High performance trucks with low energy consumption

Tailored performance based on application with efficiency and Drive&Lift Plus models

Parameter steering (optional)

Safe sideways battery removal with SnapFit

Ergonomic and easily adjustable operators environment

Driver assistance systems to suit any application



### EFG 425k/425/430k/430/S30

Electric four-wheel counterbalance trucks (2,500/3,000 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 in combination with our own manufactured electronic controller as well as an efficient and compact hydraulic unit, we have been able to significantly reduce energy consumption – while simultaneously increasing throughput. This is verified by tests as per the VDI cycle: At full throughput, our new Series 4 EFG consumes up to 10% less energy than a comparable competitor model.

A choice of configuration packages with variable travel/lift speeds from the Efficiency and Drive&Lift Plus modules will complete your transport and stacking operations with maxi-

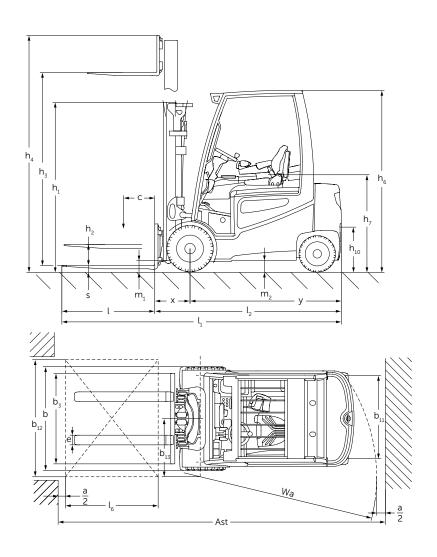
mum energy efficiency.

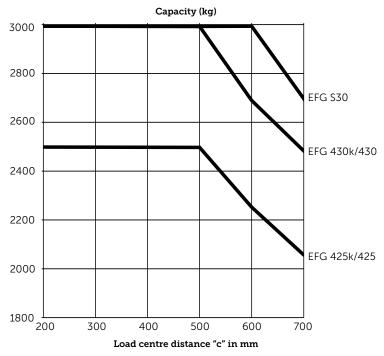
The infinitely adjustable steering column and armrest allow for adjustment to suit all operator sizes. The individual adjustment of the controls is very easy to carry out thanks to the single-point adjustment via two adjustable axes.

The truck chassis is closed on the right side of the operator. This guarantees maximum rigidity and stability for the overall design. It also forms the basis for a number of storage options: From two sizes of cup holder via a clipboard to different sizes of compartments for e.g. papers and a smartphone. There is therefore room for everything that operators need to work efficiently throughout their shifts.



# EFG 425k/425/430k/430/S30





## EFG 425k/425/430k/430/S30

		S	tandard mast ty	pes EFG 425k/	425/430k/430/S	30		
	Lift h <sub>3</sub>		Lowered mast height h <sub>i</sub>		ee lift h <sub>2</sub>	Extended mast height h <sub>4</sub>		Mast tilt for- ward / back α/β (°)
	(mm)	(mm)		(1	nm)	(mm)		
		EFG 425k / 425	EFG 430k / 430 / S30	EFG 425k / 42	EFG 430k / 430 / S30	EFG 425k / 425	EFG 430k / 430 / S30	
Duplex ZT	2900	2125	2122	150	150	3502	3659	6/8
	3100	2225	2222	150	150	3702	3859	6/8
	3300	2325	2322	150	150	3902	4059	6/8
	3500	2425	2422	150	150	4102	4259	6/8
	3700	2525	2522	150	150	4302	4459	6/8
	4000	2675	2672	150	150	4602	4759	6/8
	4300	2875	2872	150	150	4902	5059	6/8
	4500	2975	2972	150	150	5102	5259	6/8
Duplex ZZ	3100	2190	2187	1609	1448	3680	3839	6/8
	3300	2290	2287	1709	1548	3880	4039	6/8
	3500	2390	2387	1809	1648	4080	4239	6/8
	3700	2490	2487	1909	1748	4280	4439	6/8
	4000	2640	2637	2059	1898	4580	4739	6/8
Triplex DZ	4400	2090	2087	1509	1348	4980	5139	6/8
	4700	2190	2187	1609	1448	5280	5439	6/5.5
	5000	2290	2287	1709	1548	5580	5739	6/5.5
	5500	2490	2487	1909	1748	6080	6239	6/5.5
	6000	2690	2687	2109	1948	6580	6739	6/5.5
	6500	2890	2887	2309	2148	7080	7239	6/3
	7000	3090	3087	2509	2348	7580	7739	6/3
	7500	3290	3287	2709	2548	8080	8239	6/3

## Technical data in line with VDI 2198

	1.1	Manufacturer (short form)				Jungheinrich		
	1.2	Model			EFG 425k	EFG 425	EFG 430k	
ficat	1.3	Drive			Electrics			
	1.4	Manual, pedestrian, stand-on, seated, order picker operation		seat				
Ę	1.5	Load capacity/rated load	Q	t	2.5	2.5	3	
der	1.6	Load centre distance	С	mm		500		
_	1.8	Load distance	х	mm	425	4251)	447	
	1.9	Wheelbase	у	mm	1,575	1,720	1,575	
ţ	2.1.1	Net weight incl. battery (see row 6.5)		kg	4,770	4,680	5,260	
igh	2.2	Axle load, w. load front / rear		kg	6,440 / 830	6,590 / 590	7,360 / 910	
Weights	2.3	Axle load w.o. load front / rear		kg	2,450 / 2,320	2,720 / 1,960	2,530 / 2,730	
_	4.1	Tilt of mast/fork carriage forward/backward	α/β	•		6/8		
	4.2	Mast height (lowered)	h <sub>1</sub>	mm	2,225	2,225	2,222	
	4.3	Free lift	h <sub>2</sub>	mm		150		
	4.4	Lift	h <sub>3</sub>	mm		3,100		
	4.5	Extended mast height	h <sub>4</sub>	mm	3,702	3,702	3,859	
	4.7	Height of overhead guard	h <sub>6</sub>	mm	5,: 5=	2,240	-,	
	4.8	Seat height/stand height	h <sub>7</sub>	mm		1,190		
	4.12	Coupling height	h <sub>10</sub>	mm		385		
Suc	4.12.1	2nd coupling height	1110	mm		540		
Basic dimensions	4.19.4	Total length including fork length	l <sub>1</sub>	mm	3,446	3,591	3,467	
πer	4.20	Length incl. back of forks	l <sub>2</sub>	mm	2,296	2,441	2,317	
₽	4.21	Total width	b <sub>1</sub> /b <sub>2</sub>	mm	2,230	1,198	2,317	
sic	4.22	Fork dimensions	s/e/l	mm	40 / 120 / 1,150	40 / 120 / 1,150	45 / 125 / 1,150	
Ba	4.23	Fork carriage ISO 2328, class/type A, B	3/6/1	111111	2A	2A	3A	
	4.24	Fork carriage 150 2326, class/type A, B	h	mm	ZA	1,120	JA.	
	4.31	Floor clearance with load under mast	b <sub>3</sub>			1,120		
	4.32		m <sub>1</sub>	mm		135		
	1	Floor clearance centre wheelbase	m <sub>2</sub>	mm	3,626		3,647	
	4.33	Aisle width for pallets 1000 × 1200 sideways	Ast	mm		3,776		
	4.34	Aisle width for pallets 800 × 1200 lengthways	Ast	mm	3,826	3,976	3,847	
	4.35	Turning radius	W <sub>a</sub>	mm	2,000	2,150	2,000	
	4.36	Smallest pivot point distance	b <sub>13</sub>	mm		600		
	5.1	Travel speed laden/unladen - Efficiency		km/h	16 / 17			
		Travel speed laden/unladen - Drive&Lift Plus		km/h	0.47./0.55	19 / 20	0.4./0.55	
	5.2	Lift speed, laden/unladen - Efficiency		m/s	0.43 / 0.55	0.43 / 0.55	0.4 / 0.55	
		Lift speed, laden/unladen - Drive&Lift Plus		m/s	0.48 / 0.6	0.48 / 0.6	0.43 / 0.6	
	5.3	Lowering speed laden/unladen - Efficiency		m/s		0.58 / 0.58		
ţ		Lowering speed laden/unladen - Drive&Lift Plus		m/s	7.600 / 4.000	0.58 / 0.58	4500 / 5000	
formance data	5.5	Drawbar pull laden/unladen - Efficiency		N	3,600 / 4,000	3,500 / 3,900	4,500 / 5,000	
ž		Drawbar pull laden/unladen - Drive&Lift Plus		N	5,100 / 5,600	4,900 / 5,500	5,000 / 5,800	
ша	5.6	Max. drawbar pull laden/unladen - Efficiency		N	12,500 / 13,000	12,500 / 13,000	14,000 / 14,500	
ę		Max. drawbar pull laden/unladen - Drive&Lift Plus		N	16,000 / 16,300	16,000 / 16,300	15,700 / 16,000	
Per	5.7	Gradeability laden/unladen - Efficiency		%	8.5 / 14	7.5 / 13	7 / 12	
		Gradeability laden/unladen - Drive&Lift Plus		%	10 / 16	10 / 16	9 / 15	
	5.8	Max. gradeability laden/unladen - Efficiency		%	17 / 25	17 / 25	15 / 23	
		Max. gradeability laden/unladen - Drive&Lift Plus		%	19 / 27	19 / 27	17 / 25	
	5.9.1	Acceleration time laden/unladen (over 10 m) – Efficiency		S		5 / 4.5		
		Acceleration time laden/unladen (over 10 m) – Drive&Lift Plus		S		4.5 / 4		
	5.10	Service brake				mechanical		
	6.1	Drive motor, rating S2 60 min. – Efficiency/Drive&Lift Plus		kW		12 / 15		
	6.2	Lift motor, rating at S3 15% – Efficiency/Drive & Lift Plus		kW	18.5 / 22			
	6.3	Battery as per DIN 43531 /35/36 A, B, C, no			A 43536			
CS	6.4	Battery voltage/nominal capacity K5		V/Ah	560 - 620 80	700 - 775 80	560 - 620 80	
Ę	6.5	Battery weight		kg	1,540	1,863	1,540	
Electrics		Battery dimensions L/W/H		mm	1,028 / 711 / 784	1,028 / 855 / 784	1,028 / 711 / 784	
_	6.6	Energy consumption according to VDI cycle Efficiency/Drive&Lift Plus		kWh/h	6.4 / 6.42)	6.4 / 6.42)	8 / 82)	
	6.7	Efficiency/Drive&Lift Plus throughput		t/h	186 / 196	186 / 196	211 / 225	
	6.8	Energy consumption at max. Efficiency/Drive&Lift Plus throughput		kWh/h	7 / 7.9	7 / 7.9	7.2 / 8.6	
	8.1	Type of drive control				Impuls/AC		
	8.2	Working pressure for attachments		bar		200		
Misc.	8.3	Oil flow for attachments		l/min		25		
Σ	8.4	Sound pressure level at operator's ear according to EN 12053		dB (A)		70		
		,				DIN 15170-H		

<sup>1) + 10</sup> mm for DZ mast

<sup>2) 60</sup> VDI work cycles/h

Issue: 05/2014

### Technical data in line with VDI 2198

	1.1	Manufacturer (short form)			Jungho	inrich		
	1.2	Model			Junghei EFG 430	EFG S30		
tion	1.3	Drive			Electr			
	1.3							
ij	1.5	Manual, pedestrian, stand-on, seated, order picker operation	Q	t	sea 3	ι		
eut	1	Load capacity/rated load			500	600		
Ď	1.6	Load centre distance	С	mm				
	1.8	Load distance Wheelbase	X	mm	447	452		
v		+	У	mm	1,72			
ğ	2.1.1	Net weight incl. battery (see row 6.5)		kg	5,080	5,330		
Weights	2.2	Axle load, w. load front / rear		kg	7,450 / 630	7,620 / 710		
>	2.3	Axle load w.o. load front / rear	/0	kg •	2,770 / 2,310	2,780 / 2,550		
	4.1	Tilt of mast/fork carriage forward/backward	α/β		6/8			
	4.2	Mast height (lowered)	h <sub>1</sub>	mm	2,22			
	4.3	Free lift	h <sub>2</sub>	mm	150			
	4.4	Lift	h <sub>3</sub>	mm	3,10			
	4.5	Extended mast height	h <sub>4</sub>	mm	3,85			
	4.7	Height of overhead guard	h <sub>6</sub>	mm	2,24			
	4.8	Seat height/stand height	h <sub>7</sub>	mm	1,19			
S	4.12	Coupling height	h <sub>10</sub>	mm	385			
Sio	4.12.1	2nd coupling height		mm	540			
Basic dimensions	4.19.4	Total length including fork length	l <sub>1</sub>	mm	3,612	3,617		
di Ti	4.20	Length incl. back of forks	l <sub>2</sub>	mm	2,462	2,467		
ij	4.21	Total width	b <sub>1</sub> /b <sub>2</sub>	mm	1,198	1,300		
Bas	4.22	Fork dimensions	s/e/l	mm	45 / 125 / 1,150	50 / 125 / 1,150		
	4.23	Fork carriage ISO 2328, class/type A, B			3A			
	4.24	Fork carriage width	b <sub>3</sub>	mm	1,12			
	4.31	Floor clearance with load under mast	m <sub>1</sub>	mm	117			
	4.32	Floor clearance centre wheelbase	m <sub>2</sub>	mm	135			
	4.33	Aisle width for pallets $1000 \times 1200$ sideways	Ast	mm	3,797	3,802		
	4.34	Aisle width for pallets $800 \times 1200$ lengthways	Ast	mm	3,997	4,002		
	4.35	Turning radius	W <sub>a</sub>	mm	2,15	0		
	4.36	Smallest pivot point distance	b <sub>13</sub>	mm	600	650		
	5.1	Travel speed laden/unladen - Efficiency		km/h	16 /	17		
		Travel speed laden/unladen - Drive&Lift Plus		km/h	19 / 2	20		
	5.2	Lift speed, laden/unladen - Efficiency		m/s	0.4 / 0	).55		
		Lift speed, laden/unladen - Drive&Lift Plus		m/s	0.43 /	0.6		
	5.3	Lowering speed laden/unladen - Efficiency		m/s	0.58 /	0.58		
ē		Lowering speed laden/unladen - Drive&Lift Plus		m/s	0.58 /	0.58		
da	5.5	Drawbar pull laden/unladen - Efficiency		N	4,500 /	5,000		
Ö		Drawbar pull laden/unladen - Drive&Lift Plus		N	5,000 /	5,800		
Jar	5.6	Max. drawbar pull laden/unladen - Efficiency		N	14,000 /	14,500		
orn		Max. drawbar pull laden/unladen - Drive&Lift Plus		N	15,700 / 3	16,000		
Performance data	5.7	Gradeability laden/unladen - Efficiency		%	7 / 13	7 / 12		
а.		Gradeability laden/unladen - Drive&Lift Plus		%	9 / 15	8 / 14		
	5.8	Max. gradeability laden/unladen - Efficiency		%	15 /	23		
		Max. gradeability laden/unladen - Drive&Lift Plus		%	18 / 26	17 / 25		
	5.9.1	Acceleration time laden/unladen (over 10 m) – Efficiency		S	5 / 4	.5		
		Acceleration time laden/unladen (over 10 m) – Drive&Lift Plus		S	4.5 /	4		
	5.10	Service brake			mecha	nical		
	6.1	Drive motor, rating S2 60 min. – Efficiency/Drive&Lift Plus		kW	12 /	15		
	6.2	Lift motor, rating at S3 15% – Efficiency/Drive & Lift Plus		kW	18.5 /	22		
	6.3	Battery as per DIN 43531 /35/36 A, B, C, no			A 43536			
S	6.4	Battery voltage/nominal capacity K5		V/Ah	700 - 775 80			
Electrics	6.5	Battery weight		kg	1,863			
ec		Battery dimensions L/W/H mm		1,028 / 85	1,028 / 855 / 784			
ш	6.6	Energy consumption according to VDI cycle Efficiency/Drive&Lift Plus		kWh/h	8 / 81)	8.1 / 8.11)		
	6.7	Efficiency/Drive&Lift Plus throughput		t/h	211 / 225	207 / 220		
	6.8	Energy consumption at max. Efficiency/Drive&Lift Plus throughput		kWh/h	7.2 / 8.6	7.2 / 8.6 8.1 / 9.5		
	8.1	Type of drive control				Impuls/AC		
	8.2	Working pressure for attachments		bar	200			
Misc.	8.3	Oil flow for attachments		l/min	25			
Ξ		· ·						
2	8.4	Sound pressure level at operator's ear according to EN 12053		dB (A)	70			

## EFG 425k/425/430k/430/S30



### Benefit from the advantages







DUO-PILOT



Ergonomic workstation



Storage facilities

#### **Pure Energy**

Our Pure Energy technology concept enables you to achieve the best possible energy efficiency coupled with maximum throughput:

- Most advanced 3-phase AC technology.
- · Compact controller.
- · Compact hydraulic unit.
- Demands-oriented control of the hydraulics/motors.

#### Options packages

The right truck for every customer application. The Efficiency and Drive&Lift Plus packages make it possible: Efficiency package:

- Jungheinrich Curve Control. Drive&Lift Plus package:
- Performance package with greater travel/lift speeds.

#### Parameter steering

Electric steering with dynamic response dependent on the travel program selected.

- Minimises unwanted steering changes.
- Slim steering column creates more legroom.
- Further improved energy efficiency.
- Further optimised throughput.

#### Sideways battery exchange

• Universal battery exchange system for all 48 V and 80 V trucks.

• Simple, rapid and reliable exchange system.

### Individually adjustable operating concept

- A choice of five parameterised travel programmes.
- Stepless single-point adjustment of the armrest and steering column in two
  axises.
- A choice of three different operating controls.
- Adjustable lever and controls.
- Single or double pedal operation.

#### Operator-oriented workstation

The ergonomics of the operator's workstation guarantee relaxed, fatigue-free work:

- Low, highlighted entry step with level foot-well.
- Slim steering column for maximum knee and legroom.
- High-resolution, contrast-rich fullcolour TFT display with self-explanatory symbols.
- Unobstructed view thanks to special overhead guard design, optimised chain and hose configuration.
- Operator-oriented storage concept for intuitive working
- Large, adjustable armrest with different upholstery fabrics and spacious storage compartment
- USB port for external power supply

• Low vibrations as the cab floats on special mountings

#### Safety

High drive dynamics and performance levels also require a high level of safety:

- Reduction in speed when cornering thanks to Jungheinrich Curve Control.
- No uncontrolled roll-back on ramps or inclines due to automatic parking brake (optional)
- Excellent stability due to extremely low centre of gravity and high pivot steer axle

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

- Access Control: The access control system releases the truck only after a sequence of safety checks:
- 1. Valid access code.
- 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 reducing travel speed, also automatically reduces the tilt speed of the mast from a defined lift height. The tilt angle is shown on a separate display.

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inghainrich fork lift



