

# UC 3.2-12

12V 3.2AH

Deep Cycle

# Ultracell®

'Quality in Every Language'

## UC3.2-12



## Physical Specification

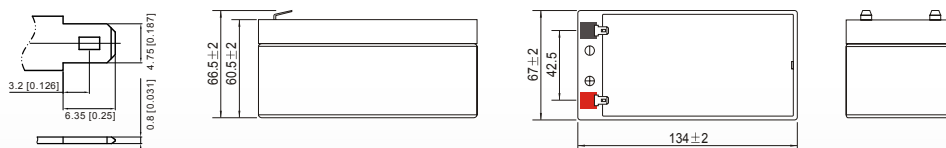
Part Number:	<b>UC3.2-12</b>
Length:	<b>134 ± 2 mm (5.28 inches)</b>
Width:	<b>67 ± 2 mm (2.64 inches)</b>
Container Height:	<b>60.5 ± 2 mm (2.38 inches)</b>
Total Height (with terminal):	<b>66.5 ± 2 mm (2.62 inches)</b>
Approx Weight:	<b>Approx 1.35kg (2.98lbs)</b>

## Specifications

	Normal Voltage	12V
	Normal Capacity (20HR)	3.2AH
Terminal Type	Standard Terminal	F1
	Optional Terminal	F2
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	ABS(UL94:VO)
Rated Capacity	3.44 AH/0.172A	(20hr, 1.80V/cell, 25°C / 77°F)
	3.20 AH/0.32A	(10hr, 1.80V/cell, 25°C / 77°F)
	2.80 AH/0.561A	(5hr, 1.75V/cell, 25°C / 77°F)
	2.54 AH/0.848A	(3hr, 1.75V/cell, 25°C / 77°F)
	2.07 AH/2.07A	(1hr, 1.60V/cell, 25°C / 77°F)
Max Discharge Current	52.5A (5s)	
Internal Resistance	Approx 45.0mΩ	
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 1.05A. 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

### F1 Terminal



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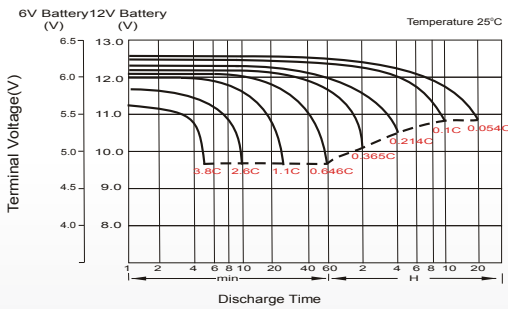
### Constant Current Discharge (Amperes) at 25°C (77°F)

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	4.69	3.94	3.44	2.48	1.97	1.60	0.99	0.774	0.627	0.509	0.444	0.363	0.302	0.170
1.80V/cell	5.99	4.76	4.07	2.93	2.29	1.79	1.08	0.833	0.669	0.547	0.476	0.385	0.320	0.172
1.75V/cell	6.58	5.20	4.38	3.04	2.38	1.87	1.12	0.848	0.684	0.561	0.490	0.391	0.323	0.173
1.70V/cell	7.17	5.55	4.60	3.16	2.47	1.93	1.17	0.872	0.702	0.575	0.500	0.397	0.326	0.176
1.65V/cell	7.74	5.91	4.89	3.33	2.53	2.00	1.20	0.909	0.726	0.591	0.511	0.403	0.333	0.179
1.60V/cell	8.40	6.32	5.21	3.52	2.64	2.07	1.24	0.937	0.749	0.611	0.522	0.407	0.337	0.180

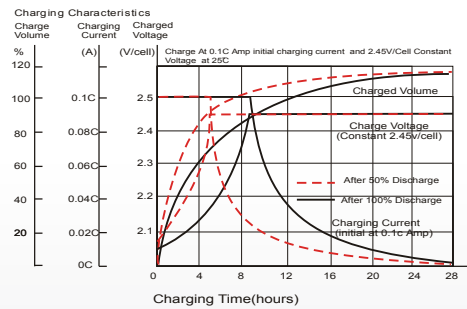
### Constant Power Discharge (Watts) at 25°C (77°F)

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	8.74	7.43	6.57	4.76	3.81	3.10	1.93	1.51	1.23	1.00	0.88	0.718	0.598	0.340
1.80V/cell	11.0	8.85	7.64	5.55	4.39	3.45	2.10	1.62	1.30	1.07	0.94	0.760	0.633	0.343
1.75V/cell	12.0	9.6	8.15	5.74	4.54	3.60	2.17	1.64	1.33	1.10	0.96	0.772	0.639	0.345
1.70V/cell	12.9	10.1	8.52	5.95	4.71	3.70	2.25	1.69	1.36	1.12	0.98	0.783	0.645	0.352
1.65V/cell	13.8	10.7	9.01	6.25	4.81	3.82	2.31	1.75	1.41	1.15	1.00	0.794	0.658	0.356
1.60V/cell	14.7	11.3	9.5	6.53	4.96	3.92	2.37	1.80	1.44	1.18	1.02	0.801	0.664	0.357

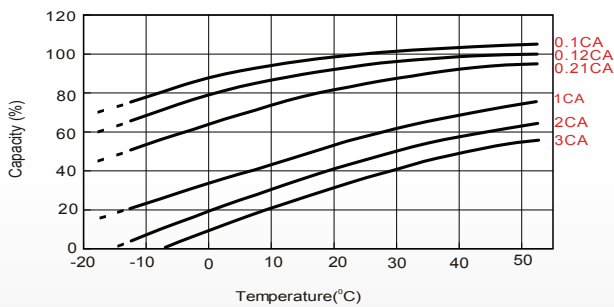
### Discharge Characteristics



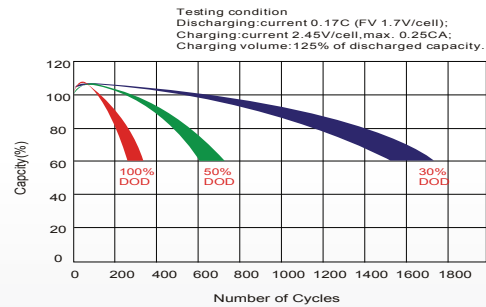
### Charging Characteristics (cycle use)



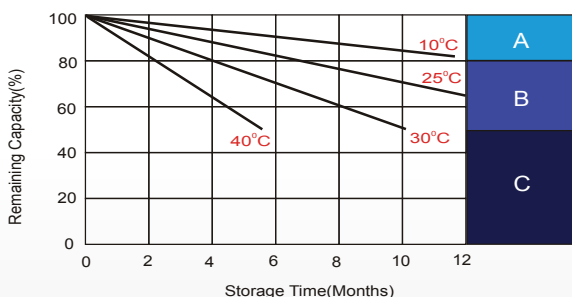
### Temperature Effects in Relation to Battery Capacity



### 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 voltage 2.25V/cell.
  2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/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.

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