

# USL2-600(2V600AH)

## 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

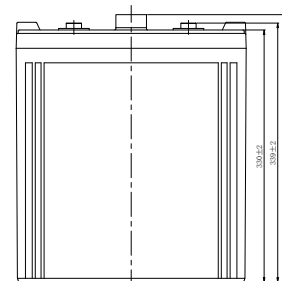
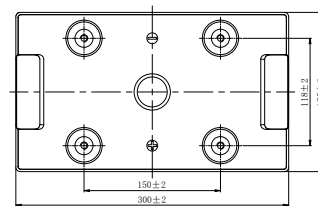


## Features

- 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

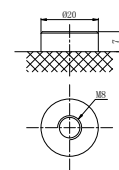
Unit: mm



### Terminal

#### M8 Terminal

Unit: mm [inches]

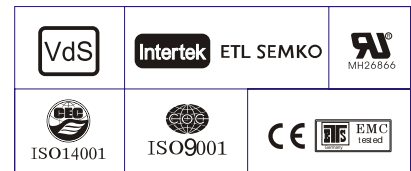


## Long Life Standby AGM Battery - USL Series

# USL2-600(2V600AH)

### Specification

Nominal Voltage	12V	
Rated Capacity (Ah)	636.0 AH/31.8A	(20hr, 1.80V/cell, 25°C/77°F)
	600.0 AH/60.0A	(10hr, 1.80V/cell, 25°C/77°F)
	525.0 AH/105.0A	(5hr, 1.75V/cell, 25°C/77°F)
	468.0AH/156.0A	(3hr, 1.75V/cell, 25°C/77°F)
	368.1AH/386.1A	(1hr, 1.60V/cell, 25°C/77°F)
Dimension	Length	300±2mm (11.81 inches)
	Width	175±2mm (6.89 inches)
	Container Height	330±2mm (12.99 inches)
	Total Height (with Terminal)	350±2mm (13.78 inches)
Approx Weight	Approx 37.0 kg (81.6 lbs)	
Terminal	M8	
Container Material	ABS	
Max. Discharge Current	4800A (5s)	
Internal Resistance	Approx 0.4mΩ	
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	417.6	275.1	240.8	153.8	117.0	94.1	79.4	69.0	56.0	46.9	25.1
1.80V/cell	472.1	307.7	266.5	167.4	126.6	101.5	85.6	74.0	60.0	50.0	26.5
1.75V/cell	493.5	320.2	276.4	172.5	130.0	104.0	87.5	75.5	61.1	50.8	26.8
1.70V/cell	526.9	332.3	286.5	178.0	133.8	106.6	89.5	77.1	62.2	51.6	27.2
1.65V/cell	563.3	339.8	292.5	181.0	135.8	108.1	90.6	78.1	62.8	52.0	27.4
1.60V/cell	569.8	357.3	306.7	188.5	140.8	111.7	93.4	80.2	64.3	53.1	27.9

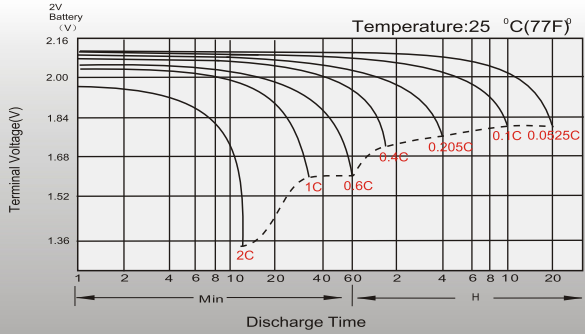
#### Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	807.1	640.2	561.7	360.8	275.3	222.0	187.6	163.1	132.9	111.3	59.9
1.80V/cell	904.9	710.6	617.5	390.5	296.7	238.4	201.5	174.5	142.0	118.6	63.2
1.75V/cell	937.7	733.8	635.8	400.3	303.3	243.5	205.4	177.7	144.3	120.2	63.9
1.70V/cell	992.2	755.7	654.6	410.9	310.7	248.7	209.5	181.1	146.5	121.9	64.7
1.65V/cell	1050.6	768.8	665.0	416.3	314.5	251.6	211.7	182.9	147.9	122.8	65.1
1.60V/cell	1053.5	800.0	690.8	430.5	324.2	258.6	217.2	187.3	150.9	125.1	66.2

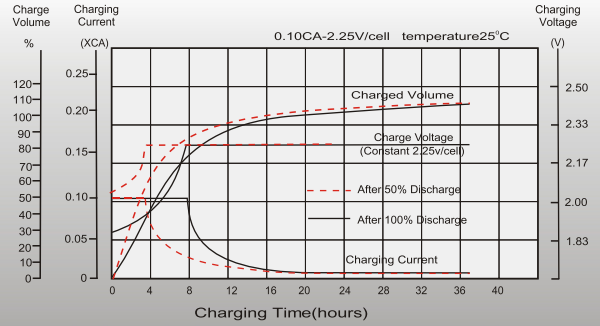
## Long Life Standby AGM Battery - USL Series

### Characteristic Curve

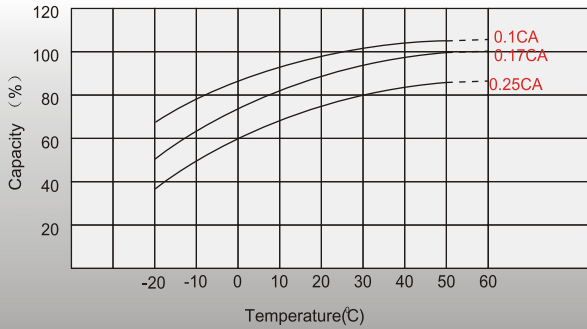
#### Discharge Characteristics



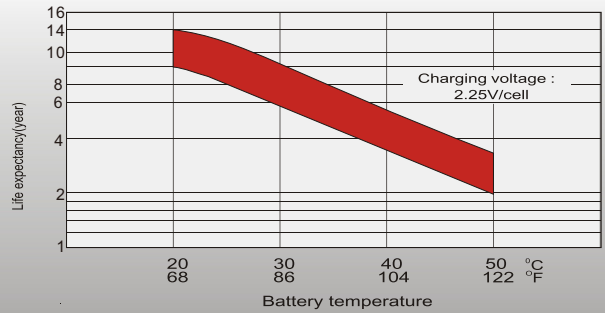
#### Float Charging Characteristics



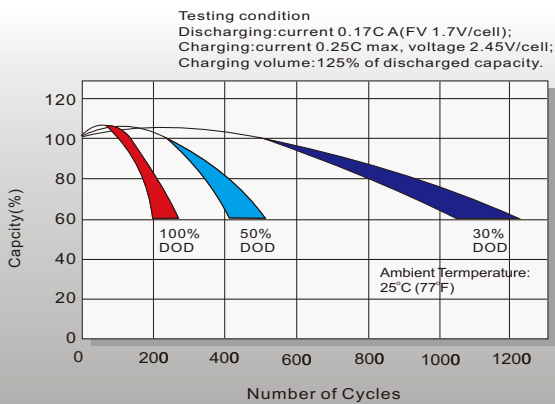
#### Temperature Effects in Relation to Battery Capacity



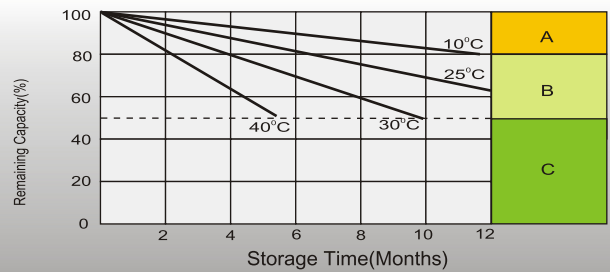
#### Effect of Temperature on Long Term Float Life



#### 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.