



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
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Alarm and security system
- Communication power supply
- DC power supply
- Auto control system

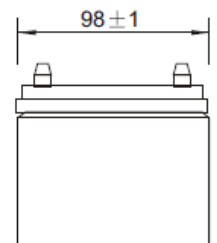
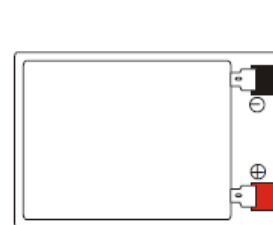
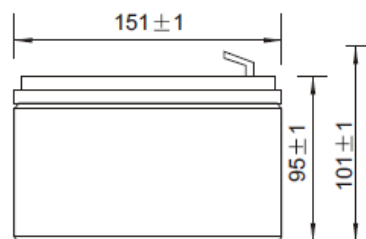
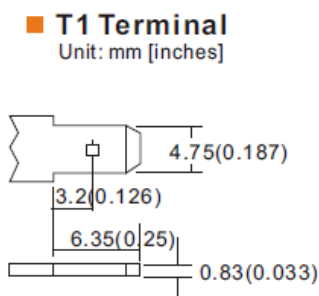


Specification:

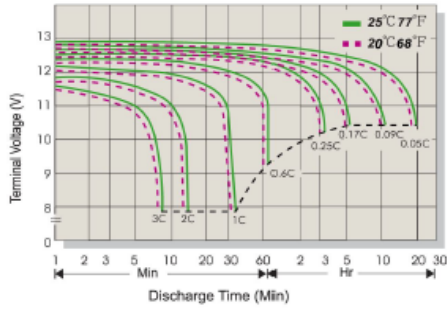
Nominal Voltage	12V	
Nominal Capacity(10HR)	12.0AH	
Dimension	Length	151 ± 2mm (5.95 inches)
	Width	98 ± 1mm (3.86 inches)
	Container Height	95 ± 1mm (3.74 inches)
	Total Height (with Terminal)	101 ± 2mm (3.98 inches)
Approx Weight	Approx 3.80 Kg (8.38 lbs)	
Terminal	T1 / T2/T3-A	
Container Material	ABS	
Max. Discharge Current	180A (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 3.6A. 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%

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.

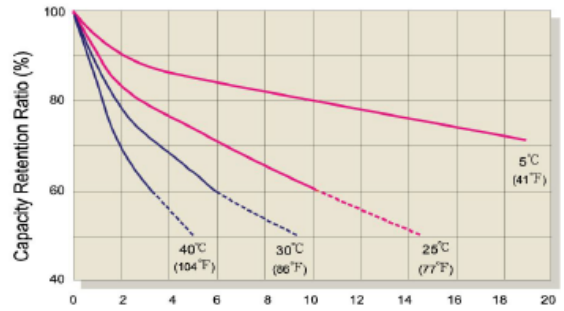
Outer Dimensions:



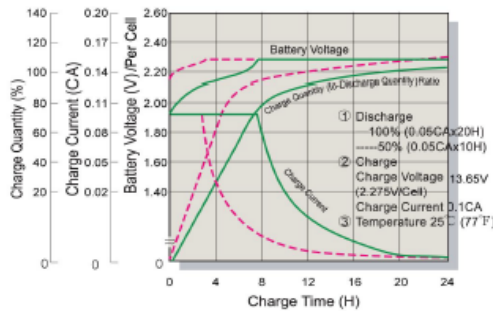
Terminal Voltage (V) and Discharge Time



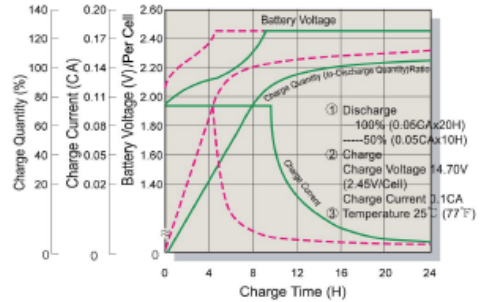
Capacity Retention Characteristic



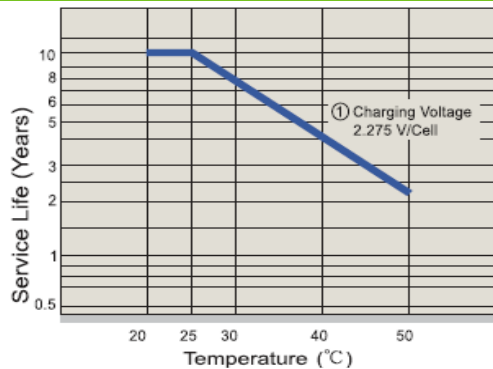
Battery Voltage and Charge Time for Standby Use



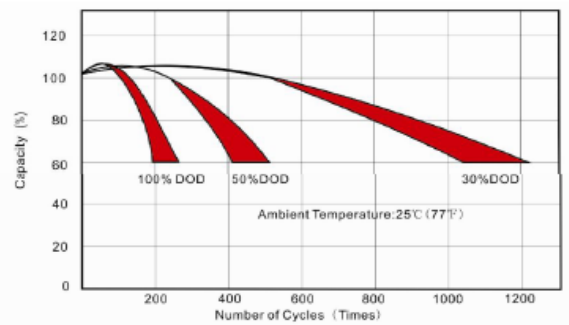
Battery Voltage and Charge Time for Cycle Use



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	15.5	12.9	11.0	8.99	6.80	5.70	3.64	2.884	2.34	1.89	1.66	1.33	1.13	0.630
1.80V/cell	19.8	15.6	13.0	10.6	7.91	6.39	3.97	3.103	2.49	2.03	1.78	1.41	1.20	0.636
1.75V/cell	21.7	17.0	14.0	11.0	8.21	6.68	4.12	3.160	2.56	2.08	1.83	1.43	1.21	0.642
1.70V/cell	23.7	18.2	14.7	11.5	8.54	6.90	4.28	3.248	2.62	2.13	1.86	1.45	1.22	0.654
1.65V/cell	25.6	19.4	15.6	12.1	8.75	7.13	4.40	3.386	2.71	2.19	1.91	1.47	1.25	0.662
1.60V/cell	27.8	20.7	16.7	12.8	9.12	7.38	4.55	3.490	2.79	2.27	1.95	1.49	1.26	0.666

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	29.1	24.6	21.1	17.5	13.3	11.2	7.20	5.72	4.65	3.77	3.32	2.66	2.28	1.270
1.80V/cell	36.8	29.3	24.6	20.3	15.4	12.5	7.80	6.12	4.94	4.03	3.54	2.82	2.41	1.280
1.75V/cell	39.8	31.6	26.2	20.9	15.8	13.0	8.06	6.21	5.04	4.12	3.63	2.86	2.43	1.291
1.70V/cell	42.4	33.3	27.4	21.6	16.4	13.4	8.36	6.37	5.16	4.22	3.70	2.90	2.46	1.314
1.65V/cell	45.4	35.1	28.9	22.6	16.6	13.7	8.55	6.62	5.31	4.32	3.77	2.94	2.50	1.329
1.60V/cell	48.1	36.9	30.4	23.7	17.2	14.1	8.79	6.79	5.46	4.45	3.84	2.96	2.53	1.335