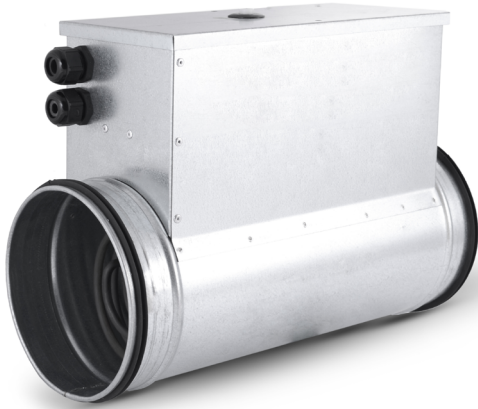


# Duct electric heater

## HDE-CO



### Description

The HDE-CO ducted electric heaters are designed for use in ventilation systems which require raising or stabilizing the supplied air temperature.

The heater's enclosure is made from galvanized steel sheet. The heating resistors are made from stainless steel. The heating resistors form a spiral to ensure homogeneous heating of the air stream volume passing through them.

The external terminal box houses the connection terminal strip and the over temperature protection.

The over temperature protection is a system of two thermostats. The first thermostat is an automatic-reset temperature limiter set to trip at +60°C. The other thermostat is a manual temperature limiter set to trip at +90°C (once tripped, this device needs to be reset by hand).

The HDE-CO ducted electric heater features EPDM gaskets at the connection ends.

The HDE-CO heaters can be installed in a vertical or horizontal duct, irrespective of the air flow direction.

The HDE-CO ducted electric heater supports external temperature controllers.

HDE-CO1 - single-contactor ducted electric heater

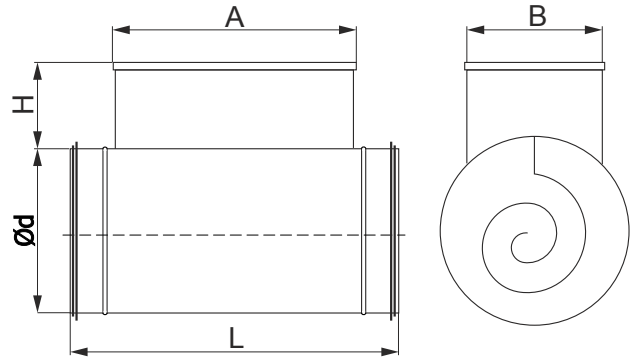
HDE-CO2 - double-contactor ducted electric heater

**Note:**

When choosing a ducted electric heater, note that the supplied air temperature cannot exceed 40°C.

The minimum air flow rate across the ducted electric heater must be less than 1.5 m/s.

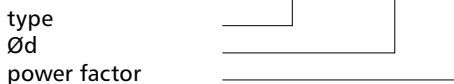
### Dimensions



| Type       | Ød [mm] | A [mm] | B [mm] | H [mm] | L [mm] |
|------------|---------|--------|--------|--------|--------|
| HDE-CO-100 | 100     | 280    | 100    | 105    | 380    |
| HDE-CO-125 | 125     | 280    | 100    | 105    | 380    |
| HDE-CO-150 | 150     | 280    | 120    | 105    | 380    |
| HDE-CO-160 | 160     | 280    | 120    | 105    | 380    |
| HDE-CO-200 | 200     | 300    | 160    | 105    | 400    |
| HDE-CO-250 | 250     | 300    | 190    | 105    | 400    |

**Product code example**

Product code: **HDE-CO - 125 - 1,2**



Power factor: 1.2 x 1000 = 1200 W

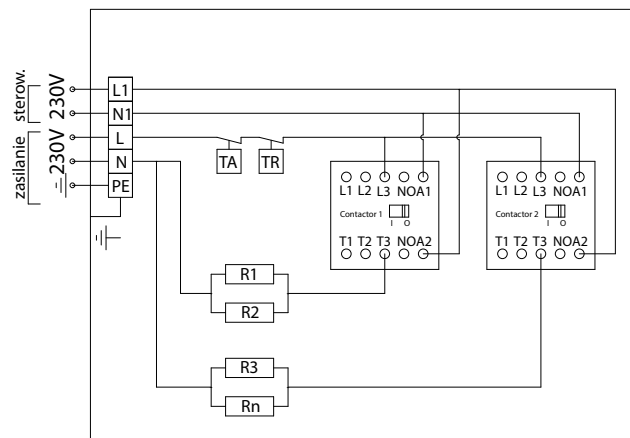
# Duct electric heater

## HDE-CO

### Technical specifications

| Type            | Power [W] | Voltage [V] | Number of heating resistors [pcs.] | Number of contactor [pcs.] | Rated current [A] |
|-----------------|-----------|-------------|------------------------------------|----------------------------|-------------------|
| HDE-CO1-100-0,3 | 300       | 230         | 1                                  | 1                          | 1,30              |
| HDE-CO1-100-0,6 | 600       | 230         | 2                                  | 1                          | 2,61              |
| HDE-CO1-100-0,9 | 900       | 230         | 3                                  | 1                          | 3,91              |
| HDE-CO1-100-1,2 | 1200      | 230         | 4                                  | 1                          | 5,22              |
| HDE-CO1-125-0,3 | 300       | 230         | 2                                  | 1                          | 1,30              |
| HDE-CO1-125-0,6 | 600       | 230         | 2                                  | 1                          | 2,61              |
| HDE-CO1-125-0,9 | 900       | 230         | 3                                  | 1                          | 3,91              |
| HDE-CO1-125-1,2 | 1200      | 230         | 4                                  | 1                          | 5,22              |
| HDE-CO1-125-1,5 | 1500      | 230         | 5                                  | 1                          | 6,52              |
| HDE-CO1-150-0,5 | 500       | 230         | 1                                  | 1                          | 2,17              |
| HDE-CO1-150-1,0 | 1000      | 230         | 2                                  | 1                          | 4,35              |
| HDE-CO1-150-1,5 | 1500      | 230         | 3                                  | 1                          | 6,52              |
| HDE-CO1-150-2,0 | 2000      | 230         | 4                                  | 1                          | 8,70              |
| HDE-CO1-160-0,5 | 500       | 230         | 1                                  | 1                          | 2,17              |
| HDE-CO1-160-1,0 | 1000      | 230         | 2                                  | 1                          | 4,35              |
| HDE-CO1-160-1,5 | 1500      | 230         | 3                                  | 1                          | 6,52              |
| HDE-CO1-160-2,0 | 2000      | 230         | 4                                  | 1                          | 8,70              |
| HDE-CO1-200-0,5 | 500       | 230         | 1                                  | 1                          | 2,17              |
| HDE-CO1-200-1,0 | 1000      | 230         | 2                                  | 1                          | 4,35              |
| HDE-CO1-200-1,5 | 1500      | 230         | 3                                  | 1                          | 6,52              |
| HDE-CO1-200-2,0 | 2000      | 230         | 4                                  | 1                          | 8,70              |
| HDE-CO1-250-0,5 | 500       | 230         | 1                                  | 1                          | 2,17              |
| HDE-CO1-250-1,0 | 1000      | 230         | 2                                  | 1                          | 4,35              |
| HDE-CO1-250-1,5 | 1500      | 230         | 3                                  | 1                          | 6,52              |
| HDE-CO1-250-2,0 | 2000      | 230         | 4                                  | 1                          | 8,70              |
| HDE-CO2-100-0,6 | 600       | 230         | 2                                  | 2                          | 2,61              |
| HDE-CO2-100-1,2 | 1200      | 230         | 4                                  | 2                          | 5,22              |
| HDE-CO2-125-0,6 | 600       | 230         | 2                                  | 2                          | 2,61              |
| HDE-CO2-125-1,2 | 1200      | 230         | 4                                  | 2                          | 5,22              |
| HDE-CO2-150-1,0 | 1000      | 230         | 2                                  | 2                          | 4,35              |
| HDE-CO2-150-2,0 | 2000      | 230         | 4                                  | 2                          | 8,70              |
| HDE-CO2-160-1,0 | 1000      | 230         | 2                                  | 2                          | 4,35              |
| HDE-CO2-160-2,0 | 2000      | 230         | 4                                  | 2                          | 8,70              |
| HDE-CO2-200-1,0 | 1000      | 230         | 2                                  | 2                          | 4,35              |
| HDE-CO2-200-2,0 | 2000      | 230         | 4                                  | 2                          | 8,70              |
| HDE-CO2-250-1,0 | 1000      | 230         | 2                                  | 2                          | 4,35              |
| HDE-CO2-250-2,0 | 2000      | 230         | 4                                  | 2                          | 8,70              |

### Connection diagram

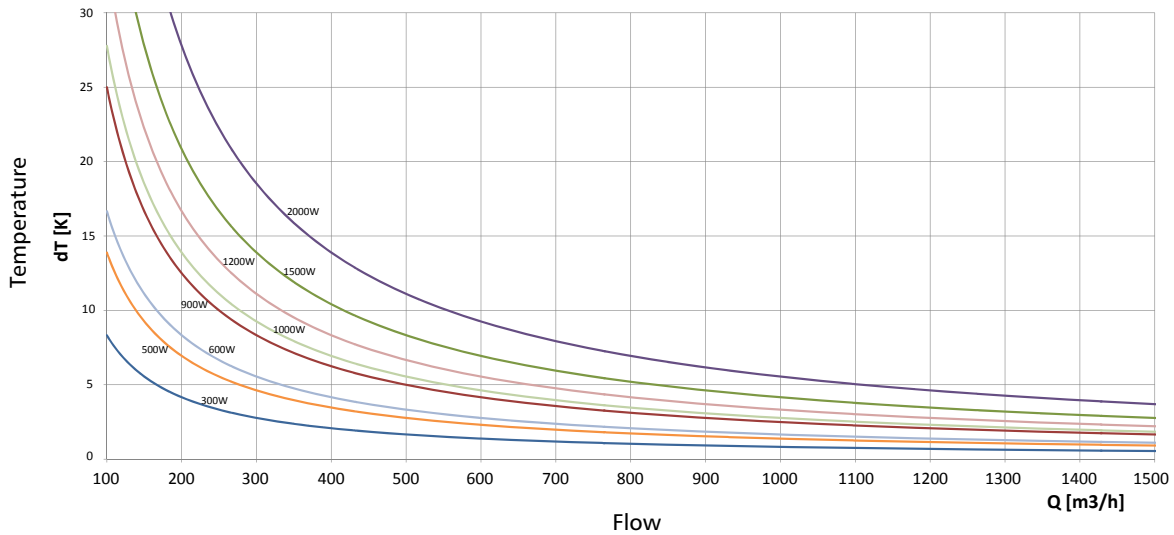


- R1, R2...Rn – heating resistors
- TA – automatic temperature limiter, trips at +60°C (with automatic reset)
- TR – emperature limiter with manual reset, trips at +90°C (non-automatic)

# Duct electric heater HDE-CO

## Technical specifications

Selection chart for the HDE-CO ducted electric heaters



The characteristics are a graphic representation of the following relation:  $P = Q \times cw \times dT \times p$ , with:

P - heating power of the ducted electric heater (W)

Q - air output from the ducted electric heater (m<sup>3</sup>/h)

cw = 1005 - specific heat of air (J/kgK)

dT - temperature difference (K)

p = 1.29 - air density (kg/m<sup>3</sup>)

once reduced:  $P = Q \times 0.36 \times dT$

## Available combinations



HDE-CO duct electric heater



HRU-MinistAir-W-450 HRV



HDE-CO1 duct electric heater



R31 room thermostat

Duct electric heater

# HDE-CO

## Available combinations



HDE-CO1 duct electric heater

+



TM1-P electronic room thermostat

+



TG-K330 duct air temperature sensor