

ENH

Duct heater for supply air reheating

Features

- The heater is designed for integration into a ventilation system and joint operation with an air handling unit equipped with a control system used to switch on the heater and control its operation.
- The heater maintains the supply duct air temperature at a point set by the unit controller.
- Compatible with Ø 125 up to 250 mm air ducts.



Design

- The casing, the junction box and the heater cover are made of galvanized steel with the heating elements in stainless steel. The heater casing is additionally heat-insulated with 20 mm non-flammable mineral wool layer. The heaters are equipped with rubber seals for airtight connection to the air ducts.
- The ENH duct heaters are equipped with a power and a signal cable for connection of the heater to the air handling unit controller.
- The temperature is controlled by a triac power controller by means of switching the full load on and off. Load commutation is carried out by the semiconductor device (triac). The heaters are equipped with overheat thermostats:
 - main overheat protection with automatic reset at +50 °C
 - emergency overheat protection with manual reset at +90 °C.

Mounting

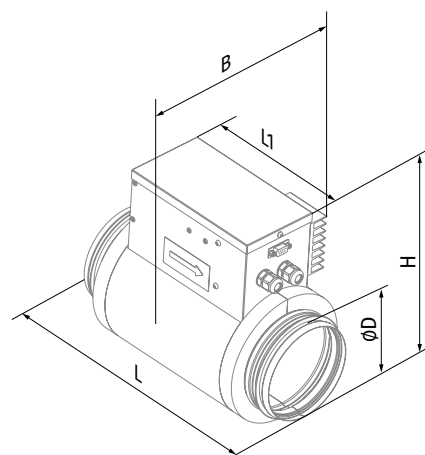
- The heater design ensures its mounting on the round ducts in any position by means of clamps (included in delivery). The air flow direction shall match the direction of the arrow on the heater casing.
- In case of horizontal mounting the control box must be installed with the cover upwards. Swivel range from the normal position up to max. 90°. Do not install the control box with the cover downwards.

Compatibility chart

Heater model	Unit model
ENH 125 ... S21	KOMFORT with spigot Ø 125 mm and S21 control panel
ENH 150 ... S21	KOMFORT with spigot Ø 150 mm and S21 control panel
ENH 160 ... S21	KOMFORT with spigot Ø 160 mm and S21 control panel
ENH 200 ... S21	KOMFORT with spigot Ø 200 mm and S21 control panel
ENH 250 ... S21	KOMFORT with spigot Ø 250 mm and S21 control panel

Overall dimensions [mm]

Model	Ø D	B	H	L	L1
ENH 125-0.6-1 S21	124	155	251	306	190
ENH 125-0.8-1 S21	124	155	251	306	190
ENH 125-1.2-1 S21	124	155	251	306	190
ENH 150-0.8-1 S21	149	170	282	306	190
ENH 150-1.2-1 S21	149	170	282	306	190
ENH 150-1.7-1 S21	149	170	282	306	190
ENH 150-2.0-1 S21	149	170	282	306	190
ENH 160-0.8-1 S21	159	175	293	306	190
ENH 160-1.2-1 S21	159	175	293	306	190
ENH 160-1.7-1 S21	159	175	293	306	190
ENH 160-2.0-1 S21	159	175	293	306	190
ENH 200-1.2-1 S21	199	195	337	306	190
ENH 200-1.7-1 S21	199	195	337	306	190
ENH 200-2.0-1 S21	199	195	337	306	190
ENH 250-1.2-1 S21	247	287	388	307	190
ENH 250-2.0-1 S21	247	287	388	307	190
ENH 250-3.0-1 S21	247	287	388	307	190

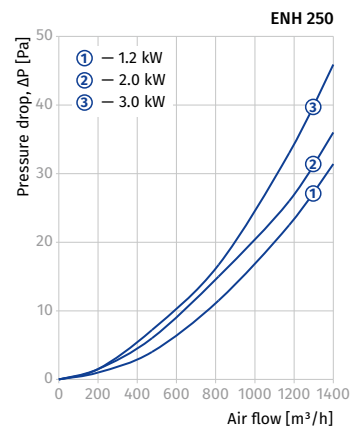
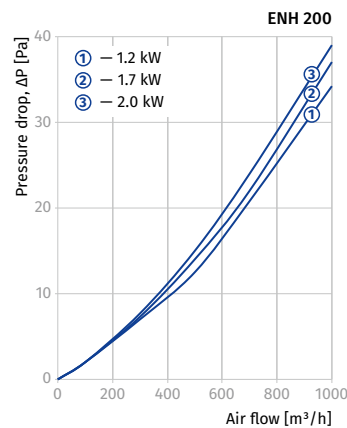
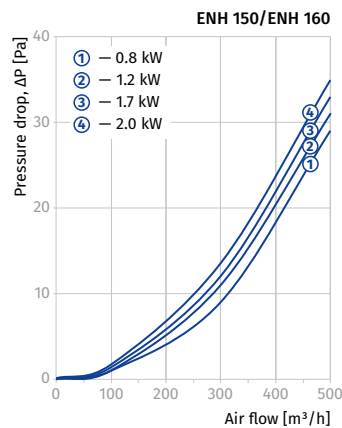
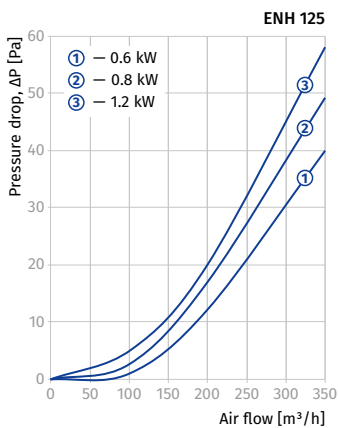


Designation key

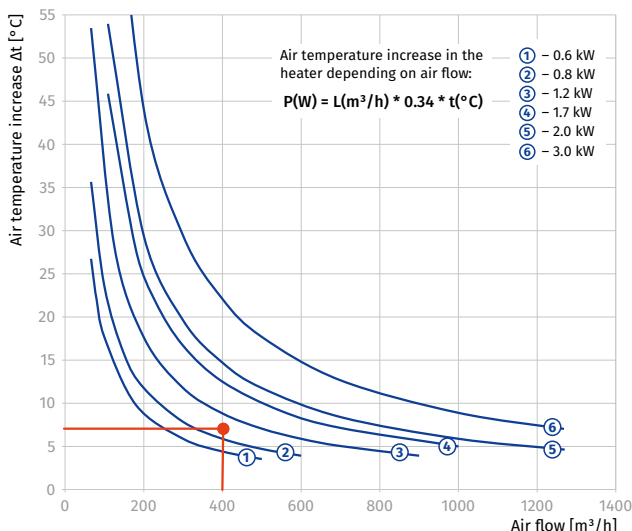
Series	Connected air duct diameter [mm]	Heater power [kW]	Number of phases	Compatibility with automation
ENH	125; 160; 150; 200; 250	- 0.6; 0.8; 1.2; 1.7; 2.0; 3.0	- 1: single-phase	S21: compatible with S21 automation

Technical data

Parameters	Min. air flow [m³/h (l/s)]	Power [kW]	Current [A]
ENH 125-0.6-1 S21	60 (17)	0.6	2.6
ENH 125-0.8-1 S21	80 (22)	0.8	3.5
ENH 125-1.2-1 S21	90 (25)	1.2	5.2
ENH 150-0.8-1 S21	80 (22)	0.8	3.5
ENH 150-1.2-1 S21	90 (25)	1.2	5.2
ENH 150-1.7-1 S21	160 (44)	1.7	7.4
ENH 150-2.0-1 S21	170 (47)	2.0	8.7
ENH 160-0.8-1 S21	80 (22)	0.8	3.5
ENH 160-1.2-1 S21	150 (42)	1.2	5.2
ENH 160-1.7-1 S21	160 (44)	1.7	7.4
ENH 160-2.0-1 S21	170 (47)	2.0	8.7
ENH 200-1.2-1 S21	150 (42)	1.2	5.2
ENH 200-1.7-1 S21	160 (44)	1.7	7.4
ENH 200-2.0-1 S21	170 (47)	2.0	8.7
ENH 250-1.2-1 S21	180 (50)	1.2	5.2
ENH 250-2.0-1 S21	200 (56)	2.0	8.7
ENH 250-3.0-1 S21	375 (104)	3.0	13.0



Heater capacity selection diagram



• The ENH heater parameters calculation example:

- It is necessary to select a heater for supply air post-heating to a temperature of +24 °C, provided the temperature downstream of the heat exchanger is +17 °C. Therefore it is essential to increase temperature by +7 °C. The ventilation system incorporates the KOMFORT EC SB 350 S21. Rated air capacity 400 m³/h.
- Determine the intersection of the post-heating temperature line (+7 °C) and the rated air capacity line (400 m³/h). In this case the 1200 W heater capacity provides necessary post-heating (+7 °C). The **ENH 160-1.2-1** with the diameter matching the spigot diameter of the air handling unit KOMFORT EC SB 350 S21 is a suitable model.