

3-phase AC drive system

Ergonomic workstation
for optimal handling

Excellent cost-effectiveness
thanks to high rate of
order picking with low
energy consumption

Optionally with walk-on load
section (L) or auxiliary mast (Z)



EKS 110

Vertical order picker (1,000 kg)

The EKS 110 is the ideal truck for order picking from the first to the third levels. The platform and load section are raised together up to a lift height of 3000 mm. This allows operators to pick up to a reach height of 4600 mm.

The counterbalance design allows a wide range of load storage units to be raised off the ground both longitudinally and

crosswise. The load section is optionally available in either a walk-on design (with guard) or with an additional lift (without reducing residual capacity). The additional lift ensures that the picked goods can be stored at an accessible height.

This truck also features numerous other ergonomic and technical innovations, all of which make order picking faster,

easier and more cost-effective:

- There are large storage areas on the battery lid (optional) and below the control unit.
- Extended stand-on platform (optional).
- Precise control of travel speed.
- A choice of travel programs.
- Clear operator display.
- 3-phase AC drive system (24 V).

Technical data in line with VDI 2198

		Jungheinrich						
Identification	1.1	Manufacturer (short form)						
	1.2	Model	EKS 110					
			100 E	160 E	190 E	280 ZZ		
	1.3	Drive	Electrics					
	1.4	Manual, pedestrian, stand-on, seated, order picker operation	order picker					
	1.5	Load capacity/rated load	Q	t	1			
	1.6	Load centre distance	c	mm	600			
	1.8	Load distance	x	mm	143 ⁶⁾	143 ⁶⁾	143 ⁶⁾	180 ⁶⁾
	1.9	Wheelbase	y	mm	1330	1330	1330	1385
Weights	2.1.1	Net weight incl. battery (see row 6.5)	kg	1661 ¹⁾	1785 ¹⁾	1813 ¹⁾	2268 ¹⁾	
	2.2	Axle load, w. load, front / rear	kg	491 / 2170 ⁴⁾	516 / 2269 ⁴⁾	506 / 2307 ⁴⁾	762 / 2506 ⁴⁾	
	2.3	Axle load, w.o. load, front / rear	kg	1053 / 608 ⁴⁾	1093 / 692 ⁴⁾	1084 / 729 ⁴⁾	1336 / 932 ⁴⁾	
Wheels / chassis	3.1	Tyres	Vulkollan					
	3.2	Tyre size, at front	mm	Ø 230 x 80				
	3.3	Tyre size, at rear	mm	Ø 150 x 130				
	3.5	Wheels, number front/rear (x = driven wheels)	1x / 2					
	3.7	Track width, rear	b ₁₁	mm	630	630	630	720
Basic dimensions	4.2	Mast height (lowered)	h ₁	mm	1650 ⁹⁾	2260	2560	2250
	4.4	Lift	h ₃	mm	1000	1600	1900	2800
	4.5	Extended mast height	h ₄	mm	2650 ⁸⁾	3830	4130	5030
	4.7	Height of overhead guard	h ₆	mm	2230 ⁷⁾	2230	2230	2230
	4.8.1	Standing height	h ₇	mm	200			
	4.14	Standing height raised	h ₁₂	mm	1200	1800	2100	3000
	4.15	Lowered height	h ₁₃	mm	80			
	4.19	Overall length	l ₁	mm	2890 ⁶⁾	2890 ⁶⁾	2890 ⁶⁾	2985 ⁶⁾
	4.20	Length incl. back of forks	l ₂	mm	1690 ⁶⁾	1690 ⁶⁾	1690 ⁶⁾	1780 ⁶⁾
	4.21	Total width	b ₁ /b ₂	mm	810	810	810	900
	4.22	Fork dimensions	s/e/l	mm	60 / 160 / 1200 ³⁾			
	4.25	Width over forks	b ₅	mm	540			
	4.26	Width between support arms/loading surfaces	b ₄	mm	430	430	430	520
	4.31	Floor clearance with load under mast	m ₁	mm	35			
	4.33	Aisle width for pallets 1000 x 1200 sideways	Ast	mm	3039 ⁶⁾	3039 ⁶⁾	3039 ⁶⁾	3127 ⁶⁾
4.34	Aisle width for pallets 800 x 1200 lengthways	Ast	mm	3149 ⁶⁾	3149 ⁶⁾	3149 ⁶⁾	3240 ⁶⁾	
4.35	Turning radius	W _a	mm	1548	1548	1548	1603	
Performance data	5.1	Travel speed, w. / w.o. load	km/h	9.8 / 10.1	9 / 9	9 / 9	9 / 9	
	5.2	Lift speed, w. / w.o. load	m/s	0.19 / 0.26	0.15 / 0.2	0.15 / 0.2	0.23 / 0.31	
	5.3	Lower speed, w. / w.o. load	m/s	0.24 / 0.24	0.23 / 0.22	0.23 / 0.22	0.28 / 0.26	
	5.7	Gradeability laden/unladen	%	5 / 10				
	5.10	Service brake	reverse current/generated					
	5.11	parking brake	electromagnetic					
Electrics	6.1	Drive motor rating S2 60 min.	kW	2.8				
	6.2	Lift motor rating at S3 15%	kW	3.0 ⁵⁾	3.0 ⁵⁾	3.0 ⁵⁾	6.0 ⁵⁾¹⁰⁾	
	6.3	Battery according to DIN 43531/35/36 A,B,C, no	B 43535					
	6.4	Battery voltage/nominal capacity K5	V/Ah	24 / 620				
	6.5	Battery weight	kg	480				
Misc.	8.1	Type of drive control	AC SpeedControl					
	8.4	Sound pressure level at operator's ear according to EN 12053	dB (A)	61				

¹⁾ For aux. lift Z: + 120 kg

²⁾ For aux. lift Z: - 65 mm

³⁾ For aux. lift Z: 65x160x1200 mm

⁴⁾ For aux. lift Z: approx. + 20 / + 100 kg

⁵⁾ for auxiliary lift Z: +2.2 kW with S3=5%

⁶⁾ for auxiliary lift Z: +5 mm

⁷⁾ Overhead guard optional

⁸⁾ With 3230 mm OHG

⁹⁾ with OHG 2230 mm

¹⁰⁾ with S3=20%

Benefit from the advantages



Controls



Operators display



Comfortable floor covering all over the stand-on platform

Innovative 3-phase AC technology

Jungheinrich 3-phase AC motors offer greater performance whilst at the same time reducing the operating costs over the entire working life of the truck. Make the most of these advantages:

- High level of efficiency with excellent energy management.
- Powerful acceleration.
- Rapid reversing without 'needing to think'.
- No carbon brushes - maintenance-free drive motor.
- Two-year warranty on the drive motor.

Smooth lifting and lowering

Through special control of the hydraulic pump and the valves, even and smooth movement is ensured when the stand-on platform is lifted and lowered. A rubber mat provides additional operating comfort. Advantages:

- Tangible comfort for the operator.
- Additional protection for sensitive loads.
- Minimised wear through reduced dynamic stress.

Travel in comfort

The Jungheinrich SpeedControl system provides comfortable, precise control of the travel speed:

- The speed indicated by the travel switch is maintained in every situation. By programming the traction controller to suit the application at hand, sensitive shunting is possible even at low speeds.
- Adjustable travel parameters (e.g. acceleration, limit speed, motor brake) allow you to tailor the truck to your individual requirements.
- The operator can choose from 3 different travel programs.
- Very low noise levels when lifting and travelling.

Operator display

High-quality control instruments displaying the most important operating data.

- Travel direction and steer angle display.
- Battery status with residual time display.
- Selected travel program with performance features.
- Operating hours/time.

Comfortable control unit

- The tilted steering wheel supports natural hand movement and avoids placing strain on the operator's wrists.
- Easily accessible buttons and switches allow comfort operation of the truck with minimum hand movements.

High levels of efficiency and safety

High acceleration levels and fast travel / lift speeds provide the best conditions for order picking. A range of active and

passive features provide the necessary degree of safety:

- Stable cornering thanks to low centre of gravity.
- Steel supports provide extra tip over protection in extreme situations.
- Optimum use of maximum permissible travel speed through a combination of lift height and steering angle dependent speed reduction.

Less maintenance

Service-friendly components ensure that running costs are considerably reduced over the long term:

- Maintenance-free AC drive motors without carbon brushes.
- Easy access to all units through easy opening front/side panels and optimised layout of auxiliary hydraulics.

Additional equipment

- Provision for radio data.
- Pallet protection for walk-on load handlers.
- Guidance controls, aisle recognition and end of aisle control for use in narrow aisle warehouses.
- Platform extensions.
- Second operator position in fork direction.
- Cold store equipment.
- Working lights on overhead guard.
- Beacon on overhead guard.

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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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