CIVIC EC DB V.2

SINGLE-ROOM AIR HANDLING UNITS

Features

- The **CIVIC EC DB V.2** units are designed for single-room ventilation of schools, offices and other public and commercial premises. Offer the ideal simple and efficient ventilation solutions for existing and renovated buildings and require no layout of air ducts.
- Efficient supply and extract ventilation for separate premises.
- EC motors with low energy consumption.
- Low-noise operation.
- Simple mounting.

Air flow:
up to 1000 m³/h
278 l/s

Heat recovery efficiency:
up to 96 %

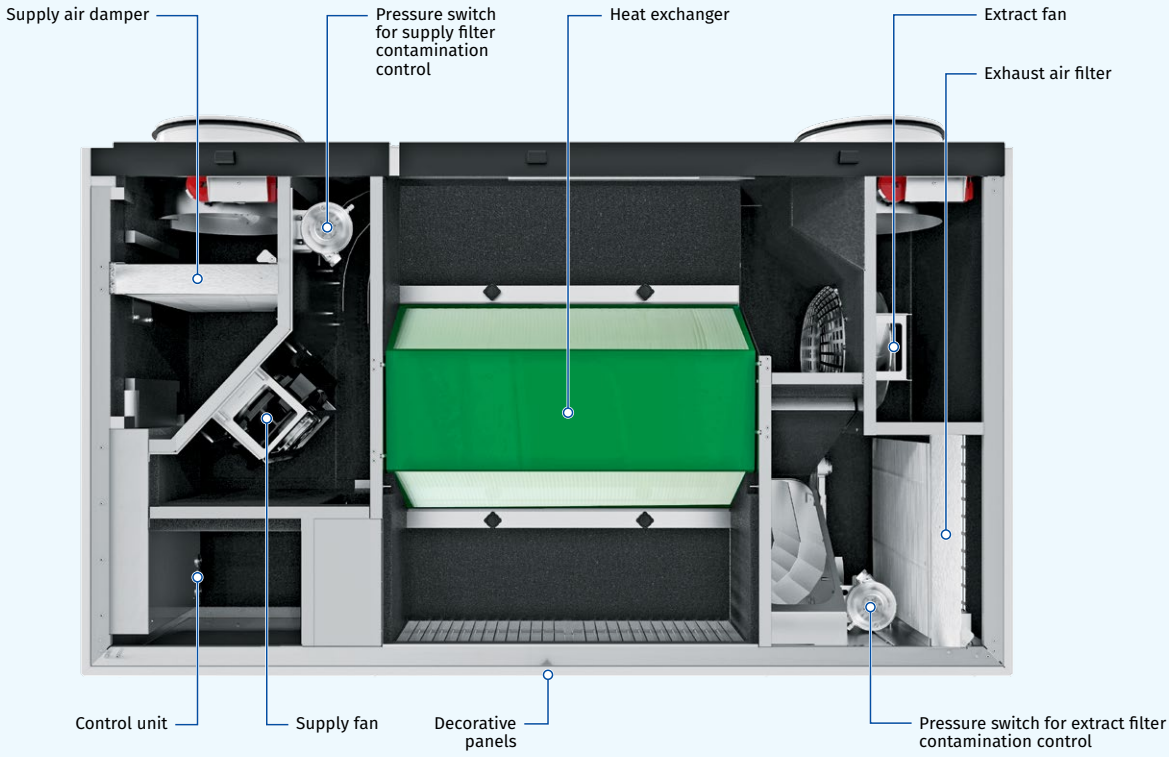
EC motor · ErP 2016 · ErP 2018 · Wi Fi READY · BMS · Hey Google

Design

- Made of high-quality polymer coated steel, internally lined with heat- and sound insulation of mineral wool, cellular synthetic rubber or other materials.
- Available modifications with an integrated preheater and reheater for cold climate applications.

Motors

- High efficient electronically commutated motors with external motor and impeller with forward curved blades. Such motors are the most state-of-the-art energy saving solution.
- EC motors are featured with high performance and total speed controllable range. High efficiency reaching 90 % is the premium advantage of the electronically commutated motors.



Designation key

Model	Motor type	Mounting	Bypass	Heater	Drain pump*	Rated air flow [m³/h]	Control	Modernization
CIVIC	**EC:** synchronous electronically commutated motor	**D:** Suspended mounting, horizontally oriented spigots; **D1:** Suspended mounting, vertically oriented spigots	**B:** with bypass	**_:** without heater **E:** preheating **E2:** preheating + reheating	**_:** without drain pump **CP:** with drain pump	**300; 500; 1000**	**S21**	**V.2:** second modernized generation

* The CIVIC EC DB... 1000 S21 V.2 units are equipped with a drain pump by default.

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Air filtration

- Exhaust cassette filter: ISO Coarse >60 % (G4).
- Supply cassette filter: ISO ePM1 60 % (F7)

Bypass

- The units are equipped with a bypass. The bypass damper opens for free cooling ventilation mode in summer.

Air dampers

- The automatic supply and extract air dampers are used to prevent uncontrollable air draughts during the unit standstill.

Heater

PREHEATING

- **CIVIC EC DBE V.2** and **CIVIC EC DBE2 V.2** units are equipped with an electric preheater which protects the heat exchanger from freezing.

REHEATING

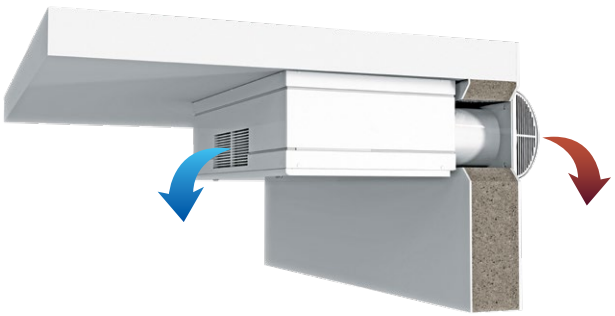
- **CIVIC EC DBE2 V.2** units feature an electric reheater to raise the supply air temperature.

Heat exchanger

- The **CIVIC EC DB V.2** unit has a counter-flow heat exchanger made of polystyrene.
  - **In cold season** the heat energy of the extract air flow is absorbed by intake air flow, thus decreasing the heat losses caused by ventilation. Condensate generated during heat recovery is collected in a drain pan and removed through the drain pipes to the sewage system.
  - **In warm season** the heat of the outdoor air is absorbed by extract air flow. This way the supply air temperature decreases and heat recovery reduces operation loads for the air conditioner.

Functioning

- **Cold outside air** flows through the filters and heat exchanger and is moved to the room with a supply centrifugal fan.
- **Warm polluted air from the premise** flows through the filter and the heat exchanger and is exhausted outside with an extract centrifugal fan through an air duct in the wall.



Control and automation

- The **CIVIC EC DB S21 V.2** units are equipped with an integrated automation system.
- The S21 controller allows integrating the unit into the **BMS (Building Management System)**.
- The unit can be controlled by the **Blauberg Home** mobile application via Wi-Fi.

Download the **Blauberg Home** app for Android

Download the **Blauberg Home** app for iOS

Modbus

Hey Google

Automation functions

Functions	Description
Unit control via Wi-Fi using the mobile application	+
Unit control via remote control panel	S22 control panel (option) 
Unit control via remote wireless control panel	S22 Wi-Fi control panel (option) 
Unit control via a wired remote LCD control panel	S25 control panel (option) 
BMS (Building Management System)	RS-485
	Wi-Fi
	Ethernet
	MODBUS (RTU, TCP)
Speed switch	+
Filter replacement indication	by filter timer
Alarm indication	full alarm description in the mobile application
Week scheduled operation	+
Bypass	automatic
	manual
Timer	+
Boost mode	+
Fireplace mode	+
Freeze protection	using cyclical stops of the supply fan
	using preheating (option)
Reheater connection	option
Cooler connection	option
Minimum supply air temperature control	+
Humidity control	option
CO_2 control	option
VOC control	option
PM2.5 control	option
Fire alarm sensor connection	option

Option: the functionality is available when purchasing the appropriate accessory (see the "Accessories" section)

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Technical data

Parameters	CIVIC EC DB 300 S21 V.2	CIVIC EC DBE 300 S21 V.2	CIVIC EC DBE2 300 S21 V.2	CIVIC EC DB 500 S21 V.2	CIVIC EC DBE 500 S21 V.2	CIVIC EC DBE2 500 S21 V.2
Voltage [V / 50 (60) Hz]	1~ 230	1~ 230	1~ 230	1~ 230	1~ 230	1~ 230
Max. power consumption without an electric heater [W]	204	204	204	238	238	238
Preheater power [W]	–	1050	1050	–	1050	1050
Reheater power [W]	–	–	700	–	–	700
Max. current without an electric heater [A]	1.5	1.5	1.5	1.7	1.7	1.7
Max. current with an electric heater [A]	–	7.7	11.7	–	9.3	12.6
Maximum air flow [m³/h (l/s)]	300 (83)	300 (83)	300 (83)	510 (142)	510 (142)	510 (142)
Sound pressure level at 1 m [dBA]	44	44	44	44	44	44
Sound pressure level at 3 m [dBA]	34	34	34	34	34	34
Max. transported air temperature [°C]	–25…+40	–25…+40	–25…+40	–25…+40	–25…+40	–25…+40
Casing material	polymer coated steel	polymer coated steel	polymer coated steel	polymer coated steel	polymer coated steel	polymer coated steel
Insulation	25 mm, EPDM (polyurethane foam)	25 mm, EPDM (polyurethane foam)	25 mm, EPDM (polyurethane foam)	25 mm, EPDM (polyurethane foam)	25 mm, EPDM (polyurethane foam)	25 mm, EPDM (polyurethane foam)
Extract filter	ISO Coarse >60 % (G4)	ISO Coarse >60 % (G4)	ISO Coarse >60 % (G4)	ISO Coarse >60 % (G4)	ISO Coarse >60 % (G4)	ISO Coarse >60 % (G4)
Supply filter	ISO ePM1 60 % (F7)	ISO ePM1 60 % (F7)	ISO ePM1 60 % (F7)	ISO ePM1 60 % (F7)	ISO ePM1 60 % (F7)	ISO ePM1 60 % (F7)
Connected air duct diameter [mm]	200	200	200	250	250	250
Weight [kg]	78	79	80	95	95	96
Heat recovery efficiency* [%]	83…92	83…92	83…92	83…96	83…96	83…96
Heat exchanger type	counter–flow	counter–flow	counter–flow	counter–flow	counter–flow	counter–flow
Heat exchanger material	polystyrene	polystyrene	polystyrene	polystyrene	polystyrene	polystyrene
SEC class	A+	A+	A+	A+	A+	A+

*Heat recovery efficiency is specified in compliance with EN 13141–8.

Parameters	CIVIC EC DB 1000 S21 V.2	CIVIC EC DBE 1000 S21 V.2	CIVIC EC DBE2 1000 S21 V.2
Voltage [V / 50 (60) Hz]	1~ 230	3~400	3~400
Max. power consumption without an electric heater [W]	267	267	267
Preheater power [W]	–	3150	3150
Reheater power [W]	–	–	2100
Max. current without an electric heater [A]	1.85	1.85	1.85
Max. current with an electric heater [A]	–	12	18
Maximum air flow [m³/h (l/s)]	1000 (278)	1000 (278)	1000 (278)
Sound pressure level at 1 m [dBA]	34	34	34
Sound pressure level at 3 m [dBA]	24	24	24
Max. transported air temperature [°C]	–25…+40	–25…+40	–25…+40
Casing material	polymer coated steel	polymer coated steel	polymer coated steel
Insulation	45 mm, EPDM (polyurethane foam)	45 mm, EPDM (polyurethane foam)	45 mm, EPDM (polyurethane foam)
Extract filter	ISO Coarse >60 % (G4)	ISO Coarse >60 % (G4)	ISO Coarse >60 % (G4)
Supply filter	ISO ePM1 60 % (F7)	ISO ePM1 60 % (F7)	ISO ePM1 60 % (F7)
Connected air duct diameter [mm]	315	315	315
Weight [kg]	252	258	268
Heat recovery efficiency* [%]	83…93	83…93	83…93
Heat exchanger type	counter–flow	counter–flow	counter–flow
Heat exchanger material	polystyrene	polystyrene	polystyrene
SEC class	A+	A+	A+

*Heat recovery efficiency is specified in compliance with EN 13141–8.

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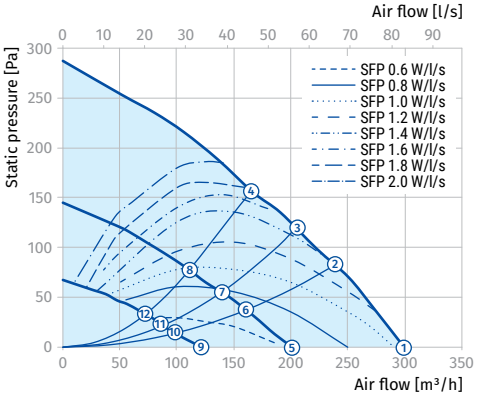
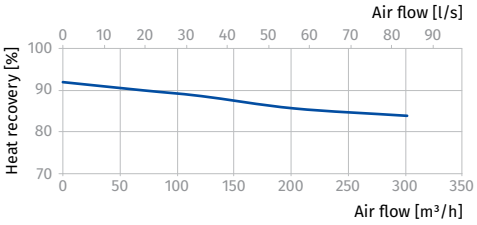
CIVIC EC DB/DBE/DBE2 300 V.2

Sound-power level, A - weighted	Total	Octave frequency band [Hz]																		LpA 3 m	LpA 1 m
		200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000		
LwA to environment @ point 1 [dBA]	**54.9**	45.3	47.5	47.8	41.0	46.2	42.0	40.1	40.3	40.7	40.8	43.5	42.3	35.2	27.4	23.8	21.6	24.6	24.6	**43.9**	**34.4**
LwA to environment @ point 5 [dBA]	**48.2**	46.3	35.4	33.2	35.5	33.9	31.5	31.1	31.2	32.6	33.1	34.1	30.7	23.4	19.6	19.3	19.7	23.3	24.4	**37.3**	**27.7**
LwA to environment @ point 9 [dBA]	**37.2**	29.3	29.7	26.0	27.4	26.6	24.3	23.2	23.0	22.6	21.3	22.3	20.0	18.2	18.0	18.5	19.3	23.0	24.3	**26.2**	**16.6**
LwA to environment @ point 3 [dBA]	**55.3**	46.5	49.5	49.9	40.5	43.2	39.9	38.2	39.1	40.0	39.9	42.3	41.4	34.6	27.2	24.0	21.7	24.6	24.4	**44.4**	**34.8**
LwA to environment @ point 4 [dBA]	**55.1**	45.2	50.0	48.6	40.7	43.2	40.3	38.6	39.1	40.3	40.1	42.5	41.5	34.8	27.2	24.0	21.7	24.8	24.6	**44.1**	**34.5**

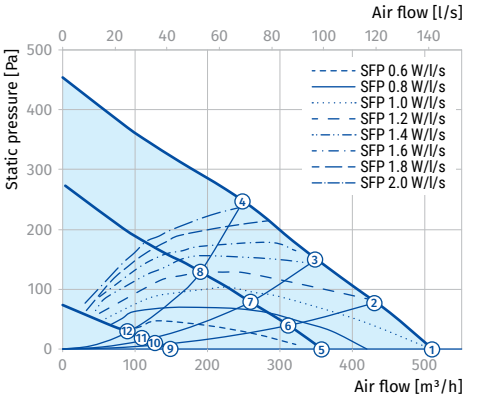


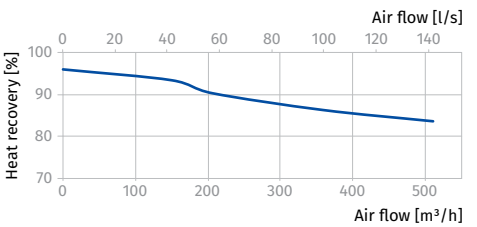


Point	Total power of the unit [W]	Total sound pressure level at 3 m (1 m) [dBA]
1	125	34 (44)
2	116	34 (44)
3	104	–
4	86	35 (44)
5	48	28 (38)
6	44	–
7	42	–
8	36	–
9	17	17 (26)
10	17	–
11	16	–
12	16	–

CIVIC EC DB/DBE/DBE2 500 V.2

Sound-power level, A - weighted	Total	Octave frequency band [Hz]																		LpA 3 m	LpA 1 m
		200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000		
LwA to environment @ point 1 [dBA]	**54.7**	44.7	48.8	46.3	45.7	41.3	38.8	40.9	40.4	40.2	42.8	43.0	40.0	32.8	27.7	25.7	23.6	25.9	25.8	**43.7**	**34.1**
LwA to environment @ point 5 [dBA]	**48.2**	44.7	37.8	37.3	38.6	32.7	31.5	32.8	33.0	32.8	35.3	35.1	31.2	23.8	20.7	20.2	19.8	23.2	24.2	**37.2**	**27.7**
LwA to environment @ point 9 [dBA]	**33.6**	22.9	21.9	27.0	24.3	17.8	17.1	17.6	16.9	16.4	17.2	17.6	17.1	17.5	17.8	18.7	19.5	23.0	24.1	**22.6**	**13.0**
LwA to environment @ point 3 [dBA]	**61.2**	55.0	53.5	53.5	52.1	46.5	45.2	46.1	46.1	45.6	46.8	45.9	43.9	39.1	36.4	47.1	40.1	39.9	35.2	**50.2**	**40.7**
LwA to environment @ point 4 [dBA]	**55.4**	47.7	47.7	47.2	46.4	42.0	39.4	40.7	41.3	41.2	43.8	44.0	41.5	33.8	29.0	26.8	23.9	25.2	24.9	**44.4**	**34.8**





Point	Total power of the unit [W]	Total sound pressure level at 3 m (1 m) [dBA]
1	170	34 (44)
2	153	–
3	135	34 (44)
4	116	35 (44)
5	95	28 (37)
6	86	–
7	80	–
8	68	–
9	25	17 (26)
10	24	–
11	24	–
12	22	–

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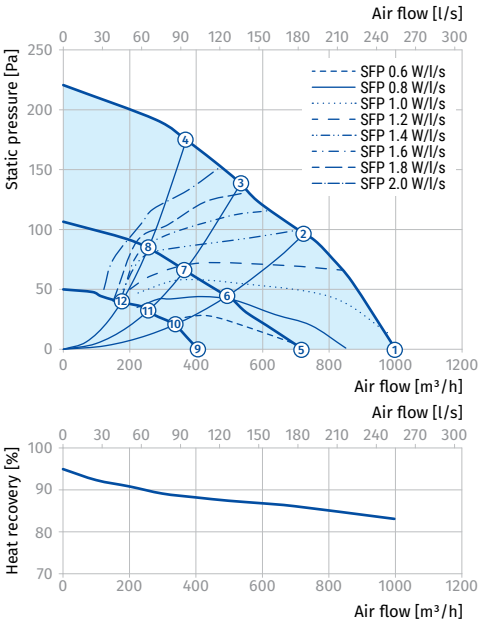
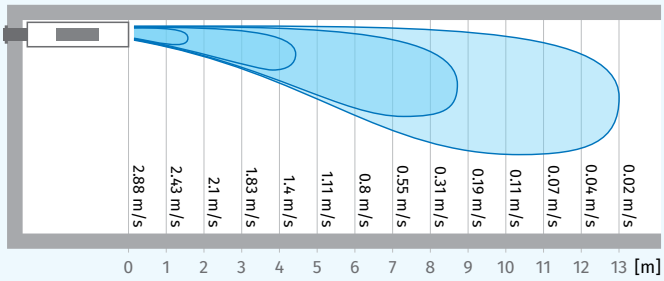
CIVIC EC DB/DBE/DBE2 1000 V.2

Sound-power level, A - weighted	Total	Octave frequency band [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
L_{WA} to environment @ point 1 [dBA]	**45**	31	37	40	37	36	36	29	18	**24**	**34**
L_{WA} to environment @ point 5 [dBA]	**37**	26	29	32	29	29	29	24	15	**17**	**27**
L_{WA} to environment @ point 9 [dBA]	**32**	21	26	20	25	19	20	25	18	**11**	**21**

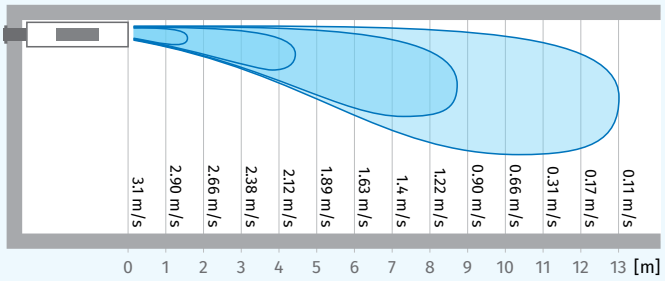


Point	Total power of the unit [W]	Total sound pressure level at 3 m (1 m) [dBA]
1	260	24 (34)
2	251	23 (33)
3	235	23 (33)
4	221	22 (32)
5	136	17 (27)
6	130	17 (27)
7	125	16 (27)
8	120	16 (27)
9	47	11 (21)
10	45	11 (21)
11	44	11 (21)
12	42	11 (21)

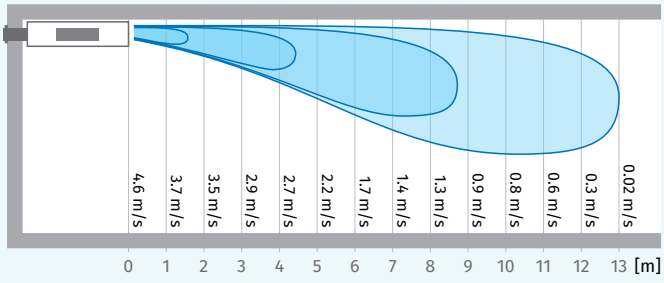
Fresh air flow distance for CIVIC EC DB 300 V.2



Fresh air flow distance for CIVIC EC DB 500 V.2



Fresh air flow distance for CIVIC EC DB 1000 V.2

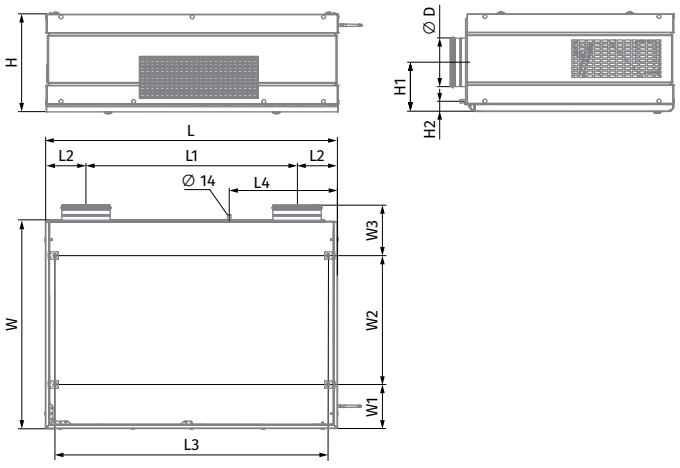


The unit is rated for indoor application with the ambient temperature ranging from +1 °C to +40 °C and relative humidity up to 80%

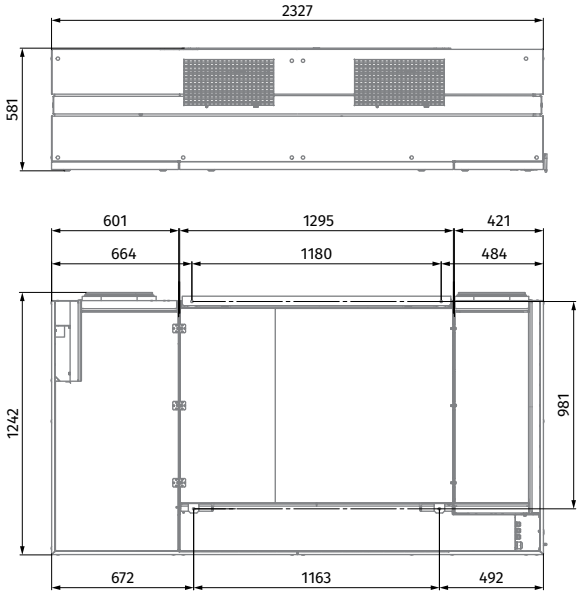
CIVIC EC DB V.2

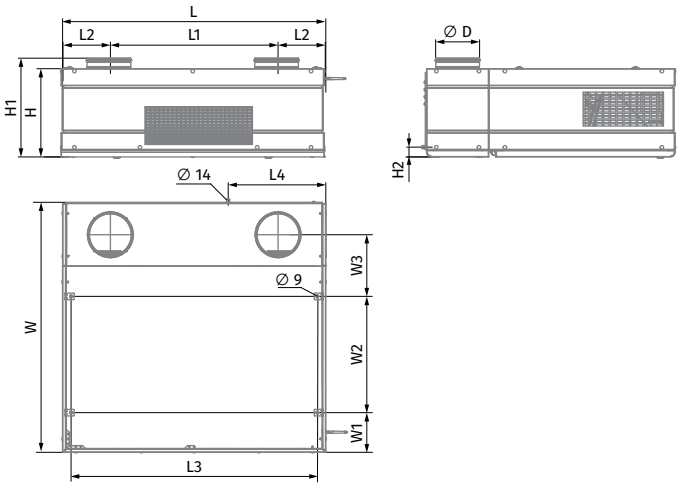
Overall dimensions [mm]

Model	∅ D	H	H1	H2	L	L1	L2	L3	L4	W	W1	W2	W3
CIVIC EC DB... 300 S21 V.2	200	402	202	41	1200	867	166	1122	445	850	181	530	207
CIVIC EC D1B... 300 S21 V.2	200	402	450	45	1200	764	218	1122	445	1139	181	530	281
CIVIC EC DB... 500 S21 V.2	250	458	221	41	1500	1135	186	1422	504	850	181	530	207
CIVIC EC D1B... 500 S21 V.2	250	458	509	45	1500	964	268	1422	504	1186	181	530	304

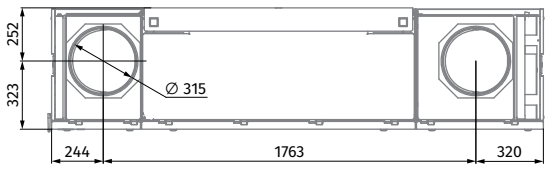


CIVIC EC DB 300 S21 V.2 / CIVIC EC DB 500 S21 V.2





CIVIC EC D1B 300 S21 V.2 / CIVIC EC D1B 500 S21 V.2



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Accessories

		CIVIC EC DB 300 S21 V.2 CIVIC EC DBE 300 S21 V.2 CIVIC EC DBE2 300 S21 V.2	CIVIC EC DB 500 S21 V.2 CIVIC EC DBE 500 S21 V.2 CIVIC EC DBE2 500 S21 V.2	CIVIC EC DB 1000 S21 V.2 CIVIC EC DBE 1000 S21 V.2 CIVIC EC DBE2 1000 S21 V.2
Extract filter ISO Coarse >60 % (G4)		FP 320x373x48 G4	FP 379x334x48 G4	FP 654x480x48 G4
Supply filter ISO ePM1 60 % (F7)		FP 320x211x48 F7	FP 379x254x48 F7	FP 654x480x48 F7
Outer grill		VDA 200 CFn Al	VDA 250 CFn Al	VDA 315 CFn Al
Control panel		S22	S22	S22
Wi-Fi control panel		S22 Wi-Fi	S22 Wi-Fi	S22 Wi-Fi
LCD Control panel		S25	S25	S25
VOC sensor		DPWQ30600	DPWQ30600	DPWQ30600
CO_2 sensor		DPWQ40200	DPWQ40200	DPWQ40200
CO_2 sensor with indication		CD-1	CD-1	CD-1
CO_2 sensor		CD-2	CD-2	CD-2
CO_2 sensor		CD-3	CD-3	CD-3
Humidity sensor		DPWC11200	DPWC11200	DPWC11200
Internal humidity sensor		FS2	FS2	FS2

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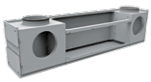
		CIVIC EC DB 300 S21 V.2 CIVIC EC DBE 300 S21 V.2 CIVIC EC DBE2 300 S21 V.2	CIVIC EC DB 500 S21 V.2 CIVIC EC DBE 500 S21 V.2 CIVIC EC DBE2 500 S21 V.2	CIVIC EC DB 1000 S21 V.2 CIVIC EC DBE 1000 S21 V.2 CIVIC EC DBE2 1000 S21 V.2
Humidity sensor		HR-S	HR-S	HR-S
Syphon kit		SFK 20x32	SFK 20x32	SFK 20x32
Drain pump		CP-2	CP-2	CP-2
Modul of vertical duct connection		VDC Civic 300 DB	VDC Civic 500 DB	VDC Civic 1000 DB