

Introduction to fast-charging products for two-wheeled electric Motorcycle

Let green energy better integrate into life and serve
society

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Introduction to battery cell products

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Safety performance certification

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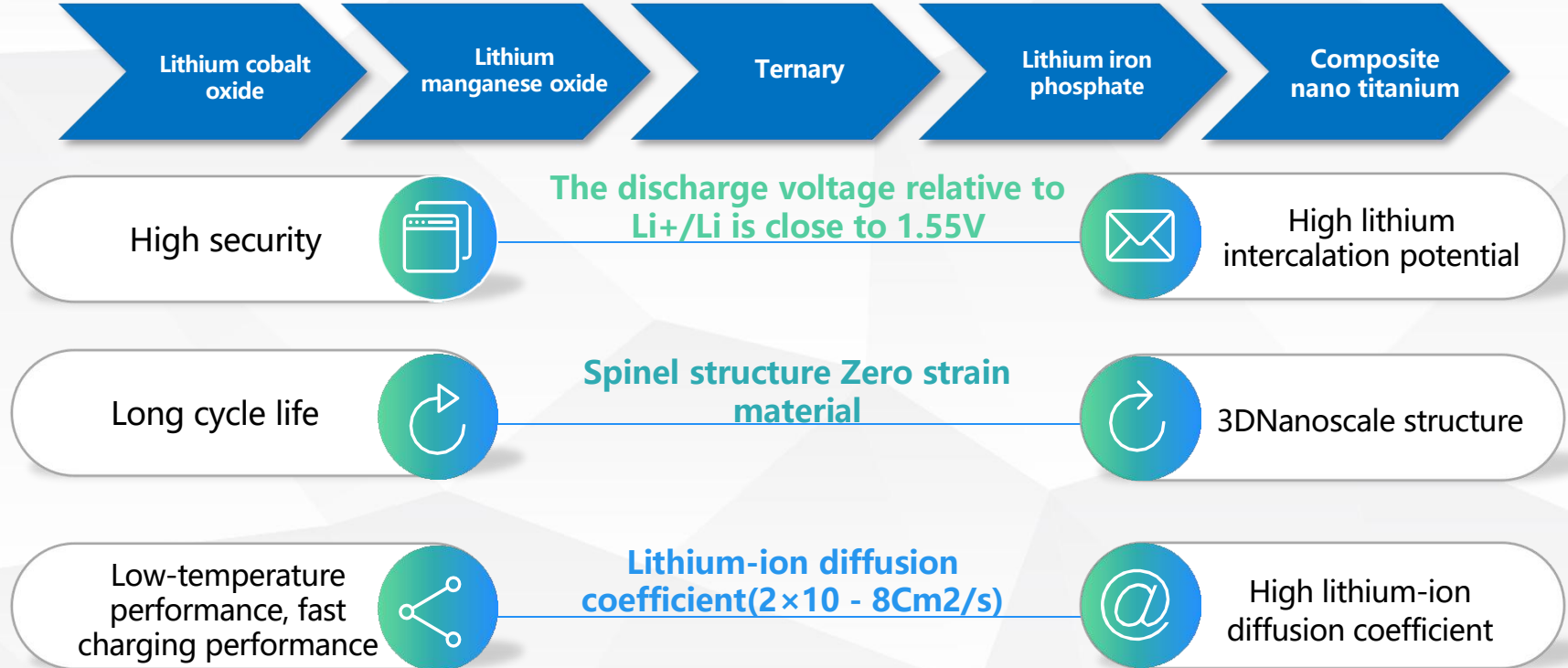
Introduction to two-wheelers

CONTENTS



Composite lithium titanate technical advantages - materials

The structure and materials affect the safety, stability, and efficiency of the battery



The core advantage of composite lithium titanate battery - high safety

High potential for Li & no SEI film formation, Determines the high safety characteristics of lithium titanate batteries ◦

Graphite
0.1V (vs. Li/Li+)

Lithium titanate
1.55V (vs. Li/Li+)

"0" accident

Put on the market **30000** Multiple loads
The number of battery-induced fires in vehicles with lithium titanate (NTO) batteries is zero

Electric drill test

High-temperature test

Acupuncture test

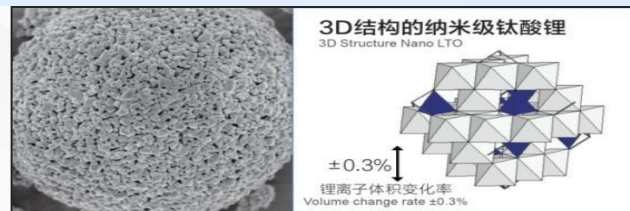
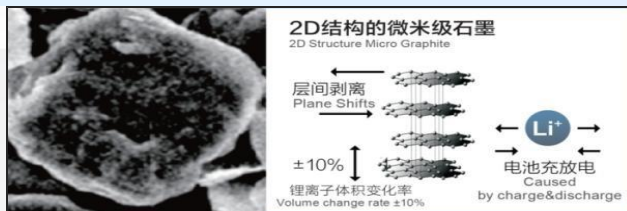
Cut test

Experiments show that the lithium titanate battery has no smoke, fire, burning, explosion and other phenomena under destructive environmental tests such as electric drill punching, sharp needle puncture, sharp saw cutting, and high-temperature baking.

The core advantage of composite lithium titanate battery - ultra-low temperature

Core
technology2

3DChannels & Nanostructures, It determines the characteristics of lithium titanate fast charging and wide temperature resistance.



Not afraid of the cold and heat, the end of the world is up to me

-40°C

65°C

The core advantage of composite lithium titanate battery - fast charging and discharging

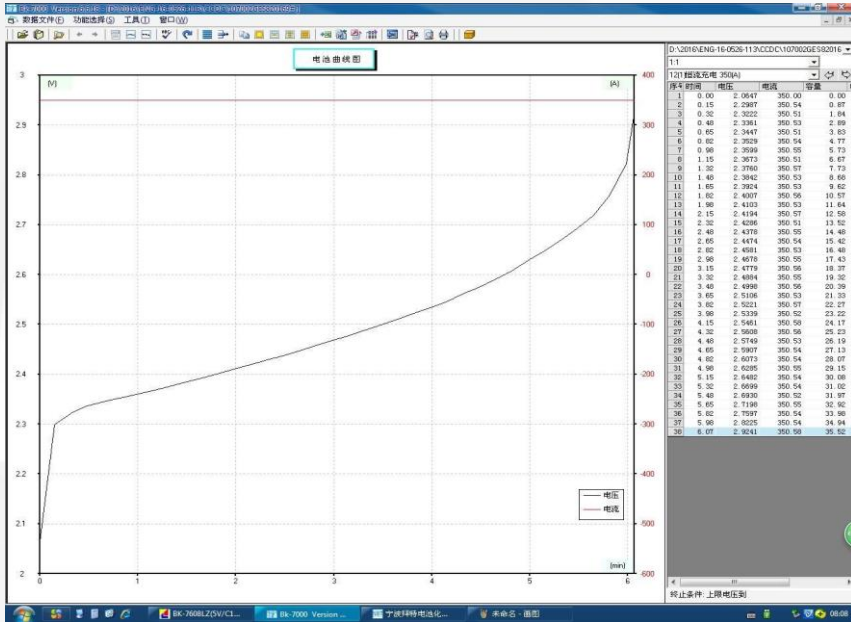
Core technology3

Unique electrolyte formulation + 3D channels & nanostructures, Determines the ultra-fast charging performance of lithium titanate.

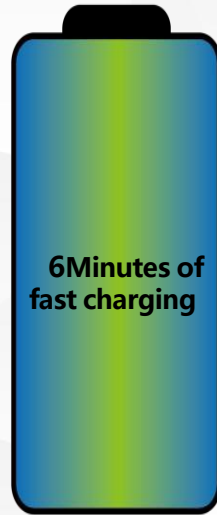
- ◆ LTO With three-dimensional lithium-ion channels Can be quickly disengaged
- ◆ Nano LTO material, primary particles 40-60nm are much smaller than other LTO on the market

Electrolyte conductivity: **10.3ms/cm**

Conductivity of ordinary electrolytes: 7.1-7.9ms/cm



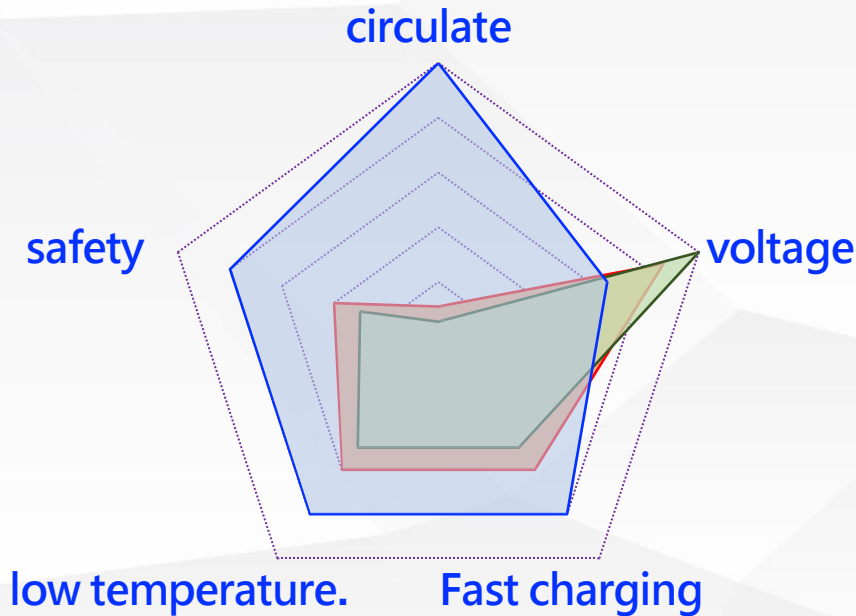
Li+ ($\geq 500\text{nm}$)



6min

Lithium titanate complex - core product performance

■ LFP ■ NCM



Lithium iron phosphate battery (LFP), ternary battery

(NCM) and composite titanium cells (NTO) are analyzed from five dimensions, such as the figure on the left, which is far behind LFP in the four fields of safety, cycle life, fast charging, and low temperature · NCM.

The comprehensive performance indicators can be fully solved by decide

“New energy vehicles are afraid of the cold”
 “New energy vehicles are fire hazards”
 “New energy vehicle batteries are not durable”
 and so on ·

LFP · NCM · NTO Comparison of battery performance part

Summary of the performance of the three lithium-ion batteries

Comparison of three lithium battery technologies table

	Lithium iron phosphate battery	Composite lithium titanate battery	Ternary lithium battery		
Rated Voltage (V)	3.2	2.3	3.7		
Energy density (Wh/kg)	120-140	90-100	135-165		
Operating temperature	0-55°C	-45-60°C	0-55°C		
Magnification characteristics	1C-2C	10C	1C-2C		
Cycle life	2000-3000next	≥25000next	1000-1500next		
Thermal stability of cell material	The thermal decomposition temperature is about 500°C, and the material extrusion test phenomenon is smoke	It does not smoke, fire or explode during the extrusion test, and has good thermal stability	The thermal decomposition temperature is around 200 °C, and the decomposition is The reaction being violent, oxygen is generated, and the material extrusion test the phenomenon is an explosion		
Battery type	safety	Cycle life	cost	Magnification characteristics	Energy density
Lithium iron phosphate battery	☆☆☆☆	☆☆☆	☆☆☆☆	☆☆☆☆	☆☆☆☆
Lithium titanate battery	☆☆☆☆☆	☆☆☆☆☆	☆☆	☆☆☆☆☆	☆☆
Ternary lithium battery	☆☆	☆☆	☆☆☆☆	☆☆☆☆	☆☆☆☆☆

Composite lithium titanate battery has great advantages in low-temperature performance, fast charging performance, and safety performance

Safety performance test

- ❖ Safety performance testing-Still working despite damage



Video fire test process



Shooting test



Cutting



electric drill

Safety performance test



ice test



Composite lithium titanate
battery (cutting)



Composite lithium titanate
battery (extruded)



Composite lithium titanate
battery (130°C thermal shock)

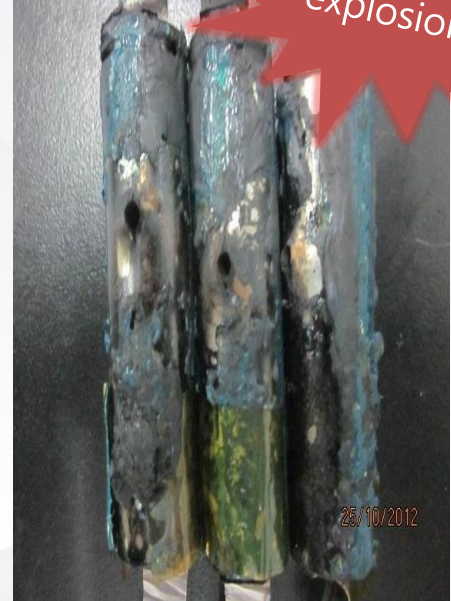
Safety test for Lithium iron battery



Ternary battery
(needle fire)



Lithium iron phosphate battery
(extruded smoke)

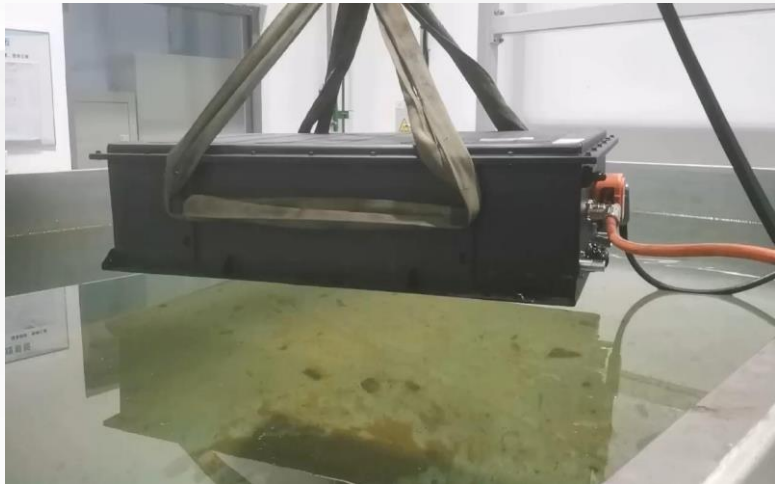


ternary + graphite
battery acupuncture

explosion

25/10/2012

Safety performance test - waterproof



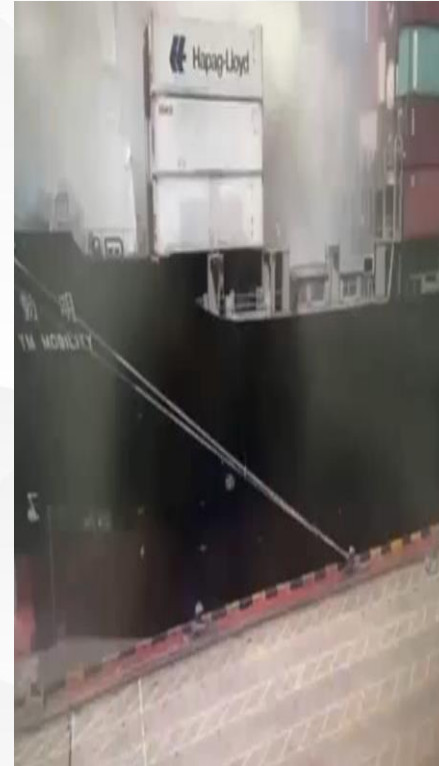
Immersion test process



After immersion

Risks associated with iron-lithium batteries

A few of the videos describe the risks associated with iron-lithium batteries.



Introduction of two-wheeled vehicle fast charging products - introduction of electric vehicles



The body of the electric vehicle adopts a one-piece 3.5 steel tube, which is far exceeding The 2.0 steel pipe in the same industry makes the body stronger and safer, the body strength can bear 340kg, and the use of 90/80-12 hot melt tires is more durable and wearable; Front and rear double disc brakes to ensure riding safety, faster and more wear-resistant than the same industry brakes; The body plastics are made of PPS temperature-resistant and flame-retardant materials, making riding safer.

Introduction of two-wheeled vehicle fast charging products - introduction of electric vehicles

The display can support mobile phone startup

Incubator holder

LED Three-lens headlights

Front and rear dual disc brakes



Nine-hole fast charging



Slow charging interface

Nine-hole fast charging

Two-wheeled vehicle fast charging product introduction - battery module



Battery modules



Protection plate



Single monitoring interface



GOS communication interface

The battery module is assembled with lithium titanate cells, which is much higher than ternary and lithium iron batteries in the safety field; Lithium titanate battery modules have do gunshot Cutting, drilling, soaking, high temperature fire and other performance tests, none of which caught fire and exploded, and the service life can be reached 25000 more than one time; The battery is reachable on fast charging 6C Charge, equivalent to Full charge within 10min, Charging is available on the market DC nine-hole charging pile perform fast charging;

The internal protection plate of the battery also contains eight protection as functions as Equalization function, overcharge, over discharge, overvoltage, overcurrent, short circuit, temperature, anti-reverse protection Wait;;

The power supply is equipped with GPS positioning and Bluetooth function, which can be real-time through the APP Monitor the battery and check the battery level.

Introduction to two-wheeled vehicle fast charging products - charging method



Nine-hole DC charging pile

The nine-hole DC charging pile has been fully rolled out in the market, and the compatibility with this charging pile mainly solves the following problems:

- 1 · Provide a convenient fast charging method, you can find a fast-charging station on the map to charge;
- 2 · Improve the safety of charging, charging piles with safety protection, such as: **Over-temperature, over-discharge, over-charge, communication, insulation protection** wait
3. It can meet the battery **Fast charging** · The nine-hole DC charging pile has high power and fast charging · **10min** It can meet the changing needs

Introduction to two-wheeled vehicle fast charging products - performance introduction



Introduction to the performance of two-wheeled vehicle products

serial number	The name of the project	Function introduction
01	Product name	Takeaway Van-Cyclist Champion
02	Battery cell and power	Lithium titanate/1.6 kWh
03	Charging method	Three-hole mains (slow charging) / Nine-hole DC charging pile (fast charging)
04	Charging temperature recommendations	Temperature > 10°C fast charge / Temperature < 10°C slow charge
05	Rate charging	It can be charged up to 6C and can be fully charged in 10min
06	Applicable temperature	-45~60°C
07	Cycle life	Number of cycles ≥ 30,000 (cycles can be used for 30 years)
08	Riding distance	≈65km

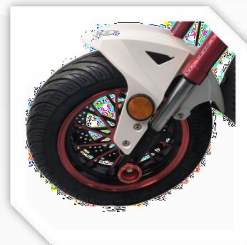
Summary: The power of the car **1.6kWh** · Rideable **about 65km** · Fast charging is available **15min full** · The maximum speed of the vehicle can be reached **60km/h** ·

MYP Technology Limited Motorcycle



Main technical configuration

Batterytype:	Lithium titanate smart battery	ProductName:	X9
BatteryCapacity:	27AH	Controller:	18 tubes Wireless
Chargingtime:	6min up to 15min	Front/Rear fork:	Hydraulic
Fastesspeed:	50 km/h	Brakesystem:	Drum/Drum Drake
Range:	> 45 km	Fronttyre:	120/70-12 Vacuum tyre
40HQ loading number:		105 PCS	





Main technical configuration			
Batterytype:	Lithium titanate smart battery	ProductName:	Y10
BatteryCapacity:	27AH	Controller:	18 tubes Wireless
Chargingtime:	6min up to 15min	Front/Rear fork:	Hydraulic
Fastesspeed:	50 km/h	Brakesystem:	Drum/Drum Drake
Range:	> 45 km	Fronttyre:	Front-110/70-17,After-140/70-17
40HQ loading number:		80 PCS	

MYP Technology Limited Motorcycle



Main technical configuration

Batterytype:	Lithium titanate smart battery	ProductName:	G8
BatteryCapacity:	27AH	Controller:	12 tubes Wireless
Chargingtime:	6min up to 15min	Front/Rear fork:	Hydraulic
Fastesspeed:	50 km/h	Brakesystem:	Drum/Drum Drake
Range:	> 45 km	Fronttyre:	Front and rear disc brake 3.0-10 Vacuum tyre
40HQ loading number:		90 PCS	



MYP Technology Limited Motorcycle



Main technical configuration

Batterytype:	Lithium titanate smart battery	ProductName:	Z6
BatteryCapacity:	27AH	Controller:	18 tubes Wireless
Chargingtime:	6min up to 15min	Front/Rear fork:	Hydraulic
Fastesspeed:	50 km/h	Brakesystem:	Drum/Drum Drake
Range:	> 45 km	Fronttyre:	120/70-12 Vacuum tyre
40HQ loading number:		90 PCS	

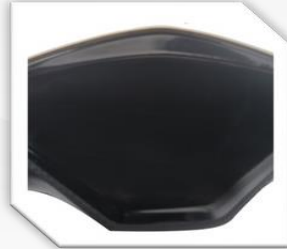


MYP Technology Limited Motorcycyle



Main technical configuration

Batterytype:	Lithium titanate smart battery	ProductName:	GC4
BatteryCapacity:	27AH	Controller:	12 tubes Wireless
Chargingtime:	6min up to 15min	Front/Rear fork:	Hydraulic
Fastesspeed:	50 km/h	Brakesystem:	Drum/Drum Drake
Range:	> 45 km	Fronttyre:	3.0-10 Vacuum tyre
40HQ loading number:		90 PCS	



MYP Technology Limited Motorcycle



Main technical configuration

Batterytype:	Lithium titanate smart battery	ProductName:	RS1
BatteryCapacity:	27AH	Controller:	15 tubes Wireless
Chargingtime:	6min up to 15min	Front/Rear fork:	Hydraulic
Fastesspeed:	50 km/h	Brakesystem:	Drum/Drum Drake
Range:	> 45 km	Fronttyre:	3.0-10 Vacuum tyre
40HQ loading number:		84 PCS	



MYP Technology Limited Motorcycle

Main technical configuration

Batterytype:	Lithium titanate smart battery	ProductName:	PR5
BatteryCapacity:	27AH	Controller:	12 tubes Wireless
Chargingtime:	6min up to 15min	Front/Rear fork:	Hydraulic
Fastesspeed:	50 km/h	Brakesystem:	Drum/Drum Drake
Range:	> 45 km	Fronttyre:	3.0-10 Vacuum tyre
40HQ loading number:		105 PCS	



MYP Technology Limited Motorcycle



Main technical configuration

Batterytype:	Lithium titanate smart battery	ProductName:	WC5
BatteryCapacity:	27AH	Controller:	18 tubes Wireless
Chargingtime:	6min up to 15min	Front/Rear fork:	Hydraulic
Fastesspeed:	50 km/h	Brakesystem:	Drum/Drum Drake
Range:	> 45 km	Fronttyre:	120/70-12 Vacuum tyre
40HQ loading number:		105 PCS	



MYP Technology Limited Motorcycle



Main technical configuration

Batterytype:	Lithium titanate smart battery	ProductName:	A12
BatteryCapacity:	27AH	Controller:	12 tubes Wireless
Chargingtime:	6min up to 15min	Front/Rear fork:	Hydraulic
Fastesspeed:	50 km/h	Brakesystem:	Drum/Drum Drake
Range:	> 45 km	Fronttyre:	3.0-10 Vacuum tyre
40HQ loading number:		126 PCS	



MYP Technology Limited Motorcycle



Main technical configuration

Batterytype:	Lithium titanate smart battery	ProductName:	TS11
BatteryCapacity:	27AH	Controller:	12 tubes Wireless
Chargingtime:	6min up to 15min	Front/Rear fork:	Hydraulic
Fastesspeed:	50 km/h	Brakesystem:	Drum/Drum Drake
Range:	> 45 km	Fronttyre:	3.0-10 Vacuum tyre
40HQ loading number:		105 PCS	





Main technical configuration

Batterytype:	Lithium titanate smart battery	ProductName:	DL3
BatteryCapacity:	27AH	Controller:	12 tubes Wireless
Chargingtime:	6min up to 15min	Front/Rear fork:	Hydraulic
Fastesspeed:	50 km/h	Brakesystem:	Drum/Drum Drake
Range:	> 45 km	Fronttyre:	120/70-12 Vacuum tyre
40HQ loading number:		90 PCS	



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