



B00407/BAT24-GEL-70A

Applications

- Railway and marine systems
- Electric tools
- Vehicule in place of walking
- Lawn mowers
- Golf trolleys and golf carts
- Electric toys
- Portable power
- Wheelchairs
- Medical equipment

| Specification | |
|-----------------------------------|--|
| Nominal voltage | 12V |
| Nominal capacity (20h) | 70Ah |
| Dimensions | Length : 260 ± 2 mm (10.24 inches) Width : 168 ± 2 mm (6.61 inches) Container height : 208 ± 2 mm (8.19 inches) Total height (with terminal) : 214 ± 2 mm (8.43 inches) |
| Weight | Approx. 24.5kg (54lb) |
| Terminal | T6 |
| Container material | ABS |
| Rated capacity | 70.0 Ah/3.50A (20h, 1.80V/cell, 25°C/77°F) 64.6 Ah/6.46A (10h, 1.80V/cell, 25°C/77°F) 56.5 Ah/11.3A (5h, 1.75V/cell, 25°C/77°F) 49.8 Ah/16.6A (3h, 1.75V/cell, 25°C/77°F) 41.5Ah/41.5A (1h, 1.60V/cell, 25°C/77°F) |
| Max. discharge current | 700A (5s) |
| Internal resistance | Approx. 6.4mΩ |
| Operating temperature range | Discharge : -20~55°C (-4~131°F) Charge : 0~40°C (32~104°F) Storage : -20~50°C (-4~122°F) |
| Nominal operating temp. range | 25 ± 3°C (77 ± 5°F) |
| Cycle use | Initial charging current less than 1.4A. Voltage 14.4V~15.0V at 25°C (77°F) Temp. Coefficient -30mV/°C |
| Standby use | No limit on initial charging current voltage 13.5V~13.8V at 25°C (77°F) Temp. Coefficient -20mV/°C |
| Capacity according to temperature | 40°C (104°F) : 103% 25°C (77°F) : 100% 0°C (32°F) : 86% |
| Self discharge | CG Power GEL series batteries may be stored for up to 9 months at 25°C (77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter. |

Constant Current Discharge (Amperes) at 25°C (77°F)

| F.V/Time | 10 min | 15 min | 20 min | 30 min | 45 min | 1 h | 2 h | 3 h | 4 h | 5 h | 6 h | 8 h | 10 h | 20 h |
|------------|--------|--------|--------|--------|--------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 79.1 | 68.5 | 61.5 | 49.0 | 37.3 | 31.1 | 19.5 | 14.7 | 12.1 | 10.3 | 8.96 | 7.23 | 6.14 | 3.41 |
| 1.80V/cell | 95.0 | 79.2 | 70.1 | 54.6 | 41.9 | 34.6 | 21.2 | 15.9 | 12.9 | 11.0 | 9.51 | 7.63 | 6.46 | 3.50 |
| 1.75V/cell | 110.2 | 90.1 | 77.9 | 59.4 | 44.6 | 36.6 | 22.3 | 16.6 | 13.4 | 11.3 | 9.81 | 7.82 | 6.55 | 3.55 |
| 1.70V/cell | 122.4 | 98.1 | 83.6 | 63.0 | 46.7 | 38.3 | 23.4 | 17.2 | 13.8 | 11.6 | 10.1 | 7.99 | 6.66 | 3.61 |
| 1.65V/cell | 131.1 | 103.1 | 87.1 | 65.4 | 48.5 | 39.6 | 24.0 | 17.7 | 14.1 | 11.9 | 10.3 | 8.11 | 6.77 | 3.65 |
| 1.60V/cell | 142.9 | 110.3 | 93.2 | 69.3 | 51.3 | 41.5 | 24.9 | 18.3 | 14.6 | 12.2 | 10.5 | 8.22 | 6.87 | 3.68 |

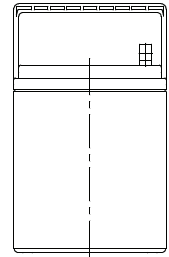
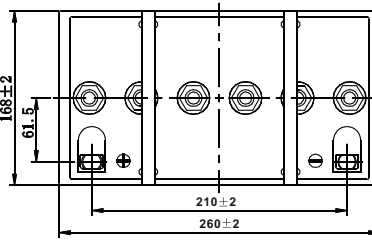
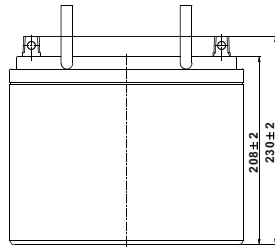
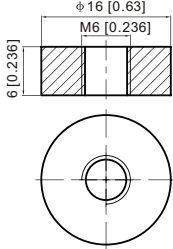
Constant Power Discharge (Watts/cell) at 25°C (77°F)

| F.V/Time | 10 min | 15 min | 20 min | 30 min | 45 min | 1 h | 2 h | 3 h | 4 h | 5 h | 6 h | 8 h | 10 h | 20 h |
|------------|--------|--------|--------|--------|--------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 148.6 | 129.7 | 117.5 | 94.2 | 72.2 | 60.5 | 38.1 | 28.8 | 23.7 | 20.3 | 17.7 | 14.4 | 12.2 | 6.82 |
| 1.80V/cell | 175.9 | 147.6 | 131.9 | 103.9 | 80.5 | 67.0 | 41.2 | 30.9 | 25.2 | 21.5 | 18.7 | 15.1 | 12.8 | 6.98 |
| 1.75V/cell | 200.9 | 166.1 | 145.2 | 112.4 | 85.3 | 70.5 | 43.1 | 32.3 | 26.2 | 22.2 | 19.3 | 15.5 | 13.0 | 7.08 |
| 1.70V/cell | 219.9 | 179.0 | 154.5 | 118.3 | 88.8 | 73.3 | 45.1 | 33.3 | 26.9 | 22.7 | 19.8 | 15.8 | 13.2 | 7.18 |
| 1.65V/cell | 232.9 | 186.0 | 159.8 | 122.0 | 91.7 | 75.6 | 46.1 | 34.2 | 27.4 | 23.2 | 20.1 | 16.0 | 13.4 | 7.26 |
| 1.60V/cell | 249.2 | 196.2 | 169.2 | 127.9 | 96.1 | 78.7 | 47.5 | 35.1 | 28.1 | 23.8 | 20.5 | 16.2 | 13.6 | 7.32 |

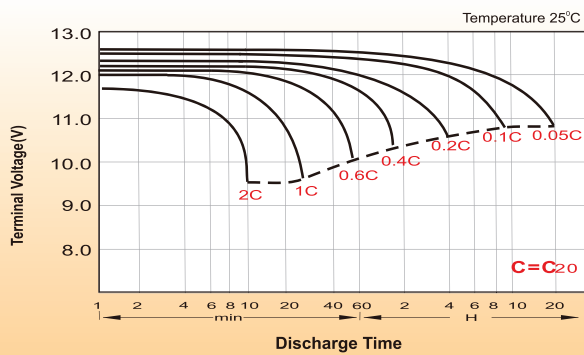
Dimensions

T6 Terminal

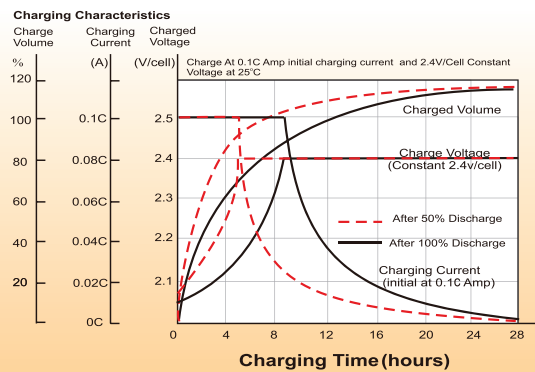
Unit: mm [inches]



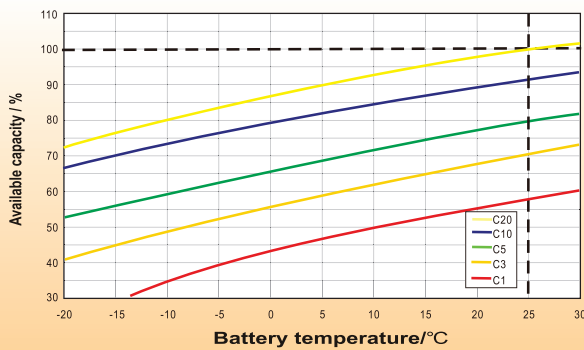
Discharge Characteristics



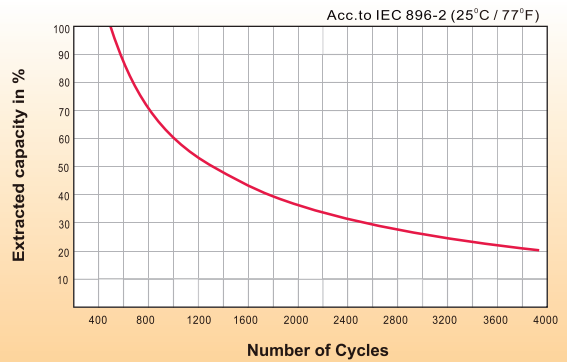
Charging Characteristics (cycle use)



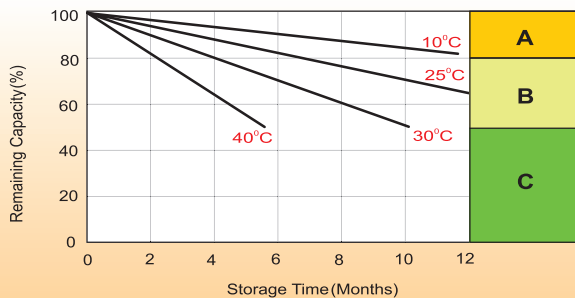
Temperature Effects in Relation to Battery Capacity



Cycle Life in Relation to Depth of Discharge



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 limited 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.