

Jungheinrich® proprietary  
AC technology

Maximum performance and  
low energy consumption

Narrow tractor design for block  
stacking

Spacious operator compartment

Compact for maximum  
maneuverability

Microprocessor-controlled,  
fully-programmable AC electronic  
control



## EFG 110k – 115

Electric Three-Wheel Counterbalanced Truck (2,000–3,000 lbs.)

Rear-wheel drive, a compact design, high performance and an ergonomic operator compartment – these are the strengths of the EFG 110k–115 electric forklift trucks.

**The advantages:**

- Excellent performance in restricted spaces, greater maneuverability and superior operator comfort.
- The truck features a low step for a secure and comfortable entrance into the compartment. The adjustable steering column and a three-way adjustable, full-suspension seat offer customized settings for your operators. The compartment offers superior headroom with an overhead guard that is 82.3 inches high. A “container overhead guard” with a height of 77.6 inches is available as an option.
- Excellent visibility and ergonomically-positioned controls allow for precise handling. Hydraulic functions are activated by using the SOLO-PILOT control (separate levers).
- The informative operator display highlights important lift truck data, including operating hours, battery state-of-charge, lift interrupt, error codes and warning displays. The system also stores all relevant service data.
- Low steering and lever operating forces and a familiar automotive pedal layout help create a productive operation. Enclosed AC motors enable smooth acceleration and make the EFG 110k–115 suitable for a variety of applications.

# Technical data

as of: 12/2012

			Jungheinrich		Jungheinrich				
			<b>EFG 110k</b>		<b>EFG 110</b>				
<b>Characteristics</b>	1.1	Manufacturer (abbreviation)		Jungheinrich		Jungheinrich			
	1.2	Manufacturer's type designation		<b>EFG 110k</b>		<b>EFG 110</b>			
	1.3	Drive		electric		electric			
	1.4	Type of operation		seated		seated			
	1.5	Load capacity / rated load	Q	lbs	t	1,920	1	1,920	1
	1.6	Load center distance	c	in	mm	24.0	500	24.0	500
	1.8	Load distance, center of load axle to fork face	x	in	mm	13.0 <sup>1)</sup>	330 <sup>2)</sup>	13.0 <sup>1)</sup>	330 <sup>2)</sup>
	1.9	Wheelbase	y	in	mm	38.7	984	40.9	1,038
	2.1	Service weight including battery (see line 6.5)		lbs	kg	5,490	2,490	5,666	2,570
2.2	Axle loading, loaded front / rear		lbs	kg	6,482 / 1,213	2,940 / 550	6,493 / 1,378	2,945 / 625	
2.3	Axle loading, unloaded front / rear		lbs	kg	2,414 / 3,075	1,095 / 1,395	2,524 / 3,142	1,145 / 1,425	
<b>Weights</b>	3.1	Tires		solid pneumatic		solid pneumatic			
	3.2	Tire size, front		in	18 x 7-8		18 x 7-8		
	3.3	Tire size, rear		in	18 x 7-8		18 x 7-8		
	3.5	Wheels, number front / rear (x = driven wheels)		2 / 1x		2 / 1x			
	3.6	Track width, front		in	mm	33.0	838	33.0	838
	3.7	Track width, rear		in	mm	0	0	0	0
	<b>Dimensions</b>	4.1	Mast / fork carriage tilt, forward / backward		degrees		5 / 6		5 / 6
4.2		Collapsed mast height	h <sub>1</sub>	in	mm	79	2,000	79	2,000
4.3		Free-lift	h <sub>2</sub>	in	mm	5.9	150	5.9	150
4.4		Lift height	h <sub>3</sub>	in	mm	118	3,000	118	3,000
4.5		Extended mast height	h <sub>4</sub>	in	mm	166	4,216	166	4,216
4.7		Overhead guard height	h <sub>6</sub>	in	mm	82.3	2,090	82.3	2,090
4.8		Seat height / platform height	h <sub>7</sub>	in	mm	35.4	900	35.4	900
4.12		Tow hitch height	h <sub>10</sub>	in	mm	25.0	635	25.0	635
4.19		Overall length	l <sub>1</sub>	in	mm	107.0	2,719	109.2	2,773
4.20		Length to fork face (headlength)	l <sub>2</sub>	in	mm	61.8	1,569	63.9	1,623
4.21		Overall width	b <sub>1</sub>	in	mm	39.0 <sup>3)</sup>	990 <sup>3)</sup>	39.0 <sup>3)</sup>	990 <sup>3)</sup>
4.22		Fork dimensions	s / e / l	in	mm	1.4 x 3.9 x 45.3	35 x 100 x 1,150	1.4 x 3.9 x 45.3	35 x 100 x 1,150
4.23		Fork carriage ITA class 2				2A		2A	
4.24		Fork carriage width		in	mm	37.4	950	37.4	950
4.31		Ground clearance, loaded, under mast	m <sub>1</sub>	in	mm	3.5	90	3.5	90
4.32		Ground clearance, center of wheelbase	m <sub>2</sub>	in	mm	3.9	100	3.9	100
4.33		Aisle width for pallets 48 x 40 (L x W)		in	mm	109.8 <sup>2)</sup>	2,789 <sup>2)</sup>	111.9 <sup>2)</sup>	2,842 <sup>2)</sup>
4.35		Turning radius		in	mm	48.8	1,239	50.9	1,293
4.36		Internal turning radius	Wa	in	mm	0	0	0	0
<b>Performance</b>		5.1	Travel speed, loaded / unloaded	mph	km/h	7.5 / 7.8	12 / 12.5	7.5 / 7.8	12 / 12.5
		5.2	Lift speed, loaded / unloaded	ft/min	m/s	55.1 / 98.4	0.28 / 0.50	57.1 / 98.4	0.29 / 0.50
	5.3	Lowering speed, loaded / unloaded	ft/min	m/s	114.2 / 118.1	0.58 / 0.60	114.2 / 118.1	0.58 / 0.60	
	5.5	Drawbar pull, loaded / unloaded	lbs	N	259 / 281	1,150 / 1,250	259 / 281	1,150 / 1,250	
	5.6	Maximum drawbar pull, loaded / unloaded, 60 min.	lbs	N	989 / 1,011	4,400 / 4,500	989 / 1,011	4,400 / 4,500	
	5.7	Gradeability, loaded / unloaded, 30 min.		%	8.5 / 12		8 / 11.5		
	5.8	Maximum gradeability, loaded / unloaded, 5 min.		%	13 / 18		12.5 / 17.5		
	5.9	Acceleration time, loaded / unloaded, 10 meters		s	5.1 / 4.6		5.1 / 4.6		
	5.10	Service brake			hydraulic		hydraulic		
	<b>Motors</b>	6.1	Drive motor rating S <sub>2</sub> 60 min.	HP	kW	5.4	4.0	5.4	4.0
6.2		Lift motor rating at S <sub>2</sub> 20%	HP	kW	8.0	6.0	8.0	6.0	
6.4		Battery voltage, nominal capacity (at 6 hour rate)	V	Ah	24	500	24	625	
6.5		Battery weight (minimum / maximum)	lbs	kg	779 / 886	353 / 402	932 / 1,060	423 / 481	
		Maximum battery compartment dimensions	in	mm	10.75 / 32.68 / 24.69	273 / 830 / 627	12.87 / 32.68 / 24.69	327 / 830 / 627	
<b>Other Details</b>	8.1	Type of drive control		Impulse / AC		Impulse / AC			
	8.2	Operating pressure for attachments		psi	bar	2,321	160	2,321	160
	8.3	Flowrate for attachments		gpm	l/min	3.7	14	3.7	14
	8.4	Sound level at the driver's ear		dB(A)		63		63	

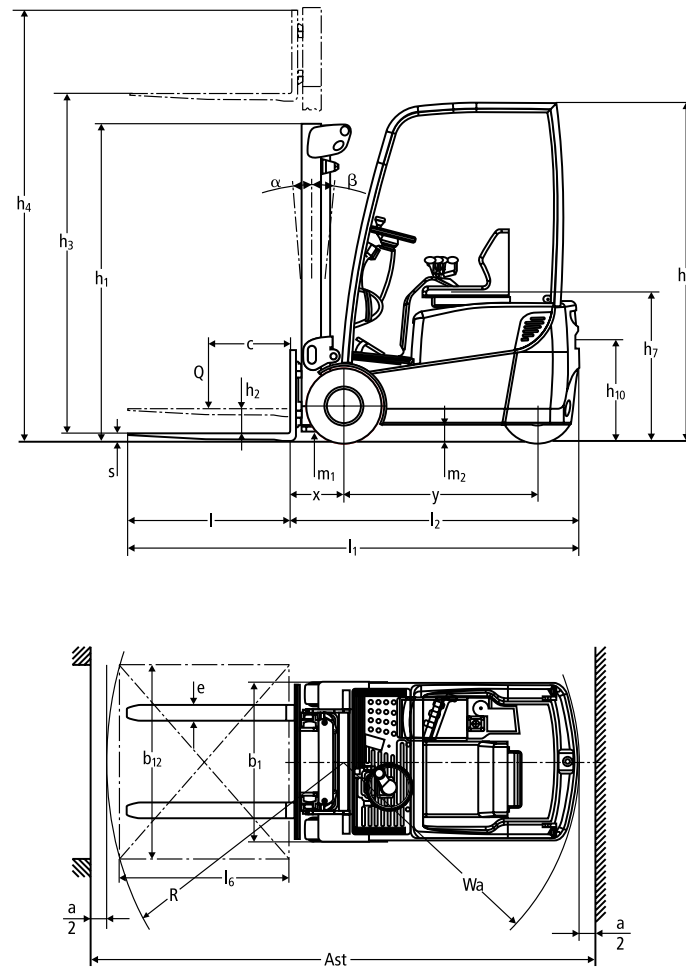
1) 13.3 inches (337mm) with DZ (three-stage) mast; with integrated sideshift: x = 14.3 inches (362mm) (14.6 inches (369mm) with DZ mast); with sideshift attachment: x = 15.4 inches (390mm) (15.7 inches (397mm) with DZ mast).  
 2) Without an 8 inch (200mm) maneuvering space; data is for ground storage.  
 3) 41.8 inches (1,062mm) for masts with h<sub>3</sub> (MFH) dimension of 177 inches (4,500mm) or higher.

			Jungheinrich		Jungheinrich				
			<b>EFG 113</b>		<b>EFG 115</b>				
<b>Characteristics</b>	1.1	Manufacturer (abbreviation)		Jungheinrich		Jungheinrich			
	1.2	Manufacturer's type designation		<b>EFG 113</b>		<b>EFG 115</b>			
	1.3	Drive		electric		electric			
	1.4	Type of operation		seated		seated			
	1.5	Load capacity / rated load	Q	lbs	t	2,400	1.25	2,880	1.5
	1.6	Load center distance	c	in	mm	24.0	500	24.0	500
	1.8	Load distance, center of load axle to fork face	x	in	mm	13.0 <sup>1)</sup>	330 <sup>2)</sup>	13.0 <sup>1)</sup>	330 <sup>2)</sup>
	1.9	Wheelbase	y	in	mm	45.1	1,146	47.2	1,200
	2.1	Service weight including battery (see line 6.5)		lbs	kg	6,085	2,760	6,327	2,870
2.2	Axle loading, loaded front / rear		lbs	kg	7,474 / 1,367	3,390 / 620	8,389 / 1,246	3,805 / 565	
2.3	Axle loading, unloaded front / rear		lbs	kg	2,723 / 3,362	1,235 / 1,525	2,800 / 3,527	1,270 / 1,600	
<b>Weights</b>	3.1	Tires		solid pneumatic		solid pneumatic			
	3.2	Tire size, front		in	18 x 7-8		18 x 7-8		
	3.3	Tire size, rear		in	18 x 7-8		18 x 7-8		
	3.5	Wheels, number front / rear (x = driven wheels)		2 / 1x		2 / 1x			
	3.6	Track width, front		in	mm	33.0	838	33.0	838
	3.7	Track width, rear		in	mm	0	0	0	0
	<b>Dimensions</b>	4.1	Mast / fork carriage tilt, forward / backward		degrees		5 / 6		5 / 6
4.2		Collapsed mast height	h <sub>1</sub>	in	mm	79	2,000	79	2,000
4.3		Free-lift	h <sub>2</sub>	in	mm	5.9	150	5.9	150
4.4		Lift height	h <sub>3</sub>	in	mm	118	3,000	118	3,000
4.5		Extended mast height	h <sub>4</sub>	in	mm	166	4,216	166	4,216
4.7		Overhead guard height	h <sub>6</sub>	in	mm	82.3	2,090	82.3	2,090
4.8		Seat height / platform height	h <sub>7</sub>	in	mm	35.4	900	35.4	900
4.12		Tow hitch height	h <sub>10</sub>	in	mm	25.0	635	25.0	635
4.19		Overall length	l <sub>1</sub>	in	mm	113.4	2,881	115.6	2,935
4.20		Length to fork face (headlength)	l <sub>2</sub>	in	mm	68.1	1,731	70.3	1,785
4.21		Overall width	b <sub>1</sub>	in	mm	39.0 <sup>3)</sup>	990 <sup>3)</sup>	39.0 <sup>3)</sup>	990 <sup>3)</sup>
4.22		Fork dimensions	s / e / l	in	mm	1.4 x 3.9 x 45.3	35 x 100 x 1,150	1.4 x 3.9 x 45.3	35 x 100 x 1,150
4.23		Fork carriage ITA class 2				2A		2A	
4.24		Fork carriage width		in	mm	37.4	950	37.4	950
4.31		Ground clearance, loaded, under mast	m <sub>1</sub>	in	mm	3.5	90	3.5	90
4.32		Ground clearance, center of wheelbase	m <sub>2</sub>	in	mm	3.9	100	3.9	100
4.33		Aisle width for pallets 48 x 40 (L x W)		in	mm	116.2 <sup>2)</sup>	2,951 <sup>2)</sup>	118.3 <sup>2)</sup>	3,005 <sup>2)</sup>
4.35		Turning radius		in	mm	55.2	1,401	57.3	1,455
4.36		Internal turning radius	Wa	in	mm	0	0	0	0
<b>Performance</b>		5.1	Travel speed, loaded / unloaded	mph	km/h	7.5 / 7.8	12 / 12.5	7.5 / 7.8	12 / 12.5
		5.2	Lift speed, loaded / unloaded	ft/min	m/s	49.2 / 98.4	0.25 / 0.50	47.2 / 98.4	0.24 / 0.5
	5.3	Lowering speed, loaded / unloaded	ft/min	m/s	114.2 / 118.1	0.58 / 0.60	114.2 / 118.1	0.58 / 0.60	
	5.5	Drawbar pull, loaded / unloaded	lbs	N	247 / 281	1,100 / 1,250	237 / 281	1,055 / 1,250	
	5.6	Maximum drawbar pull, loaded / unloaded, 60 min.	lbs	N	984 / 1,011	4,375 / 4,500	978 / 1,011	4,350 / 4,500	
	5.7	Gradeability, loaded / unloaded, 30 min.		%	7 / 11		6.5 / 10.5		
	5.8	Maximum gradeability, loaded / unloaded, 5 min.		%	11 / 16.5		10 / 16		
	5.9	Acceleration time, loaded / unloaded, 10 meters		s	5.4 / 4.7		5.6 / 4.8		
	5.10	Service brake			hydraulic		hydraulic		
	<b>Motors</b>	6.1	Drive motor rating S <sub>2</sub> 60 min.	HP	kW	5.4	4.0	5.4	4.0
6.2		Lift motor rating at S <sub>2</sub> 20%	HP	kW	8.0	6.0	8.0	6.0	
6.4		Battery voltage, nominal capacity (at 6 hour rate)	V	Ah	24	875	24	1,000	
6.5		Battery weight (minimum / maximum)	lbs	kg	1,257 / 1,429	570 / 648	1,416 / 1,610	642 / 730	
		Maximum battery compartment dimensions	in	mm	17.13 / 32.68 / 24.69	435 / 830 / 627	19.25 / 32.68 / 24.69	489 / 830 / 627	
<b>Other Details</b>	8.1	Type of drive control		Impulse / AC		Impulse / AC			
	8.2	Operating pressure for attachments		psi	bar	2,683	185	3,046	210
	8.3	Flowrate for attachments		gpm	l/min	3.7	14	3.7	14
	8.4	Sound level at the driver's ear		dB(A)		63		63	

1) 13.3 inches (337mm) with DZ (three-stage) mast; with integrated sideshift: x = 14.3 inches (362mm) (14.6 inches (369mm) with DZ mast); with sideshift attachment: x = 15.4 inches (390mm) (15.7 inches (397mm) with DZ mast).  
 2) Without an 8 inch (200mm) maneuvering space; data is for ground storage.  
 3) 41.8 inches (1,062mm) for masts with h<sub>3</sub> (MFH) dimension of 177 inches (4,500mm) or higher.

This specification sheet only provides technical values for the standard truck. Non-standard tires, different masts, additional equipment, etc., could produce other values. Rights reserved for technical changes and improvements.

# EFG 110k-115



Mast Table EFG 110k-115

	Lift height $h_3$		Free-lift $h_2$		Collapsed mast height $h_1$		Extended mast height $h_4$		Tilt forward / backward degrees $\alpha / \beta$ (°)	Truck width		Truck track	
	in	mm	in	mm	in	mm	in	mm		in	mm	in	mm
Simplex	90	2,300	5.9	150	65	1,650	139	3,516	5° / 4°	39.0	990	33.0	838
	118 <sup>1)</sup>	3,000 <sup>1)</sup>	5.9 <sup>1)</sup>	150 <sup>1)</sup>	79 <sup>1)</sup>	2,000 <sup>1)</sup>	166 <sup>1)</sup>	4,216 <sup>1)</sup>	5° / 6° <sup>1)</sup>	39.0	990	33.0	838
	122	3,100	5.9	150	81	2,050	170	4,316	5° / 6°	39.0	990	33.0	838
	129	3,300	5.9	150	85	2,150	178	4,516	5° / 6°	39.0	990	33.0	838
	141	3,600	5.9	150	91	2,300	190	4,816	5° / 6°	39.0	990	33.0	838
	157	4,000	5.9	150	98	2,500	206	5,216	5° / 6°	39.0	990	33.0	838
Duplex	177	4,500	5.9	150	110	2,800	225	5,716	5° / 6°	41.8	1,062	35.8	910
	196	5,000	5.9	150	120	3,050	245	6,216	5° / 5°	41.8	1,062	35.8	910
	90	2,300	4.1	1,055	63	1,605	139	3,516	5° / 4°	39.0	990	33.0	838
	118	3,000	5.5	1,405	77	1,955	166	4,216	5° / 6°	39.0	990	33.0	838
	122	3,100	5.7	1,455	79	2,005	170	4,316	5° / 6°	39.0	990	33.0	838
	129	3,300	6.1	1,555	83	2,105	178	4,516	5° / 6°	39.0	990	33.0	838
Triplex	141	3,600	6.7	1,705	89	2,255	190	4,816	5° / 6°	39.0	990	33.0	838
	157	4,000	7.5	1,905	97	2,455	206	5,216	5° / 6°	39.0	990	33.0	838
	171	4,350	5.5	1,405	77	1,955	219	5,566	5° / 6°	39.0	990	33.0	838
	177	4,500	5.7	1,455	79	2,005	225	5,716	5° / 6°	41.8	1,062	35.8	910
	189	4,800	6.1	1,555	83	2,105	237	6,016	5° / 6°	41.8	1,062	35.8	910
	196	5,000	6.4	1,630	86	2,180	245	6,216	5° / 5°	41.8	1,062	35.8	910
	216	5,500	7.1	1,805	93	2,355	265	6,716	5° / 5°	41.8	1,062	35.8	910
236	6,000	7.8	2,005	101	2,555	284	7,216	5° / 4°	41.8	1,062	35.8	910	
255	6,500	8.8	2,255	110	2,805	304	7,716	5° / 4°	41.8	1,062	35.8	910	

1) Standard.

# The Jungheinrich Advantage

## High productivity

Exceptional productivity due to a comfortable operator compartment, high performance characteristics and low life-cycle costs.

## High residual capacity

Due to excellent stability, lift heights up to 171 inches on the EFG 115 and 188 inches on the EFG 110k / 110 / 113 can be achieved without reducing nominal capacity.

## Innovative motor technology

With AC technology, the drive and lift motors offer excellent heat management.

## Performance-enhancing workplace

- Standard high overhead guard for superior headroom.
- Clear view: mast and fork carriage allow for excellent visibility to the forks.
- Comfortable, low-fatigue operation of travel direction and hydraulics by SOLO-PILOT controls.
- Hydraulic power steering is precise and low-effort (5.2 turns lock-to-lock).

## Significantly-reduced maintenance

- Single-piece metal cover ensures quick and easy access to the battery compartment.
- Low-maintenance AC motors.
- Fully-enclosed motors and electronic components comply with IP 54, protecting against dust, dirt and moisture ingress.
- Prolonged service intervals, up to 500 operating hours.
- Hydraulic pinion gear steering eliminates the need for chains.



Drive and lift motor with AC technology

## Economic driving and lifting

- AC technology ensures exceptional performance.
- Regenerative braking system.
- No motor fans required.
- Extremely energy efficient resulting in more battery run time per charge.
- Progressive lowering brake valve allows for a consistent lowering speed with and without a load.

## Innovative drive and steering technology

- Programmable performance parameters ensure maximum flexibility.
- Five drive programs can be individually selected and adjusted (optional).
- Curve Control reduces travel speed when cornering.



SOLO-PILOT

## SOLO-PILOT

- SOLO-PILOT (standard equipment) combines the direction switch, horn and the lifting/lowering function in one control lever.
- Additional functions, such as forward/backward tilting, sideshifting (optional) and auxiliary hydraulics (optional), can be operated with additional levers placed directly next to the lift/lower lever.

## Jungheinrich proprietary AC technology motors

- Fully enclosed, brushless AC motors are the key components of the EFG 1 Series low-maintenance drive unit. They are resistant to dust, dirt and moisture.
- Temperature control protects the motors from overheating by adjusting the performance.

