

FP4-3.5

Datasheet

FULBAT™
GENERAL PURPOSE BATTERY

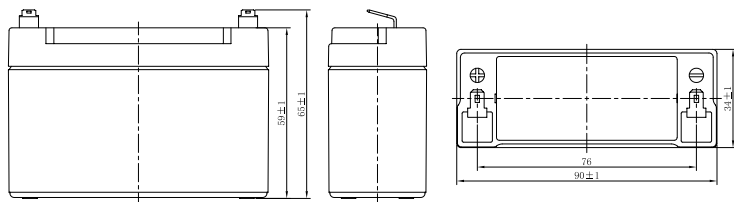


NON-SPILLABLE   **AGM**

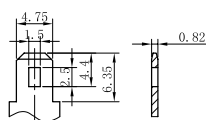
FP Series are general purpose batteries with 5 years design life in float service. With advanced AGM valve regulated technology and high purity raw material, the FP series batteries ensure high performance and reliable standby service life. They have been designed specifically for applications such as security & alarm systems, UPS, Telecom, power grid, medical equipment and emergency lighting. It can also be used for light cycling use. For intensive cycling, the FPC or FPG cyclic ranges are recommended.

DIMENSIONS & WEIGHT

Lenght	90±2mm
Width	34±2mm
Total height	65±2mm
Gross weight	0.45kg



TERMINAL



T1

SPECIFICATIONS

Nominal voltage	4V (2 cells)
Nominal capacity	3.50Ah (20hr)
Design life	5 years at 25°C
Internal resistance	Approx 14mΩ
Terminal	T1
Max. discharge current	53.0A (5 sec)
Reference capacity	3.50Ah (20hr, 1.75V/cell, 25°C) 3.31Ah (10hr, 1.75V/cell, 25°C) 3.01Ah (5hr, 1.75V/cell, 25°C) 2.62Ah (3hr, 1.75V/cell, 25°C) 2.15Ah (1hr, 1.60V/cell, 25°C)
Charge voltage	
Standby use voltage	4.5V ~ 4.6V 25°C Temperature compensation: -3mV/°C/Cell
Cycle use voltage	4.8V ~ 5.0V 25°C Temperature compensation: -5mV/°C/Cell
Operating temp. range	Discharge: -15°C ~ 50°C Charge: -20°C ~ 40°C Storage: -15°C ~ 40°C
Nominal operating temp. range	25°C ± 3°C
Self discharge	Can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly self-discharge ratio is less than 3% at 25°C
Capacity affected by temp.	40°C 103% 25°C 100% 0°C 86%
Container material	A.B.S. UL94-HB UL94-V0 optional

APPROVALS

ISO9001 - Quality management system
ISO14001 - Environmental management System
Approved for transport by Air (IATA)
Designed in accordance with IEC 60896-21/22

APPLICATIONS



Emergency
& security

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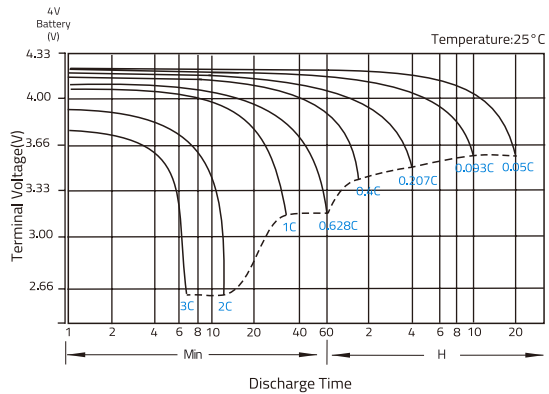
CONSTANT CURRENT DISCHARGE (A) @25°C

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	7.36	5.72	4.66	3.43	2.47	1.94	1.15	0.845	0.681	0.586	0.502	0.396	0.323	0.171
1.80V/cell	7.80	6.01	4.84	3.53	2.54	1.99	1.18	0.859	0.691	0.595	0.510	0.401	0.328	0.173
1.75V/cell	8.11	6.21	4.98	3.62	2.59	2.03	1.20	0.872	0.700	0.602	0.516	0.406	0.331	0.175
1.70V/cell	8.44	6.41	5.12	3.72	2.65	2.07	1.21	0.885	0.710	0.611	0.522	0.410	0.334	0.176
1.67V/cell	8.67	6.57	5.23	3.78	2.69	2.10	1.23	0.894	0.717	0.616	0.527	0.413	0.337	0.178
1.60V/cell	9.04	6.80	5.38	3.88	2.76	2.15	1.25	0.910	0.729	0.626	0.534	0.419	0.341	0.180

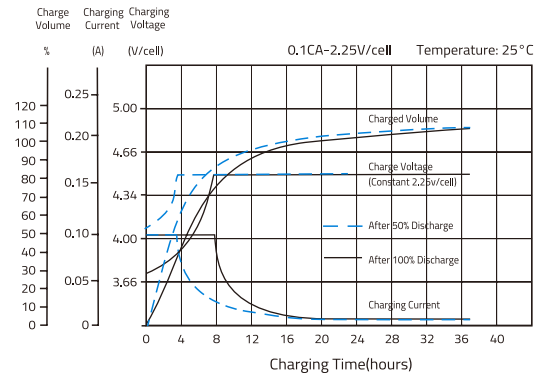
CONSTANT POWER DISCHARGE (W/CELL) @25°C

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	14.0	11.0	8.97	6.62	4.79	3.78	2.26	1.66	1.34	1.16	0.99	0.784	0.643	0.342
1.80V/cell	14.7	11.4	9.28	6.80	4.90	3.86	2.29	1.68	1.36	1.17	1.01	0.795	0.651	0.346
1.75V/cell	15.2	11.7	9.48	6.94	4.99	3.93	2.33	1.71	1.38	1.19	1.02	0.803	0.657	0.350
1.70V/cell	15.7	12.1	9.70	7.09	5.08	3.99	2.36	1.73	1.39	1.20	1.03	0.810	0.663	0.353
1.67V/cell	16.1	12.3	9.88	7.20	5.15	4.04	2.38	1.74	1.40	1.21	1.04	0.816	0.668	0.356
1.60V/cell	16.5	12.7	10.1	7.36	5.24	4.11	2.42	1.77	1.42	1.23	1.05	0.827	0.675	0.359

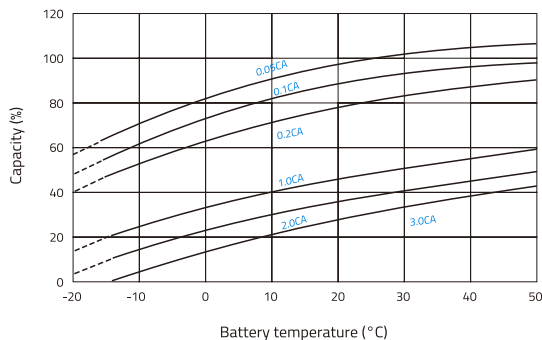
DISCHARGE CHARACTERISTICS



FLOAT CHARGING CHARACTERISTICS



TEMPERATURE IN RELATION TO BATTERY CAPACITY



TEMPERATURE ON LONG TERM FLOAT LIFE

