



# PRODUCT PORTFOLIO

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## **SYSTEM OVERVIEW**

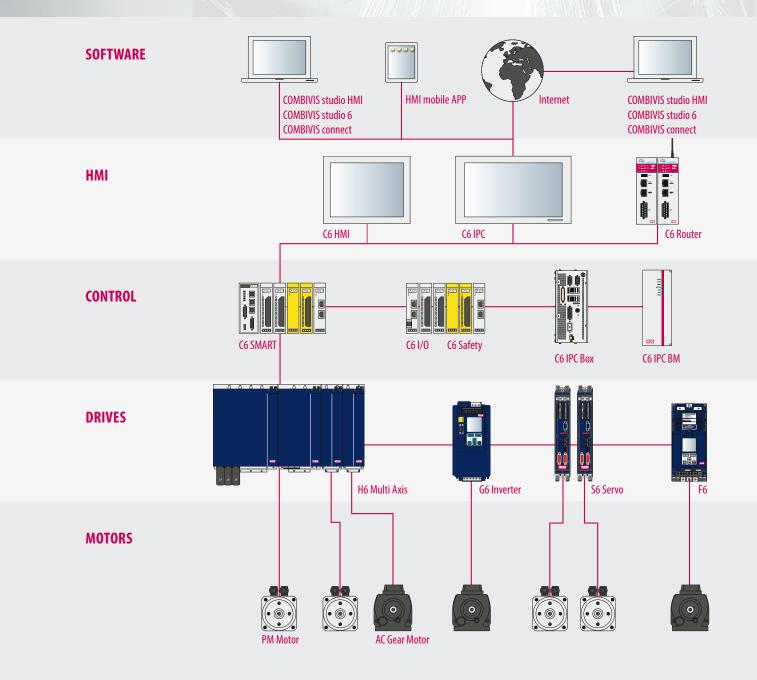
#### Automation with Drive

Drive is movement, dynamics, precision, endurance, continuity and much more.

Whether managing formulations, an optimized operator interface or the controlled movement of axes — it all requires a clear overview combined with logic and is based essentially on the selection of the right technology.

The integrated KEB system offers the best basis for high performance and economics in the application as well as excellent efficiency in the practical implementation.

KEB provides the right solutions!



## **CONTROL & AUTOMATION**

Flexible and economical automation solutions permit the maximum utilization of technological developments in wide fields of applications. The KEB offer provides extensive hardware solutions in combination with excellent software functionality from the display to the motion profile.

#### **SOFTWARE**



#### **HARDWARE**







C6 Safety PLC C6 Safety I/O

C6 P34 Box

C6 E22



#### **COMBIVIS studio 6**

Within a working environment the IEC61131-3 application development, the drive parameterization, extensive diagnostic possibilities and the design of the user interface are merging.



### COMBIVIS connect

The remote maintenance of machinery and plants simplifies safe remote access and remote maintenance of controls and drives installed worldwide - a knock-out criterion for a modern software environment.



#### COMBIVIS studio HMI

Visualization made simple: The software is the basis for the design of high-quality human-machine-interfaces.

#### COMBICONTROL C6 HMI/C6 HMI LC

Are for the convenient operation and display as robust human-machineinterface, available with touch screens in standard and widescreen format from 4.7" up to 15.6".

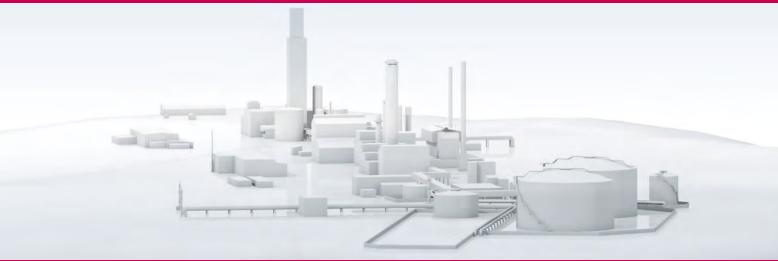
#### **COMBICONTROL C6 SMART mit REMOTE I/O**

The DIN - Rail IPC and the decentralized I/O system for signal acquisition and processing in context of distributed installation structures with EtherCAT communication in real time. The data transfer of the safetyrelated safety PLC and safety I / Os is handled by FsoE.

#### **COMBICONTROL C6 E22/C6 P30**

IPC Control include 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**



## THE SINGLE AND MULTI AXIS DRIVE PACKAGE FOR THE OEM INDUSTRY

#### **SINGLE- AND MULTIAXIS-DRIVES SYSTEM**



**DRIVE CONTROLLER**Operate open-loop and closed-loop with and without encoder with three-phase motors and as a servo controller for precise speed, torque and

We offer: KEB COMBIVERT frequency inverters and servo systems for the open-loop and closed-loop operation of three-phase, synchronous, spindle, torque and special motors with outstanding drive shaft performance.

position control.

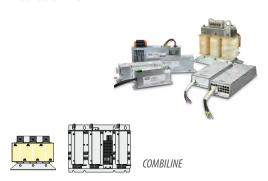
The control software modules A.S.C.L. and S.C.L. optimize the encoder-

less operation in a unique range of applications, available for:

0.37 kW ... 45 kW/230 V 0.75 kW ... 800 kW/400 V 160 kW ... 900 kW/690 V



#### **ACCESSORIES**



### Supply-/Regen Units

11 ... 1,000 kVA

Feed the generator-based braking energy in temporary and continuous processes back into the mains power supply thereby reducing the operating costs in an environmentally friendly way.

#### EMC, sinusoidal and harmonic filter technology

With passive components KEB COMBILINE dampens external influences or backlashes in system reactions, thereby protecting the windings of high-frequency motors against premature ageing or the mains power supplies from the impact of harmonics. The compliance with legal standards for conducted or radiated-bound disturbances is one element for the high functional reliability of machines.

## **MOTORS & GEARS**

## **MAGNET TECHNOLOGY**

#### **MOTORS**



#### **GEARS**



#### **MAGNET TECHNOLOGY CLUTCHES AND BRAKES**



#### **Three-Phase motors**

A wide range of KEB three-phase motors in the power range 0.12 ... 45 kW ensures together with the software configuration KEB DRIVE the exact suitable model for your application.

#### **Servo motors**

Highest dynamic for speeds up to 8,000 rpm and rated torques up to 100 Nm are characteristic properties of the permanent magnet servo motors. They are equipped either with robust resolver or high-resolution single or multiturn absolute value encoder for speed and position feedback and optional with a holding brake.

#### Shaft mounted helical geared motors

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

#### **Helical Geared motors**

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

#### Helical worm geared motors

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

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.

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...750 Nm**

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

#### **Spring-applied brakes:**

#### COMBISTOP 1...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... 145 Nm**

SmCo / NeFeB magnets for high braking torques with 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 ... 250 Nm

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





## WIND POWER EMOBILITY AUTOMOTIVE

#### **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.

#### **EMOBILITY MODULAR AND SCALABLE DRIVE CONTROLLER SYSTEM**



T6 APD includes 3 sizes of inverter modules with output rated currents of 16.5A, 33A and 60A. Up to 6 electric motors can be driven flexibly in a modular fashion individual implementation of system properties and as a communication gateway for vehicle control algorithms.

T6 APD meets the high mechanical and thermal requirements, environmental conditions, EMC, operational safety and service life in mobile use.

#### **AUTOMOTIVE PRODUCTS**



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



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Automation with Drive

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