



**EP REFURBISHMENT**

# EFXZ SERIES

**4-wheel Li-ion Counterbalance  
Forklift 2500/3000kg**



Innovation Through Simplicity



EP EQUIPMENT CO.,LTD

V2504.02

[www.ep-equipment.com](http://www.ep-equipment.com)

Email: [info@ep-ep.com](mailto:info@ep-ep.com)

EP Industrial Park, Xiaquan Village, Lingfeng Street, Anji County, Huzhou City, Zhejiang Province



# ABOUT REFURBISHMENT

The EFXZ series is a step-forward revolution started by EP Equipment, driving the transition from IC to electric. EP recycles used IC forklifts and through proper refurbishment, launches the innovative lithium-powered forklifts to the markets. It's more than a technical upgrade - it's a strategic move with sustainability and cost savings.

Take out the engine, the tank and the gear box, and keep the chassis, the front axle and the counterweight, and most importantly, add a new heart - EP's self-developed lithium-ion battery to give the used IC truck a second full life. The remanufactured EFXZ series delivers comparable performance, reliable quality, and high safety standards at significantly reduced costs both on initial investment and daily operation, all while contributing to a greener future.

EP refurbishment brings you an economic lithium-powered forklift as good and durable as a new one, and addresses the issue of carbon footprint, offering a competitive edge in the material handling industry.

## BEFORE



Old Engine



Old Counterweight



Old Chassis

## AFTER



New Lithium-ion Battery and Motor



Refurbished Counterweight



Refurbished Chassis

## In-Depth Refurbishment Process

The EFXZ series undergoes a meticulous remanufacturing process in EP remanufacturing production base, which boasts a talented team and automated equipment. It involves a comprehensive and in-depth disassembly of used IC forklifts, more than simple cosmetic remanufacturing. The chassis, the counterweight, and the front axle are thoroughly inspected and remanufactured. The new core, EP's innovative lithium technology, replaces the engine to empower the truck. The EFXZ series combines the best of both worlds, the robustness of IC forklifts and the advanced lithium power system.

- **Disassembly:**  
The used IC forklifts are carefully disassembled to separate chassis, counterweights and front axles from those that are damaged or worn out.
- **Component inspection:**  
Parts are inspected for their potential for remanufacturing.
- **Shot blasting and painting:**  
Parts are cleaned to remove contaminants and restored to a usable condition.
- **Re-assembly:**  
Remanufactured parts are reassembled into the lithium-ion forklift. Key components come from EP's iconic and market-proven models, like the mast same as the one used in the EFL2 series, ensuring reliable performance and durability.
- **Rigorous testing and quality control:**  
The remanufactured forklift undergoes rigorous testing to ensure reliability and safety.



## Advanced Lithium Technology

EP has been succeeding in IC-to-electric transformation since the EFL series forklifts was launched in 2020 and advanced lithium power solutions. The lithium-powered EFXZ series produces zero emissions and operates more quietly than IC forklifts, aligning with global sustainability goals. Additionally, it can significantly reduce fuel costs by hundreds of dollars per week and requires less maintenance, lowering overall costs for daily operation. The lithium technology is also known for its energy efficiency and provides fast and opportunity charging, which enhances productivity and reduces downtime.

- 🔋 OPPORTUNITY CHARGING
- 🔧 ZERO MAINTENANCE
- 🔇 QUIET
- ♻️ ZERO EMISSIONS
- € REDUCE COST



## Rigorous Testing and Quality Control

Reliability and safety take high priorities. The EFXZ series undergoes the rigorous tests, including load capacity testing, brake performance evaluation, endurance testing, and safety system checks. These ensure that the EFXZ series meets the same quality and safety standards as new ones.



## Renewed Appearance

The refurbishment process not only ensures that the used truck functions effectively but also appears aesthetically pleasing. The renewed EFXZ series goes through surface treatment process, including shot blasting and painting, making it as good as new EP forklifts.



## Long Lifespan – Warranty Guaranteed with Same Standard as New Models

The lifespan of the EFXZ series can be comparable to new EP forklifts and all parts offer quality and reliability assurance.

There is no compromise on its performance, its durability as well as the warranty policy support.



## 4-wheel Li-ion Counterbalance Forklift 2500kg EFXZ251

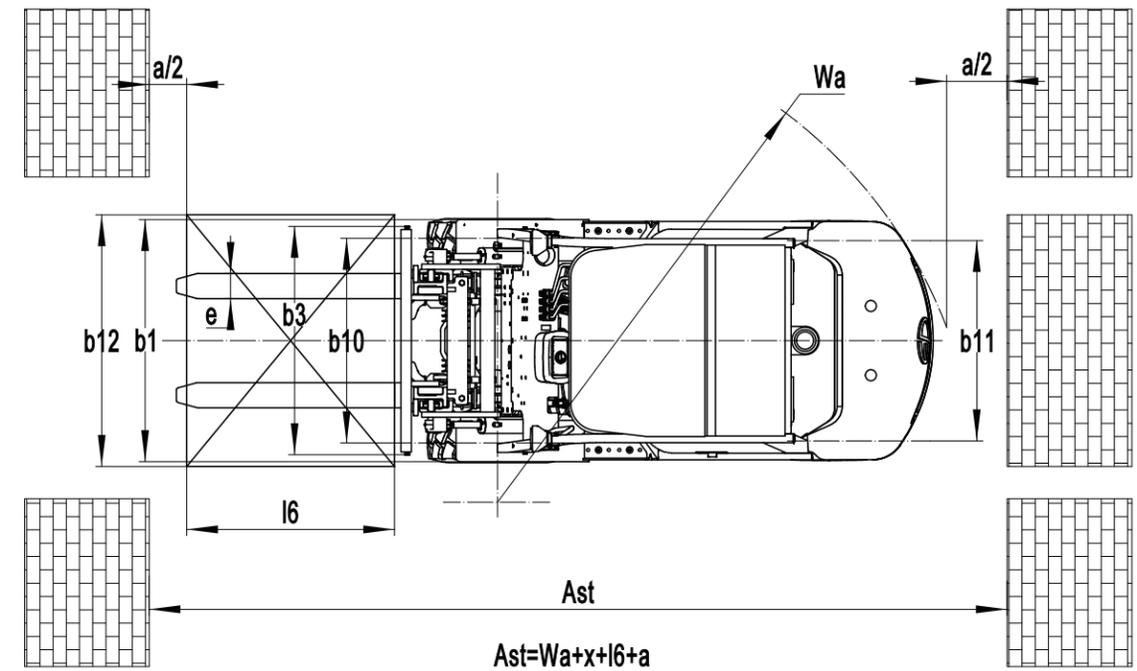
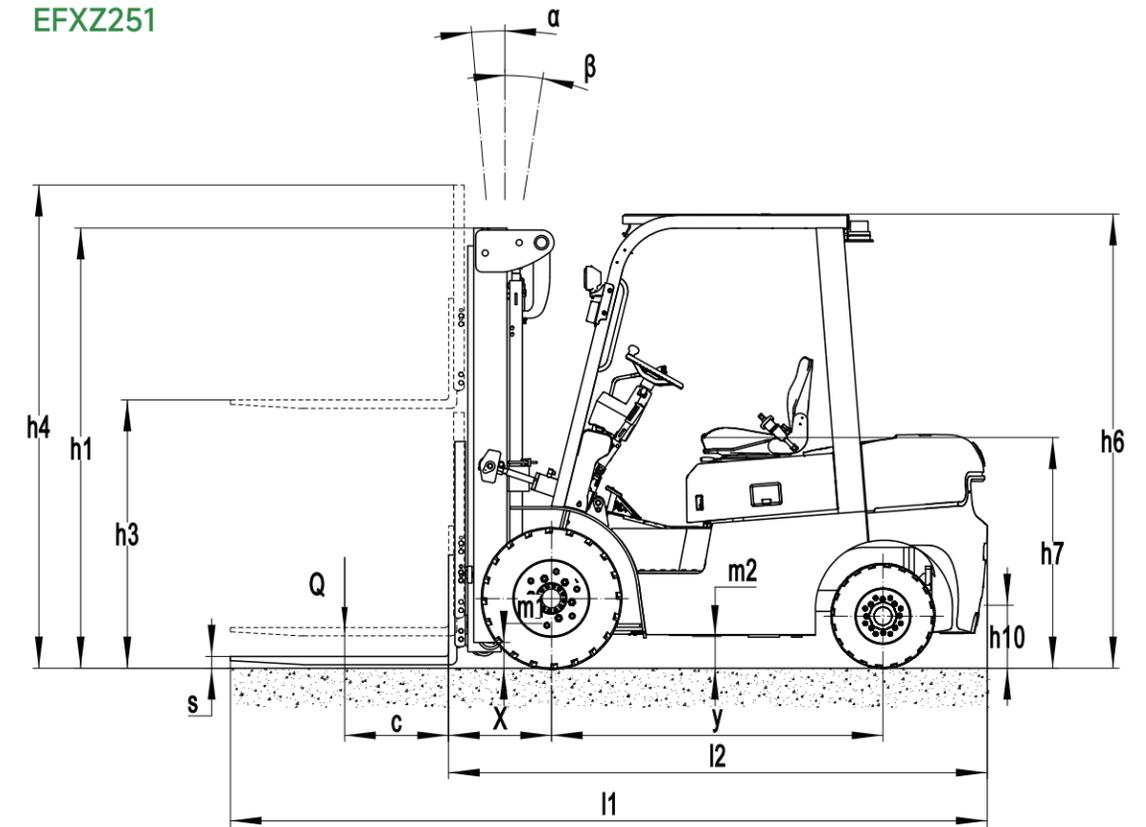
Distinguishing mark	1.1	Manufacturer			EP	
	1.2	Model designation			EFXZ251	
	1.3	Drive unit			Electric	
	1.4	Operator type			Seated	
Service weight	1.5	rated capacity	Q	kg	2500	
	1.6	Load center distance	c	mm	500	
	1.8	Load distance, centre of drive axle to fork	x	mm	495	
Tyres/chassis	1.9	Wheelbase	y	mm	1595	
	2.1	Service weight		kg	3900	
	2.2	Axle loading, laden front/rear		kg	5520/880	
	2.3	Axle loading, unladen front/rear		kg	1460/2440	
	3.1	Tyre type			Pneumatic	
	3.2	Tyre size, front			7.00-12-12PR	
Dimensions	3.3	Tyre size, rear			18X7-8-14PR	
	3.5	Wheels, number front/rear (x=drive wheels)		mm	2x/ 2	
	3.6	Tread, front	b <sub>10</sub>	mm	975	
	3.7	Tread, rear	b <sub>11</sub>	mm	975	
	4.1	Tilt of mast/fork carriage forward/backward	α/β	°	6/ 10	
	4.2	Height, mast lowered	h <sub>1</sub>	mm	2090	
	4.3	Free lift	h <sub>2</sub>	mm	120	
	4.4	Lift height	h <sub>3</sub>	mm	3000	
	4.5	Height, mast extended	h <sub>4</sub>	mm	4025	
	4.7	Height of overhead/ guard cabin	h <sub>6</sub>	mm	2165	
	4.8	Seat height/standing height	h <sub>7</sub>	mm	1095	
	4.12	Tow coupling height	h <sub>10</sub>	mm	300	
	4.19	Overall length	l <sub>1</sub>	mm	3662	
	4.20	Length to face of forks	l <sub>2</sub>	mm	2592	
	4.21	Overall width	b <sub>1</sub> /b <sub>2</sub>	mm	1154	
	Performance data	4.22	Fork dimensions	s×e×l	mm	40×122×1070
		4.23	A,B Fork carriage class/type A, B			2A
4.24		Fork carriage width	b <sub>3</sub>	mm	1040	
4.31		Ground clearance, laden, below mast	m <sub>1</sub>	mm	115	
4.32		Ground clearance, center of wheelbase	m <sub>2</sub>	mm	150	
4.34.1		Aisle width for pallets 1000×1200 crossways	Ast	mm	4011	
4.34.2		Aisle width for pallets 800×1200 crossways	Ast	mm	4211	
4.35		turning radius	Wa	mm	2316	
5.1		Travel speed, laden/unladen		km/h	11/12	
Electric-engine		5.2	Lifting speed, laden/unladen		m/s	0.29/0.36
	5.3	Lowering speed, laden/unladen		m/s	0.45/0.5	
	5.8	Max. gradeability, laden/unladen			15/20	
	5.10	Service brake		kW	Hydraulic	
Addition data	5.11	Parking brake		kW	Mechanical	
	6.1	Drive motor rating S2 60 min		V/Ah	8	
	6.2	Lift motor rating at S3 15%			16	
	6.4	Battery voltage/nominal capacity			80V 150AH	
	8.1	Type of drive unit			PMSM	
	10.5	Steering design			Hydraulic	
	10.7	Sound pressure level at the driver's ear			< 74	

If there are improvements of technical parameters or configurations, no further notice will be given. The diagram shown may contain non-standard configurations.

# 4-wheel Li-ion Counterbalance Forklift 3000kg EFXZ301-H/E

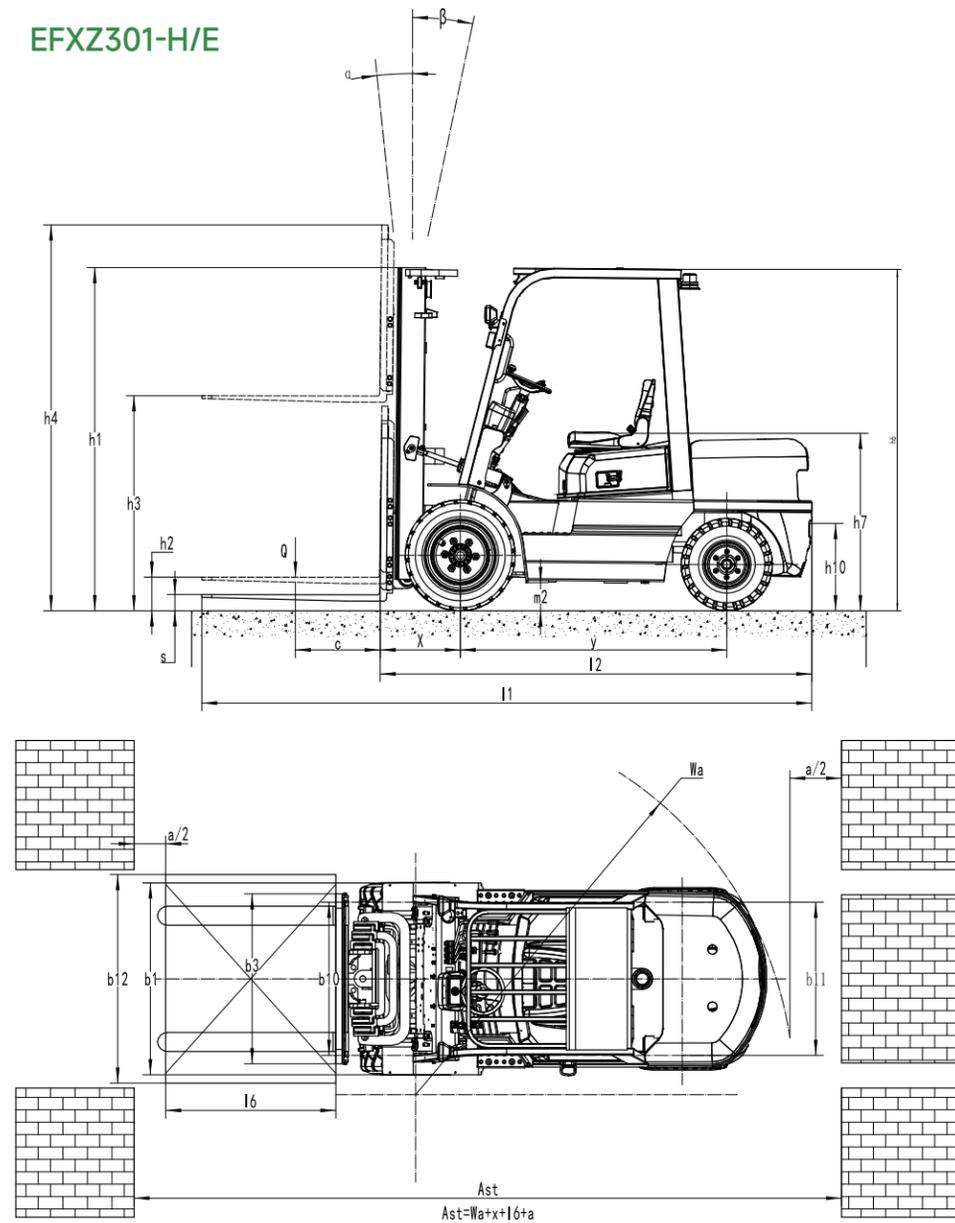
Distinguishing mark	1.1		EP	EP	
	1.2	Manufacturer		EP	EP
Service weight	1.2	Model designation	EFXZ301-H	EFXZ301-E	
	1.3	Drive unit	Electric	Electric	
Tyres/chassis	1.4	Operator type	Seated	Seated	
	1.5	rated capacity	Q	kg	3000
Dimensions	1.6	Load center distance	c	mm	500
	1.8	Load distance, centre of drive axle to fork	x	mm	481
Performance data	1.9	Wheelbase	y	mm	1750
	2.1	Service weight		kg	4200
Electric-engine	2.2	Axle loading, laden front/rear		kg	6374/868
	2.3	Axle loading, unladen front/rear		kg	1642/2530
Addition data	3.1	Tyre type			Pneumatic
	3.2	Tyre size, front			28X9-15-14PR
Performance data	3.3	Tyre size, rear			6.50-10-10PR
	3.5	Wheels, number front/rear (x=drive wheels)		mm	2x/ 2
Dimensions	3.6	Tread, front	b <sub>10</sub>	mm	1000
	3.7	Tread, rear	b <sub>11</sub>	mm	980
Performance data	4.1	Tilt of mast/fork carriage forward/backward	α/β	°	6/ 12
	4.2	Height, mast lowered	h <sub>1</sub>	mm	2100
Dimensions	4.3	Free lift	h <sub>2</sub>	mm	120
	4.4	Lift height	h <sub>3</sub>	mm	3000
Performance data	4.5	Height, mast extended	h <sub>4</sub>	mm	4110
	4.7	Height of overhead/ guard cabin	h <sub>6</sub>	mm	2170
Dimensions	4.8	Seat height/standing height	h <sub>7</sub>	mm	1115
	4.12	Tow coupling height	h <sub>10</sub>	mm	340
Performance data	4.19	Overall length	l <sub>1</sub>	mm	3730
	4.20	Length to face of forks	l <sub>2</sub>	mm	2690
Dimensions	4.21	Overall width	b <sub>1</sub> /b <sub>2</sub>	mm	1225
	4.22	Fork dimensions	s×e×l	mm	45×122×1070
Performance data	4.23	A,B Fork carriage class/type A, B			3A
	4.24	Fork carriage width	b <sub>3</sub>	mm	1145
Dimensions	4.31	Ground clearance, laden, below mast	m <sub>1</sub>	mm	150
	4.32	Ground clearance, center of wheelbase	m <sub>2</sub>	mm	200
Performance data	4.34.1	Aisle width for pallets 1000×1200 crossways	Ast	mm	4170
	4.34.2	Aisle width for pallets 800×1200 crossways	Ast	mm	4098
Performance data	4.35	turning radius	Wa	mm	2400
	5.1	Travel speed, laden/unladen		km/h	11/12
Performance data	5.2	Lifting speed, laden/unladen		m/s	0.26/0.36
	5.3	Lowering speed, laden/unladen		m/s	0.4/0.43
Performance data	5.8	Max. gradeability, laden/unladen			15/24
	5.10	Service brake		kW	Hydraulic
Performance data	5.11	Parking brake		kW	Mechanical
	6.1	Drive motor rating S2 60 min		V/Ah	10
Performance data	6.2	Lift motor rating at S3 15%			16
	6.4	Battery voltage/nominal capacity			80V280AH
Performance data	8.1	Type of drive unit			AC
	10.5	Steering design			hydraulic
Performance data	10.7	Sound pressure level at the driver's ear			< 74

EFXZ251



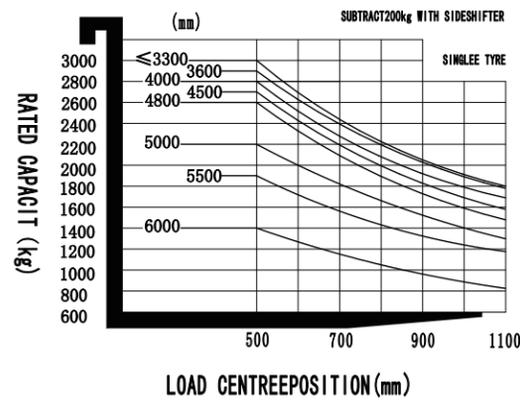
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EFXZ301-H/E



EFXZ301-H/E

RATED CAPACITIES AND LOAD CENTRE POSITION GRAPH



Mast Option:

EFXZ251

Mast types	Lift height (h3)	Height, Mast		Height, Free lift(h2)		
		Height, mast lowered(h1)	Height, mast extended(h4)		No backrest	With backrest
			No backrest	With backrest		
mm	mm	mm	mm	mm	mm	
2-Standard Mast	3000	2090	3595	4060	120	120
	3300	2240	3895	4360	120	120
	3500	2340	4095	4560	120	120
	3600	2390	4195	4660	120	120
	4000	2640	4595	5060	120	120
2-Free Mast	3000	2035	3765	4100	1345	1010
	3300	2185	4065	4400	1495	1160
	3600	2335	4365	4700	1645	1310
3-Free Mast	4300	2035	5020	5355	1470	1010
	4500	2115	5260	5595	1550	1090
	4800	2220	5560	5895	1655	1195
	5000	2305	5710	6045	1740	1280
	5500	2555	6210	6545	1990	1530
6000	2805	6710	7045	2240	1780	

EFXZ301-H/E

Mast types	Lift height (h3)	Height, Mast		Height, Free lift(h2)		
		Height, mast lowered(h1)	Height, mast extended(h4)		No shelving	With shelving
			No shelving	With shelving		
mm	mm	mm	mm	mm	mm	
2-Standard Mast	2700	1910	3330	3795	120	120
	3000	2060	3630	4095	120	120
	3300	2210	3930	4395	120	120
	3500	2310	4130	4595	120	120
	3600	2360	4230	4695	120	120
	4000	2610	4630	5095	120	120
	4300	2760	4930	5395	120	120
2-Free Mast	3000	2040	3630	4095	1410	945
	3300	2190	3930	4395	1560	1095
	3600	2340	4230	4695	1710	1245
3-Free Mast	4300	2040	4930	5395	1410	945
	4500	2120	5130	5595	1490	1025
	4800	2225	5430	5895	1595	1130
	5000	2310	5630	6095	1680	1215
	5500	2560	6130	6595	1930	1465
6000	2810	6630	7095	2180	1715	

## Option:

Optional items	EFXZ251
Fork dimension	○122*40*920●122*40*1070○122*40*1150○122*40*1220○122*40*1370 ○122*40*1500○122*40*1600○122*40*1700○122*40*1820○122*40*1900 ○122*40*2000○122*40*2200
Front wheel material	○ Pneumatic○ Normal solid○ Traceless solid
Rear wheel material	○ Pneumatic○ Normal solid○ Traceless solid
Battery capacity	○80V150AH○80V205AH○80V280AH
Charger	○80V35A Internal○80V65A○80V100A
Battery indicator	●With hourmeter (Bluetooth) without PSE
Seat type	○comfortable + safety belt switch ○seat with armrest with safety belt switch
Attachments	○ Built-in shifter○ External shifter○ Fork positioner with sideshift
clamp interlock	● No○clamp interlock
Traction pin	● Yes and not customized
Electrostatic chain	● Yes and not customized
Front lamp	●LED
Rear lamp	●No○LED
Warning lamp	● Yes and not customized
Steering lamp	●LED
Blue lamp	● No○Rear○Front and rear
Area warning lamp	● No○Both side○Both side and rear
Rearview mirror	●One in front○Two on side and one in front
Buzzer	● Yes and not customized
OPS system	● Yes and not customized
USB interface	● Yes and not customized
Telematics	● Yes and not customized
Turn speed control	●No
Heating system for lithium battery charging	● No○ Yes and not customized
Operator identification device	● No○ Swipe card device
Lifting electronic limit	● No○ Yes and not customized
Hydraulic lever system	● Mechanical lever
Rear grab handle with horn	● Yes and not customized
Cabin	—
Overhead guard	● No○ With stalinite
Windshield washer system	—
Note:	●Standard ○ Optional - Inconformity

## Option:

Optional items	EFXZ301-H/E
Fork dimension	○122*45*1070○122*45*1150○122*45*1220○122*45*1370○122*45*1520 ○122*45*1600○122*45*1700○122*45*1820○122*45*2000○122*45*2200 ○122*45*2400
Front wheel material	○Pneumatic○Normal solid○Traceless solid
Rear wheel material	○Pneumatic○Normal solid○Traceless solid
Battery capacity	○80V205AH○80V280AH
Charger	○80V60A External○80V35A External○80V100A External
Battery indicator	●With hourmeter (Bluetooth) without PSE
Seat type	●Suspension without armrest + safety belt switch ○Comfortable + safety belt logic switch
Attachments	○No●Built-in shifter○External shifter ○Fork positioner with External shifter sideshift
clamp interlock	—
Traction pin	●Yes and not customized
Electrostatic chain	●Yes and not customized
Front lamp	●LED
Rear lamp	●No○LED
Warning lamp	●Yes and not customized
Steering lamp	●LED
Blue lamp	●Rear○Front and rear
Area warning lamp	●No○Both side○Both side and rear
Rearview mirror	●One in front○Two on sides○Two on side and one in front
Buzzer	●Yes and not customized
OPS system	●Yes and not customized
USB interface	●USB with A type
Telematics	●Yes and not customized
Turn speed control	●No
Heating system for lithium battery charging	●No○Yes and not customized
Operator identification device	●No○Swipe card device
Lifting electronic limit	● No
Hydraulic lever system	●Mechanical lever
Rear grab handle with horn	●Yes and not customized
Cabin	○Basic half cabin○Upgrade half cabin
Overhead guard	●With stalinite
Windshield washer system	●Yes only with Cabin
Note:	●Standard ○ Optional - Inconformity