



### LIVEN LVH Series

AGM (Absorbent Glass Material) technology with gas recombination. The LVH series Valve Regulated Lead Acid (VRLA) battery is designed for heavy load discharge applications with 15 years design life in float service.

By using strong grids and specially designed active material is with lower I.R, lower self discharge rate, high power, and longer service life performance.

Generally the LVH series offers 30% more power output than the standard range.

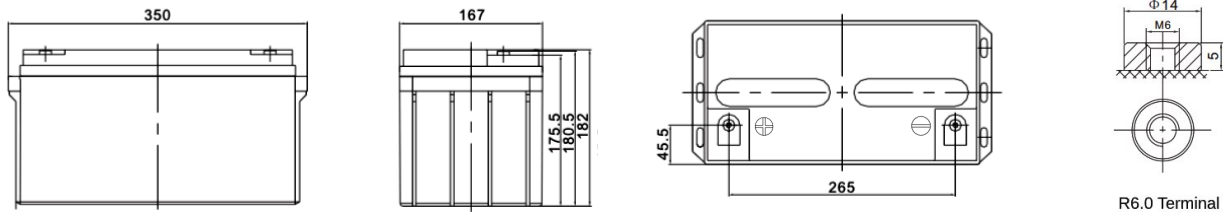
### Applications:

- High Power
- UPS
- Datacenters
- Emergency backup PW
- Security system
- Communication power supply
- DC power supply
- Electric Tools

### Dimensions:

Length	350±1mm (13.8in)
Width	167±1mm (6.57in)
Height	182±1mm (7.17in)
Total Height	182±1mm (7.17in)

### Technical Drawings:



### Specifications:

<b>Cells Per Unit</b>	6
<b>Voltage Per Unit</b>	12V
<b>Nominal Capacity</b>	240W @15min-rate to 1.67V per cell @25°C
<b>Weight</b>	Approx. 19.50Kg ±2% (42.99lbs)
<b>Internal Resistance</b>	Approx. 6.5mΩ
<b>Terminal</b>	R6.0
<b>Max. Discharge Current</b>	650A (5sec)
<b>Design Life</b>	15 years floating Eurobat (20°C): >12 years Very Long Life
<b>Recommended Maximum Charging Current</b>	19.5A
<b>Reference Capacity</b>	C20 65Ah
<b>Standby Use Voltage</b>	13.6V~13.8V @ 25°C Temperature Compensation: -3mV/°C/Cell
<b>Cycle Use Voltage</b>	14.6V~14.8V @ 25°C Temperature Compensation: -4mV/°C/Cell
<b>Operating Temperature Range</b>	Discharge: -15°C~50°C Charge: -10°C~45°C Storage: -15°C~50°C
<b>Normal Operating Temperature Range</b>	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.

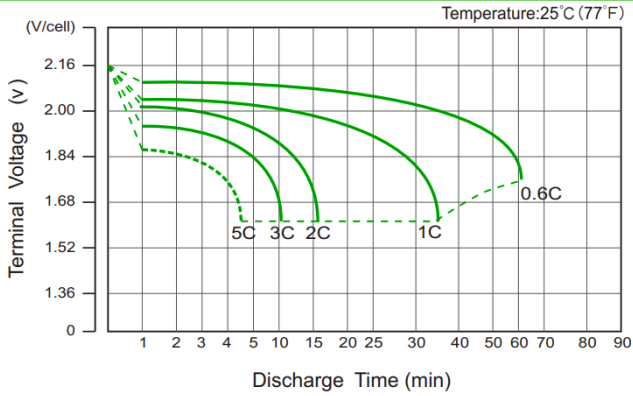
### Constant Current Discharge (CC, Unit: A) at 25°C (77°F)

F.V./ Time	5min	8min	10min	15min	20min	30min	60min	90min
<b>1.60V</b>	239.8	198.6	174.0	132.7	108.1	79.7	46.1	33.1
<b>1.67V</b>	217.6	182.1	160.8	123.8	101.6	75.4	44.0	31.7
<b>1.70V</b>	208.4	175.0	155.0	120.0	98.7	73.6	43.1	31.1
<b>1.75V</b>	192.4	163.0	145.3	113.5	93.8	70.5	41.6	30.1
<b>1.80V</b>	176.3	151.0	135.6	107.4	89.4	67.5	40.1	29.2
<b>1.85V</b>	151.3	128.6	114.9	92.4	77.6	59.7	36.2	26.6

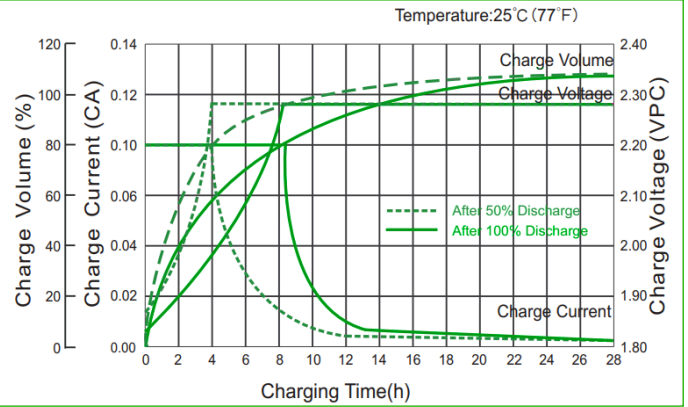
### Constant Power Discharge (CP, Unit: W/Battery) at 25°C (77°F)

F.V./ Time	5min	8min	10min	15min	20min	30min	60min	90min
<b>1.60V</b>	2644.2	2218.8	1963.2	1518.0	1246.2	928.8	519.6	375.6
<b>1.67V</b>	2461.2	2081.4	1852.8	1440.0	1189.8	890.4	499.8	363.0
<b>1.70V</b>	2380.2	2019.0	1801.2	1406.4	1164.0	872.4	492.0	358.2
<b>1.75V</b>	2233.8	1908.0	1710.6	1345.8	1117.2	843.6	478.2	348.6
<b>1.80V</b>	2079.0	1791.0	1615.2	1285.8	1075.2	814.2	463.8	339.0
<b>1.85V</b>	1810.8	1546.8	1387.2	1117.8	942.0	726.6	421.8	312.0

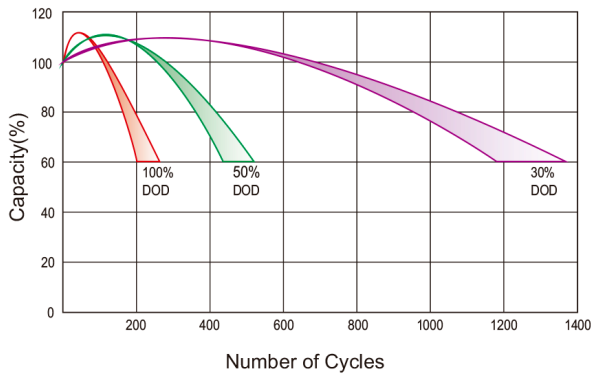
Discharge Characteristics Curve



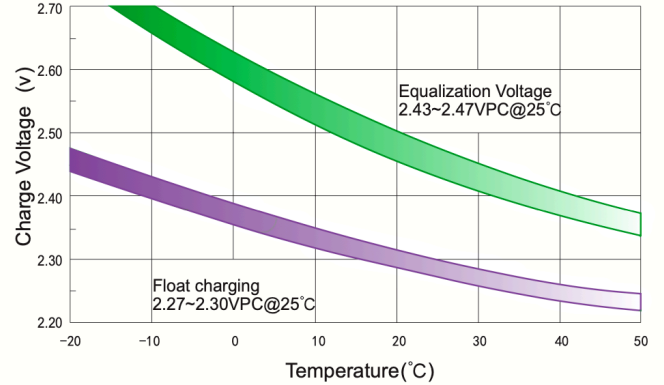
Charge Characteristic Curve For Standby Use



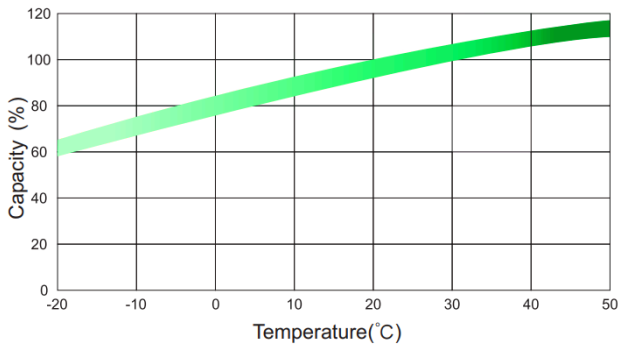
Cycle Life In Relation To Depth Of Discharge



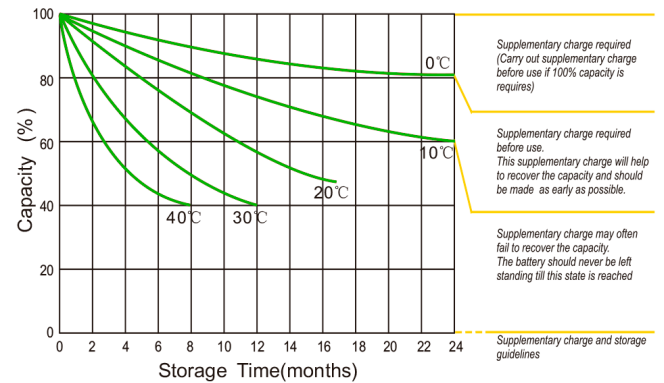
Relationship Between Charging Voltage And Temperature



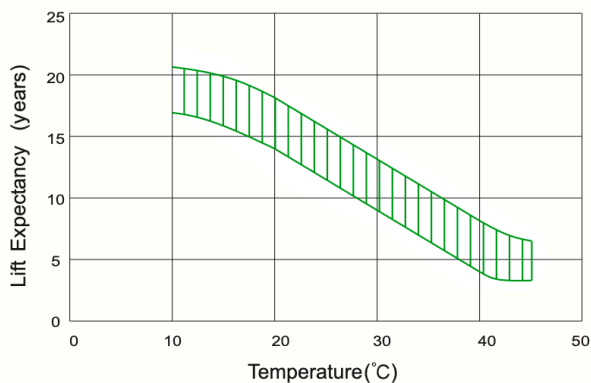
Temperature Effects On Capacity



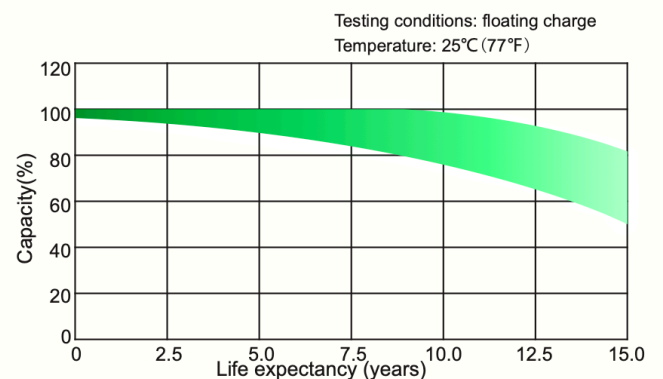
Storage Characteristics



Effect Of Temperature On Long Term Life



Life Characteristics Of Standby Use



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