

Maximum visibility

Optimum energy efficiency

Ergonomic workstation

Improved operating comfort

Adjustable operating concept

Lateral battery exchange



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

**Electric three-wheel counterbalanced fork lift truck
(1,300/1,500/1,600/1,800/2,000 kg)**

Our Series 2 electric fork lift trucks with capacities of up to 2000 kg offer maximum manoeuvrability on level surfaces where space is at a premium. In addition, they combine optimum energy and cost efficiency with maximum performance. This is enabled by our PureEnergy technology concept.

PureEnergy reduces consumption while simultaneously significantly increasing throughput. We achieve this by using the most advanced 3-phase AC technology, in combination with the compact hydraulic unit as well as application-oriented work programs with variable travel/lift speeds. Measurements as per the VDI cycle document: At maximum throughput, our EFG Series 2 consumes up to 15 % less energy than comparable competitor models.

Our Series 2 electric fork lift trucks are ergonomically designed. For example, the operator position and the controls can be

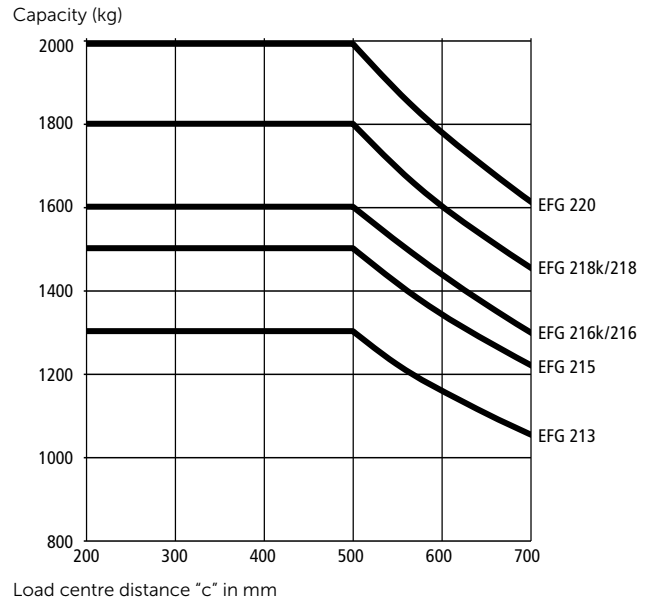
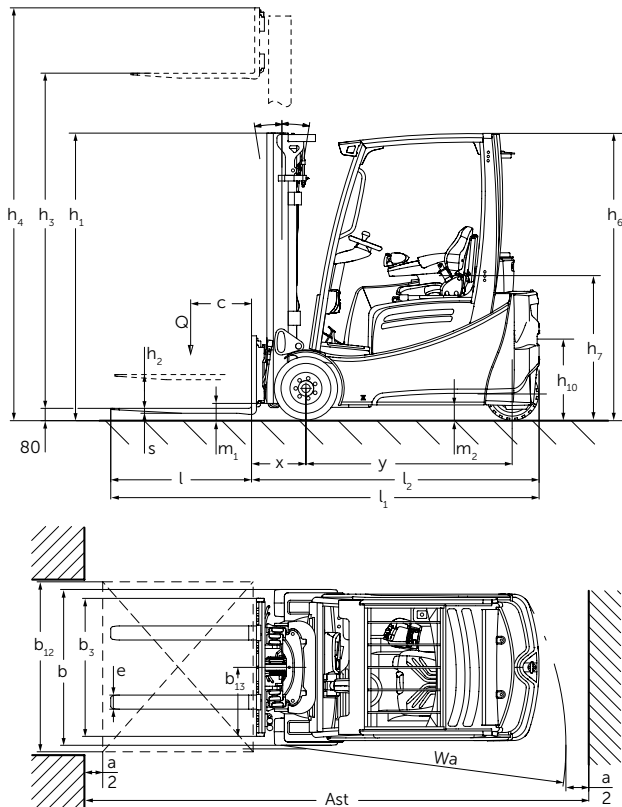
individually adjusted. This is made possible by the infinitely adjustable steering column and armrest as well as the single-point adaptation via 2 adjustable axes.

In addition, we have greatly simplified the battery exchange: 3 different battery exchange options make this easy for any user – even during three-shift operations. Our EFG Series 2 trucks offer the best visibility on the market thanks to a significantly expanded field of vision. We achieve this thanks to our compact mast, compact profile nesting, an optimised chain and hose guide as well as 2 viewing windows in the cross member.

Thanks to their robust design and future-oriented technology, our Series 2 electric fork lift trucks offer the best prerequisites for ergonomic working and cost-effective applications both indoors and outdoors.

 **JUNGHEINRICH**

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



Standard mast designs 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 sideshift, 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
	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
	4500	2810	2817	150	150	5090	5112	7/7	1300	1500	1600	1800	2000
Duplex ZZ	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	7/7	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
	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
Triplex DZ	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 (abbreviation)									
	1.2	Model									
	1.3	Drive	Electric								
	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 loading, laden 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 loading, unladen 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 / frame	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, 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, rear		mm	140 / 55-9						
	3.5	Wheels, number front/rear (x = driven wheels)			2x2						
	3.6	Tread width, front	b ₁₀	mm	904	904	904	904	914	914	914
	3.7	Tread 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/standing 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 to face of forks	l ₂	mm	1,774	1,774	1,887	1,995	1,887	1,995	1,995
4.21		Overall width	b ₂ /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		Ground clearance, centre of wheelbase	m ₂	mm	100						
4.33		Aisle width for pallets 1000 x 1200 crossways	Ast	mm	3,107	3,107	3,220	3,327	3,238	3,345	3,345
4.34	Aisle width for pallets 800 x 1200 lengthways	Ast	mm	3,230	3,230	3,343	3,450	3,362	3,469	3,469	
4.35	Turning radius	W _a	mm	1,440	1,440	1,548	1,655	1,548	1,655	1,655	
4.36	Smallest turning radius	b ₁₃	mm	0							
Performance data	5.1	Travel speed, laden/unladen		km/h	16 / 16						
	5.2	Lift speed, laden/unladen		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	Lowering speed, laden/unladen		m/s	0.55 / 0.55						
	5.5	Drawbar pull, laden/unladen		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, laden/unladen		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, output S2 60 min.		kW	4.5 / 4.5					
6.2		Lift motor, output at S3 15%		kW	11.5						
6.3		Battery as per 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 as per EN 16796		kWh/h	3.2 ¹⁾	3.6 ¹⁾	3.8 ¹⁾	3.8 ¹⁾	4.1 ¹⁾	4.1 ¹⁾	4.3 ¹⁾
		CO- Equivalent as per EN 16796		kg/h	1.7	1.9	2.1	2.1	2.2	2.2	2.3
6.7		Throughput		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 as per EN 12053		dB (A)	66						
	8.5	Trailer coupling, model/type DIN			DIN 15170/H						

¹⁾ 60 working cycles / h

Benefit from the advantages



Professional battery management



duoPILOT



soloPILOT



multiPILOT

PureEnergy

Our PureEnergy technology concept enables you to achieve optimum energy efficiency coupled with maximum throughput:

- Advanced 3-phase AC technology.
- Compact controller.
- Compact hydraulic unit.
- Needs-oriented control of the hydraulics/motors.

Comfortable workstation

Relaxed, fatigue-free work, even during long shifts due to ergonomically designed workstation:

- Easier steering thanks to a smaller steering wheel, lower steering forces and a reduction in steering wheel revolutions.
- More legroom and reduced steering noise due to elimination of hydraulic components in the foot-well.
- Height and tilt of the steering column can be adjusted to suit the operator.
- Integration of all main controls into the armrest which moves with the operator.
- Limited vibration as the cab is not directly connected to the frame (floating cab).
- Clear view of the load thanks to optimised chain and hose layout.
- Compact nested profile package with excellent visibility.
- High-resolution, contrast-rich full-colour TFT display with self-explanatory user interface
- External power supply via optional USB port.

Ergonomic and easily adjustable operating concept

- Selection from 5 freely adjustable travel programs.
- Stepless single-point adjustment of the armrest and the steering column in 2 axes.
- Adjustable lever and controls angle.
- Single or double pedal operation.
- Activation of the truck by EasyAccess via softkey, PIN code or optional transponder card.

Professional battery management

Simple battery exchange via lateral battery access:

- Individual exchange systems using pedestrian pallet trucks, fork lifts or cranes.
- Simple, space-saving charging.
- Simple maintenance.
- Safe, horizontal transport of the battery unit.

Maintenance-free braking system

Safe, comfortable braking with 3 maintenance-free braking systems:

- Motor brake for wear-free regenerative braking.
- Automatically engaging parking brake for secure stopping, even on ramps.
- Maintenance-free disc brake for maximum braking.

Safety systems

Comprehensive safety equipment for high drive dynamics and performance:

- Deactivation of the hydraulic functions if seat is unoccupied.

- No roll-back on ramps or inclines due to the wheel stop, even when the truck is switched off.
- Automatic reduction of the travel speed when cornering due to curveCONTROL.
- Speedometer.

Additional safety for the operator, truck and load due to a range of optional operator assistance systems.

- accessCONTROL: Access control system which only unlocks the truck once a sequence of safety checks has been completed:
- driveCONTROL: Speed control, which automatically reduces the speed both when cornering and from a defined lift height.
- liftCONTROL: Lift speed control, which reduces the travel speed as well as the tilt speed of the mast beginning at a defined lift height. The tilt angle is shown on a separate display.

Lithium-ion technology

- High degree of availability thanks to extremely short charging times.
- No battery exchange required.
- Cost savings due to longer service life and low maintenance compared with lead-acid batteries.
- No charging rooms and ventilation required as there is no build up of gas.
- Longer service life with 5-year Jungheinrich guarantee.

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

Jungheinrich fork lift trucks meet European safety requirements.



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