UCG 50-12
12V 50AH
Deep Cycle

Ultracell®
'Quality in Every Language'

UCG50-12



Physical Specification

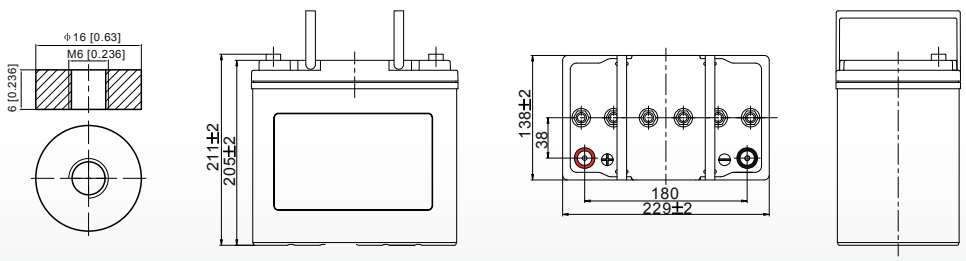
Part Number:	**UCG50-12**
Length:	**229 ± 2 mm**
Width:	**138 ± 2 mm**
Container Height:	**205 ± 2 mm**
Total Height (with terminal):	**211 ± 2 mm**
Approx Weight:	**Approx 16.6kg**

Specifications

	Normal Voltage	12V
	Normal Capacity (20HR)	50.0AH
Terminal Type	Standard Terminal	F6
	Optional Terminal	-
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	ABS(UL94:VO)
Rated Capacity	52.0 AH/2.50A	(20hr, 1.80V/cell, 25°C / 77°F)
	50.0 AH/4.65A	(10hr, 1.75V/cell, 25°C / 77°F)
	40.0 AH/8.00A	(5hr, 1.75V/cell, 25°C / 77°F)
	34.8 AH/11.6A	(3hr, 1.75V/cell, 25°C / 77°F)
	27.5 AH/27.5A	(1hr, 1.67V/cell, 25°C / 77°F)
Max Discharge Current	500A (5s)	
Internal Resistance	Approx 9.0mΩ	
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 12.5A 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(°77F) and then a refresh charge is required. For higher temperatures the time interval will be shorter.	

Dimensions

F6 Terminal



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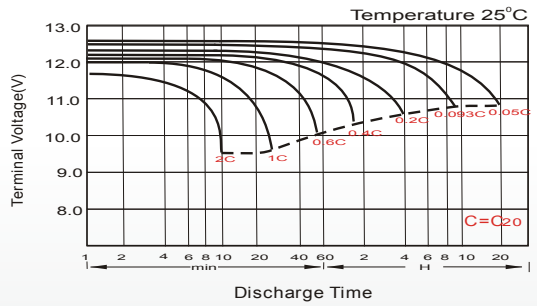
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	20 min	30 min	45 min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	42.3	33.2	25.3	21.2	13.5	10.3	8.49	7.33	6.33	5.60	5.05	4.62	4.37	2.40
1.80V/cell	48.5	37.1	27.9	23.4	14.6	11.0	9.00	7.70	6.64	5.86	5.29	4.86	4.56	2.50
1.75V/cell	54.5	40.8	30.2	25.1	15.4	11.6	9.43	8.00	6.88	6.07	5.46	5.00	4.65	2.55
1.70V/cell	58.7	43.7	32.1	26.5	16.4	12.1	9.74	8.25	7.12	6.27	5.63	5.13	4.76	2.58
1.67V/cell	61.1	45.4	33.2	27.5	16.8	12.5	10.0	8.42	7.23	6.36	5.71	5.20	4.82	2.61
1.60V/cell	66.2	48.6	35.7	29.2	17.5	13.0	10.4	8.68	7.41	6.50	5.81	5.31	4.91	2.65

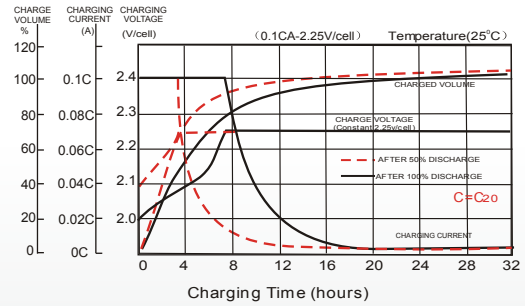
Constant Power Discharge (Watts) at 25°C (77°F)

F.V/Time	20 min	30 min	45 min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	81.0	64.0	49.1	41.3	26.3	20.1	16.7	14.5	12.5	11.1	10.0	9.20	8.70	4.79
1.80V/cell	91.5	70.8	53.8	45.3	28.3	21.4	17.6	15.1	13.1	11.6	10.5	9.65	9.07	4.98
1.75V/cell	101.7	77.2	57.7	48.3	29.9	22.6	18.4	15.7	13.5	12.0	10.8	9.93	9.24	5.08
1.70V/cell	108.4	81.9	60.8	50.8	31.6	23.5	19.0	16.1	14.0	12.4	11.1	10.2	9.45	5.14
1.67V/cell	111.5	84.2	62.6	52.4	32.2	24.1	19.4	16.4	14.2	12.5	11.3	10.3	9.55	5.18
1.60V/cell	119.5	89.3	66.7	55.3	33.3	25.0	20.0	16.9	14.5	12.7	11.4	10.5	9.72	5.25

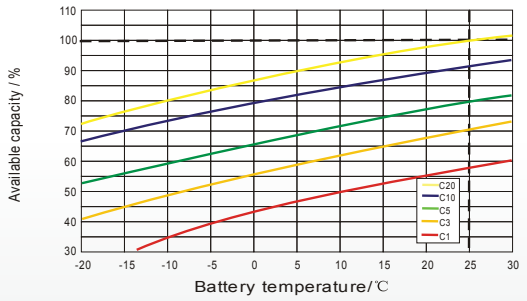
Discharge Characteristics



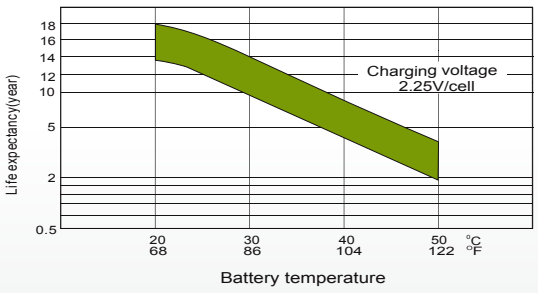
Float Charging Characteristics



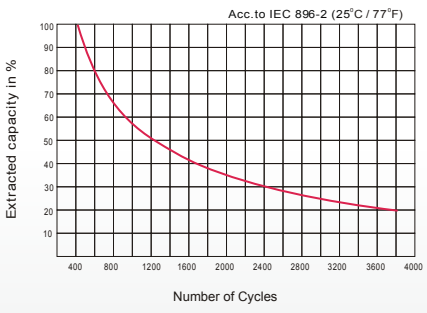
Temperature Effects in Relation to Battery Capacity



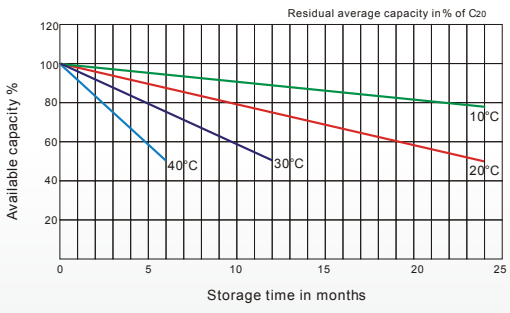
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



General Relation of Capacity VS. Storage Time



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