



LIVEN LVFJ Series

LVFJ Hybrid Gel series are manufactured with AGM separator (Absorbent Glass Material) and patented Gel electrolyte. The LVFJ 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
- Solar System
- Uninterrupted Power Supplies
- Wind Power System
- Auto Control System
- Medical equipments

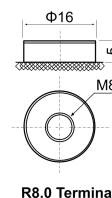
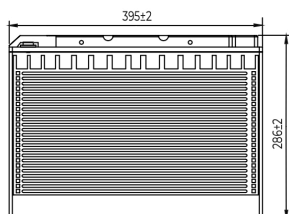
Dimensions:

Length	395±2mm (15.6in)
Width	110±2mm (4.33in)
Height	286±2mm (11.3in)
Total Height	286±2mm (11.3in)

Specifications:

Cells Per Unit	6
Voltage Per Unit	12V
Nominal Capacity	100Ah @10hour-rate to 1.80V per cell @25°C
Weight	Approx. 32.8Kg ±2% (72.30lbs)
Internal Resistance	Approx. 6.0mΩ
Terminal	R8.0
Max. Discharge Current	800A (5sec)
Design Life	12 years floating Eurobat (20°C): 10-12 years Long Life
Recommended Max. Charging Current	20.0A
Standby Use Voltage	13.5V~13.8V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.4V~14.7V @ 25°C Temperature Compensation: -4mV/°C/Cell
Operating Temperature Range	Discharge: -15°C~50°C Charge: -10°C~50°C Storage: -20°C~50°C
Normal Operating Temperature Range	25°C±3°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:



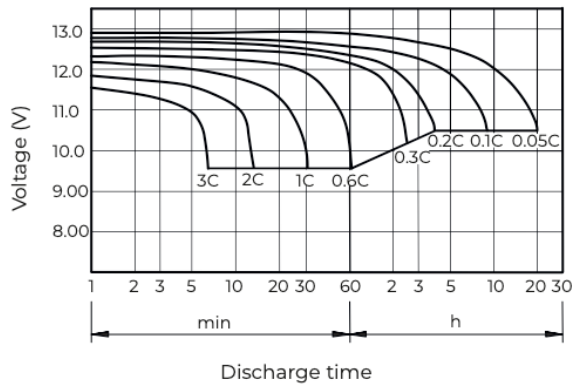
Constant Current Discharge (CC, Unit: A) at 25°C (77°F)

F.V. / Time	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	195	160	97.0	60.0	36.5	26	20.4	17.3	12.2	10.2	5.40
1.65V	189	156	95.1	59.1	36.3	25.9	20.3	17.2	12.2	10.2	5.38
1.70V	181	150	92.2	57.6	36.0	25.7	20.1	17.1	12.1	10.1	5.37
1.75V	174	145	89.9	55.8	35.5	25.5	20.0	17.0	12.0	10.1	5.34
1.80V	164	138	86.6	54.0	34.6	25.0	19.4	16.5	11.6	10.0	5.30

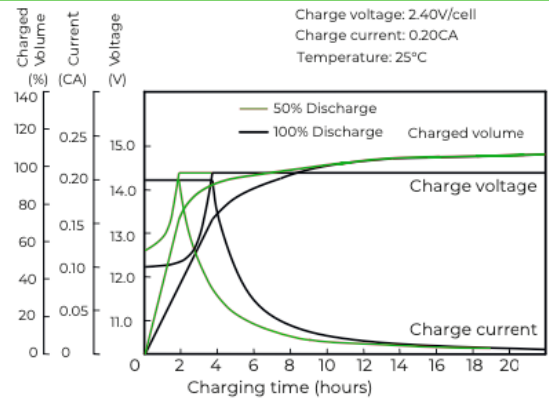
Constant Power Discharge (CP, Unit: W/Battery) at 25°C (77°F)

F.V. / Time	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	2106	1757	1088	684	423	306	240	205	145	122	64.7
1.65V	2043	1715	1067	674	421	304	238	204	145	121	64.6
1.70V	1959	1651	1034	657	417	302	237	202	144	121	64.4
1.75V	1874	1595	1009	636	411	300	235	201	143	120	64.0
1.80V	1769	1511	972	616	400	294	228	195	138	119	63.6

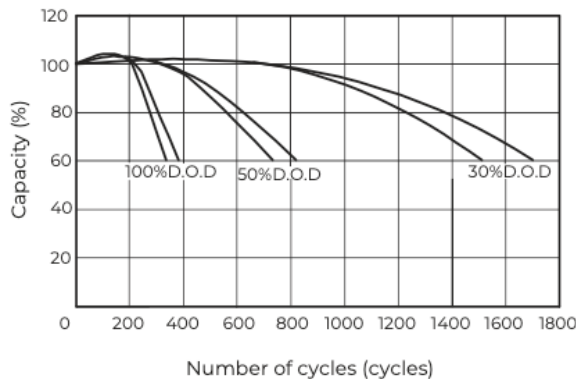
Discharge Characteristics Curve (25°C)



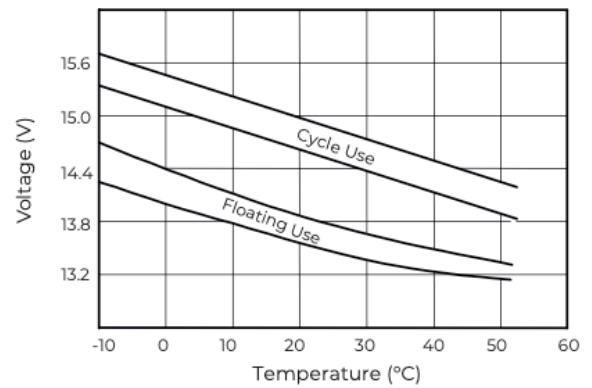
Charging Characteristics Curve (25°C)



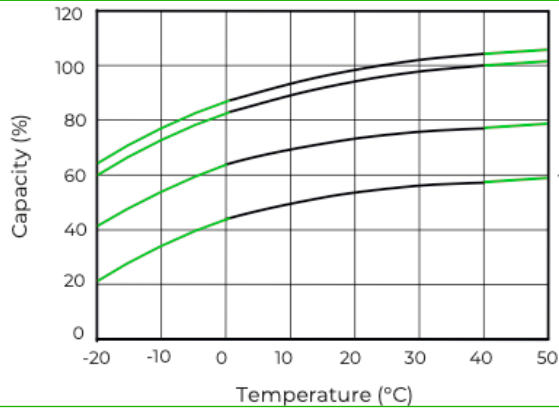
Cycle Life In Relation To Depth Of Discharge (25°C)



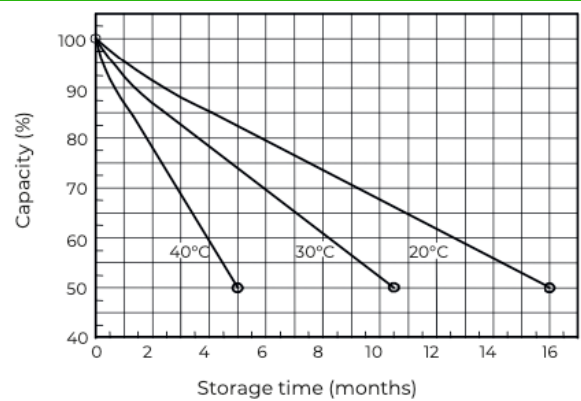
Relationship Between Charging Voltage And Temperature



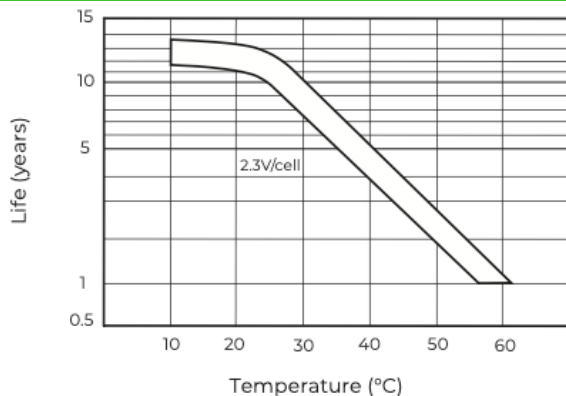
Temperature Effects On Capacity



Self-discharge characteristics



Effect Of Temperature On Long Term Life



Relationship for OCV and capacity (25°C)

