

UL35 -12



Physical Specification

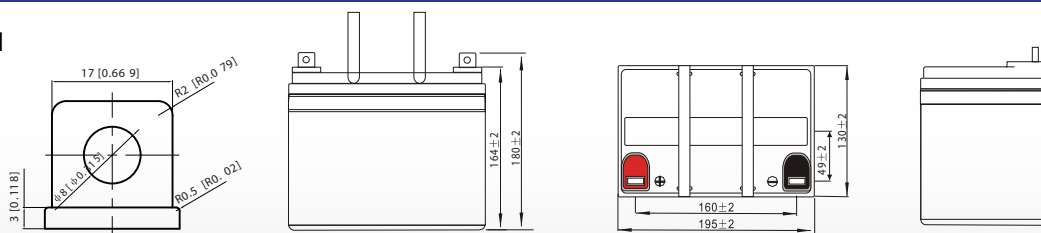
Part Number:	UL35-12
Length:	195 ± 2 mm (7.68 inches)
Width:	130 ± 2 mm (5.12 inches)
Container Height:	164 ± 2 mm (6.46 inches)
Total Height (with terminal):	178 ± 2 mm (7.01 inches)
Approx Weight:	Approx 11.2kg

Specifications

	Nominal Voltage	12V
	Nominal Capacity (20HR)	35AH
Terminal Type	Standard Terminal	F5
	Optional Terminal	F2 / F6 / F10
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	ABS (UL94:VO)
Rated Capacity	35.0 AH/1.75A	(20hr, 1.80V/cell, 25°C / 77°F)
	32.6 AH/3.26A	(10hr, 1.80V/cell, 25°C / 77°F)
	29.7 AH/5.95A	(5hr, 1.75V/cell, 25°C / 77°F)
	26.8 AH/8.93A	(3hr, 1.75V/cell, 25°C / 77°F)
	22.0 AH/22.0A	(1hr, 1.60V/cell, 25°C / 77°F)
Max Discharge Current	525A (5s)	
Internal Resistance	Approx 11mΩ	
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 10.5A. 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

F5 Terminal



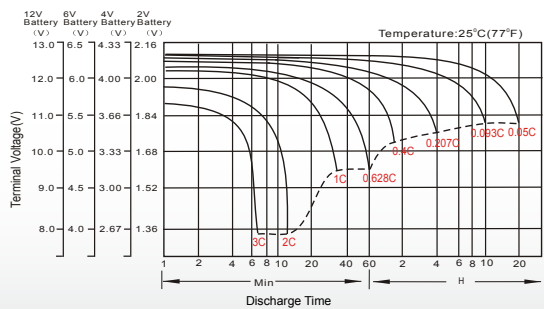
Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	66.7	51.2	42.4	36.7	28.3	20.9	17.6	10.4	8.14	6.62	5.40	4.69	3.78	3.16	1.73
1.80V/cell	89.5	65.4	51.2	43.3	33.4	24.3	19.7	11.4	8.76	7.07	5.80	5.03	4.01	3.26	1.75
1.75V/cell	100.9	71.9	56.0	46.6	34.7	25.2	20.6	11.8	8.93	7.23	5.95	5.16	4.08	3.34	1.77
1.70V/cell	111.1	78.3	59.7	49.0	36.1	26.2	21.3	12.1	9.17	7.42	6.10	5.27	4.13	3.41	1.80
1.65V/cell	122.5	84.5	63.5	52.0	38.1	26.9	21.8	12.3	9.57	7.68	6.27	5.39	4.20	3.48	1.82
1.60V/cell	135.1	91.8	67.9	55.4	40.3	28.0	22.0	12.8	9.86	7.92	6.48	5.50	4.24	3.52	1.83

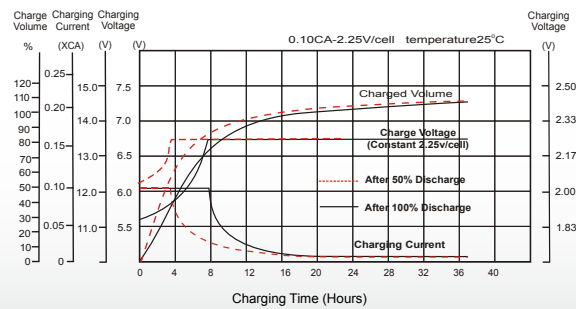
Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	121.9	94.5	79.1	69.1	54.0	40.1	34.0	20.2	15.9	12.9	10.6	9.21	7.46	6.25	3.43
1.80V/cell	161.8	119.4	94.3	80.5	62.8	46.3	37.8	21.9	17.0	13.7	11.3	9.84	7.89	6.43	3.46
1.75V/cell	178.6	129.1	101.7	85.8	64.6	47.6	39.4	22.6	17.2	14.0	11.6	10.1	8.01	6.60	3.49
1.70V/cell	191.2	137.5	107.1	89.4	66.9	49.3	40.5	23.2	17.7	14.4	11.8	10.3	8.11	6.72	3.55
1.65V/cell	207.9	147.0	113.0	94.3	70.0	50.1	41.1	23.4	18.4	14.8	12.1	10.5	8.22	6.85	3.60
1.60V/cell	224.0	156.0	118.9	99.4	73.4	51.9	41.3	24.2	18.8	15.2	12.5	10.7	8.28	6.91	3.61

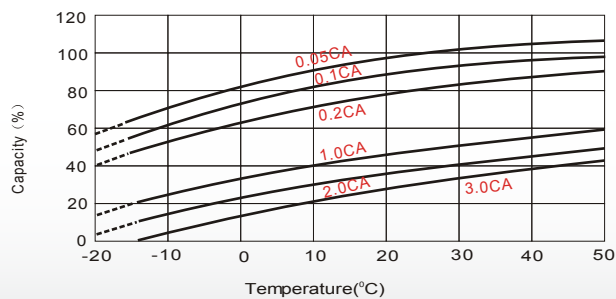
Discharge Characteristics



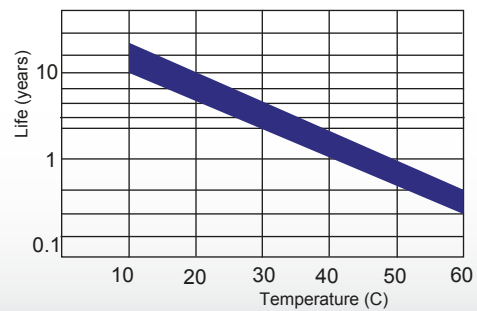
Float Charging Characteristics



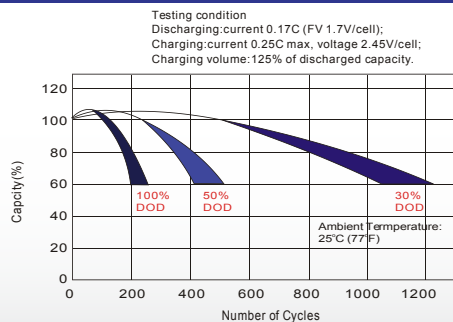
Temperature Effects in Relation to Battery Capacity



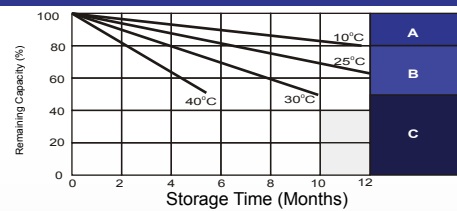
Effect of Temperature on Long Term Float Life



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.