

### UXL24-12



### Physical Specification

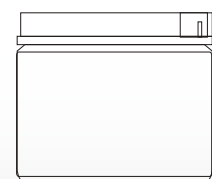
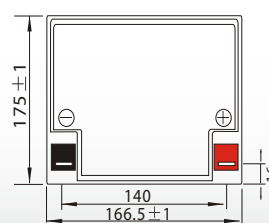
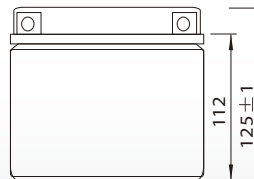
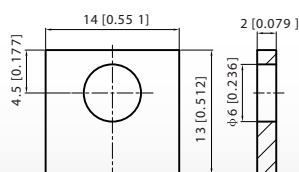
Part Number:	<b>UXL24-12</b>
Length:	<b>166.5 ± 3 mm (6.56 inches)</b>
Width:	<b>175 ± 3 mm (6.89 inches)</b>
Container Height:	<b>125 ± 3 mm (4.92 inches)</b>
Total Height (with terminal):	<b>125 ± 3 mm (4.92 inches)</b>
Approx Weight:	<b>Approx 7.8Kg (17.20 lbs)</b>

### Specifications

	Nominal Voltage	12V
	Nominal Capacity (10HR)	24AH
Terminal Type	Standard Terminal	F3
	Optional Terminal	F2 / F12
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	ABS (UL94:VO)
Rated Capacity	25.4 AH/1.27A	(20hr, 1.80V/cell, 25°C / 77°F)
	24.0 AH/2.40A	(10hr, 1.80V/cell, 25°C / 77°F)
	20.82 AH/4.16A	(5hr, 1.75V/cell, 25°C / 77°F)
	18.96 AH/6.32A	(3hr, 1.75V/cell, 25°C / 77°F)
	14.76 AH/14.76A	(1hr, 1.60V/cell, 25°C / 77°F)
Max Discharge Current	360A (5s)	
Internal Resistance	Approx 14.0mΩ	
Discharge Characteristics	Operating Temp. Range	Discharge: -15 ~ 50°C (5 ~ 122°F)
		Charge: 0 ~ 40°C (32 ~ 104°F)
		Storage: -15 ~ 40°C (5 ~ 104°F)
	Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F)
	Cycle Use	Initial Charging Current less than 7.2A. Voltage 14.4V ~ 15.0V at 25°C (77°F) Temp. Coefficient -30mV/°C
	Standby Use	No limit on Initial Charging Current Voltage 13.5V ~ 13.8V at 25°C (77°F) Temp. Coefficient -20mV/°C
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Design Floating Life at 20°C	15 Years	
Self Discharge	Ultracell batteries may be stored for up to 6 months at 25°C(77°F) and then a refresh charge is required. For higher temperatures the time interval will be shorter.	

### Dimensions

#### F3 Terminal



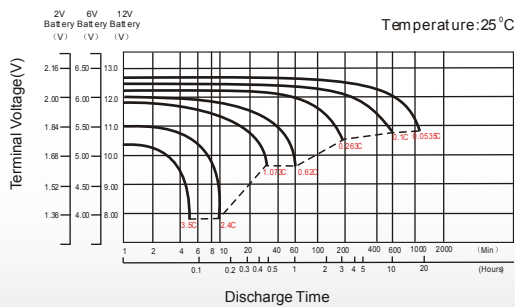
## Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	31.0	25.8	22.0	18.0	13.6	11.4	7.28	5.77	4.67	3.78	3.31	2.65	2.27	1.26
1.80V/cell	39.6	31.2	26.0	21.2	15.8	12.8	7.94	6.21	4.99	4.06	3.56	2.82	2.40	1.27
1.75V/cell	43.5	34.1	28.0	22.0	16.4	13.4	8.24	6.32	5.11	4.16	3.65	2.86	2.42	1.28
1.70V/cell	47.4	36.4	29.4	22.9	17.1	13.8	8.57	6.50	5.24	4.27	3.73	2.90	2.45	1.31
1.65V/cell	51.1	38.7	31.3	24.2	17.5	14.3	8.81	6.77	5.42	4.39	3.81	2.95	2.50	1.32
1.60V/cell	55.5	41.4	33.3	25.5	18.2	14.8	9.10	6.98	5.59	4.53	3.89	2.98	2.52	1.33

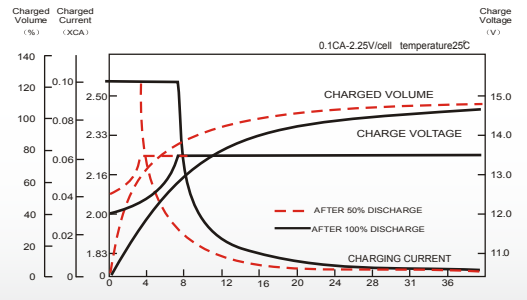
## Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	58.3	49.1	42.3	34.9	26.6	22.4	14.4	11.4	9.30	7.54	6.63	5.33	4.56	2.54
1.80V/cell	73.6	58.5	49.3	40.6	30.7	25.0	15.6	12.2	9.88	8.06	7.09	5.64	4.83	2.56
1.75V/cell	79.6	63.2	52.5	41.8	31.6	26.0	16.1	12.4	10.1	8.24	7.26	5.72	4.87	2.58
1.70V/cell	84.8	66.5	54.8	43.2	32.7	26.7	16.7	12.7	10.3	8.43	7.40	5.80	4.91	2.63
1.65V/cell	90.7	70.2	57.7	45.3	33.3	27.4	17.1	13.2	10.6	8.64	7.54	5.88	5.01	2.66
1.60V/cell	96.3	73.9	60.8	47.5	34.5	28.3	17.6	13.6	10.9	8.90	7.68	5.92	5.05	2.67

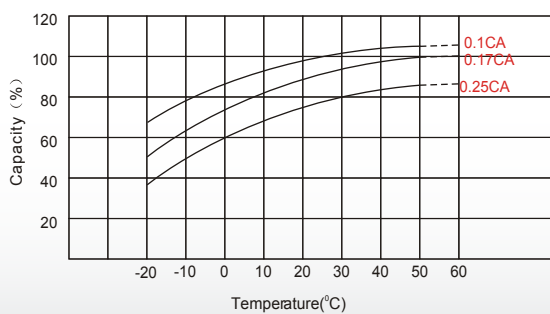
### Discharge Characteristics



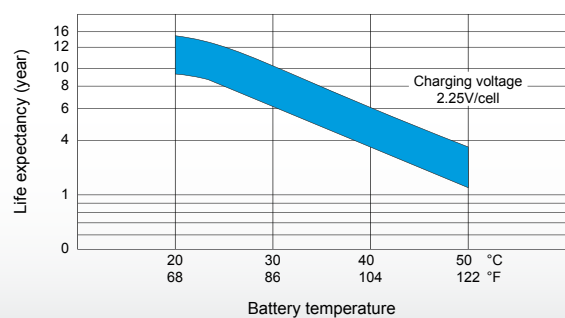
### Float Charging Characteristics



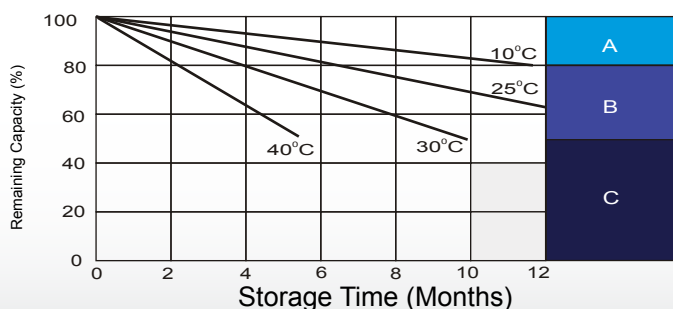
### Temperature Effects in Relation to Battery Capacity



### Effect of Temperature on Long Term Float Life



### Self Discharge Characteristic s



**A**

**B**

**C**

**A** No supplementary required  
(Carryout 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 2.25V/cell.  
 3. Charged for 8 ~ 10 hours at limited current 0.05 CA.

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