

UHR5.4-12

12V 5.4AH

High Rated

Ultracell®

Quality in Every Language

UHR5.4-12



Physical Specification

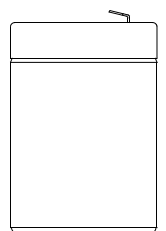
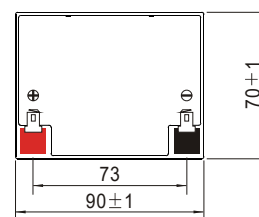
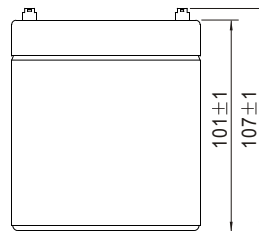
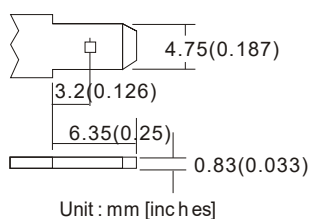
Part Number	UHR5.4-12
Length	90 ± 2 mm
Width	70 ± 2 mm
Container Height	101 ± 2 mm
Total Height (with terminal)	107 ± 2 mm
Approx Weight	1.77 kg

Specifications

	Nominal Voltage	12V
	Nominal Capacity	5.4AH
Terminal Type	Standard Terminal	F1
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	ABS (UL94:VO)
Rated Capacity	20hr, 1.80V/cell, 25°C	5.4Ah/0.27A
	10hr, 1.80V/cell, 25°C	5.0Ah/0.50A
	5hr, 1.75V/cell, 25°C	4.47Ah/0.894A
	3hr, 1.75V/cell, 25°C	4.05Ah/1.35A
	1hr, 1.60V/cell, 25°C	3.74Ah/3.74A
Max Discharge Current	81A (5s)	
Internal Resistance	Approx 25m 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 1.62A. 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	6~12 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



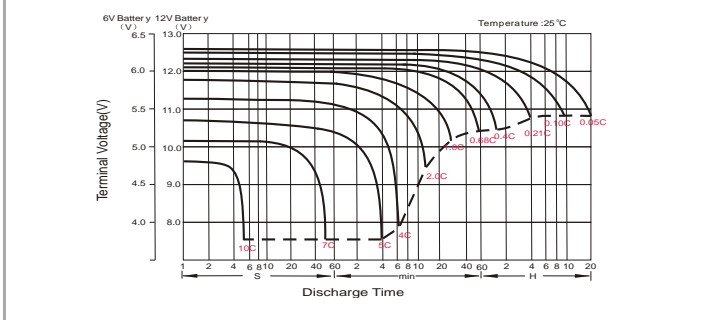
Constant Current Discharge (Amperes) at 25°C

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	17.9	12.0	9.35	7.78	5.80	4.21	3.29	1.78	1.27	1.01	0.839	0.728	0.582	0.487	0.265
1.80V/cell	202	13.1	10.1	8.27	6.08	4.36	3.41	1.84	1.31	1.03	0.866	0.752	0.606	0.501	0.270
1.75V/cell	22.1	13.9	10.7	8.69	6.32	4.52	3.52	1.90	1.35	1.07	0.894	0.775	0.621	0.514	0.275
1.70V/cell	23.6	14.6	11.2	9.02	6.57	4.66	3.61	1.95	1.39	1.10	0.918	0.794	0.632	0.524	0.279
1.67V/cell	24.7	15.1	11.5	9.30	6.73	4.77	3.68	1.99	1.42	1.12	0.934	0.807	0.640	0.529	0.281
1.60V/cell	25.5	15.5	11.8	9.49	6.83	4.85	3.74	2.02	1.43	1.14	0.946	0.818	0.646	0.534	0.282

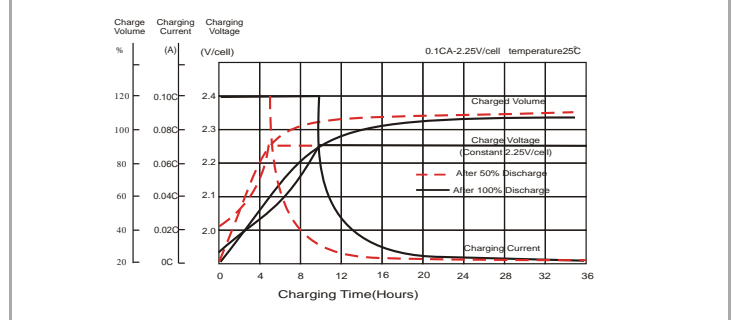
Constant Power Discharge (Watts) at 25°C

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	33.5	224	17.6	14.7	11.0	8.08	6.35	3.47	2.48	1.97	1.64	1.43	1.15	0.964	0.524
1.80V/cell	36.5	24.1	18.6	15.5	11.5	8.30	6.54	3.55	2.54	2.01	1.69	1.47	1.19	0.989	0.534
1.75V/cell	39.6	25.2	19.6	16.1	11.8	8.56	6.73	3.65	2.61	2.07	1.74	1.51	1.22	1.015	0.544
1.70V/cell	41.7	26.2	20.3	16.6	12.2	8.77	6.88	3.75	2.68	2.13	1.78	1.55	1.24	1.034	0.551
1.67V/cell	43.0	26.7	20.7	16.9	12.4	8.92	6.97	3.81	2.72	2.16	1.81	1.57	1.25	1.043	0.554
1.60V/cell	435	270	20.8	17.0	12.4	8.99	7.04	3.85	2.74	2.18	1.82	1.58	1.26	1.049	0.556

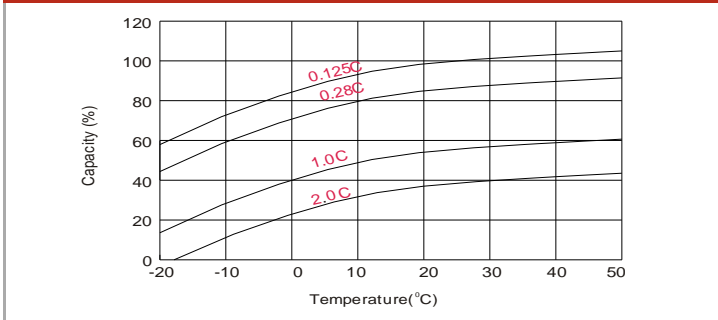
Discharge Characteristics



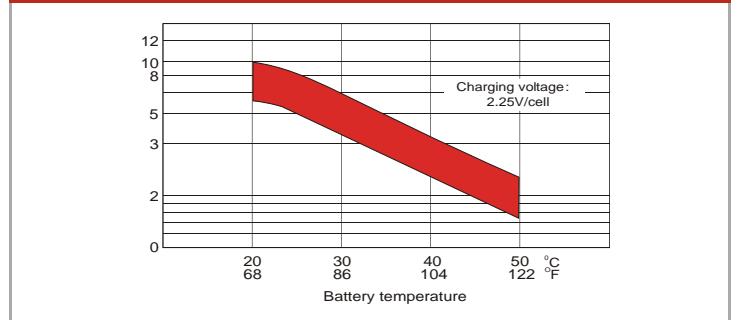
Float Charging Characteristics



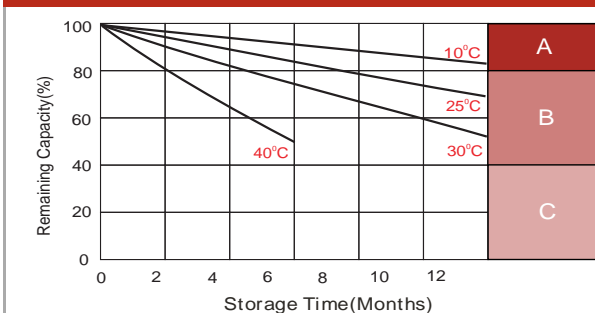
Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



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 2.45V/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.