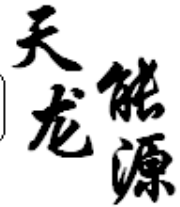


TELONG ENERGY TECHNOLOGY CO., LTD.



Specification  
for SEALED LEAD-ACID BATTERY

Model: TL1213

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**

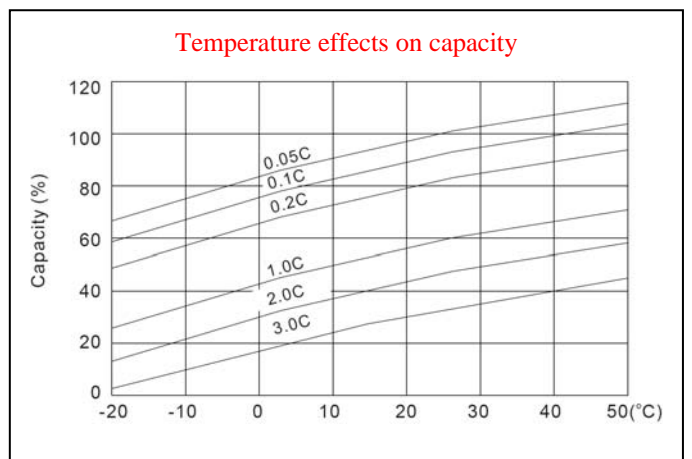
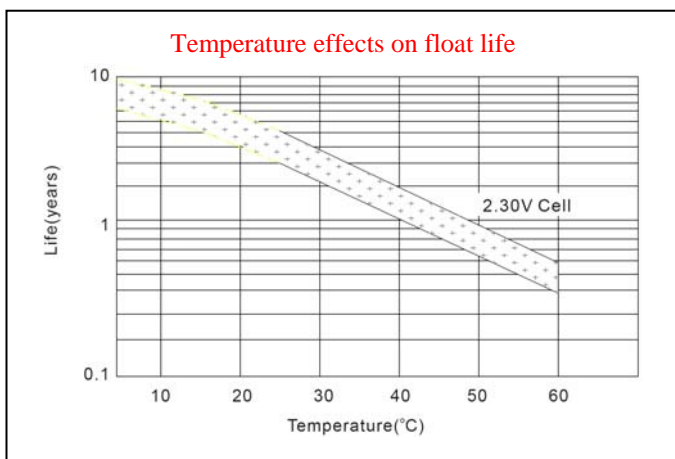
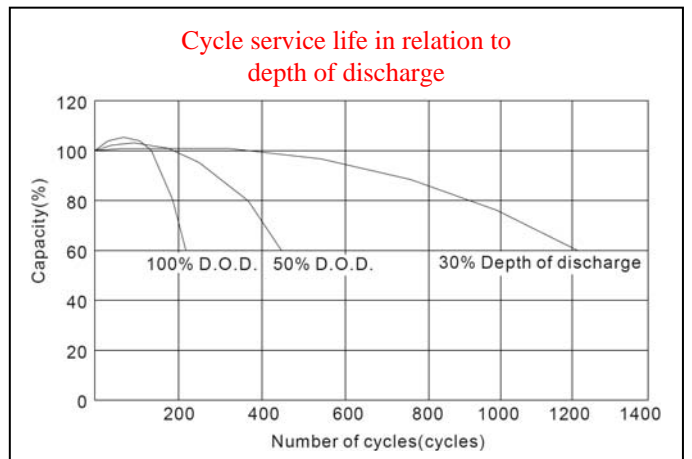
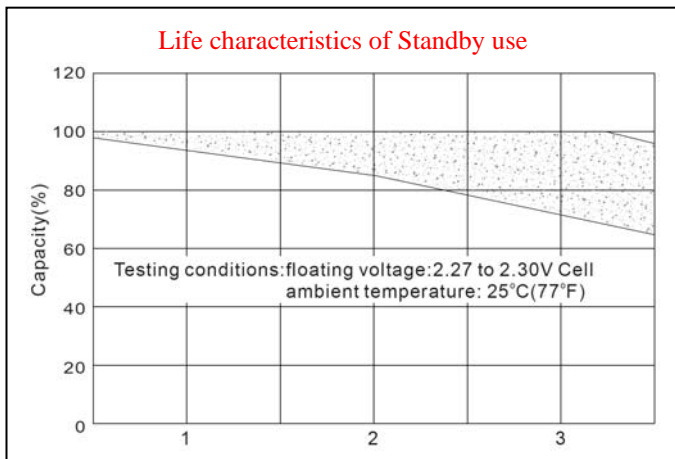
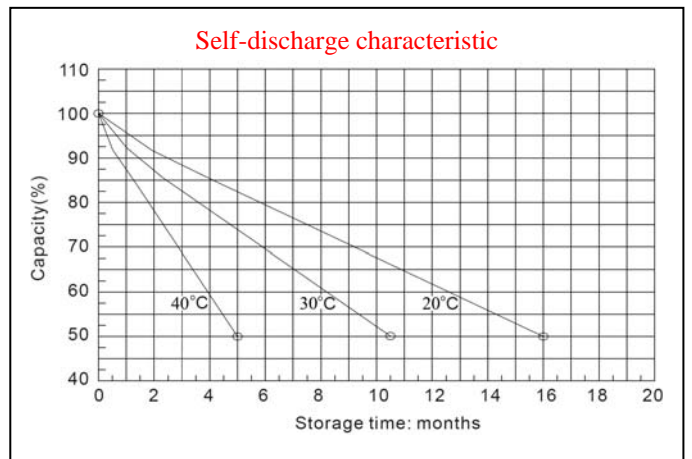
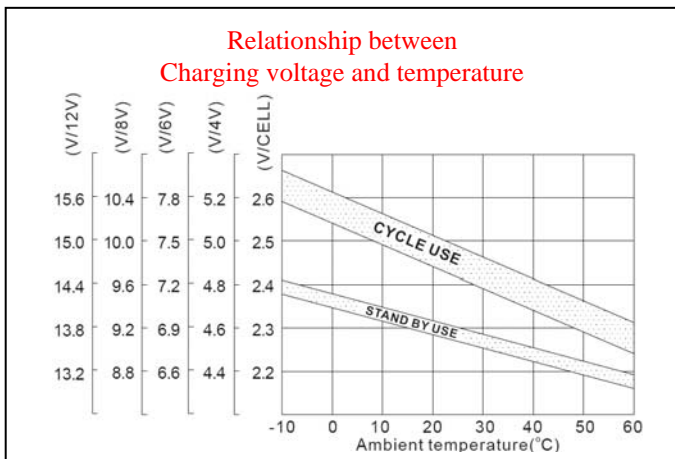
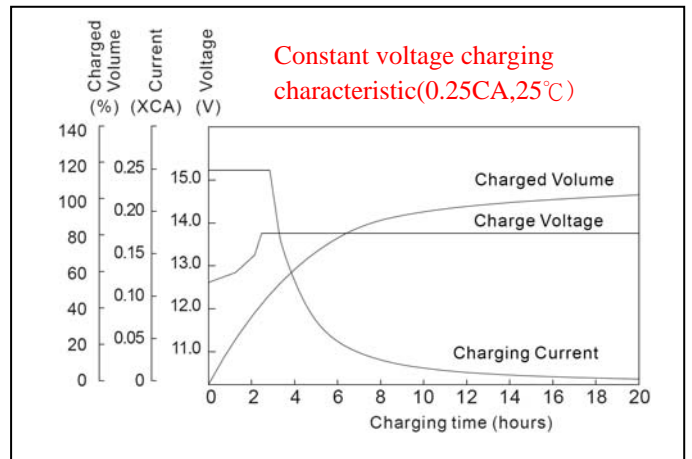
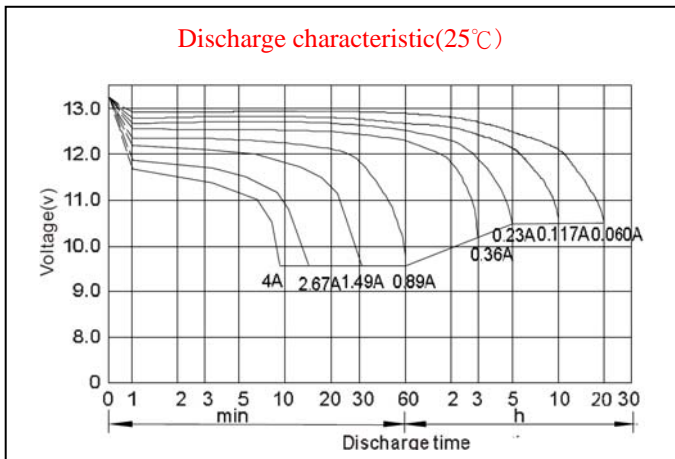
Battery model	TL1213			
Nominal voltage	12V			
Number of cell	6			
Capacity (25°C)	0.05C <sub>20</sub> (0.065A)	0.5C <sub>20</sub> (0.65A)	1C <sub>20</sub> (1.3A)	3C <sub>20</sub> (3.9A)
	1.3Ah	0.98Ah	0.72Ah	0.49Ah
Dimensions	Length	Width	Height	Total Height
	97±1mm	43±1mm	52±1mm	58±1mm
Design Life	3~5 years			
Approx. weight	0.58Kg			
Internal resistance	Full charged at 25°C: 45mOhms			
Self discharge	3% of capacity declined per month at 20°C(average)			
Operating temperature range	Discharge	Charge	Storage	
	-20~60°C	-10~60°C	-20~60°C	
Max. discharge current (25°C)	19.5A (5s)			
Short circuit current	65A			

Charging Method

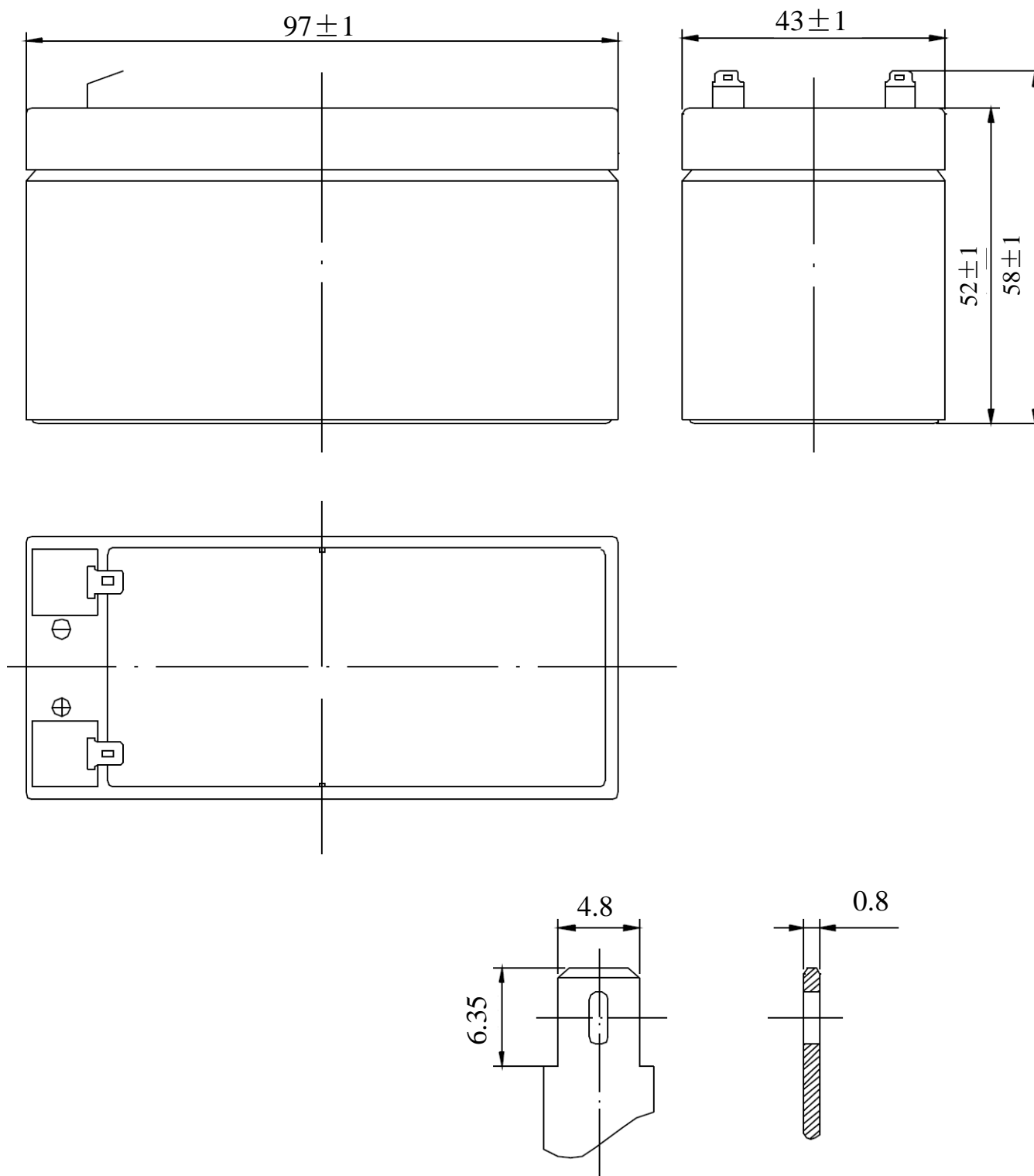
Charging Method(25℃)	Cycle use	Float use
Charge Voltage	14.5—14.9V	13.6—13.8V
Max Charge Current	0.39A	0.39A
Charging Time	12h(60%DOD) 24h(100%DOD)	>48h

Depth of discharge

Time	Constant current discharge characteristics(25℃) <b>A</b>					Constant power discharge characteristics(25℃) <b>W</b>				
	1min	3.91	4.50	4.90	5.10	5.41	41.0	44.5	46.7	48.6
5min	3.20	3.80	4.07	4.26	5.45	35.9	38.2	40.6	43.7	45.1
15min	2.08	2.16	2.27	2.28	2.30	21.8	22.9	23.7	25.4	26.3
30min	1.35	1.41	1.42	1.43	1.44	14.7	15.2	15.9	16.3	16.7
45 min	0.99	1.02	1.04	1.04	\	11.8	12.0	12.3	12.5	\
1hr	0.82	0.84	0.86	0.87	\	9.38	9.52	9.64	9.86	\
2hr	0.46	0.46	0.48	\	\	5.44	5.44	5.50	\	\
3hr	0.35	0.35	\	\	\	3.94	3.94	\	\	\
5hr	0.23	0.23	\	\	\	2.56	2.56	\	\	\
8hr	0.15	0.15	\	\	\	1.73	1.73	\	\	\
10hr	0.13	0.13	\	\	\	1.44	1.44	\	\	\
20hr	0.07	0.07	\	\	\	0.69	0.69	\	\	\
End Voltage <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:TL1213	DWG No.:TLG1213-01	
SCALE:NTS	DIM:mm	Approved by:
DATE:2010.6.23	DRAWN BY: jia yu	Xiang Fu