Automatic, reliable and safe
Optimised transport routes
Utilisation of existing routes
Short payback period
Flexibility thanks to
adjustable forks



EKS 215a

Automated Guided Vehicle (AGV) Medium/High Level Order Picker (1,500 kg)

The EKS 215a is an automated guided vehicle system based on our vertical order pickers. It thus combines tried-and-tested mechanical engineering with innovative automation, including accurate navigation technology and safety components. This ensures maximum levels of reliability and safety.

The EKS 215a can be used in mixed operations mode with manual trucks and pedestrians. Whether to be integrated into existing factory structures or a new build – the EKS 215a is the perfect choice for increasing the efficiency of your transport processes. The adjustable forks mean that the EKS 215a is also ideally equipped for the transport of special load carriers and closed pallets.

The Jungheinrich AGV is navigated by means of laser navigation. No floor work is required. For the laser navigation,

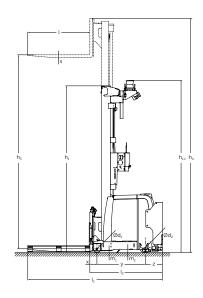
reflectors are attached to suitable objects along the travel route such as racking, columns and walls or natural landmarks.

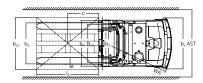
The AGV can easily be integrated into the existing IT and software landscape. Our award-winning Jungheinrich Logistics Interface facilitates a smooth connection to any host system, such as the Jungheinrich WMS or other available WMS/ERP systems. However, the AGV can also be used as a stand-alone system, i.e. as an autonomous system without a host connection.

The modular system structure makes it possible to represent individual customer processes as well as reacting flexibly and quickly to process changes. This creates a solid basis for the use of the AGV system according to your specific requirements.



EKS 215a





Standard mast types EKS 215a					
	Lift height h3 (mm)	Lowered height incl. scanner (mm)	Lowered height h1 (mm)	Extended height h4 (mm)	
Duplex ZT	3500	2585	2475	4280	
	4000	2835	2725	4780	
	5000	3335	3225	5780	
	6000	3835	3725	6780	

Issue: 10/2016

Technical data in line with VDI 2198

1.1 Manufacturer (abbreviation) Jungheinrich	
1.3 Drive Electric	
1.4 Manual, pedestrian, stand-on, seated, order picker operation 1.5 Load capacity/rated load 1.5 1.6 Load capacity/rated load 1.5 1.6 Load capacity/rated load 1.5 1.6 Load distance x mm 150 1.9 Wheelbase y mm 938 1.10 Centre of drive wheel / counterweight z mm 330 330 2.11 Net weight incl. battery (see row 6.5) kg 3,140 3,140 3.1 Vive weight incl. battery (see row 6.5) kg 3,140 3.1 Vive weight incl. battery (see row 6.5) kg 3,140 3.1 Vive weight incl. battery (see row 6.5) kg 3,140 3.1 Vive weight incl. battery (see row 6.5) kg 3,140 3.1 Vive weight incl. battery (see row 6.5) kg 3,140 3.1 Vive weight incl. battery (see row 6.5) kg 3,140 3.1 Vive weight incl. battery (see row 6.5) kg 3,140 3.1 Vive weight incl. battery (see row 6.5) kg 3,140 3.1 Vive weight incl. battery (see row 6.5) kg 3,140 3.10 Vive weight incl. battery (see row 6.5) kg 3,140 3.10 Vive weight incl. battery (see row 6.5) kg 3,140 3.10 Vive weight incl. battery (see row 6.5) kg 3,140 3.10 Vive weight incl. battery (see row 6.5) kg 3,140 Vive weight incl. battery (see row 6.5) kg 3,140 Vive weight incl. battery (see row 6.5) kg 3,140 Vive weight incl. battery (see row 6.5) kg 3,140 Vive weight incl. battery (see row 6.5) kg 3,140 Vive weight incl. battery (see row 6.5) kg 3,140 Vive weight incl. battery (see row 6.5) kg 3,140 Vive weight incl. battery (see row 6.5) kg 3,140 Vive weight incl. battery (see row 6.5) kg 3,140 Vive weight incl. battery (see row 6.5) kg 3,140 Vive weight incl. battery (see row 6.5) kg 3,140 Vive weight incl. battery (see row 6.5) Vive weight incl. battery (see row 6.5) Vive weight incl. battery (see row 6.5) kg 3,140 Vive weight incl. battery (see row 6.5) Viv	
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1.10 Centre of drive wheel / counterweight z mm 330 2.1.1 Net weight incl. battery (see row 6.5) kg 3,140 2.2.1 Axle loading, laden front/rear kg 4,290 / 490 2.3.3 Axle loading, unladen front/rear kg 1,480 / 1,800 3.1 Tyres Vulkollan 3.2 Tyre size, front mm Ø 250 x 80 3.3 Tyre size, rear mm Ø 150 x 135 3.5 Wheels, number front/rear (x = driven wheels) 2 / 1x 3.6 Tread width, front b ₃₀ mm 740 4.2 Mast height (lowered) h ₁ mm 3,225 4.4 Lift h ₃ mm 5,000 4.5 Extended mast height h ₄ mm 5,780 4.19.2 Total length (without load) mm 2,605 4.20 Length to face of forks l ₂ mm 985 / 900 4.21 Overall width b ₁ /b ₂ mm 985 / 900 4.22 Fork dimensions s/e/l mm 50 / 120 / 1,200 4.24 Fork carriage width b ₃ mm 880 4.31 Floor clearance with load under mast m ₁ mm 40 4.32 Ground clearance, centre of wheelbase m ₂ mm 60	
10 2.1.1 Net weight incl. battery (see row 6.5) kg 3,140 2.2	
3.1 Tyres Tyres	
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3.6 Tread width, front b ₁₀ mm 740	
3.6 Tread width, front b ₁₀ mm 740	
3.6 Tread width, front b ₁₀ mm 740	
4.2 Mast height (lowered)	
4.4 Lift	
4.5 Extended mast height	
1.19.2 Total length (without load) mm 2,605 4.20	
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4.25 Width across rorks b_5 mm 810 4.31 Floor clearance with load under mast m_1 mm 40 4.32 Ground clearance, centre of wheelbase m_2 mm 60	
4.32 Ground clearance, centre of wheelbase m ₂ mm 60	
5.1 Travel speed, laden/unladen km/h 7 / 9 ¹⁾ 5.2 Lift speed, laden/unladen m/s 0.29 / 0.31	
5.2 Lift speed, laden/unladen m/s 0.29 / 0.31	
C 23	
E 15.3 Lowering speed, laden/unladen m/s 0.34 / 0.31	
5.10 Service brake Reverse current / regenerative	
5.11 Parking brake Electric spring loaded	
6.1 Drive motor, output S2 60 min. kW 3.0	
.2 6.2 Lift motor, output at \$3 15% kW 9.5	
Signature Sign	
6.4 Battery voltage/nominal capacity K5 V/Ah 48 / 465	
6.5 Battery weight kg 740	
9.1 Type of drive control	
8.4 Sound pressure level at operator's ear as per EN 12053 dB (A) 62	
8.6 Steering electric	

Benefit from the advantages







Cross-series benefits

The basis of the EKS 215a is the electric vertical order picker, a tried-and-tested standard truck combined with appropriate safety technology as well as automation and navigation components. In addition to reliability and efficiency, the EKS 215a also possesses other advantages of the basic truck:

- 48 V three-phase technology for long periods of use without the need to charge the battery.
- · Active energy and battery management.
- Energy recovery during lowering and braking.
- Wear-free inversion brake.
- TÜV-certified control system (CAN

Safety system

The EKS 215a is equipped as standard with a personal protection scanner in the drive and load direction. In line with the speed of the truck, these sensors scan the travel route in front of the AGV for obstacles. Should an obstacle be located in the path of the truck, the AGV will reliably come to a halt in front of it. In addition, the sensor also scans ahead for obstacles when cornering. The standard safety system is completed with side sensors - for safeguarding the sides of

the truck - as well as emergency disconnects on the truck.

Easy integration into existing sys-

The AGV can easily be integrated into your existing IT and network landscape. Use of the existing WLAN structure is preferable for the communication of the EKS 215a. If an existing host system, such as the Jungheinrich WMS or another WMS/ERP system, is to be used, the AGV can be connected to this system via the Logistics Interface.

Everything at a glance - with the AGV control panel

The graphical visualisation on the AGV control panel, displays all the information relating to the AGV in use:

- · Quick overview of the status of the AGV system.
- Prioritised orders can be entered and processed in the corresponding order.
- Depending on the project-specific requirements, individual customer functions can be specially implemented and activated for the respective system.

Precise navigation

High degree of precision allows for pinpoint accuracy in the positioning of trucks and loads at defined stations. If necessary, different navigation types can be used as hybrid navigation for the EKS 215a, as with the other AGV models. These are designed and specified according to project and environment.

Numerous additional system enhancements

By using adjustable forks, the EKS 215a can also pick up closed load carriers and transverse pallets, as well as operate at stations which cannot be driven under. Additional optional equipment components are available for the EKS 215a on a project-specific basis:

- Floor spot.
- · Barcode scanner.
- · Obstacle detection scanner.
- Sensors for detecting faulty pallets.

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.

Jungheinrich UK Ltd.

Head Office: Sherbourne House Sherbourne Drive Tilbrook Milton Keynes MK7 8HX Telephone 01908 363100 Fax 01908 363180

info@jungheinrich.co.uk www.jungheinrich.co.uk

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



