12V 50AH

LEVG50-12

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.

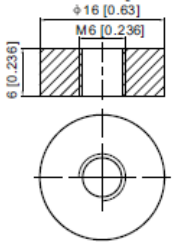
Specification:

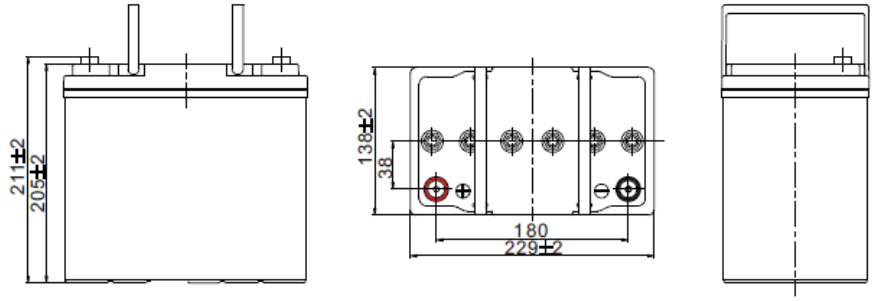
Nominal Voltage	12V	
Nominal Capacity(20HR)	50.0AH	
Dimension	Length	229±3mm (9.02 inches)
	Width	138±2mm (5.43 inches)
	Container Height	205±3mm (8.07 inches)
	Total Height (with Terminal)	211±3mm (8.31 inches)
Approx Weight	Approx 17.6 kg (38.8lbs)	
Terminal	T6	
Container Material	ABS	
Max. Discharge Current	500A (5s)	
Internal Resistance	Approx 9.0mΩ	
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 10.0A.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%
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:

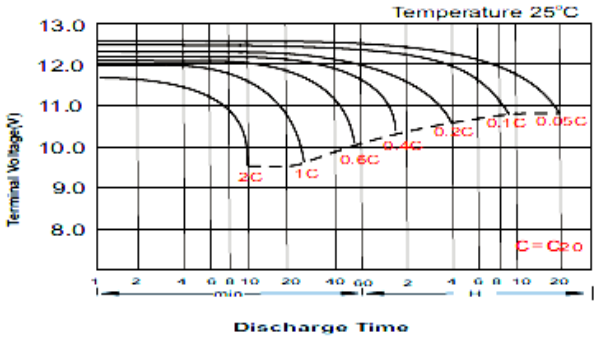
T6 Terminal

Unit: mm [inches]

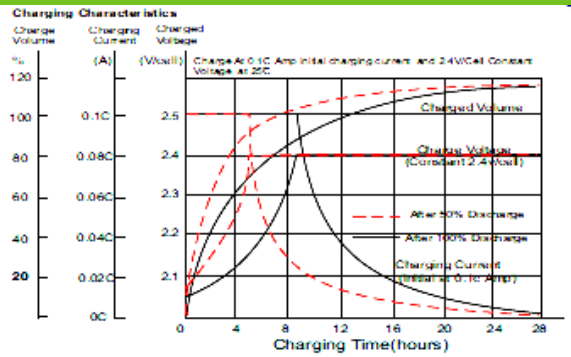




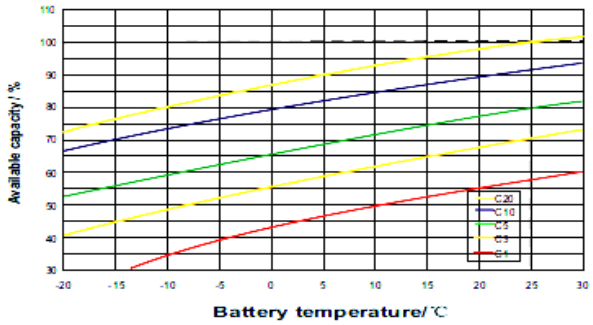
Discharge Characteristics



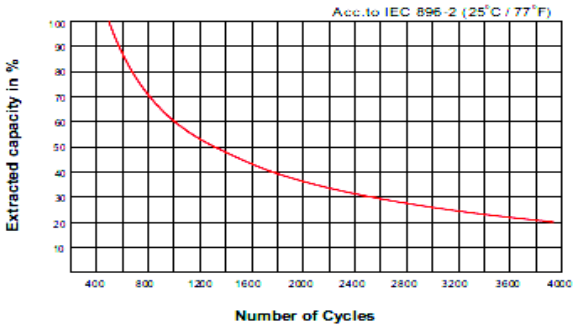
Capacity Retention Characteristic

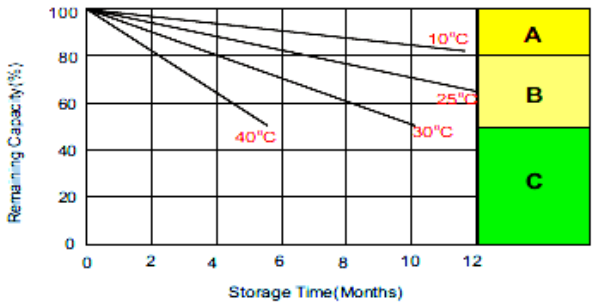


Temperature Effects in Relation to Capacity



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 above 3 days at limted current 0.25CA and constant volatge 2.25V/cell.
2.Charged for above 20hours 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	56.5	48.9	43.9	35.0	26.6	22.2	14.0	10.5	8.61	7.37	6.40	5.16	4.38	2.44
1.80V/cell	67.8	56.5	50.0	39.0	29.9	24.7	15.2	11.3	9.22	7.83	6.79	5.45	4.61	2.50
1.75V/cell	78.7	64.3	55.6	42.4	31.9	26.2	15.9	11.9	9.59	8.09	7.00	5.58	4.68	2.54
1.70V/cell	87.4	70.1	59.7	45.0	33.3	27.3	16.7	12.3	9.87	8.31	7.20	5.70	4.76	2.58
1.67V/cell	93.6	73.6	62.2	46.7	34.6	28.3	17.1	12.6	10.1	8.52	7.34	5.79	4.83	2.60
1.60V/cell	102.0	78.7	66.6	49.5	36.6	29.7	17.8	13.1	10.4	8.74	7.50	5.87	4.91	2.63

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	106.1	92.6	83.9	67.3	51.5	43.2	27.2	20.6	16.9	14.5	12.7	10.2	8.71	4.87
1.80V/cell	125.6	105.4	94.2	74.2	57.5	47.8	29.4	22.1	18.0	15.4	13.4	10.8	9.15	4.99
1.75V/cell	143.5	118.6	103.7	80.2	60.9	50.3	30.8	23.1	18.7	15.8	13.8	11.0	9.28	5.05
1.70V/cell	157.0	127.8	110.3	84.5	63.4	52.4	32.2	23.8	19.2	16.2	14.1	11.3	9.42	5.13
1.67V/cell	166.2	132.8	114.1	87.1	65.5	54.0	32.9	24.4	19.6	16.6	14.4	11.4	9.56	5.18
1.60V/cell	177.9	140.1	120.8	91.3	68.6	56.2	33.9	25.1	20.1	17.0	14.7	11.5	9.70	5.22