Features

Truck	Standard	Options
48V permanent magnet synchronous drive motor	•	
Hydraulic power unit	•	
PU wheel	•	
L150mm fork length	•	
570mm outside fork width	•	
Wheel arms lifting limitation	•	
Lifting damping system	•	
Multi-function tiller	•	
48V/80Ah lithium battery(EVE)	•	
Additional wheels	•	
Dual load wheels	•	
JSB power supply	•	
Fork lift & lower adopts stepless speed regulating	•	
Different length of forks		0
Different width of outside fork		0
(ey switch		0
+8V/105Ah lithium battery (EVE)		0
48V/125Ah lithium battery (CATL)		0
oad backrest		0
ithium battery(48V/80Ah,EVE) with the on-board charger(48V,20A)		0
ithium battery(48V/105Ah,EVE) with the on-board charger(48V,20A)		0
Controls and instruments		
Electric steering (Stand-on model)	•	
Systech controller	•	
nteractive meter	•	
Non contact interlock switch	•	
Safety		
Emergency disconnect switch	•	
Horn	•	
PIN code access	•	
[urning deceleration(Stand-on model)	•	
Mast protection		0







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REVOLUTIONARY PERFORMANCE

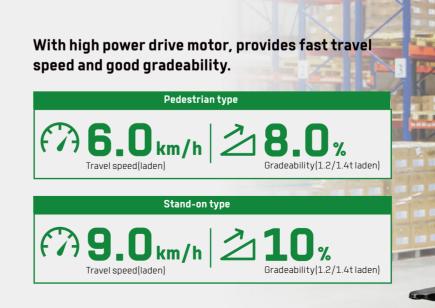


- The electric steering feature enables easier and more flexible operation (Stand-on model).
- The permanent magnet synchronous drive system has excellent performance and low energy consumption. The 48V power supply system has less heat generated.
- With the VCU control, the truck can be controlled accurately, stably and more efficiently.









COMFORTABLE EXPERIENCE

- Optimized designing structure can offer a good visibility and easy entrance of the pallet.
- The compact body and big rounded design provide an ideal operation in limited space, and the wedge designed chassis greatly increases the passing ability.
- Customer can choose different width of outside fork and length of forks to fit variable pallet.

RELIABILITY

- With the 4-piovt and low center of gravity design and a high-strength steel frame structure, the frame has a large residual load capacity.
- The lifting cylinders of the arm have been optimized for design, ensuring stability and reliability, with reduced stress and increased durability.
- Using non-contact proximity switch, it can provides long life and reliable operation.
- H-type mast profile section to provide more stable and rigid performance.
- This truck features a newly designed drive system, where the drive motor does not rotate with the steering tiller during turning, thus preventing the cables connected to the drive motor from easily breaking due to bending.









Displayed turtle speed function applied to move slowly and helps to stack goods in narrow spaces.







- The hydraulic power unit applied to provide low noise, low vibration, smooth lifting and landing reliable operation.
- The battery is reliably fixed and the battery cover is support by soft materials, so that the vibration and noise generated during the operation of the vehicle are reduced.





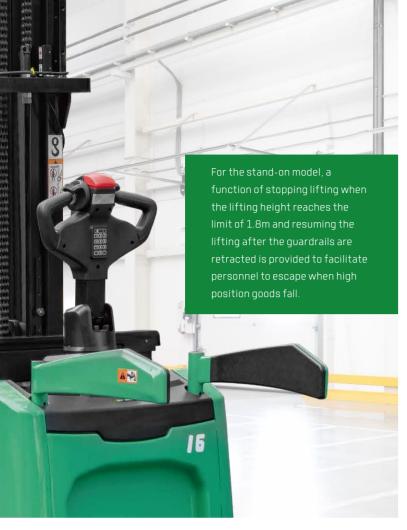
The power plug is fixed on the truck body to avoid damage from battery installment.



The stamped fork with higher strength and impact resistance, and guided fork prongs, further improve operation efficiency.



Water-proof plugs and connectors applied to provide a reliable protection to electric system.



SAFETY

- Turning speed is automatically reduced when steering (Stand-on model).
- With three braking types: releasing brake, reversing brake and emergency brake, the driving safety has been ensured.
- The applied slope anti-slip function ensures the safety of the operation.





The emergency button on the tiller head can effectively avoid the harm to the driver.



Travel speed will be automatically reduced after fork lifting 500mm.















- The lifting buffering function can ensure the safety of the truck when the fork is lifted to the top.
- It has an intelligent soft landing that automatically slows down the lowering speed when the fork is less than 100mm above the ground, effectively protecting cargo safety. (Available for duplex mast)

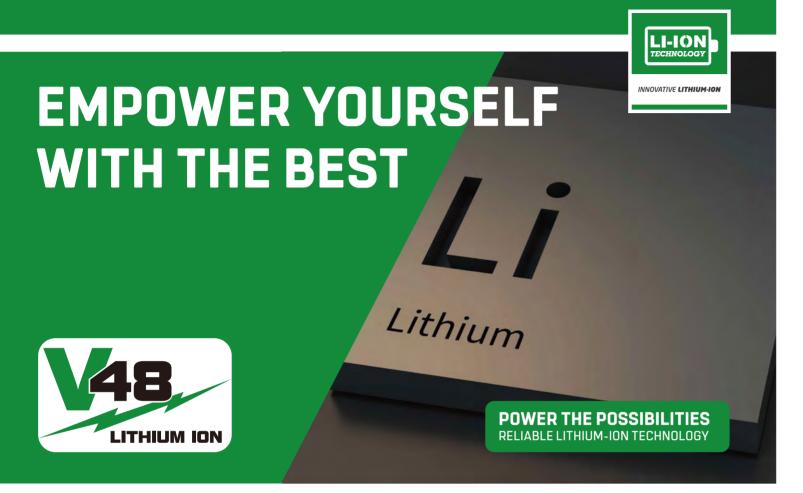


MAINTENANCE

- Permanent magnet synchronous motor need no maintenance.
- The fault information can be checked directly via the interactive instruments instead of the manual.
- Rear cover can be completely open, operator can see all the components, so the maintenance is very convenient.
- All shafts installed lubricated shaft sleeve and oil cup, provide convenient maintenance and long service life.



LITHIUM POWERED



LITHIUM BATTERY ADVANTAGES



Long service life

4000 full charging cycles with at least 75% residual capacity.



Return on investment

Add flexibility to your operation, cost-saving in the long term, increased efficiencies.



Maintenance free

No topping up of water or checking acid levels.

The high energy density of the Li-lon battery ensures long



Cold area application

Li-lon batteries maintain high performance at temperatures below freezing.



High safety and reliability

Intelligent battery management monitoring every important function, no emission of battery gasses.



Opportunity charging

Full performance during several shifts thanks to effective interim charging.

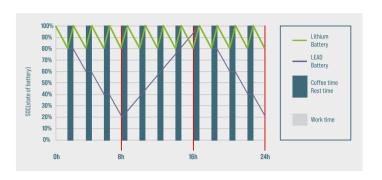


High energy density

working times and increases the high availability.



By quick opportunity charging any downtime, such as a lunch break, can be efficiently used and the battery is recharged in a very short period of time. Interim charging does not affect the battery service life.

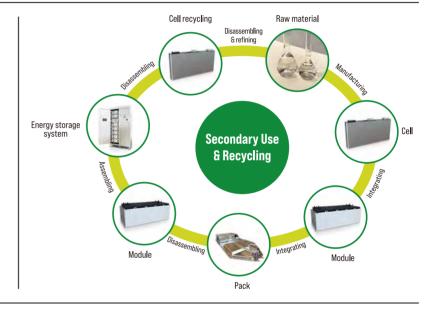


Safety

/ Intelligent battery management monitoring every important function.

/ Higher user safety, thanks to acid-free use.

/ User friendly due to avoided battery change / No emission of battery gasses.





Q: What are the characteristics of lithium batteries, especially when used in high and low temperature environments?

Charging temperature: -30°C -65°C Discharge temperature: -30°C -65°C

After the truck key switch is closed, the instrument battery condition needs to be checked:

- 1. Confirm that there is no battery system alarm message on the instrument panel 2. Please check the remaining power before use. It is recommended to use the SOC hetween 50% and 100%
- 3 If the SOC is lower than 20% it is not recommended to continue using it Please charge it as soon as possible



Q: What is the charging time and usage time calculation of forklift lithium battery?

- 1. Available power of lithium battery (kWh) = rated voltage * rated power * 90% (To avoid over-discharge damaging the battery, the forklift is equipped with low power protection (less than 10%)).
- 2. Charging time (h) = rated capacity of lithium battery (Ah) x 90% + charger output current (A).

3. The power consumed for charging (kWh) = the available power of the lithium battery + 93% (the charging efficiency of the charger is calculated as 93%). 4. Usage time (h) = available power of lithium battery + energy consumption data. For specific energy consumption values, please refer to the technical table on the sharing platform



FEATURES & BENEFITS

THE HANGCHA DIFFERENCE

Q: How does Hangcha BMS work to ensure the safety of the lithium battery?

HANGCHA BMS (battery management system) can monitor the cells at all times. As a result, hangcha lithium power is the reliable solution



Battery Safety Management:

Overchange / over dischange protection Overcurrent/over-temperature/low-temperature protection Multi-level fault diagnosis protection Double fault monitoring



Battery Parameter Detection:

Battery voltage detection and analysis Battery current detection and analysis Battery temperature detection and analysis



Fauilibrium Management

Equalization based on voltage mode Equalization based on time mode Equalization based on battery cell SOC Active/passive equalization optional



Other Features:

Low cost, low power consumption Historical data record CDC data validation

1.2t Mast Specification

Mast type	Max Lifting Height ha	Max.fork height (ha + h13)	Lowered Height h1	Extended Height h4	Free lift	Load capacity at 600mm
Z'						1.2t
	mm	mm	mm	mm	mm	kg
	21001)	2190	1540	2590	90	1200
<u>~</u>	25001)	2590	1740	2990	90	1200
Double cylinders Duplex wide view	2700	2790	1840	3190	90	1200
oublers!	3000	3090	1990	3490	90	1150
ind c	3200	3290	2090	3690	90	1020
cyl	3400	3490	2190	3890	90	920
	3600	3690	2290	4090	90	880
	21001	2190	1540	2590	1070	1200
	2500 ¹⁾	2590	1740	2990	1270	1200
ee ×	27001	2790	1840	3190	1370	1200
Duplex full-free wide view	3000	3090	1990	3490	1520	1150
vi fi p	3200	3290	2090	3690	1620	1020
	3400	3490	2190	3890	1720	920
	3600	3690	2290	4090	1820	880
	36001	3690	1660	4080	1195	880
	39001	3990	1760	4380	1295	820
Triplex full-free wide view	41001)	4190	1830	4580	1360	770
r je	4300	4390	1890	4780	1425	730
. ≯	4500	4590	1960	4980	1495	700
	4700	4790	2030	5180	1560	650

Note: 1) Optional feature for battery side roll out was necessary, It can make changing the battery easier.

1.4-1.6t Mast Specification

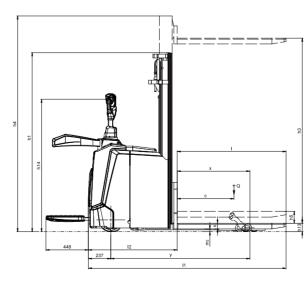
Mast type	Max Lifting Height ha	Max.fork height (h3 +h13)	Lowered Height h1	Extended Height h4	Free lift	Load capacity at 600mm	
Σ+			_	_		1.4t	1.6t
	mm	mm	mm	mm	mm	kg	kg
	20001)	2090	1540	2540	90	1400	1600
	2400 ¹⁾	2490	1740	2940	90	1400	1600
	2700	2790	1890	3240	90	1300	1400
e×	2900	2990	1990	3440	90	1200	1250
e Jupl ew	3000	3090	2040	3540	90	1150	1200
oubl ers [le vi	3300	3390	2190	3840	90	950	1000
vic Di	3500	3590	2290	4040	90	900	950
Double cylinders Duplex wide view	3800	3890	2440	4340	90	850	900
	4000	4090	2540	4540	90	800	850
	4200	4290	2640	4740	90	750	800
	4500	4590	2790	5040	90	700	750
	20001)	2090	1540	2540	1020	1400	1600
a: >	24001)	2490	1740	2940	1220	1400	1600
Duplex full-free wide view	2700	2790	1890	3240	1370	1300	1400
Plant in the second	3000	3090	2040	3540	1520	1150	1200
+ ≥	3300	3390	2190	3840	1670	950	1000
	3500	3590	2290	4040	1770	900	950
	3500 ¹⁾	3590	1660	4020	1160	900	950
	38001)	3890	1760	4320	1260	850	900
	40001	4090	1830	4520	1330	800	850
	4200	4290	1890	4720	1390	750	800
ee ew	4500	4590	1990	5020	1490	700	750
iple I-fn Ie vi	4700	4790	2060	5220	1560	650	700
Triplex full-free wide view	4800	4890	2090	5320	1590	630	680
	5000	5090	2160	5520	1660	600	650
	5200	5290	2230	5720	1730	550	600
	5500	5590	2330	6020	1830	450	500
	6000	6090	2500	6520	2000	350	400

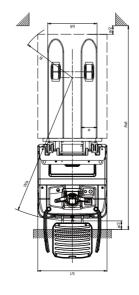
 $Note: 1] \ Optional\ feature\ for\ battery\ side\ roll\ out\ was\ necessary, It\ can\ make\ changing\ the\ battery\ easier.$

Technical data

	1.1	Manufacturer			HANGCHA GROUP CO.,LTD.		
Distinguishing mark	1.2	Manufacturer's type designition		CDD12-XT1S-SIL	CDD14-XT1S-SIL	CDD16-XT1S-SIL	
	1.3	Drive: electric (battery type, mains,), diesel, petrol, fuel gas		Electric	Electric	Electric	
	1.4	Operator type: hand, pedestrian, standing, seated, order-picker		standing	standing	standing	
	1.51	Load capacity at load centre distance c1	kg	1200	1400	1600	
	1.52	Load capacity at load centre distance c2	kg	2000	2000	2000	
	1.6	Load centre distance	c (mm)	600	600	600	
	1.8	Load distance, centre of drive axle to fork	x (mm)	700/768	700/768	700/768	
	1.9	Wheelbase	y (mm)	1366/1434	1401/1469	1401/1469	
±	2.1	Service weight	kg	1150	1200	1200	
Weight	2.2	Axle loading, laden front/rear	kg	920/1430	1020/1580	1100/1700	
3	2.3	Axle loading, unladen front/rear	kg	815/335	850/350	850/350	
	3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane		PU	PU	PU	
c.	3.2	Tyre size, front		Ø250x80	Ø250x80	Ø250x80	
	3.3	Tyre size, rear		Ø83x73	Ø83x73	Ø83x73	
Tvres/chassis	3.4	Additional wheels (dimensions)		Ø140x55	Ø140x55	Ø140x55	
res	3.5	Wheels, number front/rear (x = driven wheels)		1x+1/4	1x+1/4	1x+1/4	
6	3.6	Tread, front	b10 (mm)	516	516	516	
	3.7	Tread, rear	b11 (mm)	385	385	385	
	4.2	Height, mast lowered	h1 (mm)	1840	1890	1890	
	4.3	Free lift	h2 (mm)	90	90	90	
	4.4	Lift	hs (mm)	2700	2700	2700	
	4.5	Height, mast extended	h4 (mm)	3190	3240	3240	
	4.6	Initial lift	hs (mm)	125	125	125	
	4.9	Height drawbar in driving position min./max.	h14 (mm)	1170/1400	1170/1400	1170/1400	
g	4.15	Height, lowered	h13 (mm)	90	90	90	
i.	4.19	Overall length	lı (mm)	2053/25013	2088/25363	2088/25363	
Oimensions	4.20	Length to face of forks	I2 (mm)	903/13513	938/13863	938/13863	
Ë	4.21	Overall width	b1/b2 (mm)	800	800	800	
	4.22	Fork dimensions DIN ISO 2331	s/e/I(mm)	65/185/1150	65/185/1150	65/185/1150	
	4.25	Fork spread	bs (mm)	570	570	570	
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	15	15	15	
	4.34.1	Aisle width for pallets 1000 x 1200 crossways	Ast (mm)	2268[2703]1[3]	2302(2737)1131	2302(2737)1/3/	
	4.34.2	Aisle width for pallets 800 x 1200 lengthways	Ast (mm)	2318(2753)2(3)	2352(2787)2(3)	2352(2787)2(3)	
	4.35	Turning radius	Wa (mm)	1619(2054)4	1655(2089)4)	1655(2089)4)	
-	5.1	Travel speed, laden/unladen	km/h	9/11	9/11	9/11	
Performance	5.2	Lift speed, laden/unladen	m/s	0.225/0.47	0.195/0.4	0.18/0.4	
Ē	5.3	Lowering speed, lade/unladen	m/s	0.45/0.4	0.45/0.4	0.45/0.4	
erfo	5.8	Max. gradeability, laden/unladen	%	10/16	10/16	8/16	
4	5.10	Service brake		Regenerative	Regenerative	Regenerative	
	6.1	Drive motor rating S2 60 min	kW	2.2	2.2	2.2	
÷	6.2	Lift motor rating at S3 15%	kW	4.2	4.2	4.2	
Electric-	6.4	Battery voltage/nominal capacity	(V)/(Ah) or kWh	48/80	48/80	48/80	
ш	6.5	Battery weight	kg	60	60	60	
				1	1		

Note: 1] According to VDI2198 standard+261mm. 2] According to VDI2198 standard+157mm. 3] Triplex full-free+21mm 4] Lowering+68mm





Technical data

	1.1	Manufacturer		HANGCHA GROUP CO.,LTD.		
Distinguishing mark	1.2	Manufacturer's type designition		CDD12-XT1-SIL	CDD14-XT1-SIL	CDD16-XT1-SIL
	1.3	Drive: electric (battery type, mains,), diesel, petrol, fuel gas		Electric	Electric	Electric
	1.4	Operator type: hand, pedestrian, standing, seated, order-picker		pedestrian	pedestrian	pedestrian
	1.51	Load capacity at load centre distance c1	kg	1200	1400	1600
	1.52	Load capacity at load centre distance c2	kg	2000	2000	2000
	1.6	Load centre distance	c (mm)	600	600	600
	1.8	Load distance, centre of drive axle to fork	x (mm)	700/768	700/768	700/768
	1.9	Wheelbase	y (mm)	1387/1455	1387/1455	1387/1455
-	2.1	Service weight	kg	1090	1120	1120
Weight	2.2	Axle loading, laden front/rear	kg	780/1510	860/1660	930/1790
\$	2.3	Axle loading, unladen front/rear	kg	740/350	760/360	760/360
	3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane		PU	PU	PU
co	3.2	Tyre size, front		Ø250x80	Ø250x80	Ø250x80
assi	3.3	Tyre size, rear		Ø83x73	Ø83x73	Ø83x73
Tyres/chassis	3.4	Additional wheels (dimensions)		Ø140x55	Ø140x55	Ø140x55
res	3.5	Wheels, number front/rear (x = driven wheels)		1x +1/4	1x +1/4	1x +1/4
-	3.6	Tread, front	b10 (mm)	510	510	510
	3.7	Tread, rear	b11 (mm)	385	385	385
	4.2	Height, mast lowered	h1 (mm)	1840	1890	1890
	4.3	Free lift	h2 (mm)	90	90	90
	4.4	Lift	h3 (mm)	2700	2700	2700
	4.5	Height, mast extended	h4 (mm)	3190	3240	3240
	4.6	Initial lift	hs (mm)	125	125	125
	4.9	Height drawbar in driving position min./max.	h14 (mm)	790/1205	790/1205	790/1205
SE	4.15	Height, lowered	h13 (mm)	90	90	90
Dimensions	4.19	Overall length	l1 (mm)	20003)	20003	20003
m er	4.20	Length to face of forks	la (mm)	850 ³	850 ³	850 ³
百	4.21	Overall width	b1/b2 (mm)	800	800	800
	4.22	Fork dimensions DIN ISO 2331	s/e/I (mm)	65/185/1150	65/185/1150	65/185/1150
	4.25	Fork spread	bs (mm)	570	570	570
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	15	15	15
	4.34.1	Aisle width for pallets 1000 x 1200 crossways	Ast (mm)	22671 3	22671 3	22671 3
	4.34.2	Aisle width for pallets 800 x 1200 lengthways	Ast (mm)	2317² 3	2317 ^{2 3}	2317² 3
	4.35	Turning radius	Wa (mm)	1620	1620	1620
	5.1	Travel speed, laden/unladen	km/h	6/6	6/6	6/6
anc	5.2	Lift speed, laden/unladen	m/s	0.225/0.47	0.195/0.4	0.18/0.4
Performance data	5.3	Lowering speed, lade/unladen	m/s	0.45/0.4	0.45/0.4	0.45/0.4
	5.8	Max. gradeability, laden/unladen	%	8/16	8/16	6/16
	5.10	Service brake		Regenerative	Regenerative	Regenerative
A	6.1	Drive motor rating S2 60 min	kW	2.2	2.2	2.2
Electric- engine	6.2	Lift motor rating at S3 15%	kW	4.2	4.2	4.2
Eled	6.4	Battery voltage/nominal capacity	(V)/(Ah) or kWh	48/80	48/80	48/80
	6.5	Battery weight	kg	60	60	60

Note: 1) According to VDI2198 standard+261mm. 2) According to VDI2198 standard+157mm. 3) Triplex full-free+21mm 4) Lowering+68mm

