12V 116Ah

LEV116-12

AGM Electric Vehicle Battery

LIVEN LEV Series

AGM (Absorbent Glass Material) technology with gas recombination. VRLA (Valve Regulated Lead Acid Battery). LEV (Liven Electric Vehicle) series is specially designed for frequent discharge deep cycle application. Maintenance-Free Sealed Lead Acid Battery.

Cycle use 1: Up to 600 cycles at 80% DOD.
Cycle use 2: Up to 1200 cycles at 50% DOD.

Applications:

- Electric Vehicle
- Industrial equipment
- Floor machines
- Forklifts
- Golf cart
- Mobility
- Aerial lifts and Robotics
- No-idle solutions

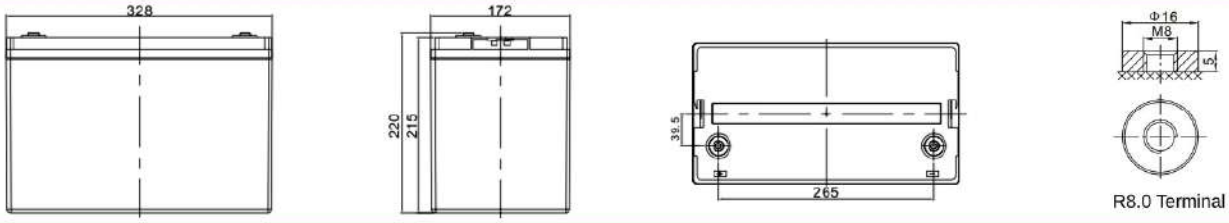
Dimensions:

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	116.0Ah @20hour-rate to 1.75V per cell @25°C
Weight	Approx.30.5Kg ±2% (67.24lbs)
Internal Resistance	Approx. 5.5mΩ
Terminal	R8.0
Max. Discharge Current	1100A (5sec)
Design Life	700A
Recommended Max. Charging Current	33.0A
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: -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:



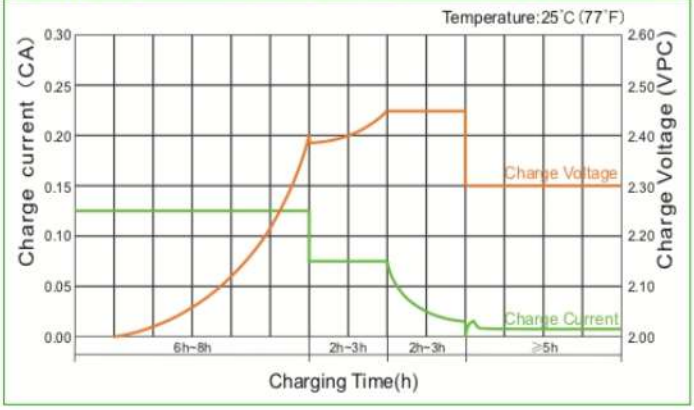
Constant Current Discharge (CC, Unit: A) at 25ºC (77ºF)

F.V. / Time	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	265.3	206.5	122.9	67.9	40.1	31.1	24.4	20.8	14.0	11.6	6.07
1.65V	250.6	197.4	118.0	65.6	38.8	30.1	23.7	20.2	13.8	11.5	5.97
1.70V	230.8	184.9	112.7	63.4	37.5	29.3	23.1	19.7	13.6	11.3	5.90
1.75V	211.2	172.1	107.8	61.1	36.2	28.4	22.5	19.2	13.4	11.1	5.83
1.80V	191.2	158.9	103.0	58.8	34.9	27.5	21.9	18.7	13.2	11.0	5.77
1.85V	156.3	131.8	88.7	52.7	32.0	25.4	20.3	17.5	12.4	10.4	5.48

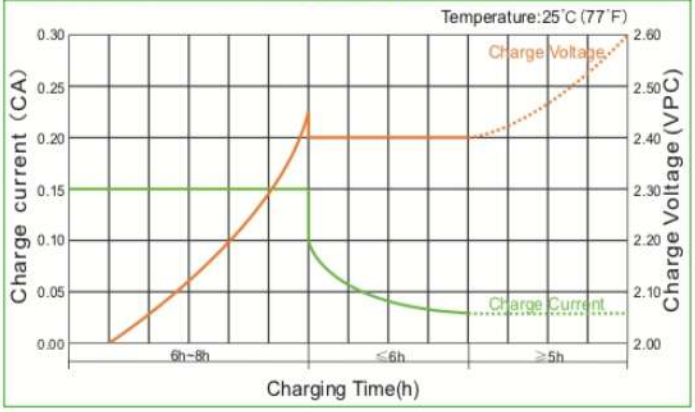
Constant Power Discharge (CP, Unit: W/Battery) at 25ºC (77ºF)

F.V. / Time	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	2705.4	2166.0	1339.2	765.6	456.0	355.8	281.4	240.0	163.8	136.8	72.0
1.65V	2605.8	2101.2	1299.0	743.4	443.4	346.2	274.8	234.6	162.0	135.6	70.8
1.70V	2442.6	1997.4	1254.0	723.6	431.4	338.4	268.2	229.8	160.2	133.8	70.2
1.75V	2276.4	1885.8	1210.8	701.4	418.2	330.0	262.2	224.4	157.8	132.0	69.0
1.80V	2096.4	1765.8	1169.4	678.6	405.0	321.0	255.6	219.6	156.0	130.2	68.4
1.85V	1743.6	1486.2	1017.0	612.6	373.2	297.6	238.8	205.2	146.4	123.0	65.4

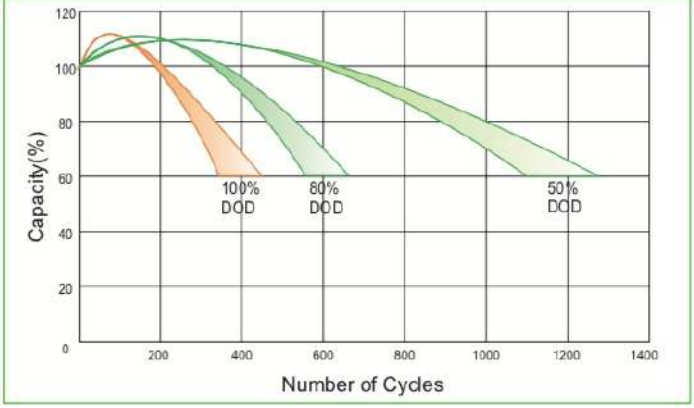
Charge Characteristic Curve For Cycle Use (IIUU)



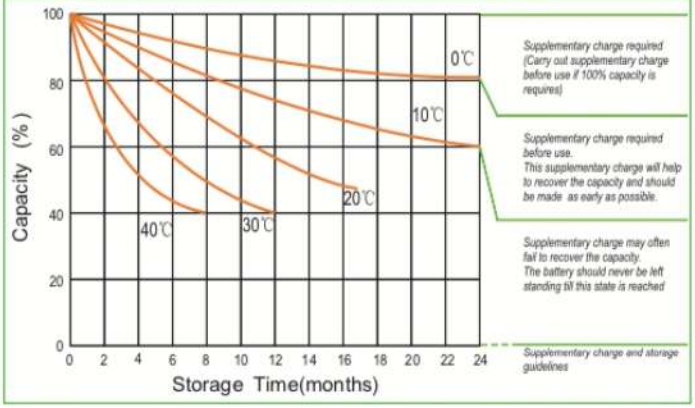
Charge Characteristic Curve For Cycle Use (IUI)



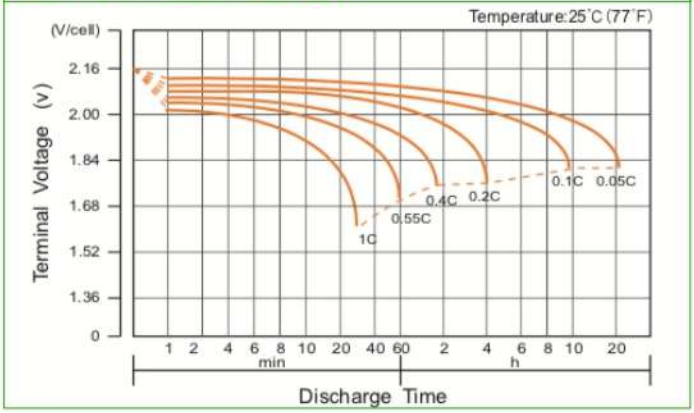
Cycle Life In Relation To Depth Of Discharge



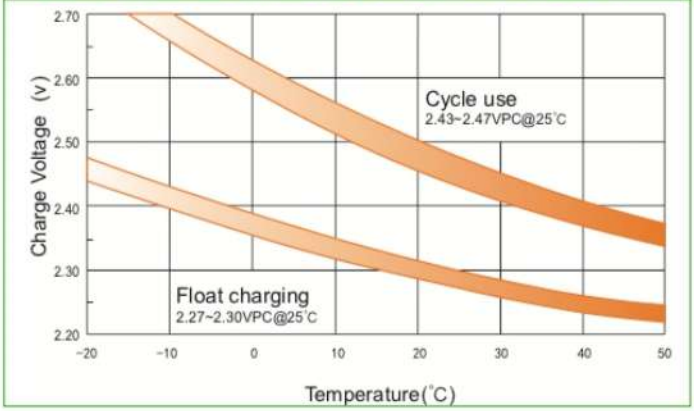
Storage Characteristics



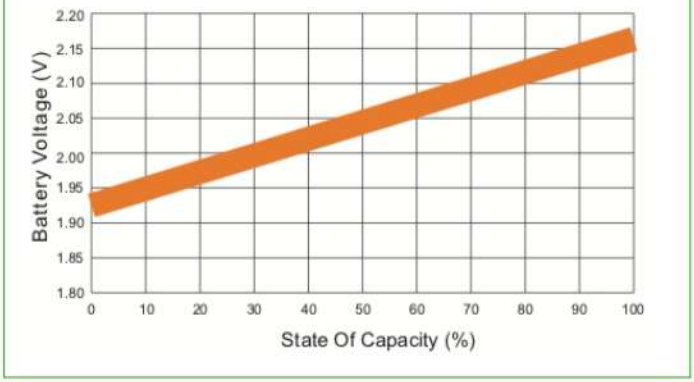
Discharge Characteristics Curve



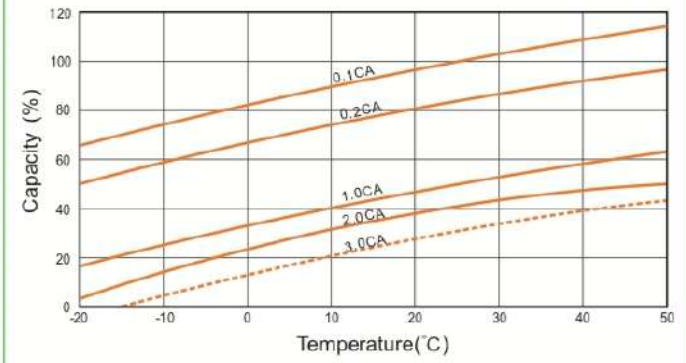
Relationship Between Charging Voltage And Temperature



Relationship of OCV And State of Charge (20ºC)



Temperature Effects On Capacity



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