UL 135-12

12V 135AH

General

Ultracell®

'Quality in Every Language'

UL135-12

Physical Specification

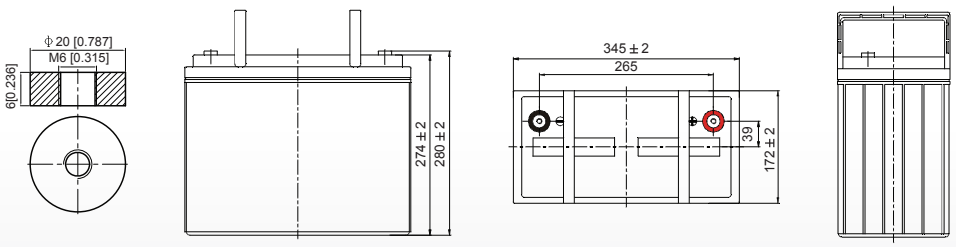
Part Number:	**UL135-12**
Length:	**345 ± 2 mm (13.58 inches)**
Width:	**172 ± 2 mm (6.77 inches)**
Container Height:	**274 ± 2 mm (10.79 inches)**
Total Height (with terminal):	**280 ± 2 mm (11.02 inches)**
Approx Weight:	**Approx 41.2kg (90.8lbs)**

Specifications

	Normal Voltage	12V
	Normal Capacity (20HR)	135AH
Terminal Type	Standard Terminal	F11
	Optional Terminal	-
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	UL94:VO
Rated Capacity	140.4 AH/7.02A	(20hr, 1.80V/cell, 25°C / 77°F)
	135.0 AH/13.5A	(10hr, 1.80V/cell, 25°C / 77°F)
	116 AH/23.2A	(5hr, 1.75V/cell, 25°C / 77°F)
	105.3 AH/35.1A	(3hr, 1.75V/cell, 25°C / 77°F)
	82.4 AH/82.4A	(1hr, 1.60V/cell, 25°C / 77°F)
Max Discharge Current	1350A (5s)	
Internal Resistance	Approx 4.0mΩ	
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 40.5A.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	10 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

F11 Terminal



ALL DATA IS SUBJECT TO CHANGE WITHOUT NOTICE

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

NCP ISO9001 VdS CE 1188 MH 29410

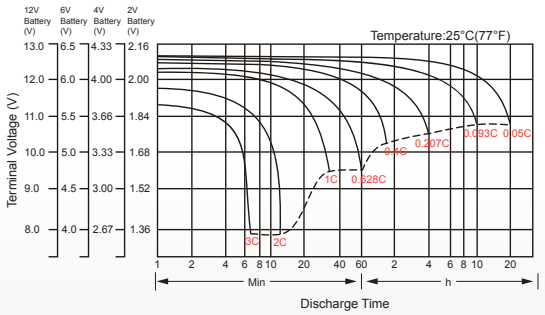
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	5 min	10 min	15 min	20 min	30 min	45 min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	231.1	181.7	154.5	129.2	102.7	77.7	63.6	40.5	32.0	26.2	21.1	18.4	14.9	12.7	6.95
1.80V/cell	310.1	232.1	186.7	152.7	121.2	90.4	71.3	44.2	34.5	28.0	22.7	19.7	15.8	13.5	7.02
1.75V/cell	349.7	255.0	203.9	164.3	125.8	93.8	74.6	45.9	35.1	28.6	23.2	20.3	16.1	13.6	7.09
1.70V/cell	385.1	278.0	217.7	172.7	130.9	97.6	76.9	47.7	36.1	29.3	23.8	20.7	16.3	13.8	7.22
1.65V/cell	424.6	300.0	231.4	183.5	138.1	100.0	79.5	49.0	37.6	30.3	24.5	21.1	16.6	14.1	7.32
1.60V/cell	468.3	325.7	247.5	195.4	145.8	104.2	82.4	50.7	38.8	31.3	25.3	21.6	16.7	14.2	7.36

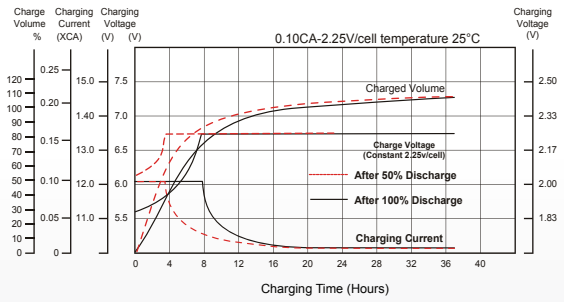
Constant Power Discharge (Watts) at 25°C (77°F)

F.V/Time	5 min	10 min	15 min	20 min	30 min	45 min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	422.5	335.6	288.3	243.6	195.7	149.4	122.8	78.7	62.5	51.2	41.4	36.1	29.5	25.2	13.8
1.80V/cell	561.0	423.7	343.6	283.7	227.4	172.4	136.8	85.3	66.9	54.4	44.2	38.6	31.1	26.7	13.9
1.75V/cell	619.1	458.1	370.7	302.2	234.2	177.2	142.4	88.2	67.8	55.4	45.2	39.5	31.6	26.9	14.0
1.70V/cell	662.8	488.0	390.3	315.3	242.4	183.6	146.5	91.5	69.6	56.7	46.3	40.3	32.0	27.2	14.3
1.65V/cell	720.6	521.8	411.8	332.4	253.6	186.5	150.3	93.5	72.2	58.5	47.4	41.1	32.4	27.7	14.4
1.60V/cell	776.4	553.6	433.1	350.2	265.8	193.3	154.8	96.2	74.1	60.1	48.8	41.8	32.7	27.9	14.5

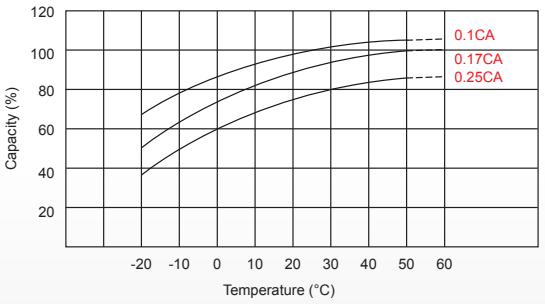
Discharge Characteristics



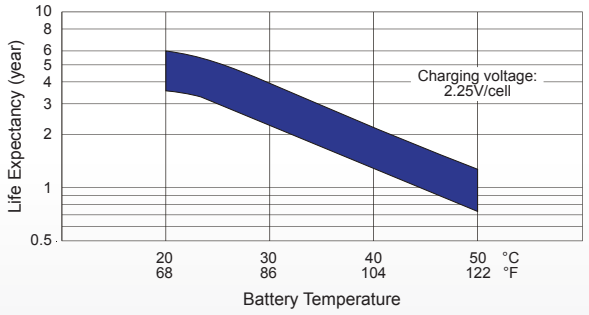
Float Charging Characteristics



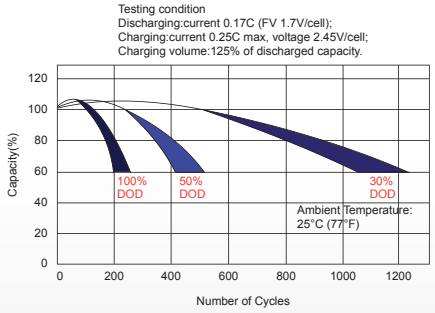
Temperature Effects in Relation to Battery Capacity



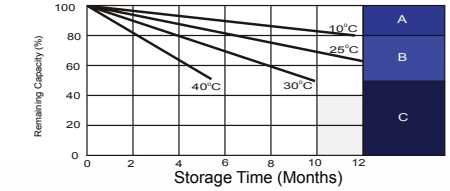
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



A — No supplementary required
(Carryout 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 2.25Vcell.
3. Charged for 8 ~ 10 hours at limited current 0.05 CA.

C — Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.

ALL DATA IS SUBJECT TO CHANGE WITHOUT NOTICE

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