

VT-7-12

SKU 23467



12V7Ah (20hr)



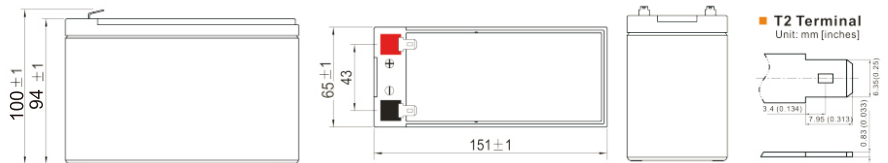
Specification

| | |
|------------------------|---|
| Nominal Voltage | 12V |
| Nominal Capacity | 7Ah |
| Design life | 5 years |
| Terminal | T2 |
| Approx. Weight | Approx. 2.04 kg (4.49 lbs) |
| Container Material | ABS |
| Rated Capacity | 7.00Ah 20Hour Rate (0.350A to 10.8V) |
| | 6.53Ah 10Hour Rate (0.653A to 10.8V) |
| | 5.13Ah 3Hour Rate (1.710A to 10.5V) |
| Internal resistance | Full charged at 25 °C: 28 Ohm |
| Max. Discharge Current | 105A(5S) |
| Operating Temperature | Discharge: -15 ~50°C (5~ 122 °F) |
| | Charge: 0~40°C (32~104 °F) |
| | Storage: -15~40°C (5~104 °F) |
| Charge Method (25 °C) | Max. charge Current: 2.1A |
| | Cycle use: 14.4-15.0V(-30mV/ °C) Float use : 13.5-13.8V(-20mV/ °C) |
| Self discharge | 3% of capacity declined per month at 20°C |

Application

- > General purpose
- > Uninterruptable Power Supply
- > Electric Power System (EPS) Emergency
- > Backup power supply
- > Auto control system
- > Emergency light
- > Railway signal
- > Aircraft signal
- > Alarm and security system Electronic
- > Medical equipments

Unit: mm Dimension: 151(L)×65(W) ×94(H)×100(TH)



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

| F.V/Time | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|-------|-------|-------|
| 1.85V/cell | 16.0 | 11.7 | 9.97 | 8.46 | 6.17 | 4.52 | 3.60 | 2.14 | 1.60 | 1.31 | 1.10 | 0.95 | 0.756 | 0.626 | 0.343 |
| 1.80V/cell | 19.2 | 13.7 | 11.3 | 9.20 | 6.65 | 4.80 | 3.83 | 2.24 | 1.66 | 1.35 | 1.14 | 0.99 | 0.783 | 0.653 | 0.350 |
| 1.75V/cell | 21.5 | 14.9 | 12.0 | 9.70 | 6.92 | 4.99 | 3.98 | 2.31 | 1.71 | 1.38 | 1.16 | 1.01 | 0.795 | 0.663 | 0.357 |
| 1.70V/cell | 23.4 | 15.9 | 12.8 | 10.2 | 7.18 | 5.12 | 4.05 | 2.36 | 1.75 | 1.41 | 1.19 | 1.03 | 0.812 | 0.672 | 0.361 |
| 1.65V/cell | 25.5 | 16.8 | 13.4 | 10.6 | 7.43 | 5.28 | 4.17 | 2.40 | 1.77 | 1.43 | 1.21 | 1.04 | 0.823 | 0.680 | 0.365 |
| 1.60V/cell | 26.8 | 17.6 | 13.8 | 10.9 | 7.64 | 5.42 | 4.26 | 2.46 | 1.81 | 1.46 | 1.23 | 1.06 | 0.837 | 0.690 | 0.371 |

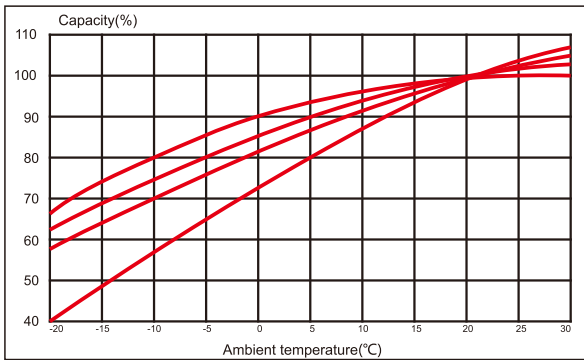
Constant Power Discharge (Watts) at 25 °C (77°F)

| F.V/Time | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|-------|
| 1.85V/cell | 30.3 | 22.3 | 19.2 | 16.4 | 12.0 | 8.86 | 7.09 | 4.23 | 3.17 | 2.59 | 2.20 | 1.91 | 1.52 | 1.26 | 0.694 |
| 1.80V/cell | 35.9 | 25.8 | 21.5 | 17.7 | 12.9 | 9.37 | 7.52 | 4.42 | 3.30 | 2.69 | 2.27 | 1.97 | 1.57 | 1.31 | 0.704 |
| 1.75V/cell | 39.8 | 28.0 | 22.8 | 18.6 | 13.4 | 9.72 | 7.79 | 4.55 | 3.37 | 2.74 | 2.31 | 2.00 | 1.59 | 1.33 | 0.716 |
| 1.70V/cell | 42.8 | 29.5 | 24.0 | 19.3 | 13.8 | 9.89 | 7.88 | 4.61 | 3.42 | 2.78 | 2.34 | 2.03 | 1.61 | 1.33 | 0.718 |
| 1.65V/cell | 45.7 | 30.7 | 24.8 | 19.8 | 14.1 | 10.1 | 8.02 | 4.65 | 3.45 | 2.80 | 2.36 | 2.05 | 1.62 | 1.34 | 0.720 |
| 1.60V/cell | 47.0 | 31.5 | 25.1 | 20.1 | 14.3 | 10.3 | 8.13 | 4.73 | 3.50 | 2.83 | 2.39 | 2.07 | 1.63 | 1.35 | 0.728 |

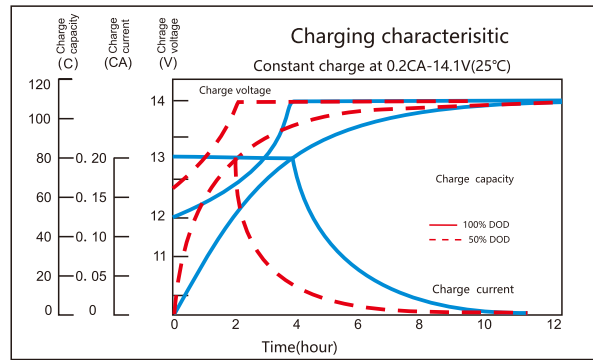
12V7Ah (20hr)

Model Performance Diagrams

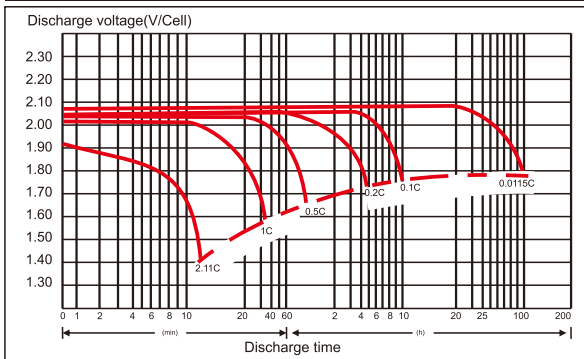
Curves of discharge capacity and ambient temperature



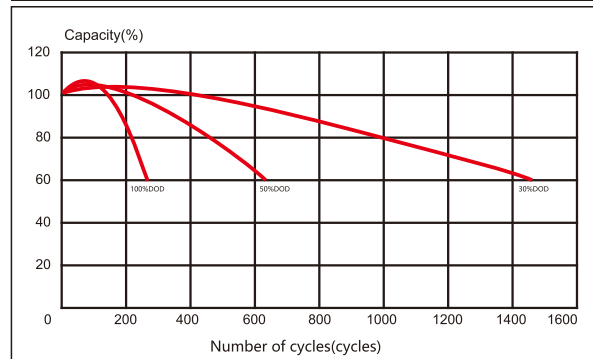
Curves of charging characteristics



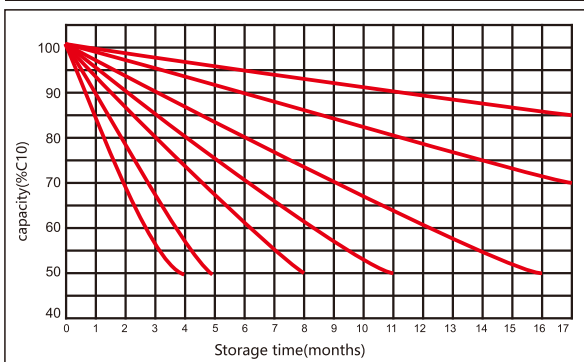
Discharge characteristics at different discharge rate(20°C)



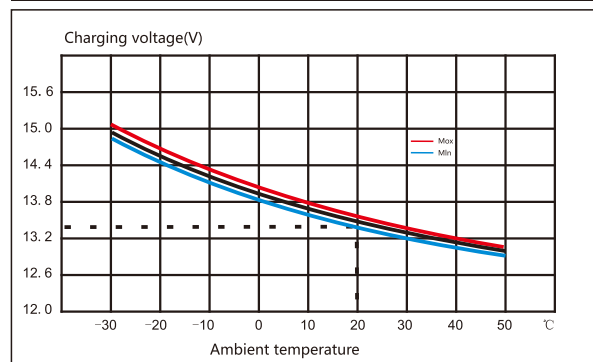
Curves of cycle life



Curves of self-discharge and storage time



Curves of float voltage and ambient temperature



| Application type | Charge Voltage(V) | | | Max charge current (A) |
|------------------|-------------------|-----------|--------------------------|------------------------|
| | Temp (°C) | Set point | Temperature compensation | |
| Cycle use | 25 | 14.4 | -5mV/°C/cell | 0.25C |
| Float use | 25 | 13.65 | -3mV/°C/cell | |

| The relationship between discharge current and voltage | | | | |
|--|-------|-------|-------|------|
| Discharge rate | 1hr | 3hr | 8hr | 10hr |
| End voltage (V) | 10.5 | 10.8 | 10.8 | 10.8 |
| Discharge current (A) | 0.55C | 0.25C | 0.12C | 0.1C |

