

Instruction Manual

Drum Heaters

Typ
WODPX... (0-90°C)



1 Important basic information

General description of the product

Drum heaters and container heaters of the P series (hereinafter also referred to as "heaters") serve to heat drums and IBC containers made of plastic and metal in order to protect their contents from frost, to heat them to a certain processing temperature or to facilitate their removal and dosage by reducing their viscosity.

The heating element is inserted into pockets on the inside, which ensures a uniform heat distribution and gives the heaters a structure with which they optimally fit the surfaces of the containers to be heated. They are equipped with a manually adjustable thermostat to the desired temperature in the range of 0-90 ° C.

Through their low weight and integrated insulation, they minimize unwanted heat losses. Equipped with robust pull straps and snap fasteners, they can be quickly and easily attached to standard containers and removed again. Additional fastening straps or hooks prevent slipping on the container.

With their relatively low specific area heating power, they are less suitable for rapid heating of liquid or melting of solid contents. They are rather suited for frost protection and slow heating and maintaining of the temperature of already warmed containers directly at the sampling site. The optional insulation covers improve the efficiency and protect against burns on the hot surfaces of the containers.

Due to their high-quality materials and workmanship, Winkler heaters offer, when operated properly, a safe, efficient and durable solution for heating drums and containers in industrial applications.

Disclaimer

All information - including the illustrations and graphical representations - correspond to our current state of knowledge and has been written to the best of our knowledge. Specifications are subject to change without prior notice. In addition, we reserve the right to make changes without notice to the structure, materials or workmanship, which serve the technical progress.



This operating manual contains all the important information for installation and commissioning. You will also receive important information for your safety as well as for help with problems.

The user of this product must decide at his own responsibility about the suitability for the intended application.

2 Safety

2.1 Safety labeling in this operating and montage manual and on the heaters



CAUTION!

This symbol indicates when personal injury or property damage may occur unless appropriate precautions are taken.



Danger!

This symbol indicates that personal injury, resulting from an electrical shock, may occur if the appropriate precautions are not taken.



Danger!

This symbol indicates that personal injury, resulting from hot surfaces, may occur if the appropriate precautions are not taken.

Safety instructions

This product is an industrial electric heating element.

For planning, construction, testing, operation and maintenance, the requirements of this manual, IEC EN 61204-1 electrical equipment of machinery, IEC EN 60519-1 safety of thermal equipment in general and IEC EN 60519-2 safety of electrical heating equipment resistance heating and the applicable parts of EN 61140 protection against electric shock as well as other applicable standards and regulations depending on the application (e.g. of the professional associations) and regulations must be observed.



The protective measures against dangerous shock currents are in accordance with EN 61140, protection against electrical shock and the specifications of the standards listed above.

The heater may only be used outside of potentially explosive atmospheres.

The heating of explosive media or media which produces explosive substances, when heated up is strictly forbidden.

The flawless and safe operation of the heater requires that it is carefully transported, stored and properly installed.



The heater is designed so that the resulting high temperatures are only released to the inside of the drum thanks to thermal insulation. Due to thermal insulation, only temperatures which are below the hazard threshold according to IEC 60364-4-42 + A1 Construction of low-voltage systems, Protection against thermal influences, will occur at the outer protection. As a temperature protection switching element is a temperature limiter built-in.

Instructions



**Please read this operating manual before using the device!
Failure to observe these safety instructions may result in property
damage or personal injury due to fire or electric shock!**

Heaters are electrical equipment that may only be installed, connected and put into operation by trained personnel. Suitable electrical switching and protection devices are to be provided according to the respective statutory provisions by the operator. We recommend the use of a residual current device (RCD) with 30 mA (Applies only to heaters of protection class I).



**All P-Series heaters are designed for indoor use only (IP54 rating)
and must not be exposed to the weather.**

Before operation

Remove the heater from the packaging and make sure it is not damaged.
Never lift the heater by the connection cable.

Check the conformity of the mains voltage with the rated voltage on the type label.

Always use the heater only for the designated container of the appropriate type and size. This is especially true for cambered barrels. Never use the heater without a suitable container!

When using on plastic containers, make sure to exceed the manufacturer's maximum temperature (70 ° C) and heat up time.



**Find out which max. permissible temperature of the substance
(→ safety data sheet) may not be exceeded and whether flammable
gases or vapors may escape (risk of fire and explosion!)**

Make sure that the container to be heated is clean and dry.

Do not use additional heating or heat sources and never expose the heater to temperatures above the nominal temperature.



A T T E N T I O N !

The heater is an electrical equipment.

It must therefore be installed and commissioned only
by trained personnel.

Connection, maintenance and repair must only be
executed by trained and competent personnel.

3 Intended operation

The heater is only operated as intended if the following points are taken into account:

Only authorized people are allowed to work on the heater.

The heater may only be operated in the restricted area of the specified supply voltage

The heater may only be operated up to the maximum specified operating temperature

The safety and operating instructions of this operating manual must be observed

The operating instructions of the operator must be observed

The statutory accident prevention regulations must be complied with

3.1 **Not intended operation**

Operation by unauthorized personnel
 Operation in systems with dust and corrosive gas
 Operation with flammable, explosive gases and dusts (EX areas)
 Operation in disregard of safety regulations
 Operation with deactivated, modified or defect safety devices
 If a higher temperature is set than the max. specified operating temperature of the medium, it can cause a considerable damage for people, machinery or buildings as far as smoke or fire damages.
 Outside an ambient temperature of -20 °C to 50°C
 Outside condensing ambient humidity between 35 and 85% RH.

4 **Designated use and application**

Drum heaters of the P-Series are designated to heat up metal and plastic drums to max. 90 ° C in **non-explosive areas**:

Type WODPX20_: for cylindrical metal and plastic barrels of 200-220 L

5 **Technical data**

Outer cover:	water-repellent polyester fabric
Thermal Insulation:	polyester fleece
Heating Element:	fluoropolymer-insulated resistance heating cable
Operating Voltage:	230VAC (+/- 10%) → 115VAC (+/- 10%) as an option
Operating Temperature:	0-90 °C
Temperature Limiter:	120°C
Protection class:	II (protective insulation) I (protective earth) as an option
IP-rating:	IP 54
Ambient temperature	-20 ... 50 °C
Length connecting cable:	5,0 m

Type	Voltage	Drum	Prot. Cl.	Power	Dimensions	Weight
WODPX202-230XC091	230V	200-220 L	II	1.200 W	2.100 x 800 mm	4,5 kg
WODPX201-230XC091	230V	200-220 L	I	1.200 W	2.100 x 800 mm	4,9 kg
WODPX202-115XC091	115V	200-220 L	II	1.200 W	2.100 x 800 mm	4,5 kg
WODPX201-115XC091	115V	200-220 L	I	1.200 W	2.100 x 800 mm	4,9 kg

6 Structure (see also Illustration 1.1 and 1.2)

P-Series drum heaters consist of an outer jacket (1) made of water-repellent polyester fabric. Pockets (2) are sewn into the heating inner side, into which the fluoropolymer-insulated heating element is drawn. A double thermal insulation made of polyester fleece is sewn in on the outside. Robust tension belts (3) and snap fasteners made of polyamide are used for fastening. Two additional fastening straps with velcro fasteners (4) prevent slipping. The drum heaters have a safety capillary tube thermostat (5) with a rotary knob, an on/off switch and 2 indicator lights. In addition, a bimetallic limiter is installed which prevents uncontrolled heating in the event of thermostat failure. Depending on the version, the drum heaters are designed in protection class II (standard) or protection class I (optional). They are connected to the power supply via a 5,0 m long connecting cable (6).

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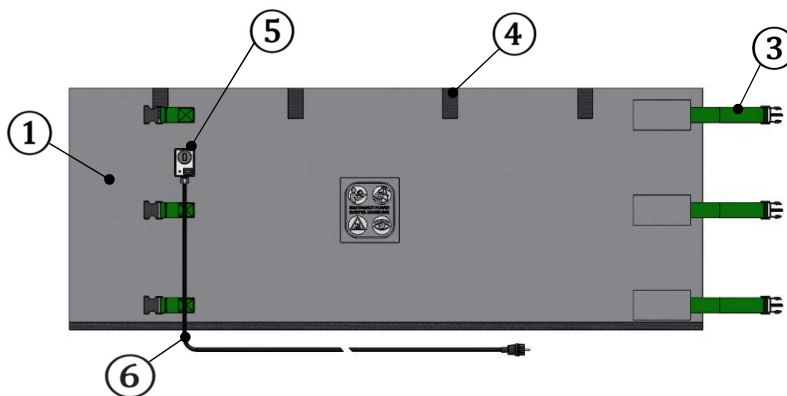


Illustration 1.1: Drum Heater WODPX200 (outer side)



Illustration 1.2: Drum Heater WODPX200 (inner side)

7 Installation

Place the barrel heater around the barrel and fasten it with a fastening tape to the Velcro patches to prevent it from slipping off (Illustration 1.3). Align it and now attach the second fastening tape. Close the snap locks and tighten the pull straps evenly (Illustration 1.4).

The drum heater must fit snugly and wrinkle-free against the container and the heated areas (identified by the inner pockets) must NOT overlap.

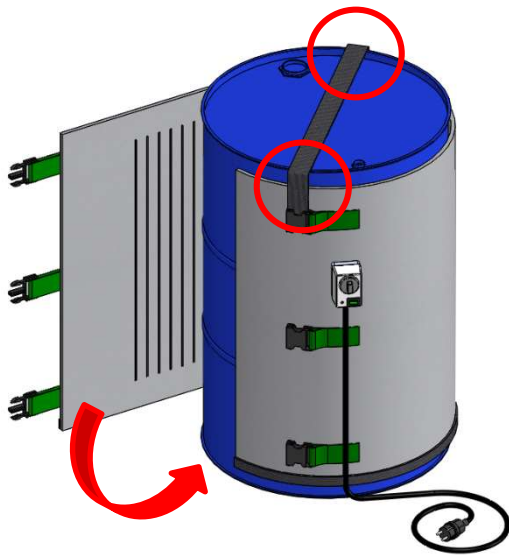


Illustration 1.3

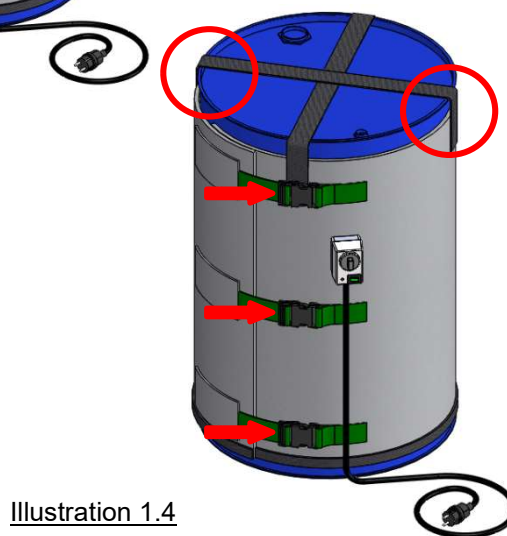
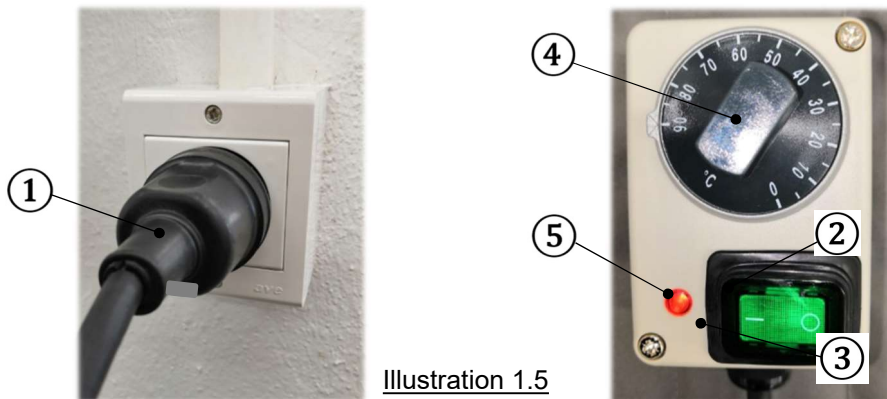


Illustration 1.4

8 Operation (Illustration 1.5)

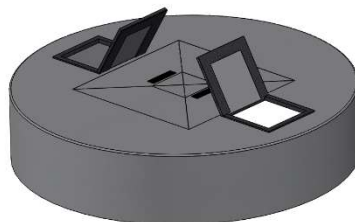
Connect the drum heater to the power supply via the connecting cable (1) and switch it on at the toggle switch (2) of the thermostat. The green indicator light (3) located in the switch will now light up. Set the desired temperature in the range 0 to 90 °C at the rotary knob (4) of the thermostat. The red control lamp (5) now indicates that the drum heater is heating. When the set temperature is reached, the thermostat automatically switches off the heating element. The red control lamp (5) goes out again. As soon as the temperature falls below the set temperature again, the thermostat automatically switches the heating element on again.



Monitor the heating process and the behavior of the ingredient. If necessary, open the lid or bung holes of the barrel to prevent it from expanding inadmissibly due to pressure build-up during heating. If liquid escapes, immediately shut down the barrel heater.

For an even more energy-efficient operation and to protect against burns, we recommend, especially with metal drums, the use of the (Item WOIPX200) (Illustration 1.6).

Illustration 1.6



9 Delivery/unpacking, internal transport, storage

9.1 Safety

When packing or unpacking, make sure that the heater is not damaged.

9.2 Delivery/unpacking

A special focus here is the electrical connection and that the heater is not kinked.

The packaging protects the heater against transport damage. The packaging material is selected and recyclable according to environmental and disposal technical aspects.

The return of the packaging into the material cycle reduces waste and saves raw materials.

Please dispose the packaging material that is no longer needed at the collection points for the green dot recycling system.

9.3 Internal transport

The heater should be packed properly for transport. The electrical connection with the plug should be protected additionally with bubble wrap for example.

9.4 Storage

When the heater is not in use, it should be stored in a dry and clean environment in its original packaging. To do this, gently roll it along the lines of the pockets without pressing or bending it.

10 Assembly and installation, initial commissioning

10.1 Assembly and installation

!!! Please read the assembly and installation notes carefully and observe all the listed points when installing the device.

The disregard of these installation notes can cause malfunction and the EU-conformity is not given anymore.

Before connecting and commissioning the heater, make sure that the operating voltage and the required operating voltage conditions of the device match those on site (see type plate and technical data).

Take appropriate action if necessary.



For the selection, the installation, the set up and the inspection of heaters only employees adequately trained in this work may be used. These employees need to have the required knowledge about potential dangers just like high pressure, high temperatures, an inadequate installation and a dangerous electrical voltage. These employees must use care and wear the required personal protective equipment when handling the hot/fluid media. The hazardous material data sheets of the manufacturers of the media being used are to be observed.



Please make sure that the control and load voltage are switched off and are secured against restoring while you install the heater.

The electrical connections must be made in accordance with the connection diagram and the relevant national regulations.

The switching output of the controller must be protected against overcurrent according to the maximum power output and the connected heater.

In addition, a residual current circuit-breaker 30mA should be connected upstream by the heater with protection class I.

This manual does not contain any references to regulations, standards etc., that must be observed when working with the heater in conjunction with systems.

These regulations, standards etc. must be compiled and observed by the operator of the device in an application-specific manner.

Installation

Install the heater so that it rests flat and smooth against the container and so that the heated areas (indicated by the inner pockets) DO NOT overlap. The heater must be secured against slipping by means of the existing fixings.

Do not use fasteners other than those supplied and do not use tools that could overstress the material.

Always keep a safety distance of at least 50 cm between two heated containers.

The same applies to the distance to radiators, warm surfaces etc.

10.2 Operation

Only connect the heater to the power supply after installation. Switch on the heater at the switch-on button and set the desired temperature on the knob of the thermostat. Note that the temperature set on the thermostat does not necessarily correspond to the temperature of the content.

The capillary-sensor of the thermostat is positioned so that it detects the temperature at the surface of the heating element. The temperature of the content, if necessary, must be determined by separate measurement.



Monitor at any time the heating phase and the operation of the heater to detect any overheating or irregularities in good time and to take appropriate measures.

If necessary, open the lid or bung holes of the container so that it does not expand inadmissibly due to pressure build-up during heating. Monitor the level inside the container while removing the contents. If any liquid spills over, immediately stop the heaters operation.



Caution: At temperatures above 60°C, there is a risk of burns on the surfaces of the containers. Protect yourself e.g. by using an insulation cover available as an accessory.

During initial operation, you may detect a smell due to technical reasons which does not represent a defect. Please pay attention to good ventilation. When the heater is not in operation, disconnect it from the power supply.

11 Troubleshooting Guide

Please read this manual before contacting us. This guide is designed to answer the most frequently asked questions.

If you are unable to identify the problem or need additional assistance, please contact your dealer or our service at customercare@klett-gmbh.de

PROBLEM	SOLUTION(S)
Heater does not fit	Make sure the heater is designated for your container. Measure its height and circumference and compare it to the dimensions of the heater in the technical data.
Heater does not heat	Make sure that the heater is connected to a suitable power supply. The type label shows the rated voltage of the heater. When the toggle switch is in the "ON" position, the green warning light must be on. If the red indicator light does not light up when the knob is fully turned, this indicates a defective thermostat.
Circuit breaker trips	Check that the circuit breaker is suitable for the rated current of the heater. The type label shows the rated power. Examine the heater and connection cable for damage that indicates a short circuit in the heater.
Light contamination the outside / inside	Use a clean cloth with household cleaner to wipe off the contamination. The cleaner must not contain any solvents or abrasives.

If it is determined or suspected that safe operation is no longer possible, the heater must be taken out of service and secured against unintentional startup. This includes the clear marking.

This case occurs,

- if the heater has visible damage (e.g. the outer jacket),
- when the heater stops heating,
- if the heater has suffered an overload of any kind exceeding its permissible limits (for example, due to storage, transport, installation, commissioning, operating conditions etc.).

Repairs may only be executed in our factory!

If the customer does any kind of repairs on the heating hose, warranty claim expires immediately.

If the heating hose is technically modified by the customer, then warranty expires with immediate effect.

12 Maintenance

The error detection of heaters may only be executed by trained personnel who have sufficient knowledge about this. When working on active heater, wear personal protective equipment such as gloves, eye and face protection and work clothing with long sleeves.

Repairs may only be executed in our factory!

If the heater shows any damage, please send it back to us with a description of the fault (please use the service return note on www.kletti-gmbh.de).

If the customer does any kind of repairs on the heating hose, warranty claim expires immediately.

The heater must only be checked by qualified personnel in accordance with the valid regulations for creating and servicing. Test periods and test specifications according to DGUV regulation 3 must be observed.

If, during the visual inspection, it is found that the heating hose is heavily soiled, it should be cleaned with a **damp** cloth when it is switched off. If necessary, a light commercially available cleaning agent can also be used.

The inspection must be carried out after the heater has cooled down to ambient temperature and has been disconnected from the power supply. The heater should not have any cuts, cracks or stitches. The insulation of the connection cable must not have any visible damage. The heater should not have any accumulations of dirt, oil, grease or foreign bodies. Warnings and rating plates should be undamaged and clearly legible.

Heaters where the heating cable is visible have been damaged or overheated.

They must be taken out of operation immediately and may no longer be used.

12.1 Maintenance plan

The inspection of the heaters may only be carried out by personnel who have adequate knowledge about this. When working on active heaters, wear personal protective equipment such as gloves, eye and face protection and work clothing with long sleeves.

d = daily, w = weekly, m = monthly, y = yearly

Task	d	w	m	y
Visual inspection (in multi-shift operation daily)	X	X		
Examination according to DGUV regulation 3 as well as checking the heater, thermostat and limiter.				X

13 Warranty

We assume a warranty

- in our articles for proper execution for a period of 12 months from the date of shipment, such that we for all parts whose premature failure are due to design, work or material defects, with free return of the defective pieces to Sandhausen, free replacement Sandhausen deliver, unless otherwise agreed. We are not liable for damage caused by natural wear or improper handling.

- in our articles of any kind only as far as demonstrable material defects are present.

A determined temporal warranty is excluded, because the durability depends essentially on the care of handling, and these are factors beyond our control.

In none of these cases will any other compensation be granted as a free replacement of defective parts; as well as other claims for damages, compensation of any expenses for wages, freight and the like are strictly rejected.

14 Disassembly and disposal

Turn off the heater and allow it to cool down completely. Disconnect it from the power supply before removal. Then check for damage and contamination and the connecting cable for defects. Do not use solvents or abrasives to clean the heater and never immerse the heater into liquids. For cleaning, gently wipe the surfaces and thermostat with a damp cloth. Keep the heater away from sharp edges and sharp objects.



If you notice any defects or damage of any kind, do not re-operate the heater again. Do not try to repair a damaged heater yourself.

Environmental information for industrial customers within the EU:

The WEEE Directive 2012/19/EU aims to prevent waste from electrical and electronic equipment and to reduce such waste through re-use, recycling and other forms of recovery.



The symbol indicates that the product should be disposed of separately from regular commercial / household waste. It is your responsibility to dispose of this product only through the legally prescribed disposal routes or the appropriate collection points designated by the government or local authorities.

Proper disposal and recycling help prevent potential negative consequences for the environment and human health. If you need more information about how to dispose of your old equipment, contact your local or municipal waste disposal service or the dealer from whom you purchased the product.

15 Scope of supply

1x Drum heater

1x Accessory set fixing straps

1x Manual

15.1 EU Declaration of Conformity



Kletti GmbH - Gottlieb-Daimler-Str. 10 – 69207 Sandhausen

EU-Konformitätserklärung

Hiermit erklären wir, dass unsere nachstehend bezeichneten Produkte in ihrer Konzeption und Bauart sowie in der von uns in Verkehr gebrachten Ausführung den grundlegenden Sicherheits- und Gesundheitsanforderungen der EU-Richtlinie Niederspannung 2014/35/EU (2014) entsprechen. Bei einer mit uns nicht abgestimmten Änderung unserer Produkte verliert diese Erklärung ihre Gültigkeit.

Hersteller:

Kletti GmbH
Gottlieb-Daimler-Straße 10
69207 Sandhausen

Beschreibung der Produkte:

Fassheizer Serie P WODPX... zur Verwendung zur Temperierung von 200-220L Standard Fässern aus Metall oder Kunststoff von 0 bis 90°C

Es wird die Übereinstimmung mit folgenden Normen erklärt:

- IEC 60204-1 (2014) El. Ausrüstung von Maschinen
- IEC 60519-1 (2015) Sicherheit von Wärmeanlagen allgemein
- IEC 60519-2 (2006) Sicherheit von Wärmeanlagen, Widerstandserwärmung
- IEC 61140 (2016) Schutz gegen elektrischen Schlag

Es wird die Übereinstimmung mit weiteren, ebenfalls für die vorgenannten Produkte geltenden Richtlinien des Europäischen Parlaments und des Rates und Normen erklärt:

- Richtlinie 2014/30/EU (2014) zur Harmonisierung der Rechtsvorschriften der Mitgliedsstaaten über die elektromagnetische Verträglichkeit
- Richtlinie 2011/65/EU (2011) zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten
- IEC 60364-4-42 (2011) + A1 (2015) Errichtung von Niederspannungsanlagen. Schutz gegen thermische Einflüsse

Sandhausen, Januar 2020

Steffen Exner
-Geschäftsführer-

Jürgen Müller
-Tech. Leitung-

KLETTI Flexible elektrische Beheizungen

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HRB 701099
Finanzamt Heidelberg
Steuer-Nr. 32495/15409
UST-ID DE250796062

Geschäftsführer :
Bernd Kletti
Christiane Kletti
Steffen Exner

Bankverbindungen :
H+G BANK Heidelberg Kurpfalz eG
BIC CODE GENO DE 61 HD 3
IBAN DE 72 6729 0100 0013 150400



Kletti GmbH - Gottlieb-Daimler-Str. 10 – 69207 Sandhausen

EU-Declaration of Conformity

Hereby we declare that the concept and construction of our products mentioned below as well as fulfillment of the essential safety and health demands conform to EU-Low Voltage Directive 2014/35/EU. In case of modification of our products without our authorization, this Declaration of Conformity loses its validity.

Manufacture:

Kletti GmbH
Gottlieb-Daimler-Straße 10
69207 Sandhausen

Description of the products:

Drum heater series P WODPX... for use in tempering 200-220L standard drums made of metal or plastic from 0 to 90 ° C

The agreement with the following standards is explained:

- IEC 60204-1 (2014) Safety of machinery - Electrical equipment of machines
- IEC 60519-1 (2015) Safety in heating installations, general requirements
- IEC 60519-2 (2006) Safety in heating installations, resistance heating
- IEC 61140 (2016) Protection against electric shock

It will match with others, also for the aforementioned Products of the European Parliament and of the Council explained:

- 2014/30/EU (2014) on the harmonisation of the laws of the Member States relating to electromagnetic compatibility
- 2011/65/EU (2011) Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment
- IEC 60364-4-42 (2011) + A1 (2015) Low voltage electrical installations – Part 4-42: Protection for Safety – Protection against thermal effects

Sandhausen, January 2020

Steffen Exner
-Managing Director-

Jürgen Müller
-Technical management-

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