



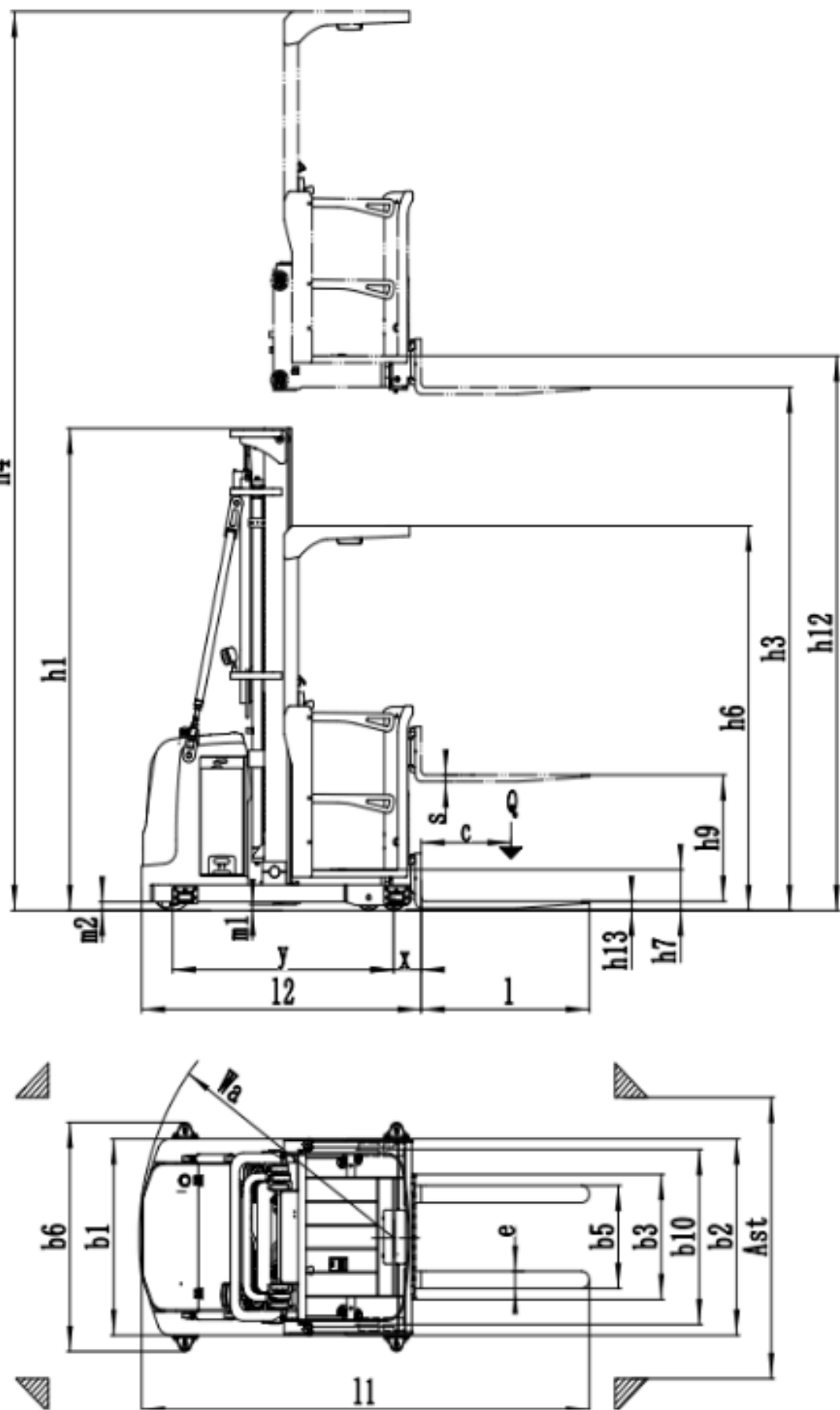
MHA Series – High-Level Order Picker for VNA Applications **- Capacity: 1,000 – 1,300kgs | Lift height: 3.0m – 9.5m**

The MHA range is a next-generation man-up high-level order picker, purpose-built for very narrow aisle (VNA) environments. As an upgrade to the original MHA series, it delivers enhanced performance, improved efficiency, and superior operator control. With a rated capacity of 1.36 tonnes and a lift range of 5.0 to 9.5 metres (extendable to 11.1 metres or more upon request), the MHA13 is ideal for demanding, high-reach picking and inventory operations. Powered by a 48V electrical system, full AC motor, and advanced Curtis controller, this model ensures smooth, stable, and precise operation in the most space-restricted warehouse conditions.

Ideal for:

- High-level order picking in VNA racking
- Inventory control in dense storage environments
- Warehouses prioritising speed, safety, and uptime

MHA 10



Technical Parameter

Characteristics	1.1	Manufacturer		MIMA	MIMA
	1.2	Model		MHA10	MHA10
		Model code		MHA10L[1]	MHA10S[1]
	1.3	Power type		Electric	Electric
	1.4	Operation		Order Picking	Order Picking
	1.5	Load capacity	Q(kg)	1000	1000
	1.6	Load center distance	C(mm)	500	500
	1.7	Front overhang	x(mm)	148	148
	1.8	Wheelbase	y(mm)	1410	1410
Weights	2.1	Service weight(inkl. battery)	kg	2490	2630
	2.2	Axle loading, laden front/rear	kg	940/2550	1130/2700
	2.3	Axle loading, unladen front/rear	kg	1410/1080	1610/1220
Wheels	3.1	Tyre type,front/rear		Polyurethane	Polyurethane
	3.2	Tyre size, front	mm	φ150×90	φ150×90
	3.3	Tyre size, rear	mm	φ254×102	φ254×102
	3.4	Wheels,number front/rear (X=driven)		4/1X	4/1X
	3.5	Track width, rear	b10(mm)	1008	1008
	3.6	Track width, front	b11(mm)	0	0
Dimensions	4.1	Mast retracted height	h1(mm)	Refer to mast parameter	Refer to mast parameter
	4.2	Free lifting height	h2(mm)	Refer to mast parameter	Refer to mast parameter
	4.3	Lift height	h3(mm)	Refer to mast parameter	Refer to mast parameter
	4.4	Mast extended height	h4(mm)	Refer to mast parameter	Refer to mast parameter
	4.5	Max. lifting height	h3+h9(mm)	Refer to mast parameter	Refer to mast parameter
	4.6	Max. picking height	h2+1600(mm)	Refer to mast parameter	Refer to mast parameter
	4.7	Overhead guard height	h6(mm)	2270	2270
	4.8	Ground clearance,min height of t	h7(mm)	260	260
	4.9	Auxiliary lift height	h8(mm)	670	670
	4.10	Ground clearance,min height of t	h12(mm)	Refer to mast parameter	Refer to mast parameter
	4.11	Ground clearance,Min fork surfac	h13(mm)	70	70
	4.12	Overall length	l1(mm)	2825	2835
	4.13	Body to fork surface length	l2(mm)	1755	1765
	4.14	Overall width	b1/b2(mm)	1150/1150	1150/1150
	4.15	Fork dimensions	l4/l5(mm)	1070/100/40	1070/100/40
	4.16	Fork rack width	b3(mm)	730	730
	4.17	Fork outside spread	b5(mm)	700~220	700~220
	4.18	Width over guide rollers	b6(mm)	1336	1336
	4.19	Ground clearance below mast	m1(mm)	50	50
	4.20	Ground clearance, body	m2(mm)	50	50
	4.21	Aisle width	Ast(mm)	1750[2]	1750[2]
	4.22	Turning radius	Wa(mm)	1625	1625
	4.23	Main aisle width	mm	≥(2920+400)[3]	≥(2930+400)[3]
Performance	5.1	Travelling speed, laden/unladen	km/h	8/6	8/6
	5.2	Lift speed, laden/unladen	mm/s	115/140	115/140
	5.3	Lowering speed, laden/unladen	mm/s	165/125	165/125
	5.4	Maximum gradient, laden/unlader	%(tanθ)	/	/
	5.5	Travelling Brake		Regenerative braking / electromagnetic braking	Regenerative braking / electromagnetic braking
	5.6	Service brake		Electromagnetic	Electromagnetic
Drive	6.1	Drive motor, rating S2=60	kw	2.5 AC	2.5 AC
	6.2	Lift motor, rating S3=15%	kw	3 DC	3 DC
	6.3	Battery voltage/nominal capacity	(V)/Ah	24/400[4]	24/400[4]
	6.4	Battery weight	kg	340	340
Others	7.1	Type of drive control		AC	AC
	7.2	Noise level at operator's ear (EN12063 Stand		70	70

*This parameter table only provides standard model technical data, non-standard and other height series models, please consult the Hefei BANYITONG Science & Technology Developing Co., Ltd. specifications and configuration, if any change, without notice.

[1]: L in code means two-stage common gantry model, S means three-stage common gantry model;
[2]: Net aisle width applies to standard models (standard mechanical guide function model, stacking net aisle width 1350mm), the above data varies according to the use of different working conditions;
[3]: The width of the main aisle includes the safety distance, the minimum width of the main aisle safety distance for standard models needs to be +400mm (+400mm for models with standard mechanical guide function), the above data varies according to the pallet size;
[4]: Optional lithium battery specification: 24V/300Ah;

Mast Parameter Table MHA10

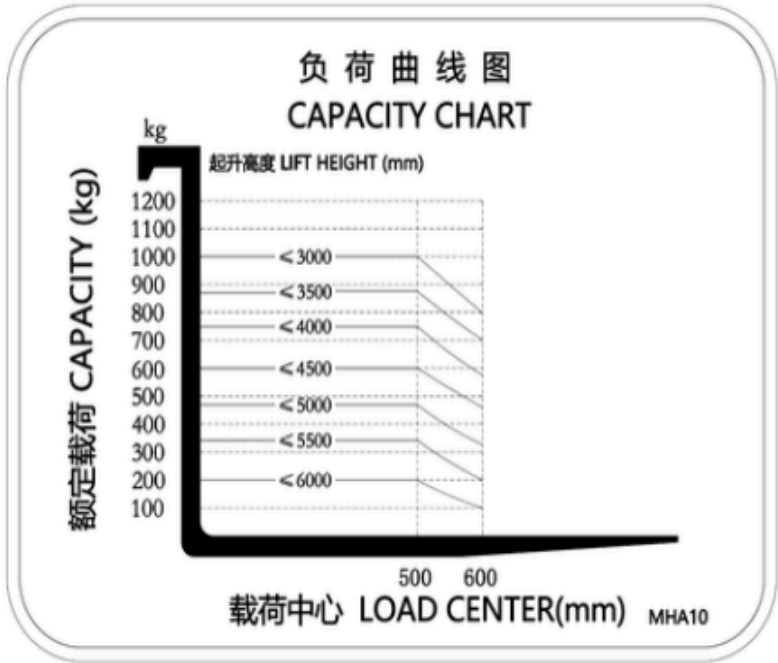
Mast type	Mast model	Lifting height	Max. Lifting height	Max.Picking height	Mast retracted height	Mast extended height	Free Lifting height
		mm					
Duplex Mast		MHA10L					
	30L	2760	3430	4600	2300	5010	0
	35L	3260	3930	5100	2550	5510	0
	40L	3760	4430	5600	2850	6060	0
	45L	4260	4930	6100	3100	6610	0
Triplex Mast		MHA10S					
	40S	3760	4430	5600	2149	5955	0
	45S	4260	4930	6100	2316	6455	0
	50S	4760	5430	6600	2482	6955	0
	55S	5260	5930	7100	2649	7455	0
	60S	5760	6430	7600	2815	7955	0

Note: The data in the above table is the standard model data, If you have special application or problems, please contact us.

Load Parameter Comparison Table MHA10

Mast type	Mast model	Lifting height	Load capacity	
		mm	kg	
	C(mm)➤@		500	600
Duplex Mast				
	45L	4500	600	450
	40L	4000	740	570
	35L	3500	870	700
	30L	3000	1000	800
Triplex Mast				
	60S	6000	200	100
	55S	5500	340	200
	50S	5000	470	330
	45S	4500	600	450
	40S	4000	740	570

1. The data in the table are for standard models;



*The above lift height refers to the height of the cabin above the ground during lifting;

*The above MHA10 load curve is applicable to standard duplex and triplex mast models, the parameters of which are shown in the parameter table.

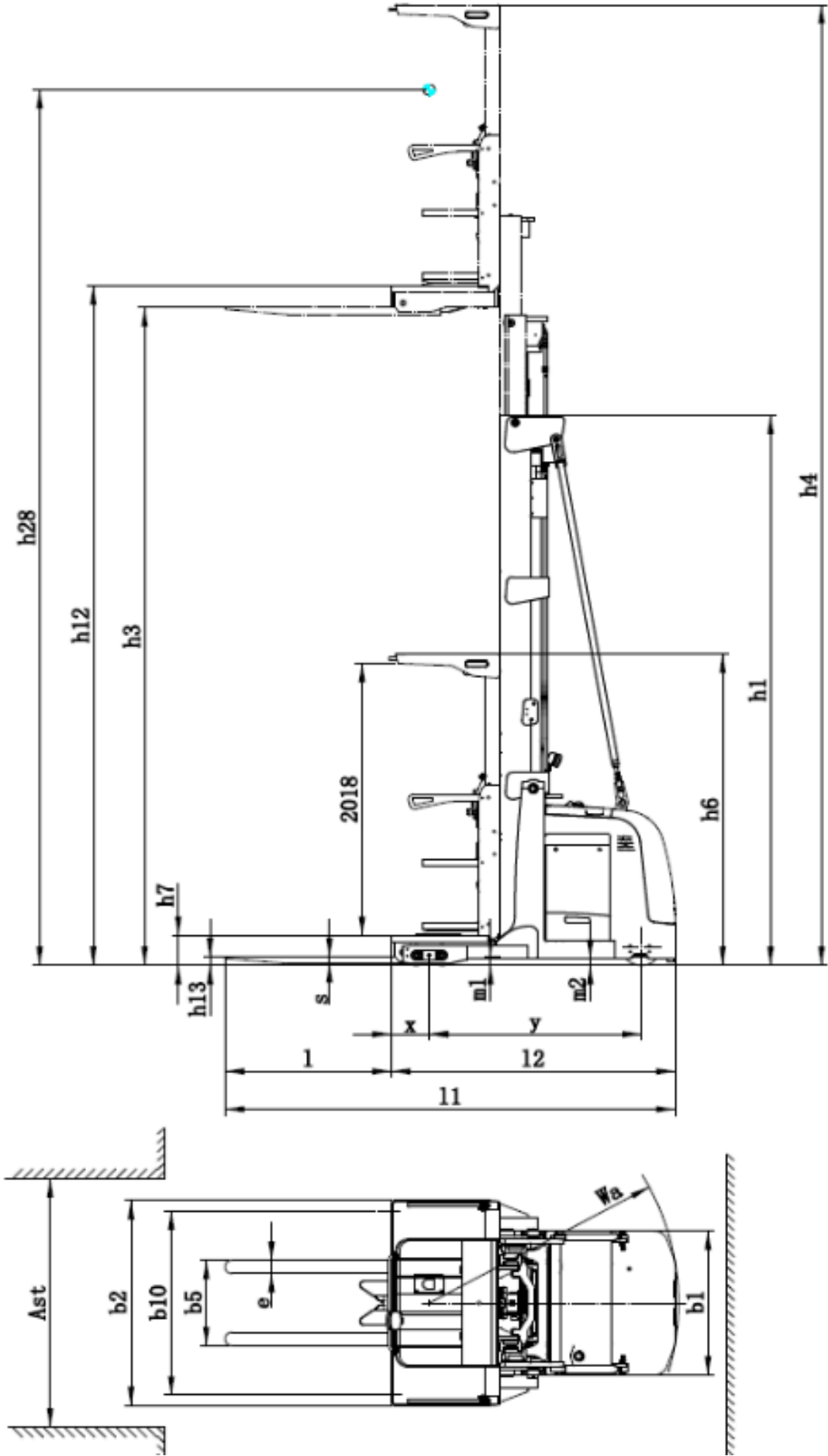
MHA 13

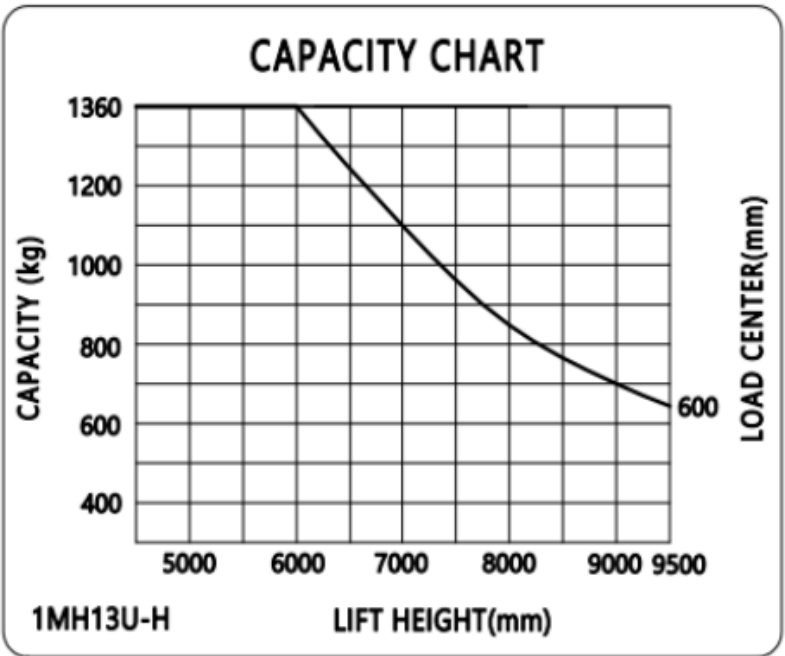
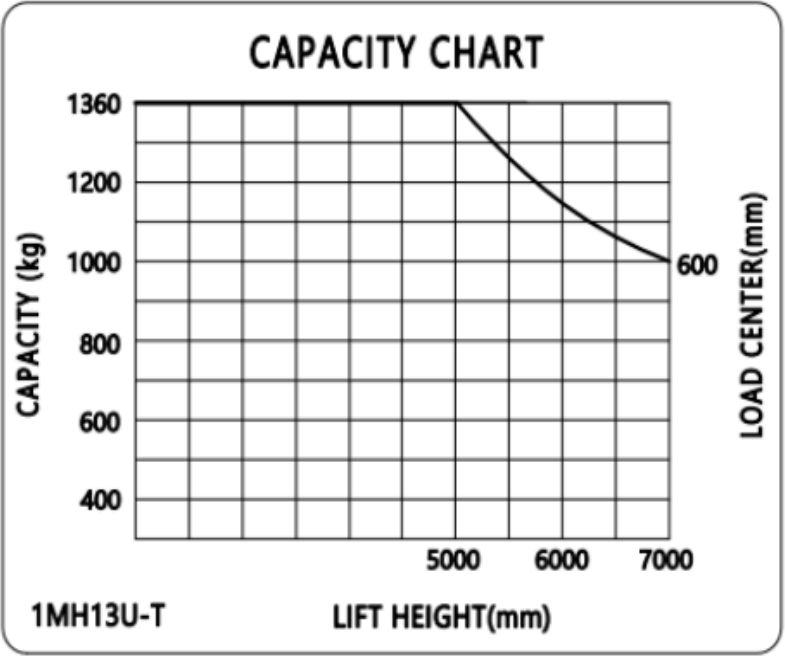
Specification

Characteristics	1.1	Brand		MIMA	MIMA
	1.2	Model		MHA13	MHA13
		Technical code		1MH13U-T	1MH13U-H
	1.3	Power type		Battery	Battery
	1.4	Operation		Picking	Picking
	1.5	Load capacity	Q(kg)	1360	1360
	1.6	Load center	C(mm)	600	600
	1.7	Front overhang	x(mm)	277	277
Weight	1.8	Wheelbase	y(mm)	1435	1555
	2.1	Service Weight(incl. battery)	kg	/	/
	2.2	Axle loading, laden, front/rear	kg	/	/
Wheels	2.3	Axle loading, unladen, front/rear	kg	/	/
	3.1	Tyre type, front/rear		Polyurethane Tyre	Polyurethane Tyre
	3.2	Tyre size, front	mm	φ343×120	φ343×120
	3.3	Tyre size, rear	mm	φ152×105	φ152×105
	3.4	Wheels number, front/rear (X=driven)		4 / 1X	4 / 1X
Dimensions	3.5	Track width, front	b10(mm)	918	1368
	4.1	Mast retracted height	h1(mm)	Refer to the mast specification	Refer to the mast specification
	4.2	Free Lift height (standard)	h2(mm)	Refer to the mast specification	Refer to the mast specification
	4.3	Lift height	h3(mm)	Refer to the mast specification	Refer to the mast specification
	4.4	Mast extended height	h4(mm)	Refer to the mast specification	Refer to the mast specification
	4.5	Max. picking height	h12+1600(mm)	Refer to the mast specification	Refer to the mast specification
	4.6	Overhead guard height	h6(mm)	2320	2320
	4.7	Platform height	h7(mm)	230	230
	4.8	Platform height, raised	h12(mm)	Refer to the mast specification	Refer to the mast specification
	4.9	Ground clearance, min fork surface	h13(mm)	70	70
	4.10	Overall length	l1(mm)	3178	3298
	4.11	Overall width	b1/ b2(mm)	1070/1070	1070/1520
	4.12	Fork dimensions	l/e/s(mm)	1220/100/50	1220/100/50
	4.13	Fork outside spread	b5(mm)	577、635、693	577、635、693
	4.14	Width over guide rollers	h6(mm)	1275	1650
	4.15	Ground clearance below mast, laden	m1(mm)	98	98
	4.16	Ground clearance, center of wheelbase,	m2(mm)	50	50
	4.17	Right angle stacking aisle width (1200×10	Ast(mm)	1270[2]	1770[2]
	4.18	Turning radius	Wa(mm)	1706	1826
Performance	4.19	Main aisle width	(mm)	≥(3280+400)[3]	≥(3400+400)[3]
	5.1	Travel Speed, laden/unladen	km/h	8/8	10/10
	5.2	Lifting Speed, laden/unladen	mm/s	330/350	380/400
	5.3	Lowering Speed, laden/unladen	mm/s	350/350	400/400
	5.4	Max straight gradeability, laden/unladen	%(tanθ)	5/8	5/8
	5.5	Service brake		Electromagnetic brake/Regenerative brake	Electromagnetic brake/Regenerative brake
Drive	5.6	Parking brake		Electromagnetic brake	Electromagnetic brake
	6.1	Drive motor, rating S2=60	kw	6.5 AC	6.5 AC
	6.2	Lift motor, rating S3=15%	kw	14 AC	14 AC
Others	6.3	Battery voltage/nominal capacity K5	(V) / (Ah)	48/400[4]	48/600[5]
	7.1	Battery replacement method		Side pull	Side pull
	7.2	Steering system		Electrical steering	Electrical steering

*This parameter table provides technical data for standard models only. For non-standard and other height series models, please consult Banyitong Science & Technology Developing Co., Ltd. Specifications and configurations are subject to change without prior notice.

- [1]: Code 'T' denotes standard wheelbase triplex mast models, 'H' denotes long wheelbase triplex mast models.
[2]: Net aisle width is applicable to standard models with mechanical guide rails (for models with magnetic navigation, add 50mm to stacking net aisle width; for models without navigation, add 300mm). The above data varies according to different working conditions.
[3]: Main aisle width includes safety distance. For standard models with mechanical guide rails, the minimum main aisle width requires a safety distance of +400mm (models with automatic magnetic navigation require +900mm; models with manual magnetic navigation require +400mm). These figures vary depending on pallet size.
[4]: Optional lithium battery specifications: 48V/300Ah.
[5]: Optional lithium battery specifications: 48V/460Ah.





Load parameter table 1MH13U-T			
Mast type	Mast model	Lifting height	Load capacity
		mm	kg
		C(mm)➤@	600
Triplex full free mast			
	70T	7000	1000
	65T	6500	1075
	60T	6000	1150
	55T	5500	1250
	50T	5000	1360

Note: 1.The data in the table applies to standard models with an outer leg distance of 1070mm or 1220mm.

Load parameter table 1MH13U-H			
Mast type	Mast model	Lifting height	Load capacity
		mm	kg
		C(mm)➤@	600
Triplex full free mast			
	95T	9500	650
	90T	9000	700
	85T	8500	750
	80T	8000	850
	75T	7500	950
	70T	7000	1100
	65T	6500	1250
	60T	6000	1360
	55T	5500	1360
	50T	5000	1360

Note: 1.The data in the table applies to standard models with an outer leg distance of 1370mm or 1520mm.

Mast parameter table 1MH13U-T/1MH13U-H						
Mast type	Mast model	Lifting height(h3)	Mast picking height(h2g)	Mast retracted height(h1)	Mast extended height(h4)	Free lifting height(h2)
Triplex full free mast	Model					
	95T	9500	11260	4084	11750	1764
	90T	9000	10760	3918	11250	1598
	85T	8500	10260	3751	10750	1431
	80T	8000	9760	3584	10250	1264
	75T	7500	9260	3418	9750	1098
Triplex full free mast	Model					
	70T	7000	8760	3251	9250	931
	65T	6500	8260	2988	8750	668
	60T	6000	7760	2818	8250	498
	55T	5500	7260	2653	7750	333
	50T	5000	6760	2488	7250	168

Note: The data in the above table refers to standard models. 1MH13U-T represents the standard wheelbase triplex mast model, and 1MH13U-H represents the long wheelbase triplex mast model. For customized specifications, please contact us.