

FM-X Technical Data

Driver Seated Reach Truck



- FM-X 10/Li-Ion
- FM-X 10 iGo systems
- FM-X 12/Li-Ion
- FM-X 12 iGo systems
- FM-X 14/Li-Ion
- FM-X 14 iGo systems
- FM-X 17/Li-Ion
- FM-X 17 iGo systems
- FM-X 20/Li-Ion
- FM-X 20 iGo systems
- FM-X 25/Li-Ion
- FM-X 25 iGo systems



iGo systems

first in intralogistics





| | | | | STILL | STILL | STILL | STILL | STILL | STILL | STILL | STILL | |
|------------------|----------------------------------|--|--------------------------------|--------------------------------|--------------------------|---------------------------------------|---------------------------------|---------------------------------------|---------------------------------|---------------------------------------|---------------------------------|-----------|
| Features | 1.1 | Manufacturer | | | | | | | | | | |
| | 1.2 | Manufacturer's type designation | | FM-X 10/Li-Ion | FM-X 10 N | FM-X 12/Li-Ion | FM-X 12 N | FM-X 14/Li-Ion | FM-X 14 N | FM-X 14 W/Li-Ion | FM-X 14 EW/Li-Ion | |
| | 1.3 | Drive | | Electric | Electric | Electric | Electric | Electric | Electric | Electric | Electric | |
| | 1.4 | Operator type | | Seated | Seated | Seated | Seated | Seated | Seated | Seated | Seated | |
| | 1.5 | Rated capacity/rated load | Q | kg | 1000 | 1000 | 1200 | 1200 | 1400 | 1400 | 1400 | |
| | 1.6 | Load capacity at load centre distance | c | mm | 600 | 600 | 600 | 600 | 600 | 600 | 600 | |
| | 1.8 | Load centre distance ¹ | x | mm | 278 | 184 | 278 | 184 | 348 | 335 | 276 | 276 |
| | 1.9 | Wheel base | y | mm | 1275 | 1275 | 1275 | 1275 | 1381 | 1453 | 1381 | 1381 |
| | 2.1 | Service weight (incl. battery) | | kg | 3230 | 3200 | 3240 | 3210 | 3470 | 3430 | 3700 | 3750 |
| Weights | 2.3 | Axle load, unladen | | | | | | | | | | |
| | | drive end/load end | | kg | 2040/1190 | 1970/1230 | 2130/1100 | 1970/1230 | 2250/1220 | 2120/1310 | 2290/1410 | 2330/1420 |
| | 2.4 | Axle load, fork advanced, laden | | kg | 960/3270 | 920/3280 | 850/3580 | 920/3280 | 850/4010 | 860/3970 | 960/1410 | 1000/4150 |
| 2.5 | Axle load, fork retracted, laden | | kg | 1730/2500 | 1590/2610 | 1820/2610 | 1590/2610 | 1950/2910 | 1770/3060 | 1920/3180 | 1960/3190 | |
| Tyres/chassis | 3.1 | Tyres | | | Polyurethane | Polyurethane | Polyurethane | Polyurethane | Polyurethane | Polyurethane | Polyurethane | |
| | 3.2 | Tyre size | drive end | mm | Ø 360 x 130 | Ø 360 x 130 | Ø 360 x 130 | Ø 360 x 130 | Ø 360 x 130 | Ø 360 x 130 | Ø 360 x 130 | |
| | 3.3 | Tyre size | load end | mm | Ø 285 x 100 | Ø 285 x 100 | Ø 285 x 100 | Ø 285 x 100 | Ø 285 x 100 | Ø 285 x 100 | Ø 285 x 100 | |
| | 3.5 | Number of wheels (x = driven) | drive end/load end | | 1x/2 | 1x/2 | 1x/2 | 1x/2 | 1x/2 | 1x/2 | 1x/2 | |
| | 3.7 | Tread | load end | b ₁₁ | mm | 1167 | 1037 | 1167 | 1037 | 1167 | 1037 | 1367 |
| | 4.1 | Tilt of mast/fork carriage | forward/backward ³ | α/β | ° | 1/3 | 2/4 | 1/3 | 2/4 | 1/3 | 2/4 | 1/3 |
| | 4.2 | Height | mast lowered | h ₁ | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 |
| Dimensions | 4.3 | Free lift | | h ₂ | mm | 1890 | 1890 | 1890 | 1890 | 1890 | 1890 | |
| | 4.4 | Lift | | h ₃ | mm | 5750 | 5750 | 5750 | 5750 | 5750 | 5750 | |
| | 4.5 | Height | mast extended | h ₄ | mm | 6310 | 6310 | 6310 | 6310 | 6310 | 6310 | |
| | 4.7 | Height of overhead guard (cabin) ⁴ | | h ₆ | mm | 2200 (iGo systems 2500) | 2200 | 2200 (iGo systems 2500) | 2200 | 2200 (iGo systems 2500) | 2200 | |
| | 4.8 | Seat height | | h ₇ | mm | 1140 | 1140 | 1140 | 1140 | 1140 | 1140 | |
| | 4.10 | Height of wheel arms | | h ₈ | mm | 308 | 308 | 308 | 308 | 308 | 308 | |
| | 4.19 | Overall length ^{2, 5, 6} | | l ₁ | mm | 2366 | 2462 | 2366 | 2462 | 2402 | 2488 | |
| | 4.20 | Length to face of forks ^{2, 5, 6} | | l ₂ | mm | 1216 | 1312 | 1216 | 1312 | 1252 | 1338 | |
| | 4.21 | Overall width | | b ₁ /b ₂ | mm | 1270 (iGo systems 1440) | 1140 | 1270 (iGo systems 1440) | 1140 | 1270 (iGo systems 1440) | 1140 | |
| | 4.22 | Fork dimensions | DIN ISO 2331 | s/e/l | mm | 40/80/1150 | 40/80/1150 | 40/100/1150 | 40/100/1150 | 40/100/1150 | 40/100/1150 | |
| | 4.23 | Fork carriage ISO 2328, class/type A, B | | | | 2/A | 2/A | 2/A | 2/A | 2/A | 2/A | |
| | 4.24 | Fork carriage width | | b ₃ | mm | 760 | 760 | 760 | 760 | 760 | 760 | |
| | 4.25 | Distance between fork arms | min./max. | b ₅ | mm | 296/600 | 296/600 | 296/600 | 296/600 | 316/620 | 316/620 | |
| | 4.26 | Distance between wheel arms/loading surfaces | | b ₄ | mm | 920 | 790 | 920 | 790 | 920 | 790 | |
| | 4.28 | Reach distance | | l ₄ | mm | 449 | 364 | 449 | 364 | 529 | 515 | |
| | 4.31 | Ground clearance, laden, below mast | | m ₁ | mm | 70 | 70 | 70 | 70 | 70 | 70 | |
| | 4.32 | Ground clearance, centre of wheel base | | m ₂ | mm | 70 | 70 | 70 | 70 | 70 | 70 | |
| | 4.34.1 | Aisle width for pallets 1000 x 1200 crossways ² | | A _{st} | mm | 2679 (iGo systems 3000 ⁷) | 2733 | 2679 (iGo systems 3000 ⁷) | 2733 | 2727 (iGo systems 3000 ⁷) | 2787 | |
| | 4.34.2 | Aisle width for pallets 800 x 1200 lengthways ² | | A _{st} | mm | 2746 (iGo systems 3150 ⁷) | 2812 | 2746 (iGo systems 3150 ⁷) | 2812 | 2782 (iGo systems 3150 ⁷) | 2845 | |
| | 4.35 | Turning radius | | W _a | mm | 1540 | 1520 | 1540 | 1520 | 1640 | 1691 | |
| 4.37 | Length across wheel arms | | l ₇ | mm | 1639 | 1641 | 1639 | 1641 | 1745 | 1817 | | |
| 4.43 | Step height | | | mm | 345 | 345 | 345 | 345 | 345 | 345 | | |
| Performance data | 5.1 | Travel speed | laden/unladen | km/h | 14/14 (iGo systems 6/6) | 14/14 | 14/14 (iGo systems 6/6) | 14/14 | 14/14 (iGo systems 6/6) | 14/14 | 14/14 | |
| | 5.1.1 | Travel speed backwards | laden/unladen | km/h | 14/14 | 14/14 | 14/14 | 14/14 | 14/14 | 14/14 | 14/14 | |
| | 5.2 | Lifting speed | laden/unladen | m/s | 0.47/0.70 | 0.47/0.70 | 0.47/0.70 | 0.47/0.70 | 0.45/0.68 | 0.45/0.68 | 0.45/0.68 | |
| | 5.3 | Lowering speed | laden/unladen | m/s | 0.56/0.50 | 0.56/0.50 | 0.56/0.50 | 0.56/0.50 | 0.56/0.52 | 0.56/0.52 | 0.56/0.52 | |
| | 5.4 | Reaching speed | laden/unladen | m/s | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | |
| | 5.7 | Gradeability | laden/unladen | % | 10/15 | 10/15 | 10/15 | 10/15 | 10/15 | 10/15 | 10/15 | |
| | 5.8 | Max. gradeability | laden/unladen | % | 15/20 | 15/20 | 15/20 | 15/20 | 15/20 | 15/20 | 15/20 | |
| | 5.9 | Acceleration time (over 10 m) | laden/unladen | s | 4.5/4.0 | 4.5/4.0 | 4.5/4.0 | 4.5/4.0 | 4.5/4.0 | 4.5/4.0 | 4.5/4.0 | |
| | 5.10 | Service brake | | | | Regenerative-electric/hydraulic | Regenerative-electric/hydraulic | Regenerative-electric/hydraulic | Regenerative-electric/hydraulic | Regenerative-electric/hydraulic | Regenerative-electric/hydraulic | |
| | Electric engine | 6.1 | Drive motor rating S2 = 60 min | | kW | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | |
| 6.2 | | Lift motor rating S3 = 15 % | | kW | 14 | 13 | 14 | 14 | 14 | 14 | | |
| 6.3 | | Battery according to DIN 43531/35/36 A, B, C, no | | | 43531 C/254-2 | 43531 B/254-2 | 43531 C/254-2 | 43531 B/254-2 | 43531 C/254-2 | 43531 B/254-2 | | |
| 6.4 | | Battery voltage/nominal capacity K _s | | V/Ah | 48/465 Li-Ion: 48/204 | 48/465 | 48/465 Li-Ion: 48/204 | 48/465 | 48/465 Li-Ion: 48/204 | 48/465 | 48/465 Li-Ion: 48/204 | |
| 6.5 | | Battery weight (depending on manufacturer ±5%) | | kg | 750 | 750 | 750 | 750 | 750 | 750 | | |
| 6.6 | | Energy consumption according to VDI cycle | | kWh/h | 2.88 | 2.88 | 3.23 | 3.23 | 3.40 | 3.40 | | |
| Misc. | 10.1 | Operating pressure for attachments | | bar | 200 | 200 | 200 | 200 | 200 | 200 | | |
| | 10.2 | Oil volume for attachments | | l/min | 20 | 20 | 20 | 20 | 20 | 20 | | |
| | 10.7 | Sound pressure level at driver's seat | | dB(A) | 69 | 69 | 69 | 69 | 69 | 69 | | |

All measurements including sideshift mast or sideshift forks (carriage)

¹ Values decrease by 72 mm per battery size for larger batteries. Applies to the FM-X, FM-X W and FM-X EW;
Values decrease by 90 mm per battery size for larger batteries. Applies to the FM-X N

² Aisle width for pallet 1000 x 1200 crosswise:

- Values increase by 56 mm per battery size for larger batteries. Applies to the FM-X, FM-X W and FM-X EW;
- Values increase by 74 mm per battery size for larger batteries. Applies to the FM-X N

Aisle width for pallet 800 x 1200 lengthwise:

- Values increase by 66 mm per battery size for larger batteries. Applies to the FM-X, FM-X W and FM-X EW;
- Values increase by 85 mm per battery size using larger batteries. Applies to the FM-X N

³ May vary according to the mast, with sideshift/fork tilt 2°/4°

⁴ With optional cabin/wind protection, height h₆ is 2180 mm

⁵ With optional cabin, length will be extended by 150 mm

⁶ Increases in steps of 72 mm for each larger battery size for FM-X, FM-X W, FM-X EW models
Increases in steps of 90 mm for each larger battery size for FM-X N model

⁷ Based on smallest battery tray. An additional reduction of up to 150 mm is subject to detailed investigation

FM-X Driver Seated Reach Truck
Precision at the Highest Level

This specification sheet, which conforms to VDI guideline 2198, provides the technical values for the standard equipment only. Different tyres, other masts, the use of accessories, etc., may result in other values.



| | | | | STILL | STILL | STILL | STILL | STILL | STILL | | | |
|------------------|------------|--|--------------------------------|-------------------------------|--------------------------------|--------------------------|---------------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------------|---------------------------------|
| Features | 1.1 | Manufacturer | | | | | | | | | | |
| | 1.2 | Manufacturer's type designation | | | FM-X 17/Li-Ion | FM-X 17 N | FM-X 17 W/Li-Ion | FM-X 17 EW/Li-Ion | FM-X 20/Li-Ion | FM-X 20 N | | |
| | 1.3 | Drive | | | Electric | Electric | Electric | Electric | Electric | Electric | | |
| | 1.4 | Operator type | | | Seated | Seated | Seated | Seated | Seated | Seated | | |
| | 1.5 | Rated capacity/rated load | | Q | kg | 1700 | 1700 | 1700 | 2000 | 2000 | | |
| | 1.6 | Load capacity at load centre distance | | c | mm | 600 | 600 | 600 | 600 | 600 | | |
| | 1.8 | Load centre distance ¹ | | x | mm | 410 | 325 | 338 | 338 | 410 | 307 | |
| | 1.9 | Wheel base | | y | mm | 1453 | 1453 | 1453 | 1453 | 1525 | 1525 | |
| | Weights | 2.1 | Service weight (incl. battery) | | | kg | 3470 | 3500 | 3740 | 3790 | 3820 | 3830 |
| 2.3 | | Axle load, unladen | | drive end/load end | kg | 2290/1180 | 2220/1280 | 2390/1350 | 2440/1350 | 2470/1350 | 2450/1380 | |
| 2.4 | | Axle load, fork advanced, laden | | drive end/load end | kg | 730/4440 | 670/4520 | 900/4550 | 950/4550 | 820/5000 | 830/5010 | |
| 2.5 | | Axle load, fork retracted, laden | | drive end/load end | kg | 2030/3140 | 1850/3340 | 2050/3390 | 2100/3390 | 2180/3640 | 2010/3820 | |
| Tyres/chassis | | 3.1 | Tyres | | | | Polyurethane | Polyurethane | Polyurethane | Polyurethane | Polyurethane | |
| | 3.2 | Tyre size | | drive end | mm | Ø 360 x 130 | Ø 360 x 130 | Ø 360 x 130 | Ø 360 x 130 | Ø 360 x 130 | | |
| | 3.3 | Tyre size | | load end | mm | Ø 285 x 100 | Ø 285 x 100 | Ø 285 x 100 | Ø 285 x 100 | Ø 350 x 100 | Ø 350 x 100 | |
| | 3.5 | Number of wheels (x = driven) | | drive end/load end | | 1x/2 | 1x/2 | 1x/2 | 1x/2 | 1x/2 | 1x/2 | |
| | 3.7 | Tread | | load end | b ₁₁ | mm | 1167 | 1037 | 1367 | 1567 | 1167 | 1037 |
| | 4.1 | Tilt of mast/fork carriage | | forward/backward ³ | α/β | ° | 1/3 | 2/4 | 1/3 | 1/3 | 2/4 | |
| | Dimensions | 4.2 | Height | | mast lowered | h ₁ | mm | 2450 | 2450 | 2450 | 2450 | 2450 |
| 4.3 | | Free lift | | | h ₂ | mm | 1880 | 1880 | 1880 | 1880 | 1880 | 1880 |
| 4.4 | | Lift | | | h ₃ | mm | 5750 | 5750 | 5750 | 5750 | 5580 | 5580 |
| 4.5 | | Height | | mast extended | h ₄ | mm | 6320 | 6320 | 6320 | 6320 | 6150 | 6150 |
| 4.7 | | Height of overhead guard (cabin) ⁴ | | | h ₆ | mm | 2200 (iGo systems 2500) | 2200 | 2200 | 2200 | 2200 (iGo systems 2500) | 2200 |
| 4.8 | | Seat height | | | h ₇ | mm | 1140 | 1140 | 1140 | 1140 | 1140 | 1140 |
| 4.10 | | Height of wheel arms | | | h ₈ | mm | 308 | 308 | 308 | 308 | 373 | 373 |
| 4.19 | | Overall length ^{2, 5, 6} | | | l ₁ | mm | 2412 | 2499 | 2484 | 2484 | 2484 | 2589 |
| 4.20 | | Length to face of forks ^{2, 5, 6} | | | l ₂ | mm | 1262 | 1349 | 1334 | 1334 | 1334 | 1439 |
| 4.21 | | Overall width | | | b ₁ /b ₂ | mm | 1270 (iGo systems 1440) | 1140 | 1470 | 1670 | 1270 (iGo systems 1440) | 1140 |
| 4.22 | | Fork dimensions | | DIN ISO 2331 | s/e/l | mm | 50/100/1150 | 50/100/1150 | 50/100/1150 | 50/100/1150 | 50/100/1150 | 50/100/1150 |
| 4.23 | | Fork carriage ISO 2328, class/type A, B | | | | | 2/A | 2/A | 2/A | 2/A | 2/A | 2/A |
| 4.24 | | Fork carriage width | | | b ₃ | mm | 760 | 760 | 760 | 760 | 760 | 760 |
| 4.25 | | Distance between fork arms | | min./max. | b ₅ | mm | 316/620 | 316/620 | 316/620 | 316/620 | 316/620 | 316/620 |
| 4.26 | | Distance between wheel arms/loading surfaces | | | b ₄ | mm | 920 | 790 | 1120 | 1320 | 920 | 790 |
| 4.28 | | Reach distance | | | l ₄ | mm | 591 | 505 | 519 | 519 | 623 | 520 |
| 4.31 | | Ground clearance, laden, below mast | | | m ₁ | mm | 70 | 70 | 70 | 70 | 70 | 70 |
| 4.32 | | Ground clearance, centre of wheel base | | | m ₂ | mm | 70 | 70 | 70 | 70 | 70 | 70 |
| 4.34.1 | | Aisle width for pallets 1000 x 1200 crossways ² | | | A _{st} | mm | 2752 (iGo systems 3050 ⁷) | 2795 | 2844 | 2879 | 2820 (iGo systems 3100 ⁷) | 2879 |
| 4.34.2 | | Aisle width for pallets 800 x 1200 lengthways ² | | | A _{st} | mm | 2796 (iGo systems 3150 ⁷) | 2854 | 2901 | 2936 | 2864 (iGo systems 3200 ⁷) | 2941 |
| 4.35 | | Turning radius | | | W _a | mm | 1710 | 1691 | 1750 | 1785 | 1778 | 1762 |
| 4.37 | | Length across wheel arms | | | l ₇ | mm | 1817 | 1819 | 1817 | 1817 | 1922 | 1924 |
| 4.43 | | Step height | | | | mm | 345 | 345 | 345 | 345 | 345 | 345 |
| Performance data | | 5.1 | Travel speed | | laden/unladen | km/h | 14/14 (iGo systems 6/6) | 14/14 | 14/14 | 14/14 | 14/14 (iGo systems 6/6) | 14/14 |
| | | 5.1.1 | Travel speed backwards | | laden/unladen | km/h | 14/14 | 14/14 | 14/14 | 14/14 | 14/14 | 14/14 |
| | | 5.2 | Lifting speed | | laden/unladen | m/s | 0.45/0.68 | 0.45/0.68 | 0.45/0.68 | 0.45/0.68 | 0.37/0.58 | 0.37/0.58 |
| | | 5.3 | Lowering speed | | laden/unladen | m/s | 0.55/0.52 | 0.55/0.52 | 0.56/0.52 | 0.56/0.52 | 0.53/0.50 | 0.53/0.50 |
| | 5.4 | Reaching speed | | laden/unladen | m/s | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | |
| | 5.7 | Gradeability | | laden/unladen | % | 10/15 | 10/15 | 10/15 | 10/15 | 10/15 | 10/15 | |
| | 5.8 | Max. gradeability | | laden/unladen | % | 15/20 | 15/20 | 15/20 | 15/20 | 15/20 | 15/20 | |
| | 5.9 | Acceleration time (over 10 m) | | laden/unladen | s | 4.5/4.0 | 4.5/4.0 | 4.5/4.0 | 4.5/4.0 | 4.5/4.0 | 4.5/4.0 | |
| | 5.10 | Service brake | | | | | Regenerative-electric/hydraulic | Regenerative-electric/hydraulic | Regenerative-electric/hydraulic | Regenerative-electric/hydraulic | Regenerative-electric/hydraulic | Regenerative-electric/hydraulic |
| Electric engine | 6.1 | Drive motor rating S2 = 60 min | | | kW | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | |
| | 6.2 | Lift motor rating S3 = 15 % | | | kW | 14 | 14 | 14 | 14 | 14 | 14 | |
| | 6.3 | Battery according to DIN 43531/35/36 A, B, C, no | | | | 43531 C/254-2 | 43531 B/254-2 | 43531 C/254-2 | 43531 C/254-2 | 43531 C/254-2 | 43531 B/254-2 | |
| | 6.4 | Battery voltage/nominal capacity K _s | | | V/Ah | 48/465 Li-Ion: 48/204 | 48/465 | 48/420 Li-Ion: 48/817 | 48/620 Li-Ion: 48/817 | 48/620 Li-Ion: 48/817 | 48/620 | 48/620 |
| | 6.5 | Battery weight (depending on manufacturer ±5%) | | | kg | 750 | 750 | 940 | 940 | 940 | 940 | |
| | 6.6 | Energy consumption according to VDI cycle | | | kWh/h | 3.56 | 3.56 | 3.56 | 3.56 | 3.59 | 3.59 | |
| Misc. | 10.1 | Operating pressure for attachments | | | bar | 200 | 200 | 200 | 200 | 200 | 200 | |
| | 10.2 | Oil volume for attachments | | | l/min | 20 | 20 | 20 | 20 | 20 | 20 | |
| | 10.7 | Sound pressure level at driver's seat | | | dB(A) | 69 | 69 | 69 | 69 | 69 | 69 | |

All measurements including sideshift mast or sideshift forks (carriage)

¹ Values decrease by 72 mm per battery size for larger batteries. Applies to the FM-X, FM-X W and FM-X EW;
Values decrease by 90 mm per battery size for larger batteries. Applies to the FM-X N

² Aisle width for pallet 1000 x 1200 crosswise:
- Values increase by 56 mm per battery size for larger batteries. Applies to the FM-X, FM-X W and FM-X EW;
- Values increase by 74 mm per battery size for larger batteries. Applies to the FM-X N

Aisle width for pallet 800 x 1200 lengthwise:
- Values increase by 66 mm per battery size for larger batteries. Applies to the FM-X, FM-X W and FM-X EW;
- Values increase by 85 mm per battery size using larger batteries. Applies to the FM-X N

³ May vary according to the mast, with sideshift/fork tilt 2°/4°

⁴ With optional cabin/wind protection, height h₆ is 2180 mm

⁵ With optional cabin, length will be extended by 150 mm

⁶ Increases in steps of 72 mm for each larger battery size for FM-X, FM-X W, FM-X EW models
Increases in steps of 90 mm for each larger battery size for FM-X N model

⁷ Based on smallest battery tray. An additional reduction of up to 150 mm is subject to detailed investigation

FM-X Driver Seated Reach Truck
Precision at the Highest Level

This specification sheet, which conforms to VDI guideline 2198, provides the technical values for the standard equipment only. Different tyres, other masts, the use of accessories, etc., may result in other values.



| | | | | STILL | STILL | STILL | STILL | STILL | STILL | |
|------------------|-------------|--|--|-------------------------------|--|---------------------------------|---------------------------------------|---------------------------------------|---------------------------------|---------------------------------|
| | | | | FM-X 20 W/Li-Ion | FM-X 20 EW/Li-Ion | FM-X 20 HD/Li-Ion | FM-X 25/Li-Ion | FM-X 25 W/Li-Ion | FM-X 25 EW/Li-Ion | |
| Features | 1.1 | Manufacturer | | | | | | | | |
| | 1.2 | Manufacturer's type designation | | | | | | | | |
| | 1.3 | Drive | | Electric | Electric | Electric | Electric | Electric | Electric | |
| | 1.4 | Operator type | | Seated | Seated | Seated | Seated | Seated | Seated | |
| | 1.5 | Rated capacity/rated load | | Q kg 2000 | 2000 | 2000 | 2500 | 2500 | 2500 | |
| | 1.6 | Load capacity at load centre distance | | c mm 600 | 600 | 600 | 600 | 600 | 600 | |
| | 1.8 | Load centre distance ¹ | | x mm 410 | 410 | 482 | 482 | 482 | 482 | |
| | 1.9 | Wheel base | | y mm 1525 | 1525 | 1669 | 1669 | 1669 | 1669 | |
| | 2.1 | Service weight (incl. battery) | | | kg 3870 | 3920 | 5110 | 4110 | 4140 | 4170 |
| Weights | 2.3 | Axle load, unladen | | drive end/load end | kg 2490/1380 | 2510/1410 | 3030/2080 | 2640/1470 | 2620/1520 | 2600/1570 |
| | 2.4 | Axle load, fork advanced, laden | | drive end/load end | kg 840/5030 | 860/5060 | 900/6410 | 810/5790 | 790/5840 | 770/5890 |
| | 2.5 | Axle load, fork retracted, laden | | drive end/load end | kg 2200/3670 | 2220/3700 | 2810/4500 | 2420/4190 | 2400/4240 | 2380/4290 |
| Tyres/chassis | 3.1 | Tyres | | | Polyurethane | Polyurethane | Polyurethane | Polyurethane | Polyurethane | |
| | 3.2 | Tyre size | | drive end | mm Ø 360 x 130 | Ø 360 x 130 | Ø 360 x 140 | Ø 360 x 140 | Ø 360 x 140 | |
| | 3.3 | Tyre size | | load end | mm Ø 350 x 100 | Ø 350 x 100 | Ø 350 x 100 | Ø 350 x 100 | Ø 350 x 100 | |
| | 3.5 | Number of wheels (x = driven) | | drive end/load end | | 1x/2 | 1x/2 | 1x/2 | 1x/2 | 1x/2 |
| | 3.7 | Tread | | load end | b ₁₁ mm 1367 | 1567 | 1167 | 1167 | 1367 | 1567 |
| | 4.1 | Tilt of mast/fork carriage | | forward/backward ³ | α/β ° 1/3 | 1/3 | 2/4 | 1/3 | 1/3 | 1/3 |
| | 4.2 | Height | | mast lowered | h ₁ mm 2450 | 2450 | 5200 | 2450 | 2450 | 2450 |
| Dimensions | 4.3 | Free lift | | | h ₂ mm 1880 | 1880 | 4578 | 1828 | 1828 | 1828 |
| | 4.4 | Lift | | | h ₃ mm 5580 | 5580 | 12500 | 5580 | 5580 | 5580 |
| | 4.5 | Height | | mast extended | h ₄ mm 6150 | 6150 | 13122 | 6202 | 6202 | 6202 |
| | 4.7 | Height of overhead guard (cabin) ⁴ | | | h ₆ mm 2200 | 2200 | 2200 (iGo systems 2500) | 2200 (iGo systems 2500) | 2200 | 2200 |
| | 4.8 | Seat height | | | h ₇ mm 1140 | 1140 | 1140 | 1140 | 1140 | 1140 |
| | 4.10 | Height of wheel arms | | | h ₈ mm 373 | 373 | 373 | 373 | 373 | 373 |
| | 4.19 | Overall length ^{2, 5, 6} | | | l ₁ mm 2484 | 2484 | 2556 | 2556 | 2556 | 2556 |
| | 4.20 | Length to face of forks ^{2, 5, 6} | | | l ₂ mm 1334 | 1334 | 1406 | 1406 | 1406 | 1406 |
| | 4.21 | Overall width | | | b ₁ /b ₂ mm 1470 | 1670 | 1270 (iGo systems 1440) | 1270 (iGo systems 1440) | 1470 | 1670 |
| | 4.22 | Fork dimensions | | DIN ISO 2331 | s/e/l mm 50/100/1150 | 50/100/1150 | 50/120/1150 | 50/120/1150 | 50/120/1150 | 50/120/1150 |
| | 4.23 | Fork carriage ISO 2328, class/type A, B | | | 2/A | 2/A | 2/A | 2/A | 2/A | 2/A |
| | 4.24 | Fork carriage width | | | b ₃ mm 760 | 760 | 760 | 760 | 760 | 760 |
| | 4.25 | Distance between fork arms | | min./max. | b ₅ mm 316/620 | 316/620 | 336/640 | 336/640 | 336/640 | 336/640 |
| | 4.26 | Distance between wheel arms/loading surfaces | | | b ₄ mm 1120 | 1320 | 920 | 920 | 1120 | 1320 |
| | 4.28 | Reach distance | | | l ₄ mm 623 | 623 | 695 | 695 | 695 | 695 |
| | 4.31 | Ground clearance, laden, below mast | | | m ₁ mm 70 | 70 | 70 | 70 | 70 | 70 |
| | 4.32 | Ground clearance, centre of wheel base | | | m ₂ mm 70 | 70 | 50 | 50 | 50 | 50 |
| | 4.34.1 | Aisle width for pallets 1000 x 1200 crossways ² | | | A _{st} mm 2857 | 2892 | 2908 (iGo systems 3250 ⁷) | 2908 (iGo systems 3250 ⁷) | 2943 | 2978 |
| | 4.34.2 | Aisle width for pallets 800 x 1200 lengthways ² | | | A _{st} mm 2901 | 2936 | 2937 (iGo systems 3300 ⁷) | 2937 (iGo systems 3300 ⁷) | 2972 | 3007 |
| | 4.35 | Turning radius | | | W _a mm 1815 | 1850 | 1915 | 1915 | 1950 | 1985 |
| | 4.37 | Length across wheel arms | | | l ₇ mm 1922 | 1922 | 2066 | 2066 | 2066 | 2066 |
| 4.43 | Step height | | | mm 345 | 345 | 345 | 345 | 345 | 345 | |
| Performance data | 5.1 | Travel speed | | laden/unladen | km/h 14/14 | 14/14 | 14/14 (iGo systems 6/6) | 14/14 (iGo systems 6/6) | 14/14 | 14/14 |
| | 5.1.1 | Travel speed backwards | | laden/unladen | km/h 14/14 | 14/14 | 14/14 | 14/14 | 14/14 | 14/14 |
| | 5.2 | Lifting speed | | laden/unladen | m/s 0.37/0.58 | 0.37/0.58 | 0.34/0.50 | 0.34/0.50 | 0.34/0.50 | 0.34/0.50 |
| | 5.3 | Lowering speed | | laden/unladen | m/s 0.53/0.50 | 0.53/0.50 | 0.52/0.50 | 0.52/0.50 | 0.52/0.50 | 0.52/0.50 |
| | 5.4 | Reaching speed | | laden/unladen | m/s 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 |
| | 5.7 | Gradeability | | laden/unladen | % 10/15 | 10/15 | 10/15 | 10/15 | 10/15 | 10/15 |
| | 5.8 | Max. gradeability | | laden/unladen | % 15/20 | 15/20 | 15/20 | 15/20 | 15/20 | 15/20 |
| | 5.9 | Acceleration time (over 10 m) | | laden/unladen | s 4.5/4.0 | 4.5/4.0 | 4.5/4.0 | 4.5/4.0 | 4.5/4.0 | 4.5/4.0 |
| | 5.10 | Service brake | | | Regenerative-electric/hydraulic | Regenerative-electric/hydraulic | Regenerative-electric/hydraulic | Regenerative-electric/hydraulic | Regenerative-electric/hydraulic | Regenerative-electric/hydraulic |
| Electric engine | 6.1 | Drive motor rating S2 = 60 min | | | kW 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | |
| | 6.2 | Lift motor rating S3 = 15 % | | | kW 14 | 14 | 14 | 14 | 14 | |
| | 6.3 | Battery according to DIN 43531/35/36 A, B, C, no | | | 43531 C/254-2 | 43531 C/254-2 | 43531 C/254-2 | 43531 C/254-2 | 43531 C/254-2 | |
| | 6.4 | Battery voltage/nominal capacity Ks | | | V/Ah 48/620 Li-Ion: 48/817 | 48/620 Li-Ion: 48/817 | 48/775 Li-Ion: 48/817 | 48/775 Li-Ion: 48/817 | 48/775 Li-Ion: 48/817 | 48/775 Li-Ion: 48/817 |
| | 6.5 | Battery weight (depending on manufacturer ±5%) | | | kg 940 | 940 | 1120 | 1120 | 1120 | 1120 |
| | 6.6 | Energy consumption according to VDI cycle | | | kWh/h 3.59 | 3.59 | 3.59 | 4.49 | 4.49 | 4.49 |
| Misc. | 10.1 | Operating pressure for attachments | | | bar 200 | 200 | 200 | 200 | 200 | |
| | 10.2 | Oil volume for attachments | | | l/min 20 | 20 | 20 | 20 | 20 | |
| | 10.7 | Sound pressure level at driver's seat | | | dB(A) 69 | 69 | 69 | 69 | 69 | |

All measurements including sideshift mast or sideshift forks (carriage)

¹ Values decrease by 72 mm per battery size for larger batteries. Applies to the FM-X, FM-X W and FM-X EW;
Values decrease by 90 mm per battery size for larger batteries. Applies to the FM-X N

² Aisle width for pallet 1000 x 1200 crosswise:
- Values increase by 56 mm per battery size for larger batteries. Applies to the FM-X, FM-X W and FM-X EW;
- Values increase by 74 mm per battery size for larger batteries. Applies to the FM-X N
Aisle width for pallet 800 x 1200 lengthwise:
- Values increase by 66 mm per battery size for larger batteries. Applies to the FM-X, FM-X W and FM-X EW;
- Values increase by 85 mm per battery size using larger batteries. Applies to the FM-X N

³ May vary according to the mast, with sideshift/fork tilt 2°/4°

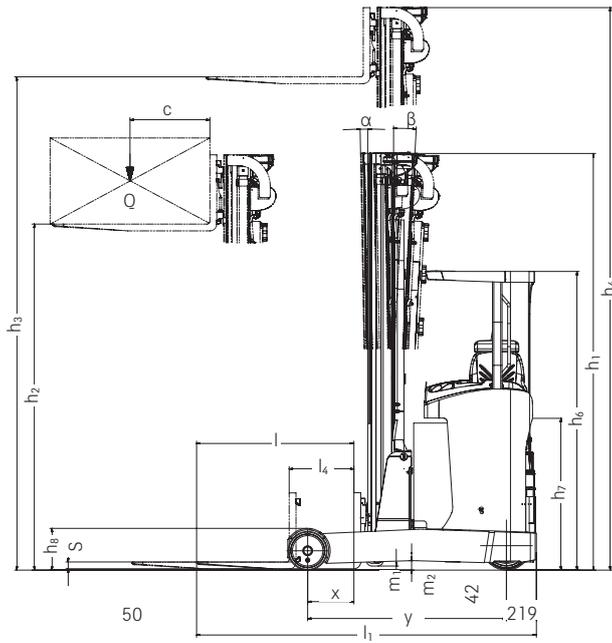
⁴ With optional cabin/wind protection, height h₆ is 2180 mm

⁵ With optional cabin, length will be extended by 150 mm

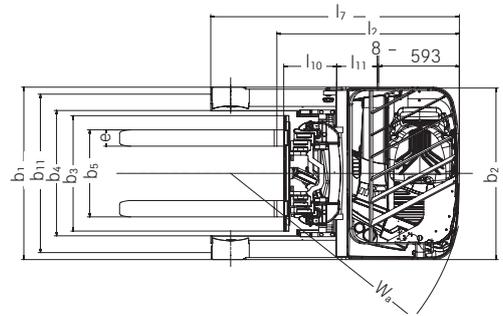
⁶ Increases in steps of 72 mm for each larger battery size for FM-X, FM-X W, FM-X EW models
Increases in steps of 90 mm for each larger battery size for FM-X N model

⁷ Based on smallest battery tray. An additional reduction of up to 150 mm is subject to detailed investigation

FM-X Driver Seated Reach Truck
 Technical Drawings



Side view



Top view



FM-X Driver Seated Reach Truck
Mast Tables



| Triplex | | | | |
|--|--|-----------------------------------|------------------------------|---|
| | Height, mast lowered h ₁ in mm | Free lift h ₂ in mm | Lift h ₃ in mm | Height, mast extended h ₄ in mm |
| FM-X 10/10 N - FM-X 12/12 N FM-X 14/14 N/14 W/14 EW | 1950 | 1390 | 4250 | 4810 |
| | 2015 | 1455 | 4440 | 5000 |
| | 2050 | 1490 | 4550 | 5110 |
| | 2200 | 1640 | 5000 | 5560 |
| | 2250 | 1690 | 5150 | 5710 |
| | 2300 | 1740 | 5300 | 5860 |
| | 2400 | 1840 | 5600 | 6160 |
| | 2450 | 1890 | 5750 | 6310 |
| | 2500 | 1940 | 5900 | 6460 |
| | 2600 | 2040 | 6200 | 6760 |
| 2700 | 2140 | 6500 | 7060 | |
| FM-X 10 N FM-X 10 FM-X 12 N FM-X 12 | 2800 | 2240 | 6700 | 7260 |
| | 2900 | 2340 | 7000 | 7560 |
| FM-X 10 N FM-X 10 FM-X 12 N FM-X 12 | 2800 | 2240 | 6700 | 7360 |
| | 2900 | 2340 | 7000 | 7660 |
| FM-X 14/14 N/14 W/14 EW | 2800 | 2240 | 6800 | 7360 |
| | 2900 | 2340 | 7100 | 7660 |
| | 3000 | 2440 | 7400 | 7960 |
| | 3100 | 2540 | 7700 | 8260 |
| | 3200 | 2640 | 8000 | 8560 |
| | 3300 | 2740 | 8300 | 8860 |
| | 3400 | 2840 | 8600 | 9160 |
| | 3500 | 2940 | 8900 | 9460 |
| | 3600 | 3040 | 9200 | 9760 |
| | 3700 | 3140 | 9500 | 10060 |
| 3800 | 3240 | 9800 | 10360 | |
| FM-X 14 N - FM-X 17 N | 1950 | 1380 | 4250 | 4820 |
| | 2015 | 1445 | 4440 | 5010 |
| | 2050 | 1480 | 4550 | 5120 |
| | 2200 | 1630 | 5000 | 5570 |
| | 2250 | 1680 | 5150 | 5720 |
| | 2300 | 1730 | 5300 | 5870 |
| | 2400 | 1830 | 5600 | 6170 |
| | 2450 | 1880 | 5750 | 6320 |
| | 2500 | 1930 | 5900 | 6470 |
| | 2600 | 2030 | 6200 | 6770 |
| | 2700 | 2130 | 6500 | 7070 |
| | 2800 | 2230 | 6800 | 7370 |
| | 2900 | 2330 | 7100 | 7670 |
| | 3000 | 2430 | 7400 | 7970 |
| | 3100 | 2530 | 7700 | 8270 |
| | 3200 | 2630 | 8000 | 8570 |
| | 3300 | 2730 | 8300 | 8870 |
| | 3400 | 2830 | 8600 | 9170 |
| | 3500 | 2930 | 8900 | 9470 |
| | 3600 | 3030 | 9200 | 9770 |
| 3700 | 3130 | 9500 | 10070 | |
| 3800 | 3230 | 9800 | 10370 | |
| FM-X 17/17 N/ FM-X 17 W/17 EW | 3900 | 3330 | 10100 ¹ | 10670 |
| | 4200 | 3630 | 10500 ¹ | 11070 |
| | 4300 | 3730 | 10800 ¹ | 11370 |
| | 4400 | 3830 | 11100 ¹ | 11670 |
| | 4500 | 3930 | 11400 ¹ | 11970 |
| | 4700 | 4130 | 11800 ¹ | 12370 |

¹ Lift height h₃ for iGo systems trucks: up to 10000 mm

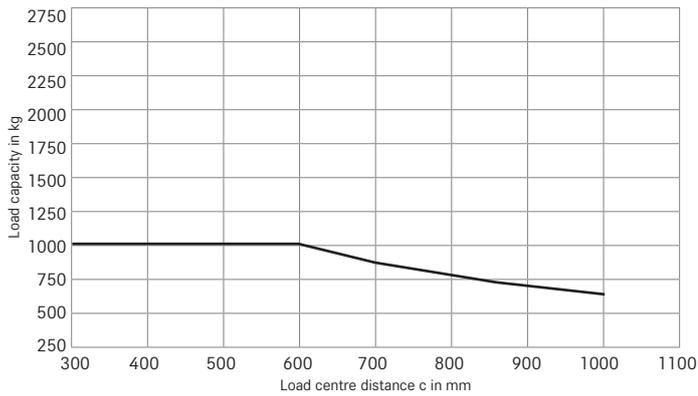
| Triplex | | | | |
|-------------------------|--|-----------------------------------|------------------------------|---|
| | Height, mast lowered h ₁ in mm | Free lift h ₂ in mm | Lift h ₃ in mm | Height, mast extended h ₄ in mm |
| FM-X 20/20 N/20 W/20 EW | 1950 | 1380 | 4080 | 4650 |
| | 2015 | 1445 | 4270 | 4840 |
| | 2050 | 1480 | 4380 | 4950 |
| | 2200 | 1630 | 4830 | 5400 |
| | 2250 | 1680 | 4980 | 5550 |
| | 2300 | 1730 | 5130 | 5700 |
| | 2400 | 1830 | 5430 | 6000 |
| | 2450 | 1880 | 5580 | 6150 |
| | 2500 | 1930 | 5730 | 6300 |
| | 2600 | 2030 | 6030 | 6600 |
| | 2700 | 2130 | 6330 | 6900 |
| | 2800 | 2230 | 6630 | 7200 |
| | 2900 | 2330 | 6930 | 7500 |
| | 3000 | 2430 | 7200 | 7770 |
| | 3100 | 2530 | 7500 | 8070 |
| | 3200 | 2630 | 7800 | 8370 |
| | 3300 | 2730 | 8000 | 8570 |
| | 3400 | 2830 | 8300 | 8870 |
| | 3450 | 2880 | 8450 | 9020 |
| | 3500 | 2930 | 8600 | 9170 |
| 3600 | 3030 | 8900 | 9470 | |
| 3700 | 3130 | 9200 | 9770 | |
| 3800 | 3230 | 9500 | 10070 | |
| 3900 | 3330 | 9800 | 10370 | |
| FM-X 20/20 W/20 EW | 4000 | 3430 | 10100 ¹ | 10670 |
| | 4100 | 3530 | 10400 ¹ | 10970 |
| | 4200 | 3630 | 10700 ¹ | 11270 |
| | 4300 | 3730 | 11000 ¹ | 11570 |
| | 4400 | 3830 | 11300 ¹ | 11870 |
| | 4500 | 3930 | 11600 ¹ | 12170 |
| | 4650 | 4080 | 12050 ¹ | 12620 |
| | 5200 | 4630 | 12500 ¹ | 13070 |
| | 5350 | 4780 | 13000 ¹ | 13570 |
| | FM-X 20 HD | 5200 | 4578 | 12500 ¹ |
| 5350 | | 4728 | 13000 ¹ | 13622 |
| FM-X 25/25 W/25 EW | 1950 | 1328 | 4080 | 4702 |
| | 2015 | 1393 | 4270 | 4892 |
| | 2050 | 1428 | 4380 | 5002 |
| | 2200 | 1578 | 4830 | 5452 |
| | 2250 | 1628 | 4980 | 5602 |
| | 2300 | 1678 | 5130 | 5752 |
| | 2400 | 1778 | 5430 | 6052 |
| | 2450 | 1828 | 5580 | 6202 |
| | 2500 | 1878 | 5730 | 6352 |
| | 2600 | 1978 | 6030 | 6652 |
| | 2700 | 2078 | 6330 | 6952 |
| | 2800 | 2178 | 6630 | 7252 |
| | 2900 | 2278 | 6930 | 7552 |
| | 3000 | 2378 | 7200 | 7822 |
| | 3100 | 2478 | 7500 | 8122 |
| | 3200 | 2578 | 7800 | 8422 |
| | 3300 | 2678 | 8000 | 8622 |
| | 3400 | 2778 | 8300 | 8922 |
| | 3450 | 2828 | 8450 | 9072 |
| | 3500 | 2878 | 8600 | 9222 |
| | 3600 | 2978 | 8900 | 9522 |
| | 3700 | 3078 | 9200 | 9822 |
| | 3800 | 3178 | 9500 | 10122 |
| | 3900 | 3278 | 9800 | 10422 |
| | 4000 | 3378 | 10100 ¹ | 10722 |
| 4100 | 3478 | 10400 ¹ | 11022 | |
| 4200 | 3578 | 10700 ¹ | 11322 | |
| 4300 | 3678 | 11000 ¹ | 11622 | |
| 4400 | 3778 | 11300 ¹ | 11922 | |
| 4500 | 3878 | 11600 ¹ | 12222 | |
| 4650 | 4028 | 12050 ¹ | 12672 | |

Masts with heights of up to 2450 mm and hydraulic mast side shift have a tilt angle of 1° forward and 3° backward.
Masts with hydraulic side shift have a fork tilt angle of 2° forward and 4° backward or optionally 3° forward and 3° backward.

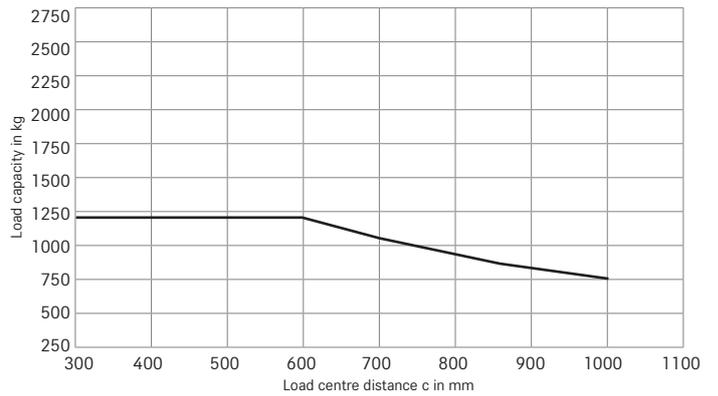
FM-X Driver Seated Reach Truck

Basic Load Capacities

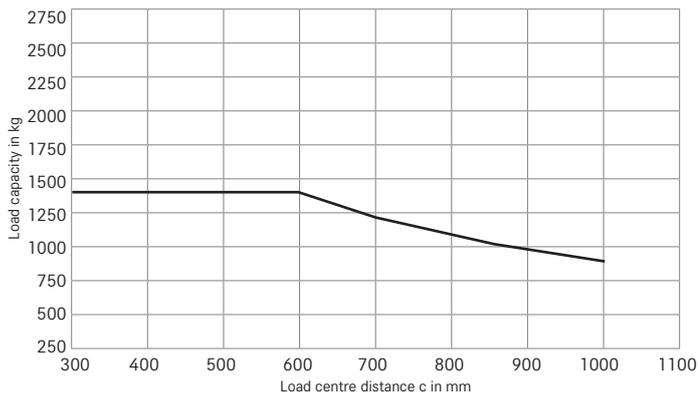
Load capacity FM-X 10/10 N



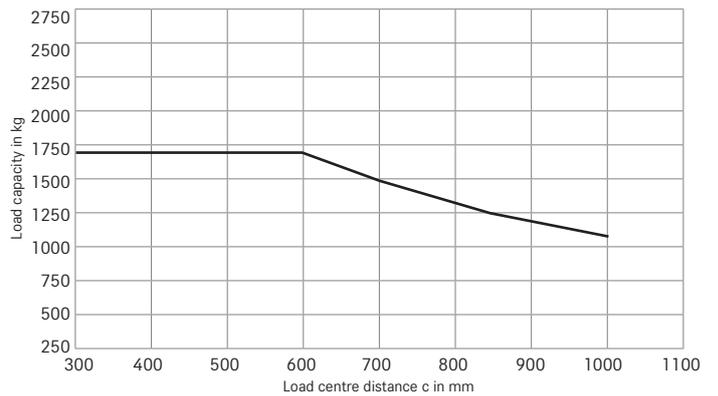
Load capacity FM-X 12/12 N



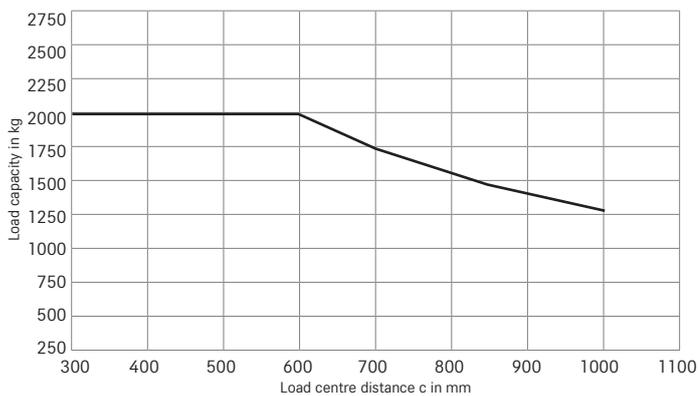
Load capacity FM-X 14/14 N/14 W/14 EW



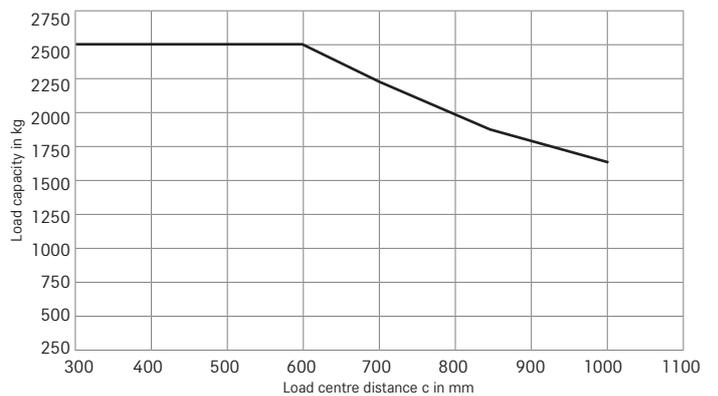
Load capacity FM-X 17/17 N/17 W/17 EW



Load capacity FM-X 20/20 N/20 W/20 EW/20 HD

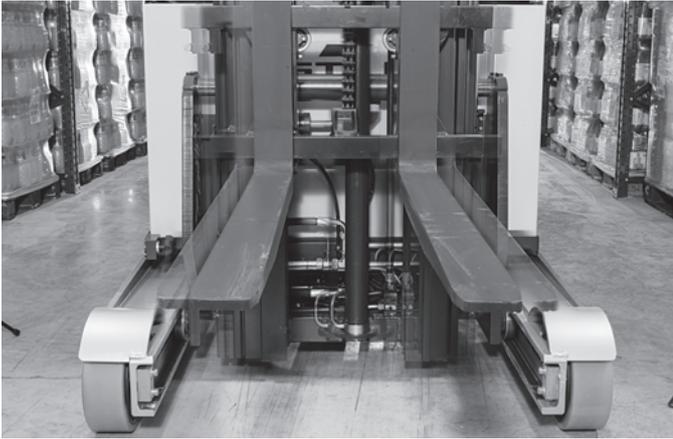


Load capacity FM-X 25/25 W/25 EW



FM-X Driver Seated Reach Truck

Detailed Photos



Optimal view of goods thanks to unique sideshift mast



Individually adjustable driver workspace



Ergonomic and sensitive control thanks to Joystick 4Plus



Easy operation of all functions without having to change grip thanks to fingertip operation



Ergonomically optimal position thanks to proportional adjustment of seat and footplate



Relaxed view upwards and past the goods thanks to the unique comfortable reclining seat

FM-X Driver Seated Reach Truck Precision at the Highest Level

13 metre lift height with high residual load capacity

Active Load Stabilisation (ALS)

Holistic ergonomics concept

The FM-X is always more than just a fork ahead of the rest. Thanks to Active Load Stabilisation (ALS) you can deal with the next goods transport while others would still be waiting for the mast to stop vibrating. An automatic equalising pulse provides a fast and effective way of stopping the vibrations that occur at great heights, reducing the waiting time at the shelf by up to 80 per cent. The result is a significant increase in the rate of turnover. Furthermore, with the FM-X the available storage space can be used more efficiently than ever before; the high residual load capacity means that the reach truck can lift loads of up to 1,000 kg to an incredible height of 13 metres.

Relaxed, comfortable and safe work throughout the whole shift is guaranteed by the holistic ergonomics concept. Footplate, steering wheel, seat – all these components can be individually adjusted to match the work requirement at hand as well as the stature and preferences of the driver. The FM-X is a compact and efficient energy bundle convincing with top availability thanks to Li-Ion technology. This does not only allow opportunity charging at any time – it is also fast: 50% of the battery is chargeable in only 30 minutes. Many other details, such as the optional tilting seat and the exclusive STILL mast side shift, for example, make the FM-X an ideal organiser in any warehouse – from operating high racks to long distance haul or replenishment.



The 'Simply Efficient' factors: Performance attributes as a measure of economic efficiency



Simply easy

- Precise height measurement with optical LED lift height sensor
- High handling capacity thanks to optional Easy Target and Easy Target Plus lift height pre-selection
- Precise control of lift functions using optional Joystick 4Plus or Fingertip controls
- Fatigue-free operation thanks to cushioned driver's seat with optional reclining mechanism
- With iGo systems trucks, further trucks can be added at any time so as to expand transportation capacity



Simply powerful

- Impressive goods handling thanks to residual load capacity of 1,000 kg at a height of 13 m, automated with iGo systems 10 m
- Fast goods handling due to a travel speed of up to 14 km/h, automated with iGo systems 6 km/h
- Reduced idle time due to high lowering and lifting speeds
- Excellent availability thanks to a battery capacity of up to 930 Ah
- The software-based transport controls for the FM-X iGo systems enable optimal fleet utilisation, whilst guaranteeing a high level of process reliability, traffic management, visualisation of truck movements, battery charge status monitoring and a reduced error rate – the flow of materials and information is always reliable and mapped comprehensively and transparently



Simply safe

- Reduced forklift mast vibrations and less damage to goods due to Active Load Stabilisation (ALS) and OptiSpeed (both optional)
- Unobstructed view upwards due to optional armoured glass roof

- Excellent visibility in the warehouse thanks to optional STILL Safety Light
- Safe cornering with (optional) Curve Speed Control based on the steering angle
- FM-X iGo systems improves transport quality and eliminates the risk of injury and damage to people, trucks, warehouse equipment and goods thanks to smart safety functions



Simply flexible

- Clever utilisation of space thanks to retractable mast
- Optimal comfort with a wide range of cab variants and driver workstation settings
- Suitable for a wide range of application scenarios thanks to multiple chassis variants
- iGo systems trucks can be manually operated if required: this increases flexibility, ensures smooth processes and material flows, and enables easy access to the goods



Simply connected

- Operator management, shock detection and controlled access with optional FleetManager 4.x
- With intelligent interface architecture, all automation solutions can communicate with external systems
- Easy integration into material flow management systems thanks to MMS provision
- Different iGo systems trucks can be combined with one another, with manual transport systems and with stationary automation systems

FM-X Driver Seated Reach Truck FM-X iGo systems

Safety guaranteed: smart safety functions increase transport quality and eliminate the risk of injury and damage to people, trucks, warehouse installations and goods

Outstanding process standards: picking errors and empty runs are prevented, increasing the transport quality

Maximum availability: efficient transport control and IT integration enable optimal fleet utilisation around the clock

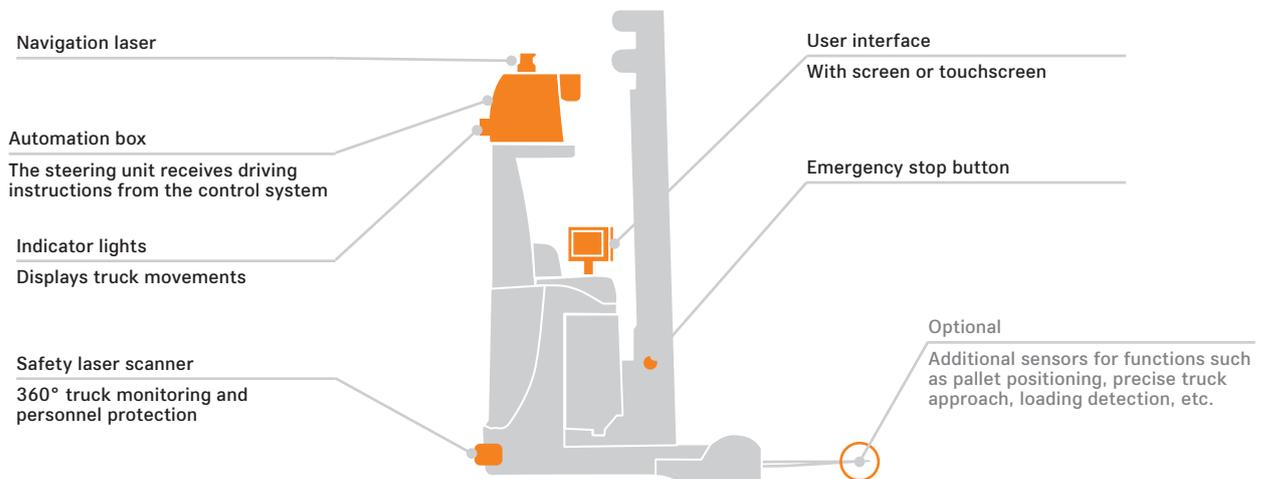
Optimal cost-effectiveness and efficiency thanks to individual automation concepts as well as transparent and optimised continuous material flow



iGo systems - Automated transport solutions

STILL iGo systems enables automated interaction between one or more different trucks so that transport tasks in the warehouse can be performed without a driver. No matter what your transport task, we have the right automated truck for you. The various trucks in the iGo systems portfolio assist with incoming and outgoing goods, storage, buffering, order picking, as well as production supply and disposal. The iGo software takes over control and traffic regulation tasks, achieves effective fleet utilisation and monitors all battery charge statuses. Modern navigation technology is used to guide the trucks through the warehouse.

Personnel protection scanners ensure the highest level of safety, while suitable sensors accurately detect pallets. The fully automated STILL devices cooperate effectively with manually controlled and semi-automated transport systems. Automation kits with standardised components, controls and interfaces transform a series truck into an industrial AGV (automated guided vehicle). We offer you reliable and scalable solutions across the entire automation spectrum. With your return on investment always in mind, we will support you all the way: from conception and quoting to implementation and maintenance.



Advantages of automated reach trucks

Automated reach trucks such as the FM-X iGo systems are a real asset for wide-aisle and block storage both horizontally and vertically. The FM-X iGo systems is characterised by optimal safety and reliability for driverless transport over long distances. It also offers decisive advantages for transport tasks that require high levels of precision in challenging conditions: The automated handling improves efficiency and process reliability - for example, when storing or removing heavy loads at great heights or when loading one-way shelves or fully automated shuttle systems. Automated reach trucks are therefore the perfect solution for current and future intralogistical challenges.

The following safety features are integrated: a safety laser scanner that detects people and objects in the path of travel; visual and acoustic warning systems (e.g. when changing direction of travel); and an emergency stop button that can be used to bring the forklift truck to an immediate standstill. However, we understand that not every technological innovation is financially feasible for the task at hand. We therefore aim to ensure that you do not get lost in the dense jungle of digital Industry 4.0 products, and offer a mix of technical solutions perfectly suited to your needs.

FM-X Driver Seated Reach Truck
Equipment Variants



| | FM-X 10 | FM-X 10 N | FM-X 12 | FM-X 12 N | FM-X 14/W/EW | FM-X 14 N | FM-X 17/W/EW | FM-X 17 N | FM-X 20/W/EW | FM-X 20 N | FM-X 20 HD | FM-X 25/W/EW | |
|---|--|-----------|---------|-----------|--------------|----------------|--------------|----------------|--------------|----------------|------------|----------------|---|
| Driver's seat | Amoured glass overhead guard with headrest | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Steering wheel and seat adjustment | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Comfortable seat with hydraulic damping and weight adjustment | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Comfortable reclining seat | ○ | — | ○ | — | ○ | — | ○ | — | ○ | — | ○ | |
| | Cushioned driver's seat for optimum comfort on uneven surfaces and when going over bumps | ○ | — | ○ | — | ○ | — | ○ | — | ○ | — | ○ | |
| | Heated driver's seat | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | Leatherette driver's seat | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | Proportional adjustment of seat and foot plate | ○ | — | ○ | — | ○ | — | ○ | — | ○ | — | ○ | ○ |
| | Joystick operation (hydraulic control system without changing grip) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | Fingertip controls (hydraulic control system with four individual levers) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | Five driver profiles, selected according to operator | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | Integrated storage facilities, cup holder | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | Panoramic rear-view mirror | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | Display: clear display of active operating states | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Steering | Fully electric 360° steering | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Fully electric 180° steering | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Fully electric steering with reverse function | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Redundant steering safety system | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| Mast | Triple free view mast with free lift | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ● | ○ | |
| | Hydraulic mast for lateral shifting with mast tilt | ● | — | ● | — | ● | — | ● | — | ● | — | ● | |
| | Hydraulic sideshifter with fork tilt | ○ | ● | ○ | — | ○ | — | ○ | — | ○ | — | ○ | |
| | Mast reach damping system | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| Hydraulics | Free view fork carriage | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Ancillary hydraulics, onefold or twofold | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Proportional valve technology for sensitive movements | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Individual parametrisation options for hydraulic functions | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| Drives | Multiple hydraulic movements can be controlled simultaneously | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Smooth, continuous acceleration to maximum speed | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Maintenance-free drives for driving, steering and lifting | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Fully enclosed component which is impervious to dirt and dust | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| Brake | Integral current and temperature sensors for function monitoring | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Generator braking system | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Energy recovery when braking | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Hydraulic impeller brake as additional brake | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| Safety and performance | Electromagnetic disc brake as parking brake and emergency stop | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | PIN code access, keyless, with button | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Indicator light | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Warning light | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Safety Light and Safety Light 4Plus | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | LED headlights | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Overhead guard with Makrolon or mesh grid | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Steering angle-dependent speed control | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Stroke shut-off for intermediate stroke and/or end stroke limiting | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Lift height display | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Lift height pre-selection system Easy Target with Easy Target Plus | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | FleetManager: access authorisation, shock detection, reports | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | OPTISPEED: lift height and load-dependent speed regulation | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Active vibration damping of the mast | — | — | — | — | ● ¹ | ○ | ● ¹ | ○ | ● ¹ | ○ | ● ¹ | |
| Audible driving warning signal (Digisound) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | |
| Maximum safety through iGo systems automation | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | |
| Battery system | Battery changing with crane | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Battery changing from the side with roller track | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Battery compartment for 420-465 Ah battery | ● | ● | ● | ● | ● | ● | ● | ● | — | — | — | |
| | Battery compartment for 480-620 Ah battery | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ● | ● | — | |
| | Battery compartment for 600-775 Ah battery | — | — | — | — | ○ | ○ | ○ | ○ | ○ | ○ | ● | |
| | Battery compartment for 720-930 Ah battery | — | — | — | — | — | — | — | — | ○ | ○ | ○ | |
| | 204 Ah STILL Li-Ion battery | ○ | ○ | ○ | ○ | ○ | — | ○/—/— | — | — | — | — | |
| | 817 Ah STILL Li-Ion battery | ○ | ○ | ○ | ○ | ○ | — | — | — | ○ | — | — | |
| Additional equipment | Battery transport and changing frame | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Various fork lengths | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Preparation for data terminal | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Automatic fork tilt and sideshift centring at the press of a button | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Cold store version | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Convenient cold store cab, ISO glazing, heated | ○ | — | ○ | — | ○ | — | ○ | — | ○ | — | ○ | |
| | Convenient cold store cab, VSG glazing, heated | ○ | — | ○ | — | ○ | — | ○ | — | ○ | — | ○ | |
| | Load backrest | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Overhead guard for drive-in racks | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Lateral guide wheels for drive-in operation | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Impeller cover | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Shift and lowering lock | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| Prong camera system | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | |
| Dual-pedal control | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | |

¹ For fixed mast exceeding 3700 mm in height



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