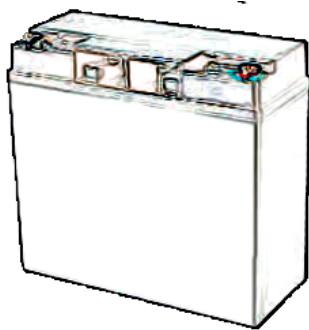




LIVEN LV Series

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.

Application:

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

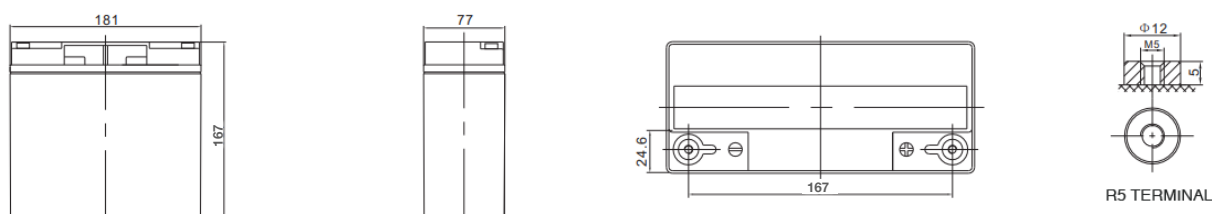
Dimensions:

Length	181±1.5mm (7.13 inches)
Width	77±1.5mm (3.03 inches)
Height	167±1.5mm (5.98 inches)
Total Height	167±1.5mm (6.50 inches)

Specification:

Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	18Ah@20hour-rate to 1.75V per cell @25°C
Weight	Approx. 5.2 Kg ±2%
Internal Resistance	Approx. 14 mΩ
Terminal	R5 (M5)
Max. Discharge Current	180A (5 sec)
Short Circuit Current	750A
Design Life	5 years (Float charging) Eurobat (20°C): 3-5 years
Recommended Maximum Charging Current	5.4 A
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: -15°C~50°C Charge: -10°C~45°C Storage: -15°C~50°C
Normal Operating Temperature Range	25°C±5°C
Self Discharge	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.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

Drawing:



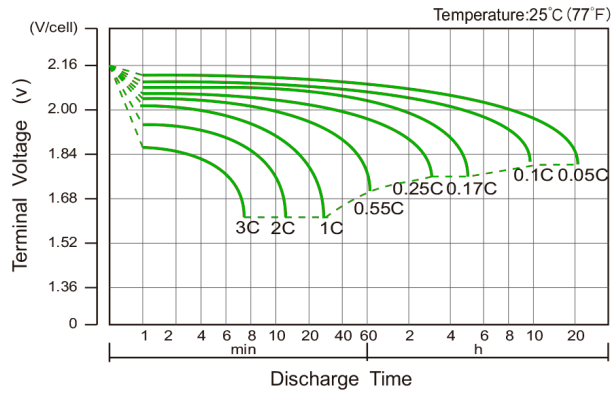
Constant Current Discharge (CC, Unit: A) at 25°C (77°F)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	71.37	46.54	34.34	19.87	11.48	6.774	4.925	3.921	3.310	2.212	1.802	0.937
1.65V	68.79	45.16	33.44	19.43	11.27	6.675	4.859	3.873	3.272	2.190	1.785	0.930
1.70V	65.43	43.34	32.25	18.86	10.99	6.543	4.772	3.808	3.221	2.160	1.762	0.920
1.75V	61.12	40.98	30.71	18.10	10.62	6.369	4.656	3.722	3.154	2.120	1.731	0.906
1.80V	55.69	37.97	28.73	17.12	10.13	6.139	4.504	3.608	3.064	2.068	1.691	0.889
1.85V	49.01	34.21	26.23	15.87	9.510	5.841	4.305	3.460	2.947	1.999	1.638	0.865

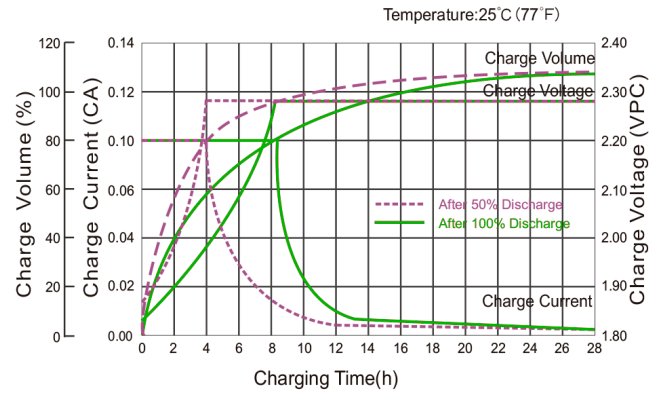
Constant Power Discharge (CP, Unit: W/Battery) at 25°C (77°F)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	736.80	481.80	365.58	219.78	130.74	78.18	57.30	45.84	38.88	26.28	21.54	11.22
1.65V	729.00	479.82	363.48	218.16	129.66	77.58	56.88	45.54	38.58	26.10	21.42	11.16
1.70V	701.40	465.66	353.70	212.88	126.90	76.32	55.98	44.88	38.10	25.80	21.12	11.04
1.75V	667.20	448.32	341.70	206.46	123.24	74.64	54.84	44.04	37.44	25.38	20.82	10.92
1.80V	618.60	422.64	324.18	197.28	118.14	72.30	53.28	42.84	36.48	24.78	20.34	10.74
1.85V	553.86	387.54	300.18	184.68	111.66	69.18	51.18	41.22	35.22	24.06	19.74	10.44

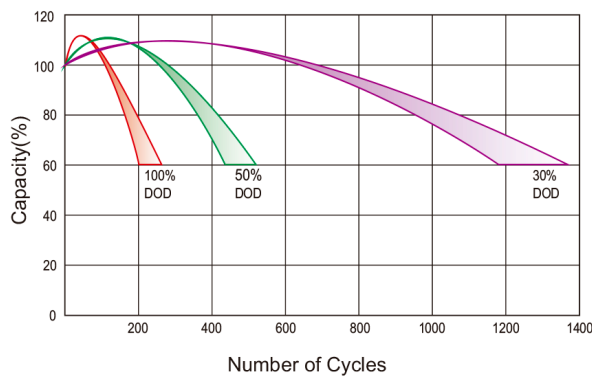
Discharge Characteristics Curve



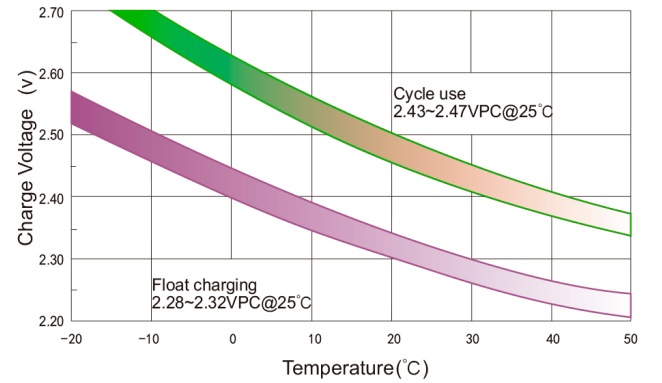
Charge Characteristic Curve For Standby Use



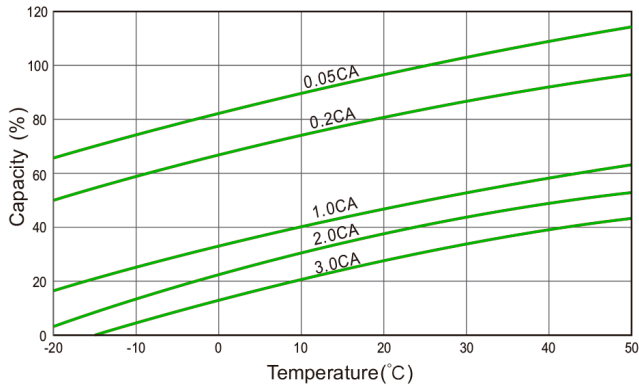
Cycle Life In Relation To Depth Of Discharge



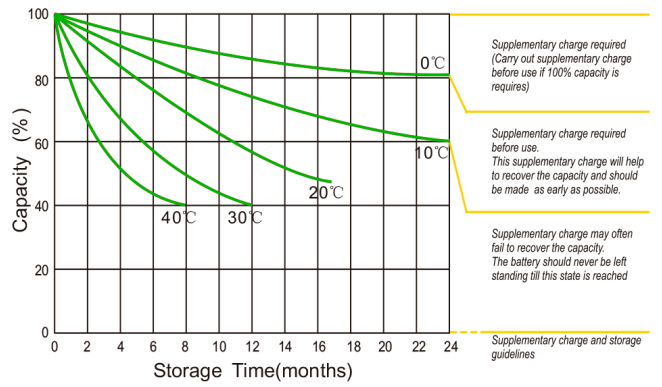
Relationship Between Charging Voltage And Temperature



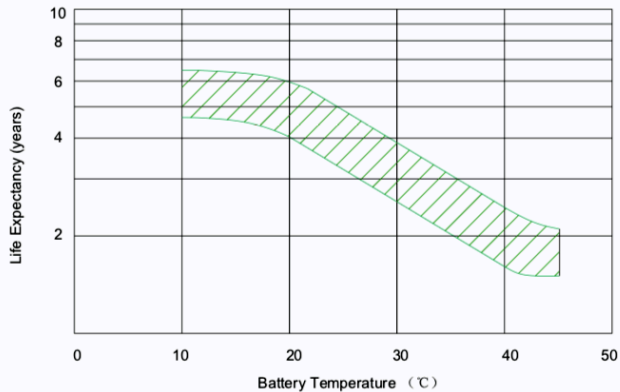
Temperature Effects On Capacity



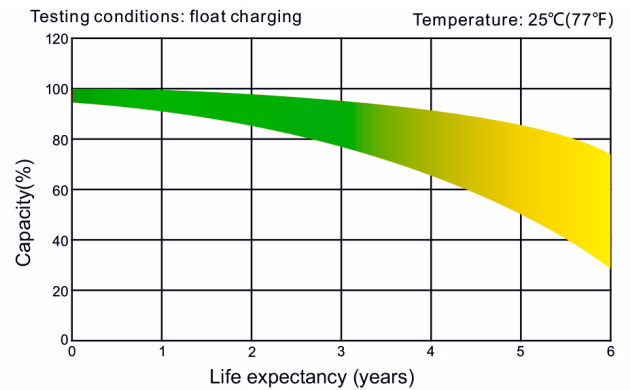
Storage Characteristics



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.