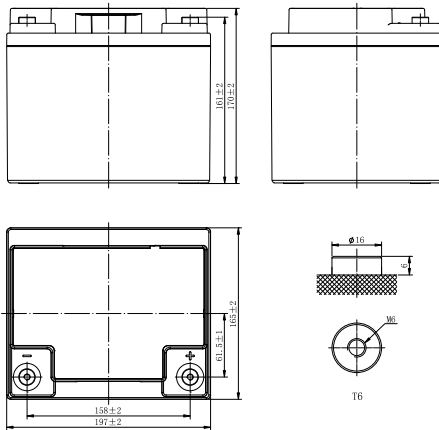


# USL SERIES-LONG LIFE STANDBY

## USL12-38 (12V38Ah)



### CHARACTERISTICS

Item	Specifications	
Rated Voltage	12V	
Nominal Capacity (25°C)	C <sub>10</sub> : 1.80V/cell	38Ah
Dimension	Length	197mm (7.76inches)
	Width	165mm (6.50inches)
	Container Height	170mm (6.69inches)
	Total Height	170mm (6.69inches)
Approx Weight	12.7kg (28.0lbs)	
Terminal	T6(M6)	
Container Material	ABS (UL94 HB or V-0 optional)	
Short-circuit current	950A	
Internal Resistance (25°C)	Approx 10 mΩ (Fully charged)	
Operating Temp. Range	Discharge	-15~50°C (5~122°F)
	Charge	-20~40°C (-4~104°F)
	Storage	-15~40°C (5~104°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Max.Charging Current (25°C)	0.3C	
Charge voltage (25°C)	Standby Use	Cycle Use
	2.25-2.30V/cell	2.35-2.40V/cell
Temp. Coefficient	-3mV/cell/°C	-5mV/cell/°C
	40°C (104°F)	103%
Effect of temp. to Capacity	25°C (77°F)	100%
	0°C (32°F)	86%
	≤3% per month at 25°C (77°F). USL series batteries may be stored 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.	
Self Discharge		

### DISCHARGE TABLE

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	20h
1.85V/cell	56.2	48.7	38.3	34.3	25.1	21.2	12.9	9.49	7.44	6.46	5.69	4.38	3.63	1.93
1.80V/cell	63.8	55.2	43.3	37.3	26.6	22.0	13.4	10.3	7.95	6.79	6.12	4.61	3.80	2.00
1.75V/cell	69.2	59.8	46.8	38.1	27.5	23.1	14.1	10.5	8.09	6.92	6.17	4.63	3.84	2.01
1.70V/cell	73.8	63.5	49.6	38.8	28.1	23.5	14.3	10.7	8.24	7.03	6.20	4.70	3.88	2.03
1.67V/cell	76.1	65.4	51.0	39.4	28.5	23.9	14.6	10.8	8.36	7.17	6.23	4.77	3.93	2.06
1.60V/cell	78.7	67.4	52.3	40.0	28.9	24.2	14.8	10.9	8.46	7.27	6.27	4.83	3.97	2.08
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	20h
1.85V/cell	105.8	92.3	72.9	65.5	48.2	41.1	25.2	18.5	14.6	12.7	11.3	8.69	7.22	3.83
1.80V/cell	118.3	103.2	81.6	70.7	50.7	42.3	25.9	20.0	15.5	13.3	12.0	9.12	7.55	3.97
1.75V/cell	126.3	110.2	87.0	71.6	52.2	44.2	27.1	20.4	15.8	13.5	12.1	9.14	7.61	4.00
1.70V/cell	132.7	115.8	91.5	72.5	52.9	44.8	27.5	20.7	16.0	13.7	12.1	9.27	7.68	4.04
1.67V/cell	134.9	117.7	93.0	73.0	53.4	45.2	27.8	20.8	16.2	13.9	12.2	9.38	7.77	4.08
1.60V/cell	136.8	119.4	94.3	73.3	53.7	45.6	28.0	20.9	16.3	14.1	12.2	9.48	7.85	4.13

# USL SERIES-LONG LIFE STANDBY

## USL12-38 (12V38Ah)



### APPLICATIONS

- UPS and EPS
- Emergency light
- Railway signal and aircraft signal system
- Marine and power stations
- Alarm and security system
- Electronic apparatus and equipment
- Communication power supply, DC power supply

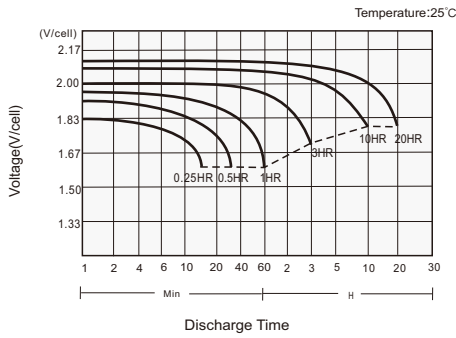
### GENERAL FEATURES

- 12 years design life (25°C)
- Lead calcium alloy, sealed design, no watering required
- Puncture resistant micro-porous glass mat separators extend life
- Unique technology optimizes power capacity, cell consistency, and long-term reliability
- Designed for a wide range of applications

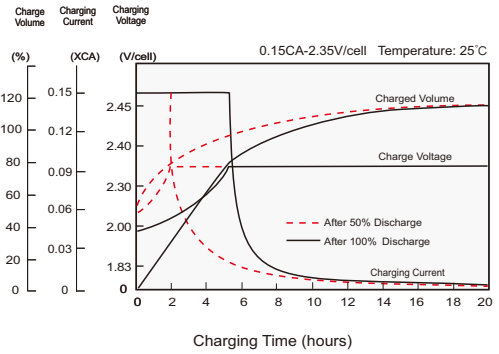
### STANDARDS

- Compliance with IEC 60896 standards, EU Battery Directive
- UL, CE Approved

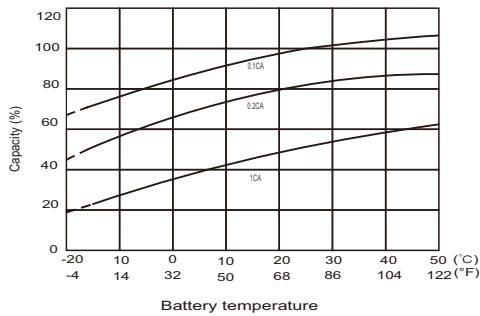
#### Discharge Characteristics



#### Charging Characteristics



#### Effects of Temperature on Capacity



#### Self Discharge Characteristics

