

UP-HR18-12



Specification	
Nominal Voltage	12V
Watts(15min Rate)	78.4 Watte at 1.67V/cell
Dimension	Length 181.5±1mm (7.14 inches)
	Width 77±1mm (3.03 inches)
	Container Height 167.5±1mm (6.59 inches)
	Total Height (with Terminal) 167.5±1mm (6.59 inches)
Approx Weight	Approx 6.0 kg (13.2lbs)
Terminal	T3 / T12
Container Material	ABS
Rated Capacity	18.6AH/1.86A (10hr , 1.80V/cell, 25°C/77°F)
	18.0 AH/2.25A (8hr, 1.80V/cell, 25°C/77°F)
	16.2AH/3.24A (5hr, 1.75V/cell, 25°C/77°F)
	14.9 AH/4.97A (3hr, 1.75V/cell, 25°C/77°F)
	14.8 AH/14.8A (1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	270A (5s)
Internal Resistance	Approx 15mΩ
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 5.4A.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.

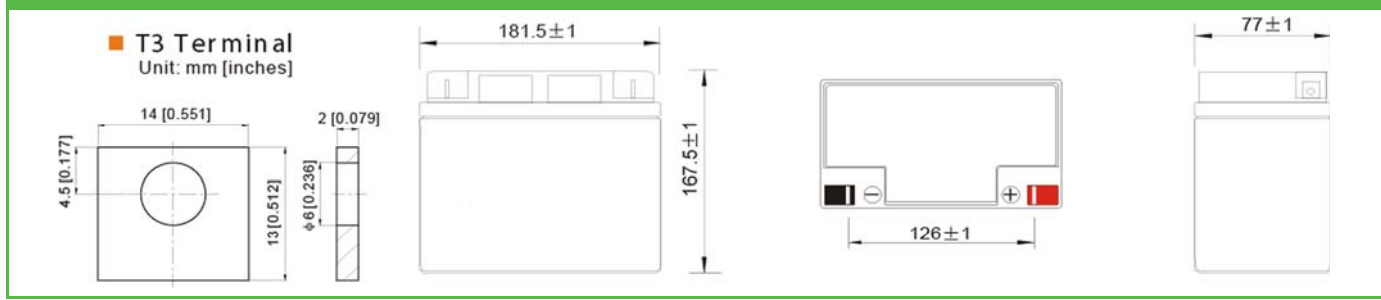
Constant Current Discharge (Amperes) at 25°C (77°F)															
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	54.3	36.8	32.3	26.8	20.5	15.1	12.0	6.48	4.53	3.54	2.99	2.54	2.12	1.75	0.93
1.80V/cell	62.3	41.4	35.5	28.8	22.0	16.5	12.9	6.94	4.88	3.78	3.14	2.70	2.25	1.86	0.99
1.75V/cell	70.0	45.6	38.8	30.9	22.9	17.1	13.5	7.20	4.97	3.86	3.24	2.80	2.31	1.88	1.00
1.70V/cell	76.7	49.4	41.4	32.6	23.8	17.8	13.9	7.48	5.15	4.01	3.32	2.86	2.34	1.90	1.01
1.65V/cell	84.6	53.5	44.0	34.6	25.1	18.2	14.4	7.69	5.33	4.10	3.39	2.93	2.38	1.94	1.03
1.60V/cell	93.4	56.5	46.2	36.9	26.5	19.0	14.8	7.95	5.48	4.23	3.48	2.99	2.40	1.95	1.03

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	99.4	67.9	60.2	50.4	39.1	29.1	23.3	12.6	8.88	6.99	5.94	5.09	4.14	3.46	1.83
1.80V/cell	111.6	75.5	65.3	53.4	41.3	31.3	24.7	13.4	9.50	7.42	6.23	5.37	4.38	3.67	1.95
1.75V/cell	123.2	81.7	70.5	56.9	42.6	32.3	25.7	13.9	9.63	7.57	6.40	5.58	4.49	3.70	1.96
1.70V/cell	132.0	87.1	74.2	59.5	44.0	33.5	26.5	14.4	9.99	7.83	6.54	5.68	4.55	3.73	1.98
1.65V/cell	143.6	93.1	78.4	62.7	46.1	34.0	27.2	14.6	10.3	7.98	6.65	5.79	4.61	3.80	2.01
1.60V/cell	154.8	96.9	80.8	66.1	48.3	35.2	27.9	15.1	10.6	8.21	6.81	5.90	4.65	3.84	2.04

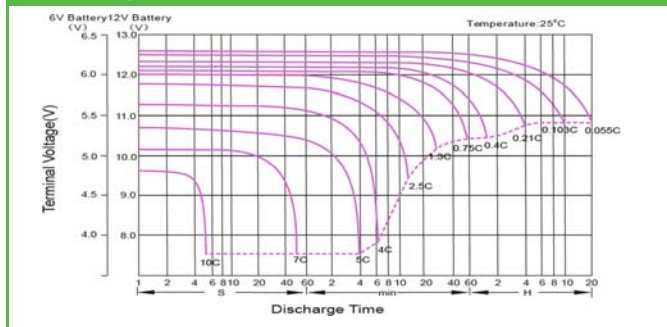


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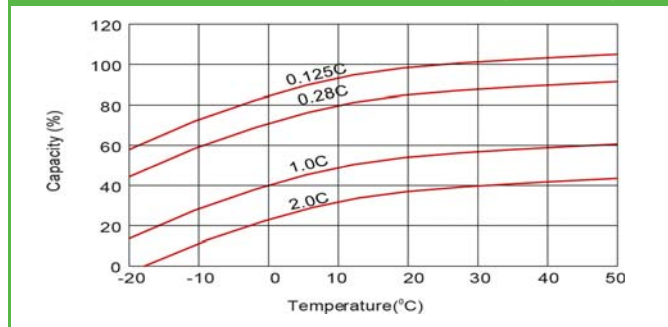
Dimensions



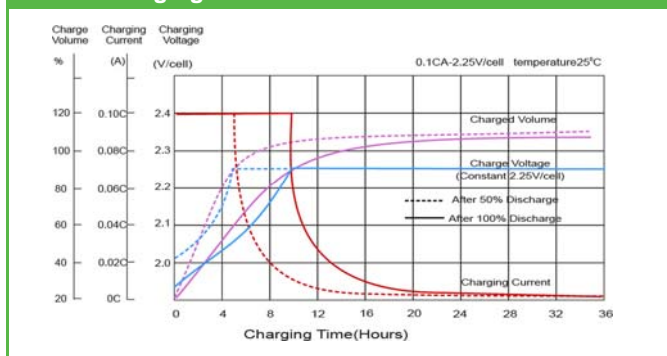
Discharge Characteristics



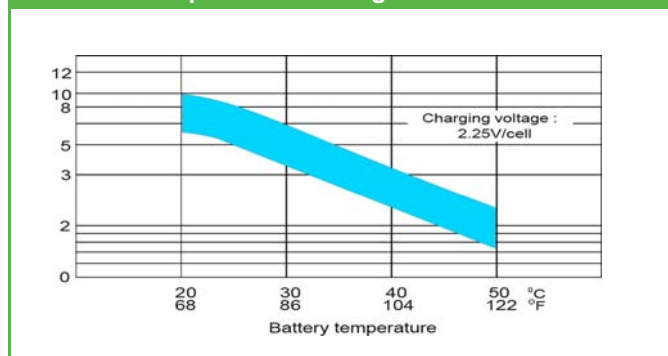
Temperature Effects in Relation to Battery Capacity



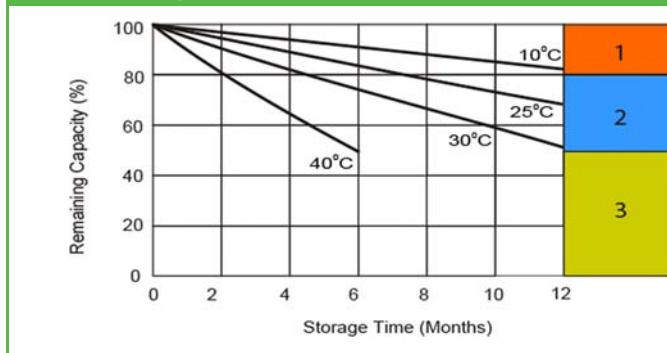
Float Charging Characteristics



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.

