

TECHNICAL DATA SHEET



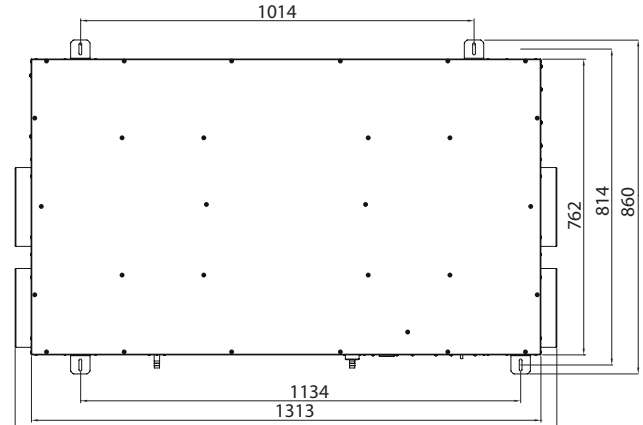
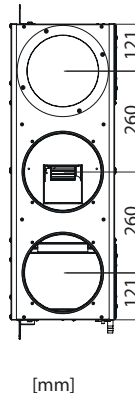
Description	Size (wxhxd)	Cod.
CHR 400 FC	1395x271x860 mm	7045514



Accessories / Complements		Cod.
CONTROLLER	ONE CONTROL PANEL	7045561
AIR FILTER REPLACEMENT KIT		7044105
CONDENSATE	SF-M 13	3600401
DRAIN KIT (*)	SF-P	7045502

(*) no. 2 Mandatory condensate drain kit.

Optional order separately		Cod.
STD ELECTRICAL DUCT HEATER	RE-S 15-200	7045571
0-10 ELECTRICAL DUCT HEATER	RE-M 15-200	7045572
WATER BATTERY	BA-C 32-200	7045590
MODULATING VALVE Ø ½"		7045562

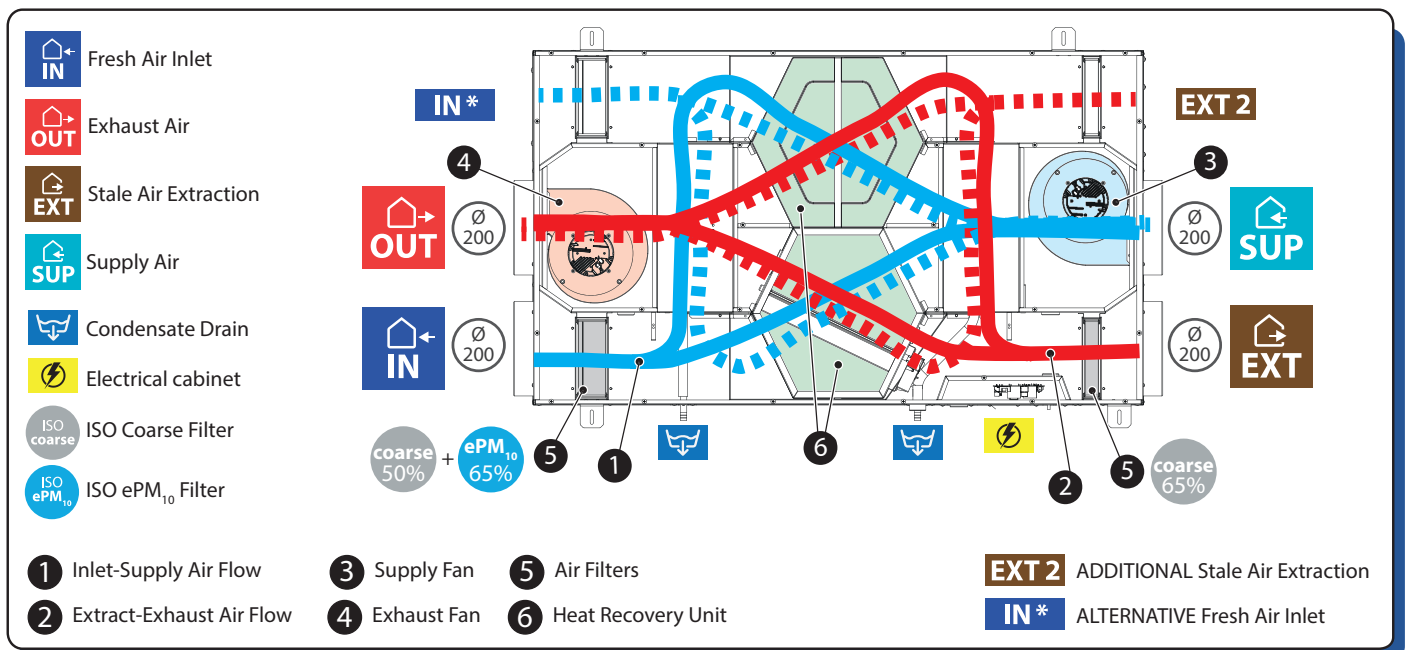


DESCRIPTION

The CHR 400 FC mechanical ventilation unit includes a high efficiency counter-flow heat exchanger made of PPE (~90%). The housing, internally insulated, is made of galvanised sheet metal and it contains two centrifugal fans, one supply fan and one extract fan, equipped with EC motor, operating at constant air flow and ensuring reduced energy consumption. CHR 400 FC is designed for horizontal false ceiling installation in small and medium-sized residential buildings, either singledetached dwellings or in block of flats. The unit is also equipped with a ISO ePM10 65% (M5) filter with ISO Coarse 50% (G2) pre-filter on the air supply line, and a ISO Coarse 65% (G4) filter on the extract line, which ensure the right protection of the heat exchanger and offer the excellent filtration of the new air introduced into the room. The CHR 400 FC mechanical ventilation unit is provided with bypass connection for the free-cooling function and 4 NTC sensors to detect air temperature in the air inlets and outlets. Defrost function and dirty filter alarm included. All operations (ventilation, boost, economy mode, free-cooling) can be controlled by an external device (via digital input) and a suitable control panel or through Wi electronic controller (via ModBus). The CHR 400 FC unit can be combined with the DWF 400 dehumidification module in order to obtain fresh air ventilation and humidity control in the summertime.

• Nominal air flow 400 m³/h with 200 Pa, Air outlets Ø 200 mm, Sound pressure level at 1 m: 50 dB(A), Max electrical power 290 W, Size (wxhxd): 1395x271x860 mm, Weight 46.6 kg

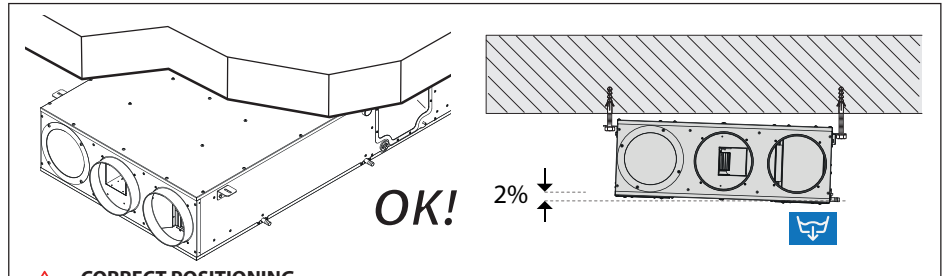
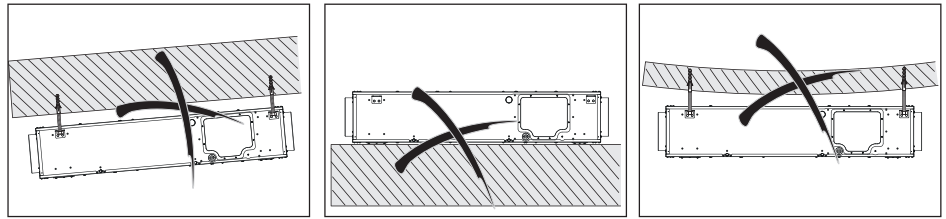
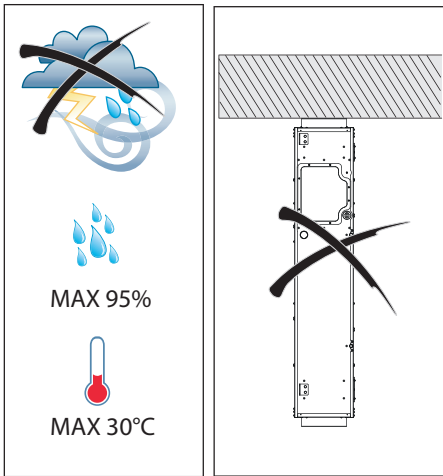
PRINCIPLE OF OPERATION



(*) For the Fresh Air Intake it is possible to choose between the default position and the ALTERNATIVE one, by swapping the position of the collar and the air filter. For Air Extraction, on the other hand, it is possible to double (not swap position) the dedicated vents using the ADDITIONAL one (additional air filters and collars must be ordered, not supplied from the factory).

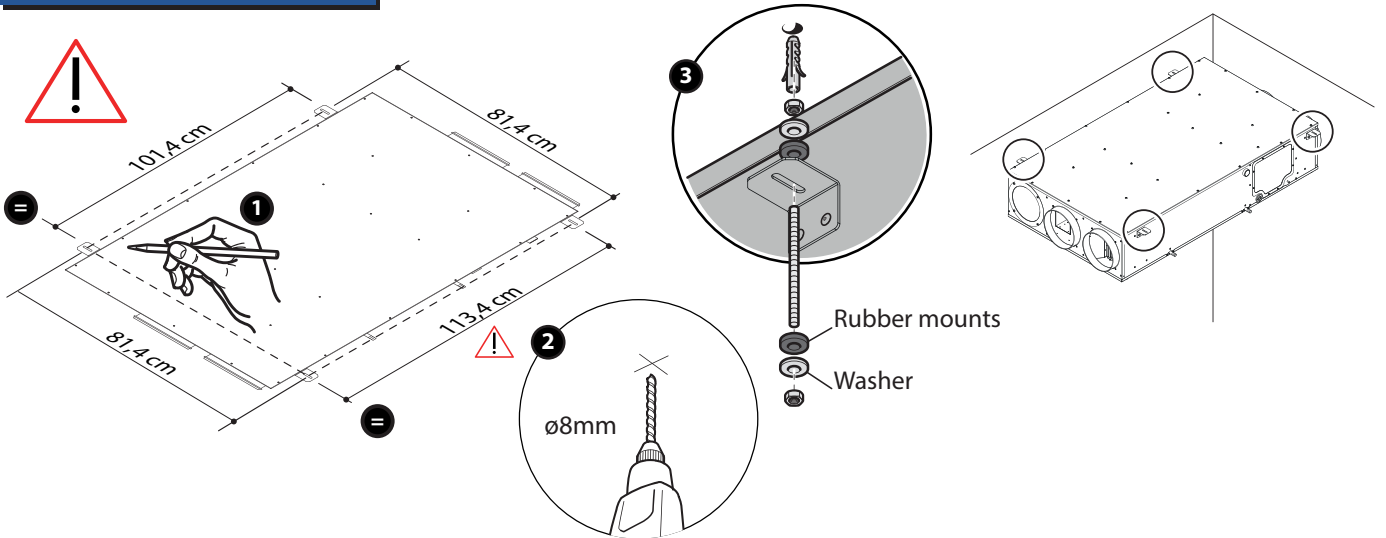
TECHNICAL DATA SHEET

Positioning indications

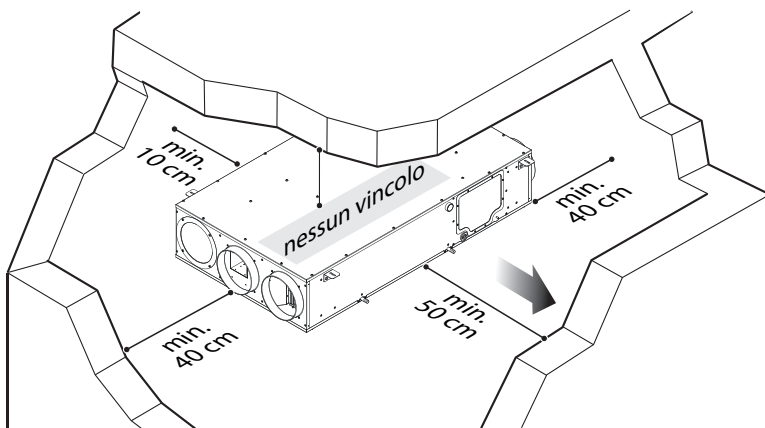


⚠️ CORRECT POSITIONING
Position the machine on the ceiling with an inclination of 2% towards the condensate drain.

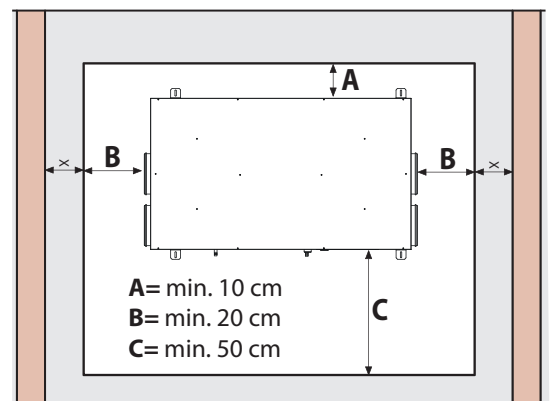
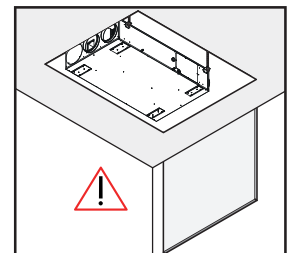
Fixing to ceiling



Minimum space allowances



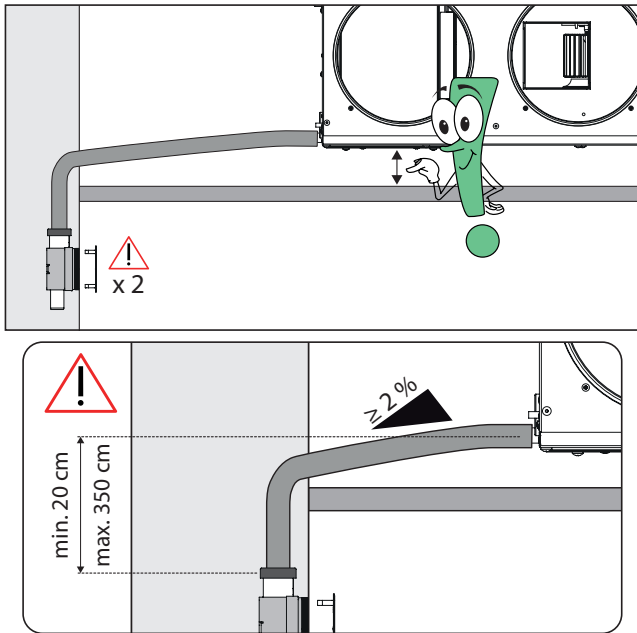
Trap door



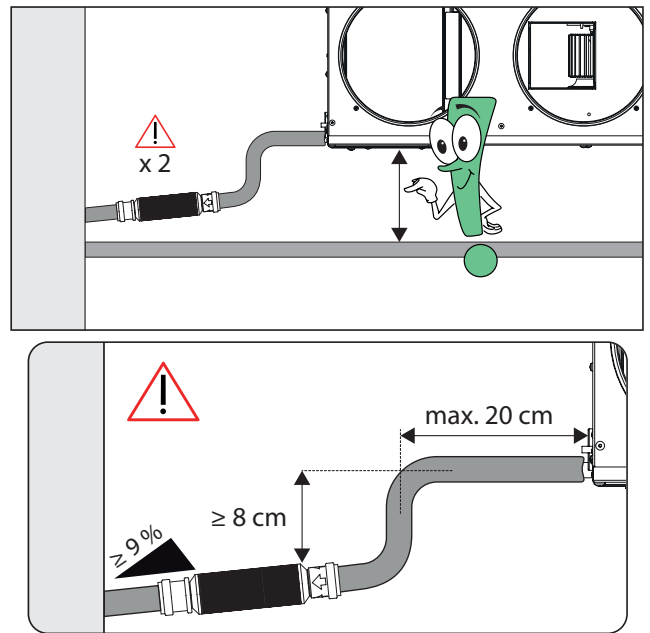
TECHNICAL DATA SHEET

OBLIGATORY KIT FOR CONDENSATE DRAIN

A SF-P



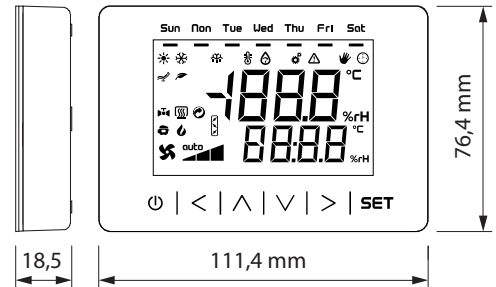
B SF-M 13



CONTROL PANEL



- Wall mounting without back-slot for in-wall box
- 12 VAC/DC power supply not insulated
- 1 NTC external analog input
- Alarm buzzer
- Incorporated temperature and humidity sensor
- CAN port
- Device for indoor applications

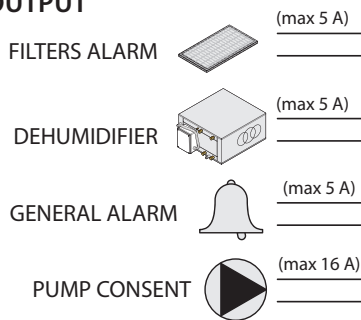


DIGITAL COMMANDS

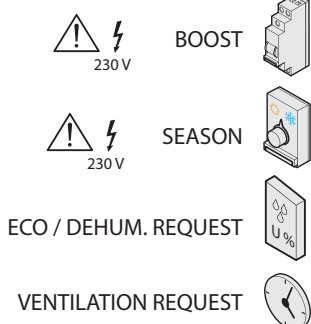
REMOTE MODBUS CONTROLLERS

All operations (ventilation, boost, economy mode, free-cooling) can be controlled by an external device (via digital input) and a suitable control panel or through Wi electronic controller (via ModBus) or KNX interface.

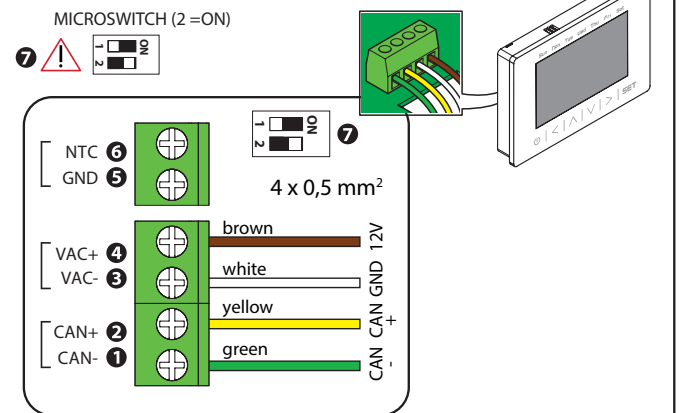
DIGITAL OUTPUT



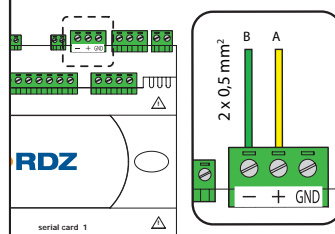
DIGITAL INPUT



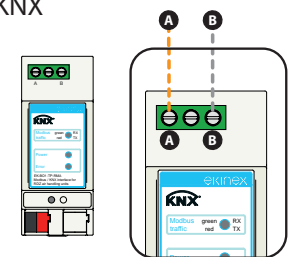
CONTROL PANEL ONE



"WI" UNIT CONTROLLER



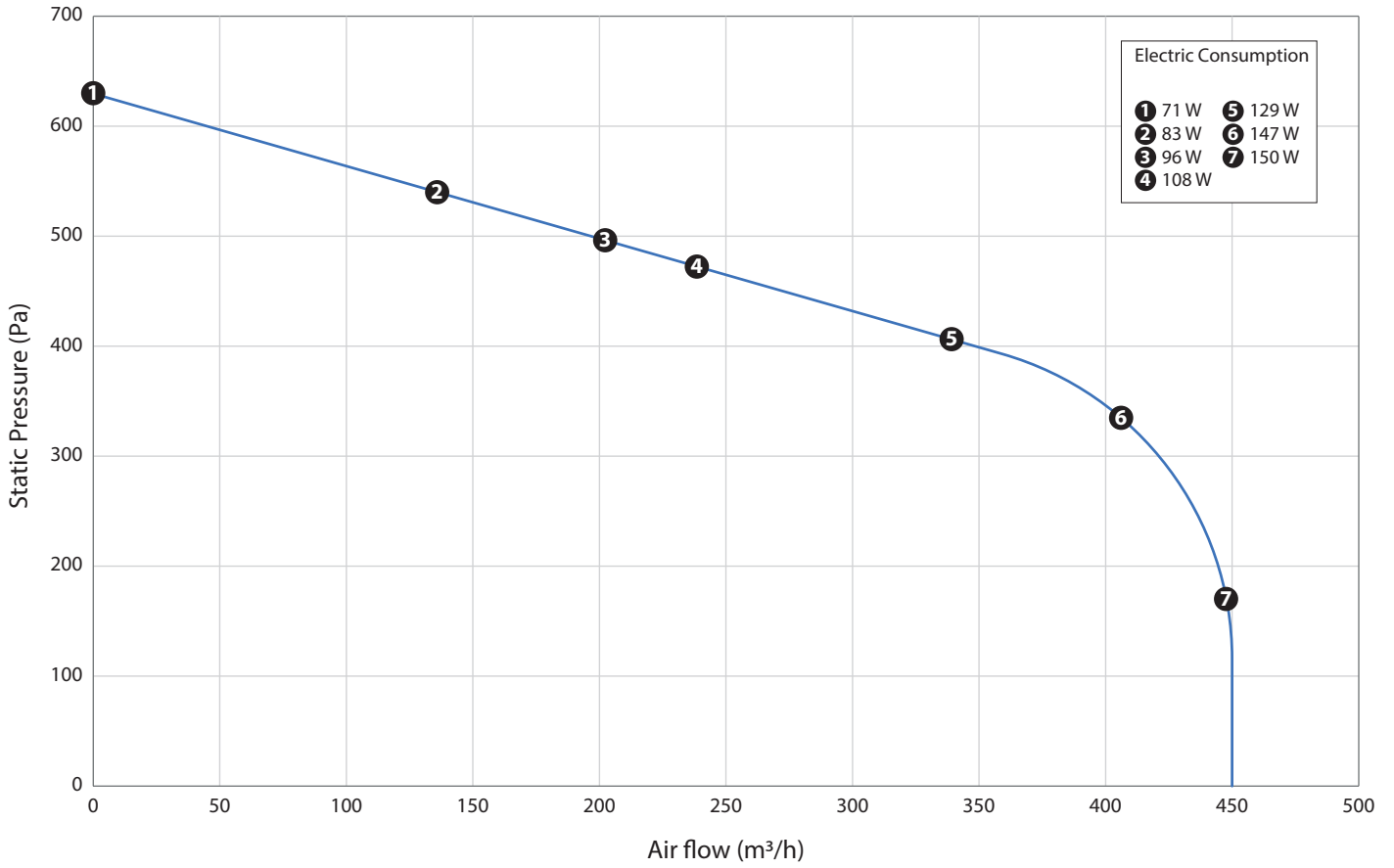
KNX



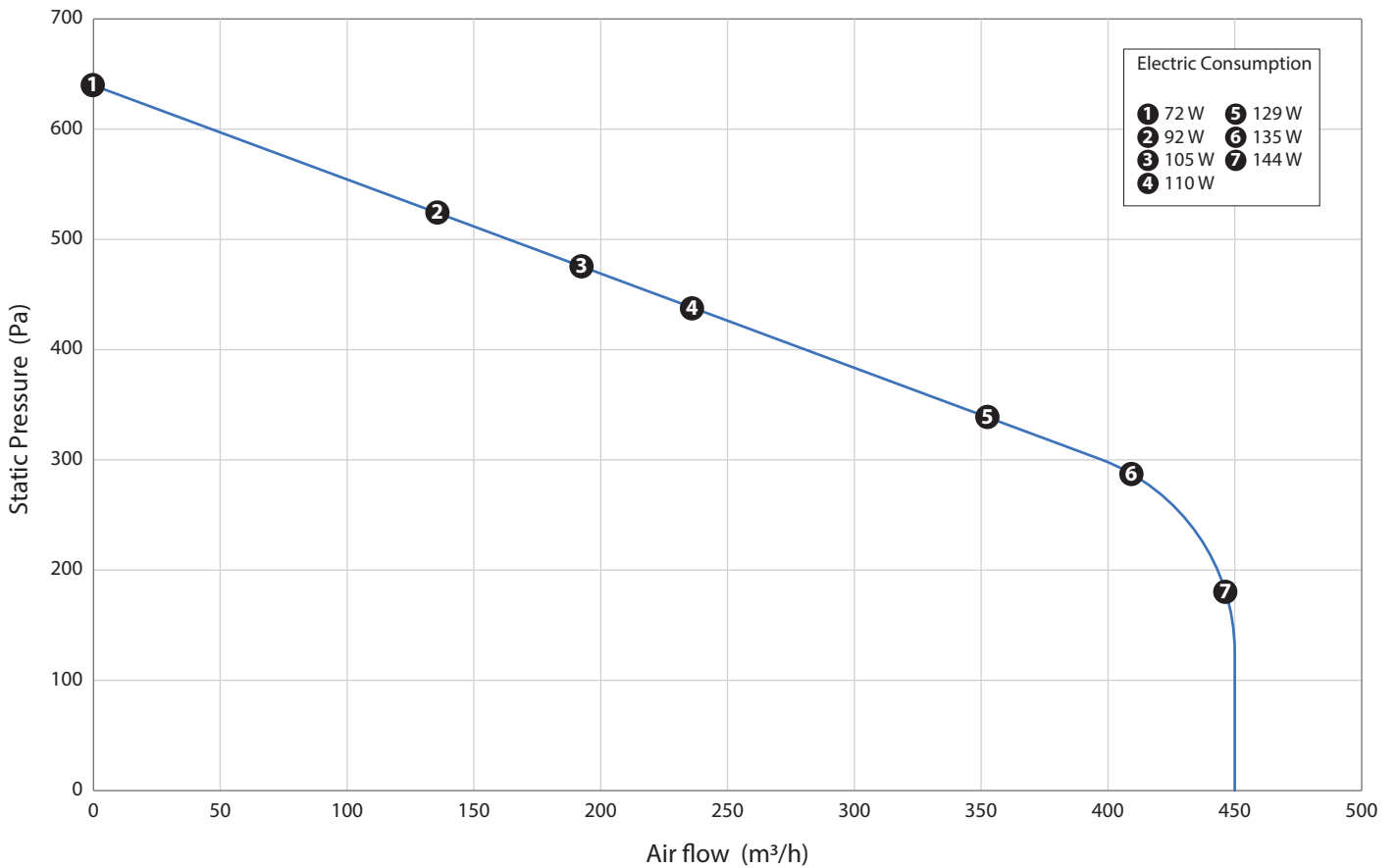
TECHNICAL DATA SHEET

FANS PERFORMANCE

Inlet Fan



Exhaust Fan



TECHNICAL DATA SHEET

PERFORMANCE ACCORDING TO COMMISSION REGULATION (EU) NO 1254/2014

European Union Commission Regulation (EU) No 1254/2014

Ecodesign Requirements for Ventilation Units

Annex IV Information requirements [fiche] for RVUs as referred to in Article 4(1)

a) Manufacturer: RDZ S.p.A.

b) Model: CHR 400 FC

c) Specific Energy Consumption (SEC) kWh/(m²a) and Class:

	Control typology and CTRL factor							
	Manual		Clock		Central demand		Local demand	
	1		0,95		0,85		0,65	
	SEC	Classe	SEC	Classe	SEC	Classe	SEC	Classe
Cold	-69,3	A+	-70,8	A+	-73,6	A+	-78,7	A+
Average	-33,3	B	-34,5	A	-36,8	A	-40,8	A
Warm	-10,0	E	-11,1	E	-13,1	E	-16,4	E

d) Article 2 typology:

I) Residential Ventilation Unit (RVU)

II) Bidirectional (BVU)

e) Drive Variable speed drive

f) Recuperative heat exchanger

g) Thermal efficiency of heat recovery 82% at reference flow rate

h) Maximum flow rate 450 m³/h. This unit is for residential use only.

i) Power input at maximum flow rate 158 W

j) Sound power level (LWA) 61 dB

k) Reference flow rate 0,0875 m³/s

l) Reference pressure difference 50 Pa

m) Reference Specific Power Input (SPI) 0,305 W/(m³/h)

n) see c)

o) Leakage rates at reference flow rate

I) Maximum internal < 5%

II) Maximum external < 5%

p) not applicable

q) Filter alarm reset via LED button installed on the machine

r) not applicable

s) Recycling disassembly instruction - go to www.rdz.it

t) not applicable

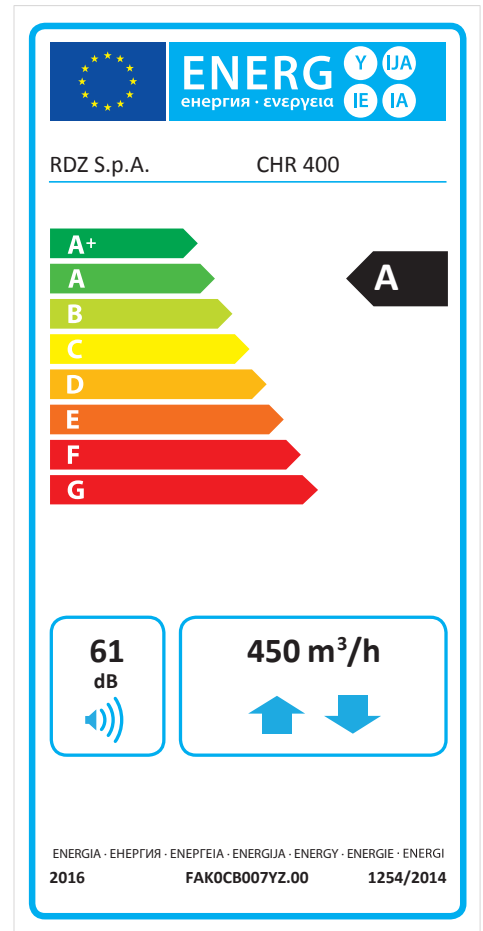
u) not applicable

v) Annual electricity consumption (AEC) (in kWh electricity/a)

	Control typology and CTRL factor			
	Manual	Clock	Central demand	Local demand
	1	0,95	0,85	0,65
Cold	1019	977	898	767
Average	482	440	361	230
Warm	437	395	316	185

w) the annual heating saved (AHS) (in kWh primary energy/a)

	Control typology and CTRL factor			
	Manual	Clock	Central demand	Local demand
	1	0,95	0,85	0,65
Cold	8465	8521	8633	8857
Average	4327	4356	4413	4528
Warm	1957	1970	1996	2047



RDZ S.p.A. V.le Trento, 101 - 33077 SACILE (PN) - Italy

Tel. +39 0434.787511 Fax +39 0434.787522

info@rdz.it www.rdz.it

FAC0CB012BZ.04 04/2022

COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV GL
= ISO 9001 =

