

FPG12-31

Datasheet

FULBAT®
CYCLIC BATTERY



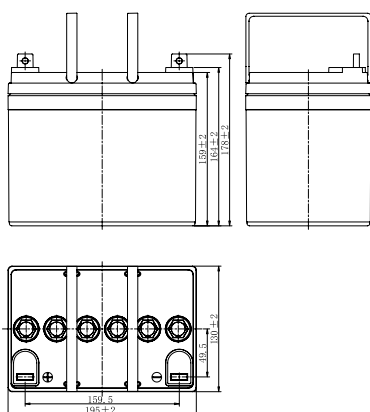
GEL

NON-SPILLABLE

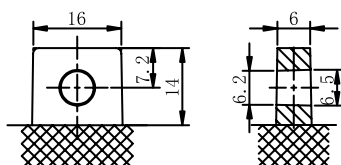
FPG Series are deep cycle batteries specially designed for long duration cyclic applications, ie with use in charge and then intensive discharge. With innovative GEL valve regulated technology and special plate design, the FPG Series ensure higher cyclic performance and higher recovery capability after deep discharge than cyclic AGM batteries. This range is ideal for applications such as mobility, golf, marine & leisure and renewable energies storage.

DIMENSIONS & WEIGHT

Length	295±2mm
Width	130±2mm
Total height	178±2mm
Gross weight	10.2kg



TERMINAL



SPECIFICATIONS

Nominal voltage	12V (6 cells)
Nominal capacity	30.0Ah (20hr)
Cycle life	
(50% capacity @20°C)	Up to 550 cycles at 100% DOD
(50% capacity @20°C)	Up to 1100 cycles at 50% DOD
Internal resistance	Approx 14.6mΩ
Terminal	T6
Max. discharge current	450A (5 sec)
Reference capacity	30.0Ah (20hr, 1.80V/cell, 25°C) 26.5Ah (10hr, 1.80V/cell, 25°C) 24.0Ah (5hr, 1.75V/cell, 25°C) 20.9Ah (3hr, 1.75V/cell, 25°C) 18.2Ah (1hr, 1.60V/cell, 25°C)
Charge voltage	
Standby use voltage	13.5V ~ 13.8V at 25°C Temperature compensation: -3mV/°C/Cell
Cycle use voltage	14.4V ~ 15.0V at 25°C Temperature compensation: -5mV/°C/Cell
Operating temp. range	Discharge: -20°C ~ 55°C Charge: -20°C ~ 40°C Storage: -15°C ~ 50°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



Medical



Renewable
energy



Mobility



Golf caddy



Leisure
& Marine

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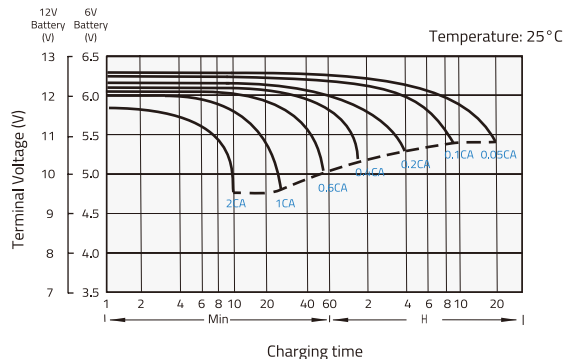
CONSTANT CURRENT DISCHARGE (A) @25°C

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	25.4	19.9	15.2	13.2	8.07	6.15	5.09	4.40	3.80	3.36	3.03	2.77	2.53	1.44
1.80V/cell	29.1	22.3	16.8	14.6	8.73	6.59	5.40	4.62	3.99	3.52	3.18	2.91	2.65	1.50
1.75V/cell	32.7	24.5	18.1	15.6	9.26	6.96	5.66	4.80	4.13	3.64	3.28	3.00	2.70	1.53
1.70V/cell	35.2	26.2	19.2	16.5	9.81	7.25	5.84	4.95	4.27	3.76	3.38	3.08	2.76	1.55
1.67V/cell	36.6	27.2	19.9	17.1	10.1	7.48	5.99	5.05	4.34	3.82	3.43	3.12	2.80	1.56
1.60V/cell	39.7	29.2	21.4	18.2	10.5	7.78	6.21	5.21	4.45	3.90	3.49	3.19	2.85	1.59

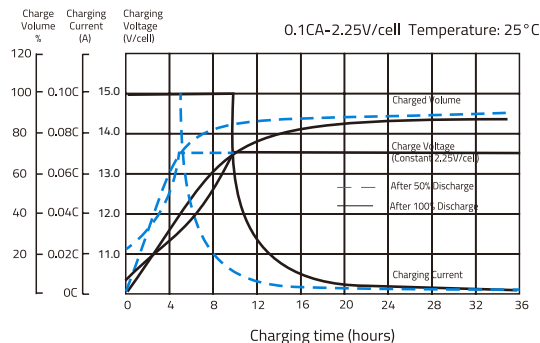
CONSTANT POWER DISCHARGE (W/CELL) @25°C

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	48.6	38.4	29.5	25.7	15.8	12.0	10.0	8.68	7.52	6.67	6.03	5.52	5.05	2.87
1.80V/cell	54.9	42.5	32.3	28.2	17.0	12.9	10.6	9.09	7.87	6.96	6.30	5.79	5.27	2.99
1.75V/cell	61.0	46.3	34.6	30.0	17.9	13.6	11.0	9.41	8.12	7.19	6.49	5.96	5.37	3.05
1.70V/cell	65.0	49.2	36.5	31.6	18.9	14.1	11.4	9.68	8.39	7.42	6.67	6.11	5.49	3.08
1.67V/cell	66.9	50.5	37.5	32.6	19.3	14.5	11.6	9.85	8.50	7.50	6.76	6.17	5.54	3.11
1.60V/cell	71.7	53.6	40.0	34.4	20.0	15.0	12.0	10.1	8.68	7.64	6.86	6.29	5.64	3.15

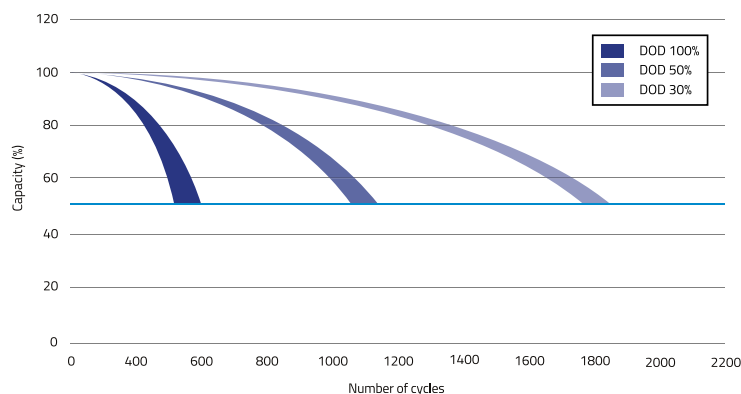
DISCHARGE CHARACTERISTICS



FLOAT CHARGING CHARACTERISTICS



CYCLE LIFE IN RELATION TO DEPTH OF DISCHARGE



TEMPERATURE ON LONG TERM FLOAT LIFE

