

## UP2.2-12



Specification		
Nominal Voltage	12V	
Nominal Capacity (20HR)	2.2AH	
Dimension	Length	178±1mm (7.01 inches)
	Width	35±1mm (1.34 inches)
	Container Height	64±1mm (2.52 inches)
	Total Height (with Terminal)	70±1mm (2.76 inches)
	Approx Weight	Approx 0.80 kg (1.76lbs)
Terminal	T1	
Container Material	ABS	
Rated Capacity	2.20 AH/0.110A	(20hr, 1.80V/cell, 25°C/77°F)
	2.05 AH/0.205A	(10hr, 1.80V/cell, 25°C/77°F)
	1.85 AH/0.37A	(5hr, 1.75V/cell, 25°C/77°F)
	1.68 AH/0.56A	(3hr, 1.75V/cell, 25°C/77°F)
	1.38 AH/1.38A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	33A (5s)	
Internal Resistance	Approx 100mΩ	
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 0.66A.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.	

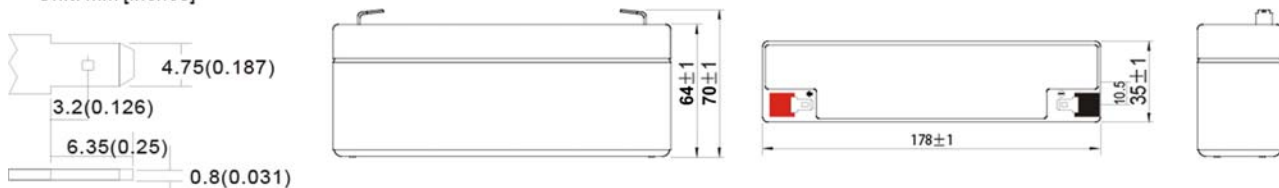
Constant Current Discharge (Amperes) at 25°C (77°F)															
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	4.19	3.22	2.67	2.30	1.78	1.31	1.11	0.65	0.51	0.42	0.339	0.295	0.237	0.198	0.109
1.80V/cell	5.62	4.11	3.22	2.72	2.10	1.53	1.24	0.71	0.55	0.44	0.364	0.316	0.252	0.205	0.110
1.75V/cell	6.34	4.52	3.52	2.93	2.18	1.58	1.30	0.74	0.56	0.45	0.374	0.325	0.256	0.210	0.111
1.70V/cell	6.98	4.92	3.75	3.08	2.27	1.65	1.34	0.76	0.58	0.47	0.383	0.331	0.260	0.214	0.113
1.65V/cell	7.70	5.31	3.99	3.27	2.40	1.69	1.37	0.77	0.60	0.49	0.394	0.339	0.264	0.219	0.115
1.60V/cell	8.49	5.77	4.27	3.48	2.53	1.76	1.38	0.80	0.62	0.50	0.407	0.346	0.267	0.221	0.115

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	7.66	5.94	4.97	4.34	3.40	2.52	2.13	1.27	1.00	0.81	0.666	0.579	0.469	0.393	0.216
1.80V/cell	10.17	7.50	5.93	5.06	3.95	2.91	2.38	1.38	1.07	0.86	0.711	0.619	0.496	0.404	0.218
1.75V/cell	11.23	8.11	6.40	5.39	4.06	2.99	2.48	1.42	1.08	0.88	0.727	0.633	0.503	0.415	0.219
1.70V/cell	12.02	8.64	6.73	5.62	4.20	3.10	2.55	1.46	1.11	0.90	0.744	0.646	0.510	0.423	0.223
1.65V/cell	13.07	9.24	7.10	5.93	4.40	3.15	2.59	1.47	1.15	0.93	0.762	0.658	0.517	0.431	0.226
1.60V/cell	14.08	9.81	7.47	6.25	4.61	3.26	2.60	1.52	1.18	0.96	0.785	0.670	0.521	0.435	0.227

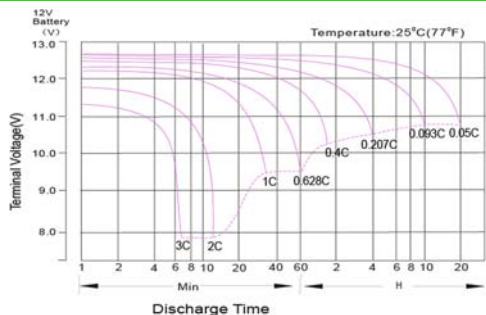
**UP2.2-12**

**Dimensions**

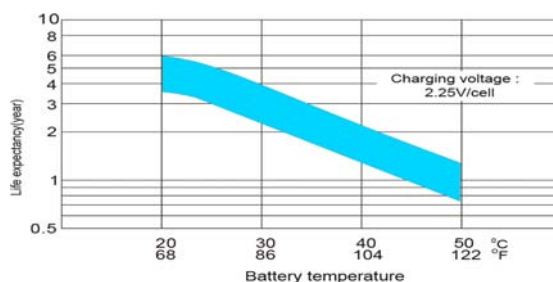
**T1 Terminal**  
Unit: mm [inches]



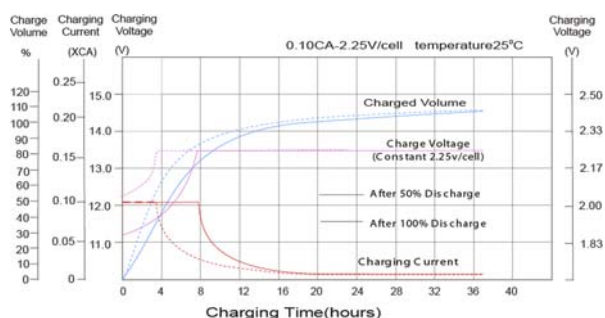
**Discharge Characteristics**



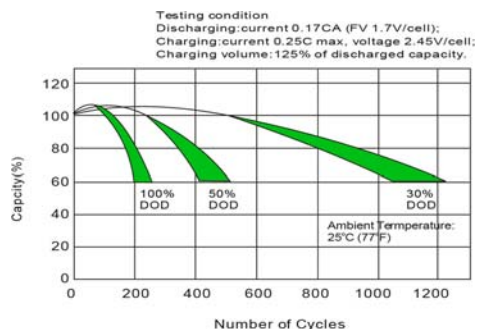
**Effect of Temperature on Long Term Float Life**



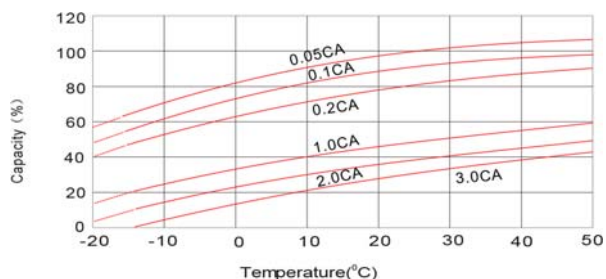
**Float Charging Characteristics**



**Cycle Life in Relation to Depth of Discharge**



**Temperature Effects in Relation to Battery Capacity**



**Self Discharge Characteristics**

