

## USING THE QUICK GUIDE

- Provides information on handling, assembly and installation.
- Remains for later use at the product.
- Does **not** replace the data sheet or the instructions for use.

This manual is intended exclusively for persons who are familiar with the logistics and installation. The person must have the following qualifications:

- Knowledge and understanding of the safety instructions.
- Skills for installation and assembly.
- Knowledge of EMC-conform wiring.
- Detection of hazards and risks of the electrical drive technology.
- Knowledge of IEC 60364-5-54.
- Knowledge of national safety regulations.

## SAFETY INSTRUCTIONS

### ⚠ DANGER Interventions by unauthorized personnel !



#### Danger to life by electric shock and malfunctions !

- ▶ Modification or repair is only permitted by KEB authorized personnel.

### NOTICE Getting more documentation

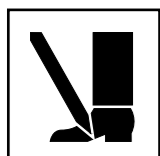
#### Hazards and risks through ignorance.



- ▶ Further information can be found at [www.keb.de](http://www.keb.de).
- ▶ Read the supplied documentation carefully!
- ▶ Observe the safety and warning instructions !
- ▶ If you have any questions, please contact [service@keb.de](mailto:service@keb.de)!

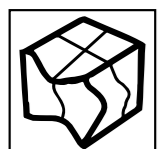
## TRANSPORT

### ⚠ CAUTION Design-related edges and high weight! Contusions and bruises!



- ▶ Never stand under suspended loads.
- ▶ Wear safety shoes.
- ▶ Secure devices accordingly when using lifting gear.

### NOTICE Behaviour in case of transport damage



- ▶ When receiving goods, check the device for transport damage such as deformations or loose parts.
- ▶ In case of damage, contact the carrier immediately.
- ▶ Do not operate the device in case of transport damage!

## STORAGE

Do not store the devices

- in the environment of aggressive and/or conductive liquids or gases.
- at places with direct sunlight.
- outside the specified environmental conditions.

## UNPACKING AND CHECKING

- Make sure that no components are bent and/or isolation distances are changed.
- The device must not be put into operation in case of mechanical defects. There is no compliance with applicable safety standards any more.

## INSTALLATION

- If available, use the lifting eyebolts provided for installation.
- Do not stand under suspended equipment during installation.
- Mount the product according to the required degree of protection.
- Make sure that no small parts fall into the device during assembly and wiring (drilling chips, screws etc.). This also applies to mechanical components, which can lose small parts during operation.
- Maximum ambient temperature 45°C
- UL/CSA: Ensure UL-compliant connection of all power connections according to the requirements given in the data sheet or the instructions for use.

## PRODUCT DESCRIPTION

The COMBILINE E4 / E5 series are EMC filters. They serve to comply with normative limit values of high-frequency conducted interference voltages in the mains input of the drive controllers.

The filters consist of an LC network that has a particularly high damping in the entire frequency range.

The filters are universally applicable when selecting the possible switching frequencies.

## MOUNTING DIMENSION

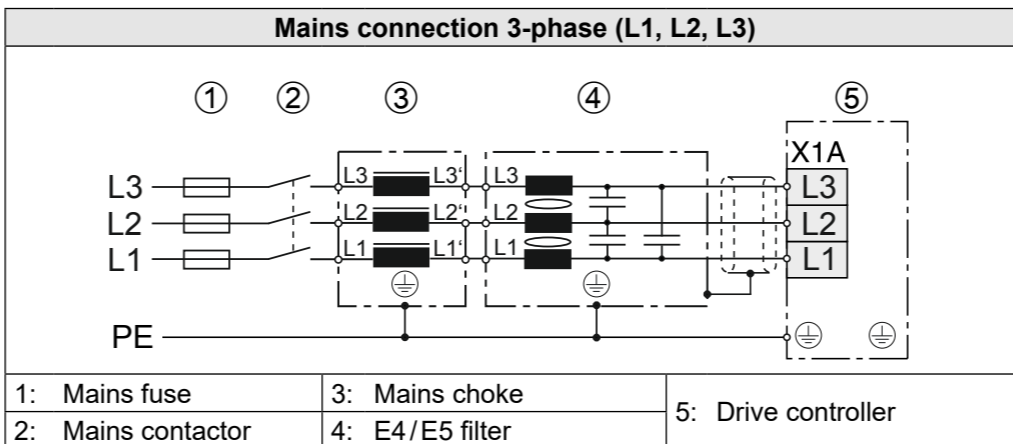
Minimum distances	Dimension	Dimension in mm	Distance in inches
	A	100	4
	B	100	4
	C	30	1.2
	D <sup>1)</sup>	30	1.2
	E	0	0
	F <sup>2)</sup>	50	2

<sup>1)</sup> If there are no ventilation openings, a distance of 0 mm can be assumed.  
<sup>2)</sup> Distance to upstream operating elements in the control cabinet door.

## MOUNTING DIMENSION FOR BACK MOUNT FILTERS

**i** The mounting dimension of the drive controller apply when used as back mount filter => Installation manual of the corresponding drive controller.

## WIRING



## CONNECTION

**i** Information on connection can be found in the data sheet or the instructions for use.

## FUSE PROTECTION

**i** The fuse values of the filters correspond to the fuse values of the corresponding drive controllers => Installation manual of the drive controller.

## USE ON THE DRIVE CONTROLLER

The mechanical housings of the COMBILINE E4 / E5 back mount filters correspond to those of the COMBIVERT drive controllers.

## START-UP AND OPERATION

### ⚠ WARNING Triggering of overcurrent protection devices



#### Risk of fire or electric shock!

- ▶ Triggering of an overcurrent protection device will be a hint for an overload or short circuit. Triggering a RCD may be caused by a leakage current.
- ▶ In order to reduce the risk of fire or electric shock, live parts and other components of the device should be checked and replaced in case of damage.

### ⚠ CAUTION High temperatures on the device



#### Burning of the skin!

- ▶ Cover hot surfaces so that they are safe to touch.
- ▶ If necessary, attach warning signs to the system.
- ▶ Check surface before touching.
- ▶ Let the device cool down before any work is carried out.

## MAINTENANCE

The following maintenance work has to be carried out when required, but at least once a year by authorized and trained personnel.

- ▶ Clean the product from dirt and dust deposits.
- ▶ In case of malfunction, unusual noises or smells inform a person in charge!
- ▶ In case of failure, please contact the machine manufacturer.

## INSTALLATION / ELECTRICAL CONNECTION

### ⚠ DANGER Electrical voltage on the terminals and the device!



#### Danger to life by electric shock !

- ▶ Never work under voltage on the device or touch exposed parts.
- ▶ For any work on the unit switch off the supply voltage and secure it against switching on.
- ▶ Wait until the drive has stopped in order that no regenerative energy can be generated.
- ▶ Never bridge upstream protective devices (also not for test purposes).
- ▶ Connect the protective earth conductor properly.
- ▶ Install all required covers and protective devices for operation.

For trouble-free operation, the device connections must be checked for tightness in order to avoid contact resistance and sparking.

## DISPOSAL

Electronic devices of KEB Automation KG are intended for professional, commercial processing (so-called B2B devices). Manufacturers of B2B devices are obliged to take back devices and recycle devices that were manufactured after 2018-08-14. These devices are generally not allowed to be handed over to communal collection points.

**i** For further information on disposal, please contact KEB.

**DIMENSIONS**

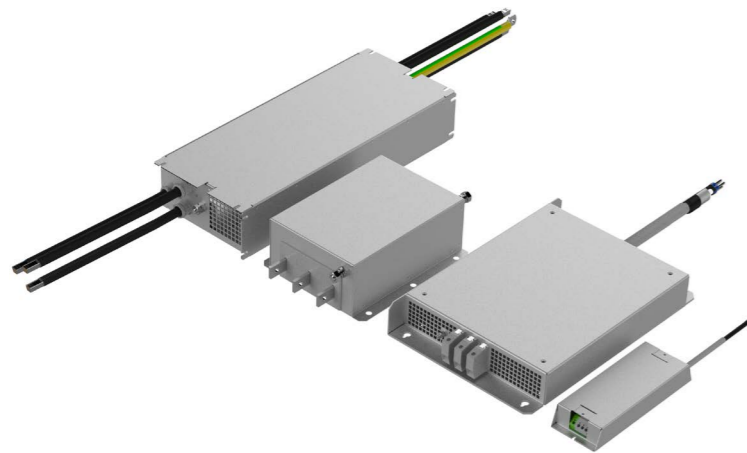
**i** Information on the dimensions can be found in the data sheet or the instructions for use.

**INSTALLATION POSITION OF THE FILTERS**

✓		
✗		
COMBILINE E4/E5 filter		
Mounting plate		

**MOUNTING ON THE DRIVE CONTROLLER**

**i** Information on mounting on the drive controller can be found in the data sheet or the instructions for use.



**COMBILINE E4 / E5**

QUICK GUIDE | EMC FILTER

Translation of the original manual  
 E4 / E5 Series filter  
 Document 20272888 EN V02  
 Mat.No. 00E5NEM-0000