



LIVEN LVL Series

AGM (Absorbent Glass Material) technology with gas recombination. VRLA (Valve Regulated Lead Acid Battery). Maintenance-Free Sealed Lead Acid Battery. Battery with 12 years design life in float service.

Cycle use 1: Up to 260 cycles at 100% DOD.

Cycle use 2: Up to 500 cycles at 50% DOD.

Applications:

- Telecommunications
- Uninterrupted Power Supplies
- Medical equipments
- Emergency backup power supply
- Alarm and security system
- Communication power supply
- DC power supply

Dimensions:

Length	328±1.5mm (12.9in)
Width	172±1.5mm (6.77in)
Height	215±1.5mm (8.46in)
Total Height	220±1.5mm (8.66in)

Specifications:

Cells Per Unit	6
Voltage Per Unit	12V
Nominal Capacity	100Ah @10hour-rate to 1.80V per cell @25°C
Weight	Approx. 29.80Kg ±2% (65.70lbs)
Internal Resistance	Approx. 5.0mΩ
Terminal	R8.0
Max. Discharge Current	1000A (5sec)
Design Life	12 years (Float charging) Eurobat (20°C): 10-12 years Long Life
Recommended Maximum Charging Current	30.0A
Standby Use Voltage	13.5V~13.8V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.4V~15.0V @ 25°C Temperature Compensation: -4mV/°C/Cell
Operating Temperature Range	Discharge: -15°C~50°C Charge: -10°C~45°C Storage: -15°C~50°C
Normal Operating Temperature Range	25°C±5°C

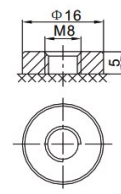
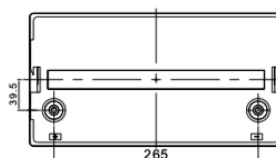
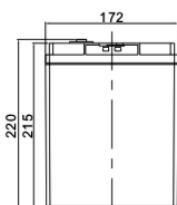
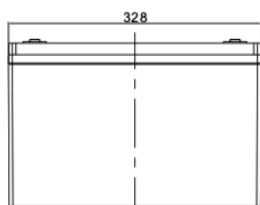
Self Discharge

LIVEN Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C. Please charge batteries before using.

Container Material

A.B.S. UL94-HB, UL94-V0 Optional.

Technical Drawings:



R8.0 Terminal

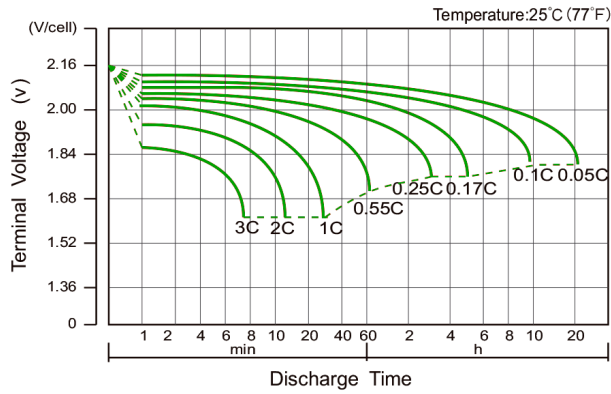
Constant Current Discharge (CC, Unit: A) at 25°C (77°F)

F.V./ Time	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	245.60	183.10	106.00	62.20	37.30	27.40	22.20	18.80	12.50	10.70	5.47
1.65V	238.30	178.30	103.60	61.00	36.70	27.00	21.90	18.50	12.40	10.60	5.42
1.70V	228.70	172.00	100.60	59.50	36.00	26.50	21.60	18.30	12.20	10.40	5.36
1.75V	216.30	163.80	96.50	57.50	35.00	25.90	21.10	17.90	12.00	10.20	5.29
1.80V	200.40	153.20	91.30	54.90	33.80	25.00	20.40	17.40	11.70	10.00	5.18
1.85V	180.60	139.90	84.70	51.50	32.10	23.90	19.60	16.70	11.30	9.69	5.05

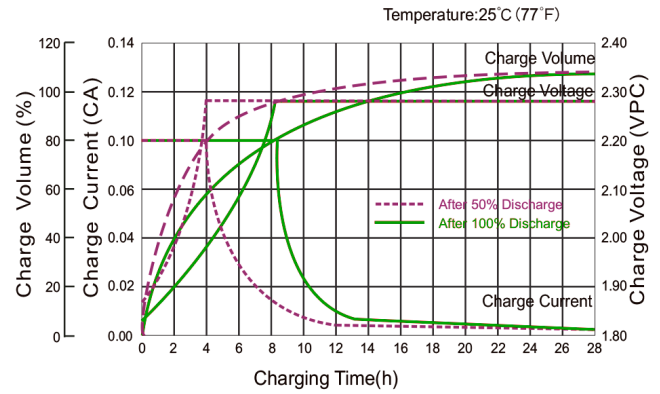
Constant Power Discharge (CP, Unit: W/Battery) at 25°C (77°F)

F.V./ Time	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	2544.00	1950.00	1170.00	708.00	430.20	318.00	259.80	220.20	148.80	127.80	65.40
1.65V	2532.00	1938.00	1164.00	702.00	426.60	316.20	258.00	219.00	148.20	126.60	65.40
1.70V	2460.00	1884.00	1134.00	690.00	420.00	310.80	254.40	216.00	146.40	125.40	64.80
1.75V	2364.00	1824.00	1104.00	666.00	410.40	304.80	249.60	211.80	144.00	123.00	63.60
1.80V	2232.00	1728.00	1050.00	642.00	397.80	295.80	242.40	207.00	140.40	120.60	62.40
1.85V	2046.00	1602.00	984.00	606.00	380.40	284.40	233.40	199.20	136.20	117.00	61.20

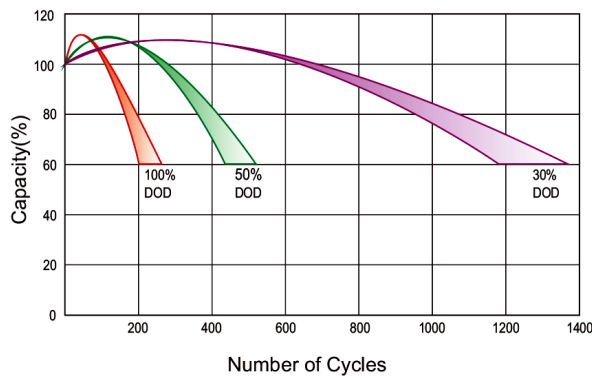
Discharge Characteristics Curve



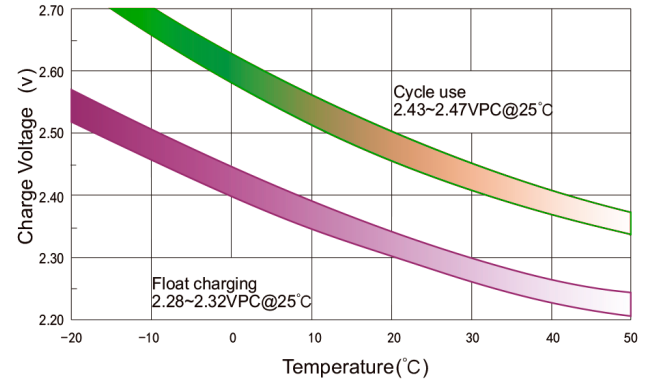
Charge Characteristic Curve For Standby Use



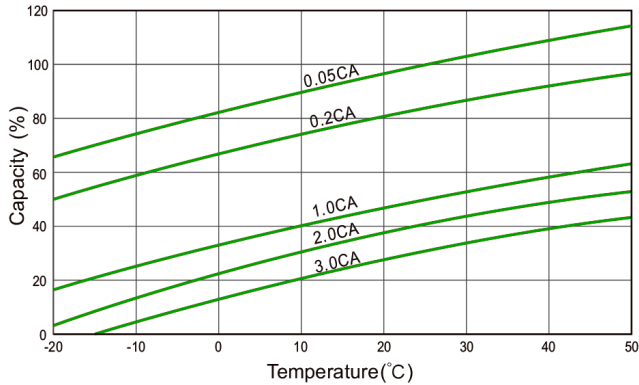
Cycle Life In Relation To Depth Of Discharge



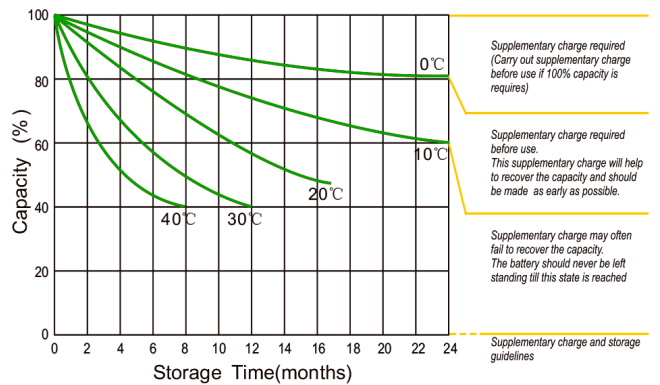
Relationship Between Charging Voltage And Temperature



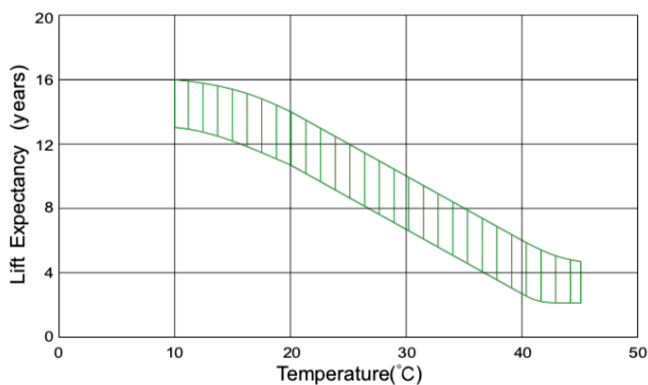
Temperature Effects On Capacity



Storage Characteristics



Effect Of Temperature On Long Term Life



Life Characteristics Of Standby Use

