



LIVEN LVJ Series - Storage-type Gelled Battery

- High performance, completely maintenance-free, low self-discharge
- 100% precise quality testing, stable quality and high reliable performance
- Unique grid alloy formula, Gelled electrolyte formula and updated manufacturing technique
- Floating & standby use: up to 12 years
- Cycle use 1: Up to 350 cycles at 100% DOD
- Cycle use 2: Up to 1800 cycles at 15% DOD

Application:

- Telecommunications
- UPS / EPS
- DC Power Supply
- Solar System
- Wind Power System
- Auto Control System

Construction:

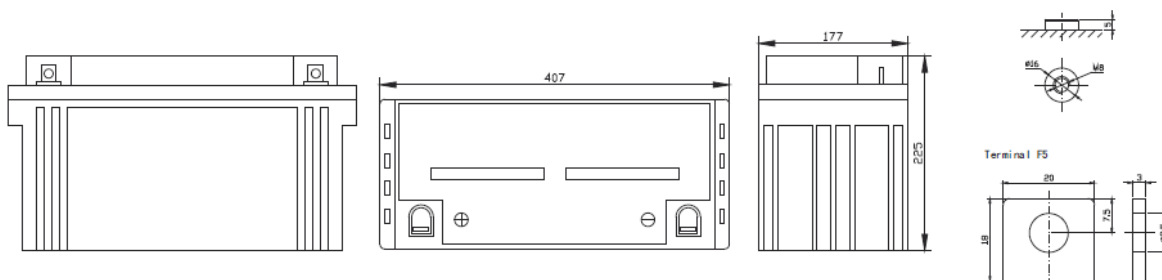
- ComponentRaw material
- PositiveLead dioxide
- NegativeLead
- ContainerABS
- CoverABS
- SealantEpoxy
- Safety valve Rubber
- TerminalCopper/Pb
- SeparatorFiber glass
- Electrolyte Gelled acid

Specification:

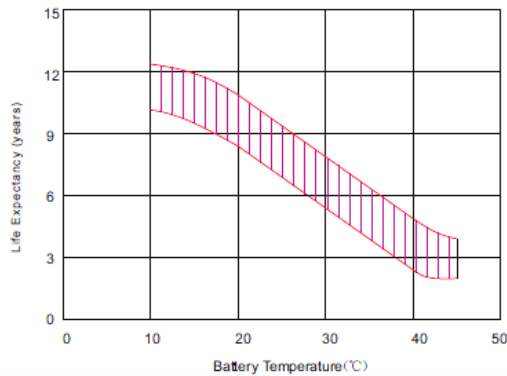
Cells Per Unit	6
Voltage Per Unit	12
Capacity	120Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 35.0 Kg (Tolerance $\pm 2\%$)
Max. Discharge Current	1200A (5 sec)
Internal Resistance	Approx. 4.5 m Ω
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C $\pm$ 5°C
Float charging Voltage	13.6 to 13.8 VDC/unit Average at 25°C
Recommended Maximum Charging Current	36A
Equalization and Cycle Service	14.6 to 14.8 VDC/unit Average at 25°C
Self Discharge	LIVEN Valve Regulated Lead Acid (VRLA) batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using.
Terminal	Terminal F5/F12
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

Outer Dimensions:

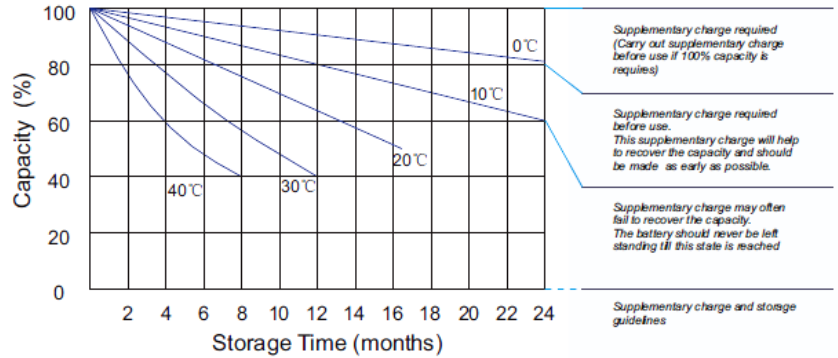
Unit: mm Dimension: 407(L) $\times$ 177(W) $\times$ 225(H)



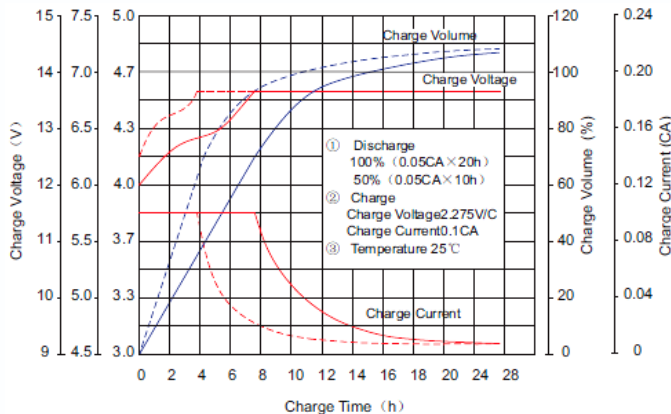
Effect of temperature on long term float life



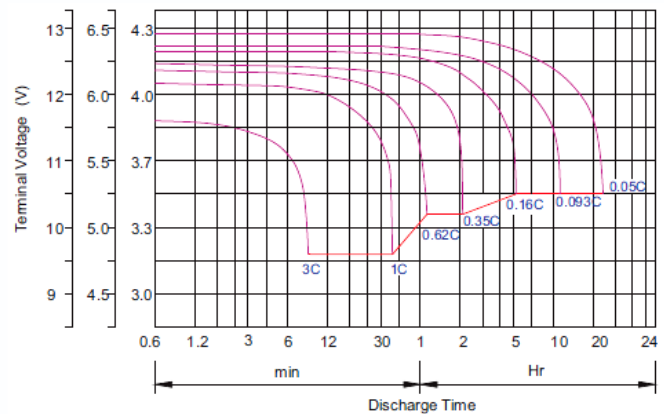
Storage characteristic



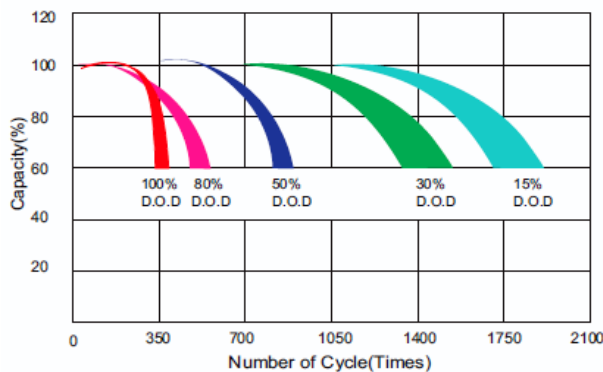
Charge characteristic Curve for standby use



Discharge characteristic Curve



Life characteristics of cyclic use



Cycle service

- ※ Avoid battery over discharge, especially battery series connection use.
- ※ Charged with recommend voltage, ensure battery can be full recharged.
- In general, recharge capacity should be 1.1-1.15 times discharge capacity.
- ※ Effect of temperature on cycle charge voltage: -4mV/°C/Cell.
- ※ There are a number of factors that will affect the length of cyclic service.
- The most significant are depth of discharge, ambient temperature, discharge rate, and the manner in which the battery is recharged.
- Generally speaking, the most important factors is depth of discharge.

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
9.60V	366.7	267.6	209.0	118.2	73.40	46.24	31.43	25.34	21.04	13.86	12.49	6.61
10.0V	356.1	254.6	204.7	116.6	72.43	45.31	30.84	24.98	20.85	13.80	12.36	6.49
10.2V	345.6	245.7	201.5	114.9	71.74	44.83	30.57	24.73	20.71	13.68	12.24	6.36
10.5V	310.3	226.7	191.8	111.9	70.86	44.25	30.30	24.37	20.54	13.55	12.12	6.24
10.8V	280.1	206.7	176.8	108.0	69.87	43.88	29.95	23.53	20.44	13.50	12.01	6.18
11.1V	239.1	184.7	158.6	103.9	68.22	42.12	29.36	23.19	20.29	13.39	11.87	5.93

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

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	3793	2850	2289	1353	850.6	541.9	370.0	303.3	252.0	165.9	149.7	79.63
10.0V	3718	2763	2262	1338	842.9	535.3	364.5	299.0	249.7	165.3	148.6	78.25
10.2V	3676	2690	2237	1327	837.9	531.5	362.9	296.2	248.2	164.0	147.2	76.80
10.5V	3346	2505	2133	1300	832.5	524.8	359.9	292.2	246.2	162.6	145.8	75.35
10.8V	3048	2309	1972	1269	821.8	520.9	355.9	282.4	245.1	161.9	144.4	74.62
11.1V	2677	2088	1775	1234	809.5	501.4	349.9	278.3	244.2	160.8	142.8	71.95