

### 2.5t A Series High Performance Mast Specification (Standard mast types CPD25-AC4H)

Type	Model	Lift	Lowered mast height	Free lift (with backrest)	Extended mast height without backrest	Extended mast height with backrest	Mast tilt forward/backward	Load capacity at		
								500mm LC (mast vertical to ground)	600mm LC (mast vertical to ground)	24in LC (mast vertical to ground)
		h3(mm)	h1(mm)	h2(mm)	h4(mm)	h4'(mm)	α/β (°)	kg	kg	lbs
Duplex wide view mast	#M250	2500	1585	140	2643	3046	5/8	2500	2258	5000
	#M270	2700	1835	140	3143	3546	5/8	2500	2258	5000
	#M300	3000	1935	140	3343	3746	5/8	2500	2258	5000
	#M330	3300	2085	140	3643	4046	5/8	2500	2258	5000
	#M350	3500	2235	140	4143	4546	5/8	2500	2258	5000
	#M360	3600	2435	140	4243	4646	5/8	2500	2258	5000
	#M400	4000	2685	140	4643	5046	5/8	2500	2258	5000
	#M430	4300	2835	140	4943	5346	5/5	2500	2258	5000
	#M450	4500	2935	140	5143	5546	5/5	2500	2258	5000
	#M480	4800	3085	140	5443	5846	5/5	2500	2258	5000
#M500	5000	3185	140	5643	6046	5/5	2500	2258	5000	
Duplex full-free lifting mast	#U250	2500	3546	739/1120	3165	3546	5/8	2500	2258	5000
	#U270	2700	3746	839/1220	3365	3746	5/8	2500	2258	5000
	#U300	3000	4046	989/1370	3665	4046	5/8	2500	2258	5000
	#U330	3300	4346	1139/1520	3965	4346	5/8	2500	2258	5000
	#U360	3600	4646	1289/1670	4265	4646	5/8	2500	2258	5000
	#U400	4000	5046	1539/1920	4665	5046	5/8	2500	2258	5000
	#N430	4300	2135	1090/1470	4965	5346	5/5	2500	2237	5000
	#N450	4500	2185	1140/1520	5165	5546	5/5	2500	2237	5000
	#N480	4800	2285	1240/1620	5465	5846	5/5	2500	2237	5000
	#N500	5000	2385	1340/1720	5665	6046	5/5	2500	2237	5000
Triplex full-free lifting mast	#N550	5500	2585	1540/1920	6165	6546	5/5	2500	2237	5000
	*N600	6000	2835	1790/2170	6665	7046	5/5	2000	1784	4000
	*N650	6500	3085	2040/2400	7185	7546	3.5/3.5	1950	1739	3900
	*N700	7000	3335	2290/2500	7835	8046	3.5/3.5	1750	1557	3500
	*N750	7500	3535	2490/2700	8335	8546	3.5/3.5	1400	1240	2800

# means do not lose any capacity. \* means lose some capacity.

### 3.0t A Series High Performance Mast Specification (Standard mast types CPD30-AC4H)

Type	Model	Lift	Lowered mast height	Free lift	Extended mast height without backrest	Extended mast height with backrest	Mast tilt forward/backward	Load capacity at		
								500mm LC (mast vertical to ground)	600mm LC (mast vertical to ground)	24in LC (mast vertical to ground)
		h3(mm)	h1(mm)	h2(mm)	h4(mm)	h4'(mm)	α/β (°)	kg	kg	lbs
Duplex wide view mast	#M250	2500	1985	145	3338	3642	5/8	3000	2712	6000
	#M270	2700	2085	145	3538	3842	5/8	3000	2712	6000
	#M300	3000	2235	145	3838	4142	5/8	3000	2712	6000
	#M330	3300	2385	145	4138	4442	5/8	3000	2712	6000
	#M350	3500	2485	145	4338	4642	5/8	3000	2712	6000
	#M360	3600	2535	145	4438	4742	5/8	3000	2712	6000
	#M400	4000	2835	145	4838	5142	5/8	3000	2712	6000
	#M430	4300	2985	145	5138	5442	5/5	3000	2712	6000
	#M450	4500	3085	145	5338	5642	5/5	3000	2712	6000
	#M480	4800	3235	145	5638	5942	5/5	3000	2712	6000
#M500	5000	3335	145	5838	6142	5/5	3000	2712	6000	
Duplex full-free lifting mast	#U250	2500	1885	743/1025	4285	4842	5/8	3000	2712	6000
	#U270	2700	1985	843/1125	4585	5142	5/8	3000	2712	6000
	#U300	3000	2135	993/1275	5035	5592	5/8	3000	2712	6000
	#U330	3300	2285	1143/1425	5485	6042	5/8	3000	2712	6000
	#U360	3600	2435	1293/1575	5935	6492	5/8	3000	2712	6000
	#U400	4000	2685	1543/1825	6585	7092	5/8	3000	2712	6000
	#N430	4300	2135	993/1350	5085	5442	5/5	3000	2661	6000
	#N450	4500	2185	1043/1400	5285	5642	5/5	3000	2661	6000
	*N480	4800	2285	1143/1500	5585	5942	5/5	2950	2616	5900
	*N500	5000	2385	1243/1600	5785	6142	5/5	2900	2570	5800
Triplex full-free lifting mast	*N550	5500	2585	1443/1800	6285	6642	5/5	2700	2389	5400
	*N600	6000	2835	1693/2050	6785	7142	5/5	2150	1890	4300
	*N650	6500	3085	1943/2300	7285	7642	3.5/3.5	2050	1799	4100
	*N700	7000	3335	2193/2500	7835	8142	3.5/3.5	1850	1618	3700
	*N750	7500	3535	2393/2700	8335	8642	3.5/3.5	1500	1300	3000

# means do not lose any capacity. \* means lose some capacity.

### 3.5t A Series High Performance Mast Specification (Standard mast types CPD35-AC4H)

Type	Model	Lift	Lowered mast height	Free lift	Extended mast height without backrest	Extended mast height with backrest	Mast tilt forward/backward	Load capacity at		
								500mm LC (mast vertical to ground)	600mm LC (mast vertical to ground)	24in LC (mast vertical to ground)
		h3(mm)	h1(mm)	h2(mm)	h4(mm)	h4'(mm)	α/β (°)	kg	kg	lbs
Duplex wide view mast	#M250	2500	1985	150	3338	3642	5/8	3165	3165	7000
	#M270	2700	2085	150	3538	3842	5/8	3500	3165	7000
	#M300	3000	2235	150	3838	4142	5/8	3165	3165	7000
	#M330	3300	2385	150	4138	4442	5/8	3500	3165	7000
	#M350	3500	2485	150	4338	4642	5/8	3500	3165	7000
	#M360	3600	2535	150	4438	4742	5/8	3500	3165	7000
	#M400	4000	2835	150	4838	5142	5/8	3500	3165	7000
	#M430	4300	2985	150	5138	5442	5/5	3500	3165	7000
	#M450	4500	3085	150	5338	5642	5/5	3500	3165	7000
	*M480	4800	3235	150	5638	5942	5/5	3450	3120	6900
*M500	5000	3335	150	5838	6142	5/5	3400	3075	6800	
Duplex full-free lifting mast	#U250	2500	1885	743/1025	4285	4842	5/8	3500	3165	7000
	#U270	2700	1985	843/1125	4585	5142	5/8	3500	3165	7000
	#U300	3000	2135	993/1275	5035	5592	5/8	3500	3165	7000
	#U330	3300	2285	1143/1425	5485	6042	5/8	3500	3165	7000
	#U360	3600	2435	1293/1575	5935	6492	5/8	3500	3165	7000
	#U400	4000	2685	1543/1825	6585	7092	5/8	3500	3165	7000
	#N430	4300	2235	1090/1375	5442	5160	5/5	3500	3124	7000
	#N450	4500	2285	1140/1425	5642	5360	5/5	3500	3124	7000
	*N480	4800	2435	1290/1575	5942	5660	5/5	3450	3079	6900
	*N500	5000	2535	1390/1675	6142	5860	5/5	3400	3034	6800
Triplex full-free lifting mast	*N550	5500	2735	1590/1875	6642	6360	5/5	3300	2943	6600
	*N600	6000	2985	1840/2125	7142	6860	5/5	2750	2444	5500
	*N650	6500	3185	2040/2325	7642	7360	3.5/3.5	2150	1900	4300
	*N700	7000	3435	2290/2500	8142	7935	3.5/3.5	1950	1719	3900
	*N750	7500	3735	2590/2700	8642	8535	3.5/3.5	1750	1537	3500

# means do not lose any capacity. \* means lose some capacity.



## A Series High Performance Electric Forklift Truck

with capacities of 2,500 to 3,500kg

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The World of Hangcha





# A Series High Performance Electric Forklift Truck

New A series of high-performance electric forklift which covers from 2.5t to 3.5t, is the key promoting product of Hangcha in 2015. It is based on the already available for A series electric forklift, mainly to meet the requirements of efficiency first, fast lifting and driving speed, high capacity battery, excellent ergonomic, easy operation and operating safety.



## Advanced

/ High frequency MOSFET controller provides accurate control of travelling, lifting with better adjustable performance, motor and battery match each other better. Three braking are applied with regenerative braking, reverse current braking, parking brake and auto speed control on gradient. It is more energy saving and effectively. Traveling motor with the middle electric bridge structure is applied 18.5kw large motor. 25.4kw super AC pump motor with high efficiency system is not only with full protection functions but also with temperature sensor, speed sensor, which provides better reliability and long working life. Integrated wet-disc brake axle, the maintenance free wet-disc brake is Standard specification. Noise level below 74dB (A). The rear axle which adopted soft type hang system, improves the driver's comforts.

## Safety

/ Suspension seat use high-class Grammer MSG65, which has the OPS function of locking forklift truck's forward/backward, mast's lifting/lowering, tilting and side shifting etc. Parking brake with buzzer, which means when parking brake is released at Key off position, the buzzer is operated. Steering wheel, armrest and reversing handle are all equipped with horn button, which can warn surrounds. PIN code access system with 99 passwords can be set, provides easy management.

## Main parts

/ Motor controllers, connectors, power plug, emergency switch, dashboard, accelerator are all applied world famous brands, ensure the reliability of good performance and provide easy service. Emergency switch is standard specification which meets the Euro safety regulation. There is overloading protection for electronics and hydraulic system. The whole truck meets CE certificate.

## Excellent Ergonomic

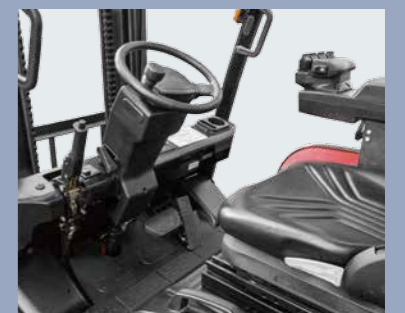
/ New Big LED dashboard is easy to see, with comprehensive indicator lights, and provides friendly human-computer interaction. The operator can monitor the truck operation at a glance.



A series of high-performance version equipped with Fingertip control on seat armrest, which can be four positions adjusted to meet different operator's demands, release operator fatigue. Emergency switch, horn, fingertip control levers are all centralized on the armrest, which via CAN bus connection, provide good reliability.



Better view

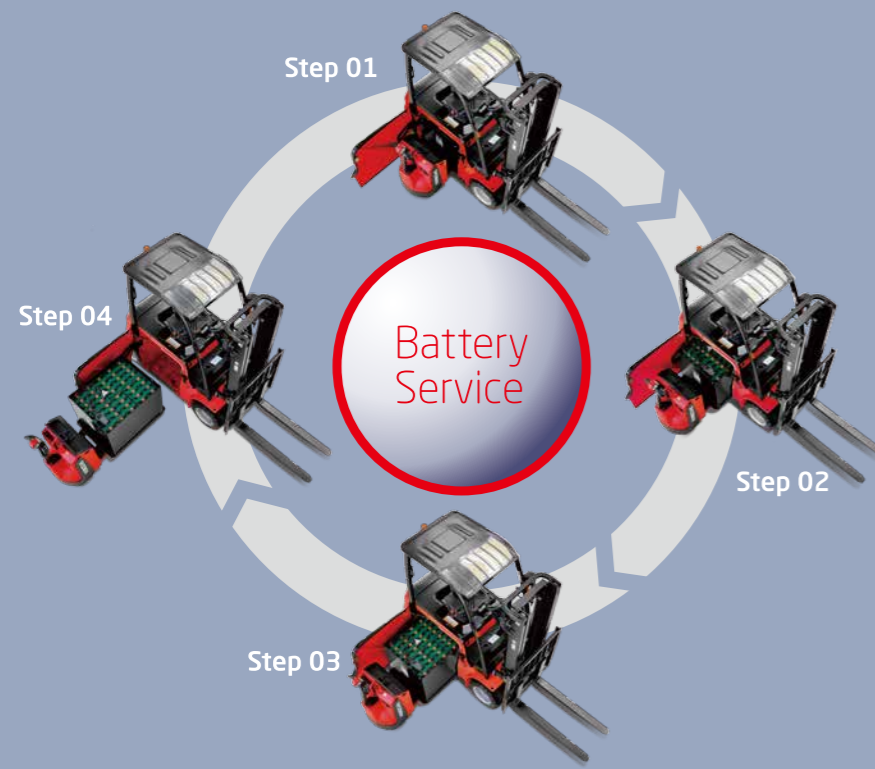


The larger brake pedal and the function of regenerative braking, reduce the fatigue of the driver dramatically.



Easy to see dashboard is relocated to overhead, no restriction of the operator's visibility. The forklift is also applied PIN code access for better management.





Battery Service

## Easy operating and maintenance

/ The key controllers are all sealed in the counterweight, dust and water free. Self-cooling traveling motor with IP20 protection has good reliability. Protection grade of the whole forklift is IPX3.

**Side access battery. Full opened battery cover (with self-locked spring), easy for battery service.**



## Comfortable

/ Good stability and operator comfortability is provided due to low truck gravity. Thanks to the new designed ergonomically small diameter steering wheel, reduce the driver fatigue. 210mm adjustable distance of seat, the steering column can be adjusted for an optimal position in relation to the operator. Soft landing system is equipped, when forks low to 60-100mm to the ground, the soft landing system is auto turn on, which to avoid the damage of the ground and protection to the lifting goods. New designed broad view mast provides better forward view ability. Low noise, no exhaust emission, low energy consumption, are all environment friendly.

/ Also in combination with high comfort seat. Comfortable handling operations by keeping the arm on the armrest. Multi adjustable armrest ensures ergonomic position for each individual operator. Armrest uses seat suspension to absorb road shocks. Left hand always free for immediate steering. Less operator fatigue, increased productivity.



## Options

- / Big capacity battery
- / Anti-corrosive application
- / High performance imported battery
- / Charger
- / Rear working light
- / Super elastic solid tyre
- / Non-marking tyre
- / Left and right rear view mirror
- / Resistance to corrosive salt spray
- / 24V output
- / Reversing hand grip with horn switch
- / Wider fork carriage
- / Other dimension load backrest
- / Other dimension forks
- / Duplex mast with full free lift
- / Triplex mast with full free lift
- / Integrated sideshift
- / Other attachments
- / Writing board

## Standard Specification

- / High efficiency AC driving motor
- / Tailor made truck's lifting motor
- / Multi-functions dashboard
- / Full electric controlled travelling, lifting and steering
- / Front lighting system, turning indicator, rear combination lights(LED)
- / Big dimension rubber pad
- / Sheet metal stamping made front and rear bottom plate
- / Sheet metal stamping made left and right cover and battery cover
- / Standard battery (According to standard DIN)
- / Emergency switch
- / Reversing beeper
- / Hydraulic power steering
- / Tool box
- / Soft landing system
- / Standard forks
- / 3m duplex mast
- / Tow coupling
- / Center located rear view mirror
- / Finger-tip controlled system, ergonomical armrest
- / Side out change battery
- / MSG65-531 GRAMMER Seat



## Lifting speed

2.5	SP model	HP model	
Unladen	480mm/s	620mm/s	↑ 29%
Laden	280mm/s	440mm/s	↑ 57%

## Efficiency

3.5t truck	SP model	HP model	
Turnover output	140ton/h	210ton/h	↑ 57%
Working time	8 hours	10.8 hours	
Energy consumption	9.5kwh/h	12.5kwh/h	

## Traveling speed

2.5/3.0/3.5t	SP model	HP model	
Unladen	14km/h	20km/h	↑ 42%
Laden	13.5km/h	19km/h	↑ 40%

## Large capacity battery(According to STD DIN)

2.5t truck	SP model	HP model
Capacity STD.	48V 630Ah	80V 700Ah, DIN
Capacity MAX.	48V 700Ah	80V 775Ah, DIN
Energy STD.	24.2 Kwh	44.8 kWh
Energy MAX.	26.9 Kwh	49.6 kWh

## Main components

No.	Components	Specification	Manufacturer
1	Drive axle		Hangcha
2	Drive wheel		Advance, K3, china
3	Steering axle		Hangcha
4	Rear wheel		Advance, K3, china
5	Traveling motor	AC motor 18.5kw	Liaoyuan, china
6	Pump moto	AC motor 25.4kw	Liaoyuan, china
7	Battery	DIN 43536,80V 700Ah	By customer
8	Finger-tip sys		Hangcha
9	Controller	AC 1238+AC 1238	CURTIS
10	Can-bus board		CURTIS
11	Controller valve		Sauuer-Danfoss
12	Chassis		Hangcha
13	Mast		Hangcha
14	Steering unit		Zhenjiang, china
15	Display		CURTIS

## A Series High Performance Electric Forklift Truck

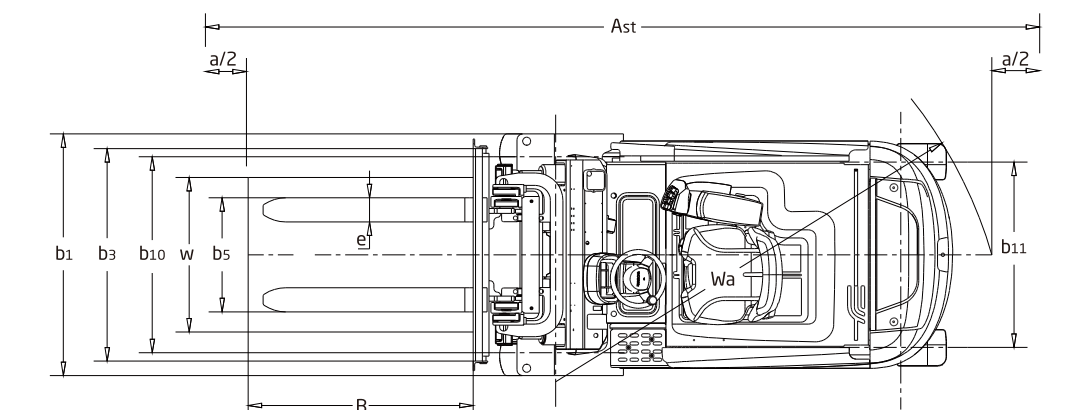
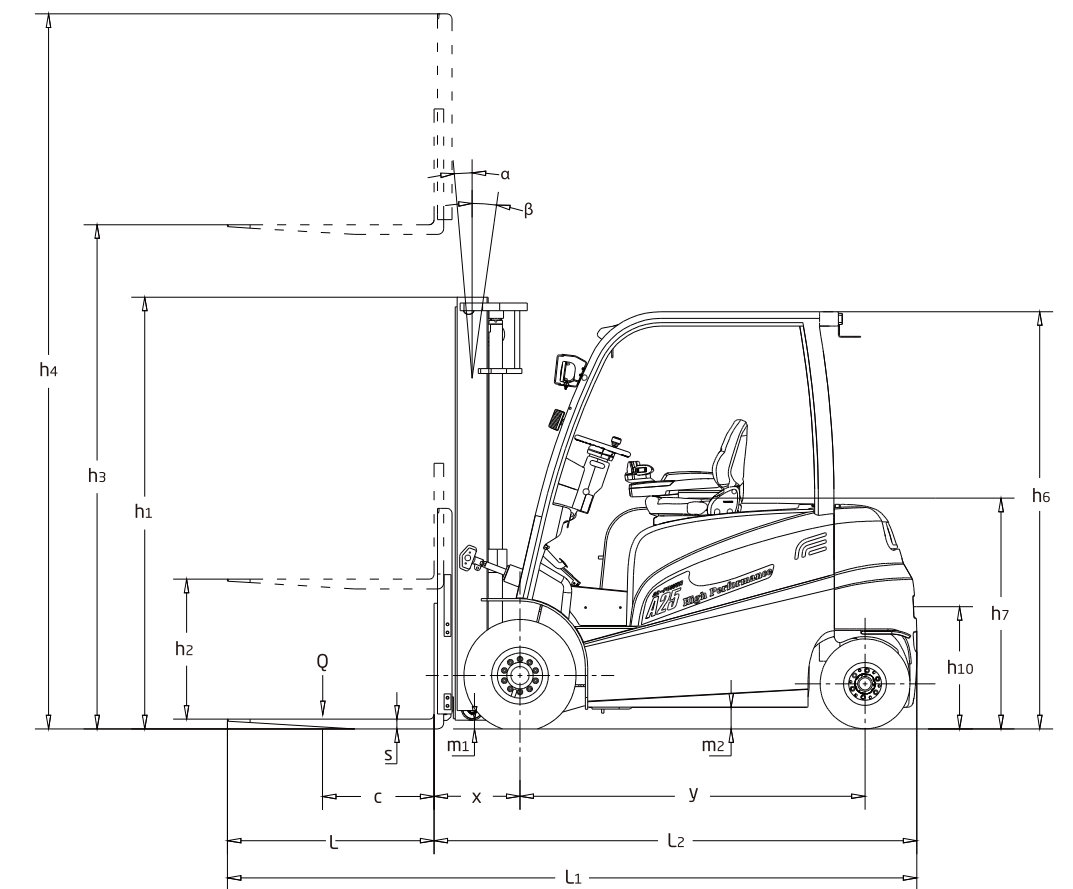
Distinguishing mark	1.1	Manufacturer	HANGCHA GROUP CO.,LTD.			
			CPD25-AC4H	CPD30-AC4H	CPD35-AC4H	
Weight	1.2	Manufacturers type designation	CPD25-AC4H	CPD30-AC4H	CPD35-AC4H	
	1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas	electric	electric	electric	
	1.4	Operator type: hand, pedestrian, standing, seated, order-picker	Rider seated	Rider seated	Rider seated	
	1.5	Load capacity/rated load	Q (kg)	2500	3000	3500
	1.6	Load centre distance	c (mm)	500	500	500
	1.8	Load distance, centre of drive axle to fork	x (mm)	435	440	445
	1.9	Wheelbase	y (mm)	1750	1750	1750
	2.1	Service Weight	kg	5100	5250	5550
	2.2	Axle loading, laden front/rear	kg	6620/980	7340/910	8050/1000
Tyres, chassis	2.3	Axle loading, unladen front/rear	kg	2500/2600	2572/2578	2720/2830
	3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane		pneumatic	pneumatic	super elastic
	3.2	Tyre size, front		23x9 - 10	23x9 - 10	23x10 - 12
	3.3	Tyre size, rear		18x7-8	18x7-8	200/50-10
	3.5	Wheels, number front rear (x = driven wheels)		2x/2	2x/2	2x/2
	3.6	Tread, front	b10 (mm)	1073	1073	1085
	3.7	Tread, rear	b11 (mm)	960	960	960
Dimensions	4.1	Tilt of mast/fork carriage forward/backward	α/β(°)	5/8	5/8	5/8
	4.2	Height, mast lowered	h1 (mm)	2235	2235	2235
	4.3	Free lift	h2 (mm)	150	150	150
	4.4	Lift	h3 (mm)	3000	3000	3000
	4.5	Height, mast extended	h4 (mm)	4100	4100	4100
	4.7	Height of overhead guard STD.	h6 (mm)	2240	2240	2240
	4.8	Seat height/stand height	h7 (mm)	1190	1190	1190
	4.12	Coupling height	h10 (mm)	625	625	625
	4.19	Overall length	l1 (mm)	3560	3565	3570
	4.20	Length to face of forks	l2 (mm)	2490	2495	2500
	4.21	Overall width	b1 (mm)	1275	1275	1315
	4.22	Fork dimensions ISO2331	s/e/l (mm)	40/122/1070	45/122/1070	50/125/1070
	4.23	Fork carriage DIN 15 173 --- ISO 2328, class/type A,B		ISO2328 2A	ISO2328 3A	ISO2328 3A
	4.24	Fork-carriage width	b3 (mm)	1100	1100	1100
	4.25	Distance between fork-arms	b5 (mm)	290/1100	290/1100	290/1100
	4.31	Ground clearance, laden, below mast	m1 (mm)	105	105	105
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	115	115	115
	4.34.1	Aisle width for pallets 1000 x 1200 crossways	Ast (mm)	3835	3840	3845
	4.34.2	Aisle width for pallets 800 x 1200 lengthways	Ast (mm)	4035	4040	4045
4.35	Turning radius	Wa (mm)	2400	2400	2400	
4.36	Internal turning radius	b13 (mm)	730	730	730	
Performance Data	5.1	Travel speed, laden/unladen	km/h	19/20	19/20	19/20
	5.2	Lift speed, laden/unladen	m/s	0.480/0.620	0.420/0.540	0.390/0.540
	5.3	Lowering speed, laden/unladen	m/s	0.470/0.420	0.450/0.420	0.470/0.420
	5.5	Drawbar pull, laden/unladen	N	7000/8000	6000/7000	5000/6000
	5.6	Max. Drawbar pull, laden/unladen	N	14000/15000	14000/15000	14000/15000
	5.7	Gradeability, laden/unladen	%	16/21	14/20	12/18
	5.8	Max. gradeability, laden/unladen	%	18/25	18/25	18/25
	5.9	Acceleration time, laden/unladen (0-10m)	s	4.3/3.8	4.4/3.9	4.5/4.0
	5.10	Service brake		Hydraulic	Hydraulic	Hydraulic
		Parking brake		Mechanical	Mechanical	Mechanical
Electric engine	6.1	Drive motor rating S2 60 min	kW	18.5 AC	18.5 AC	18.5 AC
	6.2	Lift motor rating at S3 15%	kW	25.4 AC	25.4 AC	25.4 AC
	6.3	Battery acc. to DIN 43 531/35/36 A,B,C, no		DIN 43536A	DIN 43536A	DIN 43536A
	6.4	Battery voltage, nominal capacity K5	V/Ah	80/700, max.80/775	80/700, max.80/775	80/700, max.80/775
	6.5	Battery weight	kg	1863	1863	1863
		Max. battery weight	kg	1800	1800	1800
		Min. battery weight	kg	1950	1950	1950
		Battery dimensions	l/b/h(mm)	1028*855*784	1028*855*784	1028*855*784
	6.6	Energy consumption acc. to VDI cycle	kWh/h	10.5	11.5	12.5
	6.7	Turnover output	t/h	165	186	210
Addition data	8.1	Type of drive control		MOSFET/AC	MOSFET/AC	MOSFET/AC
	9.1	Manufacturer		CURTIS	CURTIS	CURTIS
	9.1	Model		1238+1238	1238+1238	1238+1238
	10.1	Operating pressure for attachments	bar	175	175	175
	10.2	Oil volume for attachments	l/min	40	40	40
	10.3	Hydraulic Tank - capacity (drain & refill)	liter	24	24	24
	10.7	Sound pressure level at the driver's seat	dB (A)	71	72	74
	10.8	Towing coupling, type DIN 15170		φ24 Pin DIN 15170-H	φ24 Pin DIN 15170-H	φ24 Pin DIN 15170-H

Performance data and dimensions are nominal and subject to tolerances.

Specifications are subject to change without notice.

Please obtain the latest specifications before contracting products.

60 VDI cycles/h: In accordance with VDI Guideline 2198, this specification sheet provides details of standard truck only. Non-standard tyres, different masts, optional equipments, etc. may result in different values.



a=200 Safety clearance  
AST=B+x+wa+a

