



ONLINE TRAININGS 2024

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The KEB logo is displayed in white text on a red rectangular background.

TARGETS:

There is no need to travel to the training location, no travel costs, and possibly no overnight accommodation costs. An economical and ecological alternative.



ONLINE TRAININGS AT KEB

In our online training courses, theoretical content is presented as well as practical exercises on training models based on the course focus. Trainees and trainers can interact directly and implement what they have learned in theory in practical exercises.

EXECUTION:

- The online seminar is held via Teams™ (theoretical instruction, dialogue).
- Each participant has an exercise model (device and PC) available for practical exercises.
- The training models are accessed via TeamViewer™.
- The training model / exercises are controlled / accompanied via webcam.
- Seminar documents will be sent to the participants in advance.

REQUIREMENTS FOR HARDWARE AND INFRASTRUCTURE:

- Powerful broadband connection
- A PC with optimally 2 screens: one for the presentation, one for the practical exercises.
- TeamViewer™ at least version: 15
- Optional WebCam

DESCRIPTION OF COURSES

Times are Central European Time (Berlin Time)!

The current course dates are offered on: www.keb-automation.com/news-events/training#c1122



"BASICS 3-PHASE DRIVES WITH DRIVE CONTROLLER"

Time: 8:00 - 16:00 h (1 day)

Number of participants: max. 12 persons

Fees per person: EURO 375 + VAT


Target: The participants get an overview of the functionality of a frequency inverter and its general conditions.

Requirements:

- Basic electronic knowledge
- Regarding hardware please see above introduction

TOPICS:

- Basics AC drives
- Basics frequency inverters
- Basics EMC
- V/F controlled drives
- Closed loop controlled drives
- Error diagnosis



Whether online or in person: In both cases, our goal is for participants to be able to take the theory into their everyday work through practical exercises after the seminars.



Andreas Münchenberger
Technical Trainer

“COMBIVIS 6 AND COMBIVERT F6/S6”

Time: 8:00 - 16:00 h (1 day)

Number of participants: max. 6 persons

Fees per person: EURO 375 + VAT

Target: The course is aimed at service staff and commissioning engineers. The participants get knowledge of the function and operation of the COMBIVERT F6 and S6 in connection with the device parameterization software COMBIVIS 6. Practical exercise options provide the necessary security in handling the software.

Requirements:

- PC-basic knowledge
- Basic knowledge about 3-phase drives
- Regarding hardware please see above introduction

TOPICS:

- Hardware and connection COMBIVERT F6/S6
- Start-up communication
- Program structure
- Operation and adjustment of the units
- Operation assistant
- Data protection
- Analysis options with KEB Scope
- Export function
- Practical exercises

“SINGLE AXIS DRIVE COMBIVERT F6/S6”

Time: 8:00 - 16:00 h (2 days)

Number of participants: max. 6 persons

Fees per person EURO 750 + VAT

Target: The course is aimed at designers, service employees and commissioning engineers. The participants learn in theory and through practical exercises and examples of the commissioning and parameterization of the COMBIVERT F6/S6 series. They get an overview of the functionality of the devices and are able to adapt them to the respective application. With the help of practical exercises, what has been learned is applied and deepened.

Requirements:

- PC-basic knowledge
- Basic knowledge about 3-phase drives
- Basic knowledge of parametrization tool COMBIVIS 6 (Course D1 online or 1B)
- Regarding hardware please see above introduction

TOPICS:

- Hardware COMBIVERT F6 and S6, Options
- Function of the units
- Connection and commissioning of the units
- COMBIVIS 6 start-up wizard
- State machine according to CiA402 (IEC 61800-7-200)
- Introduction to the operating modes according to CiA402 (IEC 61800-7-200)
- Fault diagnosis
- Practical exercises

“SINGLE AXIS DRIVE COMBIVERT F6/S6 - CIA402 MODES OF OPERATION”

Time: 8:00 - 16:00 h (1 day)

Number of participants: max. 6 persons

Fees per person: EURO 375 + VAT

Target: The course is aimed at designers, service employees and commissioning engineers. The participants learn in theory and through practical exercises and examples of the commissioning and parameterization of the COMBIVERT F6/S6 series. They get an overview of the functionality of the devices and are able to adapt them to the respective application. With the help of practical exercises, what has been learned is applied and deepened. The course D3 deepens the knowledge of the CiA402 Operation Modes, especially Profile Position Mode, Homing Mode and the Cyclic Synchronous Modes.

Requirements:

- Participation in Course 2A or Course D2 Online
- Regarding hardware please see above introduction

TOPICS:

- Operating Modes according to CiA402 (IEC 61800-7-200)
 - Velocity Mode
 - Homing Mode
 - Profile Position Mode
 - Cyclic Synchronous Velocity Mode
 - Cyclic Synchronous Position Mode
- COMBIVIS 6 start-up wizard
- Fault diagnosis
- Practical exercises

“SINGLE AXIS DRIVE COMBIVERT F6/S6 - DIGITAL AND ANALOGUE I/O”

Time: 8:00 - 15:00 h (1 day)

Number of participants: max. 6 persons

Fees per person: EURO 375 + VAT

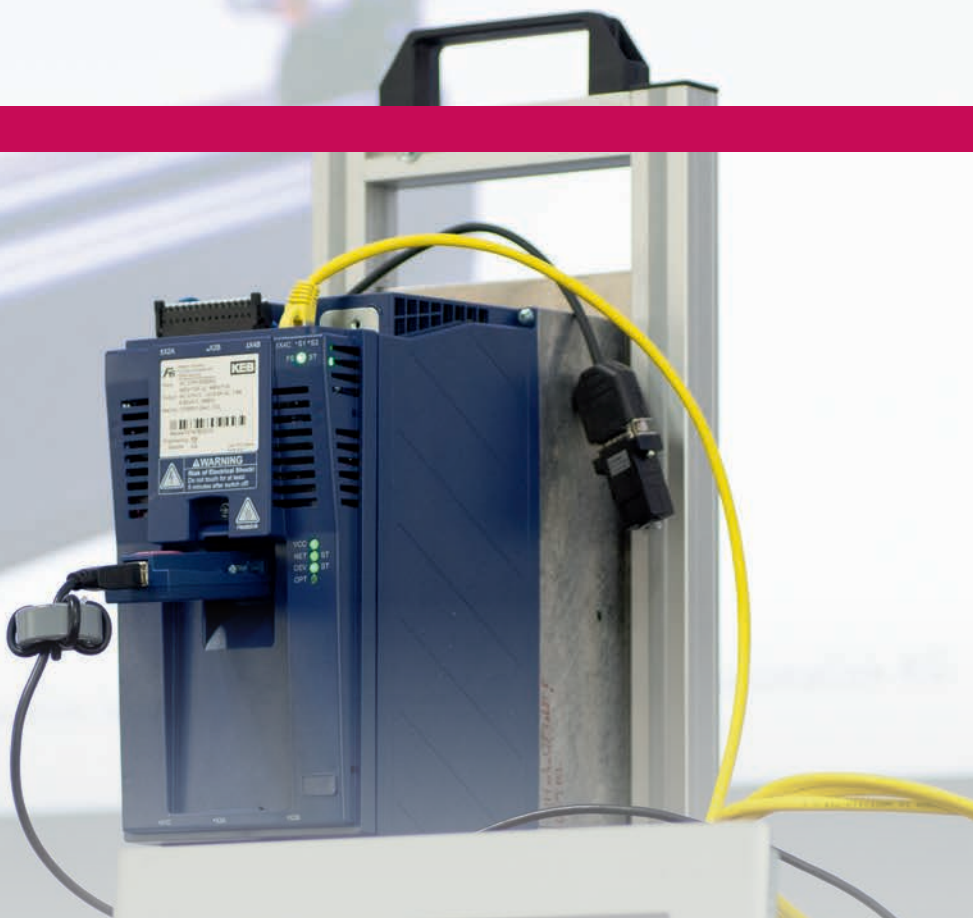
Target: The course is aimed at designers, service employees and commissioning engineers. The participants learn in theory and through practical exercises and examples of the commissioning and parameterization of the COMBIVERT F6/S6 series. They get an overview of the functionality of the devices and are able to adapt them to the respective application. With the help of practical exercises, what has been learned is applied and deepened. This course explains the function of the analogue and digital inputs and outputs of the COMBIVERT F6/S6. The course imparts knowledge regarding parameterisation and application of the IO.

Requirements:

- Participation in Course 2A or Course D2 Online
- Basic knowledge of parametrization tool COMBIVIS 6
- Regarding hardware please see above introduction

TOPICS:

- Digital Inputs
 - Function
 - Control of the CiA402 State machine via digital inputs
- Digital Outputs
 - Function
- Analogue inputs
 - Parameterisation and adaptation of the analogue inputs to the application.
 - Access of the analogue input variables to parameters of the drive controller
- Analogue output
 - Parameterization and adaptation of the analogue inputs to the application
- Practical exercises



Details are important for the optimal solution. Especially in the basic training, we lay many foundations together, that will later become important for the different areas of application.



Bernd Tünnermann
Technical Trainer

“SINGLE AXIS DRIVE COMBIVERT F6/S6 - JOG-FUNCTION, MOTOR POTI, RECIPE MANAGEMENT”

Time: 8:00 - 15:00 h (1 day)

Number of participants: max. 6 persons

Fees per person: EURO 375 + VAT

Target: The course is aimed at designers, service employees and commissioning engineers. The participants learn in theory and through practical exercises and examples of the commissioning and parameterization of the COMBIVERT F6/S6 series. They get an overview of the functionality of the devices and are able to adapt them to the respective application. With the help of practical exercises, what has been learned is applied and deepened. In course D5 extended functions will be explained. These functions can help to enable optimised solution approaches. The course imparts knowledge regarding parameterization and application of the functions.

Requirements:

- Participation in Course 2A, Course D2 Online
- Basic knowledge of parametrization tool COMBIVIS 6
- Regarding hardware please see above introduction

TOPICS:

- Jog-function
 - Function
- Cours- Capable applications
 - Parametrization
- Motor poti
 - Function
 - Use in conjunction with the jog function
 - Parametrization
- Receipt management
 - Function and Application
 - Wizard
 - Parametrization

**“SINGLE AXIS DRIVE COMBIVERT F6/S6-
FUNCTIONAL SAFETY WITH SAFETY MODULES 3 AND 5”**

Time: 8:00 - 16:00 h / 8:00 - 12:00 h (1.5 days)

Participants: max. 6 persons

Fees per person: Euro 550 + VAT

Target: On the basis of practical exercises and examples, the participants will learn how to commission and parameterize the Safety Modules of the COMBIVERT F6-A/S6-A series. They get an overview of the functionality of the devices and are able to adapt them to the respective application.

Requirements:

- Knowledge in handling COMBIVERT F6/S6 as well as the parameterization software COMBIVIS 6 (course D1 and D2 or course 1B and 2A)
- Regarding hardware please see above introduction

TOPICS:

- Short instruction concerning ISO 13849 / IEC 62061
- Functionality of the devices
- Safety functions regarding EN 61800-5-2
- Safety editor in COMBIVIS 6
- Fault diagnosis
- Practical exercises

KEB reserves itself the right to call seminars of 7 calendar days before beginning because of not reached number of participants.

■ **Registration**

- Takes place in written form.
- Confirmation in writing will be send to you prior to the training.
- Should the registrations exceed the max. number of participants, the chronological receipt of the applications will be taken into consideration.

■ **Notice of Cancellation**

- In the event of cancellations less than 7 calendar days before the start of the seminar, the seminar fee cannot be refunded. The declaration of withdrawal must be made in writing.

■ **Fees**

- The fee is listed in the various training descriptions. The fee is due for payment upon receipt of the invoice right after your announcement.

■ **Documentation**

- For all training sessions you will receive the necessary documentation during the training.

■ **Copy right**

- KEB has the copy right for all passed out documentation and these are not allowed to be reproduced not even partially without the written permission of KEB.

■ **Certificate of participation**

- After finalization of the training each person will receive a certificate of participation.

■ **Instructor**

Mr. A. Münchenberger, Mr. B. Tünnermann, Mr. J. Kröker:

Phone: +49 5263 401-0

E-mail: schulung-keb@keb.de

■ **Reservation of Rights**

- We reserve the right in case of sickness of the instructor or low participation to cancel the training even after acknowledged participation. The claim of reimbursement or loss is excluded.
- We reserve the right to adjust the topics to the current state of technology, due to which difference to the description may occur.

■ **Exclusion of Liability**

- During the training and in the training documentation we are delivering information to the best of our knowledge. We are not liable for possible errors in the technical information, which are delivered verbally or in writing during the training or in the documentation. Further we are not liable for possible damages resulting herefrom and consequential loss. This exclusion of liability is not valid, if we can be held liable in cases of intension and grossly negligent.

■ **Customer specific training**

- Trainings in english language on request.
If required we also arrange training sessions in accordance to your needs.



Automation with Drive

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