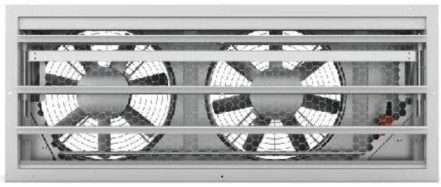
ZNZ
AERATION UNIT



Description:
Damper for compensating air supply with mechanical fan in smoke and heat control systems – ZNZ Aeration Unit

Intended use

The ZNZ aeration unit is intended for mechanical, natural and mixed smoke ventilation systems as well as for ventilation and continuous renewal of air in rooms inside the building.

Due to the use of aeration fans, ZNZ ensures the supply of air, which increases the effectiveness of smoke removal and makes the system independent of adverse weather conditions, such as temperature or adverse wind direction. It may also be used for ventilation and continuous renewal of air in rooms inside the building. Due to a wide range of ZNZ applications, it can be used in the following areas:

- staircases,
- halls, warehouses,
- industrial facilities, etc.

If the ZNZ unit operates only as a comfort ventilation unit, please contact Smay before placing any order.

Design

The ZNZ unit consists of a CDH-K intake vent, a telescoping channel with an inspection panel made of galvanised sheet metal, and one or two fans. The inspection panel is painted black (as the fan casing).

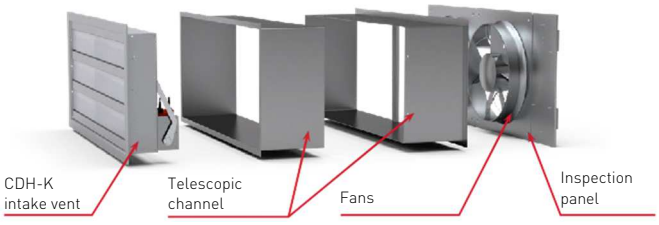


Figure 1. ZNZ design

Operating principle

In the standby mode (ZNZ unit in standby mode), the damper in the ZNZ unit is closed and the fan(s) is/are switched off. The activation of the ZNZ from the ventilation system or fire-fighting system causes the opening of dampers and activation of the fan(s). The fan(s) may operate at fixed or variable speeds.

Dimensions

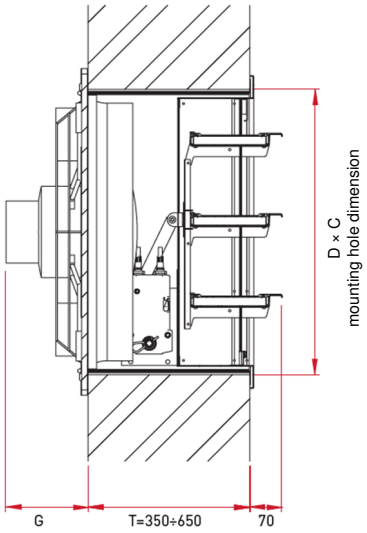


Figure 2. ZNZ installation

ZNZ may be designed with dimensions corresponding to the dimensions of mounting holes, as per the table.

Table 1. ZNZ dimensions and technical data

Symbol	Electric power [kW]	Current consumption 3 x 400 V [A]	Sound pressure level (3 m.) Lpa [dB(A)]	Mounting hole dimension				Measured internal depth G [mm]	Weight m [kg]
				Horizontal option H		Vertical option V			
				Width C [mm]	Height D [m]	Width C [mm]	Height D [mm]		
ZNZ-1	1.3	2.3	65	900	620	620	960	175	50
ZNZ-1J	1.1	2.4	65					260	62
ZNZ-1.5	1.5	3.1	69	1035	785	785	1135	175	70
ZNZ-1.5J	1.5	3.2	68					260	83
ZNZ-2.2	2.2	4.4	71	1135	960	960	1135	200	80
ZNZ-2.2J	2.2	4.4	68					290	109
ZNZ-3.0	3.0	7.4	82	1240	960	960	1310	330	110
ZNZ-3.0J	3.0	5.9	73					290	118
ZNZ-5.5	5.5	13.4	86	1355	1135	1135	1485	330	180
ZNZ-5.5J	5.5	10.5	79					290	167
ZNZ-2	2 x 1.3	2 x 2.3	68	1600	620	620	1660	175	82
ZNZ-2J	2 x 1.1	2 x 2.4	68					260	106

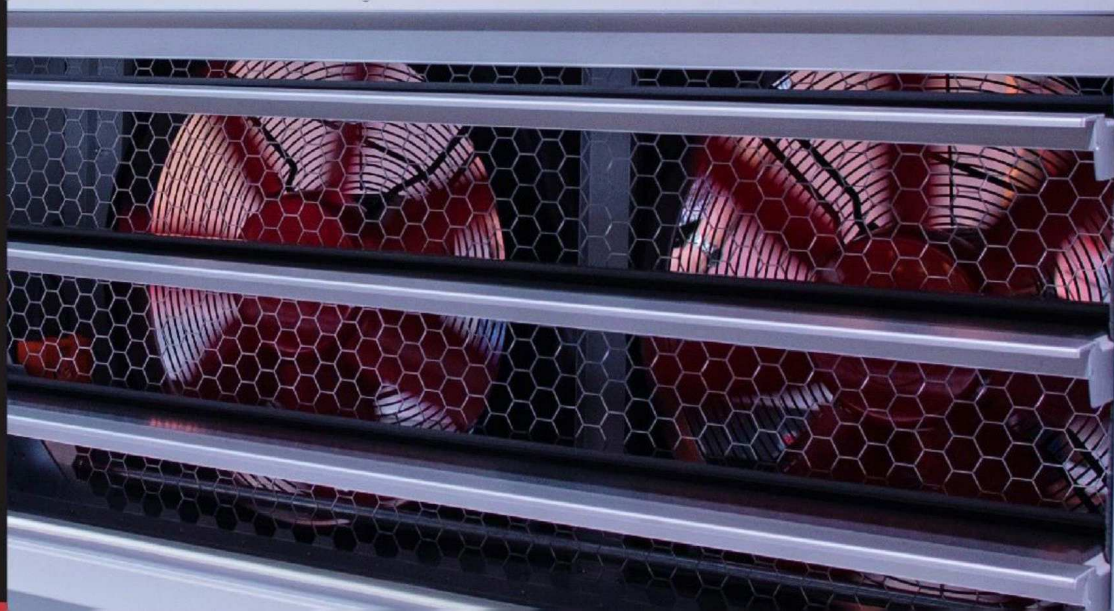
H – horizontal design with a side inspection panel

V – vertical design with a bottom/top inspection panel

For customised installation of the ZNZ dimensions may be different that those in the table above.

FIRE
VENTILATION
ZONE

RAL AA AL



Technical data

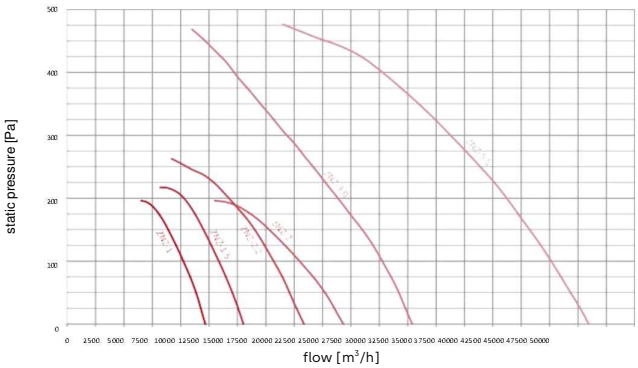


Chart 1. ZNZ characteristics in the standard version

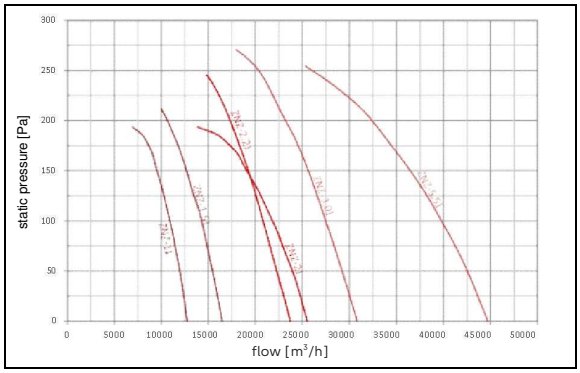


Chart 2. Characteristics of the ZNZ with reduced noise level

Installation

ZNZ is intended for installation in the external wall of the building. Air should be supplied in the lowest part of the building, thus the ZNZ should be used on the lowest above-ground storey.

For air supplied to staircases, it is possible to use compensation at the lowest storey or divide the stream required into two parts. Such a solution requires the use of two ZNZ units located on the first and the second above-ground storeys.

Examples of applications are presented in the figures below.

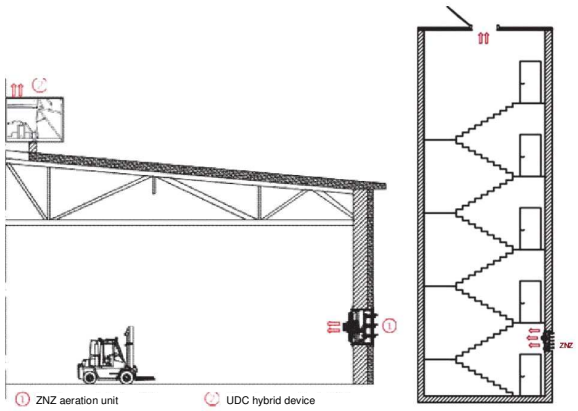


Figure 3. Examples of locations of the ZNZ aeration unit

Wiring diagram

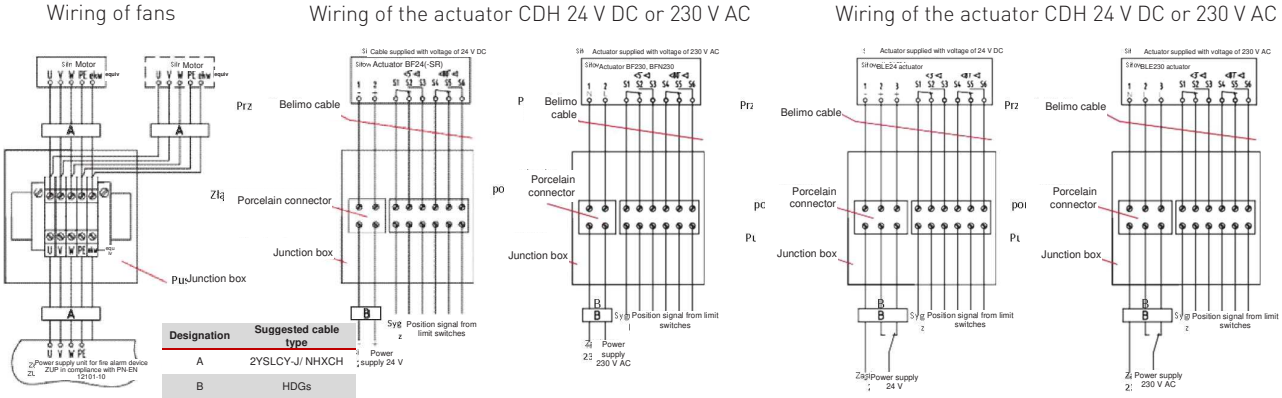


Figure 4. ZNZ wiring diagram

ZNZ – Aeration Unit

When ordering, please provide information in accordance with the following pattern:

ZNZ - <V><Q><M> - <W> - <K> - <P> <RAL> - <N>

Where:

V	ZNZ unit size*	
	1	- aeration unit with one fan
	1.5	- aeration unit with one fan
	2.2	- aeration unit with one fan
	3.0	- aeration unit with one fan
	5.5	- aeration unit with one fan
	2	- aeration unit with two fans
Q	fan option*	
	None	- **standard**
	J	- fan with reduced noise level
M	design version*	
	H	- **horizontal version with a side inspection panel**
	V	- vertical version with bottom or top inspection panel
W	CDH-K louver lamella insert*	
	S	- **lamella insert made of 20 mm thick porous polycarbonate**
	A	- lamella insert made of 20 mm thick mineral wool with glass fleece inside and aluminium sheet outside
K	atmosphere corrosivity category for CDH-K intake vent in accordance with PN-EN ISO 12944-2*	
	None	- **C3 corrosivity category**
	C4	- C4 corrosivity category (only for <>= AL finishing)
	C5	- C5 corrosivity category (only for <>= AL finishing)
P	CDH-K intake vent finishing: *	
	AA	- **lamella profiles made of anodised aluminium, frame made of aluminium painted in RAL9006 matt**
	AL	- frame and lamella profiles made of painted aluminium
RAL	colour as per RAL (for AL finishing)	
N	CDH intake vent drive type	
	BFN24	- spring return actuator, power supply 24 V**
	BFN230	- spring return actuator, power supply 230 V**
	BF24	- spring return actuator, power supply 24 V
	BF230	- spring return actuator, power supply 230 V
	BEN24	- non-spring return actuator, power supply 24 V
	BEN230	- non-spring return actuator, power supply 230 V

* Optional values – if not specified, default values will be used

** actuators BFN24 and BFN230 cannot be used for values <V>=5.5.

Examples of product marking: **ZNZ-1.5JH-S-AA-BFN24**