a Jebsen & Jessen brand



MRTSE-16FAL/20FAL

Reach Truck, Sit-On - 1.5t/2.0t

- Excellent visibility, with easy to reach instrument panel
- High stability for safe lifting of goods even at high lifting heights
- Lithium-Ion technology allows for opportunity charging.
- Comfortable cabin ensures low operator fatigue even when driven for long hours.

ZERO EMISSION

FEATURE



Optimal visibility

A much more compact li-ion battery comes with better visibility for MRTSE-16/20FAL. Along with the offset layout of the oil tubes, MRTSE-16/20FAL stacking visibility and operation flexibility are greatly improved.



Lithium-ion technology

MRTSE-16/20FAL is powered by a maintenance-free 48V/405Ah Li-Ion battery. Along with the opportunity charging capability, li-Ion batteries have much faster charging times than lead acid batteries. BMS, based on CANBUS syste m, allows battery cells communicate among e ach other to deliver powerful performance at all times.



Enjoyable lifting operations

MRTSE-16FAL and MRTSE-20FAL offers powerful performance and quiet operations through the upgraded hydraulic pumps and powerful lifting motors. (11.75 kw for MRTSE-16FAL and 20 kw for MRTSE-20FAL.) The upgraded technology greatly boosts stacking efficiency by 50%, reduces operational noise by 10 dB and the energy consumption by 30%.



Easy and precise operations

MRTSE-20FAL is equipped with a height indicator, that tells operators the correct height of the fork at various rack levels for precise operations to improve the stacking efficiency.

FEATURE



High stability

The low center of gravity and the newly I-beam mast design enhance the truck stability. The maximum lifting height of MRTSE-16FAL is 8000 mm while the one of MRTSE-20FAL is 12000 mm.



Electric Power Steering

MRTSE-16FAL and MRTSE-20FAL come with full AC motors and electric power steering syste m that consumes less power compared to h ydraulic power steering while keeps operation habits of trucks with mechanical steering thro ugh the additional damping force. So MRTSE-16/20FAL gives more working hours than ones with hydraulic power steering.



Full-color Display

MRTSE-16FAL and MRTSE-20FAL are designed with a color display to help operators easily monitor battery charge level, driving speed, and check error codes.



6000K Led Light

MRTSE-16FAL and MRTSE-20FAL are equipped with 6000K led lights to cope with dark environment for optimal visibility.

Electric Reach Truck 1.6T
MRTSE-16FAL

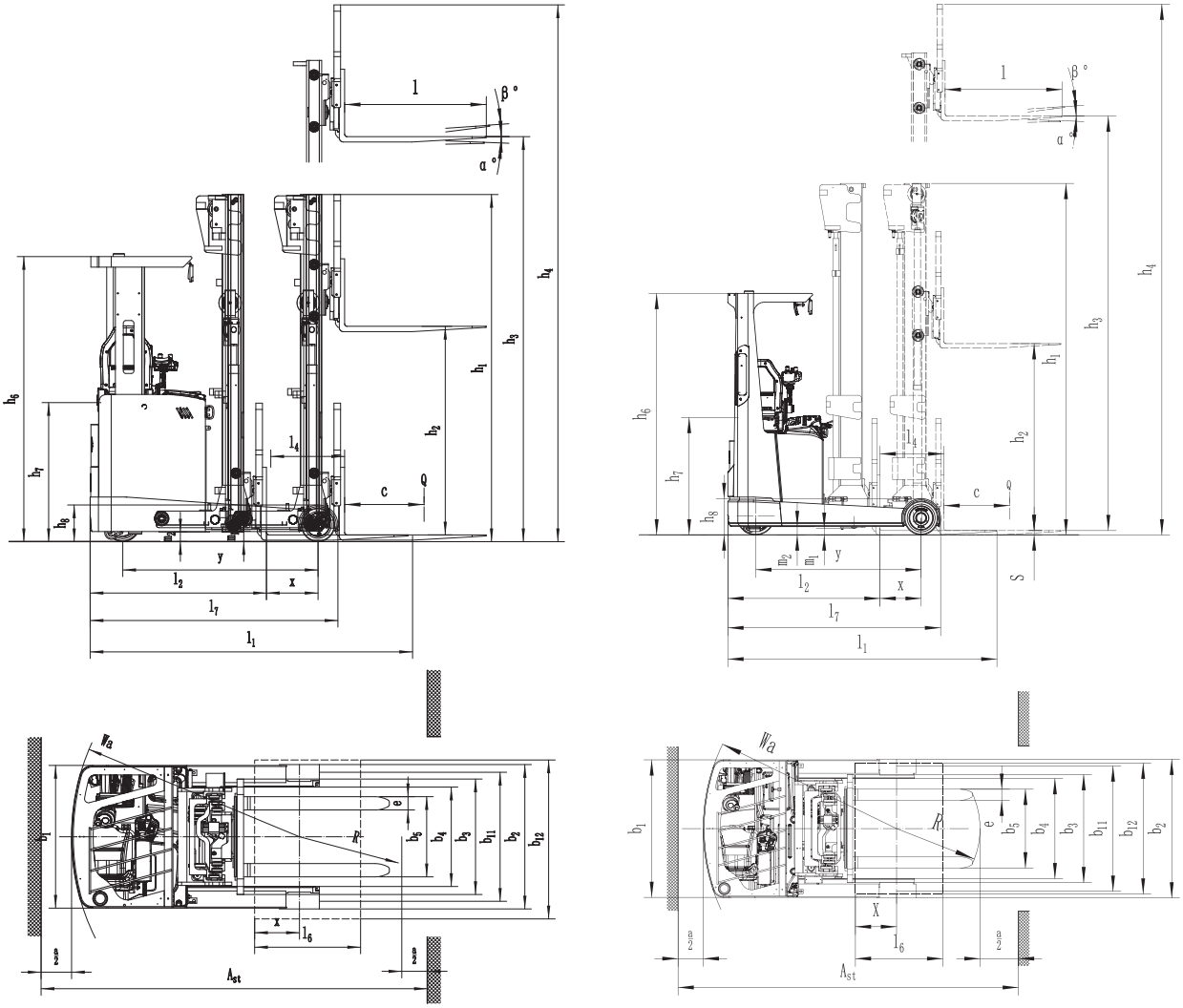
Distinguishing mark	1.1	Brand			MHE
	1.2	Model designation			MRTSE-16FAL
	1.3	Drive			Electric
	1.4	Operator type			Seated
	1.5	Load capacity	Q	kg	1600
	1.6	Load center distance	c	mm	600
	1.8	Load distance，centre of drive axle to fork	x	mm	390
	1.9	Wheelbase	y	mm	1474
Service weight	2.1	Service weight		kg	2855
	2.3.1	Axle loading, unladen front/rear		kg	1840/1060
	2.4.1	Axle loading, fork advanced, laden front/rear		kg	470/4060
	2.5.1	Axle loading, fork retracted, laden front/rear		kg	1500/3040
Tyres/chassis	3.1	Tyre type			Polyurethane
	3.2.1	Tyre size, front		mm	Φ260×105
	3.3.1	Tyre size, rear		mm	Φ254×114
	3.4	Additional wheels (castor wheels)		mm	Φ102×51
	3.5.1	Wheels, number front/rear (x=drive wheels)		mm	1x/2
	3.6.1	Tread width, front	b_{10}	mm	——
	3.7.1	Tread width, rear	b_{11}	mm	974
Dimensions	4.1	Tilt of mast/fork carriage forward/backward	α/β	°	2/4
	4.2	Retracted mast height	h_1	mm	2780
	4.3	Free lift	h_2	mm	1522
	4.4	Lift height	h_3	mm	6500
	4.5	Height, mast extended	h_4	mm	7535
	4.7	Height of overhead guard (cabin)	h_6	mm	2153
	4.8	Seat height/standing height	h_7	mm	1050
	4.10	Height of wheel arms	h_8	mm	277
	4.19	Overall length	l_1	mm	2514
	4.20	Length to face of forks	l_2	mm	1330
	4.21	Overall width	b_1/b_2	mm	1090
	4.22	Fork dimensions	s×e×l	mm	40/100/1150
	4.23	A,B Fork carriage class/type A, B			2A
	4.24	Fork carriage width	b_3	mm	872
	4.25	Distance between fork-arms	b_5	mm	200-655
	4.26	Distance between wheel arms/loading surfaces	b_4	mm	750
	4.28	Reach distance	l_4	mm	590
	4.31	Ground clearance, laden, below mast	m_1	mm	80
	4.32	Ground clearance, center of wheelbase	m_2	mm	70
	4.34.1	Aisle width for pallets 1000×1200 crossways	Ast	mm	2789
	4.34.2	Aisle width for pallets 800×1200 lengthways	Ast	mm	2840
	4.35	Turning radius	Wa	mm	1720
	4.37	Length across wheel arms	l_7	mm	1870
Performance data	5.1	Travel speed, laden/unladen		km/h	9/9.3
	5.2	Lifting speed, laden/unladen		m/s	0.35/0.55
	5.3	Lowering speed, laden/unladen		m/s	0.55/0.5
	5.4	Reaching speed, laden /unladen		m/s	0.15/0.15
	5.8	Max. gradeability, laden/unladen		%	8/10
	5.10	Service brake			Electromagnetic
	5.11	Parking brake			Electromagnetic
Electric-engine	6.1	Drive motor rating S2 60 min		kW	4
	6.2	Lift motor rating at S3 15%		kW	11.75
	6.4	Battery voltage/nominal capacity		V/Ah	48/405
	6.5	Battery weight		kg	465
Drive/lift mechanism	8.1	Type of drive control			AC
	10.5	Steering design			Electronic
	10.7	Sound pressure level at the driver's ear		dB(A)	75
	15.1	Charger output current		A	——

If there are improvements of technical parameters or configurations, no further notice will be given.
The diagram shown may contain non-standard configurations.

Electric Reach Truck 2.0T
MRTST-20FAL

Distinguishing mark	1.1	Brand			MHE
	1.2	Model designation			MRTSE-20FAL
	1.3	Drive			Electric
	1.4	Operator type			Seated
	1.5	Load capacity	Q	kg	2000
	1.6	Load center distance	c	mm	600
	1.8	Load distance，centre of drive axle to fork	x	mm	377
	1.9	Wheelbase	y	mm	1515
Service weight	2.1	Service weight		kg	3510
	2.3.1	Axle loading, unladen front/rear		kg	2210/1320
	2.4.1	Axle loading, fork advanced, laden front/rear		kg	470/5060
	2.5.1	Axle loading, fork retracted, laden front/rear		kg	1870/3620
Tyres/chassis	3.1	Tyre type			Polyurethane
	3.2.1	Tyre size, front		mm	Φ343×140
	3.3.1	Tyre size, rear		mm	Φ310×118
	3.4	Additional wheels (castor wheels)		mm	Φ102×51
	3.5.1	Wheels, number front/rear (x=drive wheels)		mm	1x/2
	3.6.1	Tread width, front	b_{10}	mm	——
	3.7.1	Tread width, rear	b_{11}	mm	1148
Dimensions	4.1	Tilt of mast/fork carriage forward/backward	α/β	°	2/4
	4.2	Retracted mast height	h_1	mm	3219
	4.3	Free lift	h_2	mm	1712
	4.4	Lift height	h_3	mm	7500
	4.5	Height, mast extended	h_4	mm	8565
	4.7	Height of overhead guard (cabin)	h_6	mm	2213
	4.8	Seat height/standing height	h_7	mm	1076
	4.10	Height of wheel arms	h_8	mm	333
	4.19	Overall length	l_1	mm	2543
	4.20	Length to face of forks	l_2	mm	1393
	4.21	Overall width	b_1/b_2	mm	1270
	4.22	Fork dimensions	s×e×l	mm	40/120/1150
	4.23	A,B Fork carriage class/type A, B			2A
	4.24	Fork carriage width	b_3	mm	990
	4.25	Distance between fork-arms	b_5	mm	240/770
	4.26	Distance between wheel arms/loading surfaces	b_4	mm	915
	4.28	Reach distance	l_4	mm	585
	4.31	Ground clearance, laden, below mast	m_1	mm	60
	4.32	Ground clearance, center of wheelbase	m_2	mm	75
	4.34.1	Aisle width for pallets 1000×1200 crossways	Ast	mm	2835
	4.34.2	Aisle width for pallets 800×1200 lengthways	Ast	mm	2885
	4.35	Turning radius	Wa	mm	1770
	4.37	Length across wheel arms	l_7	mm	1948
Performance data	5.1	Travel speed, laden/unladen		km/h	10/11
	5.2	Lifting speed, laden/unladen		m/s	0.38/0.55
	5.3	Lowering speed, laden/unladen		m/s	0.41/0.38
	5.4	Reaching speed, laden /unladen		m/s	0.18/0.18
	5.8	Max. gradeability, laden/unladen		%	10/15
	5.10	Service brake			Electromagnetic
	5.11	Parking brake			Electromagnetic
Electric-engine	6.1	Drive motor rating S2 60 min		kW	7
	6.2	Lift motor rating at S3 15%		kW	20
	6.4	Battery voltage/nominal capacity		V/Ah	48/405
	6.5	Battery weight		kg	510
Addition data	8.1	Type of drive control			AC
	10.5	Steering design			Electronic
	10.7	Sound pressure level at the driver's ear		dB(A)	75
	15.1	Charger output current		A	200

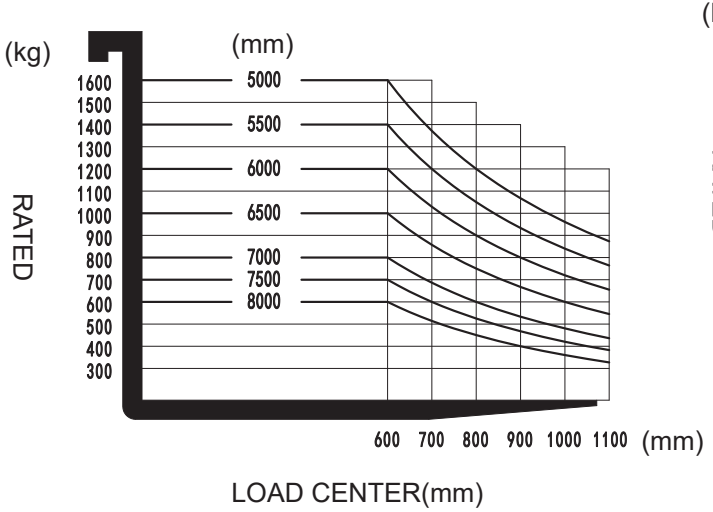
If there are improvements of technical parameters or configurations, no further notice will be given.
The diagram shown may contain non-standard configurations.



MRTSE-16FAL

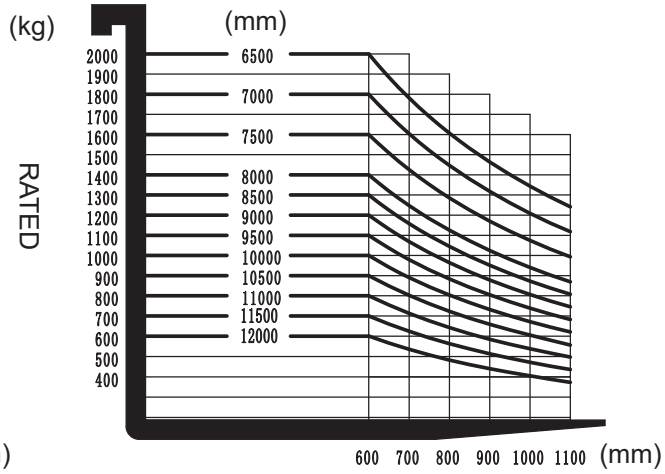
MRTSE-20FAL

RATED CAPACITIES GRAPH



LOAD CENTER(mm)

RATED CAPACITIES GRAPH



LOAD CENTER(mm)

Mast Option(MRTSE-16FAL)

①Service weight (include battery)

Mast height(mm)	Service weight(kg)	Mast height(mm)	Service weight(kg)
2-stage mast		3-stage mast	
2700	2497	4000	2662
3000	2522	4500	2697
3300	2547	5000	2733
3640	2572	5500	2769
4000	2597	6000	2805
4300	2622	6500	2840
——	——	7000	2876
——	——	7500	2912
——	——	8000	2956

②Mast

Mast types	Lift height (h3)	Height, Mast			Height,Free lift(h2)	
		Height, mast lowered(h1)	Height, mast extended(h4)		No backrest	With backrest
			No backrest	With backrest		
	mm	mm	mm	mm	mm	mm
2-Standard Mast	2700	1900	3266	3560	0	0
	3000	2050	3566	3860	0	0
	3300	2200	3866	4160	0	0
	3640	2370	4206	4500	0	0
	4000	2550	4566	4860	0	0
	4300	2700	4866	5160	0	0
3-Free Mast	4000	1930	4899	4899	662	662
	4500	2100	5399	5399	842	842
	5000	2270	5899	5899	1002	1002
	5500	2440	6399	6399	1182	1182
	6000	2610	6899	6899	1342	1342
	6500	2780	7399	7399	1522	1522
	7000	2950	7899	7899	1682	1682
	7500	3120	8399	8399	1842	1842
	8000	3330	8899	8899	2102	2102

③Dimensions(mm)

		without side shift		with side shift	
		2-stage mast	3-stage mast	2-stage mast	3-stage mast
Overall length (minimum)	l1	2377	2399	2412	2434
Length to face of forks	l2	1273	1295	1308	1330
Fork carriage width	b3	837		872	
Outside width of the forks	b5	200-620		200-655	
Reach distance	l4	625		590	
Aisle width for pallets 1000×1200 crossways	Ast	2749	2764	2774	2789
Aisle width for pallets 800×1200 lenthways	Ast	2789	2809	2821	2840
Aisle width for pallets 1000×1200 lenthways	Ast	2840	2858	2869	2888
Aisle width for pallets 800×1200 crossways	Ast	2626	2638	2645	2666

④Battery

Capacity(Ah)	Battery weight （kg）
280	450
360	465

Mast Option(MRTSE-20FAL)

①Service weight (include battery)

Mast height(mm)	Service weight(kg)	Mast height(mm)	Service weight(kg)
2-stage mast		3-stage mast	
2700	2847	4050	3138
3000	2872	4500	3180
3300	2896	5000	3223
3640	2924	5500	3271
4000	2953	6000	3320
4300	2977	6500	3363
4520	3005	7000	3479
5000	3044	7500	3510
5480	3086	8000	3569
6000	3143	8500	3629
——	——	9000	3688
——	——	9500	3736
——	——	10000	3850
——	——	10500	3898
——	——	11000	3944
——	——	11500	3991
——	——	12000	4037

②Mast

Mast types	Lift height (h3)	Height, Mast			Height,Free lift(h2)	
		Height, mast lowered(h1)	Height, mast extended(h4)		No backrest	With backrest
			No backrest	With backrest		
	mm	mm	mm	mm	mm	mm
2-Standard Mast	2700	1980	3280	3765	120	120
	3000	2130	3580	4065	120	120
	3300	2280	3880	4365	120	120
	3640	2450	4220	4705	120	120
	4000	2630	4580	5065	120	120
	4300	2780	4880	5365	120	120
3-Free Mast	4050	1999	5113	5115	522	522
	4500	2149	5563	5565	672	672
	5000	2299	6063	6065	772	772
	5500	2469	6563	6565	952	952
	6000	2649	7063	7065	1172	1172
	6500	2799	7563	7565	1272	1272
	7000	3049	8063	8065	1532	1532
	7500	3219	8563	8565	1712	1712
	8000	3389	9063	9065	1852	1852
	8500	3609	9563	9565	2072	2072
	9000	3769	10063	10065	2212	2212
	9500	3939	10563	10565	2392	2392
	10000	4159	11063	11065	2612	2612
	10500	4329	11563	11565	2792	2792
	11000	4489	12063	12065	2932	2932
	11500	4659	12563	12565	3112	3112
	12000	4819	13063	13065	3252	3252

④Battery

Model	MRTSE-20FAL	
Li-Ion Battery Capacity	360Ah	560Ah
Li-Ion Battery Weight	350kg	350kg

Option(MRTSE-16FAL)

No.	Optional items	MRTSE-16FAL
1.1	Fork dimension	○900*600, 2A, 100*40*920 ○900*600, 2A, 100*40*1070 ●900*600, 2A, 100*40*1150 ○900*600, 2A, 100*40*1220 ○900*600, 2A, 100*40*1370
1.2	Leg width	●751
1.4	Fork carriage width	●620mm(without sideshifter) ○655mm(with sideshifter)
1.5	backrest height	●820mm(without sideshifter) ○995mm(with sideshifter)
2.1	Load wheel type	●Single
2.2	Load wheel material	●PU
2.3	Drive wheel material	●PU
2.7	Battery capacity	●405Ah-Li
2.8	Charger	●48V-150A-Li external ○48V-200A-Li external ○48V-100A-Li external
2.10	Seat type	●Suspension
2.11	Attachments	●No ○Built-in sideshifter
3.3	Castor wheels	●Yes and not customized
3.5	Front lamp	●LED
3.6	Rear lamp	●No ○LED
3.7	Warning lamp	●Yes and not customized
3.9	Blue lamp	●No ○Yes and not customized
3.10	Area warning lamp	●No ○Yes and not customized
3.11	Rearview mirror	●Yes and not customized
3.12	Buzzer	●No ○Yes and not customized
3.14	Camera	●No ○Yes and not customized
3.15	Fire extinguisher	●No ○Yes and not customized
3.17	OPS system	●Yes and not customized
3.23	Telematics	●No ○Yes and not customized
4.2	Cold storage	●No ○Yes and not customized
4.5	Proportional lift system	●Yes and not customized
4.6	Forks tilt forward and backward	●Yes and not customized
4.7	Overhead guard	●Yes ○Yes and can be customized (Drive-in)

Note: ●Standard ○ Optional - Inconformity

Option(MRTSE-20FAL)

No.	Optional items	MRTSE-20FAL
1.1	Fork dimension	○1000*600, 2A, 122*40*920 ○1000*600, 2A, 122*40*1070 ●1000*600, 2A, 122*40*1150 ○1000*600, 2A, 122*40*1220 ○1000*600, 2A, 122*40*1370 ○1000*600, 2A, 122*40*1500 ○1000*600, 2A, 122*40*1600
1.2	Leg width	●917
1.4	Fork carriage width	●770mm
1.5	backrest height	●1025mm
2.1	Load wheel type	●Single
2.2	Load wheel material	●PU
2.3	Drive wheel material	●PU
2.7	Battery capacity	●405Ah-Li
2.8	Charger	●48V-200A-Li external ○48V-150A-Li external
2.10	Seat type	●Suspension
2.11	Attachments	●Built-in sideshifter
3.3	Castor wheels	●Yes and not customized
3.5	Front lamp	●LED
3.6	Rear lamp	●No○LED
3.7	Warning lamp	●Yes and not customized
3.9	Blue lamp	●No ○Yes and not customized
3.10	Area warning lamp	●No ○Yes and not customized
3.11	Rearview mirror	●Yes and not customized
3.12	Buzzer	●No○ Yes and not customized
3.13	Height display	●Yes and not customized (only for 3-stage mast)
3.14	Camera	●No ○Yes and not customized
3.15	Fire extinguisher	●No ○Yes and not customized
3.17	OPS system	●Yes and not customized
3.23	Telematics	●No ○Yes and not customized
4.2	Cold storage	●No ○Yes and not customized
4.5	Proportional lift system	●Yes and not customized
4.6	Forks tilt forward and backward	●Yes and not customized
4.7	Overhead guard	●No ○Yes and can be customized (Drive-in)
4.8	Drive assembly	●ZK25 ○GK25
Note: ●Standard ○ Optional - Inconformity		