

### UXL45 -12



### Physical Specification

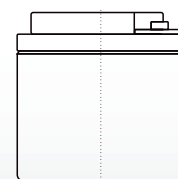
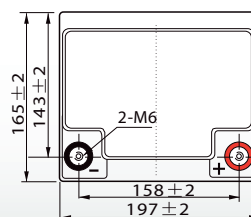
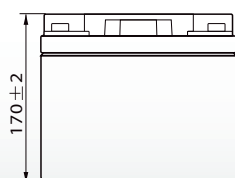
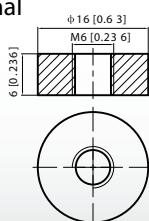
Part Number:	UXL45-12
Length:	197 ± 2 mm (7.76 inches )
Width:	165 ± 2 mm (6.49 inches )
Container Height:	170 ± 2 mm (6.69 inches )
Total Height (with terminal):	170 ± 2 mm (6.69 inches )
Approx Weight:	Approx 14.0 Kg

### Specifications

	Nominal Voltage	12V	
	Nominal Capacity (20HR)	45AH	
Terminal Type	Standard Terminal	F6	
	Optional Terminal	F10	
Container Material	Standard Option	ABS	
	Flame Retardant Option (FR)	ABS (UL94:VO)	
Rated Capacity	45.00 AH/2.41A	(20hr,1.80V/cell, 25°C / 77°F)	
	42.00 AH/45.0A	(10hr,1.80V/cell, 25°C / 77°F)	
	39.1 AH/7.83A	(5hr,1.75V/cell, 25°C / 77°F)	
	35.1 AH/11.7A	(3hr,1.75V/cell, 25°C / 77°F)	
	27.9 AH/27.9A	(1hr,1.60V/cell, 25°C / 77°F)	
Max Discharge Current	540 A (5s)		
Internal Resistance	Approx 9mΩ		
Discharge Characteristics	Operating Temp. Range	Discharge: -15 ~ 50°C (5 ~ 122°F)	
		Charge: 0 ~ 40°C (5 ~ 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 13.5A. Voltage 14.4V ~ 15.0V at 25°C (77°F) Temp. Coe fficient -30mV/°C	
	Standby Use	No limit on Initial Charging Current Voltage 13.5V ~ 13.8V at 25°C (77°F) Temp. Coe fficient -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(°77F) and then a refresh charge is required. For higher temperatures the time interval will be shorter.		

### Dimensions

#### F6 Terminal



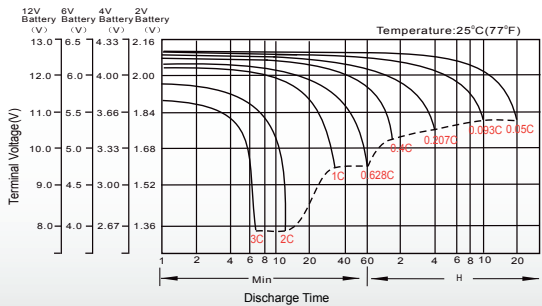
## Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	52.7	44.3	39.3	32.6	25.1	21.5	13.9	10.5	8.58	7.22	6.32	5.07	4.36	2.33
1.80V/cell	60.2	49.7	43.4	35.4	27.1	22.7	15.0	11.3	9.12	7.65	6.70	5.34	4.50	2.41
1.75V/cell	68.4	56.0	48.0	38.5	29.6	24.8	15.6	11.7	9.43	7.83	6.91	5.52	4.62	2.47
1.70V/cell	77.3	62.2	53.0	42.0	31.9	26.2	16.4	12.3	9.86	8.28	7.24	5.75	4.80	2.53
1.65V/cell	83.0	66.6	56.4	44.3	33.7	27.1	17.0	12.8	10.2	8.54	7.49	5.94	4.93	2.61
1.60V/cell	91.3	72.9	61.2	47.3	35.0	27.9	17.4	13.1	10.5	8.75	7.65	6.05	5.04	2.65

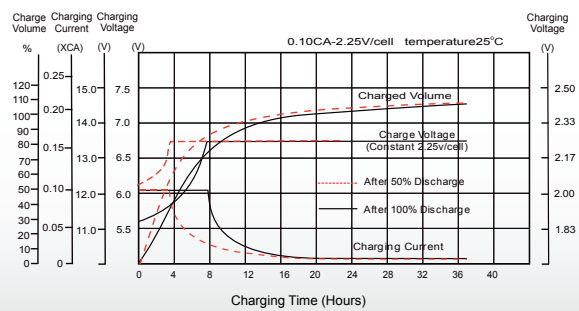
## Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	98.3	83.5	74.8	62.7	48.8	41.9	27.3	20.6	16.9	14.3	12.6	10.1	8.72	4.66
1.80V/cell	111.2	92.5	81.5	67.1	52.3	44.0	29.2	22.0	17.9	15.1	13.3	10.6	8.98	4.81
1.75V/cell	124.3	103.0	89.3	72.3	56.5	47.8	30.2	22.8	18.5	15.4	13.6	10.9	9.21	4.93
1.70V/cell	137.2	112.7	97.8	78.5	60.6	50.4	31.8	24.0	19.3	16.2	14.3	11.4	9.56	5.05
1.65V/cell	146.0	119.8	103.3	82.2	63.6	51.7	32.8	24.8	19.9	16.7	14.7	11.8	9.81	5.20
1.60V/cell	157.0	129.0	111.0	87.1	65.7	53.0	33.4	25.4	20.3	17.0	15.0	11.9	10.0	5.28

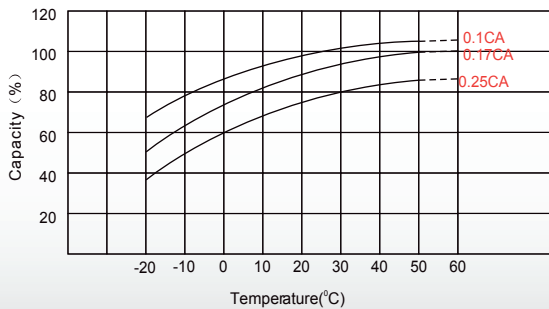
### Discharge Characteristics



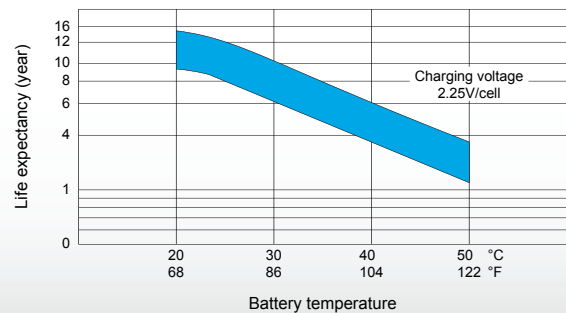
### Float Charging Characteristics



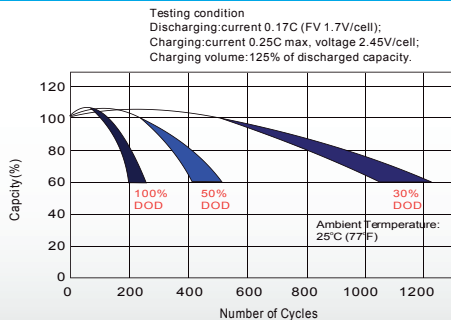
### Temperature Effects in Relation to Battery Capacity



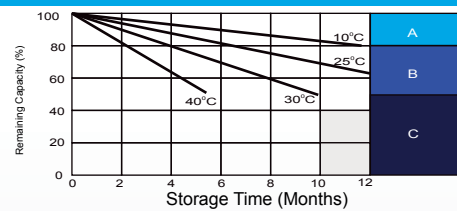
### Effect of Temperature on Long Term Float Life



### Cycle Life in Relation to Depth of Discharge



### Self Discharge Characteristic s



- A** No supplementary required  
(Carryout supplementary charge before use if 100% capacity is required.)  
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.
- B** 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.