



Follow us on Facebook



Follow us on YouTube



Follow us on WeChat



Download "Hangcha Forklift" App

### HANGCHA GROUP CO., LTD.

Factory site: 666 Xiangfu Road, Hangzhou, Zhejiang, China (311305)

Tel: +86-571-88926735 88926755  
Fax: +86-571-88926789 88132890

sales@hcforklift.com www.hcforklift.com



ISO45001:2018



ISO14001:2015



ISO9001:2015



HANGCHA trucks conform to the European Safety Requirements.

HANGCHA GROUP CO., LTD. reserves the right to make any changes without notice concerning colors, equipment, or specifications detailed in this brochure, or to discontinue individual models. The colors of trucks, delivered may differ slightly from those in brochures.

AUTHORIZED DEALER

# XE SERIES

ELECTRIC FORKLIFT TRUCK WITH LITHIUM POWER

With capacity of 1,500 to 4,000kg

**XE**  
SERIES



# XE SERIES



## TAKE ON THE BIG JOBS.

Following the family design of electric forklifts, they are provided with some key parts compatible with internal combustion forklifts, and optimized mainly on the overall performance, ergonomics, reliability, maintenance, outdoor operation ability and load capacity in a bid to meet customers' use scenarios of internal combustion forklifts. The enhanced model is capable of meeting the application demand of users in heavy-duty working conditions.

### STYLISH EXTERIOR

- Following the family exterior design of XH and XC lithium battery forklifts;
- Boasting smooth and powerful contour lines, and simple and elegant vehicle body, and presenting both fashion and steadiness as a whole.

### ENERGY-SAVING AND EFFICIENT

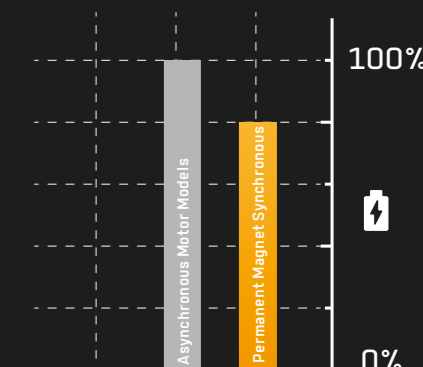
- An efficient high-torque motor together with a high speed ratio gearbox significantly improves the travel speed, gradeability and lifting speed;
- The air-cooled fan built in the travel and lifting motors allow better heat dissipation and more thorough performance realization;
- Oil pump reducers are introduced in the oil pump devices for the first time, enabling the lifting motor to work in a more efficient and more energy-saving manner;



## TAKE ADVANTAGE OF MORE POWER

With the **80V dual permanent magnet synchronous motor system** with higher power density, as well the highly fitted speed reducer, motors and electrical control, under the same operating conditions, compared with the traditional asynchronous motor model, the energy consumption is reduced by 15%-20%.

**15-20%**  
ENERGY SAVING





## COMFORTABLE EXPERIENCE

- With the advantages of lithium battery forklifts, this ergonomically designed forklift enables a wide view and a large operation space.
- The optional electronic handbrake allows more comfortable driving experience.
- The color-screen instruments are designed to have clear and intuitive graphic interfaces.



Color-screen instruments

Ergonomically designed forklift enables a wide view



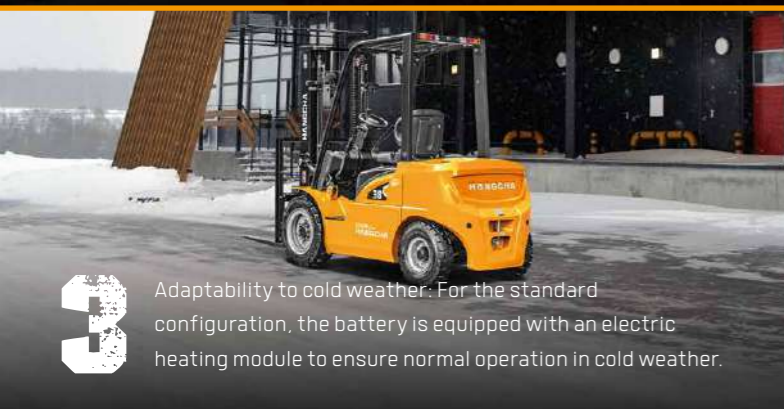
## ADAPTABILITY TO DIFFERENT SCENARIOS



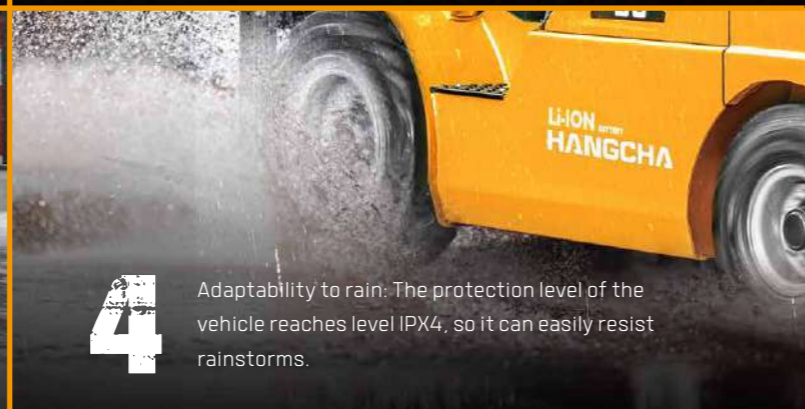
**1** Smooth driving: Increased distance from the ground enables the forklift to adapt to rugged roads outdoors.



**2** Flexible turning: With a small turning radius, the forklift can flexibly move in indoor environments such as cold stores (optional), etc.



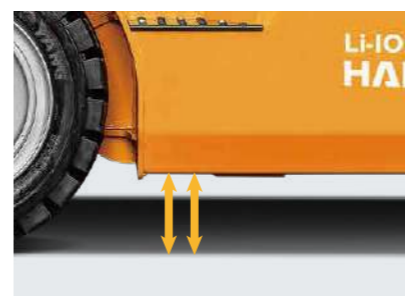
**3** Adaptability to cold weather: For the standard configuration, the battery is equipped with an electric heating module to ensure normal operation in cold weather.



**4** Adaptability to rain: The protection level of the vehicle reaches level IPX4, so it can easily resist rainstorms.

## RELIABLE AND DURABLE

- The enhanced drive axle and gearbox with the mast, steering axles with tapered roller bearing (for the heavy-duty model) and big tires for internal combustion forklifts can meet the demand of application in heavy-duty working conditions;
- Low center of gravity and high load margin are designed for more stable working;
- Verified in accordance with double standards of electric forklifts and internal combustion forklifts, with the enhanced test strength higher than that for the internal combustion standard, this forklift is reliable and durable.



Ground clearance increased



## KEEP AN EYE ON EVERYTHING

Hangcha FIMS is a system that provides you with real-time information about forklift truck and driver. Whether you have dozens or hundreds of forklift trucks across multiple sites, you can get access to collecting, monitoring and evaluating all the fleet data at anytime and anywhere.

## » Features

- ▶ Access Control
- ▶ GPS Tracking
- ▶ Remote Monitoring
- ▶ Maintenance Reminder
- ▶ Vehicle Management
- ▶ Vibration Monitoring
- ▶ Pre-shift Check (Optional)
- ▶ Shift Management (Optional)
- ▶ OpenAPI (Optional)

# LITHIUM POWERED

EMPOWER YOURSELF  
WITH THE BEST



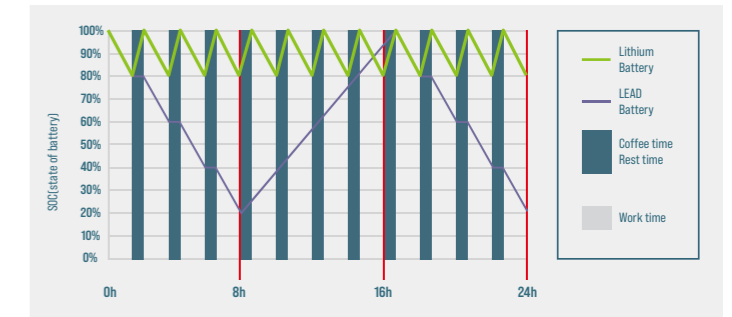
Li  
Lithium

POWER THE POSSIBILITIES  
RELIABLE LITHIUM-ION TECHNOLOGY

## FEATURES & BENEFITS THE HANGCHA DIFFERENCE

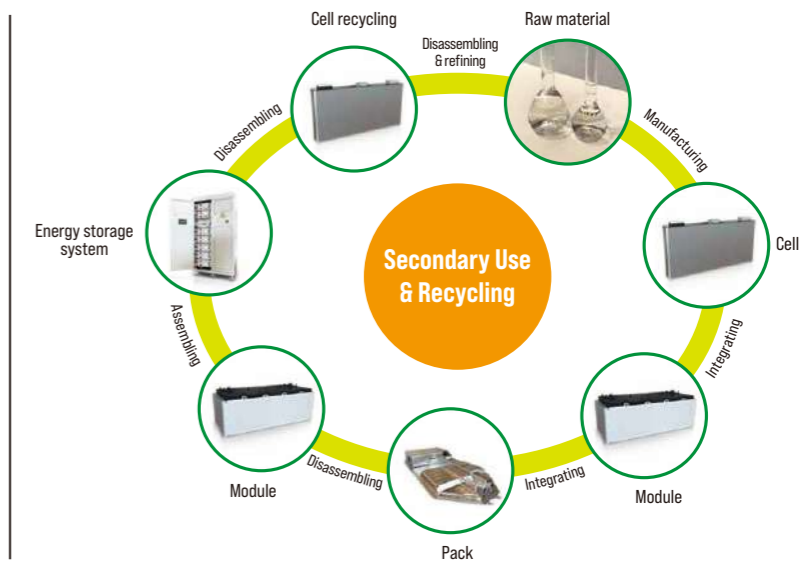
### Efficiency

By quick opportunity charging any downtime, such as a lunch break, can be efficiently used and the battery is recharged in a very short period of time. Interim charging does not affect the battery service life.



### Safety

- / Intelligent battery management monitoring every important function.
- / Higher user safety, thanks to acid-free use.
- / User friendly due to avoided battery change.
- / No emission of battery gasses.



## LITHIUM BATTERY ADVANTAGES



#### Long service life

4000 full charging cycles with at least 80% residual capacity.



#### Return on investment

Add flexibility to your operation, cost-saving in the long term, increased efficiencies.



#### Maintenance free

No topping up of water or checking acid levels.



#### High energy density

The high energy density of the Li-Ion battery ensures long working times and increases the high availability.



#### Cold area application

Li-Ion batteries maintain high performance at temperatures below freezing.



#### High safety and reliability

Intelligent battery management monitoring every important function, no emission of battery gasses.



#### Opportunity charging

Full performance during several shifts thanks to effective interim charging.

### QUESTION 1

Q: What are the characteristics of lithium batteries, especially when used in high and low temperature environments?

Charging temperature: 0 C - 65 C  
Discharge temperature: -30 C - 65 C  
Storage environment temperature: -30 C - 60 C

After the truck key switch is closed, the instrument battery condition needs to be checked:

1. Confirm that there is no battery system alarm message on the instrument panel.
2. Please check the remaining power before use. It is recommended to use the SOC between 50% and 100%.
3. If the SOC is lower than 20%, it is not recommended to continue using it. Please charge it as soon as possible.

### QUESTION 2

Q: What is the charging time and usage time calculation of forklift lithium battery?

1. Available power of lithium battery (kWh) = rated voltage \* rated power \* 90% (To avoid over-discharge damaging the battery, the forklift is equipped with low power protection [less than 10%]).
  2. Charging time (h) = rated capacity of lithium battery (Ah) \* 90% \* charger output current (A).
  3. The power consumed for charging (kWh) = the available power of the lithium battery \* 93% (the charging efficiency of the charger is calculated as 93%).
  4. Usage time (h) = available power of lithium battery \* energy consumption data.
- For specific energy consumption values, please refer to the technical table on the sharing platform.

### QUESTION 3

Q: How does Hangcha BMS work to ensure the safety of the lithium battery?

HANGCHA BMS (battery management system) can monitors the cells at all time. As a result, hangcha lithium power is the reliable solution.



#### Battery Safety Management:

- Overcharge/over discharge protection
- Overcurrent/over-temperature/low-temperature protection
- Multi-level fault diagnosis protection
- Double fault monitoring



#### Battery Parameter Detection:

- Battery voltage detection and analysis
- Battery current detection and analysis
- Battery temperature detection and analysis



#### Equilibrium Management:

- Equalization based on voltage mode
- Equalization based on time mode
- Equalization based on battery cell SOC
- Active/passive equalization optional



#### Other Features:

- Low cost, low power consumption
- Historical data record
- Flexible cascade expansion
- CRC data validation

# LI-ION BATTERIES AND CHARGERS

## IT'S FASTER AND EASIER WITH HANGCHA

Innovative, reliable lithium-ion technology (Lithium Iron-Phosphate), which are developed jointly by HANGCHA and CATL. Battery cells and modules are from CATL, with reliable quality, exclusively for HANGCHA.



Battery Capacity(Standard)  
**80V/150-460Ah**

Battery weight:150-310kg

Integrated Battery Management System (BMS) continually monitors energy management and ensures reliable operation. HANGCHA provides Li-Ion battery (LiFePO4) with **6 years** or **12000 hours** warranty.

## HANGCHA WARRANTY SERVICE

**6 YEARS WARRANTY**



Charger model:

**SLC-80100**  
**SLC-80200**

Output voltage range (V):

80V charger: 40Vdc - 100Vdc

Output current range (A):

100A charger: 5A - 100A(SLC-80100)

200A charger: 5A - 200A(SLC-80200)

### EVE Battery Capacity

Capacity(Ah)	1.5-mini2.0t 80V	2.0-2.5t 80V		3.0-3.8t 80V		mini4.0t 80V
		H	H2	H	H2	
150	●	/	/	/	/	/
230	○	●	/	●	/	/
304	○	○	●	○	/	/
460	/	○	○	○	●	●
560	/	/	/	○	○	○
608	/	/	/	/	○	○

Note: ● Standard ; ○ Optional

### CATL Battery Capacity

Capacity(Ah)	1.5-mini2.0t 80V	2.0-2.5t 80V		3.0-3.8t 80V		mini4.0t 80V
		H	H2	H	H2	
228	○	/	/	/	/	/
302	○	○	○	○	/	/
456	/	○	○	○	○	○
604	/	/	/	○	○	○

Note: ● Standard ; ○ Optional







## 2-2.5t(H2) Mast specification

Type	Model		Lifting height	Lowered overall height	Overall height		Free lift height		Tilt range	Capacity (Mast vertical to ground)			
					Without backrest	With backrest	Without backrest	With backrest		Load Capacity at 500mm			
										Single Tire		Double tire	
										2t	2.5t	2t	2.5t
		mm	mm	mm	mm	mm	mm	(°)	kg	kg	kg	kg	
Duplex wide view mast	XR25M200	XR25M250	2000	1534	2707	3046	160	160	6/6	2000	2500	2000	2500
	XR25M270	XR25M300	2500	1784	3207	3546	160	160	6/12	2000	2500	2000	2500
	XR25M330	XR25M360	2700	1884	3407	3746	160	160	6/12	2000	2500	2000	2500
	XR25M400	XR25M430	3000	2034	3707	4046	160	160	6/12	2000	2500	2000	2500
	XR25M450	XR25M480	3300	2184	4007	4346	160	160	6/12	2000	2500	2000	2500
	XR25M500	XR25M550	3600	2385	4307	4646	160	160	6/12	2000	2500	2000	2500
	XR25M600	XR25U250	4000	2635	4707	5046	160	160	6/6	2000	2500	2000	2500
	XR25U270	XR25U300	4300	2785	5007	5346	160	160	6/6	2000	2500	2000	2500
	XR25U330	XR25U360	4500	2885	5207	5546	160	160	6/6	2000	2450	2000	2500
	XR25U400	XR25N400	4800	3035	5507	5846	160	160	6/6	1950	2350	2000	2450
	XR25N430	XR25N450	5000	3135	5707	6046	160	160	6/6	1850	2300	1950	2350
	XR25N470	XR25N500	5500	3385	6207	6546	160	160	3/6	1750	2150	1900	2200
	XR25N550	XR25N600	6000	3635	6707	7046	160	160	3/6	1550	1900	1800	2000
	XR25N650	XR25N700	7000	4300	7307	7646	160	160	3/6	/	/	1550	1800
	XR25N700		7000	3100	7739	8046	2420	2053	3/6	/	/	1150	1450

SUBTRACT 100kg WITH INTEGRAL SIDESHIFTER, SUBTRACT 150kg WITH EXTERNAL SIDESHIFTER.

## 3-3.8t(H2) Mast specification

Type	Model		Lifting height	Lowered overall height	Overall height		Free lift height		Tilt range	Capacity (Mast vertical to ground)										
					Without backrest	With backrest	Without backrest	With backrest		Load Capacity at 500mm										
										Single Tire			Double tire							
										3t	3.5/3.8t	3t	3.5/3.8t	3t	3.5/3.8t					
		mm	mm	mm	mm	mm	mm	(°)	kg	kg	kg	kg	kg	kg						
Duplex wide view mast	XR30M200	XR30M250	2000	1554	1669	2767	2842	3145	3145	165	170	165	170	6/6	3000	3500	3800	3000	3500	3800
	XR30M270	XR30M300	2500	1804	1919	3267	3342	3645	3645	165	170	165	170	6/12	3000	3500	3800	3000	3500	3800
	XR30M330	XR30M360	2700	1904	2019	3467	3542	3845	3845	165	170	165	170	6/12	3000	3500	3800	3000	3500	3800
	XR30M400	XR30M430	3000	2054	2169	3767	3842	4145	4145	165	170	165	170	6/12	3000	3500	3800	3000	3500	3800
	XR30M450	XR30M480	3300	2204	2319	4067	4142	4445	4445	165	170	165	170	6/12	3000	3500	3800	3000	3500	3800
	XR30M500	XR30M550	3600	2404	2469	4367	4442	4745	4745	165	170	165	170	6/12	3000	3500	3800	3000	3500	3800
	XR30M600	XR30U250	4000	2654	2769	4767	4842	5145	5145	165	170	165	170	6/12	3000	3500	3800	3000	3500	3800
	XR30U270	XR30U300	4300	2804	2919	5067	5142	5445	5445	165	170	165	170	6/6	3000	3400	3700	3000	3500	3800
	XR30U330	XR30U360	4500	2904	3019	5267	5342	5645	5645	165	170	165	170	6/6	3000	3300	3600	3000	3400	3700
	XR30U400	XR30N400	4800	3054	3169	5567	5642	5945	5945	165	170	165	170	6/6	2950	3200	3500	3000	3300	3600
	XR30N430	XR30N450	5000	3154	3269	5767	5842	6145	6145	165	170	165	170	6/6	2850	3100	3400	2900	3200	3500
	XR30N470	XR30N500	5500	3404	3519	6267	6342	6645	6645	165	170	165	170	3/6	2670	3000	3300	2750	3100	3400
	XR30N550	XR30N600	6000	3654	3769	6767	6842	7145	7145	165	170	165	170	3/6	2350	2650	2950	2500	2800	3100
	XR30N650	XR30U250	2500	1834	1934	3316	3391	3645	3645	1018	1043	689	789	6/12	3000	3500	3800	3000	3500	3800
	XR30U270	XR30U300	2700	1934	2034	3516	3591	3845	3845	1118	1143	789	889	6/12	3000	3500	3800	3000	3500	3800
XR30U330	XR30U360	3000	2084	2184	3816	3891	4145	4145	1268	1293	939	1039	6/12	3000	3500	3800	3000	3500	3800	
XR30U400	XR30N400	3300	2234	2334	4116	4191	4445	4445	1418	1443	1089	1189	6/12	3000	3500	3800	3000	3500	3800	
XR30N430	XR30N450	3600	2384	2484	4416	4491	4745	4745	1568	1593	1239	1339	6/12	3000	3500	3800	3000	3500	3800	
XR30N470	XR30N500	4000	2634	2734	4816	4891	5145	5145	1818	1843	1489	1589	6/12	3000	3500	3800	3000	3500	3800	
XR30N550	XR30N600	4000	2019	2119	4816	4891	5145	5145	1203	1228	874	974	6/6	3000	3400	3700	3000	3500	3800	
XR30N650	XR30N700	4300	2119	2219	5116	5191	5445	5445	1303	1328	974	1074	6/6	3000	3300	3600	3000	3400	3700	
XR30N700		4500	2169	2319	5316	5391	5645	5645	1353	1428	1024	1174	6/6	3000	3200	3500	3000	3300	3600	
		4700	2269	2419	5516	5591	5845	5845	1453	1528	1124	1274	6/6	2900	3100	3400	2950	3200	3500	
		4800	2319	2469	5616	5691	5945	5945	1503	1578	1174	1324	6/6	2900	3100	3400	2950	3200	3500	
		5000	2419	2519	5816	5891	6145	6145	1603	1728	1274	1474	6/6	2850	3100	3350	2900	3200	3450	
		5500	2619	2869	6316	6391	6645	6645	1803	1978	1474	1724	3/6	2670	3000	3250	2750	3100	3350	
		6000	2869	3119	6816	6919	7145	7145	2053	2200	1724	1974	3/6	2350	2650	2900	2500	2800	3050	
		6500	3119	3369	7316	7391	7645	7645	2303	2478	1974	2224	3/6	/	/	/	2200	2400	2650	
		7000	3369	3619	7816	7919	8145	8145	2553	2700	2274	2474	3/6	/	/	/	1850	2050	2250	

SUBTRACT 100kg WITH INTEGRAL SIDESHIFTER, SUBTRACT 200kg WITH EXTERNAL SIDESHIFTER.  
3.5-3.8t can be equipped with 4.5m triplex mast for container work(2219mm).

## 3-3.8t Mast specification

Type	Model		Lifting height	Lowered overall height	Overall height		Free lift height		Tilt range	Capacity (Mast vertical to ground)										
					Without backrest	With backrest	Without backrest	With backrest		Load Capacity at 500mm										
										Single Tire			Double tire							
										3t	3.5/3.8t	3t	3.5/3.8t	3t	3.5/3.8t					
		mm	mm	mm	mm	mm	mm	mm	mm	(°)	kg	kg	kg	kg	kg	kg				
Duplex wide view mast	A2A30M200	A2A35M200	2000	1554	1669	2767	2842	3145	3145	165	170	165	170	6/6	3000	3500	3800	3000	3500	3800
	A2A30M250	A2A35M250	2500	1804	1919	3267	3342	3645	3645	165	170	165	170	6/12	3000	3500	3800	3000	3500	3800
	A2A30M270	A2A35M270	2700	1904	2019	3467	3542	3845	3845	165	170	165	170	6/12	3000	3500	3800	3000	3500	3800
	A2A30M300	A2A35M300	3000	2054	2169	3767	3842	4145	4145	165	170	165	170	6/12	3000	3500	3800	3000	3500	3800
	A2A30M330	A2A35M330	3300	2204	2319	4067	4142	4445	4445	165	170	165	170	6/12	3000	3500	3800	3000	3500	3800
	A2A30M360	A2A35M360	3600	2404	2469	4367	4442	4745	4745	165	170	165	170	6/12	3000	3500	3800	3000	3500	3800
	A2A30M400	A2A35M400	4000	2654	2769	4767	4842	5145	5145	165	170	165	170	6/12	3000	3500	3800	3000	3500	3800
	A2A30M430	A2A35M430	4300	2804	2919	5067	5142	5445	5445	165	170	165	170	6/6	3000	3400	3700	3000	3500	3800
	A2A30M450	A2A35M450	4500	2904	3019	5267	5342	5645	5645	165	170	165	170	6/6	3000	3300	3600	3000	3400	3700
	A2A30M480	A2A35M480	4800	3054	3169	5567	5642	5945	5945	165	170	165	170	6/6	2950	3200	3500	3000	3300	3600
	A2A30M500	A2A35M500	5000	3154	3269	5767	5842	6145	6145	165	170	165	170	6/6	2850	3100	3400	2900	3200	3500
	A2A30M550	A2A35M550	5500	3404	3519	6267	6342	6645	6645	165	170	165	170	3/6	2670	3000	3300	2750	3100	3400
	A2A30M600	A2A35M600	6000	3654	3769	6767	6842	7145	7145	165	170	165	170	3/6	2350	2650	2950	25		

## Features

Color	Standard	Options
Yellow-black	●	
Other customized color		○
Particular market		
CE Standard		○
Cold storage environment		
-30°C		○
Mast		
Standard duplex mast	●	
Configuration Table of the Mast		○
Fork and attachment		
Standard fork	●	
Fork arm carrier	●	
Load backrest	●	
Non-standard series fork		○
Various attachments		○
Tires		
Pneumatic tire (single)	●	
Pneumatic tire (dual)		○
Solid tire (single)		○
Solid tire (dual)		○
Multiway valve		
Double multi-way valve	●	
Potentionmeter for lift	●	
3rd vavle		○
4th vavle		○
5th vavle (2.0-3.8t)		○
Tiller		
Lifting and tilting level	●	
Fingertip system		○
Battery		
Standard lithium battery	●	
Large-capacity lithium battery		○
Quick-change lithium battery		○
Light		
LED head lamp	●	
Turn signal lamp	●	
LED rear combination lamp	●	
Common alarm lamp		○
Acoustic and optical alarm lamp		○
LED rear lamp		○
Blue light		○
Straight projection lamp		○
Horn		
Electric horn	●	
Reverse buzzer	●	
Right rear armrest with horn button		○
Smart module		
FIMS[Fleet intelligent management system]		○

## Features

Safety configuration	Standard	Options
Emergency power-off switch	●	
Fuse box	●	
Soft landing	●	
Reversing radar		○
OPS system		○
Fire extinguisher		○
Ascending buffering		○
Parking brake		
Mechanical handbrake	●	
EPB[Electric Parking Brake]		○
Instrument rack space		
Smart color-screen instrument (speed mode selection)	●	
Combination switch	●	
Cigarette lighter		○
USB port		○
Electronic code lock (start by swiping a card)		○
Driving space		
Standard overhead guard	●	
Central rear view mirror	●	
Front windshield		○
PVC ceiling		○
Cab		○
Electric fan		○
Left and right rear view mirrors		○
Seat		
Standard seat	●	
Fully-suspended seat		○
Semi-suspended seat		○
Other standard configuration		
Drive and lifting controllers	●	
Driving and lifting motors	●	
Oil pump reducer	●	
Silent gear pump	●	
DC-DC converter	●	
Pedal pad	●	
Traction pin	●	
Integral stamped side panel and hood	●	