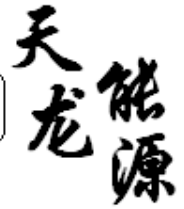
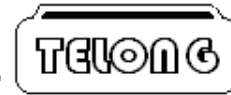


TELONG ENERGY TECHNOLOGY CO., LTD.



Specification  
for SEALED LEAD-ACID BATTERY

Model: TL1245

|                |  |
|----------------|--|
| Approved By    |  |
| Department     |  |
| Name           |  |
| Title          |  |
| Signature/Date |  |

(Remarks: The above table shall be filled by customer)

Issued by:     Ming Cai    

Checked by:     Fu Xiang    

Approved by:     TieGang Dong    

DATE:     2010-06-23    

**TELONG ENERGY TECHNOLOGY CO., LTD.**

Building B, Anjia Industrial Zone, HuanGuan South Road, GuanLan Town, ShenZhen, China

TEL: +86-755-29052355 、 29052353      FAX: +86-755-27981742

E-mail: [telongbattery@sztlg.com](mailto:telongbattery@sztlg.com)

<http://www.sztlg.com>

The rechargeable batteries are lead-lead dioxide systems. The dilute sulfuric acid electrolyte is absorbed by separators and plates and thus immobilized. Should the battery be accidentally overcharged producing hydrogen and oxygen, special one-way valves allow the gases to escape thus avoiding excessive pressure build-up. Otherwise, the battery is completely sealed and is, therefore, maintenance-free, leak proof and usable in any position. **GENERAL FEATURES**

Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.

Not restricted for air transport-complies with IATA/ICAO Special Provision A67.

Can be mounted in any orientation.

Computer designed lead, calcium tin alloy grid for high power density.

Long service life, float or cyclic applications.

Maintenance-free operation.

Low self discharge.

Case and cover available in both standard and flame retardant ABS.

**CONSTRUCTION**

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

**TECHNOLOGY PARAMETER**

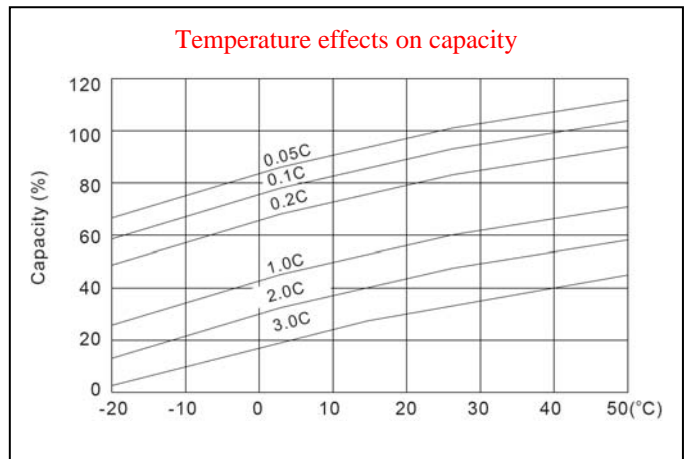
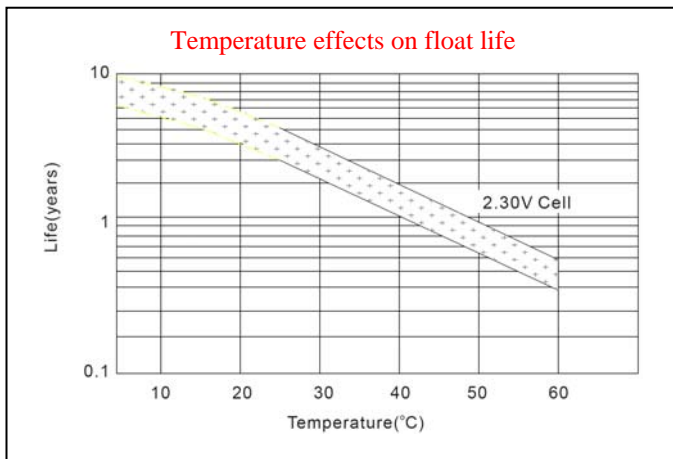
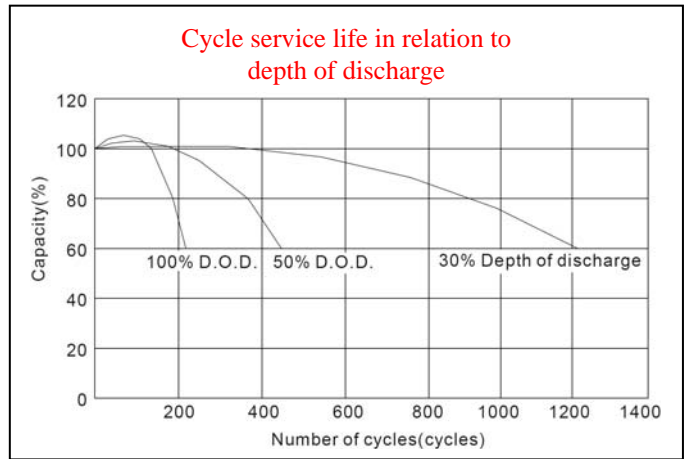
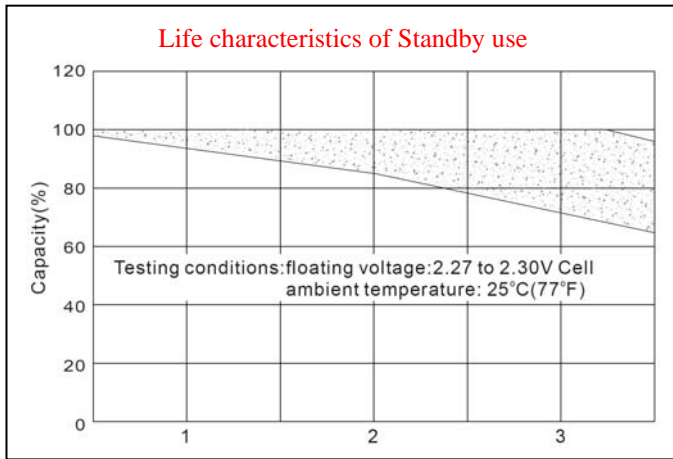
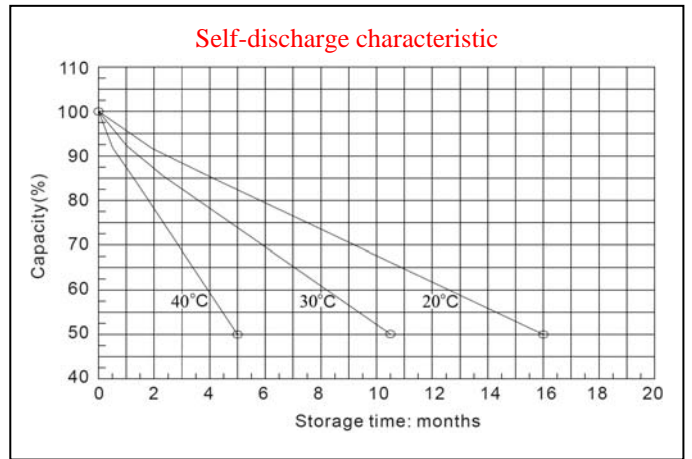
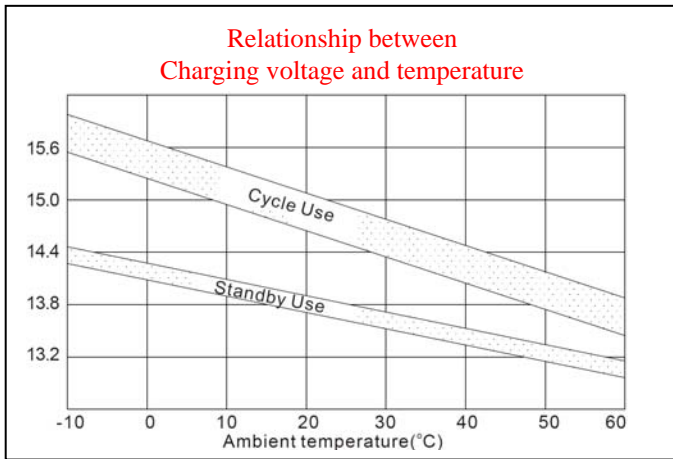
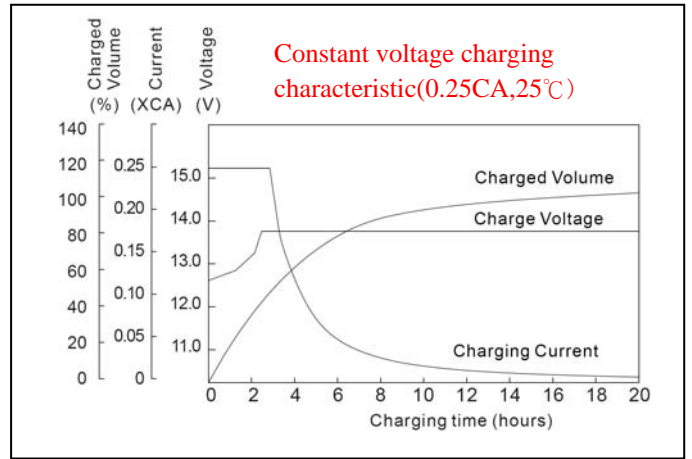
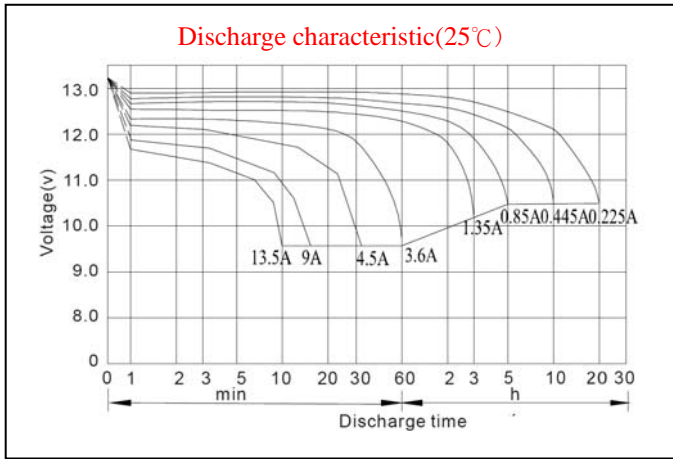
|                                  |  |                            |                          |                        |
|----------------------------------|--|----------------------------|--------------------------|------------------------|
| Battery model                    | TL1245   |                            |                          |                        |
| Nominal voltage                  | 12V  |                            |                          |                        |
| Number of cell                   | 6  |                            |                          |                        |
| Design Life                      | 5 years  |                            |                          |                        |
| Capacity<br>(25°C)               | 20 hour rate(0.225A,10.5V)                         | 10 hour rate(0.445A,10.5V) | 5 hour rate(0.85A,10.5V) | 1 hour rate(3.6A,9.6V) |
|                                  | 4.5Ah  | 4.45Ah                     | 4.25Ah                   | 3.6Ah                  |
| Dimensions                       | Length   | Width                      | Height                   | Total Height           |
|                                  | 90±1mm   | 70±1mm                     | 101±1mm                  | 107±1mm                |
| Approx. weight                   | 1.4Kg  |                            |                          |                        |
| Internal resistance              | Full charged at 25°C: 33mOhms                      |                            |                          |                        |
| Self discharge                   | 3% of capacity declined per month at 20°C(average) |                            |                          |                        |
| Operating temperature<br>range   | Discharge  | Charge                     |                          | Storage                |
|                                  | -20~60°C   | -10~60°C                   |                          | -20~60°C               |
| Max. discharge current<br>(25°C) | 67.5A (5s)   |                            |                          |                        |
| Short circuit current            | 240A   |                            |                          |                        |

**Charging Method**

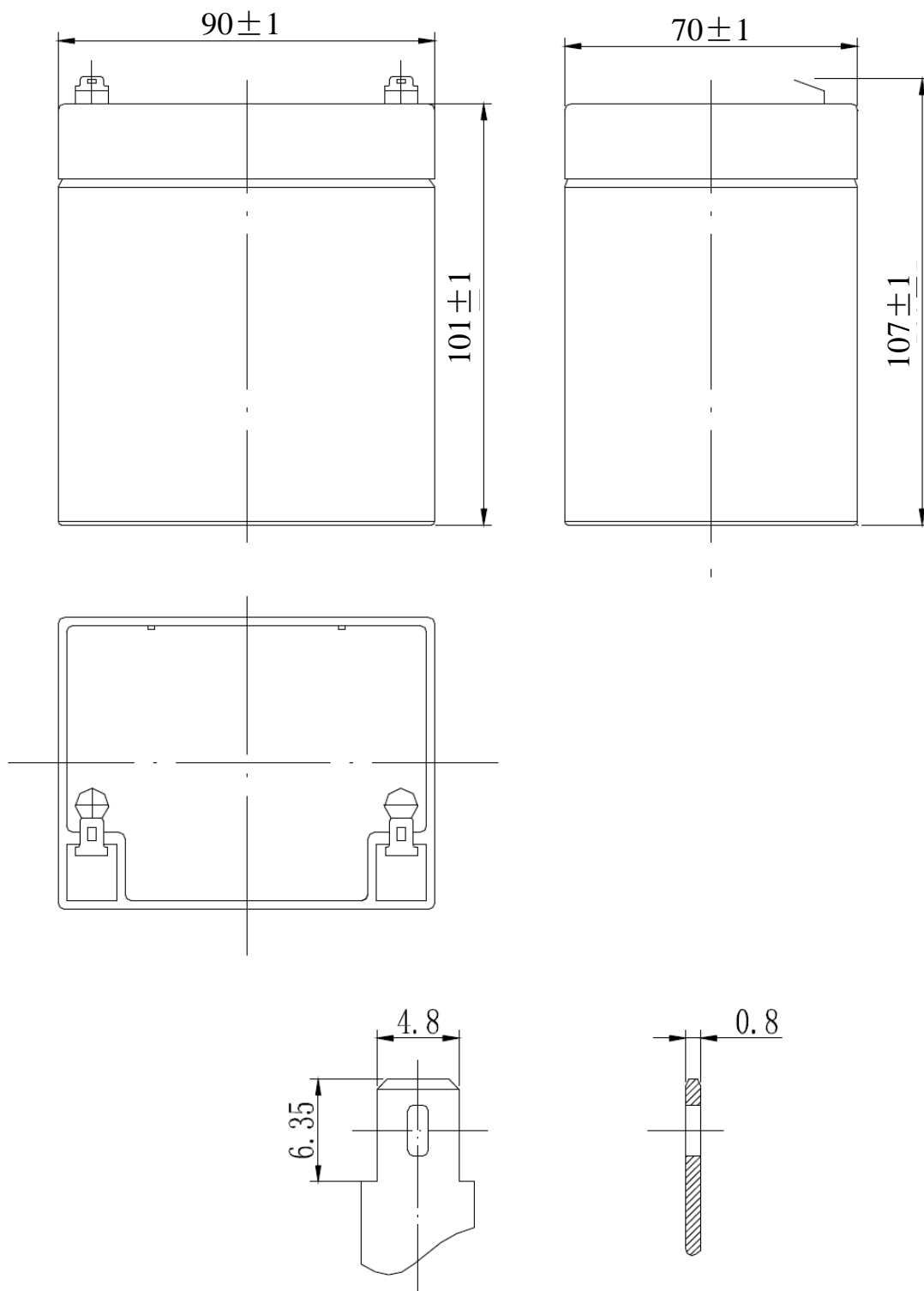
| Charging Method(25℃) | Cycle use                   | Float use  |
|----------------------|-----------------------------|------------|
| Charge Voltage       | 14.6—14.9V                  | 13.6—13.8V |
| Max Charge Current   | 1.8A                        | 1.8A       |
| Charging Time        | 12h(60%DOD)<br>24h(100%DOD) | >48h       |

**Depth of discharge**

| Time                    | Constant current discharge characteristics(25℃) <b>A</b> |      |      |      |      | Constant power discharge characteristics(25℃) <b>W</b> |      |      |      |      |
|-------------------------|--|------|------|------|------|--|------|------|------|------|
| 1min                    | 12.2   | 13.6 | 15.3 | 15.9 | 16.9 | 128  | 144  | 157  | 158  | 160  |
| 5min                    | 9.90   | 11.9 | 12.7 | 13.3 | 14.2 | 112  | 119  | 136  | 138  | 141  |
| 15min                   | 6.50   | 6.67 | 7.08 | 7.35 | 7.63 | 67.9   | 73.5 | 76.3 | 79.2 | 81.9 |
| 30min                   | 4.20   | 4.25 | 4.36 | 4.43 | 4.52 | 46.5   | 47.7 | 48.6 | 50.8 | 52.0 |
| 45min                   | 3.11   | 3.19 | 3.26 | 3.26 | /    | 36.7   | 37.1 | 38.2 | 38.8 | /    |
| 1hr                     | 2.56   | 2.61 | 2.66 | 2.66 | /    | 29.3   | 30.2 | 30.8 | 30.8 | /    |
| 2hr                     | 1.46   | 1.46 | 1.51 | /    | /    | 17.0   | 17.0 | 17.4 | /    | /    |
| 3hr                     | 1.03   | 1.03 | /    | /    | /    | 12.3   | 12.3 | /    | /    | /    |
| 5hr                     | 0.68   | 0.68 | /    | /    | /    | 8.98   | 9.00 | /    | /    | /    |
| 8hr                     | 0.50   | 0.51 | /    | /    | /    | 5.42   | 5.50 | /    | /    | /    |
| 10hr                    | 0.44   | 0.45 | /    | /    | /    | 4.60   | 4.62 | /    | /    | /    |
| 20hr                    | 0.22   | 0.23 | /    | /    | /    | 2.16   | 2.16 | /    | /    | /    |
| End Voltage<br><b>V</b> | 10.8   | 10.5 | 10.2 | 9.90 | 9.60 | 10.8   | 10.5 | 10.2 | 9.90 | 9.60 |



**Battery and terminal dimensions**



|                                    |                    |                          |
|------------------------------------|--------------------|--------------------------|
| Telong Energy Technology Co., Ltd. |                    |                          |
| MODEL:TL1245                       | DWG No.:TLG1245-01 |                          |
| SCALE:NTS                          | DIM:mm             | Approved by:<br>Xiang Fu |
| DATE:2010.6.23                     | DRAWN BY: jia yu   |                          |