

## USING THE QUICK GUIDE

- Provides information on handling, assembly and installation.
- Remains for later use at the product.
- Does **not** replace the electronically provided 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 the EMC compliant wiring.
- Detection of hazards and risks of the electrical drive technology.
- Knowledge of *DIN IEC 60364-5-54*.
- Knowledge of national safety regulations (z.B. *DGUV Vorschrift 3*).

## SAFETY INSTRUCTIONS

### ⚠ DANGER Interventions by unauthorized personnel!



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

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

### NOTICE

#### Getting more documentation

##### Hazards and risks through ignorance

- ▶ Open the KEB homepage at [www.keb.de](http://www.keb.de).
- ▶ By entering the material number in the search field, you will get the corresponding parts of the instructions for use.
- ▶ Read the instructions for use carefully!
- ▶ Observe the safety and warning instructions!
- ▶ If you have any questions, please contact [service@keb.de](mailto:service@keb.de)!

## TRANSPORT

The transport must be carried out by instructed persons, observing the following instructions.

### ⚠ CAUTION Maximum design 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 provided lifting eyes 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.
- The devices are intended for the use in a pollution degree 2 environment.
- Maximum surrounding temperature 45°C
- UL/CSA: Ensure UL-compliant connection of all power connections according to the requirements given in the data sheet.

## MEASUREMENTS

Minimum distances	Dimension	Dimension in mm	Distance in inches
	A	150	6
	B	100	4
	C	0	0
	D	0	0
	E	0	0
	F <sup>1)</sup>	20	1

<sup>1)</sup> Distance to front operating elements in the control cabinet door.

## FASTENING FOR CONTROL CABINET INSTALLATION

For mounting the sine-wave EMC filters, the following mounting materials with the appropriate quality must be used.

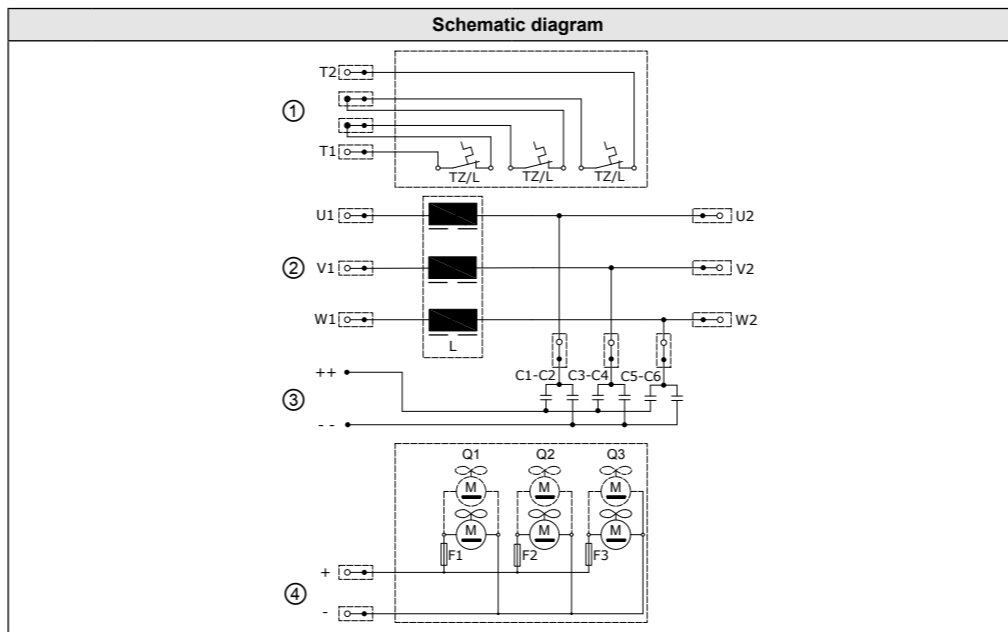
Filter type 0D, 0H, 0L		Tightening torque
Socket screw with hexagon-socket	<i>ISO 4762 - M8 - 8.8 /</i>	6,0 Nm 53 lb inch
Filter type 0P, 0S, 0X, 0Y		Tightening torque
Socket screw with hexagon-socket	<i>ISO 4762 - M10 - 8.8 /</i>	10,0 Nm 88,5 lb inch

### NOTICE

#### Installation position

The sine-wave filters must always be mounted hanging with the ventilation grilles downwards and the cable versions upwards in the control cabinet. In case of another installation method, please contact KEB.

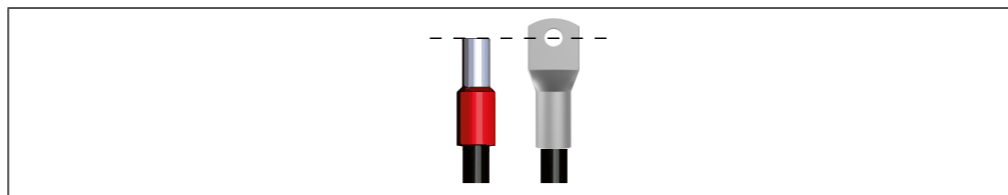
## WIRING



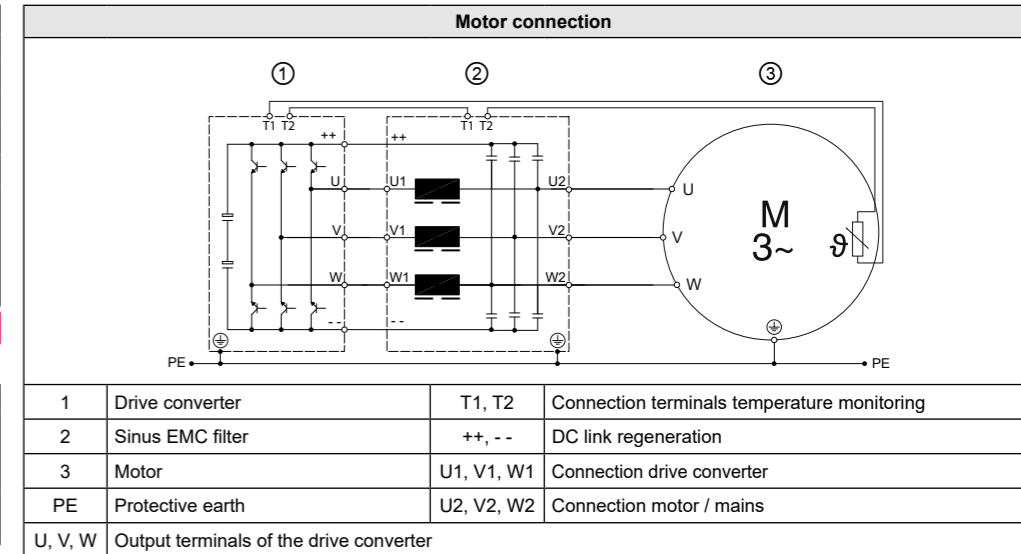
1	Temperature monitoring	T1, T2	Temperature switch (NC contact)
2	Main connections	TZ / L	Temperature switch
3	DC link	U1, V1, W1	Connection drive controller
4	External 24 V DC voltage supply	U2, V2, W2	Connection motor / mains
L	Choke	++, --	DC link regeneration
C1...C6	Feedback capacitors to the DC link	+, -	Fan power supply
Q1...Q3	Fan (not for all sizes)	F1...F3	Fan fuses

## ALTERNATIVE CONNECTION OPTION

The user is free to replace the ferrules with ring crimp connectors. In this case, the end of the ferrule corresponds to the center of the opening in the ring crimp connector.



## CONNECTION



## 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 Voltage at 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 a trouble-free and safe operation, please pay attention to the following note:

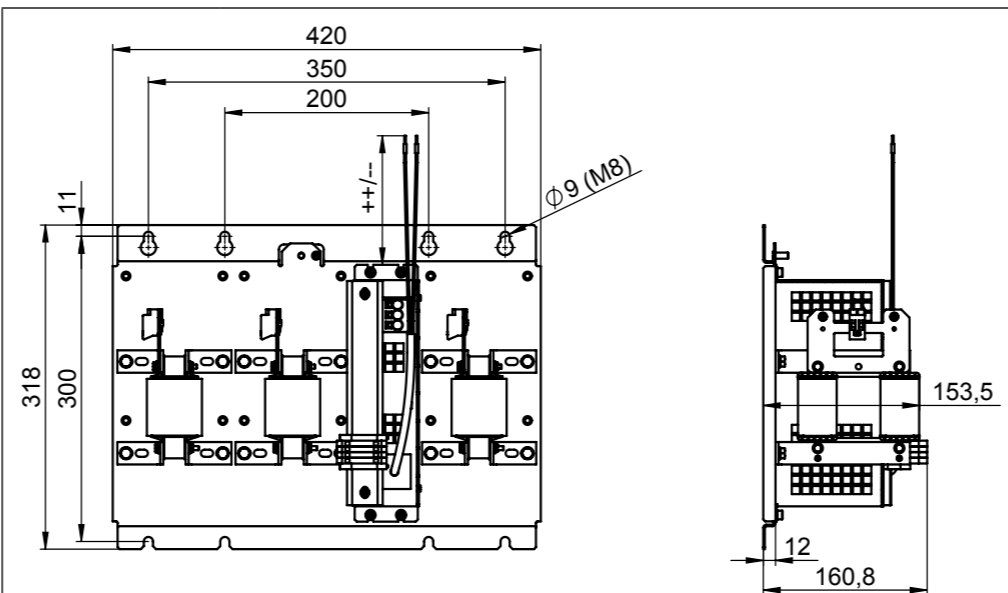
- ▶ Check for reliable fit of the device connections in order to avoid contact resistance and sparking.

## DISPOSAL

- ▶ For professional disposal, follow the instructions in the instructions for use.

DIMENSIONS

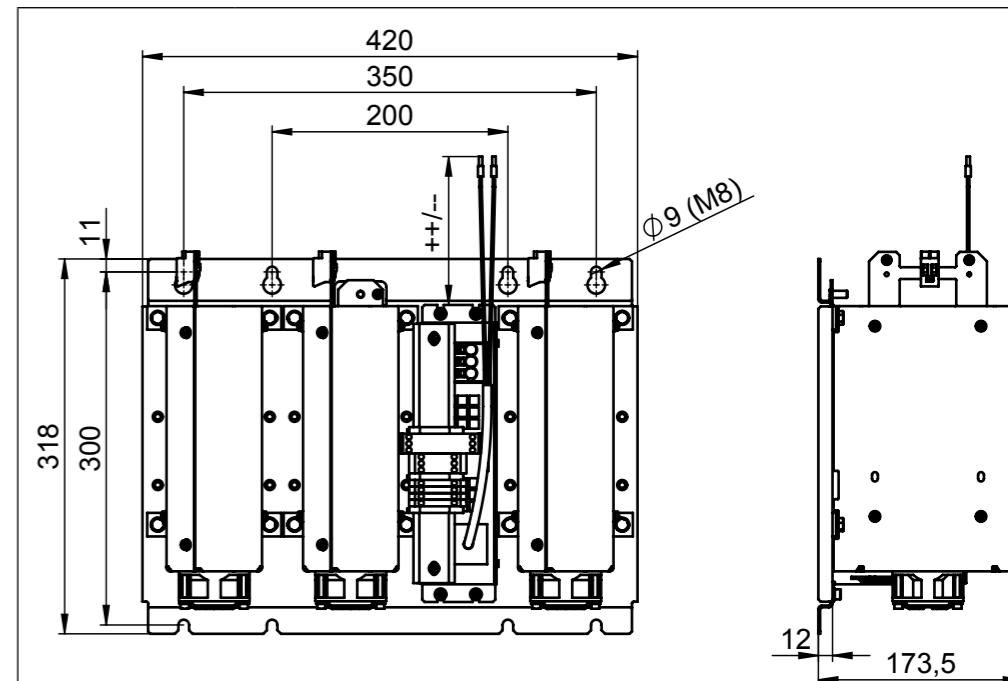
0DZ1105-1001



Filter type	Weight
0DZ1105-1001	8

All dimensions in mm; all weights in kg

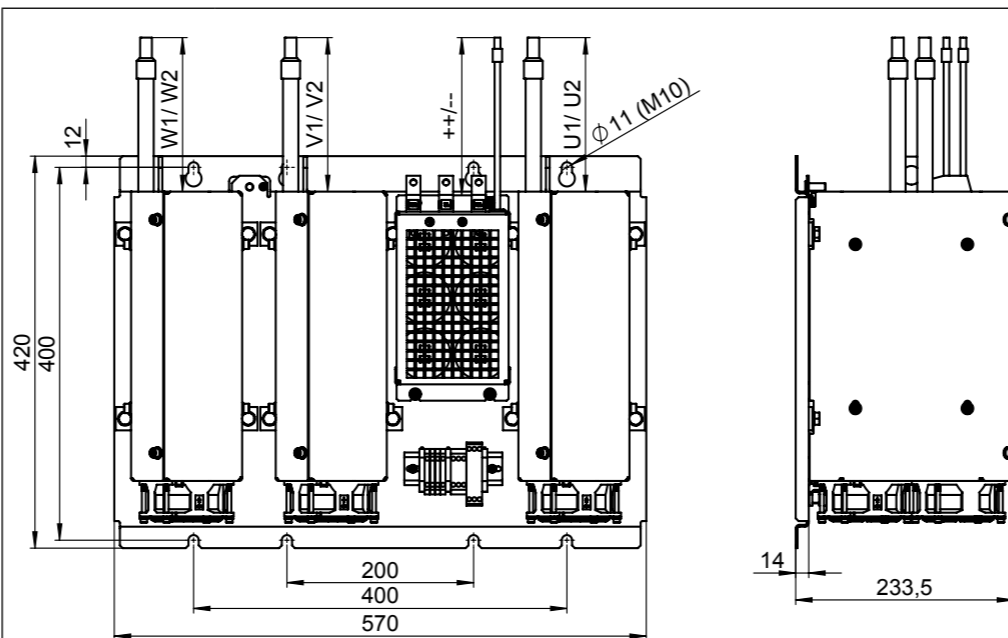
0HZ1105-1001 / 0LZ1105-1001



Filter type	Weight
0HZ1105-1001	13
0LZ1105-1001	16,5

All dimensions in mm; all weights in kg

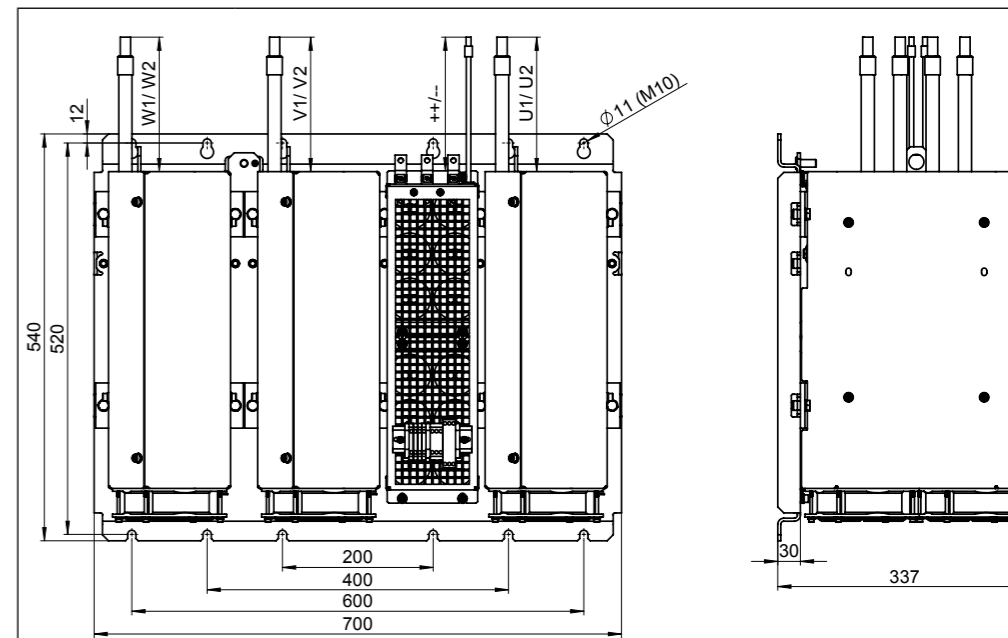
0PZ1105-1001 / 0SZ1105-1001



Filter type	Weight
0PZ1105-1001	46
0SZ1105-1001	52,5

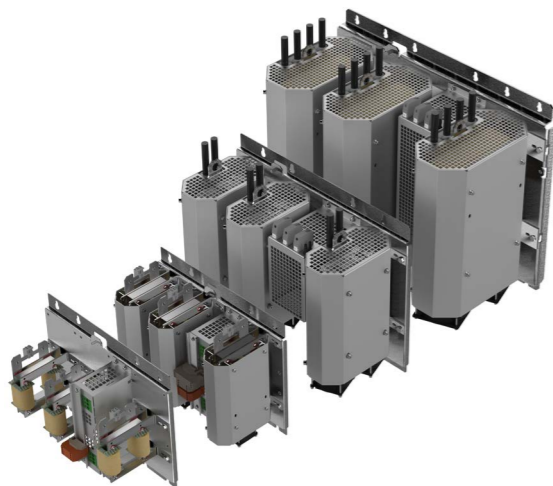
All dimensions in mm; all weights in kg

0XZ1105-1001 / 0YZ1105-1001



Filter type	Weight
0XZ1105-1001	117
0YZ1105-1001	143,5

All dimensions in mm; all weights in kg



Instructions for use



Installation COMBILINE Sinus EMC filter  
[www.keb.de/fileadmin/media/Manuals/dr/ma\\_dr\\_z1-inst-sinus-emv-filter\\_20146892\\_en.pdf](http://www.keb.de/fileadmin/media/Manuals/dr/ma_dr_z1-inst-sinus-emv-filter_20146892_en.pdf)

KEB Online	<a href="http://www.keb.de">www.keb.de</a>	KR	다른 언어도 사용할 수 있습니다.
BG	Други налични езици.	HR	Ostali dostupni jezici.
CN	其他语言可用。	HU	Más elérhető nyelvek.
CZ	Jiné jazyky k dispozici.	LV	Citas pieejamās valodas.
DK	Andre sprog til rådighed.	LT	Kitos kalbos.
DE	Weiteren Sprachen verfügbar.	MT	Lingwi oħra disponibbli.
EN	Other languages available.	NL	Andere talen beschikbaar.
EE	Muud keeled on saadaval.	PL	Inne dostępne języki.

continue in the next column

Instructions for use

ES	Otros idiomas disponibles.	PT	Outros idiomas disponíveis.
FI	Muut kielet saatavilla.	RO	Alte limbi disponibile.
FR	Autres langues disponibles.	RU	Доступны другие языки.
GR	Άλλες διαθέσιμες γλώσσες.	SE	Andra språk finns tillgängliga.
IE	Teangacha eile ar fáil.	SK	Iné jazyky sú k dispozícii.
IT	Altre lingue disponibili.	SI	Drugi jeziki so na voljo.
JP	他の言語も利用できます。	TR	Mevcut diğer diller.

COMBILINE Z1  
SINUS EMC FILTER

QUICK START GUIDE

Translation of the original manual  
 Z1 series filters  
 Document 20240742 EN 00  
 Mat.No. 05Z1NDM-0000