UCG 45-12
12V 45AH
Deep Cycle Gel

Ultracell®
'Quality in Every Language'

UCG45-12

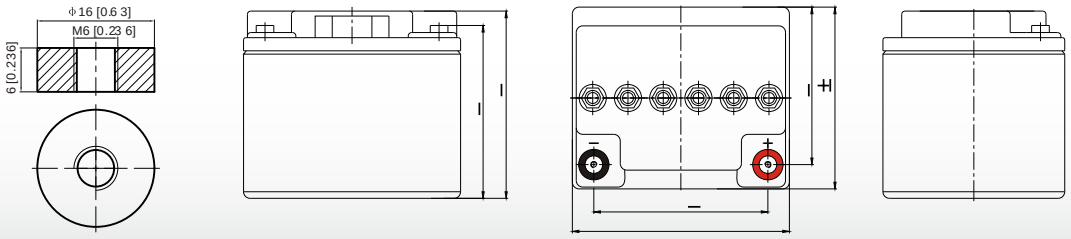
Physical Specification

Part Number:	**UCG45-12**
Length:	**197 ± 2 mm (7.76 inches)**
Width:	**165 ± 2 mm (6.50 inches)**
Container Height:	**170 ± 2 mm (6.69 inches)**
Total Height (with terminal):	**170 ± 2 mm (6.69 inches)**
Approx Weight:	**Approx 15.5 kg (35.7lbs)**

	Nominal Voltage	12V
	Nominal Capacity (10HR)	45AH
Terminal Type	Standard Terminal	F6
	Optional Terminal	/
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	ABS (UL94:VO)
Rated Capacity	45.0 AH/2.25A	(20hr,1.80V/cell, 25°C / 77°F)
	40.0 AH/4.0A	(10hr,1.80V/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)
	24.7 AH/24.7A	(1hr,1.60V/cell, 25°C / 77°F)
Max Discharge Current	450A (5s)	
Internal Resistance	Approx 11.3mΩ	
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	Inital 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	15 Years	
Self Discharge	Ultracell batteries may be stored for up to 6 months at 25°C(°77F) and then a refresh charge is required. For higher temperatures the time interval will be shorter.	

Dimensions

F6 Terminal



Ultracell (UK) Ltd | Vesty Business Park | Vesty Road | Liverpool | L30 1NY | United Kingdom
Tel: +44 (0) 151 523 2777 Fax: +44 (0) 151 523 0855 Email: info@ultracell.co.uk
www.ultracell.co.uk

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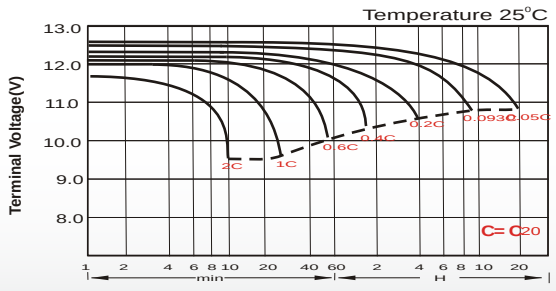
Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	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

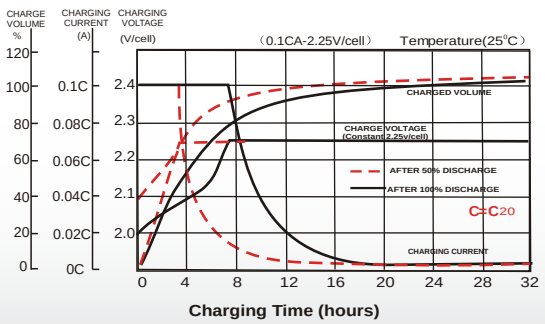
Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	20min	30min	45min	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

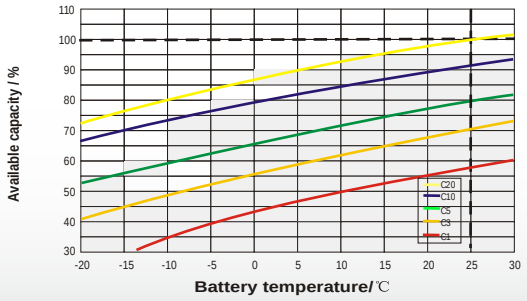
Discharge Characteristics



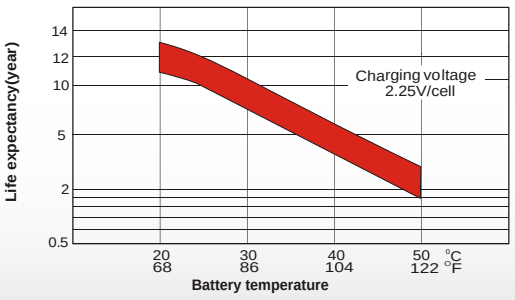
Float Charging Characteristics



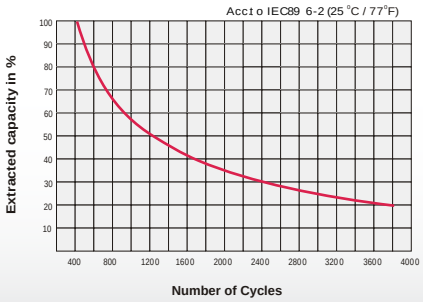
Temperature Effects in Relation to Battery Capacity



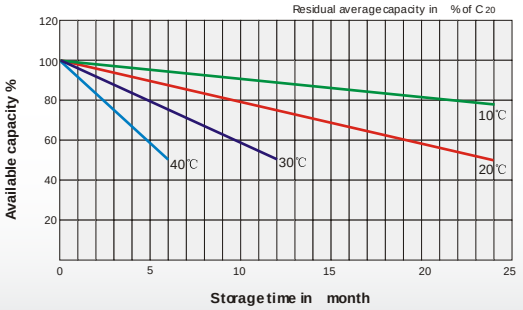
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



General Relation of Capacity VS. Storage Time



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