Reach mast technology saves space

Maximum throughput with the lowest energy consumption

Spacious operators seat

Sensitive handling whilst driving and lifting

Assistance systems to adapt trucks to your specific application



## ETV 110/112

#### Electric reach truck (1,000/1,200 kg)

Space-saving design, high performance, innovative technology and optimum ergonomic working conditions. These are the strengths of our ETV 110/112 reach trucks. Whether for use in operating in pallet, drive-through or drive-in racking. Whether for extremely narrow areas or low clearances. Whether for single shift or multishift operation: The 110/112 reach trucks offer the perfect solution for every application.

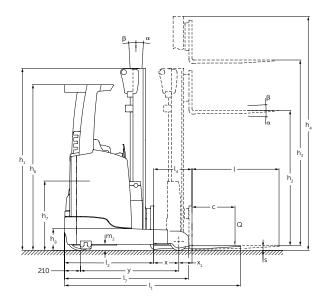
#### The main advantages:

Space saving with narrow aisle widths from 2664 mm. With
its slim support arms, the ETV 110/112 can pull a Euro pallet
back between the support arms – despite its compact outer
width of only 1120 mm. This creates more room during operation with oncoming traffic in block-stacked warehouses or in
drive-in racking.

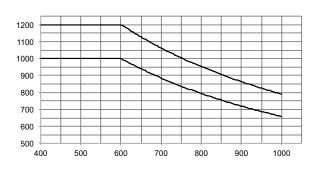
- The very latest drive and control technology ensures greater productivity whilst at the same time reducing energy consumption.
- The advanced ergonomics and technology increase the productivity of the operators, thanks to: A generously dimensioned cab and outstanding visibility both during travel and when stacking and retrieving. Automotive layout of pedals.
   Curve Control the automatic reduction of speed when cornering.
- 180° and 360° steering: Allows the operator to select minimum turning radius or fastest change in travel direction.
- SOLO-PILOT control lever: For sensitive stacking, even at high lift heights.
- The right configuration for your needs: An extensive catalogue of options with a wide variety of assistance systems and battery versions from 310 to 620 Ah ensures the truck can be adapted to suit any application.



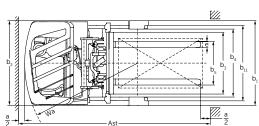
# ETV 110/112







Load centre distance "c" in mm



Standard mast designs ETV 110/112								
	Lift	Lowered mast height	Free lift	Extended mast height	Mast tilt forward / back			
	h <sub>3</sub>	h <sub>1</sub>	$h_2$	h <sub>4</sub>	α/β			
	(mm)	(mm)	(mm)	(mm)	(°)			
Triplex DZ	4550	2050	1408	5192	1/3			
·	5000	2200	1558	5642	1/3			
	5240	2280	1638	5882	1/3			
	5300	2300	1658	5942	1/3			
	5600	2400	1758	6242	1/3			
	5900	2500	1858	6542	1/3			
	6200	2600	1958	6842	1/3			
	6500	2700	2058	7142	0.5/2			
	6800	2800	2158	7442	0.5/2			
	7100	2900	2258	7742	0.5/2			

# Technical data in line with VDI 2198

	1.1	Manufacturer (abbreviation)			Junghei	nrich	
	1.2	Model			ETV 110	ETV 112	
_	1.3	Drive			Elect		
Ö	1.4	· ·			transvers		
<u>8</u>		Manual, pedestrian, stand-on, seated, order picker operation	Q	t	1	1.2	
₹	1.5	Load capacity/rated load					
de	1.6	Load centre distance	С	mm	600		
	1.8	Load distance	X	mm	3391)	4241)	
	1.8.1	Load distance, mast reached forward	X <sub>1</sub>	mm	170		
	1.9	Wheelbase	у	mm	1,300	1,385	
	2.1.1	Net weight incl. battery (see row 6.5)		kg	2,560	2,580	
	2.3	Axle load without load front/rear		kg	1,587 / 973	1,587 / 993	
	2.4	Axle loading forks forward with load at front / rear		kg	634 / 2,926	516 / 3,264	
	2.5	Axle loading forks retracted with load at front / rear		kg	1,282 / 2,278	1,361 / 2,419	
	3.1	Tyres Vulkollan®					
	3.2	Tyre size, front		mm	Ø 343 x	c 114	
	3.3	Tyre size, rear		mm	Ø 230 x 85		
	3.5	Wheels, number front/rear (x = driven wheels)			1x / 2		
	3.7	Tread width, rear	b <sub>11</sub>	mm	993		
	4.1	Tilt of mast/fork carriage forward/backward	α/β	0	995 1/3 <sup>2)</sup>		
	4.2	Mast height (lowered)	h <sub>1</sub>	mm	2,30		
	4.3	Free lift	h <sub>2</sub>	mm			
	4.4	Lift			1,658		
			h <sub>3</sub>	mm	5,300		
	4.5	Extended mast height	h <sub>4</sub>	mm	5,94		
	4.7	Height of overhead guard	h <sub>6</sub>	mm	2,190		
	4.8	Seat height/stand height	h <sub>7</sub>	mm	960		
	4.10	height of support arms	h <sub>8</sub>	mm	2653)		
2	4.19	Overall length	l <sub>1</sub>	mm	2,3211)		
2	4.20	Length to face of forks	l <sub>2</sub>	mm	1,1741)		
Basic dimensions	4.21	Overall width	b <sub>1</sub> /b <sub>2</sub>	mm	1,120 / 1,120		
	4.22	Fork dimensions	s/e/l	mm	40 / 80 / 1,150		
	4.23	Fork carriage ISO 2328, class/type A, B			2B		
8	4.24	Fork carriage width	b <sub>3</sub>	mm	800		
۵	4.25	Width across forks	b <sub>5</sub>	mm	296 / 677		
	4.26	Width between support arms/loading surfaces	b <sub>4</sub>	mm	900		
	4.28	Mast reach	l <sub>4</sub>	mm	5091)	5941)	
	4.32	Ground clearance, centre of wheelbase	m <sub>2</sub>	mm	80		
	4.32.1	Ground clearance at lowest point		mm	30		
	4.33	Aisle width for pallets 1000 × 1200 sideways	Ast	mm	2,6081)	2,6271)	
	4.34	Aisle width for pallets $800 \times 1200$ lengthways	Ast	mm	2,6641)	2,6681)	
	4.35	Turning radius	W <sub>a</sub>	mm	1,515	1,595	
	4.37	Length over the support arms	l <sub>7</sub>	mm	1,640	1,725	
	5.1	Travel speed, laden/unladen	17	km/h		1,723	
Performance data		· · · · · · · · · · · · · · · · · · ·			0.49 / 0.7	0.47 / 0.7	
5	5.2	Lift speed, laden/unladen		m/s	0.48 / 0.7	0.43 / 0.7	
צ	5.3	Lowering speed, laden/unladen		m/s	0.5 / (		
0	5.4	Traverse speed w. / w.o. load		m/s	0.2 / 0.2		
	5.7	Gradeability laden/unladen		%	7 / 10		
	5.8	Max. gradeability, laden/unladen		%	10 / 15		
ב	5.9	Acceleration time w. / w.o. load		S	5.1 / 4.8		
	5.10	Service brake			electric		
	6.1	Drive motor, output S2 60 min.		kW 4.5			
	6.2	Lift motor, output at S3 15%		kW	11.5		
Electric	6.3	Battery as per DIN 43531 /35/36 A, B, C, no			DIN 43531 - B		
	6.4	Battery voltage/nominal capacity K5		V/Ah	48 / 280		
	6.5	Battery weight		kg	556	j	
	6.6	Energy consumption according to VDI cycle		kWh/h	2.6	2.9	
	6.7	Throughput		t/h	44	53	
	6.8	Energy consumption at max. throughput		kWh/h	2.7	2.9	
	8.1	Type of drive control			Impuls/ Mo		
	8.2	Working pressure for attachments		bar	150		
MISC.	8.3	Oil flow for attachments		l/min	20		
_				4	20		

<sup>1)</sup> different battery sizes change these values

<sup>2)</sup> mast-dependent

<sup>3)</sup> With load wheel cover: + 30 mm

### Benefit from the advantages









Compact chassis

**SOLO-PILOT** 

Storage facilities

Ergonomic cab

### The wide frame is as narrow as poss-

The right chassis width for every ap-

- 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 easily as they can be by a truck with a larger frame width.

#### Ergonomic cockpit

The comfort of the operator's seat provides the ideal working conditions for maximum performance.

- Fabric seat with adjustment options for seating position, backrest and body weight.
- · Plenty of storage options.
- Important truck controls are within easy reach.
- · Generous space, even for tall oper-
- Electric steering (choose 180° or 360° mode). When driving in a straight line, the steering wheel spinner knob is always at the optimum ergonomic position.
- Standard automotive layout of pedals.

#### **SOLO-PILOT** control lever

- The control lever for activating all hydraulic functions and also selecting the direction of travel and the horn:
- · All the controls are within the operators field of vision and are clearly designated for each specific function.
- · Travel direction switch features intuitive direction change.
- Sensitive control of all functions for operating accuracy within millimetres.
- · Additional attachments, such as fork positioners (optional), are also easily controlled with the SOLO-PILOT.

#### Easy-to-read operator display

High-quality control instruments for displaying the most important operating

- Display of direction of travel and wheel
- Battery status with display of time remaining until the next charging.
- A choice of three travel programmes for individual adaptation to any needs.
- · Operating hours and time of day.
- Lift height (optional)
- · Load weight (optional)

#### High-performance mast

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

- Excellent visibility to the load.
- · Integrated sideshift.
- · Lowest clearances at high lift heights.
- High-quality sections provide an extremely long service life.
- · High residual capacity even at high lift heights.
- Triplex masts with lifting heights up to 7100 mm and mast tilt.

#### Assistance systems (optional)

- Position Control with SNAP function for simple and fast stacking without additional pressing of buttons.
- Fork camera with ergonomically adjustable monitor. For particularly safe and efficient stacking and retrieval.
- · Weight control at the push of a button to provide reassurance that the residual capacity has not been exceeded. The load weight is displayed on the operator display at the touch of a button (50 kg tolerance)

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





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