

UL40 -12



Physical Specification

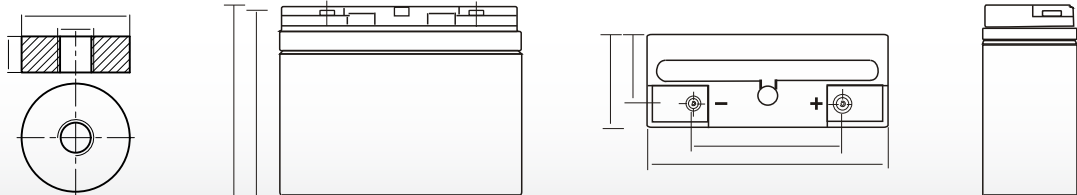
Part Number:	UL40-12
Length:	197 ± 2 mm (7.76 inches)
Width:	165 ± 2 mm (6.49 inches)
Container Height:	170 ± 2 mm (6.69 inches)
Total Height (with terminal):	170 ± 2 mm (6.69 inches)
Approx Weight:	Approx 13kg

Specifications

	Nominal Voltage	12V	
	Nominal Capacity (20HR)	40AH	
Terminal Type	Standard Terminal	F7	
	Optional Terminal	-	
Container Material	Standard Option	ABS	
	Flame Retardant Option (FR)	ABS (UL94:VO)	
Rated Capacity	40.0AH/4.08A	(20hr, 1.80V/cell, 25°C / 77°F)	
	38.5 AH/4.00A	(10hr, 1.80V/cell, 25°C / 77°F)	
	31.5 AH/6.89A	(5hr, 1.75V/cell, 25°C / 77°F)	
	31.2 AH/10.4A	(3hr, 1.75V/cell, 25°C / 77°F)	
	24.4 AH/24.4A	(1hr, 1.60V/cell, 25°C / 77°F)	
Max Discharge Current	480A (5s)		
Internal Resistance	Approx 9mΩ		
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 12.0A. 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

F7 Terminal



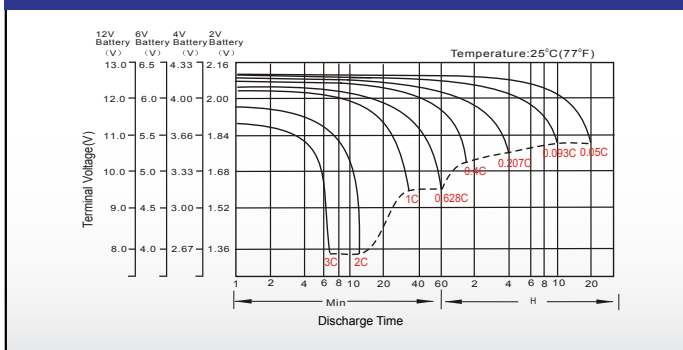
Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	68.5	53.8	45.8	38.3	30.4	23.0	18.9	12.0	9.50	7.76	6.25	5.44	4.42	3.78	2.06
1.80V/cell	91.9	68.8	55.3	45.3	35.9	26.8	21.1	13.1	10.2	8.28	6.72	5.84	4.69	4.00	2.08
1.75V/cell	103.6	75.6	60.4	48.7	37.3	27.8	22.1	13.6	10.4	8.47	6.88	6.00	4.77	4.04	2.10
1.70V/cell	114.1	82.4	64.5	51.2	38.8	28.9	22.8	14.1	10.7	8.69	7.06	6.12	4.84	4.08	2.14
1.65V/cell	125.8	88.9	68.6	54.4	40.9	29.6	23.6	14.5	11.2	8.99	7.26	6.26	4.91	4.16	2.17
1.60V/cell	138.8	96.5	73.3	57.9	43.2	30.9	24.4	15.0	11.5	9.27	7.50	6.40	4.96	4.21	2.18

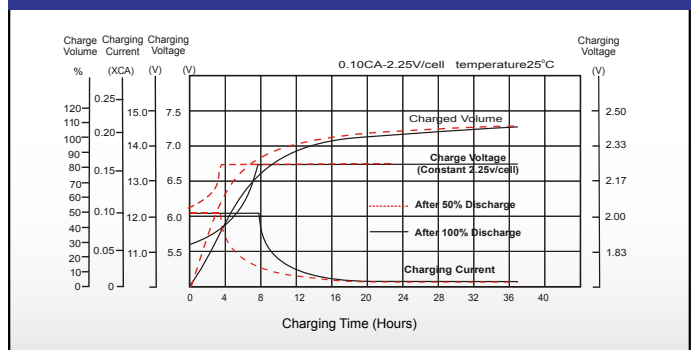
Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	125.2	99.4	85.4	72.2	58.0	44.3	36.4	23.3	18.5	15.2	12.3	10.7	8.73	7.47	4.08
1.80V/cell	166.2	125.5	101.8	84.1	67.4	51.1	40.5	25.3	19.8	16.1	13.1	11.4	9.23	7.90	4.11
1.75V/cell	183.4	135.7	109.8	89.6	69.4	52.5	42.2	26.1	20.1	16.4	13.4	11.7	9.36	7.97	4.15
1.70V/cell	196.4	144.6	115.6	93.4	71.8	54.4	43.4	27.1	20.6	16.8	13.7	11.9	9.49	8.05	4.23
1.65V/cell	213.5	154.6	122.0	98.5	75.1	55.3	44.5	27.7	21.4	17.3	14.0	12.2	9.61	8.20	4.28
1.60V/cell	230.0	164.0	128.3	103.8	78.8	57.3	45.9	28.5	22.0	17.8	14.5	12.4	9.69	8.27	4.29

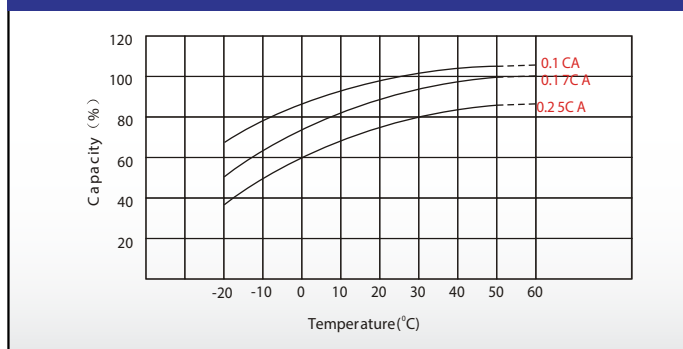
Discharge Characteristics



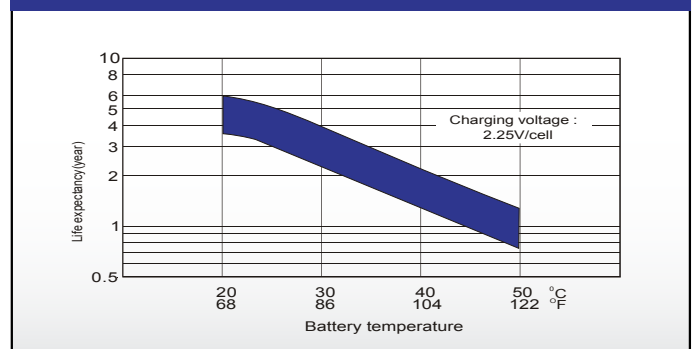
Float Charging Characteristics



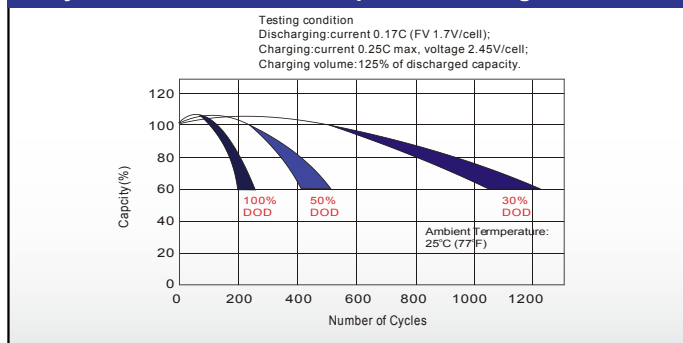
Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics

