HELI

CPD15/16/18/20

A2DG3-M A2DLIG3-M

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;

1.5-2 t

G3 series front wheel dual drive
Lithium battery truck

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* Our products are subject to improvements and changes without notice.

G3
SERIES

HELI

DUAL DRIVING FORCES ADVANCING, LEAD-ACID AND LITHIUM PROGRESSING TOGETHER.

- 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.

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

G3 series family design elements

Sheet metal stamping type side cover, side door

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	Multi performance modes satisfy the needs of various working conditions.
E	Economical	
S	Energy-saving	

16km/h
Driving speed

20%
Maximum gradeability with load

Good bearing capacity at high position

0.45m/s
Maximum lifting speed with load

0.6m/s
Maximum lifting speed without load

FRONT WHEEL DUAL DRIVE MOTORS PROVIDE MORE POWER

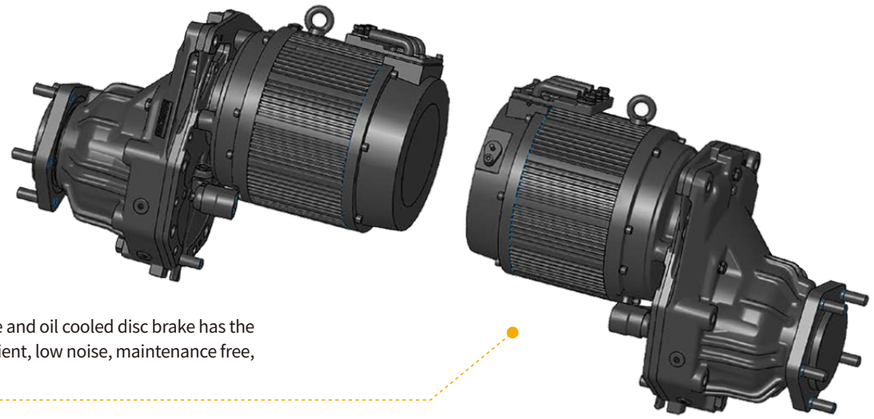
Strong performance:
The truck is equipped with ZF dual motor drive unit.

The truck has small turning radius and good passability.

Cast axle body for more reliable structure

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

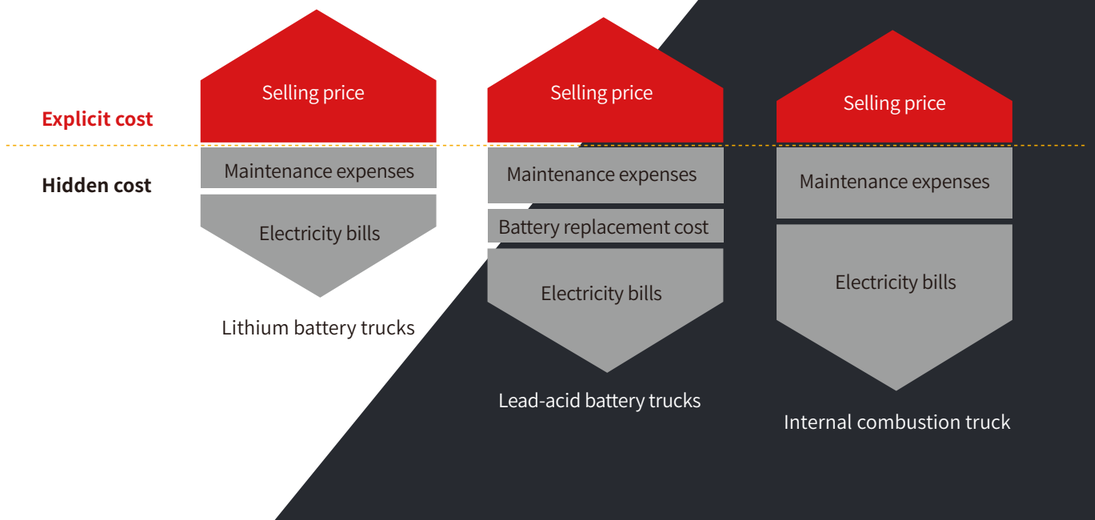
Reliability enhancement test

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

OPERATING COSTS:

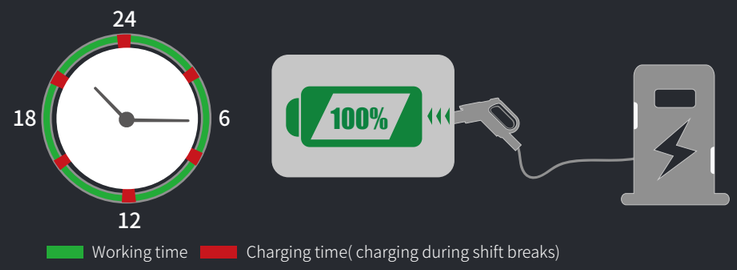
Lithium battery forklift truck **VS** Lead-acid battery forklift truck **VS** internal combustion forklift truck

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.



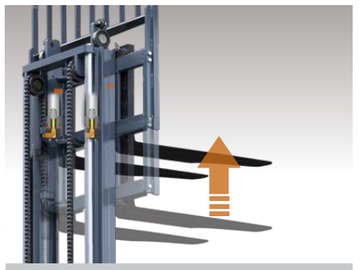
INTELLIGENT SAFETY

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.

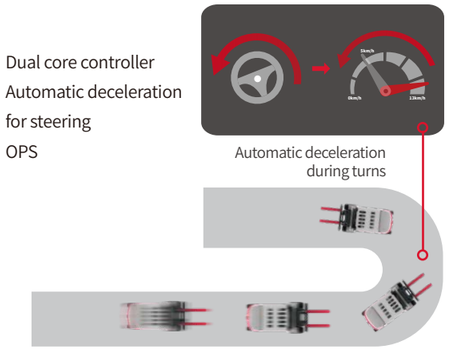
The integrated card swiping function of the instrument meets the requirements of TSG 81.

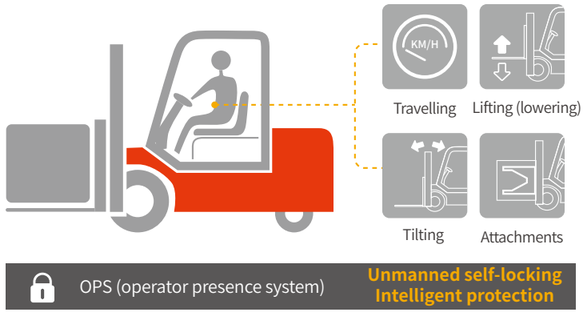
Mast lowering buffer



Mast lifting buffer

- Dual core controller
- Automatic deceleration for steering
- OPS





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.

Contactless Corner Potentiometers

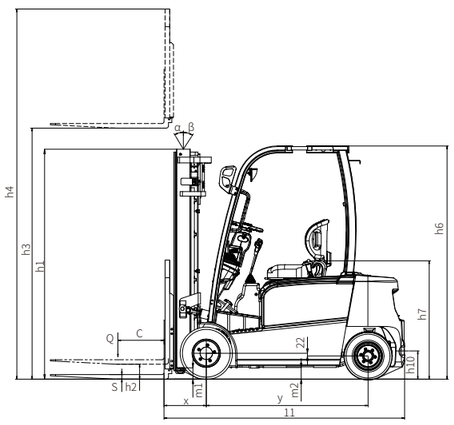
EASY MAINTENANCE

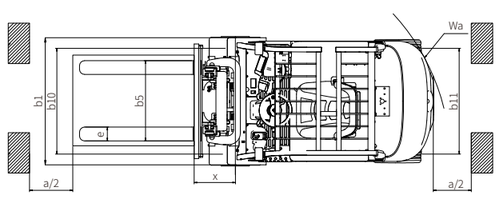
Time-saving, convenient and efficient

制造商和技术参数

1.01	Manufacturer			HELI							
1.02	Model			CPD15	CPD15	CPD16	CPD16	CPD18	CPD18	CPD20	CPD20
1.03	Configuration number			A2DLIG3-M	A2DG3-M	A2DLIG3-M	A2DG3-M	A2DLIG3-M	A2DG3-M	A2DLIG3-M	A2DG3-M
1.04	Rated capacity	Q	kg	1500	1500	1600	1600	1800	1800	2000	2000
1.05	Load center distance	c	mm	500							
1.06	Power mode			Battery							
1.07	Driving mode			Seated							
1.08	Front overhang	x	mm	367	367	367	367	367	367	372	372
1.09	Wheelbase	y	mm	1312	1312	1312	1420	1312	1420	1420	1528
	Weight										
2.01	Total weight (with/without battery)		kg	2940/2660	3110/2415	3040/2760	3230/2374	3140/2860	3440/2584	3360/3080	3640/2629
2.02	Axle load (laden,front/rear)		kg	3780/650	4010/600	4170/670	4180/650	4300/635	4510/730	4590/770	4900/740
2.03	Axle load (unladen,front/rear)		kg	1320/1630	1490/1620	1180/1860	1520/1710	1360/1795	1640/1800	1385/1995	1760/1880
	Tyres										
3.01	Tyre type			Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
3.02	Tyre size,front			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			16×6-8							
3.04	Wheels,number front/rear (x=driven wheels)			2×/2							
3.05	Tread, front	b10	mm	920	920	920	920	930	930	930	930
3.06	Tread, rear	b11	mm	910							
	Dimensions										
4.01	Mast tilt angle (forward/backward)	α/β	°	5/7							
4.02	Height (mast lowered)	h1	mm	2025	2025	2025	2025	2025	2025	2025	2025
4.03	Free lifting height	h2	mm	85	85	85	85	85	85	90	90
4.04	Lifting height (standard)	h3	mm	3000							
4.05	Max. height,extended (with backrest)	h4	mm	4038							
4.06	Height of overhead guard	h6	mm	2040							
4.07	Seat height relating to SIP (to ground)	h7	mm	1042							
4.08	Towing coupling height	h10	mm	482							
4.09	Overall length (with fork)	l1	mm	2927	2927	2927	3035	2927	3035	3040	3148
4.10	Overall length (without fork)	l2	mm	2007	2007	2007	2115	2007	2115	2120	2228
4.11	Overall width	b1	mm	1076	1076	1076	1076	1120	1120	1120	1120
4.12	Fork size:thickness x width x length	s/e/l	mm	35×100×920	35×100×920	35×100×920	35×100×920	35×100×920	35×100×920	40×122×920	40×122×920
4.13	Fork carriage,according to ISO2328			2A							
4.14	Distance across fork-arms, Max./Min.	b5	mm	960/200	960/200	960/200	960/200	960/200	960/200	1030/200	1030/200
4.15	Distance across fork-arms, Max./Min.	m1	mm	90							
4.16	Ground clearance (center of wheelbase)	m2	mm	100							
4.17	Right angle stacking aisle width for pallet 1000 x1200mm crossways	Ast	mm	3312	3312	3312	3410	3312	3410	3472	3523
4.18	Right angle stacking aisle width for pallet 800 x1200mm lengthways	Ast	mm	3502	3502	3502	3610	3502	3610	3662	3723
4.19	Min. outside turning radius	Wa	mm	1735	1735	1735	1843	1735	1843	1890	1951
	Performance Data										
5.01	Travel speed (laden/unladen)		km/h	16/16	16/16	16/16	16/16	16/16	16/16	16/16	16/16
5.02	Lift speed (laden/unladen)		mm/s	450/600	450/600	430/600	430/600	430/600	430/600	400/600	400/600
5.03	Lowering speed (laden/unladen)		mm/s	470/500							
5.04	Max.drawbar pull (laden)		N	14000	14500	14500	15000	15000	15500	16000	16500
5.05	Max.gradeability (laden/unladen)		%	20/20	20/20	20/20	20/20	20/20	20/20	20/20	20/20
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
	Battery										
6.01	Battery voltage/Capacity		V/Ah	80/202	48/440	80/202	48/600	80/202	48/600	80/202	48/720
6.02	Battery weight		kg	280	695	280	856	280	856	280	1011
	Motor and controller										
7.01	Driving motor powering (S2-60min)		kW	5.5×2	5.4×2	5.5×2	5.4×2	5.5×2	5.4×2	5.5×2	5.4×2
7.02	Lifting motor powering (S3-15%)		kW	16.5	15	16.5	15	16.5	15	16.5	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		Mpa	17.5	17.5	17.5	17.5	22.5	22.5	22.5	22.5

注:P指电池侧铲。





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

Wide View Standard Mast

Mast Model	Max. lifting height (mm)	Load capacity (lode center 500mm)(kg)				Height (mast lowered)(mm)	Free lift (with backrest) (mm)		Service weight (kg)								Mast tilt angle α/β (°)
									Lead-acid battery model				Lithium battery model				
		1.5t	1.6t	1.8t	2t	1.5-2t	1.5-1.8t	2t	1.5t	1.6t	1.8t	2t	1.5t	1.6t	1.8t	2t	1.5-2t
M200	2000	1500	1600	1800	2000	1525	85	90	3044	3164	3374	3574	2874	2974	3074	3294	5/7
M250	2500	1500	1600	1800	2000	1775	85	90	3077	3197	3407	3607	2907	3007	3107	3327	5/7
M300	3000	1500	1600	1800	2000	2025	85	90	3110	3230	3440	3640	2940	3040	3140	3360	5/7
M330	3300	1500	1600	1800	2000	2175	85	90	3130	3250	3460	3660	2960	3060	3160	3380	5/7
M350	3500	1500	1600	1800	2000	2275	85	90	3143	3263	3473	3673	2973	3073	3173	3393	5/7
M370	3700	1500	1600	1800	2000	2375	85	90	3157	3277	3487	3687	2987	3087	3187	3407	5/7
M400	4000	1500	1600	1800	2000	2575	85	90	3208	3328	3538	3738	3038	3138	3238	3458	3/5
M425	4250	1500	1600	1750	1900	2700	85	90	3225	3345	3555	3755	3055	3155	3255	3475	3/5
M450	4500	1400	1500	1700	1850	2825	85	90	3241	3361	3571	3771	3071	3171	3271	3491	3/5
M500	5000	1300	1400	1600	1700	3075	85	90	3300	3420	3630	3830	3130	3230	3330	3550	3/3

Wide View Full Free 2-Stage Mast

Mast Model	Max. lifting height (mm)	Load capacity (lode center 500mm)(kg)				Height (mast lowered)(mm)	Free lift (with backrest) (mm)		Service weight (kg)								Mast tilt angle α/β (°)
									Lead-acid battery model				Lithium battery model				
		1.5t	1.6t	1.8t	2t	1.3-2t	1.3-1.8t	2t	1.5t	1.6t	1.8t	2t	1.5t	1.6t	1.8t	2t	1.3-2t
ZM200	2000	1500	1600	1800	2000	1525	510	515	3038	3158	3368	3568	2868	2968	3068	3288	5/7
ZM250	2500	1500	1600	1800	2000	1775	760	765	3069	3189	3399	3599	2899	2999	3099	3319	5/7
ZM300	3000	1500	1600	1800	2000	2025	1010	1015	3100	3220	3430	3630	2930	3030	3130	3350	5/7
ZM330	3300	1500	1600	1800	2000	2175	1160	1165	3118	3238	3448	3648	2948	3048	3148	3368	5/7
ZM350	3500	1500	1600	1800	2000	2275	1260	1265	3130	3250	3460	3660	2960	3060	3160	3380	5/7
ZM370	3700	1500	1600	1800	2000	2375	1360	1365	3142	3262	3472	3672	2972	3072	3172	3392	5/7
ZM400	4000	1500	1600	1800	2000	2575	1560	1565	3192	3312	3522	3722	3022	3122	3222	3442	3/5

Note: The free lifting height increases by 449mm without backrest

Wide View Full Free 3-Stage Mast

Mast Model	Max. lifting height (mm)	Load capacity (lode center 500mm)(kg)				Height (mast lowered)(mm)	Free lift (with backrest) (mm)		Service weight (kg)								Mast tilt angle α/β (°)
									Lead-acid battery model				Lithium battery model				
		1.5t	1.6t	1.8t	2t	1.5-2t	1.5-1.8t	2t	1.5t	1.6t	1.8t	2t	1.5t	1.6t	1.8t	2t	1.5-2t
ZSM360	3600	1500	1600	1800	2000	1790	781	786	3219	3339	3549	3749	3049	3149	3249	3469	3/5
ZSM400	4000	1500	1600	1800	2000	1925	916	921	3219	3368	3578	3778	3078	3178	3278	3498	3/5
ZSM435	4350	1400	1500	1700	1900	2040	1031	1036	3219	3388	3598	3798	3098	3198	3298	3518	3/5
ZSM450	4500	1400	1500	1700	1850	2090	1081	1086	3219	3398	3608	3808	3108	3208	3308	3528	3/5
ZSM470	4700	1350	1450	1650	1750	2160	1151	1156	3219	3412	3622	3822	3122	3222	3322	3542	3/5
ZSM480	4800	1350	1450	1650	1750	2190	1181	1186	3219	3418	3628	3828	3128	3228	3328	3548	3/5
ZSM500	5000	1200	1300	1600	1700	2290	1281	1286	3219	3438	3648	3848	3148	3248	3348	3568	3/3
ZSM540	5400	1050	1150	1250	1400	2425	1416	1421	3219	3467	3677	3877	3177	3277	3377	3597	3/3
ZSM600	6000	800	900	1000	1100	2640	1631	1636	3219	3552	3762	3962	3262	3362	3462	3682	3/3
ZSM650	6500	700	800	900	1000	2830	1821	1826	3219	3586	3796	3996	3296	3396	3496	3716	3/3

Note: The free lifting height increases by 449mm without backrest

Lithium ion battery、Battery charger

Lithium battery brand	和鼎			鹏成		
Voltage/capacity	80V/202Ah	80V/280Ah	80V/404Ah	80V/228Ah	80V/302Ah	80V/346Ah
CPD15/16/18 M	●	○	—	○	○	—
CPD20	●	○	○	○	○	○
Onboard charger	○	—	—	○	—	—
Low temperature heating of lithium battery	●					
Charger	D80V100ALi-125 (Charging gun) /D80V100ALi-425 (Charging gun)			D80V200ALi-123 (Charging gun) /D80V200ALi-423 (Charging gun)		

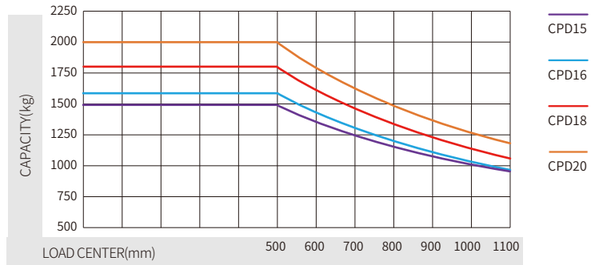
Note:● standard configuration○opention —not configurable

Battery

Voltage/capacity	48V/440Ah	48V/480Ah	48V/500Ah	48V/600Ah	48V/625Ah	48V/720Ah	48V/750Ah
CPD15	●	○	○	—	—	—	—
CPD16	—	—	—	●	○	—	—
CPD18	—	—	—	●	○	—	—
CPD20	—	—	—	—	—	●	○

Note:● standard configuration○opention —not configurable

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.