INDESSE EC | VCIN

2VV

air-only

EC FANS

STRAW SYSTEM

BASIC FEATURES

– Lengths: **1.65**; **2.20** and **2.75** m
– **EC Version**: Air flow up to **10690 cfm** (* AMCA certified)
– **Straw System exhaust** with maximized screening effect thanks to the compact and laminar airflow
– **Horizontal and vertical** installation; exhaust direction to be adjusted by air curtain holders
– Fast and easy connection of individual modules
– Maintenance-free air curtain with a long service life
– In standard available in: **colour RAL 9016**, galvanised casing or **stainless steel C4-resistant casing**; further available in any RAL colour based upon customers

The INDESSE is a high-performance industrial air curtain for vertical and horizontal installation for use in **manufacturing halls, warehouses and other industrial buildings** with a recommended installation height / width up to **24 ft /8 m**. The air curtain with elctric or LPHW coil shall be installed indoors in a dry area with ambient temperatures ranging from 41 °F and 104 °F. / +5 °C up to +40 °C and relative humidity of up to 80 %. Air curtains are able to be installed indoors with an ambient temperatures ranging from 14 °F up to 104 °F / -10 °C up to +40 °C but only with dry cold air. It is designed for conveying air free of rough dust, grease, chemical fumes, and other impurities. The IP rating of air curtains without a heater and with water heating is IP54. **The air curtain project shall always be developed by the HVAC designer.**
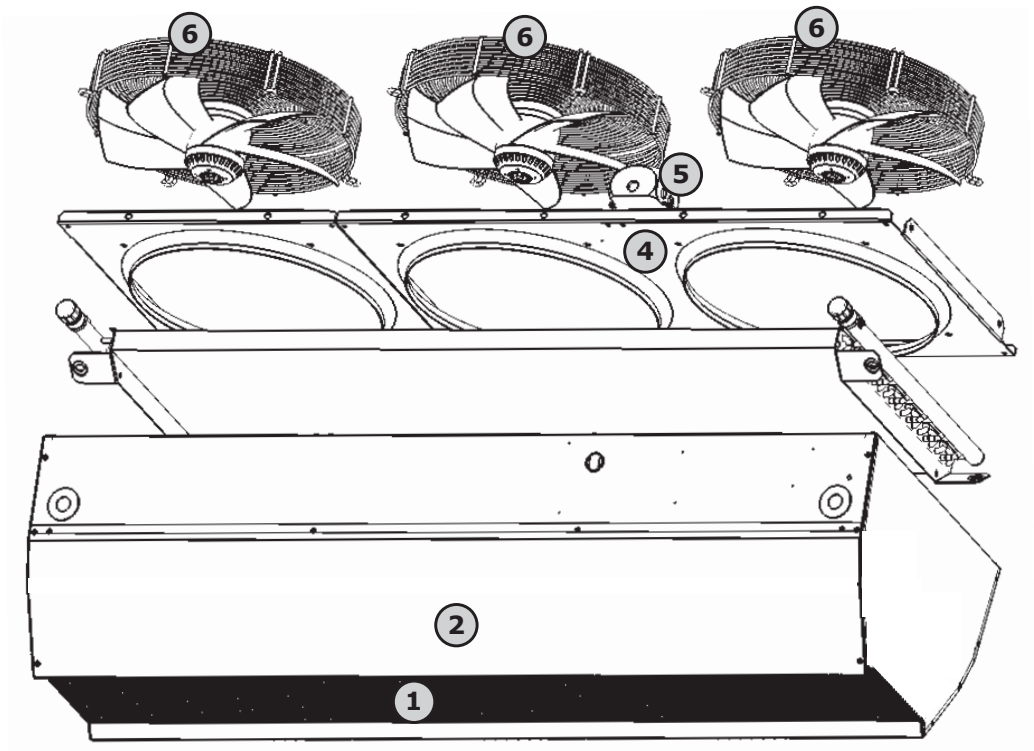
PRIMARY PARAMETERS

Fan motors are equipped with thermal contacts, which can be used to turn off the air curtain in case of the overheating of the motor.

MAIN PARTS

1. Exhaust (Straw system)
2. Main body
4. Back side
5. Motor connection box
6. Motor

Type	Recommended installation height [ft]	Air output [m³/h]					Sound power [dB(A)]*2
		20%	40%	60%	80%	100%*1	
VCIN2A150-S0EC	24	2650	3690	4890	5800	6796	86
VCIN2A200-S0EC	24	3540	4900	6520	7720	8556	87
VCIN2A250-S0EC	24	4420	6140	8140	9650	10695	88

*1 Airflow volume according AMCA Standart 220-05, (ISO 27327-1-1:2009), Figure 1A.
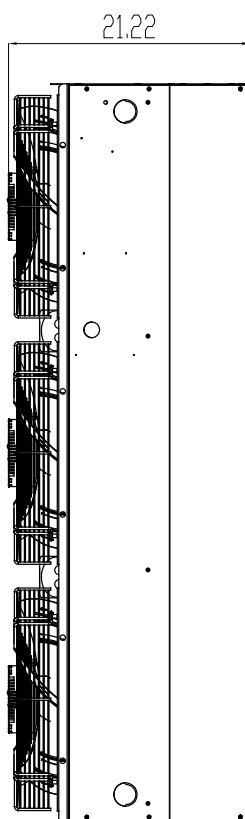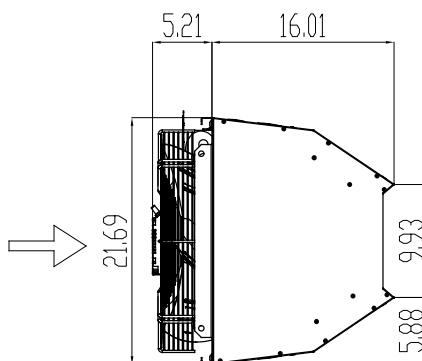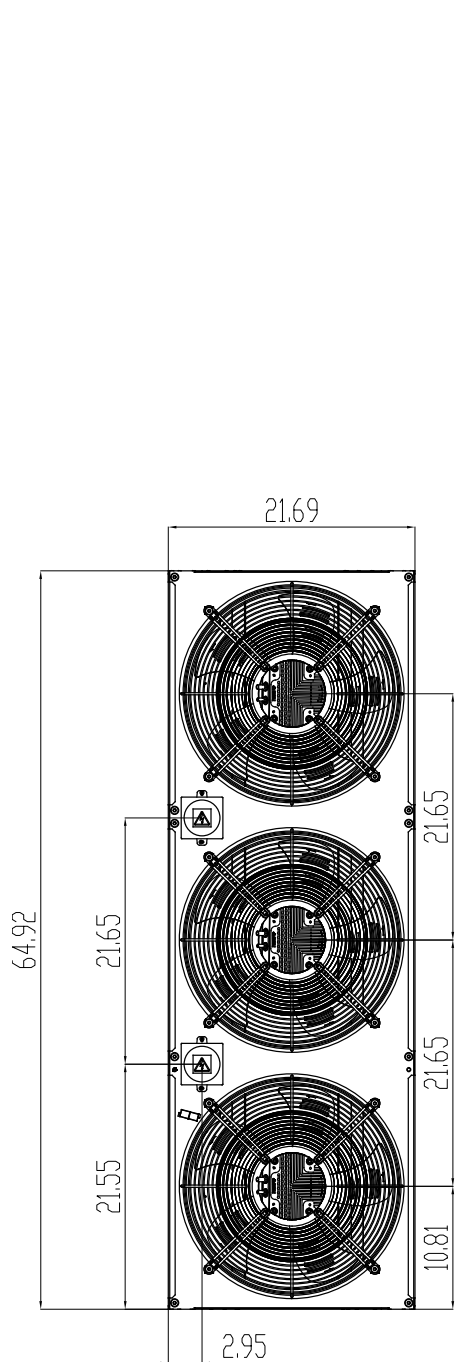*2 Sound power (LWA) measurements according to AMCA Standart 300-14, Figure 1 Setup, Installation Type A.

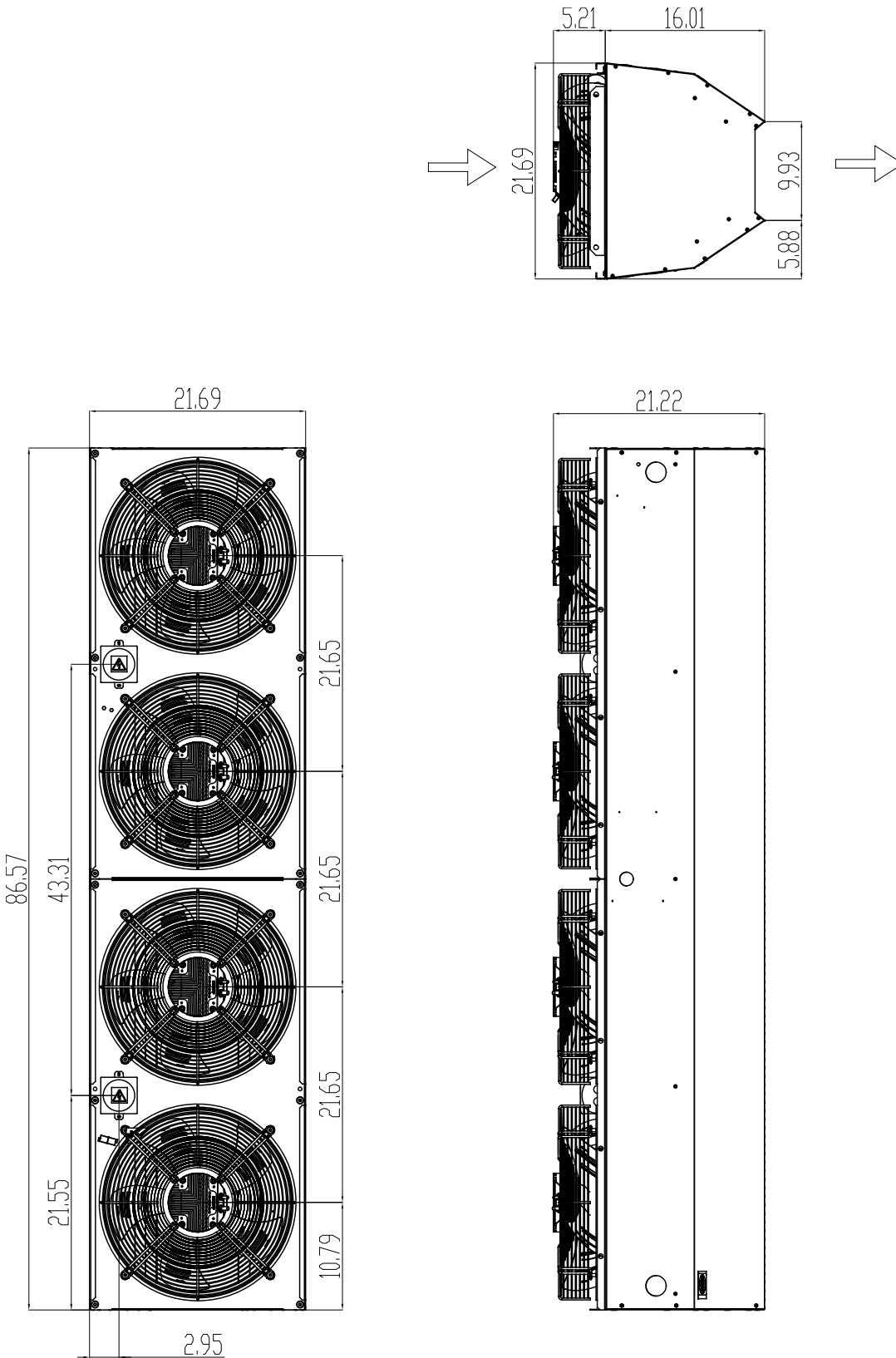| Type	Total power input [kW]	Total voltage/ current [V/A]	Motor voltage/ current [V/A]	Frequency [Hz]	Weight [lb]
VCIN2A150-S0EC	1.00	208-230 / 4,8	208-230 / 4,8	50/60	113
VCIN2A200-S0EC	1.40	208-230 / 6,4	208-230 / 6,4	50/60	152
VCIN2A250-S0EC	1.75	208-230 / 8	208-230 / 8	50/60	183

*3 Standard / Stainless steel C4 version
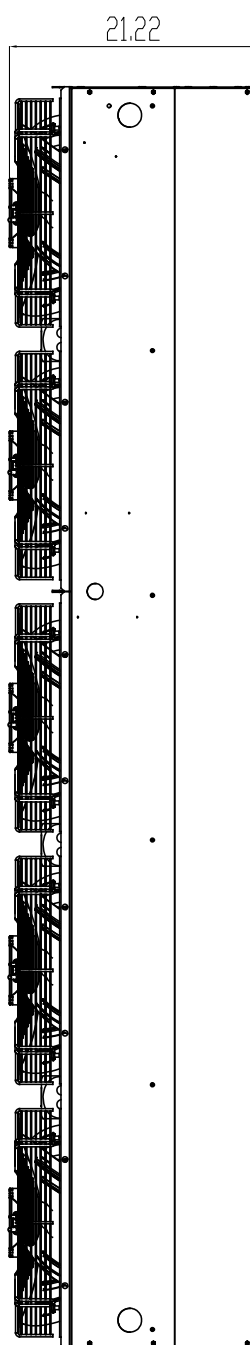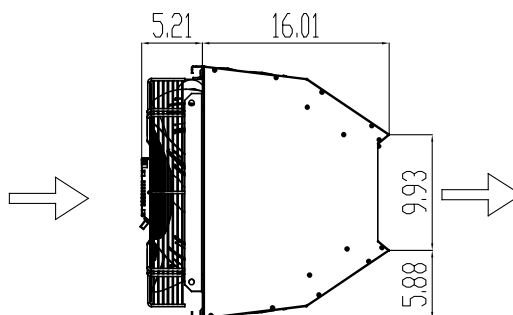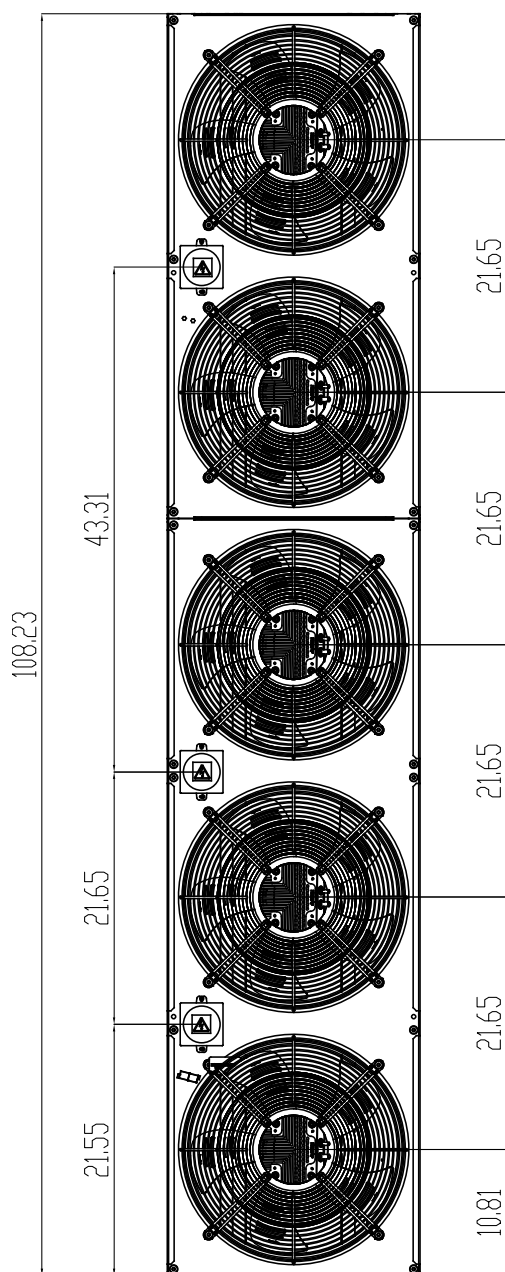
AIR CURTAIN DIMENSIONS

VCIN2A-150

5.21   16.01

21.69

9.93

5.88

21.69

64.92

21.65

21.65

21.65

21.65

21.55

10.81

2.95

21.22

VCIN2A-200

VCIN2A-250

5.21
16.01
9.93
5.88

21.22
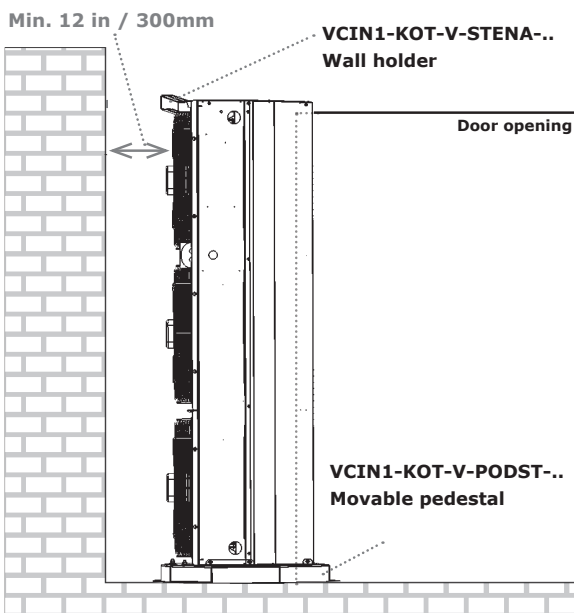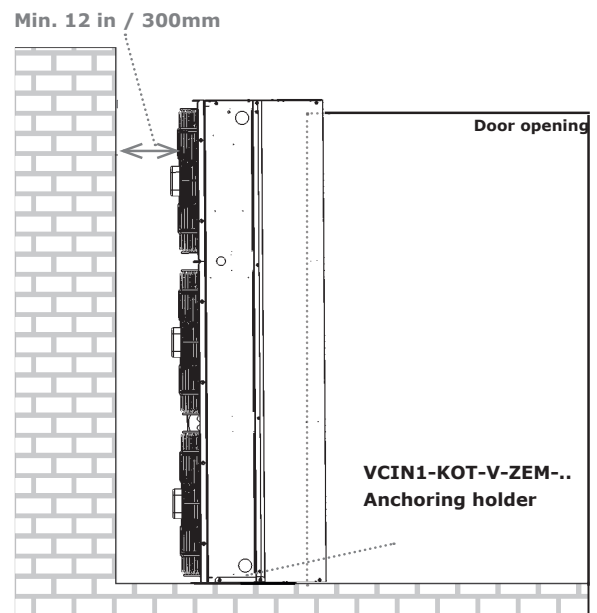
108.23
43.31
21.65
21.65
21.65
21.65
21.65
21.55
10.81

INSTALLATION AND ASSEMBLY

– The air curtain can be installed both in vertical and horizontal positions.

– The air curtain shall be located as close to the top (side) edge of the doorway as possible.

– To ensure correct function it is recommended that the air curtain is located 4 inches / 100 mm above the doorway or overlaps the doorway by 4 inches / 100 mm on both sides.

– Correct operation of the air curtain requires that specified distances from the surrounding objects are observed, see figure.

– Suspension holders are used for installing (hanging) the air curtain see ACCESSORIES.
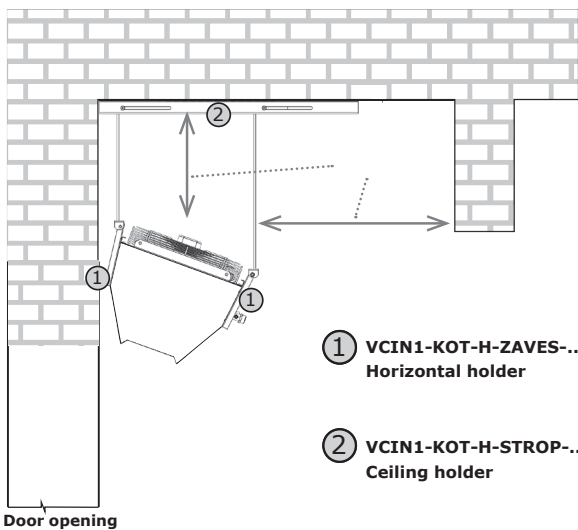
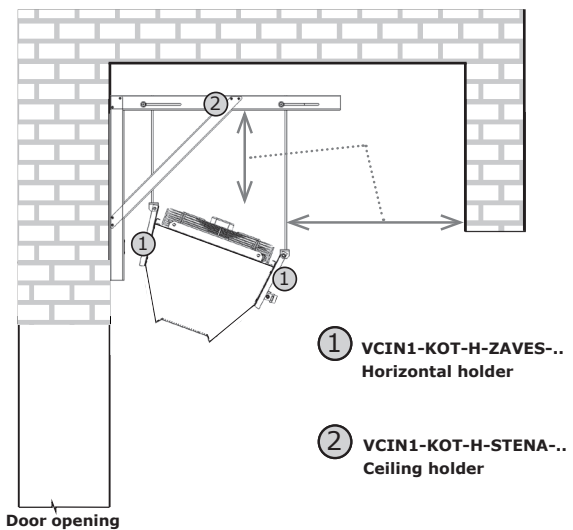**Vertical installation, side view, movable pedestal**

Min. 12 in / 300mm

VCIN1-KOT-V-STENA-..
Wall holder

Door opening

VCIN1-KOT-V-PODST-..
Movable pedestal

Vertical installation, side view, fixed

Min. 12 in / 300mm

Door opening

VCIN1-KOT-V-ZEM-..
Anchoring holder

Horizontal installation, side view

① VCIN1-KOT-H-ZAVES-..
Horizontal holder

② VCIN1-KOT-H-STROP-..
Ceiling holder

Door opening

Horizontal installation, side view

① VCIN1-KOT-H-ZAVES-..
Horizontal holder

② VCIN1-KOT-H-STENA-..
Ceiling holder

Door opening

CONTROL

The **INDESSE** air curtains are shipped without an integrated control system. The following accessory is recommended to allow their control.

AirGENIO IC-C control unit

The AirGENIO IC-CONTROL unit is designed primarily for controlling industrial air curtains. In addition, the unit may also be used for controlling devices comprising a voltage controlled EC fan and heating units.

Description of AirGENIO IC-C control unit

Touch screen display	Temperature measurement (All temperature NTC sensors included, temperature shown on display)
Manual / Auto control mode	Chaining air curtains 1+10 (Master-Slave air curtains)
Stepless control of airflow	Self learning mode
0-10V or ON/OFF control of valve actuator for LPHW coil	BMS connection - Modbus RTU,TCP, BACnet
Integrated antifreeze protection of LPHW coil	Error contact
Possibility of connecting a door contact and external switch	2nd control panel ready
Integrated timer	

Overview of the AirGENIO IC3-C smart functions

Modes:

Heating boost
- immediate start of heating at max output when doors are open to keep comfortable heat inside

Self-Learning function
- self learning mode ensuring smooth air curtain running without useless start-ups at frequent door openings. Saves energy and prolongs the air curtain´s working life.

Night mode
- during the pre-set night period air curtain can be switched off completelly, or used to heat up the room. Possibility to set lower requested temperature for the night regime.

Summer mode
- to avoid waste of energy for heating, within a pre-set „summer season", the heating is alowed only if the difference between the outside and inner temperature is higher than pre-set scale.

Auto-stop control
- air curtain evaluates its own temperature on outlet and the temperature outside and inside the room. The air speed and heating output is modified according to the required temperature, time programme and open/closed door. All parameters are evaluated in order to get the maximal output at the lowest possible operating costs.
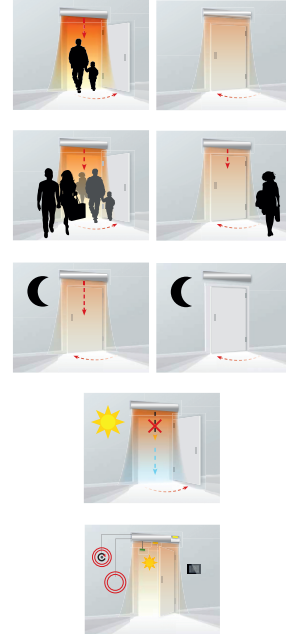
KEY TO CODING

IC3-C-EC

EC - For EC fans

C - Master
S - Slave

IC3-C - Control unit

The following table states the number of fans in the individual modules of the *INDESSE* air curtain.

Module type	VCIN2A150	VCIN2A200	VCIN2A250
Number of fans in module	3	4	5

The following table indicates the maximum number of fans for the *INDESSE* air curtains that can be connected to the individual types of the AirGENIO IC-EC-C controllers.

Controller type	IC3-C-EC	IC3-S-EC
Maximum number of fans connected	10	5

ACCESSORIES

REQUIRED ACCESSORIES

No special accessories are needed to ensure a proper function of the stand-alone air curtain. If the air curtain is fitted with the control system, the control system is connected using common wiring cables, see the "Wiring diagrams" chapter. A suitable cross-section of the cables, protection of the unit, and utilization of other wiring materials shall be determined based on the particular installation conditions. **These components shall be delivered by a company performing the air curtain electrical wiring.**

Optional accessories

WALL holder set - HORIZONTAL

This set includes:

A part - Wall holder (1 pcs)

B part - Air curtain holder (2 pcs)
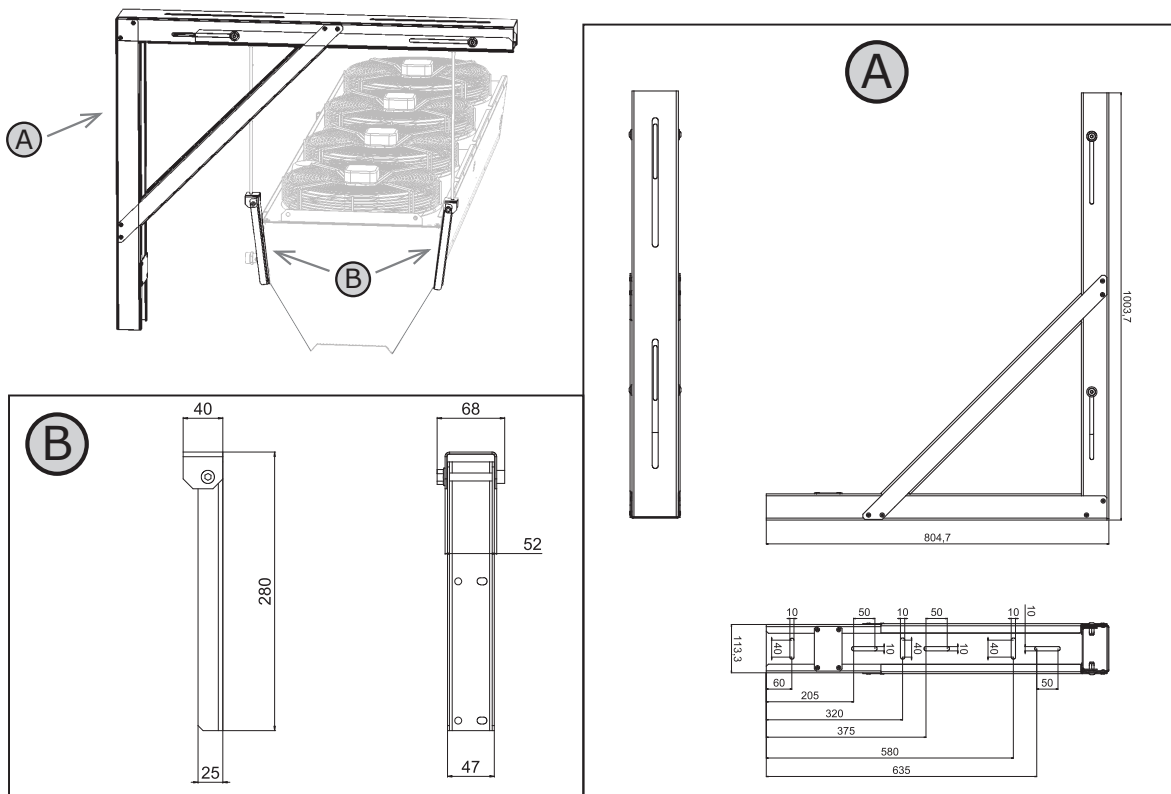
VCIN1-KOT-H-STENA-0

Color

0 Standard (RAL9016)

1 Galvanized steel

9 Atyp RAL

N Stainless steel version (C4)

Wall holder set (1 set)

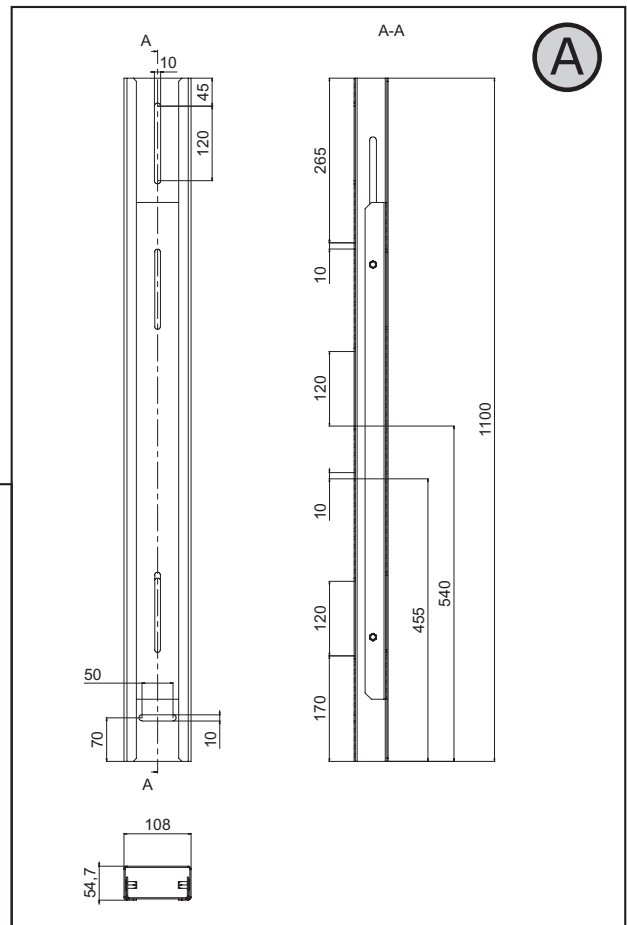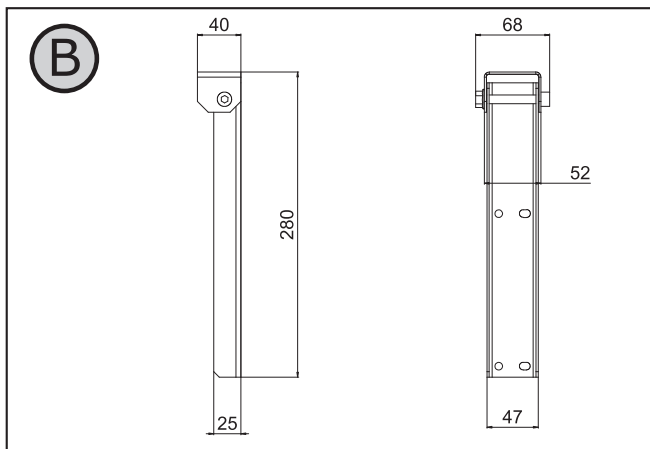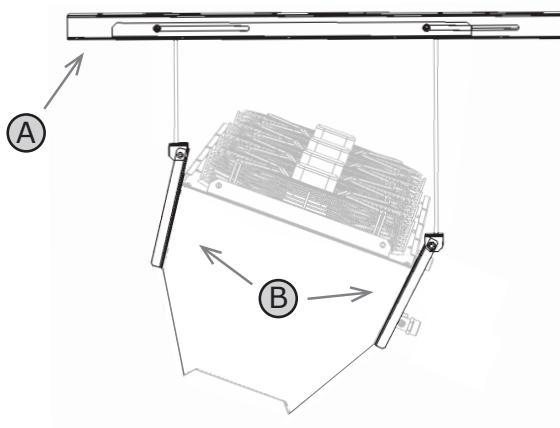|	Number of INDESSE air curtain modules connected								
	1	2	3	4	5	6	7	...	n
No. of holders	2	3	4	5	6	7	8	...	n + 1

Optional accessories

CEILING holder set - HORIZONTAL

This set includes:

A part - Ceiling holder (1 pcs)

B part - Air curtain holder (2 pcs)

VCIN1-KOT-H-STROP-0

Color

0 Standard (RAL9016)

1 Galvanized steel

9 Atyp RAL

N Stainless steel version (C4)
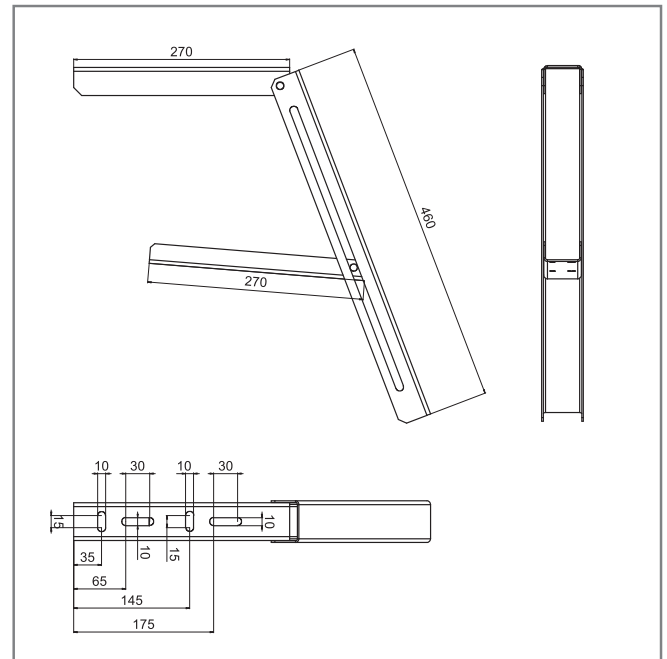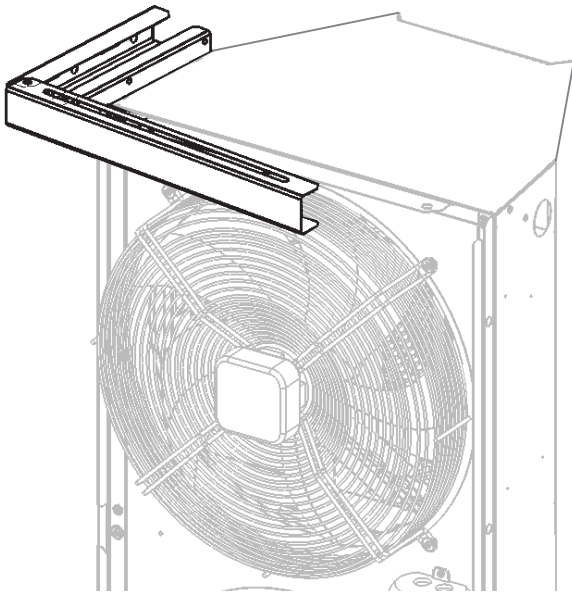
Ceiling holder set (1 set (A+2xB))

	Number of INDESSE air curtain modules connected								
	1	2	3	4	5	6	7	...	n
No. of holders	2	3	4	5	6	7	8	...	n + 1

Optional accessories

Wall holder - VERTICAL

For anchoring the air curtain to the wall

VCIN1-KOT-V-STENA-0

Color

0   Standard (RAL9016)

1   Galvanized steel

9   Atyp RAL

N   Stainless steel version (C4)

Wall holder (1 pcs)

	Number of INDESSE air curtain modules connected			
	1	**2**	**3****	**4****
No. of holders	1*	1*	2	3

*   - This holder is not needed up to a height of 4 m, but we recommend to using it.
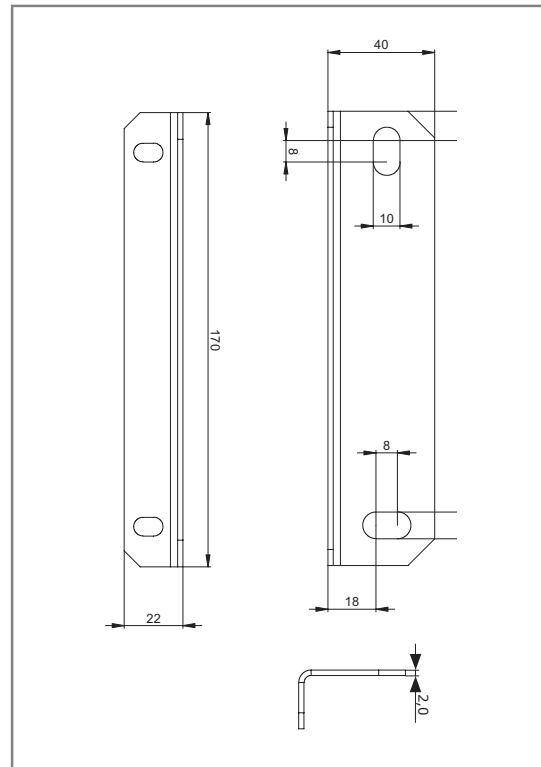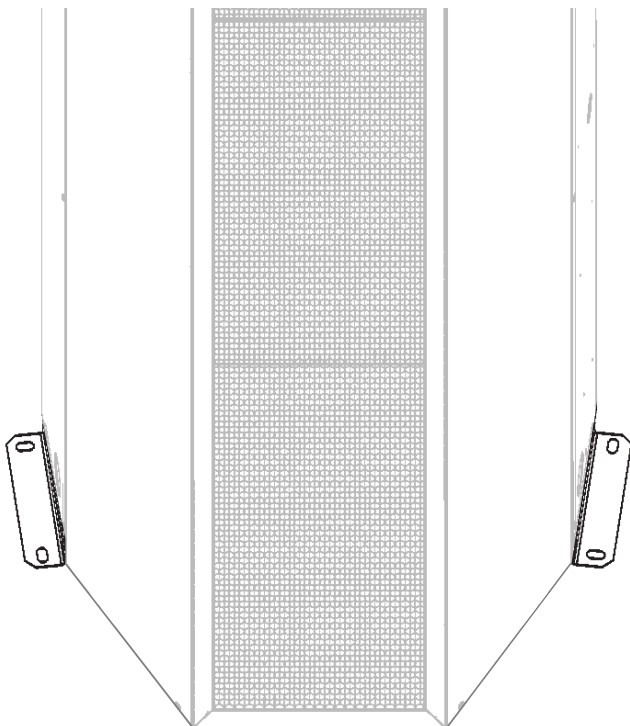
** - The maximum height of air curtains, which can be installed in the vertical position (air curtain on air curtain) is 6,6 m.
    If you need a higher distance, then an additional supporting system must be made (not available in 2VV accessories).

Optional accessories

Anchoring holder - VERTICAL

For anchoring the air curtain to the floor

VCIN1-KOT-V-ZEM-0

Color

0   Standard (RAL9016)

1   Galvanized only

9   Atyp RAL

N   Stainless steel version (C4)

Floor holder set (2 pcs)

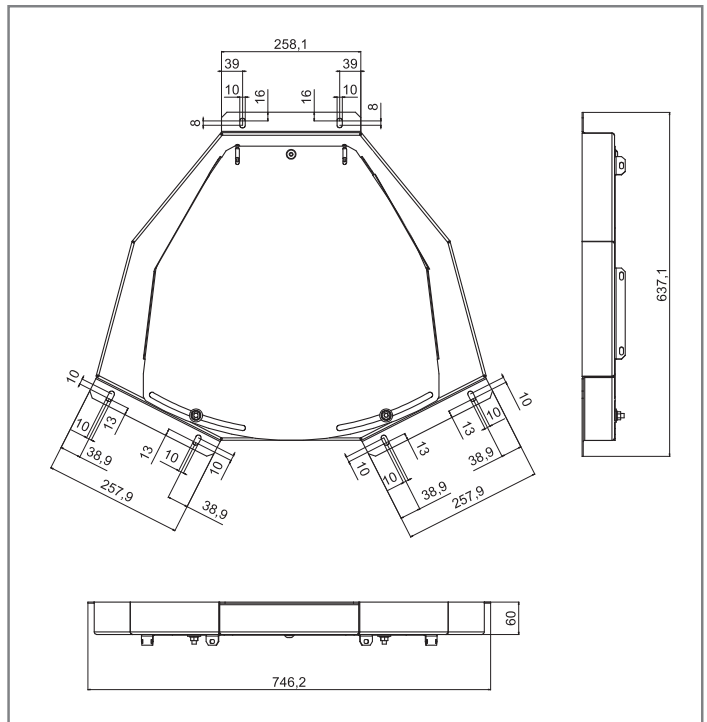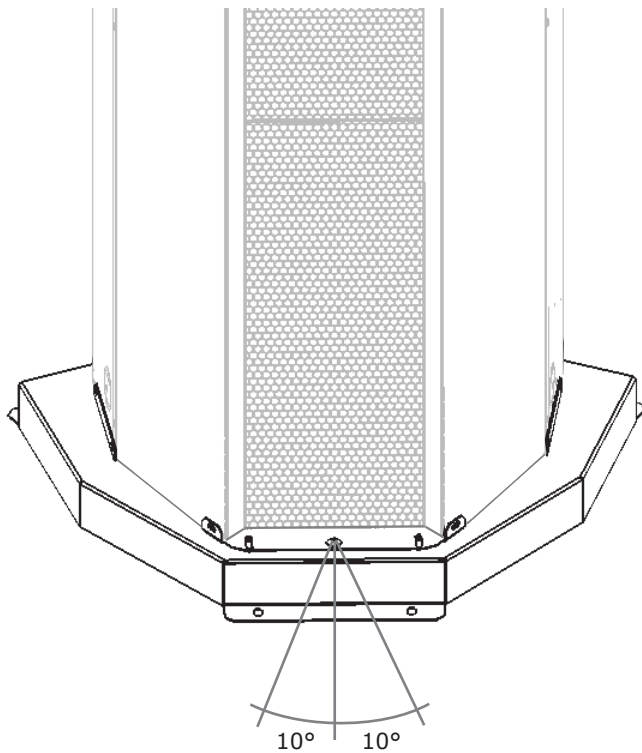|	Number of INDESSE air curtain modules connected			
	1	2	3*	4*
No. of sets of holders	1	1	1	1

* - The maximum height of air curtains, which can be installed in the vertical position (air curtain on air curtain) is 6,6 m.
If you need a higher distance, then an additional supporting system must be made (not available in 2VV accessories).

Optional accessories

Adjustable anchoring holder - VERTICAL

For anchoring the air curtain to the floor with the possibility of moving (20° max)

VCIN1-KOT-V-PODST-0

Color

0 Standard (RAL9016)

1 Grey colour (RAL9006)   (optimal for Galvanized air curtain)

9 Atyp RAL

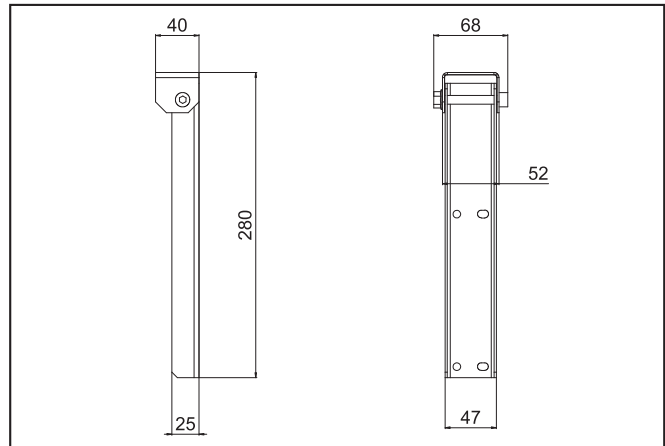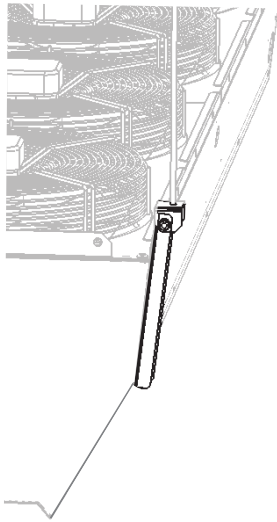**N** Stainless steel version (C4)

Movable pedestal (1 pcs)

	Number of INDESSE air curtain modules connected			
	1	2	3*	4*
No. of holders	1	1	1	1

* - The maximum height of air curtains, which can be installed in the vertical position (air curtain on air curtain) is 6,6 m.
   If you need a higher distance, then an additional supporting system must be made (not available in 2VV accessories).

Optional accessories

Threaded bar holder - HORIZONTAL

40

68

280

52

25

47

VCIN1-KOT-H-ZAVES-0

Color

0 Standard (RAL9016)

1 Galvanized steel

9 Atyp RAL

N Stainless steel version (C4)

Air curtain holder (1pcs only)

	Number of INDESSE air curtain modules connected				
	1	2	3	...	n
No. of holders	4	6	8	...	n*2 + 2

Control unit
AirGENIO IC3-C-EC
The IC - CONTROL unit is designed primarily for controlling industrial air curtains. In addition, the unit may also be used for controlling devices comprising a voltage controlled EC fan and heating units.

Room thermostat
TER-P
Spatial thermostat

Room temperature sensor
CT-ROOM

Flexible connection hoses
OH-01-1/1-500

Door switch – industrial
DS

Magnetic door contact in a metal housing
with higher protection against mechanical damage
DK-B-3

**Motor filter (1 pcs) - class Coarse 40% (G2)**
FI-PYTEL-KRUH-G2-SAV-4

WIRING DIAGRAMS

The recommended cross-section of the main power supply cables is stated in the Instruction Manual.
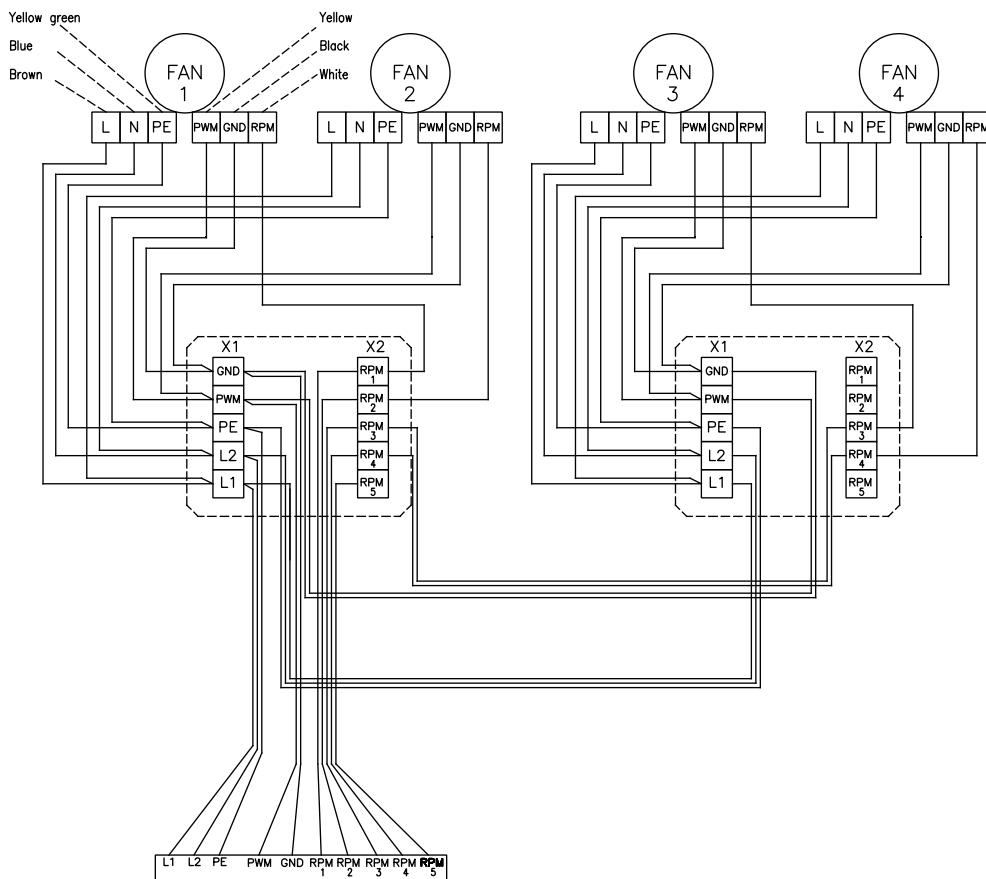
All wiring diagrams provided in the technical catalog are indicative only. When assembling the product, strictly observe the nameplate ratings as well as the directions and diagrams affixed directly to the product or enclosed with the product.
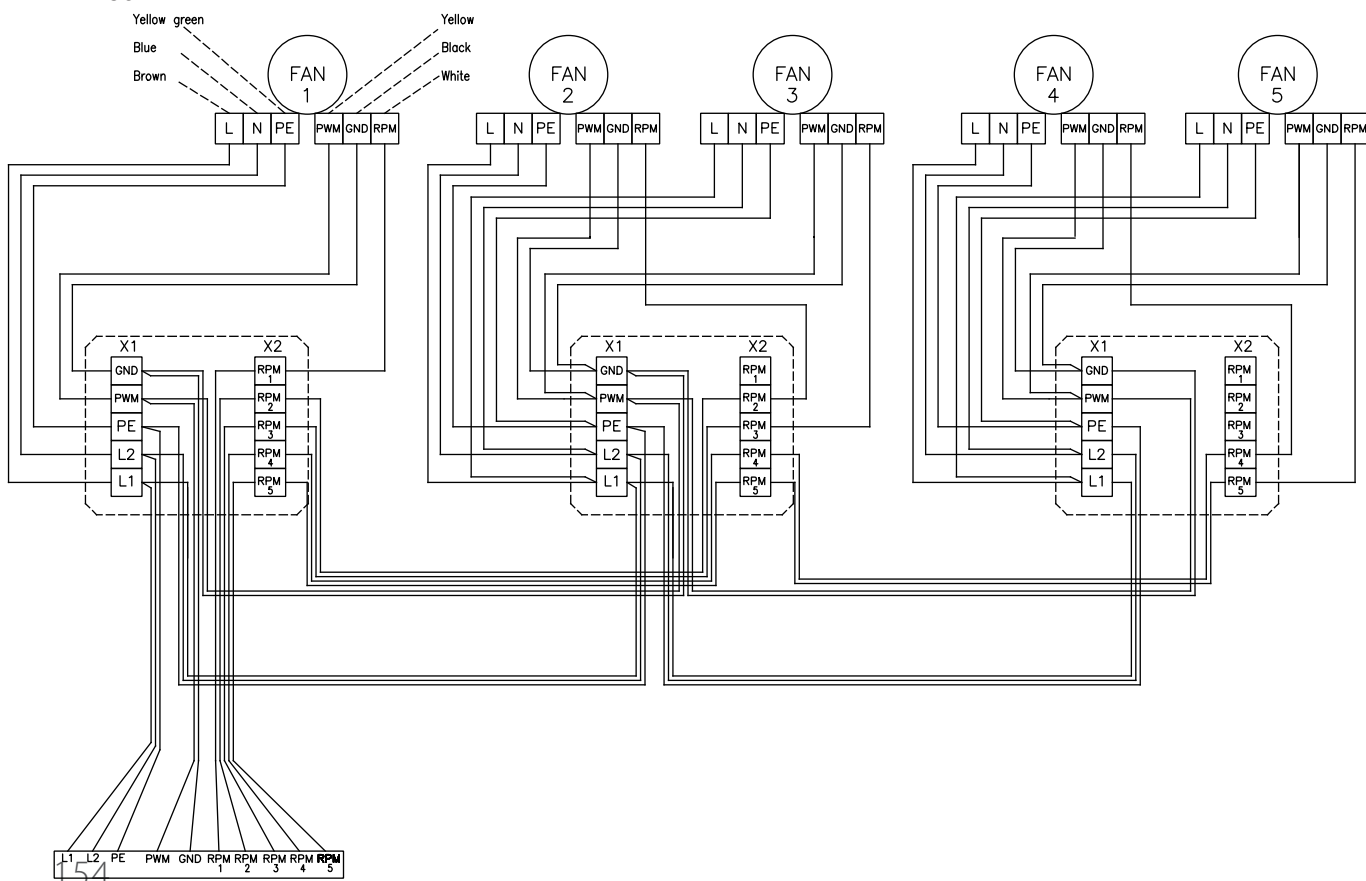
VCIN2-150
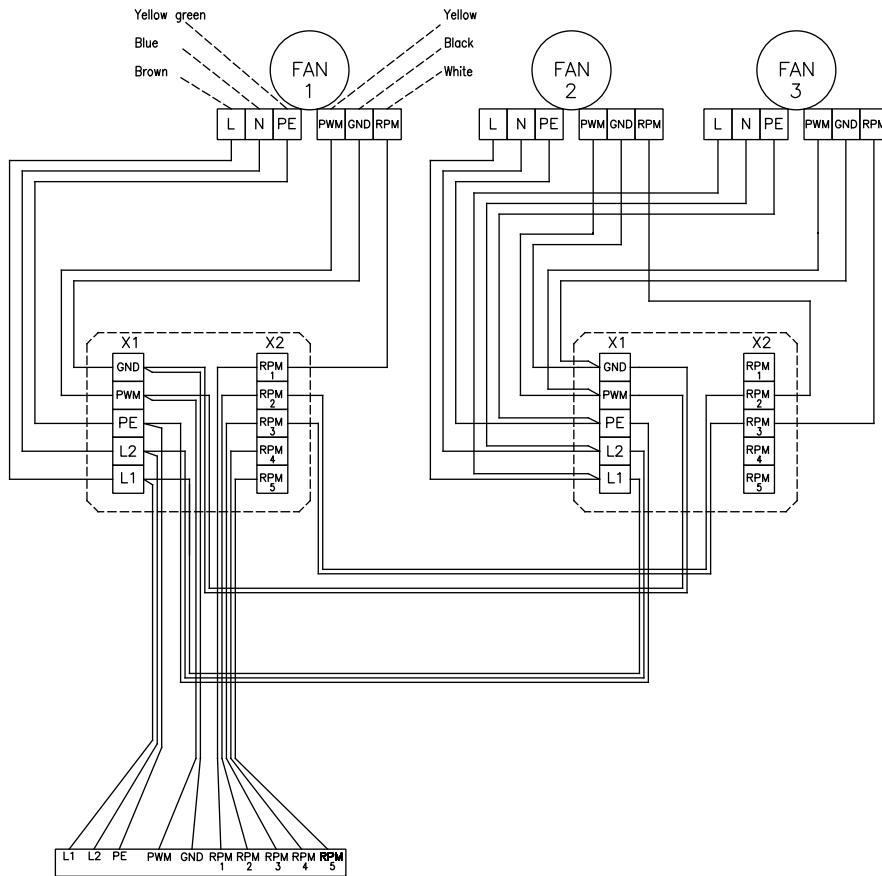
VCIN2-200

VCIN2-250

KEY TO CODING

VCIN2A 150-NA EC-XX-0 A 0

0 – Reserve

A – Packed horizontally (standard for VCIN2A250)
(non standard for VCIN2A150,200)
B – Packed vertically (standard for VCIN2A150,200)

0 – Standard (RAL9016)
1 – Galvanized steel
9 – Atyp RAL
N – Stainless steel version C4 with hydrophobic coating on water coil

XX – No control

EC – EC motors

NA – Air-only (ambient)

150 – length **1650mm / 65 in**
200 – length **2200mm / 86 in**
250 – length **2750mm / 108 in**

VCIN2A – Industrial air curtain *INDESSE*