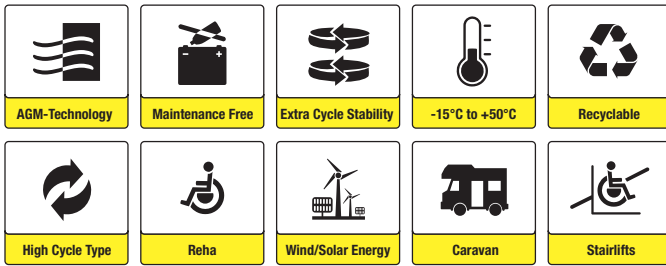




⊕⊖ **sunbattery**®

HC12-80 M6 (12V80Ah)



Applications

- Electric tools
- Vehicle in place of walking
- Lawn mowers
- Golf trolleys
- Portable apparatus, lights and instruments
- Electric toys
- Portable power
- Wheelchairs
- Medical equipments
- Wind/Solar energy
- Electric boats
- Caravan



Certificates



Conform to IEC60896-21&22

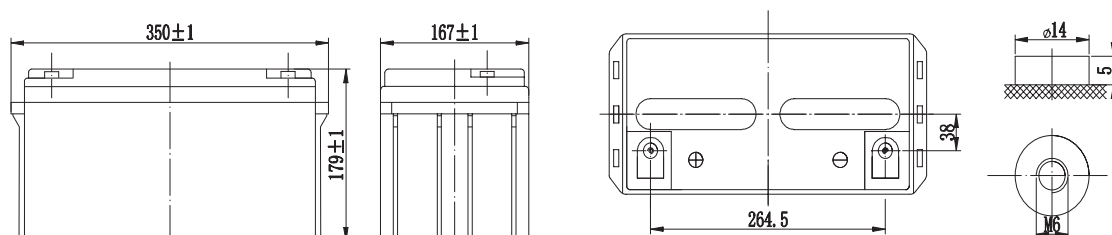
Specifications

| | | | |
|-------------------------------|---|-----------------------------------|--|
| Nominal Voltage | 12V | Nominal Oper. Temp. R. | 25±3°C |
| Nominal Capacity | 82Ah (C ₂₀ , 1.80V/cell) | Cycle Use | Initial Charging Current less than 24.0A. Voltage 14.55V +-1% at 25°C. Temperature Coefficient -30mV/°C. |
| Approx. Weight | 23.5kg | Standby Use | Initial Charging Current less than 24.0A. Voltage 13.65V +-1% at 25°C Temp. Coefficient -20mV/°C |
| Terminal | M6 | Capacity affected by Temp. | 40°C 103% 25°C 100% 0°C 86% |
| Container Material | ABS UL94 HB | Self Discharge | HC batteries may be stored for up to 6 months at 25°C and then a freshening charge is required. For higher temperatures the time interval will be shorter. |
| Rated Capacity (25°C) | 82.0Ah/4.1A, 20hr, 1.80V/cell 80.0Ah/8.0A, 10hr, 1.80V/cell 71Ah/14.2A, 5hr, 1.75V/cell 63.3Ah/21.1A, 3hr, 1.60V/cell 50.8Ah/50.8A, 1hr, 1.60V/cell | Cycle Life | Approx. 650 Cycles at 50% DOD |
| Max. Discharge Current | 750A (5s) | | |
| Internal Resistance | Approx. 5.5mΩ | | |
| Operating Temp. Range | Discharge: -15~50°C Charge: 0-40°C Storage: -15~40°C | | |

Dimensions

■ M6 Terminal

Unit: mm | Dimensions: 350 Length X 167 Width X 179 Height (179 Height incl. Terminal)





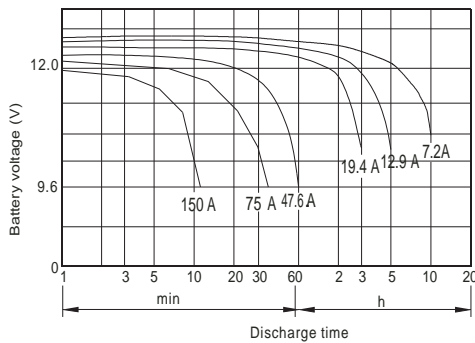
Constant Current Discharge (Amperes) at 25°C

| End Point | 5min | 10min | 15min | 30min | 1h | 3h | 5h | 10h | 20h |
|------------|------|-------|-------|-------|------|------|-------|------|------|
| 1.60V/cell | 259 | 195 | 149 | 89.3 | 50.8 | 21.1 | 14.67 | 8.31 | 4.43 |
| 1.65V/cell | 251 | 185 | 143 | 87.6 | 49.9 | 21.0 | 14.5 | 8.23 | 4.35 |
| 1.70V/cell | 237 | 174 | 138 | 85.4 | 49.3 | 20.9 | 14.3 | 8.15 | 4.27 |
| 1.75V/cell | 220 | 165 | 131 | 83.7 | 48.6 | 20.5 | 14.2 | 8.07 | 4.18 |
| 1.80V/cell | 200 | 155 | 123 | 81.2 | 47.8 | 20.1 | 14.0 | 8.0 | 4.1 |

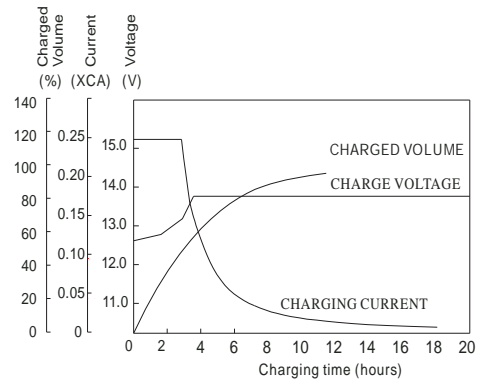
Constant Power Discharge (Watts/cell) at 25°C

| End Point | 5min | 10min | 15min | 30min | 1h | 3h | 5h | 10h | 20h |
|------------|------|-------|-------|-------|------|------|------|-------|------|
| 1.60V/cell | 443 | 330 | 280 | 158 | 104 | 41 | 27.3 | 16.58 | 9.27 |
| 1.65V/cell | 420 | 318 | 266 | 156 | 102 | 38.5 | 26.9 | 16.5 | 9.15 |
| 1.70V/cell | 398 | 306 | 252 | 153 | 99.5 | 37 | 26.5 | 16.42 | 9.04 |
| 1.75V/cell | 376 | 293 | 236 | 151 | 97.5 | 36.5 | 26 | 16.18 | 8.81 |
| 1.80V/cell | 356 | 282 | 221 | 147 | 95.5 | 35.5 | 25.3 | 15.52 | 8.37 |

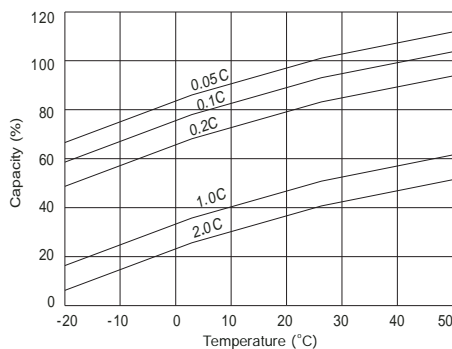
Discharge Characteristics



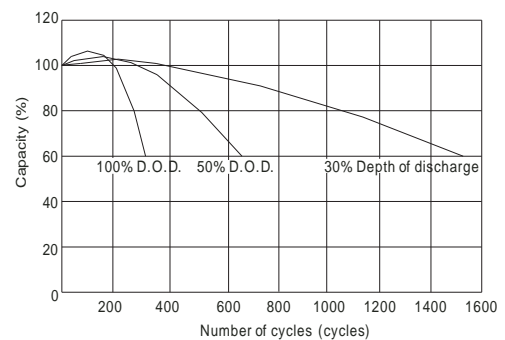
Float Charging Characteristics



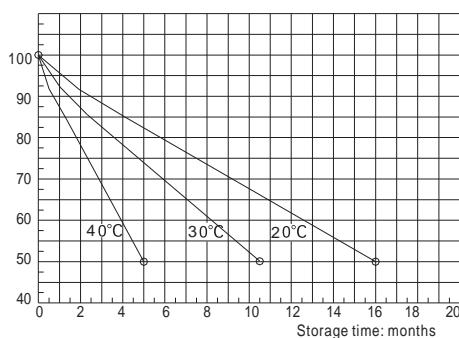
Temperature Effects in Relation to Battery Capacity



Cycle Service Life in Relation to Depth of Discharge



Self Discharge Characteristics



Temperature Effects on Float Life

