

NKP Series



Heater for heat exchanger
freeze protection

■ Application

Duct electric heater for heat exchanger freeze protection by means of supply air preheating and supply air duct temperature maintaining at a point that ensures heat exchanger freezing protection.

Compatible with round Ø125, 150, 160, 200 and 250 mm air ducts.

■ Design

The casing and the control box are made of galvanized steel and the heating elements are made of stainless steel.

The heater casing is extra heat insulated with 20 mm non-flammable mineral wool layer.

The heater spigots are rubber sealed for airtight connection to the air ducts.

The NKP duct heaters are equipped with a power cable and a control cable for connection to a controller of an air handling unit.

Air temperature is controlled with a triac power controller that switches the maximum load on/off.

Load is commutated with a semiconductor (triac).

The heaters are equipped with overheat protection thermostats:

- ▶ self-resetting overheat protection thermostat actuated at +50 °C.
- ▶ emergency overheat protection thermostat actuated at +50 °C.

■ Mounting

The heater design ensures its connection to round air ducts by means of the clamps from the delivery set.

The arrow on the heater casing must match the air flow direction in the system.

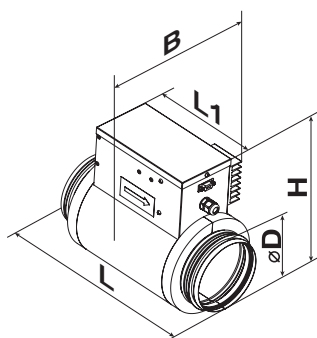
The heater is connected to a controller of an air handling unit via the supplied cable with socket connectors.

The control box cover must be directed upwards with the maximum deviation angle 90°.

The control box cover must not be directed downwards.

Overall dimensions

Model	Dimensions [mm]				
	Ø D	B	H	L	L1
NKP 125-0,6-1	124	155	251	306	192
NKP 125-0,8-1					
NKP 125-1,2-1					
NKP 150-0,8-1	149	170	282	306	192
NKP 150-1,2-1					
NKP 150-1,7-1					
NKP 150-2,0-1					
NKP 160-0,8-1	159	175	293	306	192
NKP 160-1,2-1					
NKP 160-1,7-1					
NKP 160-2,0-1					
NKP 200-1,2-1	199	195	337	306	192
NKP 200-1,7-1					
NKP 200-2,0-1					
NKP 250-1,2-1	247	287	388	307	192
NKP 250-2,0-1					
NKP 250-3,0-1					



Designation key

Series	Connected air duct diameter [mm]	Heater power, kW	Phase
NKP	125; 150; 160; 200; 250	0.6; 0.8; 1.2; 1.7; 2.0; 3.0	1: single-phase

Technical data

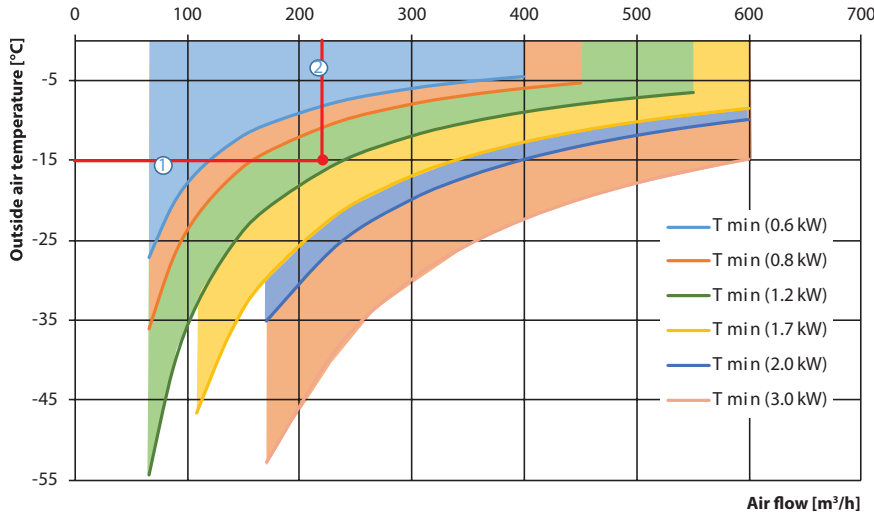
Model	Min. air flow [m³/h]	Power [kW]	Current [A]
NKP 125-0,6-1	60	0.6	2.6
NKP 125-0,8-1	80	0.8	3.5
NKP 125-1,2-1	90	1.2	5.2
NKP 150-0,8-1	80	0.8	3.5
NKP 150-1,2-1	90	1.2	5.2
NKP 150-1,7-1	160	1.7	7.4
NKP 150-2,0-1	170	2.0	8.7
NKP 160-0,8-1	80	0.8	3.5
NKP 160-1,2-1	150	1.2	5.2
NKP 160-1,7-1	160	1.7	7.4
NKP 160-2,0-1	170	2.0	8.7
NKP 200-1,2-1	150	1.2	5.2
NKP 200-1,7-1	160	1.7	7.4
NKP 200-2,0-1	170	2.0	8.7
NKP 250-1,2-1	180	1.2	5.2
NKP 250-2,0-1	200	2.0	8.7
NKP 250-3,0-1	375	3.0	13.0

Compatibility table

Heater model (connected air duct diameter)	
NKP 125	VUT/VUE with Ø 125 mm spigot and A11, A21 automation
NKP 150	VUT/VUE with Ø 150 mm spigot and A11, A21 automation
NKP 160	VUT/VUE with Ø 160 mm spigot and A11, A21 automation
NKP 200	VUT/VUE with Ø 200 mm spigot and A11, A21 automation
NKP 250	VUT/VUE with Ø 250 mm spigot and A11, A21 automation

Electric heater power selection diagram

Minimum temperature enabling efficient operation of the NKP freeze protection heater



How to use NKP electric heater diagrams

- ▶ Selection of the NKP heater model compatible with VUT 350 VB EC A21 air handling unit. The rated winter outside air temperature is -15 °C. The rated air flow is 220 m³/h. Starting from the rated winter outside air temperature (1) draw a horizontal line till the air flow axis (2). The NKP heater with heating capacity 1200 W is able to provide efficient heat exchanger freeze protection.
- ▶ The NKP 160-1.2-1 with the diameter matching the spigot diameter of the VUT 350 VB EC A21 air handling unit is a suitable model.

