LIVEN BATTERY

12V 24AH LEVG24-12

LEVG-series GEL Deep Cycle

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 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

ISO14001 ISO9001 TB09075935 MH 47104

Application:

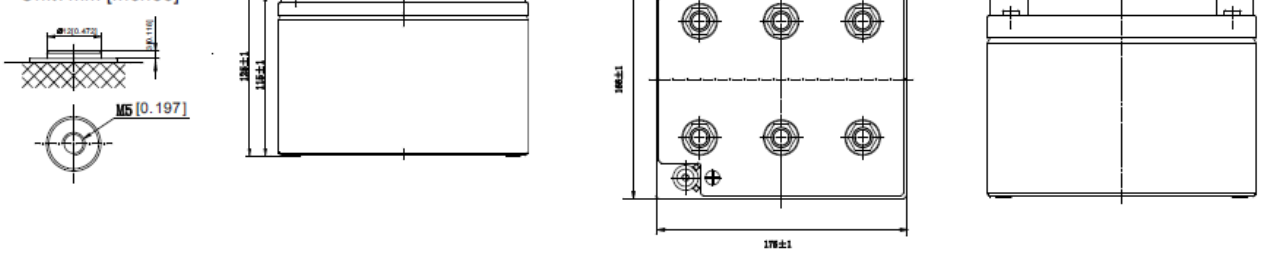
- Railway and marine systems
- Electric tools
- Vehicle in place of walking
- Lawn mowers
- Golf trolleys and golf cart
- Electric toys
- Portable power
- Wheelchairs
- Medical equipments.

Specification:

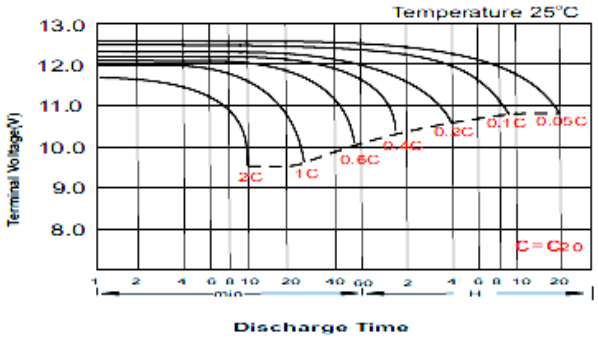
Nominal Voltage	12V	
Nominal Capacity(20HR)	24.0AH	
Dimension	Length	166±2mm (6.54 inches)
	Width	175±2mm (6.89 inches)
	Container Height	125±2mm (4.92 inches)
	Total Height (with Terminal)	125±2mm (4.92 inches)
Approx Weight	Approx 8.7 kg (19.18lbs)	
Terminal	T12	
Container Material	ABS	
Max. Discharge Current	240A (5s)	
Internal Resistance	Approx 15.8mΩ	
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 4.8A.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 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:

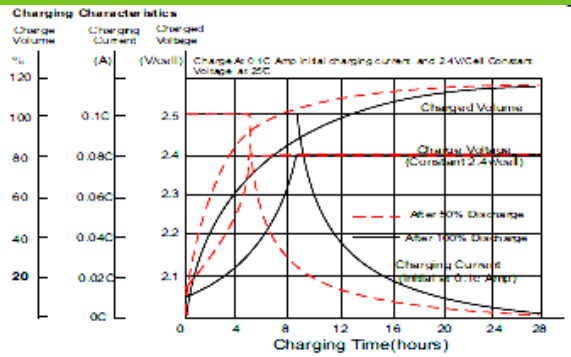
T12 Terminal
Unit: mm [inches]



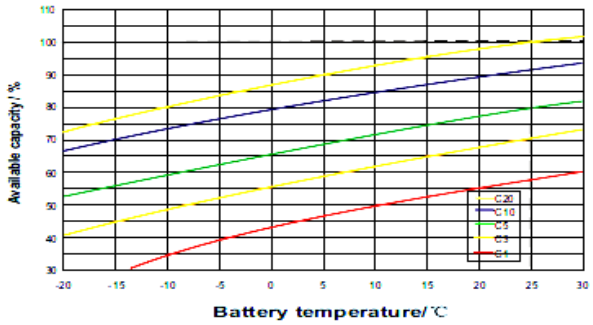
Discharge Characteristics



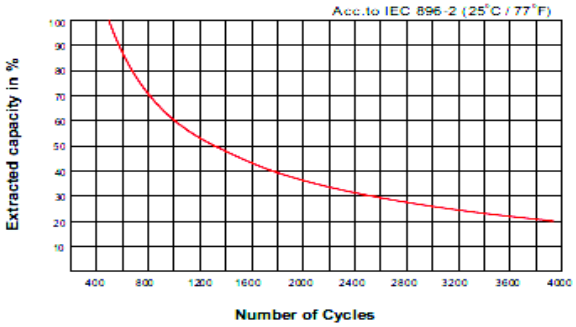
Capacity Retention Characteristic

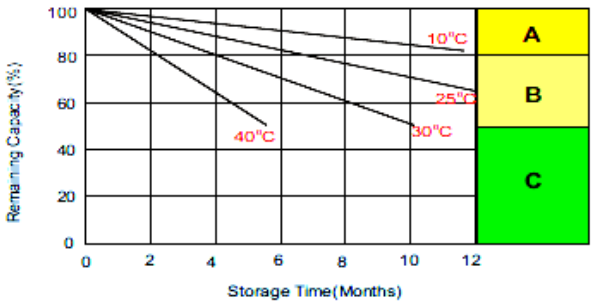


Temperature Effects in Relation to Capacity



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 above3 days at limted current 0.25CA and constant volatge 2.25V/cell.
2.Charged for above20hours at limted current 0.25CA and constant volatge 2.45V/cell.
3.Charged for 8~10hours at limted 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	28.1	23.6	21.2	17.0	13.1	10.9	6.81	5.16	4.25	3.64	3.15	2.51	2.13	1.17
1.80V/cell	33.3	27.6	24.2	19.0	14.4	11.9	7.33	5.52	4.52	3.83	3.30	2.61	2.26	1.20
1.75V/cell	38.3	31.0	27.0	20.6	15.5	12.7	7.70	5.76	4.68	3.95	3.40	2.69	2.35	1.22
1.70V/cell	43.3	34.3	29.2	22.0	16.4	13.3	8.06	5.95	4.81	4.06	3.50	2.75	2.39	1.24
1.67V/cell	46.5	36.3	30.8	23.0	17.0	13.6	8.30	6.13	4.93	4.14	3.56	2.79	2.42	1.25
1.60V/cell	50.7	39.1	32.9	24.4	18.0	13.8	8.57	6.32	5.08	4.25	3.64	2.85	2.46	1.26

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	52.8	44.5	40.2	32.5	25.3	21.2	13.3	10.1	8.34	7.16	6.21	4.97	4.23	2.33
1.80V/cell	61.4	51.3	45.5	36.0	27.6	23.0	14.2	10.7	8.82	7.49	6.48	5.17	4.48	2.38
1.75V/cell	69.8	57.0	50.2	38.7	29.5	24.3	14.9	11.2	9.10	7.72	6.66	5.31	4.66	2.42
1.70V/cell	77.8	62.4	53.8	41.1	30.9	25.4	15.5	11.5	9.33	7.91	6.84	5.42	4.74	2.45
1.67V/cell	82.2	65.1	56.2	42.6	32.0	25.8	15.9	11.8	9.53	8.05	6.94	5.49	4.79	2.48
1.60V/cell	88.1	68.9	59.3	44.7	33.5	26.1	16.3	12.1	9.80	8.24	7.08	5.58	4.86	2.50