

UL22 -12



Physical Specification

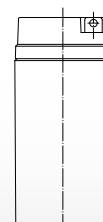
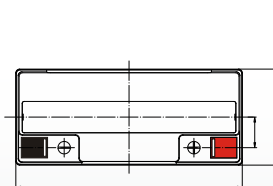
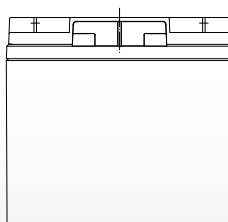
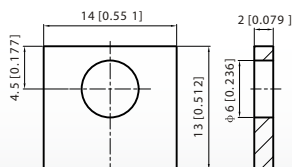
Part Number:	UL22-12
Length:	181 ± 2 mm (5.95 inches)
Width:	77 ± 2 mm (3.85 inches)
Container Height:	167 ± 2 mm (3.74 inches)
Total Height (with terminal):	167 ± 2 mm (3.98 inches)
Approx Weight:	Approx 6.4kg

Specifications

	Nominal Voltage	12V	
	Nominal Capacity (20HR)	22AH	
Terminal Type	Standard Terminal	F3	
	Optional Terminal	F12	
Container Material	Standard Option	ABS	
	Flame Retardant Option (FR)	ABS (UL94:VO)	
Rated Capacity	22.0 AH	(20hr,1.80V/cell, 25°C / 77°F)	
	20.9 AH	(10hr,1.80V/cell, 25°C / 77°F)	
	18.7 AH	(5hr,1.75V/cell, 25°C / 77°F)	
	13.2 AH	(1hr,1.60V/cell, 25°C / 77°F)	
Max Discharge Current	300A (5s)		
Internal Resistance	Approx 15mΩ		
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 6.0A.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	5 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

F3 Terminal



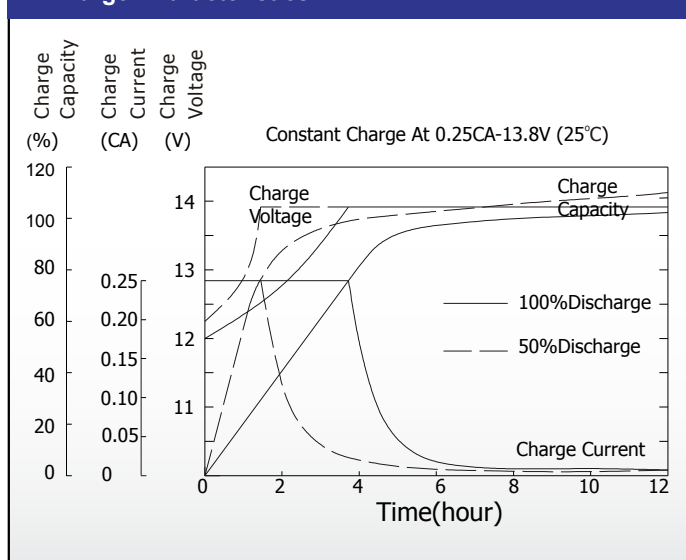
Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V / Time	5 MIN	10 MIN	15 MIN	30 MIN	1 HR	3 HR	5 HR	10 HR	20 HR
1.60 V	86.7	53.2	40.4	24.6	13.2	6.86	4.05	2.24	1.20
1.67 V	80.5	51.0	39.1	23.6	13.1	5.81	3.96	2.20	1.16
1.70 V	74.4	48.8	37.9	21.4	12.6	5.52	3.87	2.15	1.14
1.75 V	73.5	47.5	36.7	20.4	12.3	5.36	3.74	2.11	1.12
1.80 V	65.1	45.3	33.3	18.9	11.5	5.24	0.69	2.08	1.11
1.85 V	57.6	43.0	29.8	17.3	11.1	5.15	0.66	2.04	1.10

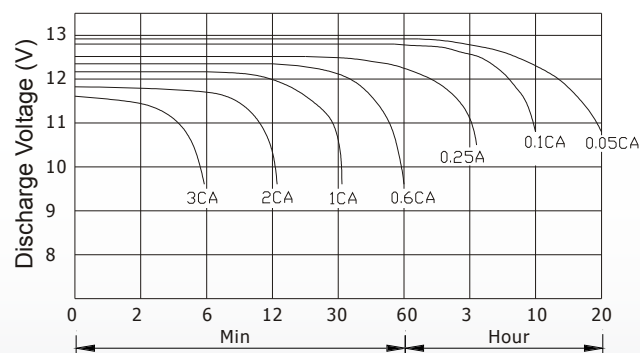
Constant Power Discharge (Watts) at 25 °C (77°F)

F.V / Time	5 MIN	10 MIN	15 MIN	30 MIN	1 HR	3 HR	5 HR	10 HR	20 HR
1.60 V	176.0	114.4	88.0	51.4	28.6	11.1	7.57	4.27	2.24
1.67 V	170.3	111.8	86.7	50.2	28.3	11.1	7.53	4.27	2.24
1.70 V	163.2	110.0	84.5	49.3	28.0	11.00	7.53	4.22	2.20
1.75 V	153.6	105.6	81.8	48.0	27.5	10.9	7.49	4.22	2.20
1.80 V	133.3	97.68	78.3	46.6	26.7	10.7	7.39	4.14	2.16
1.85 V	125.8	90.64	74.8	44.4	20.0	10.5	7.30	4.14	2.16

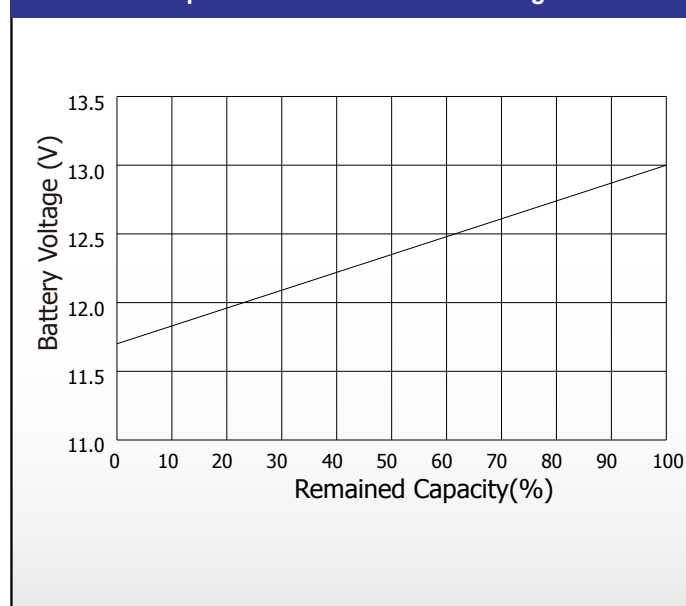
Charge Characteristics



Discharge Characteristics at 25 °C



Relationship of OCV and the state of charge



Self Discharge Characteristics

