

# EKH

## Duct electrical heaters

### Use

- For warming up of supply air in heating, ventilation and air conditioning systems installed in various premises.
- Compatible with Ø 100 to 315 mm round air ducts.



### Design

- Galvanized steel case and junction box.
- Heating elements made of stainless steel.
- Airtight connection with air ducts due to rubber seals.
- Several power options for each standard size.
- For higher heating capacity several heaters may be installed in series.
- Equipped with overheat protection thermostats:
  - basic protection with automatic restart at +50 °C;
  - emergency protection with manual restart at +90 °C.

### Mounting

- Fixing to round ducts with clamps.
- Any mounting position except for the junction box downwards to prevent condensate leakage and short circuit.
- Install a filter upstream to the heater to protect heating elements against dirt ingress.

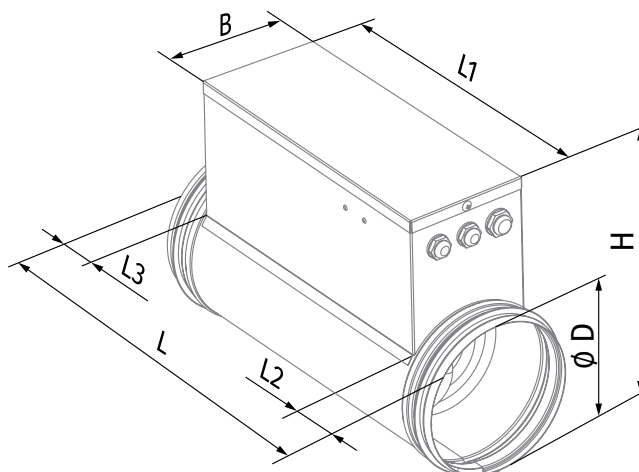
- Recommended distance between the heater and other system components must be not less than two connecting diameters for air flow stabilization.
- Duct heaters are rated for minimum air flow speed 1.5 m/s and maximum air temperature supplied to the units 40 °C. In case of speed regulation with a speed controller the minimum air speed through the heater must be provided.
- For correct and safe heater operation an automatic control and protection system is recommended including the following functions:
  - regulation of the heating capacity and temperature of the air heated up;
  - filter clogging control by a differential air pressure sensor;
  - power cut-off in case of supply fan shutdown or low air flow speed as well as in case of actuating the overheat protection thermostats;
  - heat removal from the heating elements after ventilation system shutdown.

#### Designation key

| Series | Connected air duct diameter [mm] | Heater power [kW]                                      |
|--------|----------------------------------|--|
| EKH    | 150; 160; 200; 250; 315          | - 0.6; 0.8; 1.2; 1.6; 1.8; 2.4; 3; 3.4; 3.6; 5.1; 6; 9 |

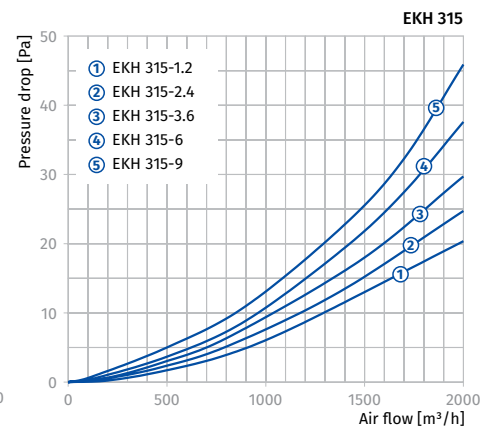
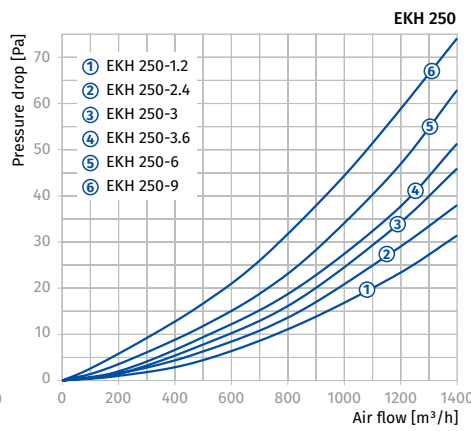
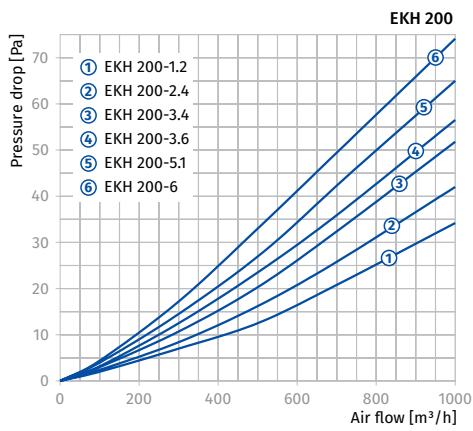
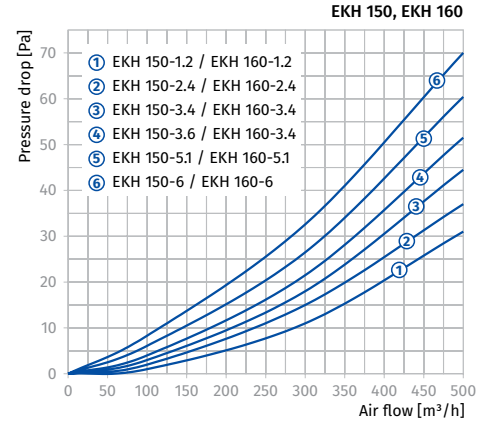
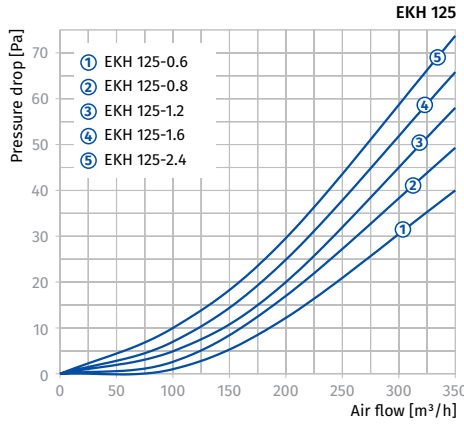
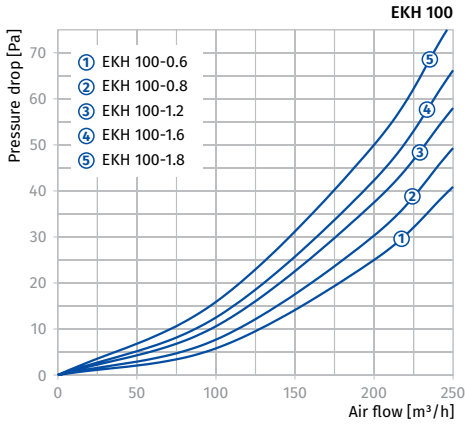
**Overall dimensions [mm]**

| Model       | Ø D | B   | H   | L   | L1  | L2 |
|-------------|-----|-----|-----|-----|-----|----|
| EKH 100-0.6 | 99  | 94  | 207 | 306 | 226 | 40 |
| EKH 100-0.8 | 99  | 94  | 207 | 306 | 226 | 40 |
| EKH 100-1.2 | 99  | 94  | 207 | 306 | 226 | 40 |
| EKH 100-1.6 | 99  | 94  | 207 | 306 | 226 | 40 |
| EKH 100-1.8 | 99  | 94  | 207 | 376 | 296 | 40 |
| EKH 125-0.6 | 124 | 103 | 230 | 306 | 226 | 40 |
| EKH 125-0.8 | 124 | 103 | 230 | 306 | 226 | 40 |
| EKH 125-1.2 | 124 | 103 | 230 | 306 | 226 | 40 |
| EKH 125-1.6 | 124 | 103 | 230 | 306 | 226 | 40 |
| EKH 125-2.4 | 124 | 103 | 230 | 376 | 296 | 40 |
| EKH 150-1.2 | 149 | 120 | 255 | 306 | 226 | 40 |
| EKH 150-2.4 | 149 | 120 | 255 | 306 | 226 | 40 |
| EKH 150-3.4 | 149 | 120 | 255 | 306 | 226 | 40 |
| EKH 150-3.6 | 149 | 120 | 255 | 376 | 296 | 40 |
| EKH 150-5.1 | 149 | 120 | 255 | 376 | 296 | 40 |
| EKH 150-6   | 149 | 120 | 255 | 376 | 296 | 40 |
| EKH 160-1.2 | 159 | 120 | 267 | 306 | 226 | 40 |
| EKH 160-2.4 | 159 | 120 | 267 | 306 | 226 | 40 |
| EKH 160-3.4 | 159 | 120 | 267 | 306 | 226 | 40 |
| EKH 160-3.6 | 159 | 120 | 267 | 376 | 296 | 40 |
| EKH 160-5.1 | 159 | 120 | 267 | 376 | 296 | 40 |
| EKH 160-6   | 159 | 120 | 267 | 376 | 296 | 40 |
| EKH 200-1.2 | 199 | 150 | 302 | 294 | 214 | 40 |
| EKH 200-2.4 | 199 | 150 | 302 | 294 | 214 | 40 |
| EKH 200-3.4 | 199 | 150 | 302 | 294 | 214 | 40 |
| EKH 200-3.6 | 199 | 150 | 302 | 376 | 296 | 40 |
| EKH 200-5.1 | 199 | 150 | 302 | 376 | 296 | 40 |
| EKH 200-6   | 199 | 150 | 302 | 376 | 296 | 40 |
| EKH 250-1.2 | 249 | 150 | 356 | 306 | 226 | 40 |
| EKH 250-2.4 | 249 | 150 | 356 | 306 | 226 | 40 |
| EKH 250-3   | 249 | 150 | 356 | 306 | 226 | 40 |
| EKH 250-3.6 | 249 | 150 | 356 | 376 | 296 | 40 |
| EKH 250-6   | 249 | 150 | 356 | 376 | 296 | 40 |
| EKH 250-9   | 249 | 150 | 356 | 376 | 296 | 40 |
| EKH 315-1.2 | 313 | 150 | 425 | 294 | 214 | 40 |
| EKH 315-2.4 | 313 | 150 | 425 | 294 | 214 | 40 |
| EKH 315-3.6 | 313 | 150 | 425 | 376 | 296 | 40 |
| EKH 315-6   | 313 | 150 | 425 | 376 | 296 | 40 |
| EKH 315-9   | 313 | 150 | 425 | 376 | 296 | 40 |



**Technical data**

| Model       | Minimum air flow<br>[m³/h (l/s)] | Current [A] | Voltage [V] | Power [kW] | Number of heating<br>coils x capacity [kW] | Phase | Weight [kg] |
|-------------|----------------------------------|-------------|-------------|------------|--|-------|-------------|
| EKH 100-0.6 | 60 (17)                          | 2.6         | 230         | 0.6        | 1x0.6                                      | 1     | 2.6         |
| EKH 100-0.8 | 80 (22)                          | 3.5         | 230         | 0.8        | 1x0.8                                      | 1     | 2.6         |
| EKH 100-1.2 | 90 (25)                          | 5.2         | 230         | 1.2        | 2x0.6                                      | 1     | 2.9         |
| EKH 100-1.6 | 120 (33)                         | 7.0         | 230         | 1.6        | 2x0.8                                      | 1     | 2.9         |
| EKH 100-1.8 | 130 (36)                         | 7.8         | 230         | 1.8        | 3x0.6                                      | 1     | 3.1         |
| EKH 125-0.6 | 60 (17)                          | 2.6         | 230         | 0.6        | 1x0.6                                      | 1     | 2.4         |
| EKH 125-0.8 | 80 (22)                          | 3.5         | 230         | 0.8        | 1x0.8                                      | 1     | 2.4         |
| EKH 125-1.2 | 90 (25)                          | 5.2         | 230         | 1.2        | 2x0.6                                      | 1     | 2.7         |
| EKH 125-1.6 | 120 (33)                         | 7.0         | 230         | 1.6        | 2x0.8                                      | 1     | 2.7         |
| EKH 125-2.4 | 150 (42)                         | 7.8         | 230         | 2.4        | 3x0.8                                      | 1     | 3.0         |
| EKH 150-1.2 | 120 (33)                         | 5.2         | 230         | 1.2        | 1x1.2                                      | 1     | 2.5         |
| EKH 150-2.4 | 150 (42)                         | 10.4        | 230         | 2.4        | 2x1.2                                      | 1     | 3.1         |
| EKH 150-3.4 | 220 (61)                         | 14.7        | 230         | 3.4        | 2x1.7                                      | 1     | 3.1         |
| EKH 150-3.6 | 265 (74)                         | 5.2         | 400         | 3.6        | 3x1.2                                      | 3     | 4.1         |
| EKH 150-5.1 | 320 (89)                         | 7.4         | 400         | 5.1        | 3x1.7                                      | 3     | 4.1         |
| EKH 150-6   | 360 (100)                        | 8.7         | 400         | 6.0        | 3x2.0                                      | 3     | 4.1         |
| EKH 160-1.2 | 150 (42)                         | 5.2         | 230         | 1.2        | 1x1.2                                      | 1     | 2.1         |
| EKH 160-2.4 | 180 (50)                         | 10.4        | 230         | 2.4        | 2x1.2                                      | 1     | 2.9         |
| EKH 160-3.4 | 250 (69)                         | 14.8        | 230         | 3.4        | 2x1.7                                      | 1     | 3.2         |
| EKH 160-3.6 | 265 (74)                         | 5.2         | 400         | 3.6        | 3x1.2                                      | 3     | 3.9         |
| EKH 160-5.1 | 375 (104)                        | 7.4         | 400         | 5.1        | 3x1.7                                      | 3     | 3.9         |
| EKH 160-6   | 440 (122)                        | 8.7         | 400         | 6.0        | 3x2.0                                      | 3     | 3.9         |
| EKH 200-1.2 | 150 (42)                         | 5.2         | 230         | 1.2        | 1x1.2                                      | 1     | 2.4         |
| EKH 200-2.4 | 180 (50)                         | 10.4        | 230         | 2.4        | 2x1.2                                      | 1     | 3.2         |
| EKH 200-3.4 | 250 (69)                         | 14.8        | 230         | 3.4        | 2x1.7                                      | 1     | 3.3         |
| EKH 200-3.6 | 265 (74)                         | 5.2         | 400         | 3.6        | 3x1.2                                      | 3     | 4.1         |
| EKH 200-5.1 | 375 (104)                        | 7.4         | 400         | 5.1        | 3x1.7                                      | 3     | 4.1         |
| EKH 200-6   | 440 (122)                        | 8.7         | 400         | 6.0        | 3x2.0                                      | 3     | 4.1         |
| EKH 250-1.2 | 180 (50)                         | 5.2         | 230         | 1.2        | 1x1.2                                      | 1     | 2.4         |
| EKH 250-2.4 | 265 (74)                         | 10.4        | 230         | 2.4        | 2x1.2                                      | 1     | 2.6         |
| EKH 250-3   | 375 (104)                        | 13.0        | 230         | 3.0        | 1x3.0                                      | 1     | 2.4         |
| EKH 250-3.6 | 375 (104)                        | 5.2         | 400         | 3.6        | 3x1.2                                      | 3     | 2.9         |
| EKH 250-6   | 440 (122)                        | 8.7         | 400         | 6.0        | 3x2.0                                      | 3     | 2.9         |
| EKH 250-9   | 660 (183)                        | 13.0        | 400         | 9.0        | 3x3.0                                      | 3     | 2.9         |
| EKH 315-1.2 | 180 (50)                         | 5.2         | 230         | 1.2        | 1x1.2                                      | 1     | 2.6         |
| EKH 315-2.4 | 265 (74)                         | 10.4        | 230         | 2.4        | 2x1.2                                      | 1     | 2.8         |
| EKH 315-3.6 | 375 (104)                        | 5.2         | 400         | 3.6        | 3x1.2                                      | 3     | 3.1         |
| EKH 315-6   | 440 (122)                        | 8.7         | 400         | 6.0        | 3x2.0                                      | 3     | 3.1         |
| EKH 315-9   | 660 (183)                        | 13.0        | 400         | 9.0        | 3x3.0                                      | 3     | 3.1         |



**Air temperature increase as a function of air flow**

