

Powerful and efficient 3-phase  
AC drive, lift and steer control

Ergonomic and spacious operator  
compartment

Compact design for greater  
maneuverability

The right drive and lifting  
performance package to match  
your material handling needs

Outstanding capacity retention and  
load stability at high lift heights



## ETV 110 / 112

### Sit-Down Moving Mast Reach Truck (2,200 / 2,600 lbs.)

The ETV 1 series of moving mast reach trucks offers the right solution for a wide range of applications.

- **Performance** – Can drive up to 6.8 mph (loaded or unloaded) with excellent acceleration characteristics.
- **Energy efficient** – Jungheinrich® 4<sup>th</sup> generation AC technology allows the truck to run up to two shifts on a single battery charge in most applications.
- **Outstanding residual capacities** – With lift heights over 23 feet, this truck can reach your tallest racks and can typically retain full capacity over 22 feet (depending on the reach truck configuration).
- **Extremely compact chassis** – The Jungheinrich space-saving design allows the operator to efficiently and effectively work in aisles well under 9 feet in width.<sup>1)</sup>

Premium ergonomics come standard with Jungheinrich's moving mast reach trucks. This includes:

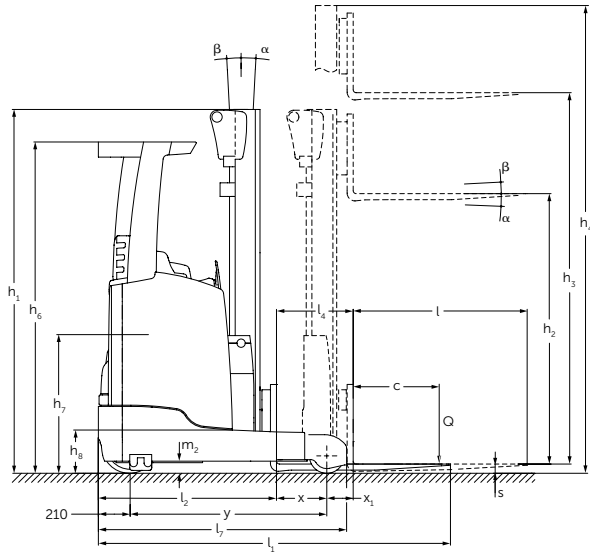
- Spacious, highly-adjustable operator compartment suitable for a wide range of operators.
- Automotive-style drive pedals allow for intuitive operation. The soloPILOT and multiPILOT control handles are both ergonomic and highly-productive. The driving direction switch is more visible with a different color, and the horn button is integrated in the front area for faster operation. The multiPILOT has an optional, integrated acknowledgement button for clamped attachments.

- curveCONTROL, which provides automatic speed reduction during cornering, provides the operator with confidence while driving the reach truck, particularly when working in confined areas.

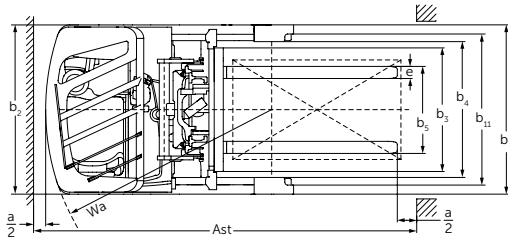
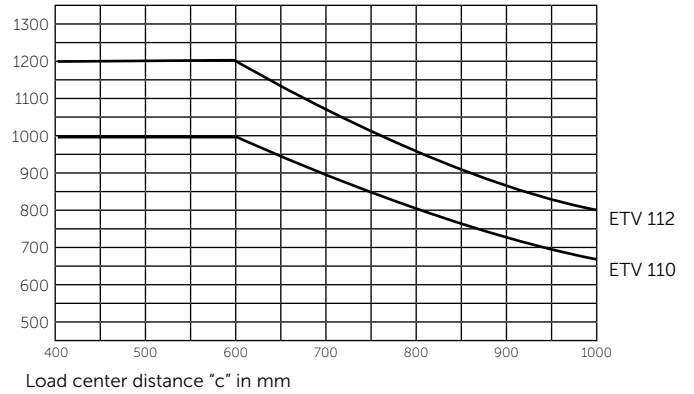
<sup>1)</sup> Minimum aisle width is dependent upon many factors. Contact your local Jungheinrich dealer for more information.

**JUNGHEINRICH®**

# ETV 110 /112



Capacity



Characteristics									
	Lift h <sub>3</sub>		Lowered mast h <sub>1</sub>		Free lift h <sub>2</sub>		Extended mast height h <sub>4</sub> *		Mast tilt forward / back (α/β)
	in	mm	in	mm	in	mm	in	mm	degrees (°)
Triplex DZ	179.0	4,550	81.0	2,050	55.0	1,408	243.5	5,192	1 / 3
	196.5	5,000	87.0	2,200	61.0	1,558	261.5	5,642	1 / 3
	206.0	5,240	90.0	2,280	64.0	1,638	270.5	5,882	1 / 3
	208.5	5,300	91.0	2,300	65.0	1,658	273.0	5,942	1 / 3
	220.0	5,600	95.5	2,400	69.0	1,758	285.0	6,242	1 / 3
	232.0	5,900	98.5	2,500	73.0	1,858	296.5	6,542	1 / 3
	244.0	6,200	102.5	2,600	77.0	1,958	308.5	6,842	1 / 3
	255.5	6,500	106.5	2,700	81.0	2,058	320.5	7,142	0.5 / 2
	267.5	6,800	110.5	2,800	84.5	2,158	332.0	7,442	0.5 / 2
279.5	7,100	114.5	2,900	88.5	2,258	344.0	7,742	0.5 / 2	

\* Includes standard load backrest with height of 39.4 inches.

This specification sheet only provides technical values for the standard truck. Non-standard tires, different masts, different axle widths, additional equipment, etc. could produce other values. Rights reserved for technical changes and improvements.

# Technical data

as of: 12/2016

					Jungheinrich		Jungheinrich				
					ETV 110		ETV 112				
Characteristics	1.1	Manufacturer									
	1.2	Model									
	1.3	Drive			Electrics		Electrics				
	1.4	Manual, pedestrian, stand-on, seated order picker operation			Transverse seat		Transverse seat				
	1.5	Load capacity / rated load	lb	kg	2,205	1,000	2,646	1,200			
	1.6	Load center distance	in	mm	24	610	24	610			
	1.8	Load distance	in	mm	13.4 <sup>1)</sup>	339 <sup>1)</sup>	16.7 <sup>1)</sup>	424 <sup>1)</sup>			
	1.81	Load distance, mast extended forward	in	mm	6.7	170	6.7	170			
	1.9	Wheelbase	in	mm	51.2	1,300	54.5	1,385			
Weight	2.1	Service weight without battery			lb	kg	4,418	2,004	4,462	2,024	
	2.1.1	Service weight including battery (see line 6.5)			lb	kg	5,644	2,560	5,688	2,580	
	2.3	Axle loading, no load, front / rear			lb	kg	3,499 / 2,145	1,587 / 973	3,499 / 2,189	1,587 / 993	
	2.4	Axle loading, fork extended, loaded front / rear			lb	kg	1,398 / 6,451	634 / 2,926	1,138 / 7,196	516 / 3,264	
	2.5	Axle loading, fork retracted, loaded front / rear			lb	kg	2,826 / 5,022	1,282 / 2,278	3,000 / 5,333	1,361 / 2,419	
Wheels / Chassis	3.1	Tire type / material			Vulkollan®		Vulkollan®				
	3.2	Tire size, drive	in	mm	13.5 x 4.5	343 x 114	13.5 x 4.5	343 x 114			
	3.3	Tire size, load	in	mm	9.1 x 3.3	230 x 85	9.1 x 3.3	230 x 85			
	3.5	Wheels, number, drive / load (x=driven)			1x / 2		1x / 2				
	3.7	Track width, drive / load (center of tires)	b11	in	mm	39.1	993	39.1	993		
	4.1	Mast or fork carriage tilt forward / backward	α/β	deg °		1° / 3° <sup>2)</sup>		1° / 3° <sup>2)</sup>			
	4.2	Lowered mast height (see tables) (OACH)	h1	in	mm	91.0 <sup>2)</sup>	2,300 <sup>2)</sup>	91.0 <sup>2)</sup>	2,300 <sup>2)</sup>		
4.3	Fork free lift height (see tables) (FFH)	h2	in	mm	65.0 <sup>2)</sup>	1,658 <sup>2)</sup>	65 <sup>2)</sup>	1,658 <sup>2)</sup>			
4.4	Maximum fork height (see tables) (MFH)	h3	in	mm	208.5 <sup>2)</sup>	5,300 <sup>2)</sup>	208.5 <sup>2)</sup>	5,300 <sup>2)</sup>			
4.5	Extended mast height (including LBR) (OAE)	h4	in	mm	273.0 <sup>2) 5)</sup>	5,942 <sup>2) 5)</sup>	273.0 <sup>2) 5)</sup>	5,942 <sup>2) 5)</sup>			
4.7	Overhead guard height (top)	h6	in	mm	86.2	2,190	86.2	2,190			
4.8	Seat height / Ground to seat index point	h7	in	mm	37.8	960	37.8	960			
4.10	Height of wheel arms	h8	in	mm	11.6	295	11.6	295			
4.19	Overall length (incl. forks) (see line 4.22)	l1	in	mm	91.4 <sup>1) 6)</sup>	2,321 <sup>1) 6)</sup>	91.4 <sup>1) 6)</sup>	2,321 <sup>1) 6)</sup>			
4.20	Length to fork face (incl. fork thickness) (see line 4.22)	l2	in	mm	46.2 <sup>1)</sup>	1,174 <sup>1)</sup>	46.2 <sup>1)</sup>	1,174 <sup>1)</sup>			
4.21	Overall width - chassis / wheel legs	b1 / b2	in	mm	441 / 441	1,120 / 1,120	441 / 441	1,120 / 1,120			
4.22	Fork dimensions - length / width / thickness	l / e / s	in	mm	45.3 / 3.1 / 1.6	1,150 / 80 / 40	45.3 / 3.1 / 1.6	1,150 / 80 / 40			
4.23	Fork carriage type (to ISO 2328, class / type A,B)				2 / B		2 / B				
4.24	Fork carriage width	b3	in	mm	31.5	800	31.5	800			
4.25	Overall fork width (minimum / maximum)	b5	in	mm	11.7 / 26.6	296 / 677	11.7 / 26.6	296 / 677			
4.26	Distance between wheel arms (BLO)	b4	in	mm	35.4	900	35.4	900			
4.28	Reach distance	l4	in	mm	20.0 <sup>1)</sup>	509 <sup>1)</sup>	23.4 <sup>1)</sup>	594 <sup>1)</sup>			
4.32	Ground clearance at center of wheelbase	m2	in	mm	3.1	80	3.1	80			
4.32.1	Ground clearance at lowest point		in	mm	1.2	30	1.2	30			
4.33	Aisle width (for 40 x 48 pallets L x W)	Ast	in	mm	103.5 <sup>1) 3)</sup>	2,626 <sup>1) 3)</sup>	104.5 <sup>1) 3)</sup>	2,645 <sup>1) 3)</sup>			
4.34	Aisle width (for 48 x 48 pallets L x W)	Ast	in	mm	110.0 <sup>1) 3)</sup>	2,785 <sup>1) 3)</sup>	110.5 <sup>1) 3)</sup>	2,797 <sup>1) 3)</sup>			
4.35	Minimum outside turning radius	Wa	in	mm	59.6	1,515	62.8	1,595			
4.37	Length to tip of wheel arms	l7	in	mm	64.6	1,640	68.0	1,725			
Performance	5.1	Travel speed, loaded / no load			mph	km/h	6.8 / 6.8 <sup>4)</sup>	11 / 11 <sup>4)</sup>	6.8 / 6.8 <sup>4)</sup>	11 / 11 <sup>4)</sup>	
	5.2	Lift speed, loaded / no load			fpm	m/s	94.5 / 137.8	0.48 / 0.70	84.7 / 137.8	0.43 / 0.70	
	5.3	Lowering speed, loaded / no load			fpm	m/s	98.4 / 98.4	0.5 / 0.5	98.4 / 98.4	0.5 / 0.5	
	5.4	Reaching speed, loaded / empty			fpm	m/s	39.4 / 39.4 <sup>2)</sup>	0.2 / 0.2 <sup>2)</sup>	39.4 / 39.4 <sup>2)</sup>	0.2 / 0.2 <sup>2)</sup>	
	5.7	Gradeability loaded / empty			%		7 / 10		7 / 10		
	5.8	Maximum gradeability loaded / empty			%		10 / 15		10 / 15		
	5.9	Acceleration time loaded / empty			Sec		5.1 / 4.8		5.1 / 4.8		
	5.10	Brakes - service			type		electric		electric		
	Motors	6.1	Drive motor (rating 60 minutes)			HP	kW	8.0	6.0	8.0	6.0
		6.2	Lift motor rating at 15%			HP	kW	17.8	13.3	17.8	13.3
6.4		Battery voltage / nominal capacity K5			V	Ah	48	280	48	280	
6.5		Battery weight, minimum / maximum			lb	kg	1,571 / 2,326 <sup>1)</sup>	713 / 1,055 <sup>1)</sup>	1,571 / 2,326 <sup>1)</sup>	713 / 1,055 <sup>1)</sup>	
6.5.1		Battery dimensions (length x width x height)			in	mm	13.97x48.15x30.87 <sup>1)</sup>	355x1,223x784 <sup>1)</sup>	13.97x48.15x30.87 <sup>1)</sup>	355x1,223x784 <sup>1)</sup>	
Misc.	8.1	Type of drive control					Impulse / Mosfet AC		Impulse / Mosfet AC		
	8.2	Operating pressure for attachments			PSI	bar	2,175	150	2,175	150	
	8.3	Hydraulic flow rate for attachments			gpm	lpm	5.3	20	5.3	20	
	8.4	Sound pressure level at operator's ear			dB(A)		68		68		

1) Different battery compartment sizes change these values

2) Dependent on type of mast

3) For floor storage with 8 inches maneuvering space included

4) In load direction 6.2 mph (9.98 km/hr)

5) Includes backrest with height of 39.4 inches / 1,000 mm

6) Different fork lengths change these values

# The Jungheinrich Advantage

## Jungheinrich's AC technology

- Jungheinrich's 4<sup>th</sup> generation AC technology provides improved performance and energy efficiency.
- Sealed motors, controllers and connectors provide for better durability, especially when working in dusty or damp applications.
- AC electric power steering provides improved serviceability, performance and energy efficiencies.
- AC motors lower maintenance costs by removing wear items commonly found in DC motors, such as contactors, brushes and springs.

## Premium ergonomics

- Full-suspension fabric seat with fore/aft, backrest and weight adjustments.
- Highly-adjustable operator compartment, which allows operators of various sizes to be comfortable and productive.
- Ergonomic and intuitive operator controls.
- All drive and hydraulic functions are comfortably controlled by either the multiPILOT or soloPILOT control handles.
- Low-effort AC electric power steering.

- Premium, state-of-the-art 4" LED color operator display provides immediate feedback to both the operator and technician.
- The 4" color display (6" option available) offers warnings in signal color for better readability.
- 360° steer direction indicator.
- Battery discharge indicator.
- Three performance modes, which can be modified to suit any application.
- Optional readouts, such as lift height indicator and load weight display.

## Robust and durable mast design

- High residual capacities.
- Good visibility both through and around the mast.
- Patented and proprietary mast reach cushioning allows for an improvement in operational productivity.
- Optional regenerative lowering can provide even more battery life, especially in those high lift applications.
- Laser can be integrated into the fork tip to project a red line on a pallet or beam for better work level awareness, especially when forks are elevated (CSM).



multiPILOT hydraulic control (optional)

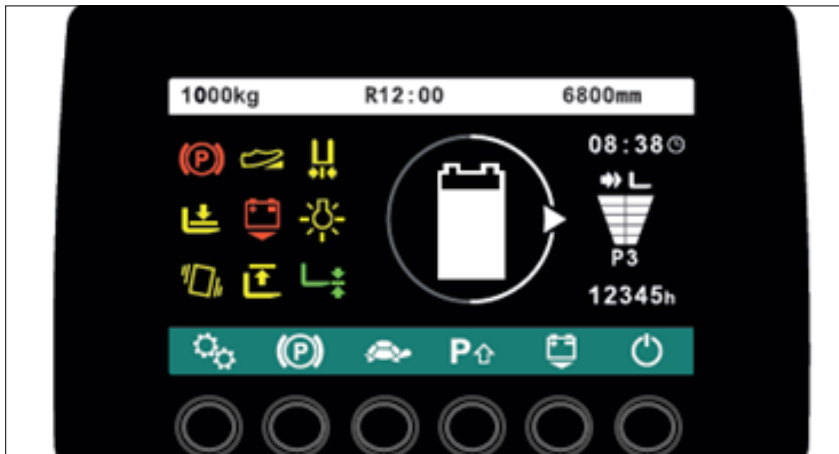
## Performance-enhancing options to meet your application

- Anti-Slip Regulation (ASR) option for controlled acceleration on smooth or wet surfaces.
- A wide range of lift and lower limit options.

## Parts when you need them

Jungheinrich's Parts Fast or Parts Free Guarantee ensures next-business-day delivery by 5:00 PM of all Jungheinrich parts in the United States, or they're free, including freight. For customers in Canada and Mexico, the guarantee ensures shipping of parts within 24 hours from the time the order was placed by the dealer. See your local Jungheinrich dealer for program details.

\* Programs may be subject to change without notice and may vary by region. Please ask your local Jungheinrich dealer for complete terms and conditions.



Informative display