

UP-HR12-12



Specification		
Nominal Voltage	12V	
Watts(15min Rate)	49.8 W at 1.67V/cell	
Dimension	Length	151±1mm (5.95 inches)
	Width	98±1mm (3.86 inches)
	Container Height	95±1mm (3.74 inches)
	Total Height (with Terminal)	101±1mm (3.98 inches)
Approx Weight	Approx 4.2 kg (9.26lbs)	
Terminal	T1 / T2	
Container Material	ABS	
Rated Capacity	12.6 AH/1.26A	(10hr, 1.80V/cell, 25°C/77°F)
	12.0 AH/1.50A	(8hr, 1.80V/cell, 25°C/77°F)
	10.5 AH/2.10A	(5hr, 1.75V/cell, 25°C/77°F)
	9.45 AH/3.15A	(3hr, 1.75V/cell, 25°C/77°F)
	8.77 AH/8.77A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	180A (5s)	
Internal Resistance	Approx 14mΩ	
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 3.6A.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	26.0	24.2	20.6	17.1	12.5	8.95	7.11	4.00	2.87	2.29	1.97	1.68	1.41	1.19	0.678
1.80V/cell	30.4	27.4	22.5	18.3	13.5	9.70	7.59	4.26	3.03	2.40	2.02	1.77	1.50	1.26	0.684
1.75V/cell	34.2	30.1	24.6	19.8	14.0	10.1	7.94	4.43	3.15	2.50	2.10	1.81	1.52	1.28	0.690
1.70V/cell	37.7	32.7	26.3	20.8	14.6	10.5	8.19	4.61	3.27	2.58	2.14	1.85	1.54	1.29	0.703
1.65V/cell	41.6	35.3	27.9	22.0	15.3	10.8	8.47	4.73	3.38	2.66	2.19	1.89	1.57	1.32	0.713
1.60V/cell	46.0	37.6	29.4	23.5	16.2	11.3	8.77	4.90	3.48	2.74	2.25	1.94	1.58	1.33	0.716

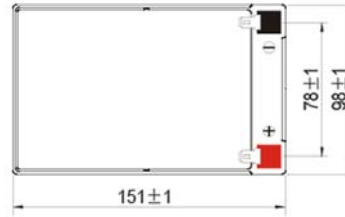
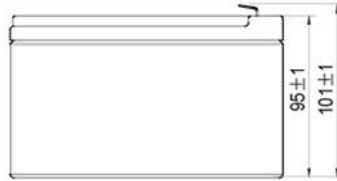
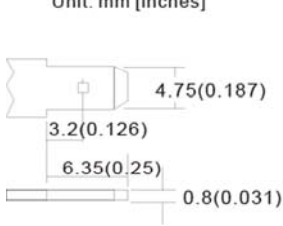
Constant Power Discharge (Watts) at 25°C (77°F)															
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	47.6	44.6	38.3	32.2	23.9	17.2	13.7	7.75	5.63	4.52	3.92	3.37	2.76	2.36	1.35
1.80V/cell	55.0	49.9	41.5	34.0	25.2	18.5	14.6	8.21	5.90	4.70	4.00	3.52	2.92	2.49	1.36
1.75V/cell	60.7	53.9	44.8	36.4	26.0	19.1	15.1	8.52	6.11	4.89	4.14	3.61	2.97	2.51	1.37
1.70V/cell	65.0	57.4	47.1	37.9	26.9	19.8	15.6	8.84	6.33	5.03	4.23	3.68	3.01	2.54	1.40
1.65V/cell	70.7	61.5	49.8	40.0	28.1	20.1	16.0	9.03	6.51	5.17	4.31	3.74	3.05	2.59	1.41
1.60V/cell	76.1	63.9	51.3	42.1	29.5	20.9	16.5	9.29	6.67	5.32	4.41	3.82	3.07	2.61	1.42



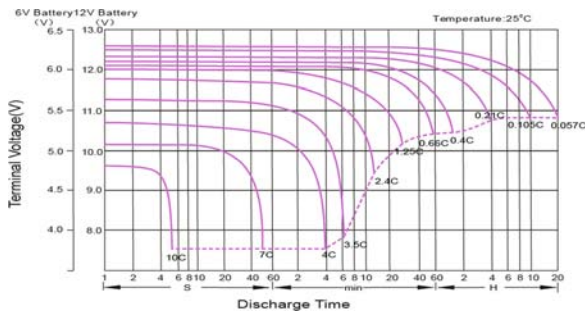
UP-HR12-12

Dimensions

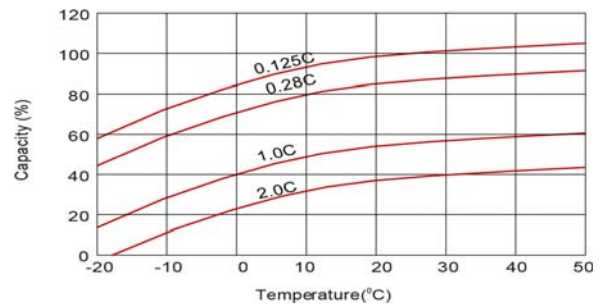
T1 Terminal
Unit: mm [inches]



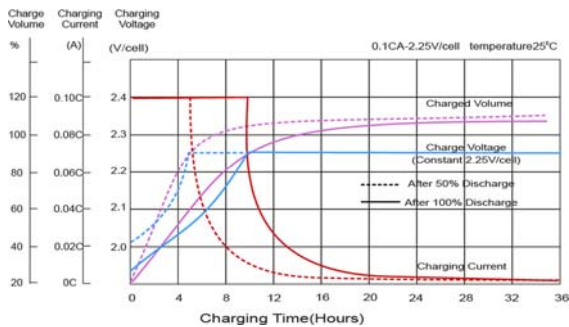
Discharge Characteristics



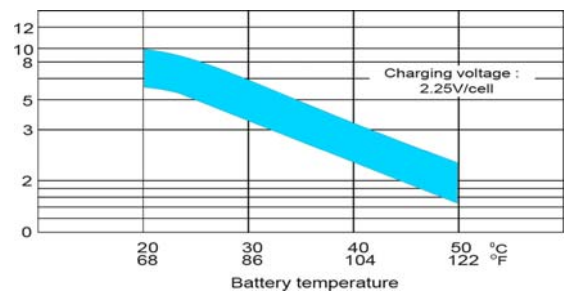
Temperature Effects in Relation to Battery Capacity



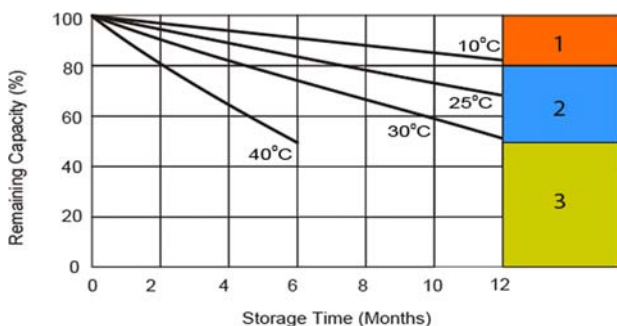
Float Charging Characteristics



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.



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