

TDS 10 / TDS 20 / TDS 30 / TDS 50

EN

INSTRUCTIONS
ELECTRIC HEATER



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Information on the use of this instructions

Symbols

 **Warning of electrical voltage**
 This symbol indicates dangers to the life and health of persons due to electrical voltage.

 **Warning of hot surface**
 This symbol indicates dangers to the life and health of persons due to hot surface.

 **Warning**
 This signal word indicates a hazard with an average risk level which, if not avoided, can result in serious injury or death.

 **Caution**
 This signal word indicates a hazard with a low risk level which, if not avoided, can result in minor or moderate injury.

Note
 This signal word indicates important information (e.g. material damage), but does not indicate hazards.

 **Info**
 Information marked with this symbol helps you to carry out your tasks quickly and safely.

 **Follow the manual**
 Information marked with this symbol indicates that the instructions must be observed.

You can download the current version of the instructions and the EU declaration of conformity via the following link:



TDS 10



<https://hub.trotec.com/?id=42379>

TDS 20



<https://hub.trotec.com/?id=39782>

TDS 30



<https://hub.trotec.com/?id=42381>

TDS 50



<https://hub.trotec.com/?id=39785>

Safety

Read this manual carefully before starting or using the device. Always store the manual in the immediate vicinity of the device or its site of use.



Warning

Read all safety warnings and all instructions.

Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.



Warning

Children of less than 3 years should be kept away from the device unless continuously supervised.

Children aged from 3 years and less than 8 years shall only switch on/off the appliance provided that it has been placed or installed in its intended normal operating position and they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

Children aged from 3 years and less than 8 years shall not plug in, regulate and clean the appliance or perform user maintenance.



Warning

Do not use the device in small rooms if persons are present who cannot leave the room independently and who are not under constant supervision.

- Do not use the device in potentially explosive rooms or areas and do not install it there.
- Do not use the device in aggressive atmosphere.
- Only put up the device in an upright, stable position on firm ground.
- Let the device dry out after a wet clean. Do not operate it when wet.
- Do not use the device with wet or damp hands.
- Do not expose the device to directly squirting water.
- Never insert any objects or limbs into the device.
- Do not cover the device during operation.

- Do not remove any safety signs, stickers or labels from the device. Keep all safety signs, stickers and labels in legible condition.
- Do not sit on the device.
- This appliance is not a toy. Keep away from children and animals.
- Check accessories and connection parts for possible damage prior to every use of the device. Do not use any defective devices or device parts.
- Ensure that all electric cables outside of the device are protected from damage (e.g. caused by animals). Never use the device if electric cables or the power connection are damaged!
- The mains connection must correspond to the specifications in the Technical annex.
- Insert the mains plug into a properly fused mains socket.
- Observe the device's power input, cable length and intended use when selecting extensions to the power cable. Completely unroll extension cables. Avoid electrical overload.
- Before carrying out maintenance, care or repair work on the device, remove the mains plug from the mains socket. Hold onto the mains plug while doing so.
- Switch the device off and disconnect the power cable from the mains socket when the device is not in use.
- Do not under any circumstances use the device if you detect damages on the mains plug or power cable. If the power cable is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard. Defective power cables pose a serious health risk!
- When positioning the device, observe the minimum distances from walls and other objects as well as the storage and operating conditions specified in the Technical annex.
- Keep a safety distance of at least 1 m between the air inlet and the air outlet of the device and all combustible materials such as textiles, curtains, beds and sofas.
- Make sure that the air inlet and outlet are not obstructed.
- Do not place the device on combustible ground.
- Only use original spare parts, for otherwise safe and functional operation cannot be ensured.
- Allow the device to cool down before transport and/or maintenance work.
- Do not use the device if it has been dropped or if it shows visible signs of damage.

- Do not use the heating device together with a programming device, a timer, a separate remote control system or any other device that automatically switches the heating device on, as there is a risk of fire if the heating device is covered or incorrectly positioned.

Intended use

Only use the device for heating closed rooms whilst adhering to the technical data.

Intended use comprises heating the air in:

- Construction trailers
- greenhouses
- Boathouses
- Garages
- Market stalls
- Workshops
- Gastronomy sector
- Warehouses and halls
- Shipyards
- in wet rooms in compliance with the local or national regulations for the operation of electrical equipment in wet rooms.

Any use other than the intended use is regarded as misuse.

Reasonably foreseeable misuse

- Do not place any objects, e.g. clothing, on the device.
- Do not use this device in the vicinity of fuel, solvents, varnishes or other easily inflammable vapours or in rooms where these substances are stored.
- Do not use the device out of doors.
- Do not use the device for heating in vehicles.
- Do not use the heating device in immediate vicinity of swimming pools, bathtubs and showers.
- Never immerse the device in water.
- Do not place the device on wet or flooded ground.
- Do not make any unauthorised modifications, alterations or structural changes to the device.

Personnel qualifications

People who use this device must:

- be aware of the dangers that occur when working with electric devices in damp areas.
- have read and understood the instructions, especially the Safety chapter.

Maintenance tasks which require the housing to be opened must only be carried out by specialist electrical companies or by Trotec.

Symbols on the device

Symbols	Meaning
	This symbol located on the device indicates that it is prohibited to place objects (such as towels, clothes etc.) above or directly in front of the device. In order to avoid overheating and fire hazards, the heater must not be covered.

Residual risks



Warning of electrical voltage

Work on the electrical components must only be carried out by an authorised specialist company!



Warning of electrical voltage

Before any work on the device, remove the mains plug from the mains socket!
Do not touch the mains plug with wet or damp hands. Hold onto the mains plug while pulling the power cable out of the mains socket.



Warning of electrical voltage

Risk of electric shock!
Risk of an electric shock if the heating device comes into contact with water in bathtubs, showers or swimming pools!
Do not use this heating device in immediate proximity to bathtubs, showers or swimming pools!



Warning of hot surface

Parts of this appliance can become very hot and cause burns. Particular attention is to be paid when there are children or vulnerable persons present!



Warning

Improper handling entails a risk of electric shock. Only use the device as intended!



Warning

Dangers can occur at the device when it is used by untrained people in an unprofessional or improper way! Observe the personnel qualifications!



Warning

The device is not a toy and does not belong in the hands of children.



Warning

Risk of suffocation!
Do not leave the packaging lying around. Children may use it as a dangerous toy.

**Warning**

Improper installation entails a risk of fire.
Do not place the device on combustible ground.
Do not place the device on high-pile carpets.

**Warning**

In order to avoid overheating and fire hazards, the device must not be covered!

Behaviour in the event of an emergency

1. Switch the device off.
2. Disconnect the device from the mains feed-in: Hold onto the mains plug while pulling the power cable out of the mains socket.
3. Do not reconnect a defective device to the mains.

Overheating protection

The device is provided with a safety thermostat, which is activated by overheating of the device. In such an event the device switches off automatically.

When the safety thermostat is activated, allow the device to cool down. Only then start to look for the cause of overheating. Should the problem persist, please contact the customer service.

After the device TDS 50 has been switched off due to overheating, press the *Reset* button (8) to reset the internal thermostat.

Tilt protection

The device comes equipped with a tilt protection. The tilt protection is a safety device intended to minimize the risk of fire in case the device is tipped over inadvertently. The device will be switched off when knocked over (or if its upright position is changed in any other manner).

The tilt protection switches the device off when it is inclined out of its vertical position. The device can again be used as usual only a few seconds after placing it back in vertical position and on solid ground.

Information about the device**Device description**

The electric heater serves to generate and distribute warm air, e.g. in interior spaces.

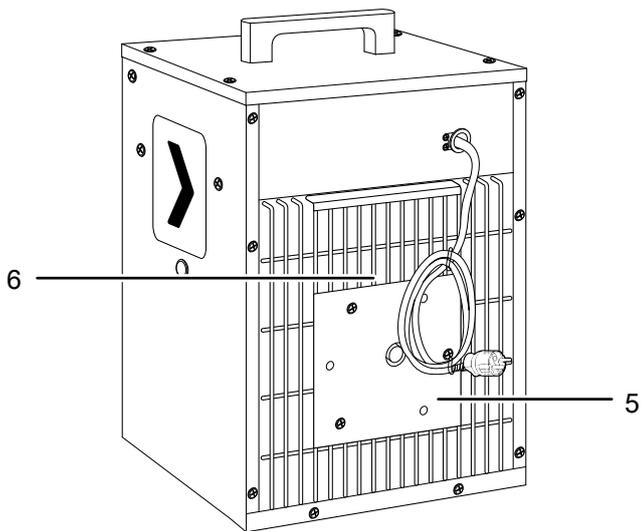
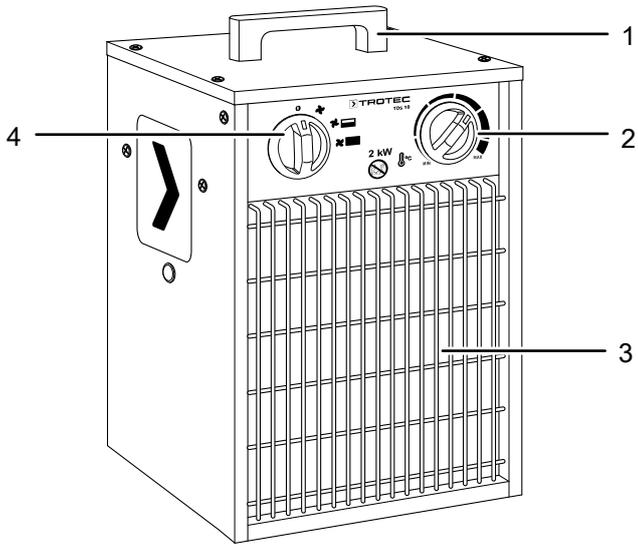
The device generates heat by means of a heating element. The air surrounding the heating element is heated. The heated air is blown into the room by a fan.

The device is equipped with an integrated thermostat and so generates a constant flow of warm air.

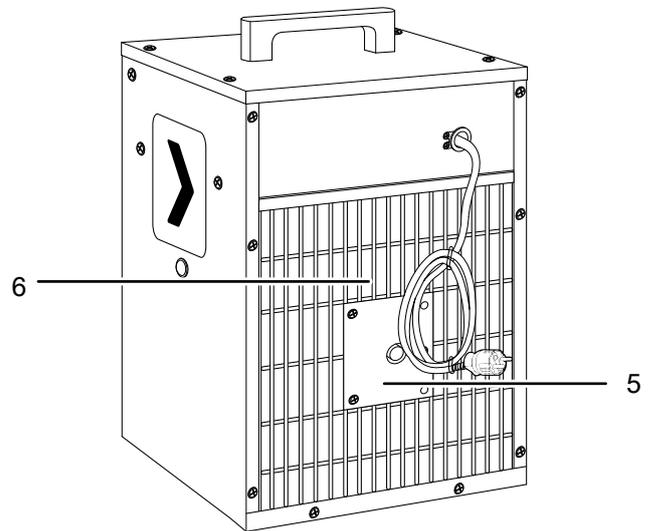
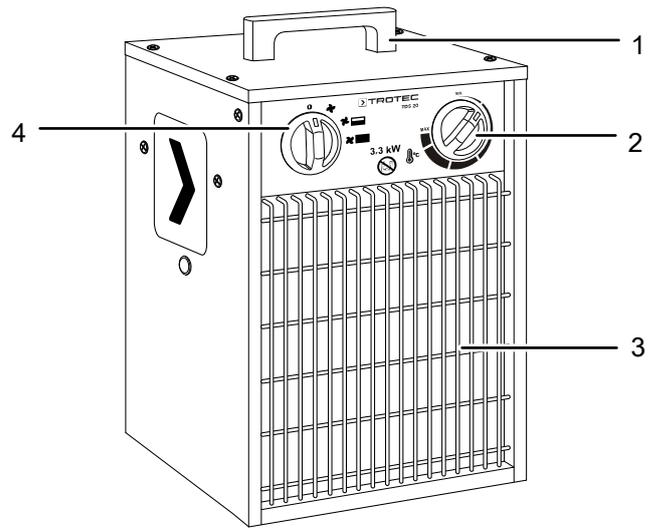
Fan operation without heating function is also possible.

Device depiction

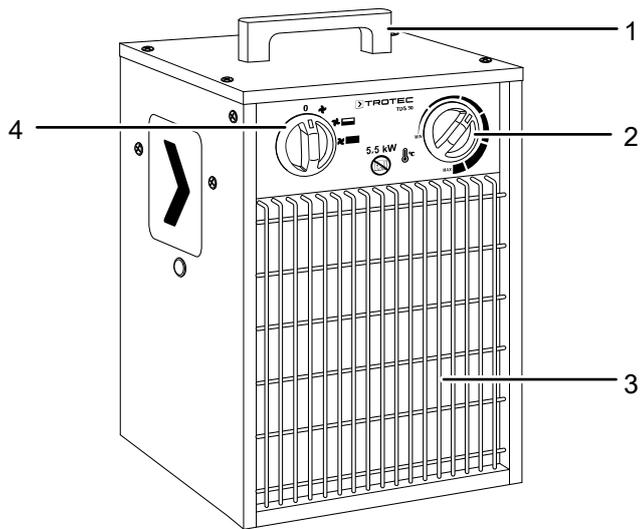
TDS 10



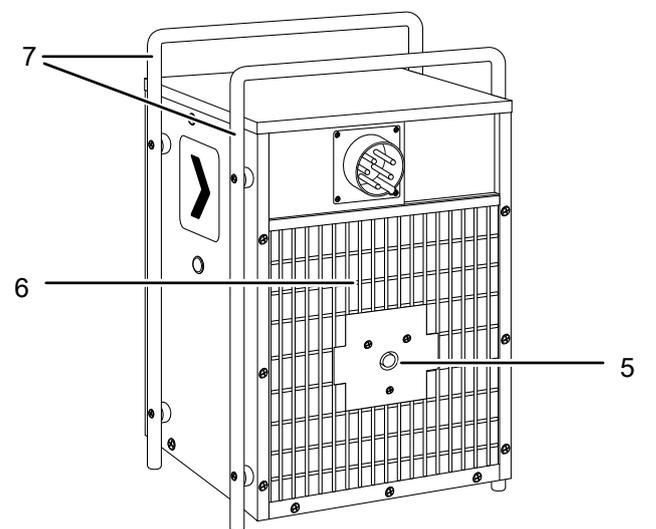
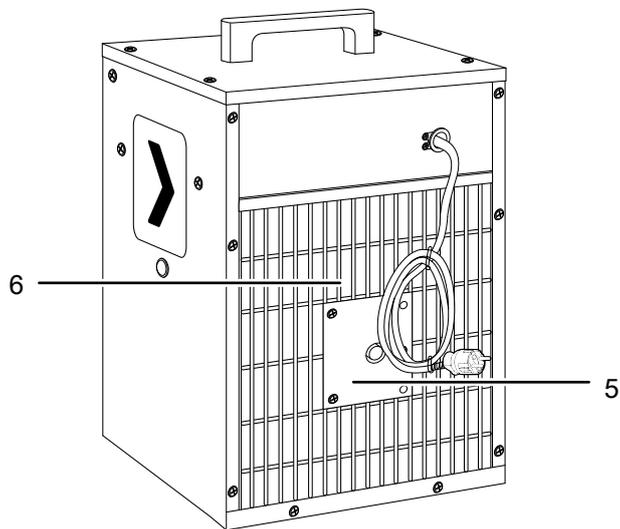
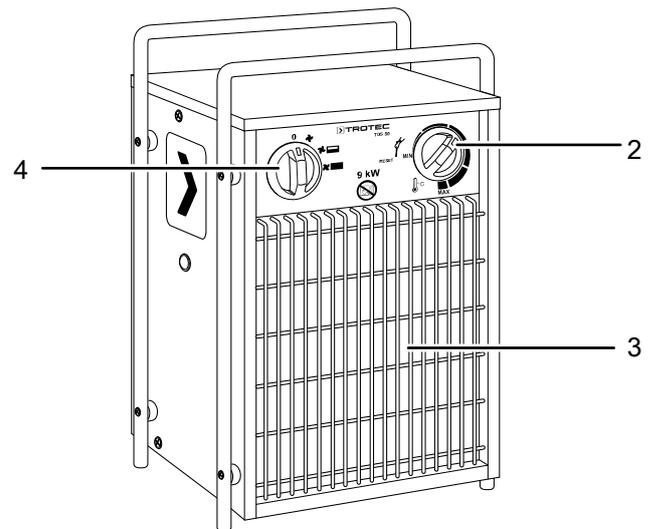
TDS 20



TDS 30



TDS 50



No.	Designation
1	Transport handle
2	Rotary switch <i>temperature</i>
3	Air outlet
4	Selection switch <i>ventilation and heating levels</i>
5	Air baffle
6	Air inlet
7	Carrying handles

Transport and storage

Note

If you store or transport the device improperly, the device may be damaged.

Note the information regarding transport and storage of the device.

Transport

To make the device easier to transport, it is fitted with a carry handle.

Before transporting the device, observe the following:

- Switch the device off.
- Hold onto the mains plug while pulling the power cable out of the mains socket.
- Do not use the power cable to drag the device.
- Allow the device to cool down sufficiently.

Storage

Before storing the device, proceed as follows:

- Hold onto the mains plug while pulling the power cable out of the mains socket.
- Allow the device to cool down sufficiently.

When the device is not being used, observe the following storage conditions:

- Store the device in a dry location and protected from frost and heat.
- Store the device in an upright position where it is protected from dust and direct sunlight.
- If required, use a cover to protect the device from invasive dust.
- Place no further devices or objects on top of the device to prevent it from being damaged.

Assembly and start-up

Scope of delivery

- 1 x Electric heater
- 1 x Manual

Unpacking the device

1. Open the cardboard box and take the device out.
2. Completely remove the packaging.
3. Fully unwind the power cable. Make sure that the power cable is not damaged and that you do not damage it during unwinding.

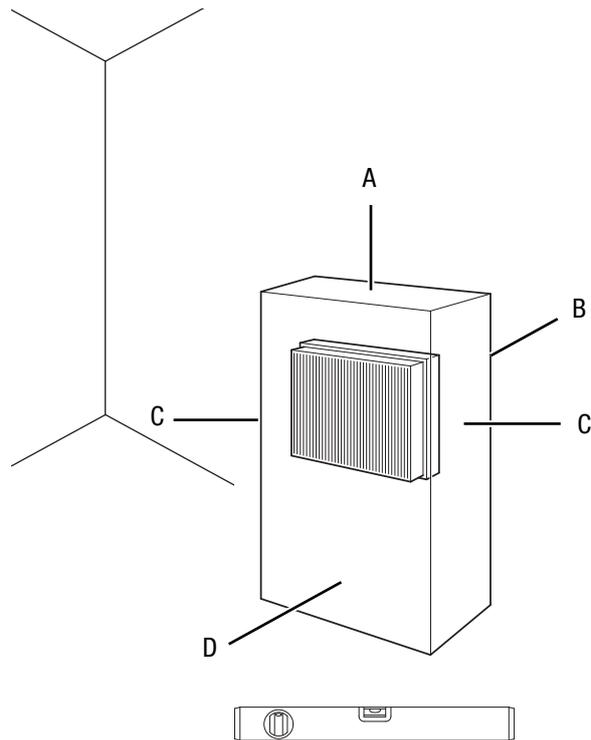
Start-up



Info

Odours might arise upon initial start-up or after a longer period of non-use.

When positioning the device, observe the minimum distance from walls or other objects as described in the chapter Technical annex.



- Before starting the device, check the condition of the power cable. If there are doubts as to their sound condition, contact the customer service.
- Set the device up in an upright and stable position.
- Do not create tripping hazards when laying the power cable or other electric cables, especially when positioning the device in the middle of the room. Use cable bridges.
- Make sure that extension cables are completely unrolled.

- Make sure that no curtains or other objects interfere with the air flow.
- Make sure that the device cannot come into contact with moisture or water.

Connecting the power cable

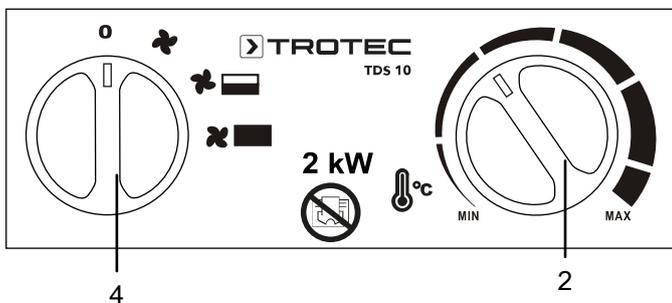
- Insert the mains plug into a properly fused mains socket.
- Make sure that the power cable is guided along the back of the device. Never guide the power cable along the front of the device!

Operation

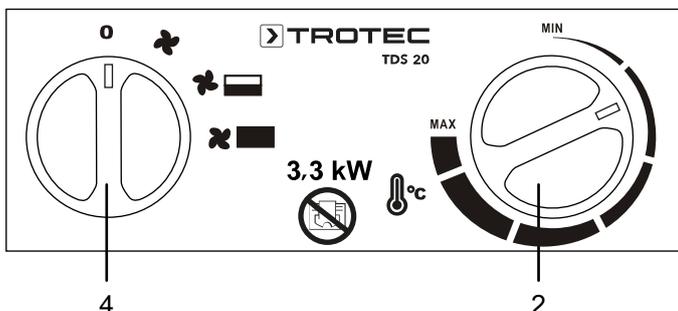
- Avoid open doors and windows.

Control panel

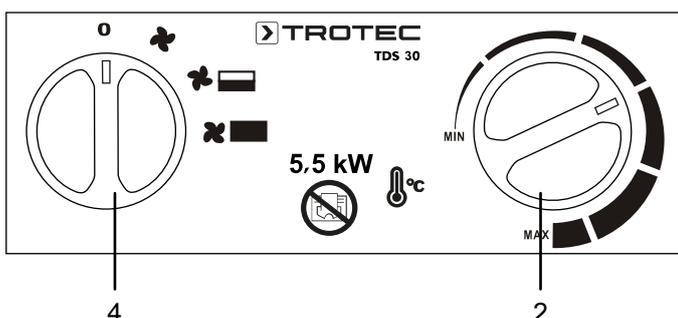
TDS 10



TDS 20

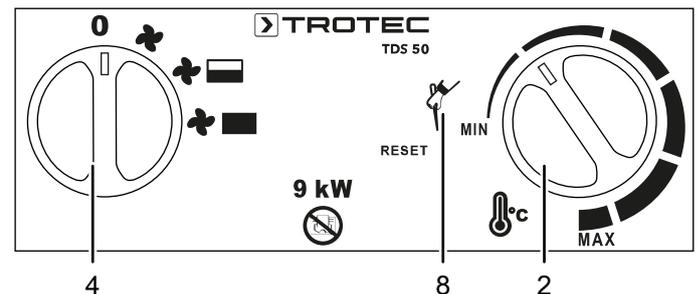


TDS 30



No.	Designation	Meaning
2	Rotary switch <i>temperature</i>	For setting the temperature via the room thermostat
4	Selection switch <i>ventilation and heating levels</i>	For selecting the heating levels and ventilation 0 : OFF ☒ : cold air / ventilation ☒ : heating level 1 ☒ : heating level 2

TDS 50



No.	Designation	Meaning
2	Rotary switch <i>temperature</i>	For setting the temperature via the room thermostat
4	Selection switch <i>ventilation and heating levels</i>	For selecting the heating levels and ventilation 0 : OFF ☒ : cold air / ventilation ☒ : heating level 1 ☒ : heating level 2
8	<i>Reset</i> button	Resets the internal thermostat within the TDS 50.

Switching the device on

Once you have completely installed the device as described in the chapter Assembly and start-up, you can switch it on.

1. Set the selection switch *ventilation and heating levels* (4) to the desired heating level.

Setting the room thermostat

1. Select the desired temperature via the stepless rotary switch *temperature* (2) of the room thermostat.

TDS 10 and TDS 20

The room thermostat controls the room temperature automatically:

- When exceeding the set value, both the heating and the ventilation will be switched off.

TDS 30 and TDS 50

- When the set value is exceeded, the heating switches off while the fan keeps running.



Info

In the event of a power failure, press the *Reset* button (8) on the device TDS 50 after the mains plug has been removed from the mains socket and after the device has been switched off due to overheating.

Shutdown



Warning of electrical voltage

Do not touch the mains plug with wet or damp hands.

- Turn the selection switch *ventilation and heating levels* (4) to the cold air / ventilation position .
- Keep the fan running for 3 minutes before switching the device off.
- Switch off the device by setting the selection switch *ventilation and heating levels* (4) to the **0** position.
- Hold onto the mains plug while pulling the power cable out of the mains socket.
- Allow the device to cool down completely.
- Clean the device according to the Maintenance chapter.
- Store the device according to the Transport and storage chapter.

Errors and faults



Warning of electrical voltage

Tasks which require the device to be opened must only be carried out by authorised specialist companies or by Trotec.

Note

Wait for at least 3 minutes after maintenance and repair work. Only then switch the device back on.

The device has been checked for proper functioning several times during production. If malfunctions occur nonetheless, check the device according to the following list.

The device does not start:

- Check the power connection.
- Check the power cable and mains plug for damage. If you notice damages, do not try to take the device back into operation.

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

- Check the on-site fusing.
- TDS 50: The internal thermostat does not reset automatically. Actuate the *reset* button (8) next to the rotary switch *temperature* (2).

- The motor might be defective. Have a defective motor replaced by a specialist electrical company.
- The room thermostat might be defective. Have a defective room thermostat replaced by a specialist electrical company.
- Wait for 10 minutes before restarting the device. If the device is not starting, have the electricians checked by a specialist company or by Trotec.

The device is switched on, the fan is operating, the heating is not:

- TDS 10 and TDS 20: Check the room temperature. The room thermostat may have switched off, because the desired room temperature has been reached.
- Check whether the overheating protection has tripped (see chapter Safety).
- The heating resistor might have blown. Have a defective heating resistor replaced by a specialist electrical company.
- The room thermostat might be defective. Have a defective room thermostat replaced by a specialist electrical company.

The fan is not running:

- Check whether the device is switched on.
- Check the power connection.
- Check the power cable and mains plug for damages.
- The fan motor might be defective. Have a defective fan motor replaced by a specialist electrical company.

The air current is reduced:

- Check the air inlet and outlet. Make sure that air inlet and outlet are not obstructed. Remove any dirt. Observe the minimum distance from walls or other objects according to the technical data.

The device is loud or vibrates:

- Check whether the device is set up in a stable and upright position.

The device still does not operate correctly after these checks:

Please contact the customer service. If necessary, bring the device to an authorised specialist electrical company or to Trotec for repair.

Maintenance

Maintenance intervals

Maintenance and care interval	before every start-up	as needed	at least every 2 weeks	at least every 4 weeks	at least every 6 months	at least annually
Check air inlets and outlets for dirt and foreign objects and clean if necessary	X					
Check air inlet grid(s) for dirt and foreign objects and clean if necessary	X		X			
Clean the exterior		X				X
Visually check the inside of the device for dirt		X		X		
Check for damage	X					
Check the attachment screws		X				X
Test run						X

Maintenance and care log

Device type:

Device number:

Maintenance and care interval	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Check air inlets and outlets for dirt and foreign objects and clean if necessary																
Check air inlet grid(s) for dirt and foreign objects and clean if necessary																
Clean the exterior																
Visually check the inside of the device for dirt																
Check for damage																
Check the attachment screws																
Test run																
Comments																

1. Date:	2. Date:	3. Date:	4. Date:
Signature:	Signature:	Signature:	Signature:
5. Date:	6. Date:	7. Date:	8. Date:
Signature:	Signature:	Signature:	Signature:
9. Date:	10. Date:	11. Date:	12. Date:
Signature:	Signature:	Signature:	Signature:
13. Date:	14. Date:	15. Date:	16. Date:
Signature:	Signature:	Signature:	Signature:

Activities required before starting maintenance

**Warning of electrical voltage**

Do not touch the mains plug with wet or damp hands.

- Switch the device off.
- Hold onto the mains plug while pulling the power cable out of the mains socket.
- Allow the device to cool down completely.

**Warning of electrical voltage**

Tasks which require the device to be opened must only be carried out by authorised specialist companies or by Trotec.

Cleaning the housing

**Warning of electrical voltage**

Never immerse the device in water!

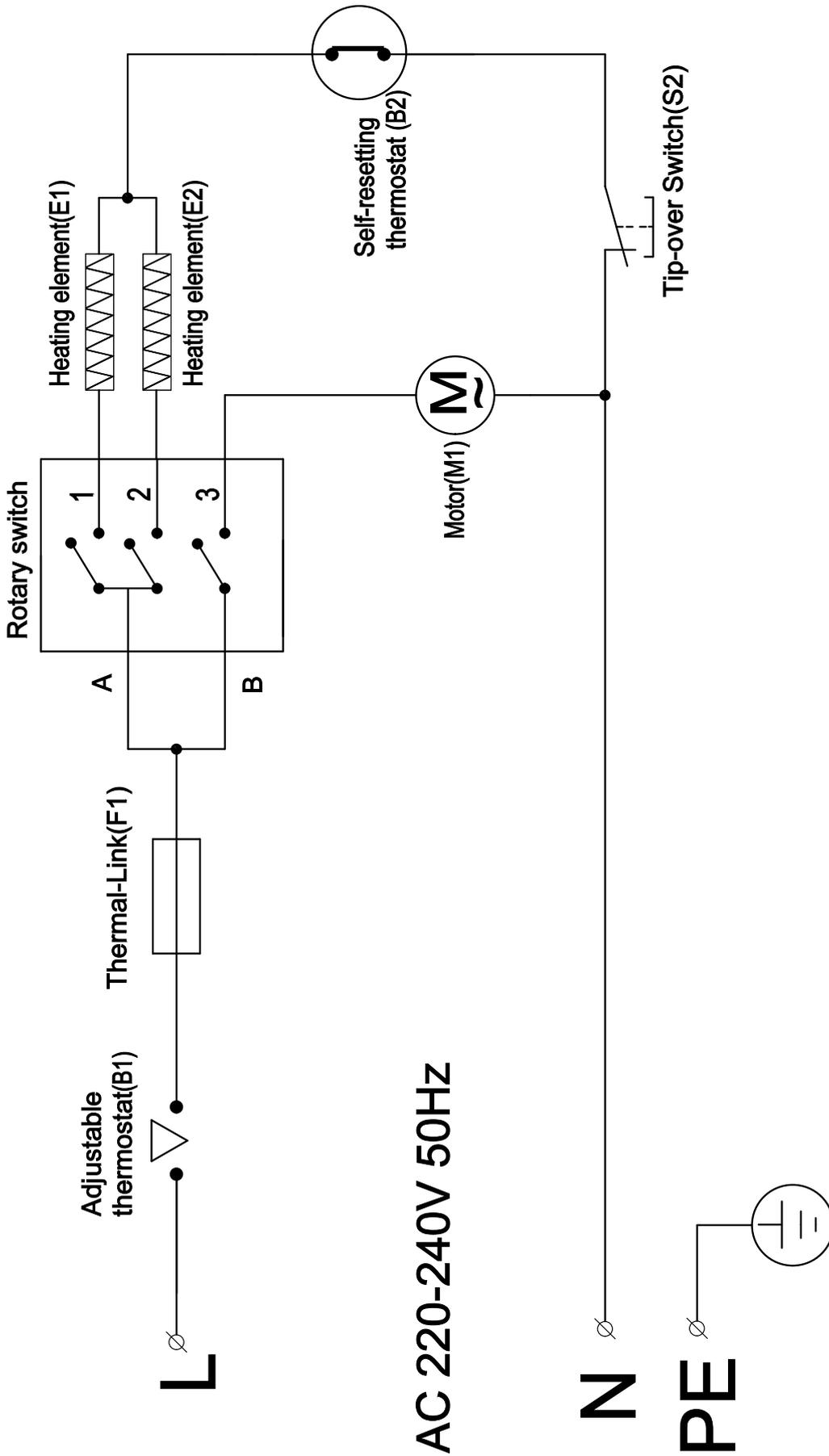
Clean the housing with a soft, damp and lint-free cloth. Make sure that no moisture enters the housing. Protect electrical components from moisture. Do not use any aggressive cleaning agents such as cleaning sprays, solvents, alcohol-based or abrasive cleaners to dampen the cloth.

Wipe the housing dry after cleaning.

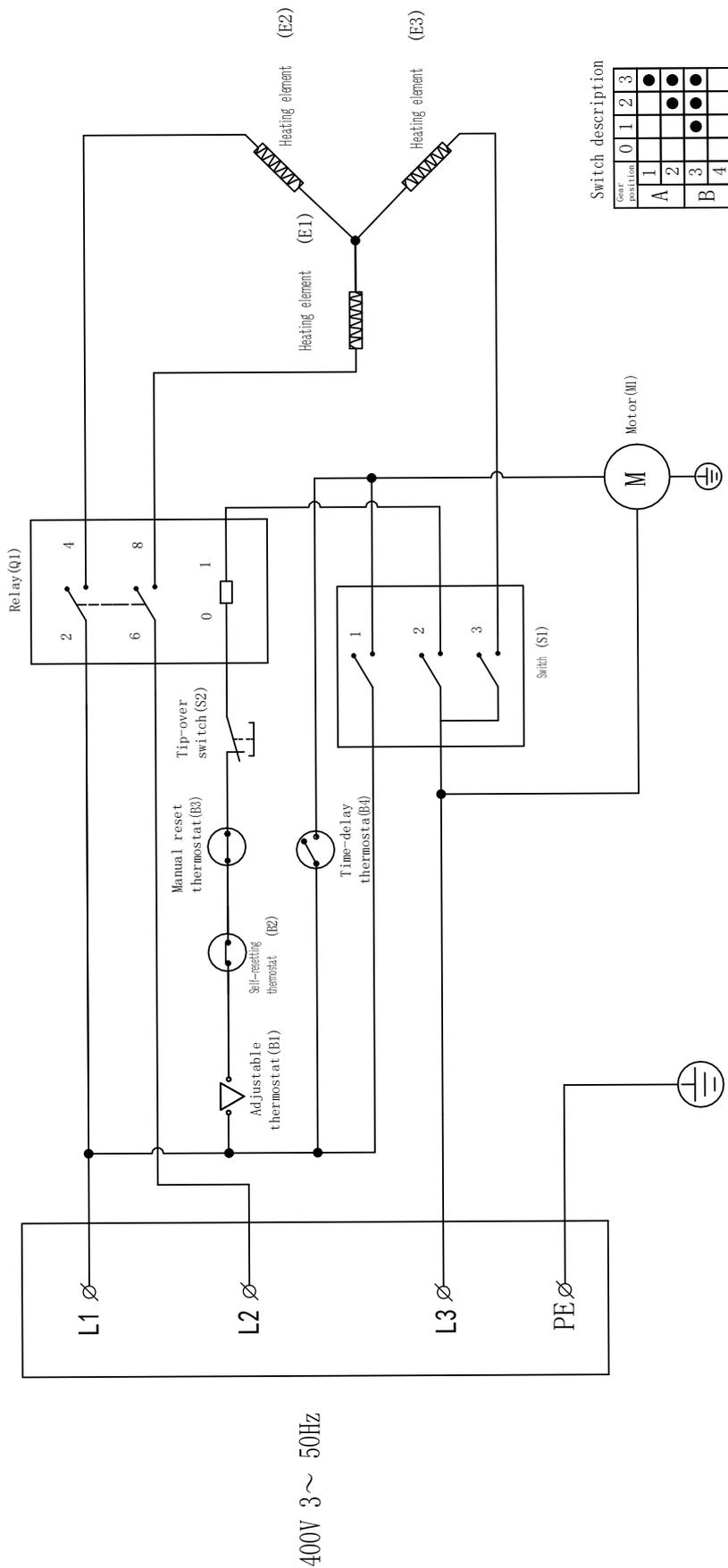
Technical annex
Technical data

Parameter	Value			
Model	TDS 10	TDS 20	TDS 30	TDS 50
Heating capacity level 1:	ventilation only	ventilation only	ventilation only	ventilation only
level 2:	1000 W	1650 W	2750 W	4500 W
level 3:	2000 W	3300 W	5500 W	9000 W
Air flow rate	186 m ³ /h	335 m ³ /h	458 m ³ /h	708 m ³ /h
Operating range	-20 °C to +40 °C	-20 °C to +45 °C	-20 °C to +45 °C	-20 °C to +45 °C
Mains connection	1/N/PE~ 230 V 50 Hz	1/N/PE~ 230 V 50 Hz	3/PE~ 400 V 50 Hz	3/PE~ 400 V 50 Hz
Max. power input	2000 W	3300 W	5500 W	9000 W
Nominal current consumption	8.7 A	14.4 A	8 A	13 A
Fusing	16 A	16 A	10 A	16 A
Plug type	CEE 7/7	CEE 7/7	CEE 16 A, 5-pin	CEE 16 A, 5-pin
Type of protection	IP24	IP24	IP24	IP24
Cable length	1.35 m	1.35 m	1.35 m	-
Sound pressure level (1 m distance)	46 dB(A)	46 dB(A)	51 dB(A)	52 dB(A)
Weight	3.5 kg	5 kg	6 kg	9.5 kg
Dimensions (length x width x height)	210 x 195 x 310 mm	265 x 255 x 395 mm	270 x 255 x 400 mm	283 x 355 x 515 mm
Minimum distance to walls and other objects				
top (A):	50 cm	50 cm	50 cm	50 cm
rear (B):	50 cm	50 cm	50 cm	50 cm
sides (C):	50 cm	50 cm	50 cm	50 cm
front (D):	50 cm	50 cm	50 cm	50 cm

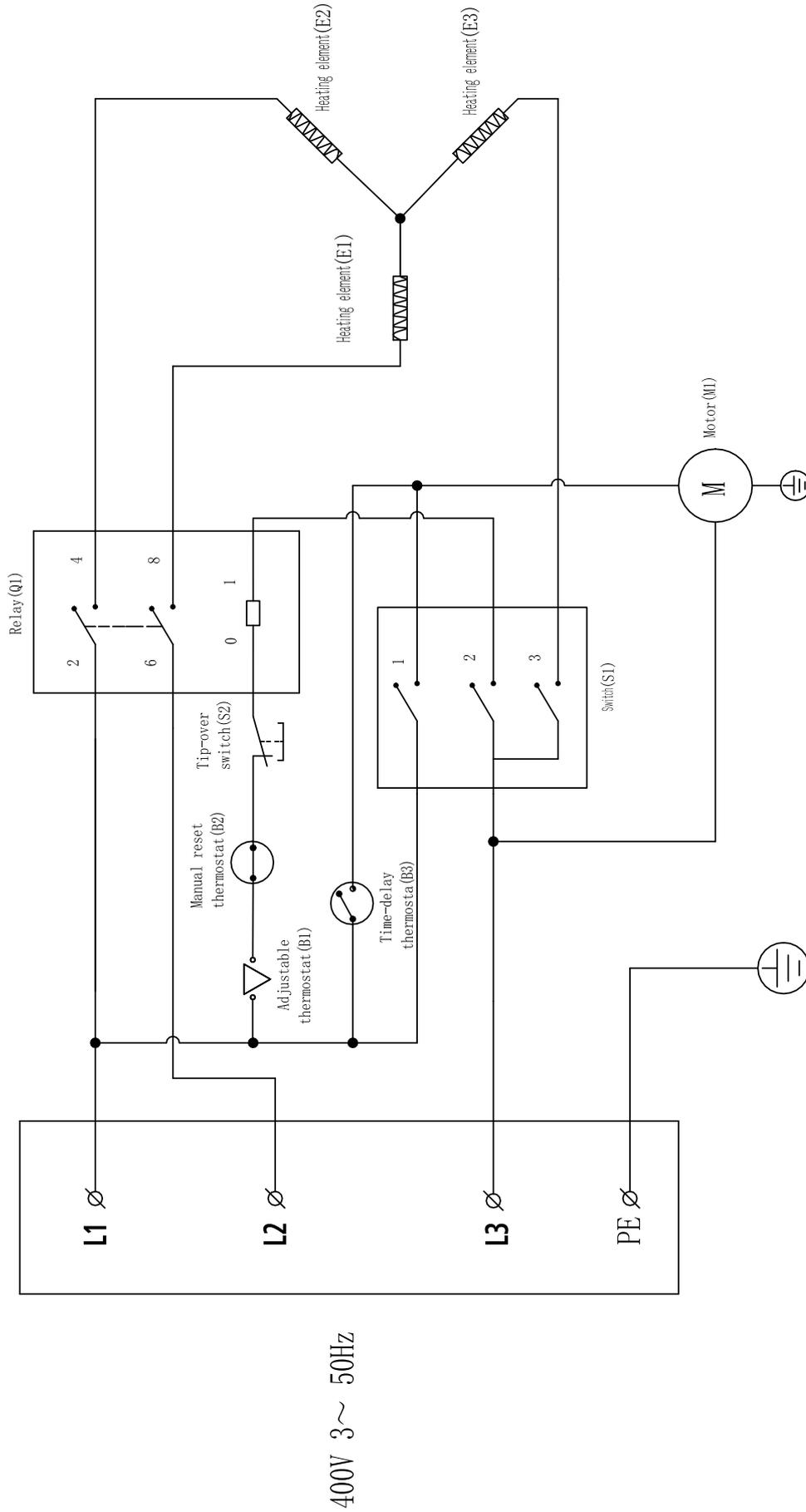
Circuit diagram TDS 10 / TDS 20



Circuit diagram TDS 30



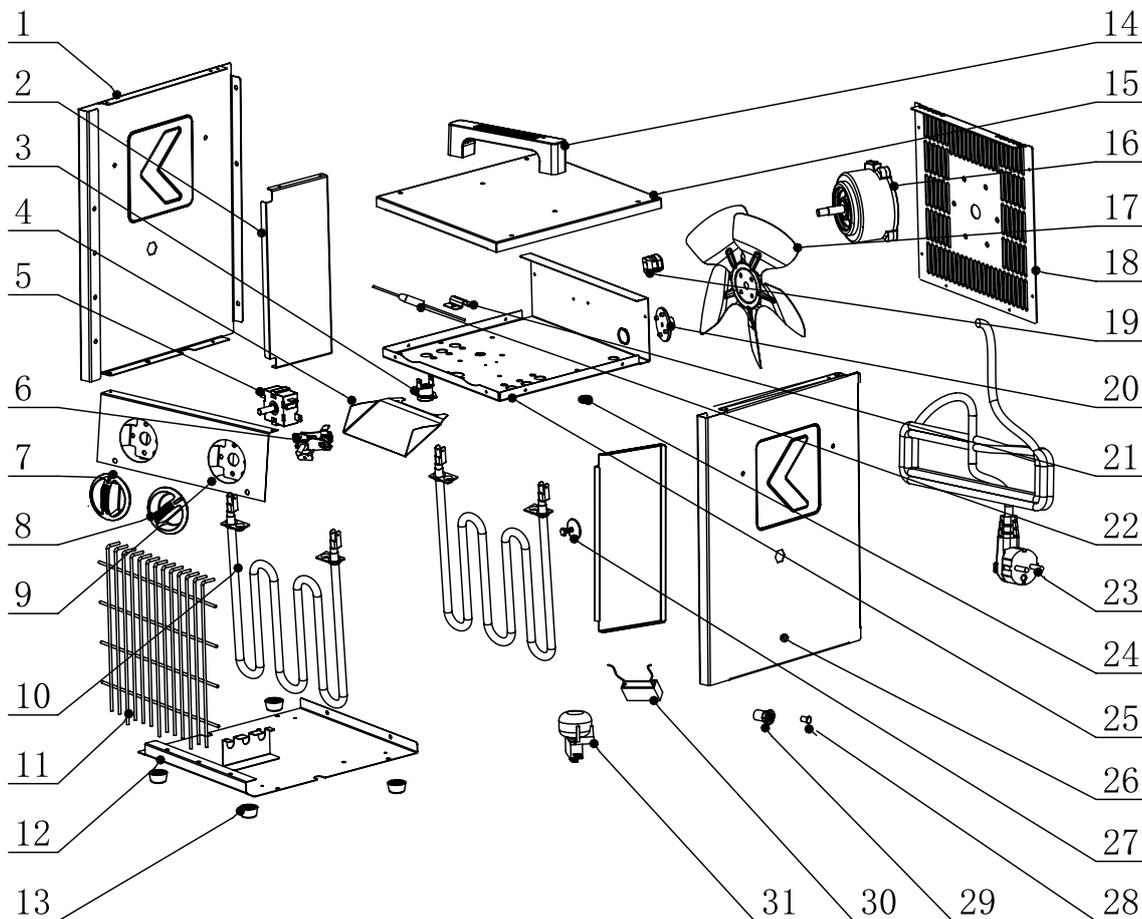
Circuit diagram TDS 50



Overview of spare parts and spare parts list TDS 10

Note!

The position numbers of the spare parts differ from those describing the positions of the components mentioned in these instructions.



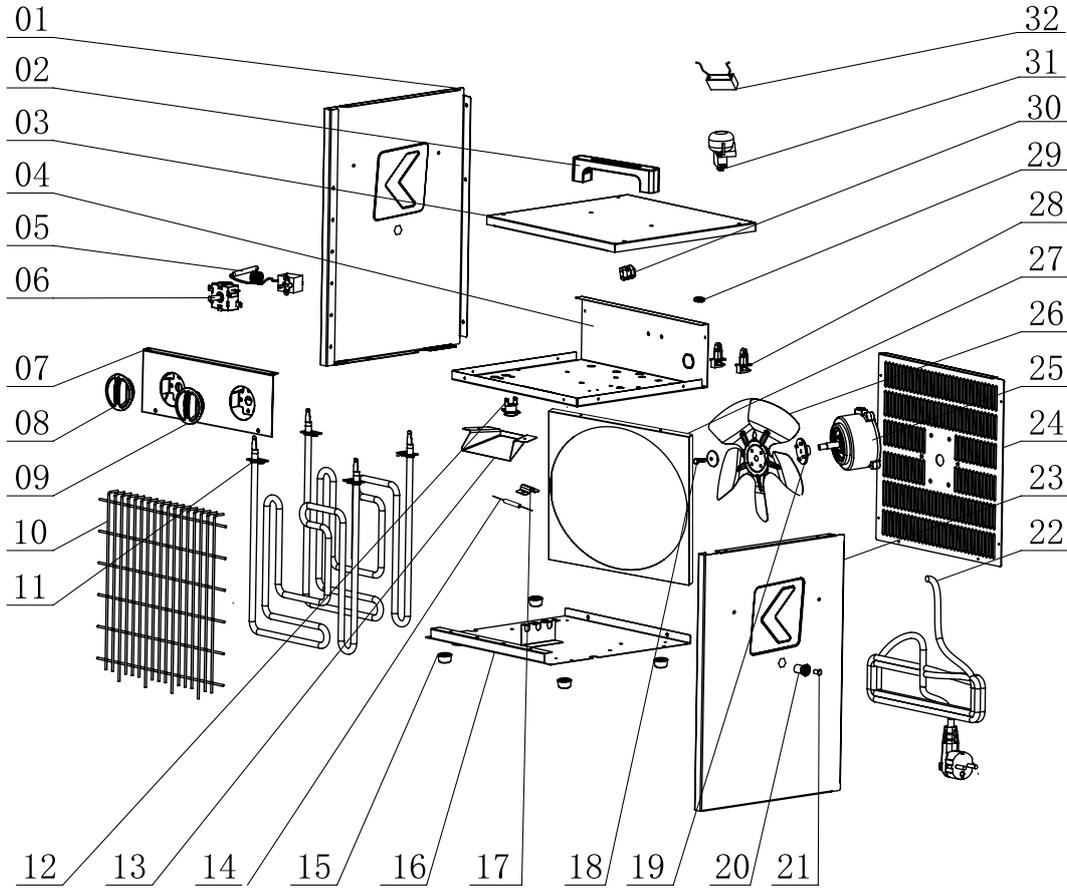
Spare parts list TDS 10

NO.	SPARE PART	QTY.	NO.	SPARE PART	QTY.
1	Left side plate	1	17	Fan blade	1
2	Thermal baffle	2	18	Rear grill	1
3	Auto reset thermostat	1	19	Wire clip	1
4	Protection cover	1	20	Wind blade base	1
5	Switch	1	21	DTP pressing plate	1
6	Adjustable thermostat	1	22	DTP (Disposable Thermal Protection)	1
7	Switching knob	1	23	Power cord	1
8	Thermostat knob	1	24	Protective ring	1
9	Switch panel	1	25	Middle plate	1
10	Electric heating tube	2	26	Right side panel	1
11	Front grill	1	27	Fan blade panel	1
12	Baseboard	1	28	Stopple	2
13	Foot	4	29	Pull Rivet Nuts	2
14	Handle	1	30	Capacitance	1
15	Top cover	1	31	Anti-tip switch	1
16	Motor	1			

Overview of spare parts and spare parts list TDS 20

Note!

The position numbers of the spare parts differ from those describing the positions of the components mentioned in these instructions.



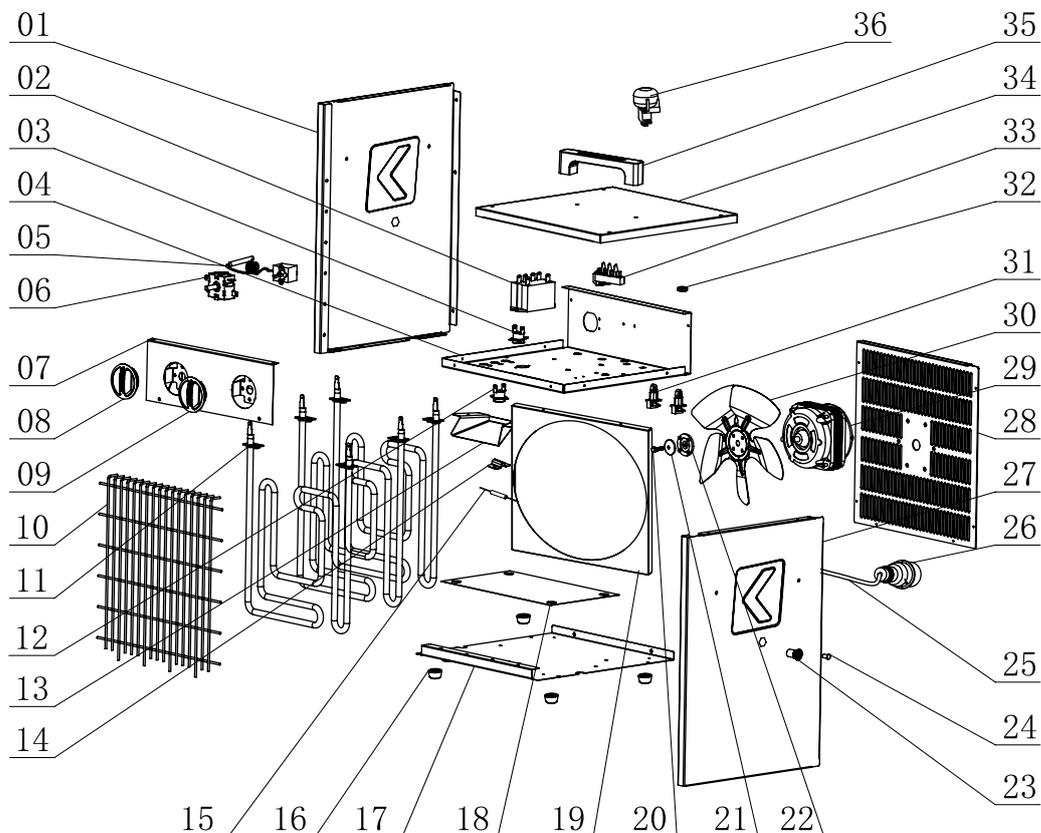
Spare parts list TDS 20

NO.	SPARE PART	QTY.	NO.	SPARE PART	QTY.
1	Left side plate	1	17	DTP pressing plate	1
2	Cranium	1	18	Nut	1
3	Handle	1	19	Blade holder	1
4	Middle plate	1	20	Stopple	2
5	Adjustable Thermostat	1	21	Pull Rivet Nuts	2
6	Switch	1	22	Power	1
7	Switch panel	1	23	Right side plate	1
8	Switch knob	1	24	After the net	1
9	Control knob	1	25	Motor	1
10	Before the net	1	26	Fan	1
11	Tubular electric	2	27	Air Flue	1
12	Thermostat	1	28	Temperature sensor holder	2
13	Protection cover	1	29	Protective ring	1
14	Metal hot bartender	1	30	Cable clip	1
15	Foot	4	31	Anti-tip switch	1
16	Baseplate	1	32	Capacitance	1

Overview of spare parts and spare parts list TDS 30

Note!

The position numbers of the spare parts differ from those describing the positions of the components mentioned in these instructions.



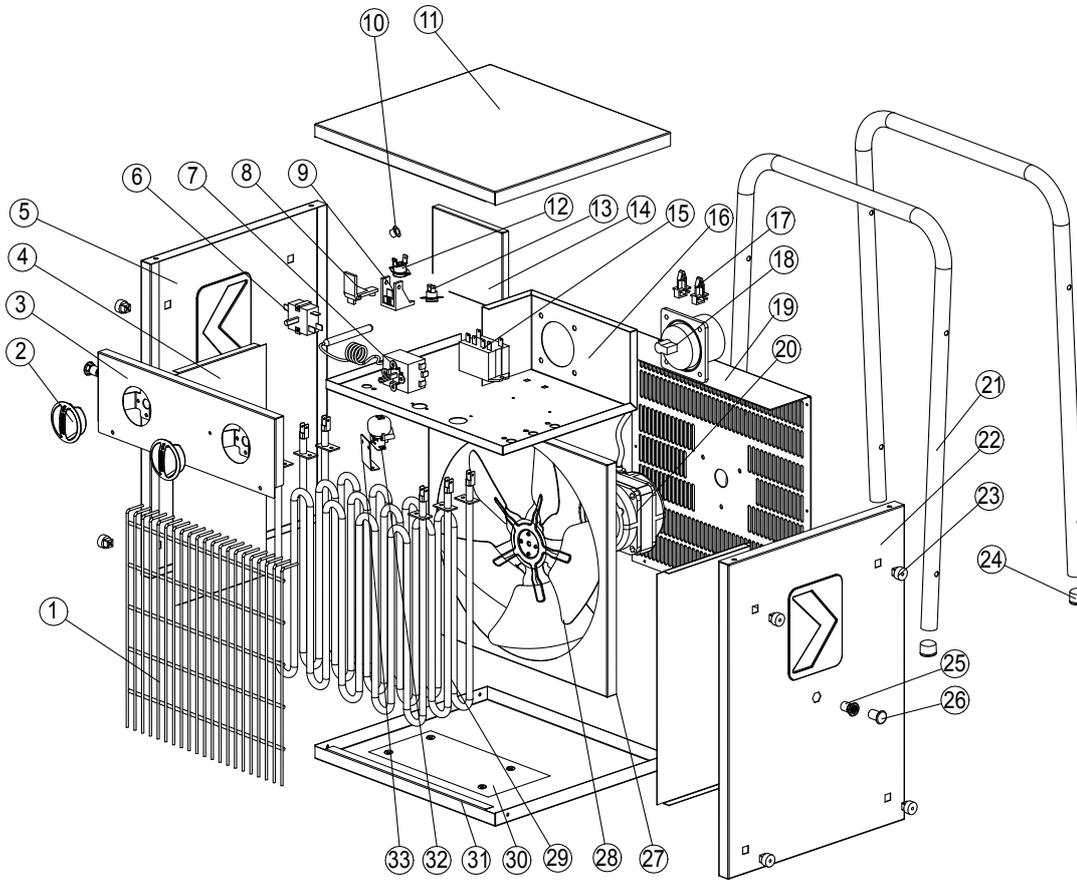
Spare parts list TDS 30

NO.	SPARE PART	QTY.	NO.	SPARE PART	QTY.
1	Left side plate	1	18	Bottom heat shield	1
2	Relay	1	19	Air Flue	1
3	Thermostat	1	20	Screw	1
4	Middle plate	1	21	Blades clamp	1
5	Adjustable Thermostat	1	22	Blade holder	1
6	Switch	1	23	Stopples	2
7	Switch panel	1	24	Pull Rivet Nuts	2
8	Switch knob	1	25	Power Cord	1
9	Control knob	1	26	Industrial plug	1
10	Before the net	1	27	Right side plate	1
11	Tubular electric	3	28	After the net	1
12	Thermostat	1	29	Motor	1
13	Protection cover	1	30	Fan	1
14	DTP pressing plate	1	31	Temperature sensor holder	2
15	Metal hot bartender	1	32	Protective ring	1
16	Foot	4	33	Wiring terminal	1
17	Baseplate	1			

Overview of spare parts and spare parts list TDS 50

Note!

The position numbers of the spare parts differ from those describing the positions of the components mentioned in these instructions.



Spare parts list TDS 50

NO.	SPARE PART	QTY.	NO.	SPARE PART	QTY.
1	Front grill	1	18	Industrial plug	1
2	Knob	2	19	Back grill	1
3	Contral panel	1	20	Motor	1
4	Heat Insulation plate	2	21	Metal handle	2
5	Left panel	1	22	Right panel	1
6	Switch	1	23	Plastic gaske	8
7	Capillary thermostat	1	24	Tube cover	4
8	Support for Non-self resetting thermostat	1	25	Pull rivet nuts	2
9	Holder for Non-self resetting thermostat	1	26	Stopples	2
10	Lock	1	27	Air flue	1
11	Top panel	1	28	Fan	1
12	Time Delay thermostat	1	29	Heating element	3
13	Manual reset thermostat	1	30	Bottom Thermal baffle	1
14	Back plate for plug	1	31	Bottom panel	1
15	Relay	1	32	Tip-over switch	1
16	Middle panel	1	33	Tip-over switch stents	1
17	Sensor holder	2			

Disposal

Always dispose of packing materials in an environmentally friendly manner and in accordance with the applicable local disposal regulations.



The icon with the crossed-out waste bin on waste electrical or electronic equipment is taken from Directive 2012/19/EU. It states that this device must not be disposed of with the household waste at the end of its life. You will find collection points for free return of waste electrical and electronic equipment in your vicinity. The addresses can be obtained from your municipality or local administration. You can also find out about other return options that apply for many EU countries on the website <https://hub.trotec.com/?id=45090>. Otherwise, please contact an official recycling centre for electronic and electrical equipment authorised for your country.

The separate collection of waste electrical and electronic equipment aims to enable the re-use, recycling and other forms of recovery of waste equipment as well as to prevent negative effects for the environment and human health caused by the disposal of hazardous substances potentially contained in the equipment.

Only for United Kingdom

According to Waste Electrical and Electronic Equipment Regulations 2013 (SI 2013/3113) (as amended) devices that are no longer usable must be collected separately and disposed of in an environmentally friendly manner.

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