

The electric forklift for small spaces. **Compact. Efficient. Manoeuvrable.**

Our EFG series 1 with load capacities up to 1,500 kg are the compact solution for fast throughput.

 **JUNGHEINRICH**





A yellow EFG 110 forklift is shown from a side profile, with an operator seated and looking forward. The forklift is in a warehouse setting with high ceilings and industrial equipment. The text is overlaid on the right side of the image.

**Small and compact
on the outside.**

**Large and spacious
on the inside.**

Are you looking for high performance and maximum manoeuvrability at a great price? You should take a look at our rear-wheel drive three-wheel forklifts EFG 110–115. The consistent use of micro-processor-controlled 3-phase AC technology has enabled us to break records in both performance and costs.

Extreme manoeuvrability is guaranteed by compact dimensions with a truck width of just 990 mm as well as the 1-motor rear-wheel drive which powers the EFG 110–115 very economically. This not only sounds good, it also “moves” very well. Performance and economy working in perfect harmony. On the following pages, we show you how this works. And for the hands-on experience, you should take a test drive!

Advantage: 3-phase AC technology.

Raise your performance levels while lowering your operating costs.

Tried and tested 3-phase AC technology

Three-phase AC current is an alternating current from a regular power supply. Three-phase AC motors feature a significantly reduced number of components and wearing parts and operate more reliably and cost-effectively while providing significantly increased output.

We have developed electric forklifts with 3-phase AC technology

Using high-performance frequency inverters, we succeeded in economically converting direct current into 3-phase alternating current at the beginning of the 1990s. This has enabled us to utilise the advantages of 3-phase AC technology for electric forklifts. Disposing of collectors and carbon brushes, along with the enclosure of the motor, has opened up new areas of application for electric forklifts as well as significantly reducing operating costs. Consequently, we now equip our entire range of forklifts with 3-phase AC technology.

The design of a 3-phase AC motor is simpler than that of a series-wound or shunt-wound motors and can be manufactured much smaller. The magnetic field is formed in the stator and not the rotor. Heat from the motor originates outside not inside.

Advantage 1:

No current has to be transferred to the rotor – there are no carbon brushes or collectors.

Advantage 2:

The motor does not require internal ventilation and can be enclosed for protection.



Shunt-wound or series wound motors with carbon brushes and collectors



3-phase AC motor completely enclosed, no wearing parts





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EFG 110

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3-phase AC technology advantage 1:

More performance and more torque

High torque even at low speeds without any drops in torque level or loss of speed, even when faced with high demands, guarantee dynamic travel and maximum throughput – without the usual ‘time lag’ when changing direction. Your benefit: Up to 25 % faster goods throughput. In practice, this means time savings or a potential reduction of your fleet.

3-phase AC technology advantage 2:

High efficiency ratio and energy recovery

Does increased power also mean increased consumption? Not with our trucks. Their optimised efficiency and regenerative braking to a complete halt, with up to 30 % of the energy fed back into the battery, enable our trucks to work much longer with a single battery charge. Your benefit: In many cases, you no longer need a large charging station or replacement batteries.

3-phase AC technology advantage 3:

Enclosed/closed motors

Our IP 54 rated enclosed electric motors allow for our trucks to be used in environments that were once the sole domain of IC-powered trucks. Our three and four-wheel trucks with 3-phase AC motors are not affected by dust, water or chemicals.

3-phase AC technology advantage 4:

Wear-free brakes

When accelerating, 3-phase AC technology ensures the same high torque as with braking. The result: The truck is very responsive – its speed is precisely controlled by the accelerator. Ideal for pinpoint positioning, dynamic acceleration and moving on ramps at a constant speed. The hydraulic drum brake should only be used as a safety measure in moments of danger.

Your benefits:

1. Your operator does not have to frequently change from the accelerator to the brake pedal.
2. The electric braking reduces the expenditure on brake wear and maintenance.

3-phase AC technology advantage 5:

Fewer wearing parts, lower maintenance and costs

3-phase AC motors are maintenance-free: Carbon brushes as well as travel direction switches are no longer required, while braking is wear-free without stressing the mechanical braking system. Your benefit: You save operating costs during the entire service life of your forklift while simultaneously enjoying access to a reliable, energy-saving, yet high-performance truck.

Increased performance with less strain.

Ergonomic solutions for your operator.

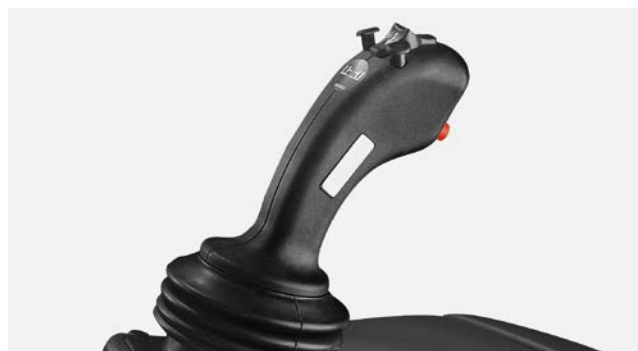
Everything under control with the Comfort Display

The Comfort Display (optional) with digital hourmeter and battery discharge indicator plus lift cutout switch offers your operator a total of five individually adjustable travel programmes, each of which offers different acceleration, limit speed and brake levels. Acceleration from 'gentle' to 'maximum' and braking from 'sparing' to 'powerful'. Other advantages include detailed plain text displays for monitoring individual operating conditions, rapid and efficient maintenance by simply checking the service data log.



All set with the soloPILOT control lever

The soloPILOT (standard feature) combines the functions of lifting/lowering, travel direction switch and horn in one control lever. The additional functions of forward/backward tilting, sideshift (optional) and additional hydraulics (optional) are operated with the second lever.



Everything under control with the multiPILOT control lever

The multiPILOT (optional) combines all drive and hydraulic functions in one central control lever. All control commands can easily be initiated without having to move the hand. The hand rests easily on the ergonomically optimised handle. The multiPILOT control lever even enables several hydraulic functions to be controlled at the same time.



Hydraulic steering for exact transmission

Our hydraulic steering does not operate with a chain, as is the case with comparable forklift trucks, but instead uses a non-wearing and maintenance-free spur gear. As a completely closed system, it guarantees the precise, safe transfer of power, similarly to a cardan drive.

Jungheinrich curveCONTROL

Jungheinrich curveCONTROL (optional) automatically reduces the travel speed when cornering, depending on the steering angle. The electric braking applies and keeps the centrifugal forces to a consistently low level. Your benefit: The risk of a hazardous build-up of forces and – in the worst case – your truck tipping over can be effectively reduced.

Rear-wheel drive for maximum manoeuvrability

The rear wheel drive enables the compact EFG 110–115 to turn on the spot.

Safety at first glance through our panoramic mast

The configuration of the lift cylinder behind the narrow mast profiles, combined with the divided fork carriage, ensures an excellent view of the forks or load at any lift height.

Simple battery maintenance

Simply fold back the seat for direct access to the battery. The one-piece design of the battery lid, completely eliminates the need for separate side pieces.





Comfort high roof

As standard, our EFG series 1 are fitted with a comfort high roof, which at a height of 2,090 mm provides plenty of headroom.



Container roof

Specially designed for container applications, the EFG 110–115 is also available with a 1,970 mm container roof (optional).



JOHANN WILHELM
VON EICKEN
TRADITION

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The best investment. For any budget and the environment.

BestInvest

Our electric three wheel counterbalanced forklift trucks will reduce your long-term operating costs by up to 20 per cent. With a wide range of technological and ergonomic advantages that reduce all of the expenses making up the Total Cost of Operations (TCO) to minimum levels, from purchase to disposal. We call this promise BestInvest. It helps you transform your costs into profitable investments. So that you can make the best total investment decision.

Explosion protection for hazardous areas

Many industry branches foster a highly explosive atmosphere due to burning gas, fumes, powder or even dust. For these special requirements, we provide explosion-proof electric counterbalance trucks according to the ATEX 95 directive, which ensure safe operation in potentially hazardous surroundings.

The right racking for the right truck

We can provide you with the complete solution for this: Integrated warehouse planning, where the racking and the trucks work 'hand in hand' as parts of a single system. From project planning through CAD drafting to handover. From modular racking systems through system platforms to high-bay racking. From consultancy through installation to service. We offer a one-stop shop.

Service with the expertise of the manufacturer

Benefit from our service. Benefit from our expertise as the manufacturer. Whether Full Service offers or individual maintenance intervals – our service flexibly adjusts to your application needs, offering long-term investment and planning safety. Moreover, our direct sales approach ensures quick response times, minimum downtimes and thus lower operating costs – not least thanks to our close-knit service network and the excellent training of our service engineers.

Flexible and risk-free use

Tap into the full economic potential of our electric three-wheel forklift trucks and take advantage of our rental and financing solutions. This helps to maintain your credit line without the risk of tied up capital. In addition, we take care of managing your entire truck fleet, thus ensuring smooth operations at any time. And when all is done, you can simply return the forklift or exchange it for a different model.

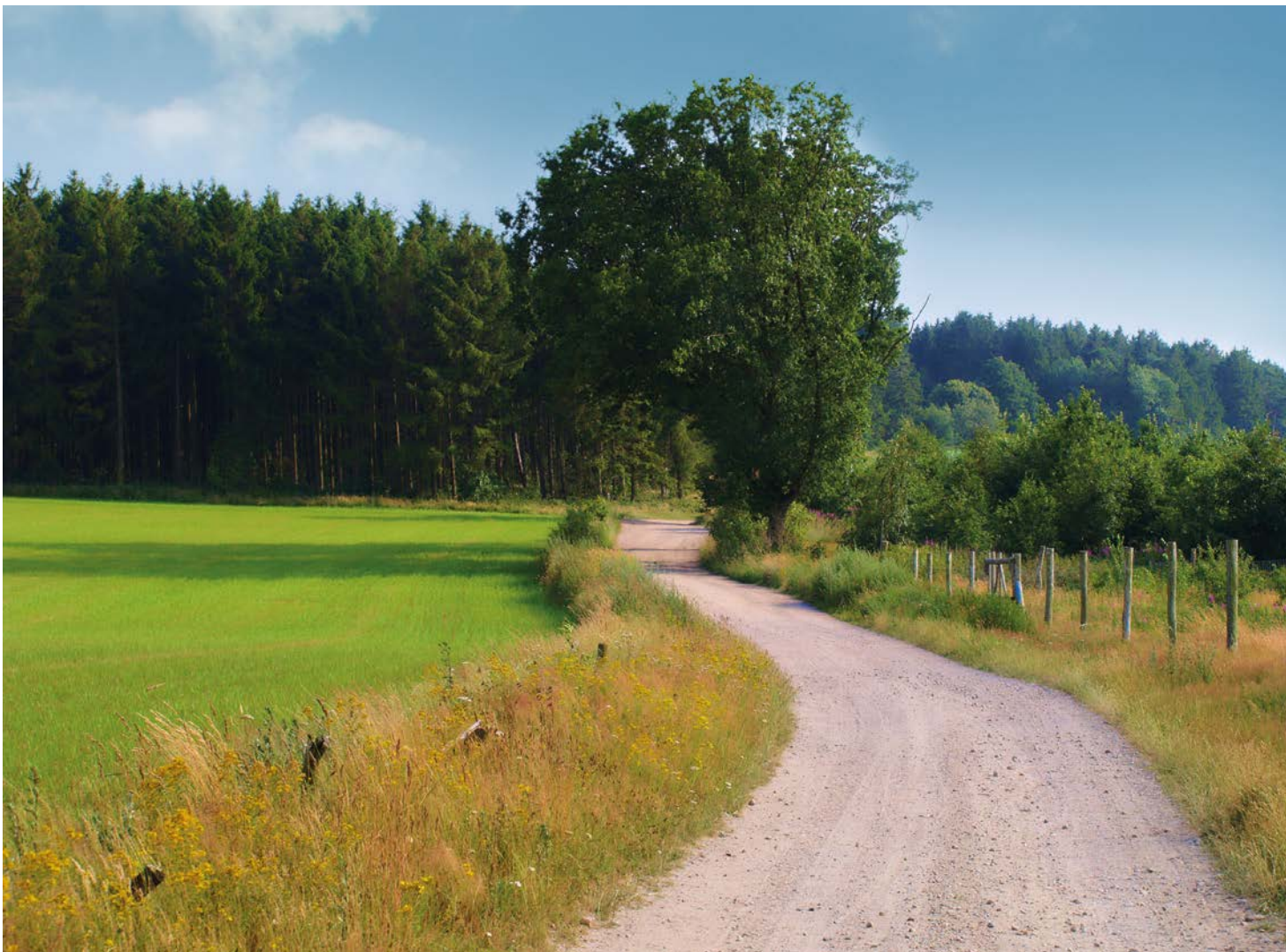
First TÜV-certified product life-cycle assessment

TÜV-Nord has systematically analysed the life-cycle assessment and certified it in accordance with DIN EN ISO 14040, giving us the environmental rating "Geprüfte Produkt-Ökobilanz" [Certified Product Life-cycle Assessment].



Lower CO₂ emissions – lower energy costs

Over the past ten years, our trucks have become more efficient by up to 30 per cent. Also, with a series of technological innovations, we have drastically reduced the CO₂ emissions for our entire truck range since 2000. This applies to the entire Jungheinrich product cycle, from manufacturing to usage and refurbishing. And our high-tech solutions are really setting standards in the usage phase, which is where 80–90 % of all emissions occur. You can easily use this advantage to your benefit, immediately reducing your energy costs considerably while simultaneously achieving maximum throughput rates.



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



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 **JUNGHEINRICH**

The Jungheinrich logo, featuring a red stylized arrow pointing upwards and to the right, followed by the word 'JUNGHEINRICH' in a bold, black, sans-serif font.