UHR100-12

12V 100AH

High Rated

Ultracell®

'Quality in Every Language'

UHR100-12

Physical Specification

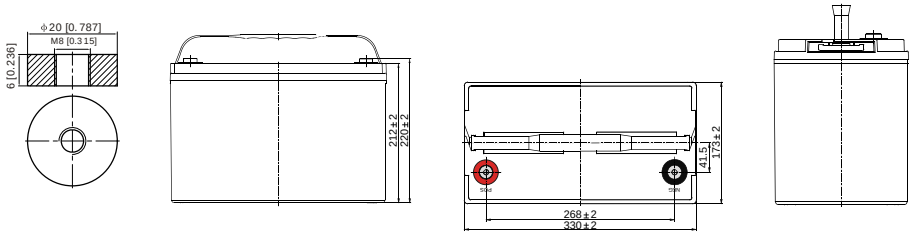
Part Number	**UHR100-12**
Length	**330 ± 2 mm**
Width	**173 ± 2 mm**
Container Height	**212 ± 2 mm**
Total Height (with terminal)	**220 ± 2 mm**
Approx Weight	**Approx 30.4 kg**

Specifications

	Nominal Voltage	12V
	Nominal Capacity (8HR)	100AH
Terminal Type	Standard Terminal	F11
	Optional Terminal	-
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	ABS(UL94:40)
Rated Capacity	10hr, 1.80V/cell, 25°C	104.0 AH/10.4A
	8hr, 1.80V/cell, 25°C	100.0 AH/12.5A
	5hr, 1.75V/cell, 25°C	89.5 AH/17.9A
	3hr, 1.75V/cell, 25°C	78.8 AH/26.6A
	1hr, 1.60V/cell, 25°C	68.2 AH/68.2A
Max Discharge Current	1200A (5s)	
Internal Resistance	Approx 4.9m Ω	
Discharge Characteristics	Operating Temp. Range	Discharge: -15 ~ 50°C
		Charge: 0 ~ 40°C
		Storage: -15 ~ 40°C
	Nominal Operating Temp. Range	25 ± 3°C
	Cycle Use	Initial Charging Current less than 30.0A.Voltage 14.4V ~ 15.0V Temp. Coefficient -30mV/°C
	Standby Use	No limit on Initial Charging Current Voltage 13.5V ~ 13.8V Temp. Coefficient -20mV/°C
	Capacity affect by Temperature	40°C 103%
		25°C 100%
		0°C 86%
Design Floating Life at 20°C	12+ 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

F11 Terminal



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ISO9001

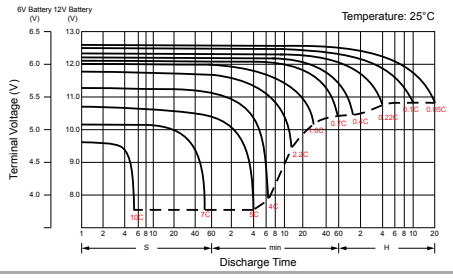
Constant Current Discharge Characteristics at 25°C /77°F, Unit: A

F.V (V/Cell)	5 min	10 min	15 min	20 min	30 min	45 min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	193.2	156.0	138.8	118.5	89.2	67.9	56.9	33.4	24.3	19.5	16.5	14.6	12.0	10.0	5.16
1.80V/cell	235.1	185.1	155.2	128.4	95.8	71.7	60.4	35.6	25.8	20.6	17.5	15.4	12.5	10.4	5.34
1.75V/cell	272.4	204.3	168.0	136.8	99.8	75.3	62.0	36.5	26.6	21.1	17.9	15.7	12.7	10.5	5.39
1.70V/cell	302.6	216.5	179.6	142.8	102.8	78.1	64.0	37.1	27.0	21.5	18.2	15.8	12.7	10.6	5.44
1.67V/cell	318.9	231.0	189.4	149.1	106.4	80.5	66.0	37.9	27.4	22.0	18.5	16.1	12.9	10.7	5.49
1.60V/cell	341.6	244.0	198.8	156.0	110.6	82.3	68.2	38.5	27.9	22.3	18.8	16.3	13.0	10.8	5.54

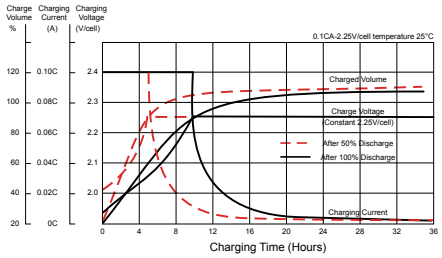
Constant Power Discharge Characteristics at 25°C /77°F, Unit: W

F.V (V/Cell)	5 min	10 min	15 min	20 min	30 min	45 min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	264.4	295.6	268.3	230.8	174.9	133.9	112.8	66.4	48.6	39.1	33.2	29.4	24.2	20.3	10.5
1.80V/cell	439.5	348.1	298.1	248.7	187.0	140.8	119.2	70.5	51.4	41.3	35.0	30.9	25.2	21.0	10.8
1.75V/cell	504.4	381.4	320.7	263.8	194.0	147.4	122.1	72.1	52.7	42.0	35.7	31.3	25.4	21.1	10.9
1.70V/cell	555.3	401.0	340.7	273.9	199.0	152.4	125.6	73.2	53.5	42.7	36.3	31.6	25.5	21.2	10.9
1.67V/cell	579.2	423.7	356.1	283.9	204.8	156.4	129.0	74.4	54.0	43.5	36.8	32.1	25.7	21.4	11.0
1.60V/cell	612.4	442.9	370.6	294.5	211.2	158.8	132.7	75.3	54.9	44.0	37.2	32.4	25.9	21.5	11.1

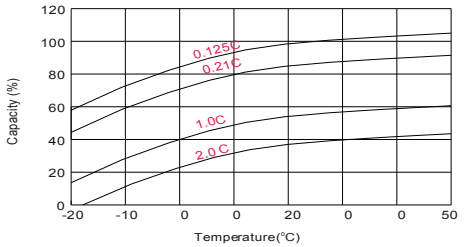
Discharge Characteristics



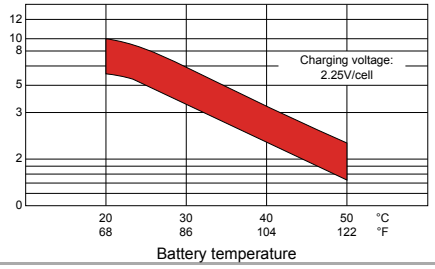
Float Charging Characteristics



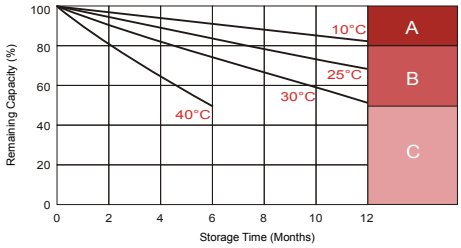
Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



Discharge capacity Vs Ambient temperature curve (I10A)



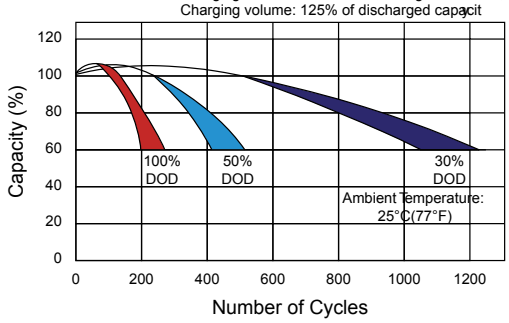
A — No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)

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 2.45V/cell.
3. Charged for 8~10 hours at limited current 0.05CA.

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

Cycle Life in relation to depth of discharge

Testing condition
Discharging: current 0.17C (FV 1.7V/cell);
Charging: current 0.25°C max, voltage 2.45V/cell;
Charging volume: 125% of discharged capacit



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