



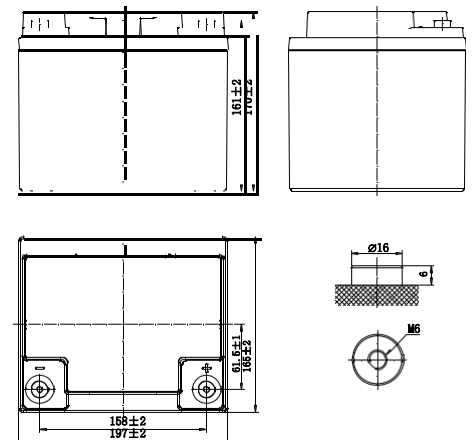
# USB Series-General Purpose

## ULL12-45(12V45Ah)

### Specifications

Rated Voltage	12V	
Nominal Capacity	45.0Ah	(C <sub>10</sub> ,1.80V/cell)
Dimension	Length	197±2mm (7.76 inches)
	Width	165±2mm (6.50 inches)
	Container Height	170±2mm (6.69 inches)
	Total Height	170±2mm (6.69 inches)
	13.40 Kg	
Terminal	M6	
	ABS	
Rated Capacity (25°C)	47.8 Ah	(20hr,2.39A,1.80V/cell)
	45.0 Ah	(10hr,4.50A,1.80V/cell)
	39.4 Ah	(5hr,7.88A,1.75V/cell)
	35.7 Ah	(3hr,11.9A,1.75V/cell)
	30.2 Ah	(1hr,30.2A,1.60V/cell)
	450A (5s)	
Internal Resistance (25°C)	Approx 9.0mΩ	
	Discharge	-15~50°C (5~122°F)
	Charge	0~40°C (32~104°F)
	Storage	-15~40°C (5~104°F)
	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 13.5A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 13.5A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	LP series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required.	

### Layout



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

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	93.7	69.9	58.2	48.9	37.6	28.1	23.7	17.8	14.2	10.7	8.55	7.15	6.21	5.04	4.22	2.26
1.80V/cell	109.2	82.4	67.7	56.4	42.5	31.4	26.2	19.5	15.5	11.6	9.22	7.70	6.66	5.40	4.50	2.39
1.75V/cell	119.1	88.4	71.6	59.2	44.4	32.7	27.2	20.1	16.0	11.9	9.45	7.88	6.80	5.50	4.57	2.42
1.70V/cell	129.0	94.3	75.7	62.3	46.4	33.9	28.2	20.8	16.5	12.3	9.69	8.05	6.94	5.60	4.64	2.45
1.67V/cell	134.7	97.7	78.1	64.0	47.6	34.7	28.8	21.2	16.7	12.5	9.82	8.15	7.02	5.65	4.68	2.46
1.60V/cell	148.5	105.8	83.7	68.2	50.3	36.5	30.2	22.1	17.4	12.9	10.1	8.40	7.22	5.79	4.78	2.51

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

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	178.0	133.8	111.9	94.3	72.7	54.4	46.1	34.7	27.8	21.0	16.8	14.1	12.2	10.0	8.34	4.49
1.80V/cell	204.3	155.9	128.7	107.6	81.5	60.4	50.7	37.7	30.1	22.7	18.1	15.1	13.1	10.6	8.89	4.74
1.75V/cell	219.5	165.2	134.8	111.8	84.5	62.4	52.2	38.8	30.9	23.2	18.4	15.4	13.3	10.8	9.02	4.79
1.70V/cell	233.9	173.8	140.8	116.5	87.4	64.2	53.7	39.8	31.7	23.8	18.8	15.7	13.6	11.0	9.14	4.85
1.67V/cell	241.9	178.8	145.6	119.0	89.1	65.4	54.6	40.4	32.1	24.0	19.0	15.9	13.7	11.1	9.21	4.88
1.60V/cell	259.9	189.5	151.9	124.8	92.9	68.0	56.7	41.8	33.2	24.8	19.6	16.3	14.0	11.3	9.38	4.97

# USB Series-General Purpose ULL12-45(12V45Ah)

## Applications

- All purpose
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Alarm and security system
- Communication power supply
- DC power supply
- Auto control system

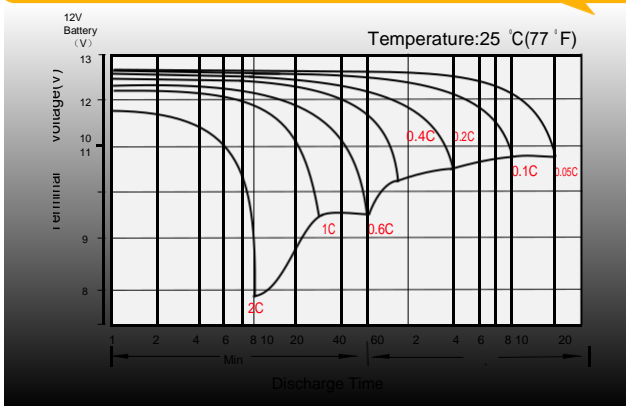
## General Features

- 10 years design life(25°C)
- Special exhaust structure and sealing technology, safe and reliable, flexible installation, convenient maintenance
- PbCaSn alloy for plate grids: less gassing, less self-discharging
- High quality AGM separator: extend cycle life and prevent micro short circuit
- High purity raw material: ensure low self discharge rate

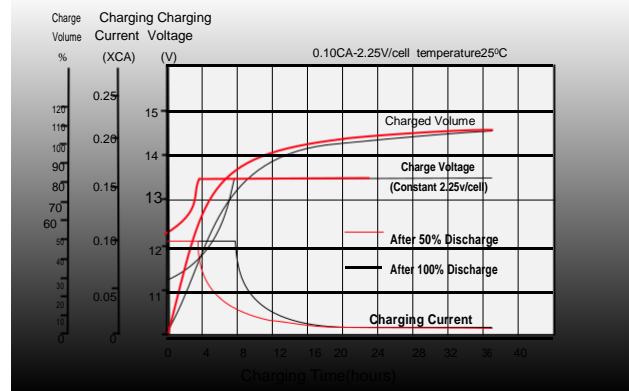
## Standards

- Compliance with IEC 60896 standards, EU Battery Directive
- UL, CE Certified
- Manufactured in Leoch@IATF16949, ISO45001,ISO 9001 and ISO 14001 certified production facilities

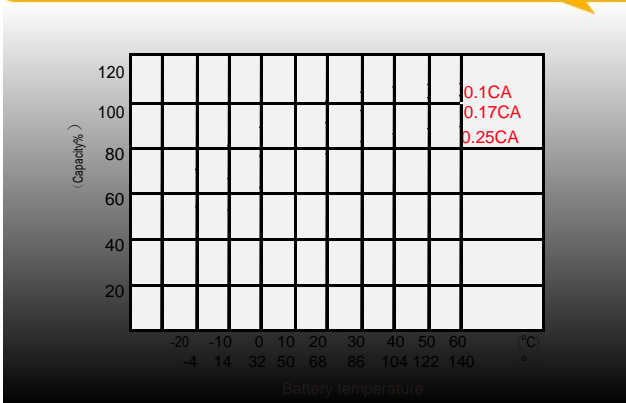
### Discharge Characteristics



### Float Charging Characteristics



### Temperature Effects in Relation to Battery Capacity



### Float Service Life

