

# USL2-200(2V200AH)

## Application

- Data Center
- Telecommunication center room
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Emergency light
- Railway signal
- Aircraft signal
- Alarm and security system
- Electronic apparatus and equipment

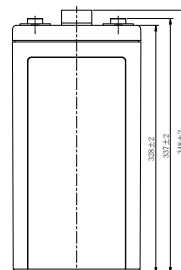
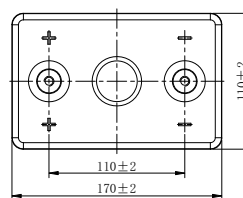


## Features

- General purpose: 9~14 years design life
- VRLA Battery, maintenance-free
- Low self-discharge rate
- Silver-coated copper terminals
- PbCaSn alloy for plate grids: less gassing, less self-discharge
- ABS container, Flame retardant UL94-V0

### Layout

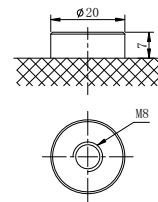
Unit: mm



### Terminal

#### M8 Terminal

Unit: mm [inches]

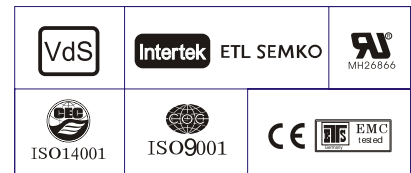


## Long Life Standby AGM Battery - USL Series

# USL2-200(2V200AH)

### Specification

Nominal Voltage	12V	
Rated Capacity (Ah)	212.0 AH/10.6A	(20hr, 1.80V/cell, 25°C/77°F)
	200.0 AH/20.0A	(10hr, 1.80V/cell, 25°C/77°F)
	175.0 AH/35.0A	(5hr, 1.75V/cell, 25°C/77°F)
	156.0 AH/52.0A	(3hr, 1.75V/cell, 25°C/77°F)
	122.7 AH/122.7A	(1hr, 1.60V/cell, 25°C/77°F)
Dimension	Length	170±2mm (6.69 inches)
	Width	110±2mm (4.33 inches)
	Container Height	328±2mm (12.99 inches)
	Total Height (with Terminal)	348±2mm (13.78 inches)
Approx Weight	Approx 13.5 kg (29.8 lbs)	
Terminal	M8	
Container Material	ABS	
Max. Discharge Current	1600A (5s)	
Internal Resistance	Approx 0.9mΩ	
Operating Temp. Range	Discharge : -15 ~ 50°C	
	Charge : 0 ~ 40°C	
	Storage : -15 ~ 40°C	
Capacity affected by Temperature	40°C	106%
	25°C	100%
	0°C	86%
Self Discharge	USL series batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



### Performance - 25 °C

#### Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	139.2	110.1	96.3	61.5	46.8	37.7	31.8	27.6	22.4	18.7	10.0
1.80V/cell	157.4	123.1	106.6	66.9	50.6	40.6	34.2	29.6	24.0	20.0	10.6
1.75V/cell	164.5	128.1	110.5	69.0	52.0	41.6	35.0	30.2	24.4	20.3	10.7
1.70V/cell	175.6	132.9	114.6	71.2	53.5	42.6	35.8	30.9	24.9	20.6	10.9
1.65V/cell	187.8	135.9	117.0	72.4	54.3	43.2	36.2	31.2	25.1	20.8	11.0
1.60V/cell	189.9	142.9	122.7	75.4	56.3	44.7	37.4	32.1	25.7	21.3	11.1

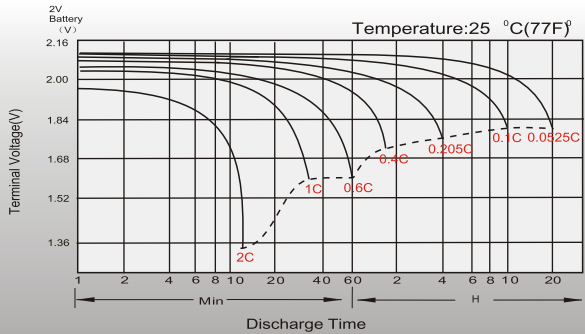
#### Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	269.0	213.4	187.2	120.3	91.8	74.0	62.5	54.4	44.3	37.1	20.0
1.80V/cell	301.6	236.9	205.8	130.2	98.9	79.5	67.2	58.2	47.3	39.5	21.1
1.75V/cell	312.6	244.6	211.9	133.4	101.1	81.2	68.5	59.2	48.1	40.1	21.3
1.70V/cell	330.7	251.9	218.2	137.0	103.6	82.9	69.8	60.4	48.8	40.6	21.6
1.65V/cell	350.2	256.3	221.7	138.8	104.8	83.9	70.6	61.0	49.3	40.9	21.7
1.60V/cell	351.2	266.7	230.3	143.5	108.1	86.2	72.4	62.4	50.3	41.7	22.1

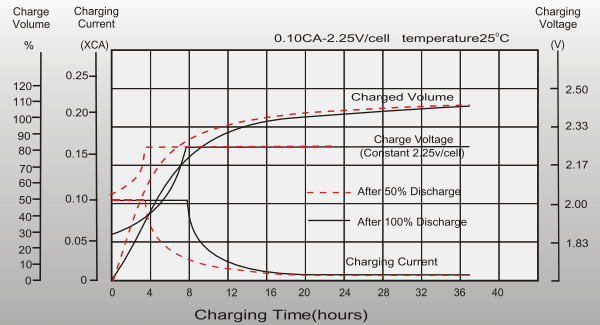
## Long Life Standby AGM Battery - USL Series

### Characteristic Curve

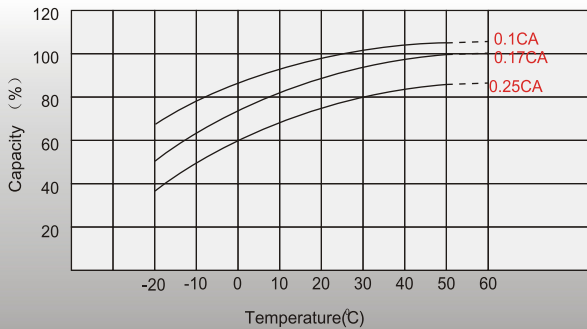
#### Discharge Characteristics



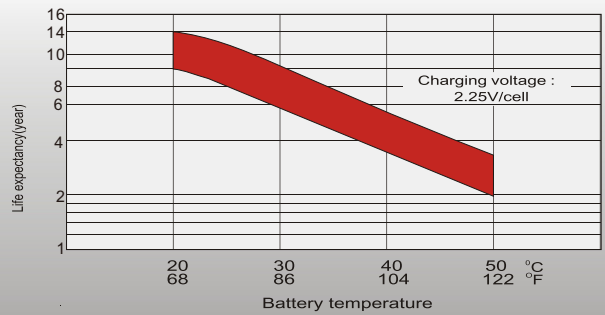
#### Float Charging Characteristics



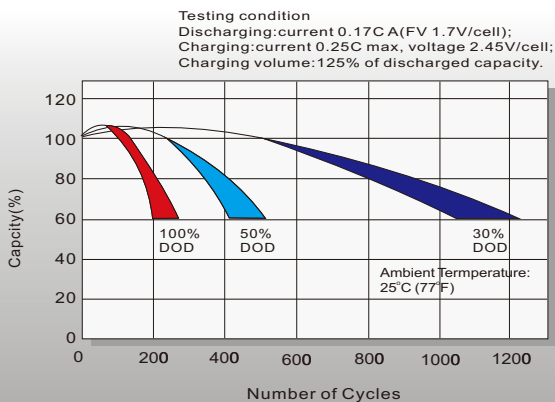
#### Temperature Effects in Relation to Battery Capacity



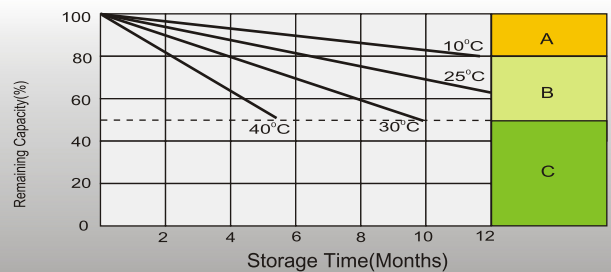
#### Effect of Temperature on Long Term Float Life



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



#### Self Discharge Characteristics



**A** No supplementary charge required  
(Carry out supplementary charge before use if 100% capacity is required.)

**B** Supplementary charge required before use. Optional charging way as below:  
1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.  
2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.  
3. Charged for 8-10 hours at limited current 0.05CA.

**C** Supplementary charge may often fail to recover the capacity.  
The battery should never be left standing till this is reached.