



# GENERAL PURPOSE **BATTERIES**

ST6-14 (6V 14Ah)



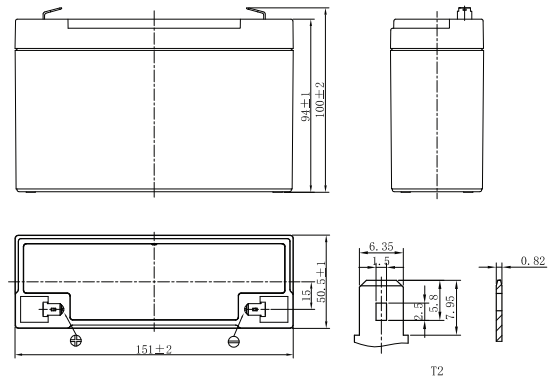
[www.starmaxbatteries.com](http://www.starmaxbatteries.com)

# ST SERIES - GENERAL PURPOSE

## ST6-14



### LAYOUT



## General Features

- ✓ 5 years design life(25°C)
- ✓ Special exhaust structure and sealing technology, safe and reliable, flexible installation, convenient maintenance
- ✓ PbCaSn alloy for plate grids: less gassing, less self-discharging
- ✓ High quality AGM separator: extend cycle life and prevent micro short circuit
- ✓ High purity raw material: ensure low self discharge rate

## Applications

- ✓ All purpose
- ✓ Uninterruptable Power Supply (UPS)
- ✓ Electric Power System (EPS)
- ✓ Emergency backup power supply
- ✓ Alarm and security system
- ✓ Communication power supply
- ✓ DC power supply
- ✓ Auto control system

## Standards

- ✓ Compliance with IEC 60896 standards, EU Battery Directive
- ✓ UL, CE Certified
- ✓ Manufactured in Starmax® IATF16949, ISO45001, ISO 9001 and ISO 14001 certified production facilities



# SPECIFICATIONS

|                               |   |                               |
|-------------------------------|---|-------------------------------|
| Rated Voltage                 | 6V  |                               |
| Nominal Capacity              | 14.0Ah  | (C <sub>20</sub> ,1.75V/cell) |
| Dimensions                    | Length  | 151±2mm (5.94 inches)         |
|                               | Width   | 50.5±1mm (1.99 inches)        |
|                               | Container height  | 94±1mm (3.70 inches)          |
|                               | Total height  | 100±2mm (3.94 inches)         |
| Approx. weight                | 1.9 Kg (4.19 lbs)   |                               |
| Terminal                      | T1/T2   |                               |
| Container material            | ABS   |                               |
| Rated capacity (25°C)         | 14.0 Ah   | (20hr,0.700A,1.75V/cell)      |
|                               | 13.2 Ah   | (10hr,1.32A,1.75V/cell)       |
|                               | 12.1 Ah   | (5hr,2.41A,1.75V/cell)        |
|                               | 10.7 Ah   | (3hr,3.57A,1.75V/cell)        |
|                               | 9.20 Ah   | (1hr,9.20A,1.60V/cell)        |
| Max. discharge current        | 210A (5s)   |                               |
| Internal resistance (25°C)    | Approx 14mΩ   |                               |
| Operating temp. range         | Discharge   | -15~50°C (5~122°F)            |
|                               | Charge  | -20~40°C (-4~104°F)           |
|                               | Storage   | -15~40°C (5~104°F)            |
| Nominal operating temp. range | 25±3°C (77±5°F)   |                               |
| Cycle Use                     | Initial Charging Current less than 4.2A. Voltage 7.2V~7.5V at 25°C(77°F)Temp. Coefficient -15mV/°C  |                               |
| Standby Use                   | Initial Charging Current less than 4.2A. Voltage 6.75V~6.9V at 25°C(77°F)Temp. Coefficient -10mV/°C   |                               |
| Effect of temp. to Capacity   | 40°C (104°F)  | 103%                          |
|                               | 25°C (77°F)   | 100%                          |
|                               | 0°C (32°F)  | 86%                           |
| Self discharge                | ST series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter. |                               |

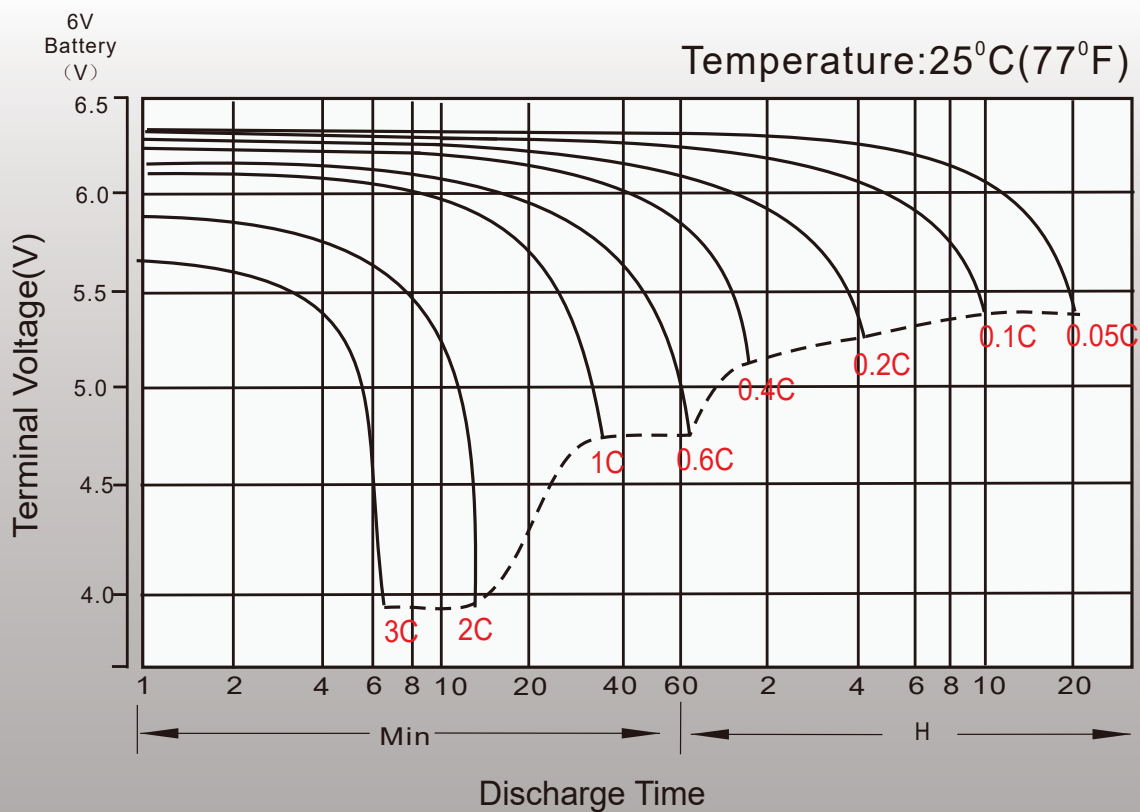
### Constant Current Discharge (Amperes) at 25°C (77°F)

| F.V/Time   | 5min | 10min | 15min | 20min | 30min | 45min | 1h   | 1.5h | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h   |
|------------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|-------|
| 1.85V/cell | 44.2 | 30.3  | 23.6  | 19.2  | 13.9  | 10.2  | 8.33 | 6.10 | 4.79 | 3.46 | 2.76 | 2.35 | 2.01 | 1.58 | 1.29 | 0.684 |
| 1.80V/cell | 47.5 | 32.1  | 24.7  | 19.9  | 14.3  | 10.4  | 8.53 | 6.23 | 4.88 | 3.52 | 2.80 | 2.38 | 2.04 | 1.60 | 1.31 | 0.692 |
| 1.75V/cell | 50.0 | 33.4  | 25.5  | 20.5  | 14.7  | 10.7  | 8.70 | 6.34 | 4.97 | 3.57 | 2.83 | 2.41 | 2.06 | 1.62 | 1.32 | 0.700 |
| 1.70V/cell | 52.4 | 34.7  | 26.4  | 21.1  | 15.1  | 10.9  | 8.86 | 6.45 | 5.04 | 3.62 | 2.87 | 2.44 | 2.09 | 1.64 | 1.34 | 0.706 |
| 1.67V/cell | 54.2 | 35.7  | 27.0  | 21.5  | 15.3  | 11.1  | 9.00 | 6.53 | 5.10 | 3.66 | 2.90 | 2.46 | 2.11 | 1.65 | 1.35 | 0.711 |
| 1.60V/cell | 57.5 | 37.2  | 28.0  | 22.2  | 15.8  | 11.4  | 9.20 | 6.67 | 5.20 | 3.73 | 2.95 | 2.50 | 2.14 | 1.68 | 1.36 | 0.719 |

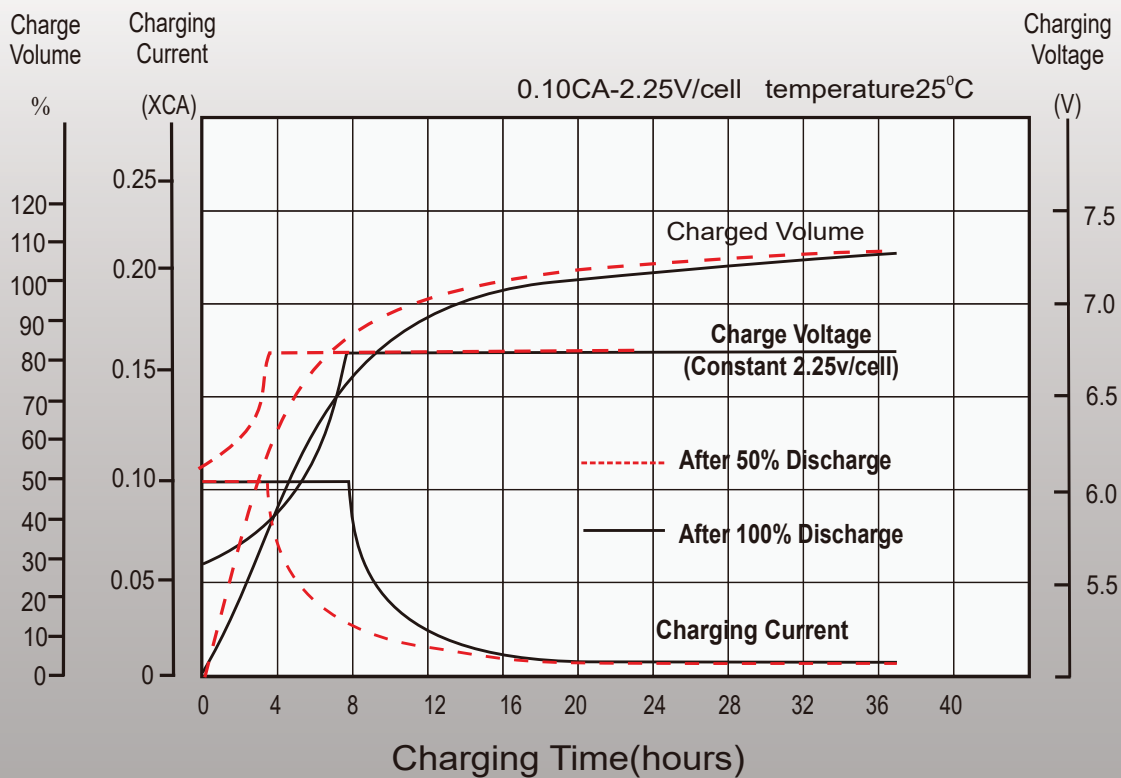
### Constant Power Discharge (Watts/cell) at 25°C (77°F)

| F.V/Time   | 5min  | 10min | 15min | 20min | 30min | 45min | 1h   | 1.5h | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 83.5  | 57.6  | 45.1  | 36.9  | 26.9  | 19.7  | 16.2 | 11.9 | 9.38 | 6.80 | 5.43 | 4.63 | 3.97 | 3.14 | 2.57 | 1.37 |
| 1.80V/cell | 89.0  | 60.7  | 47.1  | 38.2  | 27.6  | 20.2  | 16.5 | 12.1 | 9.53 | 6.90 | 5.50 | 4.69 | 4.03 | 3.18 | 2.60 | 1.38 |
| 1.75V/cell | 92.7  | 62.6  | 48.3  | 39.0  | 28.2  | 20.5  | 16.8 | 12.3 | 9.68 | 6.99 | 5.57 | 4.74 | 4.07 | 3.21 | 2.63 | 1.40 |
| 1.70V/cell | 96.1  | 64.7  | 49.6  | 39.9  | 28.8  | 20.9  | 17.1 | 12.5 | 9.80 | 7.08 | 5.63 | 4.80 | 4.11 | 3.24 | 2.65 | 1.41 |
| 1.67V/cell | 98.7  | 66.2  | 50.7  | 40.7  | 29.2  | 21.2  | 17.3 | 12.6 | 9.89 | 7.14 | 5.68 | 4.84 | 4.15 | 3.27 | 2.67 | 1.42 |
| 1.60V/cell | 102.7 | 68.1  | 52.1  | 41.7  | 29.8  | 21.6  | 17.6 | 12.8 | 10.1 | 7.25 | 5.76 | 4.90 | 4.20 | 3.31 | 2.70 | 1.44 |

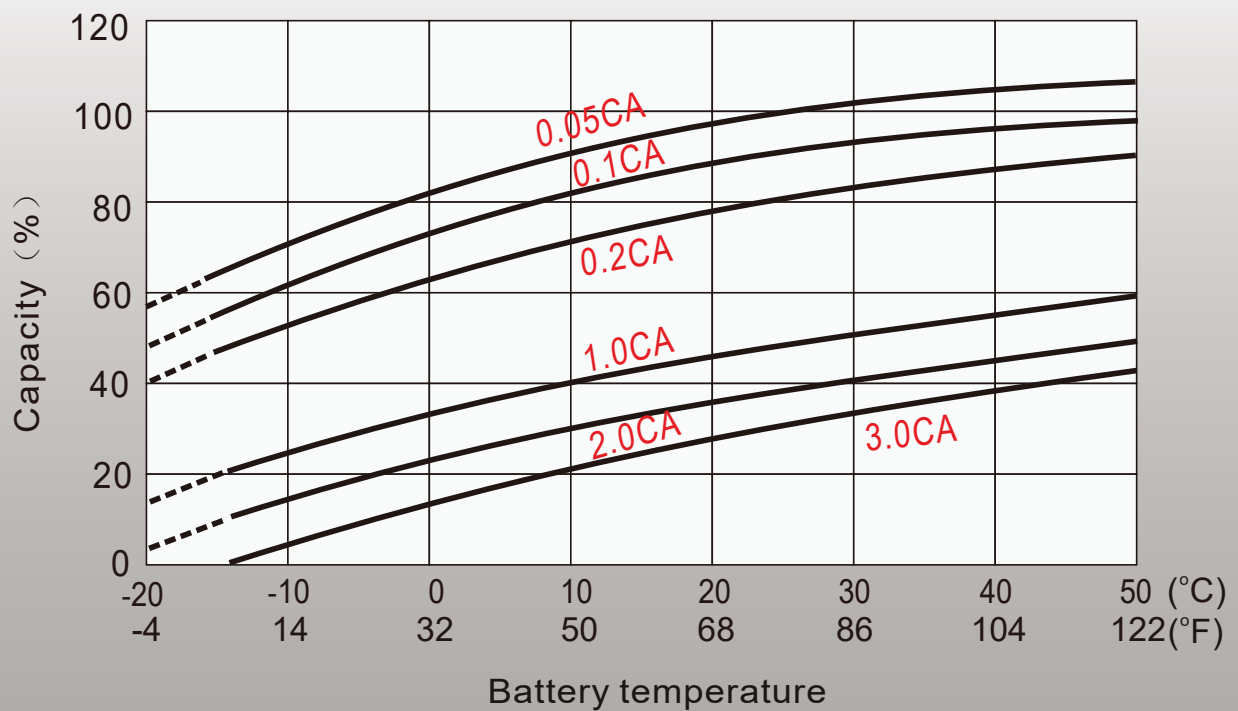
## Discharge Characteristics



# Float Charging Characteristics



# Temperature Effects in Relation to Battery Capacity



# Float Service Life



# ST6-14 (6V 14Ah)



## Starmax Corporation

1585 Cliveden Avenue, Delta, British Columbia  
V3M 6M1, Canada

Phone: +1 888 669 1310

Email: [info@starmaxbatteries.com](mailto:info@starmaxbatteries.com)

Website: [www.starmaxbatteries.com](http://www.starmaxbatteries.com)

