

UHR9-12

12V 9AH
High Rated

Ultracell®

Quality in Every Language

UHR9-12



Physical Specification

Part Number	UHR9-12
Length	151 ± 2 mm
Width	65 ± 2 mm
Container Height	93.5 ± 2 mm
Total Height (with terminal)	99 ± 2 mm
Approx Weight	Approx 2.66 kg

Specifications

	Nominal Voltage	12V
	Nominal Capacity	9AH
Terminal Type	Standard Terminal	F1
	Optional Terminal	F2
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	ABS (UL94:VO)
Rated Capacity	10hr, 1.80V/cell, 25°C	8.00 AH/1.0A
	5hr, 1.75V/cell, 25°C	4.45 AH/1.49A
	3hr, 1.75V/cell, 25°C	6.75 AH/2.25A
	1hr, 1.60V/cell, 25°C	6.24 AH/6.24A
Current	Max Discharge Current	135A (5s)
	Initial Charging Current	Less than 46.5A
Internal Resistance	Approx 17m 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 3.6A. 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

F1 Terminal



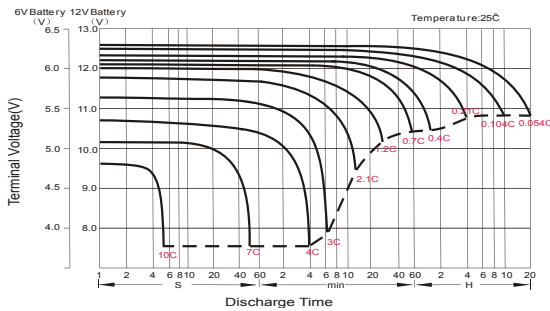
Constant Current Discharge Characteristics at 25°C /77°F, Unit: A

F.V/ Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	29.9	20.0	15.7	13.0	9.67	7.02	5.48	2.97	2.12	1.68	1.40	1.21	0.97	0.812	0.441
1.80V/cell	33.6	21.9	17.0	13.8	10.1	7.27	5.68	3.07	2.19	1.72	1.44	1.25	1.00	0.835	0.450
1.75V/cell	36.9	23.1	18.0	14.5	10.5	7.53	5.87	3.17	2.25	1.78	1.49	1.29	1.04	0.857	0.459
1.70V/cell	39.3	24.4	18.8	15.0	10.9	7.77	6.02	3.26	2.32	1.83	1.53	1.32	1.05	0.873	0.465
1.67V/cell	41.1	25.2	19.4	15.5	11.2	7.95	6.13	3.32	2.36	1.87	1.56	1.34	1.07	0.882	0.468
1.60V/cell	42.4	26.2	19.8	15.8	11.4	8.08	6.24	3.37	2.39	1.89	1.58	1.36	1.08	0.890	0.471

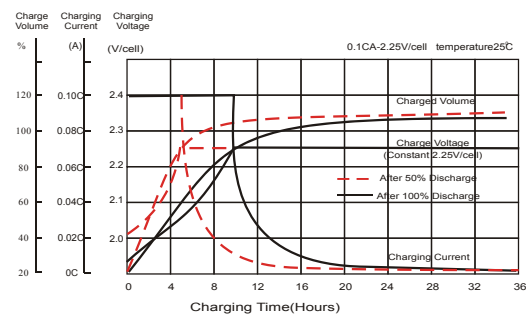
Constant Power Discharge Characteristics at 25°C /77°F, Unit: W

F.V/ Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	55.8	37.3	29.6	24.4	18.4	13.5	10.6	5.78	4.13	3.28	2.74	2.39	1.92	1.61	0.874
1.80V/cell	60.8	40.1	31.4	25.8	19.1	13.8	10.9	5.92	4.24	3.35	2.82	2.46	1.98	1.65	0.890
1.75V/cell	66.1	42.0	32.9	26.9	19.7	14.3	11.2	6.09	4.35	3.46	2.90	2.52	2.03	1.69	0.907
1.70V/cell	69.4	43.7	34.1	27.7	20.4	14.6	11.5	6.25	4.47	3.55	2.97	2.58	2.07	1.72	0.918
1.67V/cell	71.6	44.5	34.8	28.2	20.7	14.9	11.6	6.35	4.54	3.59	3.01	2.61	2.09	1.74	0.924
1.60V/cell	72.6	45.5	34.9	28.4	20.8	15.0	11.7	6.41	4.57	3.64	3.04	2.64	2.10	1.75	0.927

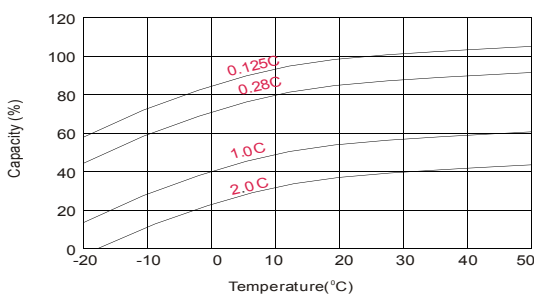
Discharge Characteristics



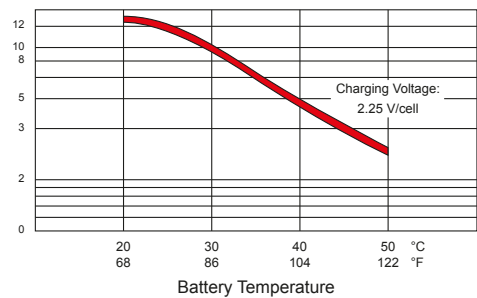
Float Charging Characteristics



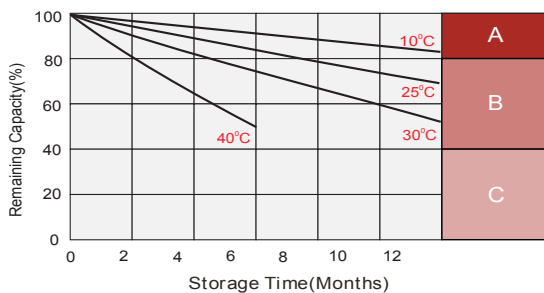
Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



Discharge capacity Vs Ambient temperature curve (110A)



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.