

Compact, three-phase AC rear-wheel drive fork lift truck

Maximum performance with lowest energy consumption

Only 990 mm wide for block stacking

Spacious work area

SOLO- or MULTI-PILOT control lever (optional)

Processor-controlled AC electronics which can be updated



EFG 110/110k/113/115

Electric three-wheel truck (1,000/1,250/1,500 kg)

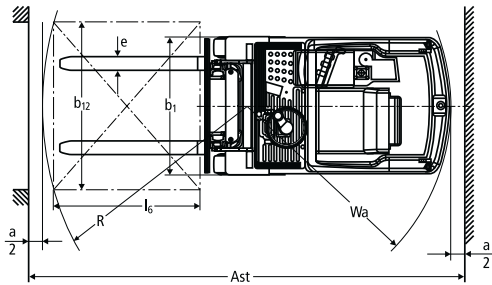
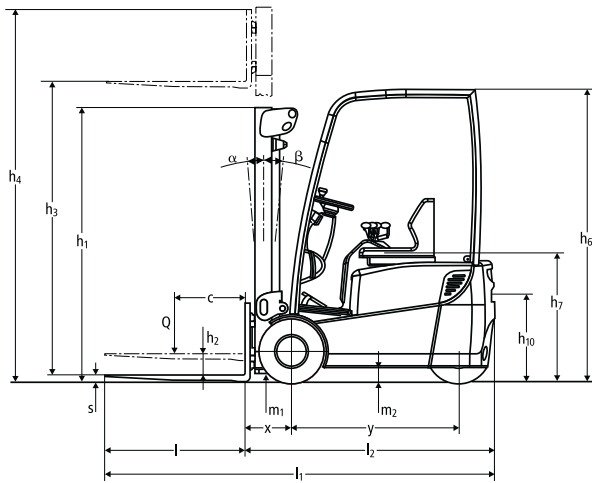
Rear-wheel drive, compact design, high performance data, and optimum ergonomic working conditions. These are the strengths of the Jungheinrich electric three-wheel trucks EFG 110k/110-115. Advantages: Manoeuvrability, optimum performance working inside HGVs, containers and wagons gives a high level of operator comfort.

This begins with the low entry height of just 520 mm. The operator enters easily and securely onto the operator station. The adjustable steering column and the

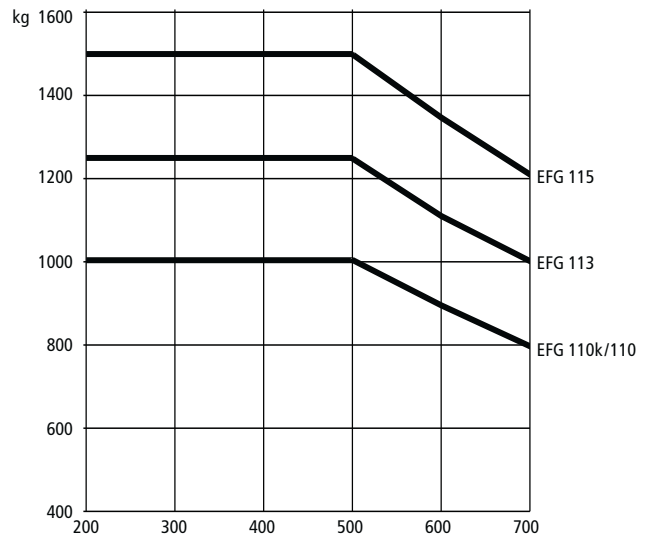
threeway adjustable comfort seat offer individual adjustments for all operators. The comfort high roof has a height of 2090 mm and offers superior headroom ('container roof' with a height of 1970 mm is available as an option). Excellent all-round visibility enhances safety; the ergonomically positioned hydraulic levers to the right of the driver's seat with the SOLO-PILOT (lifting/lowering, change in direction of travel and horn in one lever) fit easily to hand. The comfort display is configured for viewing when

looking in the direction of the forks. Using clear text displays, it provides data on operating hours and the battery charge (including lift cut-out) and stores all the relevant service data. With low steering / lever positioning forces and a conventional accelerator / brake pedal configuration, the power generated by the 3-phase AC motor, encapsulated as per IP 54, is easily transformed into dynamic, smooth acceleration. For use both indoors and outdoors.

EFG 110/110k/113/115



Capacity



Load centre distance "c" in mm

Standard mast types EFG 110/110k/113/115					
	Lift h_3 (mm)	Lowered mast height h_1 (mm)	Free lift h_2 (mm)	Extended mast height h_4 (mm)	Mast tilt forward / back α/β (°)
Duplex ZT	2300	1650	150	2850	5/4
	3000	2000	150	3550	5/6
	3100	2050	150	3650	5/6
	3300	2150	150	3850	5/6
	3600	2300	150	4150	5/6
	4000	2500	150	4550	5/6
	4500	2800	150	5050	5/6
Duplex ZZ	5000	3050	150	5550	5/5
	2300	1605	1055	2850	5/4
	3000	1955	1405	3550	5/6
	3100	2005	1455	3650	5/6
	3300	2105	1555	3850	5/6
	3600	2255	1705	4150	5/6
Triplex DZ	4000	2455	1905	4550	5/6
	4350	1955	1405	4900	5/6
	4500	2005	1455	5050	5/6
	4800	2105	1555	5350	5/6
	5000	2180	1630	5550	5/5
	5250	2255	1705	5800	5/5
	5500	2355	1805	6050	5/5
	6000	2555	2005	6550	5/4
	6500	2805	2255	7050	5/4

Technical data in line with VDI 2198

Identification	1.1	Manufacturer (short form)	Jungheinrich						
			EFG 110	EFG 110k	EFG 113	EFG 115			
Identification	1.2	Model	Electrics						
	1.3	Drive	seat						
	1.4	Manual, pedestrian, stand-on, seated, order picker operation	seat						
	1.5	Load capacity/rated load	Q	t	1	1	1.25	1.5	
	1.6	Load centre distance	c	mm	500				
	1.8	Load distance	x	mm	330 ¹⁾				
	1.9	Wheelbase	y	mm	1038	984	1146	1200	
	Weights	2.1.1	Net weight incl. battery (see row 6.5)		kg	2570	2490	2760	2870
		2.2	Axle load, w. load, front / rear		kg	2945 / 625	2940 / 550	3390 / 620	3805 / 565
2.3		Axle load, w.o. load, front / rear		kg	1145 / 1425	1095 / 1395	1235 / 1525	1270 / 1600	
Wheels / chassis	3.1	Tyres	SE						
	3.2	Tyre size, at front		mm	18 x 7-8				
	3.3	Tyre size, at rear		mm	18 x 7-8				
	3.5	Wheels, number front/rear (x = driven wheels)			2/1x				
	3.6	Track width, front	b ₁₀	mm	838				
	3.7	Track width, rear	b ₁₁	mm	0				
	Basic dimensions	4.1	Tilt of mast/fork carriage forward/backward	α/β	°	5/6			
4.2		Mast height (lowered)	h ₁	mm	2000				
4.2.1		Total height	h ₁₅	mm					
4.3		Free lift	h ₂	mm	150				
4.4		Lift	h ₃	mm	3000				
4.5		Extended mast height	h ₄	mm	3550				
4.7		Height of overhead guard	h ₆	mm	2090				
4.8		Seat height/stand height	h ₇	mm	900				
4.12		Coupling height	h ₁₀	mm	635				
4.19		Overall length	l ₁	mm	2773	2719	2881	2935	
4.20		Length incl. back of forks	l ₂	mm	1623	1569	1731	1785	
4.21		Total width	b ₁ /b ₂	mm	990				
4.22		Fork dimensions	s/e/l	mm	35 / 100 / 1150				
4.23		Fork carriage ISO 2328, class/type A, B			2A				
4.24		Fork carriage width	b ₃	mm	950				
4.31		Floor clearance with load under mast	m ₁	mm	90				
4.32		Floor clearance centre wheelbase	m ₂	mm	100				
4.33		Aisle width for pallets 1000 x 1200 sideways	A _{st}	mm	2952	2898	3060	3114	
4.34	Aisle width for pallets 800 x 1200 lengthways	A _{st}	mm	3074	3020	3182	3236		
4.35	Turning radius	W _a	mm	1293	1239	1401	1455		
4.36	Smallest pivot point distance	b ₁₃	mm	0					
Performance data	5.1	Travel speed, w. / w.o. load		km/h	12 / 12.5				
	5.2	Lift speed, w. / w.o. load		m/s	0.29 / 0.5	0.28 / 0.5	0.25 / 0.5	0.24 / 0.5	
	5.3	Lower speed, w. / w.o. load		m/s	0.58 / 0.6				
	5.5	Drawbar pull w. / w.o. load		N	1150 / 1250	1150 / 1250	1100 / 1250	1055 / 1250	
	5.6	Max. drawbar pull, laden/unladen		N	4400 / 4500	4400 / 4500	4375 / 4500	4350 / 4500	
	5.7	Gradeability laden/unladen		%	8 / 11.5	8.5 / 12	7 / 11	6.5 / 10.5	
	5.8	Max. gradeability, laden/unladen		%	12.5 / 17.5	13 / 18	11 / 16.5	10 / 16	
	5.9.1	Acceleration time w / w.o. load (to 10 m)		S	5.1 / 4.6	5.1 / 4.6	5.4 / 4.7	5.6 / 4.8	
	5.10	Service brake			hydraulic				
	Electrics	6.1	Drive motor rating S2 60 min.		kW	4.0			
6.2		Lift motor rating at S3 15%		kW	6.0				
6.3		Battery according to DIN 43531/35/36 A,B,C, no			A 43535				
6.4		Battery voltage/nominal capacity K5		V/Ah	24 / 625	24 / 500	24 / 875	24 / 1000	
6.5		Battery weight		kg	450	380	600	690	
6.6		Battery dimensions L/W/H		mm	830 / 327 / 627	830 / 273 / 627	830 / 435 / 627	830 / 489 / 627	
Misc.	8.1	Type of drive control			Impuls/AC				
	8.2	working pressure for attachments		bar	160	160	185	210	
	8.3	oil flow for attachments		l/min	14				
	8.4	Sound pressure level at operator's ear according to EN 12053		dB (A)	63				
	8.5	Trailer coupling, model/type DIN			DIN 15170-H				

¹⁾ 337 mm for DZ mast; for integral sideshift: x = 362 mm (DZ mast 369 mm); for sideshift attachment: x = 390 mm (DZ mast 397 mm)

²⁾ 45 VDI work cycles/h

In accordance with VDI Guideline 2198 this specification sheet provides details of the standard truck only. Non-standard tyres, different masts, optional equipment, etc. may result in different values.

Benefit from the advantages



Drive and lift motor with 3-phase AC technology



SOLO-PILOT



MULTI-PILOT

Outstanding price/performance ratio

First-class design of operator seat, high performance data and low life-cycle costs give an outstanding price/performance ratio.

High residual capacity

Full rated capacity up to 4500 mm (EFG 115) or 5000 mm (EFG 110k/110/113) can be achieved. This is due to excellent stability safety.

Innovative motor technology

Drive and lift motor with AC technology and excellent heat economics (no ventilator required).

Performance enhancing workstation

- Standard comfort high roof for superior headroom.
- Clear view: mast and fork carriage allow for excellent visibility.
- Comfortable operation of direction and hydraulics by SOLO-PILOT or MULTIPLE-PILOT (optional).
- Low effort hydraulic power steering (5,2 turns for 180° angle of lock).

Reduced maintenance

- Single-piece metal cover ensures quick and easy access to the battery compartment.

- Maintenance and wear-free motors in AC technology.
- Dirt, dampness and water-resistant motors due to encapsulated design and electronic components complying to IP 54.
- Prolonged service intervals: only every 1000 operating hours or every 12 months.
- Hydraulic steering with fully encapsulated cog-wheel system.

Economic driving and lifting

- AC technology ensures optimum performance.
- Energy regeneration system.
- Omission of motor ventilators.
- Significantly prolonged work cycles, increasing charging intervals.
- Progressive lowering brake valve allows equal lowering speed with and without load.

Innovative steering and safety technology

- Impulse ac technology steering allows sensitive driving.
- Programmable performance parameter ensure flexibility.
- 5 selectable drive programs (optional)
- Jungheinrich Curve Control reduces speed depending on the steering angle (optional).

SOLO-PILOT

The SOLO-PILOT (standard equipment) combines the functions lifting/lowering, direction switch and horn in one control lever. The additional functions forward/backward tilting, sideshift (optional) and supplementary hydraulic (optional) can be operated with addition levers situated directly next to the SOLO-PILOT.

MULTI-PILOT

The MULTI-PILOT (optional) combines all drive and hydraulic functions in one central control lever. All control commands can easily be selected without having to move the hand. The hand rests easily on the ergonomically optimised handle. MULTI-PILOT even enables several hydraulic functions to be controlled at the same time.

3-phase AC motors

Fully closed 3-phase AC motors – brushless – are the main component of the maintenance-free drive. They are resistant to dust, dirt and damp. The temperature control protects the motors from overheating by constantly adjusting the performance.

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The German production facilities in Norderstedt and Moosburg are certified. **ISO 9001**
ISO 14001

Jungheinrich fork lift trucks meet European safety requirements.



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