



A Series 3-Wheel Electric Forklift with Lithium-ion Technology

with capacities of 3,200 to 4,000lbs

The World of Hangcha



LITHIUM POWERED



HANGCHA PROVIDES **10 YEAR**
OR **20000 HOURS** GUARANTEE
ON LITHIUM BATTERY.

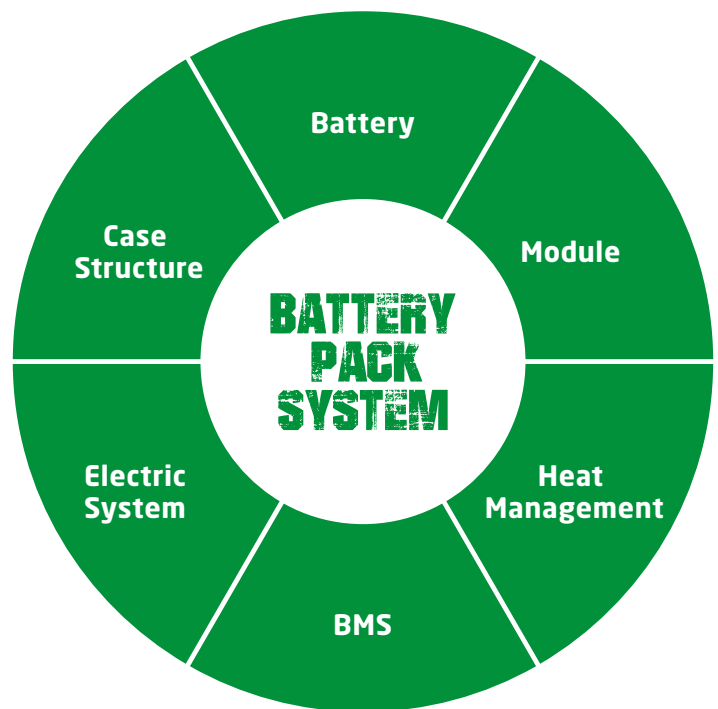


10 YEAR
WARRANTY

INNOVATIVE SOLUTIONS NEW POWER NOW

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.

- / We use square lithium iron phosphate batteries and modules used in large quantities by commercial vehicles in mature economies.
- / The module uses an aluminum alloy frame which is sturdy, lightweight and with excellent heat dissipation.
- / Safe and effective: Charging efficiency as high as 98%, thermal runaway temperature 600 °C or above.
- / Adapted to low temperatures: Comes standard with an electrical heating feature, ensuring normal operation in low temperatures.
- / Quick charging: Can charge and operate at the same time, fully charged in 2 hours.
- / Long-working: 4000 charging cycles, capacity retention greater than 80%.
- / Maintenance-free: Battery does not require manual maintenance.
- / Green and clean: Pollution-free, zero emissions.



Li-Ion
2 hours
100%

Lead-acid batteries
8-10 hours **100%**

Rapid charging and opportunity charging ensure continuous availability of vehicles

Allow for fast full charging or boost charging (100 % charge in 2 hours). They are maintenance free and do not require a battery change when used for multi-shift operations.



TITANS CHARGER



Appearance

- / Compact design meets the limited space operation requirement. Eyeball catching designed smooth outline and metal material applied for exposed parts, all provide robust construction of the A series 3W electric counterbalance forklift truck.

Maneuverability

- / Front dual separated driving motors can realize the wheels forward or backward independently, the small turning radius is suitable for narrow channel; Imported reducer, high power driving motor provides a reliable and strong performance.

High Efficiency

- / High power pump motor and low noise gear pump, both improve the lifting speed and work efficiency.
- / Regenerative braking during deceleration is more energy saving and effectively.

Comfort

- / Thanks to the new designed adjustable levers, the operator can work more comfortable. New designed dashboard is easy to see and provides friendly human-computer interaction and with running hours, self diagnosis functions and the battery power show.
- / Both the steering column and seat can be adjusted easily, every operator can find the best driving position.
- / Low vibration and suspension seat reduce the driver's fatigue.

Stability

- / Sinking type battery layout provides good stability especially during cornering.
- / The soft landing system protects the forks from dashing against the ground.

Safety

- / Emergency switch is standard specification which meets the Euro safety regulation.
- / Both electronics and hydraulic system are equipped with overloading protection system.
- / Driving speed is automatically reduction during cornering.

Maintenance

- / Full opened battery cover is easy for battery service and changing.
- / The service engineer can remove the front floor board without any tool, it is convenient for the maintenance.

Advance

- / World famous controller, connectors, battery plug and emergency switch are applied to ensure the reliability of the performance and provides easy service.
- / High frequency MOSFET integrated control system provides accurate control of travelling, lifting and better adjustable performance that better matches with the motor. No roll-back on ramp is also provided thanks to MOSFET controller. Motor brake is for regenerative braking during deceleration, direction changing, and downward slope.

Standard Specification

- / High efficiency AC driving motor
- / Multi-functions instrument
- / Front dual driving motors
- / Rubber floor mat
- / Solid tyre
- / Emergency disconnect switch
- / 2-valve inside chassis
- / LED headlight
- / Rear combination LED light
- / Panoramic rearview mirror (in the middle position of the overhead guard)
- / 118.1 inch duplex wide view mast
- / Adjustable steering column
- / Full electronic controlled travelling, lifting and steering
- / Horn and reversing buzzer
- / CAN-BUS system
- / Low noise gear pump (Brand: Shimadzu, Made in Japan)
- / Full hydraulic steering
- / Soft landing system
- / Non suspension seat: Grammer GS12 with switch
- / ZF reducer and SCHABMULLER traveling motor

Options

- / 3rd or 4th hydraulic function
- / 98.4~177.2 inch duplex mast
- / 169.3~255.9 inch triplex mast
- / Rear working LED light
- / Reversing assist grip with horn button
- / Integrated sideshifter
- / Other attachments
- / Other dimension forks
- / Special carriage and backrest
- / CATL lithium battery pack
- / Non-marking tyre
- / Battery charger
- / Suspension seat
- / Fingertip control on the adjustable armrest
- / Full closed cabin
- / Blue spot light
- / OPS system



Front dual separated motors



Panoramic rearview mirror



Cover can be easily opened by adjusting the levels forward



The small turning radius is suitable for narrow aisle

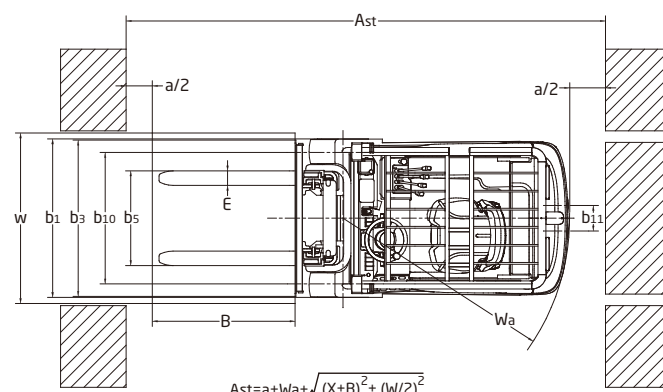
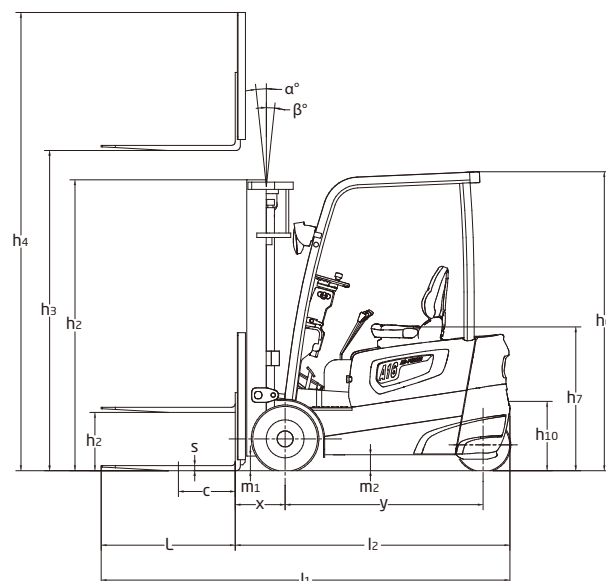
A Series 3-Wheel Electric Forklift Truck With Lithium-ion Battery

Distinguishing mark	1.1	Manufacturer		HANGCHA GROUP CO.,LTD.		
		HCFA Model		FBT16Li		FBT18Li
	1.2	Manufacturers type designation		CPDS16-AD6-I		CPDS18-AD6-I
	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 (lbs)	3200		3500
	1.6	Load centre distance	c (in)	24		24
	1.8	Load distance, centre of drive axle to fork	x (in)	14.0		14.2
	1.9	Wheelbase	y (in)	53.5		53.5
Weight	2.1	Service Weight	lbs	6884		7149
	2.2	Axle loading, laden front/rear	lbs	9047/1368		9598/1522
	2.3	Axle loading, unladen front/rear	lbs	3177/3707		3177/4148
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		35.8		35.8
	3.7	Tread, rear		6.9		6.9
Dimensions	4.1	Tilt of mast/fork carriage forward/backward	α/β(°)	6/6		6/6
	4.2	Height, mast lowered	h ₁ (in)	78.5		78.5
	4.3	Free lift	h ₂ (in)	5.7		5.7
	4.4	Lift	h ₃ (in)	118.1		118.1
	4.5	Height, mast extended	h ₄ (in)	155.3		155.3
	4.7	Height of overhead guard STD.	h ₆ (in)	80.3		80.3
		Height of higher overhead guard OPT.	h ₆ (in)	83.9		84.8
	4.8	Seat height	h ₇ (in)	39.4		39.4
	4.12	Coupling height	h ₁₀ (in)	19.7		19.7
	4.19	Overall length	l ₁ (in)	110.9		111.1
	4.20	Length to face of forks	l ₂ (in)	74.7		74.9
	4.21	Overall width	b ₁ (in)	42.8		42.8
	4.22	Fork dimensions	s/e/l (in)	1.4/3.9/36.2		1.4/3.9/36.2
	4.23	Fork carriage DIN 15 173 --- ISO 2328, class/type A,B		ISO2328 2A		ISO2328 2A
	4.24	Fork-carriage width	b ₃ (in)	39.4		39.4
	4.25	Distance between fork-arms	b ₅ (in)	7.9/39.3		9.4/39.3
	4.31	Ground clearance, laden, below mast	m ₁ (in)	3.9		3.9
	4.32	Ground clearance, centre of wheelbase	m ₂ (in)	4.3		4.3
	4.34.1	Aisle width for pallets 1000 x 1200 crossways	A _{st} (in)	127.4		127.4
	4.34.2	Aisle width for pallets 800 x 1200 lengthways	A _{st} (in)	132.3		132.3
	4.35	Turning radius	W _a (in)	61.2		61.2
Performance Data	4.36	Internal turning radius	b ₁₃ (in)	26.8		28.7
	5.1	Travel speed, laden/unladen	mph	9.9/9.9		9.9/9.9
	5.2	Lift speed, laden/unladen	fpm	74.8/92.5		72.8/88.6
	5.3	Lowering speed, laden/unladen	fpm	90.6/86.6		90.6/82.7
	5.5	Drawbar pull, laden/unladen	lbf	742/877		719/854
	5.6	Max. Drawbar pull, laden/unladen	lbf	2608/2585		2585/2563
	5.7	Gradeability, laden/unladen	%	16/18		15/17
	5.8	Max. gradeability, laden/unladen	%	20/20		18/20
	5.9	Acceleration time, laden/unladen (0-10m)	s	4.7/4.3		4.8/4.4
	5.10	Service brake		Hydraulic		Hydraulic
	5.11	Parking brake		Mechanical		Mechanical
Electric- engine	6.1	Drive motor rating S2 60 min	kw	4.75x2 AC		4.75x2 AC
	6.2	Lift motor rating at S3 15%	kw	9.5 AC		9.5 AC
	6.3	Battery acc. to DIN 43 531/35/36 A,B,C, no		DIN43531 A		DIN43531 A
	6.4	Battery voltage, capacity	V/Ah	48/480		48/480
		Titans charger		SLC-48200		SLC-48200
	6.5	Battery weight	lbs	595		595
		Battery dimensions	l/b/h(in)	32.7×24.8×24.7		32.7×24.8×24.7
	6.6	Energy consumption acc. to VDI cycle	kWh/h	4.6		5.0
		Min. battery weight	lbs	1876		1876
		Max. battery weight	lbs	2207		2207
	8.1	Type of drive control		MOSFET/AC		MOSFET/AC
	9.1	Manufacturer		INMOTION		INMOTION
Addition data	10.1	Operating pressure for attachments	bar	150		150
	10.2	Oil volume for attachments	l/min	35		35
	10.3	Hydraulic Tank - capacity (drain & refill)	gal	6.87		6.87
	10.7	Sound level at the driver` s ear according to EN / DIN 12 053	dB (A)	73		73
	10.8	Towing coupling, type DIN		φ24 Pin		φ24 Pin

Mast Specification:

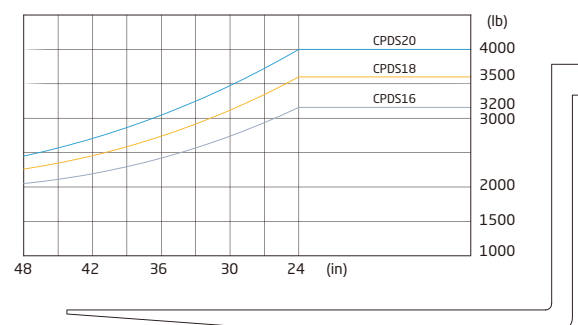
NO.	Type	Model	Lifting height	Lowered overall height	Overall height		Free lifting height		Tilting range		3200lb
					With backrest	Without backrest	With backrest	Without backrest	Forward	Backward	
			in	in	in	in	in	in	(°)	(°)	lbs
1	Duplex wide view mast	M300	118.1	78.5	155.3	140.4	5.7	5.7	5.5	6	3200
2		M330	129.9	84.4	167.1	152.2	5.7	5.7	5.5	6	3200
1	Duplex full-free lifting mast	U300	118.1	78.5	155.7	141.5	41.3	55.5	5.5	6	3200
2		U330	129.9	84.4	167.5	153.3	47.2	61.4	5.5	6	3200
3		U350	137.8	88.4	175.4	161.2	51.2	65.4	5.5	6	3200
1	Triplex full-free lifting mast	N450	177.2	81.7	214.8	200.6	44.5	58.7	3.5	5	2800
2		N480	189.0	85.6	226.6	212.4	48.4	62.6	3.5	5	2600
3		N500	196.9	88.2	234.4	220.3	51.0	65.2	3.5	5	2400
4		N550	216.5	94.9	254.1	240.0	57.7	71.9	3.5	5	2200

	FBT20Li
	CPDS20-AD6-I
	electric
	seated
	4000
	24
	14.2
	57.7
	7657
	10481/1589
	3376/4281
	solid
	200/50-10
	15x4.5 - 8
	2x/2
	36.0
	6.9
	6/6
	78.5
	5.7
	118.1
	155.3
	80.3
	84.8
	39.4
	19.7
	115.4
	79.1
	44.1
	1.6/4.8/36.2
	ISO2328 2A
	39.4
	9.4/39.3
	3.9
	4.3
	131.6
	136.4
	65.4
	28.7
	9.3/9.3
	68.9/88.6
	92.5/82.7
	686/832
	2518/2473
	13/15
	15/18
	4.9/4.5
	Hydraulic
	Mechanical
	4.75x2 AC
	9.5 AC
	DIN43531 A
	48/480
	SLC-48200
	595
	32.7x29x24.7
	5.5
	1986
	2427
	MOSFET/AC
	INMOTION
	150
	35
	7.66
	74
	Φ24 Pin



X: Load distance
B: Length of load or forks which is longer

Capacity		
Load center@24Inch		
3500lb		4000lb
lbs		lbs
3500		4000
3500		4000
3500		4000
3500		4000
3500		4000
3500		4000
3200		3600
3000		3400
2800		3200
2500		3000





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