Compensation: -3mV/°C/Cell
<b>Cycle Use Voltage</b>	14.4V~15.0V @ 25°C Temperature Compensation: -4mV/°C/Cell
<b>Operating Temperature Range</b>	Discharge: -15°C~50°C Charge: -10°C~45°C Storage: -15°C~50°C
<b>Normal Operating Temperature Range</b>	25°C±5°C
<b>Self Discharge</b>	LIVEN 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.
<b>Container Material</b>	A.B.S. UL94-HB, UL94-V0 Optional.

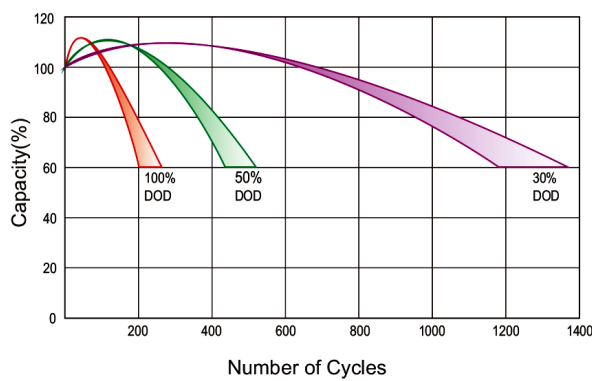
**Discharge Characteristics Curve**



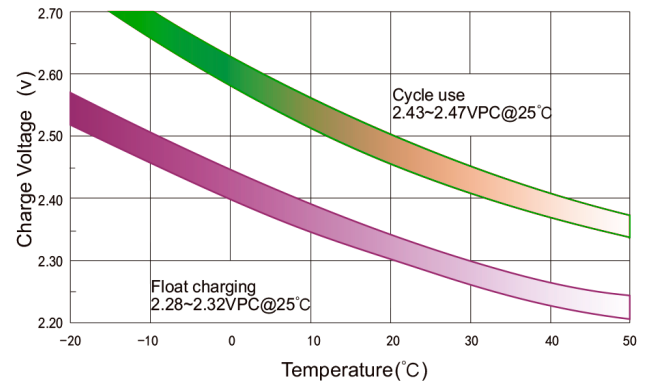
**Charge Characteristic Curve For Standby Use**



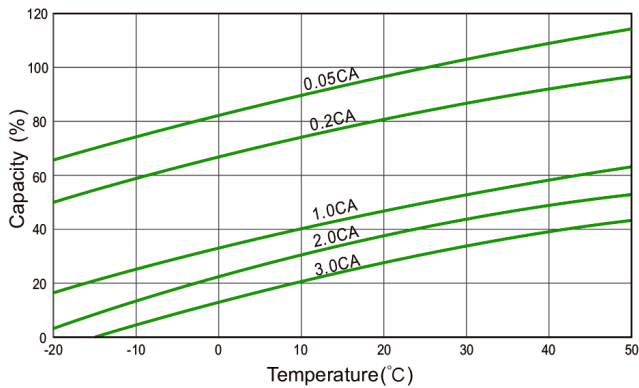
**Cycle Life In Relation To Depth Of Discharge**



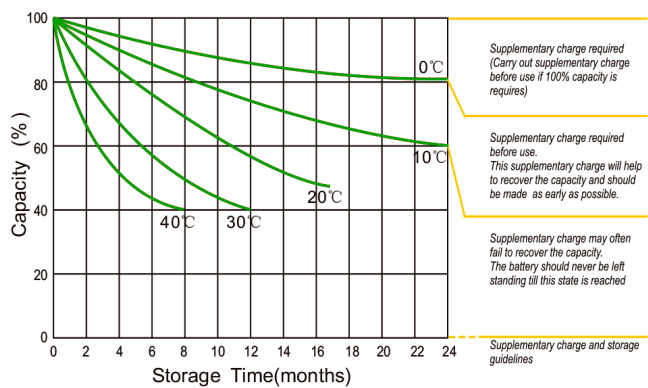
**Relationship Between Charging Voltage And Temperature**



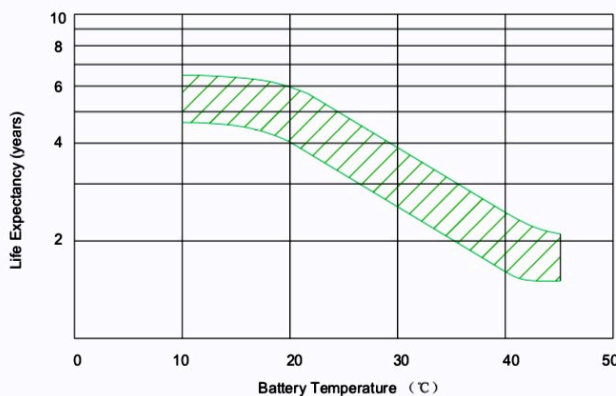
**Temperature Effects On Capacity**



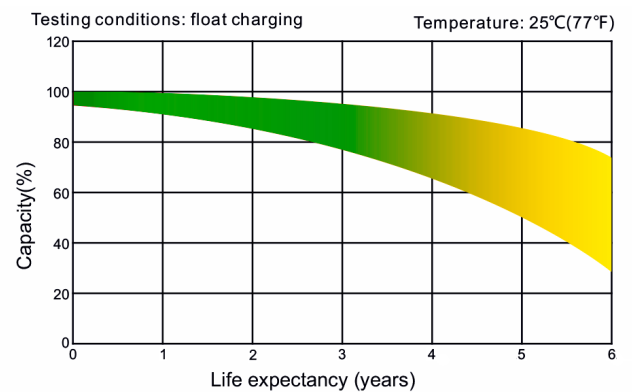
**Storage Characteristics**



**Effect Of Temperature On Long Term Life**



**Life Characteristics Of Standby Use**



(Note) All above information shall be changed without prior notice. LIVEN Battery reserves the right to explain and update the latest information.