

**Lithium-ion Rechargeable Coin Battery**

**TECHNICAL SPECIFICATION**

**Model No.: LIR2450**

## **CONTENTS**

**1.** Applicable Scope

**2.** Type of Products

**3.** General Features

**4.** Spec Chart

**5.** Battery Characteristics

**6.** Important Notes

Specification		Page	2/11
Model No.:	LIR2450		

## 1. Applicable Scope

This specs approval is applied only for the lithium-ion rechargeable cell battery produced by WECODO.

## 2. Type of Products

Type : Lithium-ion rechargeable cell battery

Model : LIR2450

## 3. General Features

### Long Cycle Life

Under normal usage, the cycle life of the battery can be  $\geq 500$  circles while with capacity  $\geq 80\%$

### High Power Density

High power density makes the battery light in weight and small in dimension. It can be used in small devices.

### Safe and Reliable

No floating metal lithium assures a safer usage.

### High working voltage

Working voltage is up to 3.6V, approx. 3 times of the voltage of NI-MH or NI-CD, which reduces the quantity of the battery needed in certain application.

### No memory effect

No memory effect assures a constant maximum application.

### Low self-discharge rate : $\leq 7\%$ /month

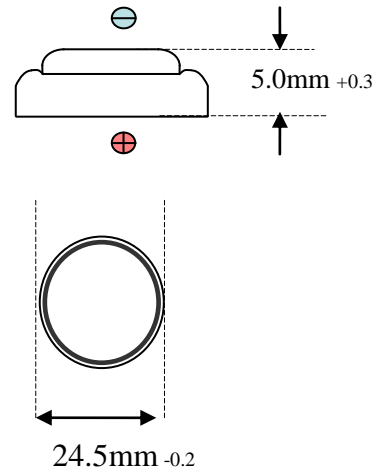
### Good Consistency

Good consistency is showed in battery capacity, internal resistance, discharge platform and capacity retention. A strict complete internal quality control is subject to the ISO9000 system in the company's production.

Specification		Page	3/11
Model No.:	LIR2450		

#### 4. Spec Chart

Item		Standard features
Model		LIR2450
Volt		3.6
Rated capacity		$120 \pm 10\text{mAh}$
Internal resistance		$\leq 400\text{m}\Omega$
Size	Dia (mm)	$24.5_{-0.2}$
	H (mm)	$5.0_{+0.3}$
Weight (g)		5.2



Internal resistance test standard:

CC charge  $0.5\text{mA}$  / voltage up to  $4.25\text{V}$ ; Then CV charge.

Terminate charging when the charging current value is less than  $0.05\text{mA}$ .

Rest for 60 minutes, then test the battery by  $1000\text{Hz}$  internal resistance tester.

#### 5. Battery Characteristics

##### 5.1 Test Conditions

Temperature:  $20^\circ\text{C} \pm 1$

Relative Humidity:  $\leq 75\% \pm 5$

Atmosphere pressure:  $1\text{atm}$

##### 5.2 Discharge Characteristics

The test should be conducted under the condition below:

In a temperature of  $20 \pm 5^\circ\text{C}$ , CC charge  $0.5\text{mA}$  / voltage up to  $4.25\text{V}$ ; Then CV charge.

Terminate charging when the charging current value is less than  $0.05\text{mA}$ .

Rest for no more than 60 minutes,

Discharge CC at  $0.5\text{mA}$  to  $2.75\text{V}$ .

##### 5.3 Charge Characteristics

The battery can be charged by one of the following methods:

**Standard Charge** : Temperature  $20 \pm 1^\circ\text{C}$ , CC charge at  $0.5\text{mA}$  to  $4.25\text{V}$ ; turn to CV charge; Terminate charging when the charging current value is less than  $0.05\text{mA}$ .

**Fast Charge**: Temperature  $20 \pm 5^\circ\text{C}$ , CC charge at  $1.0\text{mA}$  to  $4.25\text{V}$ ; turn to CV charge; Terminate charging when the charging current value is less than  $0.05\text{mA}$ .

Specification		Page	4/11
Model No.:	LIR2450		

For charging/discharging characteristics at various currents see fig 1 or 2.

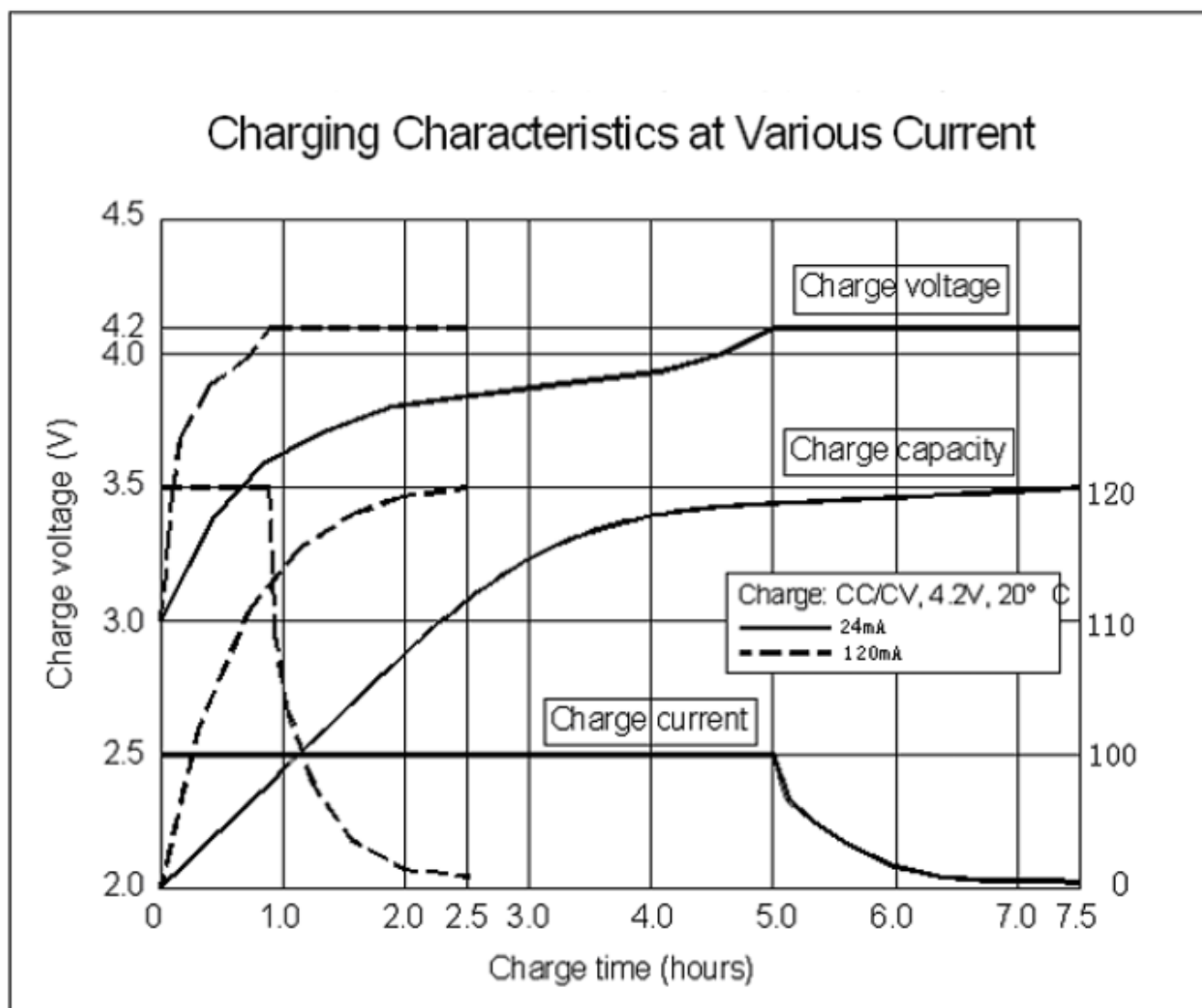
For discharging characteristics at various temperatures see fig 3 or 4.

For Storage characteristics see fig 4.

For cycle life characteristics see fig 5.

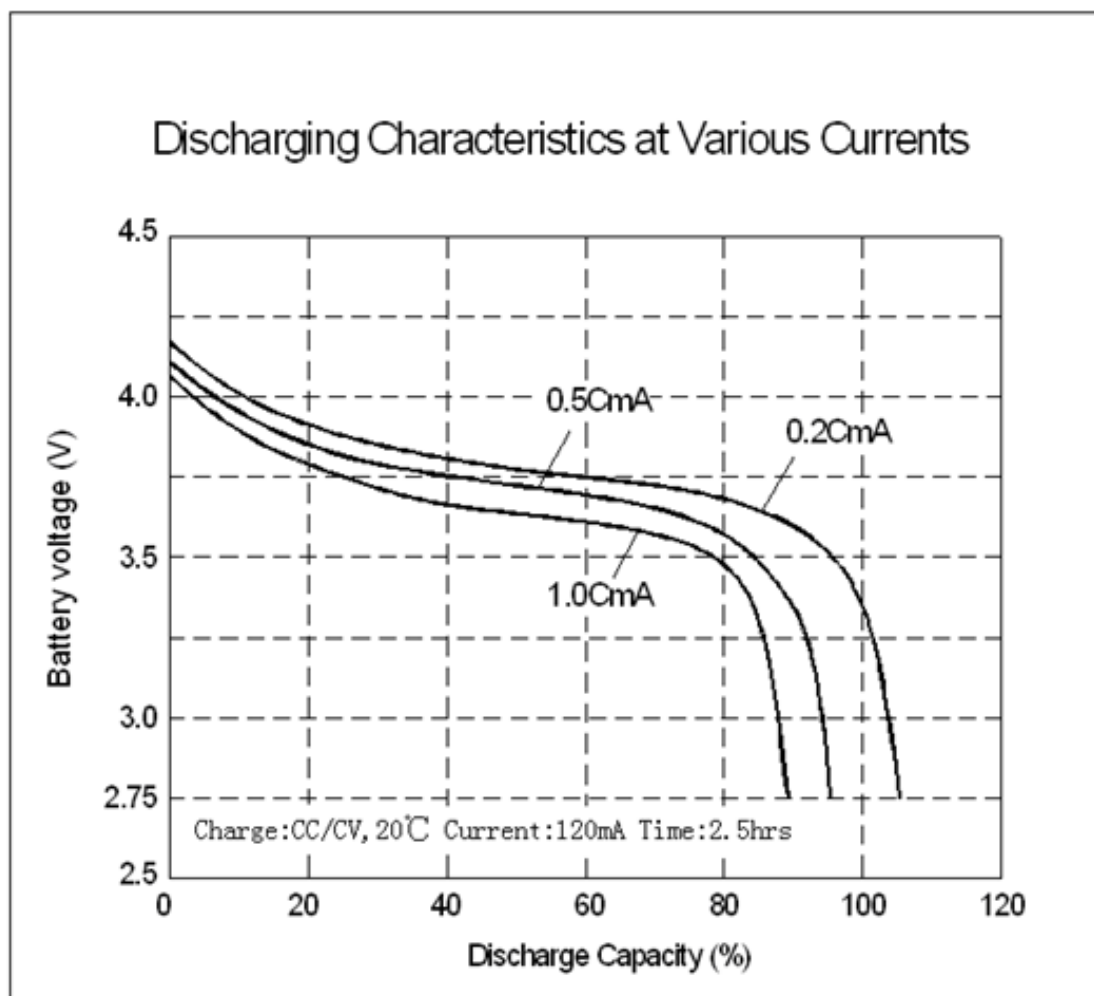
Specification		Page	5/11
Model No.:	LIR2450		

Fig.1 Charging Characteristics at various currents



Specification	Page	6/11
Model No.: LIR2450		

Fig. 2 Discharge Characteristics at various currents



Specification	Page	7/11
Model No.: LIR2450		

Fig. 3 Discharging Characteristics at various Temperatures

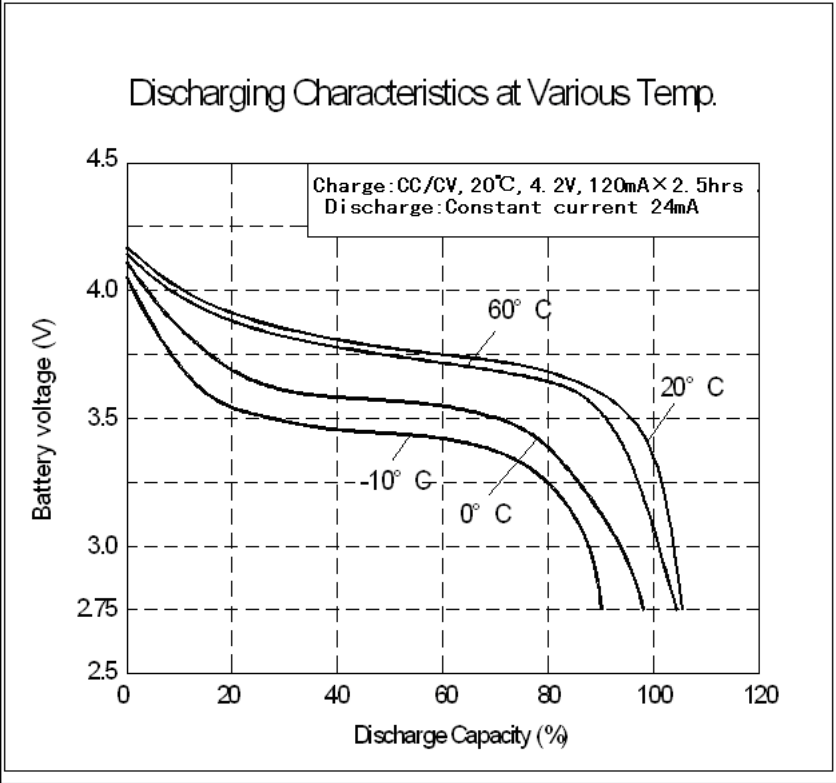




Fig. 4 Storage Characteristics

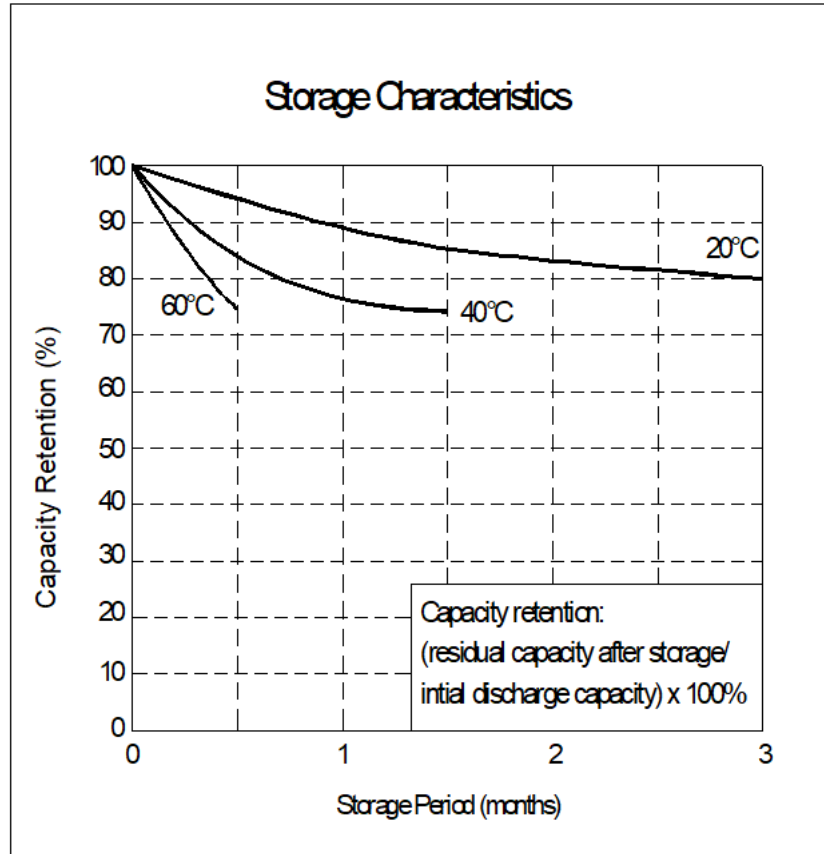
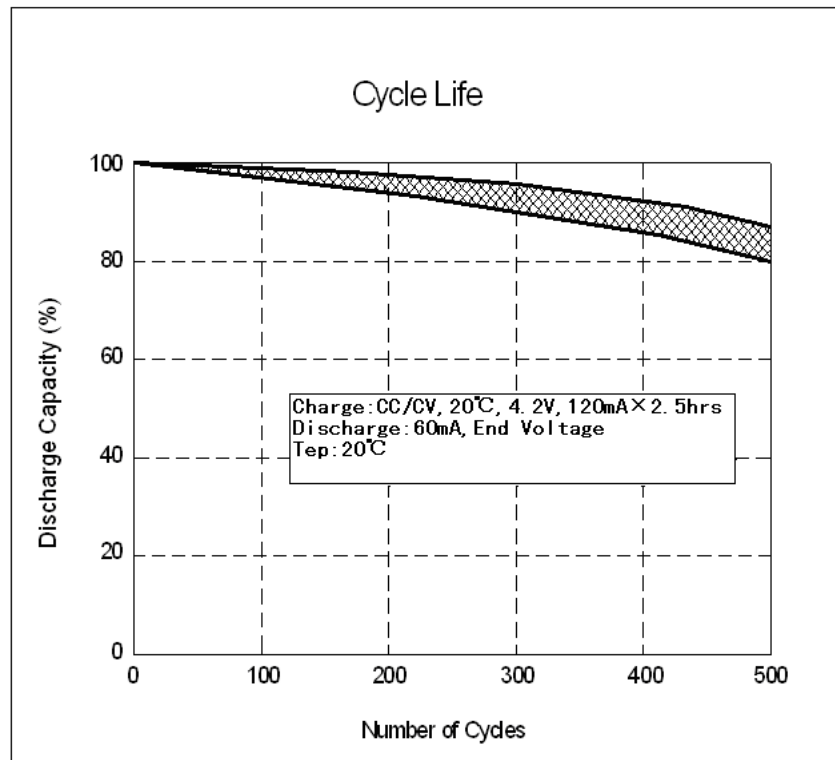


Fig. 5 Cycle Life Chart



Specification		Page	10/11
Model No.:	LIR2450		

## **6. Important Notes**

Keep away from source of fire and/or heat.

Do not disassemble battery and/or battery pack.

Do not connect the positive and negative pole directly using conductive metal; avoid short circuit.

Do not put the battery into water or damp it.

Do not cut the battery.

Do not strike or needle the battery.

Charge the battery using specified chargers.

Do not solder the battery directly.

Observe the correct polarity (+/-)

Do not use the battery in un-specified application.

Do not mix the battery in usage with other types of battery.

Read the instruction manual carefully before use.