



SMART AND DIGITAL AUTOMATION SPECIALIZED IN SOLUTIONS

EN

AUTOMATION WITH DRIVE

KEB



WE ACCOMPANY YOUR SOLUTION WITH

- competent consulting, commissioning and support
- qualified selection of efficient products,
- consistently functional engineering tools,
- reliable, highest quality - Made in Germany

RESOURCES PERFECTLY COMBINED AND EFFICIENTLY USED

SYSTEM OVERVIEW

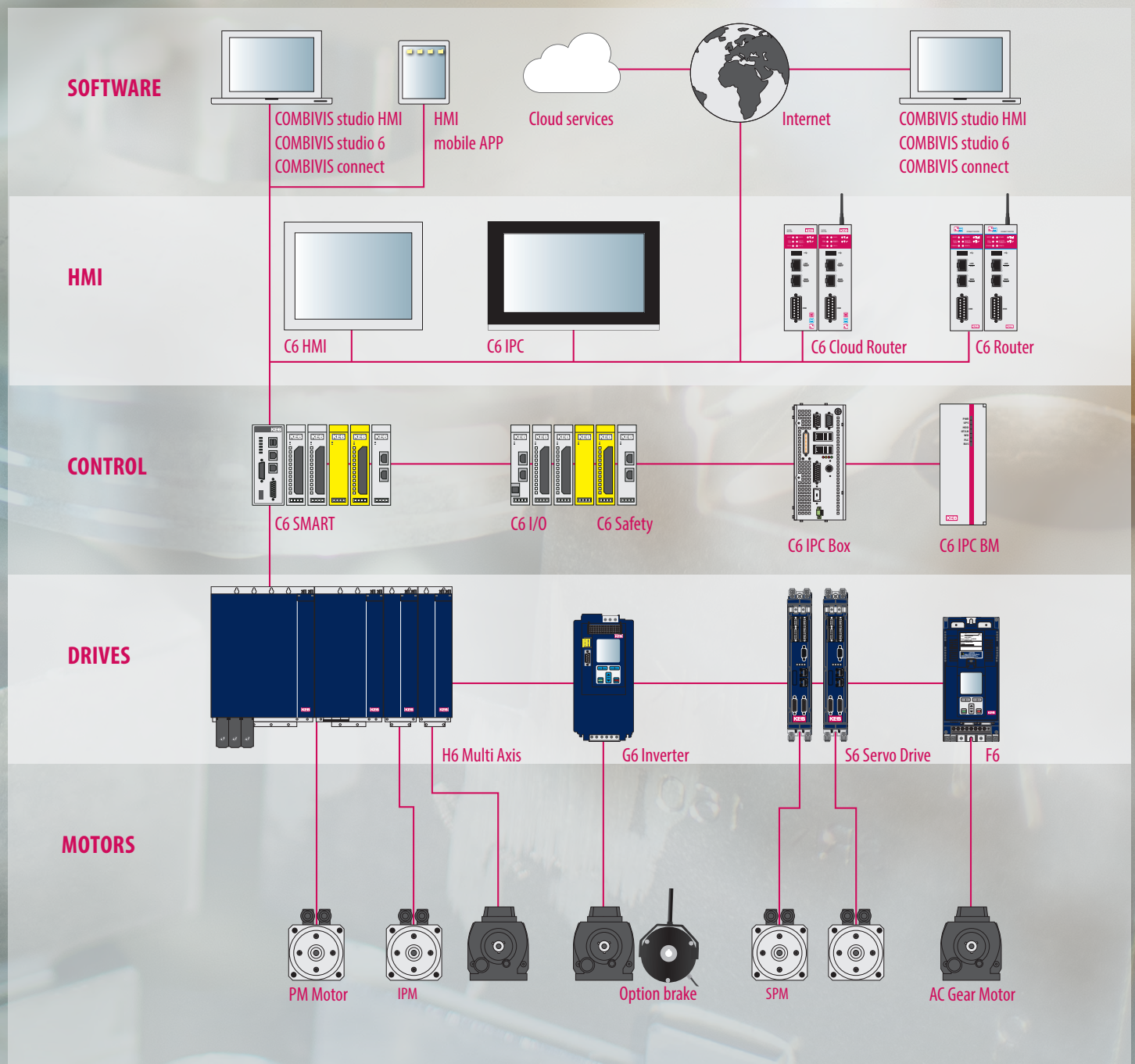
The motto of our work is: **Automation with Drive**

Automation considers your integral task from recipe management, through control function with optimized user guidance to controlled axis motion – practically implemented with overview and logic, selecting the optimum technology for your application.

with Drive means motion, dynamics, precision, but it also stands for its own drive, endurance and continuity.

The integrated KEB system provides the complete basis for high performance and cost-effectiveness of the application as well as excellent efficiency in practical implementation.

KEB offers you the right solution.



CONTROL & AUTOMATION



Flexible and economical automation solutions allow maximum use of technological developments in a wide range of applications. The KEB portfolio provides extensive hardware solutions in combination with excellent software functionalities from the display to the motion profile.

SOFTWARE

COMBIVIS studio 6

ENGINEERING TOOL

Within one working environment the IEC 61131-3 application development, the drive parameterization, extensive diagnostic possibilities and the design of the user interface are merged/combined.

COMBIVIS studio HMI

VISUALIZATION

Visualization made simple: The software is the basis for the design of high-quality human machine interfaces (HMI's).

COMBIVIS connect

REMOTE CONTROL

The remote maintenance software simplifies safe remote access and remote maintenance of controls and drives installed worldwide.

COMBIVIS cloud

CLOUD-ACCESS

With COMBIVIS cloud, recorded data can be securely transferred to a stored cloud account, providing the interface to an external cloud solution.

HARDWARE

COMBICONTROL C6 HMI/C6 HMI LC

These robust HMI's provide convenient operation and display. The C6 HMI-LC integrates a PLC as well. Both versions are available with touch screens in standard and widescreen format from 4.7" up to 15.6".

COMBICONTROL C6 Router

The VPN router allows unlimited, secure access to machines and systems. With the integrated HMI functionality, long-term analyzes, data logging and notifications via email or SMS are possible.

COMBICONTROL C6 SMART with REMOTE I/O

The DIN rail IPC in combination with the decentralized I/O system enables distributed installation structures with real-time EtherCAT communication.

SAFETY IN THE SYSTEM

The safety-related part in the entire system is operated by the Safety PLC, the Safety I/O module and the S6/F6 Drive Controller. The safe data transfer takes place via Safety over EtherCAT (FSOE).

COMBICONTROL C6 E22 / C6 P3x

IPC control includes scalable processor performance in industrial PC technology for control cabinets as BOX-IPC, BOOK-MOUNTED-IPC or PANEL-IPC with integrated touch screen from 10.1" up to 24".

DRIVES



Wood Working



Medicine Technique



Packaging Machinery



Textile Machinery

SOLUTION



THE SINGLE AND MULTI AXIS DRIVE PACKAGE FOR MECHANICAL AND PLANT ENGINEERING

COMBIVERT - will be 40 years soon the synonym for frequency converters and servo systems – Made by KEB.

Universally designed for the operation of asynchronous, synchronous, spindle, torque, linear and special motors, we today refer the drive electronics as **Drive Controller**.

DRIVE CONTROLLER

Whether controlled or regulated, with or without encoder, in the system with three-phase or servo motors: outstanding shaft characteristics are the basis for precise speed, torque and position control.

The control algorithm **ASCL** (Asynchronous Sensorless Closed Loop) and **SCL** (Synchronous Sensorless Closed Loop) are benchmark for **sensorless** operation of motors in a unique broad of applications.

0.37 kW ... 45 kW / 230 V

0.75 kW ... 800 kW / 400 V

Supply-/Regen Units

11 kVA ... 1,000 kVA

feed the generator-based regenerative energy in temporary and continuous processes back into the mains power supply and reduce the operating costs in an environmentally friendly way.

EMC, sine wave and harmonic filters

As passive components, the KEB solutions dampen external influences or reactions in systems, prevent premature aging of motor windings or overloading of the supply networks due to harmonics. Compliance with legal standards for line and radiation-related emissions is part for high functional and reliable operation of machines.

Braking resistors

take up the regenerative pulse energy in intermittent operation.



MOTORS & GEARS



e-mobility



Automotive



Wind Power



Theatre Systems



Plastics Machinery



Metal Processing

hinery

MOTORS

Three-phase motors

0.12 kW ... 45 kW

KEB three-phase motors are robust work machines designed for use in a wide range of applications and are optionally available with a brake, encoder and forced ventilation, etc. They form the basis for the KEB-Drive selection software for industrial drive motor configuration.

Servo motors

0.2 Nm ... 500 Nm

High dynamics for speeds up to 8,000 rpm and rated peak torques of at least 500 percent are the characteristic qualities of the DYNAMIC LINE permanent magnet servo motors. They are equipped either with a robust resolver or a high-resolution single or multi-turn absolute encoder for position feedback plus an optional holding brake.

GEARS

Helical geared motors

60 Nm ... 13,600 Nm

High reliability, compact design, wide gear ratio – the KEB helical geared motor is a must for every modern facility.

Shaft mounted helical geared motors

245 Nm ... 8,900 Nm

The robust and durable construction of the KEB shaft mounted helical geared motor offers the combination of optimal performance and convenient mounting options.

Helical worm geared motors

55 Nm ... 1,160 Nm

With the upstream helical gear stage the KEB helical worm geared motor combines high torque and low speed in a most compact design with lateral output.

Helical bevel geared motors

58 Nm ... 12,200 Nm

Highest performance levels, optimal efficiency factor as well as the wide speed range make the KEB helical bevel geared motor an excellent choice for demanding applications.



CLUTCHES AND BRAKES

More than 45 years of experience in design and production of electromagnetic components with solutions for secure holding, starting or stopping.

Electromagnetic clutches and brakes

COMBINORM 0.5 Nm ... 750 Nm

Single-surface elements with asbestos-free friction linings for backlash-free torque transmission without residual torque at short switching times.

Spring-applied brakes

COMBISTOP 1 Nm ... 3,000 Nm

Double-surface brakes with adjustment of air gap. Asbestos-free friction linings with steel inserts warrant the highest level of safety and protection even under extreme stress.

Permanent magnet brakes

COMBIPERM 0.4 Nm ... 145 Nm

SmCo/NeFeB magnets for high braking torques within a small building volume for the backlash-free holding of positions. Residual torque-free separation for large maximum air gaps with large release window.

Clutch-brake combination

COMBIBOX 7 Nm ... 250 Nm

Ready-to-install clutch-brake combination in a housing for the start/stop operations. The patented adjustment procedure of the air gap allows for wear adjustment without disassembly.

AUTOMOTIVE PRODUCTS

Clutches and brakes for applications in the automobile industry for demand-oriented switching of auxiliary units to reduce the CO₂ production in passenger cars or utility vehicles.

E-MOBILITY MODULAR AND SCALABLE DRIVE CONTROLLER SYSTEM

T6 APD includes three sizes of inverter modules with output rated currents of 16.5 A, 33 A and 60 A. Up to six electric motors can be driven flexibly and independently controlled plus a communication gateway for vehicle control algorithms.

T6 APD meets the high mechanical and thermal requirements, environmental conditions, EMC, operational safety and lifetime required for mobile use.

WIND POWER CLEAN ENERGY SUPPLY – ONSHORE AND OFFSHORE

Large-scale wind turbines supply energy – often to hundreds of households.

Using KEB pitch systems and yaw drives, the core functions of the turbine are constructed to ensure controlled movement to regulate energy volumes and protect against overload conditions.



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