

UL65-12



Physical Specification

Part Number:	UL65-12
Length:	348 ± 2 mm (13.70 inches)
Width:	167 ± 2 mm (6.57 inches)
Container Height:	178 ± 2 mm (7.01 inches)
Total Height (with terminal):	178 ± 2 mm (7.01 inches)
Approx Weight:	Approx 19.2kg (42.3lbs)

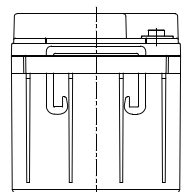
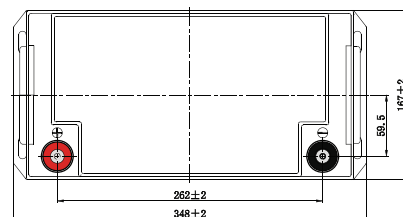
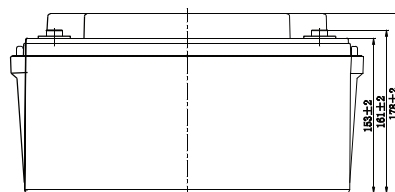
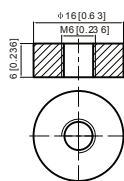
Specifications

	Normal Voltage	12V
	Normal Capacity (20HR)	65AH
Terminal Type	Standard Terminal	F10
	Optional Terminal	F6
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	UL94:VO
Rated Capacity	65.0 AH/3.25A	(20hr, 1.80V/cell, 25°C / 77°F)
	62.1 AH/6.21A	(10hr, 1.80V/cell, 25°C / 77°F)
	53.6 AH/10.72A	(5hr, 1.75V/cell, 25°C / 77°F)
	45.8 AH/15.3A	(3hr, 1.75V/cell, 25°C / 77°F)
	37.5 AH/37.5A	(1hr, 1.60V/cell, 25°C / 77°F)
Max Discharge Current	780A (5s)	
Internal Resistance	Approx 7.3mΩ	
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 19.5A. 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(77°F) and then a refresh charge is required. For higher temperatures the time interval will be shorter.	

Dimensions

F10 Terminal

Unit: mm [inches]



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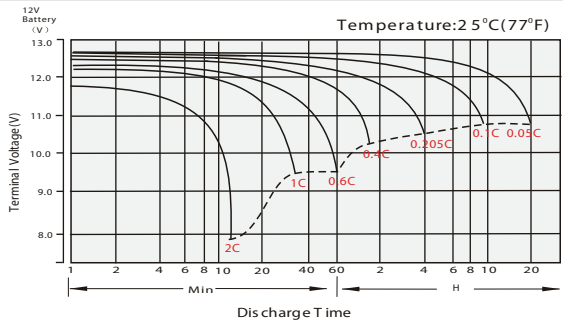
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Tim e	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	114.0	87.6	75.5	65.6	50.8	37.8	30.6	18.5	14.2	11.78	10.04	8.79	7.11	5.98	3.20
1.80V/cell	142.7	102.5	85.9	73.8	55.7	40.8	32.7	19.7	14.9	12.34	10.47	9.16	7.40	6.21	3.25
1.75V/cell	160.9	111.8	93.8	79.0	58.7	42.8	34.2	20.4	15.3	12.65	10.72	9.35	7.51	6.27	3.29
1.70V/cell	177.1	120.7	100.1	82.9	61.4	44.3	35.6	21.1	15.8	12.96	10.97	9.53	7.62	6.33	3.32
1.65V/cell	193.8	130.0	105.1	86.1	63.3	45.8	36.6	21.6	16.2	13.23	11.18	9.70	7.73	6.40	3.37
1.60V/cell	210.1	138.2	109.3	89.4	65.0	47.4	37.5	22.1	16.6	13.49	11.38	9.84	7.83	6.48	3.38

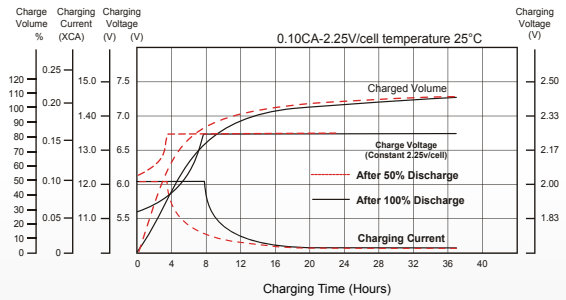
Constant Power Discharge (Watts) at 25°C (77°F)

F.V/Tim e	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	208.5	161.7	140.9	123.6	96.8	72.7	59.1	35.9	27.7	23.0	19.7	17.28	14.04	11.83	6.34
1.80V/cell	258.1	187.0	158.1	137.0	104.6	77.9	62.8	37.9	29.0	24.0	20.4	17.93	14.56	12.27	6.43
1.75V/cell	284.8	200.8	170.5	145.3	109.3	80.9	65.3	39.3	29.6	24.5	20.9	18.24	14.74	12.38	6.50
1.70V/cell	304.9	211.9	179.5	151.4	113.6	83.4	67.7	40.4	30.4	25.1	21.3	18.58	14.94	12.49	6.56
1.65V/cell	328.8	226.2	186.9	156.0	116.3	85.4	69.1	41.2	31.1	25.5	21.6	18.84	15.13	12.61	6.64
1.60V/cell	348.4	235.0	191.2	160.3	118.4	87.9	70.5	41.9	31.6	25.9	21.9	19.07	15.30	12.74	6.66

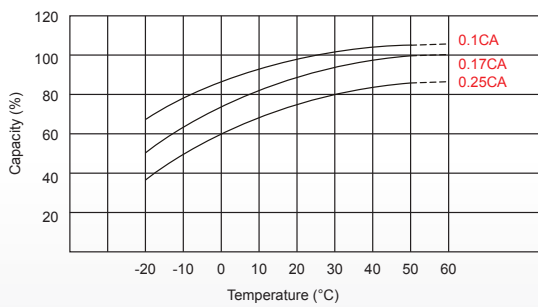
Discharge Characteristics



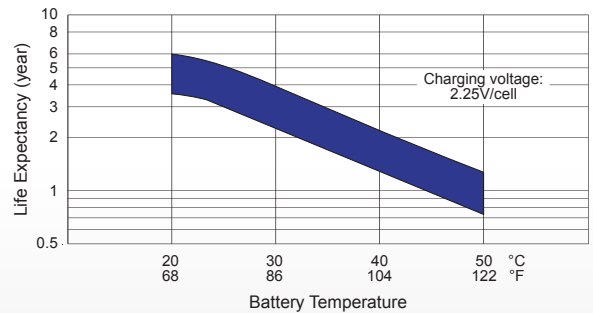
Float Charging Characteristics



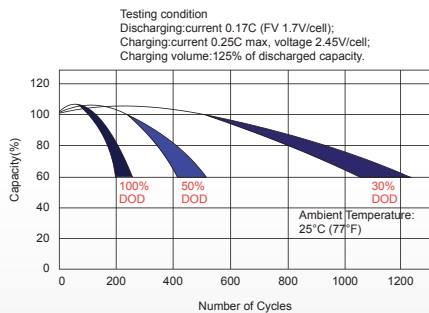
Temperature Effects in Relation to Battery Capacity



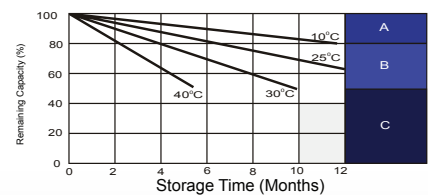
Effect of Temperature on Long Term Float Life



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 2.25V/cell.
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.

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