

1.4-1.8 t
G系列锂电池伸缩式
前移叉车

G Series Lithium Battery Powered
Narrow Aisle Reach Truck

LION



合力产品范围：1-46吨内燃叉车；0.6-18吨电动叉车；前移式叉车、托盘车、堆垛车等仓储类产品；
AGV智能搬运车辆及系统解决方案；正面吊、堆高机、牵引车、防爆叉车、越野叉车、装载机等多样化产品。



设计印刷：手印社印制 / 20200514



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舒适性 Comfortable

- 蓄电池侧取功能, 方便电池拉出和更换
- 智能化的集成控制手柄, 操作方便舒适
- 全比例液压控制, 工作更稳定, 控制更精确
- 电子动力转向, 轻便灵活, 高效静音
- 自动对中功能

- Side battery extraction and battery rollers come standard making for easier battery replacement
- Integrated, Intelligent control handle is convenient and comfortable to use
- With proportional hydraulic control, working is more stable and more precise
- Electronic power steering offer easy, flexible, high efficient and quite operation
- Steering is centers itself automatically on startup for a safer operation

节能降耗 Energy efficiency

- 全比例液压控制, 更高效, 更节能
- 配置LED信号灯, 灯光节能80%以上
- 行走制动为电机再生制动, 回收更多的电能
- 电子转向, 更节能, 作业效率更高

- With proportional controls, the truck is more energy efficient and has lower energy consumption
- All LED lights reduce lighting energy consumption by 80%
- Drive motor regenerative braking recycles more electric energy
- Electronic steering is more efficient saving energy

安全 Safety



转弯自动减速, 操作安全

HELI's Intelligent control system automatic decelerates in sharp turns for safer operation



驻车电磁制动, 可实现坡道和平地自动驻车功能

Parking brake is automatically applied on a slope or flat surface via a magnetic brake on the drive axle



按钮触发的驻车制动

Parking brake can also be activated by pressing button on the panel



自动启动的驻车制动

Parking brake automatically activated when operator leave truck



标配警示灯, 及行走OPS系统, 整机更安全

Warning light and drive OPS system come standard to ensure complete truck safety



释放加速手柄的电流再生制动

Regenerative braking provides extra power back to the electrical system releasing when the control handles is released



紧急断电开关

Emergency stop switch disengages power and applies brake automatically



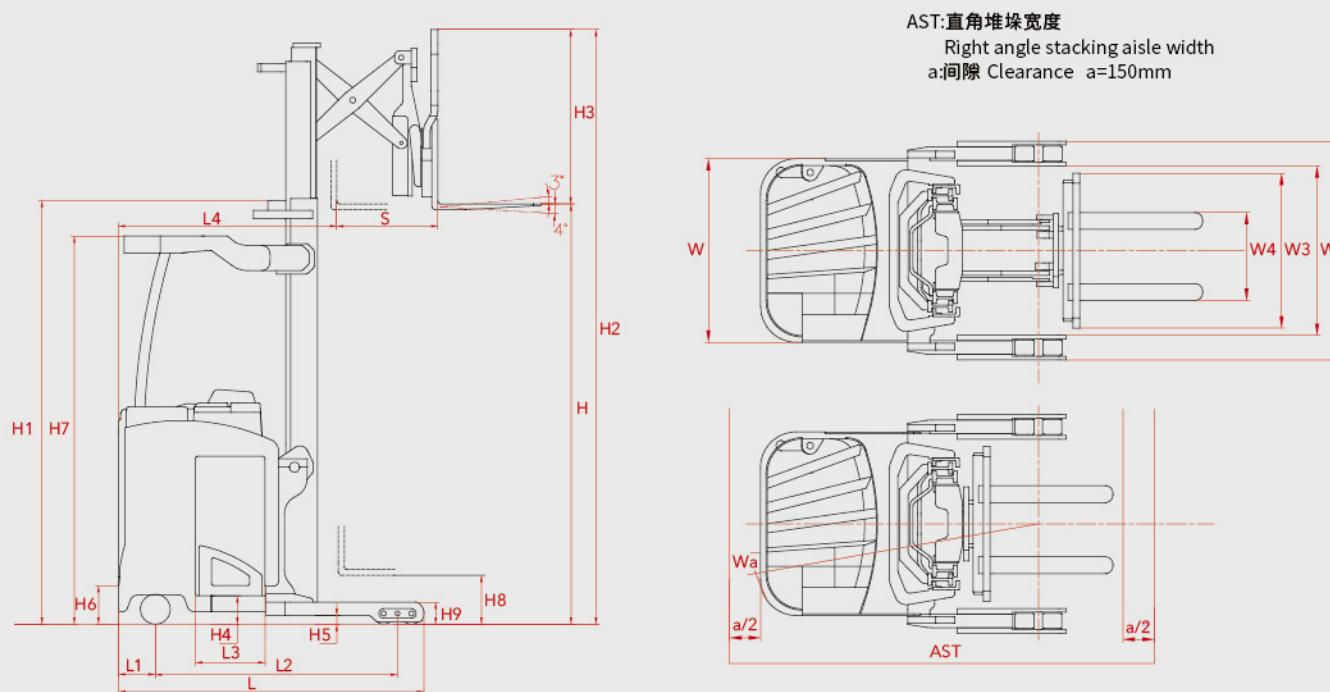
松开脚踏开关启动紧急行驶制动

Emergency brake is activated by releasing foot pedal



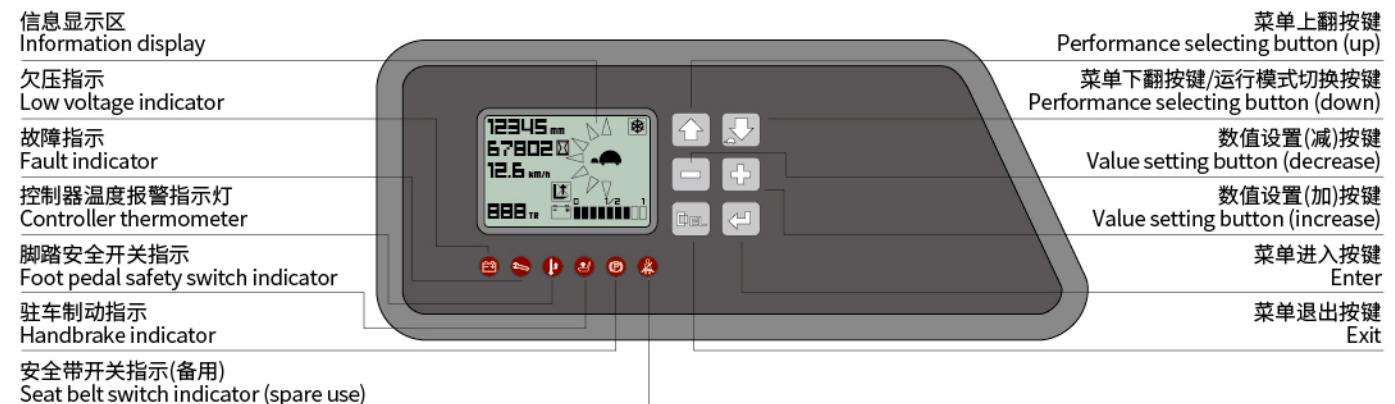
五套独立的制动系统

Five independent braking systems provide maximum, safe braking



可靠的专用仪表将整车运行状态,故障检测等重要信息完整地显示出来,使操作者更直观、方便地了解车辆状态。

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.



ZAPI智能仪表
ZAPI intelligent display

1.4t 宽视野三节全自由门架 1.4t WIDE VIEW FULL FREE 3-STAGE MAST

门架型号 Mast model	起升高度h3 Lifting height (mm)	自由起升高度h2 Free lifting height(mm)	门架落地高度h1 Mast height(mm)	额定起重量(kg) Load capacity			整车重量(kg) Service Weight,Unl		
				CQD14X2- GA2RLI	CQD14X2- GB2RLI	CQD14X2- GC2RLI	CQD14X2- GA2RLI	CQD14X2- GB2RLI	CQD14X2- GC2RLI
ZSM502	5025	1390	2426	1350	1350	1350	3580	3748	3904
ZSM533	5330	1490	2526	1350	1350	1350	3600	3768	3924
ZSM610	6095	1745	2781	1200	1200	1200	3670	3838	3994
ZSM685	6855	2000	3036	1000	1000	1000	3720	3888	4044
ZSM762	7620	2285	3321	800	900	900	3790	3958	4114

1.6~1.8t 宽视野三节全自由门架 1.6~1.8t WIDE VIEW FULL FREE 3-STAGE MAST

门架型号 Mast model	起升高度h3 Lifting height(mm)		自由起升高度h2 Free lifting height(mm)		门架落地高度h1 Mast height(mm)		额定起重量(kg) Load capacity		整车重量(kg) Service Weight,Unl	
	CQD16X1	CQD18X1	CQD16X1	CQD18X1	CQD16X1	CQD18X1	CQD16X1	CQD18X1	CQD16X1	CQD18X1
ZSM502	5025	5025	1390	1390	2413	2413	1600	1800	3345	3480
ZSM533	5330	5330	1490	1490	2526	2526	1600	1750	3365	3500
ZSM610	6095	6095	1745	1745	2781	2781	1600	1750	3435	3570
ZSM685	6855	6855	2000	2000	3036	3036	1100	1300	3485	3620
ZSM762	7620	7620	2285	2285	3321	3321	950	1100	3555	3690

负荷曲线图 Load curve



CQD14X2-GA2RLI CQD14X2-GB2RLI CQD14X2-GC2RLI
CQD16X1-GB2RLI CQD18X1-GB2RLI

注: 竖轴表示承载量, 横轴表示载荷中心。载荷中心是从货叉正面计算起, 标准载荷的基点是指载荷边长为1000毫米的立方体中心位置。当门架前倾、使用非标准货叉或装载超过正常宽度的负荷时, 将会使承载量减少。通过负荷曲线图, 能及时地了解标准门架在各种载荷中心时的承载能力。

NOTE: The vertical axis is the load capacity, and the horizontal axis is the load center which is calculated from the front face of the forks to the load center of gravity. Capacity curves shown are for a standard mast at zero degree tilt with standard forks. Changing mast tilt, using non-standard forks or loading large goods can affect load capacity. This chart can be used to estimate load capacity at various load centers for standard masts. Contact HELI for specific load ratings for your situation.

作业效率 Working efficiency

- 转弯半径小,转向方便,机动灵活
- 更小的负载轮,可直接深入货架底部
- 更快的行驶速度与起升速度,作业效率高
- 三种速度选择功能,适应不同场合和工况的操作
- 更大容量的蓄电池,实现更长的单班工作时间
- 更高的高位承载能力和稳定性
- Small turning radius makes steering flexible and easy
- Smaller load wheels easier to maneuver into the bottom of the shelf
- With optimal driving and lifting speeds, better working efficiency can be achieved
- With HELI's three speed modes, higher performance can be achieved
- Larger battery capacity for longer single shift time
- Bettering loading capacity and stability at higher lift heights



可维护性 Maintainability

- 车门打开简单,方便整车的检查和调试维修
- 采用螺栓装拆式跨腿,方便维修,节省费用
- Door,top cover and front all can be removed easily to allow great access to all chassis components for quick and easy maintenance
- With bolt type load wheel box installation, outrigger&load wheel maintenance are convenient and less costly

护顶架 Overhead guard

- 大圆弧护顶架,合适角度的栅板,顶部视野开阔
- 与车体悬浮式连接,缓冲坠物冲击
- 无前立柱,改善作业视野
- The large arc shape of the overhead guard and properly angled grid slats greatly increase operator's upward view
- Rear leg connected to the chassis suspension, provide shock buffering from falling loads
- Without front legs, work view is improved



宽视野门架和工作装置 Wide view mast and pantograph

- 标配侧移、倾斜、伸缩功能
- 全新设计的宽视野门架和工作装置
- 伸出和缩回过程中都可获得更宽阔的视野
- 起升和下降缓冲
- 货叉收缩缓冲
- Comes standard with shift, tilt and reach funtions
- Newly designed wide-view mast
- Pantograph maximize operator's view effectively when forks are retracted and extended
- Lift cylinder has end stroke cushions,while the controller provides in transit butters to ensure smooth lifting and lowering funtions
- The controller also provides in transit and end stroke butters for smooth the fork retract funtion



舒适的驾驶舱 Comfortable operator's compartment

- 舒适的上车台阶高度，保证上车的舒适性，避免了托盘搬运车货叉撞入驾驶舱的风险
- 配有腰部及肘部支撑
- 减振站板，舒缓疲劳
- 司机的身体受到车体的全面保护
- Comfortable step height provides ease of access to operator's compartment while providing safety from the risk of pallet truck forks tip intrusion
- Padded waist and arm supports for operator's comfort
- Cushioned floorboard helps reduce operator for fatigue
- The operator's body is fully protected whthin the truck contours

显示器 Operator display panel

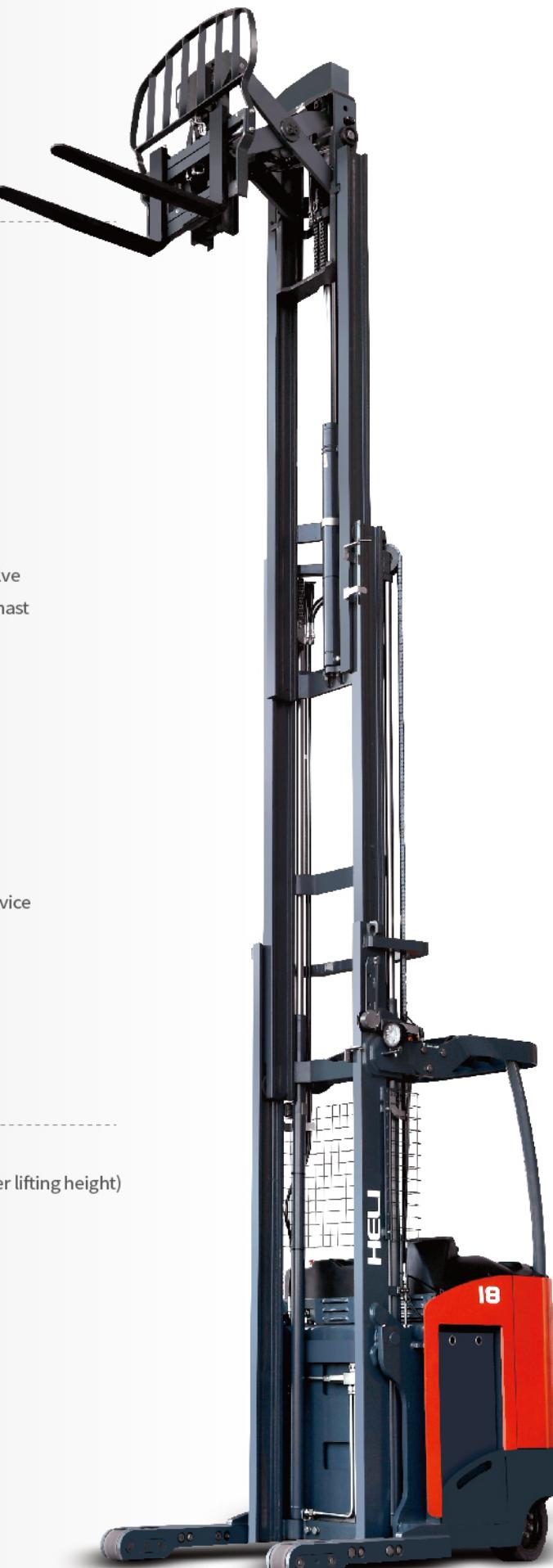
- 高品质的控制仪表可清晰地显示重要的运行参数
- 180度转角位置显示
- 电池电量情况与故障代码显示
- 选择工作模式
- 小时计
- 工时显示
- High quality meter displaying clearly the important operating data
- 180°steering angle position display
- Display of battery power and fault code
- Working mode selection
- Hour meter
- Labor hour display

标准配置 Standard configuration

AC行走电机	AC travelling motor
AC起升电机	AC lifting motor
AC转向电机	AC steering motor
ZAPI行走电机控制器	ZAPI travelling motor controller
ZAPI起升电机控制器	ZAPI lifting motor controller
ZAPI转向电机控制器	ZAPI steering motor controller
电磁制动	Electromagnetic brake
DC/DC转换器	DC/DC converter
低噪声齿轮泵	Low noise gear pump
电磁比例阀	Electromagnetic proportional valve
5330mm三节全自由门架	5330mm three stage full free lift mast
整体式工作装置	Integral pantograph
标准货叉	Standard fork
护顶架	Overhead guard
挡货架	Load backrest
聚氨酯轮胎	Polyurethane tire
LED液晶仪表	LED combined display
前工作灯	Front work light
警示灯	LED warning light
转弯自动减速	Automatic steering slow down device
自动停车制动	Automatic parking brake
随车工具	Operator's tool kit

选用装置 Optional device

其他高度三节全自由门架	Three-stage full free lift mast(other lifting height)
其他长度货叉	Fork extension
起升高度认址	Lifting height pre-selector
监控系统	Monitoring system
其他蓄电池	Other battery
德国HOPPECKER蓄电池组	Germany HOPPECKER battery
意大利FAAM蓄电池组	Italy FAAM battery
蓄电池充电器	Battery charger
颜色用户需求	Custom paint
钢防护网	Operator protection guard
智能车队管理系统	Smart fleet management system



制造商和技术参数(一) MANUFACTURER'S DATA AND DESIGN CHARACTERISTICS (1)

特性 Characteristics					
1.01 制造厂商	Manufacturer		HELI		
1.02 型号	Model		CQD14X2	CQD14X2	CQD14X2
1.03 配置号	Configuration number		GA2RLI	GB2RLI	GC2RLI
1.04 额定承载能力	Load capacity	Q kg	1350	1350	1350
1.05 载荷中心距	Load center distance	C mm	600	600	600
1.06 动力形式	Power model		锂电池 Lithium Battery	锂电池 Lithium Battery	锂电池 Lithium Battery
1.07 驾驶方式	Driving mode		站驾 Stand-on	站驾 Stand-on	站驾 Stand-on
1.08 轴距	Wheel base	L2 mm	1557	1593	1655
1.09 电压	Voltage	V	48	48	48
轮胎 Tyre					
2.01 轮胎类型	Tyre type		聚氨酯 Polyurethane	聚氨酯 Polyurethane	聚氨酯 Polyurethane
2.02 轮胎数量, 驱动轮/承重轮/辅助轮 (x=驱动轮) Wheel number, drive/load/caster (x=drive wheel)			1×/4/2	1×/4/2	1×/4/2
2.03 承载轮尺寸	Wheel size,load	mm	Φ127×95	Φ127×95	Φ127×95
2.04 驱动轮尺寸	Wheel size,drive	mm	Φ330×140	Φ330×140	Φ330×140
2.05 辅助轮尺寸	Wheel size,caster	mm	Φ178×76	Φ178×76	Φ178×76
尺寸 Dimensions					
3.01 标准门架起升高度	Lift height	H mm	5330	5330	5330
3.02 自由起升高度	Free lift	H8 mm	2526	2526	2526
3.03 门架落地高度	Mast height,lowered	H1 mm	1490	1490	1490
3.04 货叉尺寸, 厚度/宽度/长度	Fork size,thickness/width/length	s/e/l mm	35×100×920	35×100×920	35×100×920
3.05 货叉调节宽度	Fork adjusting width	W4 mm	244~724	244~724	244~724
3.06 货叉倾角 (前/后)	Tilt	°	3°/4°	3°/4°	3°/4°
3.07 货叉侧移量	Fork sideshifting	mm	±50	±50	±50
3.08 车体长度 (不含货叉)	Truck body length(fork excluded)	L mm	1954	1990	2052
3.09 车体宽度	Truck body width	W mm	1090	1090	1090
3.10 货叉架宽度	Fork carriage width	W3 mm	842	842	842
3.11 前移距离	Reach distance	S mm	1080	1080	1080
3.12 护顶架高度	Height of overhead guard	H7 mm	2320	2320	2320
3.13 电池底部离地间隙	Battery bottom clearance	H4 mm	180	180	180
3.14 支腿离地间隙	Straddle clearance	H5 mm	50	50	50
3.15 支腿高度	Straddle height	H9 mm	130	130	130
3.16 上车台阶高度	Step height	H6 mm	250	250	250
3.17 最小转弯半径	Minimum turning radius	Wa mm	1838	1874	1936
3.18 驱动轮中心至车架后端	Drive wheel center to truck body rear distance	L1 mm	252	252	252
3.19 货叉前端面至车架后端	Fork front to truck body rear distance	L4 mm	1529	1565	1627
3.20 直角堆垛宽度 (托盘1200Lx1200W)	Aisle width with pallet 1200Lx1200W	Ast mm	2935	2971	3033
3.21 直角堆垛宽度 (托盘1000Lx1000W)	Aisle width with pallet 1000Lx1000W	Ast mm	2713	2749	2811
3.22 支腿内宽(标配)	Straddle inside width (standard)	W2 mm	1008	1008	1008
3.23 支腿外宽(标配)	Straddle outside width (standard)	W1 mm	1300	1300	1300
性能 Performance					
4.01 行驶速度, 满/空载	Travelling speed,with/without load	km/h	10/11	10/11	10/11
4.02 起升速度, 满/空载	Lifting speed,with/without load	mm/s	330/510	330/510	330/510
4.03 下降速度, 满/空载	Lowering speed,with/without load	mm/s	500/500	500/500	500/500
4.04 前移速度, 满/空载	Reach speed,with/without load	mm/s	110/150	110/150	110/150
4.05 最大爬坡能力, 满/空载	Maximum climb capability,with/without load	%	10/15	10/15	10/15
重量 Weight					
5.01 整车自重 (不含蓄电池)	Total weight(without battery)	kg	2750	2770	2790
5.02 空载桥负荷, 驱动轮/承重轮 (货叉后移)	Axle loading,no load (front/rear)	kg	1379/2221	1443/2325	1530/2394
5.03 满载桥负荷, 驱动轮/承重轮 (货叉后移)	Axle loading,loaded (front/rear)	kg	3010/1940	3112/2006	3164/2110
蓄电池 Battery					
6.01 蓄电池电压/额定容量 (5小时放电量)	Battery voltage/capacity k5	V/Ah	48/404	48/542	48/542
6.02 蓄电池最大重量	Minimum battery weight	kg	1066	1270	1406
6.03 蓄电池最小重量	Minimum battery weight	kg	839	998	1134
6.04 蓄电池空间尺寸	Battery department size	mm	1005x428x810	1005x465x810	1005x527x810
电机及控制 Motor and controller					
7.01 驱动电机功率	Driving motor power	kw	7	7	7
7.02 起升电机功率	Lifting motor power	kw	15	15	15
7.03 转向电机功率	Steering motor power	kw	0.6	0.6	0.6
7.04 驱动控制方式	Type of driving control		MOSFET/AC	MOSFET/AC	MOSFET/AC
7.05 起升控制方式	Type of lifting control		MOSFET/AC	MOSFET/AC	MOSFET/AC
7.06 转向控制方式	Type of steering control		MOSFET/AC	MOSFET/AC	MOSFET/AC
7.07 变速箱	Transmission box		合力专用 HELI special	合力专用 HELI special	合力专用 HELI special
7.08 行车制动	Service brake		电制动 Electric	电制动 Electric	电制动 Electric
7.09 停车制动	Parking Brake		自动 Automatic	自动 Automatic	自动 Automatic
7.10 液压系统工作压力	Hydraulic system working pressure	Mpa	21	21	21

注: 蓄电池具体品牌及其容量大小, 请咨询销售或技术人员。 *表中的直角堆垛宽度都是零间隙通道, 需要额外的150毫米或更多以提供更容易的操作。

NOTE: For detailed information about battery, please contact your authorized HELI dealer.

These are "Zero Clearance" aisles in the table and require an additional 150mm or more to be added to provide for easier maneuvering.

制造商和技术参数(二) MANUFACTURER'S DATA AND DESIGN CHARACTERISTICS (2)

特性 Character					
1.01 制造厂商	Manufacturer		HELI		
1.02 型号	Model		CQD16X1	CQD18X1	
1.03 配置号	Configuration number		GB2RLI	GB2RLI	
1.04 额定承载能力	Load capacity	Q kg	1600	1800	
1.05 载荷中心距	Load center distance	C mm	600	600	
1.06 动力形式	Power mode		锂电池 Lithium Battery	锂电池 Lithium Battery	
1.07 驾驶方式	Driving mode		站驾 Stand-on	站驾 Stand-on	
1.08 轴距	Wheel base	L2 mm	1407	1457	
1.09 电压	Power	V	48	48	
轮胎 Tyre	Tyre				
2.01 轮胎类型	Tyre type		聚氨酯 Polyurethane	聚氨酯 Polyurethane	
2.02 轮胎数量, 驱动轮/承重轮/辅助轮 (x=驱动轮) Wheel number, drive/load/caster (x=drive wheel)			1x/4/2	1x/4/2	
2.03 承载轮尺寸	Wheel size, load	mm	Φ127x95	Φ127x95	
2.04 驱动轮尺寸	Wheel size, drive	mm	330x140	330x140	
2.05 辅助轮尺寸	Wheel size, caster	mm	Φ178x76	Φ178x76	
尺寸 Dimensions					
3.01 标准门架起升高度	Lift height	H mm	5330	5330	5330
3.02 自由起升高度	Free lift	H8 mm	1490	1490	1490
3.03 门架落地高度	Mast height, lowered	H1 mm	2526	2526	2526
3.04 货叉尺寸, 厚度/宽度/长度	Fork size, thickness/width/length	s/e/l mm	35×100×920	35×100×920	35×100×920
3.05 货叉调节宽度	Fork adjusting width	W4 mm	200~703	200~703	
3.06 货叉倾角 (前/后)	Tilt	°	3°/4°	3°/4°	
3.07 货叉侧移量	Fork sideshifting	mm	±50	±50	
3.08 车体长度 (不含货叉)	Truck body length(fork excluded)	L mm	1815	1865	
3.09 车体宽度	Truck body width	W mm	1090	1090	
3.10 货叉架宽度	Fork carriage width	W3 mm	842	842	
3.11 前移距离	Reach distance	S mm	600	600	
3.12 护顶架高度	Height of overhead guard	H7 mm	2320	2320	
3.13 电池底部离地间隙	Battery bottom clearance	H4 mm	180	180	
3.14 支腿离地间隙	Straddle clearance	H5 mm	50	50	
3.15 支腿高度	Straddle height	H9 mm	130	130	
3.16 上车台阶高度	Step height	H6 mm	250	250	
3.17 最小转弯半径	Minimum turning radius	Wa mm	1695	1745	
3.18 驱动轮中心至车架后端	Drive wheel center to truck body rear distance	L1 mm	252	252	
3.19 货叉前端面至车架后端	Fork front to truck body rear distance	L4 mm	1396	1396	
3.20 直角堆垛宽度 (托盘1200Lx1200W)	Aisle width with pallet 1200Lx1200W	Ast mm	2771	2812	
3.21 直角堆垛宽度 (托盘1000Lx1000W)	Aisle width with pallet 1000Lx1000W	Ast mm	2550	2591	
3.22 支腿内宽(标配)	Straddle inside width (standard)	W2 mm	1008	1008	
3.23 支腿外宽(标配)	Straddle outside width (standard)	W1 mm	1300	1300	
性能 Performance					
4.01 行驶速度, 满/空载	Travelling speed,with/without load	km/h	10.5/11.8	10.5/11.8	
4.02 起升速度, 满/空载	Lifting speed,with/without load	mm/s	330/510	330/510	
4.03 下降速度, 满/空载	Lowering speed,with/without load	mm/s	500/500	500/	