A man in a dark jacket and jeans is operating a yellow and grey Jungheinrich EFG 115 electric counterbalanced forklift in a warehouse. The forklift has a steering wheel and a seat. The background shows a warehouse interior with shelves and a concrete floor. The text is overlaid on a white semi-transparent box on the left side of the image.

# **EFG 110k – 115** **Electric 3-Wheel** **Counterbalanced** **Truck**

2,000 – 3,000 lbs. capacity

 **JUNGHEINRICH®**

# Small, Compact Design

Spacious and comfortable to operate.

Excellent performance, high efficiency and incredible maneuverability — all in one package. These are the key advantages of the Jungheinrich® rear-drive 3-wheel counterbalanced truck, the EFG 110k–115 series.

The lift truck's excellent performance and high efficiency are created through the use of Jungheinrich's microprocessor-controlled 3-phase AC technology. The EFG series is easy to maneuver due to its compact dimensions with a minimum width of only 39 inches.







# Advantages Of Jungheinrich's Proprietary 3-Phase Technology

## Jungheinrich introduced 3-phase AC to electric trucks

In the early 1990s, Jungheinrich applied powerful frequency converters to successfully convert direct current into 3-phase AC current — achieving this conversion in an economical way. This brought the advantages of 3-phase AC technology, such as the omission of carbon brushes and enclosure of the motor, to electric trucks. It also gave way to new application possibilities for electric counterbalanced trucks — and a significant reduction in operating costs. Today, Jungheinrich installs 3-phase AC technology in all of its warehouse products.

Jungheinrich's proprietary 3-phase alternating current (AC) technology has been tried and tested numerous times in various industries. Our 3-phase AC motors deliver a significant reduction in the number of components and working parts, as well as a more efficient, reliable and cost-effective operation.

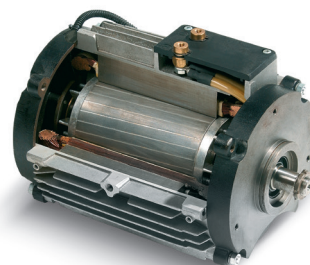


A 3-phase AC motor is simpler in construction than a shunt-wound DC motor and can be built with a more compact design.

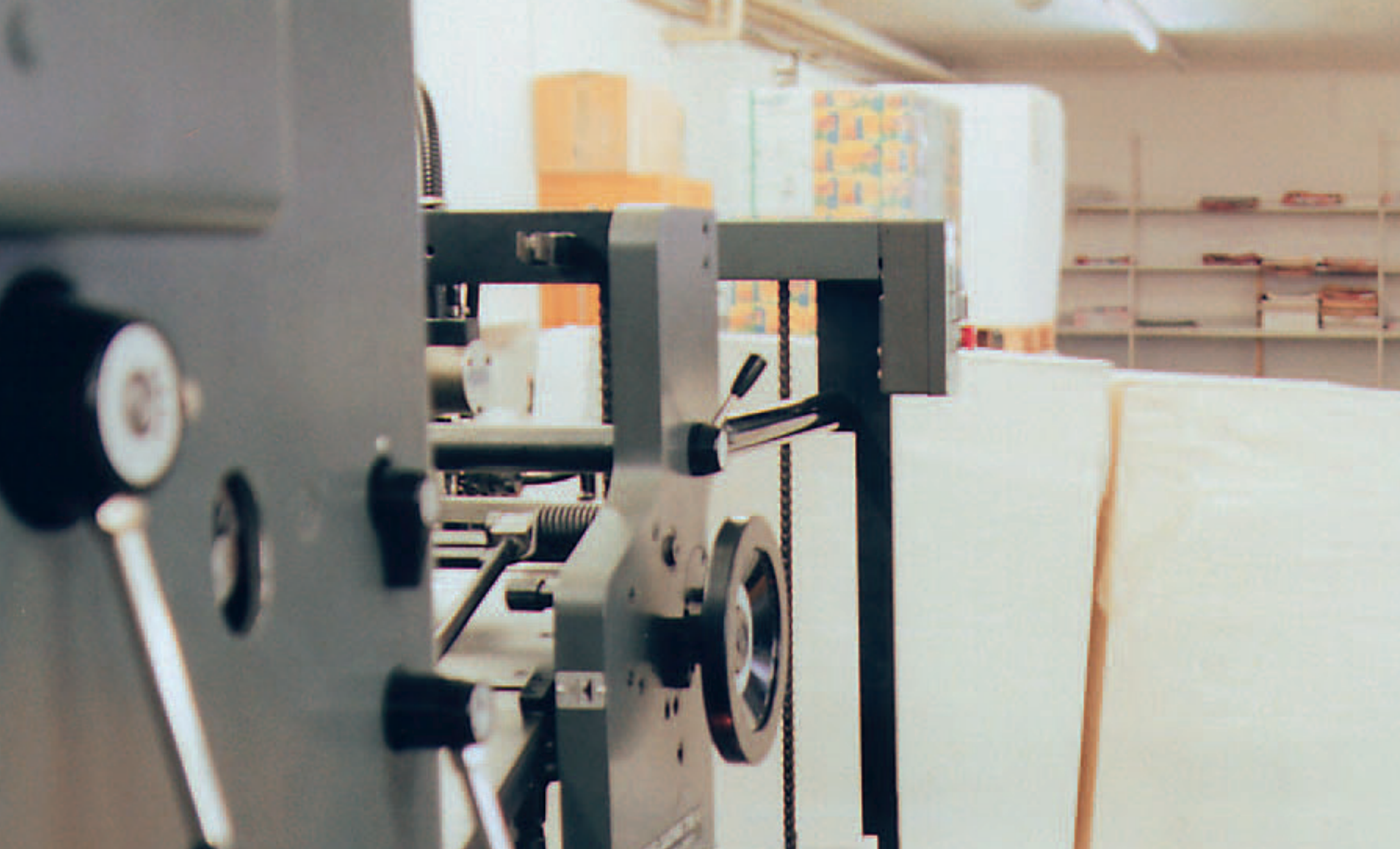
- Magnetic field buildup does not occur in the rotor, but rather in the stator.
- Current does not need to be transferred to the armature / rotor.
- Commutator and carbon brushes are not required.
- Motor operates with less heat buildup.
- Motor does not need to be ventilated on the inside.
- Motor can be enclosed for protection.



Shunt-wound or series-wound motor with carbon brushes and commutator



3-phase AC motor, completely enclosed, less parts to wear



# Higher Energy Efficiency With Minimal Operating Costs

## **3-phase AC Advantage 1:**

### **With greater torque, high throughput**

With Jungheinrich's proprietary 3-phase AC technology, you'll get high torque even at lower speed with no torque gaps and no speed loss. This is particularly helpful in rigorous applications. This technology also ensures dynamic travel characteristics and the highest throughput efficiency – without the usual delay when changing travel direction. A major benefit is up to 25% faster goods throughput. This means a time savings to you – or even a reduction in the number of forklifts in your fleet.

## **3-phase AC Advantage 2:**

### **Increased productivity and energy reclamation**

Does more goods throughput have to mean more power consumption? Not at Jungheinrich. We offer optimized performance efficiency and advanced regenerative braking, during which up to 20% of the energy is fed back into the battery. As a result, select forklifts may work up to two shifts without recharging the battery, depending on the application. The benefit to you? In many cases, you'll have no need for a large charging station or battery changing equipment.\*

## **3-phase AC Advantage 3:**

### **Enclosed motors**

With our electric motors enclosed per IP 54 standards, our forklifts can serve in environments where previously only internal combustion engine lift trucks could operate.



### **3-phase AC Advantage 4:**

#### **Wear-free braking**

3-phase AC technology ensures both rapid acceleration and braking. The result: the forklift's travel speed is precisely controlled by the accelerator. This allows for:

- Precise positioning.
- Dynamic acceleration.
- Consistent travel speed on ramps.
- Less brake component wear.

The benefits to you? There is no need for drivers to constantly switch their feet from accelerator to brake pedal. Also, electronic braking reduces the forklift's brake wear and lowers maintenance costs, which can easily account for 30% of the total maintenance expense, translating into savings for you.

### **3-phase AC Advantage 5:**

#### **Fewer parts to wear, less maintenance, reduced costs**

Jungheinrich's proprietary 3-phase AC motors can reduce maintenance costs: neither carbon brushes nor travel direction contactors are required. Braking causes no wear, and there's no strain on the mechanical braking system. Your benefit: you cut your operating costs over the entire life of the truck, and at the same time have a reliable, energy-saving, high-powered counterbalanced forklift truck working in your warehouse.

\*The 2 Shift 1 Charge program applies to select trucks. Please refer to the full terms and conditions for this program.

# More Work With Less Effort

## Start with the soloPILOT standard operating levers

The soloPILOT (standard feature) combines the functions of lifting / lowering, travel direction selection and horn in one control lever. Other functions, like forward / backward tilt, sideshifter (optional) and extra hydraulics (optional), are operated via levers ergonomically positioned next to each other.



## Everything is under control with the Comfort Display

The Comfort Display (optional) provides the operator with five individually-adjustable travel programs, each with different acceleration, top speed and braking characteristics. The informative icons warn of potential limitations, allowing operators to monitor lift truck conditions and address product concerns quickly and easily.

Additional features include:

- Digital hour meter.
- Battery discharge indicator with lift interrupt.
- Detailed text displays.









## Precise Handling Made Easy

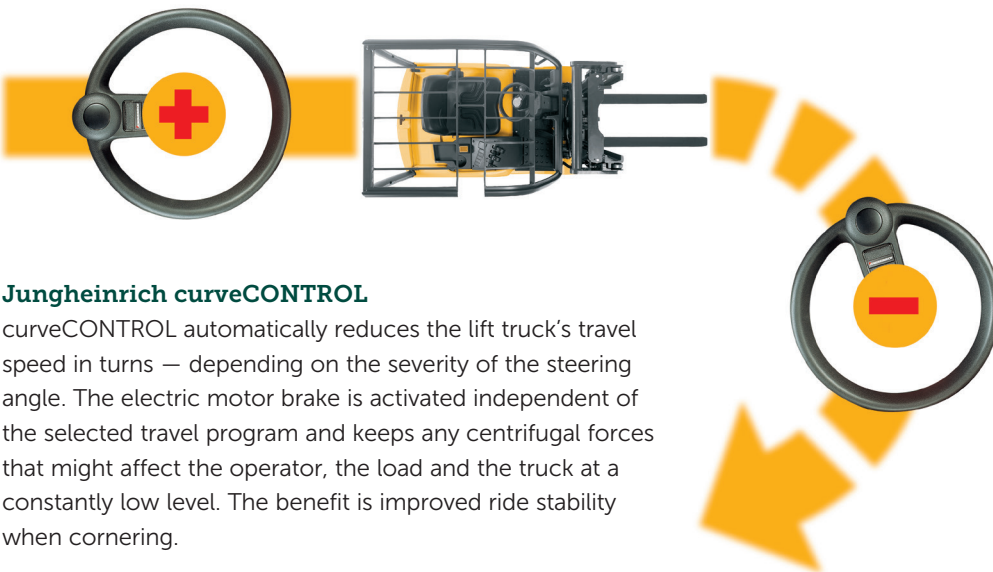
### Simple battery maintenance

A one-piece battery cover allows for quick and direct access to the battery without the need for separate side panels.

### Precise steering

Low steering, lever operating forces and a familiar automotive pedal layout ensure a productive operation. Enclosed AC motors enable smooth acceleration, while making the EFG 110k-115 series suitable for a variety of applications.





### **Jungheinrich curveCONTROL**

curveCONTROL automatically reduces the lift truck's travel speed in turns – depending on the severity of the steering angle. The electric motor brake is activated independent of the selected travel program and keeps any centrifugal forces that might affect the operator, the load and the truck at a constantly low level. The benefit is improved ride stability when cornering.

# More Performance And Efficiency.

## Excellent maneuverability

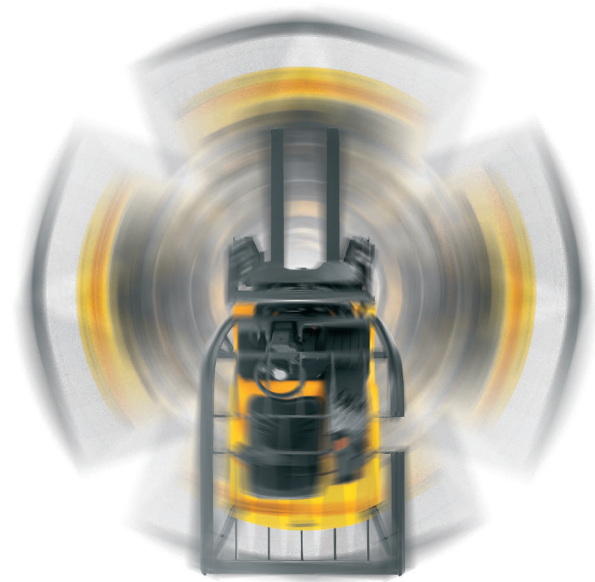
Designed with rear-wheel drive, the compact EFG 1 series of lift trucks can turn and pivot within its own length, providing excellent performance and maneuverability in confined work areas.

## Extremely maintenance-friendly

The EFG 110k–115 series, with service intervals up to 500 hours, is designed for easy maintenance, while regular service check-ups ensure long-term cost savings.

## Visibility through the mast

The lift cylinder arrangement behind the slim-profile mast, along with a split fork carriage, provides excellent visibility to the forks or load when lifting or lowering the mast.



82.3 inches



77.6 inches

## Comfortably high overhead guard

At a height of 82.3 inches, the EFG 1 series provides plenty of headroom. A 77.6-inch, lowered height version of the forklift is also available and is designed for use in container applications.



**JUNGHEINRICH**

**JUNGHEINRICH**

EFG 110

# WHO IS Jungheinrich?

## THE LEADING ELECTRIC LIFT TRUCK MANUFACTURER

### **Our name may sound strange – JUNGHEINRICH (Young-Hine-Rick).**

But it's a name you should know. We're the world's leading brand of electric lift trucks. While others are new to electric, our 5<sup>th</sup> generation technology and more than 60 years of electric lift truck design experience allow us to deliver two shifts on one charge – guaranteed – for greater productivity.

### **Strong Local Support And Expertise.**

- » 340+ dealer locations throughout the US, Canada and Mexico
- » 24-hour parts delivery guarantee
- » Industry's only 1,000-hour service intervals

### **Run 2 Shifts on 1 Battery Charge – Guaranteed**

Never stop a shift to charge, and take your operations to a higher level.

- » Guaranteed to run 16 hours on a single battery charge
- » No interim charging
- » No battery changing
- » No additional battery needed
- » Offered on several Jungheinrich models



\*Orders must be placed through your local dealer by 5:00 p.m. Eastern Standard Time, and you must advise the dealer at the time of order that the part is to be expedited under the terms of the guarantee. There are some exclusions, including parts over 100 lbs and paint, chemicals or lubricants that require special handling. Ask your dealer for a full list of terms and conditions for the Parts Fast or Parts Free Guarantee. Programs may be subject to change without notice and may vary by region. Please ask your local Jungheinrich dealer for complete terms and conditions.

1-877-JH-FORKS

[www.logisnextamericas.com/jungheinrich](http://www.logisnextamericas.com/jungheinrich)



Note: Equipping this model (these models) with a power source (e.g. Lithium-Ion, Hydrogen Fuel cell, etc.) that has not been previously approved by the factory is considered a modification. Per OSHA 1910.178 and ANSI/ITSDF B56.1, please consult with your factory representative prior to installing any non-OEM power source that has not been previously approved.  
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