

FT12-105Ah 12V105Ah

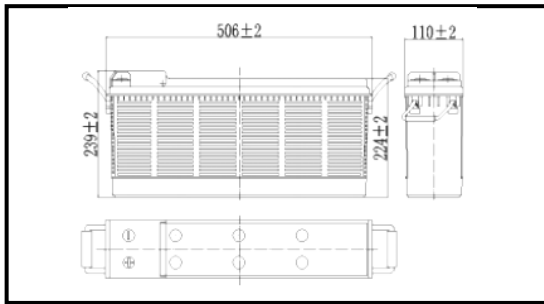
Valve Regulated Lead Acid Battery



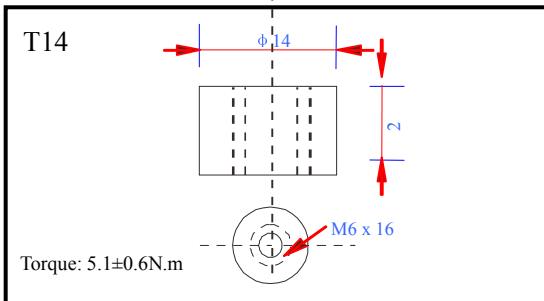
Specifications

| | | |
|-----------------------|------------------------|---------------------|
| Nominal voltage | 12V (6 cells per unit) | |
| Rated capacity (10HR) | 105Ah/10.8V | |
| Dimensions | Length | 506±2mm (19.92inch) |
| | Width | 110±2mm (4.33inch) |
| | Height | 224±2mm (8.82inch) |
| | Total height | 239±2mm (9.41inch) |
| Approx. weight | 32.00kg (70.50lbs)±3% | |

Outer dimensions (mm)



Terminal type (mm)



Characteristics

| | | |
|---|---|--|
| Capacity (25°C) | 10HR (10.8V) | 105Ah |
| | 3HR (10.8V) | 79Ah |
| | 1HR (10.5V) | 58Ah |
| Terminal type | | T14 |
| Internal resistance (Fully charged, 25°C) | | Approx. 5mΩ |
| Capacity affected by temperature (10HR) | 40°C | 102% |
| | 25°C | 100% |
| | 0°C | 85% |
| | -15°C | 65% |
| Self-discharge (25°C) | 3 months | Remaining capacity: 91% |
| | 6 months | Remaining capacity: 82% |
| | 12 months | Remaining capacity: 65% |
| Nominal operating temperature | | 25°C±3°C (77°F±5°F) |
| Operating temperature range | Discharge | -15°C~50°C (5°F~122°F) |
| | Charge | -10°C~50°C (14°F~122°F) |
| | Storage | -20°C~50°C (-4°F~122°F) |
| Float charging voltage (25°C) | | 13.50 to 13.80V Temperature compensation: -18mV/°C/Block |
| Cyclic charging voltage (25°C) | | 14.50 to 15.00V Temperature compensation: -30mV/°C/Block |
| Maximum charging current | | 31.5A |
| Maximum discharge current | | 800A (5 sec.) |
| Design life | 12 years for floating (25°C) | |
| | Eurobat (20°C): 10-12 years, long life. | |

Construction

| Component | Positive plate | Negative plate | Container | Cover | Separator | Electrolyte | Safety valve | Terminal |
|--------------|----------------|----------------|-----------|-------|-----------|---------------|--------------|----------|
| Raw material | Lead dioxide | Lead | ABS | ABS | AGM | Sulfuric acid | Rubber | Copper |

Constant current discharge characteristics unit: Ampere/Block (at 25°C, 77°F)

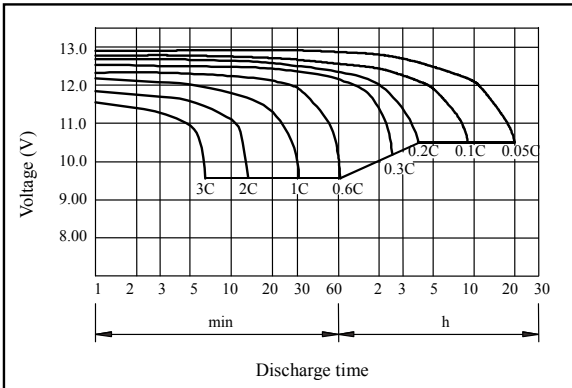
| F.V/Time | 10min | 15min | 30min | 60min | 2h | 3h | 4h | 5h | 8h | 10h | 20h |
|----------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 9.60V | 224 | 173 | 103 | 63.6 | 38.4 | 27.6 | 22.1 | 18.8 | 13 | 10.7 | 5.67 |
| 9.90V | 218 | 169 | 101 | 62.6 | 38.1 | 27.5 | 21.9 | 18.7 | 12.9 | 10.7 | 5.65 |
| 10.2V | 209 | 162 | 98.2 | 61 | 37.8 | 27.3 | 21.8 | 18.6 | 12.8 | 10.6 | 5.64 |
| 10.5V | 200 | 157 | 95.9 | 59.1 | 37.2 | 27.1 | 21.6 | 18.5 | 12.7 | 10.6 | 5.6 |
| 10.8V | 188 | 149 | 92.3 | 57.2 | 36.3 | 26.3 | 21 | 17.9 | 12.3 | 10.5 | 5.57 |

Constant power discharge characteristics unit: Watt/Block (at 25°C, 77°F)

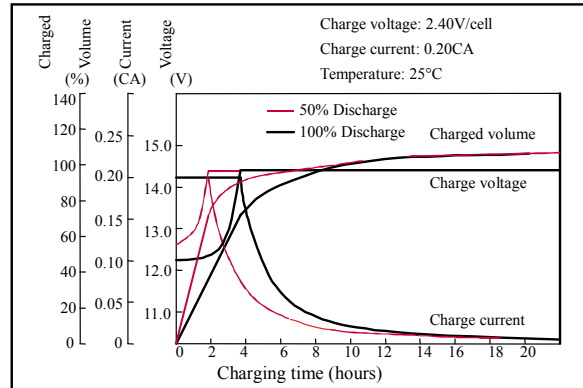
| F.V/Time | 10min | 15min | 30min | 60min | 2h | 3h | 4h | 5h | 8h | 10h | 20h |
|----------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|------|
| 9.60V | 2423 | 1898 | 1160 | 725 | 444 | 325 | 259 | 223 | 154 | 128 | 68 |
| 9.90V | 2350 | 1853 | 1137 | 714 | 442 | 323 | 258 | 221 | 153 | 127 | 67.8 |
| 10.2V | 2253 | 1784 | 1102 | 696 | 438 | 321 | 256 | 220 | 152 | 127 | 67.6 |
| 10.5V | 2156 | 1724 | 1076 | 674 | 431 | 319 | 254 | 218 | 151 | 126 | 67.2 |
| 10.8V | 2035 | 1632 | 1036 | 652 | 420 | 309 | 247 | 212 | 146 | 125 | 66.8 |

Note 1: Above characteristics data can be obtained within three charge and discharge cycles.

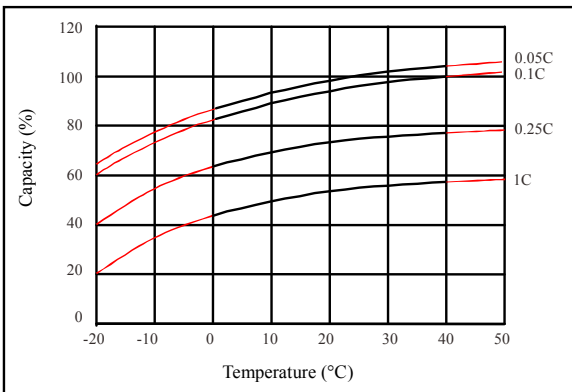
● Discharge characteristics (25°C)



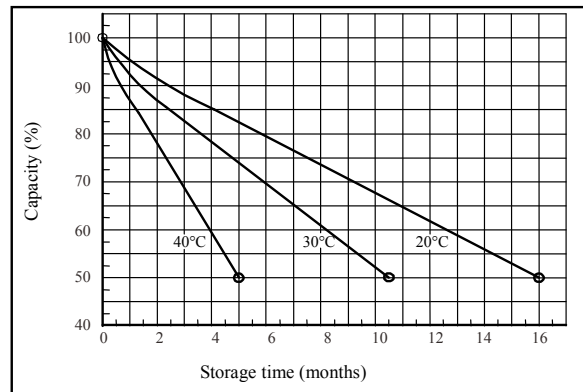
● Charging characteristics (25°C)



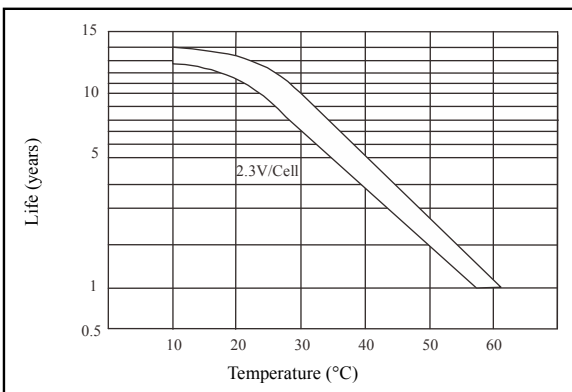
● Temperature effects on capacity



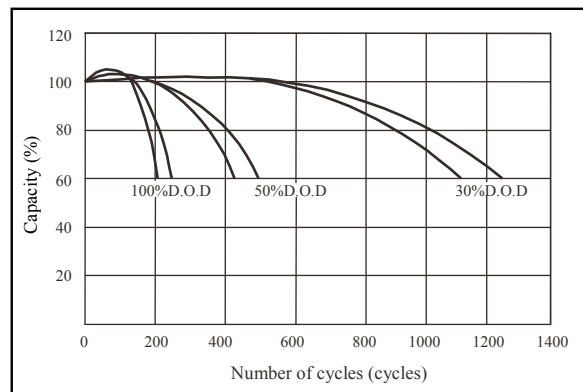
● Self-discharge characteristics



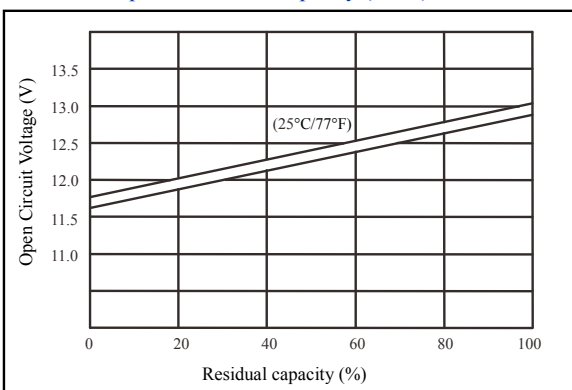
● Floating life on temperature



● Cycle life on D.O.D (25°C)



● Relationship for OCV and capacity (25°C)



● Relationship for charging voltage and temperature

