



### LIVEN LVG Series-GEL

- Long discharge time. Up to 12 years.
- Suitable for standby power and energy storage power use
- Special plate design, long cycle lifetime
- Using special lead-calcium alloy to boost up the grid anti-corrosive performance and extend the battery using lifetime
- Special separator to boost up the battery inter-nal performance
- High thermal capacity, reduce the risk of ther-mal runaway and drying up, can be used in poor environment
- High gas recombination efficiency
- Little water losing, no electrolyte stratification phenomenon
- Long storage time
- Good deep discharge resilience performance
- Using nano-fumed silica, with small particle size, and big specific surface area.

### Application:

- Telecommunication backup
- Power plants
- Medical equipments
- Uninterrupted power supplies
- Elevators emergency
- Wheelchairs
- Railway and marine systems
- Electric tools
- Golf trolleys and golf cart
- Solar and wind mill units



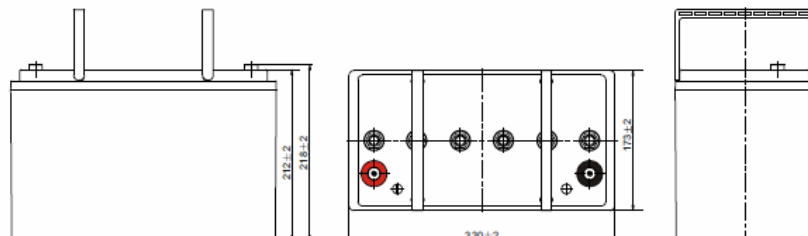
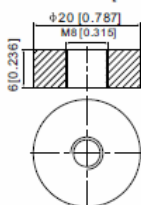
### Specification:

Nominal Voltage	12V
Nominal Capacity(20HR)	96.0AH
Dimension	Length 330±3mm (12.99 inches) Width 173±2mm (6.81 inches) Container Height 212±3mm (8.35 inches) Total Height (with Terminal) 218±3mm (8.58 inches)
Approx Weight	Approx 31.0 kg (68.4lbs)
Terminal	T11
Container Material	ABS
Max. Discharge Current	1000A (5s)
Internal Resistance	Approx 5.9mΩ
Operating Temp. Range	Discharge : -20~55°C (-4~131°F) Charge : 0~40°C (32~104°F) Storage : -20~50°C (-4~122°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)
Cycle Use	Initial Charging Current less than 24.0A.Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C
Standby Use	No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C
Capacity affected by Temperature	40° C (104°F) 103% 25° C (77°F) 100% 0° C (32°F) 86%
Self Discharge	LIVEN LVG series batteries may be stored for up to 9 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.

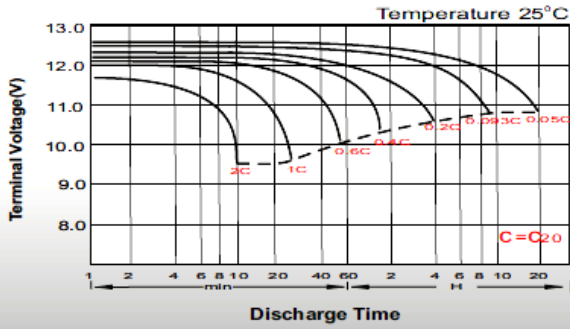
### Outer Dimensions:

#### T11 Terminal

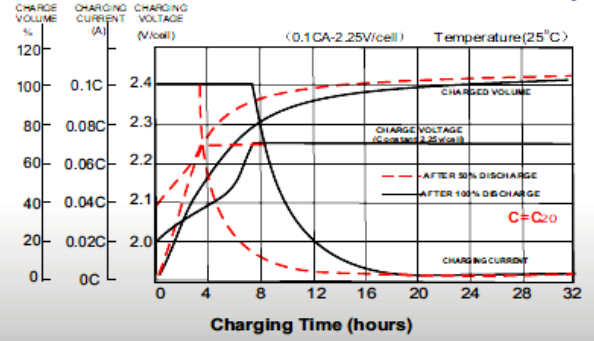
Unit: mm [inches]



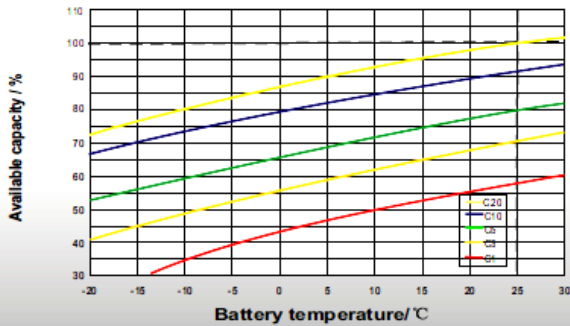
**Discharge Characteristics**



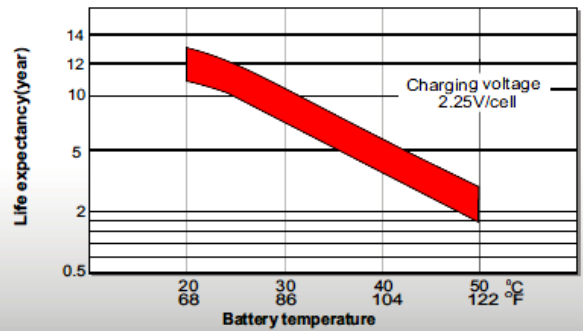
**Float Charging Characteristics**



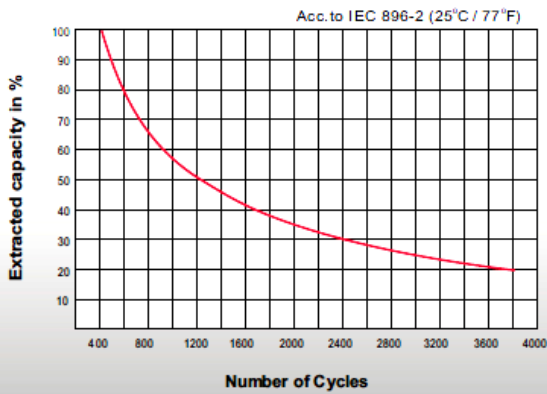
**Temperature Effects in Relation to Capacity**



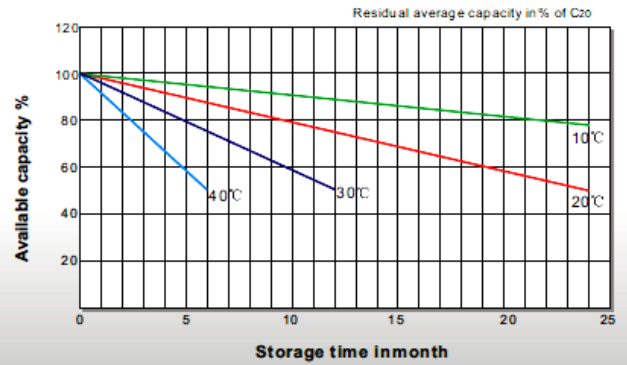
**Effect of Temperature on Long Term Float Life**



**Cycle Life in Relation to Depth of Discharge**



**Effect of Temperature on Long Term Float Life**



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

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	84.6	66.4	50.7	42.4	26.9	20.5	17.0	14.7	12.3	10.9	9.8	8.96	8.47	4.61
1.80V/cell	96.9	74.2	55.9	46.8	29.1	22.0	18.0	15.4	12.9	11.4	10.3	9.42	8.85	4.80
1.75V/cell	108.9	81.6	60.4	50.1	30.9	23.2	18.9	16.0	13.3	11.8	10.6	9.7	9.00	4.90
1.70V/cell	117.3	87.4	64.1	53.0	32.7	24.2	19.5	16.5	13.8	12.2	10.9	10.0	9.23	4.96
1.67V/cell	122.1	90.8	66.4	55.0	33.6	24.9	20.0	16.8	14.0	12.3	11.1	10.1	9.34	5.01
1.60V/cell	132.3	97.2	71.3	58.4	34.9	25.9	20.7	17.4	14.4	12.6	11.3	10.3	9.53	5.08

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

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	161.9	128.0	98.2	82.6	52.6	40.2	33.4	28.9	24.3	21.6	19.5	17.8	16.9	9.20
1.80V/cell	183.0	141.6	107.5	90.7	56.6	42.9	35.3	30.3	25.4	22.5	20.4	18.7	17.6	9.57
1.75V/cell	203.4	154.4	115.4	96.5	59.8	45.2	36.8	31.4	26.3	23.3	21.0	19.3	17.9	9.75
1.70V/cell	216.8	163.9	121.7	101.6	63.1	46.9	37.9	32.3	27.1	24.0	21.6	19.7	18.3	9.86
1.67V/cell	223.1	168.5	125.1	104.8	64.4	48.2	38.7	32.8	27.5	24.3	21.9	20.0	18.5	9.95
1.60V/cell	239.1	178.7	133.4	110.7	66.7	49.9	40.1	33.8	28.1	24.7	22.2	20.3	18.9	10.1