DATA SHEET

FPC12-35

FULBAT™ CYCLIC BATTERY

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NON-SPILLABLE

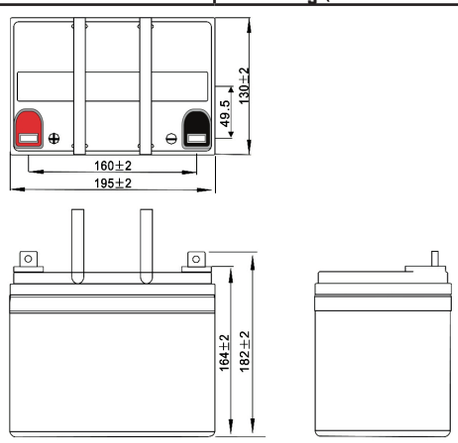
CYCLE LIFE UP TO 500

AGM

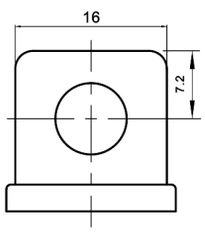
FPC Series are deep cycle batteries specially designed for long duration cyclic applications, ie with use in charge and then intensive discharge. With advanced AGM valve regulated technology and oversized negative plates, the FPC Series ensure very good cyclic performance with greater depth of discharge for mobility-type applications such as medical, golf and also renewable energies storage. In harsh use conditions (high temperature, higher deep of discharge...), the Gel FPG range is recommended.

DIMENSIONS & WEIGHT

LENGHT	195±2mm
WIDTH	130±2mm
TOTAL HEIGHT	182±2mm
WEIGHT	11.65kg (tolerance ± 3%)



TERMINAL (MM)



SPECIFICATION

Nominal voltage	12V (6 cells)
Nominal capacity	35.4Ah (20hr)
Cycle life	Up to 400 cycles at 80% DOD* (80% capacity - 20°C) Up to 500 cycles at 50% DOD* (80% capacity - 20°C)
Internal resistance	Approx 11mΩ
Terminal	T5
Max. discharge current	495A (5 sec)
Reference capacity	35.4Ah (20hr, 1.80V/cell, 25°C/77°F) 33.0Ah (10hr, 1.80V/cell, 25°C/77°F) 28.9Ah (5hr, 1.75V/cell, 25°C/77°F) 26.21Ah (3hr, 1.75V/cell, 25°C/77°F) 21.3Ah (1hr, 1.60V/cell, 25°C/77°F)
Charge voltage	
Standby use voltage	13.5V ~ 13.8V 25°C/77°F Temperature compensation: -20mV/°C/Cell
Cycle use voltage	14.4V ~ 15.0V 25°C/77°F Temperature compensation: -20mV/°C/Cell
Operating temp. range	Discharge: -15°C ~ 50°C Charge: 0°C ~ 40°C Storage: -15°C ~ 40°C
Nominal operating temp. range	25°C ± 3°C / 77°F ± 5°F
Self discharge	Can be stored for up to 6 months at 25°C/77°F and then recharging is recommended. Monthly self-discharge ratio is less than 3% at 25°C/77°F
Capacity affected by temp.	40°C/104°F 103% 25°C/77°F 100% 0°C/32°F 86%
Container material	A.B.S. UL94-HB

*DOD = Depth of discharge

APPLICATIONS

Mobility · Golf Caddy · Solar · Leisure · Marine · Wind

APPROVALS

ISO9001 - Quality management system
ISO14001 - Environnmental management System
Approved for transport by Air (IATA)

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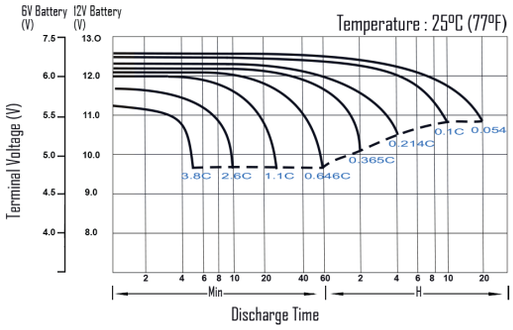
CONSTANT CURRENT DISCHARGE (AMPERES) AT 25°C/77°F

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	48.3	40.7	35.5	25.6	20.3	16.5	10.2	7.98	6.46	5.25	4.58	3.74	3.12	1.75
1.80V/cell	61.7	49.1	42.0	30.2	23.6	18.5	11.2	8.59	6.90	5.64	4.91	3.97	3.30	1.77
1.75V/cell	67.8	53.7	45.2	31.3	24.5	19.3	11.6	8.75	7.06	5.79	5.05	4.04	3.33	1.79
1.70V/cell	73.9	57.3	47.5	32.6	25.5	19.9	12.0	8.99	7.24	5.93	5.15	4.09	3.37	1.82
1.65V/cell	79.8	60.9	50.4	34.4	26.1	20.6	12.4	9.37	7.49	6.10	5.27	4.16	3.44	1.84
1.60V/cell	86.6	65.1	53.7	36.3	27.2	21.3	12.8	9.66	7.73	6.30	5.38	4.20	3.47	1.85

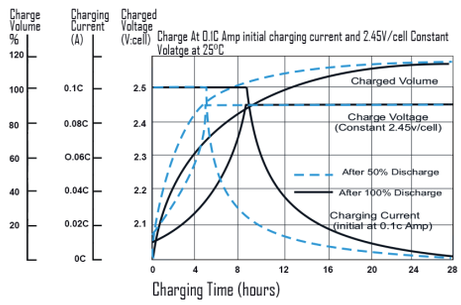
CONSTANT POWER DISCHARGE (WATTS/CELL) AT 25°C/77°F

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	90.1	76.6	67.7	49.1	39.3	32.0	19.9	15.6	12.7	10.3	9.05	7.40	6.17	3.51
1.80V/cell	113.6	91.2	91.2	57.3	45.3	35.6	21.6	16.7	13.4	11.0	9.67	7.84	6.53	3.53
1.75V/cell	123.3	98.7	84.1	59.2	46.8	37.1	22.4	17.0	13.7	11.3	9.92	7.96	6.59	3.56
1.70V/cell	132.6	104.6	87.9	61.3	48.5	38.2	23.2	17.4	14.1	11.6	10.1	8.07	6.65	3.63
1.65V/cell	142.0	110.5	92.9	64.4	49.6	39.3	23.8	18.1	14.5	11.9	10.3	8.19	6.78	3.67
1.60V/cell	151.6	116.8	97.9	67.3	51.2	40.4	24.4	18.5	14.9	12.2	10.5	8.26	6.85	3.68

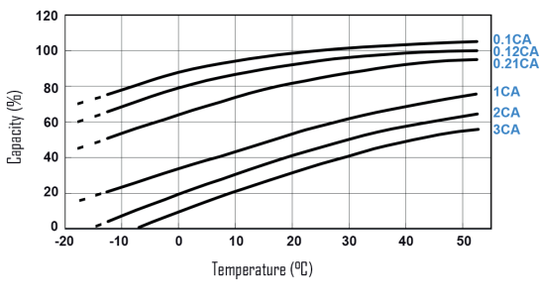
DISCHARGE CHARACTERISTICS



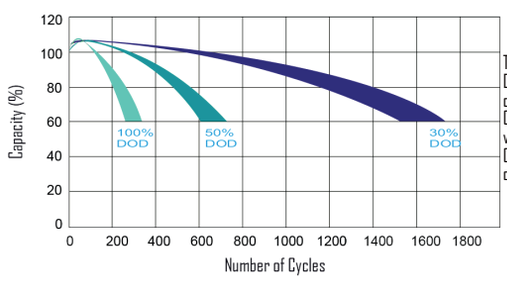
CHARGING CHARACTERISTICS (CYCLE USE)



TEMPERATURE EFFECTS IN RELATION TO BATTERY CAPACITY

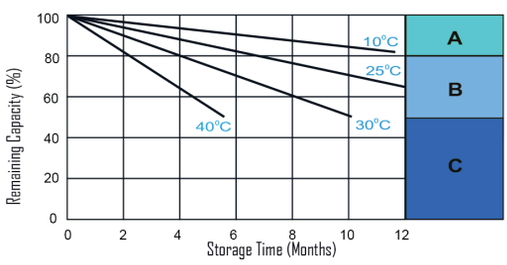


CYCLE LIFE IN RELATION TO DEPTH OS DISCHARGE



Testing condition
Discharging:
current 0.17C A(FV 1.7V/cell);
Charging:current 0.25C max,
voltage 2.45V/cell;
Charging volume:125%
of discharged capacity.

SELF DISCHARGE CHARACTERISTICS



A No supplementary charge required (carry out supplementary charge before use if 100% capacity is required)

B 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 limted current 0.25CA and constant voltage 2.45V/cell
3. Charged for 8-10 hours at limited current 0.05CA

C Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is reached

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