FPG12-250 Datasheet



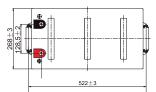


FPG Series are deep cycle batteries specially designed for long duration cyclic applications, ie with use in charge and then intensive discharge. With innovative GEL valve regulated technology and special plate design, the FPG Series ensure higher cyclic performance and higher recovery capability after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

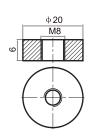
M DIMENSIONS & WEIGHT

| Lenght | 522±2mm |
|--------------|---------|
| Width | 268±2mm |
| Total height | 226±2mm |
| Gross weight | 73.1kg |

-W



A TERMINAL



A SPECIFICATIONS

| Nominal voltage | 12V (6 cells) |
|----------------------|---|
| Nominal capacity | 250Ah (10hr) |
| 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 2.5mΩ |
| Terminal | T11 |
| Max. discharge | 2500A (5 sec) |
| current | |
| Reference capacity | 258.0Ah (20hr, 1.80V/cell, 25°C) |
| | 250.0Ah (10hr, 1.80V/cell, 25°C) |
| | 212.5Ah (5hr, 1.75V/cell, 25°C) |
| | 184.5Ah (3hr, 1.80V/cell, 25°C) |
| | 142.4Ah (1hr, 1.75V/cell, 25°C) |
| Charge voltage | |
| Standby use voltage | 13.5V ~ 13.8V at 25°C |
| | Temperature compensation: |
| | -20mV/°C/Cell |
| Cycle use voltage | 14.4V ~ 15.0V at 25°C |
| | Temperature compensation: |
| | -30mV/°C/Cell |
| Operating temp. | Discharge: -20°C ~ 55°C |
| range | Charge: 0°C ~ 40°C |
| | Storage: -20°C ~ 50°C |
| Nominal operating | 25°C ± 3°C |
| temp. range | |
| 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 | 40°C 103% |
| temp. | 25°C 100% |
| | 0°C 86% |
| Container material | A.B.S. UL94-HB UL94-V0 optional |

APPROVALS

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

APPLICATIONS





FPG12-250 Datasheet



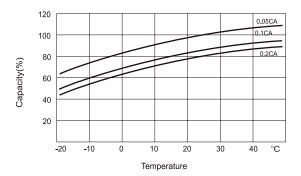
CONSTANT CURRENT DISCHARGE (A) @25°C

| F.V/Time | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 316.9 | 269.5 | 225.4 | 178.1 | 135.3 | 111.9 | 71.2 | 55.3 | 45.5 | 38.6 | 33.6 | 27.4 | 23.2 | 12.5 |
| 1.80V/cell | 399.0 | 320.8 | 262.6 | 205.0 | 153.5 | 124.5 | 77.3 | 59.4 | 48.4 | 41.5 | 36.1 | 29.2 | 25.0 | 12.9 |
| 1.75V/cell | 447.4 | 357.7 | 288.3 | 218.5 | 162.4 | 131.7 | 81.1 | 61.5 | 50.0 | 42.5 | 37.1 | 29.7 | 25.3 | 13.0 |
| 1.70V/cell | 493.4 | 386.4 | 306.5 | 230.5 | 170.5 | 137.5 | 85.1 | 63.6 | 51.5 | 43.7 | 37.9 | 30.1 | 25.4 | 13.3 |
| 1.65V/cell | / | 406.9 | 322.5 | 241.4 | 175.6 | 142.4 | 87.4 | 66.0 | 53.0 | 44.7 | 38.7 | 30.6 | 25.6 | 13.4 |
| 1.60V/cell | / | 438.7 | 346.3 | 256.5 | 185.7 | 149.3 | 90.6 | 68.3 | 54.3 | 45.5 | 39.5 | 30.9 | 26.1 | 13.5 |

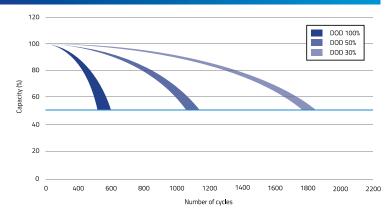
√ CONSTANT POWER DISCHARGE (W/CELL) @25°C

| F.V/Time | 10min | 15min | 20min | 30min | 45min | 1h | 2h | Зh | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| 1.85V/cell | 589.8 | 506.7 | 428.1 | 341.3 | 261.2 | 216.9 | 138.6 | 108.1 | 89.1 | 75.9 | 66.4 | 54.3 | 46.1 | 24.9 |
| 1.80V/cell | 734.5 | 595.7 | 491.8 | 387.9 | 294.2 | 240.0 | 149.8 | 115.5 | 94.4 | 81.3 | 70.9 | 57.7 | 49.6 | 25.6 |
| 1.75V/cell | 809.9 | 655.4 | 534.4 | 410.0 | 308.5 | 252.6 | 156.5 | 119.3 | 97.3 | 83.1 | 72.7 | 58.5 | 50.0 | 25.8 |
| 1.70V/cell | 871.5 | 697.0 | 563.0 | 429.4 | 322.1 | 262.6 | 163.6 | 123.1 | 100.0 | 85.0 | 74.1 | 59.3 | 50.2 | 26.3 |
| 1.65V/cell | / | 726.9 | 586.8 | 445.6 | 329.2 | 270.2 | 167.1 | 127.2 | 102.6 | 86.7 | 75.5 | 60.0 | 50.6 | 26.5 |
| 1.60V/cell | / | 770.7 | 623.2 | 469.6 | 345.8 | 281.7 | 172.4 | 131.0 | 104.6 | 88.1 | 76.9 | 60.7 | 51.4 | 26.7 |

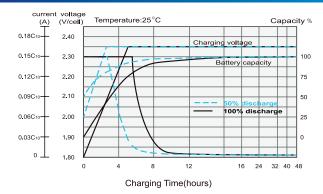
√ TEMPERATURE IN RELATION TO BATTERY CAPACITY



4 CYCLE LIFE IN RELATION TO DEPTH OF DISCHARGE



A FLOAT CHARGING CHARACTERISTICS



ℳ SELF DISCHARGE CHARACTERISTICS

