

Circular electric coil

BCA BUS



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Conformity

- CE compliant.
- WEEE recycling compliant.
- Compliant with essential requirements of EMC Directive 89/336/EEC.

Advantages

- Simple to install: fitted like a ductwork accessory.
- Pre-heating to meet exact needs of HRV unit.

PRINCIPLE

The BCA BUS is an electric coil used to pre-heat incoming air. It is controlled by the HRV system (Dee Fly Cube or Dee Fly Modulo) via a BUS port.

FIELD OF APPLICATION

- Pre-heating incoming air,
- Frost protection for HRV units,
- Assembly on circular ductwork,
- Suitable for interior use only.

DESCRIPTION

- Jointed galvanised steel shell,
- Tube resistance connected to an external connection box,
- Stainless steel AISI 304 heating pin,
- IP40 protection rating,
- Manual and automatic temperature limiter (60°C / 120°C).

RANGE

Désignation	Code
BCA BUS - pre-heating coil	11023225

OPERATION

The BCA BUS is fitted upstream of the HRV system (Dee Fly Cube or Dee fly Modulo) on the incoming air branch connection.

The BCA BUS operates in ON/OFF mode with no variation (OFF = 0W, ON = 1500 W).

- The BCA BUS is controlled by the HRV system (Dee Fly Cube or Dee fly Modulo) according to the following operating rules:

- The BCA BUS is activated (P = 1500 W) when the temperature of incoming air $\leq 0^\circ\text{C}$,
- The BCA BUS stops when the temperature of incoming air $> 0^\circ\text{C}$.

- Principle of frost protection:

The BCA BUS is controlled by the HRV system (Cube or Modulo). To prevent frost on the HRV system, two actions are taken in parallel:

- as indicated above, the BCA BUS is activated at temperatures below 0°C to heat the incoming air,
- below -12°C , the maximum airflow supplied by the HRV unit is lowered so that the air can be heated sufficiently by the BCA BUS (see illustration),
- when the incoming air reaches the severe frost limit, the air inflow is stopped (zero airflow). The HRV unit then operates simply as an Exhaust unit.

The severe frost limit temperatures are: -40°C for Dee Fly Modulo, -45°C for Dee Fly Cube 300 and 370.

Frost protection airflow limitation (diag. 1)

Maximum airflow of HRV unit (m³/h) of HRV unit according to temperature of incoming air ($^\circ\text{C}$).

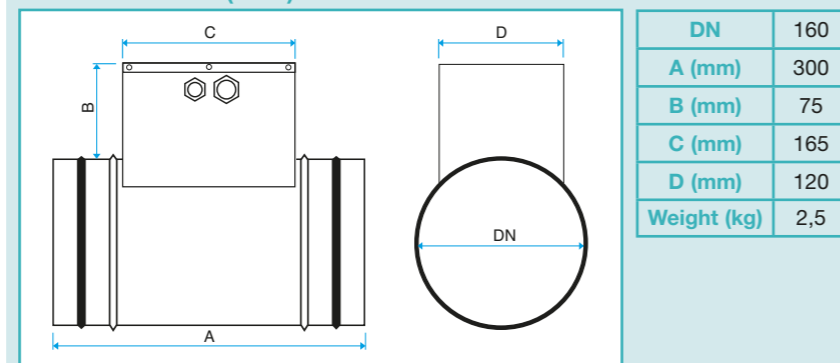
Frost protection consumption (diag. 2)

BCA BUS power (W) according to temperature of incoming air ($^\circ\text{C}$) at maximum airflow (or limited).

TECHNICAL DETAILS

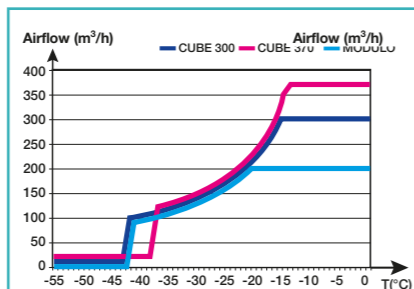
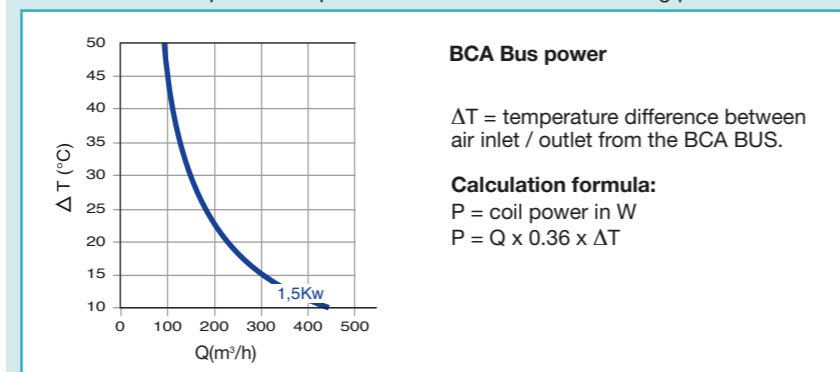
- Power Supply: 230 V - 50 Hz single-phase.
- Power: 1,500 W.
- Device protection rating: IPX4.
- Electrical insulation: class II.
- Integrated thermal protection.

DIMENSIONS (mm) - WEIGHT

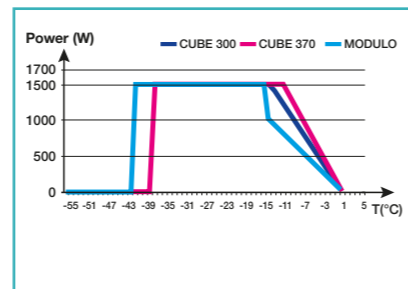


AIRFLOW DETAILS

- The rise in air temperature depends on the airflow and the heating power.



Frost protection airflow limitation



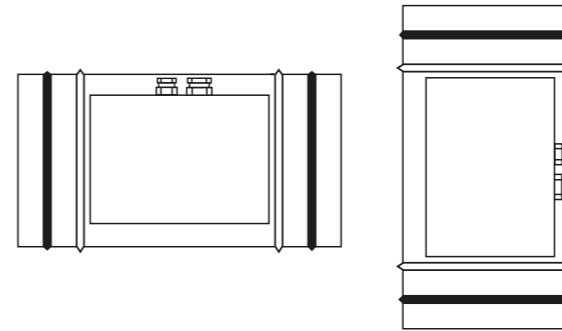
Frost protection consumption

Circular electric coil

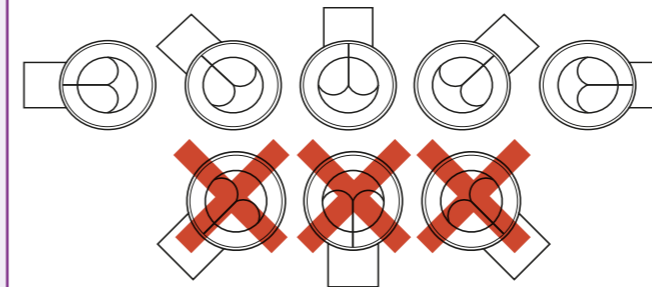
BCA BUS

INSTALLATION

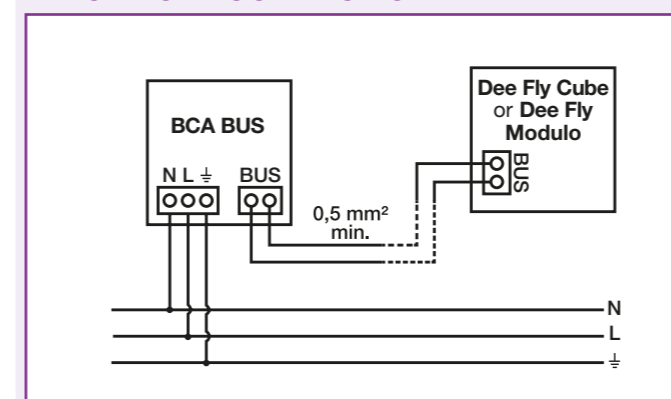
The BCA BUS can be installed horizontally or vertically.



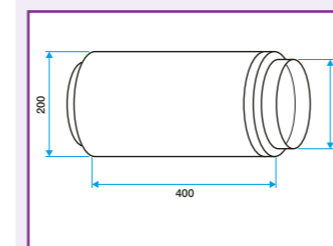
We recommend that you avoid positioning the box at the bottom, to ensure that the automatic and manual limiters function correctly.



ELECTRICAL CONNECTION



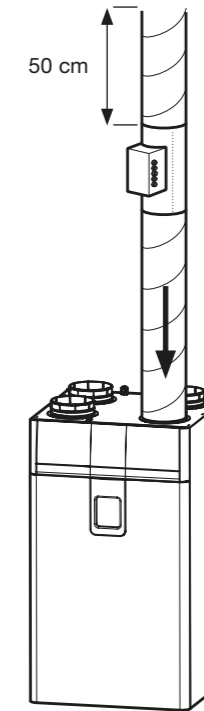
MAINTENANCE



Filtration unit (11023059)



Pre-filter casing (11023150)



For safety reasons:

The duct upstream of the BCA BUS must feature at least 50 cm of non-flammable material to protect the heating coil from deposits of inflammable material.

We strongly recommend the use of a metal duct between the BCA BUS and the HRV unit: M1 or M0 Alflux, rigid galvanised steel, etc.

Depending on the degree of air pollution, the heating coils should be verified periodically and cleaned if necessary.

We recommend that you install upstream of the BCA BUS, either:

- A filtration unit (11023059), or
- A pre-filter casing (11023150).

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