

## Solar battery ( Gel )

Model: WT-SG100-12 (12V100AH)

### Application

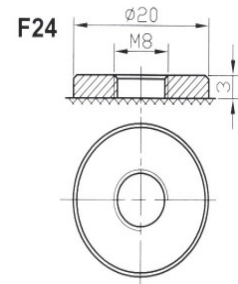
- Solar system
- Wind system
- Communication equipment
- Security and control equipment
- Mobile electrical devices



### General features

- Excellent recovery from deep discharge
- Extremely low self-discharge rate
- Longer life in deep cycle applications
- High power density and quality

### Terminal



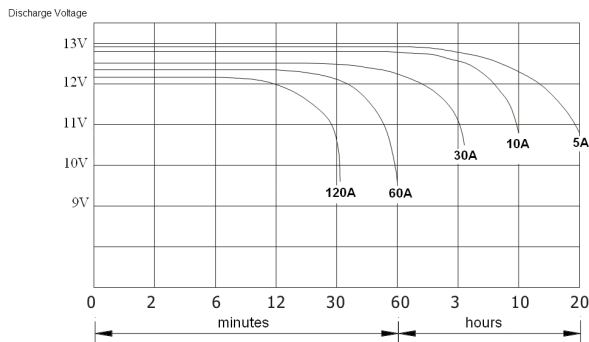
|   |                                  |             |                  |               |
|---|----------------------------------|-------------|------------------|---------------|
| Nominal voltage                         | 12V                              |             |                  |               |
| Nominal capacity                        | 100AH                            |             |                  |               |
| Dimensions                              | length                           | width       | container height | total height  |
|   | 330mm                            | 170mm       | 217mm            | 235mm         |
| Rated Capacity (25°C)                   | 10HR (10A)                       | 20HR (515A) | 120HR (0,88A)    | 240HR (0,45A) |
|   | 100AH                            | 103AH       | 106AH            | 110AH         |
| Weight                                  | 31Kg                             |             |                  |               |
| Internal Resistance                     | Fully charged at 25°C: 0,0045Ohm |             |                  |               |
| Capacity affected by Temperature (10HR) | 40°C                             | 25°C        | 0°C              |               |
|   | 103%                             | 100%        | 86%              |               |

|   |  |
|---|--|
| <b>Cycle application</b>  | <ol style="list-style-type: none"> <li>1. Limit initial current less than 20A.</li> <li>2. Charge until battery voltage (under charge) reaches 14.1V to 14.4V at 25°C(77F).</li> <li>3. Hold at 14.1V to 14.4V until current drop to under 0.6A for at least 3 hours.</li> <li>4. Temperature compensation coefficient of charging voltage is -30mV/°C.</li> </ol> |
| <b>Standby service</b>  | <ol style="list-style-type: none"> <li>1. Hold battery across constant voltage source of 13.6 to 13.8 volts with current limit 20A continuously .When held at this voltage , the battery will seek its own current level and maintain itself in a fully charge status.</li> <li>2. Temperature compensation coefficient of charging voltage is -18mV/°C</li> </ol> |
| <p>NOTE : The battery should be charged within 9 months of storage ,Otherwise , permanent loss of capacity might occur as a result of sulfation</p> |  |

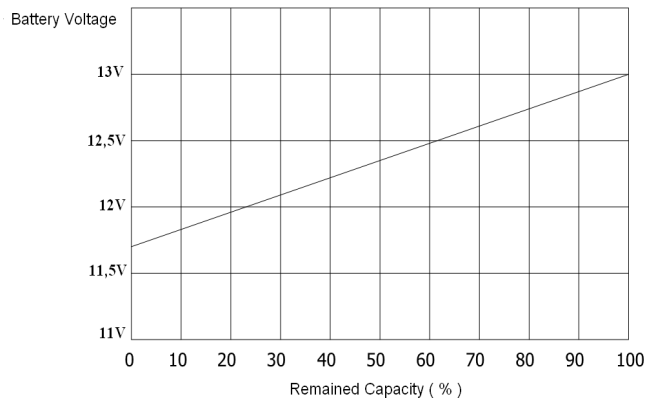
**Constant Discharge Data Sheet (Amperes at 25°C)**

| Voltage / Time | 1h    | 2h    | 4h    | 8h    | 10h   | 20h  | 48h  | 96h  | 120h | 240h |
|----------------|-------|-------|-------|-------|-------|------|------|------|------|------|
| <b>10,2V</b>   | 64.75 | 35.74 | 21.98 | 12.41 | 10.10 | 5.44 | 2.15 | 1.08 | 0.85 | 0.43 |
| <b>10,5V</b>   | 62.97 | 33.76 | 20.89 | 12.00 | 10.05 | 5.38 | 2.09 | 1.05 | 0.83 | 0.41 |
| <b>10,8V</b>   | 61.29 | 31.68 | 19.90 | 11.59 | 10.00 | 5.32 | 2.03 | 1.02 | 0.81 | 0.40 |
| <b>11,1V</b>   | 59.50 | 30.10 | 18.91 | 11.19 | 9.95  | 5.26 | 1.96 | 0.99 | 0.79 | 0.39 |
| <b>11,4V</b>   | 57.82 | 27.62 | 17.82 | 10.77 | 9.90  | 5.19 | 1.90 | 0.96 | 0.77 | 0.38 |

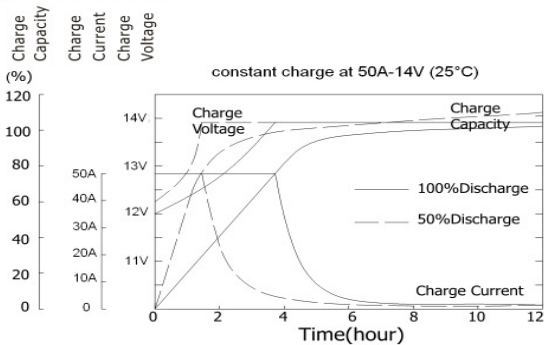
Discharge Characteristic 25°C



Relationship of OCV and state of charge



Charge Characteristic



Life expectancy cycle use

- 100% depth of discharge: 350 cycles
- 80% depth of discharge: 600 cycles
- 50% depth of discharge: 900 cycles
- 30% depth of discharge: 1500 cycles
- 20% depth of discharge: 1700 cycles



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