

UC 55-12

12V 55AH

Deep Cycle



SURTEC

Les spécialistes
des Technologies Énergétiques

Ultracell®

'Quality in Every Language'

UC55-12



Physical Specification

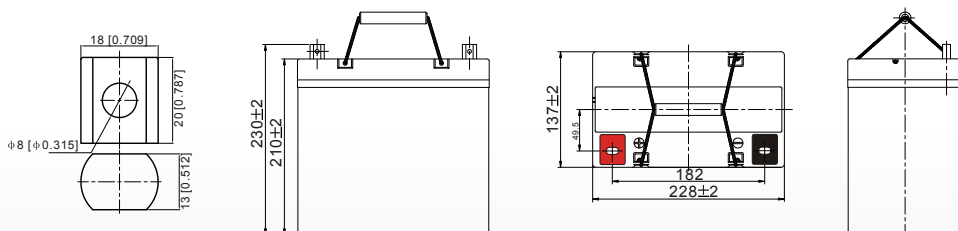
Part Number:	UC55-12
Length:	228 ± 2 mm (8.98 inches)
Width:	137 ± 2 mm (5.39 inches)
Container Height:	210 ± 2 mm (8.27 inches)
Total Height (with terminal):	230 ± 2 mm (9.06 inches)
Approx Weight:	Approx 17.7kg (39.0lbs)

Specifications

	Normal Voltage	12V
	Normal Capacity (20HR)	55.0AH
Terminal Type	Standard Terminal	F9
	Optional Terminal	F6
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	ABS(UL94:VO)
Rated Capacity	59.0 AH/2.95A	(20hr, 1.80V/cell, 25°C / 77°F)
	55.0 AH/5.50A	(10hr, 1.80V/cell, 25°C / 77°F)
	48.2 AH/9.65A	(5hr, 1.75V/cell, 25°C / 77°F)
	43.7 AH/14.6A	(3hr, 1.75V/cell, 25°C / 77°F)
	35.5 AH/35.5A	(1hr, 1.60V/cell, 25°C / 77°F)
Max Discharge Current	660A (5s)	
Internal Resistance	Approx 7.5mΩ	
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 16.5A. 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(77°F) and then a refresh charge is required. For higher temperatures the time interval will be shorter.	

Dimensions

F9 Terminal



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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



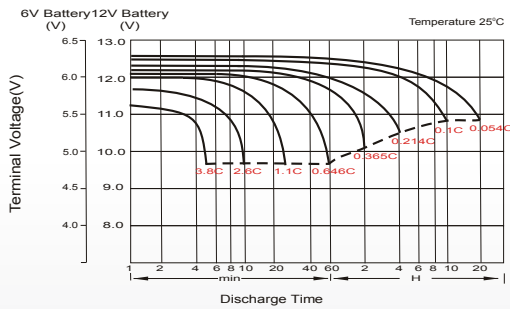
Constant Current Discharge (Amperes) at 25°C (77°F)

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	80.5	67.8	59.2	42.6	33.8	27.5	17.1	13.3	10.8	8.76	7.64	6.23	5.19	2.92
1.80V/cell	102.9	81.9	70.0	50.3	39.4	30.8	18.6	14.3	11.5	9.40	8.19	6.61	5.50	2.95
1.75V/cell	113.1	89.4	75.3	52.2	40.8	32.2	19.3	14.6	11.8	9.65	8.42	6.73	5.56	2.98
1.70V/cell	123.2	95.5	79.1	54.3	42.5	33.2	20.1	15.0	12.1	9.89	8.59	6.82	5.61	3.03
1.65V/cell	133.0	101.5	84.1	57.3	43.5	34.3	20.6	15.6	12.5	10.2	8.78	6.93	5.73	3.07
1.60V/cell	144.4	108.6	89.5	60.5	45.4	35.5	21.3	16.1	12.9	10.5	8.97	6.99	5.79	3.09

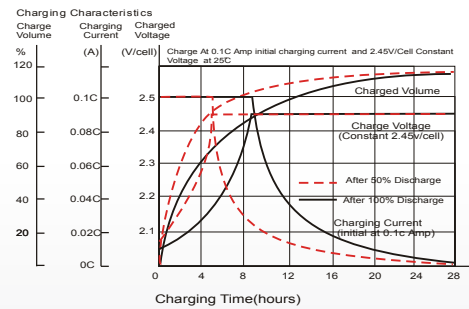
Constant Power Discharge (Watts) at 25°C (77°F)

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	150.2	127.7	112.8	81.9	65.5	53.3	33.2	26.0	21.1	17.2	15.1	12.3	10.3	5.84
1.80V/cell	189.4	152.0	131.4	95.4	75.5	59.4	36.1	27.8	22.4	18.4	16.1	13.1	10.9	5.89
1.75V/cell	205.6	164.5	140.1	98.6	78.0	61.9	37.3	28.3	22.9	18.9	16.5	13.3	11.0	5.94
1.70V/cell	220.9	174.3	146.4	102.2	80.9	63.7	38.7	29.0	23.4	19.3	16.9	13.5	11.1	6.04
1.65V/cell	236.7	184.2	154.8	107.3	82.6	65.6	39.6	30.1	24.2	19.8	17.2	13.6	11.3	6.11
1.60V/cell	252.6	194.6	163.2	112.2	85.3	67.4	40.7	30.9	24.8	20.3	17.5	13.8	11.4	6.14

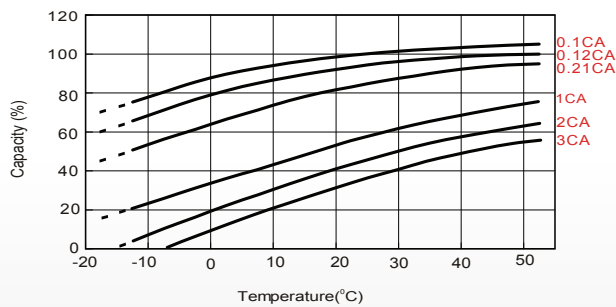
Discharge Characteristics



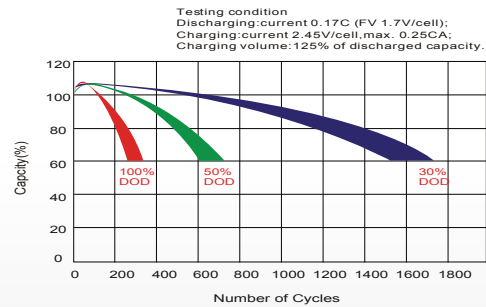
Charging Characteristics (cycle use)



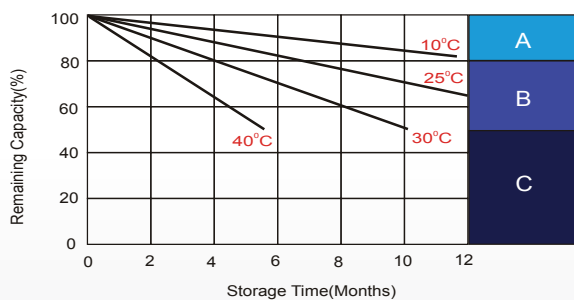
Temperature Effects in Relation to Battery Capacity



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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