



LIVEN LVJ Series

LVJ Hybrid Gel series are manufactured with AGM separator (Absorbent Glass Material) and patented Gel electrolyte. The LVJ series Valve Regulated Lead Acid (VRLA) is Hybrid Gel battery with 12 years floating design life. This battery is ideal for standby or frequent cyclic discharge applications.

The number of deep discharge cycles is increase much compared with normal AGM, 400 cycles at 100% DOD.

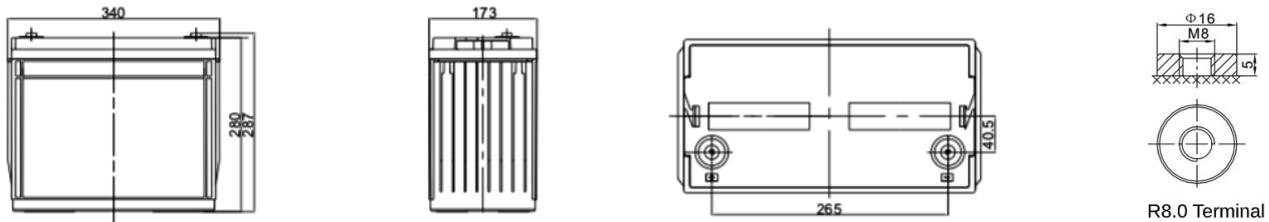
Applications:

- Telecommunications
- Uninterrupted Power Supplies
- Medical equipments
- Solar System
- Wind Power System
- Auto Control System

Dimensions:

Length	340±1.5mm (13.4in)
Width	173±1.5mm (6.81in)
Height	280±1.5mm (11.0in)
Total Height	287±1.5mm (11.3in)

Technical Drawings:



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

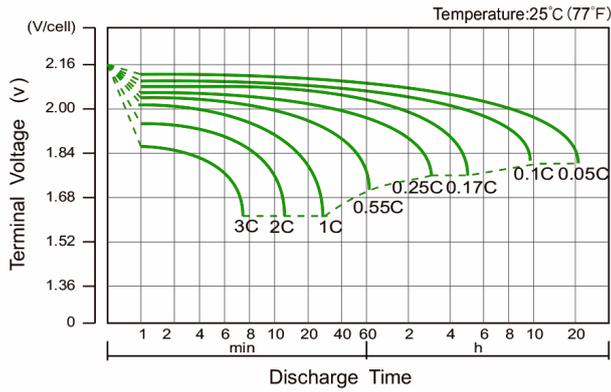
F.V. / Time	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	286.9	221.1	129.5	77.0	47.1	35.5	28.0	23.6	16.1	13.7	6.96
1.65V	277.4	214.5	126.8	75.6	46.3	34.9	27.7	23.3	15.9	13.5	6.90
1.70V	264.9	205.8	123.2	73.7	45.2	34.2	27.1	22.9	15.7	13.3	6.82
1.75V	248.2	194.1	118.3	71.0	43.8	33.2	26.4	22.4	15.4	13.1	6.70
1.80V	225.9	178.4	111.6	67.4	41.8	31.8	25.4	21.7	14.9	12.7	6.54
1.85V	195.4	156.7	102.1	62.2	38.9	29.9	24.0	20.6	14.2	12.2	6.30

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

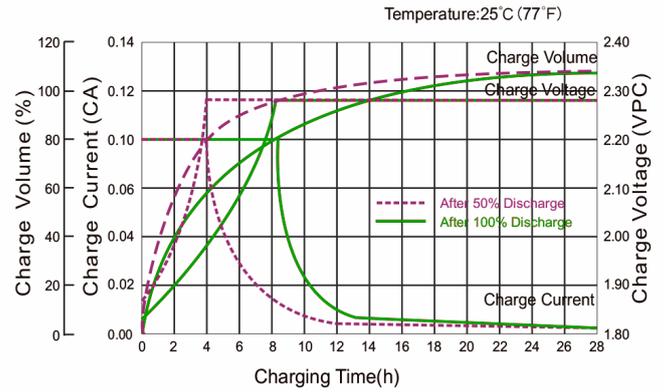
F.V. / Time	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	3078.0	2442.0	1488.0	912.0	563.4	427.8	340.2	287.4	199.2	169.8	86.4
1.65V	3054.0	2418.0	1476.0	900.0	558.0	423.6	337.2	285.6	197.4	168.0	85.8
1.70V	2952.0	2340.0	1440.0	882.0	547.2	415.8	331.8	281.4	194.4	166.2	85.2
1.75V	2814.0	2238.0	1398.0	852.0	531.6	405.6	324.0	276.0	190.8	163.2	83.4
1.80V	2604.0	2088.0	1332.0	816.0	510.0	390.6	313.2	267.6	185.4	159.0	81.6
1.85V	2298.0	1860.0	1230.0	756.0	477.6	367.8	297.0	255.0	177.6	152.4	78.6

Specifications:	
Cells Per Unit	6
Voltage Per Unit	12V
Nominal Capacity	134Ah @20hour-rate to 1.75V per cell @25°C
Weight	Approx. 41.5Kg ±2% (91.51lbs)
Internal Resistance	Approx. 4.0mΩ
Terminal	R8.0
Max. Discharge Current	1340A (5sec)
Design Life	12 years floating Eurobat (20°C): 10-12 years Long Life
Recommended Max. Charging Current	40.2A
Standby Use Voltage	13.6V~13.8V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.6V~14.8V @ 25°C Temperature Compensation: -4mV/°C/Cell
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°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.

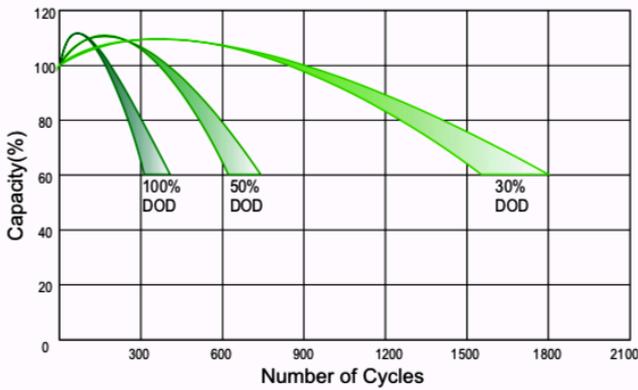
Discharge Characteristics Curve



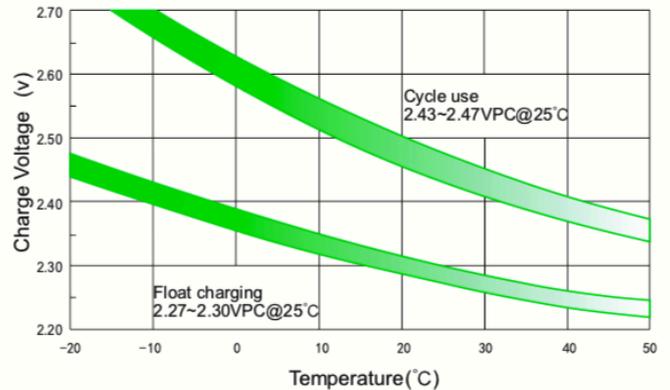
Charge Characteristic Curve For Standby Use



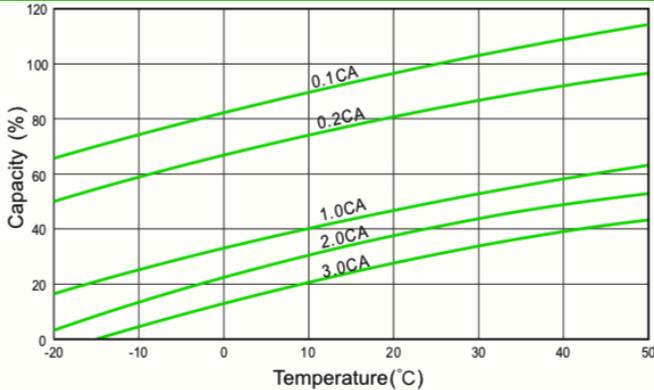
Cycle Life In Relation To Depth Of Discharge



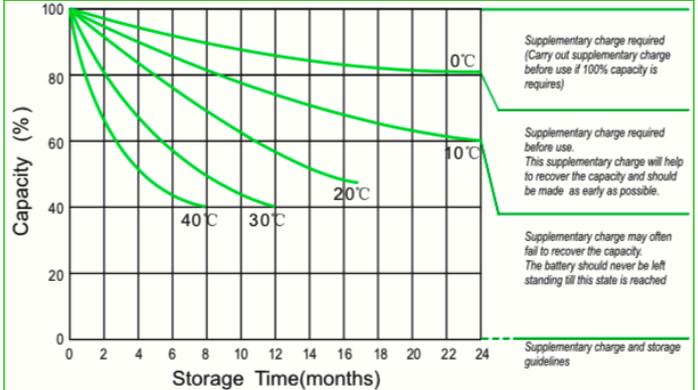
Relationship Between Charging Voltage And Temperature



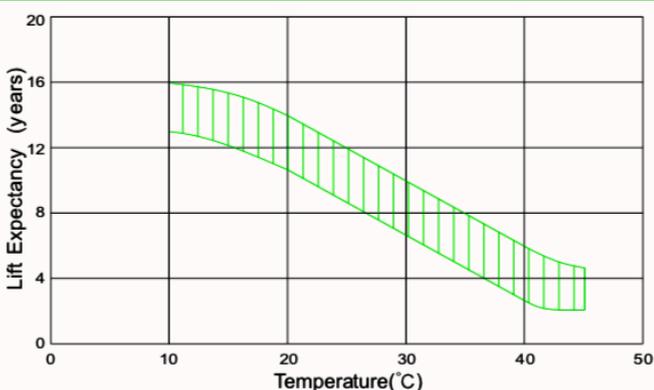
Temperature Effects On Capacity



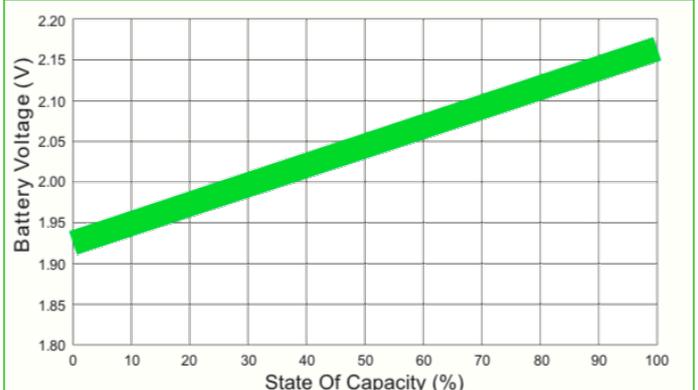
Storage Characteristics



Effect Of Temperature On Long Term Life



Relationship of OCV and State of Charge (20°C)



(Note) All above information shall be changed without prior notice. LIVEN Battery reserves the right to explain and update the latest information.