

# FPG12-50

## Datasheet

# FULBAT®

## CYCLIC BATTERY



# GEL

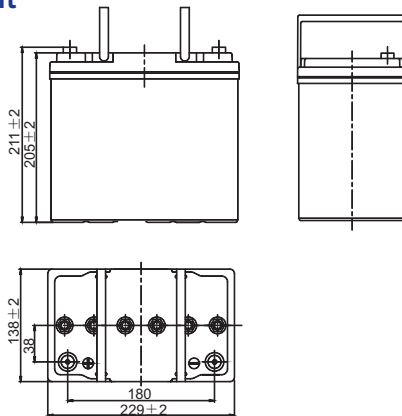


NON-SPILLABLE

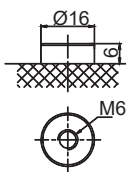
FPG Series are deep cycle batteries specially designed for long duration cyclic applications, ie with use in charge and then intensive discharge. With innovative GEL valve regulated technology and special plate design, the FPG Series ensure higher cyclic performance and higher recovery capability after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

### DIMENSIONS & WEIGHT

<b>Length</b>	229±2mm
<b>Width</b>	138±2mm
<b>Total height</b>	211±2mm
<b>Gross weight</b>	16.1kg



### TERMINAL



### SPECIFICATIONS

<b>Nominal voltage</b>	12V (6 cells)
<b>Nominal capacity</b>	50.0Ah (20hr)
<b>Cycle life</b>	(50% capacity @20°C) Up to 550 cycles at 100% DOD (50% capacity @20°C) Up to 1100 cycles at 50% DOD
<b>Internal resistance</b>	Approx 12.1mΩ
<b>Terminal</b>	T6
<b>Max. discharge current</b>	550A (5 sec)
<b>Reference capacity</b>	50.0Ah (20hr, 1.80V/cell, 25°C) 47.0Ah (10hr, 1.80V/cell, 25°C) 40.0Ah (5hr, 1.75V/cell, 25°C) 35.1Ah (3hr, 1.75V/cell, 25°C) 30.9Ah (1hr, 1.60V/cell, 25°C)
<b>Charge voltage</b>	2.23V ~ 2.27V at 25°C Temperature compensation: -3mV/°C/Cell
<b>Cycle use voltage</b>	2.40V ~ 2.50V at 25°C Temperature compensation: -4mV/°C/Cell
<b>Operating temp. range</b>	Discharge: -20°C ~ 55°C Charge: -20°C ~ 40°C Storage: -15°C ~ 50°C
<b>Nominal operating temp. range</b>	25°C ± 3°C
<b>Self discharge</b>	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
<b>Capacity affected by temp.</b>	40°C 103% 25°C 100% 0°C 86%
<b>Container material</b>	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



Renewable energy



Mobility



Leisure & Marine

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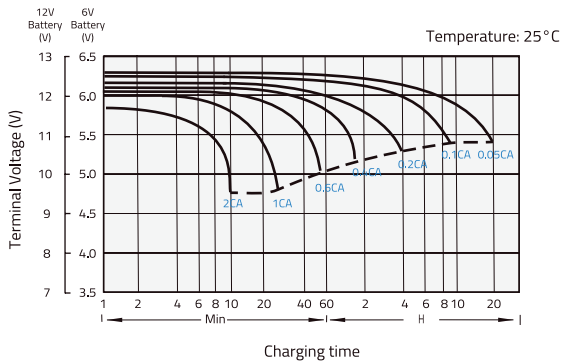
### CONSTANT CURRENT DISCHARGE (A) @25°C

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	64.5	55.9	44.0	39.8	29.1	23.0	13.5	10.2	8.39	7.37	6.49	5.31	4.61	2.38
1.80V/cell	73.2	63.3	49.7	43.3	30.8	25.4	14.9	11.2	9.12	7.76	6.85	5.53	4.70	2.50
1.75V/cell	79.4	68.6	53.7	44.2	31.9	28.5	16.0	11.7	9.39	8.00	7.08	5.63	4.85	2.57
1.70V/cell	83.0	72.0	56.4	44.5	32.4	29.4	16.3	11.8	9.39	8.10	7.10	5.67	4.84	2.61
1.67V/cell	87.3	75.0	58.4	45.8	33.0	30.0	16.7	12.0	9.56	8.23	7.20	5.72	4.89	2.63
1.60V/cell	90.3	77.3	60.0	46.4	33.5	30.9	16.9	12.2	9.74	8.41	7.30	5.77	4.94	2.66

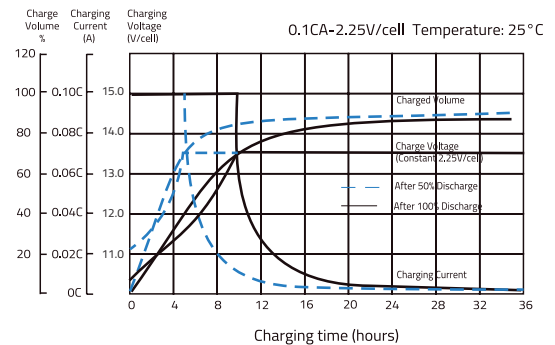
### CONSTANT POWER DISCHARGE (W/CELL) @25°C

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	121.3	105.8	83.6	76.0	56.0	44.7	26.4	20.0	16.5	14.6	12.8	10.6	9.15	4.57
1.80V/cell	135.7	118.4	93.6	82.1	58.9	49.1	29.0	21.8	17.9	15.3	13.4	10.9	9.30	4.78
1.75V/cell	144.8	126.4	99.9	83.1	60.7	54.6	30.9	22.6	18.3	15.6	13.9	11.1	9.59	4.90
1.70V/cell	148.9	131.0	103.8	82.9	61.1	55.9	31.3	22.9	18.2	15.8	13.9	11.1	9.49	4.99
1.67V/cell	154.7	135.0	106.6	84.7	61.9	56.8	31.8	23.2	18.5	16.0	14.1	11.2	9.59	5.03
1.60V/cell	156.9	136.9	108.2	85.1	62.2	58.0	32.3	23.3	18.8	16.3	14.2	11.3	9.68	5.08

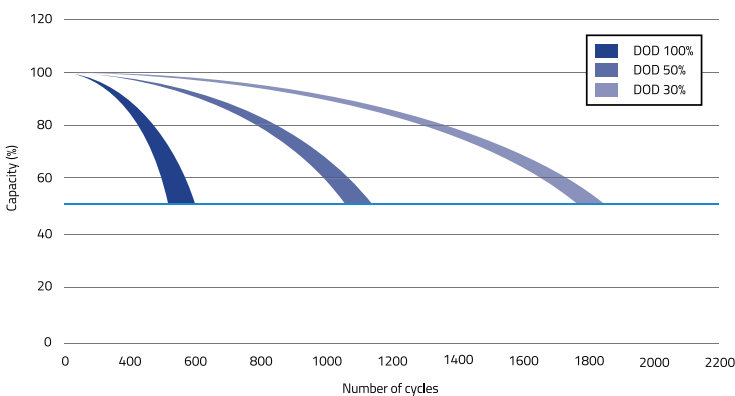
### DISCHARGE CHARACTERISTICS



### FLOAT CHARGING CHARACTERISTICS



### CYCLE LIFE IN RELATION TO DEPTH OF DISCHARGE



### TEMPERATURE ON LONG TERM FLOAT LIFE

