

Drive, lift and steering motors use 3-phase AC technology

Improved manouvability through compact chassis design

Electric 180° steering

Smooth hydraulic operation through SOLO-PILOT control lever

High operating safety with Curve Control



## ETV 110/112

### Electric Reach Truck (1000, 1200 kg)

Space-saving design, high performance data, and optimum ergonomic working conditions. These are the strengths of both the ETV 110 & ETV 112 Reach trucks. Advantages:

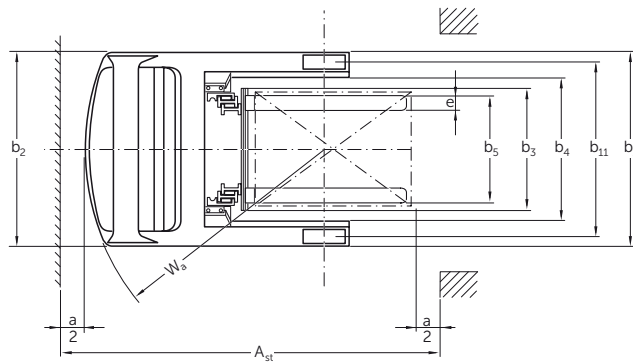
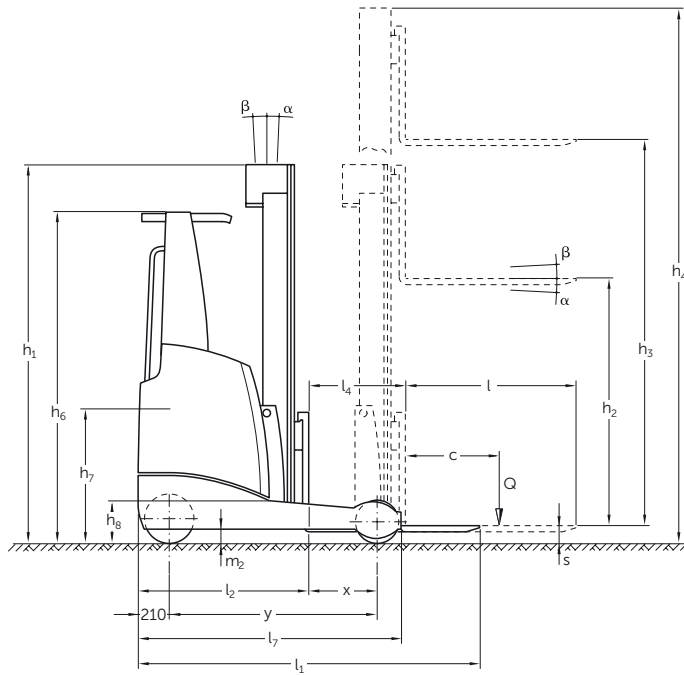
- Space-saving through narrow working aisle widths from 2659 mm (according to VDI – when picking up a pallet lengthways). With its slim support arms, the ETV 110/112 can pull a lengthways Euro pallet back between the support arms – despite its compact chassis of only 1120 mm. This creates more room during operation with oncoming traffic in block stacking aisles or in drive-in racking.

- Higher throughput – as well as increased availability – due to 3-phase AC technology on drive, lift and steering motors.
- Motivated and stress-free operators due to efficiency-enhancing ergonomics. The operator is immediately aware of the added comfort: Using the lowered entrance, he comfortably gets into the operator compartment equipped with 3-fold adjustable seat, adjustable armrest as well as a steering wheel adjustable in both horizontal and vertical directions.

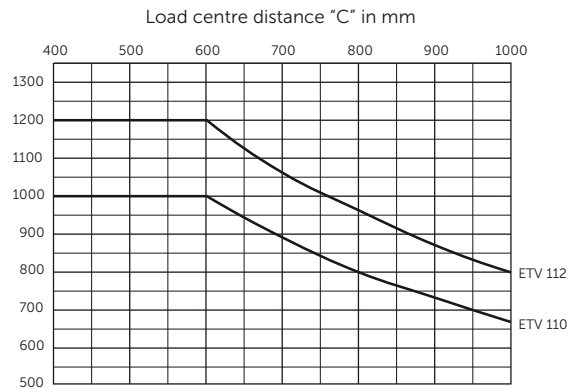
- Automatic speed reduction on corners. Curve Control limits maximum travel speed and acceleration on corners. The danger of a building up process or even tipping over is drastically reduced.

Both reach truck models 110 and 112 provide the best solution for cost effective stacking and retrieval at high lift heights and in confined spaces. Whatever the need – handling pallets, operating in drive-through or drive-in racking, in extremely narrow areas or low heights, for single shift or multishift applications. Both our reach truck models are the perfect solution for every application.

# ETV 110/112



## Capacity



Mast table ETV 110/112					
Designation	Closed height $h_1$ mm	Lift $h_3$ mm	Free lift $h_2$ mm	Extended height $h_4$ mm	Mast tilt forward / backward $\alpha/\beta$ (°)
Two-stage mast ZT	2050	3090	100	3667	2/5
	2200	3390	100	3967	2/5
	2300	3590	100	4167	2/5
	2400	3790	100	4367	2/5
Three-stage mast DZ	2050	4550	1408	5192	2/5
	2200	5000	1558	5642	1/3
	2280	5240	1638	5882	1/3
	2300	5300	1658	5942	1/3
	2400	5600	1758	6242	1/3
	2500	5900	1858	6542	1/3
	2600	6200	1958	6842	1/3
	2700	6500	2058	7142	1/3
	2800	6800	2158	7442	1/3
	2900	7100	2258	7742	1/3

other lift heights on request

# Technical data in line with VDI 2198

as at: 11/2012

Identification	1.1	Manufacturer (abbreviation)		Jungheinrich	Jungheinrich
	1.2	Manufacturer's type designation		ETV 110	ETV 112
		G = fork; E = integrated side shift		GE	GE
	1.3	Drive		electric	electric
	1.4	Operator type		seat	seat
	1.5	Load capacity / rated load	Q (t)	1,0	1,2
	1.6	Load centre distance	c (mm)	600	600
	1.8	Load distance (Centre of load axle to fork face)	x (mm)	345 <sup>1)</sup>	430 <sup>1)</sup>
Weights		Mast pushed forward	x <sub>1</sub> (mm)	170	170
	1.9	Wheelbase	y (mm)	1300	1385
	2.1	Service weight incl. battery (see line 6.5)	kg	2560	2580
	2.3	Axle loading, unladen front / rear	kg	1587/973	1587/993
	2.4	Axle loading, fork advanced, laden front / rear	kg	634/2926	516/3264
Wheels, Chassis	2.5	Axle loading, fork retracted, laden front / rear	kg	1282/2278	1361/2419
	3.1	Tyres		Vulkollan®	Vulkollan®
	3.2	Tyre size, front	mm	343x114	343x114
	3.3	Tyre size, rear	mm	230x85	230x85
	3.5	Wheels, number front rear (x = driven wheels)		1x/2	1x/2
	3.6	Track width, front	b <sub>10</sub> (mm)	–	–
	3.7	Track width, rear	b <sub>11</sub> (mm)	993	993
Basic Dimensions	4.1	Tilt of mast / fork carriage forward / backward	α/β (°)	2/5 <sup>2)</sup>	2/5 <sup>2)</sup>
	4.2	Closed mast height	h <sub>1</sub> (mm)	2300	2300
	4.3	Free lift	h <sub>2</sub> (mm)	1658	1658
	4.4	Lift (standard mast)	h <sub>3</sub> (mm)	5300	5300
	4.5	Height, mast extended	h <sub>4</sub> (mm)	5942	5942
	4.7	Height of overhead guard (cabin)	h <sub>6</sub> (mm)	2150	2150
	4.8	Seat height / stand height	h <sub>7</sub> (mm)	960	960
	4.10	Height of wheel arms	h <sub>8</sub> (mm)	265	265
	4.19	Overall length	l <sub>1</sub> (mm)	2315 <sup>1)</sup>	2315 <sup>1)</sup>
	4.20	Length to face of forks	l <sub>2</sub> (mm)	1165 <sup>1)</sup>	1165 <sup>1)</sup>
	4.21	Overall width	b <sub>1</sub> /b <sub>2</sub> (mm)	1120/1120	1120/1120
	4.22	Fork dimensions	s/e/l (mm)	40/80/1150	40/80/1150
	4.23	Fork carriage ISO 2328, class / type A, B		2/B	2/B
	4.24	Fork-carriage width	b <sub>3</sub> (mm)	800	800
	4.25	Width across forks	b <sub>5</sub> (mm)	296/677	296/677
	4.26	Distance between wheel arms / loading surfaces	b <sub>4</sub> (mm)	900	900
	4.28	Reach distance	l <sub>4</sub> (mm)	515 <sup>1)</sup>	600 <sup>1)</sup>
	4.31	Ground clearance, laden, below mast	m <sub>1</sub> (mm)	85	85
	4.32	Ground clearance, centre of wheelbase	m <sub>2</sub> (mm)	80	80
	4.33	Aisle width for pallets 1000 x 1200 crossways	Ast (mm)	2603/2370 <sup>3)</sup>	2623/2365 <sup>3)</sup>
	4.34	Aisle width for pallets 800 x 1200 lengthways	Ast (mm)	2659/2570 <sup>3)</sup>	2663/2565 <sup>3)</sup>
Performance Data	4.35	Turning radius	Wa (mm)	1515	1595
	4.37	Length across wheel arms	l <sub>7</sub> (mm)	1640	1725
	5.1	Travel speed, laden / unladen	km/h	11/11 <sup>4)</sup>	11/11 <sup>4)</sup>
	5.2	Lift speed, laden / unladen	m/s	0,48/0,70	0,43/0,70
	5.3	Lowering speed, laden / unladen	m/s	0,50/0,50	0,50/0,50
	5.4	Reaching speed, laden / unladen	m/s	0,2/0,2 <sup>2)</sup>	0,2/0,2 <sup>2)</sup>
	5.7	Gradeability, laden / unladen	%	7/10	7/10
	5.8	Max. gradeability, laden / unladen	%	10/15	10/15
	5.9	Acceleration time, laden / unladen (over 15 metres)	s	4,8/4,4	4,9/4,4
	5.10	Service brake		electric	electric
E-Motor	6.1	Drive motor rating S <sub>2</sub> 60 min	kW	6,9	6,9
	6.2	Lift motor rating at S <sub>3</sub> 15 %	kW	10	10
	6.3	Battery acc. to DIN 43531 / 35 / 36 A, B, C, no		B	B
	6.4	Battery voltage, nominal capacity K <sub>s</sub>	V/Ah	48/280	48/280
	6.5	Battery weight	kg	556	556
Others	8.1	Type of drive control		MOSFET/AC	MOSFET/AC
	8.2	Operating pressure for attachments	bar	150	150
	8.3	Oil volume for attachments	l/min	20	20
	8.4	Sound level at the driver's ear according to EN 12 053	dB (A)	68	68

1) other battery sizes change these values

2) dependent on mast

3) with ground storage

4) in load direction –1 km/h

This specification sheet according to VDI regulation 2198 only provides technical values for the standard truck. Non-standard tyres, different masts, additional equipment etc. could produce other values. Right reserved for technical changes and improvements.

# Make use of the advantages

## High performance mast

Our masts ensure maximum safety and utilisation of warehouse capacity at high heights. Strengths:

- Excellent visibility towards the load.
- Integrated sideshift.
- Lowest closed mast height with high lift heights.
- Extremely long service life due to high quality mast profiles.
- High residual capacities up to high lift heights.
- Lift heights up to 7100 mm with mast tilt.



Ergonomic cab

## Ergonomic cab

The operator cab provides ideal working conditions for excellent performance and support for the operator. Its strength:

- Comfortable seat with adjustment options (sitting position / backrest / body weight) for every operator.
- The important operating functions are easily accessible without reaching round.
- Generous space.
- 3-phase AC steering (180° or as an option 360°) with stress-free steering wheel position.
- Horizontal / vertical steering wheel adjustment.



SOLO-PILOT

## Effortless operation with SOLO-PILOT

Incorporating the control levers for all hydraulic functions as well as travel direction selection and horn.

- All operating functions are in view.
- Additional attachments, such as fork spreaders (optional), are also easily controlled with the SOLO-PILOT.
- Precise operation through sensitive control of all functions.
- Comfortable working position with adjustable armrest.

## Easily read operator display

High quality display of important operating information.

- Travel direction and wheel position indicator.
- 180°/360° steering mode.
- Battery discharge display with residual running time.
- Three adjustable travel programs to suit every requirement.
- Operating hours and time.

## More efficient with 3-phase AC technology

Powerful 3-phase AC technology for drive, lift and steering motors provides a number of advantages compared with traditional direct current motors.

- Powerful acceleration.
- Fast reversing without hesitation.
- High availability through maintenance-free motors without carbon brushes.
- Longer operating times due to energy reclamation on reducing the travel speed.
- 2-year warranty on drive and lift motors.

## This is how narrow a wide chassis can be

The right chassis width for every application: The ETV 110/112 has an outer width of 1120 mm – ideal for drive-in racking or block storage. Euro pallets can be picked up lengthwise between the wheel arms just as they can be by a truck with a larger chassis width of 1250–1290 mm.



The correct chassis for every application

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