



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:

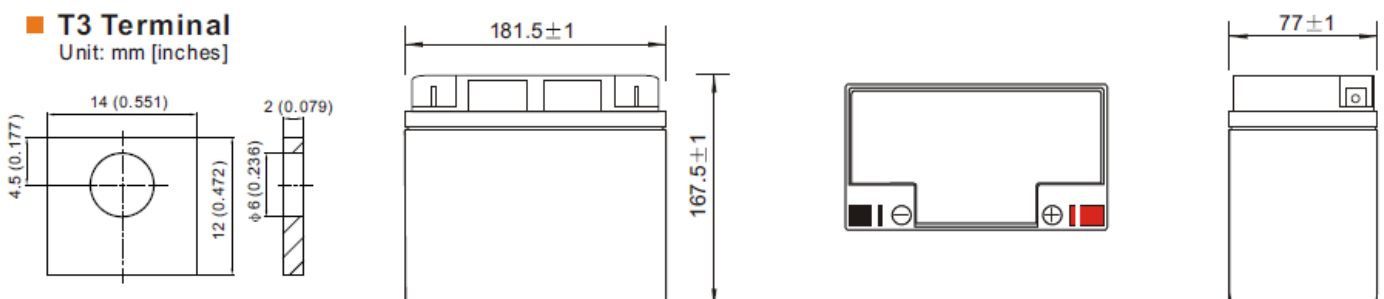
- Telecommunications
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Alarm and security system
- Communication power supply
- DC power supply
- Auto control system



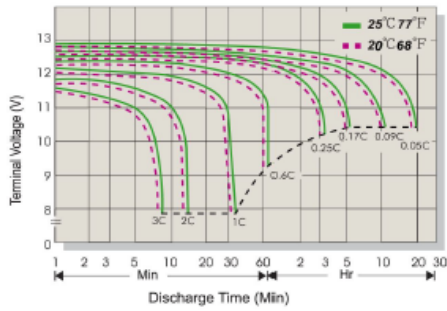
Specification:

Nominal Voltage	12V
Nominal Capacity(10HR)	18.0AH
Dimension	Length 181.5±2mm (7.14 inches)
	Width 77±1mm (3.03 inches)
	Container Height 167.5±2mm (6.59 inches)
	Total Height (with Terminal) 167.5±2mm (6.59 inches)
Approx Weight	Approx 5.7 Kg (12.57 lbs)
Terminal	T3/T12/T2
Container Material	ABS
Max. Discharge Current	270A (5s)
Internal Resistance	Approx 16.0mΩ
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 5.4A. 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.

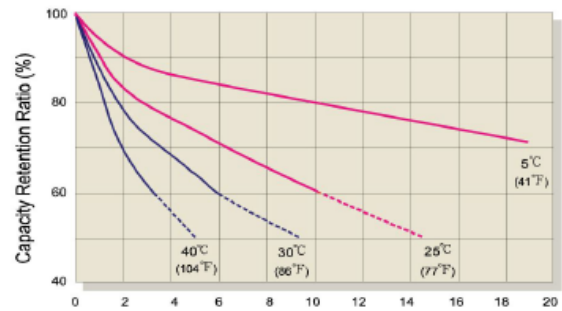
Outer Dimensions:



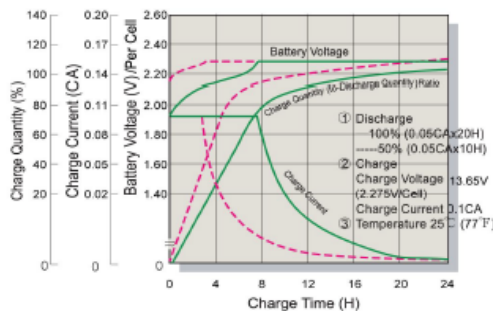
Terminal Voltage (V) and Discharge Time



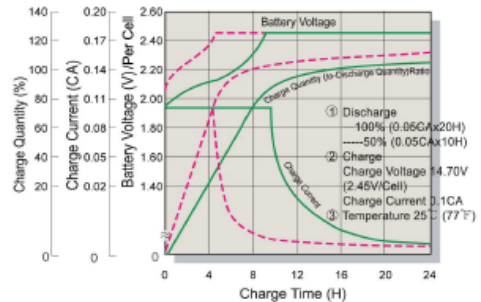
Capacity Retention Characteristic



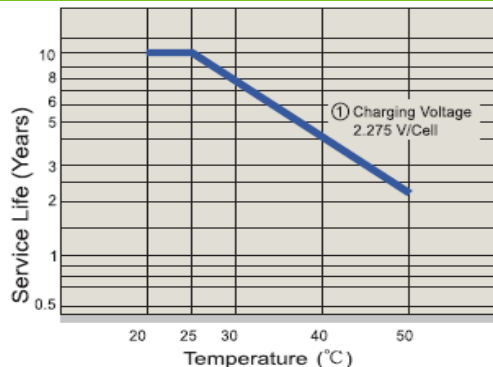
Battery Voltage and Charge Time for Standby Use



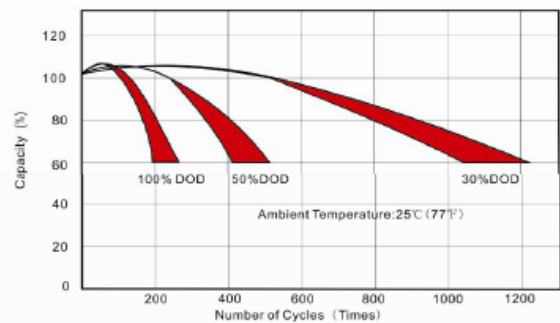
Battery Voltage and Charge Time for Cycle Use



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	23.2	19.4	16.5	13.5	10.2	8.56	5.46	4.33	3.50	2.83	2.49	1.99	1.70	0.945
1.80V/cell	29.7	23.4	19.5	15.9	11.9	9.58	5.96	4.65	3.74	3.04	2.67	2.11	1.80	0.954
1.75V/cell	32.6	25.6	21.0	16.5	12.3	10.0	6.18	4.74	3.83	3.12	2.74	2.15	1.82	0.963
1.70V/cell	35.5	27.3	22.1	17.2	12.8	10.3	6.42	4.87	3.93	3.20	2.80	2.18	1.84	0.981
1.65V/cell	38.3	29.0	23.4	18.1	13.1	10.7	6.60	5.08	4.06	3.29	2.86	2.21	1.87	0.994
1.60V/cell	41.6	31.0	25.0	19.2	13.7	11.1	6.83	5.23	4.19	3.40	2.92	2.23	1.89	0.999

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	43.7	36.8	31.7	26.2	20.0	16.8	10.8	8.58	6.98	5.65	4.97	4.00	3.42	1.91
1.80V/cell	55.2	43.9	36.9	30.4	23.0	18.7	11.7	9.18	7.41	6.04	5.32	4.23	3.62	1.92
1.75V/cell	59.7	47.4	39.4	31.3	23.7	19.5	12.1	9.32	7.56	6.18	5.44	4.29	3.65	1.94
1.70V/cell	63.6	49.9	41.1	32.4	24.5	20.1	12.5	9.56	7.73	6.33	5.55	4.35	3.69	1.97
1.65V/cell	68.0	52.7	43.3	33.9	24.9	20.6	12.8	9.92	7.97	6.48	5.65	4.41	3.76	1.99
1.60V/cell	72.2	55.4	45.6	35.6	25.9	21.2	13.2	10.2	8.20	6.68	5.76	4.44	3.79	2.00