



Electrical heaters

ECH



Steel cover with aluzinc coating



Two-stage overheating protection



EPDM gasket on connection ports



IP 44 protection class

Description

ECH is an electric duct heater **without built-in automation**. The heating power of the heater can be adjusted via an external HRK controller. ECH heaters are designed for installation in round ducts. They are available in typical ventilation diameters from 100 to 500 mm and power from 0.3 to 24.0 kW. Each heater has a two-stage overheating protection: I stage at 50°C - automatic reset. II stage at 100°C - manual reset required.

Usage

Duct heaters are used to heat clean air in domestic ventilation systems, especially in autumn and winter, as well as in industrial installations requiring a constant temperature of blown air. ECH heaters also work as pre-heaters or secondary heaters, complementing installations based on ventilation units with heat recovery.

Design

The heater cover is made of steel sheet coated with a high-quality aluzinc coating, which guarantees high corrosion resistance. The connection ports are male and have an EPDM seal. The heating elements are made of AISI 304 stainless steel. The junction box has an IP44 protection class.



Accessories



PSH
Pressure switch
page 173



HRK1
Single- or two-phase heater controller
page 173



HTS
Electrical room thermostat
page 174



TJK10K
Duct temperature sensor
page 173



HRK3
Three-phase heater controller
page 174



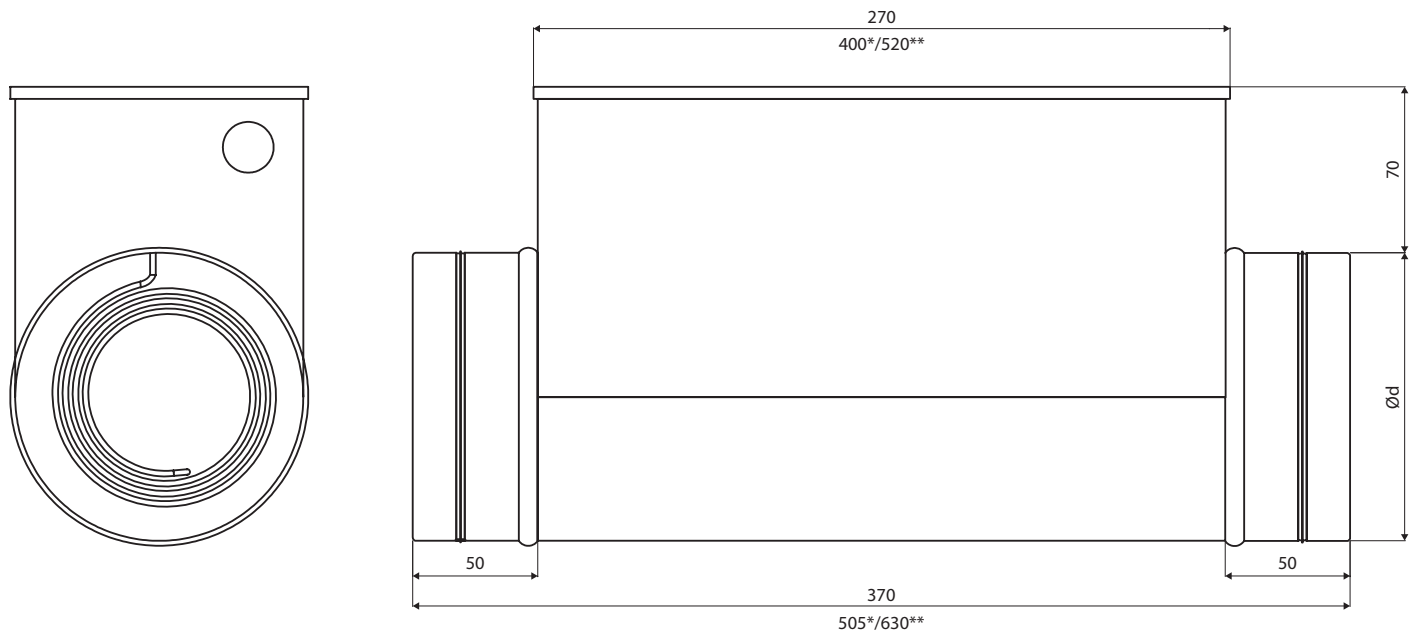
HR5K
External temperature setpoint
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Technical specifications

| Model | Diameter d [mm] | Min. air flow rate [m ³ /h] | Voltage [V/50Hz] | Power [kW] |
|----------|-----------------|--|------------------|----------------------------------|
| ECH 100 | 100 | 40 | 1~230 | 0.3, 0.6, 0.9, 1.2 |
| ECH 125 | 125 | 70 | 1~230 | 0.3, 0.6, 0.9, 1.2, 1.8, 2.4 |
| ECH 160 | 160 | 110 | 1~230 | 0.3, 0.6, 0.9, 1.2, 1.8, 2.4 |
| | | | 2~400 3~400 | 3.0, 5.0, 6.0 6.0 |
| ECH 200 | 200 | 170 | 1~230 | 0.9, 1.2, 2.0, 2.4, 3.0 |
| | | | 2~400 | 3.0, 5.0, 6.0 |
| | | | 3~400 | 6.0 |
| ECH 250 | 250 | 270 | 1~230 | 1.2, 2.0, 2.4, 3.0 |
| | | | 2~400 | 3.0, 5.0, 6.0 |
| | | | 3~400 | 6.0, 9.0, 12.0 |
| ECH 315* | 315 | 415 | 1~230 | 1.2, 2.0, 2.4, 3.0 |
| | | | 2~400 | 3.0, 5.0, 6.0 |
| | | | 3~400 | 6.0, 9.0, 12.0 |
| ECH 400 | 400 | 690 | 1~230 | 3.0, 5.0, 6.0 |
| | | | 2~400 | 3.0, 5.0, 6.0 |
| | | | 3~400 | 6.0, 9.0, 12.0, 15.0, 18.0 |
| ECH 500 | 500 | 1060 | 2~400 | 3.0, 5.0, 6.0 |
| | | | 3~400 | 6.0, 9.0, 12.0, 15.0, 18.0, 24.0 |

* Also available diameter of 355 mm.

Technical drawing



* Dimensions for the 12kW size ** Dimensions for the 15 kW, 18 kW, 24 kW size

Nomograms for the selection of heaters, page 161