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:

- Saving of space 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 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 increases operator productivity, 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.

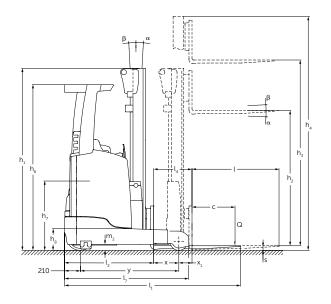
 180° and 360° steering: Allows the operator to select minimum turning radius or fastest change in travel direction.

soloPILOT control lever: For sensitive stacking, even at high lift heights

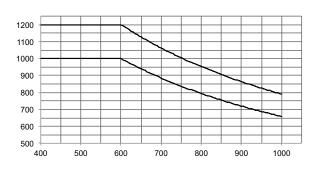
The right configuration for your needs: An extensive catalogue of options with a wide variety of assistance systems and battery versions from 310 to 620 Ah ensures the truck can be adapted to suit any application.



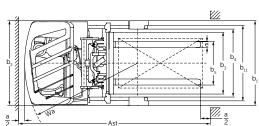
ETV 110/112







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 ₃ | h ₁ | h_2 | h ₄ | 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 | | | | | | |
| <u>ē</u> . | 1.4 | Manual, pedestrian, stand-on, seated, order picker operation | | | Electric transverse seat | | | |
| <u>8</u> | 1.5 | Load capacity/rated load | Q | t | 1 | 1.2 | | |
| ldenti | 1 | 1 2 | | | | | | |
| | 1.6 | Load centre distance | С | mm | 7701) | | | |
| | 1.8 | Load distance | X | mm | 3391) | 4241) | | |
| | 1.8.1 | Load distance, mast reached forward | X ₁ | 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® | | | | | |
| <u>_</u> | 3.2 3.3 | Tyre size, front | | mm | Ø 343 x 114 | | | |
| ar | 3.3 | Tyre size, rear | | mm | Ø 230 x 85 | | | |
| Wheels / frame | 3.5 | Wheels, number front/rear (x = driven wheels) | | | 1x / 2 | | | |
| | 3.7 | Tread width, rear | b ₁₁ | mm | 993 | | | |
| | 4.1 | Tilt of mast/fork carriage forward/backward | α/β | 0 | 1/32 | 2) | | |
| | 4.2 | Mast height (lowered) | h ₁ | mm | 2,30 | 0 | | |
| | 4.3 | Free lift | h ₂ | mm | 1,65 | 8 | | |
| | 4.4 | Lift | h ₃ | mm | 5,300 | | | |
| | 4.5 | Extended mast height | h ₄ | mm | 5,942 | | | |
| | 4.7 | Height of overhead guard | h ₆ | mm | 2,190 | | | |
| | 4.8 | Seat height/stand height | h ₇ | mm | 960 | | | |
| | 4.10 | height of support arms | h ₈ | mm | 2653) | | | |
| | 4.19 | Overall length | l ₁ | mm | 2,3211) | | | |
| ö | 4.20 | Length to face of forks | l ₂ | mm | 1,1741) | | | |
| Basic dimensions | 4.21 | Overall width | b ₁ /b ₂ | | 1,120 / 1,120 | | | |
| a B | 4.22 | Fork dimensions | s/e/l | | 40 / 80 / 1,150 | | | |
| <u></u> | 4.23 | Fork carriage ISO 2328, class/type A, B | , , , , | | 2B | | | |
| Sic | 4.24 | Fork carriage width | b ₃ | mm | 800 | | | |
| B | 4.25 | Width across forks | b ₅ | mm | 296 / 677 | | | |
| | 4.26 | Width between support arms/loading surfaces | b ₄ | mm | 900 | | | |
| | 4.28 | Mast reach | l ₄ | mm | 5091) | | | |
| | 4.32 | Ground clearance, centre of wheelbase | | mm | 80 | | | |
| | 4.32.1 | Ground clearance, centre of wheelbase | m ₂ | mm | 30 | | | |
| | 4.33 | Aisle width for pallets 1000 × 1200 sideways | Λct | | 2,6081) | 2,6271) | | |
| | 1 | | Ast | mm | | | | |
| | 4.34 | Aisle width for pallets 800 × 1200 lengthways | Ast | mm | 2,6641) | 2,6681) | | |
| | 4.35 | Turning radius | Wa | mm | 1,515 | 1,595 | | |
| | 4.37 | Length over the support arms | l ₇ | mm | 1,640 | 1,725 | | |
| æ | 5.1 | Travel speed, laden/unladen | | km/h | 11 | | | |
| gaı | 5.2 | Lift speed, laden/unladen | | m/s | 0.48 / 0.7 | 0.43 / 0.7 | | |
| ė | 5.3 | Lowering speed, laden/unladen | | m/s | 0.5 / (| | | |
| ě | 5.4 | Traverse speed w. / w.o. load | | m/s | 0.2 / 0.2 | | | |
| Ē | 5.7 | Gradeability laden/unladen | | % | 7 / 10 | | | |
| Pertormance data | 5.8 | Max. gradeability, laden/unladen | | % | 10 / 15 | | | |
| a e | 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 | 6.0 | | | |
| | 6.2 | Lift motor, output at S3 15% | | kW | 13.3 | | | |
| S | 6.3 | Battery as per DIN 43531 /35/36 A, B, C, no | | | DIN 43531 - B | | | |
| Ĕ | 6.4 | Battery voltage/nominal capacity K5 | | V/Ah | 48 / 280 | | | |
| Electrics | 6.5 | Battery weight | | kg | 556 | | | |
| | 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 | osfet AC | | |
| Misc. | 8.2 | Working pressure for attachments | | bar | 150 |) | | |
| Σ | 8.3 | Oil flow for attachments | | l/min | 20 | | | |
| | 8.4 | Sound pressure level at operator's ear as per EN 12053 | | dB (A) | 68 | | | |

¹⁾ different battery sizes change these values

²⁾ mast-dependent

³⁾ With load wheel cover: + 30 mm

Benefit from the advantages



Compact chassis



Unobstructed visibility thanks to panorama roof



soloPILOT



Ergonomic cab

The wide frame is as narrow as poss-

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 support arms just as easily as they can be by a truck with a larger frame width.

Ergonomic cab

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.

• Panoramic overhead guard for an unobstructed view of the raised load (optional).

soloPILOT 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 operator's 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.
- Extra attachments e.g. a fork positioner (optional) - can be comfortably controlled with the soloPILOT.
- multiPILOT available as option.

Easy-to-read colour display

High-quality control instruments for displaying the most important operating

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

- · Load weight (optional).
- EasyAccess: Keyless access system via softkey, PIN code or transponder card (optional).

High-performance mast

Our masts ensure maximum safety and utilisation of warehouse capacity at high heights. The 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
- · 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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