

# LTC SERIES CARBON NANOTUBE BATTERY

**Application:** Electric vehicle, Electric wheelchair, Sightseeing, Cleaning equipment, E-bike, Mobility, Golf cart, AWP

## LTC12-54

**Voltage:** 12

**Capacity:** 54Ah @20Hr

**Material:** ABS

**Battery:** VRLA AGM/ Non-Spillable / Maintenance-Free



### SPECIFICATIONS

MODEL NAME	VOLTAGE (V)	DIMENSIONS INCHES (mm)				CAPACITY AMP-HOURS (Ah)		CAPACITY MINUTES			WEIGHT (KG)	TERMINAL TYPE
		Length	Width	Height	Total Height	20-HR	5-HR	@75 AMPS	@56 AMPS	@25 AMPS		
LTC12-54	12	223	123	175	175	54	48	-	-	-	13.6	T12-A(M6)

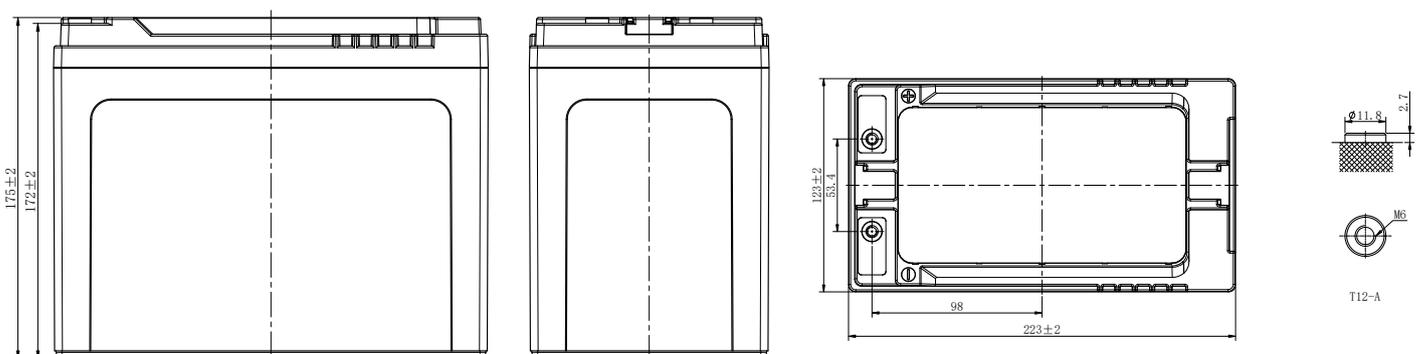
### OPERATING TEMP. RANGE

Discharge	-20~55°C(-4~131°F)
Charge	0~40°C(32~104°F)
Storage	-15~40°C(5~104°F)

### STANDARDS



### BATTERY DIMENSIONS



Note: Terminal Torque Values in lb(Nm): 34.52-47.79(3.9-5.4)

## GENERAL FEATURES

### Stable Initial Capacity

- ▶ PAM/NAM amount optimization
- ▶ 4BS crystal paste mixing & curing technology
- ▶ Double layer separator technology
- ▶ Improved design electrolyte S.G.

### Less Water Loss

- ▶ PAM/NAM amount optimization
- ▶ New PAM/NAM recipe introduced
- ▶ New-type alloy

### Solve NAM Sulfuration

- ▶ Carbon nanotube reinforcement technology

### Improved PSoc Cycling

- ▶ Carbon nanotube reinforcement technology
- ▶ Mix carbon boost technology
- ▶ Targeting for higher level through carbon technology

### Delay PAM Softening and Shedding

- ▶ Plate assembly pressure re-engineering
- ▶ 4BS crystal paste mixing & curing technology
- ▶ Higher paste density

### Optimize Electrolyte Stratification

- ▶ Introduce AGM-GEL technology

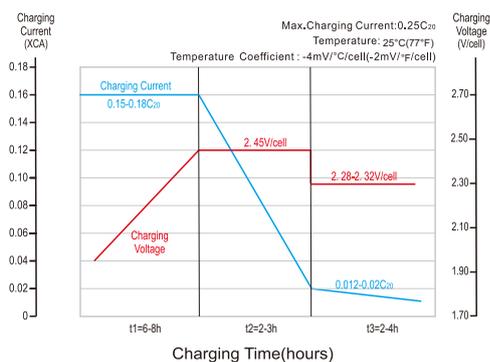
### Excellent Deep Cycle Performance

- ▶ Plate assembly pressure re-engineering
- ▶ New PAM/NAM recipe introduced
- ▶ Gel electrolyte technology
- ▶ New-type alloy
- ▶ Double layer separator technology

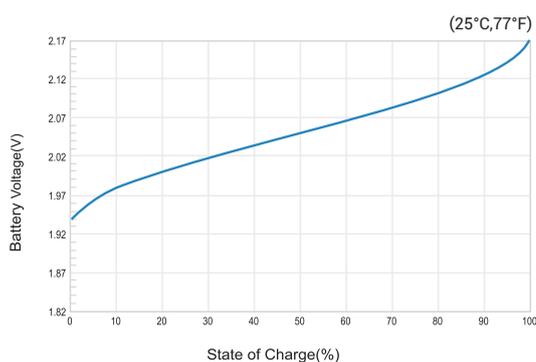
### Fast Charging Capability

- ▶ Adding carbon nanotube materials
- ▶ Enhance charging efficiency
- ▶ Improve low-temperature discharge performance

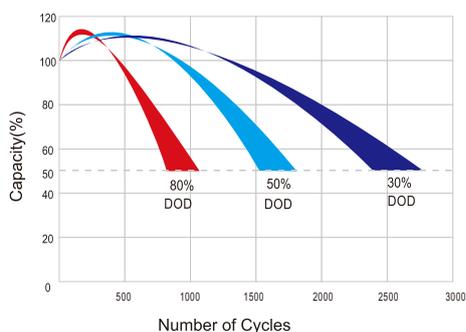
### Charging Profiles



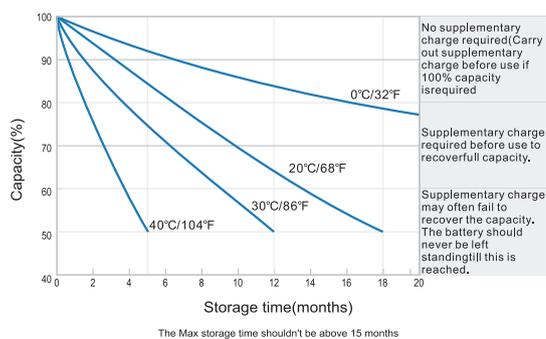
### Relationship of OCV and State Of Charge



### Cycle Life in Relation to Depth Of Discharges



### Self-discharge Characteristics



## OPERATING INSTRUCTIONS: PRECAUTIONS FOR CHARGING AND DISCHARGING

The charger should have charging temperature compensation function, with 25°C as the base point, for every 1°C increase in ambient temperature, the charging voltage will be adjusted down by 4mV/cell. For 1°C decrease in ambient temperature, the charging voltage will be adjusted up by 4mV/cell.

The protection voltage set for the battery unit is 1.75V/cell, when the power meter remind of low voltage or there is power failure during usage of the vehicle, do not use battery's rebound voltage continue driving the vehicle.



Leoch International Technology Ltd.  
www.leoch.com

Leoch Batteries Pte Ltd  
www.leoch.sg

Leoch Battery Corporation  
www.leochamericas.com

Leoch Europe S.A.  
www.leoch.eu