Compact forklift with AC technology and rear-wheel drive

Maximum performance with low energy consumption

990 mm wide for block stacking

Spacious operator's cab

SOLO- or MULTI-PILOT control lever (optional)

Processor-controlled update-capable AC electronics

EFG 110–115

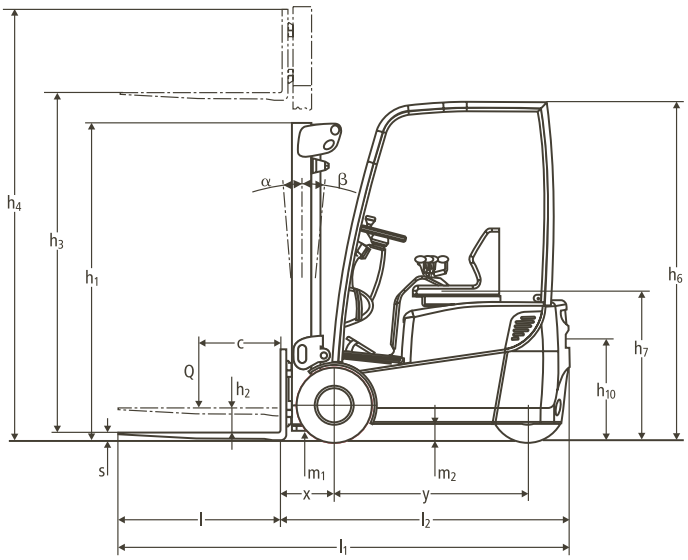
Electric three-wheel forklift truck (1000, 1250, 1500 kg)

Rear-wheel drive, compact design, high performance, an ergonomically designed operator compartment. These are the strengths of the Jungheinrich electric forklift trucks EFG 110k/110–115. The advantages: high manoeuvrability, optimum performance in confined spaces and a high level of operator comfort.

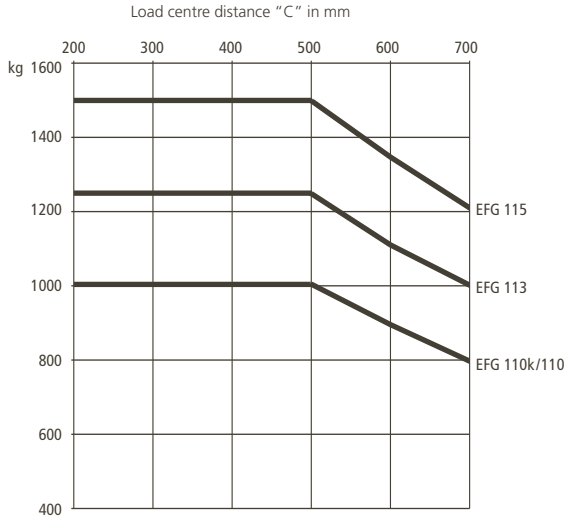
Low step for safe and comfortable entrance to the cushion mounted cab. The adjustable steering column and the three-way adjustable comfort seat offer individual adaptation to all operators. The comfort high roof is 2090 mm high and offers superior headroom ("container roof" with a height of 1970 mm is available as an option). Excellent all round visibility enhances safety; the ergonomically positioned hydraulic levers to the right of the driver's seat in SOLO-PILOT control (separate levers) or MULTI-PILOT control (all functions in one lever) for optimum handling. With a clear text indicator the comfort display highlights all important vehicle data, for example operating hours, battery charge and brake system. The system also stores all relevant service data. Low steering and lever operating forces and a familiar automotive pedal layout ensures safe operation. The encapsulated motor with AC technology enables smooth acceleration, suitable for both indoor and outdoor operation.

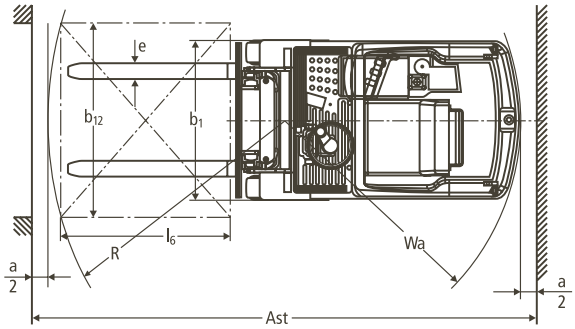
JUNGHEINRICH

EFG 110k/110–115



Capacity





Mast table EFG 110k/110–115						Capacity table (kg) c = 500 mm				Truck	
Designation	Lift height h_3 mm	Free lift h_2 mm	Closed mast height h_1 mm	Extended mast height h_4 mm	Forward/ backward tilt α/β (°)	without sideshift, single solid tyres					
						EFG 110k kg	EFG 110 kg	EFG 113 kg	EFG 115 kg	Width mm	Track mm
Two-stage ZT	2300	150	1650	2850	5/4	1000	1000	1250	1500	990	838
	3000[1])	150[1])	2000[1])	3550[1])	5/6[1])	1000	1000	1250	1500	990	838
	3100	150	2050	3650	5/6	1000	1000	1250	1500	990	838
	3300	150	2150	3850	5/6	1000	1000	1250	1500	990	838
	3600	150	2300	4150	5/6	1000	1000	1250	1500	990	838
	4000	150	2500	4550	5/6	1000	1000	1250	1500	990	838
	4500	150	2800	5050	5/6	1000	1000	1250	1500	1062	910
	5000	150	3050	5550	5/5	1000	1000	1250	1400	1062	910
Two-stage ZZ	2300	1055	1605	2850	5/4	1000	1000	1250	1500	990	838
	3000	1405	1955	3550	5/6	1000	1000	1250	1500	990	838
	3100	1455	2005	3650	5/6	1000	1000	1250	1500	990	838
	3300	1555	2105	3850	5/6	1000	1000	1250	1500	990	838
	3600	1705	2255	4150	5/6	1000	1000	1250	1500	990	838
	4000	1905	2455	4550	5/6	1000	1000	1250	1500	990	838
Three-stage DZ	4350	1405	1955	4900	5/6	1000	1000	1250	1500	990	838
	4500	1455	2005	5050	5/6	1000	1000	1250	1450	1062	910
	4800	1555	2105	5350	5/6	1000	1000	1250	1350	1062	910
	5000	1630	2180	5550	5/5	950	1000	1200	1300	1062	910
	5500	1805	2355	6050	5/5	850	900	1050	1200	1062	910
	6000	2005	2555	6550	5/4	–	800	850	1000	1062	910
	6500	2255	2805	7050	5/4	–	–	700	900	1062	910

1) standard

Technical Data in line with VDI 2198 as at: 02/2010

Identification	1.1	Manufacturer (abbreviation)	Jungheinrich	Jungheinrich	Jungheinrich	Jungheinrich	1.1
	1.2	Manufacturer's type designation	**EFG 110k**	**EFG 110**	**EFG 113**	**EFG 115**	1.2
	1.3	Drive	electric	electric	electric	electric	1.3
	1.4	Type of operation	seated	seated	seated	seated	1.4
	1.5	Load capacity/rated load Q (t)	1	1	1.25	1.5	1.5
	1.6	Load centre distance c (mm)	500	500	500	500	1.6
	1.8	Load distance, centre of drive axle to fork x (mm)	330 [1])	330 [1])	330 [1])	330 [1])	1.8
	1.9	Wheelbase y (mm)	984	1038	1146	1200	1.9
Weights	2.1	Service weight incl. battery (see line 6.5) kg	2490	2570	2760	2870	2.1
	2.2	Axle loading, laden front/rear kg	2940/550	2945/625	3390/620	3805/565	2.2
	2.3	Axle loading, unladen front/rear kg	1095/1395	1145/1425	1235/1525	1270/1600	2.3
Wheels, Chassis	3.1	Tyres	SE	SE	SE	SE	3.1
	3.2	Tyre size, front	18 x 7-8	18 x 7-8	18 x 7-8	18 x 7-8	3.2
	3.3	Tyre size, rear	18 x 7-8	18 x 7-8	18 x 7-8	18 x 7-8	3.3
	3.5	Wheels, number front rear (x = driven wheels)	2/1x	2/1x	2/1x	2/1x	3.5
	3.6	Track width, front b_{10} (mm)	838	838	838	838	3.6
	3.7	Track width, rear b_{11} (mm)	0	0	0	0	3.7
Basic Dimensions	4.1	Mast/fork carriage tilt forward/backward α/β (°)	5/6	5/6	5/6	5/6	4.1
	4.2	Lowered mast height h_1 (mm)	2000	2000	2000	2000	4.2
	4.3	Free lift h_2 (mm)	150	150	150	150	4.3
	4.4	Lift height h_3 (mm)	3000	3000	3000	3000	4.4
	4.5	Extended mast height h_4 (mm)	3550	3550	3550	3550	4.5
	4.7	Overhead load guard (cab) height h_6 (mm)	2090	2090	2090	2090	4.7
	4.8	Seat height/standing height h_7 (mm)	900	900	900	900	4.8
	4.12	Coupling height h_{10} (mm)	635	635	635	635	4.12
	4.19	Overall length l_1 (mm)	2719	2773	2881	2935	4.19
	4.20	Length to face of forks l_2 (mm)	1569	1623	1731	1785	4.20
	4.21	Overall width b_1/b_2 (mm)	990/–	990/–	990/–	990/–	4.21
	4.22	Fork dimensions s/e/l (mm)	35/100/1150	35/100/1150	35/100/1150	35/100/1150	4.22
	4.23	Fork carriage ISO 2328, class/type A, B	ISO 2A	ISO 2A	ISO 2A	ISO 2A	4.23
	4.24	Fork-carriage width b_3 (mm)	950	950	950	950	4.24
	4.31	Ground clearance, laden, under mast m_1 (mm)	90	90	90	90	4.31
	4.32	Ground clearance, centre of wheelbase m_2 (mm)	100	100	100	100	4.32
	4.33	Aisle width for pallets 1000 x 1200 crossways Ast (mm)	2898	2952	3060	3114	4.33
	4.34	Aisle width for pallets 800 x 1200 lengthways Ast (mm)	3020	3074	3182	3236	4.34
	4.35	Turning radius Wa (mm)	1239	1293	1401	1455	4.35
	4.36	Smallest pivot point distance b_{13} (mm)	0	0	0	0	4.36
Performance Data	5.1	Travel speed, laden/unladen km/h	12/12.5	12/12.5	12/12.5	12/12.5	5.1
	5.2	Lift speed, laden/unladen m/s	0.28/0.50	0.29/0.50	0.25/0.50	0.24/0.50	5.2
	5.3	Lowering speed, laden/unladen m/s	0.58/0.60	0.58/0.60	0.58/0.60	0.58/0.60	5.3
	5.5	Drawbar pull, laden/unladen S_2 60 min N	1150/1250	1150/1250	1100/1250	1055/1250	5.5
	5.6	Max. drawbar pull, laden/unladen S_2 5 min N	4400/4500	4400/4500	4375/4500	4350/4500	5.6
	5.7	Gradient performance, laden/unladen S_2 30 min %	8.5/12	8/11,5	7/11	6.5/10.5	5.7
	5.8	Max. gradient performance, laden/unladen S_2 5 min %	13/18	12.5/17.5	11/16.5	10/16	5.8
	5.9	Acceleration time, laden/unladen 10 m s	5.1/4.6	5.1/4.6	5.4/4.7	5.6/4.8	5.9
	5.10	Service brake	hydr.	hydr.	hydr.	hydr.	5.10
Electric Engine	6.1	Drive motor rating S_2 60 min kW	4.0	4.0	4.0	4.0	6.1
	6.2	Lift motor rating at S_3 20 % kW	6	6	6	6	6.2
	6.3	Battery acc. to DIN 43531/35/36 A, B, C, no	43535 A	43535 A	43535 A	43535 A	6.3
	6.4	Battery voltage, nominal capacity K_5 V/Ah	24/500	24/625	24/875	24/1000	6.4
	6.5	Battery weight kg	380	450	600	690	6.5
		Battery dimensions l/w/h mm	830/273/627	830/327/627	830/435/627	830/489/627	
	6.6	Energy consumption acc. to VDI cycle [2]) kWh/h	3.6	3.6	3.9	4.1	6.6
Others	8.1	Type of drive control	impulse/AC	impulse/AC	impulse/AC	impulse/AC	8.1
	8.2	Operating pressure for attachments bar	160	160	185	210	8.2
	8.3	Oil volume for attachments l/min	14	14	14	14	8.3
	8.4	Sound level at driver's ear according to EN 12053 dB(A)	63	63	63	63	8.4
	8.5	Tow coupling, type DIN	DIN 15170-H	DIN 15170-H	DIN 15170-H	DIN 15170-H	8.5

1) 337 mm with DZ mast, with integrated sideshift: x = 362 mm (369 mm with DZ mast), with sideshift attachment: x = 390 mm (397 mm with DZ mast)
2) 45 VDI working cycles/h

This specification sheet according to VDI regulation 2198 only provides technical values for the standard truck. Non-standard tyres, different masts, additional equipment, etc. could produce other values.

Make use of the advantages

High productivity
First class driver productivity through comfortable operator's compartment, high performance and low life cycle costs.

High residual carrying capacity
Full rated capacity up to 4500 mm on the EFG 115 on the EFG 110 k/110/113 a lift height of 5000 mm 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).


Drive and lift motor with AC technology

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 MULTI-PILOT (optional).
- Low effort hydraulic power steering (5,2 turns for 180° angle of lock).

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


SOLO-PILOT

- 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 6 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. Without having to move the hand all control commands can easily be received. The hand rests on the ergonomically positioned handle. Even controlling several hydraulic functions is done in no time with the MULTI-PILOT.


MULTI-PILOT

AC technology motors
Fully closed AC technology motors – brushless – are the main component of the maintenance free drive unit. They are resistant to dust, dirt and dampness. The temperature control protects the motors from overheating by adjusting the performance.

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Jungheinrich Plants, Sales and Services Europe ISO 9001/ISO 14001

Jungheinrich trucks conform to the European Safety Requirements.

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