



TOP [EX]

► Assembly, installation and operating instructions

Keep these instructions in a safe place for future use!

Table of contents

1 General	5
1.1 About these instructions	5
1.2 Explanation of Symbols.....	5
2 Safety.....	6
2.1 Correct use.....	6
2.2 Special conditions of use.....	6
2.3 Limits of operation and use.....	6
2.4 Risk from electrocution!.....	8
2.5 Personnel requirements - Qualifications	10
2.6 Personal Protective Equipment	10
3 Transport, storage and packaging.....	11
3.1 General transport instructions	11
3.2 Scope of delivery	11
3.3 Storage	12
3.4 Packaging	12
4 Technical data.....	13
5 Construction and function	14
5.1 Overview.....	14
5.2 Brief description	14
6 Installation and wiring	15
6.1 Requirements governing the installation site.....	15
6.2 Minimum clearances	15
6.3 Installation	16
6.3.1 Installation of sheet steel accessories.....	16
6.3.2 Suspension points.....	18
6.3.3 Universal 2-point brackets type 30041	19
6.3.4 Universal 4-point brackets type 30042	19
6.3.5 Wall brackets, type 3*044, type 3002*	20
6.3.6 Louvres	20
6.4 Installation	21
6.4.1 Connection to the pipe network	21
7 Electrical connection.....	22
7.1 Maximum electrical rating values	23
8 Pre-commissioning checks	24

9 Maintenance	25
9.1 Securing against reconnection	25
9.2 Maintenance Schedule:	25
9.3 Clean the inside of the unit	25
10 Certificates.....	27
Table	29

1 General

1.1 About these instructions

These instructions ensure the safe and efficient handling of this equipment. These instructions form an integral part of the equipment and have to be kept in the direct vicinity of the equipment and available to personnel at all times.

All personnel must have carefully read through these instructions prior to commencing all work on the equipment. A fundamental prerequisite for safe working is compliance with all the stated safety instructions and other instructions contained in this manual.

In addition all local occupational health and safety at work regulations apply, as do general safety provisions governing the use of the equipment.

Illustrations in this guide are intended to provide a basic understanding and may differ from the actual model.

Ongoing tests and further developments may result in small variations between the unit supplied and the instructions.

The original instructions are in German. This is legally binding in all legal matters!

1.2 Explanation of Symbols



DANGER!

This combination of symbol and signal word indicates an immediately dangerous situation caused by electrical power, which will cause death or serious injury if not avoided.



WARNING!

This combination of symbol and signal word indicates a possible hazardous situation.



IMPORTANT NOTE!

It represents a potentially hazardous situation, which could lead to damage to property or for a measure to optimise workflows.



IMPORTANT NOTE!

This symbol highlights useful hints, recommendations and information for efficient and trouble-free operation.

TOP [EX]

Assembly, installation and operating instructions

2 Safety

This section provides an overview of all important safety aspects to ensure optimum protection of personnel as well as safe and trouble-free operation. In addition to the safety instructions in these operating instructions, the valid safety, accident prevention and environmental protection regulations must be observed for the area of use of the unit. It is the duty of the operator to ensure that instructions relating to maintenance (e.g. relating to hygiene) are complied with.

2.1 Correct use

The unit described here is a combination of Ex-protected units (assembly) in accordance with EU Directive 2014/34/EU.

These units are used for the decentralised heating and ventilation of halls, industrial and commercial workplaces and buildings connected to a district heating system or with wide temperature spreads. It is approved for use in zone 1 and 2 gas and explosive atmospheres. Further safety-relevant information can be found on the Ex marking and in these operating instructions.

The unit needs to be connected to the building heating system and power supply in the room in which will be operating. Observe the operating limits and limits of use described in Chapter 2.2 [► 6].

Intended use of the unit also includes adherence to these instructions.

Information in accordance with EN60335-1

- ▶ This unit can be used by children aged 8 years or more and also by people with reduced physical, sensory or mental capabilities or a lack of experience and knowledge, if they are supervised or have been instructed in the safe use of the unit and the resulting dangers. Do not allow children to play with the unit. Do not allow children to clean and maintain the unit without supervision.
- ▶ The unit is not intended for operation above 2,000 m.a. s.l.
- ▶ This unit is not intended for permanent connection to the drinking water network.
- ▶ This unit is designed to be accessible to the general public.

Any use beyond or other than the stated intended use is considered as misuse.

Any modification to the unit or use of non-original spare parts will cause the expiry of the warranty and will invalidate the manufacturer's liability.

2.2 Special conditions of use

Special conditions for the use of TOP unit heaters

The special conditions for safe use of this unit are set out in the instructions and the other applicable documents and must be strictly observed.

- ▶ Only operate TOP unit heaters with a temperature monitor with a trip device specified by the manufacturer in accordance with Ex II(2)G.
- ▶ The equipotential bonding of the unit on site must be carried out via the connection provided on the fan motor.
- ▶ Do not exceed the maximum speed of the fan (see type label).
- ▶ Do not exceed the maximum operating pressure of the unit (see type label).
- ▶ Do not exceed the maximum operating temperature (see type label).

2.3 Limits of operation and use

Limits of operation		
Min./max. water temperature	°C	5 - see type plate
Min./max. air intake temperature	°C	-20 - (+40)
Min./max. air humidity	%	15-75
Min. operating pressure	bar/kPa	-
Max. operating pressure	bar/kPa	see type plate
Min./max. glycol percentage	%	25-50

Tab. 1: Limits of operation

Maximum flow temperatures

Heating medium	Operating pressure
Water 120 °C	16 bar
Saturated steam 191 °C	12 bar

Tab. 2: Maximum flow temperatures

Operating voltage	
Power/current consumption	On the typeplate

Tab. 3: Operating voltage

We would refer to VDI-2035 Sheets 1 & 2, DIN EN 14336 and DIN EN 14868 with regard to the properties of the medium used to protect the equipment. The following values provide further guidance.

The water used should be free of contamination, such as suspended substances and reactive substances.

Water quality		
pH value (at 20 °C)		8-9
Conductivity (at 20 °C)	µS/cm	< 700
Oxygen content (O ₂)	mg/l	< 0.1
Hardness	°dH	4-8.5
Sulphur ions		not measurable
Sodium ions (Na ⁺)	mg/l	< 100
Iron ions (Fe ²⁺)	mg/l	< 0.1
Manganese ions (Mn ²⁺)	mg/l	< 0.05
Ammonia ions (NH ₄ ⁺)	mg/l	< 0.1
Chlorine ions (Cl)	mg/l	< 100
CO ₂		< 50
Sulfate ions (SO ₄ ²⁻)	mg/l	< 50
Nitrite ions (NO ₂ ⁻)	mg/l	< 50
Nitrate ions (NO ₃ ⁻)	mg/l	< 50

Tab. 4: Water quality



WARNING!

Note the maximum flow temperatures to protect the fan!

Long periods of idleness with high water temperatures can lead to the impermissible heating up of the fan motor. The flow temperatures should therefore be limited depending on the application and the motor model.

If temperature limitation is impossible or inappropriate for the specific purpose, there is also an option of using suitable valves (thermoelectric, motorised or solenoid) to shut off the heating medium.

This can interrupt the flow of medium before the fan is switched off and the heat exchanger cools down.

Appropriate speed controllers with a fan delay shut-off relay and connection terminals for the shut-off valve are available on request.



IMPORTANT NOTE!

Warning of misuse!

In the event of misuse, as outlined below, there is a danger of restricted or failed operation of the unit. Ensure that the airflow can circulate freely.

- ▶ Never operate the unit in humid areas, such as swimming pools, wet areas etc.
- ▶ Never operate the unit in aggressive or corrosive atmospheres (e.g. sea air).
- ▶ Never operate the unit above electrical equipment (such as switch cabinets, computers or other electrical units, or contacts that are not drip-proof).
- ▶ Never use the unit as a site heater.
- ▶ Never use the unit in rooms with a high dust content.



IMPORTANT NOTE!

Assembly and Installation Instructions

- ▶ Adhere to national assembly and installation regulations (e.g. IEC/EN 60079-14).
- ▶ Adhere to national safety and accident prevention regulations.
- ▶ During installation and operation, note the information (characteristic values and rated operating conditions) on type plates and data plates as well as the information labels on the unit.
- ▶ Make sure that the unit is undamaged before installation.

2.4 Risk from electrocution!



DANGER!

Risk of fatal injury from electrocution!

Contact with live parts will lead to fatal injury from electrocution. Damage to the insulation or individual components can lead to a fatal injury.

- ▶ Only permit qualified electricians to work on the electrical system.
- ▶ Immediately disconnect the system from the power supply and repair it in the event of damage to the insulation.
- ▶ Keep live parts away from moisture. This can cause a short circuit.
- ▶ Properly earth the unit.

**DANGER!****Risk of fatal injury from electrocution!**

- ▶ When multiple fans are connected in parallel, there is an electrical charge ($>50\text{ C}$) between the line conductor and protective earth conductor when the power is switched off. Before working on the electrical wiring, short-circuit the mains connections and PE!
- ▶ The terminals and connectors are still energised even when the unit is switched off. Use a two-pin voltage tester to establish that the unit has been de-energised. Only open the unit 5 minutes after all poles of the voltage have been switched off.
- ▶ The protective earth carries high leakage currents (depending on the frequency, intermediate voltage and motor capacity). Therefore, check EN-compliant earthing under test conditions (EN 50178, Art. 5.2.11). Without earthing, hazardous voltages can occur on the motor housing. In the event of a fault, electrical voltage will be present at the rotor and impeller. Rotor and impeller are base-insulated. Do not touch!

2.5 Personnel requirements - Qualifications

Expertise

The installation of this product requires specialist expertise in heating, cooling, ventilation, installation and electrical engineering. As this knowledge is normally acquired through professional training in one of the above fields, it is not dealt with further here.

Damage caused by improper installation is the responsibility of the operator or installer. Installers of these units should have adequate knowledge of the following based on their qualifications

- ▶ Safety and accident prevention regulations
- ▶ Guidelines and recognised technical regulations, i.e. VDE regulations (Association of German Electricians, DIN and EN standards.
- ▶ Explosion protection standards EN 60079-14, EN 60079-17, EN 60079-19
- ▶ VDI 6022; maintenance personnel must be trained to Category B (possibly Category C) to comply with hygiene requirements (as required).

The installation, operation and maintenance of this unit must comply with the applicable laws, standards, provisions and regulations in the respective country and the current state of the art.

2.6 Personal Protective Equipment

Personal protective equipment is used to protect people from impaired safety and health when working with the unit. The applicable accident prevention regulations at the place of use apply in all cases.

Personnel have to wear personal protective equipment during maintenance and troubleshooting on and with the unit.

3 Transport, storage and packaging

3.1 General transport instructions

Check on delivery for completeness and transport damage.

Proceed as follows in the event of visible damage:

- ▶ Do not accept delivery or only accept with reservations.
- ▶ Record any transport damage on the transportation documents or on the transport company's delivery note.
- ▶ Submit a complaint to the freight forwarder.

**IMPORTANT NOTE!**

Warranty claims can only be made within the applicable period for complaints. (More information is available in the T&Cs on the Kampmann website)

**IMPORTANT NOTE!**

2 people are needed to transport the unit. Wear personal protective clothing when transporting the unit. Only lift the unit on both sides and not by the pipes / valves.

**IMPORTANT NOTE!****Material damage caused by incorrect transport!**

Units being transported can drop or topple over if transported wrongly. This can cause serious material damage.

- ▶ Proceed carefully when unloading the equipment on delivery and when transporting it on site and note the symbols and instructions on the packaging.
- ▶ Only use the holding points provided.
- ▶ Only remove packaging shortly before assembling the unit.

3.2 Scope of delivery

**IMPORTANT NOTE!****Check the scope of delivery!**

- ▶ Check the delivery for damage.
- ▶ Check that the articles and type numbers are correct.
- ▶ Is the delivery and number of items delivered correct?

TOP [EX]

Assembly, installation and operating instructions

3.3 Storage

Store packaging under the following conditions:

- ▶ Do not store outdoors.
- ▶ Store in a dry and dust-free place.
- ▶ Store in a frost-free place.
- ▶ Do not expose to aggressive media.
- ▶ Protect from direct sunlight.
- ▶ Avoid mechanical vibrations and shocks.



IMPORTANT NOTE!

Under certain circumstances, packages can carry storage instructions that exceed the requirements listed here. Comply with these instructions accordingly.

3.4 Packaging

Handling packaging materials



IMPORTANT NOTE!

Dispose of packaging materials in line with the applicable statutory requirements and local regulations.

4 Technical data

Unit	TOP			
Series	44	45	46	47
Water content [l]	1.6 - 6.1	2.2 - 8.2	3.4 - 11.5	4.8 - 16.8
Weight [kg]	25 - 62	32 - 92	45 - 125	53 - 158
Sound pressure level ⁴ [dB(A)]	13 - 56	19 - 64	20 - 62	22 - 61

Tab. 5: Technical data, TOP

⁴

The sound pressure level was calculated with an assumed room insulation of dB(A). This corresponds to a distance of m, a room volume of m³ and a reverberation time of s (in accordance with VDI 2081).

TOP [EX]

Assembly, installation and operating instructions

5 Construction and function

5.1 Overview

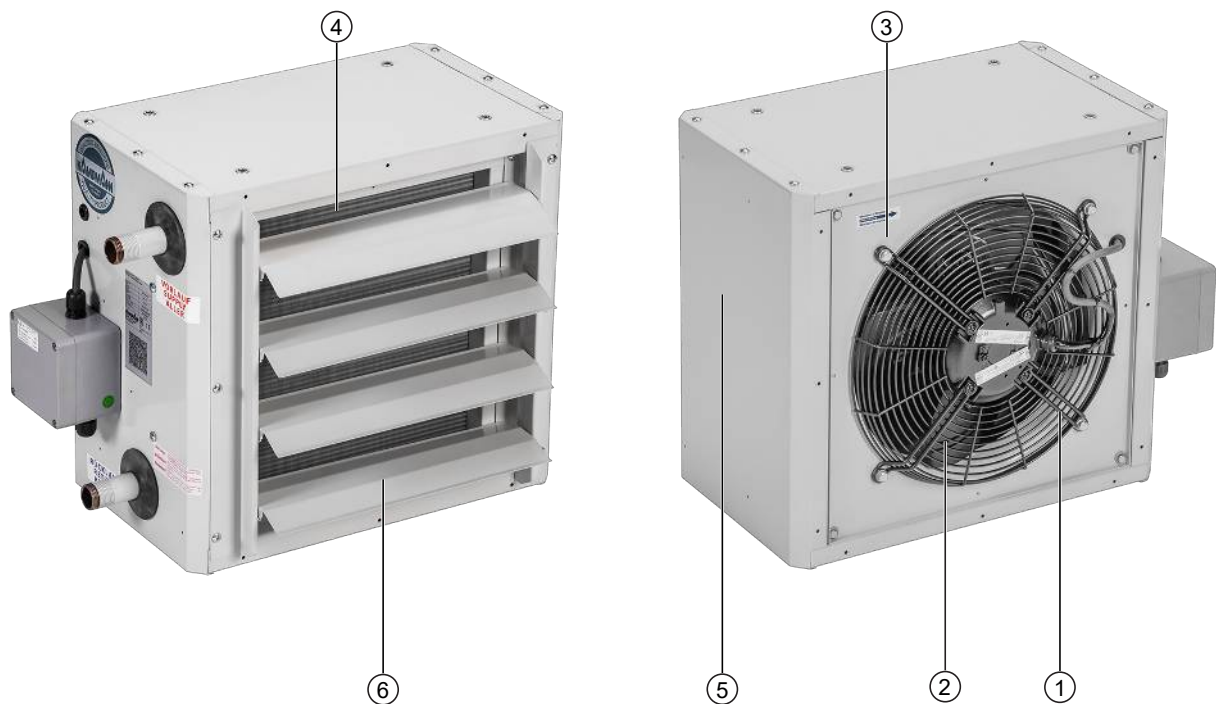


Fig. 1: TOP At a glance

1	Motor protection cage	2	Fan
3	Rear panel with nozzle	4	Heat exchanger (example copper-aluminum version)
5	Air heater housing	6	Air deflection louvre, single row (standard)

5.2 Brief description

TOP unit heaters are used for the decentralised local heating or cooling and ventilation of halls, as wall or ceiling-mounted versions. The air is drawn in by the fan and blown out through the heat exchanger and standard one-row louvre into the room. TOP units are designed for use in areas at risk of explosion.

6 Installation and wiring

6.1 Requirements governing the installation site

Only install and assemble the unit if the following conditions are met:

- ▶ Make sure that the wall/ceiling is sufficiently load-bearing to take the weight of the unit (Technical data [► 13]).
- ▶ Make sure that the unit is securely suspended/standing.
- ▶ Ensure that the airflow can circulate freely.
- ▶ Provide adequate space for appropriately sized flow and return water connections on site (Connection to the pipe network [► 21]).
- ▶ There is a power supply on site (Maximum electrical rating values [► 23]).
- ▶ If need be, provide a condensation connection with a sufficient gradient on site.

6.2 Minimum clearances

Unit heaters can be free-standing or hung on the wall using the wall brackets supplied, or suspended from the ceiling using the ceiling brackets supplied. Installation using existing wall or ceiling brackets is not permitted with the explosion-proof version.

A minimum clearance L in accordance with the table below must be observed between the intake zone of the unit and the wall/ceiling! If not, this will reduce the output of the unit heater and increase the noise level.

Be sure to observe the minimum clearances when using accessories or for maintenance purposes!

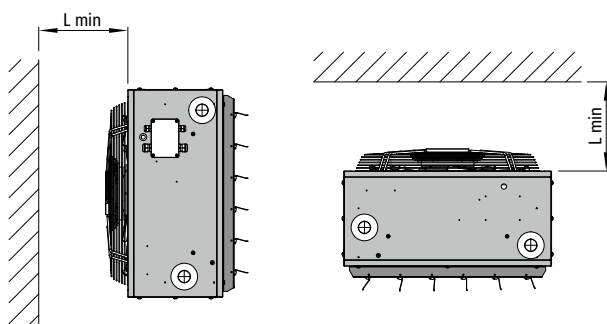


Fig. 2: Minimum clearances TOP EX

Series	Minimum clearance L min	Standard clearance L*
44	160 mm	285 mm
45	180 mm	285 mm
46	230 mm	335 mm
47	300 mm	345 mm

Tab. 6: Overview of types with minimum clearances

* when using wall brackets, type 3_044 (series 44 - 47)

TOP [EX]

Assembly, installation and operating instructions

6.3 Installation



CAUTION!
Risk of injury from sharp metal housing!
The inner metal of the casing can have sharp edges.
► Wear suitable protective gloves.



IMPORTANT NOTE!
Horizontal installation of units!
When installing the units, ensure that they are completely horizontal to ensure proper operation.

6.3.1 Installation of sheet steel accessories

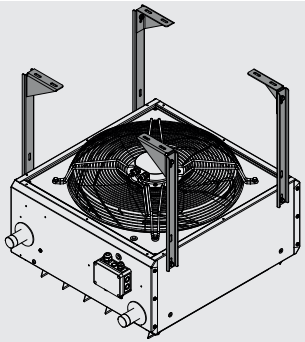
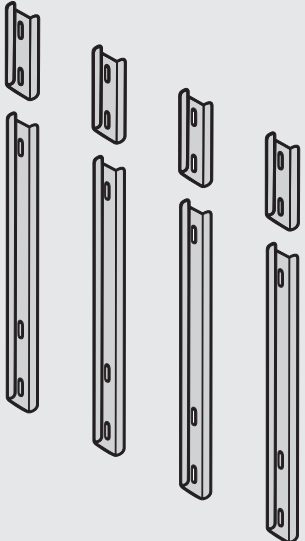
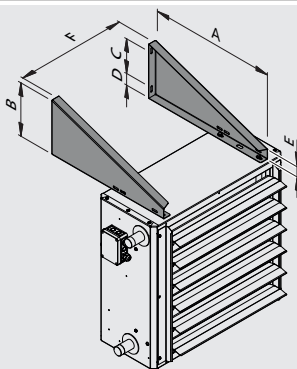
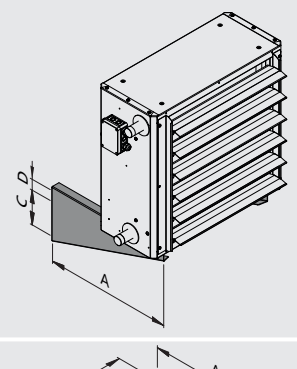
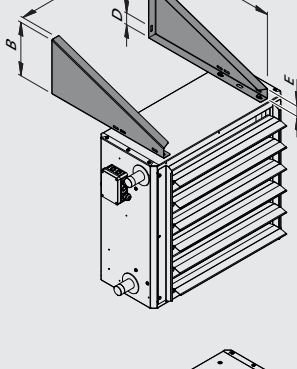
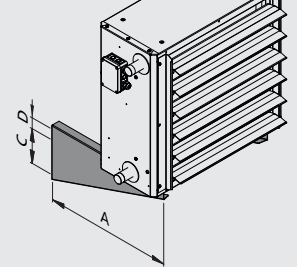
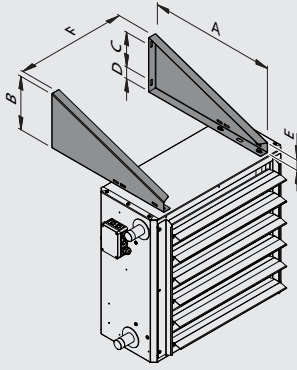
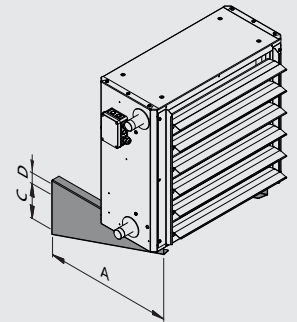
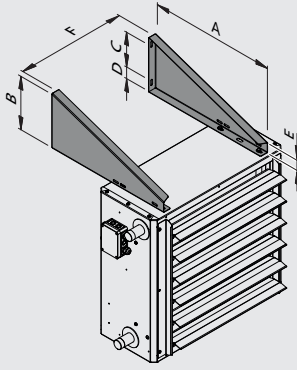
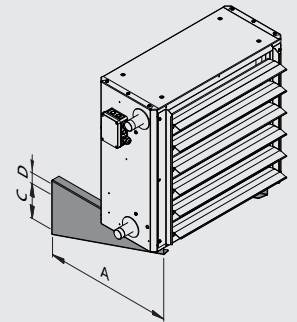
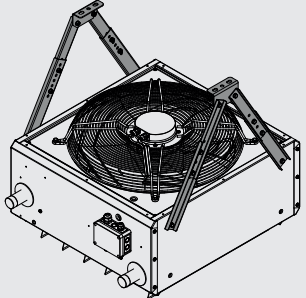
Figure	Description	Dimensions [mm]	Suitable for
	Universal 4-point brackets, type 30042		Series 44-47
	Universal bracket extension, type 30043		All series

Figure	Description	Dimensions [mm]						Suitable for	
	Wall bracket, type 34044	A	B	C	D	E	F	Series 44	
		585	251	160	40	50	340		
		Wall bracket, type 35044	A	B	C	D	E	F	Series 45
			585	251	160	40	50	440	
	Wall bracket, type 36044	A	B	C	D	E	F	Series 46	
		635	268	187	40	50	540		
		Wall bracket, type 37044	A	B	C	D	E	F	Series 47
			685	286	204	40	50	640	
	Wall brackets, extended, type 30022	A	B	C	D	E	F	Series 44	
		785	321	123	40	50			
		Wall brackets, extended, type 30024	A	B	C	D	E	F	Series 45
			885	355	143	40	50		
	Wall brackets, extended, type 30026	A	B	C	D	E	F	Series 46	
		1080	422	175	40	50			
		Wall brackets, extended, type 30020	A	B	C	D	E	F	Series 47
			Dimensions depending on bracket length						

TOP [EX]

Assembly, installation and operating instructions

Figure	Description	Dimensions [mm]	Suitable for
	Universal 2-point brackets. Type 30041		Series 44-47

Tab. 7: Air-side sheet steel accessories

6.3.2 Suspension points

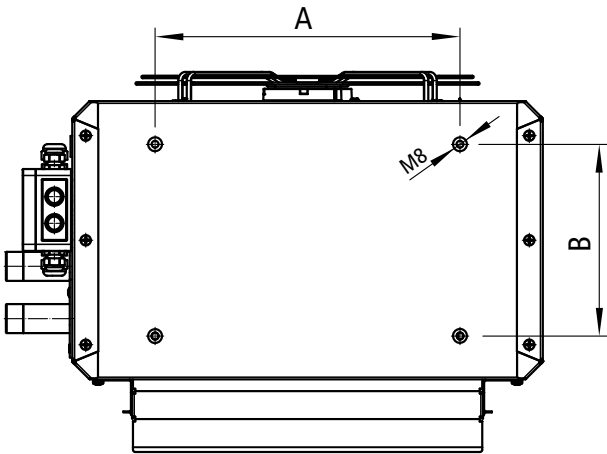


Fig. 3: TOP suspension points

Unit heater series	A [mm] (in)	B [mm] (in)
44	350 (13.8)	220 (8.7)
45	450 (17.7)	220 (8.7)
46	550 (21.7)	220 (8.7)
47	650 (25.6)	220 (8.7)
48	750 (29.5)	220 (8.7)

Tab. 8: Suspension points for wall / ceiling installation

6.3.3 Universal 2-point brackets type 30041

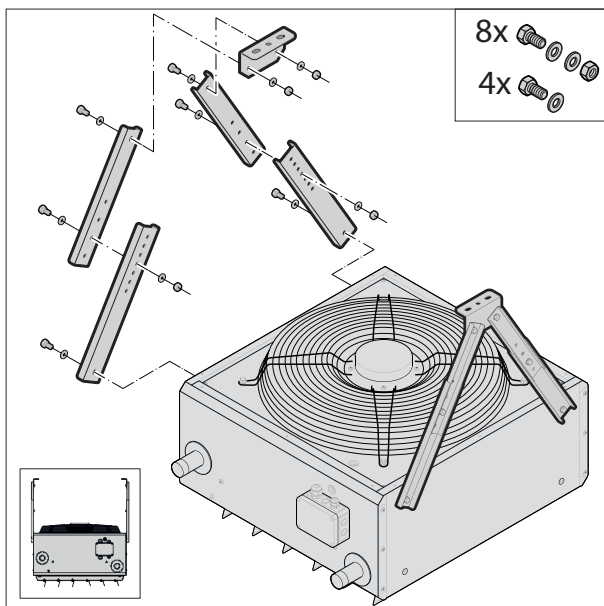


Fig. 4: Universal 2-point brackets, series 44-47

6.3.4 Universal 4-point brackets type 30042

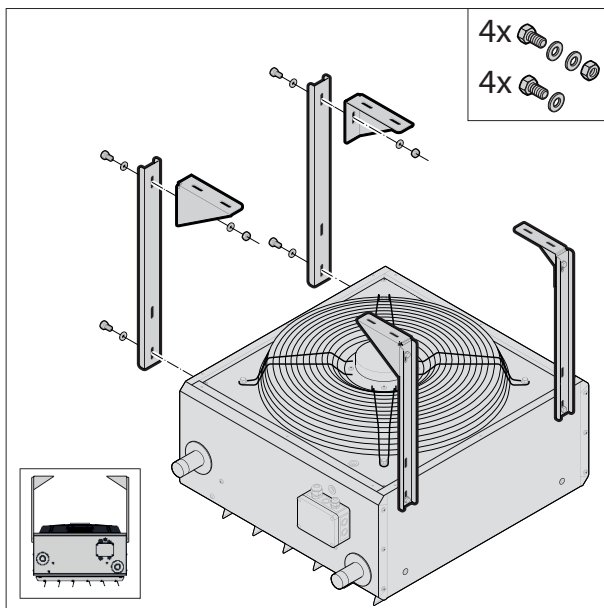


Fig. 5: Universal 4-point brackets, series 44-47

TOP [EX]

Assembly, installation and operating instructions

6.3.5 Wall brackets, type 3*044, type 3002*

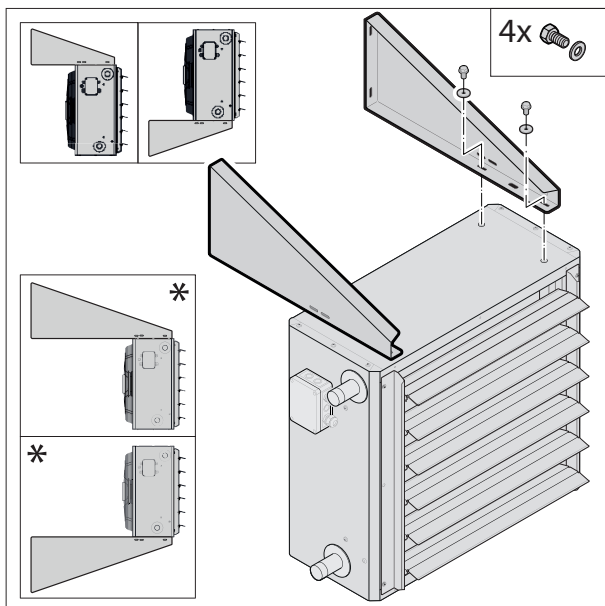


Fig. 6: Wall brackets

* Wall bracket, extended (type 002*)

6.3.6 Louvres

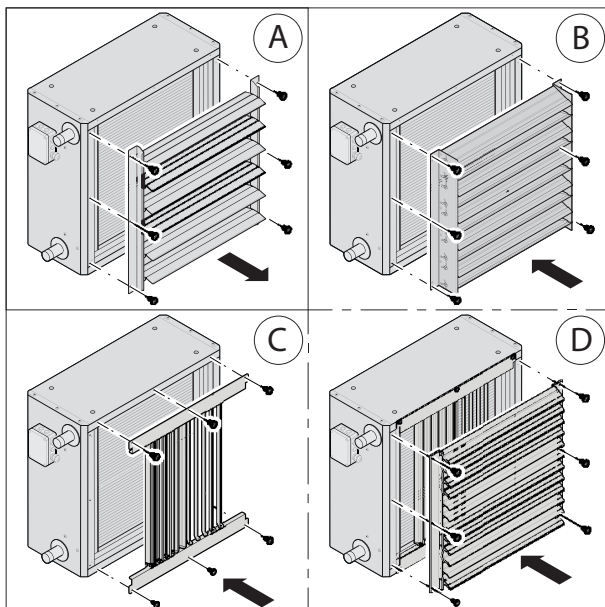


Fig. 7: Louvres

► Louvre mounting, 2-row (type *002): A + C + D

6.4 Installation

Hydraulic connection

Note the following points when connecting the hydraulic side:

- ▶ Install and test safety components (expansion vessels, pressure relief valves and overflow valves).
- ▶ Route condensation lines with a sufficient cross-section without bends and narrow sections with a gradient to the in situ waste water pipe.
- ▶ Allow adequate space for the air flow (air inlet and outlet).

6.4.1 Connection to the pipe network

The supply and return connections protrude laterally from the housing. The connection dimensions for copper/aluminium, galvanised steel and crossflow heat exchangers are:

- ▶ 1" (series 44+45)
- ▶ 1 1/4" (series 46)
- ▶ 1 1/2" (series 47)
- ▶ Heat exchanger, steam: Steam connection 1 1/2"

Proceed as follows when making the hydraulic connection:

- ▶ Shut off the supply line from the medium.
- ▶ Connect up the pipework.
- ▶ Remove protective caps from the flow and return.
- ▶ Seal the valve connections and screw in.

Important! Use an appropriate tool (e.g. pipe wrench) to prevent connection spigots from shearing off and twisting. All mechanical connections must be mounted stress-free!

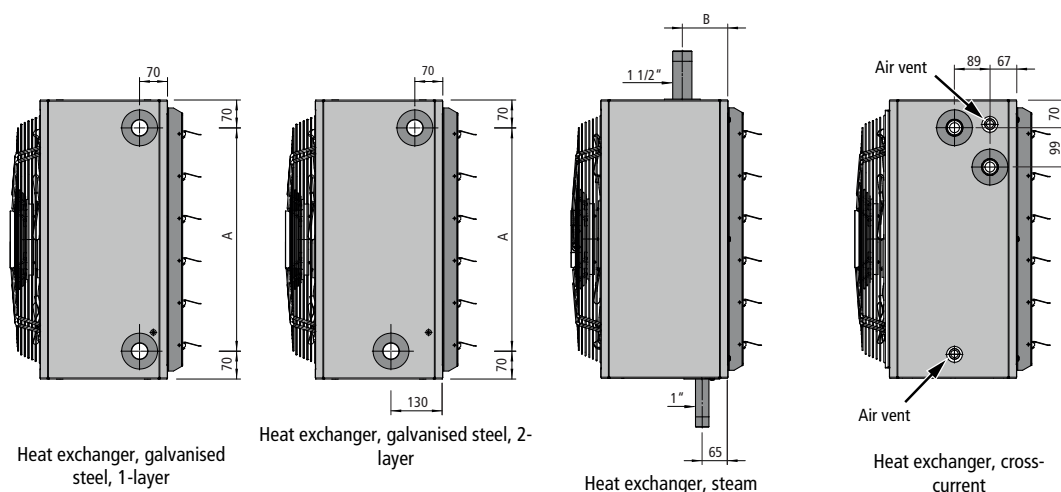


Fig. 8: TOP EX heat exchanger versions

Series	A [mm]	B [mm] type 4*22	B [mm] type 4*32
44	360	85	115
45	460	85	115
46	560	85	115
47	660	85	115

7 Electrical connection



IMPORTANT NOTE!

Motor protection

Motor protection is provided by PTC thermistors embedded in the motor windings. The PTC thermistors are monitored by electronics in the stage switch type 30351. The stage switch is switched off as soon as the motor heats up unacceptably. The motor is thus protected against overload operation, failure of a mains phase, over- and undervoltage, unacceptably high ambient temperature, and the rotor jamming. The thermistor relay in the stage switch detects the change in resistance of the PTC in line with the temperature. Then the stage switch evaluates this and switches off the motor. Therefore only use stage switch type 30351. The use of other switches is not permitted.

The three-phase external rotor motor can be switched between two stages using a 2-stage three-phase switch type 30351 (Y/Δ configuration).

Switching stage 1: star configuration

Switching stage 2: delta configuration

The fans are operated with a clockwise rotating field! Important! Operation of this unit with frequency inverters is prohibited!

Wiring the PTC

- ▶ Lay a separate cable for the PTC.
- ▶ Lay this line separately from power lines.
- ▶ Lay a shielded line if the line is longer than 10 m.
- ▶ Parallel connection of unit heaters: A maximum of two unit heaters can be connected to a stage switch.
- ▶ The motor windings are switched in parallel.
- ▶ The PTCs are switched in series on the stage switch.
- ▶ If only one unit heater is connected, insert a jumper on the right KL terminals as per the wiring diagram.

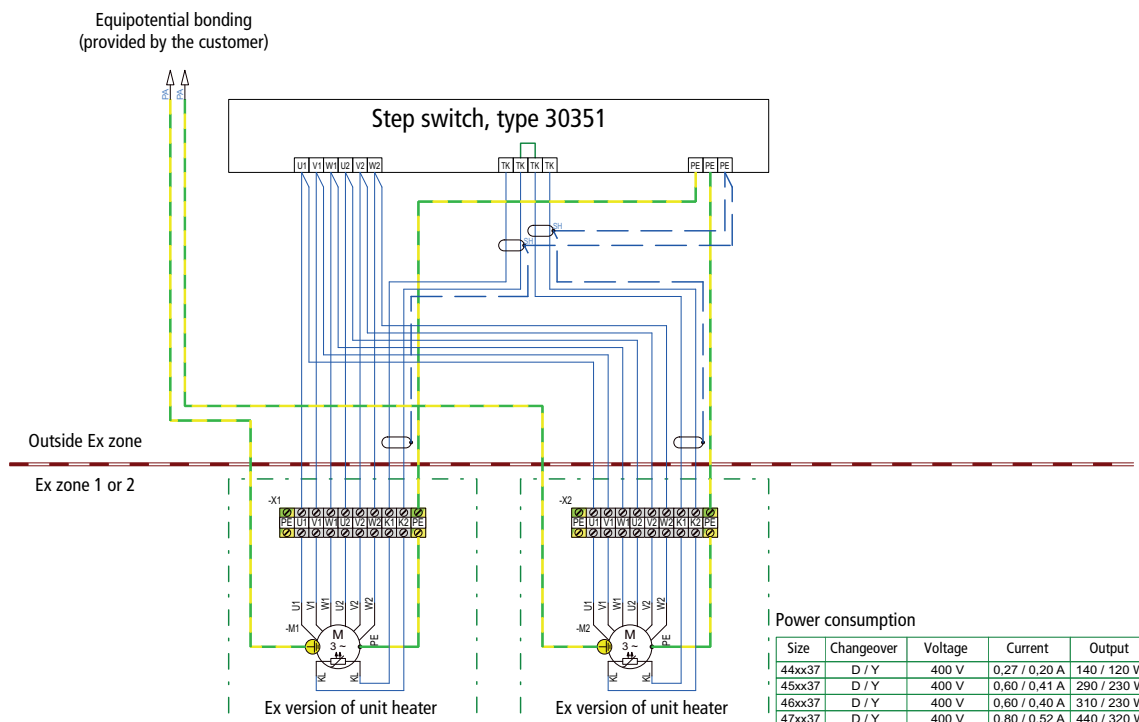


Fig. 9: Wiring diagram

7.1 Maximum electrical rating values

Electromechanical model

Type	Changeover	Voltage [V]	Current [A]	Output [W]	Fan speed [rpm]
44**37	D / Y	400	0.27/0.2	140/ 120	1420/ 1230
45**37	D / Y	400	0.6 /0.41	290/ 230	1390/ 1130
46**37	D / Y	400	0.6 /0.4	310/ 230	910/ 730
47**37	D / Y	400	0.8 /0.52	440/ 320	890/ 690

Tab. 9: Electrical data TOP

8 Pre-commissioning checks

During initial commissioning, it must be ensured that all necessary requirements are met so that the appliance can function safely and as intended.

Structural tests

- ▶ Check that the unit is securely standing and fixed.
- ▶ Check the horizontal installation/suspension of the unit.
- ▶ Check whether all components are properly fitted.
- ▶ Check whether all dirt, such as packaging or site dirt, has been removed.

Electrical tests

- ▶ Check whether all lines have been properly laid.
- ▶ Check whether all lines have the necessary cross-section.
- ▶ Are all wires connected in accordance with the electric wiring diagrams?
- ▶ Is the earth wire connected and wired throughout?
- ▶ Check all external electrical connections and terminal connections are fixed in place and tighten if necessary.

Water-side checks

- ▶ Check whether all supply and drainage lines have been properly connected.
- ▶ Fill pipes and unit with water and bleed.
- ▶ Check whether all bleed screws are closed.
- ▶ Check leak tightness (pressure test and visual inspection).
- ▶ Check whether the parts carrying water have been flushed through.
- ▶ Check whether any shut-off valves fitted on site are open.
- ▶ Check whether any electrically actuated shut-off valves have been properly connected.
- ▶ Check whether all valves and actuators are working properly (note permitted mounting position).

Air-side checks

- ▶ Check whether there is unimpeded flow at the air inlet and outlet.

9 Maintenance

9.1 Securing against reconnection



DANGER!

Risk of death by unauthorised or uncontrolled restart!

Unauthorised or uncontrolled restarting of the equipment can result in serious injury or death.

- ▶ Before restarting, ensure that all safety devices are fitted and working properly and that there is no hazard to humans.

Always follow the procedure described below to prevent accidental restart:

1. de-energise.
2. Prevent accidental re-connection.
3. Check that the equipment is de-energised.
4. Cover and cordon off adjacent live parts.



WARNING!

Risk of injury from rotating parts!

The fan impeller can cause severe injuries.

- ▶ Switch off the unit and prevent it from reconnection before commencing any work on moving components of the fan. Wait until all parts have come to a standstill.

9.2 Maintenance Schedule:

The sections below describe maintenance work needed for the proper and trouble-free operation of the equipment.

If there are signs of increased wear during regular checks, shorten the required maintenance intervals to the actual wear and tear. Contact the manufacturer with any questions about maintenance work and intervals.

Carry out all maintenance and repair work in accordance with IEC 60079-17 and IEC 60079-19.

Interval	Maintenance work
If necessary	Regular visual inspections and acoustic tests for damage, soiling and function.
annually	Check electrical connections.
annually	Clean air-conducting components/surfaces.
In accordance with EN IEC 60079-17	Check motor protection.

9.3 Clean the inside of the unit

Check all elements that come into contact with air (internal surfaces of the unit, outlet elements etc.) for dirt or deposits during maintenance and use a commercially available product to remove.



DANGER!

Risk of injury from burning

High temperatures are produced at the fan's electronic housing. Avoid direct contact!



IMPORTANT NOTE!

Do not use aggressive cleaning agents!

Aggressive cleaning agents that can damage the paintwork must not be used on the fan. Water is not permitted to enter the inside of the motor or the electronics (through direct contact with seals or motor openings, for example), respect the protection rating (IP). Check the condensate drain holes (if present), positioned to suit the installation situation, for clearance. Run the fan for at least 1 hour at 80 to 100% of maximum speed before cleaning to prevent moisture accumulating in the motor! Run the fan for a minimum of 2 hours at 80 to 100% of maximum speed after the cleaning process!



DANGER!

Risk of explosion due to improper maintenance/repair

Failure to carry out maintenance/repair work correctly can result in serious or even fatal injury.

- ▶ Only perform maintenance or repair work on units using original Kampmann GmbH & Co. KG spare parts in accordance with the relevant instructions.



IMPORTANT NOTE!

Avoid electrostatic charges!

Only clean units in hazardous areas with a damp cloth to prevent a build-up of electrostatic charge.

- ▶ When wet cleaning: Only use water or mild, non-abrasive cleaning agents.
- ▶ Never clean units with a strong jet of water, i.e. with a high-pressure cleaner.

10 Certificates

**EU Declaration of Conformity according to Directive 2014/34/EU (ATEX)**


As the manufacturer, we hereby declare under our sole responsibility that the products described below comply with Directive 2014/34/EU and the harmonised standards listed.


Manufacturer: Kampmann GmbH & Co. KG
Friedrich-Ebert-Straße 128-130
49811 Lingen (Ems)

Product: Top air heater type 44**37, 45**37, 46**37, 47**37

Description: Secondary air temperature control unit for wall or ceiling mounting

Serial number: see type plate

Labelling:  II 2G Ex h IIB T4...T3 Gb X

Deposit number:  **EPS 23 ATEX 3 207**
(Bureau Veritas Consumer Products Services Germany GmbH
Businesspark A96, 86842 Türkheim, Germany)

Applied harmonised standards:

EN ISO 80079-36:2016	Explosive atmospheres - Part 36: Non-electrical equipment for use in potentially explosive atmospheres - Basic concepts and requirements
EN ISO 80079-37:2016	Explosive atmospheres - Part 36: Non-electrical equipment for use in potentially explosive atmospheres - Protection by constructional safety 'c', ignition source monitoring 'b', liquid containment 'k'
EN IEC 60079-0:2018	Potentially explosive atmospheres - Part 0: Equipment – General requirements
EN 1127-1:2019	Explosive atmospheres - Explosion prevention and protection - Part 1: Basic concepts and methodology; German version EN 1127-1:2019

The special conditions for the safe use of this product in potentially explosive atmospheres are described in detail in the operating instructions and the applicable documents and must be observed.

Lingen (Ems), 10.10.2024

Location and Date of Signature

Frank Bolkenius, Managing Director



Declaration of conformity for the Ex assembly in accordance with the ATEX Directive 2014/34/EU

Affected products:

Top air heaters type 44**37, 45**37, 46**37, 47**37

We, Kampmann GmbH & Co. KG, declare under our sole responsibility that the above assemblies comply with the above directive and are only intended for use as unit heaters in a potentially explosive atmosphere in accordance with the resulting labelling of all assemblies used and in accordance with their intended use.

Within the meaning of EU Directive 2014/34/EU (ATEX Directive), this is a combination of several already labelled devices. This combination is also referred to as an 'assembly' (term from the ATEX Directive). This assembly is intended for use in potentially explosive atmospheres.

The ignition hazard assessment in accordance with ISO 80079-36 confirms that no new potential ignition sources are created by the combination of certified or assessed Ex devices.

The assembly consists of the following combination:

Product	Manufacturer	ATEX-Labeling	Certificate/Deposit No.
Terminal Box Typ 07-5106-9065	Bartec Varnost	II 2G Ex eb IIC T6 Gb	PTB 08 ATEX 1064 X
Fan motor MK106	Ziehl-Abegg	II 2G Ex eb IIC T4 Gb	2004 PTB 08 ATEX 3061
Axial fan FB...	Ziehl-Abegg	II 2G Ex h IIB T4 Gb	193/20 IBExU
Top Unit Heater	Kampmann	II 2G Ex h IIB T4...T3 Gb X	EPS 23 ATEX 3 207

No new resulting ATEX marking is issued; the existing EU declarations of conformity, type plates including ATEX markings remain valid.

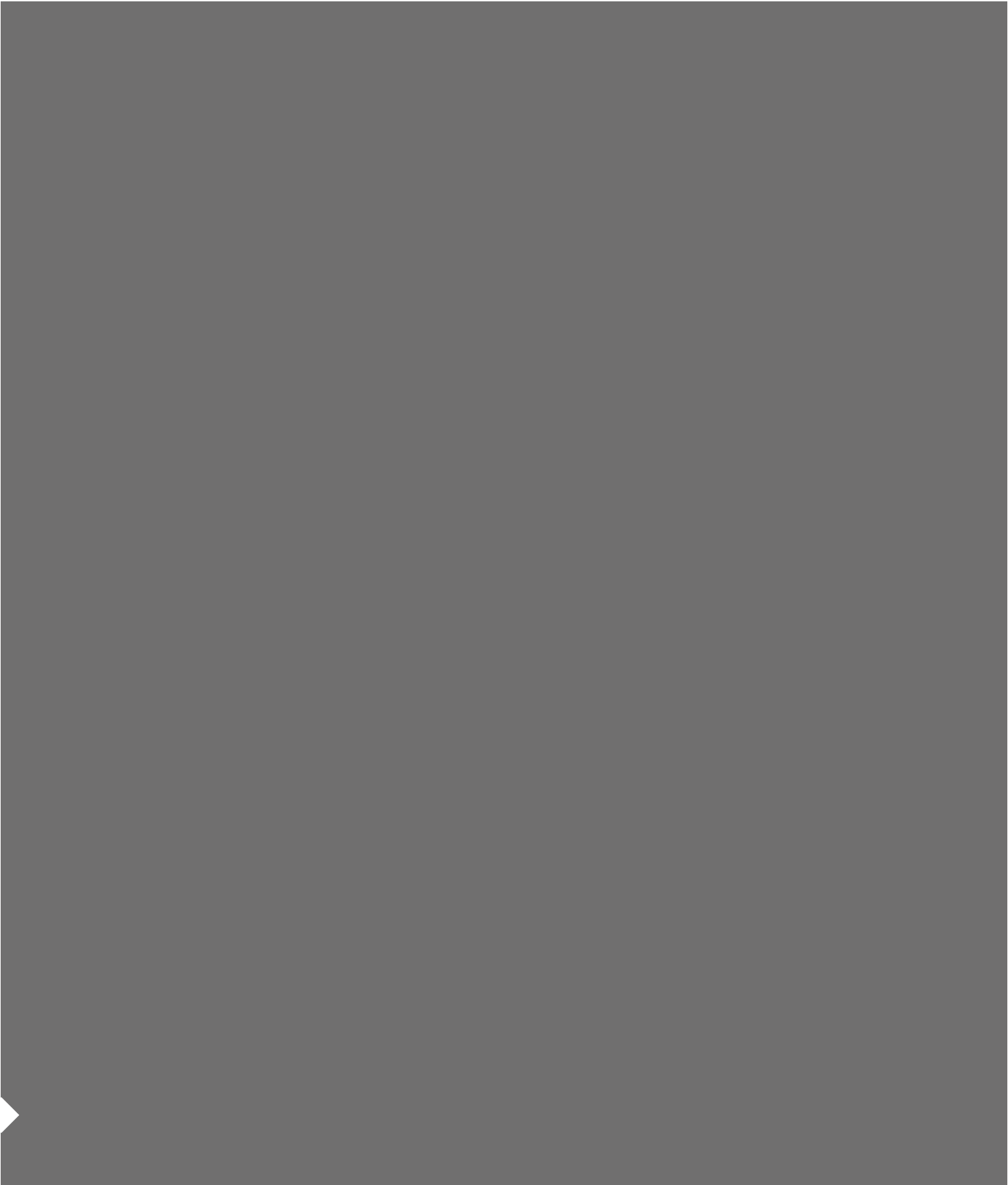
The assembly would bear the resulting labelling:
II 2G IIB T4...T3 Gb X

The special conditions for the safe use of this module in hazardous areas are described in detail in the operating instructions and the applicable documents and must be observed.

Marcel Rakers
Product Compliance Manager
Kampmann GmbH & Co. KG
Lingen (Ems), October 2024

Table

Tab. 1	Limits of operation	7
Tab. 2	Maximum flow temperatures	7
Tab. 3	Operating voltage	7
Tab. 4	Water quality.....	7
Tab. 5	Technical data,	13
Tab. 6	Overview of types with minimum clearances	15
Tab. 7	Air-side sheet steel accessories	16
Tab. 8	Suspension points for wall / ceiling installation	18
Tab. 9	Electrical data	23



Land	Kontakt
Germany	Kampmann GmbH & Co. KG
	Friedrich-Ebert-Str. 128 - 130
	49811 Lingen (Ems)
	T +49 591/ 7108-660
	F +49 591/ 7108-173
	E export@kampmann.de
	W Kampmann.eu

Country	Contact
Great Britain	Kampmann UK Ltd.
	Dial House, Govett Avenue
	Shepperton, Middlesex, TW17 8AG
	T +44 1932/ 228592
	F +44 1932/ 228949
	E info@kampmann.co.uk
	W Kampmann.co.uk