HELI

CPD13/15/16/18/20SQ

A2Li(P)G3-M/A6LiG3-S

Configurations		
For safety	Steering speed limit	●
	Reverse handle with horn	●
	OPS	●
	Safety protecting function of multiway valve overload	●
	Reverse buzzer	●
	Upper buffering	●
	Central wide-angle rearview mirror	●
	Rearview mirrors on two sides	○
	Front protective net	○
	Seat with safety belt	○
	Dry powder fire extinguisher (0.5kg)	○
	Dry powder fire extinguisher (2kg)	○
	Reverse Chinese voice speaker	○
	Reversing parking sensor (4 probes)	○
	Reversing image(1 camera+ 4 probes)	○
For driving comfort	Semi-enclosed seat	●
	USB (5V/1A)	●
	Steering with steering wheel start	●
	Mechanical operation valve	●
	Colorful instrument	●
	Full suspension seat	○
	Electromagnetic operated valve	○
	Fan	○
	Heater	○
For cab/windshield	Panel mounted cab	○
	Front windshield	○
	Rear windshield	○
	Top windshield	○
For lighting	LED lights	●
	LED flickering warning lights	●
	LED rear working light	○
	Front LED red/blue spotlight	○
	Rear LED red/blue spotlight	○
	Red/blue strip lights on rear and bilateral sides	○
	LED rotating warning light	○
	LED rotating and beep warning light	○
Others	Metric thread	●
	Solid tyre	●
	Solid tyre without travelling marking	○
	Sleeve for tilting cylinder	○
	FCIS	●

Note: "●" standard; "○" optional;



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

Design&Print:Fokeli Printing 20241105

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LI ION G3 SERIES

HELI

POWERFUL AND FLEXIBLE

- Comfort and energy saving
- Stable and Reliable
- Intelligent security
- Convenient maintenance

APPEARANCE

The appearance is grand and the colors are beautiful; The performance is excellent.



G3 series family design elements

Sheet metal stamping type side cover, side door

COMFORTABLE AND ENERGY-SAVING

The truck provides users with the best comfortable driving experience.The truck adopts advanced energy-saving technologies for a greener and more environmentally friendly environment



Wide view mast
Optimized mast improves lateral stability.

Mobile phone and water cup holder offer convenient storage.

Optimized mast improves lateral stability.

The steering wheel is sensitive, lightweight, precise, and power-saving when starting and turning.

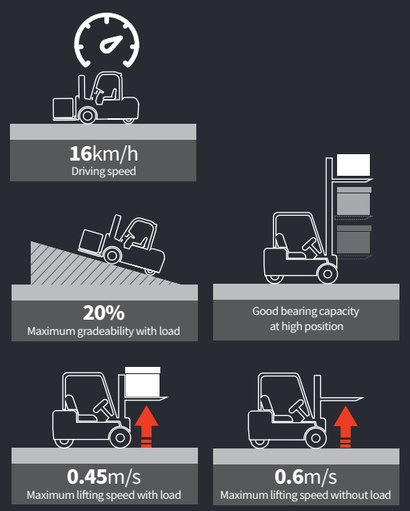
The steering wheel is optimized with height reduction And structure improving; Adjustable angle; Comfortable operation

Color screen instrument

PES third gear adjustment

P Powerful
E Economical
S Energy-saving

Multi performance modes satisfy the needs of various working conditions.



FRONT WHEEL DUAL DRIVE MOTORS PROVIDE MORE POWER



Strong performance:
The truck is equipped with ZF dual motor drive unit.

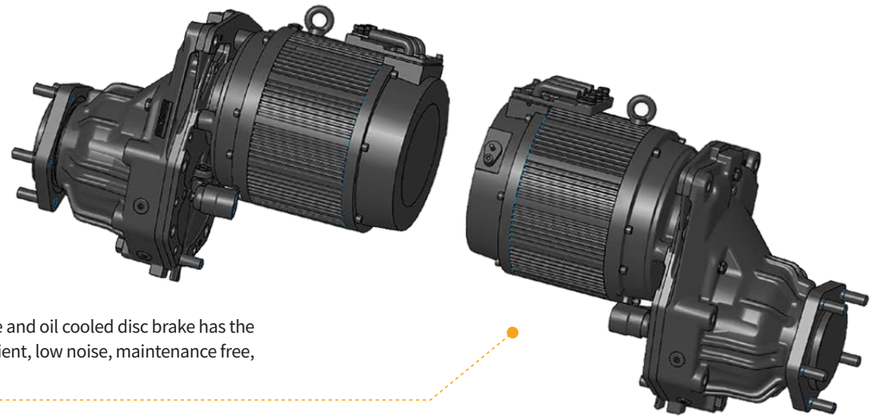


The truck has small turning radius and good passability.



TABLE AND RELIABLE

The product is designed with the concept of stability and reliability, and has undergone multiple rigorous tests and verifications.



Wet type service brake and oil cooled disc brake has the characteristics of efficient, low noise, maintenance free, and reliable.



National standard fast charging port supports up to 200A fast charging

The entire truck and its components meet the latest CE & UKCA requirements.



Ratchet type hand brake is safe and reliable.

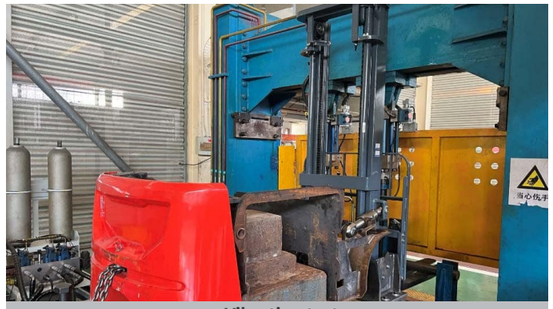
STRICT TEST

Rain test, reliability enhancement test, vibration test, bumps test



Rain test

the truck reaches to IPX4 protection level after simulating operation under 15 min rainstorm and it meets outdoor operation requirements.



Vibration test

Conduct vibration frequency testing on the truck to optimize and improve operational comfort.



Cold storage test

The whole truck was operated alternately in a -20 °C cold storage for 6 hours, and parked in the cold storage for 12 hours. The whole truck has no faults and could operate continuously



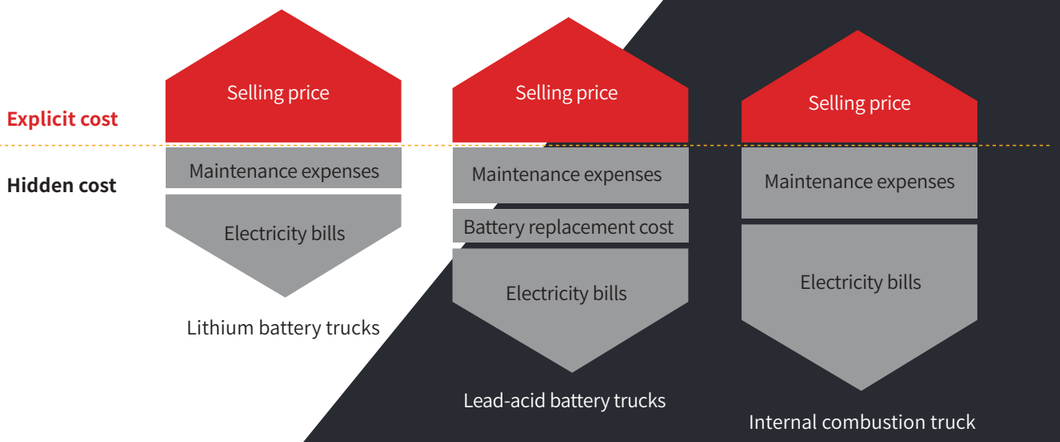
Reliability enhancement test

The truck undergoes 800 hours of enhancement test (including climbing, rain exposure, bumpy road surfaces, etc.).

OPERATING COSTS:

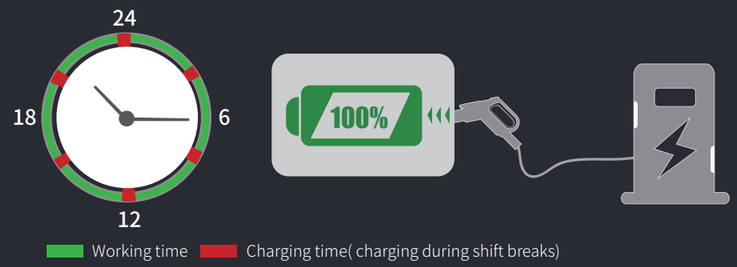
Lithium battery forklift truck **VS** Lead-acid battery forklift truck **VS** internal combustion forklift truck

The superiority of Heli lithium battery forklift is more prominent in its cost of use throughout its lifecycle. Compared with lead-acid battery truck and internal combustion truck, lithium battery truck are more cost-effective due to their maintenance free and high energy conversion rates. Compared to internal combustion trucks, lithium battery trucks have advantages such as no noise, no pollution, low vibration, and simple operation. Lithium battery trucks have the characteristics of fast charging and on-demand charging compared to lead-acid battery trucks, making them more suitable for multi shift work applications.



FAST CHARGING AND ULTRA LONG BATTERY LIFE

- The truck is standard equipped with 202Ah lithium battery which has ultra long battery life.
- The battery satisfies uninterrupted operation during all day.
- The 2t truck model can be equipped with a maximum optional 404Ah lithium battery.



INTELLIGENT SAFETY

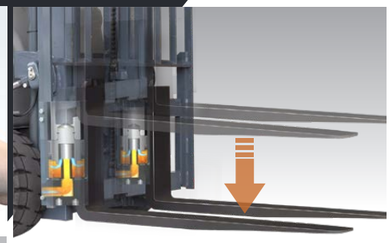
The product is designed with intelligent security as its core and has multiple advanced security technologies.

- Electric brake and wet type brake offer dual protections.
- Intelligent differential speed of left and right motors
- Hydraulic pipeline anti-burst protection, forward tilt self-locking protection
- Electrical multiple protection: dual wire system, short circuit protection, overheating protection, low battery protection, sequential protection
- Parking safety reminder
- Slope sliding reminder
- Reverse handle with horn

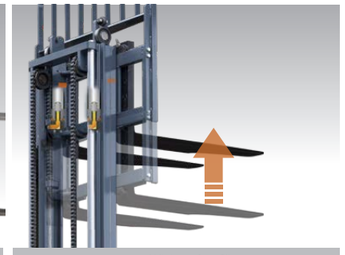




The integrated card swiping function of the instrument meets the requirements of TSG 81.



Mast lowering buffer

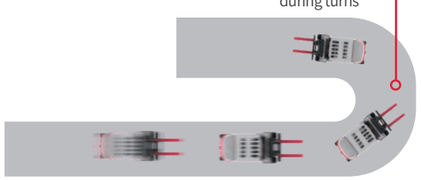


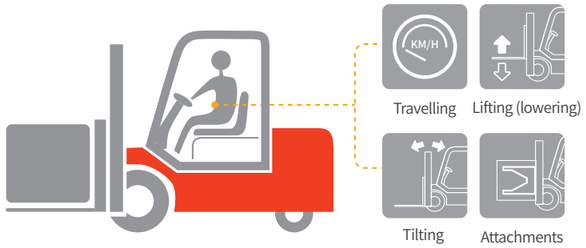
Mast lifting buffer

- Dual core controller
- Automatic deceleration for steering
- OPS



Automatic deceleration during turns





OPS (operator presence system) **Unmanned self-locking Intelligent protection**

Heli Intelligent Fleet Management System (Standard Domestic Basic Edition)

Truck positioning	Statistics report
Remote diagnosis	Truck management
Remote monitoring	Identity recognition
Maintenance remind	Weighing management (optional)
Battery management	Collision management (optional)





The hydraulic oil tank is located on the left side for easy filling and checking.



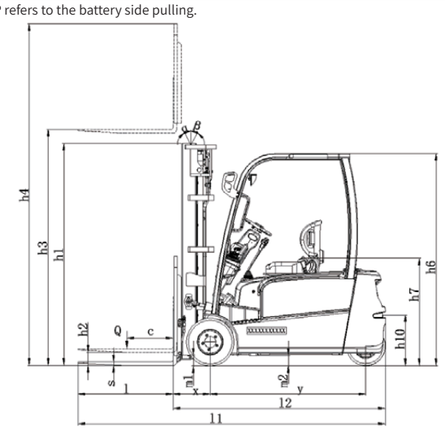
Maintenance-free steering axle

EASY MAINTENANCE

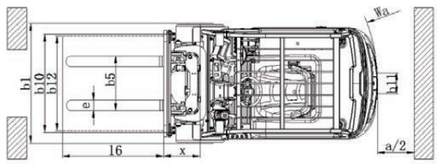
Time-saving, convenient and efficient

	Characteristics											
1.01	Manufacturer			HELI								
1.02	Model			CPD13SQ	CPD15SQ	CPD15SQ	CPD16SQ	CPD16SQ	CPD18SQ	CPD18SQ	CPD20SQ	CPD20SQ
1.03	Configuration number			A2LiG3-M	A2Li (P) G3-M	A6LiG3-S	A2Li (P) G3-M	A6LiG3-S	A2Li(P)G3-M	A6LiG3-S	A2Li (P) G3-M	A6LiG3-S
1.04	Rated capacity	Q	lbs	2600	3000	3000	3200	3200	3500	3500	4000	4000
1.05	Load center distance	c	in	24								
1.06	Power mode			Lithium Battery								
1.07	Driving mode			seated								
1.08	Front overhang	x	in	14	14	14	14	14	14	14	15	15
1.09	Wheelbase	y	in	51	51	51	51	51	51	51	51	51
	Weight											
2.01	Total weight (with/without battery)		lbs	6534/5522	6446/5830	6446/5830	6666/6050	6666/6050	6996/6380	6996/6380	7128/6512	7128/6512
2.02	Axle load (laden,front/rear)		lbs	7854/1144	8514/1232	8514/1232	9977/1309	9977/1309	9625/1331	9625/1331	10120/1408	10120/1408
2.03	Axle load (unladen,front/rear)		lbs	3080/3058	3003/3443	3003/3443	2992/3674	2992/3674	3003/3993	3003/3993	2992/3960	2992/3960
	Tyres											
3.01	Tyre type			Solid Tyre	Solid Tyre	Solid Tyre	Solid Tyre	Solid Tyre	Solid Tyre	Solid Tyre	Solid Tyre	Solid Tyre
3.02	Tyre size,front			18×7-8	18×7-8	18×7-8	18×7-8	18×7-8	200/50-10	200/50-10	200/50-10	200/50-10
3.03	Tyre size,rear			140/55-9								
3.04	Number of wheels, front/rear (x= drive wheels)			2×/2								
3.05	Tread, front	b10	in	36	36	36	36	36	37	37	37	37
3.06	Tread, rear	b11	in	8								
	Dimensions											
4.01	Mast tilt angle (forward/backward)	α/β		5/7								
4.02	Height (mast lowered)	h1	in	80	80	80	80	80	80	80	80	80
4.03	Free lifting height	h2	in	3	3	3	3	3	3	3	3	3
4.04	Lifting height (standard)	h3	in	118								
4.05	Max. height,extended (with backrest)	h4	in	159								
4.06	Height of overhead guard	h6	in	80								
4.07	Seat height relating to SIP (to ground)	h7	in	41								
4.08	Towing coupling height	h10	in	19								
4.09	Overall length (with fork)	l1	in	109	111	111	111	111	112	112	117	117
4.10	Overall length (without fork)	l2	in	73	74	74	74	74	76	76	81	81
4.11	Overall width	b1	in	42	42	42	42	42	44	44	44	44
4.12	Fork size:thickness x width x length	s/e/l	in	1×4×36							1×5×36	
4.13	Fork carriage,according to ISO2328		in	2A								
4.14	Distance across fork-arms, Max./Min.	b5	in	38/8	38/8	38/8	38/8	38/8	38/8	38/8	40/8	40/8
4.15	Ground clearance (at mast)	m1	in	3								
4.16	Ground clearance (center of wheelbase)	m2	in	4								
4.17	Right angle stacking aisle width for pallet1000 x1200mm crossways	Ast	in	124	126	126	127	127	128	128	133	133
4.18	Right angle stacking aisle width for pallet800 x1200mm lengthways	Ast	in	129	131	131	132	132	133	133	138	138
4.19	Min. outside turning radius	Wa	in	58	60	60	60	60	61	61	66	66
	Performance Data											
5.01	Travel speed (laden/unladen)		mph	10/10	10/10	8/9	10/10	8/9	10/10	8/9	10/10	8/9
5.02	Lift speed (laden/unladen)		fpm	88/118	88/118	69/88	85/118	65/88	85/118	65/88	79/118	59/88
5.03	Lowering speed (laden/unladen)		fpm	92/98								
5.04	Max.drawbar pull (laden)		N	13500	13500	10200	13500	10200	14000	10200	14000	10200
5.05	Max.gradeability (laden/unladen)		%	20	20	15	20	15	20	15	20	15
5.06	Acceleration time(10 m)(laden/unladen)		S	5.4/5	5.4/5	5.4/5	5.4/5	5.4/5	5.4/5	5.4/5	5.4/5	5.4/5
	Battery											
6.01	Battery voltage/Capacity		V/ Ah	80/150	80/202	80/150	80/202	80/150	80/202	80/150	80/202	80/202
6.02	Battery weight		lbs	616	616	616	616	616	616	616	616	616
	Motor and controller											
7.01	Driving motor powering (S2-60min)		hp	7×2	7×2	7×2	7×2	7×2	7×2	7×2	7×2	7×2
7.02	Lifting motor powering (S3-15%)		hp	16	22	15	22	15	22	15	22	15
7.03	Driving motor controlling mode			MOSFET/AC								
7.04	Lifting motor controlling mode			MOSFET/AC								
	Addition data											
8.01	Service brake/Parking brake			Hydraulic/mechanical								
8.02	Relief pressure		Psi	2538	2538	2538	2538	3263.4	3263.4	3263.4	3263.4	3263.4

Note: P refers to the battery side pulling.



Ast: Right angle stacking aisle width
a: Clearance 8in



Wide View Standard Mast

Mast Model	Max lifting height (in)	Load capacity (lode center 24in)(lbs)					Height (mast lowered)(in)	Free lift (with backrest) (in)		Service weight (lbs)					Mast tilting angle (°) α/β
		CPD13	CPD15	CPD16	CPD18	CPD20	CPD13-20	CPD13-18	CPD20	CPD13	CPD15	CPD16	CPD18	CPD20	CPD13-20
M200	79	2600	3000	3200	3500	4000	60	3	4	5448	5728	5928	6228	6348	5/7
M250	98	2600	3000	3200	3500	4000	70	3	4	5514	5794	5994	6294	6414	5/7
M300	118	2600	3000	3200	3500	4000	80	3	4	5580	5860	6060	6360	6480	5/7
M330	130	2600	3000	3200	3500	4000	86	3	4	5620	5900	6100	6400	6520	5/7
M350	138	2600	3000	3200	3500	4000	90	3	4	5646	5926	6126	6426	6546	5/7
M370	146	2600	3000	3200	3500	4000	94	3	4	5674	5954	6154	6454	6574	5/7
M400	157	2600	3000	3200	3500	4000	101	3	4	5776	6056	6256	6556	6676	3/5
M425	167	2600	3000	3200	3500	3800	106	3	4	5810	6090	6290	6590	6710	3/5
M450	177	2400	2800	3000	3400	3700	111	3	4	5842	6122	6322	6622	6742	3/5
M500	197	2200	2600	2800	3200	3400	121	3	4	5960	6240	6440	6740	6860	3/3

Wide View Full Free 2-Stage Mast

Mast Model	Max lifting height (in)	Load capacity (lode center 24in)(lbs)					Height (mast lowered)(in)	Free lift(with backrest)(in)		Service weight (kg)					Mast tilting angle (°) α/β
		CPD13	CPD15	CPD16	CPD18	CPD20	CPD13-20	CPD13-18	CPD20	CPD13	CPD15	CPD16	CPD18	CPD20	CPD13-20
ZM200	79	2600	3000	3200	3500	4000	60	20	20	5436	5716	5916	6216	6336	5/7
ZM250	98	2600	3000	3200	3500	4000	70	30	30	5498	5778	5978	6278	6398	5/7
ZM300	118	2600	3000	3200	3500	4000	80	40	40	5560	5840	6040	6340	6460	5/7
ZM330	130	2600	3000	3200	3500	4000	86	46	46	5596	5876	6076	6376	6496	5/7
ZM350	138	2600	3000	3200	3500	4000	90	50	50	5620	5900	6100	6400	6520	5/7
ZM370	146	2600	3000	3200	3500	4000	94	54	54	5644	5924	6124	6424	6544	5/7
ZM400	157	2600	3000	3200	3500	4000	101	61	62	5744	6024	6224	6524	6644	3/5

Note: the free lifting height increases by 18in without backrest.

Wide View Full Free 3-Stage Mast

Mast Model	Max lifting height (in)	Load capacity(lode center 24in)(lbs)					Height (mast lowered)(in)	Free lift (with backrest) (in)		Service weight (lbs)					Mast tilting angle (°) α/β
		CPD13	CPD15	CPD16	CPD18	CPD20	CPD13-20	CPD13-18	CPD20	CPD13	CPD15	CPD16	CPD18	CPD20	CPD13-20
ZSM360	142	2600	3000	3200	3500	4000	70	31	786	5798	6078	6278	6578	6698	3/5
ZSM400	157	2600	3000	3200	3500	4000	76	36	921	5856	6136	6336	6636	6756	3/5
ZSM435	171	2400	2800	3000	3400	3800	80	41	1036	5896	6176	6376	6676	6796	3/5
ZSM450	177	2400	2800	3000	3400	3700	82	43	1086	5916	6196	6396	6696	6816	3/5
ZSM470	185	2200	2700	2900	3300	3500	85	45	1156	5944	6224	6424	6724	6844	3/5
ZSM480	189	2200	2700	2900	3300	3500	86	46	1186	5956	6236	6436	6736	6856	3/5
ZSM500	197	2000	2400	2600	3200	3400	90	50	1286	5996	6276	6476	6776	6896	3/3
ZSM540	213	1800	2100	2300	2500	2800	95	56	1421	6054	6334	6534	6834	6954	3/3
ZSM600	236	1500	1600	1800	2000	2200	104	64	1636	6224	6504	6704	7004	7124	3/3
ZSM650	256	1100	1400	1600	1800	2000	111	72	1826	6292	6572	6772	7072	7192	3/3

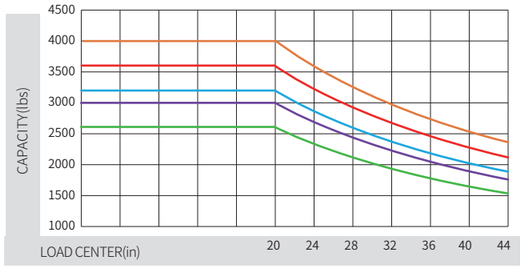
Note: the free lifting height increases by 18in without backrest.

Lithium ion battery、Battery charger

Lithium battery brand	HELI				ENEROC			
Voltage/Capacity	80V/150Ah*	80V/202Ah*	80V/280Ah*	80V/404Ah*	80V/150Ah*	80V/228Ah*	80V/302Ah*	80V/346Ah*
CPD13SQ	●	○	○	—	○	○	○	—
CPD15/16/18SQ S	●	○	○	—	—	○	○	—
CPD15/16/18SQ M	—	●	○	—	—	○	○	—
CPD20SQ S	●	○	○	○	○	○	○	○
CPD20SQ M	—	●	○	○	—	○	○	○
Onboard charger	○	○	—	—	○	○	—	—
Low temperature heating of lithium battery	●							

Note：● standard configuration ○ opention —not configurable. On-board charger is not available for trucks with side-changing battery.

Load curve



Note: The vertical axis stands for load capacity while 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 the mast is tilted forward, the worker using nonstandard forks for 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.