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ISO14001  
ISO14001:2015



ISO9001  
ISO9001:2015



HANGCHA trucks conform  
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## X Series 3W Electric Forklift

with capacities of 800 to 1,000kg

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SINCE 1956



# X Series 3W Electric Forklift

Hangcha's X series 0.8-1.0t 3W electric forklifts are a new series of high-efficiency, energy-saving small-tonnage electric counterbalanced forklifts with a new structure that represents a breakthrough over the traditional design concept. With a compact structure, small turning radius and light weight and high maneuverability, the truck is widely used in narrow operation places, e.g., used for handling between floors, to and from elevators or in warehouses, supermarkets, workshops, etc.



## Appearance

/ The whole truck is small and flexible, adopting a combination of straight lines and streamlined curved surfaces, with a simple appearance and strong strength.

## Stability

/ Thanks to the low center of gravity layout and design of the battery and counterweight, the vehicle has a low center of gravity and good stability.  
/ The steering wheel adopts two rubber wheels, with good turning stability.

## Energy saving and high efficiency

/ The front-wheel drive provides, strong power, high driving speed, high lifting speed, strong climbing ability and high operating efficiency.  
/ The front wheel is equipped with patterned rubber tires, so it is not easy to slip on the ground with water, sand, slope, and cold storage.  
/ EPS (Electric Power Steering) system only works when turning, so that energy consumption can be reduced significantly.  
/ Built-in charger improves efficient and convenient operation greatly.  
/ The truck is equipped with energy-saving and durable LED lights.

## Comfort

/ Excellent ergonomic design and large operation space provide the operator with more comfort, and satisfy the operator's needs for long-term and high-intensity operations.  
/ EPS (Electric Power Steering) system, and a comfortable steering force can be adjusted with software, so that the steering is easier and the work intensity of the operator is reduced.  
/ The angle of the steering wheel column is adjustable and the seat can be adjusted backwards and forwards, so that the operator can get a good ride experience.  
/ The multi-way valve is easy to operate, reducing the work intensity of the operator.

## Safety

/ The optimized design of the wide-view mast and the low dashboard enable a wide front view and higher safety, and minimizes the blind view to the greatest extent.  
/ The emergency power-off switch complies with European safety standards.  
/ The electronic and hydraulic overload protection comply with safety regulations.  
/ OPS system(Opt.) can improve safety greatly.



Wide view mast



Large and comfortable operation space



LED meter



Built-in charger



Lithium battery pack



## Advancement

- / Full AC motors, precise speed control, maintenance-free , temperature monitoring.
- / Equipped with an AC controller, so that the driving, steering, lifting, tilting and other actions can be controlled by a computer.
- / The high-efficiency driving control system with a high-frequency integrated MOSFET controller ensures stable and accurate driving and lifting and superior speed regulation performance, and has the functions of regenerative braking, reverse braking and protection for preventing sliding down a ramp, etc. to enable safer and more effective and comfortable operations.
- / The LED meter can accurately display information in harsh environments.



## Standard Specification:

- / Tread solid tire
- / Anti-skid patterned step
- / Dual multiway valve
- / Silent gear pump
- / 2.5m duplex wide-view mast
- / Fork length 770mm
- / Adjustable steering wheel column
- / Rearview mirror
- / Emergency power off switch
- / Color screen instrument
- / Front LED headlight
- / Rear combination LED light
- / Built-in charger
- / Horn, reversing buzzer

## Options:

- / Non-marked solid tire
- / Triple multiway valve
- / 2-4.5m duplex wide-view mast
- / 2-4m full free duplex mast
- / 3.5-4.5m triplex mast
- / Widened fork carriage and load backrest
- / External sidsifter
- / Other attachments
- / Foldable forks of different lengths
- / Forks of other lengths
- / Cold storage
- / Left and right rear view mirrors
- / Rear LED working light
- / Warning light
- / Charger
- / OPS system

Optional battery capacity		
Capacity (Ah/5h)	0.8t	1t
240(Lithium)	●	●
300(Lithium)	○	○
294(Lead-acid)	○	—
336(Lead-acid)	○	—
400(Lead-acid)	○	○

Note: ● Battery; ○ Battery Opt; — Null



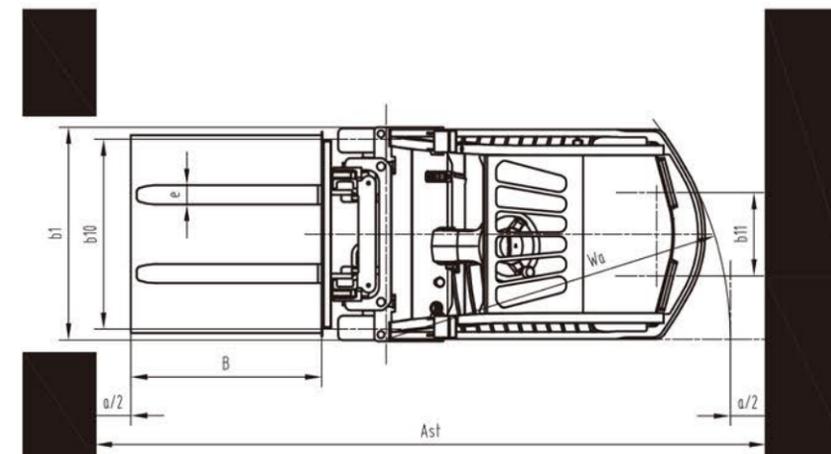
# X Series 3W Electric Forklift Specification

Distinguishing mark	1.1	Manufacturer (abbreviation)	HANGCHA GROUP CO.,LTD.				
	1.2	Manufacturers type designation	CPDS08-XD2	CPDS10-XD2	CPDS08-XD2-I*	CPDS10-XD2-I*	
Weight	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)	800	1000	800	1000
	1.6	Load centre distance	c (mm)	400	400	400	400
	1.8	Load distance, centre of drive axle to fork	x (mm)	290	290	290	290
	1.9	Wheelbase	y (mm)	1150	1150	1150	1150
	2.2	Service Weight	kg	1550	1740	1550	1710
Tyres, chassis	3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane	solid rubber	solid rubber	solid rubber	solid rubber	
	3.2	Tyre size, front	4.00-8	4.00-8	4.00-8	4.00-8	
	3.3	Tyre size, rear	3.50-5	3.50-5	3.50-5	3.50-5	
	3.5	Wheels, number front rear (x = driven wheels)	2x/2	2x/2	2x/2	2x/2	
	3.6	Tread, front	b <sub>10</sub> (mm)	788	788	788	788
	3.7	Tread, rear	b <sub>11</sub> (mm)	350	350	350	350
	Dimensions	4.1	Tilt of mast/fork carriage forward/backward	Grad	5/10	5/10	5/10
4.2		Height, mast lowered	h <sub>1</sub> (mm)	1755	1755	1755	1755
4.3		Free lift	h <sub>2</sub> (mm)	100	100	100	100
4.4		Lift	h <sub>3</sub> (mm)	2500	2500	2500	2500
4.5		Height, mast extended	h <sub>4</sub> (mm)	3300	3300	3300	3300
4.7		Height of higher overhead guard(cabin) .	h <sub>6</sub> (mm)	1930	1930	1930	1930
4.8		Seat height relating to SIP/stand height	h <sub>7</sub> (mm)	980	980	980	980
4.19		Overall length	l <sub>1</sub> (mm)	2415	2415	2415	2415
4.20		Length to face of forks	l <sub>2</sub> (mm)	1645	1645	1645	1645
4.21		Overall width	b <sub>1</sub> (mm)	900	900	900	900
4.22		Fork dimensions ISO 2331	s/e/l (mm)	30/80/770	30/80/770	30/80/770	30/80/770
4.23		Fork carriage ISO 2328, class/type A,B		ISO2328 1A	ISO2328 1A	ISO2328 1A	ISO2328 1A
4.24		Fork-carriage width	b <sub>3</sub> (mm)	860	860	860	860
4.25		Distance between fork-arms	b <sub>5</sub> (mm)	160/780	160/780	160/780	160/780
4.31		Ground clearance, laden, below mast	m <sub>1</sub> (mm)	75	75	75	75
4.32		Ground clearance, centre of wheelbase	m <sub>2</sub> (mm)	75	75	75	75
4.33		Aisle width for pallets 1000 x 1200 crossways	A <sub>st</sub> (mm)	2955	2955	2955	2955
4.34		Aisle width for pallets 800 x 1200 crossways	A <sub>st</sub> (mm)	3155	3155	3155	3155
4.35		Turning radius	W <sub>a</sub> (mm)	1465	1465	1465	1465
Performance data		5.1	Travel speed, laden/unladen	km/h	10/12	10/12	10/12
	5.2	Lift speed, laden/unladen	mm/s	250/370	240/370	250/370	240/370
	5.3	Lowering speed, laden/unladen	mm/s	410	410	410	410
	5.6	Max. Drawbar pull, laden/unladen	N	4400/4600	4400/4600	4400/4600	4400/4600
	5.8	Max. gradeability, laden/unladen	%	12/13	12/13	12/13	12/13
	5.10	Service brake		Hydraulic	Hydraulic	Hydraulic	Hydraulic
Electric-engine	5.11	Parking brake		Mechanical	Mechanical	Mechanical	Mechanical
	6.1	Drive motor rating S2 60 min	kW	3	3	3	3
	6.2	Lift motor rating at S3 15%	kW	4	4	4	4
	6.3	Battery acc. to DIN 43 531/35/36 A,B,C, no		no	no	no	no
	6.4	Battery voltage, nominal capacity K5	V/Ah	24/294	24/400	24/240	24/240
Addition data	6.5	Battery weight	kg	270	340	95	95
	8.1	Manufacturer of controler		INMOTION	INMOTION	INMOTION	INMOTION
8.4	Sound level at the driver's ear according to EN / DIN 12 053	dB (A)	67	67	67	67	

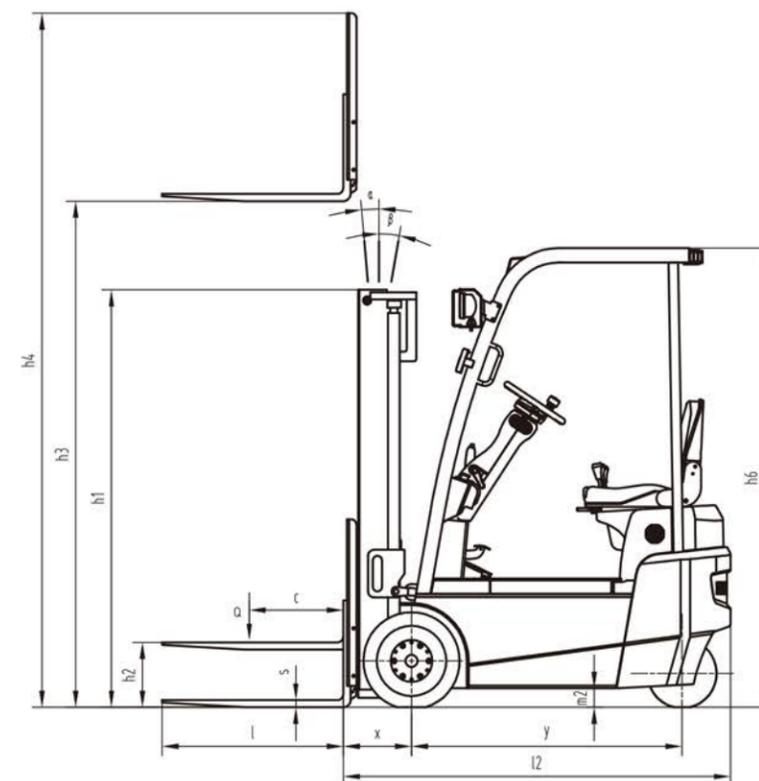
Note: \* means lithium battery

# Mast Specification

Type	Model	Lift height	Lowered height	Extended height		Free lift height		Tilt range		Capacity (Mast vertical to ground)	
				With backrest	Without backrest	With backrest	Without backrest	Forward	Backward	Load center@400mm Single Tire	
		mm	mm	mm	mm	mm	mm	deg	deg	kg	kg
2-stage wide view mast	M200	2000	1505	2800	2475	100	100	5	10	800	1000
	M250	2500	1755	3300	2975	100	100	5	10	800	1000
	M270	2700	1855	3500	3175	100	100	5	10	800	1000
	M300	3000	2005	3800	3475	100	100	5	10	800	1000
	M330	3300	2155	4100	3775	100	100	5	10	800	1000
	M350	3500	2255	4300	3975	100	100	5	10	800	1000
	M370	3700	2355	4500	4175	100	100	4	8	750	900
	M400	4000	2605	4800	4570	100	100	4	8	700	850
	M430	4300	2785	5100	4900	100	100	4	8	650	800
	M450	4500	2905	5300	5120	100	100	4	8	600	700
2-stage full-free lifting mast	U200	2000	1505	2800	2495	705	1010	5	10	800	1000
	U250	2500	1755	3300	2995	955	1260	5	10	800	1000
	U270	2700	1855	3500	3195	1055	1360	5	10	800	1000
	U300	3000	2005	3800	3495	1255	1510	5	10	800	1000
	U330	3300	2155	4100	3795	1355	1660	5	10	800	1000
	U350	3500	2255	4300	3995	1455	1760	5	10	750	900
	U370	3700	2355	4500	4195	1555	1860	4	8	700	850
3-stage full-free lifting mast	U400	4000	2605	4800	4545	1755	2010	4	8	600	700
	N350	3500	1675	4310	4015	875	1170	4	8	700	800
	N370	3700	1735	4500	4195	935	1240	4	8	650	750
	N400	4000	1835	4800	4495	1035	1340	4	8	600	650
	N430	4300	1935	5100	4795	1135	144	4	8	500	550
	N450	4500	2005	5310	5005	1205	1510	4	8	400	450



$$A_{st} = a + W_a + x + B \quad a: 200\text{mm}$$





# X Series 3W Electric Forklift

with capacities of 1,300 to 1,500kg



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# X Series 3W Electric Forklift

Hangcha's X series 1.3-1.5t three-point electric forklifts are a new series of high-efficiency, energy-saving electric counterweight forklifts with a new structure that represents a breakthrough over the traditional design concept. With a compact structure, small turning radius and light weight and high maneuverability, the vehicle is widely used in narrow operation places, e.g., warehouses, supermarkets, workshops, etc.



## Appearance

- / With a profile formed by a combination of straight lines and streamlined curved surfaces, the vehicle is compact and maneuverable and has simple and sturdy appearance.



The angle of the hand wheel is adjustable

## Comfort

- / The angle of the hand wheel is adjustable and the seat can be adjusted backwards and forwards, so that the operator can choose the best driving position.
- / Excellent ergonomic design and large operation space provide the operator with more comfort, and satisfy the operator's needs for long-term and high-intensity operations.



Seat can be adjusted backwards and forwards

## Safety

- / The optimized design of the wide-view mast and the low dashboard enable a wide front view and higher safety, and minimizes the blind view to the greatest extent.
- / The emergency shut-off switch equipped for the standard configuration complies with European safety standards.
- / The electronic and hydraulic overload protection devices comply with safety regulations.
- / An optional seat sensing system is provided to enable high safety by disabling the traction, lifting, descending and other functions when the driver leaves the seat.



Low dashboard

## Energy saving and high efficiency

- / Front-wheel drive; standard rubber tread tires, which are not prone to skid on slippery grounds such as puddles, sandy, sloping or cold storage grounds, etc.
- / Efficient and convenient vehicle-mounted charger provided for the standard configuration.
- / The vehicle is equipped with energy-saving and durable LED lights.



Vehicle-mounted charger



Standard rubber tread tires



Wide-view mast

## Advancement

- / AC devices, precise speed control, maintenance-free motor, temperature monitoring.
- / The forklift is equipped with an AC controller to enable its driving, steering, lifting, tilting and other actions to be controlled by a computer.
- / The high-efficiency driving control system with a high-frequency integrated MOSFET controller ensures stable and accurate driving and lifting and superior speed regulation performance, and has the functions of regenerative braking, reverse braking and protection for preventing sliding down a ramp, etc. to enable safer and more effective and comfortable operations.
- / The high quality LED battery meter can accurately display information in harsh environments.

## Standard Specification

- / Tread solid tire
- / Anti-skid patterned step
- / Dual multiway valve
- / 3m duplex wide-field-of-view mast
- / Standard 920mm long fork
- / Adjustable steering wheel column
- / Rearview mirror
- / Emergency power off switch
- / Round color screen instrument
- / LED headlight
- / Combination LED tail light
- / Vehicle-mounted charger
- / Horn, reversing buzzer

## Stability

- / With the battery and counterweight arranged and designed to have a low center of gravity, respectively, the vehicle has a low center of gravity and good stability.
- / With two rubber tires, the turn wheels provide support side by side for good turn stability.

## Options

- / Seamless solid tire
- / 2-4.5m duplex wide-view mast
- / 2-4m free duplex mast
- / 3.5-4.5m free triplex mast
- / Widened fork carriage and load backrest
- / Triple and quadruple multiway valves
- / External side shift fork
- / Built-in side shift fork
- / Other attachments
- / Forks of other lengths
- / Cold storage vehicle
- / Left and right rear view mirrors
- / Rear LED operation light
- / Alarm light
- / Battery charger
- / OPS system

CATL Li-Ion battery pack specification			
Manufacturers type designation		CPDS13-XD2-SI	CPDS15-XD2-SI
Battery voltage, capacity	V/Ah	80/125	80/125
Battery weight	kg	120	120

Table of the battery features		
Capacity (Ah/5h)	1.3t	1.5t
125 (lithium battery)	●	●
202 (lithium battery)	○	○

Note: ● Standard battery capacity; ○ Optional battery capacity



# X Series 1.3-1.5t 3W Electric Forklift Specification

		HANGCHA GROUP CO.,LTD.				
Distinguishing mark	1.1	Manufacturer				
	1.2	Manufacturers type designation	CPDS13-XD2-SI	CPDS15-XD2-SI		
	1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas	electric	electric		
	1.4	Operator type: hand, pedestrian, standing, seated, order-picker	seated	seated		
	1.5	Load capacity/rated load	Q (kg)	1300	1500	
	1.6	Load centre distance	c (mm)	500	500	
	1.8	Load distance, centre of drive axle to fork	x (mm)	330	330	
	1.9	Wheelbase	y (mm)	1170	1170	
	Weight	2.1	Service Weight	kg	2430	2540
2.2		Axle loading, laden front/rear	kg	3290/440	3610/430	
2.3		Axle loading, unladen front/rear	kg	1110/1320	1120/1420	
Tyres, chassis	3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane	solid	solid		
	3.2	Tyre size, front	18x7 - 8	18x7 - 8		
	3.3	Tyre size, rear	15x4.5 - 8	15x4.5 - 8		
	3.5	Wheels, number front rear (x = driven wheels)	2x/2	2x/2		
	3.6	Tread, front	b <sub>10</sub> (mm)	860	860	
	3.7	Tread, rear	b <sub>11</sub> (mm)	175	175	
	Dimensions	4.1	Tilt of mast/fork carriage forward/backward	α/β(°)	5/8	5/8
4.2		Height, mast lowered	h <sub>1</sub> (mm)	2065	2065	
4.3		Free lift	h <sub>2</sub> (mm)	135	135	
4.4		Lift	h <sub>3</sub> (mm)	3000	3000	
4.5		Height, mast extended	h <sub>4</sub> (mm)	3955	3955	
4.7		Height of overhead guard STD.	h <sub>6</sub> (mm)	1930	1930	
4.9		Seat height/stand height	h <sub>7</sub> (mm)	970	970	
4.19		Overall length	l <sub>1</sub> (mm)	2700	2750	
4.20		Length to face of forks	l <sub>2</sub> (mm)	1800	1830	
4.21		Overall width	b <sub>1</sub> (mm)	1030	1030	
4.22		Fork dimensions	s/e/l (mm)	35/100/920	35/100/920	
4.23		Fork carriage DIN 15 173 --- ISO 2328, class/type A,B		ISO2328 2A	ISO2328 2A	
4.24		Fork-carriage width	b <sub>3</sub> (mm)	900	900	
4.25		Distance between fork-arms	b <sub>5</sub> (mm)	200/900	200/900	
4.31		Ground clearance, laden, below mast	m <sub>1</sub> (mm)	95	95	
4.32		Ground clearance, centre of wheelbase	m <sub>2</sub> (mm)	90	90	
4.34.1		Aisle width for pallets 1000 x 1200 crossways	A <sub>st</sub> (mm)	3210	3240	
4.34.2		Aisle width for pallets 800 x 1200 lengthways	A <sub>st</sub> (mm)	3410	3440	
4.35		Turning radius	W <sub>a</sub> (mm)	1680	1710	
Performance data		5.1	Travel speed, laden/unladen	km/h	12/13	12/13
		5.2	Lift speed, laden/unladen	m/s	0.250/0.370	0.240/0.370
	5.3	Lowering speed, laden/unladen	m/s	0.460/0.440	0.460/0.440	
	5.7	Gradeability, laden/unladen	%	12/13	12/13	
	5.9	Acceleration time, laden/unladen (0-10m)	s	5.85/5.03	5.85/5.03	
	5.10	Service brake		Hydraulic	Hydraulic	
5.11	Parking brake		Mechanical	Mechanical		
Electric-engine	6.1	Drive motor rating S2 60 min	kW	5 AC	5 AC	
	6.2	Lift motor rating at S3 15%	kW	8 AC	8 AC	
	6.4	Battery voltage, nominal capacity K5	V/Ah	80/125	80/125	
	6.5	Battery weight	kg	120	120	
		Battery dimensions	l/b/h(mm)	916×550×276	916×550×276	
		Min. battery weight	kg	120	120	
		Max. battery weight	kg	165	165	
8.1	Type of drive control		MOSFET/AC	MOSFET/AC		
9.1	Manufacturer		INMOTION	INMOTION		
Addition data	10.1	Operating pressure for attachments	bar	140	150	
	10.7	Sound level at the driver's ear according to EN / DIN 12 053	dB (A)	66	66	

# 1.3-1.5t Mast Specification

Type	Model	Lifting height	Lowered overall height	Overall height		Free lifting height		Tilt range		Capacity	
				With backrest	Without backrest	With backrest	Without backrest	Forward	Backward	Load center@500mm	
		mm	mm	mm	mm	mm	mm	deg	deg	1.3t	1.5t
2-stage wide view mast	XS15M200	2000	1578	2955	2566	135	135	5	8	1300	1500
	XS15M250	2500	1828	3455	3066	135	135	5	8	1300	1500
	XS15M270	2700	1928	3655	3266	135	135	5	8	1300	1500
	XS15M300	3000	2078	3955	3566	135	135	5	8	1300	1500
	XS15M330	3300	2228	4255	3866	135	135	5	8	1300	1500
	XS15M350	3500	2328	4455	4066	135	135	5	6	1300	1500
	XS15M370	3700	2478	4655	4283	135	135	5	6	1300	1500
	XS15M400	4000	2678	4955	4633	135	135	5	6	1300	1500
	XS15M430	4300	2828	5255	4933	135	135	5	6	1200	1450
3-stage full-free lifting mast	XS15M450	4500	2928	5455	5133	135	135	5	6	1100	1400
	XS15N350	3500	1790	4455	4100	845	1200	5	6	1200	1400
	XS15N370	3700	1840	4655	4266	895	1284	5	6	1200	1400
	XS15N400	4000	1940	4955	4566	995	1384	5	6	1200	1400
	XS15N430	4300	2040	5255	4866	1095	1484	5	6	1150	1300
	XS15N450	4500	2090	5455	5066	1145	1534	5	6	1100	1250

