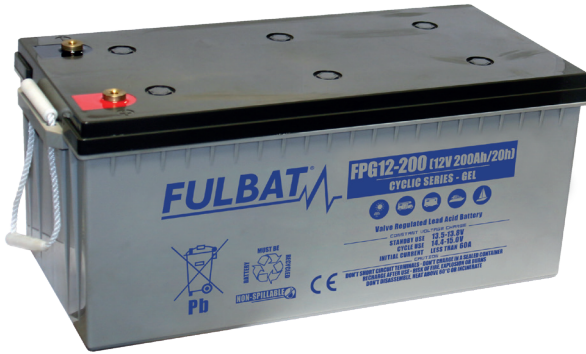


FPG12-200

Datasheet

FULBAT®

CYCLIC BATTERY

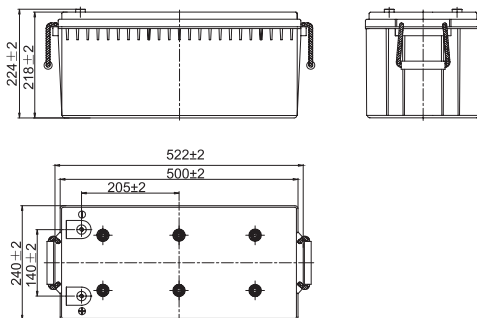


GEL **NON-SPILLABLE**

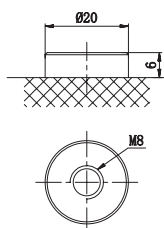
FPG Series are deep cycle batteries specially designed for long duration cyclic applications, ie with use in charge and then intensive discharge. With innovative GEL valve regulated technology and special plate design, the FPG Series ensure higher cyclic performance and higher recovery capability after 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 | 522±2mm |
| Width | 240±2mm |
| Total height | 224±2mm |
| Gross weight | 62.3kg |



TERMINAL



SPECIFICATIONS

| | |
|--------------------------------------|---|
| Nominal voltage | 12V (6 cells) |
| Nominal capacity | 200.0Ah (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 4.60mΩ |
| Terminal | T11 |
| Max. discharge current | 2000A (5 sec) |
| Reference capacity | 200.0Ah (20hr, 1.80V/cell, 25°C) 190.0Ah (10hr, 1.80V/cell, 25°C) 165.5Ah (5hr, 1.75V/cell, 25°C) 148.2Ah (3hr, 1.75V/cell, 25°C) 120.3Ah (1hr, 1.60V/cell, 25°C) |
| Charge voltage | 2.23V ~ 2.27V at 25°C Temperature compensation: -3mV/°C/Cell |
| Cycle use voltage | 2.40V ~ 2.50V 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



Solar

Marine

Leisure

FPG12-200

Datasheet



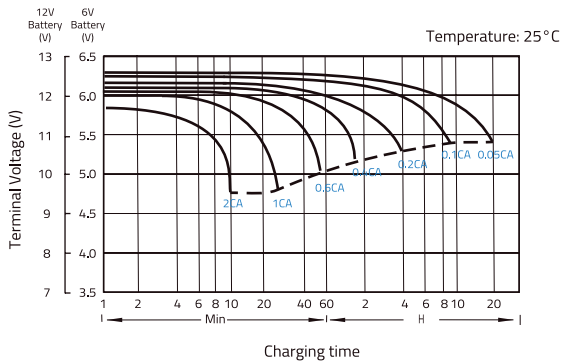
CONSTANT CURRENT DISCHARGE (A) @25°C

| F.V/Time | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 250.0 | 216.8 | 170.5 | 154.2 | 112.8 | 89.3 | 55.2 | 43.8 | 35.6 | 31.0 | 27.1 | 22.0 | 18.6 | 9.62 |
| 1.80V/cell | 283.8 | 245.7 | 192.7 | 167.9 | 119.5 | 98.8 | 60.8 | 48.1 | 38.7 | 32.6 | 28.7 | 22.9 | 19.0 | 10.0 |
| 1.75V/cell | 292.7 | 255.6 | 201.0 | 166.7 | 121.4 | 108.7 | 63.9 | 49.4 | 39.3 | 33.1 | 29.2 | 23.1 | 19.4 | 10.3 |
| 1.70V/cell | 307.8 | 266.0 | 208.1 | 171.3 | 123.8 | 110.8 | 65.2 | 50.1 | 39.9 | 33.6 | 29.6 | 23.3 | 19.6 | 10.4 |
| 1.65V/cell | 338.6 | 290.7 | 226.7 | 177.3 | 128.1 | 116.5 | 67.8 | 51.6 | 40.6 | 34.6 | 30.1 | 23.7 | 19.8 | 10.6 |
| 1.60V/cell | 350.2 | 299.7 | 232.5 | 179.9 | 130.0 | 120.3 | 69.3 | 52.3 | 41.3 | 35.3 | 30.6 | 23.9 | 20.0 | 10.8 |

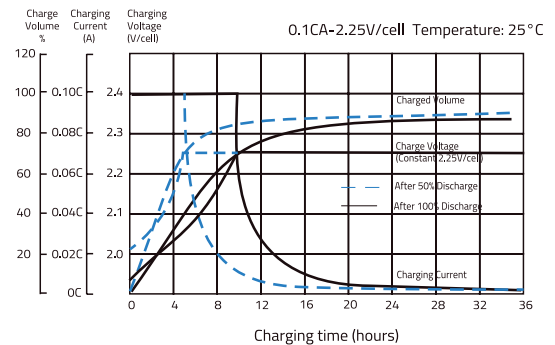
CONSTANT POWER DISCHARGE (W/CELL) @25°C

| F.V/Time | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|
| 1.85V/cell | 470.4 | 410.5 | 324.3 | 294.7 | 216.8 | 173.6 | 107.9 | 86.0 | 70.0 | 61.0 | 53.5 | 43.5 | 36.9 | 19.2 |
| 1.80V/cell | 526.2 | 459.2 | 362.7 | 318.3 | 228.2 | 190.7 | 118.2 | 94.0 | 75.8 | 64.1 | 56.4 | 45.2 | 37.5 | 19.9 |
| 1.75V/cell | 540.3 | 475.3 | 376.6 | 315.5 | 231.8 | 208.9 | 124.1 | 96.1 | 76.7 | 64.9 | 57.4 | 45.5 | 38.3 | 20.5 |
| 1.70V/cell | 561.6 | 490.0 | 387.1 | 322.3 | 235.1 | 212.3 | 126.2 | 97.3 | 77.8 | 65.8 | 58.1 | 45.8 | 38.6 | 20.6 |
| 1.67V/cell | 600.0 | 523.6 | 413.6 | 328.4 | 240.3 | 220.7 | 130.0 | 99.6 | 78.8 | 67.3 | 58.7 | 46.5 | 38.9 | 21.0 |
| 1.60V/cell | 608.4 | 530.9 | 419.4 | 329.8 | 241.5 | 225.7 | 131.8 | 100.3 | 79.7 | 68.5 | 59.4 | 46.7 | 39.2 | 21.3 |

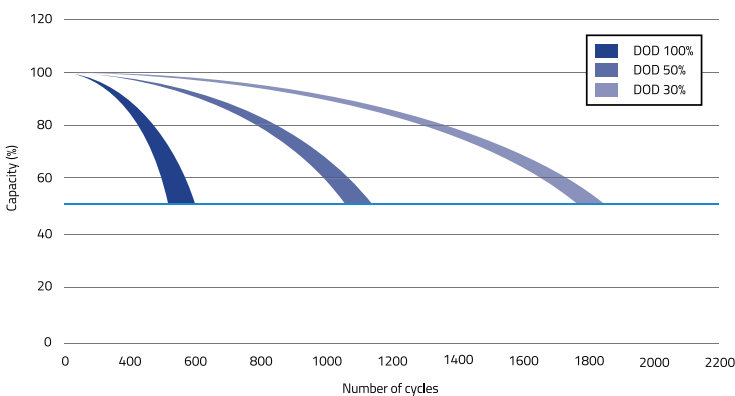
DISCHARGE CHARACTERISTICS



FLOAT CHARGING CHARACTERISTICS



CYCLE LIFE IN RELATION TO DEPTH OF DISCHARGE



TEMPERATURE ON LONG TERM FLOAT LIFE

