



HELI product range: 1-70t internal combustion forklifts; 0.6-55t electric forklifts; warehouse products such as reach trucks, pallet trucks and stackers; AGV and intelligent logistics solutions; Diversified products such as reach stacker, container handlers, tractors, explosion-proof forklifts, and rough-terrain forklifts.



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

www.heliforklift.net

HELI

12-18 t G3 series Lithium-ion Counterbalanced Forklift



CPD120-A19LLIG3-09
CPD140/150/160/180-A19LLIG3-09

CPD135/150/160/180-A19LLIG3-06
CPD140/150/160/180-A19LLIG3-12

Design&Print:Fokell Printing 20260716

*With more than 60 years
of Heli technical precipitation*

HELI collaborates with the
strengths of others and creates
high-quality products.



HELI 12-18t G3 series electric forklifts are widely used in factories, stations, ports, docks and ship holds. They handle extra-heavy and oversized goods, as well as transport and stack empty containers of certain models.

A

CHARACTERISTIC

1

MATURE PLATFORM

ENSURE THE DURABILITY AND RELIABILITY OF PRODUCTS

60+ Years of Craftsmanship,
HELI Keeps Innovating

HELI's heavy-duty lithium electric forklifts are built on a proven platform. Our self-made standardized integrated battery box fits multiple models of different tonnages, which greatly cuts spare part and management costs.



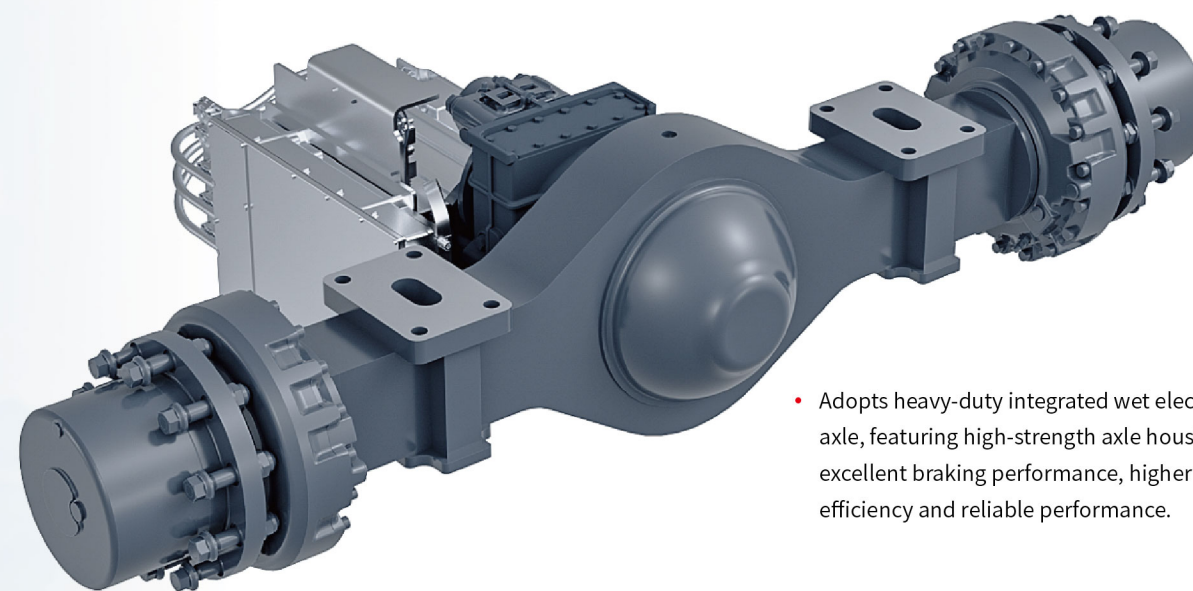
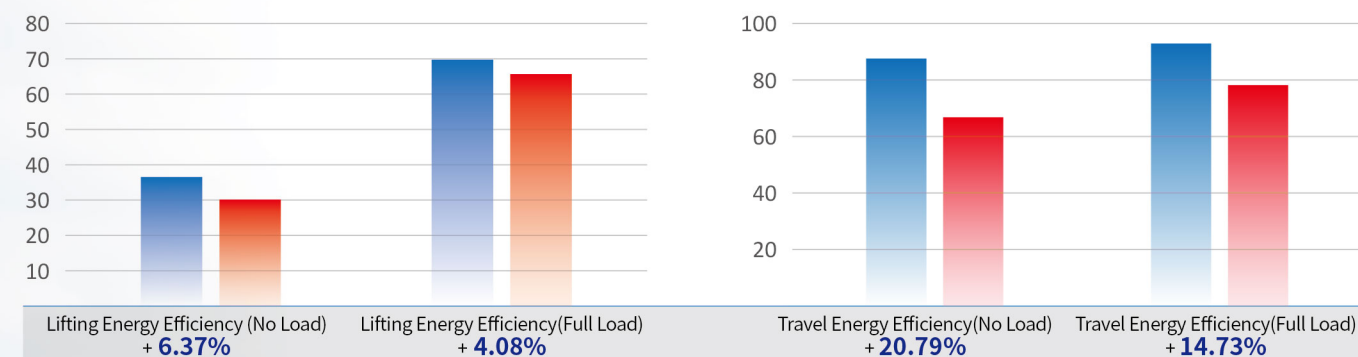
2

POWERFUL PERFORMANCE

THE MAX OVERALL VEHICLE ENERGY EFFICIENCY IS IMPROVED BY OVER 20% COMPARED WITH THE G SERIES

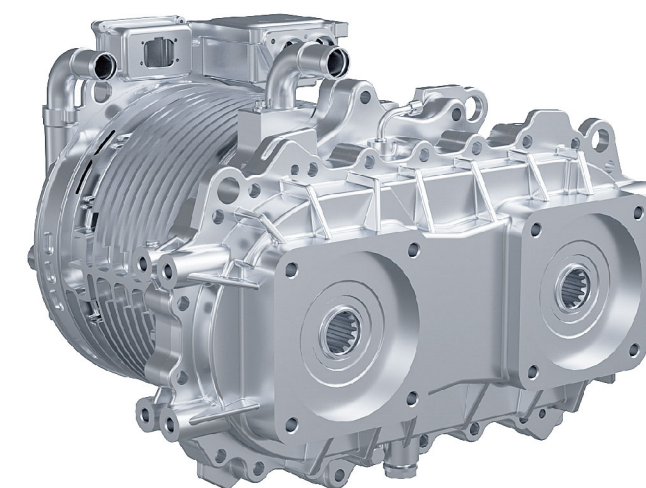
- Superior performance and higher efficiency compared with G Series electric forklifts.

G Series Heavy-Duty Lithium Forklift
G3 Series Heavy-Duty Lithium Forklift



- Adopts heavy-duty integrated wet electric drive axle, featuring high-strength axle housing, excellent braking performance, higher handling efficiency and reliable performance.

- Equipped with high-speed permanent magnet synchronous motor, delivering high operating efficiency, rapid response and outstanding energy-saving performance.
- The hydraulic system boasts superior performance, excellent maneuverability, high precision and stable reliability.

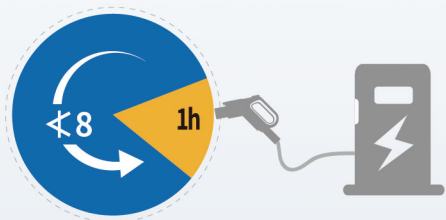


3

WORRY-FREE ENDURANCE

COMPATIBLE WITH NEW ENERGY VEHICLE CHARGING PILES

Lithium batteries with various capacities are optional to meet diverse customer demands. A 1-hour dual-gun charging session supports up to 8 hours of operation under standard working conditions.

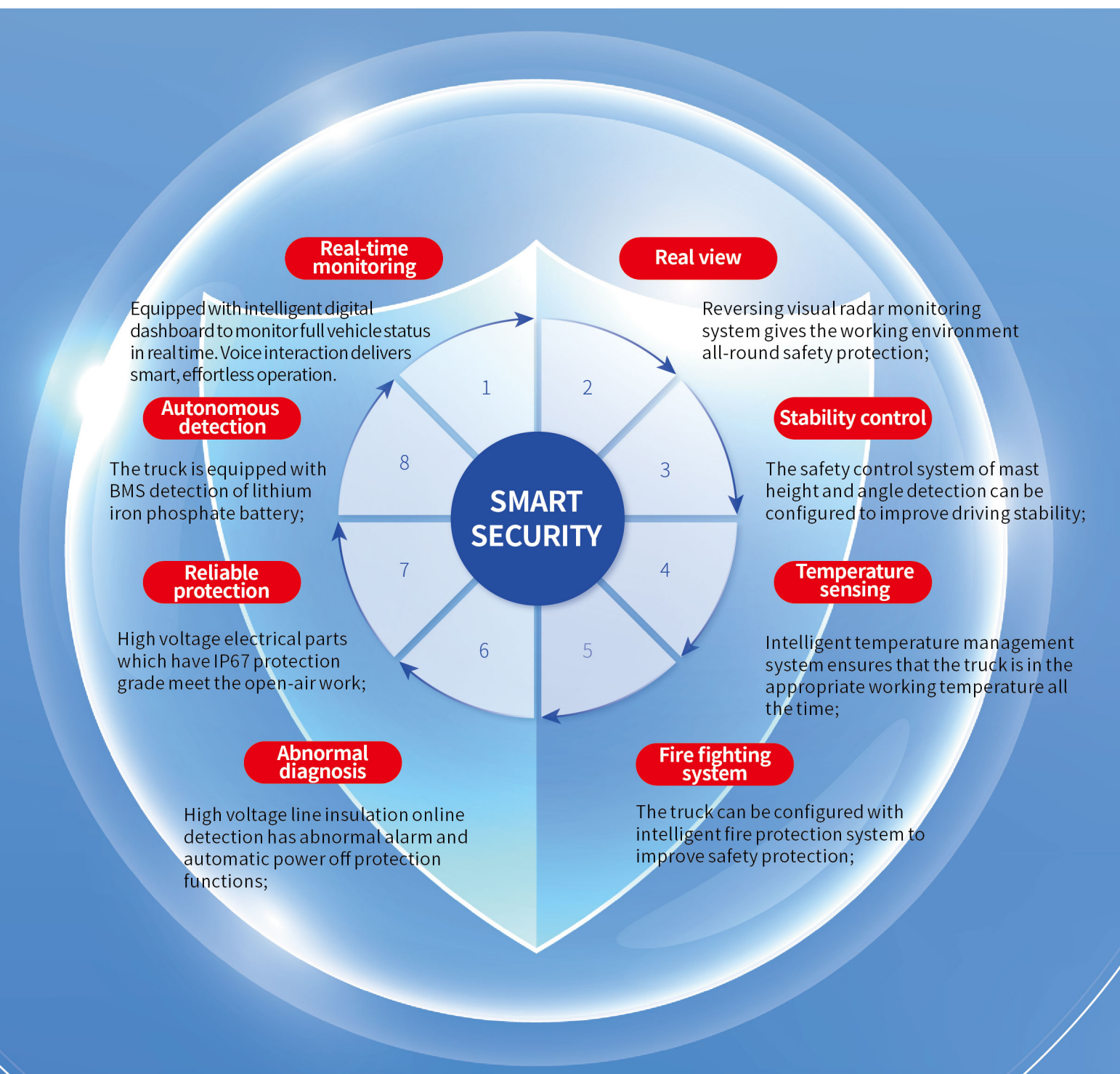


4

INTELLIGENT SAFETY

8-LAYER SAFETY PROTECTION

- The vehicle's high-voltage circuit supports online insulation monitoring to track overall vehicle conditions in real time.
- High-voltage electrical components carry IP67 protection rating. Equipped with an intelligent thermal management system, the forklift adapts to all-weather outdoor operations.
- Voice interaction delivers smart, effortless operation.





5

COMFORT & ECO-FRIENDLINESS

RELIEVE FATIGUE FROM LONG-HOUR DRIVING, SUSTAIN CONSISTENT FOCUS DURING OPERATION



Ergonomic Cabin

Supportive, shock-absorbing and adjustable, designed for extended shifts.



Integrated Control Zone

Shorter hand movement range with frequently used controls centralized.



Extra-Large Display Interface

Vehicle status, battery level and alarm information all visible on a single screen.



6

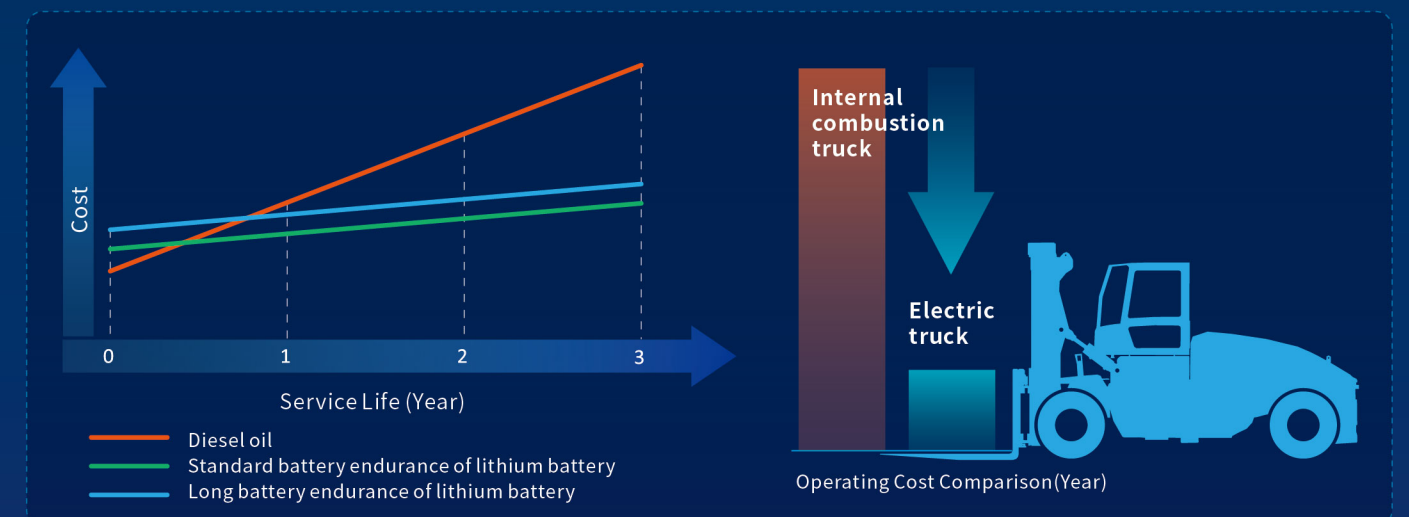
EASY MAINTENANCE

TOTAL COST OF OPERATION IS ONLY 27% OF INTERNAL COMBUSTION FORKLIFTS

- Large tilting opening angle of cab provides ample maintenance access space.
- Equipped with new built-in oil suction filter in fuel tank for convenient filter element replacement.
- Self-developed HELI integrated battery box with sealed housing and plug-in connectors, enabling safer and simpler operation & maintenance.



- Equipped with kinetic energy recovery technology to recapture energy and recharge the battery, further boosting system efficiency and vehicle endurance. The annual total operating cost of electric forklifts is only **27%** of internal combustion forklifts.

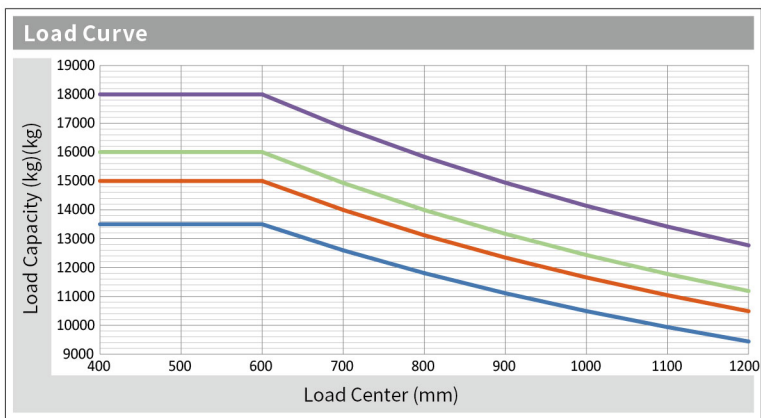
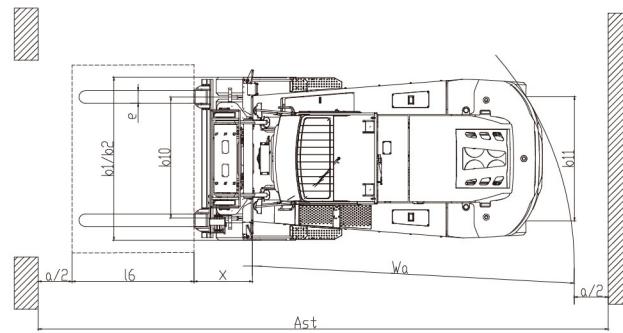
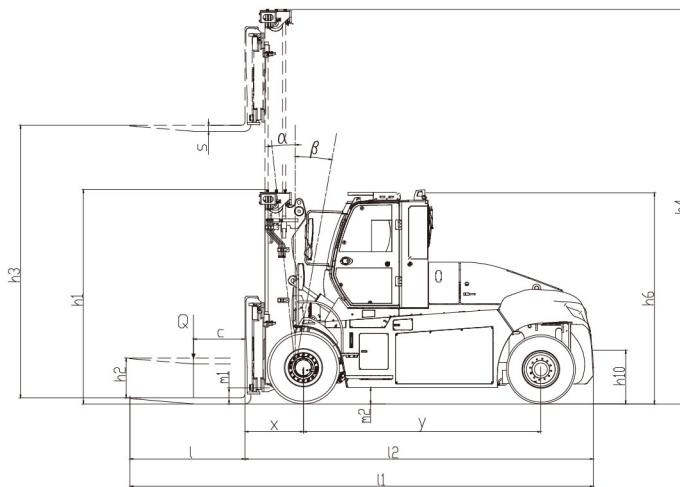


* Data may fluctuate due to varying working conditions, electricity and fuel price changes; figures are for reference only.

TECHNICAL PARAMETERS

Manufacturer & Technical Specifications (Table 1)

Characteristics							
1.1	Manufacturer		HELI				
1.2	Model		CPD120-A19LLIG3-09	CPD135-A19LLIG3-06	CPD150-A19LLIG3-06	CPD160-A19LLIG3-06	CPD180-A19LLIG3-06
1.3	Power Type		LFP Battery				
1.4	Operation Type		Sit-down Type				
1.5	Rated Load Capacity	Q(kg)	12000	13500	15000	16000	18000
1.6	Load Center Distance	c (mm)	900	600			
1.7	Front Overhang	x (mm)	795				
1.8	Wheelbase	y (mm)	3250				
Weight							
2.1	Overall Weight	kg	18900	18900	19500	19950	20500
Tyres / Chassis							
3.1	Tyre Type		Pneumatic Tyres				
3.2	Front Tyre Size		12.00-20-20PR				
3.3	Rear Tyre Size		12.00-20-20PR				
3.4	Number of Front / Rear Wheels		4/2				
3.5	Front Track Width	b10 (mm)	1888				
3.6	Rear Track Width	b11 (mm)	2120				
Dimensions							
4.1	Mast Tilt Angle (Forward / Backward)	α/β (°)	6/12				
4.2	Mast Overall Height (Forks on ground, mast vertical)	h1(mm)	3425				
4.3	Overall Vehicle Height	h15 (mm)	3425				
4.4	Free Lift Height	h2 (mm)	85				
4.5	Standard Lift Height	h3 (mm)	3000				
4.6	Max Working Height	h4 (mm)	4925				
4.7	Cab Height	h6 (mm)	3357				
4.8	Height of Drawbar Pin	h10 (mm)	670				
4.9	Overall Length (With Forks)	l1(mm)	6715	6265			
4.10	Overall Length (Without Forks)	l2 (mm)	4895				
4.11	Vehicle Width / Wheel Width	b1/b2 (mm)	2600/2600				
4.12	Fork Dimensions	s/e/l (mm)	85×200×1820	85×200×1370			
4.13	Carriage Width	b3 (mm)	2560				
4.14	Ground Clearance (Full Load, At Mast)	m1 (mm)	260				
4.15	Ground Clearance (Full Load, At Wheelbase Center)	m2 (mm)	255				
4.16	Aisle Width for Right-Angle Stacking	Ast (mm)	5395+l6				
4.17	Outside Min Turning Radius	Wa (mm)	4400				
Performance							
5.1	Travel Speed (Full Load / No Load)	km/h	25/25				
5.2	Lifting Speed (Full Load / No Load)	mm/s	370/400				
5.3	Lowering Speed (Full Load / No Load)	mm/s	400/400				
5.4	Max Traction Force (Full Load / No Load)	kN	105/-				
5.5	Max Gradeability (Full Load / No Load)	%	25/25				
5.6	Service Brake		Multi-disc Wet Hydraulic Brake (WDB)				
5.7	Parking Brake		Hydraulic Release Spring Brake				
Motors							
6.1	Rated Power of Traction Motor	kW	147				
6.2	Rated Power of Lifting Motor	kW	105				
6.3	Battery Voltage / Nominal Capacity	(V)/(Ah)	608/346				
Others							
7.1	Hydraulic System Operating Pressure	bar	225				
7.2	Attachment Operating Pressure	bar	140				
7.3	Sound Pressure Level at Operator Position	dB(A)	73				



— 13.5t-600
— 15t-600
— 16t-600
— 18t-600

NOTE:
The load center is measured from the front face of the forks. The reference point of standard load center refers to the geometric center of a cube with 1200 mm side length. The rated load capacity will decrease if the mast is tilted forward, non-standard forks are used, or load exceeding the standard width are carried. This load capacity curve enables quick lookup of the available lifting capacity at different load center distances.

Mast Parameters for CPD120-A19LLIG3-09, CPD135/150/160-A19LLIG3-06

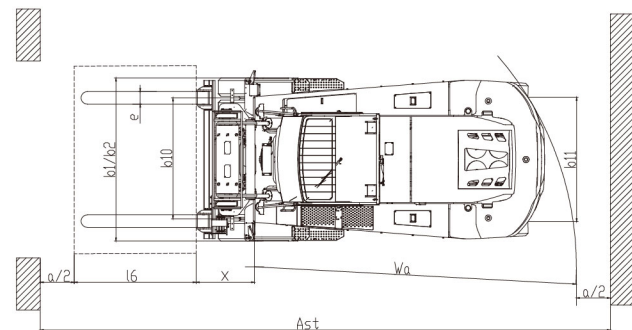
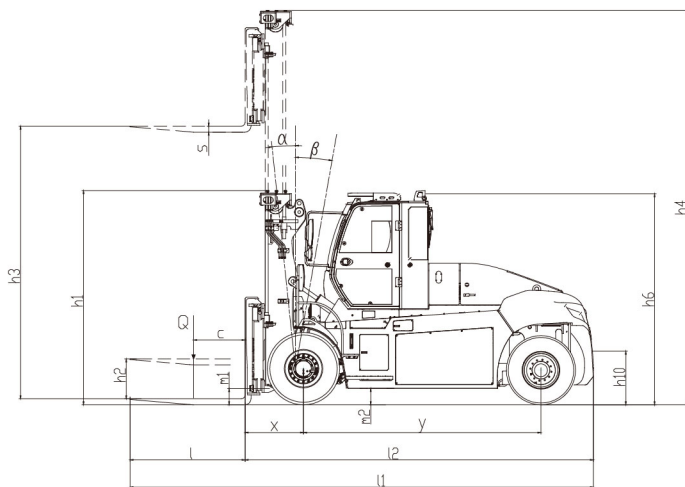
Mast Model	Max Lift Height (mm)	Load Capacity (Load Center 900 mm) (kg)	Load Capacity (Load Center 600 mm) (kg)				Overall Mast Height (Forks Lowered to Ground) (mm)	Max Extended Mast Height (mm)	Mast Tilt Angle α/β (°)
		CPD120	CPD135	CPD150	CPD160				
M300	3000	12000	13500	15000	16000	3425	4925	6/12	
M350	3500	12000	13500	15000	16000	3495	5245	6/12	
M400	4000	12000	13500	15000	16000	3745	5745	6/12	
M450	4500	12000	13500	15000	16000	3995	6245	6/12	
M500	5000	12000	13500	15000	16000	4295	6795	6/6	
M550	5500	11000	12500	14000	15000	4545	7295	3/6	
M600	6000	10000	11500	13000	14000	4845	7845	3/6	
M650	6500	9000	10500	12000	13000	5095	8345	3/6	
M700	7000	8000	9500	11000	12000	5345	8845	3/6	
M750	7500	7000	8500	10000	11000	5645	9395	3/6	

Mast Parameters for CPD180-A19LLIG3-06

Mast Model	Max Lift Height (mm)	Load Capacity (Load Center 600 mm) (kg)	Overall Mast Height (Forks Lowered to Ground) (mm)	Max Extended Mast Height (mm)	Mast Tilt Angle α/β (°)
		CPD180			
M300	3000	18000	3425	4925	6/12
M350	3500	18000	3530	5280	6/12
M400	4000	18000	3780	5780	6/12
M450	4500	18000	4030	6280	6/12
M500	5000	18000	4280	6780	6/6
M550	5500	17000	4530	7280	3/6
M600	6000	16000	4780	7780	3/6
M650	6500	15000	5030	8280	3/6
M700	7000	14000	5280	8780	3/6

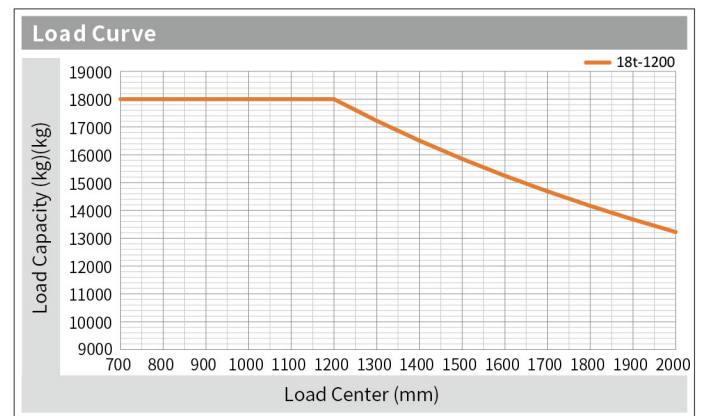
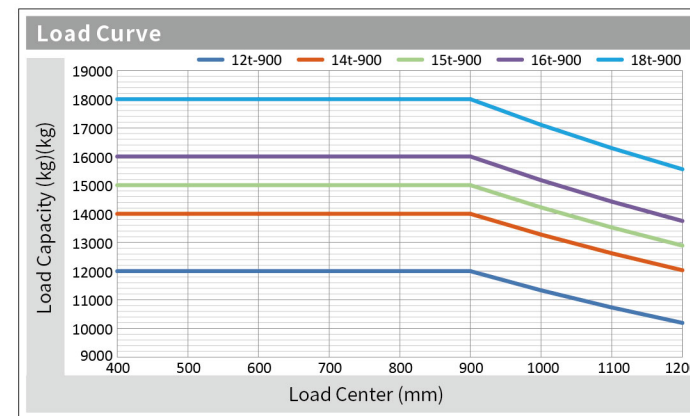
Manufacturer & Technical Specifications (Table 2)

Characteristics					
1.1	Manufacturer		HELI		
1.2	Model		CPD140-A19LLIG3-09	CPD150-A19LLIG3-09	CPD160-A19LLIG3-09 CPD180-A19LLIG3-09
1.3	Power Type		LFP Battery		
1.4	Operation Type		Sit-down Type		
1.5	Rated Load Capacity	Q(kg)	14000	15000	16000 18000
1.6	Load Center Distance	c (mm)	900		
1.7	Front Overhang	x (mm)	930		1010
1.8	Wheelbase	y (mm)	3750		
Weight					
2.1	Overall Weight	kg	21500	22000	22800 24000
Tyres / Chassis					
3.1	Tyre Type		Pneumatic Tyres		
3.2	Front Tyre Size		12.00-20-20PR		12.00-24-20PR
3.3	Rear Tyre Size		12.00-20-24PR		12.00-24-20PR
3.4	Number of Front / Rear Wheels		4/2		
3.5	Front Track Width	b10 (mm)	1888		
3.6	Rear Track Width	b11 (mm)	2120		
Dimensions					
4.1	Mast Tilt Angle (Forward / Backward)	α/β (°)	6/12		
4.2	Mast Overall Height (Forks on ground, mast vertical)	h1(mm)	3340		3385
4.3	Overall Vehicle Height	h15 (mm)	3357		3385
4.4	Free Lift Height	h2 (mm)	95		
4.5	Standard Lift Height	h3 (mm)	3000		
4.6	Max Working Height	h4 (mm)	4840		4885
4.7	Cab Height	h6 (mm)	3357		3400
4.8	Height of Drawbar Pin	h10 (mm)	650		
4.9	Overall Length (With Forks)	l1(mm)	7350		7430
4.10	Overall Length (Without Forks)	l2 (mm)	5530		5610
4.11	Vehicle Width / Wheel Width	b1/b2 (mm)	2600/2600		
4.12	Fork Dimensions	s/e/l (mm)	95×200×1820		
4.13	Carriage Width	b3 (mm)	2560		
4.14	Ground Clearance (Full Load, At Mast)	m1 (mm)	250		
4.15	Ground Clearance (Full Load, At Wheelbase Center)	m2 (mm)	230		
4.16	Aisle Width for Right-Angle Stacking	Ast (mm)	6230+l6		6310+l6
4.17	Outside Min Turning Radius	Wa (mm)	5100		
Performance					
5.1	Travel Speed (Full Load / No Load)	km/h	25/25		
5.2	Lifting Speed (Full Load / No Load)	mm/s	370/400		
5.3	Lowering Speed (Full Load / No Load)	mm/s	400/400		
5.4	Max Traction Force (Full Load / No Load)	kN	122/-		
5.5	Max Gradeability (Full Load / No Load)	%	25/25		
5.6	Service Brake		Multi-disc Wet Hydraulic Brake (WDB)		
5.7	Parking Brake		Hydraulic Release Spring Brake		
Motors					
6.1	Rated Power of Traction Motor	kW	147		
6.2	Rated Power of Lifting Motor	kW	105		
6.3	Battery Voltage / Nominal Capacity	(V)/(Ah)	608/346		
Others					
7.1	Hydraulic System Operating Pressure	bar	225		
7.2	Attachment Operating Pressure	bar	140		
7.3	Sound Pressure Level at Operator Position	dB(A)	73		



Manufacturer & Technical Specifications (Table 3)

Characteristics						
1.1	Manufacturer		HELI			
1.2	Model		CPD140-A19LLIG3-12	CPD150-A19LLIG3-12	CPD160-A19LLIG3-12	CPD180-A19LLIG3-12
1.3	Power Type		LFP Battery			
1.4	Operation Type		Sit-down Type			
1.5	Rated Load Capacity	Q(kg)	14000	15000	16000	18000
1.6	Load Center Distance	c (mm)	1200			
1.7	Front Overhang	x (mm)	935			1015
1.8	Wheelbase	y (mm)	3750			
Weight						
2.1	Overall Weight	kg	23000	23800	24500	28000
Tyres / Chassis						
3.1	Tyre Type		Pneumatic Tyres			
3.2	Front Tyre Size		12.00-20-20PR			12.00-24-24PR
3.3	Rear Tyre Size		12.00-20-24PR			12.00-24-24PR
3.4	Number of Front / Rear Wheels		4/2			
3.5	Front Track Width	b10 (mm)	1888			
3.6	Rear Track Width	b11 (mm)	2120			
Dimensions						
4.1	Mast Tilt Angle (Forward / Backward)	α/β (°)	6/12			
4.2	Mast Overall Height (Forks on ground, mast vertical)	h1(mm)	3340			3935
4.3	Overall Vehicle Height	h15 (mm)	3357			3935
4.4	Free Lift Height	h2 (mm)	100			
4.5	Standard Lift Height	h3 (mm)	3000			4000
4.6	Max Working Height	h4 (mm)	4840			5935
4.7	Cab Height	h6 (mm)	3357			3400
4.8	Height of Drawbar Pin	h10 (mm)	650			
4.9	Overall Length (With Forks)	l1(mm)	7975			8055
4.10	Overall Length (Without Forks)	l2 (mm)	5535			5615
4.11	Vehicle Width / Wheel Width	b1/b2 (mm)	2600/2600			
4.12	Fork Dimensions	s/e/l (mm)	100×200×2440			100×250×2440
4.13	Carriage Width	b3 (mm)	2560			
4.14	Ground Clearance (Full Load, At Mast)	m1 (mm)	250			
4.15	Ground Clearance (Full Load, At Wheelbase Center)	m2 (mm)	230			
4.16	Aisle Width for Right-Angle Stacking	Ast (mm)	6235+l6			6315+l6
4.17	Outside Min Turning Radius	Wa (mm)	5100			
Performance						
5.1	Travel Speed (Full Load / No Load)	km/h	25/25			
5.2	Lifting Speed (Full Load / No Load)	mm/s	370/400			
5.3	Lowering Speed (Full Load / No Load)	mm/s	400/400			
5.4	Max Traction Force (Full Load / No Load)	kN	122/-			97/-
5.5	Max Gradeability (Full Load / No Load)	%	25/25			18/25
5.6	Service Brake		Multi-disc Wet Hydraulic Brake (WDB)			
5.7	Parking Brake		Hydraulic Release Spring Brake			
Motors						
6.1	Rated Power of Traction Motor	kW	147			
6.2	Rated Power of Lifting Motor	kW	105			
6.3	Battery Voltage / Nominal Capacity	(V)/(Ah)	608/346			
Others						
7.1	Hydraulic System Operating Pressure	bar	225			
7.2	Attachment Operating Pressure	bar	140			
7.3	Sound Pressure Level at Operator Position	dB(A)	73			



NOTE: The load center is measured from the front face of the forks. The reference point of standard load center refers to the geometric center of a cube load block with side length of 1800/2400 mm. The rated load capacity will decrease if the mast is tilted forward, non-standard forks are used, or loads exceeding the standard width are carried. This load capacity curve enables quick lookup of available lifting capacity at different load center distances.

Mast Parameters forCPD140/150/160-A19LLIG3-09/12							
Mast Model	Max Lift Height (mm)	Load Capacity (Load Center 900/1200 mm) (kg)			Overall Mast Height (Forks Lowered to Ground) (mm)	Max Extended Mast Height (mm)	Mast Tilt Angle α/β (°)
		CPD140	CPD150	CPD160			
M300	3000	14000	15000	16000	3340	4840	6/12
M350	3500	14000	15000	16000	3590	5340	6/12
M400	4000	14000	15000	16000	3840	5840	6/12
M450	4500	14000	15000	16000	4090	6340	6/12
M500	5000	14000	15000	16000	4340	6840	6/6
M550	5500	13000	14000	15000	4590	7340	3/6
M600	6000	12000	13000	14000	4840	7840	3/6
M650	6500	11000	12000	13000	5090	8340	3/6
M700	7000	10000	11000	12000	5340	8840	3/6

Mast Parameters forCPD180-A19LLIG3-09					
Mast Model	Max Lift Height (mm)	Load Capacity (Load Center 900 mm) (kg)	Overall Mast Height (Forks Lowered to Ground) (mm)	Max Extended Mast Height (mm)	Mast Tilt Angle α/β (°)
		CPD180			
M300	3000	18000	3385	4885	6/12
M350	3500	18000	3685	5385	6/12
M400	4000	18000	3885	5885	6/12
M450	4500	18000	4135	6385	6/12
M500	5000	18000	4385	6885	6/6
M550	5500	17000	4635	7385	3/6
M600	6000	16000	4885	7885	3/6

Mast Parameters forCPD180-A19LLIG3-12					
Mast Model	Max Lift Height (mm)	Load Capacity (Load Center 1200 mm) (kg)	Overall Mast Height (Forks Lowered to Ground) (mm)	Max Extended Mast Height (mm)	Mast Tilt Angle α/β (°)
		CPD180			
M400	4000	18000	3935	5935	6/12
M450	4500	18000	4185	6435	6/12
M500	5000	18000	4485	6985	6/6
M550	5500	17000	4735	7485	3/6
M600	6000	16000	5035	8035	3/6
M650	6500	15000	5285	8535	3/6
M600	6000	16000	4885	7885	3/6

Option List					
Configuration Category	Standard Equipment	Optional Equipment	Configuration Category	Standard Equipment	Optional Equipment
Safety Category	Card Swipe Start	Face Recognition	Tyres	Pneumatic Tyres	Solid Rubber Tyres
	Full OPS System	Australia-spec OPS			Front Solid + Rear Pneumatic Tyres
	Lift & Tilt Hydraulic Lock Valve	/			Front Pneumatic + Rear Solid Tyres
	Battery Water-Cooled Heat Dissipation System	/	Mast / Attachment Category	Wide View Standard Mast	Full Free Lift Mast
	Corner Speed Limiter	/			Fork Spreader Bar
	Equipped with Fire Extinguisher	Built-in Battery Fire Suppression System			Fork Sleeves
	Electric Horn	/			Lifting Jib
	Reverse Buzzer	Voice Reverse Horn			Round Log Clamp
		Steering & Reverse Voice Horn			...
	Visual Reverse Radar	360° Camera System (with Radar)	Lighting Category	LED Front & Rear Working Lights	Square Blue / Red Perimeter Warning Lights
		360° Camera System (without Radar)		Front & Rear Combination Lamps	Strip Blue / Red Perimeter Warning Lights
AI-Enabled 360° Camera System		Turn Signal Lights		Magnetic LED Flashing Warning Light	
Emergency Cut-Off Switch (E-STOP)	/	Magnetic LED Rotary Warning Light with Buzzer		Magnetic LED Flashing Warning Light with Buzzer	
Comfort Category	Full Suspension Seat	/	Others	608V/346Ah	618V/302Ah
	1× USB Port	/			637V/400Ah
	Electric Proportional Control Lever	Thumb Switch			618V/456Ah
	Radio (Bluetooth & USB Compatible)	/			656V/536Ah
	High-Voltage Heating & Cooling A/C	Cooling-Only A/C		Drawbar Pin	Weighing System
		Heating & Cooling / Cooling-Only (AU & EU Exclusive)		FICS HELI Basic Vehicle IoT Platform (China)	Self-Lubrication System
	Electric Tilting Cab	/			
	Tilt-Adjustable Steering Column	/			

Optional Attachments



- **Side Shift & Fork Positioner**
Combines fork spacing adjustment and side shift functions to boost operation efficiency



- **Fork arm extension**
Extend fork length effectively, ideal for transporting oversize goods



- **Boom**
Designed for coiled materials such as steel coils and wire rolls



- **Lifting Jib**
Safe and efficient for hoisting cargo



- **Pipe & Bar Lifting Attachment**
Suitable for lifting bundled steel rebars, steel pipes and similar materials