

### UL65-12



### Physical Specification

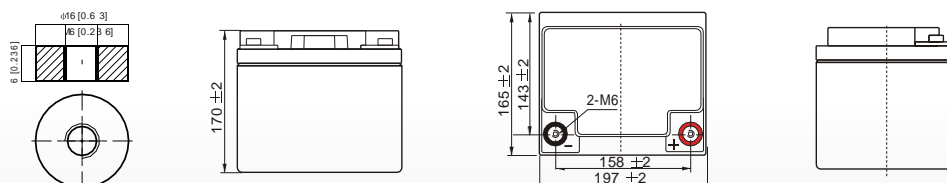
Part Number:	<b>UL65-12</b>
Length:	<b>348 ± 2 mm (13.70 inches)</b>
Width:	<b>167 ± 2 mm (6.57 inches)</b>
Container Height:	<b>178 ± 2 mm (7.01 inches)</b>
Total Height (with terminal):	<b>178 ± 2 mm (7.01 inches)</b>
Approx Weight:	<b>Approx 19.2kg (42.3lbs)</b>

### Specifications

	Normal Voltage	12V
	Normal Capacity (20HR)	65AH
Terminal Type	Standard Terminal	F10
	Optional Terminal	F6
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	ABS(UL94:VO)
Rated Capacity	65.0 AH/3.38A	(20hr, 1.80V/cell, 25°C / 77°F)
	62.5 AH/6.50A	(10hr, 1.80V/cell, 25°C / 77°F)
	56.0 AH/11.2A	(5hr, 1.75V/cell, 25°C / 77°F)
	48.9 AH/16.3A	(3hr, 1.75V/cell, 25°C / 77°F)
	41.6 AH/41.6A	(1hr, 1.60V/cell, 25°C / 77°F)
Max Discharge Current	780A (5s)	
Internal Resistance	Approx 7.3mΩ	
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 19.5A. 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	10 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

#### F10 Terminal



ALL DATA IS SUBJECT TO CHANGE WITHOUT NOTICE

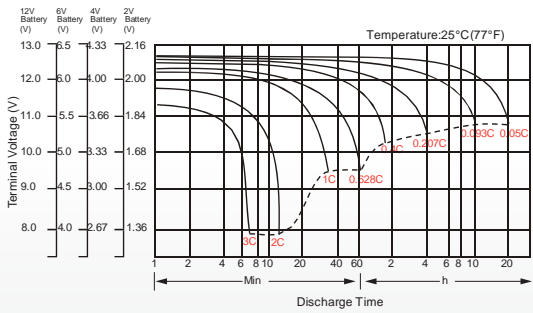
### Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	5 min	10 min	15 min	20 min	30 min	45 min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	119.3	91.7	79.0	68.8	53.2	40.2	32.6	19.7	15.0	12.3	10.5	9.20	7.44	6.26	3.35
1.80V/cell	149.3	107.3	89.9	77.2	58.3	43.5	34.9	21.0	15.8	12.9	11.0	9.59	7.74	6.50	3.40
1.75V/cell	168.4	117.0	98.2	82.7	62.5	46.2	36.9	21.9	16.3	13.2	11.2	9.78	7.86	6.57	3.44
1.70V/cell	185.4	126.4	104.8	87.8	65.3	48.1	38.5	22.6	16.8	13.6	11.5	9.98	7.97	6.63	3.48
1.65V/cell	202.8	136.1	111.4	92.8	68.5	50.3	40.0	23.2	17.2	13.8	11.7	10.2	8.09	6.70	3.52
1.60V/cell	220.0	146.6	119.2	97.7	71.9	52.3	41.6	23.9	17.6	14.1	11.9	10.3	8.20	6.79	3.54

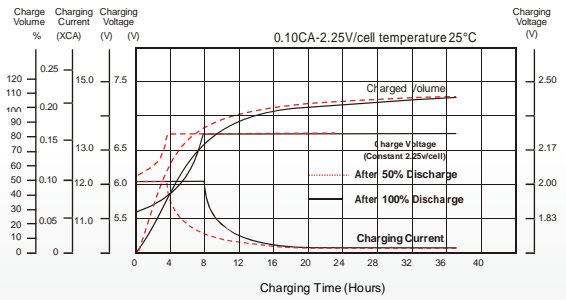
### Constant Power Discharge (Watts) at 25°C (77°F)

F.V/Time	5 min	10 min	15 min	20 min	30 min	45 min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	226.3	175.5	152.8	133.7	104.3	79.3	64.6	39.1	30.0	24.7	21.1	18.5	15.0	12.7	6.80
1.80V/cell	280.5	203.9	172.6	149.6	113.8	85.4	68.9	41.6	31.5	25.8	22.0	19.3	15.6	13.1	6.88
1.75V/cell	313.5	220.8	187.4	159.4	121.5	90.4	72.7	43.3	32.4	26.4	22.4	19.6	15.8	13.2	6.93
1.70V/cell	342.1	236.6	198.8	168.3	126.3	93.8	75.7	44.6	33.2	26.9	22.8	19.9	15.9	13.3	6.98
1.65V/cell	370.9	253.0	210.1	177.2	132.1	97.8	78.3	45.6	34.0	27.4	23.2	20.2	16.2	13.4	7.06
1.60V/cell	398.3	270.5	223.3	185.6	138.1	101.3	81.2	46.9	34.7	27.9	23.6	20.5	16.3	13.5	7.07

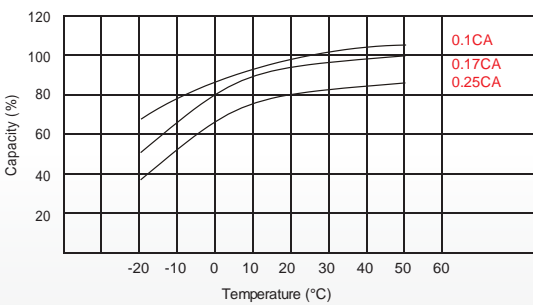
### Discharge Characteristics



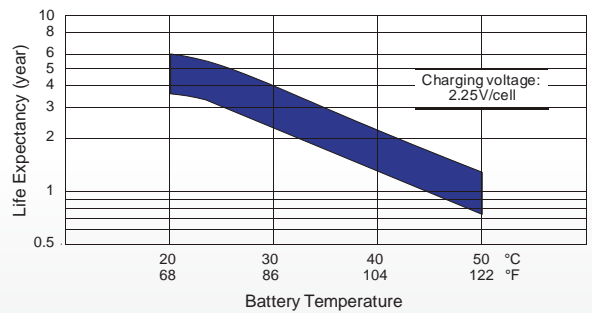
### Float Charging Characteristics



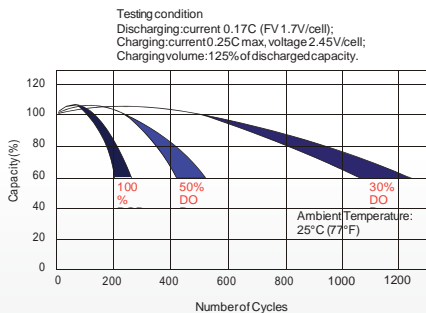
### Temperature Effects in Relation to Battery Capacity



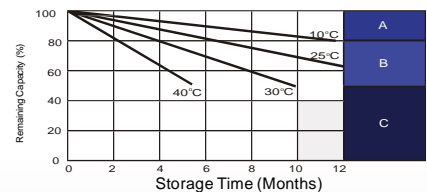
### Effect of Temperature on Long Term Float Life



### Cycle Life in Relation to Depth of Discharge



### Self Discharge



- 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 0.05CA.
- C** Supplementary charge may often fail to recover the capacity.  
The battery should never be left standing till this is reached.

ALL DATA IS SUBJECT TO CHANGE WITHOUT NOTICE