HELI

Charger technology



- High Efficiency
  Charging efficiency higher than 85% meeting the requirements of energy saving and emissions reduction
- Speediness
  100% charging realized in 2 hours at the soonest
- Compatibility
  AC / DC is compatible meeting the demand of different voltage level.
- Safety
  Built-in non-connecting protection offering self-locking function under load. Perfect fault self-checking alarm facilitating user maintenance.



(INMOTION)

Reliable special designed instrument



(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
Standard fork	Full free lift mast
Class III standard carrier	Side shifter(hook-on)
Two-spools valve	Other attachments
Lithium battery	Fork with other length
Full suspension seat	Non-Marking tire
Overhead guard	Cab
Solid tyres	Left and right rearview mirror
Traction pin	Rear work light
LED signal light, LED warning light(flashing)	Rotating warning light, voice buzzer
USB interface	Blue warning light
Automatic steering slow down device	80V/750Ah lithium battery
Colour screen instrument (INMOTION)	Double charging socket
GRAPHIC Display(ZAPI)	HELI smart fleet management system

* Details of specifications and equipment are based on information available at time of printing and may change without notice.

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Intellectual Property

HELI

8000-10000lbs [4-5t] LI-ION

G3 series Lithium Battery Powered
Counterbalanced Forklift Truck



G3 SERIES 8000-10000lbs LI-ION

Perfect Combination of Aesthetics and Functional Design

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

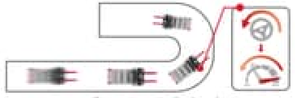


High Reliability

- 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 overall, and it is safe and reliable.

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.



Turn automatically slow down



Maintenance Free

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

Long Service Life

- Over 75% capacity reserved
- After 4000 shifts operation.
- 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.

High Efficiency and Energy Saving

- 2-3 hours charging meet 6-8 hours working demand.
- High-energy-density, self discharging rate lower than 3% 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 tilting 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.

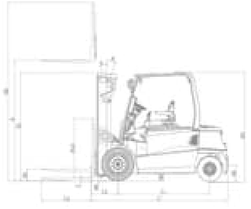
Suitable for working in both high and low environment

- Lithium battery is better than lead-acid battery when working between -25°C and 55°C.

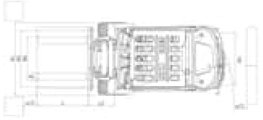
G3 SERIES 8000-10000lbs LI-ION

Manufacturer's Data and Design Characteristics

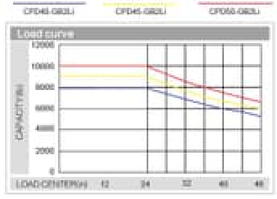
	Character											
1.01	Manufacturer				HELI							
1.02	Model				CPD40		CPD45		CPD50			
1.03	Configuration number						G82LI					
1.04	Rated capacity	Q	lb	kg	8000	4000	9000	4600	10000	5000		
1.05	Load center distance	x	in	mm	24	600	24	600	24	600		
1.06	Power mode				Lithium battery		Lithium battery		Lithium battery			
1.07	Driving mode				Seated		Seated		Seated			
1.08	Wheel base	L1	in	mm	77.2	1960	77.2	1960	77.2	1960		
	Tyre											
2.01	Tyre type				Solid tyre		Solid tyre		Solid tyre			
2.02	Wheel number (front/rear)				2/2		2/2		2/2			
2.03	Front wheel base	W5	in	mm	44.1	1120	44.1	1120	46.6	1184		
2.04	Rear wheel base	W4	in	mm	40.1	1070	40.1	1070	40.1	1070		
2.05	Tyre (front)				250-15		250-15		284x125-15			
2.06	Tyre (rear)				21x8-9		21x8-9		21x8-9			
	Size											
3.01	Front overhang	L2	in	mm	22	560	22	560	22	560		
3.02	Mast tilt angle (front/rear)	α/β	°	°	6/8		6/8		6/8			
3.03	Height with mast retraction	H1	in	mm	86.2	2190	86.2	2190	87.8	2230		
3.04	Free lifting height	H3	in	mm	5.9	150	5.9	150	5.9	150		
3.05	Max.lifting height	H	in	mm	118.1	3000	118.1	3000	118.1	3000		
3.06	Max.height under working condition	H2	in	mm	166.7	4235	166.7	4235	166.3	4225		
3.07	Overhead guard height	H4	in	mm	89.6	2275	89.6	2275	89.4	2270		
3.08	Fork size: thickness × width × length	Y/W/L4	in	mm	2 × 6 × 42	50 × 150 × 1070	2 × 6 × 42	50 × 150 × 1070	2 × 6 × 42	50 × 150 × 1070		
3.09	Fork arm carrier, ISO 2328, class/ type A, B				3A		3A		3A			
3.10	Truck body length (fork excluded)	L'	in	mm	115	2920	115	2920	115	2920		
3.11	Truck body width	W1	in	mm	59.1	1500	59.1	1500	59.1	1500		
3.12	Turning radius	r	in	mm	101.6	2580	101.6	2580	101.6	2580		
3.13	Clearance between mast and ground	M1	in	mm	5.5	140	5.5	140	5.5	140		
3.14	Clearance between wheel base center and ground (loaded)	M2	in	mm	5.7	145	5.7	145	5.9	150		
3.15	Right angle stacking aisle width (pallet1000 × 1000mm, clearance 200mm)	Ast	in	mm	170.9	4340	170.9	4340	170.9	4340		
3.16	Right angle stacking aisle width (pallet1200 × 1200mm, clearance 200mm)	Ast	in	mm	178.7	4540	178.7	4540	178.7	4540		
	Performance											
4.01	Travelling speed (loaded/unloaded)		mph	km/h	9/9.7	13/14	9/9.7	13/14	9/9.7	13/14		
4.02	Lifting speed (loaded/unloaded)		fpm	mm/s	91/98.7	460/500	91-106/98.7	460/500	91-106/98.7	460/500		
4.03	Lowering speed (loaded/unloaded)		fpm	mm/s	98-106/98.7	500/460	98-106/98.7	500/460	98-106/98.7	500/460		
4.04	Gradeability (loaded/unloaded)		%	%		16/27		15/28		14/25		
4.05	Max.traction force (loaded)		N	N		21000		21000		21000		
4.06	Acceleration time (10m)(loaded/unloaded)		s	s		6.0/4.05		6.7/4.15		6.8/4.14		
	Weight											
5.01	Total weight (with/without battery)		lb	kg	14700/13691	6670/6080	15400/13508	6850/6102	15900/14395	7210/6525		
5.02	Axle load (unloaded front/rear)		lb	kg	11444/2247	5190/1020	11982/1526	5435/692	12274/2121	5565/962		
5.03	Axle load (loaded front/rear)		lb	kg	20757/3888	9415/1210	23487/1508	10269/1130	24773/3580	11235/1535		
	Battery											
6.01	Battery voltage/capacity		volts	volts		80/640		80/800		80/800		
6.02	Battery weight		lb	kg	1280	580	1540	680	1720	680		
	Motor and controller											
7.01	Drive motor power(S2-60min)		HP	kW	26.8	20	26.8	20	26.8	20		
7.02	Lifting motor power(S3-15%)		HP	kW	35.5	26.5	35.5	26.5	35.5	26.5		
7.03	Steering motor power(S3-15%)		HP	kW	3.4	2.5	3.4	2.5	3.4	2.5		
7.04	Drive motor controlling mode				MOSFETAC		MOSFETAC		MOSFETAC			
7.05	Lifting motor controlling mode				MOSFETAC		MOSFETAC		MOSFETAC			
7.06	Steering motor controlling mode				MOSFETAC		MOSFETAC		MOSFETAC			
	Others											
8.01	Service brake/parking brake				Hydraulic/mechanical		Hydraulic/mechanical		Hydraulic/mechanical			
8.02	Hydraulic system working pressure		PSI	Mpa	2939	20	2939	20	3191	22.0		
8.03	Type of drive control				ZAPI		ZAPI		ZAPI			



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







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 (40in) 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 (Optional)

- 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	Load capacity (load center 24 inch)			Mast overall height (fork to the ground)		Free lift	Service weight			Mast tilt angle	
		CPD40	CPD45	CPD50	Mast lowered	Fork lifted (with backrest)		CPD40	CPD45	CPD50	Front/Rear	
	in/mm	lb/kg	lb/kg	lb/kg	in/mm	in/mm	in/mm	lb/kg	lb/kg	lb/kg	°	
M250	98/2500	8000/3629	9000/4082	10000/4536	78/1980	147/3733	6/150	14588/6615	14947/6779	15774/7155	6-8°	
M300	118/3000	8000/3629	9000/4082	10000/4536	88/2230	167/4233	6/150	14705/6670	15069/6835	15895/7210	6-8°	
M330	130/3300	8000/3629	9000/4082	10000/4536	94/2380	178/4533	6/150	14771/6700	15135/6865	15961/7240	6-8°	
M350	138/3500	8000/3629	9000/4082	10000/4536	98/2480	186/4733	6/150	14815/6720	15179/6885	16006/7260	6-8°	
M370	146/3700	8000/3629	8900/4037	9800/4445	102/2580	194/4933	6/150	14870/6745	15234/6910	16061/7285	6-8°	
M400	157/4000	8000/3629	8700/3946	9500/4309	108/2730	206/5233	6/150	14958/6785	15322/6950	16149/7325	6-8°	
M425	167/4250	8000/3629	8500/3856	9300/4241	114/2905	216/5483	6/150	15013/6810	15377/6975	16204/7350	6-8°	
M450	177/4500	8000/3629	8300/3765	9000/4082	118/3030	226/5733	6/150	15080/6840	15443/7005	16270/7380	6-8°	
M475	187/4750	7800/3538	8200/3719	8800/3992	124/3155	236/5983	6/150	15135/6865	15498/7030	16325/7405	6-8°	
M500	197/5000	7600/3447	8000/3629	8600/3901	129/3280	245/6233	6/150	15201/6895	15565/7060	16391/7435	6-8°	
M550	217/5500	7300/3311	7600/3447	8200/3765	141/3580	265/6733	6/150	15333/6955	15697/7120	16524/7495	6-9°	
M600	236/6000	6800/3084	6900/3130	7700/3493	151/3830	285/7233	6/150	15494/7010	15858/7175	16645/7550	6-9°	

WIDE VIEW FULL FREE 2-STAGE MAST

Mast model	Max. lifting height	Load capacity (load center 24 inch)			Mast overall height (fork to the ground)		Free lift	Service weight			Mast tilt angle	
		CPD40	CPD45	CPD50	Mast lowered	Fork lifted (with backrest)		CPD40	CPD45	CPD50	Front/Rear	
	in/mm	lb/kg	lb/kg	lb/kg	in/mm	in/mm	in/mm	lb/kg	lb/kg	lb/kg	°	
2M250	98/2500	8000/3629	9000/4082	10000/4536	78/1980	147/3733	31/777	14763/6710	15157/6875	15984/7250	6-8°	
2M262	103/2610	8000/3629	9000/4082	10000/4536	80/2035	149/3782	33/832	14815/6730	15179/6885	16006/7260	6-8°	
2M300	118/3000	8000/3629	9000/4082	10000/4536	88/2230	167/4233	40/1027	14925/6778	15289/6935	16116/7310	6-8°	
2M330	130/3300	8000/3629	9000/4082	10000/4536	94/2380	178/4533	46/1177	14998/6803	15362/6968	16189/7343	6-8°	
2M350	138/3500	8000/3629	8900/4037	9800/4445	98/2480	186/4733	50/1277	15064/6833	15428/6998	16255/7373	6-8°	
2M370	146/3700	8000/3629	8800/3992	9600/4354	102/2580	194/4933	54/1377	15115/6865	15488/7030	16325/7405	6-8°	
2M400	157/4000	8000/3629	8600/3901	9300/4218	108/2730	206/5233	62/1577	15245/6915	15609/7080	16435/7455	6-8°	
2M425	167/4250	8000/3629	8400/3810	9100/4128	114/2905	216/5483	67/1702	15313/6945	15675/7110	16502/7485	6-8°	
2M450	177/4500	7900/3583	8200/3719	8800/3992	119/3030	226/5733	72/1827	15395/6983	15759/7148	16585/7523	6-8°	
2M475	187/4750	7700/3493	8100/3674	8700/3946	124/3155	236/5983	77/1952	15463/7015	15829/7180	16654/7555	6-8°	
2M500	197/5000	7500/3402	7900/3583	8500/3856	129/3280	245/6233	82/2077	15543/7050	15908/7215	16733/7590	6-8°	
2M550	217/5500	7200/3266	7500/3402	8200/3719	141/3580	265/6733	94/2377	15698/7120	16059/7285	16870/7655	6-9°	
2M600	236/6000	6700/3039	6800/3084	7600/3447	151/3830	285/7233	103/2627	15807/7170	16171/7335	16988/7710	6-9°	

Free lift without backrest will increase by 27mm(1.1in).

WIDE VIEW FULL FREE 3-STAGE MAST

Mast model	Max. lifting height	Load capacity (load center 24 inch)			Mast overall height (fork to the ground)		Free lift	Service weight			Mast tilt angle	
		CPD40	CPD45	CPD50	Mast lowered	Fork lifted (with backrest)		CPD40	CPD45	CPD50	Front/Rear	
	in/mm	lb/kg	lb/kg	lb/kg	in/mm	in/mm	in/mm	lb/kg	lb/kg	lb/kg	°	
3M360	142/3600	8000/3629	8700/3946	9800/4445	76/1930	190/4833	29/727	15245/6913	15609/7080	16435/7455	6-8°	
3M400	157/4000	7800/3583	8400/3810	9500/4309	81/2075	206/5233	34/867	15255/6965	15719/7130	16546/7505	6-8°	
3M435	171/4350	7700/3493	8100/3674	8900/4037	86/2180	220/5583	38/977	15421/6995	15785/7160	16613/7535	6-8°	
3M450	177/4500	7600/3447	8000/3629	8800/3992	88/2230	226/5733	40/1027	15463/7015	15829/7180	16656/7555	6-8°	
3M470	185/4800	7400/3357	7900/3583	8600/3901	92/2345	236/6033	45/1152	15521/7040	15884/7205	16711/7580	6-8°	
3M500	197/5000	7200/3266	7700/3493	8400/3810	98/2480	245/6233	50/1277	15620/7085	15984/7250	16814/7625	6-8°	
3M550	213/5408	6900/3130	7400/3357	8100/3674	103/2615	261/6633	56/1412	15696/7215	16170/7340	17091/7755	6-9°	
3M600	236/6000	6500/2948	6700/3039	7300/3311	113/2850	285/7233	65/1647	16205/7305	16469/7470	17295/7845	6-9°	
3M650	256/6500	5300/2404	5500/2495	6300/2858	119/3015	304/7733	71/1812	16237/7360	16601/7530	17426/7905	6-9°	
3M700	276/7000	4300/1950	4500/2041	5300/2404	127/3215	324/8233	79/2012	16301/7435	16755/7600	17582/7975	6-9°	

Free lift without backrest will increase by 323mm(23in).