

**POWERFUL  
EFFICIENT**



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**XC Series  
4-W Electric Forklift Truck  
With Lithium Iron-Phosphate**

with capacity of 4,000 to 5,000kg



*The World of Hangcha*  
SINCE 1956





# INNOVATIVE SOLUTIONS NEW POWER NOW

The XC series forklift truck powered by lithium battery, with their world-first architecture and advanced design concepts, have made significant breakthroughs in ergonomics, efficiency, and comfort. To maintain its leading position in the industry, HANGCHA has improved and upgraded the AC asynchronous motor, launching the model with a permanent magnet synchronous motor platform.

Innovative, reliable lithium-ion technology, which are developed jointly by HANGCHA and CATL. Battery cells and modules are from CATL, with reliable quality, exclusively for HANGCHA.  
Rapid charging and opportunity charging ensure continuous availability of trucks.  
Lightweight design, flexible, high level of energy efficiency, maintenance-free, long service life.



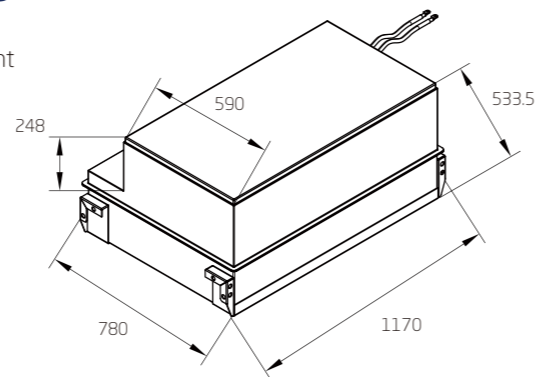
## EVE battery packs

	Pack1	Pack2	Pack3	Pack4
	4 - 5t	4 - 5t	4 - 5t	4 - 5t
Battery capacity (kW·h)	76.8V/560Ah, 43Kwh	76.8V*608Ah, 46.69Kwh	76.8V*840Ah, 64.51Kwh	76.8V*912Ah, 70.04Kwh(Charger with dual charging ports)

## Large-capacity CATL battery packs

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

	Pack1	Pack2
	4 - 5t	4 - 5t
Battery capacity (kW·h)	80V*604Ah, 48.32Kwh	80V*906Ah, 72.48Kwh (Charger with dual charging ports)



## Excellent Ergonomic Design

- / The truck has a large operating space more than **50%** larger than the traditional electric truck.
- / The dashboard in the driver's cab is placed overhead and can be seen when the driver lifts her/his head, and the function buttons can be pressed easily.
- / For the optional integrated fingertip operating system, the combined operation armrest integrates the emergency shut-off, horn and quadruple thumb switches, etc., is electrically controlled through the CAN bus, and is highly reliable.
- / The enlarged brake pedal and appropriate regenerative braking function can effectively reduce the driver's fatigue.



## Advantages



The rear axle is provided with a flexible suspension system (for standard configuration and with turning and deceleration functions) to effectively filter the road clutter and improve the driver's comfort.

The noise can be as low as 73dBA.

The high-frequency MOSFET integrated controller ensures smooth and accurate driving and lifting control, and has excellent speed regulation performance, good performance of electronic control matching the motor, functions of regenerative braking, reverse braking and anti-sliding on ramps, etc., and high safety and reliability.

The ultra-high power AC traction motor has a bridge structure. An ultra-high power AC pump motor is used. The system has high efficiency, complete protection functions, built-in speed and temperature sensors, and greatly improved reliability and life.



# RELIABLE TRUCKS



**6 YEARS WARRANTY**

## Easy operations and maintenance

With the fully sealed hood and side plates, all major components including the electrically controlled components, motor, electrical components, etc. are sealed from dust and water.

The drive motor of a high protection level is dustproof and waterproof and highly reliable.

The packs can be easily removed by a manual or electric cart, and can be repaired and maintained conveniently.

The hood (with a self-locking gas spring) can be opened at a large angle facilitating the maintenance and replacement of the battery.

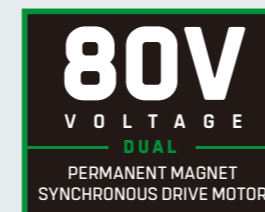


The water resistance level of the vehicle is IPX4.

## Energy saving and high efficiency

With the support of the 80V dual permanent magnet synchronous motor system, the truck has undergone national standard tests and achieved a 27% reduction in energy consumption;

The travelling speed, lifting speed, and climbing ability are all about 6% higher than the AC motor model, making it more efficient.







## Safety

The optional descending lock function can disable the descending function when the driver leaves the seat and enable high safety.

The standard configuration provides a fork descending buffering function. In addition, an optional electronic control function for buffering the fork's ascending is provided to protect the goods from falling and damaging the ground.

The handbrake can be optionally equipped with an alarm buzzer to prompt the driver to pull up the handbrake before leaving the truck.



Three horn buttons are provided, which are respectively on the driver's steering wheel, thumb switch equipped armrest (optional) and reverse armrest (optional), for alerting and protecting the surrounding people.



A PIN code should be provided before entering the system. 99 sets of PIN codes are available for the administrator. The truck is highly secured and irrelevant personnel cannot start the truck.



Quick charge < 2.0h  
(Optional charger)



## Main Accessories

The main electrical components such as the controller, contactor, power plug, emergency cut-off switch, dashboard, accelerator, are all products of well-known world brands.

The emergency cut-off switch equipped for the standard configuration complies with EU regulations.

The truck has passed the CE certification.

Electronic and hydraulic overload protection devices.



## Comfort

Owing to the low center of gravity and good stability, the driver feels comfortable during turning.

The ergonomically designed tilt-adjustable small-diameter steering wheel makes the driver feel good. The seat can be adjusted back and forth by 210mm. The operator can choose the best driving position.

The intelligent sensing enables buffered descending. When the fork is 100 - 60mm away from the ground, the descending will automatically slow down, so that the goods and pallet will not hit the ground and the goods and ground can be protected effectively.

With friendly human-computer interfaces, the new large-screen LED instruments have good visibility and clear readings.

Silence, no pollution, energy saving and other advantages meet the environmental protection requirements.



The wide-view mast with optimized design is unlikely to obstruct the operator's line of sight. The enlarged opening size of the fork carriage enables a wider view.



Grammer fingertip (Optional)

## Options

- / Lithium packs (roller type) that can be replaced quickly
- / Start with a PIN code or by swiping a card
- / Ultra-elastic solid nose tire
- / Environmentally-friendly colored solid tire
- / Left and right rearview mirrors
- / Reversing video
- / Front/rear blue lights
- / Rear operation lights
- / Dedicated lithium battery charger (Titan or Schneider)
- / Cold storage vehicle
- / Reverse armrest (containing a horn button)
- / Hood with a key lock
- / OPS seat sensing function
- / Fork ascending buffering
- / Triple multiway valve
- / Quadruple multiway valve
- / Quintuple multiway valve
- / Widened / heightened load backrest
- / Widened fork carriage
- / Forks of other lengths
- / Free duplex mast
- / Free triplex mast
- / Built-in side shifter
- / Accessories of other specifications
- / Grammer MSG531 suspension seat
- / Tool box, folder
- / Integrated fingertip control system including ergonomic armrests

## Standard specification

- / High-power AC drive motor
- / High-power AC oil pump motor
- / Silent gear pump
- / Multi-function color screen instrument cluster
- / Large integral rubber pedal pad
- / Stamped iron hood, stamped iron side plates
- / Stamped stainless steel boarding step
- / The gas spring of the hood with a touch-proof mechanism
- / Handbrake with a touch-proof mechanism
- / Turning deceleration function
- / Smart cloud module
- / Fork descending buffering
- / SPE power selection
- / Mileage display, operating time display
- / Integrated fuse box
- / Charging muzzle meeting national standards
- / DC-DC converter
- / Electronic cooling fan
- / Doublet multiway valve
- / Emergency shut-off switch
- / Reversing buzzer
- / Traction pin
- / Load sensing steering system
- / Standard duplex mast, fork, fork carriage and load backrest
- / Lithium packs with low temperature electric heating systems
- / LED combination headlights, LED rear combination three-color taillights



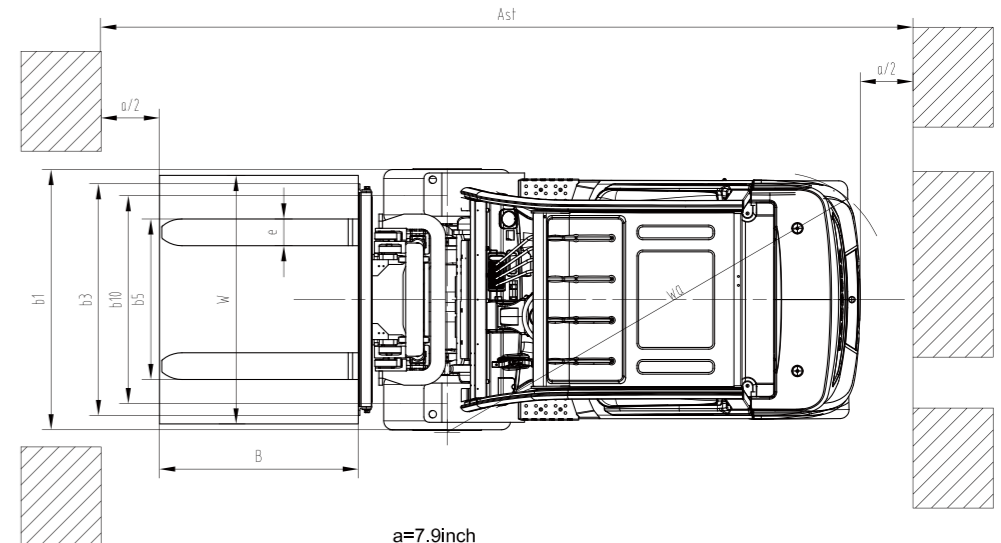
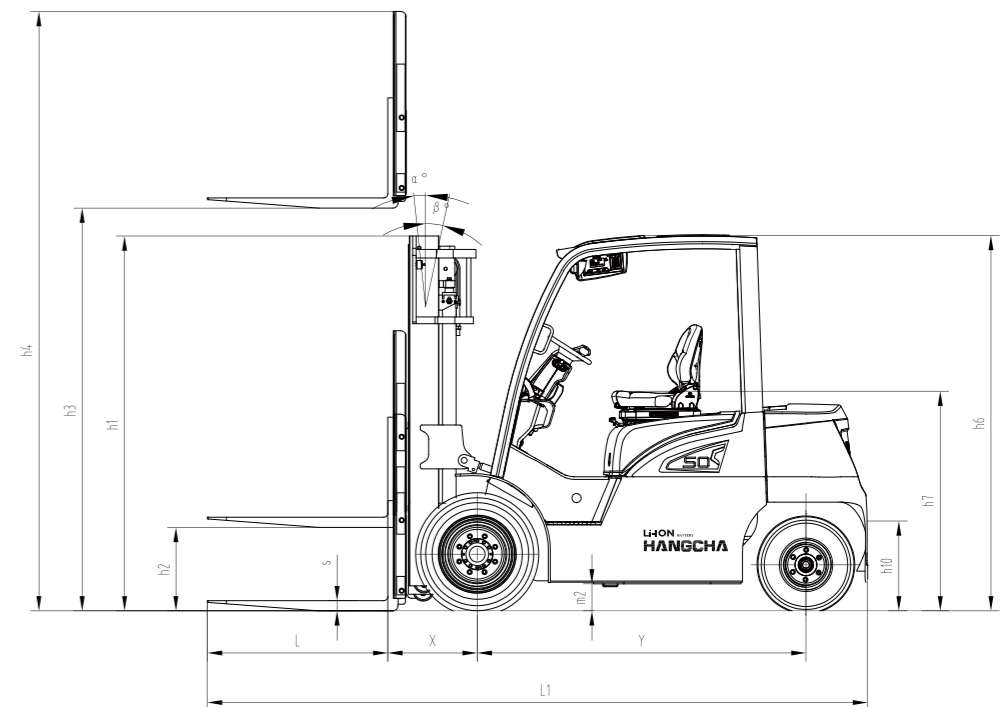
## Technical data

Distinguishing mark	HANGCHA GROUP CO.,LTD.				
	1.1	1.2	1.3	1.4	1.5
1.1	Manufacturer				
1.2	Manufacturer's type designation	CPD40-XD6-SI28*	CPD45-XD6-SI28*	CPD50-XD6-SI28*	CPD50-XD6-SI28*
1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas	Electric	Electric	Electric	Electric
1.4	Operator type: hand, pedestrian, standing, seated, order-picker	Seated	Seated	Seated	Seated
1.5	Load capacity/rated load	Q (kg)	4000	4500	5000
1.6	Load centre distance	c (mm)	500	500	600
1.7	Load distance, centre of drive axle to fork	x (mm)	520	520	530
1.8	Wheelbase	y (mm)	1950	1950	1950
2.1	Service Weight	kg	5830	6200	6870
2.2	Axle loading, laden front/rear	kg	8110/1720	9525/1175	10554/1316
2.3	Axle loading, unladen front/rear	kg	2625/3204	2790/3410	2900/3970
3.1	Tyres: solid rubber, super elastic, pneumatic, polyurethane	Pneumatic	Pneumatic	Pneumatic	Pneumatic
3.2	Tyre size, front	250-15	250-15	28*12.5-15	28*12.5-15
3.3	Tyre size, rear	23*9-10	23*9-10	23*9-10	23*9-10
3.4	Wheels, number front rear (x = driven wheels)	2*/2	2*/2	2*/2	2*/2
3.5	Tread, front	b10 (mm)	1118	1118	1155
3.6	Tread, rear	b11 (mm)	1110	1110	1110
4.1	Tilt of mast/fork carriage forward/backward	Grad	5/10	5/10	5/10
4.2	Height, mast lowered	h1 (mm)	2250	2250	2350
4.3	Free lift	h2 (mm)	150	150	150
4.4	Lift	h3 (mm)	3000	3000	3000
4.5	Height, mast extended	h4 (mm)	4170	4170	4170
4.6	Height of overhead guard STD.	h5 (mm)	2270	2270	2270
4.7	Coupling height	h10 (mm)	530	530	530
4.8	Overall length	l1 (mm)	3911	3911	3921
4.9	Length to face of forks	l2 (mm)	2841	2841	2851
4.21	Overall width	b1 (mm)	1368	1368	1458
4.22	Fork dimensions	s/e/l (mm)	50*122*1070	50*150*1070	50*150*1070
4.23	Fork carriage DIN 15 173 --- ISO 2328, class/type A,B		ISO 2328 3A	ISO 2328 3A	ISO 2328 4A
4.24	Fork-carriage width	b3 (mm)	1250	1250	1250
4.25	Distance between fork-arms	b5 (mm)	310/1250	310/1250	310/1250
4.31	Ground clearance, laden, below mast	m1 (mm)	150	150	150
4.32	Ground clearance, centre of wheelbase	m2 (mm)	150	150	150
4.33	Aisle width for pallets 1000 x 1200 crossways	Ast (mm)	4270	4270	4280
4.34	Aisle width for pallets 800 x 1200 Lengthways	Ast (mm)	4070	4070	4080
4.35	Turning radius	Wa (mm)	2550	2550	2550
4.36	Internal turning radius	b13 (mm)	730	730	730
5.1	Travel speed, laden/unladen	km/h	18/18	18/18	18/18
5.2	Lift speed, laden/unladen	m/s	0.350/0.430	0.350/0.430	0.350/0.450
5.3	Lowering speed, laden/unladen	m/s	0.430/0.480	0.430/0.480	0.430/0.480
5.4	Drawbar pull, laden/unladen	N	18600/20000	18800/20200	20000/20600
5.5	Max. Drawbar pull, laden/unladen	N	23000	24000	26000
5.6	Gradeability, laden/unladen	%	15/20	15/20	15/20
5.7	Acceleration time, laden/unladen (0-10m)	s	5.0/4.8	5.2/5.0	5.6/5.3
5.8	Service brake		Hydraulic	Hydraulic	Hydraulic
5.9	Parking brake		Mechanical	Mechanical	Mechanical
6.1	Drive motor rating S2 60 min	kW	23	23	23
6.2	Lift motor rating at S3 15%	kW	28	28	28
6.3	Battery voltage, Std	V/Ah	80/604	80/604	80/604
6.4	Standard Weight of lithium iron phosphate battery	kg	430	430	430
6.5	Min. battery weight	kg	430	430	430
6.6	Max. battery weight	kg	600	600	600
8.1	Type of drive control		MOSFET/AC	MOSFET/AC	MOSFET/AC
	Manufacturer		INMOTION	INMOTION	INMOTION
	Control Model		ACS80XL-550C	ACS80XL-550C	ACS80XL-550C
8.2	Operating pressure for attachments	bar	185	185	185
8.3	Oil volume for attachments	l/min	65	65	65
8.4	Sound level at the driver's ear according to EN / DIN 12 053	dB (A)	75	75	75
8.5	Towing coupling, type DIN		Ø35 Pin	Ø35 Pin	Ø35 Pin
9.1	Hydraulic Tank - capacity (drain & refill)	liter	46	46	46

Note: \* CE model

## Technical data(Permanent magnet synchronous)

Distinguishing mark	HANGCHA GROUP CO.,LTD.			
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1.1	Manufacturer			
1.2	Manufacturer's type designation	CPD40-XCY2-SI	CPD45-XCY2-SI	CPD50-XCY2-SI
1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas	Electric	Electric	Electric
1.4	Operator type: hand, pedestrian, standing, seated, order-picker	Seated	Seated	Seated
1.5	Rated capacity/rated load	kg	4000	4500
1.6	Load centre distance	c (mm)	500	500
1.8	Load distance, centre of drive axle to fork	x (mm)	520	520
1.9	Wheelbase	y (mm)	1950	1950
2.1	Service Weight	kg	6040	6400
2.2	Axle loading, laden front/rear	kg	8849/1191	9636/1264
2.3	Axle loading, unladen front/rear	kg	2756/3284	2782/3618
3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane	Pneumatic	Pneumatic	Pneumatic
3.2	Tyre size, front	250-15/2	250-15/2	28*12.5-15/2
3.3	Tyre size, rear	23*9-10/2	23*9-10/2	23*9-10/2
3.5	Wheels, number front / rear (x = driven wheels)	2x/2	2x/2	2x/2
3.6	Tread, front	b10 (mm)	1155	1155
3.7	Tread, rear	b11 (mm)	1110	1110
4.1	Tilt of mast/fork carriage forward/backward	a/b (°)	5/10	5/10
4.2	Height, mast lowered	h1 (mm)	2250	2250
4.3	Free lift	h2 (mm)	150	150
4.4	Lift	h3 (mm)	3000	3000
4.5	Height, mast extended	h4 (mm)	4170	4170
4.7	Height of overhead guard (cabin)	h6 (mm)	2270	2270
4.8	Seat height/stand height	h7 (mm)	1270	1270
4.12	Coupling height	h10 (mm)	455	455
4.19	Overall length	l1 (mm)	4714	4714
4.20	Length to face of forks	l2 (mm)	2844	2844
4.21	Overall width	b1/b2 (mm)	1369	1369
4.22	Fork dimensions	s/e/l (mm)	50/122/1070	50/150/1070
4.23	Fork carriage ISO 2328, class/type A,B		ISO2328 3A	ISO2328 3A
4.24	Fork-carriage width	b3 (mm)	1250	1250
4.31	Ground clearance, laden, below mast	m1 (mm)	956	900
4.32	Ground clearance, centre of wheelbase	m2 (mm)	150	150
4.34.1	Aisle width for pallets 1000 x 1200 crossways	Ast (mm)	4270	4270
4.34.2	Aisle width for pallets 800 x 1200 lengthways	Ast (mm)	4270	4270
4.35	Turning radius	Wa (mm)	4470	4470
4.36	Internal turning radius	b13 (mm)	2550	2550
5.1	Travel speed, laden/unladen	km/h	19/20	19/20
5.2	Lift speed, laden/unladen	mm/s	350/460	350/460
5.3	Lowering speed, laden/unladen	mm/s	480/400	480/400
5.6	Max. Drawbar pull, laden/unladen	N	21000	21000
5.8	Max. gradeability, laden/unladen	%	16/20	16/20
5.10	Service brake		Hydraulic	Hydraulic
5.11	Parking brake		Mechanical	Mechanical
6.1	Drive motor rating S2 60 min	kW	25	25
6.2	Lift motor rating at S3 15%	kW	28	28
6.4	Battery voltage, nominal capacity	(V)/Ah or kWh	80/604	80/604
6.5	Battery weight	kg	≥430	≥430
10.1	Operating pressure for attachments	MPa	16	16
10.2	Oil volume for attachments	l/min	65	65



a=7.9inch  
AST=a+Wa+ X+B  
a=200 mm safety clearance  
AST=a+Wa+ X+B

### Lifting capacity (kg)

