

High performance trucks with low energy consumption

Electric hydraulic steering for improved operator comfort

Safe sideways battery removal with SnapFit

Quickly and intuitively adaptable operating cab

Operator-oriented storage design

Compact mast for best visibility



EFG 213/215/216k/216/218k/218/220

Electric three-wheel counterbalance truck with twin-coupled rear wheels (1,300/1,500/1,600/1,800/2,000 kg)

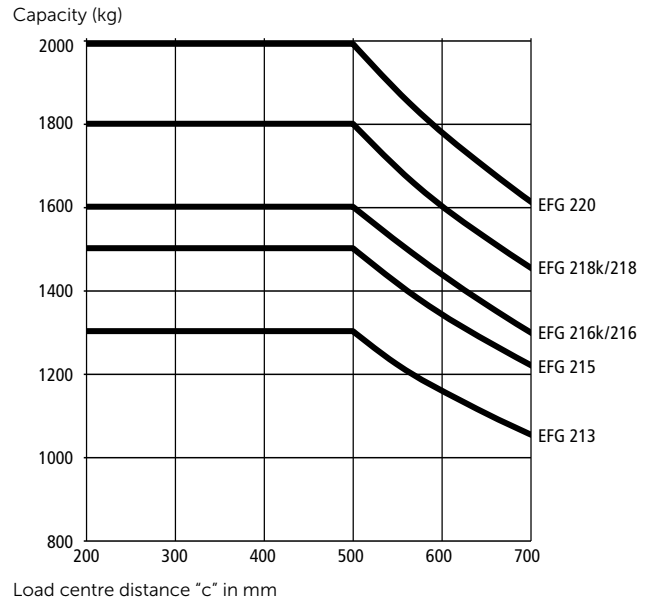
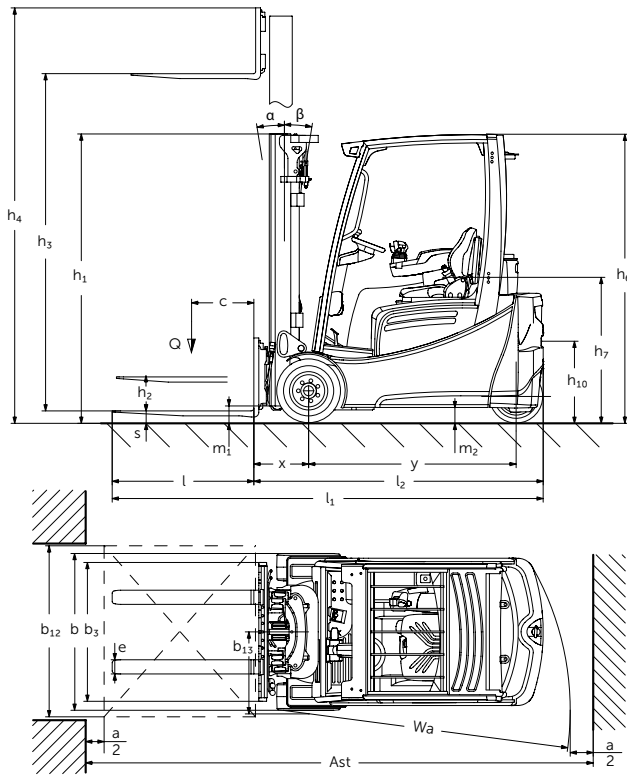
Our Pure Energy technology concept enables us to achieve the best possible energy efficiency coupled with maximum performance. By using the most advanced 3-phase AC technology as well as the compact hydraulic unit, we have been able to significantly reduce energy consumption – while simultaneously increasing throughput. This is verified by VDI cycle tests: At maximum throughput, our new EFG Series 2 and 3 consume up to 15% less energy than comparable competitor models. Application-oriented work programs with variable travel/lift speeds will handle your transport and stacking operations with optimum energy efficiency. The infinitely adjustable steering column and armrest allow for adjustment to suit all operator sizes. The individual adjustment of the main controls is very

easy to carry out thanks to the single-point adjustment via two adjustable axes. Changing batteries is as simple as refuelling: Three different battery changing options make this easy for any user – even during three-shift operations.

The technical design is convincing with its sturdy truck design, ease of servicing and the latest technology.

- Sturdy design with steel mud guards, steel covers and protected lighting.
- Enclosed chassis – including the battery – for added stability and protection.
- Maintenance-free components (e.g. brakes and gears).
- Innovative technology with halogen bulbs and LEDs.

EFG 213/215/216k/216/218k/218/220



	Standard mast types EFG 213/215/216k/216/218k/218/220							Capacity chart (kg)					
	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 (°)	c=500 no side-shift, tyres are simply solid				
		EFG 213 / 215 / 216k / 216	EFG 218k / 218 / 220	EFG 213 / 215 / 216k / 216	EFG 218k / 218 / 220	EFG 213 / 215 / 216k / 216	EFG 218k / 218 / 220		EFG 213	EFG 215	EFG 216k / 216	EFG 218k / 218	EFG 220
Duplex ZT	3000	2060	2067	150	150	3590	3612	7/6	1300	1500	1600	1800	2000
	3100	2110	2117	150	150	3690	3712	7/6	1300	1500	1600	1800	2000
	3300	2210	2217	150	150	3890	3912	7/7	1300	1500	1600	1800	2000
	3500	2310	2317	150	150	4090	4112	7/7	1300	1500	1600	1800	2000
	3700	2410	2417	150	150	4290	4312	7/7	1300	1500	1600	1800	2000
	4000	2560	2567	150	150	4590	4612	7/7	1300	1500	1600	1800	2000
Duplex ZZ	4500	2810	2817	150	150	5090	5112	7/7	1300	1500	1600	1800	2000
	2900	1965	1972	1375	1330	3490	3542	7/6	1300	1500	1600	1800	2000
	3100	2065	2072	1475	1430	3690	3742	7/6	1300	1500	1600	1800	2000
	3180	2105	2112	1515	1470	3770	3822	7/6	1300	1500	1600	1800	2000
	3300	2165	2172	1575	1530	3890	3942	7/7	1300	1500	1600	1800	2000
	3500	2265	2272	1675	1630	4090	4142	7/7	1300	1500	1600	1800	2000
Triplex DZ	3700	2365	2372	1775	1730	4290	4342	7/7	1300	1500	1600	1800	2000
	4000	2515	2522	1925	1880	4590	4642	7/7	1300	1500	1600	1800	2000
	4250	1975	1982	1385	1340	4840	4892	7/6	1300	1500	1600	1800	2000
	4400	2025	2032	1435	1390	4990	5042	7/6	1300	1500	1600	1800	2000
	4640	2105	2112	1515	1470	5230	5282	7/5	1300	1500	1600	1800	2000
	4700	2125	2132	1535	1490	5290	5342	7/5	1300	1500	1600	1800	2000
	4800	2165	2172	1575	1530	5390	5442	7/5	1300	1500	1600	1800	2000
	5000	2235	2242	1645	1600	5590	5642	7/5	1300	1500	1600	1800	2000
	5500	2415	2422	1825	1780	6090	6142	7/5	1050	1350	1350	1500	1600
	6000	2585	2592	1995	1950	6590	6642	7/5	900	1250	1150	1300	1400
6500	2765	2772	2175	2130	7090	7142	7/5	750	0	950	1100	1150	

Technical data in line with VDI 2198

		Jungheinrich									
		EFG 213	EFG 215	EFG 216k	EFG 216	EFG 218k	EFG 218	EFG 220			
Identification	1.1	Manufacturer (short form)									
	1.2	Model									
	1.3	Drive	Electrics								
	1.4	Manual, pedestrian, stand-on, seated, order picker operation	seat								
	1.5	Load capacity/rated load	Q	t	1.3	1.5	1.6	1.6	1.8	1.8	2
	1.6	Load centre distance	c	mm	500						
	1.8	Load distance	x	mm	339	339	344	344	364	364	364
	1.9	Wheelbase	y	mm	1,249	1,249	1,357	1,465	1,357	1,465	1,465
	Weights	2.1.1	Net weight incl. battery (see row 6.5)		kg	2,692	2,937	2,959	3,018	3,240	3,191
2.2		Axle load, w. load, front / rear		kg	3,534 / 458	3,860 / 577	4,043 / 516	4,050 / 566	4,457 / 583	4,477 / 514	4,784 / 582
2.3		Axle load, w.o. load, front / rear		kg	1,307 / 1,385	1,290 / 1,647	1,392 / 1,567	1,479 / 1,539	1,423 / 1,817	1,534 / 1,657	1,514 / 1,852
Wheels / chassis	3.1	Tyres			SE(L) / SE(L)	SE(L) / SE(L)	SE(L) / SE(L)	SE(L) / SE(L)	SE / SE	SE / SE	SE / SE
	3.2	Tyre size, at front		mm	18 x 7-8	18 x 7-8	18 x 7-8	18 x 7-8	200 / 50-10	200 / 50-10	200 / 50-10
	3.3	Tyre size, at rear		mm	140 / 55-9						
	3.5	Wheels, number front/rear (x = driven wheels)			2x/2						
	3.6	Track width, front	b ₁₀	mm	904	904	904	904	914	914	914
	3.7	Track width, rear	b ₁₁	mm	176						
	Basic dimensions	4.1	Tilt of mast/fork carriage forward/backward	α/β	°	7/6					
4.2		Mast height (lowered)	h ₁	mm	2,060	2,060	2,060	2,060	2,067	2,067	2,067
4.3		Free lift	h ₂	mm	150						
4.4		Lift	h ₃	mm	3,000						
4.5		Extended mast height	h ₄	mm	3,590	3,590	3,590	3,590	3,612	3,612	3,612
4.7		Height of overhead guard	h ₆	mm	2,040						
4.8		Seat height/stand height	h ₇	mm	920						
4.12		Coupling height	h ₁₀	mm	560						
4.19		Overall length	l ₁	mm	2,924	2,924	3,037	3,145	3,037	3,145	3,145
4.20		Length incl. back of forks	l ₂	mm	1,774	1,774	1,887	1,995	1,887	1,995	1,995
4.21		Total width	b ₁ /b ₂	mm	1,060	1,060	1,060	1,060	1,120	1,120	1,120
4.22		Fork dimensions	s/e/l	mm	35 / 100 / 1,150	35 / 100 / 1,150	40 / 100 / 1,150	40 / 100 / 1,150	40 / 100 / 1,150	40 / 100 / 1,150	40 / 100 / 1,150
4.23		Fork carriage ISO 2328, class/type A, B			2A						
4.24		Fork carriage width	b ₃	mm	980						
4.31		Floor clearance with load under mast	m ₁	mm	97	97	97	97	105	105	105
4.32		Floor clearance centre wheelbase	m ₂	mm	100						
4.33	Aisle width for pallets 1000 x 1200 sideways	Ast	mm	3,104	3,104	3,216	3,323	3,216	3,323	3,323	
4.34	Aisle width for pallets 800 x 1200 lengthways	Ast	mm	3,226	3,226	3,339	3,446	3,339	3,446	3,446	
4.35	Turning radius	W ₀	mm	1,440	1,440	1,548	1,655	1,548	1,655	1,655	
4.36	Smallest pivot point distance	b ₁₃	mm	0							
Performance data	5.1	Travel speed, w. / w.o. load		km/h	16 / 16						
	5.2	Lift speed, w. / w.o. load		m/s	0.48 / 0.6	0.46 / 0.6	0.49 / 0.6	0.49 / 0.6	0.44 / 0.55	0.44 / 0.55	0.4 / 0.55
	5.3	Lower speed, w. / w.o. load		m/s	0.55 / 0.55						
	5.5	Drawbar pull w. / w.o. load		N	2,300 / 2,500	2,200 / 2,450	2,150 / 2,450	2,100 / 2,450	2,000 / 2,300	2,000 / 2,300	1,900 / 2,300
	5.6	Max. drawbar pull, laden/unladen		N	12,700 / 12,700	12,700 / 12,700	12,700 / 12,700	12,700 / 12,700	12,400 / 12,200	12,400 / 12,200	12,300 / 12,000
	5.7	Gradeability laden/unladen		%	12 / 20						
	5.8	Max. gradeability, laden/unladen		%	28 / 35	27 / 35	27 / 35	27 / 35	26 / 35	25 / 35	24 / 35
	5.9	Acceleration time w. / w.o. load		S	3.6 / 3.2	3.8 / 3.4	3.8 / 3.4	3.8 / 3.4	3.9 / 3.5	3.9 / 3.5	4 / 3.5
	5.10	Service brake			electric/mechanical						
	Electrics	6.1	Drive motor rating S2 60 min.		kW	4.5 / 4.5					
6.2		Lift motor rating at S3 15%		kW	11.5						
6.3		Battery according to DIN 43531/35/36 A,B,C, no			A 43531						
6.4		Battery voltage/nominal capacity K5		V/Ah	48 / 500	48 / 500	48 / 625	48 / 750	48 / 625	48 / 750	48 / 750
6.5		Battery weight		kg	715	715	855	1,025	855	1,025	1,025
		Battery dimensions L/W/H		mm	830 / 522 / 627	830 / 522 / 627	830 / 630 / 627	830 / 738 / 627	830 / 630 / 627	830 / 738 / 627	830 / 738 / 627
6.6		Energy consumption according to VDI cycle		kWh/h	4.2 ¹⁾	4.3 ¹⁾	4.3 ¹⁾	4.4 ¹⁾	4.7 ¹⁾	4.7 ¹⁾	4.9 ¹⁾
6.7		Throughput efficiency		t/h	104	120	128	128	138	138	146
6.8	Energy consumption at max. throughput		kWh/h	4.7	4.8	4.9	4.9	5	5	5.5	
Misc.	8.1	Type of drive control			Impuls/AC						
	8.2	Working pressure for attachments		bar	200						
	8.3	Oil flow for attachments		l/min	25						
	8.4	Sound pressure level at operator's ear according to EN 12053		dB (A)	66						
	8.5	Trailer coupling, model/type DIN			DIN 15170/H						

¹⁾ 60 VDI work cycles/h, tolerances +/- 10 % possible

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



Pure Energy

Our Pure Energy technology concept enables us to achieve the best possible energy efficiency coupled with maximum performance.

- Most advanced three-phase AC technology.
- Compact electronic controller.
- Compact hydraulic unit.
- Application-oriented control of the hydraulics/motors.

Comfortable workplace

The ergonomically designed operator's cab allows for relaxed operation with low fatigue, even during long shifts:

- Light and effortless electric steering due to reduced steering effort, fewer turns of the steering wheel and a smaller steering wheel.
- The elimination of hydraulic components in the footwell reduces steering related noise and provides more leg room.
- Height/tilt-adjustable steering column.
- Particularly comfortable operation with all the main controls incorporated in the armrest which moves in conjunction with arm movement (height and length are adjustable).
- Limited vibration as the cab is not directly connected to the chassis (Floating Cab).
- Clearly arranged operator display.
- Clear visibility of the load thanks to an optimised chain as well as hose layout.
- Compact nested profile package with excellent visibility.

Professional battery management

Lateral battery access:

- Various battery changing options using pedestrian pallet trucks, fork lifts or cranes.
- Simple, space-saving charging via side door.
- Easy access for maintenance.
- Safe operation.

Maintenance-free braking system

Three maintenance-free braking systems make braking safe and comfortable:

- Motor brake for regenerative braking during deceleration.
- Automatically engaging parking brake for secure stopping, even on ramps.
- Maintenance-free disk brakes operated by brake pedal in emergencies.

Maintenance-free motors

The new generation of three-phase AC motors will impress you with their quiet and precise operation at all speeds:

- High torque for rapid work cycles.
- Lifetime lubrication of main components.
- Individually mounted drive motors for simpler servicing.
- Dust and splash-proof up to IP 54 protection rating.

Safety systems

Excellent drive dynamics and performance provide a high degree of safety. That is why the EFG Series 2 and 3 include a comprehensive range of safety equipment:

- Deactivation of the hydraulic functions if seat is unoccupied.

- No roll-back on ramps or inclines due to the automatic parking brake, even when the truck is switched off.
- Automatic reduction of the travel speed when cornering with Jungheinrich Curve Control
- Speedometer.

A range of operator assistance systems (optional) provide additional safety for the operator, truck and load:

- Access Control: The access control system unlocks the truck only after a sequence of safety checks:
 1. Valid access rights.
 2. Closed seat switch.
 3. Seatbelt is secured.
- Drive Control: The speed control which automatically reduces the speed of travel when cornering and from a defined lift height.
- Lift Control: The lift speed control which, in addition to the travel speed reduction, also automatically reduces the tilt speed of the mast from a defined lift height. The tilt angle is shown on a separate display.

Intelligent electronics

- Jerk-free travel, smooth reversing and precise positioning.
- Optimally adapted to any situation using five individual work programs.
- The monitoring of all components and saving of service data, allowing fast and low cost maintenance routines using the diagnosis system.
- Standard display of the steering wheel position and the travel speed.

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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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