

UP4.5-4



Specification	
Nominal Voltage	4V
Nominal Capacity (20HR)	4.5AH
Dimension	Length 52.5±1mm (2.07 inches)
	Width 48±1mm (1.89 inches)
	Container Height 94±1mm (3.70 inches)
	Total Height (with Terminal) 100±1mm (3.94 inches)
	Approx Weight Approx 0.60 kg (1.32lbs)
Terminal	T1 / T2
Container Material	ABS
Rated Capacity	4.50 AH/0.225A (20hr, 1.80V/cell, 25°C/77°F)
	4.19 AH/0.419A (10hr, 1.80V/cell, 25°C/77°F)
	3.85 AH/0.77A (5hr, 1.75V/cell, 25°C/77°F)
	3.45 AH/1.15A (3hr, 1.75V/cell, 25°C/77°F)
	2.65 AH/2.65A (1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	67.5A (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 1.35A. Voltage. 4.8V~5.0V at 25°C (77°F) Temp. Coefficient -10mV/°C
Standby Use	No limit on Initial Charging Current Voltage. 4.5V~4.6V at 25°C (77°F) Temp. Coefficient -6mV/°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	8.57	6.58	5.45	4.71	3.64	2.68	2.26	1.34	1.05	0.85	0.69	0.60	0.486	0.406	0.223
1.80V/cell	11.5	8.41	6.59	5.57	4.30	3.12	2.53	1.46	1.13	0.91	0.75	0.65	0.515	0.419	0.225
1.75V/cell	13.0	9.24	7.19	5.99	4.46	3.24	2.65	1.51	1.15	0.93	0.77	0.66	0.524	0.430	0.227
1.70V/cell	14.3	10.1	7.68	6.30	4.65	3.37	2.74	1.55	1.18	0.95	0.78	0.68	0.532	0.438	0.231
1.65V/cell	15.7	10.9	8.17	6.69	4.90	3.45	2.80	1.58	1.23	0.99	0.81	0.69	0.540	0.447	0.234
1.60V/cell	17.4	11.8	8.73	7.13	5.18	3.60	2.83	1.64	1.27	1.02	0.83	0.71	0.545	0.452	0.236

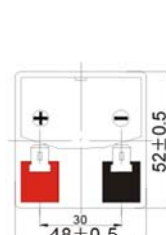
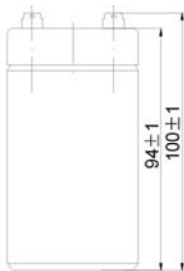
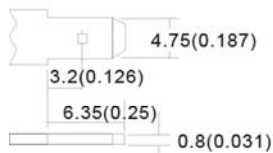
Constant Power Discharge (Watts) at 25°C (77°F)															
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	15.7	12.2	10.2	8.88	6.95	5.16	4.37	2.60	2.04	1.66	1.36	1.18	0.959	0.803	0.441
1.80V/cell	20.8	15.4	12.1	10.3	8.07	5.96	4.86	2.82	2.18	1.77	1.45	1.27	1.014	0.827	0.445
1.75V/cell	23.0	16.6	13.1	11.0	8.31	6.12	5.06	2.91	2.22	1.80	1.49	1.30	1.030	0.848	0.449
1.70V/cell	24.6	17.7	13.8	11.5	8.60	6.34	5.21	2.98	2.27	1.85	1.52	1.32	1.043	0.864	0.457
1.65V/cell	26.7	18.9	14.5	12.1	9.00	6.44	5.29	3.00	2.36	1.90	1.56	1.35	1.057	0.881	0.462
1.60V/cell	28.8	20.1	15.3	12.8	9.43	6.68	5.31	3.12	2.42	1.96	1.61	1.37	1.065	0.889	0.464



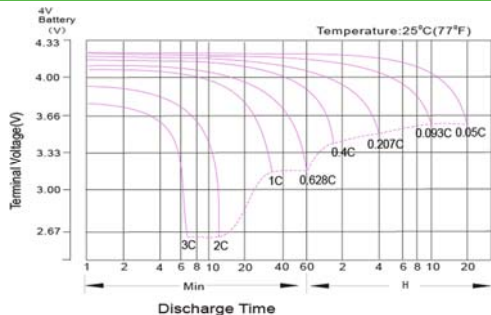
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Dimensions

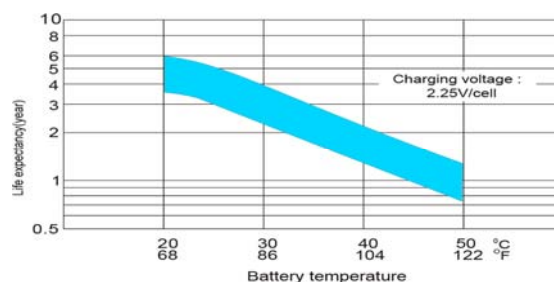
■ T1 Terminal
Unit: mm [inches]



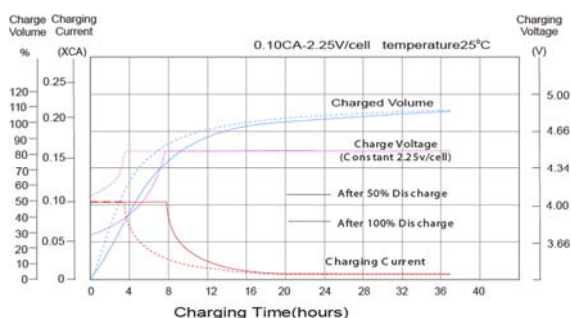
Discharge Characteristics



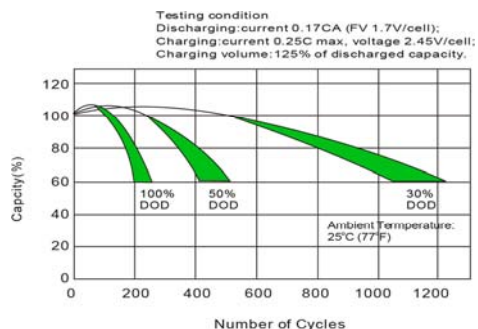
Effect of Temperature on Long Term Float Life



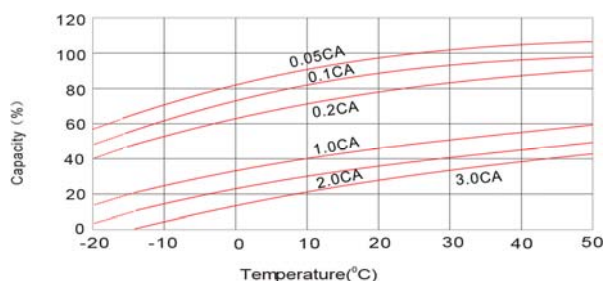
Float Charging Characteristics



Cycle Life in Relation to Depth of Discharge



Temperature Effects in Relation to Battery Capacity



Self Discharge Characteristics

