

## A Series Electric counterbalanced stacker

Distinguishing marks	1.1	Manufacturer	HANGCHA GROUP CO.,LTD.				
	1.2	Manufacturer's type designation	CPDB08-AC2S CPDB08-AZ3S	CPDB12-AC2S CPDB12-AZ3S	CPDB16-AC2S CPDB16-AZ3S	CPDB20-AC2S CPDB20-AZ3S	
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	standing	standing	standing	standing		
1.5	Rated capacity/rated load	Q (t)	0.8	1.2	1.6	2.0	
1.6	Load centre distance	c(mm)	500	500	500	500	
1.8	Load distance, centre of drive axle to fork	x(mm)	131	131	141	151	
1.9	Wheelbase	y(mm)	1023	1150	1371	1571	
Weights	2.1	Service Weight incl.battery(see line6.5)	kg	1800	2030	2240	2316
	2.2	Axle loading,laden front/rear	kg	420/2180	310/2840	450/3200	531/3595
	2.3	Axle loading,unladen front/rear	kg	935/865	1090/860	1150/900	1189/937
Wheels, Chassis	3.1	Tyres:solid rubber,superelectric,pneumatic,polyurethane	PU	PU	PU	PU	
	3.2	Tyre size, front	mm	Φ230×75	Φ230×75	Φ250×100	Φ250×100
	3.3	Tyre size, rear	mm	Φ200×100	Φ200×100	Φ200×100	Φ200×100
	3.5	Wheels, number front / rear (x = driven wheels)		1×/2	1×/2	1×/2	1×/2
	3.6	Tread, front	b10 (mm)	870	870	870	870
	4.2	Height,mast lowered	h1 (mm)	1892	1892	1892	1997
Basic Dimensions	4.4	Lift	h3 (mm)	2700	2700	2700	2700
	4.9	Height of tiller in drive position min./max.	h14(mm)	1115/1420	1115/1420	1115/1420	1115/1420
	4.15	Height, lowered	h13 (mm)	35	35	35	45
	4.19	Overall length	l1 (mm)	2485 <sup>1)</sup>	2612 <sup>1)</sup>	2822 <sup>1)</sup>	3032 <sup>1)</sup>
	4.20	Length to face of forks	l2 (mm)	1415 <sup>1)</sup>	1542 <sup>1)</sup>	1752 <sup>1)</sup>	1962 <sup>1)</sup>
	4.21	Overall width	b1/b2(mm)	800/1030	800/1030	800/1030	800/1030
	4.22	Fork dimensions	s/e/l (mm)	35/100/1070	35/100/1070	35/100/1070	45/100/1070
	4.24	Fork-carriage width	b3(mm)	700	700	700	700
	4.25	Distance between fork-arms	b5 (mm)	210-680	210-680	210-680	210-680
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	60	60	60	60
	4.34.1	Aisle width for pallets 1000 x 1200 crossways	Ast (mm)	2760 <sup>1)</sup>	2810 <sup>1)</sup>	3019 <sup>1)</sup>	3228 <sup>1)</sup>
	4.34.2	Aisle width for pallets 800 x 1200 lengthways	Ast (mm)	2870 <sup>1)</sup>	2920 <sup>1)</sup>	3129 <sup>1)</sup>	3339 <sup>1)</sup>
	4.35	Turning radius	Wa (mm)	1380	1430	1630	1830
	Performance Data	5.1	Travel speed, laden/unladen	km/h	5.5/6.0	5.5/6.0	5.5/6.0
5.2		Lift speed, laden/unladen	m/s	0.160/0.235	0.145/0.220	0.135/0.230	0.110/0.180
5.3		Lowering speed, laden/unladen	m/s	0.200/0.200	0.200/0.200	0.200/0.200	0.200/0.200
5.7		Gradeability, laden/unladen	%	6/10	6/10	6/10	6/10
Electric-motor	6.1	Drive motor rating S2 60 min.	kW	1.5	1.5	3	3
	6.2	Lift motor rating at S3 15%	kW	2.2	3.2	3.2	3.2
	6.4	Battery voltage/nominal capacity K5	(V)/(Ah)	24/240	24/280	24/350	24/350
	6.5	Battery weight	kg	215	250	300	300
	Others	8.1	Type of drive control		CURTIS ZAPI	CURTIS ZAPI	CURTIS ZAPI

Note:1) Triplex mast +21mm  
Specifications are subject to change without notice.



## A Series Electric Counterbalanced Stacker

with capacities of 800 to 2,000kg



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ISO14001  
ISO14001:2015



ISO9001  
ISO9001:2015



HANGCHA trucks conform  
to the European Safety  
Requirements.

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The World of Hangcha



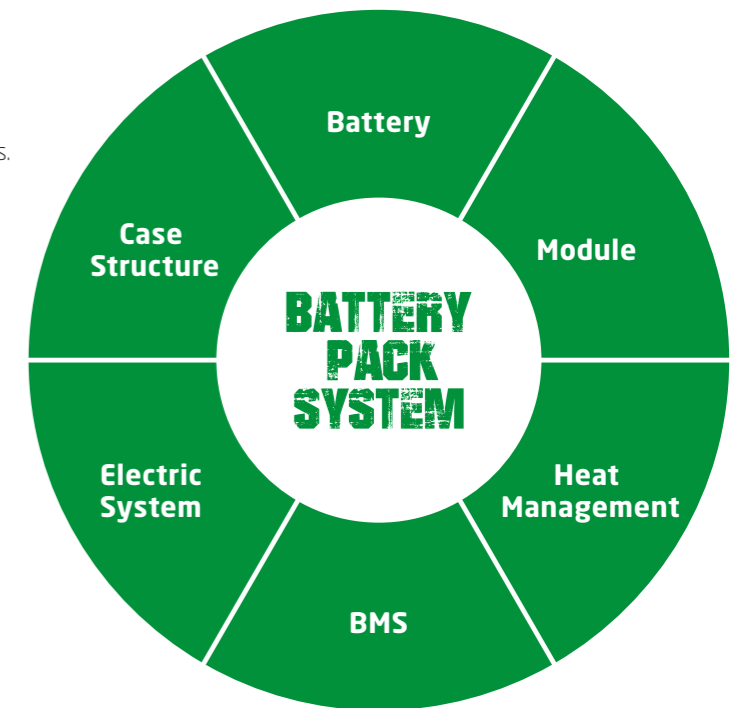
# LI-ION POWERED



# 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: 2 hours full charge, economic use of each break.
- / 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.**

Li-Ion powered forklifts are always available. They 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.

## Li-Ion Battery Pack specification

Type		CPDB08-AC2S-I CPDB08-AZ3S-I	CPDB12-AC2S-I CPDB12-AZ3S-I	CPDB16-AC2S-I CPDB16-AZ3S-I	CPDB20-AC2S-I CPDB20-AZ3S-I
Li-Ion battery	V/Ah	24/120	24/120	24/120	24/120
Li-Ion battery,Optional	V/Ah	24/202	24/202	24/202	24/202
Titans charger		SPC-24100	SPC-24100	SPC-24100	SPC-24100



HANGCHA provides Li-Ion battery (LiFePO4) with 5 years or 10000 hours warranty.



**5 YEARS  
WARRANTY**

# A Series Electric Counterbalanced Stacker

Is widely used in pallet stacking, wherever support arm stacker truck cannot operate close pallet and lower pallet.

Applied the latest AC drive technology, advanced performance, comfort, safe, reliable, low maintenance cost, easy to operate, and economical to buy is the ideal solution for warehouses, supermarkets, workshop loading/unloading and handling pallets of cargos.

## Environment/ Efficiency/ Economy

### Appearance

- / A series electric counterbalanced stacker applied professional industrial design, stream lines, and compact, and fully ergonomic consideration, in line with the latest design trends.
- / Applied steel stamping and injection molding processes for front and back guard, which is robust, durable, and also environmental compliance.



## High Performance

- / Electric power steering is standard specification, which provides flexible operation.
- / Pump motor controller offers proportional lifting/lowering, low noise, energy consumption reduced by 15%.
- / Powered by AC traction motor not only has good acceleration and climbing performance, but also low heat, brushless, maintenance-free.
- / Latest AC control system, precise and smooth.
- / CAN-BUS connection enables all truck data can be read out for inspection, and also improves the data transition more quick and reliable.
- / Regenerative braking for battery recovery during travel speed reduction, anti-slope on gradient.
- / All key parts such as switches, connectors, battery indicator and hour meter all adopt the famous brand.

## Comfort

- / The pedal applies shock absorption design, greatly improves the operator's comfort, reduce the fatigue.
- / The compact body and semicircular design provide an ideal operation in limited space, and the wedge designed chassis greatly increases the passing ability.

## Reliability

- / 3-pivot with low centre of gravity design and high strength steel frame structure chassis provide high residual load capability and longer working life.
- / Imported waterproof connectors, all wires and cables are protected, greatly improve the reliability of the electric system.
- / Using non-contact proximity switch, improves safety and reliability.
- / Hydraulic power unit applied to provide low noise, low vibration, smooth lifting and landing reliable operation.
- / H-type mast profile section is applied to provide stable lifting and high strength.
- / The power plug is fixed on the chassis to avoid damage during battery replacement.



Simple and beautiful tiller designed to improve the operator's driving comfort. Optimized designing structure to offer a good visibility and easy entrance to the pallet



Side battery change is standard specification



Fully opened hood, easy accessibility of all components, is easy for service



Mast tilting is the optional feature, offers proportional forward/backward speed

## Safety

- / Travel speed will be automatically reduced after fork lifting height over 500mm.
- / Automatic deceleration during turning.
- / Punch-formed handrails provide more safety to the operator.
- / Three braking system of regenerative braking, reverse current braking, and emergency braking, insures the safe operation.
- / Anti-slope on gradient can keep the safety.
- / The emergency button on the tiller head can effectively avoid the harm to the driver.
- / Soft landing system applied to protect loads from damaging when forks lowering to 100mm to ground.

## Standard Specification

- / AC drive motor
- / Electric power steering
- / 2.7m double cylinder duplex mast
- / Emergency switch
- / The proportional lift & lower control
- / 1070mm fork length
- / Side battery change
- / Multi-function battery indicator
- / PU load wheel
- / CAN bus technology
- / Soft landing system

## Maintenance

- / AC motor without carbon brushes, maintenance-free, cost saving.
- / Integrated battery indicator, hour meter and self-diagnostic instrument.

## Options

- / Mast lift height:  
Duplex mast 2000-4500mm,  
full free duplex mast: 2000-3600mm,  
triplex mast 0.8t: 3500-5000mm,  
1.2/1.6/2.0t: 3500-5500mm.
- / Mast tilting: Forward 2°/ Backward 6°
- / Different length of fork
- / Load backrest



## 0.8t/1.2t/1.6t Mast specification

Type	Fork lift height	Max. fork height (h <sub>3</sub> + h <sub>13</sub> )	Mast lowered h <sub>1</sub>	Mast extended h <sub>4</sub>	Free lift	Capacity load capacity at 500mm		
	h <sub>3</sub>					0.8t	1.2t	1.6t
	mm	mm	mm	mm	mm	kg	kg	kg
Wide view mast	2000	2035	1542	2542	0	800	1200	1600
	2500	2535	1792	3042	0	800	1200	1600
	2700	2735	1892	3242	0	800	1200	1600
	3000	3035	2042	3542	0	800	1200	1600
	3300	3335	2192	3842	0	800	1200	1600
	3500	3535	2292	4042	0	800	1200	1600
	3600	3635	2342	4142	0	700	1200	1600
	3700	3735	2392	4242	0	680	1180	1540
	3800	3835	2442	4342	0	660	1150	1480
	4000	4035	2642	4642	0	620	1100	1400
Wide view full free duplex mast	2000	2035	1595	2595	1035	800	1200	1600
	2500	2535	1845	3095	1285	800	1200	1600
	2700	2735	1945	3295	1385	800	1200	1600
	3000	3035	2095	3595	1535	800	1200	1600
	3300	3335	2245	3895	1685	800	1200	1600
	3500	3535	2345	4095	1785	800	1200	1600
	3600	3635	2395	4195	1835	700	1200	1600
	3700	3735	2445	4295	1885	680	1180	1540
	4000	4035	2695	4595	2035	620	1100	1400
	4500	4535	2895	5142	2235	440	1000	1300
Wide view full free triplex mast	2000	2035	1595	2595	1035	800	1200	1600
	2500	2535	1845	3095	1285	800	1200	1600
	2700	2735	1945	3295	1385	800	1200	1600
	3000	3035	2095	3595	1535	800	1200	1600
	3300	3335	2245	3895	1685	800	1200	1600
	3500	3535	2345	4095	1785	800	1200	1600
	3600	3635	2395	4195	1835	700	1200	1600
	3700	3735	2445	4295	1885	680	1180	1540
	4000	4035	2695	4595	2035	620	1100	1400
	4500	4535	2895	5142	2235	440	1000	1300
	4700	4735	2259	5459	1535	380	950	1220
	5000	5035	2354	5744	1645	300	800	1000
	5200	5235	2409	5909	1735	-	680	850
	5500	5535	2509	6209	1835	-	550	700

## 2.0t Mast specification

Type	Fork lift height	Max. fork height (h <sub>3</sub> + h <sub>13</sub> )	Mast lowered h <sub>1</sub>	Mast extended h <sub>4</sub>	Free lift	Capacity load capacity at 500mm
	h <sub>3</sub>					2.0t
	mm	mm	mm	mm	mm	kg
Wide view mast	2000	2045	1647	2647	0	2000
	2500	2545	1897	3147	0	2000
	2700	2745	1997	3347	0	2000
	3000	3045	2147	3647	0	2000
	3300	3345	2297	3947	0	2000
	3500	3545	2397	4147	0	2000
	3600	3645	2447	4247	0	1950
	3700	3745	2497	4347	0	1900
	3800	3845	2547	4447	0	1840
	4000	4045	2747	4747	0	1800
Wide view full free duplex mast	2000	2045	1700	2700	1045	2000
	2500	2545	1950	3200	1295	2000
	2700	2745	2050	3400	1395	2000
	3000	3045	2200	3700	1545	2000
	3300	3345	2350	4000	1695	2000
	3500	3545	2450	4200	1795	2000
	3600	3645	2500	4300	1845	1950
	3700	3745	2550	4400	1895	1900
	4000	4045	2750	4800	2045	1800
	4500	4545	2950	5300	2245	1680
Wide view full free triplex mast	2000	2045	1700	2700	1045	2000
	2500	2545	1950	3200	1295	2000
	2700	2745	2050	3400	1395	2000
	3000	3045	2200	3700	1545	2000
	3300	3345	2350	4000	1695	2000
	3500	3545	2450	4200	1795	2000
	3600	3645	2500	4300	1845	1950
	3700	3745	2550	4400	1895	1900
4000	4045	2750	4800	2045	1800	
4500	4545	2950	5300	2245	1680	
	4700	4745	2359	5559	1545	1480
	5000	5045	2454	5844	1655	1200
	5200	5245	2509	6009	1745	1000
	5500	5545	2609	6309	1845	800

