www.heliforklift.net

HELI

CPD 40/45/50

GB2LI/GB3LI/A2DLIG3

CPD 50

GD3LI-600/GD2LI-600/A2DLIG3-06



LI ION 4-5 t

G3 series Lithium Battery Powered
Counterbalanced Forklift Truck

4-5 t

G3 series Lithium Battery Powered Counterbalanced Forklift Truck



Perfect Combination of Aesthetics and Functional Design.

New generation with characteristics of smart, safe, high efficiency, energy saving and environment friendly.



Maintenance Free

- Unnecessary of fluid adding and dust proofing.
- Daily maintenance free.
- Manual maintenance free.

High Reliability

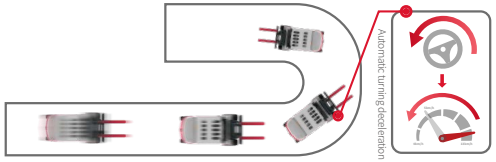
- High IP Protection Level of Vehicle.
- Maintenance-free integrated axle which is mature and has been tested by market is used on the truck.
- Oil-cooled wet disc type brake is free from maintenance. Maintenance-free AC motors are used for driving and pump motors.
- World famous controller is used.
- Large smart instrument can monitor the truck state overally and it is safe and reliable.

Long Service Life

- Longer service life than lead-acid battery in equal working condition.
- 5 years or ten thousand hours quality guarantee for high performance lithium battery assembly,over 75% capacity reserved.

High Safety

- Tail-free structure reduces the center of gravity and improves lateral stability.
- High strength and integrated type welded overhead guard improves safety.
- Side-pulling battery changing way is standard configuration and improves battery changing efficiency.
- Middle-positioned battery reduces the center of gravity and improves stability .
- High positioned rotation point of rear axle improves lateral stability of the truck.
- Automatic deceleration when steering improves working safety .
- Mast lifting buffering improves operation safety.









Suitable for working in both high and low environment

- Lithium battery is better than lead-acid battery when working between -25°C and 55°C.
- ENEROC lithium battery PACK with low temperature pre-heating system.

High Efficiency and Energy Saving

- 2-3 hours charging meet 6-8 hours working demand.
- High-energy density, self discharging rate lower than 1% per month.
- 95% energy conversion rate,superior charging and discharging performance.
- Flexible to charge, easy to operate, no impact on battery life.
- Unnecessary to change battery, cost saving.

Improved man-machine comfort

- Mast lifting and falling buffering makes operation safe and comfortable.
- The truck has lower pedal height and larger egress and ingress space.
- Suspension seat and wide view mast improve driving experience.
- Optimal battery layout and design of counterbalance improve the rear view.
- Lower layout of tilting cylinder improves the space for legs.

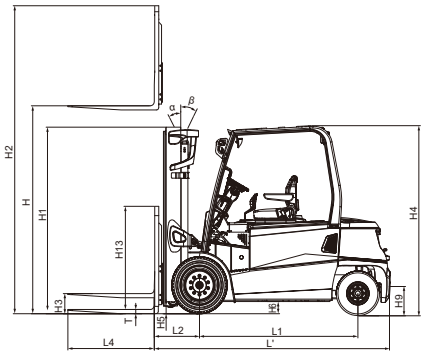
The convenience of maintenance is improved

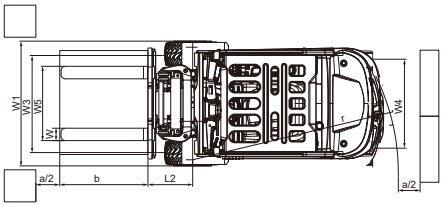
- Electric control is arranged inside the balance weight for easy maintenance;
- Removable oil tank and bottom plate, improve maintenance convenience.



Manufacturer's Data and Design Characteristics

	Character										
1.01	Manufacturer			HELI							
1.02	Model			CPD40		CPD45		CPD50			
1.03	Configuration number			GB2LI/GB3LI	A2DLIG3	GB2LI/GB3LI	A2DLIG3	GB2LI/GB3LI	A2DLIG3	GD2LI/GD3LI-600	A2DLIG3-06
1.04	Rated capacity	Q	kg	4000	4000	4500	4500	4990	4990	5000	5000
1.05	Load center distance	c	mm	500						600	
1.06	Power mode			Lithium battery							
1.07	Driving mode			Seated							
1.08	Wheel base	L1	mm	1960	1960	1960	1960	1960	1960	2100	2100
	Tyre										
2.01	Tyre type			Solid tyre	Solid tyre	Solid tyre	Solid tyre	Solid tyre	Solid tyre	Solid tyre	Solid tyre
2.02	Wheel number (front/rear)			2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
2.03	Front wheel base	W3	mm	1120	1140	1120	1140	1189	1189	1189	1189
2.04	Rear wheel base	W4	mm	1070	1070	1070	1070	1070	1070	1070	1070
2.04	Tyre (front)			250-15	250-15	250-15	250-15	28×12.5-15	28×12.5-15	28×12.5-15	28×12.5-15
2.05	Tyre (rear)			21X8-9	21X8-9	21X8-9	21X8-9	21X8-9	21X8-9	21X8-9	21X8-9
	Size										
3.01	Front overhang	L2	mm	560	560	560	560	560	560	565	565
3.02	Mast tilt angle (front/rear)	α/β	°	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8
3.03	Height with mast retraction	H1	mm	2240	2240	2240	2240	2230	2230	2230	2230
3.04	Free lifting height	H3	mm	150	150	150	150	150	150	135	135
3.05	Max.lifting height	H	mm	3000	3000	3000	3000	3000	3000	3000	3000
3.06	Max.height under working condition	H2	mm	4235	4235	4235	4235	4225	4225	4355	4355
3.07	Overhead guard height	H4	mm	2275	2275	2275	2275	2270	2270	2270	2270
3.08	Fork size: thickness×width×length	T×W×L4	mm	50×150×1070	50×150×1070	50×150×1070	50×150×1070	55×150×1070	55×150×1070	55×150×1220	55×150×1220
3.09	Fork arm carrier, ISO 2328, class/ type A, B			3A	3A	3A	3A	3A	3A	4A	4A
3.10	Truck body length (fork excluded)	L'	mm	2920	2920	2920	2920	2920	2920	3060	3060
3.11	Truck body width	W1	mm	1350	1370	1350	1370	1500	1500	1500	1500
3.12	Turning radius	r	mm	2580	2580	2580	2580	2580	2580	2695	2695
3.13	Clearance between mast and ground	H5	mm	140	140	140	140	130	130	130	130
3.14	Clearance between wheel base center and ground (loaded)	H6	mm	145	145	145	145	135	135	135	135
3.15	Right angle stacking aisle width (pallet1000×1000hm, clearance 200mm)	Ast	mm	4340	4340	4340	4340	4340	4340	4460	4460
3.16	Right angle stacking aisle width (pallet1200×1200hm, clearance 200mm)	Ast	mm	4540	4540	4540	4540	4540	4540	4670	4670
	Performance										
4.01	Travelling speed (loaded/unloaded)		km/h	14/15	20/20	14/15	20/20	14/15	20/20	14/15	20/20
4.02	Lifting speed (loaded/unloaded)		mm/s	310/450	360/450	280/450	340/450	260/450	320/450	260/450	320/450
4.03	Lowering speed (loaded/unloaded)		mm/s	500/450	500/450	500/450	500/450	500/450	500/450	500/450	500/450
4.04	Gradeability (loaded/unloaded)		%	17/27	20/27	16/26	20/26	15/25	18/25	15/25	17/25
4.05	Max.traction force (loaded)		N	21000	26000	21000	26000	21000	26000	21000	26000
	Weight										
5.01	Total weight (with/without battery)		kg	6670/6080	6670/6080	6835/6117	6835/6117	7210/6492	7210/6492	7780/6760	7780/6760
5.02	Axle load (unloaded front/rear)		kg	3195/3505	3195/3505	3215/3620	3215/3620	3345/3865	3345/3865	3780/4015	3765/4015
5.03	Axle load (loaded front/rear)		kg	9415/1310	9415/1310	10200/1135	10200/1135	11210/1035	11210/1035	11645/1205	11575/1205
	Battery										
6.01	Battery voltage/capacity		V/Ah	80/560	80/560	80/606	80/606	80/606	80/606	80/606	80/606
6.02	Battery weight		kg	590	590	718	718	718	718	1020	1020
	Motor and controller										
7.01	Drive motor power(S2-60min)		kW	20	2×14	20	2×14	20	2×14	20	2×14
7.02	Lifting motor power(S3-15%)		kW	26.5	25	26.5	25	26.5	25	26.5	25
7.03	Steering motor power(S3-15%)		kW	2.5	-	2.5	-	2.5	-	2.5	-
7.04	Drive motor controlling mode			MOSFET/AC							
7.05	Lifting motor controlling mode			MOSFET/AC							
7.06	Steering motor controlling mode			MOSFET/AC							
	Others										
8.01	Service brake/parking brake			hydraulic/mechanical							
8.02	Hydraulic system working pressure		Mpa	20	20	20	20	21.5	21.5	21.5	21.5
8.03	Type of drive control			ZAPI/INMOTION	ZAPI	ZAPI/INMOTION	ZAPI	ZAPI/INMOTION	ZAPI	ZAPI/INMOTION	ZAPI





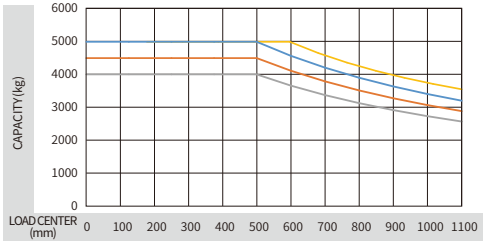
Ast: Right angle stacking aisle width
a: Clearance,200mm

Lithium battery,charger

Lithium battery brand	ENEROC(CATL)			HELI(LISHEN)		EIKTO	
Voltage/Capacity	80V/604Ah	80V/684Ah (dual charging ports)	80V/750Ah (dual charging ports)	80V/560Ah	80V/606Ah	80V/540Ah	80V/700Ah (dual charging ports)
CPD40	○	○	○	●	○	○	○
CPD45/CPD50	—	○	○	—	●	—	○
CPD50-GD3Li-600/A2DLIG3-06	Standard:HEDING 80V606Ah,optional:HEDING 80V808Ah(dual charging ports)						
Low temperature preheating of lithium battery PACK		●			●		●
Charger	D80V200ALI-123E38C/423E38C/523E38C/623E38C D80V400ALI-124E38C/424E38C(dual charger)						

Notes: ●standard, ○optional, — non-configurable

Load curve

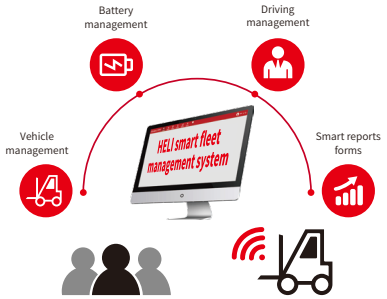


CPD40-GB2LI/GB3LI
CPD45-GB2LI/GB3LI
CPD50-GB2LI/GB3LI
CPD50-GD2Li/GD3Li-600/A2DLIG3-06

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

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



Reliable special designed instrument



(INMOTION)

(Dual drive vehicles are not compatible)



(ZAPI)

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

Standard configuration	Optional device	
Standard mast	Mast with other lifting height	HELI smart fleet management syste
Standard fork	Full free lift mast	Pneumatic tyre
Class III standard carrier	Side shifter(hook-on)	
Class 4 Fork Carriage (600mm Load Center)	ntegrated Side Shifter (Unibody Design)	
Two-spools valve	Other attachments	
Lithium battery	Fork with other length	
Full suspension seat	No marking tyre	
Overhead guard	Cab	
Solid tyres	Left and right rearview mirror	
Traction pin	Rear work light	
LED signal light、LED warning light(flashing)	Fire extinguisher	
USB interface	Rotating warning light, voice buzzer	
Automatic steering slow down device	Blue warning light	
Colour screen instrument (INMOTION)	80V/810Ah、80V/900Ah lithium battery	
GRAPHIC Display(ZAPI)		

WIDE VIEW MAST

Mast model	Max. Lifting height (mm)	Load capacity (kg)				Mast overall height (mm)				Free lift (mm)		Service weight (kg)				Mast tilt angle (°) α/β
		Load center 500mm			Load center 600mm	Mast lowered		Fork lifted (With backrest)				Load center 500mm			Load center 600mm	
		CPD40	CPD45	CPD50	CPD50-GD2Li/GD3Li-600	4/4.5/5t@500	5t@600	4/4.5/5t@500	5t@600	4/4.5/5t@500	5t@600	CPD40	CPD45	CPD50	CPD50-GD2Li/GD3Li-600	Front/Rear
M250	2500	4000	4500	5000	5000	1980	1980	3733	3853	150	135	6665	6905	7245	7682	8-8°
M300	3000	4000	4500	5000	5000	2230	2230	4233	4353	150	135	6720	6960	7300	7737	8-8°
M330	3300	4000	4500	5000	5000	2380	2380	4533	4653	150	135	6750	6990	7330	7769	8-8°
M350	3500	4000	4500	5000	5000	2480	2480	4733	4853	150	135	6770	7010	7350	7790	8-8°
M370	3700	4000	4450	4900	5000	2580	2580	4933	5053	150	135	6795	7035	7375	7812	8-8°
M400	4000	4000	4350	4750	5000	2780	2780	5233	5353	150	135	6835	7075	7415	7915	8-8°
M425	4250	4000	4250	4650	5000	2905	2905	5483	5603	150	135	6860	7100	7440	7942	8-8°
M450	4500	4000	4150	4500	4910	3030	3030	5733	5853	150	135	6890	7130	7470	7969	8-8°
M475	4750	3900	4100	4400	4830	3155	3155	5983	6103	150	135	6915	7155	7495	7997	8-8°
M500	5000	3800	4000	4300	4750	3280	3280	6233	6353	150	135	6945	7185	7525	8024	8-8°
M550	5500	3650	3800	4150	4580	3580	3580	6733	6853	150	135	7005	7245	7585	8149	6-5°
M600	6000	3400	3450	3850	4330	3830	3830	7233	7353	150	135	7060	7300	7640	8202	6-5°

WIDE VIEW FULL FREE 2-STAGE MAST

Mast model	Max. Lifting height (mm)	Load capacity (Load center 500mm) (kg)				Mast overall height (mm)				Free lift (mm)		Service weight (kg)				Mast tilt angle (°) α/β
		CPD40	CPD45	CPD50	5t@600	Mast lowered		Fork lifted (With backrest)				CPD40	CPD45	CPD50	5t@600	
						4/4.5/5t@500	5t@600	4/4.5/5t@500	5t@600	4/4.5/5t@500	5t@600					Front/Rear
ZM250	2500	4000	4500	5000	5000	1980	1980	3733	3853	777	625	6760	7000	7340	7702	8-8°
ZM261	2610	4000	4500	5000	5000	2035	2035	3792	3963	832	680	6770	7010	7350	7696	8-8°
ZM300	3000	4000	4500	5000	5000	2230	2230	4233	4353	1027	875	6820	7060	7400	7768	8-8°
ZM330	3300	4000	4500	5000	5000	2380	2380	4533	4653	1177	1025	6853	7093	7433	7808	8-8°
ZM350	3500	4000	4500	4900	5000	2480	2480	4733	4853	1277	1125	6883	7123	7463	7834	8-8°
ZM370	3700	4000	4400	4800	5000	2580	2580	4933	5053	1377	1225	6915	7155	7495	7859	8-8°
ZM400	4000	4000	4300	4650	5000	2780	2780	5233	5353	1577	1425	6965	7205	7545	7940	8-8°
ZM425	4250	4000	4200	4550	4920	2905	2905	5483	5603	1702	1550	6995	7235	7575	7974	8-8°
ZM450	4500	3950	4100	4450	4850	3030	3030	5733	5853	1827	1675	7033	7273	7613	8007	8-8°
ZM475	4750	3850	4050	4350	4780	3155	3155	5983	6103	1952	1800	7065	7305	7645	8045	8-8°
ZM500	5000	3750	3950	4250	4680	3280	3280	6233	6353	2077	1925	7100	7340	7680	8073	8-8°
ZM550	5500	3600	3750	4100	4530	3580	3580	6733	6853	2377	2225	7165	7405	7745	8180	6-5°
ZM600	6000	3350	3400	3800	4250	3830	3830	7233	7353	2627	2475	7220	7460	7800	8245	6-5°

NOTE: 4-5t(load center 500mm) free lift without backrest will increase by +271mm;
5t(load center 600mm) free lift without backrest will increase by +395mm.

WIDE VIEW FULL FREE 3-STAGE MAST

Mast model	Max. Lifting height (mm)	Load capacity (kg)				Mast overall height (mm)				Free lift (mm)		Service weight (kg)				Mast tilt angle (°) α/β
		Load center 500mm			Load center 600mm	Mast lowered		Fork lifted (With backrest)				Load center 500mm			Load center 600mm	
		CPD40	CPD45	CPD50	CPD50-GD2Li/GD3Li-600	4/4.5/5t@500	5t@600	4/4.5/5t@500	5t@600	4/4.5/5t@500	5t@600	CPD40	CPD45	CPD50	CPD50-GD2Li/GD3Li-600	Front/Rear
ZSM360	3600	4000	4350	4900	5000	1930	2060	4833	4984	727	705	7130	7370	7545	8028	8-8°
ZSM400	4000	3950	4200	4750	5000	2070	2200	5233	5384	867	845	7180	7420	7595	8078	8-8°
ZSM435	4350	3850	4050	4450	4900	2180	2310	5583	5734	977	955	7210	7450	7625	8098	8-8°
ZSM450	4500	3800	4000	4400	4800	2230	2360	5733	5884	1027	1005	7240	7480	7645	8128	8-8°
ZSM470	4700	3700	3950	4300	4750	2345	2425	6033	6184	1142	1070	7280	7520	7670	8148	8-8°
ZSM500	5000	3600	3850	4200	4650	2480	2560	6233	6384	1277	1205	7330	7570	7715	8198	8-8°
ZSM550	5500	3450	3700	4050	4550	2750	2830	6633	6885	1412	1545	7450	7690	7845	8228	6-5°
ZSM600	6000	3250	3350	3650	4300	2850	2930	7233	7384	1647	1575	7540	7780	7935	8418	6-5°
ZSM650	6500	2650	2750	3150	3850	3015	3095	7733	7884	1812	1740	7600	7840	7995	8478	6-5°
ZSM700	7000	2150	2250	2650	3300	3215	3295	8233	8384	2012	1940	7670	7910	8065	8548	6-5°

NOTE: 4-5t(load center 500mm) free lift without backrest will increase by +310mm;
5t(load center 600mm) free lift without backrest will increase by +292mm.

Model	CPD40/45/50
Standard	
Opention	

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