

# UP SERIES-AGM Battery

## UP7.2-12



Specification		
Nominal Voltage	12V	
Nominal Capacity (20HR)	7.2AH	
Dimension	Length	151±2mm (5.95 inches)
	Width	65±1mm (2.56 inches)
	Container Height	95±1mm (3.74 inches)
	Total Height (with Terminal)	101±1mm (3.98 inches)
Approx Weight	Approx 2.18 kg (4.81lbs)	
Terminal	T1 / T2	
Container Material	ABS	
Rated Capacity	7.20 AH/0.36A	(20hr, 1.80V/cell, 25°C/77°F)
	6.70 AH/0.67A	(10hr, 1.80V/cell, 25°C/77°F)
	6.12 AH/1.22A	(5hr, 1.75V/cell, 25°C/77°F)
	5.51 AH/1.84A	(3hr, 1.75V/cell, 25°C/77°F)
	4.52 AH/4.52A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	108A (5s)	
Internal Resistance	Approx 18mΩ	
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 2.16A.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	13.7	10.5	8.72	7.54	5.83	4.30	3.62	2.14	1.68	1.36	1.11	0.96	0.777	0.649	0.356
1.80V/cell	18.4	13.5	10.5	8.91	6.88	5.00	4.06	2.34	1.80	1.45	1.19	1.03	0.825	0.670	0.360
1.75V/cell	20.8	14.8	11.5	9.59	7.14	5.18	4.24	2.42	1.84	1.49	1.22	1.06	0.839	0.688	0.364
1.70V/cell	22.9	16.1	12.3	10.1	7.43	5.39	4.38	2.48	1.89	1.53	1.25	1.08	0.851	0.701	0.370
1.65V/cell	25.2	17.4	13.1	10.7	7.84	5.53	4.48	2.52	1.97	1.58	1.29	1.11	0.864	0.716	0.375
1.60V/cell	27.8	18.9	14.0	11.4	8.28	5.76	4.52	2.63	2.03	1.63	1.33	1.13	0.872	0.724	0.377

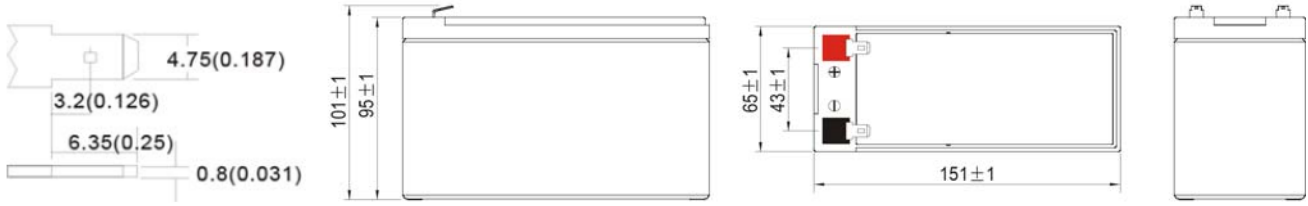
Constant Power Discharge (Watts) at 25°C (77°F)															
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	25.1	19.4	16.3	14.2	11.1	8.26	6.98	4.16	3.27	2.66	2.18	1.90	1.53	1.29	0.706
1.80V/cell	33.3	24.6	19.4	16.6	12.9	9.53	7.78	4.51	3.49	2.83	2.33	2.02	1.62	1.32	0.712
1.75V/cell	36.7	26.6	20.9	17.6	13.3	9.79	8.10	4.66	3.54	2.88	2.38	2.07	1.65	1.36	0.718
1.70V/cell	39.3	28.3	22.0	18.4	13.8	10.1	8.33	4.76	3.64	2.95	2.44	2.11	1.67	1.38	0.731
1.65V/cell	42.8	30.2	23.2	19.4	14.4	10.3	8.46	4.80	3.78	3.04	2.49	2.15	1.69	1.41	0.740
1.60V/cell	46.1	32.1	24.5	20.4	15.1	10.7	8.50	4.99	3.87	3.13	2.57	2.19	1.70	1.42	0.743

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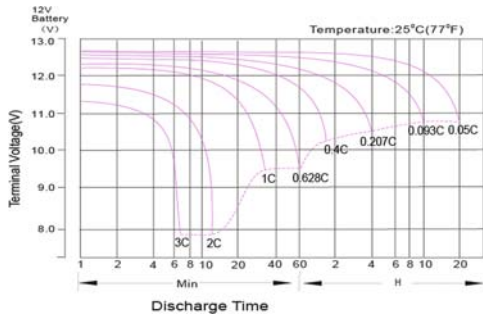
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### Dimensions

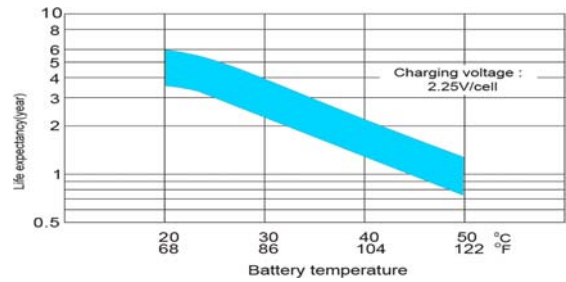
**T1 Terminal**  
Unit: mm [inches]



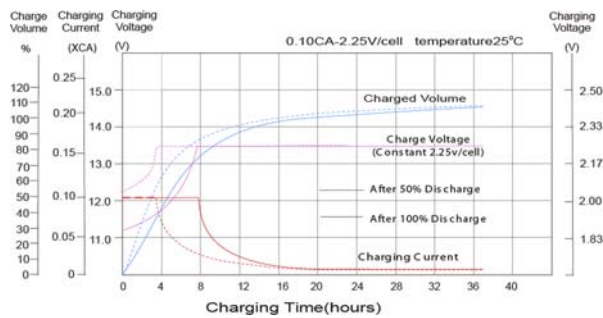
### Discharge Characteristics



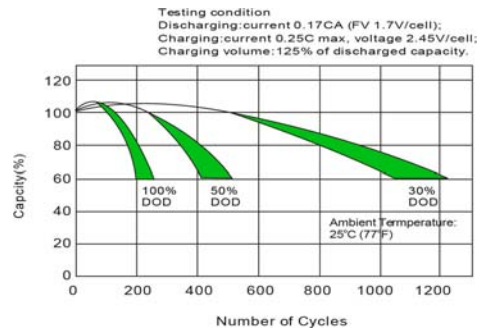
### Effect of Temperature on Long Term Float Life



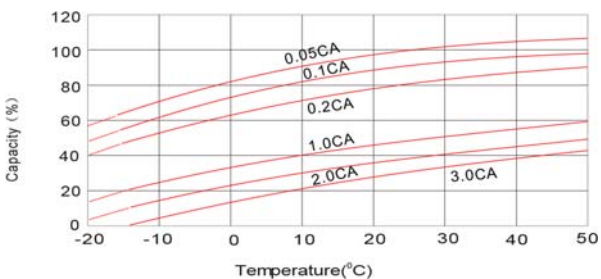
### Float Charging Characteristics



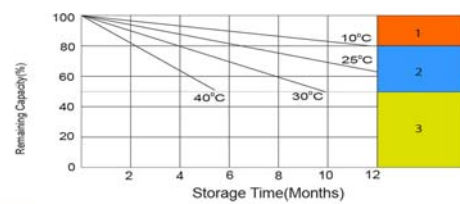
### Cycle Life in Relation to Depth of Discharge



### Temperature Effects in Relation to Battery Capacity



### Self Discharge Characteristics



- 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.

