



FM-X 10 (10 N)

FM-X 12 (12 N)

FM-X 14 (14 N)

FM-X 17 (17 N)

FM-X 20 (20 N)

FM-X 25

FM-X Technical Data

Driver seated reach truck



In accordance with VDI guidelines 2198, this specification sheet applies to the standard model only. For special masts, attachments etc. specifications may vary.

1 01 5	peciaii	nasts, attachments etc. specifications may vary.					
	1.1	Manufacturer				STILL	STILL
1	1.2	Manufacturer's model designation				FM-X 10	FM-X 12
_ ا	1.3	Drive (electric, diesel, petrol, LPG)				Electric	Electric
Description	1.4	Operation (hand, pedestrian, stand-on, rider seated)				Seat	Seat
Scrip	1.5	Load capacity		a	kg	1000	1200
Ğ	1.6	Load centre		С	mm	600	600
	1.8	Load distance ¹		Х	mm	239	311
	1.9	Wheel base		V	mm	1237	1309
	2.1			У		2872	2889
ts		Tare weight incl. battery			kg		
Weights	2.3	Axle load closed fork, without load, drive side/load side			kg	1806/1066 735/3137	1863/1026
3	2.4	Axle load extended fork, with load, drive side/load side			kg	,	664/3425
	2.5	Axle load closed fork, with load, drive side/load side			kg	1483/2389	1563/2526
_	3.1	Tyres (solid rubber, Polyurethane, air)				Polyurethane	Polyurethane
Wheels track	3.2	Tyre size drive side			mm	360 x 130	360 x 130
= =	3.3	Tyre size load side			mm	310 x 102	310 x 102
eel	3.5	Wheels, number (x = driven) load side/drive side				2/1 x	2/1 x
⋛	3.6	Track width, load side		b10	mm	1140	1140
<u> </u>	3.7	Track width, drive side		b ₁₁	mm	-	-
	4.1	Mast/fork carriage tilt, forward/backward ³			٥	1/3	1/3
	4.2	Closed mast height		h ₁	mm	2450	2450
	4.3	Free lift		h ₂	mm	1890	1890
	4.4	Lift		hз	mm	5750	5750
	4.5	Extended mast height		h ₄	mm	6310	6310
	4.7	Height over OHG (cabin)		h ₆	mm	2200	2200
	4.8	Height of seat/stand		h ₇	mm	1050/550	1050/550
	4.10	Height of straddle legs/load wheel covers		h ₈	mm	330	330
	4.19	Overall length ²		l ₁	mm	2379	2379
Su	4.20	Length incl. fork back ²		12	mm	1229	1229
Basic dimensions	4.21	Overall width		b1/b2	mm	1250/1220	1250/1220
in e	4.22	Dimension of fork teeth		s/e/l	mm	40/80/1150	40/100/1150
9.2	4.23	Fork carriage DIN 15173, class/form A, B				2/A	2/A
Ba	4.24	Width of fork carriage, top/bottom		bз	mm	850/730 GN/SS 850/650	850/730 GN/SS 850/650
İ	4.25	Outer fork width		b ₅	mm	600	620
İ	4.26	Width between straddle legs/load platform		b4	mm	920	920
l	4.28	i		14	mm	458	530
İ	4.31	Floor clearance beneath mast with load		m ₁	mm	90	90
İ		Floor clearance at centre of wheel base		m ₂	mm	81	81
		Width of working aisle for 1000 x 1200 pallets crosswise ²		Ast	mm	2638	2654
İ	4.34	-		Ast	mm	2709	2715
İ	4.35			Wa	mm	1468	1540
İ	4.37			17	mm	1641	1713
	5.1		ith/without load		km/h	12/12	14/14
İ	5.2	i	ith/without load		m/s	0.47/0.70	0.45/0.70
يو ا	5.3	·	ith/without load		m/s	0.56/0.50	0.56/0.50
ormance	5.4	<u> </u>	ith/without load		m/s	0.15	0.15
Form	5.7	·	ith/without load		%	10/15	10/15
Perf	5.8		ith/without load		%	15/20	15/20
	5.9	3 1 2	ith/without load		S	4.8/4.5	4.9/4.6
l	5.10		,			gen./hydr.,mech.	gen./hydr.,mech.
<u></u>	6.1	Drive motor, S2 performance 60 min			kW	6.5	6.5
Electric motors	6.2	Lift motor, S3 performance 15%			kW	13	13
l m	6.3	Battery according to IEC 254-2; A,B,C, no			IX V V	IEC 254-2, C	IEC 254-2, C
ctric	6.4	Battery voltage, nominal capacity K ₅			V/Ah	420	420
Ee	6.5	Weight of battery ± 5% (depending on the manufacturer)			V / All	750	750
	8.1	Type of steering control			ng l	Three-phase	Three-phase
<u></u>	8.2	Operating pressure for attachments			bar	140	140
Other	8.3	Oil quantity for attachments			I/min	18	18
		On quantity IOI attaclinicits			1/ 1111111	10	10
°	8.4	Noise level at driver's ear			dB (A)	68	68

All measurements including sideshift mast or sidshift forks (carriage) 1 Reduced in steps of 72 mm depending on the size of the battery. 2 $A_{\rm st}$ extended in steps of 72 mm depending on the size of battery. 3 May vary according to the mast, with side shift/fork tilt 2°/4°.

 $^{^4}$ Shift speed 0.13 m/s for closed mast heights h_1 = 3,600 mm and above.

In accordance with VDI guidelines 2198, this specification sheet applies to the standard model only. For special masts, attachments etc. specifications may vary.

For sp	ecial r	masts, attachments etc. specifications may vary.					
	1.1	Manufacturer				STILL	STILL
İ	1.2	Manufacturer's model designation				FM-X 14	FM-X 17
_ ا	1.3	Drive (electric, diesel, petrol, LPG)				Electric	Electric
Description	1.4	Operation (hand, pedestrian, stand-on, rider seated)				Seat	Seat
scri	1.5	Load capacity		a	kg	1400	1700
۵	1.6	Load centre		С	mm	600	600
	1.8	Load distance ¹		X	mm	347	409
	1.9	Wheel base		V	mm	1381	1453
	2.1	Tare weight incl. battery		У	kg	3174	3191
ıts	2.3	Axle load closed fork, without load, drive side/load side			kg	1998/1176	2050/1141
Weights	2.4	Axle load extended fork, with load, drive side/load side			kg	601/3973	484/4407
>	2.5	Axle load closed fork, with load, drive side/load side				·	1791/3100
					kg	1702/2872	,
	3.1	Tyres (solid rubber, Polyurethane, air)				Polyurethane	Polyurethane
Wheels track	3.2	Tyre size drive side			mm	360 x 130	360 x 130
- s	3.3	Tyre size load side			mm	310 x 102	310 x 102
heel	3.5	Wheels, number (x = driven) load side/drive side				2/1 x	2/1 x
>	3.6	Track width, load side		b10	mm	1140	1140
<u> </u>	3.7	Track width, drive side		b ₁₁	mm	-	-
	4.1	Mast/fork carriage tilt, forward/backward ³			٥	1/3	1/3
	4.2	Closed mast height		h ₁	mm	2450	2450
	4.3	Free lift		h ₂	mm	1890	1880
	4.4	Lift		h ₃	mm	5750	5750
	4.5	Extended mast height		h ₄	mm	6310	6320
	4.7	Height over OHG (cabin)		h ₆	mm	2200	2200
	4.8	Height of seat/stand		h ₇	mm	1050/550	1050/550
	4.10	Height of straddle legs/load wheel covers		h ₈	mm	330	330
	4.19	Overall length ²		I 1	mm	2415	2425
Suc	4.20	Length incl. fork back ²		12	mm	1265	1275
Basic dimensions	4.21	Overall width		b1/b2	mm	1250/1220	1250/1220
l ië	4.22	Dimension of fork teeth		s/e/I	mm	40/100/1150	50/100/1150
Sic.	4.23	Fork carriage DIN 15173, class/form A, B				2/A	2/A
Ba	4.24	Width of fork carriage, top/bottom		bз	mm	850/730 GN/SS 850/650	850/730 GN/SS 850/650
	4.25	Outer fork width		b ₅	mm	620	620
	4.26	Width between straddle legs/load platform		b ₄	mm	920	920
	4.28	Forward shift 1		14	mm	565	633
	4.31	Floor clearance beneath mast with load		m ₁	mm	90	90
	4.32	Floor clearance at centre of wheel base		m ₂	mm	81	81
	4.33	Width of working aisle for 1000 x 1200 pallets crosswise ²		Ast	mm	2699	2727
	4.34	Width of working aisle for 800 x 1200 pallets lengthwise ²		Ast	mm	2755	2771
	4.35	Turning radius		Wa	mm	1612	1684
	4.37	Length incl. load wheels		l ₇	mm	1785	1857
	5.1	Driving speed	with/without load		km/h	14/14	14/14
	5.2	Lift speed	with/without load		m/s	0.43/0.68	0.40/0.68
9	5.3	Lowering speed	with/without load		m/s	0.56/0.52	0.55/0.52
rmance	5.4		with/without load		m/s	0.15	0.15
	5.7	Climbing capacity	with/without load		%	10/15	10/15
Perfo	5.8		with/without load		%	15/20	15/20
	5.9	Acceleration time (over 10 m)	with/without load		S	5.1/4.7	5.3/4.8
L_	5.10	Operation brake				gen./hydr.,mech.	gen./hydr.,mech.
S	6.1	Drive motor, S2 performance 60 min			kW	6.5	6.5
Electric motors	6.2	Lift motor, S3 performance 15%			kW	13	13
ic m	6.3	Battery according to IEC 254-2; A,B,C, no				IEC 254-2, C	IEC 254-2, C
ectu	6.4	Battery voltage, nominal capacity K₅			V/Ah	420	48/420
🛎	6.5	Weight of battery ± 5% (depending on the manufacturer)			Kg	750	750
	8.1	Type of steering control				Three-phase	Three-phase
e	8.2	Operating pressure for attachments			bar	140	140
		Oil quantity for attachments			I/min	18	18
Other	8.3	Oil qualitity for attachinents			1/ 1111111 1		
₹	8.4	Noise level at driver's ear			dB (A)	68	68

All measurements including sideshift mast or sidshift forks (carriage) 1 Reduced in steps of 72 mm depending on the size of the battery. 2 A_{st} extended in steps of 72 mm depending on the size of battery. 3 May vary according to the mast, with side shift/fork tilt $2^\circ/4^\circ.$ 4 Shift speed 0.13 m/s for closed mast heights h_1 = 3,600 mm and above.

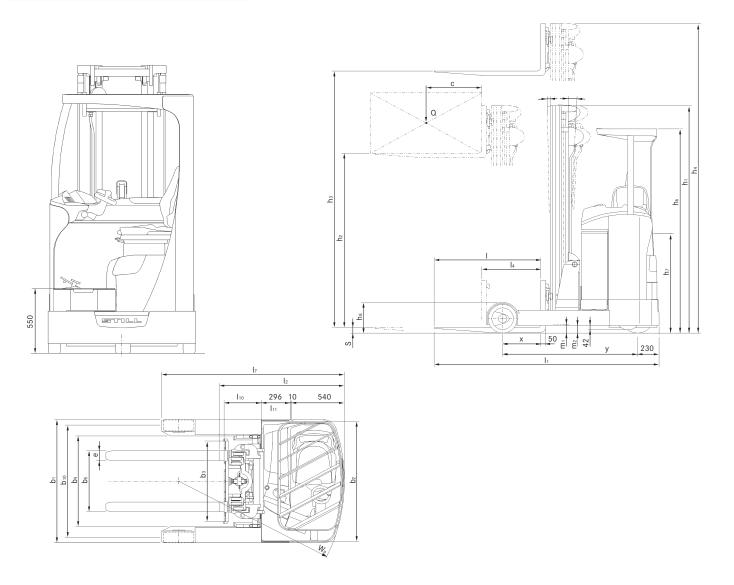
In accordance with VDI guidelines 2198, this specification sheet applies to the standard model only. For special masts, attachments etc. specifications may vary.

	CCIGITI	nasts, attachments etc. specifications may vary.					
	1.1	Manufacturer				STILL	STILL
	1.2	Manufacturer's model designation				FM-X 20	FM-X 25
_	1.3	Drive (electric, diesel, petrol, LPG)				Electric	Electric
Description	1.4	Operation (hand, pedestrian, stand-on, rider seated)				Seat	Seat
sscr	1.5	Load capacity		Q	kg	2000	2500
۵	1.6	Load centre		С	mm	600	600
	1.8	Load distance 1		Х	mm	409	481
	1.9	Wheel base		У	mm	1525	1669
	2.1	Tare weight incl. battery			kg	3408	3819
thts	2.3	Axle load closed fork, without load, drive side/load side			kg	2162/1246	2413/1406
Weights	2.4	Axle load extended fork, with load, drive side/load side			kg	501/4907	585/5734
-	2.5	Axle load closed fork, with load, drive side/load side			kg	1870/3538	2184/4135
	3.1	Tyres (solid rubber, Polyurethane, air)				Polyurethane	Polyurethane
쑹	3.2	Tyre size drive side			mm	360 x 140	360 x 140
Wheels track	3.3	Tyre size load side			mm	310 x 112	310 x 112
8	3.5	Wheels, number (x = driven) load side/drive side				2/1 x	2/1 x
Vhe	3.6	Track width, load side		b ₁₀	mm	1150	1150
	3.7	Track width, drive side		b ₁₁	mm	-	-
	4.1	Mast/fork carriage tilt, forward/backward ³		DII	0	1/3	1/3
	4.2	Closed mast height		h ₁	mm	2450	2450
	4.3	Free lift		h ₂	mm	1880	1828
	4.4	Lift		h ₃	mm	5580	5580
	4.5	Extended mast height		h ₄	mm	6150	6202
	4.7	Height over OHG (cabin)		h ₆	mm	2235	2235
	4.8	Height of seat/stand		h ₇	mm	1085/585	1085/585
		Height of straddle legs/load wheel covers		h ₈	mm	332	332
		Overall length ²		118	mm	2497	2569
S	4.19	Length incl. fork back ²		12	mm	1347	1419
ion		Overall width				1270/1220	1270/1220
Basic dimensions	4.21			b ₁ /b ₂	mm		,
iệ		Dimension of fork teeth		s/e/l	mm	50/100/1150 2/A	50/120/1150 2/A
sasic		Fork carriage DIN 15173, class/form A, B		h	100.100	, , , , , , , , , , , , , , , , , , ,	
ш		Width of fork carriage, top/bottom		b ₃	mm	850/730 GN/SS 850/650	850/730 GN/SS 850/650
.	4.25	Outer fork width		b ₅	mm	620	640
		Width between straddle legs/load platform		b ₄	mm	920	920
		Forward shift 1		14	mm	633	710
		Floor clearance beneath mast with load		m ₁	mm	90	100
		Floor clearance at centre of wheel base		m ₂	mm	81	81
		Width of working aisle for 1000 x 1200 pallets crosswise ²		Ast	mm	2800	2894
	4.34	Width of working aisle for 800 x 1200 pallets lengthwise ²		Ast	mm	2844	2923
		Turning radius		Wa	mm	1757	1900
		Length incl. load wheels		l ₇	mm	1935	2073
	5.1	9 1	without load		km/h	14/14	14/14
	5.2		without load		m/s	0.34/0.58	0.30/0.50
nce	5.3	9 1	without load		m/s	0.53/0.50	0.52/0.50
Performance	5.4		without load		m/s	0.15	0.15
erfo			without load		%	10/15	10/15
ط	5.8		without load		%	15/20	15/20
			without load		S	5.5/5	5.5/5
	5.10	Operation brake				gen./hydr.,mech.	gen./hydr.,mech.
_		Drive motor, S2 performance 60 min			kW	6.5	6.5
ors	6.1				kW	13	13
notors	6.2	Lift motor, S3 performance 15%					
ric motors	6.2	Lift motor, S3 performance 15% Battery according to IEC 254-2; A,B,C, no				IEC 254-2, C	IEC 254-2, C
lectric motors	6.2 6.3 6.4	Lift motor, S3 performance 15% Battery according to IEC 254-2; A,B,C, no Battery voltage, nominal capacity K ₅			V/Ah	48/560	48/700
Electric motors	6.2	Lift motor, S3 performance 15% Battery according to IEC 254-2; A,B,C, no Battery voltage, nominal capacity K ₅ Weight of battery ± 5% (depending on the manufacturer)			V/Ah Kg		
Electric motors	6.2 6.3 6.4	Lift motor, S3 performance 15% Battery according to IEC 254-2; A,B,C, no Battery voltage, nominal capacity K ₅ Weight of battery ± 5% (depending on the manufacturer) Type of steering control				48/560	48/700
	6.2 6.3 6.4 6.5	Lift motor, S3 performance 15% Battery according to IEC 254-2; A,B,C, no Battery voltage, nominal capacity K ₅ Weight of battery ± 5% (depending on the manufacturer)				48/560 940	48/700 1120
Other Electric motors	6.2 6.3 6.4 6.5 8.1	Lift motor, S3 performance 15% Battery according to IEC 254-2; A,B,C, no Battery voltage, nominal capacity K ₅ Weight of battery ± 5% (depending on the manufacturer) Type of steering control			Kg	48/560 940 Three-phase	48/700 1120 Three-phase

All measurements including sideshift mast or sidshift forks (carriage) 1 Reduced in steps of 72 mm depending on the size of the battery. 2 Ast extended in steps of 72 mm depending on the size of battery.

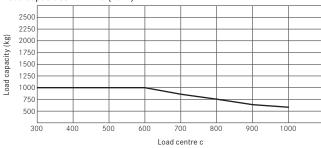
³ May vary according to the mast, with side shift/fork tilt 2°/4°.

 $^{^4}$ Shift speed 0.13 m/s for closed mast heights h_1 = 3,600 mm and above.

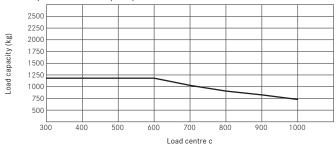


FM-X 10,12/10 N,12 N															
Closed mast height	h ₁	mm	1950	2250	2450	2700	2900								
Free lift	h ₂	mm	1390	1690	1890	2140	2340								
Lift	h ₃	mm	4250	5150	5750	6500	7000								
Extended mast height	h ₄	mm	4810	5710	6310	7060	7560								
Mast tilt forward/backward FM-X	114	0	1°/3°	1°/3°		0,5°/2°									
Mast tilt forward/backward FM-X N		0	2°/4°	2°/4°	2°/4°	2°/4°	2°/4°								
FM-X 14/14 N			2 / 7	2 / -	2 / 4	2 / 7	2 / 4								
Closed mast height	h ₁	mm	1950	2250	2450	2700	2900	3200	3400	3600	3900				
Free lift	h ₂	mm	1390	1690	1890	2140	2340	2640	2840	3040	3340				
Lift	hз	mm	4250	5150	5750	6500	7100	8000	8600	9000	9800				
Extended mast height	h ₄	mm	4810	5710	6310	7060	7660	8560	9160	9560	10360				
Mast tilt forward/backward FM-X		0	1°/3°	1°/3°	1°/3°	0,5°/2°		0,5°/2°	0,5°/2°	0,5°/2°	2°/4°				
Mast tilt forward/backward FM-X N		0	2°/4°	2°/4°	2°/4°	2°/4°	2°/4°	2°/4°	2°/4°	2°/4°	2°/4°				
FM-X 17/17 N			/ .	/ .	/ .	/ .	/ .	/ .	- / -	_ / .	/ .				
Closed mast height	h ₁	mm	1950	2250	2450	2700	2900	3200	3400	3600	3900	4100			
Free lift	h ₂	mm	1380	1680	1880	2130	2330	2630	2830	3030	3330	3530			
Lift	h ₃	mm	4250	5150	5750	6500	7100	8000	8600	9000	9800	10200			
Extended mast height	h ₄	mm	4820	5720	6320	7070	7670	8570	9170	9570	10370	10770			
Mast tilt forward/backward FM-X		0	1°/3°	1°/3°			0,5°/2°				2°/4°	2°/4°			
Mast tilt forward/backward FM-X N		0	2°/4°	2°/4°	2°/4°	2°/4°	2°/4°	2°/4°	2°/4°	2°/4°	2°/4°	2°/4°			
FM-X 20/20 N			_ , .	_ , .	_ / .	_ / .	_ / .	_ , .		_ , .	_ , .	_ , .			
Closed mast height	h ₁	mm	1950	2250	2450	2700	2900	3200	3400	3600	3900	4100	4300	4700	4900
Free lift	h ₂	mm	1380	1680	1880	2130	2330	2630	2830	3030	3330	3530	3730	4130	4330
Lift	hз	mm	4080	4980	5580	6330	6930	7800	8300	8900	9700	10200	10800	11800	12000
Extended mast height	h ₄	mm	4650	5550	6150	6900	7500	8370	8870	9470	10270	10770	11370	12370	12570
Mast tilt forward/backward FM-X		0	1°/3°	1°/3°	1°/3°	0,5°/2°	0,5°/2°	0,5°/2°	0,5°/2°	0,5°/2°	2°/4°	2°/4°	2°/4°	2°/4°	2°/4°
Mast tilt forward/backward FM-X N		0	2°/4°	2°/4°	2°/4°	2°/4°	2°/4°	2°/4°	2°/4°	2°/4°	2°/4°	2°/4°	2°/4°	2°/4°	2°/4°
FM-X 25				,	,		,	,					,		
Closed mast height	h ₁	mm	1950	2250	2450	2700	2900	3200	3400	3600	3900	4100	4300	4500	
Free lift	h ₂	mm	1328	1628	1828	2078	2278	2578	2778	2978	3278	3478	3678	3878	
Lift	hз	mm	4080	4980	5580	6330	6930	7800	8300	8900	9700	10200	10800	11400	
Extended mast height	h ₄	mm	4702	5602	6202	6952	7552	8422	8922	9522	10322	10822	11422	12022	
Mast tilt forward/backward		0	1°/3°	1°/3°	1°/3°	0,5°/2°	0,5°/2°	0,5°/2°	0,5°/2°	0,5°/2°	0,5°/2°	0,5°/2°	0,5°/2°	0,5°/2°	

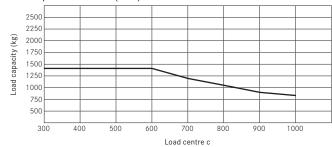
Load capacities FM-X 10 (10 N)



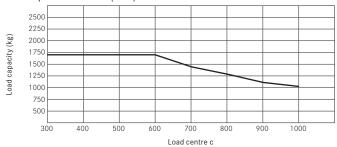
Load capacities FM-X 12 (12 N)



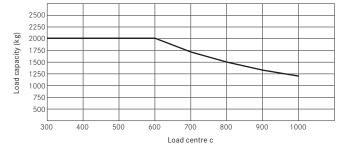
Load capacities FM-X 14 (14 N)



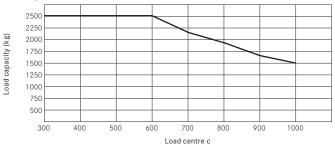
Load capacities FM-X 17 (17 N)



Load capacities FM-X 20 (20 N)



Load capacities FM-X 25



In accordance with VDI guidelines 2198, this specification sheet applies to the standard model only. For special masts, attachments, tyres etc. specifications may vary.

01 3	peciai iii	asts, attachments, tyres etc. specifications may vary.					,
	1.1	Manufacturer				STILL	STILL
	1.2	Manufacturer's model designation				FM-X 10 N	FM-X 12 N
L L	1.3	Drive (electric, diesel, petrol, LPG)				Electric	Electric
Description	1.4	Operation (hand, pedestrian, stand-on, rider seated)				Seat	Seat
escr	1.5	Load capacity/load		Q	kg	1000	1200
۵	1.6	Load centre		С	mm	600	600
	1.8	Load distance 1		Х	mm	149	221
	1.9	Wheel base		У	mm	1237	1309
	2.1	Tare weight incl. battery			kg	2825	2842
hts	2.3	Axle load closed fork, without load, drive side/load side			kg	1650/1175	1711/1131
Weights	2.4	Axle load extended fork, with load, drive side/load side			kg	610/3215	537/3505
>	2.5	Axle load closed fork, with load, drive side/load side			kg	1252/2573	1323/2719
	3.1	Tyres (solid rubber, polyurethane, air)			8	Polyurethane	Polyurethane
쑹	3.2	Tyre size drive side			mm	360 x 130	360 x 130
tra	3.3	Tyre size load side			mm	310 x 102	310 x 102
Wheels track	3.5	Wheels, number (x = driven) load side/drive side			111111	2/1 x	2/1 x
Whee	3.6			hee	mm		· ·
>	3.7	Track width, load side Track width, drive side		b ₁₀	mm mm	1010	1010
	4.1	Mast tilt/fork tilt forward/backward		DII	0	2/4	2/4
	4.1			h.		2450	2450
		Closed mast height		h ₁	mm		
	4.3	Free lift		h ₂	mm	1890	1890
	4.4	Lift Fishended most beight		h ₃	mm	5750	5750
	4.5	Extended mast height		h ₄	mm	6310	6310
	4.7	Height over OHG (cabin)		h ₆	mm	2200	2200
	4.8	Height of seat/stand		h ₇	mm	1050/550	1050/550
	4.10	Height of straddle legs/covers		h ₈	mm	330	330
	4.19	Overall length ²		I ₁	mm	2469	2469
ions	4.20	Length incl. fork back ²		12	mm	1319	1319
Basic dimensions	4.21	Overall width		b1/b2	mm	1120/1090	1120/1090
gi	4.22	Dimension of fork teeth		s/e/l	mm	40/80/1150	40/100/1150
asic	4.23	Fork carriage DIN 15173, class/form A, B				2A	2A
ä	4.24	Width of fork carriage, top/bottom		bз	mm	850/650	850/650
	4.25	Outer fork width		b ₅	mm	600	620
	4.26	Width between straddle legs/load platform		b ₄	mm	790	790
	4.28	Forward shift 1)		 4	mm	387	457
	4.31	Floor clearance beneath mast with load		m ₁	mm	90	90
	4.32	Floor clearance at centre of wheel base		m ₂	mm	81	81
	4.33	Width of working aisle for 1000 x 1200 pallets crosswise ²		Ast	mm	2710	2724
	4.34	Width of working aisle for 800 x 1200 pallets lengthwise ²		Ast	mm	2793	2798
	4.35	Turning radius		Wa	mm	1468	1540
	4.37	Length incl. load wheels		l ₇	mm	1641	1713
	5.1	Driving speed with	n/without load		km/h	12/12	14/14
	5.2	Lift speed with	n/without load		m/s	0.47/0.70	0.45/0.70
99	5.3	Lowering speed with	n/without load		m/s	0.56/0.50	0.56/0.50
ormance	5.4		n/without load		m/s	0.15	0.15
for	5.7		n/without load		%	10/15	10/15
Perf	5.8		n/without load		%	15/20	15/20
	5.9		n/without load		S	4.8/4.5	4.9/4.6
	5.10	Operation brake				gen./hydr.,mech.	gen./hydr.,mech.
_S	6.1	Drive motor, S2 performance 60 min			kW	6.5	6.5
Electric motors	6.2	Lift motor, S3 performance 15%			kW	13	13
Ë	6.3	Battery according to IEC 254-2; A,B,C, no				IEC 254-2, B	IEC 254-2, B
ctri	6.4	Battery voltage, nominal capacity K ₅			V/Ah	420	420
Ele	6.5	Weight of battery ± 5% (depending on the manufacturer)			Kg	750	750
_	8.1	Type of steering control			1,8	Three-phase	Three-phase
Ę.	8.2	Operating pressure for attachments			bar	140	140
Other	8.3	Oil quantity for attachments			I/min	18	18
_							
	8.4	Noise level at driver's ear			dB (A)	68	68

All dimensions incl. side shift of mast or fork respectively. 1 For larger batteries: reduced by 90 mm each, depending on the battery size. 2 For larger batteries: Ast extends by 90 mm each, depending on the battery size. 3 For closed height above h₁=3 600 mm shift speed: 0,13 m/s

In accordance with VDI guidelines 2198, this specification sheet applies to the standard model only. For special masts, attachments, tyres etc. specifications may vary.

		asis, attachments, tyres etc. specifications may vary.					
	1.1	Manufacturer				STILL	STILL
	1.2	Manufacturer's model designation				FM-X 14 N	FM-X 17 N
o	1.3	Drive (electric, diesel, petrol, LPG)				Electric	Electric
Description	1.4	Operation (hand, pedestrian, stand-on, rider seated)				Seat	Seat
esc	1.5	Load capacity/load		Q	kg	1400	1700
	1.6	Load centre		С	mm	600	600
	1.8	Load distance 1		Х	mm	266	328
	1.9	Wheel base		у	mm	1381	1453
	2.1	Tare weight incl. battery			kg	3127	3144
Weights	2.3	Axle load closed fork, without load, drive side/load side			kg	1839/1288	1898/1246
Wei	2.4	Axle load extended fork, with load, drive side/load side			kg	475/4052	356/4488
	2.5	Axle load closed fork, with load, drive side/load side			kg	1448/3079	1530/3314
	3.1	Tyres (solid rubber, polyurethane, air)				Polyurethane	Polyurethane
зck	3.2	Tyre size drive side			mm	360 x 130	360 x 130
Wheels track	3.3	Tyre size load side			mm	310 x 102	310 x 102
els	3.5	Wheels, number (x = driven) load side/drive side				2/1 x	2/1 x
Whe	3.6	Track width, load side		b ₁₀	mm	1010	1010
	3.7	Track width, drive side		b ₁₁	mm	-	-
	4.1	Mast tilt/fork tilt forward/backward			0	2/4	2/4
	4.2	Closed mast height		h ₁	mm	2450	2450
	4.3	Free lift		h ₂	mm	1890	1880
	4.4	Lift		h ₃	mm	5750	5750
	4.5	Extended mast height		h ₄	mm	6310	6320
	4.7	Height over OHG (cabin)		h ₆	mm	2200	2200
	4.7	Height of seat/stand		h ₇	mm	1050/550	1050/550
	4.10			h ₈		330	
		Height of straddle legs/covers			mm		330
"	4.19	Overall length ²		12	mm	2496	2506
ioi	4.20	Length incl. fork back ² Overall width			mm	1346	1356
Jens	4.21			b ₁ /b ₂	mm	1120/1090	1120/1090
Basic dimensions	4.22	Dimension of fork teeth		s/e/l	mm	40/100/1150	50/100/1150
asic	4.23	Fork carriage DIN 15173, class/form A, B		l-		2A	2A
ш	4.24	Width of fork carriage, top/bottom		bз	mm	850/650	850/650
	4.25	Outer fork width		b ₅	mm	620	620
	4.26	Width between straddle legs/load platform		b ₄	mm	790	790
	4.28	Forward shift 1)		4	mm	494	565
	4.31	Floor clearance beneath mast with load		m ₁	mm	90	90
	4.32	Floor clearance at centre of wheel base		m ₂	mm	81	81
	4.33	Width of working aisle for 1000 x 1200 pallets crosswise ²		Ast	mm	2761	2788
	4.34	Width of working aisle for 800 x 1200 pallets lengthwise ²		Ast	mm	2829	2847
	4.35	Turning radius		Wa	mm	1612	1687
	4.37	Length incl. load wheels		l ₇	mm	1785	1857
	5.1	Driving speed	with/without load		km/h	14/14	14/14
	5.2	Lift speed	with/without load		m/s	0.43/0.68	0.40/0.68
ce	5.3	Lowering speed	with/without load		m/s	0.56/0.52	0.55/0.52
formance	5.4	Shift speed ³	with/without load		m/s	0.15	0.15
_	5.7	Climbing capacity	with/without load		%	10/15	10/15
Per	5.8	max. climbing capacity	with/without load		%	15/20	15/20
	5.9	Acceleration time (over 10 m)	with/without load		S	5.1/4.7	5.3/4.8
	5.10	Operation brake				gen./hydr.,mech.	gen./hydr.,mech.
S	6.1	Drive motor, S2 performance 60 min			kW	6.5	6.5
notc	6.2	Lift motor, S3 performance 15%			kW	13	13
ric n	6.3	Battery according to IEC 254-2; A,B,C, no				IEC 254-2, B	IEC 254-2, B
Electric motors	6.4	Battery voltage, nominal capacity K₅			V/Ah	420	420
	6.5	Weight of battery ± 5% (depending on the manufacturer)			Kg	750	750
	8.1	Type of steering control				Three-phase	Three-phase
ЭE	8.2	Operating pressure for attachments			bar	140	140
Other	8.3	Oil quantity for attachments			I/min	18	18
	8.4	Noise level at driver's ear			dB (A)	68	68

All dimensions incl. side shift of mast or fork respectively. 1 For larger batteries: reduced by 90 mm each, depending on the battery size. 2 For larger batteries: Ast extends by 90 mm each, depending on the battery size. 3 For closed height above h₁=3 600 mm shift speed: 0,13 m/s

In accordance with VDI guidelines 2198, this specification sheet applies to the standard model only. For special masts, attachments, tyres etc. specifications may vary.

	1.1	Manufacturer				STILL
	1.2	Manufacturer's model designation				FM-X 20 N
ا ج ا	1.3	Drive (electric, diesel, petrol, LPG)				Electric
ij	1.4	Operation (hand, pedestrian, stand-on, rider seated)				Seat
Description	1.5	Load capacity/load		Q	kg	2000
	1.6	Load centre		С	mm	600
	1.8	Load distance 1		Х	mm	310
	1.9	Wheel base		у	mm	1525
	2.1	Tare weight incl. battery			kg	3352
Weights	2.3	Axle load closed fork, without load, drive side/load side			kg	1978/1374
Weig	2.4	Axle load extended fork, with load, drive side/load side			kg	350/5002
-	2.5	Axle load closed fork, with load, drive side/load side			kg	1541/3811
	3.1	Tyres (solid rubber, polyurethane, air)				Polyurethane
ㅎ	3.2	Tyre size drive side			mm	360 x 140
Wheels track	3.3	Tyre size load side			mm	310 x 112
S	3.5	Wheels, number (x = driven) load side/drive side			,,,,,,,	2/1 x
hee	3.6	Track width, load side		b ₁₀	mm	1010
>	3.7				mm	-
		Track width, drive side		b ₁₁	mm	2/4
	4.1	Mast tilt/fork tilt forward/backward		h		·
	4.2	Closed mast height		h ₁	mm	2450
	4.3	Free lift		h ₂	mm	1880
	4.4	Lift		h ₃	mm	5580
	4.5	Extended mast height		h ₄	mm	6150
	4.7	Height over OHG (cabin)		h ₆	mm	2200
	4.8	Height of seat/stand		h ₇	mm	1050/550
	4.10	Height of straddle legs/covers		h ₈	mm	330
	4.19	Overall length ²		l ₁	mm	2596
ous	4.20	Length incl. fork back ²		12	mm	1446
ensi	4.21	Overall width		b1/b2	mm	1120/1090
Basic dimensions	4.22	Dimension of fork teeth		s/e/l	mm	50/100/1150
sic	4.23	Fork carriage DIN 15173, class/form A, B				2A
8	4.24	Width of fork carriage, top/bottom		bз	mm	850/650
	4.25	Outer fork width		b ₅	mm	620
	4.26	Width between straddle legs/load platform		b ₄	mm	790
	4.28	Forward shift 1)		4	mm	547
	4.31	Floor clearance beneath mast with load		m ₁	mm	90
	4.32	Floor clearance at centre of wheel base		m_2	mm	81
	4.33	Width of working aisle for 1000 x 1200 pallets crosswise ²		Ast	mm	2871
	4.34	Width of working aisle for 800 x 1200 pallets lengthwise ²		Ast	mm	2932
	4.35	Turning radius		Wa	mm	1756
	4.37	Length incl. load wheels		l ₇	mm	1929
	5.1	Driving speed with/	without load		km/h	14/14
	5.2		without load		m/s	0.34/0.58
_g	5.3		without load		m/s	0.53/0.50
formance	5.4		without load		m/s	0.15
	5.7		without load		%	10/15
Per	5.8	9 1 7	without load		%	15/20
	5.9		without load		S	5.5/5
	5.10	Operation brake				gen./hydr.,mech.
,,	6.1	Drive motor, S2 performance 60 min			kW	6.5
Electric motors	6.2	Lift motor, S3 performance 15%			kW	13
Ĕ	6.3	Battery according to IEC 254-2; A,B,C, no			KII	IEC 254-2, B
jj	6.4	Battery voltage, nominal capacity K ₅			V/Ah	560
E E	6.5	Weight of battery ± 5% (depending on the manufacturer)			Kg	940
Н	8.1	Type of steering control			ING	Three-phase
ا يا	8.2	Operating pressure for attachments			har	140
Other		1 01			bar L/min	
	8.3	Oil quantity for attachments			I/min	18
\Box	8.4	Noise level at driver's ear			dB (A)	68

All dimensions incl. side shift of mast or fork respectively. 1 For larger batteries: reduced by 90 mm each, depending on the battery size. 2 For larger batteries: Ast extends by 90 mm each, depending on the battery size. 3 For closed height above h₁=3 600 mm shift speed: 0,13 m/s

Driver's compartment.

- Spacious driver's compartment with adjustable controls. The driver is always inside the contour of the vehicle for maximum safety.
- Damped driver's compartment (optional) reduces shocks from uneven floors and therefore the likelihood of back injuries.
- Proportional adjustment of seat and footplate (optional), electrically controlled. Ergonomic control layout ensures an optimum all-round view regardless of the driver's physique.
- Comfortable, tilting seat with multiple adjustment to suit individual drivers, plus tilting mast, enable a good view of the load while reducing the potential for neck injuries.
- Open access steps allow easy entry and exit.
- Large individual storage compartments, DIN A4 document compartment, bottle holder.
- Overhead guard designed for 360 $^{\circ}$ visibility and maximum safety.

Controls.

- Ergonomic joystick allows operation of all hydraulic movements without changing grip; integrated buttons control auxiliary hydraulics; stick weighted to enable the driver to "feel" the driving direction; all movements can be operated simultaneously; maintenance-free sensor technology.
- Optional 4-lever control of hydraulic functions.
- Full electric 360° steering (optional 180°) for smooth, precise positioning. The number of revolutions for a 360° steering angle can be set to suit the driver or the conditions in the warehouse.
- Direct-drive safety steering system.
- Self-centring steering for stable, fatigue-free straight-line travel at all speeds.

Drives.

- Powerful maintenance-free drives for driving, lifting and steering, with energy recovery during braking.
- Fully encapsulated AC drives, which provide powerful acceleration and regenerative braking, are protected against dust and water ingress.

Hydraulics.

- Proportional valve technology for silent, fast and sensitive movements.
- Noise-optimised pump drive with improved efficiency.
- Automatic fork and side shift centering at the press of a button (optional). Immediate centering ensures the safe alignment of a pallet between the load wheels and horizontal positioning of the forks, especially with height pre-selection systems.
- High throughput of goods is provided by fast, safe working speeds for lifting/lowering, mast shift forwards, sideways and tilt.
- Shift measuring system allows soft and variable speed transitions.
- Single valve block and power chain with hydraulic quick-locks mean low service and maintenance costs.

Mast.

- Triplex free view mast with free lift; special profiles with high torsion resistance. Routing chains and pipes within the contour of the cylinders allows maximum visibility through the mast.
- Standard mast side shift with free-view fork carriage. Absence of hydraulic pipes provides greater visibility and also makes for easier serviceability. The mast tilt moves the centre of gravity towards the truck
- Optional integrated side shift with fork tilt for less movement of loads at high lift heights.
- The narrow construction of the mast allows optimum view around
- End of reach damping minimises mast transition noise.

Brake system.

- Maintenance-free regenerative braking with energy recovery and high efficiency.
- Maximum safety by 3-circuit brake system. Regenerative braking when releasing the accelerator pedal. When operating the brake pedal additional regenerative deceleration is activated. If the pedal is pressed further the hydraulic load wheel brake is actuated.
- Electromagnetic disc brake for emergency stop and parking.

Electrical equipment.

- LCD display with automatic brightness adjustment. Clear, user-friendly display of all operating states. Indicator wizard for height pre-selection assists the driver and helps safely increase throughput when stacking and retrieving.
- Truck control with five drive programs. Driving speed, acceleration and braking characteristics can be set independently for each driving direction, and also to suit the driver or the conditions in the warehouse.
- Lift height indication, lift height pre-selection and camera systems all contribute to an efficient warehousing process and help increase the throughput of goods.
- FleetManager or PIN code system and optional keyless access provide an overview of the operation of the fleet and prevent unauthorised use of the vehicle.
- Electrical and mechanical interfaces for easy retro-fitting of warehouse administration and truck control systems.

Battery.

- Exchange by hoist or, optionally, laterally with roller conveyor 1.
- High performance reserve for single and multi-shift operations due to battery capacities up to 930 Ah.
- Intelligent battery management limits the maximum current when lifting and ensures a long service life of the battery.

Service.

- Easy removal of the covers to allow best access for service.
- Simple diagnostics and parameterisation.
- Extended diagnostics via central interface.

Safety.

- CSC (Curve Speed Control) automatically reduces speed on bends to ensure maximum safety when being operated by inexperienced drivers or handling fragile loads.
- OPTISPEED system (optional) governs the lift and lower speeds to the maximum safe rate for the load weight and operating height: uncomfortable, stepped speed changes as the mast rises are done away with, the truck always operates at optimum performance, and realisable gains in productivity are achieved. Extended OPTISPEED packages are available which further adapt truck functions to warehouse conditions.
- The trucks are built in accordance with the EC machinery guideline 98/37/EG and are CE labelled.
- STILL is certified to ISO-9001.

¹ Exchange of battery by hoist, for N-type models depends on load capacity and dimension of the tray

							FM-X					
		10	12	14	17	20	25	10N	12N	14N	17N	20N
	Adjustable position of the steering wheel and horizontal adjustment of the seat	•	•	•	•	•	•	•	•	•	•	•
	Comfort seat with hydraulic damping and weight adjustment	•	•	•	•	•	•	•	•	•		•
	Comfort tilt seat	0	0	0	0	0	0	-	-	-	-	-
	Damped driver's compartment for best comfort on uneven floors and thresholds	0	0	0	0	0	0	-	-	-	- 0	-
ace	Heated seat	0	0	0	0	0	0	0	0	0	0	0
Driver's space	Imitation leather seat with vinyl upholstering Proportional adjustment of the seat and foot plate	0	0	0	0	0	0	-	-	-	-	-
iver,	Free view mast with view optimised over head guard	•	•	•	•	•	•	•	•	•		•
۵	Joystick (hydraulic control without changing grip)		•	•	•	•	•	•	•	•	•	•
	Fingertip (hydraulic control with 4 levers)	0	0	0	0	0	0	0	0	0	0	0
İ	5 driving profiles, selectable by the driver	•	•	•	•	•	•	•	•	•	•	•
	Integrated storage compartments, bottle holder	•	•	•	•	•	•	•	•	•		•
	Display: clear display of the current status	•	•	•	•	•	•	•	•	•	•	•
	Full electric 360° steering	•	•	•	•	•	•	•	•	•	•	•
Steering	Full electric 180° steering	0	0	0	0	0	0	0	0	0	0	0
Ste	Full electric steering with reverse function	0	0	0	0	0	0	0	0	0	0	0
<u> </u>	Redundant safety system for steering	•	•	•	•	•	•	•	•	•	•	•
	Triplex free view mast with free lift	•	•	•	•	•	•	•	•	•		•
Mast	Hydraulic mast side shift with mast tilt	-	•	•	•	•	•	-	-	-	-	-
₽	Hydraulic side shift with fork tilt Mast transition damping	-	0	0	0	0	0					
	Free view fork carriage						•					
	Noise optimised hydraulic pump										•	
l s	Additional hydraulics, single or double	-	-	0	0	0	0	-	-	0	0	0
anli	Proportional valve technology for sensitive movements	•	•	•	•	•	•	•	•	•	•	•
Hydraulics	Individual parameterisation of the hydraulic functions		•	•	•	•	•	•	•	•	•	•
٦	Simultaneous movement of several hydraulic functions	•	•	•	•	•	•	•	•	•	•	•
	Stepless acceleration up to the maximum speed	•	•	•	•	•	•	•	•	•	•	•
Drives	Maintenance-free drives for driving, lift and steering	•	•	•	•	•	•	•	•	•	•	•
اجًا	Fully capsulated components protected against dirt and dust	•	•	•	•	•	•	•	•	•	•	•
	Integrated current and temperature sensors monitoring the functions	•	•	•	•	•	•	•	•	•	•	•
ļ	Regenerative brake system	•	•	•	•	•	•	•	•	•		•
Brakes	Energy recuperation when braking	•	•	•	•	•	•	•	•	•	•	•
ag a	Hydraulic load wheel brake as additional brake	•	•	•	•	•	•	•	•	•		•
\vdash	Electromagnetic disc brake as parking brake and for emergency stops	•	•	•	•	•	•	•	•	•	•	•
	Keyless PIN-Code access with button	0	0	0	0	0	0	0	0	0	0	0
<u>ب</u>	Flash light 360° light	0	0	0	0	0	0	0	0	0	0	0
safety and performance	Spot lights	0	0	0	0	0	0	0	0	0	0	0
lg l	Macrolon or mesh wire OHG cover	0	0	0	0	0	0	0	0	0	0	0
l be	Steering angle controlled speed reduction	0	0	0	0	0	0	0	0	0	0	0
/ au	Lift switch-off for intermediate lift and/or lift end position	0	0	0	0	0	0	0	0	0	0	0
afet	Lift height indication	-	0	0	0	0	0	-	0	0	0	0
<u>a</u>	Lift height pre-selection	-	0	0	0	0	0	-	-	0	0	0
Addition	FleetManager: access control	0	0	0	0	0	0	0	0	0	0	0
Adc	OPTISPEED: Lift height and load controlled speed reduction	0	0	0	0	0	0	0	0	0	0	0
	Energy recuperation lowering	-	-	0	0	0	0	-	-	0	0	0
<u> </u>	Acoustic travel warning (Digisound)	0	0	0	0	0	0	0	0	0	0	0
	Battery exchange by hoist	•	•	•	•	•	•	1	1	●1	1	1
ea l	Battery conveyor for lateral exchange of battery	0	0	0	0	0	0	0	0	0	0	0
Battery system	Tray for 420 Ah battery	0	0	0	0	-	-	0	0	0	0	-
tery	Tray for 560 Ah battery Tray for 700 Ah battery	-	-	0	0	0	-	-	-	0	0	0
Bat	Tray for 900 Ah battery		_		_	0	0	_	-	_	_	0
	Battery transport and exchange rack	0	0	0	0	0	0	0	0	0	0	0
	Different fork lengths	0	0	0	0	0	0	0	0	0	0	0
	Preparation data terminal	0	0	0	0	0	0	0	0	0	0	0
İ	Automatic Fork tilt and side shift centring on pressing a button	-	0	0	0	0	0	-	0	0	0	0
	Cold storage version	0	0	0	0	0	0	0	0	0	0	0
	Cold storage package	-	0	0	0	0	0	-	0	0	0	0
ΙĦ	Heated comfort cold storage cabin	-	0	0	0	0	-	-	-	-	-	-
ē			_	-	-	-	-	-	0	0	0	0
ipmei	Heated comfort cold storage cabin, drive in version	-						1	1		_	-
l equipmer	Track width 1650/1670 mm	-	-	0	0	0	0	-	-	-		-
ional equipmen	Track width 1650/1670 mm Load rest	- 0	- 0	0	0	0	0	0	0	0	0	0
dditional equipmen	Track width 1650/1670 mm Load rest Panoramic rear view mirror	- 0 0	- 0 0	0	0	0	0	0	0	0	0	0
Additional equipment	Track width 1650/1670 mm Load rest Panoramic rear view mirror Overhead guards for drive-in racks	- 0 0	- 0 0	0 0	0 0	0 0	0	0 0	0 0	0	0 0	0
Additional equipmen	Track width 1650/1670 mm Load rest Panoramic rear view mirror Overhead guards for drive-in racks Lateral guide rollers for drive-in racks	- 0 0 0	- 0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0
Additional equipmer	Track width 1650/1670 mm Load rest Panoramic rear view mirror Overhead guards for drive-in racks Lateral guide rollers for drive-in racks Load wheel covers	- 0 0 0	- 0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0
Additional equipmer	Track width 1650/1670 mm Load rest Panoramic rear view mirror Overhead guards for drive-in racks Lateral guide rollers for drive-in racks	- 0 0 0	- 0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0

[•] Standard • O Option

Exchange by hoist depends on the tray dimension





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