

# REMKO ELT 9-6

*Electric heaters*

*Operation · Technology · Spare parts*





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**These operating instructions must be read carefully before commissioning/using the unit!**

**These instructions are part of the unit and must always be kept near to the site of installation or on the unit.**

*Subject to changes; errors and typographical errors excepted!*

# REMKO ELT 9-6

## Safety information

Operation of the heaters must always take place in compliance with the local building and fire protection regulations and regulations of the employers' liability insurance associations.

The units were subjected to extensive material, functional and quality inspections and tests prior to delivery. However, the units may constitute a hazard if used by untrained personnel, improperly or not for the intended purpose.

### The following information must be observed

- Before starting work, persons responsible for the operation of the units must check for obvious defects on control and safety devices and for the presence and correct functioning of protective devices. **Any noticed defects must be reported to the responsible supervisor!**
- Units that have defects liable to affect their reliability must immediately be switched off.
- For using the units, the respective local regulations and electrical fuse protection ratings must be observed.
- Safety distances to flammable objects must be observed.
- The air inlet and air outlet vents must be kept free at all times.
- The air outlet vents must not be restricted or pipes or hoses connected.
- Never insert foreign objects into the units.
- The units must not be covered whilst in operation.
- Safety devices must not be overridden or blocked.
- The units must not be used near to baths, showers, swimming pools, etc.
- The units must not be used directly below a wall socket-outlet.
- The units must not be exposed to direct water jets. e.g. **high pressure cleaners, etc.**
- Never allow water to enter the unit.
- The units must not be installed and used in locations subject to fire and explosion hazards.
- The units must not be installed and used in oil, sulphur, or salt-laden atmospheres.
- All electrical cables of the units must be protected against damage, also damage caused by animals.

### **ATTENTION**

*Safety devices must not be overridden or blocked.*

## Unit description

The units are portable electric heaters for commercial use. The units are designed solely for electrical use and for fully automatic, universal and problem-free operation.

The units have special encapsulated electric heating resistors, a low noise and maintenance axial flow fan, a safety and cooling thermostat, an integrated room thermostat and power cable with earthing pin plug.

The units comply with the fundamental safety and health requirements of the pertinent EU directives.

The units are reliable and easy to operate.

### The units also have the following applications:

- Drying new buildings.
- Concentrated heating of outdoor workplaces or for use in halls and manufacturing facilities not subject to fire hazards.
- Continuous or temporary room heating.
- De-icing of machines, vehicles and non-flammable stored goods, maintaining the appropriate safety distances.

## Commissioning

### Operation

The units can be used for air heating or only air circulation depending on the respective mode selected (switch position 1). The units have two heat settings (switch positions 2 and 3).

In order to ensure a constant room temperature, the units have an integrated room thermostat. The thermostat switches off the heater when the set temperature is reached and switches it on again when the temperature falls below the set value.

The integrated temperature limiter switches off the unit if the temperature is excessively high and switches it on again automatically after it has cooled down.

After switching off the unit at the operating switch or room thermostat, the air supply fan continues to run for a certain period of time to cool the heating resistors and switches off automatically.

#### ATTENTION

The unit must never be disconnected from the mains supply before the cooling phase has ended. Damage attributed to overheating is not covered by the warranty.

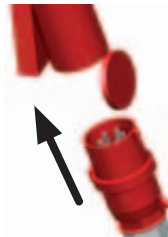
Operation and monitoring of the units must be carried out by one person who has been adequately instructed in the use of the unit.

1. Check the system voltage for correspondence with the unit voltage 400V/3~N/50 Hz.

2. Set the operating switch to position "0" (Off).



3. Plug the unit into a properly installed mains socket-outlet. 400V/3~N/50Hz



#### NOTE

Electrical connection of the units must be made at a separate supply point using a residual-current-operated circuit-breaker according to VDE 0100 § 55.

#### ATTENTION

Only authorised electricians may extend the connecting cable taking into account the rating of the unit, cable length and use locally.

### Heat

The unit operates fully automatically depending on the temperature set at the thermostat.

1. Setting the required room temperature at the thermostat



2. Set the operating switch to the required heat output - position "2" = 4.5 kW or "3" = 9 kW.



#### NOTE

For optimal operation, the units should not be operated at ambient temperatures above 25°C.

### Fan

In this position, only the supply air fan runs. Thermostatic control and heating are not possible.

1. Set the operating switch to position "1" Fan.



#### ATTENTION

All cable extensions must be used only uncoiled or unwound.

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## Decommissioning

1. Set the operating switch to position "0".



The supply air fan continues to run to cool down the units if necessary and switches off when an adequately low temperature is reached. The fan may run several times until it switches off permanently!

2. The units must be disconnected from the supply if they are not going to be used for extended periods of time.



### ⚠ ATTENTION

*The unit must never be disconnected from the mains supply before the cooling phase has ended. Damage attributed to overheating is not covered by the warranty.*

## Care and maintenance

Regular care and the observance of a few basic conditions will guarantee trouble-free operation and a long service life of the units.

### ⚠ ATTENTION

*Before carrying out all work on the unit, the mains plug must be disconnected from the mains socket-outlet.*

- Observe regular care and maintenance intervals
- Depending on the particular operating conditions, the units should be tested by an expert for reliable operation as necessary, however at least once a year.
- Keep the unit free of dust and other deposits.
- Only clean the units dry or with a moist cloth.
- Do not use direct jets of water, e.g. high pressure cleaners, etc.
- Do not use caustic cleaning agents or those containing solvents.
- Check the air inlet and air outlet grilles for clogging.
- Check the safety and protective devices at regular intervals.
- Do not damage the sensor and capillary tube of the thermostat when removing or fitting the rear panel of the unit.

## Troubleshooting

### The unit (fan) does not start.

1. Check the local mains fuses.
2. Check the mains plug.
3. Check the operating switch.
4. Check the fan for smooth operation.

### The unit does not heat

1. Set the thermostat to a value above room temperature.
2. Check function of the thermostat.
3. Check the operating switch.
4. Check the function of the contactor.
5. Check the function of the temperature limiter and inspect for damage.

If no result is achieved after carrying out all functional checks, an authorised service station should be contacted.

### ⚠ ATTENTION

*After completing all work on the unit, an electrical inspection must be carried out according to VDE 0701.*

### 💡 NOTE

*Only authorised electricians may carry out repairs.*

## Intended use

Due to their design and equipment, the units are intended solely for heating and air circulation in industrial or commercial use (not for domestic heating purposes). Only suitably trained personnel must operate the units.

The manufacturer is not liable for any damage attributed to failure to observe the manufacturer's instructions or applicable statutory requirements or unauthorised changes to the units.

## Customer service and warranty

A precondition for any warranty claims is that the dealer or his customer has completed and returned the enclosed "**Warranty document**" to REMKO GmbH & Co. KG at the time of sale and commissioning.

The units were repeatedly tested at the factory to ensure that they function correctly. Nonetheless, if the unit should have a fault that cannot be remedied by troubleshooting, your specialised dealer or contract partner should be contacted.



## Environmental protection and recycling

### Disposal of packaging

Think of the environment when disposing of the packaging material. Our units are carefully packed for transport and delivered in sturdy cardboard and polystyrene packaging.

The packaging materials are environmentally-friendly and can be recycled.

By reusing packaging material, you make a valuable contribution towards waste reduction and the conservation of raw materials.

***Only dispose of packaging material at the facilities provided.***

### Disposal of the old unit

Our unit production is subject to constant quality controls.

Only high-quality materials are used, the majority of which are recyclable.

Make your contribution towards environmental protection by disposing of your old unit in an environmentally-friendly manner.

***Only dispose of your old unit at an authorised recycling facility or collection point.***



### NOTE

*Use or operation for any other purpose than that described in these operating instructions is not permitted.*

*Failure to observe this requirement will result in all liability being disclaimed and the warranty rendered invalid.*



### NOTE

*Only authorised specialists may make adjustments and carry out maintenance work!*



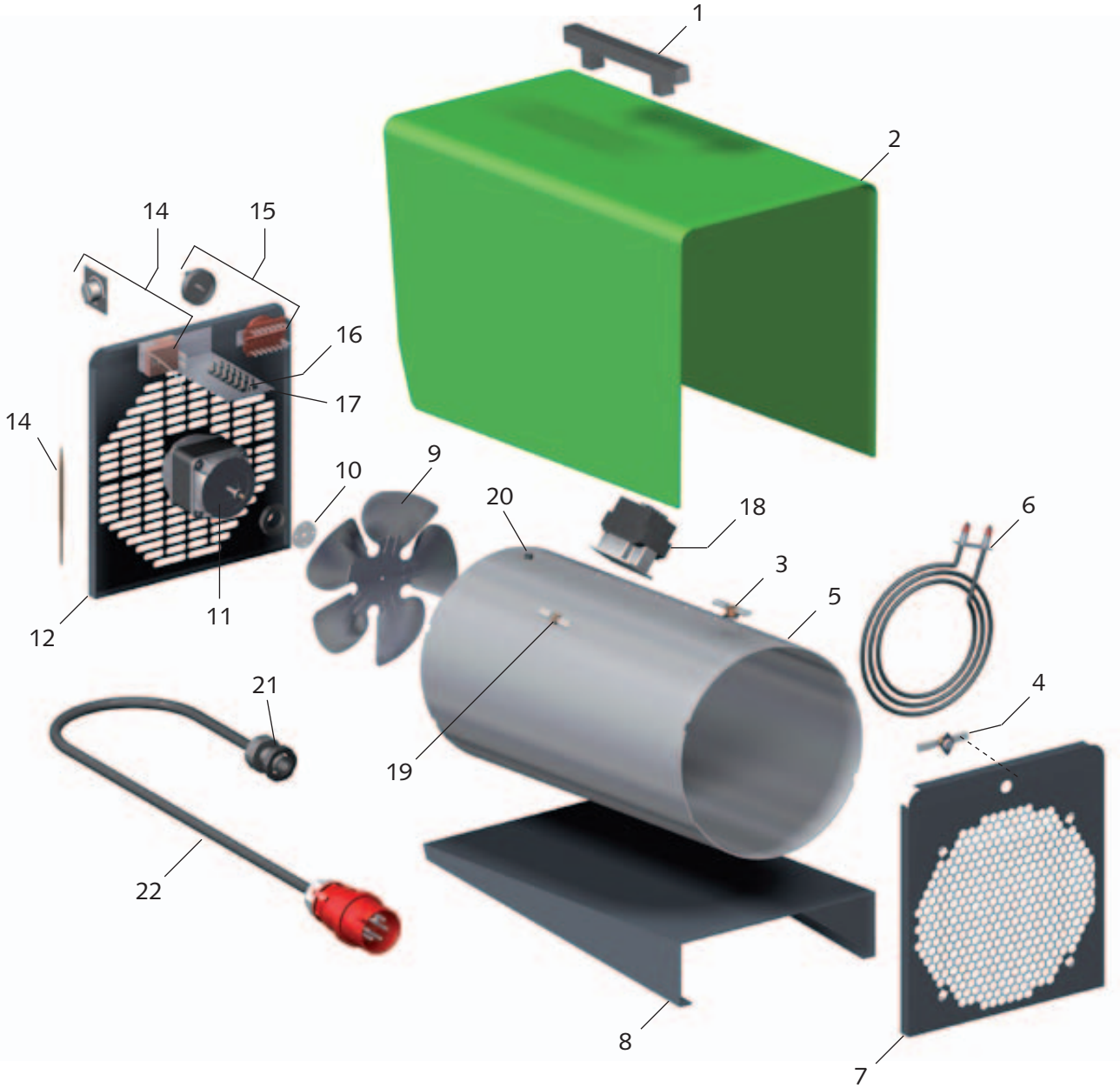
### ATTENTION

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**REMKO GmbH & Co. KG***

# REMKO ELT 9-6

## Exploded view



We reserve the right to make changes in dimensions and design in the interest of technical advances.

## Spare parts list

No.	Designation	EDP No.
1	Transport handle	1101142
2	Outer casing	1101098
2a	Outer casing (type INOX)	1111101
3	Cooling thermostat	1104065
4	Temperature limiter 77°C	1101161
5	Inner casing	1101082
6	Heating resistor (1 of 6)	1101083
7	Front panel	1101084
8	Base plate	1101085
9	Fan blade	1101086
10	Driving coupling	1108014
11	Fan motor	1101094
12	Rear panel	1101099
14	Thermostat, complete	1101066
15	Operating switch, complete	1101090
16	Six terminal strip	1101366
17	Mounting plate	1101091
18	Contactoer	1101096
19	Temperature limiter 70°C	1101081
20	Protective sleeve	1101304
21	Strain relief	1107944
22	Mains cable with plug	1101026

When ordering spare parts, please always also quote the serial number and unit type (see rating plate) in addition to the EDP number!

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## Maintenance log



Unit type: ..... Serial number: .....

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Unit cleaned – externally –																					
Unit cleaned – internally –																					
Fan blade cleaned																					
Protective grille cleaned																					
Safety devices checked																					
Protective devices checked																					
Unit checked for damage																					
All fixing screws checked																					
Electrical safety check																					
Test run																					

Remarks:.....  
 .....  
 .....

1. Date: ..... ..... Signature	2. Date: ..... ..... Signature	3. Date: ..... ..... Signature	4. Date: ..... ..... Signature	5. Date: ..... ..... Signature
6. Date: ..... ..... Signature	7. Date: ..... ..... Signature	8. Date: ..... ..... Signature	9. Date: ..... ..... Signature	10. Date: ..... ..... Signature
11. Date: ..... ..... Signature	12. Date: ..... ..... Signature	13. Date: ..... ..... Signature	14. Date: ..... ..... Signature	15. Date: ..... ..... Signature
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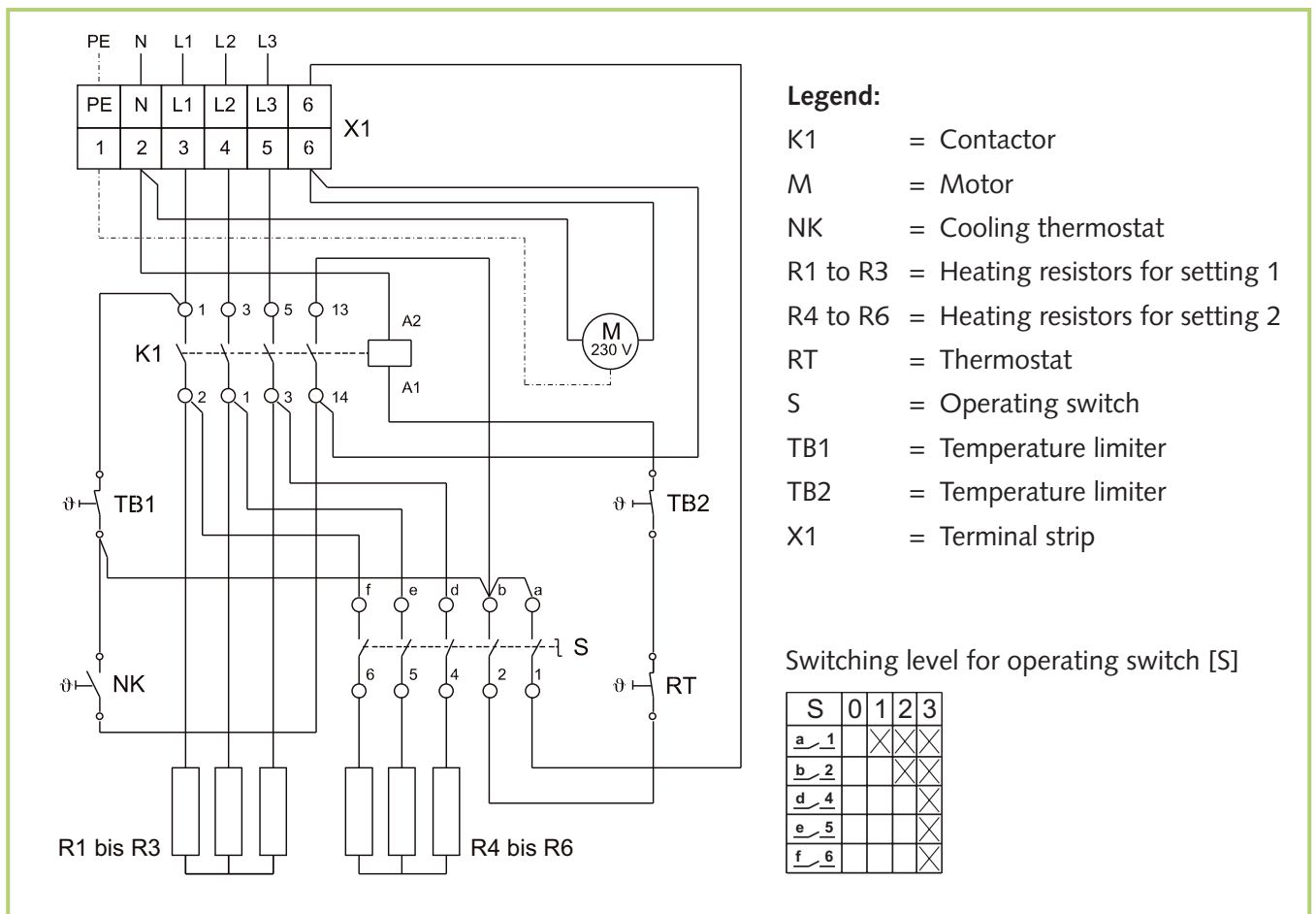
The unit must only be serviced by authorised specialists in compliance with the statutory requirements.

## Technical data

Series			ELT 9-6
Nominal heat output	kW		9.0
Switchable heat output	kW		2 x 4.5
Air capacity	m <sup>3</sup> /h		600
Power supply	V/Hz		400/3~N/50
Max. nominal current	A		13.2
Max. power input	kW		9.7
Fuse protection (local)	A (slow-acting)		16
Sound pressure level $L_{pA}$ 1m <sup>1)</sup>	dB (A)		53
Dimensions:	Length	mm	510
	Width	mm	300
	Height	mm	455
Weight	kg		14.7

1) Noise measurement DIN 45635 - 01 - KL 3

## Electrical wiring diagram



We reserve the right to make changes in dimensions and design in the interest of technical advances.

# REMKO INTERNATIONAL

*... and also right in your neighbourhood!  
Make use of our experience and advice*



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## **Advice**

We keep the specialist knowledge of our advisers continuously up-to-date with intensive training. This has earned us a reputation as more than just a good, reliable supplier: REMKO, a partner who is here to help solve problems.

## **Distribution**

REMKO provides not only a well-developed distribution network in Germany and abroad, but also unusually highly skilled professionals in distribution. REMKO staff in the field are more than mere salespeople: they must primarily act as advisers in air conditioning and heating technology for our customers.

## **Customer Service**

Our units work precisely and dependably. Should a failure occur, however, REMKO customer service will rapidly be at your side. Our comprehensive network of experienced dealers guarantees quick and reliable service.

