

# UCG 45-12

12V 45AH

Deep Cycle Gel

# Ultracell®

'Quality in Every Language'

## UCG45-12



## Physical Specification

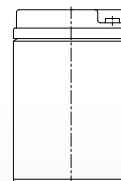
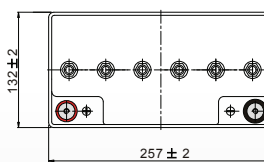
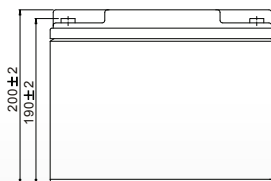
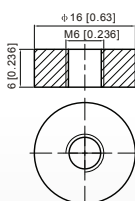
Part Number:	<b>UCG45-12</b>
Length:	<b>197 ± 2 mm</b>
Width:	<b>165 ± 2 mm</b>
Container Height:	<b>170 ± 2 mm</b>
Total Height (with terminal):	<b>170 ± 2 mm</b>
Approx Weight:	<b>Approx 15.5kg</b>

## Specifications

	Normal Voltage	12V
	Normal Capacity (20HR)	45.0AH
Terminal Type	Standard Terminal	F6
	Optional Terminal	-
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	UL94:VO
Rated Capacity	46.8 AH/2.25A	(20hr, 1.80V/cell, 25°C / 77°F)
	45.0 AH/4.0A	(10hr, 1.75V/cell, 25°C / 77°F)
	36.0 AH/7.2A	(5hr, 1.75V/cell, 25°C / 77°F)
	31.2 AH/10.4A	(3hr, 1.75V/cell, 25°C / 77°F)
	24.8 AH/24.8A	(1hr, 1.67V/cell, 25°C / 77°F)
Max Discharge Current	450A (5s)	
Internal Resistance	Approx 9.6mΩ	
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 11.25A 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

### F6 Terminal



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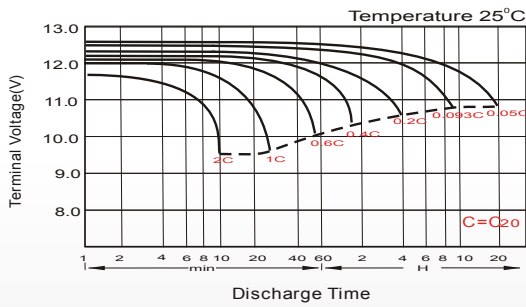
### Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	20 min	30 min	45 min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	38.1	29.9	22.8	19.1	12.1	9.23	7.64	6.60	5.69	5.04	4.55	4.16	3.75	2.16
1.80V/cell	43.6	33.4	25.1	21.1	13.1	9.89	8.10	6.93	5.98	5.28	4.76	4.37	3.92	2.25
1.75V/cell	49.0	36.7	27.2	22.5	13.9	10.4	8.48	7.20	6.19	5.46	4.92	4.50	4.00	2.30
1.70V/cell	52.8	39.3	28.9	23.9	14.7	10.9	8.76	7.43	6.41	5.64	5.06	4.62	4.09	2.32
1.67V/cell	54.9	40.9	29.9	24.8	15.1	11.2	8.98	7.58	6.51	5.73	5.14	4.68	4.14	2.35
1.60V/cell	59.5	43.7	32.1	26.3	15.7	11.7	9.32	7.81	6.67	5.85	5.23	4.78	4.22	2.38

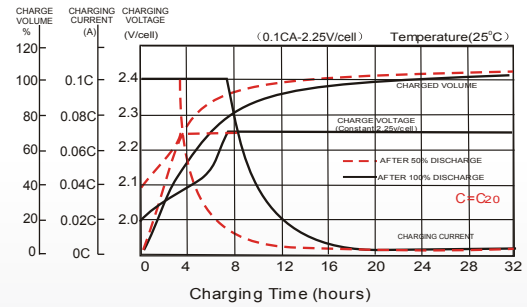
### Constant Power Discharge (Watts) at 25°C (77°F)

F.V/Time	20 min	30 min	45 min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	72.9	57.6	44.2	37.1	23.7	18.1	15.0	13.0	11.3	10.0	9.04	8.28	7.49	4.31
1.80V/cell	82.4	63.7	48.4	40.8	25.5	19.3	15.9	13.6	11.8	10.4	9.45	8.68	7.80	4.48
1.75V/cell	91.5	69.5	51.9	43.4	26.9	20.3	16.6	14.1	12.2	10.8	9.73	8.93	7.95	4.57
1.70V/cell	97.5	73.7	54.7	45.7	28.4	21.1	17.1	14.5	12.6	11.1	10.0	9.16	8.13	4.62
1.67V/cell	100.4	75.8	56.3	47.1	29.0	21.7	17.4	14.8	12.7	11.3	10.1	9.26	8.21	4.66
1.60V/cell	107.6	80.4	60.0	49.8	30.0	22.5	18.0	15.2	13.0	11.5	10.3	9.44	8.36	4.72

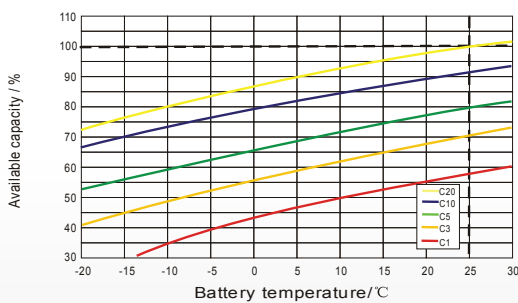
### Discharge Characteristics



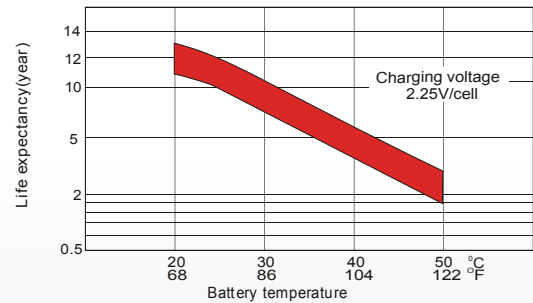
### Float Charging Characteristics



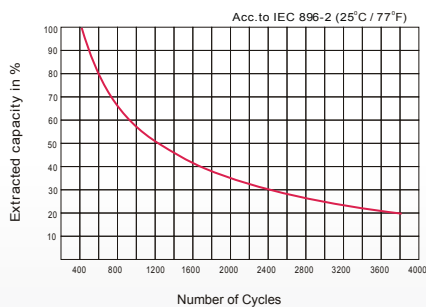
### Temperature Effects in Relation to Battery Capacity



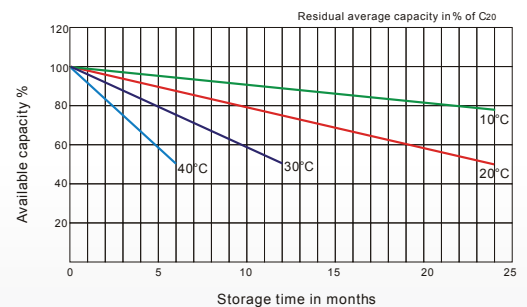
### Effect of Temperature on Long Term Float Life



### Cycle Life in Relation to Depth of Discharge



### General Relation of Capacity VS. Storage Time



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