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LIVEN LEVG Series-GEL Deep Cycle

- For longer cycle live: special paste formula, over dimensioned negative plate, optimised manufacturing process, additives for deep discharge. Up to 10 years
- Special anti-vibration desing
- Thick plates, special formula of paste and plate manufacturing process for a long service life
- ABS material: increase the strenght of battery container
- Special plate desing, long cycle life
- Using special lead-calcium alloy to boost up the grid anti-corrosive performance and extend the battery using life
- Special separators boost up the battery internal performance
- High termal capacity, reduce the risk of thermal runaway and drying up, can be used in por environment
- High gas recombination efficiency
- Little wáter losing, no electrolyte stratification phenomenon
- Long storage time
- Good deep discharge resilience performance

Application:

- Railway and marine systems
- Electric tools
- Vehicle in place of walking
- Lawn mowers
- Golf trolleys and golf cart
- Electric toys
- Portable power
- Wheelchairs
- Medical equipments.

Specification:

Nominal Voltage	12V
Nominal Capacity(20HR)	70.0AH
Dimension	Length 260±3mm (10.24 inches) Width 168±2mm (6.61 inches) Container Height 208±3mm (8.19 inches) Total Height (with Terminal) 230±3mm (9.05 inches)
Approx Weight	Approx 25.0 kg (55.1lbs)
Terminal	T14
Container Material	ABS
Max. Discharge Current	700A (5s)
Internal Resistance	Approx 6.4mΩ
Operating Temp.Range	Discharge : -20~55°C (-4~131°F) Charge : 0~40°C (32~104°F) Storage : -20~50°C (-4~122°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)
Cycle Use	Initial Charging Current less than 14.0A.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%

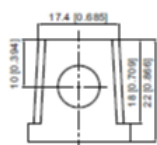
LIVEN LEVG series batteries may be stored for up to 9 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.

Outer Dimensions:

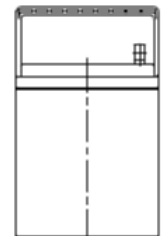
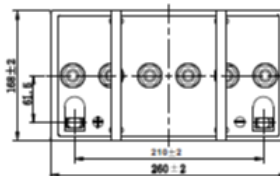
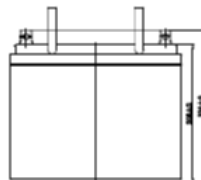
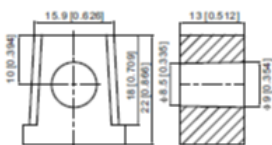
T14 Terminal

Unit: mm [inches]

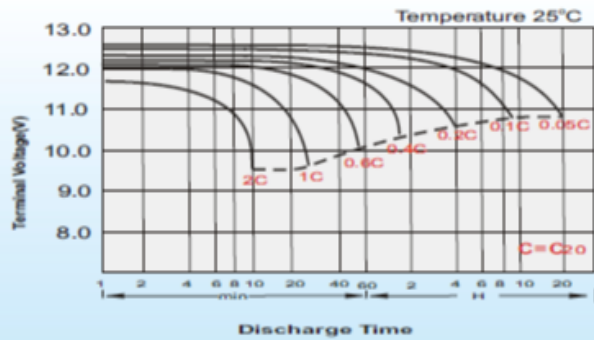
T14 Positive



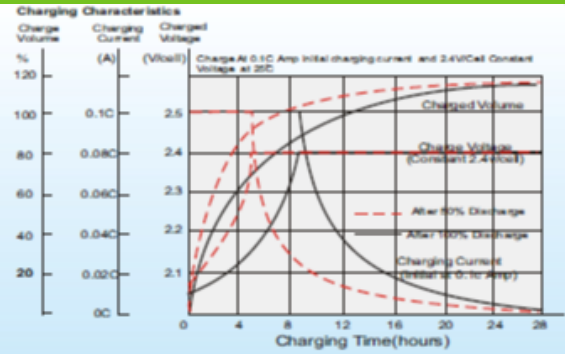
T14 Negative



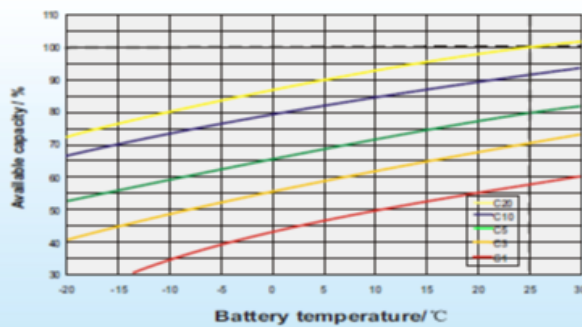
Discharge Characteristics



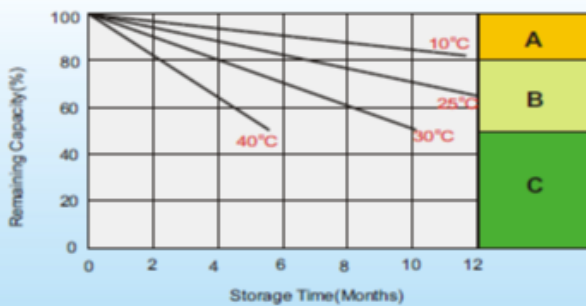
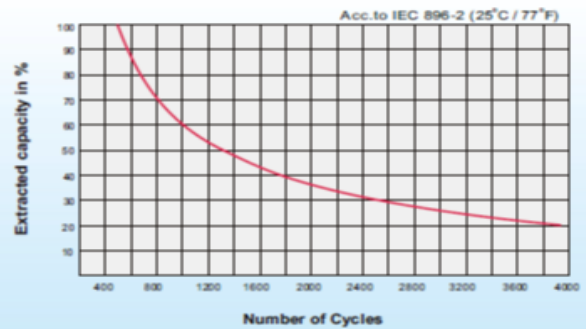
Capacity Retention Characteristic



Temperature Effects In Relation to Capacity



Cycle Life In Relation to Depth of Discharge



Self Discharge Characteristics

- A** No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:
1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
2. Charged for above 20hours at limited current 0.25CA and constant voltage 2.45V/cell.
3. Charged for 8-10hours at limited current 0.05CA .
- C** Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.

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	79.1	68.5	61.5	49.0	37.3	31.1	19.5	14.7	12.1	10.3	8.96	7.23	6.14	3.41
1.80V/cell	95.0	79.2	70.1	54.6	41.9	34.6	21.2	15.9	12.9	11.0	9.51	7.63	6.46	3.50
1.75V/cell	110.2	90.1	77.9	59.4	44.6	36.6	22.3	16.6	13.4	11.3	9.81	7.82	6.55	3.55
1.70V/cell	122.4	98.1	83.6	63.0	46.7	38.3	23.4	17.2	13.8	11.6	10.1	7.99	6.66	3.61
1.67V/cell	131.1	103.1	87.1	65.4	48.5	39.6	24.0	17.7	14.1	11.9	10.3	8.11	6.77	3.65
1.60V/cell	142.9	110.3	93.2	69.3	51.3	41.5	24.9	18.3	14.6	12.2	10.5	8.22	6.87	3.68

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	148.6	129.7	117.5	94.2	72.2	60.5	38.1	28.8	23.7	20.3	17.7	14.4	12.2	6.82
1.80V/cell	175.9	147.6	131.9	103.9	80.5	67.0	41.2	30.9	25.2	21.5	18.7	15.1	12.8	6.98
1.75V/cell	200.9	166.1	145.2	112.4	85.3	70.5	43.1	32.3	26.2	22.2	19.3	15.5	13.0	7.08
1.70V/cell	219.9	179.0	154.5	118.3	88.8	73.3	45.1	33.3	26.9	22.7	19.8	15.8	13.2	7.18
1.67V/cell	232.9	186.0	159.8	122.0	91.7	75.6	46.1	34.2	27.4	23.2	20.1	16.0	13.4	7.26
1.60V/cell	249.2	196.2	169.2	127.9	96.1	78.7	47.5	35.1	28.1	23.8	20.5	16.2	13.6	7.32