

HELI

3-3.5 t LiION

G3 series 3-3.5 Tons Dual-drive
Lithium Battery Forklift Truck

Under the general trend of environmental friendliness, HELI joins the activity of "blue sky defense war" and devote ourselves to the research of efficient and environmentally friendly new energy transportation solutions. G3 series 3-3.5t dual drive lithium battery counter balance forklift truck adopts Heli brand new family P1 image, which has both "appearance" and "connotation", and coexistence of high efficiency and energy saving to create "high" performance, "zero" emission and "true" reliable forklift.



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Dual-drive Lithium Battery
Forklift Truck



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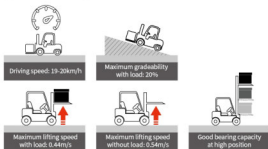
 **POWERFUL DUAL DRIVE
HIGH EFFICIENT FAST CHARGING**

www.carretillasheli.com

High performance ensures high efficiency



Front wheel dual drive motors offer stronger power



Driving speed: 19-20km/h

Maximum gradeability with load: 20%

Maximum lifting speed with load: 0.44m/s

Maximum lifting speed without load: 0.54m/s

Good bearing capacity at high position

Multi Configuration, Low Energy Consumption



Independent steering system supplies oil for steering on demand and reduces truck energy consumption



The steering is more sensitive and energy-saving



LED light of the whole truck has high brightness, long life and is more energy saving



Low rolling resistance electric truck special solid tire reduces driving resistance consumption

Small Dimension, More Flexible

Narrow truck width is more suitable for narrow aisle application; Large angle steering axle makes the turning radius smaller satisfying the loading and unloading operation in narrow aisle.



The minimum turning radius is as low as **2.15m**

Intelligent security protection

- **Intelligent automatic parking:** optimized negative braking system and active parking in multiple applications are safe and easy which is safe and easy to make up omissions;
- **Intelligent speed limit in different application:** multi application recognition and intelligent speed limit balance efficiency and safety;
- **Intelligent limit buffer:** intelligent induction of mast lifting and lowering avoids limit impact and is safe and comfortable;
- **Intelligent operation protection:** a full set of OPS system can avoid misoperation and ensure safety;
- **Intelligent control strategy:** dual core controller is in line with the latest EU safety requirements.



Enjoy driving experience



The mast with large opening offers good driving vision ensuring operation comfort and safety.



Fingertip switch

Smart instrument

Electronic brake

- P — Powerful
 - E — Economics
 - S — Energy saving
- Multi gears satisfy a variety of working conditions.

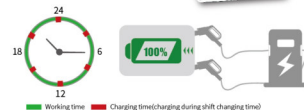
The multifunctional armrest integrates fingertip switch, direction switch, steering switch, PES gear, horn button, emergency power-off switch, etc., to realize convenient operation and precise control of electromagnetic proportion.



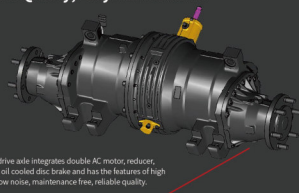
Fully suspended seat is more comfortable to drive.

Fast charging, long endurance, worry free

- Dual charging port realizes faster charging; standard 40kWh lithium battery has ultra long endurance;
- The high density energy and fast charging characteristics of lithium battery make it possible to carry out full time operation without interruption.



Reliable Quality, Easy Maintenance



ZF electric drive axle integrates double AC motor, reducer, differential, oil cooled disc brake and has the features of high efficiency, low noise, maintenance free, reliable quality.



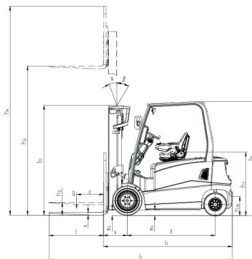
Battery side pulling charging way is easy to replace



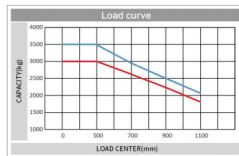
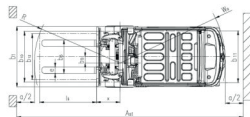
Stamping integral roof design of overhead guard offers higher protection and there is no worry about working in rainy days.

Manufacturer and Technical Data

Characteristics				HELI	
1.01	Manufacturer				
1.02	Model		CPD30		CPD35
1.03	Configuration number		GD2DLI		GD2DLI
1.04	Rated capacity	Q	kg	3000	3500
1.05	Load center distance	c	mm	500	500
1.06	Power mode	Battery			
1.07	Driving mode	Seated			
1.08	Load distance, center of drive axle to fork	x	mm	463	468
1.09	Wheelbase	y	mm	1750	1750
Weight					
2.01	Total weight (with/out battery)		kg	5310/4800	5680/5170
2.02	Axle load (laden,front/rear)		kg	7343/967	8190/990
2.03	Axle load (unladen,front/rear)		kg	2690/2620	2746/2934
Tyres					
3.01	Tyre type	SE			
3.02	Tyre size,front			23x10-12	23x10-12
3.03	Tyre size,rear			200/50-10	200/50-10
3.04	Wheels,number front/rear (ndriven wheels)			2x/2	2x/2
3.05	Tread, front	b ₂₀	mm	975	975
3.06	Tread, rear	b ₁₁	mm	990	990
Dimensions					
4.01	Max tilt angle (forward/backward)	α/β	°	6/8	6/8
4.02	Height (mast lowered)	h ₁	mm	2155	2155
4.03	Free lifting height	h ₂	mm	145	145
4.04	Lifting height (standard)	h ₃	mm	3000	3000
4.05	Max. height,extended	h ₄	mm	4217	4217
4.06	Height of overhead guard	h ₅	mm	2260	2260
4.07	Seat height relating to SIP (to ground)	h ₆	mm	1275	1275
4.08	Towing coupling height	h ₇	mm	395	395
4.09	Overall length (with fork)	l ₁	mm	3617	3622
4.10	Overall length (without fork)	l ₂	mm	2547	2552
4.11	Truck body width/Truck wheel width	b ₁	mm	1195/1222	1195/1222
4.12	Fork carriage,DIN standard	3A		3A	3A
4.13	Fork size(thickness x width x length)	s/e/l	mm	45/125/1070	50/125/1070
4.14	Distance between fork arms, Max./Min.	b ₂	mm	1060/250	1060/250
4.15	Ground clearance (laden,between mast)	m ₁	mm	110	110
4.16	Ground clearance (center of wheelbase)	m ₂	mm	130	130
4.17	Right angle stacker aisle width for pallet 1000 x1200mm crossways	A ₂	mm	3830	3835
4.18	Right angle stacker aisle width for pallet 800 x1200mm lengthways	A ₃	mm	4015	4020
4.19	Max. outside turning radius	W ₄	mm	2150	2150
Performance Data					
5.01	Travel speed (laden/unladen)		km/h	19/20	19/20
5.02	Lift speed (laden/unladen)		m/s	0.5/0.63	0.40/0.54
5.03	Lowering speed (laden/unladen)		m/s	0.55/0.45	0.55/0.45
5.04	Max.drawbar pull (laden/unladen)	N	24000/16000		25000/19000
5.05	Max.gradientability (laden/unladen)	%	21/29		20/27
5.06	Acceleration time(10 m)(laden/unladen)	s	5.4/5		5.4/5
Lithium Battery					
6.01	Lithium battery voltage/Capacity	V/Ah	80/404		80/404
6.02	Lithium battery weight (Min./Max.)	kg	510/550		510/550
6.03	Battery according to DIN				
Motor and controller					
7.01	Driving motor powering (52-60min)	kW	8/2		8/2
7.02	Lifting motor powering (53-15%)	kW	25.5		25.5
7.03	Driving motor controlling mode	MOSFET/AC			
7.04	Lifting motor controlling mode	MOSFET/AC			
Addition data					
8.01	Service brake/Parking brake	Mpa	Hydraulic/hydraulic(automatic parking)		
8.02	Operating pressure for attachments		22		22



Ast : Right angle stacking aisle width

 a : Clearance
 l : Load Length
 b : Load Width

CPD35
CPD30
Note:

The vertical axis stands for load capacity and the horizontal axis stands for load center which is calculated from the front surface of the forks to the gravity of the standard load, the standard load means a cubic with 1000mm edge length. When mast is tilted forward, using non-standard forks or loading large goods, the load capacity will be reduced. The load capacity of standard mast at different load center can be known from this load chart.

HELI smart fleet management system (domestic basic edition)

- Vehicle positioning
- Remote diagnosis
- Remote monitoring
- Maintenance reminder
- Battery management
- Statistical form
- Vehicle management
- Identification recognition (optional)
- Weight management (optional)
- Collision management (optional)



Wide View Mast

Mast model	Max lifting height (mm)	Load capacity (load center 500mm)(kg)		Height (mast lowered)(mm)		Free lift (with backrest) (mm)		Service weight (kg)		Mast tilt angle $\alpha(\beta)^{\circ}$
		3t	3.5t	3t	3.5t	3t	3.5t	3t	3.5t	
ZM200	2000	3000	3500	1655	1655	145	150	5202	5572	6/8
ZM250	2500	3000	3500	1905	1905	145	150	5260	5630	6/8
ZM270	2700	3000	3500	2005	2005	145	150	5275	5645	6/8
ZM300	3000	3000	3500	2155	2155	145	150	5310	5680	6/8
ZM330	3300	3000	3500	2305	2305	145	150	5341	5711	6/8
ZM350	3500	3000	3500	2405	2405	145	150	5346	5716	6/8
ZM370	3700	3000	3500	2505	2505	145	150	5348	5718	6/5
M400	4000	3000	3500	2705	2705	145	150	5448	5818	6/5
M425	4250	3000	3500	2830	2830	145	150	5471	5841	6/5
M450	4500	3000	3400	2965	2965	145	150	5495	5865	6/5
M475	4750	2900	3250	3180	3180	145	150	5519	5889	6/5
M500	5000	2800	3100	3205	3205	145	150	5543	5913	6/5
M550	5500	2600	2900	3505	3505	145	150	5638	6008	3/5
M600	6000	2100	2100	3755	3755	145	150	5684	6054	3/5

Wide View Full Free 2-Stage Mast

Mast model	Max lifting height (mm)	Load capacity (load center 500mm)(kg)		Height (mast lowered)(mm)		Free lift (with backrest) (mm)		Service weight (kg)		Mast tilt angle $\alpha(\beta)^{\circ}$
		3t	3.5t	3t	3.5t	3t	3.5t	3t	3.5t	
ZM200	2000	3000	3500	1655	1655	470	475	5216	5586	6/8
ZM250	2500	3000	3500	1905	1905	720	725	5282	5652	6/8
ZM270	2700	3000	3500	2005	2005	820	825	5304	5674	6/8
ZM300	3000	3000	3500	2155	2155	970	975	5330	5700	6/8
ZM330	3300	3000	3500	2305	2305	1120	1125	5361	5731	6/8
ZM350	3500	3000	3500	2405	2405	1220	1225	5368	5738	6/8
ZM370	3700	3000	3500	2505	2505	1320	1325	5374	5744	6/5
ZM400	4000	3000	3500	2705	2705	1520	1525	5478	5848	6/5
ZM425	4250	2900	3400	2830	2830	1645	1650	5496	5866	6/5
ZM450	4500	2900	3300	2965	2965	1771	1775	5522	5892	6/5
ZM475	4750	2800	3150	3180	3180	1995	2000	5538	5908	6/5
ZM500	5000	2700	3000	3205	3205	2020	2025	5563	5933	6/5
ZM550	5500	2500	2800	3565	3565	2320	2325	5649	6018	3/5
ZM600	6000	2000	2000	3755	3755	2570	2575	5672	6042	3/5

Note: 3-3.5t, free lift height 396mm increased without backrest.

Wide View Full Free 3-Stage Mast

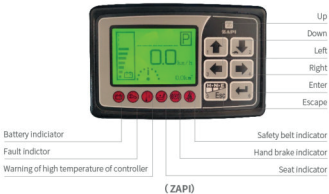
Mast model	Max lifting height (mm)	Load capacity (load center 500mm)(kg)		Height (mast lowered)(mm)		Free lift (with backrest) (mm)		Service weight (kg)		Mast tilt angle $\alpha(\beta)^{\circ}$
		3t	3.5t	3t	3.5t	3t	3.5t	3t	3.5t	
ZSM300	3000	3000	3500	1895	1895	710	715	5407	5777	6/5
ZSM400	4000	3000	3400	2030	2030	845	850	5444	5814	6/5
ZSM435	4350	2950	3300	2145	2145	960	965	5481	5851	6/5
ZSM450	4500	2900	3200	2195	2195	1010	1015	5496	5866	6/5
ZSM470	4700	2850	3100	2245	2245	1060	1065	5501	5871	6/5
ZSM480	4800	2800	2950	2295	2295	1110	1115	5527	5897	6/5
ZSM500	5000	2600	2700	2355	2355	1170	1175	5555	5925	6/5
ZSM540	5400	2400	2500	2505	2505	1320	1325	5592	5962	3/5
ZSM600	6000	2000	2150	2720	2720	1535	1540	5696	6066	3/5
ZSM650	6500	1600	1900	2905	2905	1720	1725	5752	6122	3/5
ZSM700	7000	1300	1500	3155	3155	1970	1975	5844	6214	3/3

Note: 3-3.5t, free lift height 396mm increased without backrest.

Standard configuration

Standard configuration	Optional
Single mast	Lithium battery (dual charging port, side pull charging way)
Standard fork	Double mast/triple mast
III triple mast	Fork with other length
AC system	Left and right rear mirror
OPS system	Side shifter
Two piece electric proportional valve	Smart instrument (ZAP)
Fingertip switch	Steering wheel adaptive steer control
Full suspension seat	Steering automatic deceleration
Super elasticity solid tyre	Performance mode control
Steering wheel with operation ball	DC converter
Reverse mirror with wide angle in the middle	LED signal light
Metric screw	LED flickering warning light
HEU package	Backward buzzer
	Exclusive key
	HEU FICS (standard version)
	Neutral package
	Steering wheel without operation ball
	Right and left rear mirror
	Five extinguisher
	Tilting cylinder, sleeve for steering cylinder
	Speed limiter
	Custom-made color
	Three/ four piece electric proportional valve
	Custom-made sticker
	Tracesless tyre
	Cab /windshield glass
	LED rotating warning light, LED rotating hazard warning light
	Air conditioner, fan
	Rear working light, blue light
	Universal key
	Sweeper
	SAE screw

Reliable special designed Instrument



Reliable special meter display the whole truck's working condition, fault detect and other important information completely make the operator master the whole truck condition directly and conveniently.

(ZAP)