

# HYBRID POWER CHASSIS

powered by HUBER AUTOMOTIVE



# AL-KO

## QUALITY FOR LIFE



### FROM THE VILLAGE FORGE TO A GLOBAL CORPORATION

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Our roots were planted in a small village smithy. The fact that a global corporation has emerged from these humble roots is also because we are constantly aware of what our identity represents and what values the company has always embodied: Quality, innovation in product and process as well as reliability and sustainability in our internal and external customer relations. That is the basis of our pursuit of sustainable growth and quality leadership in our business fields.

Since 2016 we have been making our contribution to the DexKo Group, the world's leading manufacturers of axles and chassis components in the lightweight segment. We are proud to continue in successfully shaping this development together with DexKo and to convey our brand promise of quality, safety and comfort for our products and services to the world.

### VEHICLE TECHNOLOGY

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Our vehicle technology products for motorhomes, caravans, commercial vehicles and commercial trailers guarantee the greatest safety and comfort. In any situation.

With our premium solutions for vehicles in commercial use, we are meeting the most exacting customer requirements in terms of ergonomics.

For leisure vehicles we pave the way for a positive start to your holidays and a relaxed return home. We are always your reliable companion – for more joy on the road.

# HUBER

AUTOMOTIVE



## ADVANCING THE FUTURE

With its development and manufacturing competence, Huber Automotive AG is the core company within the Huber Group. Whilst we have helped to reduce emissions in the past, our current focus is much more on innovative drive technologies.

Extending our core business with new markets – electronic control systems for conventional and alternative drives – ensures that we are ideally positioned today and in the future.

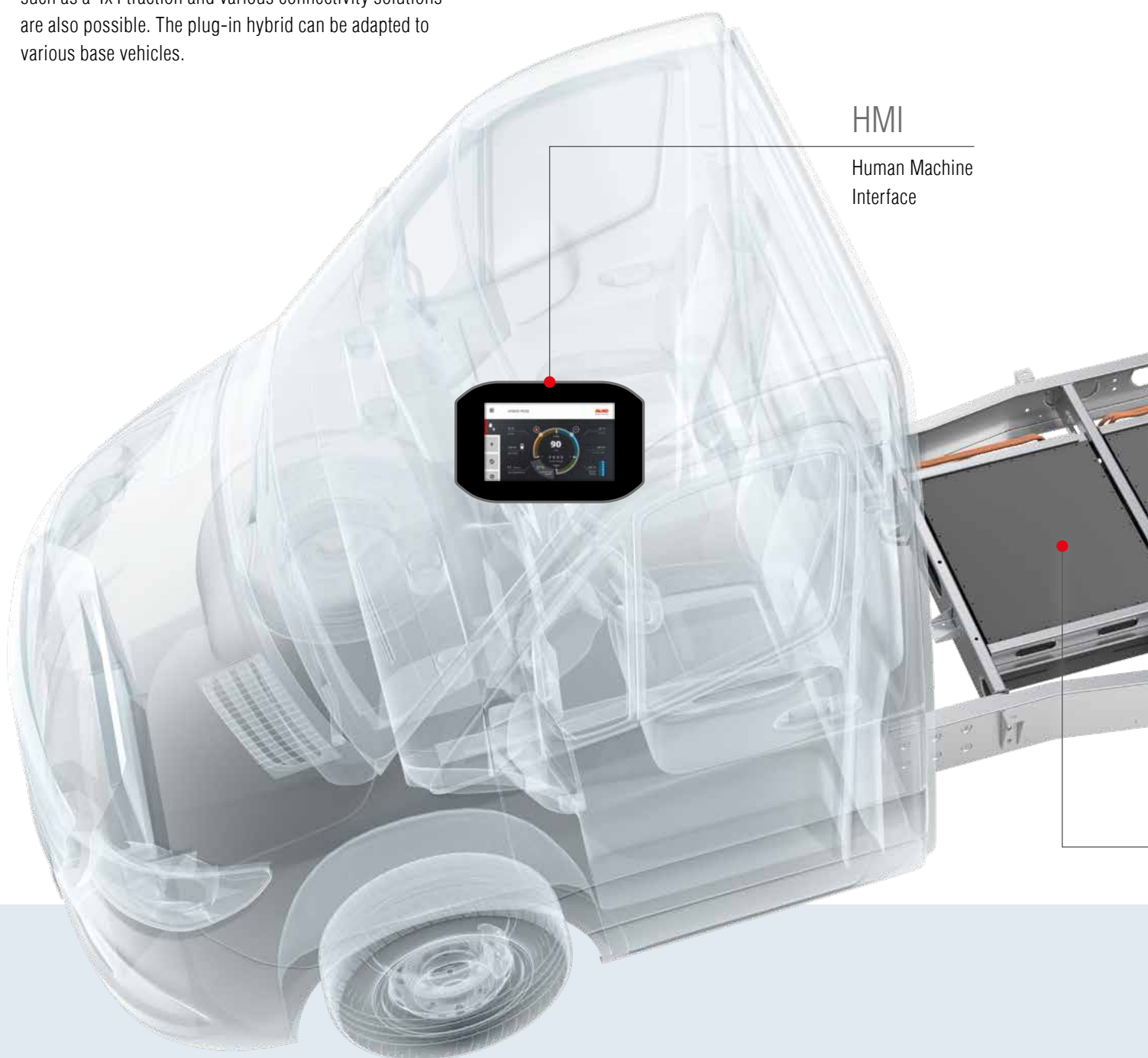
As an established specialist for automotive electronics, we are benefiting in our e-drive solutions from our long-term experience as a tier 1 series production supplier to the automotive industry. Numerous systems developed and integrated for and in electrified and hybridised powertrains, in-depth knowledge of the intelligent networking of control units in vehicle electrical system architectures and, by no means least, long-term partnerships with well-known European system suppliers within the automotive industry enable the use of the latest high-volume technology.

# HYBRID POWER CHASSIS

## POWERED BY HUBER AUTOMOTIVE

### MORE THAN JUST A HYBRID VEHICLE

The Hybrid Power Chassis enables emission-free, fully-electric driving and unreserved use of the internal combustion engine at the same time. Additional functions such as a 4x4 traction and various connectivity solutions are also possible. The plug-in hybrid can be adapted to various base vehicles.



HMI

Human Machine  
Interface

## POWER ELECTRONICS

Power electronics

## HED MANAGER

Hybrid Electric  
Drive management

## CHARGER

High-powered on-board charger  
with a charging capacity of 7 kW or  
optionally 22 kW (230 V/400 V)

## LEIGHTWEIGHT CHASSIS

The 2- or 3-axle variant of the AL-KO  
lightweight chassis protects the system  
from external influences and enables  
simple installation of the components.

## POWERTRAIN MODULE

Electric rear axle drive  
with an output of 90 kW

## POWER PLUG-IN

Charging power supply

## AXLE MODULE

Drive axle with spring system

## BATTERY STACKS

Scalable battery modules with a possible range of up to and over 100 km



# HYBRID POWER CHASSIS

## ALL ADVANTAGES AT A GLANCE

### | Emission-free, fully-electric driving with scalable range

The Hybrid Power Chassis enables emission-free, fully-electric driving in an urban environment. The variable AL-KO lightweight chassis enables modular use of the battery packs. This enables the battery capacity to be adapted to a range of up to and over 100 km in fully-electric mode depending on the customer's requirements.

### | Hybrid mode for longer ranges

The vehicle's internal combustion engine can be used unreservedly for longer ranges such as overland driving. Simultaneous use of e-drive and the internal combustion engine leads to a fuel saving of around 30%.

### | Plug-in hybrid

The high-performance on-board charger and the recuperation strategy ensure short charging times and sufficient power. Intermediate charging while loading or unloading the vehicle or during rest breaks is possible at any time.

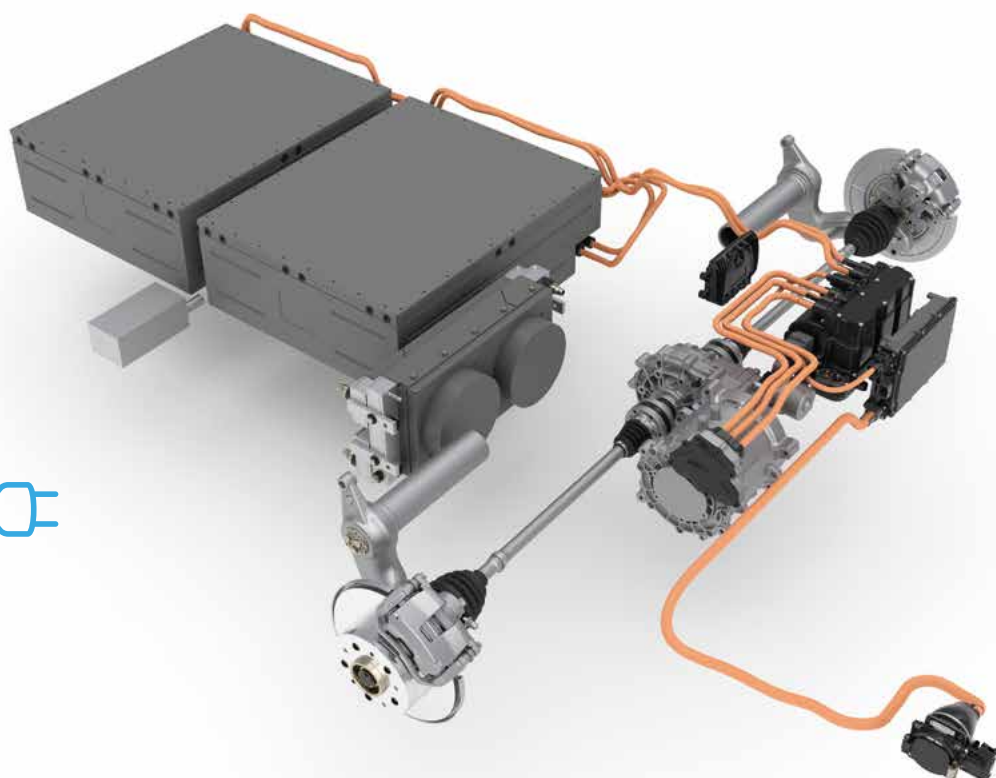
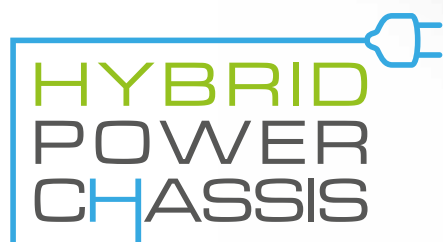
### | Recuperation

Recuperation enables the system to supply vehicles with a refrigerator body, for instance, with energy and to act as a buffer when the vehicle is stationary. This function can be individually parametrised to different customer requirements. Applications such as hydraulic ramps, interior lights or air conditioning systems can therefore also be operated.

### | Additional functions

- 4x4 traction (e.g. on slippery surfaces or gradients)
- Booster (better acceleration and fuel saving of up to approx. 30%)

**HUBER**  
AUTOMOTIVE



# HUMAN MACHINE INTERFACE

## OVERVIEW OF DRIVING MODES

### HYBRID MODE

- | The hybrid mode combines the e-drive with the vehicle's internal combustion engine, thus ensuring increased efficiency
- | Vehicle bodies can be supplied with energy
- | The new WLTP standard is adhered to
- | Braking energy regeneration in overrun mode and when braking via automatic recuperation depending on load profile
- | Efficiency-enhancing energy recovery by specific load point shifts of individual operating points during overland travel



### ELECTRIC MODE

- | Fully-electric drive via a high-torque electric axle
- | Noiseless and emission-free driving for environmental zones, residential areas, inner cities, factory shops, local recreation areas or airports, for instance
- | The maximum electric driving speed is limited to 90 km/h – electronic stability program (ABS, ESP, ASR) irrespective of mode



### X-TRA CHARGE MODE

- | Automated mode for extending the battery electric range
- | Ensures additionally necessary electric energy
- | Provision of measures for adhering to cold chain specifications



### EXTRAS

#### **Additional connectivity solutions possible!**

For instance, cold chain monitoring, GPS and vehicle data transmission, etc.

Member of **DEXKO**  
GLOBAL

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