TKC 20 – 3-WHEEL ELECTRIC COUNTERBALANCE FORKLIFT



The TKC Series is a compact, 3-wheel electric counterbalance forklift engineered for exceptional manoeuvrability in space-restricted indoor environments. Powered by an AC dual-drive system and controlled by a high-spec imported controller, it delivers smooth, stable performance with precise real-time responsiveness. Its tight turning radius and slim profile make it ideal for narrow aisle stacking and high-throughput warehouse operations where space efficiency and operator safety are critical.

Ideal for:

- Indoor warehousing and logistics centres
- Space-constrained storage areas
- High-efficiency pallet handling and transport
- Compact, capable, and cost-effective — the TKC series helps you do more in less space.

Parameters					
Characteristics	1.1	Manufacturer		MIMA	MIMA
	1.2	Model		TKC16	TKC20
		Technical code		2MKC16	2MKC20
	1.3	Power type		Battery	Battery
	1.4	Operation		Seated	Seated
	1.5	Load capacity	Q(kg)	1600	2000
	1.6	Load center	C(mm)	500	500
	1.7	Front overhang	x(mm)	365	370
	1.8	Wheelbase	y(mm)	1400	1400
Weights	2.1	Service Weight(incl/excl. battery)	kg	3290/2640	3420/2650
	2.2	Axle loading, laden, front/rear	kg	4105/785	4851/579
	2.3	Axle loading, unladen, front/rear	kg	1514/1776	1605/1825
Wheels	3.1	Tyre type,front/rear		Solid Tyre	Solid Tyre
	3.2	Tyre size, front		457×152×308	457×178×308
	3.3	Tyre size, rear		381×127×286	381×127×286
	3.4	Wheels,number front/rear (X=driven)		2X/2	2X/2
	3.5	Track width, front	b10(mm)	934	942
	3.6	Track width, rear	b11(mm)	183	183
Dimensions	4.1	Mast tilt angle front/rear	α/β(°)	6/6	6/6
	4.2	Mast retracted height	h1(mm)	Refer to the mast specification	Refer to the mast specification
	4.3	Free lift height	h2(mm)	145	150
	4.4	Lift height	h3(mm)	3300	3300
	4.5	Mast extended height	h4(mm)	Refer to the mast specification	Refer to the mast specification
	4.6	Overhead guard height	h6(mm)	2105	2105
	4.7	Seat height	h7(mm)	1082	1082
	4.8	Towing pin height	h10(mm)	519	519
	4.9	Overall length	L1(mm)	2880	2885
	4.1	Body to fork surface length	L2(mm)	1960	1965
	4.11	Overall width	b1/b2(mm)	1086/1070	1120/1070
	4.12	Fork dimensions	l/e/s(mm)	920/100/35	920/100/40
	4.13	Installation level (IS02328)		2A	2A
	4.14	Fork carriage width	b3(mm)	970	970
	4.15	Fork outside spread (max~min)	b5(mm)	930~218	930~218
	4.16	Ground Clearance (Loaded, Center of Mast)	m1(mm)	105	105
	4.17	Ground Clearance (Loaded, Center of Wheelbase)	m2(mm)	100	100
	4.18	Aisle Width (1000×1200 Across Forks)	Ast(mm)	3286	3291
	4.19	Aisle Width (800×1200 Along Forks)	Ast(mm)	3410	3415
	4.2	More aisle width	Ast(mm)	Refer to the aisle specification	Refer to the aisle specification
	4.21	Turning radius	Wa(mm)	1595	1595
Performance	5.1	Travelling speed, laden/unladen	km/h	15/15	14/15
	5.2	Lift speed, laden/unladen	mm/s	400/550	360/550
	5.3	Lowering speed, laden/unladen	mm/s	500/550	500/550
	5.4	Gradeability, laden/unladen	%	15/15	15/15
	5.5	Acceleration time of 10 meters, laden/unladen	S	5.4/5	5.4/5
	5.6	Service brake		Hydraulic	Hydraulic
	5.7	Parking brake		Mechanical	Mechanical

Drive	6.1	Drive motor, rating S2=60	kw	AC4.8×2	AC4.8×2
	6.2	Lift motor, rating S3=15%	kw	AC12	AC12
	6.3	Lead-acid battery voltage/nominal capacity (standard)	V/Ah	48/400	48/490
	6.4	Lead-acid battery capacity (optional)	Ah	490/560/630	560/630
	6.5	Maximum battery capacity of the side pull model	Ah	490	490
	6.6	Lead acid battery weight (standard)	kg	650	770
Lithium Battery	7.1	Lithium battery voltage/ nominal capacity (standard)	V/Ah	48/300	48/410
	7.2	Lithium battery voltage/ nominal capacity (optional)	V/Ah	48/410	48/460
	7.3	Lithium battery weight (standard)	kg	127	155
Others	7.1	Hydraulic system pressure	Mpa	15.5	15.5
Note:	1. The travel speed, lift/lower speed, and gradeability parameters listed in the table above are based on the standard model with duplex mast standard models. 2. The data for the standard models in the series may vary depending on different configurations.				

Load parameter table TKC20

Mast type	Mast model	Lifting height	Load capacity												
		mm	kg												
	C(mm)➢@		500	550	600	650	700	750	800	850	900	950	1000	1050	1100
Duplex mast	60L	6000	1380	1300	1220	1150	1080	1020	970	910	870	820	780	740	700
	55L	5500	1500	1410	1330	1250	1180	1120	1060	1000	950	900	850	810	770
	50L	5000	1630	1530	1440	1360	1290	1220	1150	1090	1040	980	940	890	840
	45L	4500	1800	1690	1590	1510	1420	1350	1280	1210	1150	1100	1040	990	950
	40L	4000	2000	1880	1770	1680	1590	1500	1430	1360	1290	1230	1170	1120	1060
	37L	3700	2000	1880	1770	1680	1590	1500	1430	1360	1290	1230	1170	1120	1060
	35L	3500	2000	1880	1770	1680	1590	1500	1430	1360	1290	1230	1170	1120	1060
	33L	3300	2000	1880	1770	1680	1590	1500	1430	1360	1290	1230	1170	1120	1060
	30L	3000	2000	1880	1770	1680	1590	1500	1430	1360	1290	1230	1170	1120	1060
	27L	2700	2000	1880	1770	1680	1590	1500	1430	1360	1290	1230	1170	1120	1060
	25L	2500	2000	1880	1770	1680	1590	1500	1430	1360	1290	1230	1170	1120	1060
	20L	2000	2000	1880	1770	1680	1590	1500	1430	1360	1290	1230	1170	1120	1060
Duplex full free mast	60Q	6000	1380	1300	1220	1150	1080	1020	970	910	870	820	780	740	700
	55Q	5500	1500	1410	1330	1250	1180	1120	1060	1000	950	900	850	810	770
	50Q	5000	1630	1530	1440	1360	1290	1220	1150	1090	1040	980	940	890	840
	45Q	4500	1800	1690	1590	1510	1420	1350	1280	1210	1150	1100	1040	990	950
	40Q	4000	2000	1880	1770	1680	1590	1500	1430	1360	1290	1230	1170	1120	1060
	37Q	3700	2000	1880	1770	1680	1590	1500	1430	1360	1290	1230	1170	1120	1060
	35Q	3500	2000	1880	1770	1680	1590	1500	1430	1360	1290	1230	1170	1120	1060
	33Q	3300	2000	1880	1770	1680	1590	1500	1430	1360	1290	1230	1170	1120	1060
	30Q	3000	2000	1880	1770	1680	1590	1500	1430	1360	1290	1230	1170	1120	1060
	27Q	2700	2000	1880	1770	1680	1590	1500	1430	1360	1290	1230	1170	1120	1060
	25Q	2500	2000	1880	1770	1680	1590	1500	1430	1360	1290	1230	1170	1120	1060
	20Q	2000	2000	1880	1770	1680	1590	1500	1430	1360	1290	1230	1170	1120	1060
Triplex full free mast	75T	7500	1120	1050	980	930	870	820	770	730	690	650	610	580	540
	70T	7000	1200	1120	1060	990	940	880	830	790	740	700	660	630	590
	68T	6800	1230	1150	1080	1020	960	910	850	810	760	720	680	640	610
	65T	6500	1280	1200	1130	1060	1000	940	890	840	800	750	710	670	640
	63T	6300	1320	1240	1160	1100	1030	980	920	870	820	780	740	700	660
	60T	6000	1380	1300	1220	1150	1080	1020	970	910	870	820	780	740	700
	55T	5500	1500	1410	1330	1250	1180	1120	1060	1000	950	900	850	810	770
	50T	5000	1630	1530	1440	1360	1290	1220	1150	1090	1040	980	940	890	840
	48T	4800	1690	1590	1500	1410	1330	1260	1200	1140	1080	1020	970	930	880
	45T	4500	1800	1690	1590	1510	1420	1350	1280	1210	1150	1100	1040	990	950
	40T	4000	2000	1880	1770	1680	1590	1500	1430	1360	1290	1230	1170	1120	1060
	36T	3600	2000	1880	1770	1680	1590	1500	1430	1360	1290	1230	1170	1120	1060
Note:	1. When installing an external side shifter , the load is reduced by 150kg;														
	2. The comprehensive load capacity of other attachments needs to be calculated;														

Mast and self-weight parameter table TKC16～TKC20

Mast type	Mast model	Lifting height	Mast retracted height	Mast extended height	Free lifting height (with standard load backrest)		Service Weight(incl.battery)		Mast tilt angle
		mm					±3% kg		(°)
	Model 2MKC				16	20	16	20	All
Duplex mast									
	60L	6000	3622	7000	145	150	3480	3610	2/4
	55L	5500	3372	6500	145	150	3450	3580	2/4
	50L	5000	3072	6000	145	150	3419	3549	4/6
	45L	4500	2822	5500	145	150	3388	3518	4/6
	40L	4000	2572	5000	145	150	3351	3481	4/6
	37L	3700	2372	4700	145	150	3333	3463	4/6
	35L	3500	2272	4500	145	150	3321	3451	6/6
	33L	3300	2172	4300	145	150	3308	3438	6/6
	30L	3000	2022	4000	145	150	3290	3420	6/6
	27L	2700	1872	3700	145	150	3272	3402	6/6
	25L	2500	1772	3500	145	150	3259	3389	6/6
	20L	2000	1522	3000	145	150	3229	3359	6/6
Duplex full free mast									
	60Q	6000	3622	7009	2657	2662	3522	3652	2/4
	55Q	5500	3372	6509	2407	2412	3492	3622	2/4
	50Q	5000	3072	6009	2107	2112	3461	3591	4/6
	45Q	4500	2822	5509	1857	1862	3430	3560	4/6
	40Q	4000	2572	5009	1607	1612	3393	3523	4/6
	37Q	3700	2372	4709	1407	1412	3375	3505	4/6
	35Q	3500	2272	4509	1307	1312	3363	3493	6/6
	33Q	3300	2172	4309	1207	1212	3350	3480	6/6
	30Q	3000	2022	4009	1057	1062	3332	3462	6/6
	27Q	2700	1872	3709	907	912	3314	3444	6/6
	25Q	2500	1772	3509	807	812	3301	3431	6/6
	20Q	2000	1522	3009	557	562	3271	3401	6/6
Triplex full free mast	75T	7500	3132	8500	2167	2172	3679	3809	2/4
	72T	7200	3032	8200	2067	2072	3660	3790	2/4
	70T	7000	2965	8000	2000	2005	3647	3777	2/4
	68T	6800	2899	7800	1934	1939	3635	3765	2/4
	65T	6500	2799	7500	1834	1839	3616	3746	2/4
	63T	6300	2732	7300	1767	1772	3603	3733	2/4
	60T	6000	2632	7000	1667	1672	3584	3714	2/4
	55T	5500	2465	6500	1500	1505	3553	3683	2/4
	50T	5000	2299	6000	1334	1339	3522	3652	4/6
	48T	4800	2232	5800	1267	1272	3509	3639	4/6
	45T	4500	2132	5500	1167	1172	3490	3620	4/6
	40T	4000	1965	5000	1000	1005	3458	3588	4/6
	36T	3600	1832	4600	867	872	3433	3563	4/6

Note:

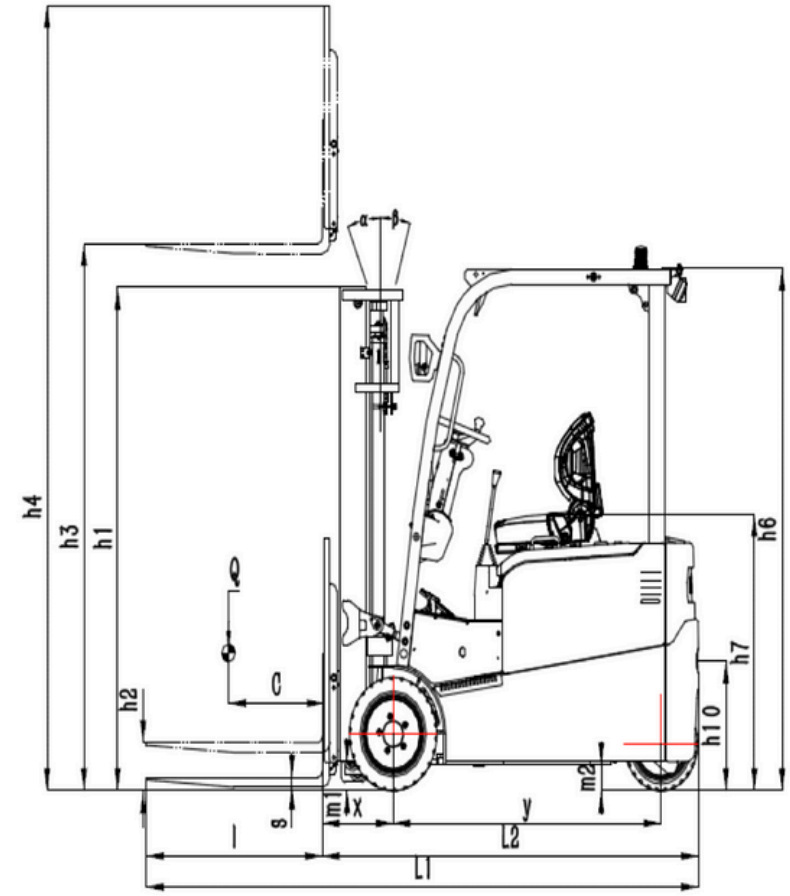
1. The vehicle's own weight parameter includes approximately 22 kg of 27L hydraulic oil; the optional fork weight is approximately ±10 kg/100 mm.
2. When equipped with a side-pull battery, the total weight of the TKC20 vehicle increases by approximately 65 kg (excluding the side-pull trolley); when equipped with a side-removal battery, the total weight of the TKC20 vehicle increases by approximately 35 kg (excluding the side-pull trolley).
3. When equipped with attachments, the vehicle's weight is the table parameter plus the attachment weight; if not equipped with forks and a load backrest, the standard fork weight (approximately 74 kg for the 16 standard forks, approximately 84 kg for the 20 standard forks) and the standard load backrest weight (approximately 20 kg for the 16–20 standard load backrest) should be subtracted.
4. For L-type masts without load backrest, the mast extended height is the table parameter minus 410 mm, and the free lift height is as per the table parameter;
   For Q-type and T-type masts without load backrests, the mast extended height is the table parameter minus 460 mm, and the free lift height is the table parameter plus 460 mm.

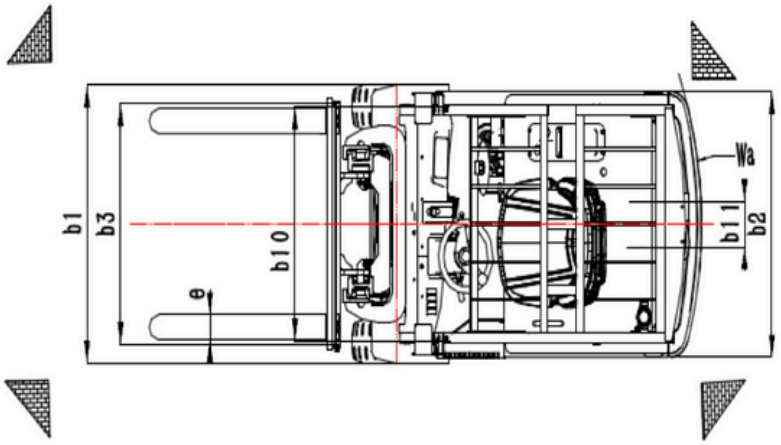
Mast and self-weight parameter table TKC16～TKC20

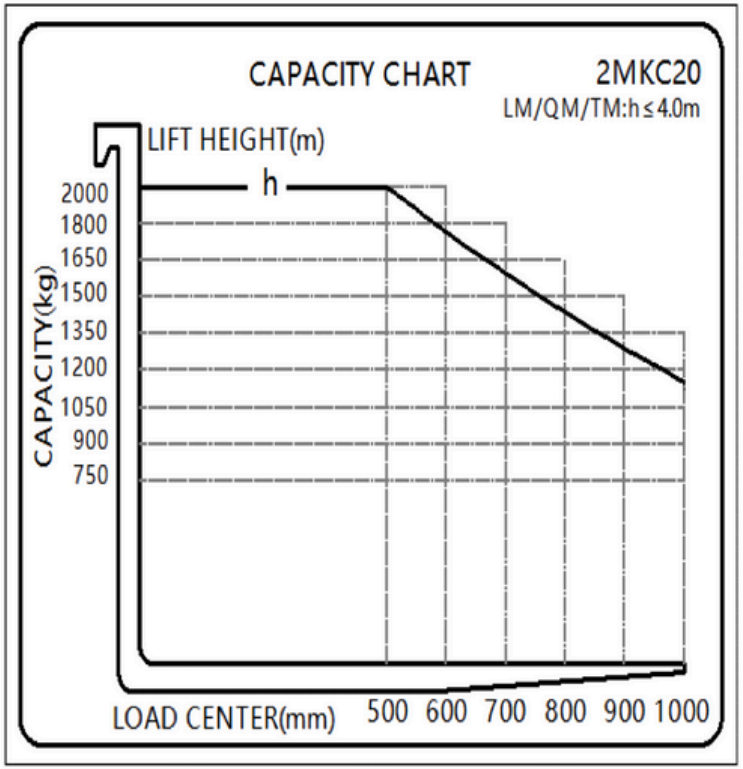
Mast type	Mast model	Lifting height	Mast retracted height	Mast extended height	Free lifting height (with standard load backrest)		Service Weight(incl.battery)		Mast tilt angle
		mm					±3% kg		(°)
	Model 2MKC				16	20	16	20	All
Duplex mast									
	60L	6000	3622	7000	145	150	3480	3610	2/4
	55L	5500	3372	6500	145	150	3450	3580	2/4
	50L	5000	3072	6000	145	150	3419	3549	4/6
	45L	4500	2822	5500	145	150	3388	3518	4/6
	40L	4000	2572	5000	145	150	3351	3481	4/6
	37L	3700	2372	4700	145	150	3333	3463	4/6
	35L	3500	2272	4500	145	150	3321	3451	6/6
	33L	3300	2172	4300	145	150	3308	3438	6/6
	30L	3000	2022	4000	145	150	3290	3420	6/6
	27L	2700	1872	3700	145	150	3272	3402	6/6
	25L	2500	1772	3500	145	150	3259	3389	6/6
	20L	2000	1522	3000	145	150	3229	3359	6/6
Duplex full free mast									
	60Q	6000	3622	7009	2657	2662	3522	3652	2/4
	55Q	5500	3372	6509	2407	2412	3492	3622	2/4
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Triplex full free mast	75T	7500	3132	8500	2167	2172	3679	3809	2/4
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	70T	7000	2965	8000	2000	2005	3647	3777	2/4
	68T	6800	2899	7800	1934	1939	3635	3765	2/4
	65T	6500	2799	7500	1834	1839	3616	3746	2/4
	63T	6300	2732	7300	1767	1772	3603	3733	2/4
	60T	6000	2632	7000	1667	1672	3584	3714	2/4
	55T	5500	2465	6500	1500	1505	3553	3683	2/4
	50T	5000	2299	6000	1334	1339	3522	3652	4/6
	48T	4800	2232	5800	1267	1272	3509	3639	4/6
	45T	4500	2132	5500	1167	1172	3490	3620	4/6
	40T	4000	1965	5000	1000	1005	3458	3588	4/6
	36T	3600	1832	4600	867	872	3433	3563	4/6

Note:

1. The vehicle's own weight parameter includes approximately 22 kg of 27L hydraulic oil; the optional fork weight is approximately ±10 kg/100 mm.
2. When equipped with a side-pull battery, the total weight of the TKC20 vehicle increases by approximately 65 kg (excluding the side-pull trolley); when equipped with a side-removal battery, the total weight of the TKC20 vehicle increases by approximately 35 kg (excluding the side-pull trolley).
3. When equipped with attachments, the vehicle's weight is the table parameter plus the attachment weight; if not equipped with forks and a load backrest, the standard fork weight (approximately 74 kg for the 16 standard forks, approximately 84 kg for the 20 standard forks) and the standard load backrest weight (approximately 20 kg for the 16–20 standard load backrest) should be subtracted.
4. For L-type masts without load backrest, the mast extended height is the table parameter minus 410 mm, and the free lift height is as per the table parameter;
For Q-type and T-type masts without load backrests, the mast extended height is the table parameter minus 460 mm, and the free lift height is the table parameter plus 460 mm.







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