# ΩDBK

## User Instructions for PTC Finned Resistor Heater HR / HRI / HRKK

#### Product Description

Self-regulating PTC finned resistor heaters, based on PTC technology, to heat up air streams.

Operating voltage acc. to marking:	220 – 240 V 100 – 120 V 230 – 400 V Special Voltages (12 V ; 24 V ; 48 V ; 72 V)
Ambient Temperature:	- 25℃ to + 65 ℃
Humidity:	85 % rH

#### **Installation**

- Installation by trained and qualified personnel only.
- When connecting to a power supply, please make sure that the voltage corresponds to the electrical
  information on the heater. The installation must comply with relevant local regulations, technical directions
  and recognised standards.
- All metal parts of the heater are live parts don't touch when connected to power. The necessary protection class, resp. clearance and creepage distances / minimum distances must be met and ensured by an appropriate installation.
- Touch protection towards the heater must be ensured by the way of installation.
- Heater can be installed by using a mounting frame or the plastic end caps of the element.
- The heater shall not be installed close to flammable materials.
- The heater should be protected with a slow-blow fuse to avoid an accidental tripping of the fuse at cold start of the heater.
- When the heater is used in a dusty environment, an air filter should be installed in front of the heater to avoid a deposit of fluff or dust in the aluminium fins of the element.

#### **Operation**

Electrical connection via 6,3 mm spade terminals. Connection diagrams of the different heater types, see page 2 and 3.

#### **Maintenance**

- Before cleaning or maintaining the heater, it must be fully disconnected from the net (with min. 3 mm distance from the heater terminals to the connecting contacts).
- The heater shall only be maintained and cleaned from qualified personnel.
- The heater must be regularly tested on proper function.
- A regular visual control with regard to contamination, foreign particles, loose parts or damage of the heater shall be carried out by a technically qualified person.
- The maintenance interval depends on the operating conditions but should not exceed 6 months.
- Liquids or sharp articles shall never be used for cleaning purposes. Cleaning shall only be done with a brush and/or vacuum cleaner.
- There are no user-serviceable parts inside the heater. Disassembling the heater should not be attempted.

#### <u>Warning</u>

- Never perform any works on the heater while it is energized.
- All metal parts of the heater are live parts don't touch when connected to power.
- The heater will remain hot several minutes after switch off.
- An operation with insufficient airflow leads to an impairment of the function and lifetime.
- The finned heaters shall only be used to heat up an air stream.
- An operation in a humid and/or aggressive environment is inadmissible.
- Applied heater identification shall not be removed or changed.

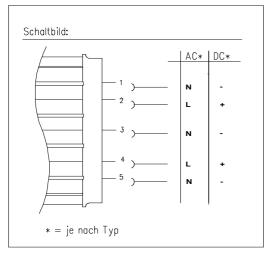




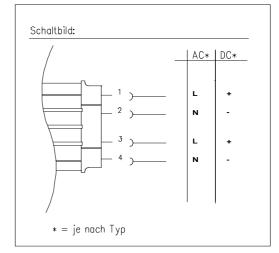


## **Electrical Connection**

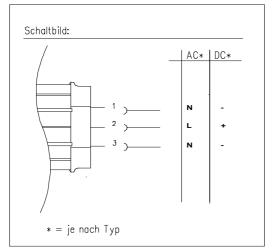
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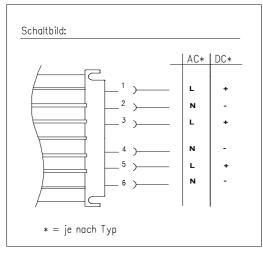
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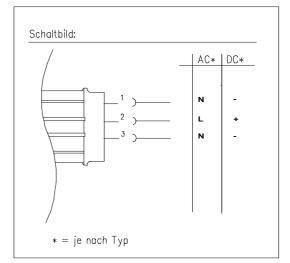


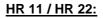


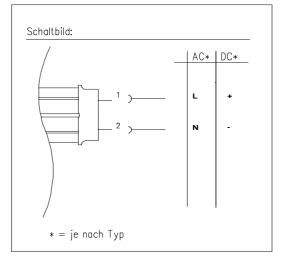




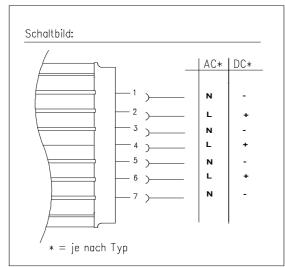
## HR 09 / HR 18:



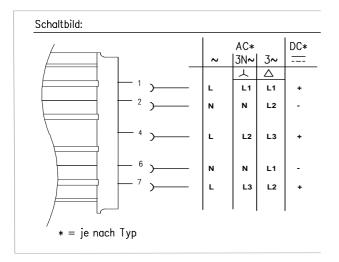




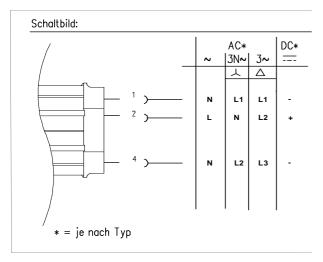
## HR 20 / HR 40:



#### HRI 20 / HRI 40:



## HRI 05 / HRI 06:



## <u>HRI 15 / HRI 04</u>

