

# USL12-200(12V200AH)

## 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

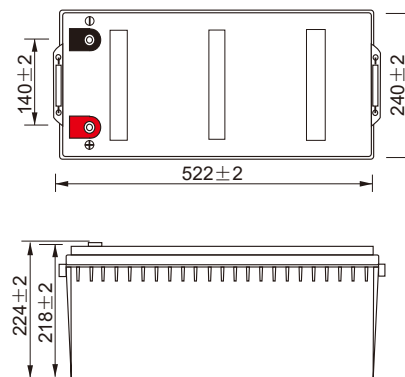


## Features

- General purpose: 7~10 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

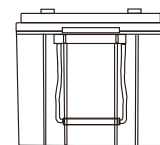
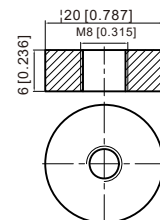
Unit: mm



### Terminal

#### T11 Terminal

Unit: mm [inches]

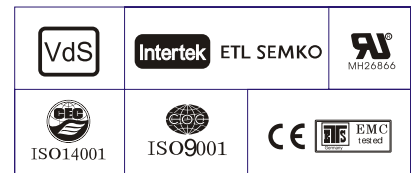


## Long Life Standby AGM Battery - USL Series

# USL12-200(12V200AH)

### Specification

Nominal Voltage	12V	
Rated Capacity (Ah)	214.0 AH/10.7A	(20hr, 1.80V/cell, 25°C/77°F)
	200.0 AH/20.0A	(10hr, 1.80V/cell, 25°C/77°F)
	189.0 AH/37.8A	(5hr, 1.75V/cell, 25°C/77°F)
	177.2 AH/57.4A	(3hr, 1.75V/cell, 25°C/77°F)
	156.0 AH/156.0A	(1hr, 1.60V/cell, 25°C/77°F)
Dimension	Length	522±3mm (20.55 inches)
	Width	240±3mm (9.45 inches)
	Container Height	218±3mm (8.58 inches)
	Total Height (with Terminal)	224±3mm (8.81 inches)
Approx Weight	Approx 64.0 kg (141.1lbs)	
Terminal	M8	
Container Material	ABS	
Max. Discharge Current	2000A (5s)	
Internal Resistance	Approx 2.7mΩ	
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	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h
1.85V/cell	295.6	272.1	233.8	194.9	144.4	120.6	68.8	52.4	42.5	34.3	30.1	22.5	19.4	17.0
1.80V/cell	377.7	328.8	276.4	230.0	168.0	135.0	75.1	56.4	45.3	36.9	32.3	23.7	20.0	17.8
1.75V/cell	415.0	359.1	297.3	238.8	174.3	141.3	77.9	57.4	46.5	37.8	33.2	24.5	20.5	18.4
1.70V/cell	452.4	383.4	312.5	248.5	181.3	145.8	80.9	59.0	47.6	38.8	33.9	25.6	21.3	19.0
1.65V/cell	/	407.7	332.0	262.2	185.8	150.6	83.2	61.5	49.2	39.9	34.6	26.4	21.9	19.6
1.60V/cell	/	436.0	353.6	276.9	193.7	156.0	86.0	63.4	49.8	41.2	35.4	26.9	22.4	19.9

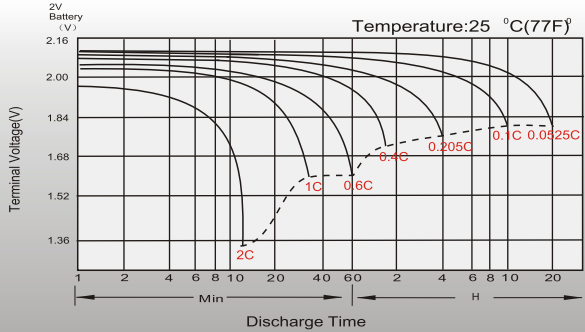
#### Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h
1.85V/cell	552.0	513.2	445.4	375.4	280.5	235.0	135.0	103.2	83.9	68.0	59.8	44.9	38.8	33.9
1.80V/cell	697.1	611.8	518.9	436.3	323.8	261.8	146.3	110.4	89.1	72.7	63.9	47.1	39.9	35.4
1.75V/cell	753.8	660.2	552.8	449.2	332.8	272.7	151.2	112.0	91.0	74.3	65.5	48.6	40.9	36.5
1.70V/cell	803.2	695.1	576.7	465.0	344.8	280.4	156.9	114.9	93.0	76.1	66.7	50.7	42.4	37.7
1.65V/cell	/	733.5	608.2	486.5	350.3	287.7	160.3	119.3	95.8	77.9	68.0	52.2	43.6	38.8
1.60V/cell	/	771.6	640.8	510.1	363.2	296.4	164.9	122.4	96.7	80.3	69.2	53.1	44.5	39.5

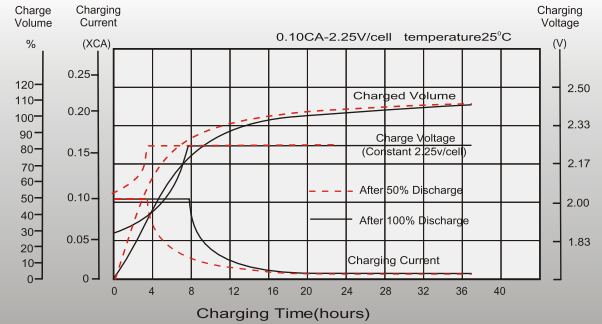
## Long Life Standby AGM Battery - USL Series

### Characteristic Curve

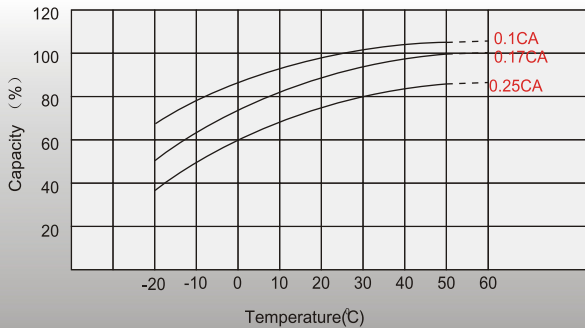
#### Discharge Characteristics



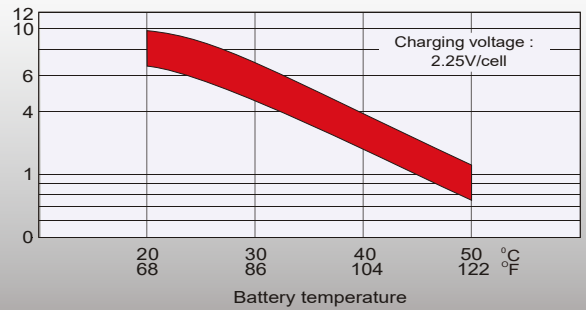
#### Float Charging Characteristics



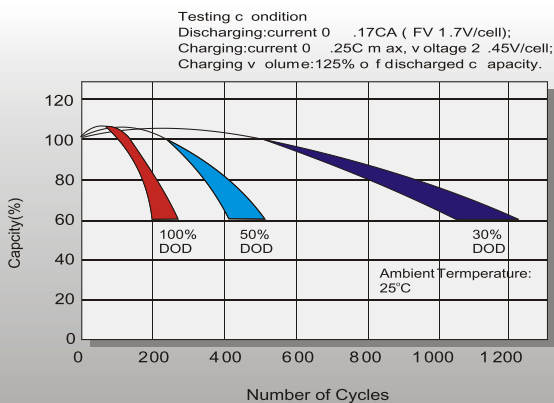
#### Temperature Effects in Relation to Battery Capacity



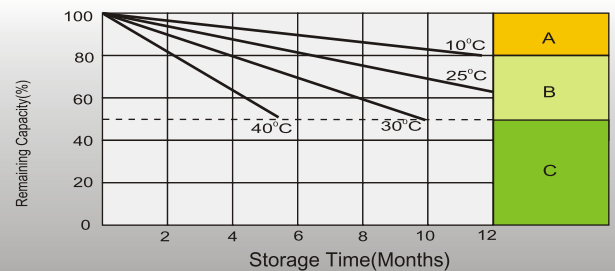
#### Effect of Temperature on Long Term Float Life



#### 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.