



LIVEN LVL Series

- High performance, completely maintenance-free, low self-discharge
- 100% precise quality testing, stable quality and high reliable performance
- Unique grid alloy formula and updated manufacturing technique
- Floating & standby use: up to 10 years
- 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
- Uninterruptable Power Supply (UPS)
- Communication power supply
- Electric Power System (EPS)
- DC power supply
- Emergency backup power supply
- Auto control system

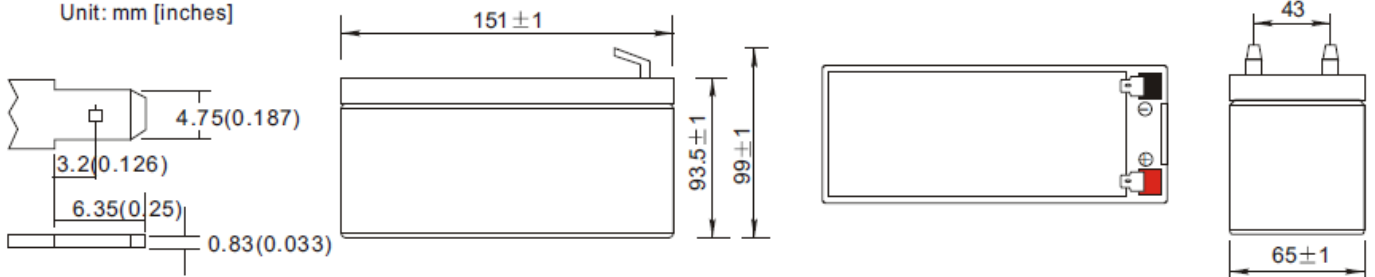


Specification:

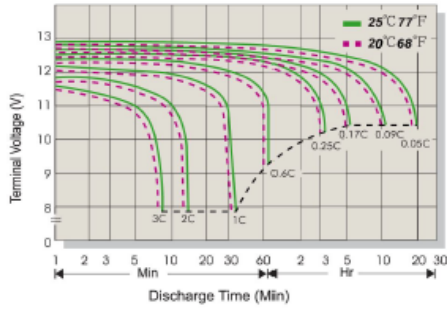
Nominal Voltage	12V
Nominal Capacity(10HR)	7.0AH 7.42AH/0.371A (20hr , 1.80V/cell, 25°C/77°F)
Dimension	Length 151±2mm (5.95 inches)
	Width 65±1mm (2.56 inches)
	Container Height 93.5±1mm (3.70 inches)
	Total Height (with Terminal) 99±1mm (3.92 inches)
Approx Weight	Approx 2.45 Kg (5.40 lbs)
Terminal	T1 / T2
Container Material	ABS
Max. Discharge Current	105.0A (5s)
Internal Resistance	Approx 18.0mΩ
Operating Temp. Range	Discharge : -15~50°C (5~122°F)
	Charge : 0~40°C (32~104°F)
	Storage : -15~40°C (5~104°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)
Cycle Use	Initial Charging Current less than 2.1A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C
Standby Use	No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C
Capacity affected by Temperature	40°C (104°F) 103%
	25°C (77°F) 100%
	0°C (32°F) 86%
Self Discharge	LIVEN LVL series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.

Outer Dimensions:

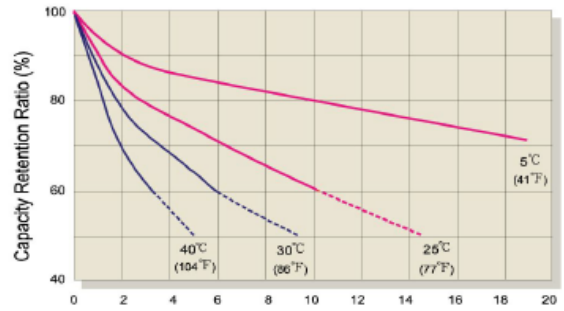
■ T1 Terminal Unit: mm [inches]



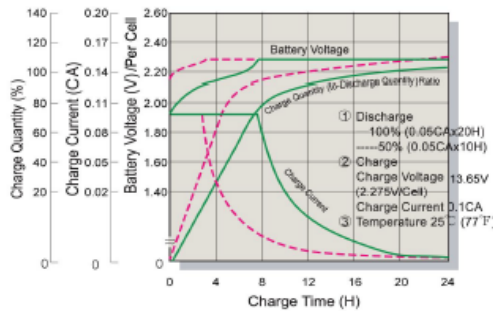
Terminal Voltage (V) and Discharge Time



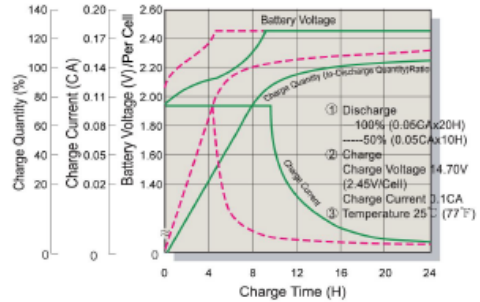
Capacity Retention Characteristic



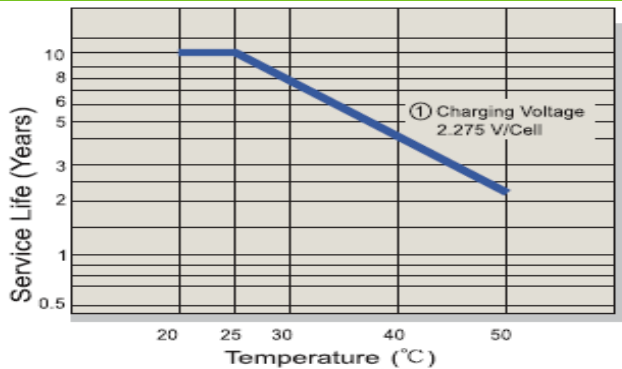
Battery Voltage and Charge Time for Standby Use



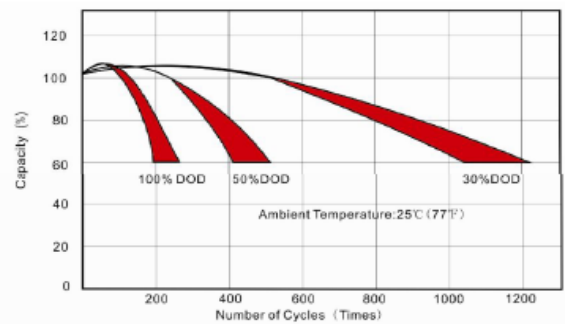
Battery Voltage and Charge Time for Cycle Use



Tickle (or Float) Service Life



Cycle Service Life



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

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	9.03	7.53	6.42	5.25	3.97	3.33	2.12	1.68	1.36	1.10	0.97	0.77	0.661	0.368
1.80V/cell	11.5	9.10	7.59	6.19	4.61	3.73	2.32	1.81	1.46	1.18	1.04	0.82	0.700	0.371
1.75V/cell	12.7	9.9	8.17	6.43	4.79	3.90	2.40	1.84	1.49	1.21	1.07	0.84	0.707	0.375
1.70V/cell	13.8	10.6	8.58	6.69	4.98	4.02	2.50	1.89	1.53	1.24	1.09	0.85	0.714	0.382
1.65V/cell	14.9	11.3	9.12	7.06	5.10	4.16	2.57	1.98	1.58	1.28	1.11	0.86	0.729	0.386
1.60V/cell	16.2	12.1	9.71	7.45	5.32	4.31	2.65	2.04	1.63	1.32	1.14	0.87	0.736	0.389

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

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	17.0	14.3	12.3	10.2	7.76	6.53	4.20	3.34	2.71	2.20	1.93	1.55	1.33	0.741
1.80V/cell	21.5	17.1	14.4	11.8	8.96	7.28	4.55	3.57	2.88	2.35	2.07	1.65	1.41	0.747
1.75V/cell	23.2	18.4	15.3	12.2	9.21	7.58	4.70	3.62	2.94	2.40	2.12	1.67	1.42	0.753
1.70V/cell	24.7	19.4	16.0	12.6	9.55	7.80	4.88	3.72	3.01	2.46	2.16	1.69	1.43	0.767
1.65V/cell	26.5	20.5	16.8	13.2	9.70	8.00	4.99	3.86	3.10	2.52	2.20	1.71	1.46	0.776
1.60V/cell	28.1	21.5	17.7	13.8	10.05	8.24	5.13	3.96	3.19	2.60	2.24	1.73	1.47	0.779