HELI

1.6-2.0 t

G2 SERIES SIT-ON TYPE LITHIUM BATTERY POWERED REACH TRUCK

FOR COLD STORE(80V)

LI ION

Professional trucks special for low temperature cold storage operation

- The whole truck is specially designed for low-temperature cold storage, which is waterproof, low-temperature resistant and corrosion-resistant;

Special new parts for cold storage

- Special lithium battery for cold storage, which is waterproof, low temperature resistant and has electric heating function;
- Special motor and electric control for cold storage, which is waterproof and low temperature resistant;
- Special drive wheel for cold storage, which is anti-skid and corrosion resistant;

Corrosion and rust prevention

- The whole truck adopts anti-corrosion and anti rust spraying coating process.
- Important parts are fastened with stainless steel bolts.
- The piston rods of the front and rear lifting cylinders are treated with double-layer chromium plating.
- The surface of the chain is treated by Dacrom-et process.

Special oils for cold storage

- The roller adopts special low-temperature lubricating grease.
- The transmission system adopts low-temperature transmission oil.
- The hydraulic system adopts low-freezing hydraulic oil.

Lithium battery forklift

VS

Lead-acid battery forklift

The advantages of Heli lithium battery forklift truck are reflected prominently in the use cost in the life cycle. Due to the characteristics of maintenance free and high power conversion rate, the overall operation cost of lithium battery forklift truck is more economical. Compared with the lead-acid battery model, it has the characteristics of fast charging and charging taking advantages of every opportunity, which is more suitable for multi shift operation application.

Environment Friendly

- Zero emission
- Low noise
- Free of heavy metals
- No corrosion
- No acid mist volatilization

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

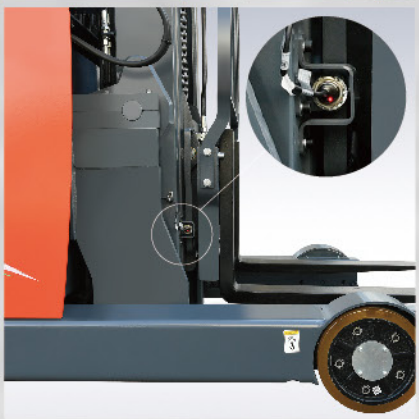
High Efficiency and Energy Saving

- 1-2 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

High Safety

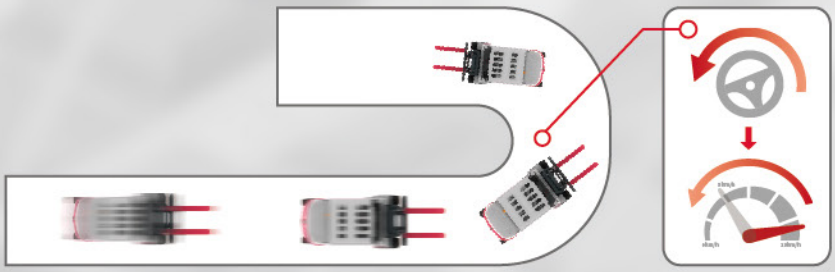
- According to the characteristics of industrial vehicles , it achieves safety protection design which includes lithium battery materials , battery core type , pack technique and system power management
- “Multiple node safety closed circuit protection” realizing truck real time closed circuit protection in variable conditions
  “Lock affirming” function during charging avoiding “hot connecting and disconnecting” operation effectively
  “Whole system emergency button” to disconnect the truck control system and bms power quickly ensuring truck safety

G2 1.6-2.0 t LI ION



Intelligent security protection

- Intelligent stabilization system : it can automatically adjust the mast and the truck speed according to the lifting height and load state . Improve the high bearing capacity and vehicle stacking safety ;
- Intelligent speed limit in different application : multi-scenario identification and intelligent speed limit balance efficiency and safety ;
- Intelligent limit buffering : intelligent induction of mast lifting and lowering avoids extreme 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 ;
- Intelligent steering deceleration : the automatic deceleration function of the turning can reduce the risk of turning over ;



Automatic deceleration for turning

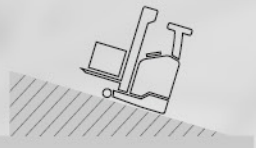
New designed hydraulic system

- New designed hydraulic system with high working efficiency
- High power lifting motor
- MOSFET lifting speed governing electric controller
- New type low noisy gear pump

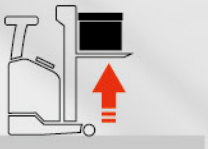
High performance guarantee high efficiency

- Lifting speed is increased by 10% and thus more goods can be lifted under the same conditions
- The truck has fast driving and lifting speed, higher working efficiency
- ZAPI Dual CPU controller conforming to the latest EU standard is equipped;
- The newly designed high-performance 80V voltage level motor has strong power;
- The latest ZAPI instrument can be equipped with height preset function. One key to reach the set height improves operation efficiency
- Small turning radius makes steering flexible and easy

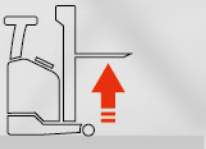
Driving speed **14km/h**



Maximum gradeability with load **10%**



Maximum lifting speed with load **0.4m/s**



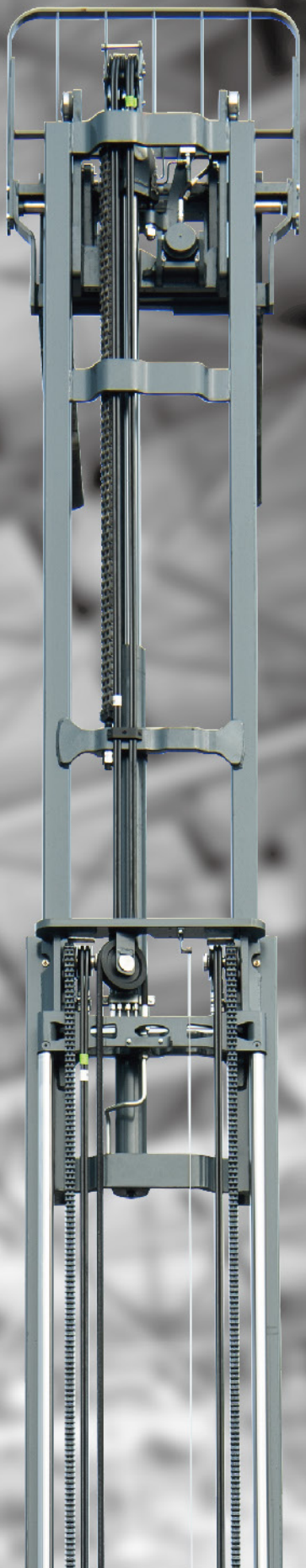
Maximum lifting speed without load **0.6m/s**

Advanced EPS electric powered steering

- EPS electric powered steering offering easy , flexible , high efficient and mute operation
- Steering motor controller
- Automatic centering function
- Real-time shifting between 180° steering mode and 360° steering mode
- Automatic limit on speed and accelerated speed when steering

Easy operated thumb switch

- To control hydraulic functions
- Clear operating units
- Proportional solenoid offering a stable and comfort lowering action



Manufacturer and technical parameters

	Character				
1.01	Manufacturer			HELI	
1.02	Model			CQD16	CQD20
1.03	Configuration number			GB2SLLi	GB2SLLi
1.04	Load capacity	Q	kg	1600	2000
1.05	load center distance	C	mm	600	600
1.06	Power mode			Lithium Battery	Lithium Battery
1.07	Driving mode			Seated	Seated
1.08	Wheel base	Y	mm	1450	1515
	Tyre				
2.01	Tyre type			Polyurethane	Polyurethane
2.02	Number of wheels, driving wheel/bearing wheel (x=driving wheel)			1x/2	1x/2
2.03	Track width (bearing wheels)	b3	mm	1157	1143
2.04	Size of bearing wheel		mm	ϕ285x100	ϕ330x100
2.05	Size of driving wheel		mm	ϕ343x114	ϕ343x114
	Size				
3.01	Lifting height of standard mast	h3	mm	4600	4600
3.02	Free lift	h2	mm	1280	1280
3.03	Mast height, lowered	h1	mm	2314	2314
3.04	Fork size:thickness×width×length	s/e/l	mm	40x122x1150	40x122x1150
3.05	Fork adjusting width		mm	244~724	244~724
3.06	Fork tilt angle (front/rear)		°	2°/4°	2°/4°
3.07	Fork sideshifting		mm	±75	±75
3.08	Truck body length (fork excluded)	L	mm	1840	1942
3.09	Length (the distance from the fork face to rear frame)	L2	mm	1372	1369
3.10	Truck body width	b1	mm	1270	1270
3.11	Distance between support arms	b2	mm	900	900
3.12	Reach distance	l4	mm	555	620
3.13	Height of overhead guard (cab)	h4	mm	2215	2215
3.14	Ground clearance, below mast	m2	mm	75	75
3.15	Turning radius	Wa	mm	1689	1751
3.16	Load distance, centre of support arm wheel to face of forks	x	mm	313	383
3.17	Aisle width with pallet 1200 x 1200 across forks	Ast	mm	2960	2965
3.18	Aisle width with pallet 1000 x 1200 across forks	Ast	mm	2800	2810
	Performance				
4.01	Travelling speed: with/without load		km/h	14/14	14/14
4.02	Lifting speed: with/without load		m/s	0.4/0.6	0.4/0.6
4.03	Lowering speed: with/without load		m/s	0.5/0.5	0.5/0.5
4.04	Reach speed, with/without load		m/s	0.11/0.11	0.11/0.11
4.05	Maximum climbing ability, with/without load		%	10/15	10/15
	Weight				
5.01	Total weight (with battery)		kg	3460	3650
5.02	Axle load,fork outreached,without load,front/rear		kg	1570/1880	1690/1950
5.03	Axle load,fork retracted,without load,front/rear		kg	2165/1270	2285/1360
5.04	Axle load,fork outreached,with load,front/rear		kg	610/4445	580/5065
5.05	Axle load,fork retracted,with load,front/rear		kg	1920/3140	1980/3650
	Battery				
6.01	Battery voltage/capacity		V/Ah	80/202	80/272
6.02	Battery weight		kg	430	430
6.03	Battery box dimension		mm	1220x352x784	1220x352x784
	Motor and controller				
7.01	Drive motor power (S2-60min)		kW	7	8
7.02	Lifting motor power (S3-15%)		kW	12.5	15.5
7.03	Steering motor power (S3-50%)		kW	0.4	0.4
7.04	Drive control mode			MOSFET/AC	MOSFET/AC
7.05	Lifting control mode			MOSFET/AC	MOSFET/AC
7.06	Steering control mode			MOSFET/AC	MOSFET/AC
7.07	Transmission box			HELI special transmission box	HELI special transmission box
7.08	Service brake			Electromagnetic brake	Electromagnetic brake
7.09	Hydraulic system working pressure		Mpa	17.5	20.5

Note: a refers to the parameters of the whole truck when the cab is equipped. Please consult the sales or technical personnel for the specific brand and capacity of the battery.

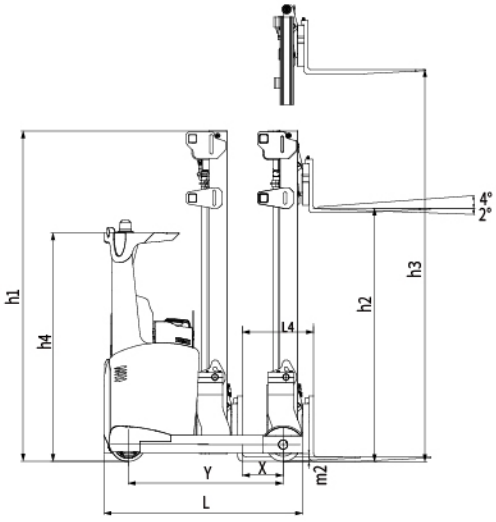
G2 1.6-2.0 t LI-ION

WIDE VIEW FULL FREE 3–STAGE MAST

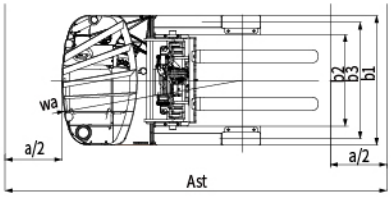
Mast model	Max. lifting height (mm)		Load capacity (load center 600mm)(kg)		Mast overall height h1(mm)	Free lifting height (with backrest) (mm)	Service weight(kg)		Fork tilt angle (front/rear) α/β (°)
	CQD16-GB2SLLI	CQD20-GB2SLLi	CQD16-GB2SLLi	CQD20-GB2SLLi			CQD16-GB2SLLi	CQD20-GB2SLLi	
ZSM460	4600	4600	1600	2000	2314	1280	3395	3650	2/4
ZSM480	4800	4800	1600	2000	2381	1340	3410	3670	2/4
ZSM540	5400	5400	1600	2000	2581	1540	3454	3730	2/4
ZSM570	5700	5700	1600	1900	2681	1640	3476	3755	2/4
ZSM630	6300	6300	1500	1900	2881	1840	3521	3815	2/4
ZSM675	6750	6750	1450	1800	2982	1940	3576	3850	2/4
ZSM700	7000	7000	1400	1700	3065	2030	3595	3870	2/4
ZSM715	7150	7150	1400	1700	3115	2080	3606	3885	2/4
ZSM750	7500	7500	1300	1700	3232	2190	3633	3920	2/4
ZSM800	8000	8000	1200	1600	3398	2360	3669	3970	2/4
ZSM850	8500	8500	1100	1400	3564	2530	3706	4015	2/4
ZSM900	9000	9000	900	1100	3730	2690	3742	4065	2/4
ZSM950	9500	9500	800	1000	3898	2860	3780	4110	2/4

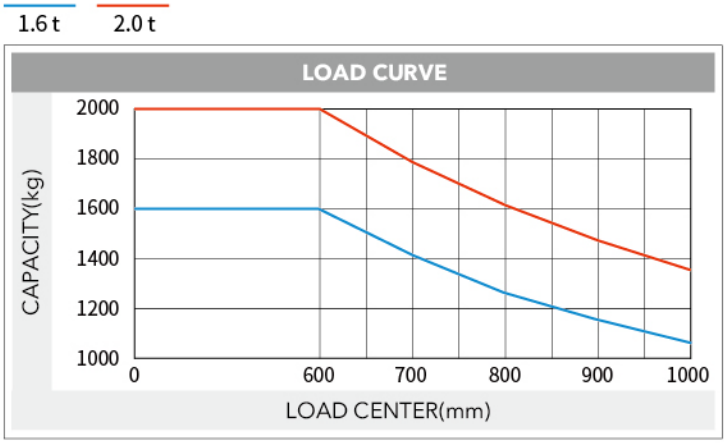
WIDE VIEW MAST

Mast model	Lifting height h3(mm)	Load capacity (load center 600mm)(kg)	Mast overall height h1(mm)	Service weight(kg)	Fork tilt angle (front/rear) α/β (°)
	CQD16-GB2SLLi				
M290	2900	1600	2200	3235	2/4
M320	3200	1600	2350	3250	2/4
M360	3600	1600	2550	3280	2/4
M380	3800	1600	2650	3295	2/4
M400	4000	1600	2750	3310	2/4
M420	4200	1600	2850	3325	2/4
M440	4400	1600	2950	3335	2/4
M460	4600	1600	3050	3390	2/4
M500	5000	1500	3250	3420	2/4



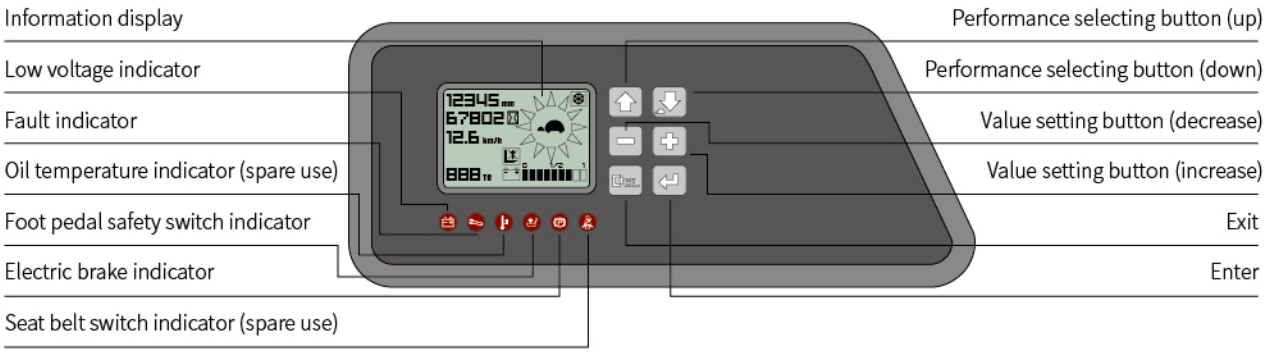
Ast: Right angle stacking aisle width
a: Clearance a=200mm





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 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.

Reliable special designed instrument



- The reliable special instrument gives a complete display of the vital information, like operation status, fault detection, etc. It ensures the operator predominate the vehicle status more intuitive and convenient.

HELI smart fleet management system (optional)

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

Charger technology

High Efficiency
Charging efficiency higher than 95% meeting the requirements of energy saving and emissions reduction.

Speediness
100% charging realized in 2 hours at the soonest.

Compatibility
48V/80V compatibility meeting the demand of different voltage levels.

Safety
Built-in mis-connecting protection offering self isolating function under fault;Perfect fault self checking alarm facilitating users maintenance.

Standard	Optional
AC travelling motor	Three stage full free lift mast with other height
AC lifting motor	Basic mast
AC steering motor	Fork with other height
Controller for ZAPI travelling motor	Fork extension
Controller for ZAPI lifting motor	Auto stop at preset height
Controller for ZAPI steering motor	Monitoring system
Electromagnetic brake	Other lithium battery
DC/DC converter	Charger
Low noise gear pump	Customer made color
Four piece valve	He' an heating seat
4600mm three-stage full free mast	Grammer seat
Integrated side shifter	FICS
Standard fork	Enclosed cab
Backrest	
Polyurethane tire	
LED instrument	
Front working light	
Warning light	
Seat belt	
Wide angle rear view mirror	
Blue light	
He' an seat	

HELI CANADA
5705, place Kubota
Drummondville (Qc)
Canada, J2B 6V4
1-833-HELICAN
info@heliforklift.ca
heliforklift.ca