

UP-HR5.4-12



Specification		
Nominal Voltage	12V	
Watts(15min Rate)	20.4 W at 1.67V/cell	
Dimension	Length	90±1mm (3.54 inches)
	Width	70±1mm (2.76 inches)
	Container Height	101±1mm (3.98 inches)
	Total Height (with Terminal)	107±1mm (4.21 inches)
Approx Weight	Approx 1.80 kg (3.97lbs)	
Terminal	T1 / T2	
Container Material	ABS	
Rated Capacity	5.74 AH/0.574A	(10hr, 1.80V/cell, 25°C/77°F)
	5.40 AH/0.675A	(8hr, 1.75V/cell, 25°C/77°F)
	4.85 AH/0.97A	(5hr, 1.75V/cell, 25°C/77°F)
	4.41 AH/1.47A	(3hr, 1.75V/cell, 25°C/77°F)
	4.39 AH/4.39A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	81A (5s)	
Internal Resistance	Approx 25mΩ	
Operating Temperature Range	Discharge: -15~50°C (5~122°F)	
	Change : 0~40°C (32~104°F)	
	Storage : -15~40°C (5~104°F)	
Nominal Operating Temperature Range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 1.62A. 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%	
Self Discharge	Batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is required.	

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	17.6	11.1	8.40	7.50	6.04	4.43	3.56	1.91	1.37	1.07	0.912	0.787	0.648	0.559	0.299
1.80V/cell	19.8	12.3	9.22	8.06	6.49	4.78	3.80	2.05	1.43	1.13	0.941	0.815	0.675	0.574	0.302
1.75V/cell	22.3	13.5	10.1	8.67	6.73	4.96	3.98	2.12	1.47	1.15	0.970	0.832	0.686	0.580	0.304
1.70V/cell	24.6	14.7	10.8	9.12	7.01	5.16	4.10	2.21	1.51	1.18	0.989	0.849	0.695	0.586	0.310
1.65V/cell	27.2	15.9	11.4	9.70	7.40	5.29	4.24	2.27	1.58	1.22	1.019	0.872	0.706	0.598	0.314
1.60V/cell	30.0	16.9	12.0	10.300	7.81	5.51	4.39	2.35	1.63	1.26	1.038	0.885	0.713	0.604	0.316

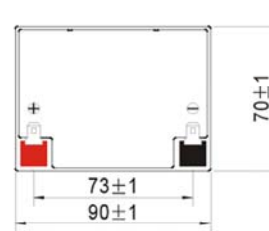
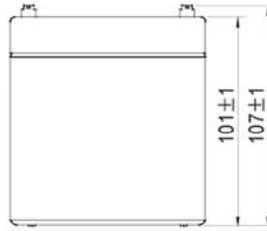
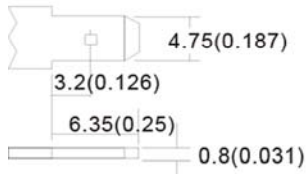
Constant Power Discharge (Watts) at 25°C (77°F)															
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	32.1	20.5	15.7	14.2	11.5	8.53	6.87	3.72	2.68	2.11	1.82	1.57	1.27	1.11	0.595
1.80V/cell	35.8	22.4	17.0	14.9	12.2	9.11	7.29	3.95	2.78	2.21	1.86	1.62	1.32	1.13	0.598
1.75V/cell	39.6	24.3	18.3	16.0	12.5	9.37	7.60	4.08	2.85	2.26	1.91	1.66	1.34	1.14	0.603
1.70V/cell	42.4	25.8	19.3	16.7	13.0	9.70	7.81	4.24	2.92	2.31	1.96	1.69	1.36	1.15	0.615
1.65V/cell	46.1	27.6	20.4	17.6	13.6	9.89	8.02	4.33	3.04	2.39	2.00	1.73	1.37	1.17	0.622
1.60V/cell	49.7	28.8	21.0	18.5	14.3	10.20	8.25	4.45	3.11	2.43	2.03	1.75	1.38	1.18	0.625



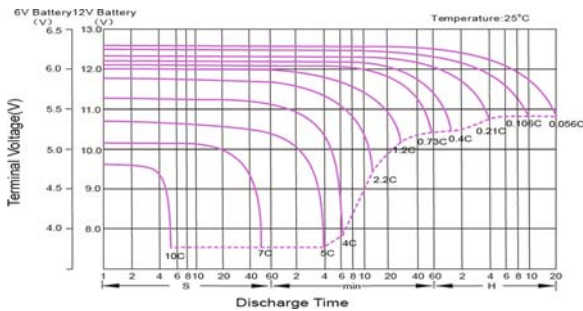
UP-HR5.4-12

Dimensions

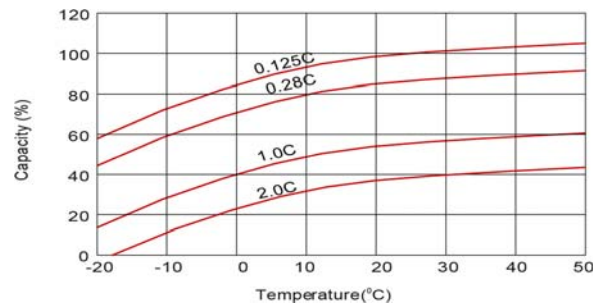
■ T1 Terminal
Unit: mm [inches]



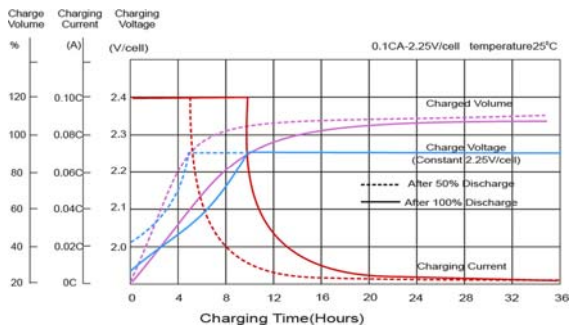
Discharge Characteristics



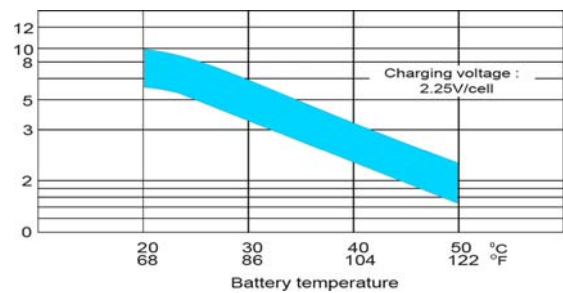
Temperature Effects in Relation to Battery Capacity



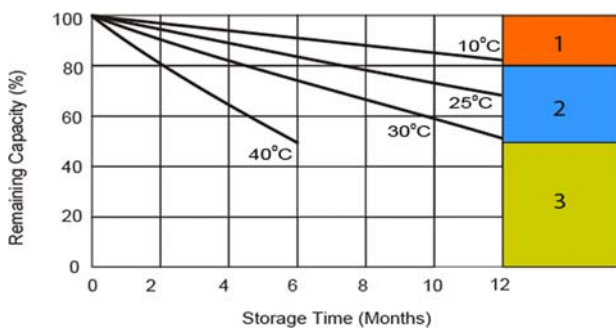
Float Charging Characteristics



Effect of Temperature on Long Term Float Life



Self Discharge Characteristics



- 1** No supplementary charge required (Carry out supplementary charge before use if 100% capacity is required).
- 2** 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.
- 3** Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is reached.

