



## A Series High Capacity Electric Forklift Truck

with capacities of 12,000 to 16,000kg



**ZHEJIANG HANGCHA IMP. & EXP. 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



Follow us on  
Facebook



Follow us on  
YouTube



Follow us on  
WeChat



ISO14001



ISO9001



HANGCHA trucks conform  
to the European Safety  
Requirements.

2018 VERSION 1/COPYRIGHT 2018/04

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.

*The World of Hangcha*



# A Series High Capacity Electric Forklift Truck

The electric forklift truck, with key parts of associated products from world-renowned manufacturers, features excellent performance, reliability and durability, high safety, as well as elegant, steady, simple but bright appearance. The product can be applied for a wide range of purposes, and is suitable for various working conditions including indoor and outdoor spaces.

**Efficient/  
Durable/  
Ergonomic**



## Drive System

/ The AC travel motor of world-renowned brand features strong power, complete protection functions, and is maintenance-free, with substantially increased reliability and service life, and reduced maintenance and service costs; the heavy-duty drive axle of world-renowned brand features two-stage reduction, dual motor drive, multi-plate wet travel brake and motor auxiliary brake, safety and reliability, and the system is fully enclosed, maintenance-free, and suitable for heavy-duty working condition.

## Hydraulic System

/ The system is equipped with electro-hydraulic proportional sectional valve of world-renowned brand, silent gear pump, pilot electric control handle, and AC oil pump motor. The load sensing hydraulic system reduces continuous load on oil pump motor; the remote electric control operating mode is simple, easy, and flexible. Several hydraulic pressure detection points are added to simplify maintenance and service work.

## Mast System

/ The duplex mast has increased width, higher resistance to torsion, and broader view; oil circuit with dual governing valves features higher safety. Hydraulic fork width adjustment is a standard configuration.

## Braking System

/ The system is equipped with Poclair hydraulic brake valve, multi-plate wet travel brake and spring action, and hydraulic release caliper disc parking brake system.

## Steering System

/ The system is equipped with horizontally placed oil cylinder steering axle of single dual-action oil cylinder, features fully hydraulic power steering, steering priority, with load sensing function, and can realize easy steering.



You can open the door on each side, it make the motor, oil pump and electrical controller maintenance is very convenient, provide good waterproof and dustproof



It's very easy for charging the battery



The tippable structure that is available for both electric and manual operations is convenient for daily maintenance



The integrated fan cooling system ensures the stability of the electric control system, and the fully opened hood make the maintenance more convenient



A series features battery side roll out as standard



## Electric System

/ The full AC controller of state of the art in the world is adopted, achieving electronic control for traveling, lifting, braking, and steering actions of the forklift. It features smooth and accurate control, superior speed regulation performance, with regenerative braking, reverse braking, and anti-slipping on slope and other functions, enabling more effective operation, higher safety and comfort. The MMI instrument of world-leading brand is adopted, with large screen LCD battery indication, timing, failure self-diagnosis, and mode selection, and accurate display even in severe environment. The LED lighting system is adopted for energy saving.



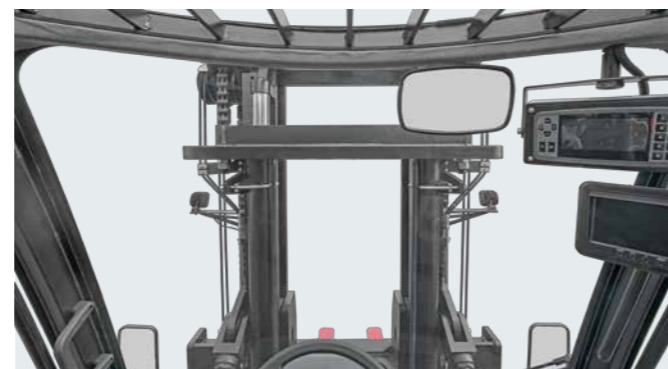
## Cabin

/ The cabin is integrated and fully enclosed. Four-point rubber vibration-reducing connection of the cab can reduce vibration, and its tippable structure that is available for both electric and manual operations is convenient for daily maintenance; spacious cab floor, and ample overhead clearance and leg room allow easy access and exit of the driver at any time; the fully enclosed cab is thermally insulated, dust-proof, and waterproof; sliding curtain is provided inside the cab; filler is equipped at inlet of fresh air, and the internal recycling fan is adjustable. Comfortable temperature can be maintained in the cab with air conditioner and hot air device. The seat is forward and backward adjustable, tilting angle of seat back is also adjustable, which can increase comfort level for the driver. All glass is of safety glass. Front, rear, and top windscreens are equipped with cleaner and wiper. Both front and rear windscreens are equipped with defroster.



## Standard specification

- |                                      |   |
|--------------------------------------|---|
| / Handle                             | / Rearview mirror                         |
| / Headlight guard                    | / On-truck tool kit                       |
| / Air conditioning                   | / Inclined oil circuit self-closing valve |
| / Hydraulic fork width adjustment    | / Four-section multi-way valve            |
| / Cab                                | / Lifting oil circuit speed limit valve   |
| / Fully-hydraulic power steering     | / Hydraulic oil tank level indicator      |
| / Traction pin                       | / Air filter                              |
| / Front combined lamps               | / Standard fork                           |
| / Rear combined lamps                | / Standard seat                           |
| / Headlamp                           | / Key switch                              |
| / Electric horn                      | / Seat sensing system                     |
| / Multi-functional colored display   | / Alarm light                             |
| / Neutral switch                     | / Backup buzzer                           |
| / Patterned oil resistant tire       | / Wide-view mast                          |
| / Up & down tiltable steering column | / Rubber pedal pad                        |



## Options

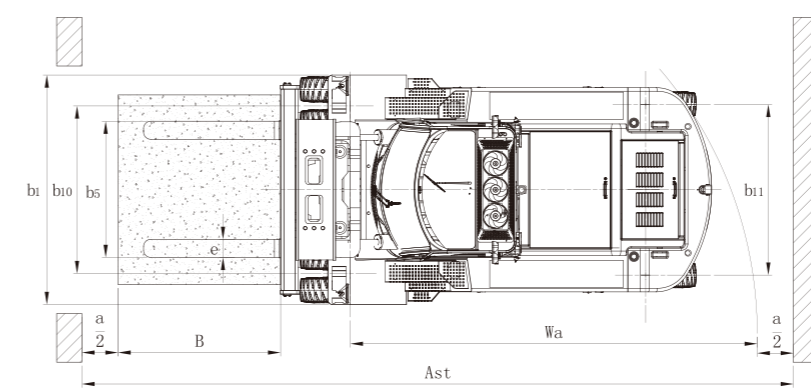
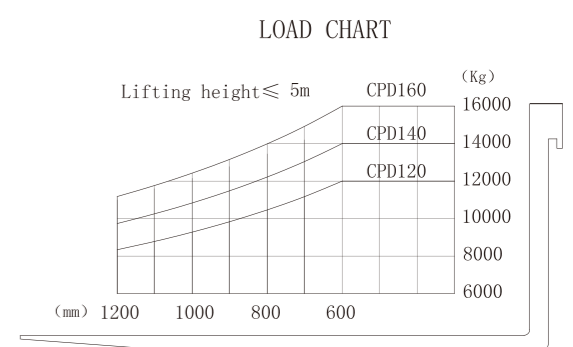
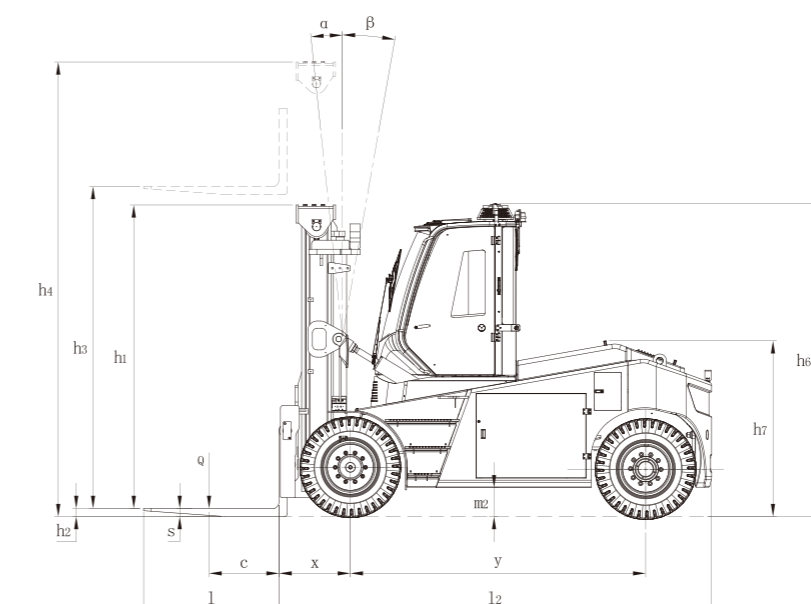
- / Customized color
- / Solid tire / environmentally friendly solid tire
- / Work lamp
- / Other sizes of fork
- / Rearview system
- / Battery charger

# A Series High Capacity Electric Forklift Truck

		HANGCHA GROUP CO.,LTD.				
Distinguishing mark	1.1	Manufacturer	HANGCHA GROUP CO.,LTD.			
	1.2	Manufacturer's type designation	CPD120-AX24	CPD140-AX24	CPD160-AX24	
	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	Q (kg)	12000	14000	16000
	1.6	Load centre distance	c (mm)	600	600	600
	1.8	Load distance, centre of drive axle to fork	x (mm)	760	770	790
	1.9	Wheelbase	y (mm)	2980	3100	3250
	Weight	2.1	Service Weight	kg	18500	21000
2.2		Axle loading, laden front/rear	kg	27300/3200	31700/3300	34900/3600
2.3		Axle loading, unladen front/rear	kg	9900/8600	11500/9500	12000/10500
Tyres, chassis	3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane	Pneumatic			
	3.2	Tyre size, front	10.00-20-18PR	11.00-20-18PR	12.00-20-20PR	
	3.3	Tyre size, rear	10.00-20-18PR	11.00-20-18PR	12.00-20-20PR	
	3.5	Wheels, number front / rear (x = driven wheels)	4/2			
	3.6	Tread, front	b10 (mm)	1840	1856	1856
	3.7	Tread, rear	b11 (mm)	1890	1890	1890
	Dimensions	4.1	Tilt of mast/fork carriage forward/backward	$\alpha / \beta(^{\circ})$	6/10	6/10
4.2		Height, mast lowered	h1 (mm)	3330	3430	3450
4.3		Free lift	h2 (mm)	80	85	90
4.4		Lift	h3 (mm)	3300	3300	3300
4.5		Height, mast extended	h4 (mm)	4980	5080	5100
4.7		Height of overhead guard (cabin)	h6 (mm)	3435	3450	3470
4.8		Seat height/stand height	h7 (mm)	2080	2095	2115
4.12		Coupling height	h10 (mm)	555	570	590
4.19		Overall length	l1 (mm)	5970	6080	6290
4.20		Length to face of forks	l2 (mm)	4470	4580	4790
4.21		Overall width	b1 (mm)	2500	2500	2540
4.22		Fork dimensions	s/e/l (mm)	80/200/1500	85/200/1500	90/200/1500
4.24		Fork-carriage width	b3 (mm)	2365	2365	2365
4.25		Distance between fork-arms	b5 (mm)	520-2200	520-2200	520-2200
4.31		Ground clearance, laden, below mast	m1 (mm)	245	260	260
4.32		Ground clearance, centre of wheelbase	m2 (mm)	260	275	295
4.34.1		Aisle width for pallets 1000 x 1200 crossways	Ast (mm)	6110	6270	6440
4.34.2		Aisle width for pallets 800 x 1200 lengthways	Ast (mm)	6310	6470	6640
4.35	Turning radius	Wa (mm)	4150	4300	4450	
4.36	Internal turning radius	b13 (mm)	130	220	320	
Performance data	5.1	Travel speed, laden/unladen	km/h	16/18	16/18	16/18
	5.2	Lift speed, laden/unladen	m/s	0.26/0.33	0.25/0.33	0.24/0.33
	5.3	Lowering speed, laden/unladen	m/s	0.35/0.30	0.35/0.30	0.35/0.30
	5.5	Drawbar pull, laden/unladen	N	40000	40000	40000
	5.6	Max. Drawbar pull, laden/unladen	N	48000	48000	48000
	5.7	Gradeability, laden/unladen	%	10/17	9/16	8/15
	5.8	Max. gradeability, laden/unladen	%	12/19	11/18	10/17
	5.9	Acceleration time, laden/unladen (0-10m)	s	3.5/3.0	3.5/3.0	3.5/3.0
	5.10	Service brake		Hydraulic	Hydraulic	Hydraulic
		Parking brake		Electric	Electric	Electric
Electric-engine	6.1	Drive motor rating S2 60 min	kW	2x34	2x34	2x34
	6.2	Lift motor rating at S3 15%	kW	2x47	2x47	2x47
	6.4	Battery voltage, nominal capacity K5	V/Ah	120/1200	120/1350	120/1650
	6.5	Battery weight	kg	2x2280	2x2550	2x3050
		Battery dimensions	l/b/h(mm)	952/1018/853	1018/1060/853	1210/1073/853
	6.6	Energy consumption acc. to VDI cycle	kWh/h	20	23	25
		Max. battery weight	kg	4200	4800	5800
	Min. battery weight	kg	4560	5100	6100	
8.1	Type of drive unit		MOFET	MOFET	MOFET	
9.1	Manufacturer/Type		ZAPI	ZAPI	ZAPI	
Addition data	10.1	Operating pressure for attachments	bar	150	150	150
	10.2	Oil volume for attachments	l/min	60	60	60
	10.3	Hydraulic Tank - capacity (drain & refill)	liter	220	220	220
	10.7	Sound pressure level at the driver's seat	dB (A)	70	70	70
	10.8	Towing coupling, type DIN 15170	PI	Φ50	Φ50	Φ50

# 12.0-16.0t Mast specification

Type	Model	Lifting height mm	Overall height		Front Overhang mm	Tilt Range F/R ( $^{\circ}$ )	Capacity Load capacity at 600mm kg
			Lowered mm	Extended mm			
12t Duplex mast	AP120M300-000000-000	3000	3180	4680	740	6°/10°	12000
	AP120M330-000000-000	3300	3330	4980	740	6°/10°	12000
	AP120M360-000000-000	3600	3480	5280	740	6°/10°	12000
	AP120M400-000000-000	4000	3680	5680	740	6°/10°	12000
	AP120M430-000000-000	4300	3880	6030	740	6°/6°	12000
	AP120M450-000000-000	4500	3980	6230	740	6°/6°	12000
	AP120M480-000000-000	4800	4130	6530	740	6°/6°	12000
	AP120M500-000000-000	5000	4230	6730	740	6°/6°	12000
	AP120M550-000000-000	5500	4530	7280	740	3°/6°	10000
	AP120M600-000000-000	6000	4780	7780	740	3°/6°	8000
	AP120M650-000000-000	6500	5080	8330	740	3°/6°	6000
	14t Duplex mast	AP140M300-000000-000	3000	3280	4780	770	6°/10°
AP140M330-000000-000		3300	3430	5080	770	6°/10°	14000
AP140M360-000000-000		3600	3580	5380	770	6°/10°	14000
AP140M400-000000-000		4000	3780	5780	770	6°/10°	14000
AP140M430-000000-000		4300	3980	6130	770	6°/6°	14000
AP140M450-000000-000		4500	4080	6330	770	6°/6°	14000
AP140M480-000000-000		4800	4230	6630	770	6°/6°	14000
AP140M500-000000-000		5000	4330	6830	770	6°/6°	14000
AP140M550-000000-000		5500	4630	7380	770	3°/6°	12000
AP140M600-000000-000		6000	4880	7880	770	3°/6°	10000
AP140M650-000000-000		6500	5180	8430	770	3°/6°	8000
16t Duplex mast		AP160M300-000000-000	3000	3300	4800	790	6°/10°
	AP160M330-000000-000	3300	3450	5100	790	6°/10°	16000
	AP160M360-000000-000	3600	3600	5400	790	6°/10°	16000
	AP160M400-000000-000	4000	3800	5800	790	6°/10°	16000
	AP160M430-000000-000	4300	4000	6150	790	6°/6°	16000
	AP160M450-000000-000	4500	4100	6350	790	6°/6°	16000
	AP160M480-000000-000	4800	4250	6650	790	6°/6°	16000
	AP160M500-000000-000	5000	4350	6850	790	6°/6°	16000
	AP160M550-000000-000	5500	4650	7400	790	3°/6°	14000
	AP160M600-000000-000	6000	4900	7900	790	3°/6°	12000
	AP160M650-000000-000	6500	5200	8450	790	3°/6°	10000



$Ast = B + Wa + x + a$   
 $a = 200mm$