

# UC 75-12

12V 75AH

Deep Cycle

# Ultracell®

'Quality in Every Language'

## UC75-12



## Physical Specification

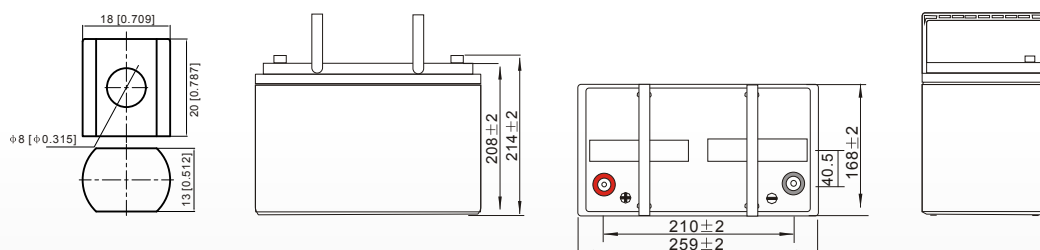
Part Number:	<b>UC75-12</b>
Length:	<b>259 ± 2 mm (10.2 inches)</b>
Width:	<b>168 ± 2 mm (6.61 inches)</b>
Container Height:	<b>208 ± 2 mm (8.19 inches)</b>
Total Height (with terminal):	<b>214 ± 2 mm (8.43 inches)</b>
Approx Weight:	<b>Approx 22.3kg (49.2lbs)</b>

## Specifications

	Normal Voltage	12V
	Normal Capacity (20HR)	75.0AH
Terminal Type	Standard Terminal	F9
	Optional Terminal	F6
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	ABS(UL94:VO)
Rated Capacity	80.4 AH/4.02A	(20hr, 1.80V/cell, 25°C / 77°F)
	75.0 AH/7.50A	(10hr, 1.80V/cell, 25°C / 77°F)
	65.8 AH/13.2A	(5hr, 1.75V/cell, 25°C / 77°F)
	59.6 AH/19.9A	(3hr, 1.75V/cell, 25°C / 77°F)
	48.5 AH/48.5A	(1hr, 1.60V/cell, 25°C / 77°F)
Max Discharge Current	900A (5s)	
Internal Resistance	Approx 6.6mΩ	
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 22.5A. 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	12 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

### F9 Terminal



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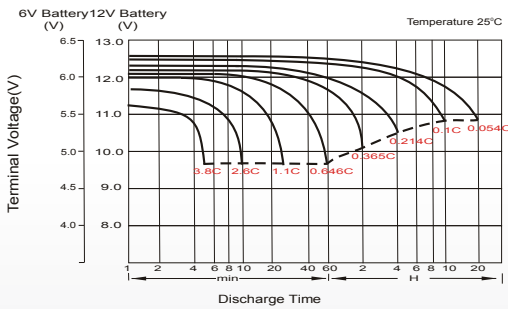
### Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	10 min	15 min	20 min	30 min	45 min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	109.8	92.4	80.7	58.1	46.1	37.4	23.3	18.1	14.7	11.9	10.4	8.50	7.08	3.98
1.80V/cell	140.3	111.6	95.4	68.6	53.7	41.9	25.4	19.5	15.7	12.8	11.2	9.02	7.50	4.02
1.75V/cell	154.2	121.9	102.7	71.2	55.7	43.9	26.3	19.9	16.0	13.2	11.5	9.17	7.58	4.06
1.70V/cell	168.0	130.2	107.9	74.1	57.9	45.3	27.4	20.4	16.5	13.5	11.7	9.30	7.65	4.13
1.65V/cell	181.4	138.4	114.6	78.1	59.4	46.8	28.1	21.3	17.0	13.9	12.0	9.45	7.81	4.19
1.60V/cell	196.9	148.1	122.1	82.5	61.9	48.5	29.1	22.0	17.6	14.3	12.2	9.54	7.89	4.21

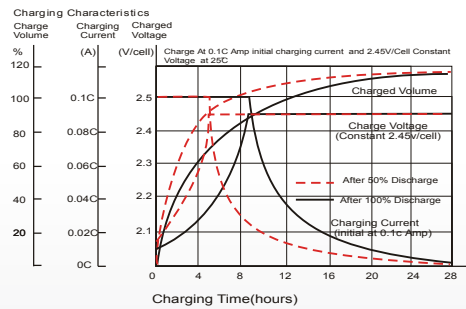
### Constant Power Discharge (Watts) at 25°C (77°F)

F.V/Time	10 min	15 min	20 min	30 min	45 min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	204.9	174.2	153.9	111.6	89.3	72.7	45.3	35.4	28.8	23.4	20.6	116.8	14.0	7.97
1.80V/cell	258.3	207.3	179.1	130.1	103.0	80.9	49.2	37.9	30.6	25.1	22.0	17.8	14.8	8.03
1.75V/cell	280.3	224.3	191.1	134.4	106.3	84.4	50.9	38.5	31.2	25.7	22.6	18.1	15.0	8.10
1.70V/cell	301.3	237.7	199.7	139.4	110.3	86.8	52.7	39.5	31.9	26.3	23.0	18.3	15.1	8.24
1.65V/cell	322.8	251.1	211.1	146.4	112.6	89.4	54.1	41.1	33.0	27.0	23.5	18.6	15.4	8.34
1.60V/cell	344.5	265.4	222.6	153.0	116.3	91.8	55.5	42.1	33.9	27.7	23.9	18.8	15.6	8.37

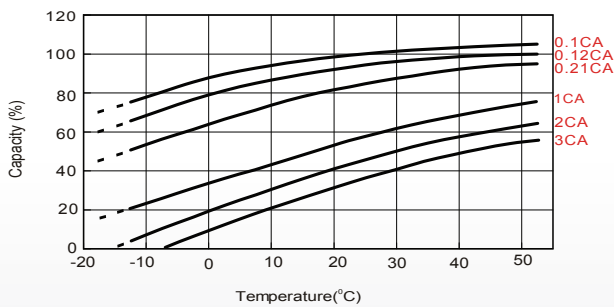
### Discharge Characteristics



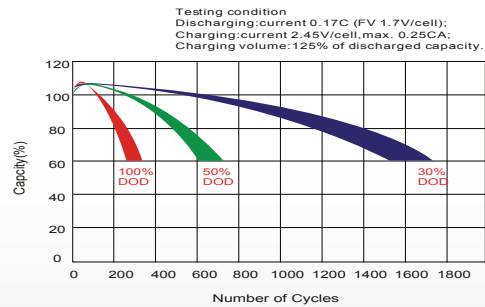
### Charging Characteristics (cycle use)



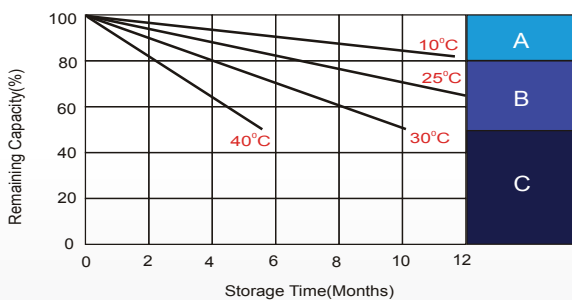
### Temperature Effects in Relation to Battery Capacity



### Cycle Life in Relation to Depth of Discharge



### Self Discharge Characteristics



- A** No supplementary charge required  
(Carry out 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 volatge 2.25V/cell.  
2. Charged for above 20hours at limited current 0.25CA and constant volatge 2.45V/cell.  
3. Charged for 8~10hours 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.

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