CHEAPE TECHNOLOGY INTERNATIONAL LIMITED.

1 Scope

This technical specification cover Lithium thionyl chloride battery, Model ER26500

2 Technical parameters

2.1 Model: ER26500

2.2 Nominal voltage: 3.6V

2.3 Max capacity: 7Ah (Continuously discharged under 2mA current till 2.0V end-voltage at the temperature of 23℃±3℃)

2.4 Nominal capacity: 4.8Ah (Continuously discharged under 35mA current till 2.0V end-voltage at the temperature of 23℃±3℃)

2.5 Max. Constant current:230mA

2.6 Pulse current: 400mA

2.7 Operating temperature range: -40℃ to 75℃

2.8 Nominal weight: 52.0g.

2.9 Max outer dimensions: Diameter:Φ26.2mm, Height: 50.5mm

2.10 Composition: acetylene black,lithium, thionyl chloride, $LiAlCl_4$, glass fiber separator , stainless steel can and cap.

3 Characteristics and test

3.1 Dimensions:

Dimensions shall be measured with instruments specified in subparagraph 4.3

The result must conform to 2.8.

3.2 Off-load voltage:

The samples shall be kept standing open-circuit for 7 days or longer at a temperature of 25℃±15℃, and the voltage between both terminals at a temperature of 23℃±3℃ shall be measured with a voltmeter specified in subparagraph 4.3. The result must conform to table 1.

3.3 On-load voltage:

The samples shall be kept standing open-circuit for 7 days or longer at a temperature of 25℃±15℃, and the voltage between both terminals at a temperature of 23℃±3℃ shall be measured with a voltmeter specified in subparagraph 4.3 while a exactitude resistance value 94Ω (including resistance throughout external circuits) is connected between both terminals. The result must conform to table 1.

3.4 Service output:

The samples shall be kept for 24h or longer at a temperature of 23℃±3℃, and shall then be continuously discharged at 23℃±3℃ under 35mA current to 2.0V end-voltage. The result must conform to table 1.

3.5 Leakage characteristics:

The samples shall be stored for 30 days or more at a temperature of 40℃±2℃ and a relative humidity of 90%-95%RH, then take a view of them at a temperature of 15℃-25℃, a relative humidity of 45%-75%RH, there must be no leakage cells.

3.6 Terminals:

The terminals should have good electroconductibility. There is no rust or leakage within the term of recommended use.

3.7 Appearance:

The appearance of batteries shall be inspected by visual means. The surfaces of the cells are clean. The mark is clear. The batteries shall have no deformation, dent, stain or camber.

3.8 Vibration durability:

The sample is to be subjected to simple harmonic motion with an amplitude of 0.8mm (1.6mm total maximum excursion). The frequency is to be varied at the rate of 1 hertz per minute between 10 and 55 hertz, and return in not less than 90 nor more than 100 minutes. The sample is to be tested in three mutually perpendicular directions. After the test, the sample must conform to table 1.

3.9 Short-circuit durability :

Each test sample cell is to be short-circuited by connecting the positive and negative terminals of the battery with a minimum length of Φ1.3mm^2 copper wire. The battery is to discharge until it is completely discharged and the battery case temperature returned to near 55℃±2℃. There is no explosion, no fire.

4 Condition of testing

4.1 Initial Test:

Means the test begin in three months after the cell produced.

4.2 Temperature、humidity：

As long as there is no special requirement, testing should be placed under normal

temperature 15℃-25℃and Relative humidity of 45%-75%RH.

4.3 Test facility: 4.3.1 Outer micrometers: Instruments which tolerance shall be ± 0.02mm or below and those having equal or better accuracy shall be used.

4.3.2 DC voltmeters: Precision is 0.25 rate or better and the input resistor shall be 1MΩor more.

4.3.3 Exactitude resistance: Relative error is 0.5% or below.

4.3.4 Resistance box: Relative error is 0.5% or below.

4.3.5 Constant temperature and humidity oven : Tolerance shall be ±1.5℃ or below.

4.3.6 Battery program control test system: Tolerance shall be ±0.3% or below.

5 Mark

5.1 Battery type: ER26500

5.2 Brand of battery: Neutral

5.3 Nominal voltage: 3.6V

5.4 Polarity: + , -

5.5 Producing date

5.6 Caution

6 Others

6.1. About the technology specification modified:

This technology specification may be modified when needed.

ER26500 Characteristics table

Table 1

Project	Condition	Test temperature	Characteristics	
Off-load voltage	Off-load	23℃±3℃	3.65v or more	
		-30℃±3℃	3.65v or more	
		70℃±3℃	3.65v or more	
On-load voltage	94Ω load after 5S	23℃±3℃	3.10v or more	
		-30℃±3℃	2.85v or more	
		70℃±3℃	3.10v or more	
service output	Continuously discharged under 35mA current till 2.0V end-voltage	23℃±3℃	Standard	4.80Ah
		-30℃±3℃	Standard	2.4Ah
		70℃±3℃	Standard	4.80Ah

7 Inspection rules

7.1 Deliver inspection: Depending on GB2828

Table 2

Number	Test	Item	IL	AQL
1	Dimensions	3.1	S-2	1.0
2	Appearance	3.7	II	1.0
3	Terminals	3.6	II	0.065
4	On-load voltage	3.3	II	0.10
5	Off-load voltage	3.2	II	0.10

7.2 Routine inspection: Depending on GB2829.

7.3 Inspection for service output

7.3.1 6 samples shall be tested for service output

7.3.2 If the average value is equal to or more than the value of table 1, and if the number of batteries showing a value less than 80% of the value of table 1 is 0. The batteries are considered to conform to the requirement.

7.3.3 the value of table 1,or if the number of batteries showing a value less than 80% is 1 or more, the test shall be repeated with other 6 pieces. At the second

test, if the average value is equal to or more than the value of table 1,and if the number of batteries showing a value less than 80% of the value of table 1 is 0, these batteries are considered to conform to the requirement.

7.3.4 At above second test, if the average value is less than the value of table 1, or if the number of batteries showing a value less than 80% of the value of table 1 is 1 or more, the batteries are considered not to conform to the requirement.

8 Warning on use

8.1 Never short the positive and negative terminals of the battery.
Short-circuiting may cause heat generation from the battery or explosion.

8.2 Never charge
Charging may cause gas evolution or internal short circuiting, followed by fire or explosion.

8.3 Never over-discharge
Force-discharging by external power source or other batteries connected in a series may cause explosion.

8.4 Never heat
Heating the battery above 100℃ may cause leakage, fire or explosion.

8.5 Never solder the body of the battery directly
Solder should not be applied to the body of the battery. When soldering the battery directly to equipment, soldering must be done by tabs or leads only. Even then, the soldering temperature must be below 270℃ and the soldering time must be less then 5 seconds, may cause heat when applying an automatic soldering to the battery, make sure that the battery is not suspended or dropped into the soldering bath.

8.6 Never throw the battery into fire
The disposal of the battery into fire may cause on explosion.

8.7 Never dissemble
Dissemble of the battery can cause corrosive gases to leak, Exposing the lithium in the battery to water can cause heat generation or fire.

8.8 Never deform or crush
The deformation of the battery can cause leakage or internal short-circuiting with heat generation, followed by explosion. Since the positive terminal is glass-sealed, avoid applying any shock or excessive force to it.

8.9 Never reverse the positive and negative terminals when mounting the battery
The improper connection of the battery may lead to short-circuiting, charging or forced-discharging, followed by heat generation or explosion.

8.10 Never use the battery together with different type of batteries

Using the battery together with different type of batteries or using old and new batteries together may lead to charging or over-discharging because of the differences in voltage or capacity, followed by explosion. If two or more batteries are to be connected in a series and or placed in a parallel arrangement, consult us in advance.

8.11 Keep the batteries away from children

If batteries are swallowed by mistake, immediately contact a doctor.

8.12 When using the battery in a memory backup circuit, design the circuit using diodes and resistors.

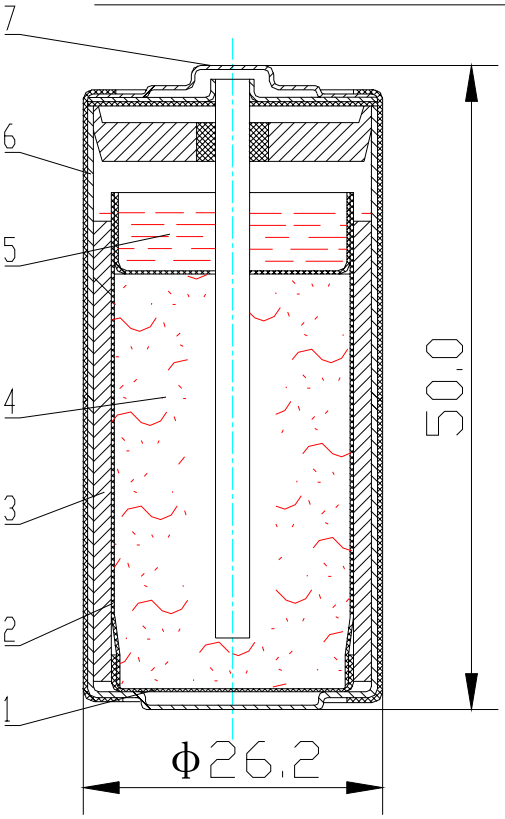
9 Warning on storage and disposal

9.1 Store in cool place but prevent condensation on cells on batteries Elevated temperatures can result in a shortened battery life.

9.2 Never incinerate or subject cells to temperatures in excess of 100℃ Such a treatment can vaporize the liquid electrolyte and cause cell explosion. Bury in landfill in accordance with appropriate federal, state and local regulations.

FIG. 1

ER26500 CROSS SECTION VIEW

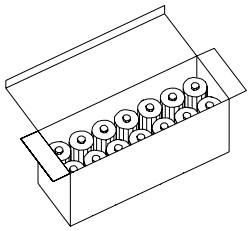


No.	Name
1	BOTTOM SEPARATOR
2	SIDE SEPARATOR
3	LITHIUM ANODE
4	CATHODE
5	ELECTROLYTE
6	CELL CAN
7	CELL CAP

FIG.2

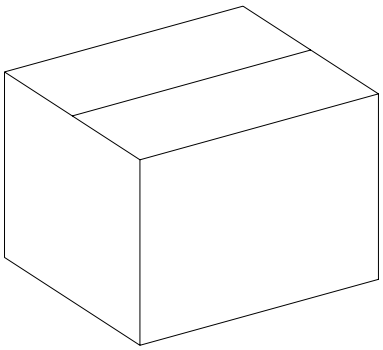
STRUCTURE FIGURE OF PACKAGE
ER26500 476 PCS PER BOX

1. 14 PCS PER SMALL BOX



JTLINE DIMENSIONS OF
1ALL BOX: 198X48X66

2. 34 SMALL BOXES PER BOX



OUTLINE DIMENSIONS OF
BOX: 355X285X275
NET: 25KG
GROSS: 27KG