

# UCG 18-12

12V 18AH

Deep Cycle

# Ultracell®

'Quality in Every Language'

## UCG18-12



## Physical Specification

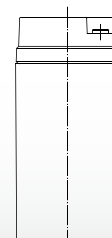
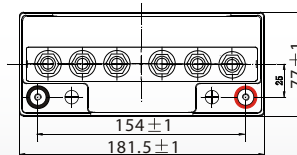
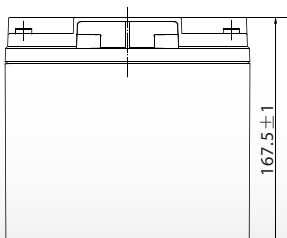
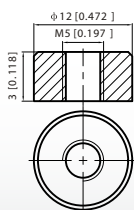
Part Number:	<b>UCG18-12</b>
Length:	<b>181.5 ± 2 mm</b>
Width:	<b>77 ± 2 mm</b>
Container Height:	<b>167.5 ± 2 mm</b>
Total Height (with terminal):	<b>167.5 ± 2 mm</b>
Approx Weight:	<b>Approx 6.05 kg</b>

## Specifications

	Nominal Voltage	12V	
	Nominal Capacity (20HR)	18AH	
Terminal Type	Standard Terminal	F3	
	Optional Terminal	-	
Container Material	Standard Option	ABS	
	Flame Retardant Option (FR)	ABS (UL94:VO)	
Rated Capacity	18.7 AH/0.85A	(20hr, 1.80V/cell, 25°C / 77°F)	
	18 AH/1.55A	(10hr, 1.80V/cell, 25°C / 77°F)	
	13.6 AH/2.72A	(5hr, 1.75V/cell, 25°C / 77°F)	
	11.8 AH/3.94A	(3hr, 1.75V/cell, 25°C / 77°F)	
	9.35 AH/9.35A	(1hr, 1.60V/cell, 25°C / 77°F)	
Max Discharge Current	204A (5s)		
Internal Resistance	Approx 18mΩ		
Discharge Characteristics	Operating Temp. Range	Discharge: -20 ~ 55°C (-4 ~ 131°F)	
		Charge: 0 ~ 40°C (32 ~ 104°F)	
		Storage: -20 ~ 50°C (-4 ~ 122°F)	
	Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F)	
	Cycle Use	Initial Charging Current less than 4.25A. 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

### F3 Terminal



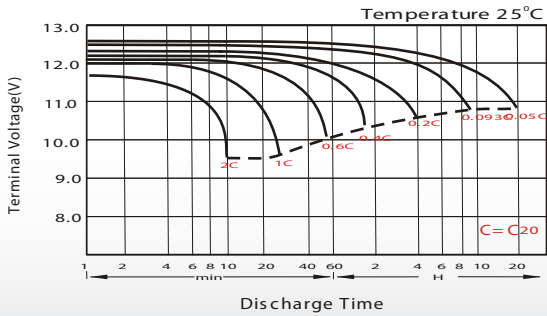
## Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	14.4	11.3	8.61	7.21	4.57	3.49	2.89	2.49	2.15	1.90	1.72	1.57	1.48	0.82
1.80V/cell	16.5	12.6	9.50	7.96	4.95	3.73	3.06	2.62	2.26	1.99	1.80	1.65	1.55	0.85
1.75V/cell	18.5	13.9	10.3	8.52	5.24	3.94	3.20	2.72	2.34	2.06	1.86	1.70	1.58	0.87
1.70V/cell	19.9	14.9	10.9	9.01	5.56	4.11	3.31	2.81	2.42	2.13	1.91	1.75	1.62	0.88
1.67V/cell	20.8	15.4	11.3	9.35	5.70	4.24	3.39	2.86	2.46	2.16	1.94	1.77	1.64	0.89
1.60V/cell	22.5	16.5	12.1	9.93	5.93	4.41	3.52	2.95	2.52	2.21	1.98	1.81	1.67	0.90

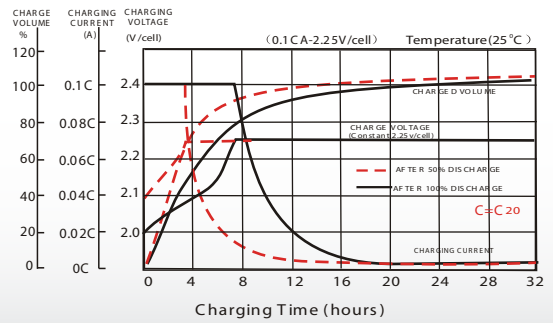
## Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	27.5	21.8	16.7	14.0	8.94	6.83	5.68	4.92	4.26	3.78	3.42	3.13	2.96	1.63
1.80V/cell	31.1	24.1	18.3	15.4	9.63	7.29	5.99	5.15	4.46	3.95	3.57	3.28	3.09	1.69
1.75V/cell	34.6	26.2	19.6	16.4	10.2	7.68	6.26	5.33	4.60	4.07	3.68	3.37	3.14	1.73
1.70V/cell	36.9	27.9	20.7	17.3	10.7	7.98	6.45	5.48	4.75	4.20	3.78	3.46	3.21	1.75
1.67V/cell	37.9	28.6	21.3	17.8	11.0	8.20	6.59	5.58	4.82	4.25	3.83	3.50	3.25	1.76
1.60V/cell	40.6	30.4	22.7	18.8	11.3	8.49	6.81	5.74	4.92	4.33	3.89	3.57	3.31	1.78

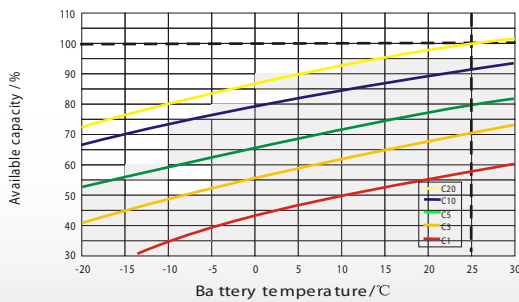
### Discharge Characteristics



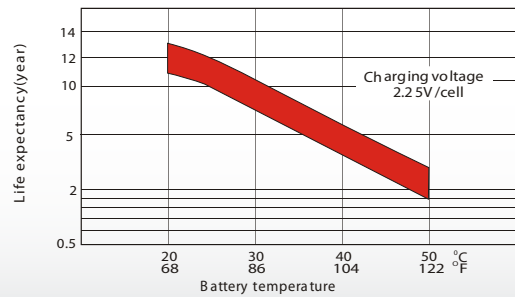
### Float Charging Characteristics



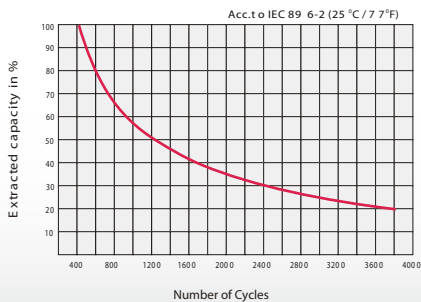
### Temperature Effects in Relation to Battery Capacity



### Effect of Temperature on Long Term Float Life



### Cycle Life in Relation to Depth of Discharge



### General Relation of Capacity VS. Storage Time

