



► Venkon
Fan coils

Venkon

Fan coils, recirculation air.

Heating, cooling and filtering for the ultimate in comfort

► **Technical catalogue**

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A photograph of a modern office interior. In the foreground, a light-colored wooden table is partially visible. Two black office chairs with ribbed backs are positioned around the table. The background features a large window looking out onto a green lawn and trees. To the right of the window, a white wall has two electrical outlets and a whiteboard mounted on it. A white radiator is visible in the bottom right corner. A dark blue semi-transparent box with white text is overlaid on the left side of the image.

Venkon:
Market-leading
quiet.



With the Venkon, you are opting for a decentralised air treatment unit, at the same time as meeting all the expectations of a peaceful environment.

01 ▶ Product information



Schlosshotel Bad Wilhelmshöhe Conference & Spa, Kassel (Germany)

Venkon – The right solution for every challenge

Fan coils are used in comfort buildings of all types with high heating and cooling requirements as well as exacting user requirements.

Venkon EC and AC models are based on the same construction and can be enhanced with a comprehensive range of accessories and controls.

EC technology

EC fans can be operated infinitely variably within a low fan speed range even at low air volumes with intelligent, integrated electronics on demand and this energy-efficiently. Low fan speeds have a positive effect on noise levels in areas, like hotels

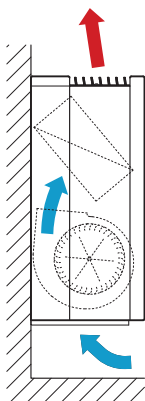
and offices, where the noise levels lie far below the audible threshold or the usual measuring range. The energy-saving Venkon EC is designed in such a way that the lowest sound emissions can be reached at low speed stages as well as at very high speed stages. The right solution can therefore be combined in a single unit for every application, whether for living rooms and bedrooms, or rooms with internal loads.

Intelligent motor management permanently detects the operating state of the fans and keeps the pre-set speed constant, regardless of the fan length and external influences. All EC fans are fitted with a running motor thermal contact.

Kampmann is incorporating innovative knowledge and expertise in efficient, cost-saving technology with GreenTech EC fans from ebm-papst.

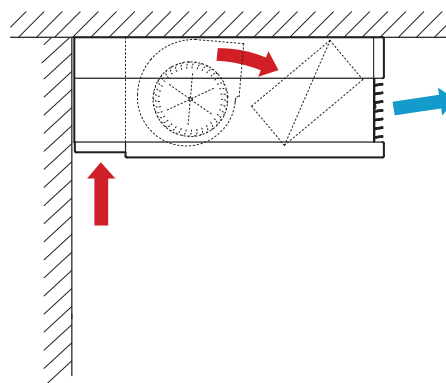
Heating example

Cross-section of wall-mounted without inlet grille



Cooling example

Cross-section of the ceiling with inlet grille

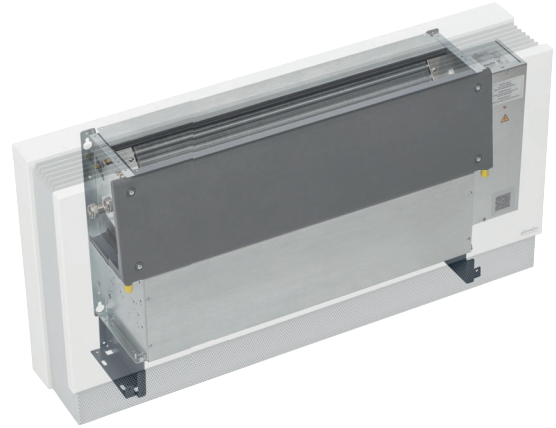


Product data



Product benefits

- ▶ Ultra-versatile in terms of length and appearance
- ▶ Hygiene-compliant in accordance with VDI 6022 in conjunction with optional ePM10>50% filter, easy-clean
- ▶ Versatile combination by the use of basic unit and casing
- ▶ Continuously variable EC fans (stage AC fans on request)
- ▶ Whisper-quiet operating sounds like no other unit on the market
- ▶ Low noise at low operating stages and high output at high speeds due to progressive power characteristic curve
- ▶ Made in Germany quality
- ▶ Life Cycle Assessment data published in the form of an EPD according to EN 15804 and available to download from the International EPD System. Registered in the DGNB Navigator construction product platform.



Features

- ▶ Four sizes
- ▶ Versatile combination of basic unit and casing
- ▶ Continuously variable EC fans
- ▶ Optional fresh air connection
- ▶ 2-, 3-way valve kits or differential pressure-independent valve kit as an accessory
- ▶ Comprehensive range of accessories

Installation

- ▶ Free-standing
- ▶ Freely suspended
- ▶ Wall- or ceiling-mounted

Primary air supply

- ▶ Optionally possible by way of accessories

Heating

- ▶ LPHW

Cooling

- ▶ CHW

KaControl

- ▶ Integrated

Performance data

Air flow [m³/h] > 46 – 1713

Heat output [W]¹⁾ > 662 – 26532

Cooling output [W]²⁾ > 314 – 11351

Sound pressure level [dB(A)]³⁾ > 15 – 54

Sound power level [dB(A)] > 23 – 62

¹⁾ at LPHW 75/65 °C, $t_{L1} = 20$ °C

²⁾ at CHW 7/12 °C, $t_{L1} = 27$ °C, 48% relative humidity

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Operating limits

- ▶ Max. operating pressure: 10 bar
- ▶ Min. entering water temperature: 4 °C
- ▶ Max. entering water temperature: 90 °C
- ▶ Min. air inlet temp.: 15 °C
- ▶ Max. air inlet temp.: 40 °C
- ▶ Rel. air humidity: 20 % – 60 %
- ▶ Max. glycol volume: 50 %

Applications

Buildings of all kinds, which require whisper-quiet cooling and/or heating from a visually discreet design.



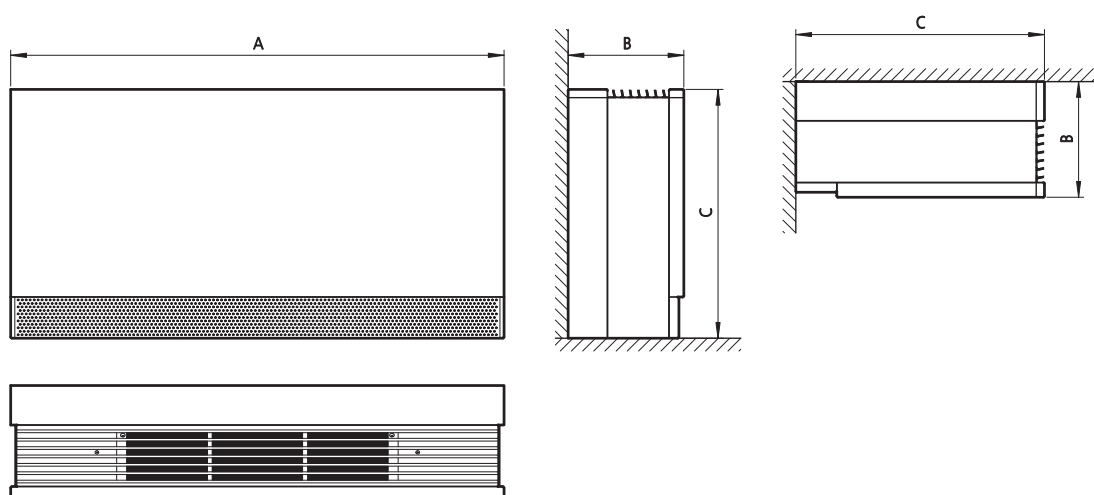
Selection guide

Filter class	System				Model size	Length (A) [mm]	Depth (B) [mm]	Height (C) [mm]				
	2-pipe		4-pipe									
	Heat output ¹⁾ [W]	Cooling output ²⁾ [W]	Heat output ¹⁾ [W]	Cooling output ²⁾ [W]								
ISO Coarse filter	2100 – 8332	885 – 3567	1646 – 5179	849 – 3355	61	900	235	605				
	3042 – 12885	1232 – 5206	2455 – 8244	1152 – 4722	63	1200						
	5003 – 20520	2096 – 8692	3893 – 12565	1848 – 7257	66	1650						
	5891 – 26532	2466 – 11351	4610 – 16113	2271 – 9967	67	2000						
Filter ePM10>50% (M5)	1372 – 7171	574 – 3065	1121 – 4589	555 – 2889	61	900			235	605		
	1757 – 10526	710 – 4253	1492 – 6994	676 – 3873	63	1200						
	3038 – 16815	1259 – 7112	2475 – 10705	1141 – 5978	66	1650						
	3520 – 21423	1454 – 9137	2902 – 13563	1371 – 8074	67	2000						
Filter ePM1>50% (F7)	783 – 5740	321 – 2447	662 – 3830	314 – 2313	61	900					235	605
	978 – 8094	390 – 3271	855 – 5636	378 – 2994	63	1200						
	1690 – 13002	683 – 5487	1426 – 8688	638 – 4653	66	1650						
	1908 – 16317	769 – 6932	1639 – 10868	745 – 6175	67	2000						

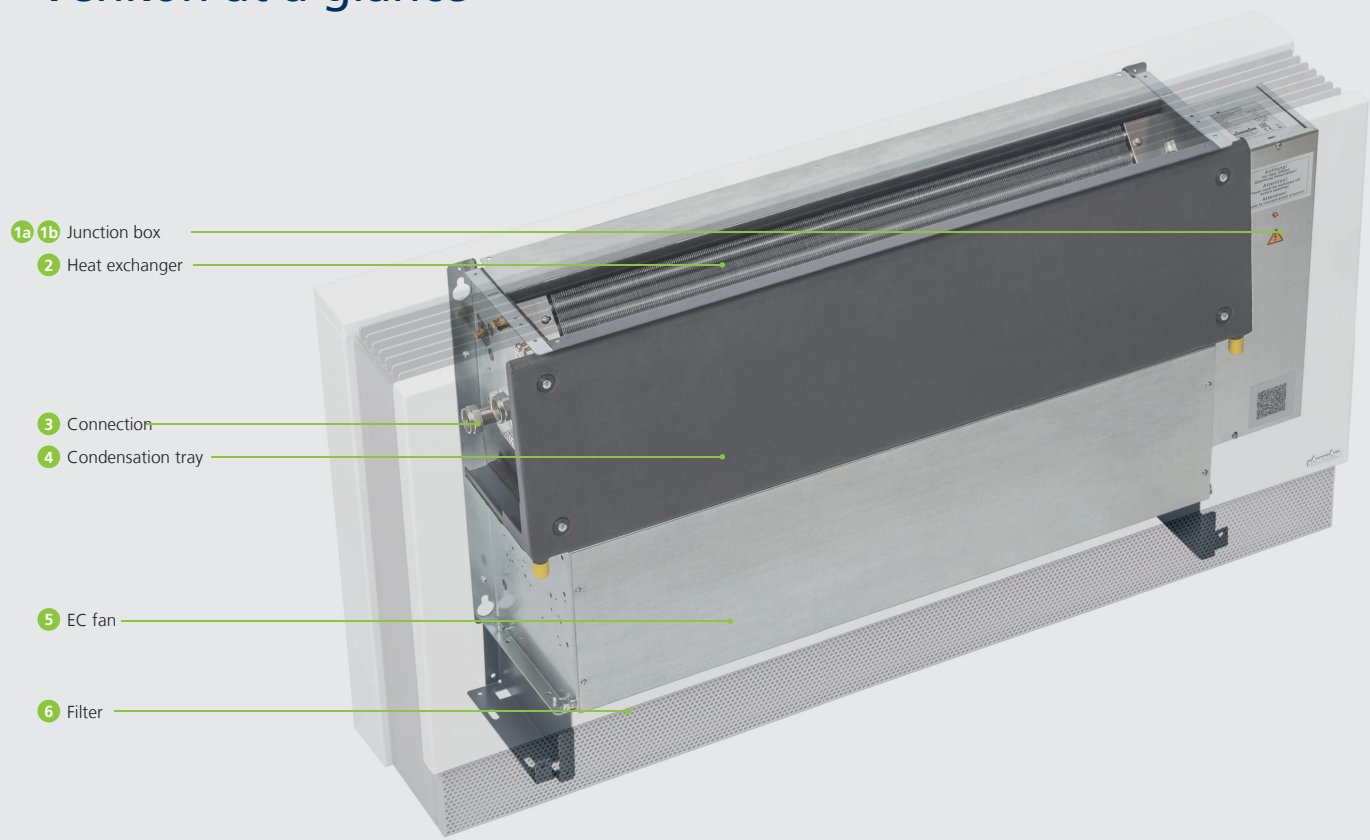
¹⁾ at LPHW 75/65 °C, $t_{l,1} = 20$ °C

²⁾ at CHW 7/12 °C, $t_{l,1} = 27$ °C, 48% relative humidity

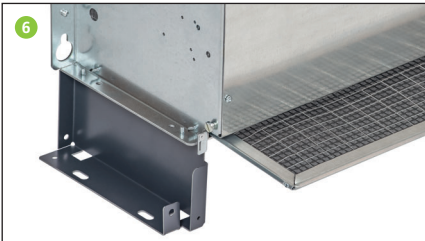
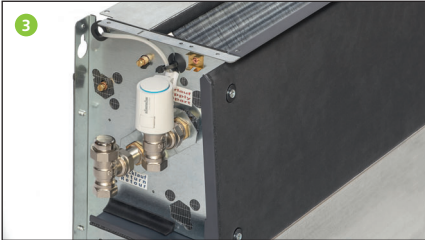
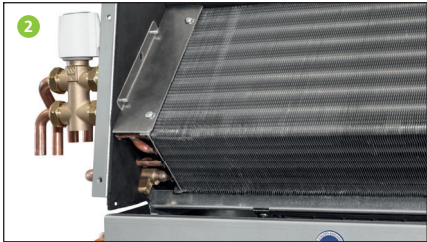
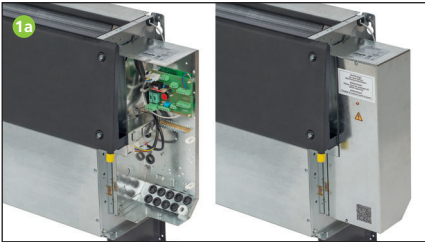
Technical drawing (Dimensions in mm)

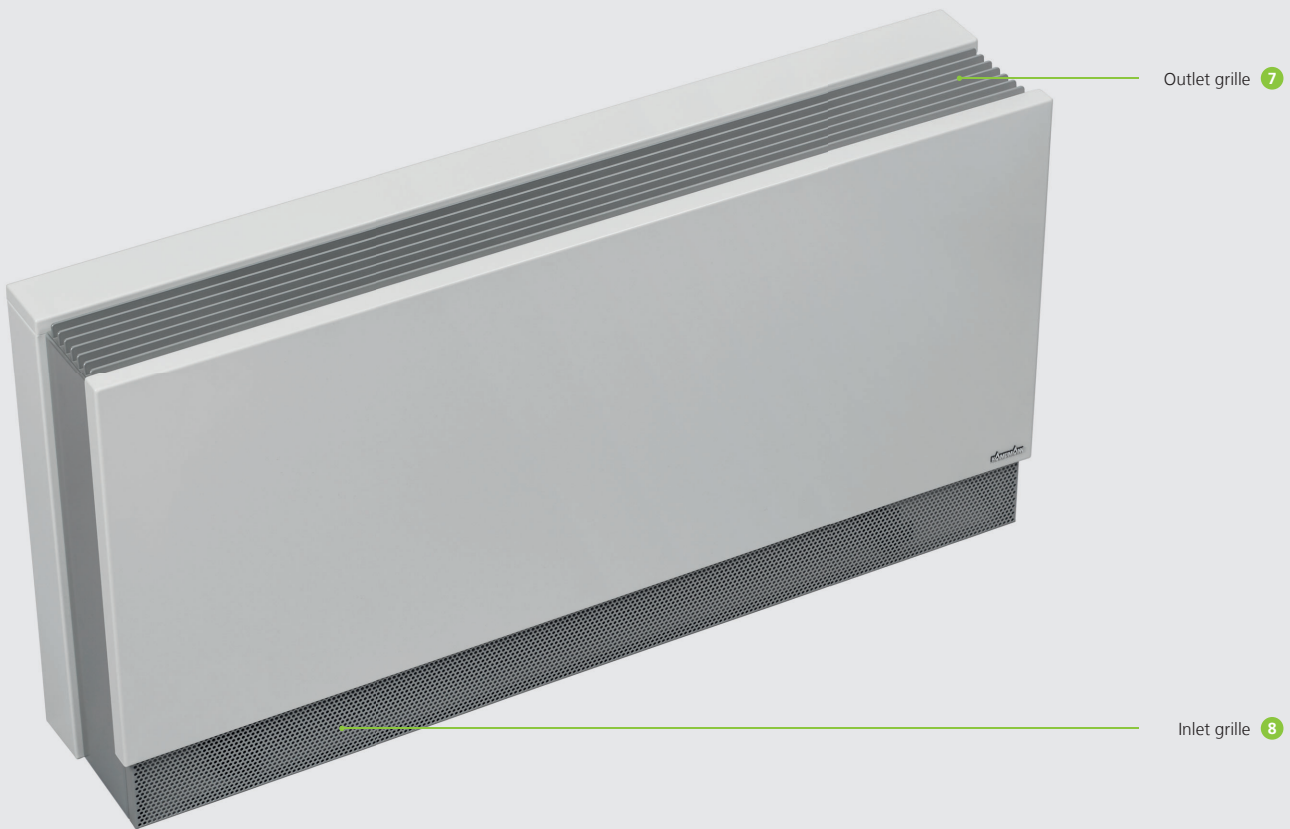


Venkon at a glance



Features





Example of wall-standing casing

1a Control configuration C1 with KaControl in the junction box

- ▶ wired ready for connection
- ▶ ease of access for maintenance by removable casing
- ▶ also available as a remote control box with 2.5 m long cable

1b Electromechanical control model

- ▶ wired ready for connection
- ▶ ease of access for maintenance by removable casing
- ▶ installation using Velcro strips for simple removal and handling on site

2 High-performance heat exchanger

- ▶ copper-aluminium
- ▶ optimised air- and water-side flow for maximum heat and cold discharge

3 Connection

- ▶ with anti-twist device to avoid damage to the connector when screwing in the valves
- ▶ different valve kits (optional) fixed to the unit and printed on the water side
- ▶ actuators (optional) connected and wired to valve kit

4 Condensation tray

- ▶ can be simply and conveniently removed for maintenance / cleaning

5 EC fans

- ▶ lowest noise levels at low speeds and high outputs at high speeds

6 Filter

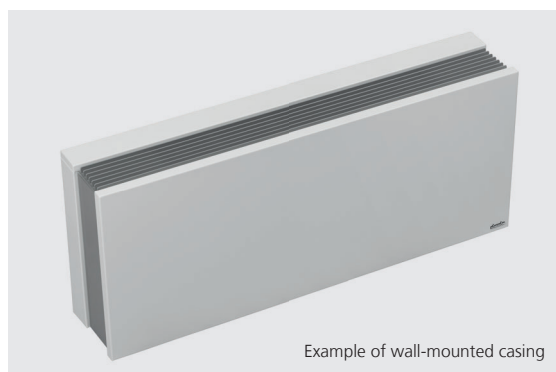
- ▶ maintenance-friendly filter removal at each installation position
- ▶ washable and hence recyclable filter

7 Output grille

- ▶ flow-optimised output behaviour by means of outlet grille
- ▶ change of outlet air angle, can also be subsequently retrofitted

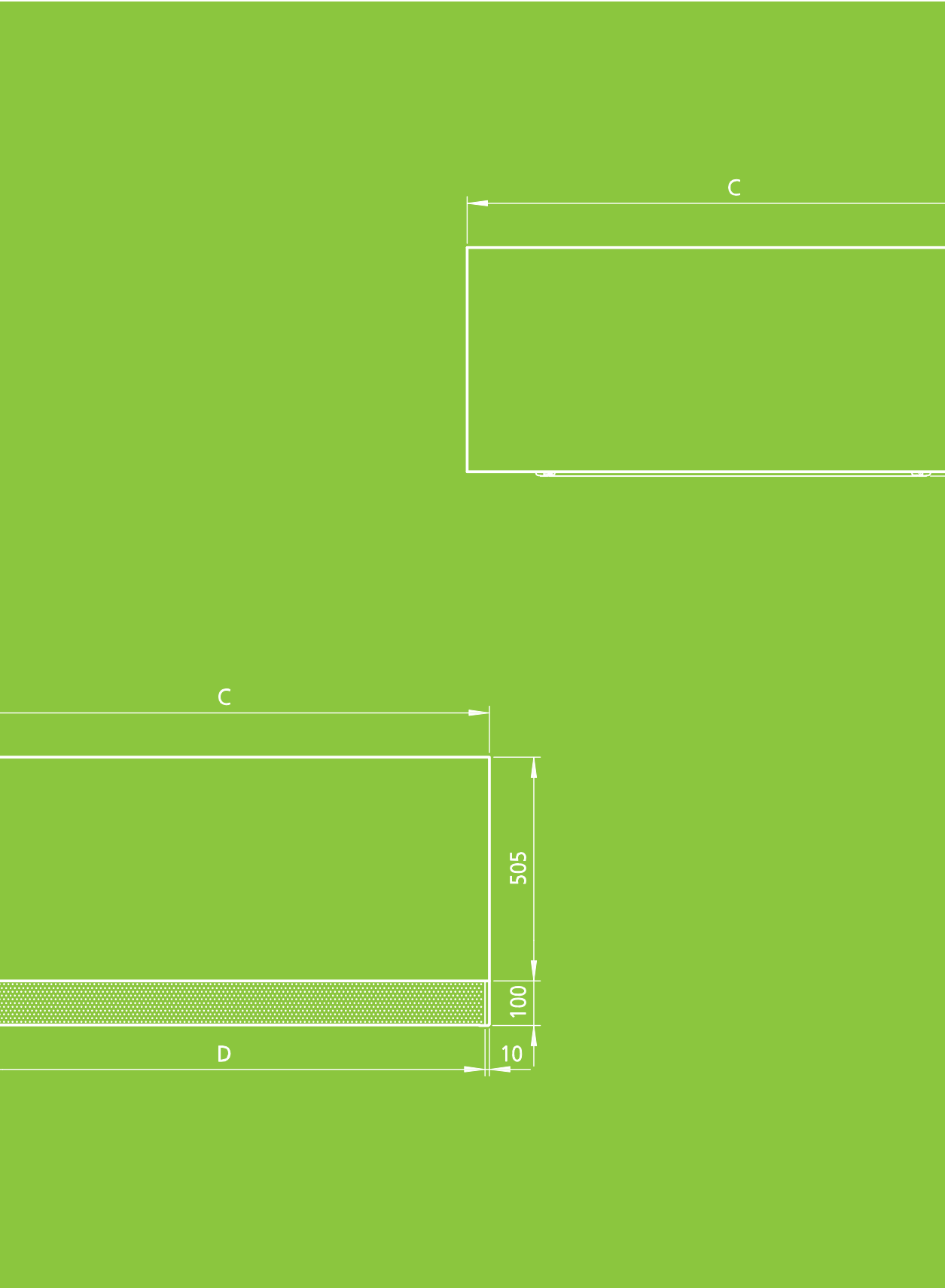
8 Inlet grille

- ▶ simple installation and dismantling without a tool
- ▶ in an attractive, slimline design



Example of wall-mounted casing

02 ▶ Technical data



Advice on measuring conditions

The cooling and heat outputs have been calculated in line with DIN EN 1397:2015 "Water-air fan convectors, test methods for establishing the performance".

The specific requirements for cooling and heating mode are taken into account in DIN EN 1397. They are also based on Eurovent Certification.

Normative reference

The standard refers to:

- ▶ EN 16583; Determining the sound power levels of noise sources
- ▶ EN 45001; General criteria for the operation of test laboratories
- ▶ ISO 5801; Industrial fans; Performance testing using standardised airways
- ▶ ISO 5221; Air distribution and air diffusion; Rules to methods of measuring air flow rate in an air handling duct

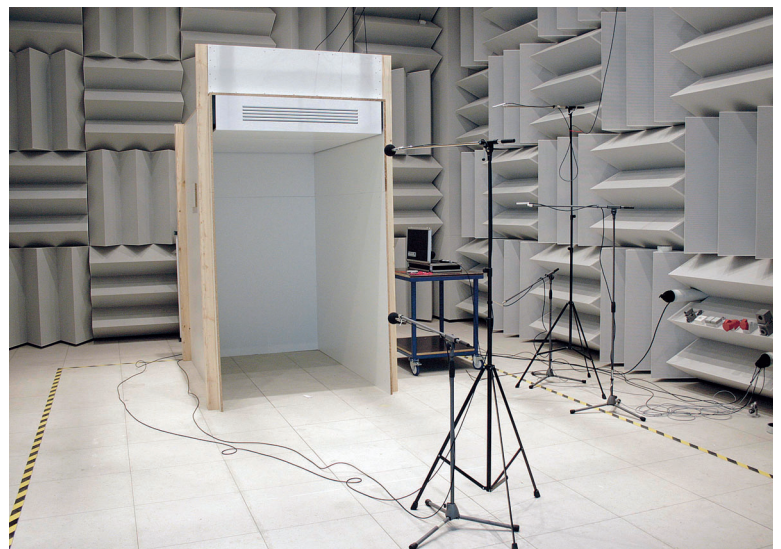
The entering air temperature of the fan convector is selected as the reference / air temperature, which should not be confused with the ambient temperature.

In practice, fan coils are positioned within a suspended ceiling or as sill units along the façade. Due to the temperature stratification that occurs, the entering air temperature differs from the air temperature in the room (measured at a height of 1.5m).

Acoustics

Fan coils are very often used in acoustically sensitive areas. The units have therefore been optimised in terms of sound emissions.

The acoustic data were recorded in accordance with the provisions of DIN EN 16583 by DIN EN ISO 3744 and DIN EN ISO 3741 in the Kampmann GmbH laboratories.

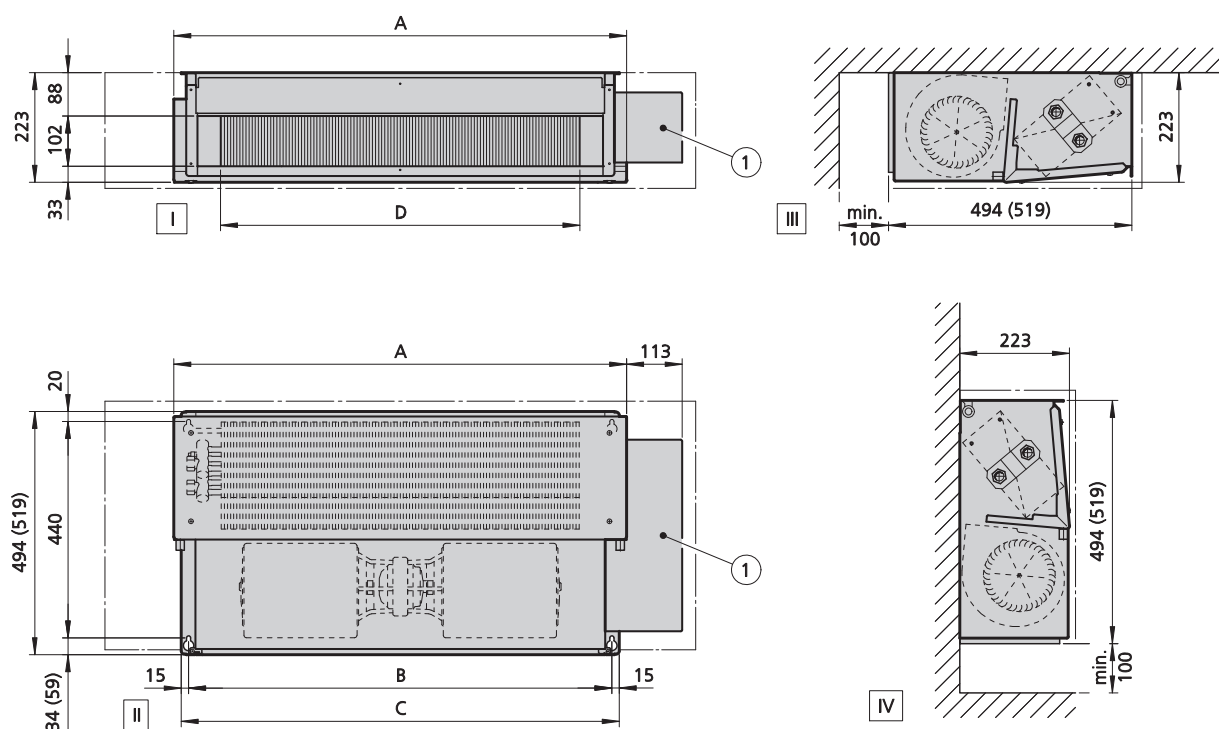


Acoustic laboratory

Venkon

2-pipe 61

Technical drawing (Dimensions in mm)



View

- I front view (ceiling-mounted model)
- II view from below (ceiling version)
- III side view (ceiling model)
- IV side view (wall model)

Further information

- ① there is no need for EC1M control with electromechanical or external control version

Specifications

Filter class	Basic unit width (A) [mm]	Spacing of suspension points (B) [mm]	Rear wall (C) [mm]	Air discharge opening (D) [mm]	Weight [kg]	System	Connection	Connection Heating	Connection Cooling
Filter ISO Coarse (G0)	625	560	590	431	21	2-pipe	1/2"	---	---
Filter ePM10>50% (M5)	625	560	590	431	20	2-pipe	1/2"	---	---
Filter ePM1>50% (F7)	625	560	590	431	20	2-pipe	1/2"	---	---

Performance data

Filter class	Control voltage	Air flow	Cooling output, total ¹⁾	Cooling output, sensible	Outlet air temperature	Mass Flow cooling	Pressure loss cooling	Heat output ²⁾	Outlet air temperature	Pressure loss heating	Pressure loss heating	Power consumption	Current consumption	SFP value	Sound pressure level ³⁾	Sound power level
	[V]	[m³/h]	[W]	[W]	[°C]	[l/h]	[kPa]	[W]	[°C]	[l/h]	[kPa]	[W]	[mA]	[Ws/m³]	[dB(A)]	[dB(A)]
ISO Coarse filter	10	562	3567	2644	12.4	613	38.3	8332	64.7	734	45.6	45	390	287	52	60
	8	458	2930	2172	12.3	504	26.7	6860	65.2	605	31.7	25	228	198	46	54
	6	264	1729	1281	11.9	297	10.2	4072	66.5	359	12.0	7	84	96	31	39
	4	205	1355	1005	11.8	233	6.5	3201	67.1	282	7.7	5	68	81	26	34
	1.5	132	885	656	11.5	152	3.0	2100	68.1	185	3.5	3	57	70	19	27
Filter ePM10>50% (M5)	10	480	3065	2272	12.3	527	29.0	7171	65.1	632	34.5	40	354	302	52	60
	8	380	2450	1816	12.2	421	19.2	5747	65.6	507	22.8	23	207	214	46	54
	6	193	1279	948	11.8	220	5.8	3023	67.2	266	6.9	6	79	115	31	39
	4	141	943	699	11.6	162	3.3	2235	68.0	197	3.9	4	64	104	26	34
	1.5	84	574	425	11.2	99	1.3	1372	69.5	121	1.6	2	56	106	19	27
Filter ePM1>50% (F7)	10	379	2447	1814	12.2	420	19.2	5740	65.6	506	22.8	35	312	332	52	60
	8	284	1854	1375	12.0	319	11.5	4365	66.3	385	13.7	19	181	244	46	54
	6	123	830	615	11.5	143	2.6	1971	68.3	174	3.1	5	72	154	31	39
	4	84	574	425	11.2	99	1.3	1372	69.5	121	1.6	4	62	152	26	34
	1.5	46	321	238	10.8	55	0.5	783	71.9	69	0.6	2	55	194	19	27

Use our calculation tools on our website to easily calculate heat outputs and other technical data with just a few clicks!

► <https://www.kampmanngroup.com/hvac/products/fan-coils/venkon#Calculate-performance-data>

¹⁾ at CHW 7/12 °C, t_{l1} = 27 °C, 48% relative humidity

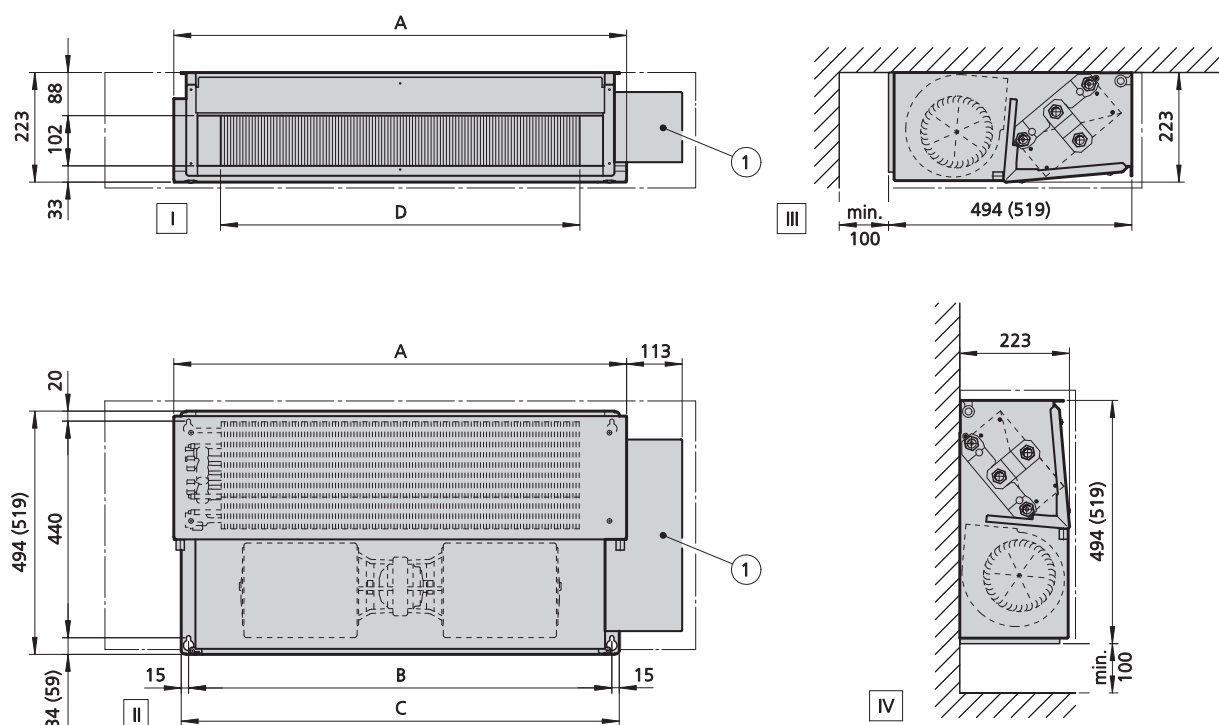
²⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Venkon

61 4-pipe

Technical drawing (Dimensions in mm)



View

- I front view (ceiling-mounted model)
- II view from below (ceiling version)
- III side view (ceiling model)
- IV side view (wall model)

Further information

- ① there is no need for EC1M control with electromechanical or external control version

Specifications

Filter class	Basic unit width (A) [mm]	Spacing of suspension points (B) [mm]	Rear wall (C) [mm]	Air discharge opening (D) [mm]	Weight [kg]	System	Connection	Connection Heating	Connection Cooling
Filter ISO Coarse (G0)	625	560	590	431	21	4-pipe	---	1/2"	1/2"
Filter ePM10>50% (M5)	625	560	590	431	20	4-pipe	---	1/2"	1/2"
Filter ePM1>50% (F7)	625	560	590	431	20	4-pipe	---	1/2"	1/2"

Performance data

Filter class	Control voltage	Air flow	Cooling output, total ¹⁾	Cooling output, sensible	Outlet air temperature	Mass Flow cooling	Pressure loss cooling	Heat output ²⁾	Outlet air temperature	Pressure loss heating	Pressure loss heating	Power consumption	Current consumption	SFP value	Sound pressure level ³⁾	Sound power level
	[V]	[m³/h]	[W]	[W]	[°C]	[l/h]	[kPa]	[W]	[°C]	[l/h]	[kPa]	[W]	[mA]	[Ws/m³]	[dB(A)]	[dB(A)]
ISO Coarse filter	10	562	3355	2487	13.3	577	26.7	5179	47.8	456	34.6	45	390	287	52	60
	8	458	2764	2049	13.1	475	18.8	4427	49.2	390	25.7	25	228	198	46	54
	6	264	1642	1217	12.7	282	7.3	2888	53.0	255	11.5	7	84	96	31	39
	4	205	1291	957	12.5	222	4.7	2362	54.7	208	7.9	5	68	81	26	34
	1.5	132	849	629	12.2	146	2.2	1646	57.7	145	4.0	3	57	70	19	27
Filter ePM10>50% (M5)	10	480	2889	2141	13.1	496	20.3	4589	48.8	404	27.5	40	354	302	52	60
	8	380	2316	1717	13.0	398	13.6	3834	50.4	338	19.6	23	207	214	46	54
	6	193	1220	904	12.5	210	4.2	2251	55.1	198	7.2	6	79	115	31	39
	4	141	903	670	12.2	155	2.4	1738	57.3	153	4.4	4	64	104	26	34
	1.5	84	555	411	11.7	95	1.0	1121	60.5	99	1.9	2	56	106	19	27
Filter ePM1>50% (F7)	10	379	2313	1715	13.0	398	13.6	3830	50.5	338	19.6	35	312	332	52	60
	8	284	1760	1305	12.7	302	8.2	3059	52.5	270	12.8	19	181	244	46	54
	6	123	797	591	12.1	137	1.9	1557	58.1	137	3.6	5	72	154	31	39
	4	84	555	411	11.7	95	1.0	1121	60.5	99	1.9	4	62	152	26	34
	1.5	46	314	233	11.1	54	0.4	662	63.9	58	0.7	2	55	194	19	27

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¹⁾ at CHW 7/12 °C, t_{r1} = 27 °C, 48% relative humidity

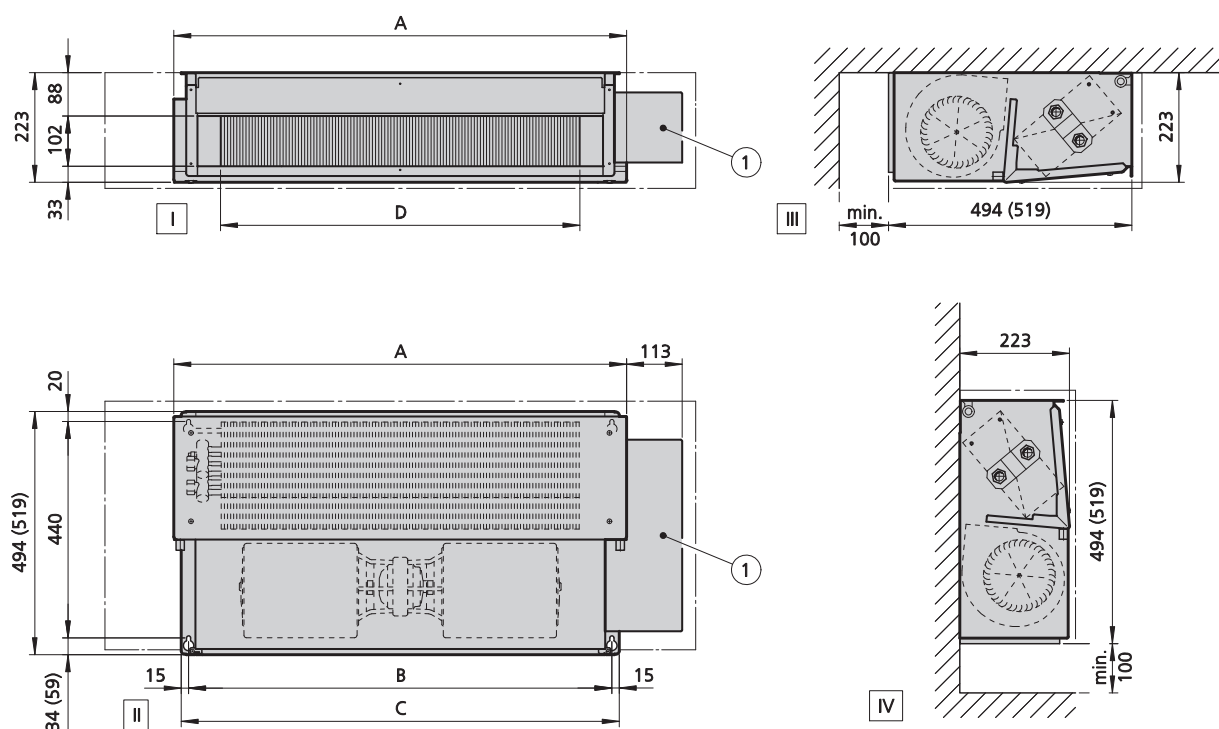
²⁾ at LPHW 75/65 °C, t_{r1} = 20 °C

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Venkon

63 2-pipe

Technical drawing (Dimensions in mm)



View

- I front view (ceiling-mounted model)
- II view from below (ceiling version)
- III side view (ceiling model)
- IV side view (wall model)

Further information

- ① there is no need for EC1M control with electromechanical or external control version

Specifications

Filter class	Basic unit width (A) [mm]	Spacing of suspension points (B) [mm]	Rear wall (C) [mm]	Air discharge opening (D) [mm]	Weight [kg]	System	Connection	Connection Heating	Connection Cooling
Filter ISO Coarse (G0)	925	860	890	731	27	2-pipe	1/2"	---	---
Filter ePM10>50% (M5)	925	860	890	731	27	2-pipe	1/2"	---	---
Filter ePM1>50% (F7)	925	860	890	731	27	2-pipe	1/2"	---	---

Performance data

Filter class	Control voltage	Air flow	Cooling output, total ¹⁾	Cooling output, sensible	Outlet air temperature	Mass Flow cooling	Pressure loss cooling	Heat output ²⁾	Outlet air temperature	Pressure loss heating	Pressure loss heating	Power consumption	Current consumption	SFP value	Sound pressure level ³⁾	Sound power level
	[V]	[m³/h]	[W]	[W]	[°C]	[l/h]	[kPa]	[W]	[°C]	[l/h]	[kPa]	[W]	[mA]	[Ws/m³]	[dB(A)]	[dB(A)]
ISO Coarse filter	10	858	5206	3859	13.0	895	42.8	12885	65.3	1136	57.6	50	441	210	50	58
	8	684	4201	3114	12.9	722	28.4	10396	65.8	916	38.4	26	241	138	43	51
	6	380	2403	1781	12.5	413	9.8	5944	67.2	524	13.4	6	84	61	28	36
	4	297	1897	1406	12.3	326	6.2	4692	67.7	414	8.6	4	67	52	22	30
	1.5	188	1232	913	11.9	212	2.7	3042	68.8	268	3.8	3	58	51	15	23
Filter ePM10>50% (M5)	10	693	4253	3153	12.9	731	29.1	10526	65.8	928	39.3	46	405	237	50	58
	8	530	3298	2445	12.7	567	17.9	8160	66.4	719	24.3	23	217	157	43	51
	6	258	1662	1232	12.2	286	4.8	4109	68.0	362	6.7	6	77	80	28	36
	4	186	1220	904	11.9	210	2.7	3012	68.8	265	3.7	4	64	72	22	30
	1.5	105	710	527	11.4	122	1.0	1757	70.7	155	1.3	2	58	81	15	23
Filter ePM1>50% (F7)	10	526	3271	2425	12.7	562	17.6	8094	66.4	713	24.0	39	354	270	50	58
	8	376	2376	1761	12.4	408	9.6	5877	67.2	518	13.1	19	185	185	43	51
	6	156	1031	764	11.8	177	1.9	2544	69.3	224	2.7	5	72	115	28	36
	4	107	726	538	11.4	125	1.0	1796	70.6	158	1.4	3	62	110	22	30
	1.5	56	390	289	10.8	67	0.3	978	73.1	86	0.4	2	57	149	15	23

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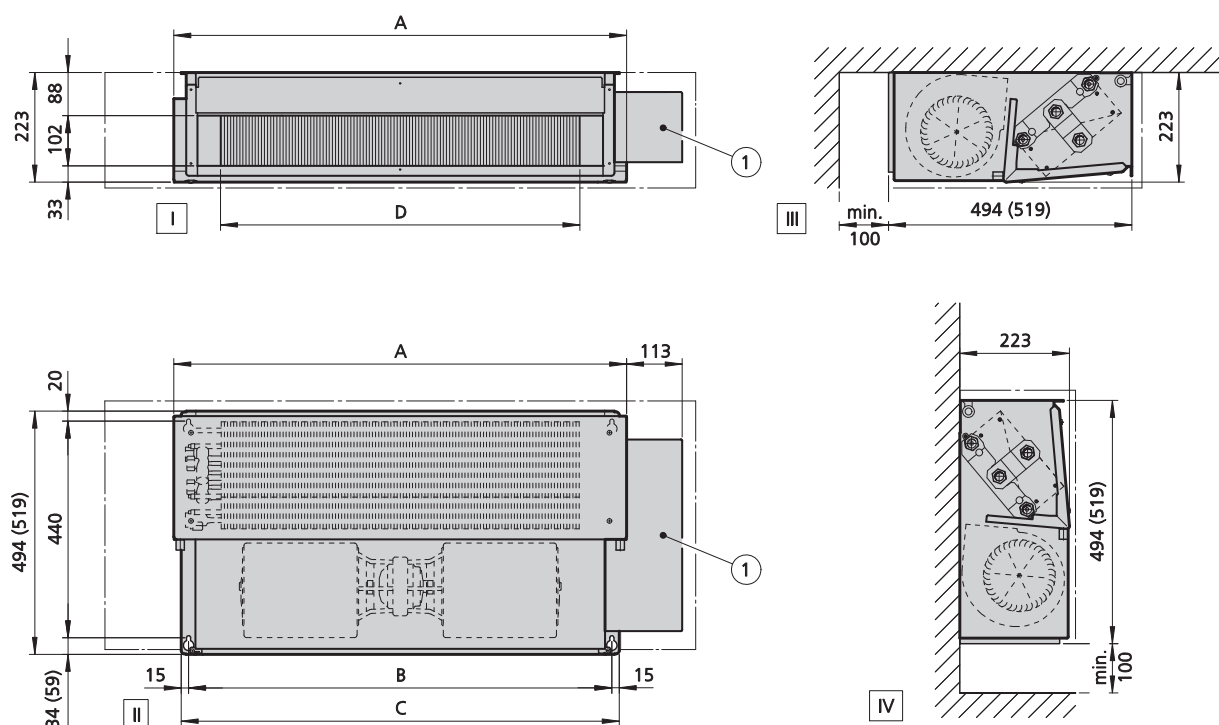
²⁾ at LPHW 75/65 °C, t_{i1} = 20 °C

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Venkon

4-pipe 63

Technical drawing (Dimensions in mm)



View

- I front view (ceiling-mounted model)
- II view from below (ceiling version)
- III side view (ceiling model)
- IV side view (wall model)

Further information

- ① there is no need for EC1M control with electromechanical or external control version

Specifications

Filter class	Basic unit width (A) [mm]	Spacing of suspension points (B) [mm]	Rear wall (C) [mm]	Air discharge opening (D) [mm]	Weight [kg]	System	Connection	Connection Heating	Connection Cooling
Filter ISO Coarse (G0)	925	860	890	731	27	4-pipe	---	1/2"	1/2"
Filter ePM10>50% (M5)	925	860	890	731	27	4-pipe	---	1/2"	1/2"
Filter ePM1>50% (F7)	925	860	890	731	27	4-pipe	---	1/2"	1/2"

Performance data

Filter class	Control voltage	Air flow	Cooling output, total ¹⁾	Cooling output, sensible	Outlet air temperature	Mass Flow cooling	Pressure loss cooling	Heat output ²⁾	Outlet air temperature	Pressure loss heating	Pressure loss heating	Power consumption	Current consumption	SFP value	Sound pressure level ³⁾	Sound power level
	[V]	[m³/h]	[W]	[W]	[°C]	[l/h]	[kPa]	[W]	[°C]	[l/h]	[kPa]	[W]	[mA]	[Ws/m³]	[dB(A)]	[dB(A)]
ISO Coarse filter	10	858	4722	3500	14.3	811	30.0	8244	49.0	727	84.4	50	441	210	50	58
	8	684	3826	2836	14.1	658	19.9	6923	50.5	610	61.6	26	241	138	43	51
	6	380	2212	1639	13.6	380	6.9	4358	54.6	384	26.8	6	84	61	28	36
	4	297	1755	1301	13.4	302	4.4	3568	56.3	315	18.7	4	67	52	22	30
	1.5	188	1152	854	12.9	198	1.9	2455	59.4	216	9.5	3	58	51	15	23
Filter ePM10>50% (M5)	10	693	3873	2871	14.1	666	20.4	6994	50.4	616	62.7	46	405	237	50	58
	8	530	3017	2237	13.9	519	12.6	5674	52.3	500	43.0	23	217	157	43	51
	6	258	1542	1143	13.3	265	3.4	3187	57.2	281	15.2	6	77	80	28	36
	4	186	1140	845	12.9	196	1.9	2434	59.4	214	9.4	4	64	72	22	30
	1.5	105	676	501	12.1	116	0.7	1492	63.0	131	3.9	2	58	81	15	23
Filter ePM1>50% (F7)	10	526	2994	2219	13.9	514	12.4	5636	52.3	497	42.5	39	354	270	50	58
	8	376	2187	1621	13.6	376	6.7	4317	54.7	380	26.3	19	185	185	43	51
	6	156	969	718	12.7	166	1.4	2095	60.6	185	7.1	5	72	115	28	36
	4	107	690	512	12.2	119	0.7	1522	62.9	134	4.0	3	62	110	22	30
	1.5	56	378	280	11.3	65	0.2	855	66.4	75	1.4	2	57	149	15	23

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¹⁾ at CHW 7/12 °C, t_{l1} = 27 °C, 48% relative humidity

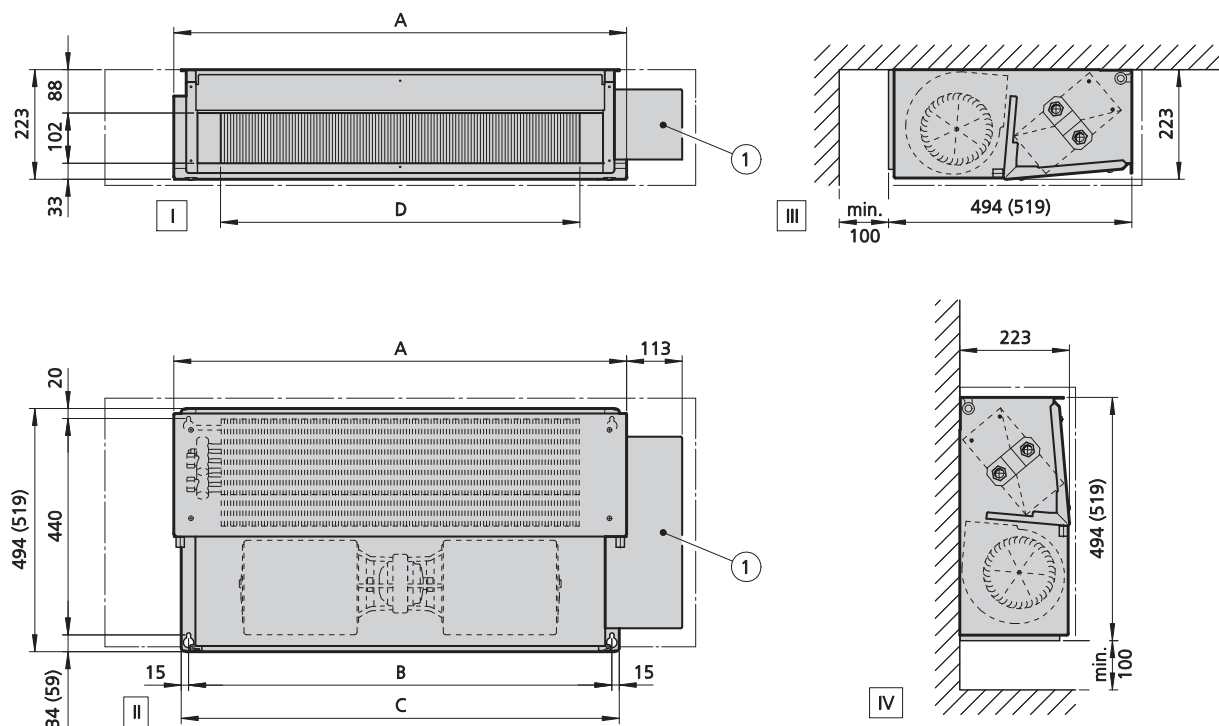
²⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Venkon

66 2-pipe

Technical drawing (Dimensions in mm)



View

- I front view (ceiling-mounted model)
- II view from below (ceiling version)
- III side view (ceiling model)
- IV side view (wall model)

Further information

- ① there is no need for EC1M control with electromechanical or external control version

Specifications

Filter class	Basic unit width (A) [mm]	Spacing of suspension points (B) [mm]	Rear wall (C) [mm]	Air discharge opening (D) [mm]	Weight [kg]	System	Connection	Connection Heating	Connection Cooling
Filter ISO Coarse (G0)	1375	1310	1340	1181	38	2-pipe	3/4"	---	---
Filter ePM10>50% (M5)	1375	1310	1340	1181	37	2-pipe	3/4"	---	---
Filter ePM1>50% (F7)	1375	1310	1340	1181	38	2-pipe	3/4"	---	---

Performance data

Filter class	Control voltage	Air flow	Cooling output, total ¹⁾	Cooling output, sensible	Outlet air temperature	Mass Flow cooling	Pressure loss cooling	Heat output ²⁾	Outlet air temperature	Pressure loss heating	Pressure loss heating	Power consumption	Current consumption	SFP value	Sound pressure level ³⁾	Sound power level
	[V]	[m³/h]	[W]	[W]	[°C]	[l/h]	[kPa]	[W]	[°C]	[l/h]	[kPa]	[W]	[mA]	[Ws/m³]	[dB(A)]	[dB(A)]
ISO Coarse filter	10	1410	8692	6443	12.8	1494	18.7	20520	63.9	1809	22.3	94	834	240	54	62
	8	1107	6907	5120	12.6	1187	11.9	16335	64.5	1440	14.4	46	460	151	48	56
	6	634	4058	3008	12.3	697	4.2	9640	65.9	850	5.2	13	245	74	34	42
	4	490	3174	2353	12.1	545	2.6	7551	66.5	666	3.3	8	227	62	29	37
	1.5	316	2096	1553	11.7	360	1.1	5003	67.7	441	1.5	5	218	57	20	28
Filter ePM10>50% (M5)	10	1141	7112	5272	12.7	1222	12.6	16815	64.4	1482	15.2	84	760	266	54	62
	8	850	5373	3983	12.5	923	7.2	12733	65.2	1122	8.9	40	418	171	48	56
	6	430	2802	2077	12.0	482	2.0	6673	66.8	588	2.6	11	238	95	34	42
	4	314	2083	1544	11.7	358	1.1	4973	67.7	438	1.5	8	224	89	29	37
	1.5	184	1259	933	11.3	216	0.4	3038	69.8	268	0.6	5	217	98	20	28
Filter ePM1>50% (F7)	10	869	5487	4067	12.5	943	7.6	13002	65.1	1146	9.3	73	671	303	54	62
	8	601	3856	2859	12.2	663	3.8	9163	66.0	808	4.8	34	371	203	48	56
	6	262	1756	1302	11.6	302	0.8	4203	68.4	370	1.1	10	231	135	34	42
	4	182	1243	921	11.3	214	0.4	3001	69.8	264	0.6	7	222	140	29	37
	1.5	97	683	506	10.8	117	0.1	1690	72.5	149	0.2	5	216	169	20	28

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¹⁾ at CHW 7/12 °C, t_{i1} = 27 °C, 48% relative humidity

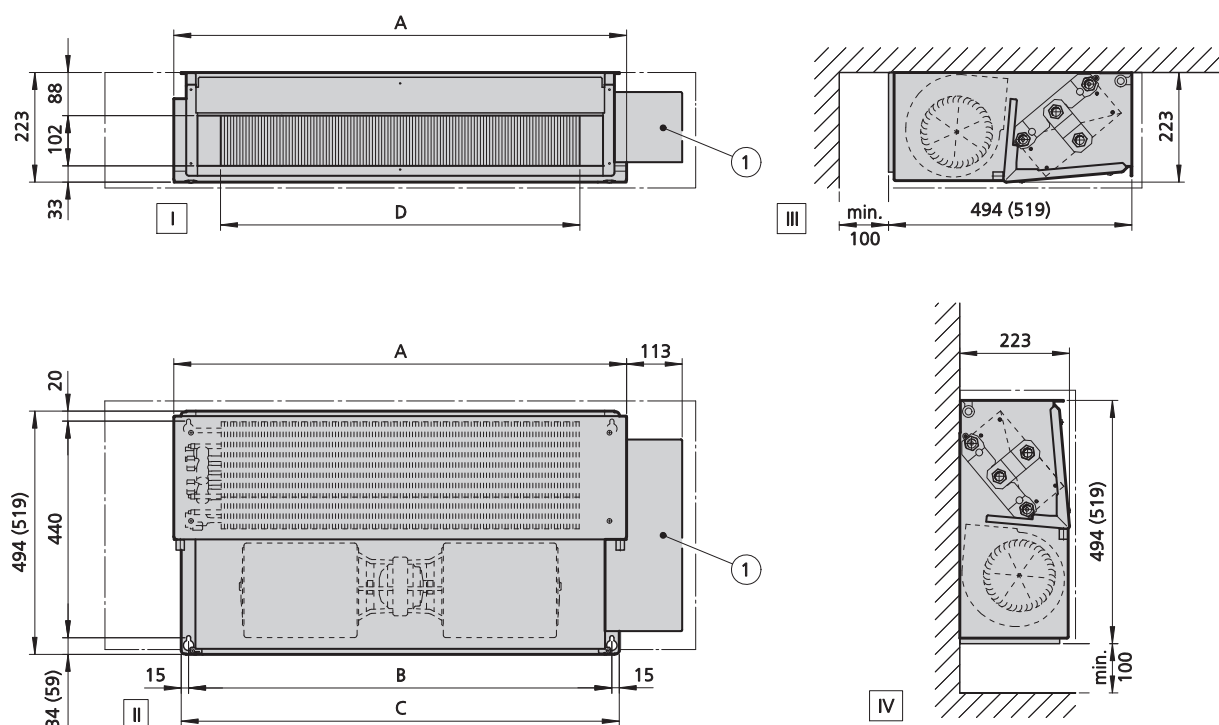
²⁾ at LPHW 75/65 °C, t_{i1} = 20 °C

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Venkon

66 4-pipe

Technical drawing (Dimensions in mm)



View

- I front view (ceiling-mounted model)
- II view from below (ceiling version)
- III side view (ceiling model)
- IV side view (wall model)

Further information

- ① there is no need for EC1M control with electromechanical or external control version

Specifications

Filter class	Basic unit width (A) [mm]	Spacing of suspension points (B) [mm]	Rear wall (C) [mm]	Air discharge opening (D) [mm]	Weight [kg]	System	Connection	Connection Heating	Connection Cooling
Filter ISO Coarse (G0)	1375	1310	1340	1181	38	4-pipe	---	1/2"	3/4"
Filter ePM10>50% (M5)	1375	1310	1340	1181	38	4-pipe	---	1/2"	3/4"
Filter ePM1>50% (F7)	1375	1310	1340	1181	39	4-pipe	---	1/2"	3/4"

Performance data

Filter class	Control voltage	Air flow	Cooling output, total ¹⁾	Cooling output, sensible	Outlet air temperature	Mass Flow cooling	Pressure loss cooling	Heat output ²⁾	Outlet air temperature	Pressure loss heating	Pressure loss heating	Power consumption	Current consumption	SFP value	Sound pressure level ³⁾	Sound power level
	[V]	[m³/h]	[W]	[W]	[°C]	[l/h]	[kPa]	[W]	[°C]	[l/h]	[kPa]	[W]	[mA]	[Ws/m³]	[dB(A)]	[dB(A)]
ISO Coarse filter	10	1410	7257	5380	15.2	1247	11.2	12565	46.9	1107	50.3	94	834	240	54	62
	8	1107	5812	4308	14.9	999	7.6	10457	48.5	922	36.3	46	460	151	48	56
	6	634	3477	2578	14.4	598	3.0	6793	52.3	599	16.9	13	245	74	34	42
	4	490	2746	2035	14.1	472	2.0	5542	54.1	488	11.7	8	227	62	29	37
	1.5	316	1848	1370	13.5	318	1.0	3893	57.1	343	6.3	5	218	57	20	28
Filter ePM10>50% (M5)	10	1141	5978	4431	14.9	1027	8.0	10705	48.3	943	37.8	84	760	266	54	62
	8	850	4559	3380	14.7	784	4.9	8541	50.3	753	25.3	40	418	171	48	56
	6	430	2438	1807	13.9	419	1.6	4992	55.0	440	9.7	11	238	95	34	42
	4	314	1838	1362	13.5	316	1.0	3873	57.2	341	6.2	8	224	89	29	37
	1.5	184	1141	846	12.7	196	0.4	2475	60.5	218	2.8	5	217	98	20	28
Filter ePM1>50% (F7)	10	869	4653	3449	14.7	800	5.1	8688	50.1	766	26.1	73	671	303	54	62
	8	601	3310	2454	14.3	569	2.8	6514	52.7	574	15.6	34	371	203	48	56
	6	262	1564	1159	13.3	269	0.7	3335	58.4	294	4.8	10	231	135	34	42
	4	182	1127	836	12.7	194	0.4	2447	60.6	216	2.7	7	222	140	29	37
	1.5	97	638	473	11.9	110	0.1	1426	64.3	126	1.0	5	216	169	20	28

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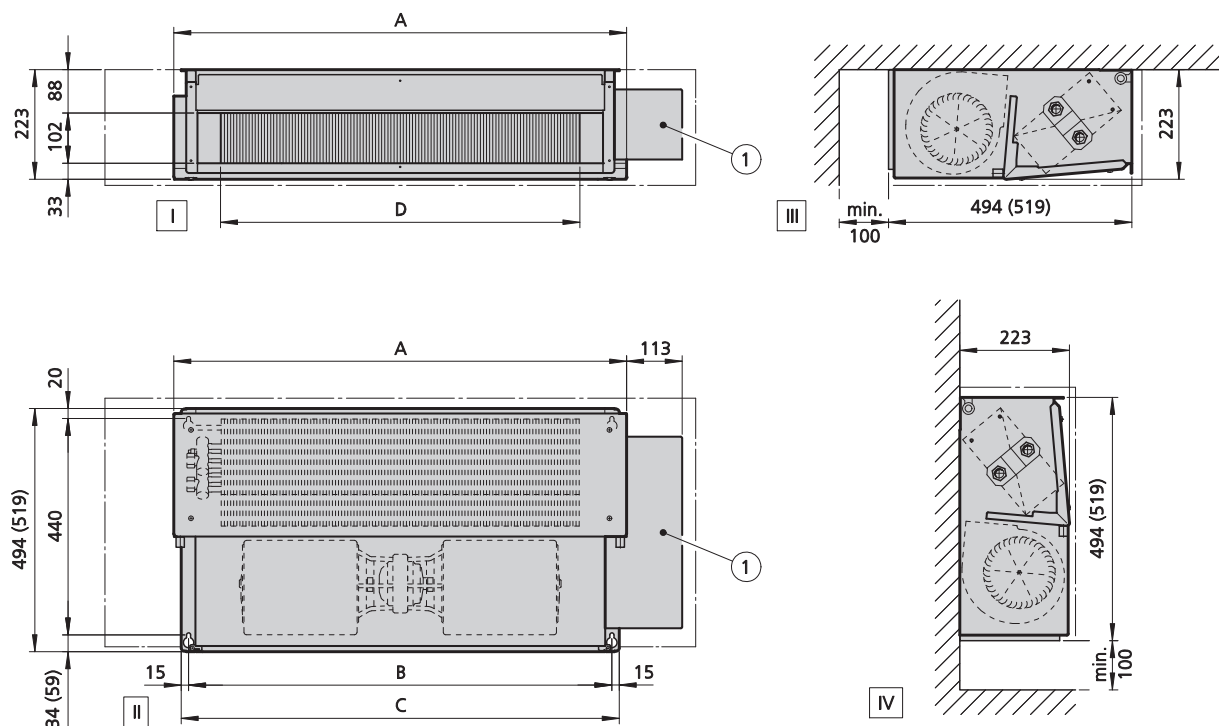
²⁾ at LPHW 75/65 °C, t_{r1} = 20 °C

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Venkon

2-pipe 67

Technical drawing (Dimensions in mm)



View

- I front view (ceiling-mounted model)
- II view from below (ceiling version)
- III side view (ceiling model)
- IV side view (wall model)

Further information

- ① there is no need for EC1M control with electromechanical or external control version

Specifications

Filter class	Basic unit width (A) [mm]	Spacing of suspension points (B) [mm]	Rear wall (C) [mm]	Air discharge opening (D) [mm]	Weight [kg]	System	Connection	Connection Heating	Connection Cooling
Filter ISO Coarse (G0)	1725	1660	1690	1531	48	2-pipe	3/4"	---	---
Filter ePM10>50% (M5)	1725	1660	1690	1531	47	2-pipe	3/4"	---	---
Filter ePM1>50% (F7)	1725	1660	1690	1531	47	2-pipe	3/4"	---	---

Performance data

Filter class	Control voltage	Air flow	Cooling output, total ¹⁾	Cooling output, sensible	Outlet air temperature	Mass Flow cooling	Pressure loss cooling	Heat output ²⁾	Outlet air temperature	Pressure loss heating	Pressure loss heating	Power consumption	Current consumption	SFP value	Sound pressure level ³⁾	Sound power level
	[V]	[m³/h]	[W]	[W]	[°C]	[l/h]	[kPa]	[W]	[°C]	[l/h]	[kPa]	[W]	[mA]	[Ws/m³]	[dB(A)]	[dB(A)]
ISO Coarse filter	10	1713	11351	8414	11.8	1951	36.2	26532	66.7	2338	41.8	100	887	211	53	61
	8	1363	9101	6746	11.6	1564	23.4	21341	67.2	1881	27.7	52	509	137	46	54
	6	766	5204	3858	11.4	894	7.8	12301	68.4	1084	9.8	13	250	60	31	39
	4	588	4020	2980	11.3	691	4.7	9537	68.9	841	6.1	9	232	53	26	34
	1.5	355	2466	1828	11.0	424	1.8	5891	70.0	519	2.5	5	226	48	18	26
Filter ePM10>50% (M5)	10	1369	9137	6773	11.6	1570	23.6	21423	67.2	1888	27.9	90	810	237	53	61
	8	1047	7049	5225	11.5	1211	14.2	16590	67.8	1462	17.3	46	463	159	46	54
	6	498	3424	2538	11.2	588	3.4	8139	69.3	717	4.5	11	242	81	31	39
	4	359	2493	1848	11.0	428	1.8	5954	70.0	525	2.5	7	229	72	26	34
	1.5	206	1454	1078	10.7	250	0.6	3520	71.6	310	0.9	5	225	82	18	26
Filter ePM1>50% (F7)	10	1029	6932	5138	11.5	1191	13.7	16317	67.8	1438	16.7	77	710	271	53	61
	8	735	4999	3706	11.4	859	7.2	11823	68.5	1042	9.1	38	407	188	46	54
	6	299	2086	1546	10.9	358	1.3	4999	70.5	441	1.8	9	236	114	31	39
	4	206	1457	1080	10.7	250	0.6	3528	71.6	311	0.9	7	227	116	26	34
	1.5	107	769	570	10.5	132	0.2	1908	73.7	168	0.3	4	224	148	18	26

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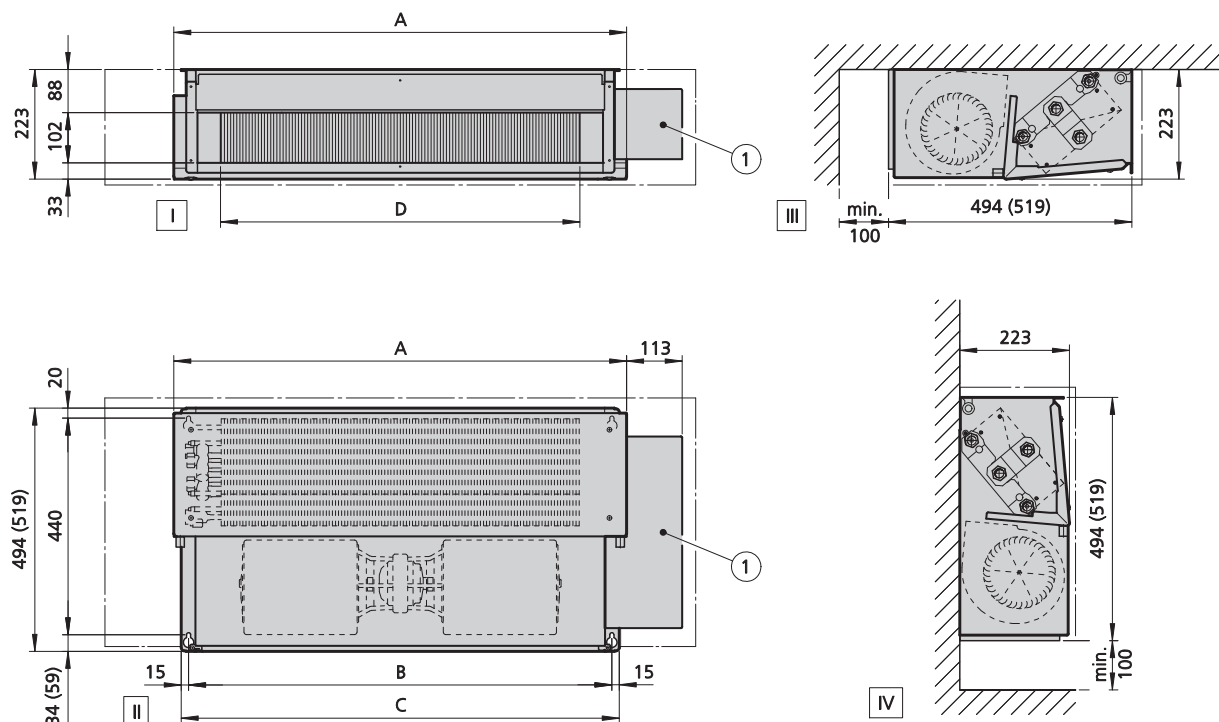
²⁾ at LPHW 75/65 °C, t_{r1} = 20 °C

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Venkon

67 4-pipe

Technical drawing (Dimensions in mm)



View

- I front view (ceiling-mounted model)
- II view from below (ceiling version)
- III side view (ceiling model)
- IV side view (wall model)

Further information

- ① there is no need for EC1M control with electromechanical or external control version

Specifications

Filter class	Basic unit width (A) [mm]	Spacing of suspension points (B) [mm]	Rear wall (C) [mm]	Air discharge opening (D) [mm]	Weight [kg]	System	Connection	Connection Heating	Connection Cooling
Filter ISO Coarse (G0)	1725	1660	1690	1531	48	4-pipe	---	1/2"	3/4"
Filter ePM10>50% (M5)	1725	1660	1690	1531	47	4-pipe	---	1/2"	3/4"
Filter ePM1>50% (F7)	1725	1660	1690	1531	47	4-pipe	---	1/2"	3/4"

Performance data

Filter class	Control voltage	Air flow	Cooling output, total ¹⁾	Cooling output, sensible	Outlet air temperature	Mass Flow cooling	Pressure loss cooling	Heat output ²⁾	Outlet air temperature	Pressure loss heating	Pressure loss heating	Power consumption	Current consumption	SFP value	Sound pressure level ³⁾	Sound power level
	[V]	[m³/h]	[W]	[W]	[°C]	[l/h]	[kPa]	[W]	[°C]	[l/h]	[kPa]	[W]	[mA]	[Ws/m³]	[dB(A)]	[dB(A)]
ISO Coarse filter	10	1713	9967	7388	13.6	1713	24.5	16113	48.4	1420	93.4	100	887	211	53	61
	8	1363	8044	5963	13.4	1382	16.4	13521	49.9	1192	68.1	52	509	137	46	54
	6	766	4674	3465	13.0	803	5.9	8610	53.9	759	30.3	13	250	60	31	39
	4	588	3639	2697	12.8	625	3.7	6961	55.7	614	20.6	9	232	53	26	34
	1.5	355	2271	1684	12.3	390	1.5	4610	59.1	406	9.8	5	226	48	18	26
Filter ePM10>50% (M5)	10	1369	8074	5985	13.4	1388	16.5	13563	49.9	1195	68.5	90	810	237	53	61
	8	1047	6276	4653	13.2	1079	10.3	11016	51.7	971	47.1	46	463	159	46	54
	6	498	3115	2309	12.6	535	2.8	6089	56.9	537	16.2	11	242	81	31	39
	4	359	2295	1701	12.3	394	1.6	4653	59.1	410	10.0	7	229	72	26	34
	1.5	206	1371	1017	11.7	236	0.6	2902	62.6	256	4.3	5	225	82	18	26
Filter ePM1>50% (F7)	10	1029	6175	4577	13.2	1061	10.0	10868	51.8	958	46.0	77	710	271	53	61
	8	735	4494	3332	12.9	772	5.5	8331	54.2	734	28.5	38	407	188	46	54
	6	299	1934	1434	12.1	332	1.1	3989	60.3	352	7.6	9	236	114	31	39
	4	206	1374	1019	11.7	236	0.6	2908	62.5	256	4.3	7	227	116	26	34
	1.5	107	745	552	11.0	128	0.2	1639	66.2	144	1.5	4	224	148	18	26

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¹⁾ at CHW 7/12 °C, t_{i1} = 27 °C, 48% relative humidity

²⁾ at LPHW 75/65 °C, t_{i1} = 20 °C

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

03 ▶ Design information



Information on planning and design

Venkons are suitable for use in all kinds of buildings in which there is a cooling load owing to internal loads and the effects of sunlight and/or a heating load in winter.

Cooling load

The cooling load required is calculated in line with VDI 2078 (VDI regulations governing cooling loads).

The usual cold water temperature spread is approximately 5 K. Take into account the effective unit outputs in line with the technical conditions of installation and use. Check the suitability of all components (circulation pump etc.) for use with cold water is, noting the minimum temperatures.

Heating load

The required heating load is calculated in accordance with DIN EN 12831.

Choice of the installation site

Take into account the following requirements when choosing your installation location:

- ▶ no obstacles to air distribution and air inlet
- ▶ option to inspect the entire unit
- ▶ wall-mounted minimum distance from the occupied zone 1 m
- ▶ positioning of the PowerKon NT in coordination with the architecture and building services planning

Acoustics

When designing a system, note that disruptive noise may occur at higher fan speeds. The respective sound power levels of a Venkon are listed in the tables (see "Technical data"). The sound pressure level was calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081).

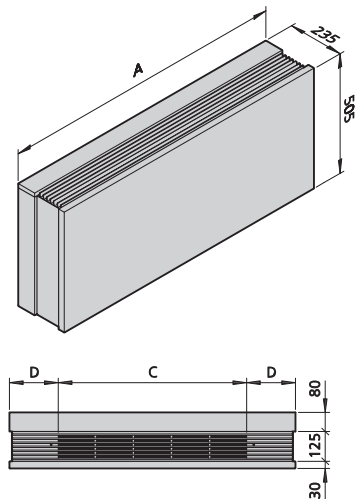
As the sound level is not only due to the Venkon but is also influenced by the number of units and also very significantly by the acoustic characteristics of the room, the actual figure may vary in practice. We would recommend designing Venkons taking into account the respective permitted sound pressure level in the room.

Comfort

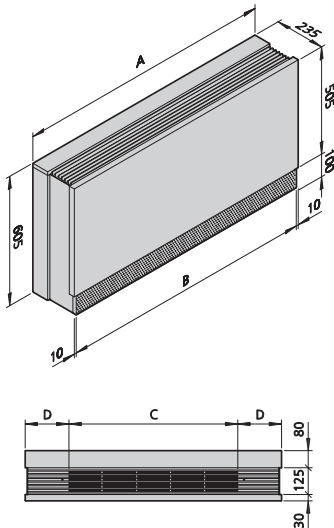
The comfort was calculated taking into consideration DIN EN ISO 7730 (May 2006) "Ergonomics of the thermal environment – analytical determination and interpretation of thermal comfort by calculation of the PMV and the PDB indexes and criteria of local thermal comfort (ISO 7730: 2005). The air outlet and air flows are optimised in detail in accordance with this standard.

Casing selection

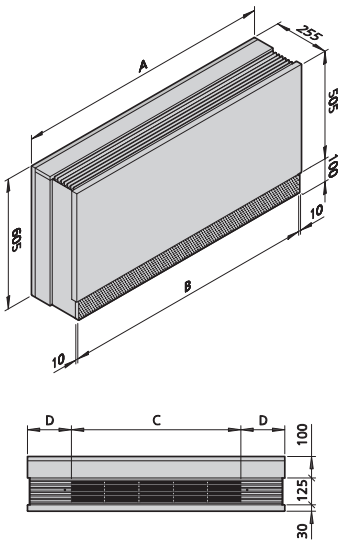
Casing, wall-mounted without inlet grille



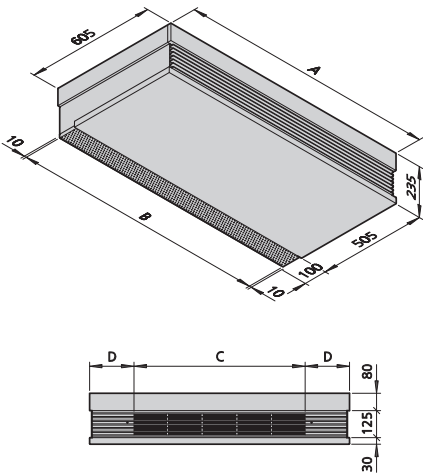
Casing, wall-mounted with inlet grille



Free-standing casing without air inlet grille with rear panel



Casing, ceiling-mounted with inlet grille

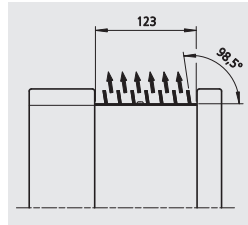


Dimensions

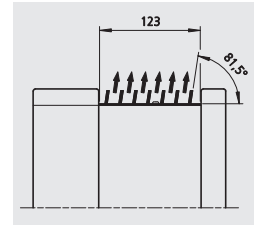
Model	A	W	C	D
	[mm]	[mm]	[mm]	[mm]
61	900	880	470	215
63	1200	1180	790	205
66	1650	1630	1270	190
67	2000	1980	1590	205

Air discharge direction

The air flow direction is defined by the mounting position of the ventilation grille. As standard, the air flows towards the wall/ceiling from the air grille. The air can also be discharged on the room side by rotating the ventilation grille.



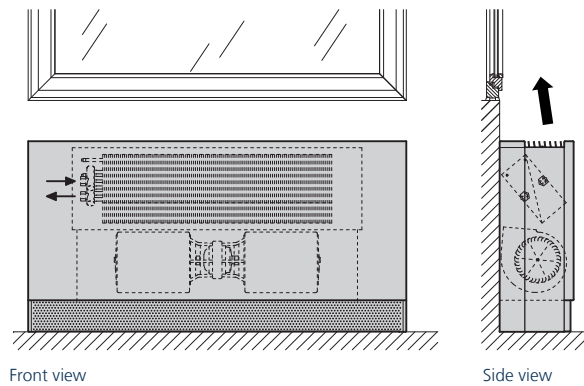
Standard air discharge direction



Alternative air discharge direction

Connections, definition of the water connection side

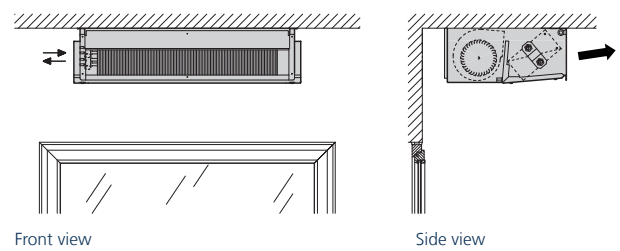
Water connection on left, illustrated by Venkon with casing, wall-standing



Front view

Side view

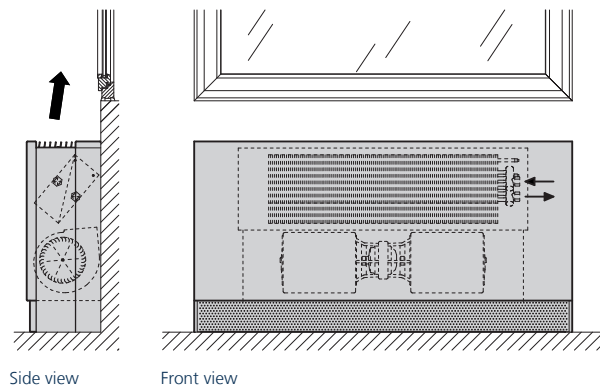
Water connection on left, illustrated by Venkon basic unit, ceiling-mounted model



Front view

Side view

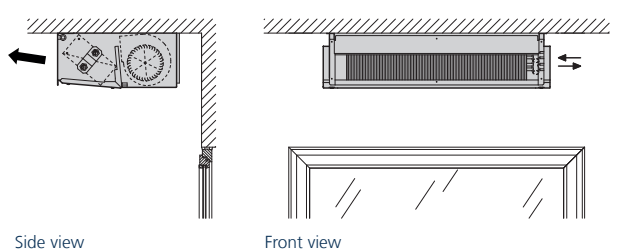
Water connection on right, illustrated by Venkon with casing, wall-standing



Side view

Front view

Water connection on right, illustrated by Venkon basic unit, ceiling-mounted model



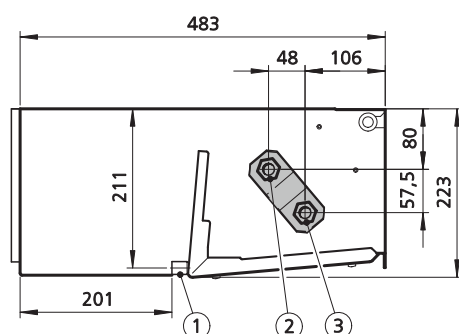
Side view

Front view

Water connections

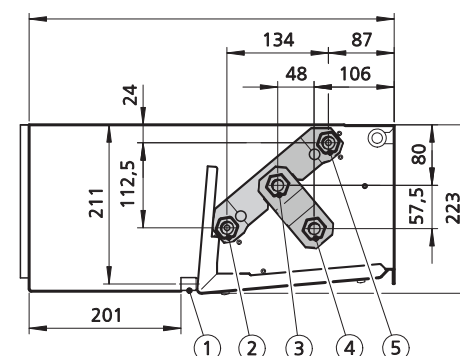
2-pipe

(all dimensions in mm)



- ① Condensation connection Ø 15 mm
- ② Heating or cooling return Rp 1/2" / Rp 3/4" *
- ③ Heating or cooling flow Rp 1/2" / Rp 3/4" *

4-pipe

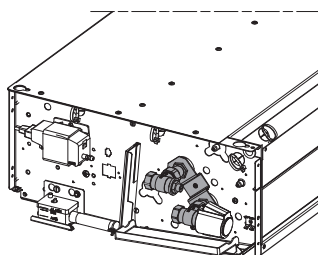


- ① Condensation connection Ø 15 mm
- ② Heating return Rp 1/2"
- ③ Cooling return Rp 1/2" / Rp 3/4" *
- ④ Cooling flow Rp 1/2" / Rp 3/4" *
- ⑤ Heating flow Rp 1/2"

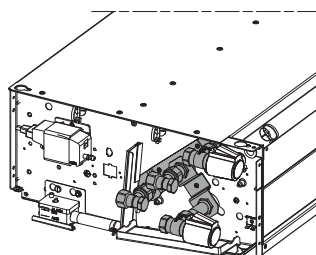
Models 61 – 63 1/2", models 66 – 67: 3/4"

Water connection accessories, valve kit selection

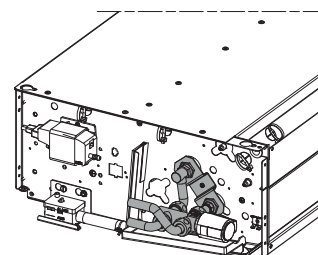
2-way valve kit, 2-pipe



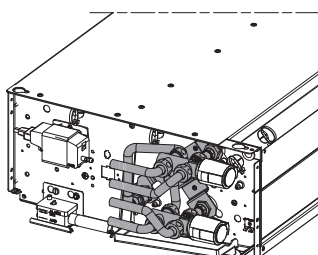
2-way valve kit, 4-pipe



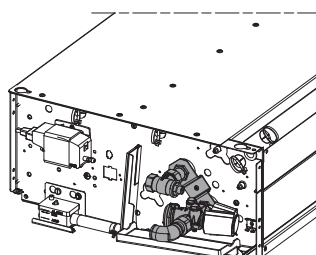
3-way valve kit, 2-pipe



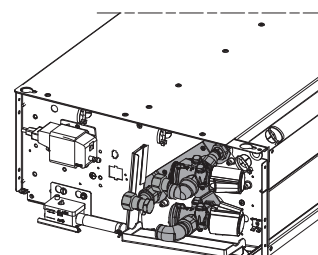
3-way valve kit, 4-pipe



Differential pressure-independent valve kit, 2-pipe



Differential pressure-independent valve kit, 4-pipe



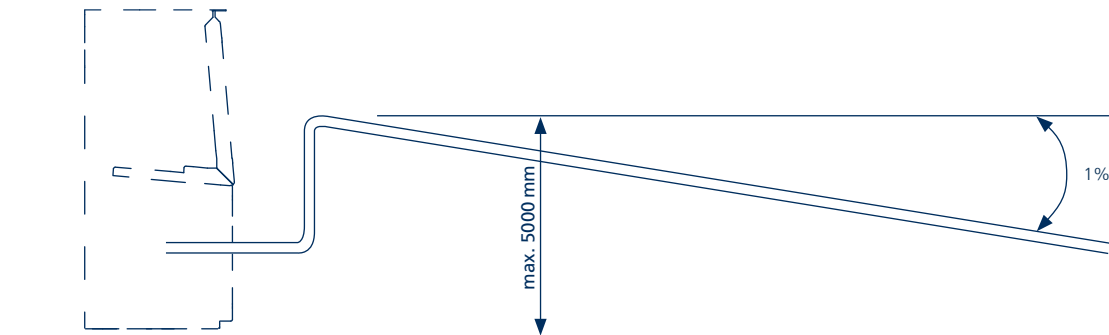
Condensation drain

Condensation is produced if Venkons are operated at a system temperature below the dew point. The condensation from the heat exchanger drips into the condensate tray underneath. You will need a condensation pump (optional accessories) should a natural gradient be impossible on site. This is used to pump the condensation into higher collection or discharge equipment.

The condensation to be disposed of from the Venkon, directly from the condensation tray or from the condensation pump hose, has to follow a minimum 1% gradient. The condensation has to be collected in a pool pump on site if it has to be drained higher than the integrated pump allows.

Important:

The condensation can be monitored via a dewpoint sensor fitted to the basic unit with "dry cooling" (optional accessories).

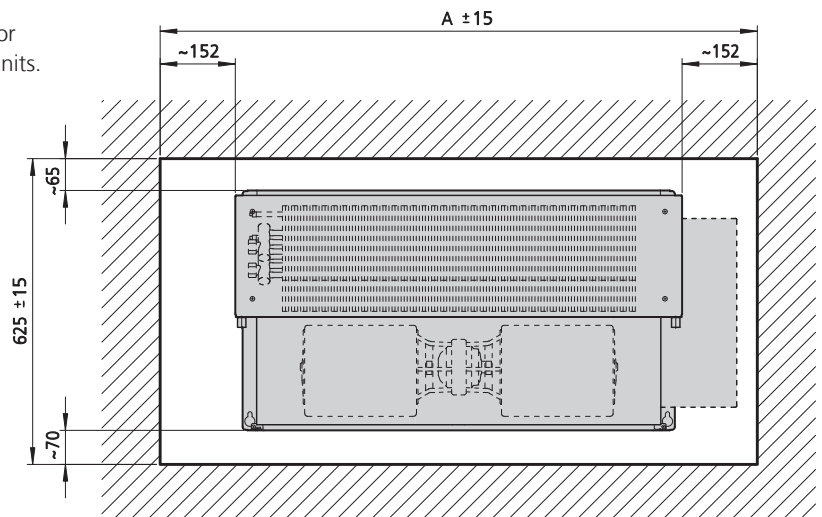


Schematic diagram

Inspection hatch

Provide the following service opening dimensions for maintenance and inspection of suspended ceiling units.

Model	Opening dimension ceiling width A ±15
	[mm]
61	925
63	1225
66	1675
67	2025



04 ▶ Controls

Control - Venkon EC electromechanical model

Product features

All factory-fitted actuators are wired to the terminal with the electromechanical model. If no valve actuators are factory-fitted, support terminals are available for on-site valve actuators.

Fans

The speed of EC fans used is continuously variably controlled by a 0-10 V DC signal. The "intelligent" motor electronics detects any possible motor fault and

automatically switched the fan off.

A potential-free motor fault signal contact is also available for external evaluation with the *01M control version.

Operating units

Three different operating units are available for operation and control.

Room thermostat type 196000030155



Room thermostat for 3-stage speed control for surface wall-mounted installation in an attractive restrained design

Product features:

- ▶ 2- and 4-pipe applications, thermal valve actuators 230 V AC Open/Closed, normally closed
- ▶ ABS plastic housing, functional and robust design, pure white, similar to RAL 9010, for surface-mounting on a flush back box or surface-mounted using a surface-mounted frame (accessory)
- ▶ simple operation using a large dial for temperature setting with mechanical range limitation of the temperature setpoint, operating mode selector switch: Standby, Manual fan, Automatic an, 3-stage switch to pre-select fan speed when operating mode selector switch is in the "Manual fan" position
- ▶ control input for heating/cooling changeover with 2-pipe systems
- ▶ control input can either be set to Comfort/ECO or ON/OFF switchover
- ▶ room frost protection function $< 5\text{ °C} \rightarrow$ heating valve open, fan stage 3
- ▶ optional use of the internal or external room temperature sensor (accessory)
- ▶ parallel operation of 2 units is possible

Clock thermostat type 196000030256



Clock thermostat for speed control for surface wall-mounted installation in an attractive restrained design

Product features:

- ▶ 2- and 4-pipe applications, thermal valve actuators 230 V AC Open/Closed, normally closed
- ▶ ABS plastic housing, robust design, pure white, similar to RAL 9010, for surface-mounting on a flush back box, integration in switch product range with dimensions 50 x 50 mm
- ▶ display with adjustable backlight
- ▶ operation using 4 sensor keys
- ▶ timer with automatic summer/winter changeover
- ▶ control input for heating/cooling changeover with 2-pipe systems
- ▶ control input can either be set to Comfort/ECO or ON/OFF switchover
- ▶ unit frost protection function $< 5\text{ °C} \rightarrow$ valve(s) open
- ▶ optional use of the internal or external room temperature sensor (accessory)
- ▶ parallel operation of 2 units is possible

Klima controller type 196000148941 / type 196000148942 / type 196000148943 / type 196000148944



The Klima controller is a control unit with a high-quality glass finish

Product features:

- ▶ 2- and 4-pipe - applications, thermal valve actuators 230 V AC Open/Closed, normally closed
- ▶ 2.5" LCD display
- ▶ high-quality glass surface with capacitive keys
- ▶ LED ring acts as key feedback
- ▶ selection of the value to be displayed (room temperature, setpoint, setpoint offset)
- ▶ automatic LED backlight
- ▶ optional use of the internal or external room temperature sensor (accessory)
- ▶ room temperature control
- ▶ parametrisable room frost protection function
→ $RT < 8^{\circ}\text{C}$ = heating valve open, fan stage 1
- ▶ parametrisable unit frost protection function
→ $RT < 4^{\circ}\text{C}$ = valve(s) on, fan off
- ▶ standby mode
- ▶ Eco/day changeover
- ▶ manual or automatic mode
- ▶ functional display
- ▶ alarm display
- ▶ timer program with 3 time channels, each with 4 switchover points
- ▶ cleaning mode
- ▶ parametrisable language: German or English
- ▶ Modbus RTU slave interface to wire to higher-level building automation system (only with type 148943 and type 148944)
- ▶ 3 control inputs with type 148941 and type 148942 or 2 control inputs with type 148943 and type 148944 (parametrisable functions e.g. window contact, motion detector, heating/cooling changeover, external room sensor)
- ▶ password-protected parameter level
- ▶ surface-mounted installation without back box
- ▶ pure white (type 148941 and type 148943) or black (type 148942 and type 148944)
- ▶ parallel operation of 2 units is possible

Operating using on-site systems

Control via analogue and digital signals is also possible as an alternative to the Kampmann operating units.

The following analogue and digital inputs and / or outputs are needed:

- ▶ speed control via a 0-10 VDC signal, the fan starts up safely at 1.5 V DC
- ▶ control input for the detection of any possible motor fault → only with electromechanical model with fault signal contact (*01M)
- ▶ control input for the detection of a possible condensation alarm → only with electromechanical model with condensation pump or dewpoint sensor
- ▶ analogue or digital signals to control the fan actuator(s) according to the actuator model

Cabling information

The following points need to be taken into account with the cabling and wiring plans stated for the electrical installation.

- ▶ Comply with the details on type of cable and cabling taking into consideration VDE 0100.
- ▶ None *: NYM-J. The requisite number of wires including fuse is stated on the cable. Cross-sections are not indicated as the cable length is involved in the calculation of the cross-section.
- ▶ With *: J-Y(ST)Y 0.8 mm. Lay separately from high-voltage cables.
- ▶ If you are using different cable types they must be at least equivalent to these.
- ▶ The terminals on the unit are suitable for a maximum wire cross-section of 2.5 mm².
- ▶ Only pulse and/or all-current sensitive residual current protective devices (type A or B) are permitted

when using residual current protective devices.

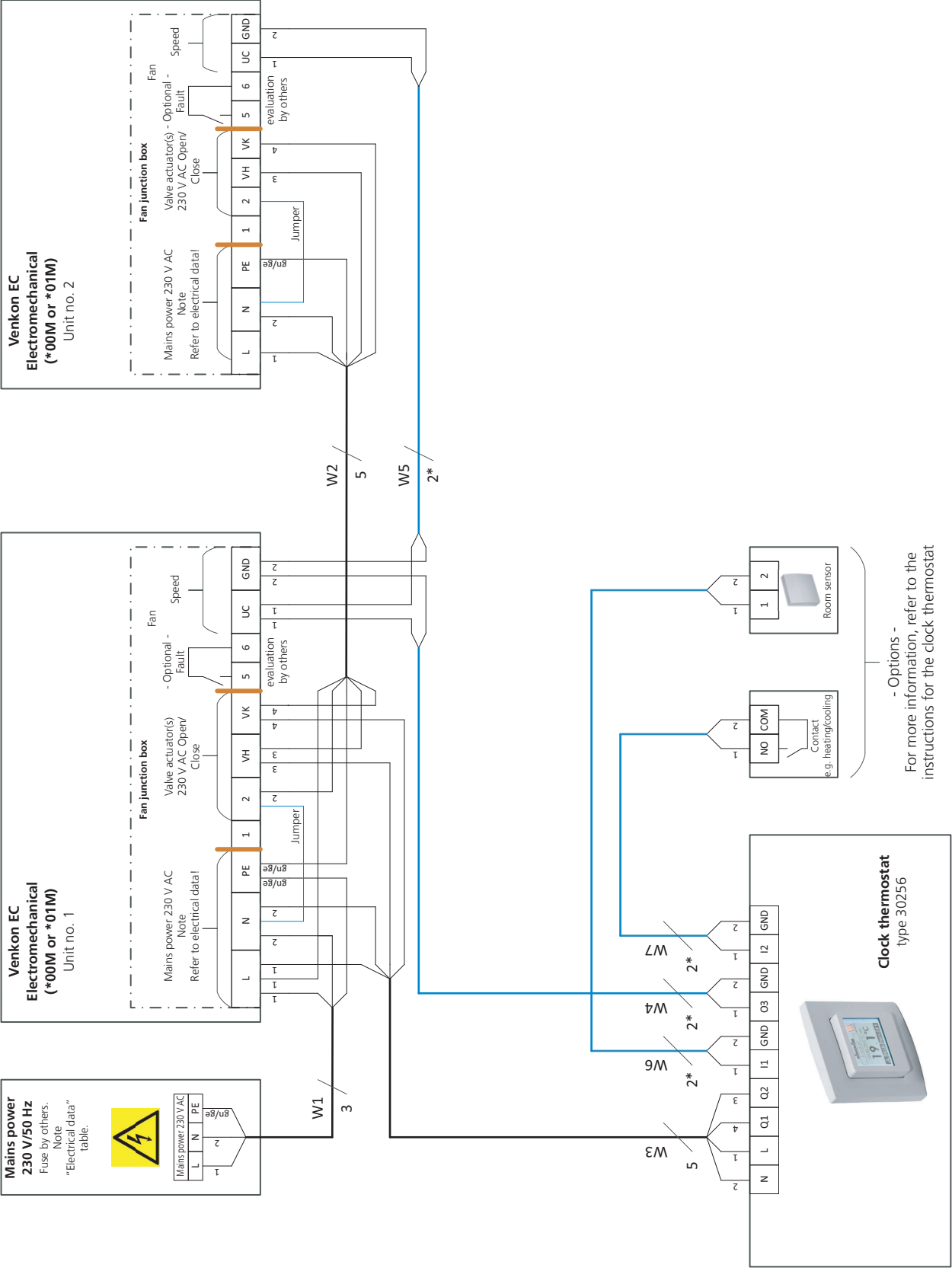
When power is applied to the unit, pulse-like capacitor load currents in the integrated EMC filter can lead to the RCCB being immediately tripped. We recommend residual current protective switches with a threshold of 300 mA and delayed triggering (super resistant, characteristic K).

- ▶ The electrical data listed in the following table needs to be considered when configuring the on-site mains supply and fuses.

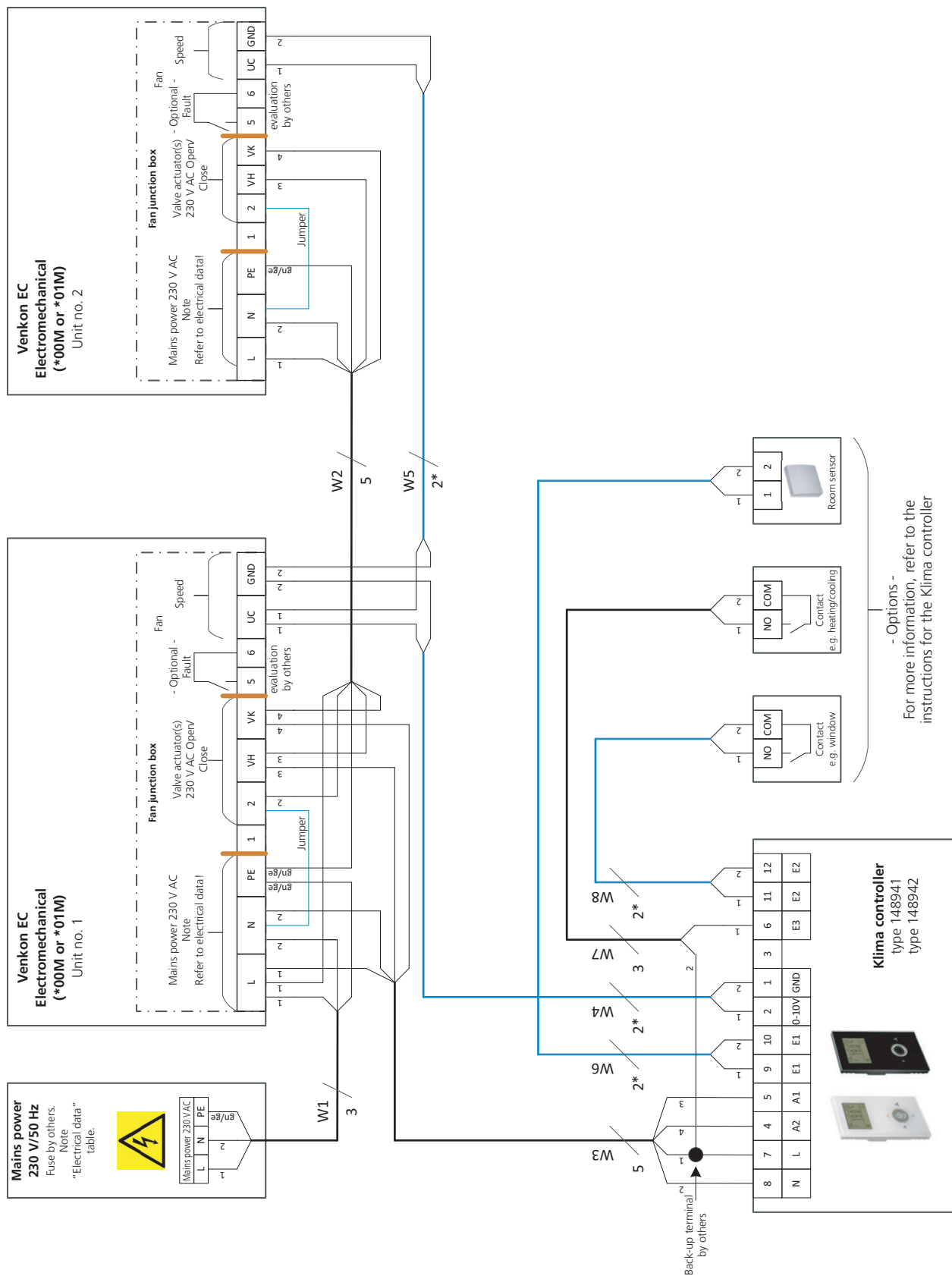
Electrical data for Venkon EC, electromechanical model (*00M / *01M)

Model	Fans	Nominal voltage	Mains frequency	Nominal power	Nominal current	Leakage current	Ri analogue input	Enclosure type	Protection class
	[Quantity]	[V AC]	[Hz]	[W]	[A]	[mA]	[kΩ]		
61	1 x Single	230	50	45	0.39	< 3.5	100	IP21	I
63	1 x Tandem	230	50	51	0.44	< 3.5	100	IP21	I
66	1 x Single, 1 x Tandem	230	50	95	0.84	< 3.5	50	IP21	I
67	2 x Tandem	230	50	102	0.89	< 3.5	50	IP21	I

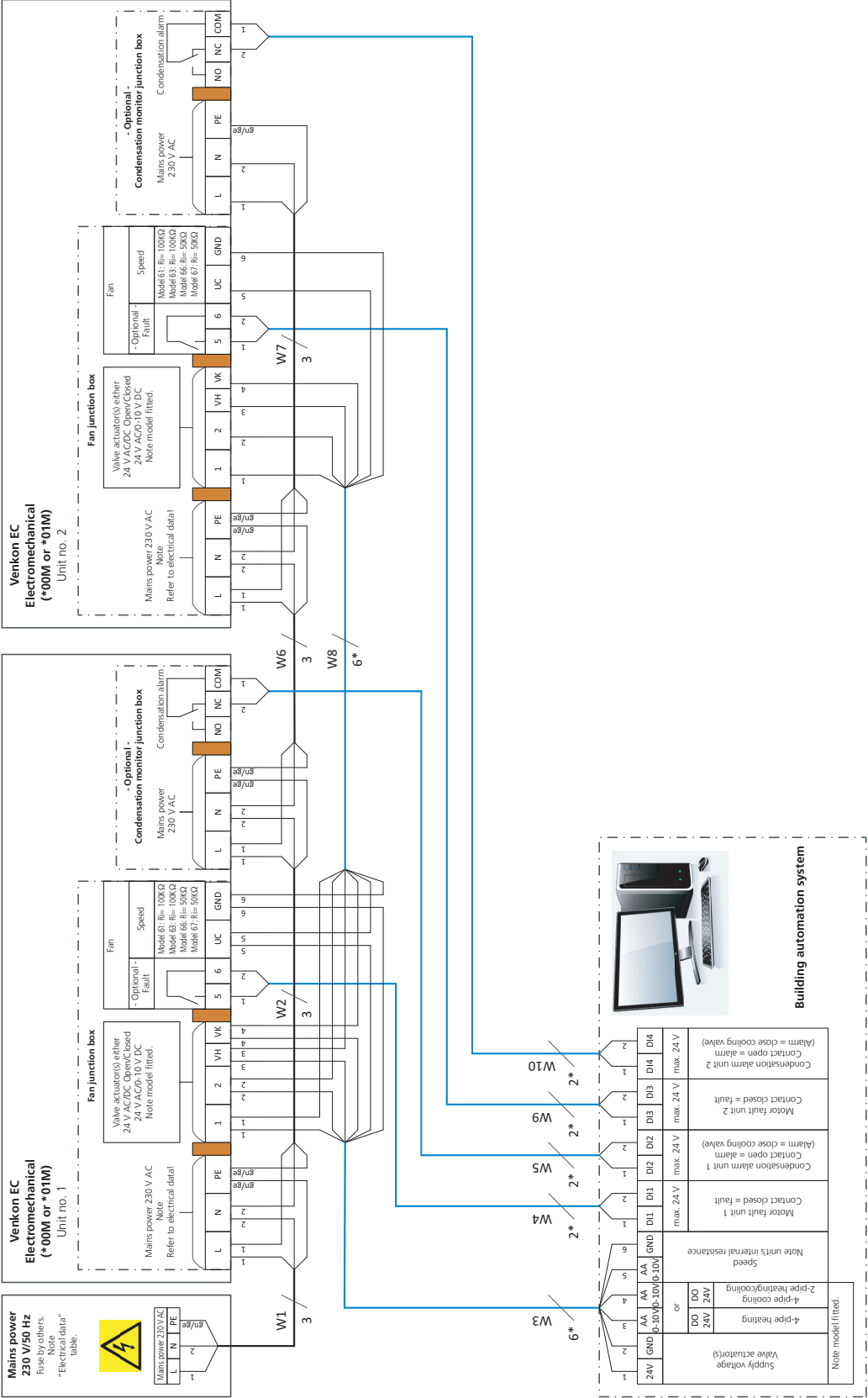
Cabling and wiring for Venkon EC electromechanical (*00M, *01M),
2- or 4-pipe, valve actuator(s) 230 V AC Open/Closed, motor fault optional,
Clock thermostat type 196000030256



Cabling and wiring for Venkon EC electromechanical (*00M, *01M), 2- or 4-pipe, valve actuator(s) 230 V AC Open/Closed, motor fault optional, Klima controller type 196000148941 / 196000148942



Cabling and wiring for Venkon EC electromechanical (*00M, *01M),
2- or 4-pipe, valve actuator(s) 24 V AC/DC Open/Closed or 24 V AC 0-10 V DC,
optional motor fault, optional condensation monitoring, control via DDC/BMS



Control – Venkon EC, KaControl model

The all-inclusive solution!

Product features

Units configured for operation with KaControl are fully wired and fitted with all electrical parts ready for connection (with the exception of optional accessories). The built-in, high-performance, parametrisable KaControl microprocessor control provides all the functions the Venkon needs.

The “face” of the KaControl is the KaController operating unit.

A group of up to six units can be formed using a KaController unit without the need for additional addressing.

Optional plug-in interface cards offer the option of connecting to higher-level control systems.

Fans

The speed of the EC fans used in the units are controlled by a 0-10 V DC signal from the KaControl. The “intelligent” motor electronics detect any possible motor fault and automatically switch the fan off. A motor fault on the unit to which the KaController is connected is displayed on the KaController.

Control unit

Various versions of KaController operating unit are available for operation and control.

KaController type 196003210001



type 196003210002



type 196003210006



The KaController offers maximum operating convenience with a large display, one-touch operation and optionally also with side operating keys for quick access. Based on the principle of “as little as possible, as much as required”, even untrained users can intuitively get to grips with the control options. The displays are language-independent using pictograms. The basic functions are inputted in a user-friendly way using the KaController.

Product features of the KaController

- ▶ plastic housing, colour similar to RAL 9010 (type 196003210001 and 196003210002 or black (type 196003210006) for surface-mounting on a flush back box or surface-mounting a surface-mounted frame (accessory)
- ▶ high-quality design of room control units, large PCD multifunctional display with energy-saving, automatically switching LED backlight
- ▶ push-turn navigator dial with endless turn/lock function
- ▶ side function keys for quick access (only with type 196003210002)
- ▶ integral temperature sensor
- ▶ individually adjustable basic display
- ▶ display of fault messages
- ▶ built-in weekly switching program
- ▶ password-protected parameter level
- ▶ 24 V DC/max 0.5 A switch output parametrisable to unit alarm, heat or cooling demand (only with 2-pipe applications)
- ▶ sequential control of valve (Open/Closed) and fan speed via a (2-pipe) or two data points 0-10 V DC (4-pipe) → only with control without KaController
- ▶ one slot for optional interface cards for connection to a higher-level building automation system → optionally Modbus, KNX, BACnet (accessory)
- ▶ password-protected parameter level
- ▶ parallel operation of a maximum of 6 units is possible, extendible to a maximum of 30 units using additional CANbus cards type 3260301 (accessory) per unit

Any additional functions required can be parametrised and correspondingly coordinated.

KaControl

The parametrisable KaControl microprocessor control offers a wealth of functions. The following default settings are factory set for the Venkon product:

- ▶ 2- and 4-pipe - applications, thermal valve actuators 24 V DC Open/Closed, normally closed
- ▶ room temperature control with 2-point valve control and demand-led fan control in Automatic mode or optionally fixed stage selection
- ▶ room frost protection function → $RT < 8\text{ °C}$ = heating valve open, fan stage 1
- ▶ unit frost protection function → $RT < 4\text{ °C}$ = valve(s), fan off
- ▶ optional use of the internal or external room temperature sensor (accessory)
- ▶ in the event of an alarm being triggered on a device to which the KaController room control unit is connected, e.g. a motor fault or condensation alarm is detected by the KaControl and indicated on the KaController control unit
- ▶ control input for heating/cooling changeover with 2-pipe systems
- ▶ control input can either be set to Comfort/ECO or ON/OFF switchover

Cabling information

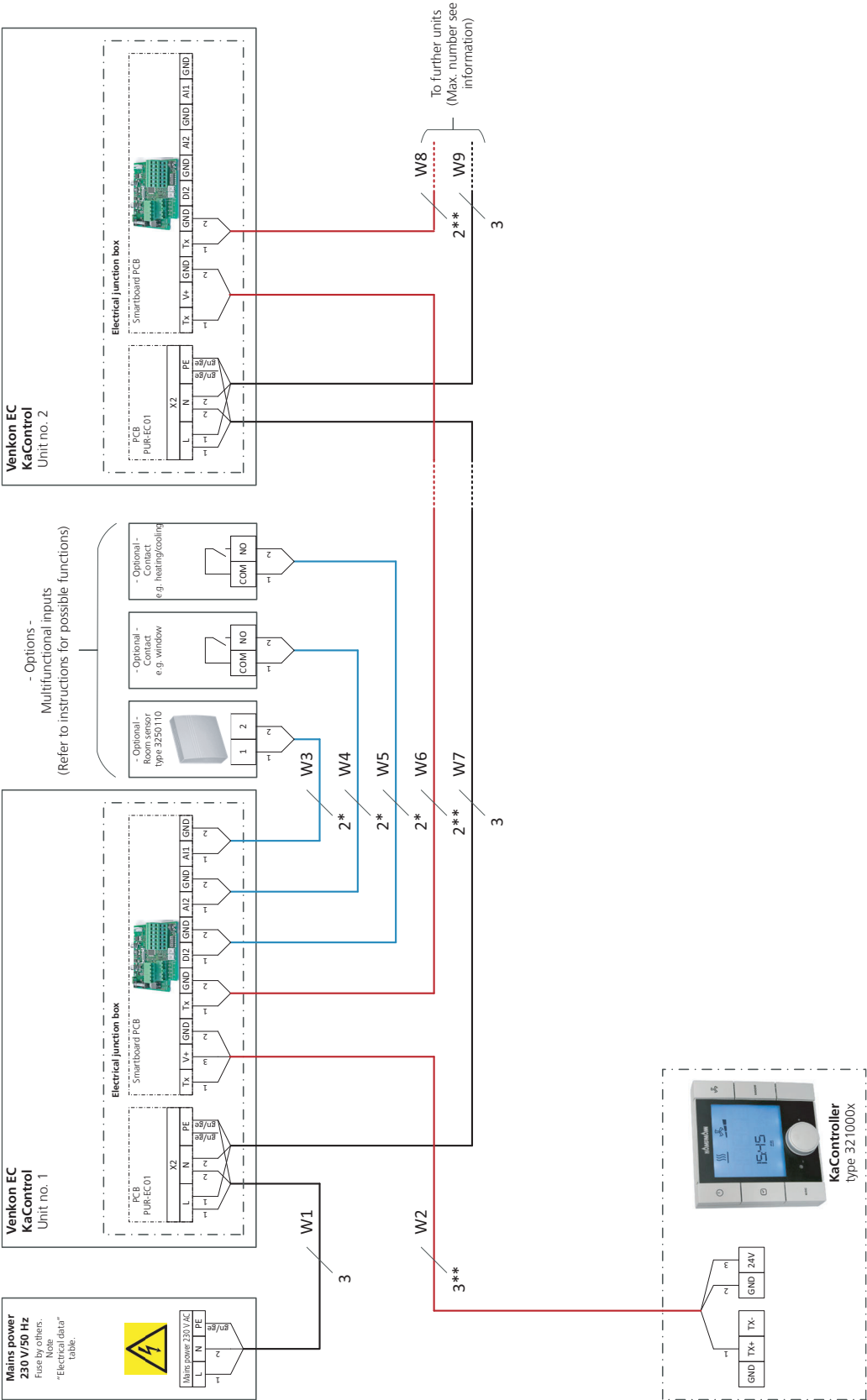
The following points need to be taken into account with the cabling and wiring plans stated for the electrical installation.

- ▶ Comply with the details on type of cable and cabling taking into consideration VDE 0100.
- ▶ None *: NYM-J. The requisite number of wires including fuse is stated on the cable. Cross-sections are not indicated as the cable length is involved in the calculation of the cross-section.
- ▶ With *: J-Y(ST)Y 0.8 mm. Lay separately from high-voltage cables.
- ▶ With **: UNITRONIC BUS LD 0.22 mm². Lay separately from high-voltage cables.
- ▶ If you are using different cable types they must be at least equivalent to these.
- ▶ Length of BUS cable from the KaController to unit 1: max. 30 m
- ▶ Maximum number of parallel units: 6 no. CANbus cards type 3260301 needed for each unit (see accessories) maximum 30 no.
- ▶ Length of BUS cable from unit 1 to the last unit max. 30 m. The cable length can be increased to 500 m using CANBUS cards type 3260301 (see accessories).
- ▶ The terminals on the unit for the mains power supply are suitable for a maximum wire cross-section of 2.5 mm².
- ▶ Only pulse and/or all-current sensitive residual current protective devices (type A or B) are permitted when using residual current protective devices. When power is applied to the unit, pulse-like capacitor load currents in the integrated EMC filter can lead to the RCCB being immediately tripped. We recommend residual current protective switches with a threshold of 300 mA and delayed triggering (super resistant, characteristic K).
- ▶ The electrical data listed in the following table needs to be considered when configuring the on-site mains supply and fuses.

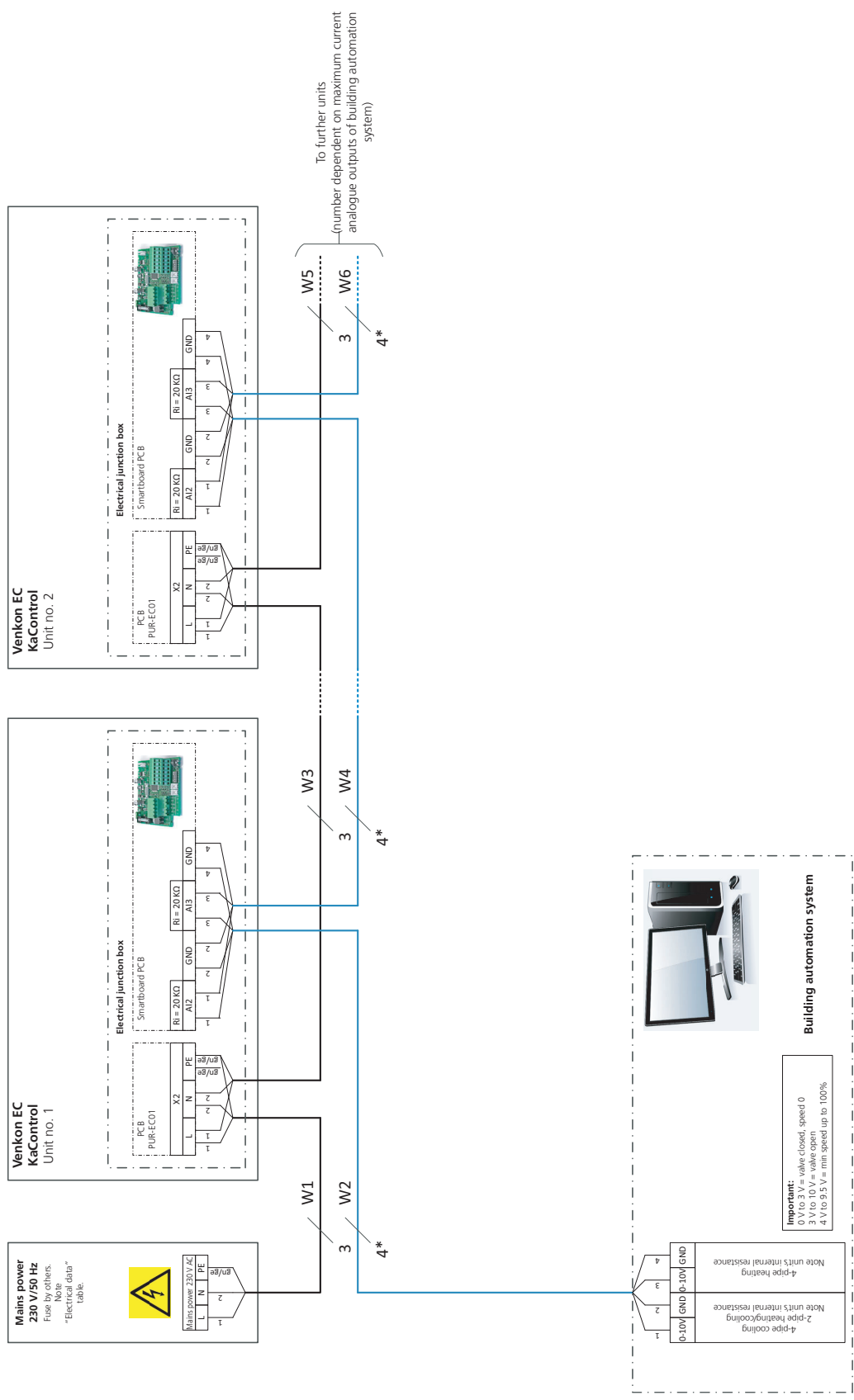
Electrical data for Venkon EC, KaControl model (*C1M / *C1E)

Model	Fans	Nominal voltage	Mains frequency	Nominal power	Nominal current	Leakage current	Ri analogue inputs	Enclosure type	Protection class
	[Quantity]	[V AC]	[Hz]	[W]	[A]	[mA]	[kΩ]		
61	1 x Single	230	50	48	0.42	< 3.5	20	IP21	I
63	1 x Tandem	230	50	54	0.47	< 3.5	20	IP21	I
66	1 x Single, 1 x Tandem	230	50	98	0.87	< 3.5	20	IP21	I
67	2 x Tandem	230	50	105	0.92	< 3.5	20	IP21	I

Venkon EC with KaControl (*C1M or *C1E)
2- or 4-pipe, valve actuator(s) 24 V AC/DC, Open/Closed,
optional condensation monitoring,
KaController activation



Venkon EC with KaControl (*C1M or *C1E)
2- or 4-pipe, valve actuator(s) 24 V AC/DC, Open/Closed,
optional condensation monitoring,
Control via a 0-10 V DC signal



KaControl – integration into intelligent building networks (IoT)

KaControl offers a wealth of options for integration into established communication networks. Various building automation strategies can be configured using various options.

Individual switching of units

Units with KaControl configuration can be directly integrated into on-site networks using optional communication interfaces. Control and monitoring is provided via fixed data points. Operation is provided via the KaController operating unit or via the operating units that belong to the network.

Switching of groups

Up to six units with KaControl configuration can be operated in a single group. Groups of units can be directly integrated into on-site networks using optional communication interfaces. Control and monitoring is provided via fixed data points. Operation of a group is provided via the KaController operating unit or via the operating units that belong to the network.

Communication interfaces

The following communication interfaces can be supplied separately or factory-fitted.

- ▶ Modbus RTU
- ▶ KNX
- ▶ BACnet IP

Important:

More information on integration into intelligent building networks and the associated communication interfaces is available on request!

KaControl – system controller

The optional Modbus interface allows units with KaControl configuration to be networked into systems individually or in groups with factory-programmed higher-level Kampmann system controllers.

KaControl SEL control panel



- ▶ up to 24 secondary air units or door air curtains split into up to 24 groups (zones), identical units needed within a group
- ▶ optional: KaController for each group possible
- ▶ central heating (winter) / cooling (summer) switch-over of secondary air units or heating (winter) / ventilation (summer) of door air curtains
- ▶ central timer programs
- ▶ optional: BACnet IP gateway for connection to higher-level control systems for the units/zones

KaControl AUL control panel



- ▶ one Kampmann ventilation system
- ▶ up to 10 groups (zones) with up to 6 Kampmann secondary air units or door air curtains, identical units needed within a group
- ▶ optional: KaController for each group
- ▶ central heating (winter) / cooling (summer) switch-over of secondary air units or heating (winter) / ventilation (summer) of door air curtains
- ▶ 5 timer programs can be assigned to groups
- ▶ optional: BACnet IP gateway for connection to higher-level control systems for the units/zones

KaControl visualisation



- ▶ up to 100/300 units
- ▶ optional: KaController for each group
- ▶ central heating (winter) / cooling (summer) switch-over of secondary air units or heating (winter) / ventilation (summer) of door air curtains
- ▶ central timer programs
- ▶ visualisation of Kampmann secondary air units, door air curtains and ventilation systems

Important:






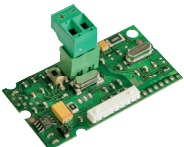
More information on KaControl system controller can be provided on request!

05 Ordering information

Accessories

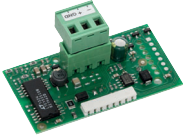

Article	Article	Properties	Dimensions	Suitable for	Article no.
			[mm]		

Control accessories KaControl

	KaController	with one-button operation, 24 V wall-mounted room control unit, with integral room temperature sensor, Protection class IP 30, Temperature setting range 8 - 35 °C, Colour similar to RAL 9010 pure white, made of resistant PVC, Type 3210001	86 x 52 x 86	all units with control option KaControl -C1	196003210001
	KaController	with one-button operation, 24 V wall-mounted room control unit, with integral room temperature sensor, Protection class IP 30, Temperature setting range 8 - 35 °C, Colour similar to RAL 9017 traffic black, made of resistant PVC, Type 3210006	86 x 52 x 86	all units with control option KaControl -C1	196003210006
	KaController	with side operating keys, 24 V wall-mounted room control unit, with integral room temperature sensor, Protection class IP 30, Temperature setting range 8 - 35 °C, Colour similar to RAL 9010 pure white, made of resistant PVC, Type 3210002	86 x 52 x 86	all units with control option KaControl -C1	196003210002
	Room temperature sensor	Wall-mounted, Surface-mounted, Protection class IP 30, Colour similar to RAL 9010 pure white, made of plastic, Type 3250110 Is the KaController installation site suitable for a temperature measurement? - If it is not suitable, e.g. behind a curtain, then a KaControl room temperature sensor should be chosen for each group!	101 x 110 x 23	all units with KaControl -C1 and climate controller art. no. 19600014894*	196003250110
	Clip-on pipe sensor	to detect the medium temperature, Protection class IP 67, Temperature setting range -20 - 70 °C, Colour black, Type 3250115 Is there a risk of frost, e.g. due to the ingress of cold air – if so, then a KaControl clip-on pipe sensor should be chosen for each unit! heating/cooling changeover function only in conjunction with 3-way valve!	5 x 6 x 3000	all units with KaControl -C1 and climate controller art. no. 19600014894*	196003250115
	Serial CANbus card	to extend the number of units in single-circuit control to up to 30 units, factory-installed, wired and parametrised on the basic unit	100 x 100 x 100	all units with control option KaControl -C1, Venkon Fan Coils	14866BBB00CA
	KNX card	KaControl KNX communication card for the integration of Kamppmann units into a KNX system, factory-installed, wired and parametrised on the basic unit	100 x 100 x 100	all units with control option KaControl -C1, Venkon Fan Coils	14866BBB00XA

CONTINUED 

Accessories






Article	Article	Properties	Dimensions	Suitable for	Article no.
			[mm]		
	Modbus card	for connection to a higher-level controller or BMS station, for the formation of multi-circuit control zones with KaControl, each with a max. of six units, 1x required per master unit, optional for slave units, 1x required for each one, or for connection to a BMS on site, factory-installed, wired and parametrised on the basic unit	100 x 100 x 100	all units with control option KaControl -C1, Venkon Fan Coils	14866BBB00MA
	Air intake sensor	factory-installed and wired on the basic unit	100 x 100 x 100	Venkon *C1M and *C2M	14866BBB00LA

CONTINUED ▶

Accessories



Article	Article	Properties	Dimensions	Suitable for	Article no.
			[mm]		

Control accessories electromechanical 230 V





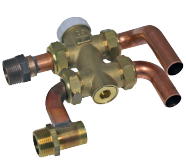
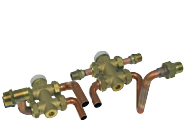
	Room thermostat	Heating/Cooling, 2- and 4-pipe, 3-stage. Only in conjunction with valves/valve kits with actuator, with OFF/Manual/Automatic fan switcher, 230 V AC, Open/Closed, Surface-mounted, Protection class II, Protection class IP 30, Temperature setting range 5 - 30 °C, Colour similar to RAL 9010 pure white, Type 30155 optional connectable, remote sensor art. no. 196000148921 can optionally be connected, clip-on sensor art. no. 196000148922	110 x 111 x 26	EC units electromechanical, 5 Katherm HK Trench Technology, 5 TOP, Ultra or Ultra Allround Unit Heaters, 5 Venkon or PowerKon LT Fan Coils, 5 KaCool D AF, KaCool W or KaDeck Fan Coils	196000030155
	Clock thermostat	Heating/Cooling, 2- and 4-pipe, continuously variable, with LCD operating menu and integrated timer program, 230 V AC, 1 W, flush-mounted, Protection class II, Protection class IP 30, Colour similar to RAL 9010 pure white, Type 30256 optional connectable, remote sensor art. no. 196000148921 can optionally be connected, clip-on sensor art. no. 196000148922	85 x 46 x 81	EC units electromechanical, 5 TOP, Ultra or Ultra Allround Unit Heaters, 5 Venkon Fan Coils, 5 KaCool D AF, KaCool W or KaDeck Fan Coils	196000030256
	Remote sensor	Connection cable max. 50 m, Type 148921	78 x 79 x 14	room thermostats art no. 194000146928, 196000148916, 196000030155, 196000030158, 196000030256 and 196000030456	196000148921
	Climate Controller	Heating/Cooling, 2- and 4-pipe, Without Modbus, only with valves/valve kits, continuously variable, with LCD operating menu and integrated timer program, 230 V AC, Open/Closed, Surface-mounted, Protection class IP 30, Temperature setting range 0 - 50 °C, Colour similar to RAL 9010 pure white, Type 148941	78 x 140 x 15	EC units electromechanical, 4 Katherm HK Trench Technology, 4 KaCool D AF, KaCool W, Venkon or KaDeck Fan Coils, 4 Ultra Allround Unit Heaters	196000148941
	Climate Controller	Heating/Cooling, 2- and 4-pipe, Without Modbus, only with valves/valve kits, continuously variable, with LCD operating menu and integrated timer program, 230 V AC, Open/Closed, Surface-mounted, Protection class IP 30, Temperature setting range 0 - 50 °C, Colour similar to RAL 9004 signal black, Type 148942	78 x 140 x 15	EC units electromechanical, 4 Katherm HK Trench Technology, 4 KaCool D AF, KaCool W, Venkon or KaDeck Fan Coils, 4 Ultra Allround Unit Heaters	196000148942

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Accessories

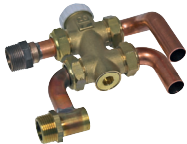






Article	Article	Properties	Dimensions	Suitable for	Article no.
			[mm]		
	Climate Controller	Heating/Cooling, 2- and 4-pipe, with Modbus, only with valves/valve kits, continuously variable, with LCD operating menu and integrated timer program, 230 V AC, Open/Closed, Surface-mounted, Protection class IP 30, Temperature setting range 0 - 50 °C, Colour similar to RAL 9010 pure white, Type 148943	78 x 140 x 15	EC units electromechanical, 4 Katherm HK Trench Technology, 4 KaCool D AF, KaCool W, Venkon or KaDeck Fan Coils, 4 Ultra Allround Unit Heaters	196000148943
	Climate Controller	Heating/Cooling, 2- and 4-pipe, with Modbus, only with valves/valve kits, continuously variable, with LCD operating menu and integrated timer program, 230 V AC, Open/Closed, Surface-mounted, Protection class IP 30, Temperature setting range 0 - 50 °C, Colour similar to RAL 9004 signal black, Type 148944	78 x 140 x 15	EC units electromechanical, 4 Katherm HK Trench Technology, 4 KaCool D AF, KaCool W, Venkon or KaDeck Fan Coils, 4 Ultra Allround Unit Heaters	196000148944

Valve kits

	2-way valve kit	2-pipe, with lockable return shut-off valve, 2-way valve, pre-settable, water with glycol <50%, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model size 61, Water connections left	14863BBL212A
				Model size 63, Water connections left	14863BBL232A
				Model size 66, Water connections left	14863BBL262A
				Model size 67, Water connections left	14863BBL272A
	2-way valve kit	4-pipe, with lockable return shut-off valve, 2-way valve, pre-settable, water with glycol <50%, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model size 61, Water connections left	14863BBL412A
				Model size 63, Water connections left	14863BBL432A
				Model size 66, Water connections left	14863BBL462A
				Model size 67, Water connections left	14863BBL472A
	2-way valve kit	2-pipe, with lockable return shut-off valve, 2-way valve, pre-settable, water with glycol <50%, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model size 61, Water connections right	14863BBR212A
				Model size 63, Water connections right	14863BBR232A
				Model size 66, Water connections right	14863BBR262A
				Model size 67, Water connections right	14863BBR272A
	2-way valve kit	4-pipe, with lockable return shut-off valve, 2-way valve, pre-settable, water with glycol <50%, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model size 61, Water connections right	14863BBR412A
				Model size 63, Water connections right	14863BBR432A
				Model size 66, Water connections right	14863BBR462A
				Model size 67, Water connections right	14863BBR472A
	3-way valve kit	2-pipe, 3-way valve, water with glycol <50%, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model size 61, Water connections left, DN 15	14863BBL213A
				Model size 63, Water connections left, DN 15	14863BBL233A
				Model size 66, Water connections left, DN 18	14863BBL263A
				Model size 67, Water connections left, DN 18	14863BBL273A
	3-way valve kit	4-pipe, 3-way valve, water with glycol <50%, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model size 61, Water connections left, DN 15	14863BBL413A
				Model size 63, Water connections left, DN 15	14863BBL433A
				Model size 66, Water connections left, DN 18	14863BBL463A
				Model size 67, Water connections left, DN 18	14863BBL473A

CONTINUED ►

Accessories



Article	Article	Properties	Dimensions	Suitable for	Article no.
			[mm]		
	3-way valve kit	2-pipe, 3-way valve, water with glycol <50%, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model size 61, Water connections right, DN 15	14863BBR213A
				Model size 63, Water connections right, DN 15	14863BBR233A
				Model size 66, Water connections right, DN 18	14863BBR263A
				Model size 67, Water connections right, DN 18	14863BBR273A
	3-way valve kit	4-pipe, 3-way valve, water with glycol <50%, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model size 61, Water connections right, DN 15	14863BBR413A
				Model size 63, Water connections right, DN 15	14863BBR433A
				Model size 66, Water connections right, DN 18	14863BBR463A
				Model size 67, Water connections right, DN 18	14863BBR473A
	Differential pressure-independent valve kit	2-pipe, for low flow rates, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model size 61, Water connections left, Flow volume Cooling (min./max.) 30 - 210 l/h	14863BAL21DA
				Model size 63, Water connections left, Flow volume Cooling (min./max.) 30 - 210 l/h	14863BAL23DA
	Differential pressure-independent valve kit	4-pipe, for low flow rates, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model size 61, Water connections left, Flow volume Cooling (min./max.) 30 - 210 l/h	14863BAL41DA
				Model size 63, Water connections left, Flow volume Cooling (min./max.) 30 - 210 l/h	14863BAL43DA
		4-pipe, small heating and large cooling flow rates, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model size 61, Water connections left, Flow volume Cooling (min./max.) 150 - 1050 l/h, Heating (min./max.) 30 - 210 l/h	14863BCL41DA
				Model size 63, Water connections left, Flow volume Cooling (min./max.) 150 - 1050 l/h, Heating (min./max.) 30 - 210 l/h	14863BCL43DA
	Differential pressure-independent valve kit	2-pipe, for low flow rates, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model size 61, Water connections right, Flow volume Cooling (min./max.) 30 - 210 l/h	14863BAR21DA
				Model size 63, Water connections right, Flow volume Cooling (min./max.) 30 - 210 l/h	14863BAR23DA
	Differential pressure-independent valve kit	4-pipe, for low flow rates, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model size 61, Water connections right, Flow volume Cooling (min./max.) 30 - 210 l/h	14863BAR41DA
				Model size 63, Water connections right, Flow volume Cooling (min./max.) 30 - 210 l/h	14863BAR43DA
		4-pipe, small heating and large cooling flow rates, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model size 61, Water connections right, Flow volume Cooling (min./max.) 150 - 1050 l/h, Heating (min./max.) 30 - 210 l/h	14863BCR41DA
				Model size 63, Water connections right, Flow volume Cooling (min./max.) 150 - 1050 l/h, Heating (min./max.) 30 - 210 l/h	14863BCR43DA
	Differential pressure-independent valve kit	2-pipe, for high flow rates, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model size 61, Water connections left, Flow volume Cooling (min./max.) 150 - 1050 l/h	14863BBL21DA
				Model size 63, Water connections left, Flow volume Cooling (min./max.) 150 - 1050 l/h	14863BBL23DA
				Model size 66, Water connections left, Flow volume Cooling (min./max.) 250 - 1800 l/h	14863BBL26DA
				Model size 67, Water connections left, Flow volume Cooling (min./max.) 250 - 1800 l/h	14863BBL27DA

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Accessories


Article	Article	Properties	Dimensions	Suitable for	Article no.
			[mm]		
	Differential pressure-independent valve kit	4-pipe, for high flow rates, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model size 61, Water connections left, Flow volume Cooling (min./max.) 150 - 1050 l/h	14863BBL41DA
				Model size 63, Water connections left, Flow volume Cooling (min./max.) 150 - 1050 l/h	14863BBL43DA
				Model size 66, Water connections left, Flow volume Cooling (min./max.) 250 - 1800 l/h, Heating (min./max.) 150 - 1050 l/h	14863BBL46DA
				Model size 67, Water connections left, Flow volume Cooling (min./max.) 250 - 1800 l/h, Heating (min./max.) 150 - 1050 l/h	14863BBL47DA
	Differential pressure-independent valve kit	2-pipe, for high flow rates, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model size 61, Water connections right, Flow volume Cooling (min./max.) 150 - 1050 l/h	14863BBR21DA
				Model size 63, Water connections right, Flow volume Cooling (min./max.) 150 - 1050 l/h	14863BBR23DA
				Model size 66, Water connections right, Flow volume Cooling (min./max.) 250 - 1800 l/h	14863BBR26DA
				Model size 67, Water connections right, Flow volume Cooling (min./max.) 250 - 1800 l/h	14863BBR27DA
	Differential pressure-independent valve kit	4-pipe, for high flow rates, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model size 61, Water connections right, Flow volume Cooling (min./max.) 150 - 1050 l/h	14863BBR41DA
				Model size 63, Water connections right, Flow volume Cooling (min./max.) 150 - 1050 l/h	14863BBR43DA
				Model size 66, Water connections right, Flow volume Cooling (min./max.) 250 - 1800 l/h, Heating (min./max.) 150 - 1050 l/h	14863BBR46DA
				Model size 67, Water connections right, Flow volume Cooling (min./max.) 250 - 1800 l/h, Heating (min./max.) 150 - 1050 l/h	14863BBR47DA

Valve actuators





	Thermoelectric actuator	2-pipe, 1 St. 24 V DC, 0 - 10 V, steady, 50 Hz, for an appropriate valve stroke by control, factory-fitted and wired to the basic unit	100 x 100 x 100	Venkon and vale kits, electromech. control (00M/01M)	14866BBB204A
		4-pipe, 2 St. 24 V DC, 0 - 10 V, steady, 50 Hz, for an appropriate valve stroke by control, factory-fitted and wired to the basic unit	100 x 100 x 100	Venkon and vale kits, electromech. control (00M/01M)	14866BBB404A
	Thermoelectric actuator	2-pipe, 1 St. 230 V AC, Open/Closed, 50 Hz, factory-fitted and wired to the basic unit	100 x 100 x 100	Venkon and vale kits, electromech. control (00M/01M)	14866BBB201A
		4-pipe, 2 St. 230 V AC, Open/Closed, 50 Hz, factory-fitted and wired to the basic unit	100 x 100 x 100	Venkon and vale kits, electromech. control (00M/01M)	14866BBB401A
		2-pipe, 1 St. 24 V AC/DC, Open/Closed, 50 Hz, factory-fitted and wired to the basic unit	100 x 100 x 100	Venkon and vale kits, electromech. control (00M/01M) or KaControl (C1M/C1E)	14866BBB202A
		4-pipe, 2 St. 24 V AC/DC, Open/Closed, 50 Hz, factory-fitted and wired to the basic unit	100 x 100 x 100	Venkon and vale kits, electromech. control (00M/01M) or KaControl (C1M/C1E)	14866BBB402A

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Accessories

Article	Article	Properties	Dimensions	Suitable for	Article no.
			[mm]		
	Thermoelectric actuator	2-pipe, 1 St. 24 V AC, 0 - 10 V, steady, 50 Hz, for an appropriate valve stroke by control, factory-fitted and wired to the basic unit	100 x 100 x 100	Venkon and vale kits, electromech. control (00M/01M)	14866BBB203A
		4-pipe, 2 St. 24 V AC, 0 - 10 V, steady, 50 Hz, for an appropriate valve stroke by control, factory-fitted and wired to the basic unit	100 x 100 x 100	Venkon and vale kits, electromech. control (00M/01M)	14866BBB403A

Perimeter Casings


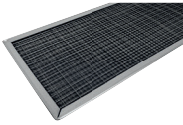

	Casing, ceiling-mounted	no rear panel, including air inlet grille, air grille and side panel in RAL 9006 white aluminium, RAL 9016 traffic white casing, powder coated, ISO Coarse filter	605 x 235 x 900	ISO Coarse filter Model size 61	14862DUBH100
			605 x 235 x 1200	ISO Coarse filter Model size 63	14862DUBH300
			605 x 235 x 1650	ISO Coarse filter Model size 66	14862DUBH600
			605 x 235 x 2000	ISO Coarse filter Model size 67	14862DUBH700
		no rear panel, including air inlet grille, air grille and side panel in RAL 9006 white aluminium, RAL 9016 traffic white casing, powder coated, Cassette filter	605 x 235 x 900	Cassette filter Model size 61	14862DUBH110
			605 x 235 x 1200	Cassette filter Model size 63	14862DUBH310
			605 x 235 x 1650	Cassette filter Model size 66	14862DUBH610
			605 x 235 x 2000	Cassette filter Model size 67	14862DUBH710
	Casing, free-standing	including air inlet grille, air grille and side panel in RAL 9006 white aluminium, RAL 9016 traffic white casing, powder coated, ISO Coarse filter	255 x 605 x 900	ISO Coarse filter Model size 61	14862WUBF100
			255 x 605 x 1200	ISO Coarse filter Model size 63	14862WUBF300
			255 x 605 x 1650	ISO Coarse filter Model size 66	14862WUBF600
			255 x 605 x 2000	ISO Coarse filter Model size 67	14862WUBF700
		including air inlet grille, air grille and side panel in RAL 9006 white aluminium, RAL 9016 traffic white casing, powder coated, Cassette filter	255 x 605 x 900	Cassette filter Model size 61	14862WUBF110
			255 x 605 x 1200	Cassette filter Model size 63	14862WUBF310
			255 x 605 x 1650	Cassette filter Model size 66	14862WUBF610
			255 x 605 x 2000	Cassette filter Model size 67	14862WUBF710
	Casing, wall-hanging	without air inlet grille, air grille and side panel in RAL 9006 white aluminium, RAL 9016 traffic white casing, powder coated, ISO Coarse filter	245 x 505 x 900	ISO Coarse filter Model size 61	14862WUBH100
			245 x 505 x 1200	ISO Coarse filter Model size 63	14862WUBH300
			245 x 505 x 1650	ISO Coarse filter Model size 66	14862WUBH600
			245 x 505 x 2000	ISO Coarse filter Model size 67	14862WUBH700
	Casing, wall-standing	including air inlet grille, air grille and side panel in RAL 9006 white aluminium, RAL 9016 traffic white casing, powder coated, ISO Coarse filter	235 x 605 x 900	ISO Coarse filter Model size 61	14862WUBS100
			235 x 605 x 1200	ISO Coarse filter Model size 63	14862WUBS300
			235 x 605 x 1650	ISO Coarse filter Model size 66	14862WUBS600
			235 x 605 x 2000	ISO Coarse filter Model size 67	14862WUBS700
		including air inlet grille, air grille and side panel in RAL 9006 white aluminium, RAL 9016 traffic white casing, powder coated, Cassette filter	235 x 605 x 900	Cassette filter Model size 61	14862WUBS110
			235 x 605 x 1200	Cassette filter Model size 63	14862WUBS310
			235 x 605 x 1650	Cassette filter Model size 66	14862WUBS610
			235 x 605 x 2000	Cassette filter Model size 67	14862WUBS710

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Accessories

Article	Article	Properties	Dimensions	Suitable for	Article no.
			[mm]		

Filter



	Filter	Cassette filter used as spare filter (only for use with basic unit with filter box for cassette filter ePM10>50% or ePM1>50%), Filter ePM1>50% (F7), 1 set = 1 piece(s)	180 x 28 x 520	1 Filter ePM1>50% (F7) Model size 61	14869BBB0107
			180 x 28 x 820	1 Filter ePM1>50% (F7) Model size 63	14869BBB0307
			180 x 28 x 1270	1 Filter ePM1>50% (F7) Model size 66	14869BBB0607
		Cassette filter used as spare filter (only for use with basic unit with filter box for cassette filter ePM10>50% or ePM1>50%), Filter ePM1>50% (F7), 1 set = 2 piece(s)	180 x 28 x 798	2 Filter ePM1>50% (F7) Model size 67	14869BBB0707
		Cassette filter used as spare filter (only for use with basic unit with filter box for cassette filter ePM10>50% or ePM1>50%), Filter ePM10>50% (M5), 1 set = 1 piece(s)	180 x 28 x 520	1 Filter ePM10>50% (M5) Model size 61	14869BBB0105
			180 x 28 x 820	1 Filter ePM10>50% (M5) Model size 63	14869BBB0305
			180 x 28 x 1270	1 Filter ePM10>50% (M5) Model size 66	14869BBB0605
	Filter	Dry layer filter, regenerable filter, washable, ISO Coarse filter, 1 set = 1 piece(s)	198 x 5 x 519	1 ISO Coarse filter Model size 61, Venkon Fan Coils	14869BBB0101
			198 x 5 x 819	1 ISO Coarse filter Model size 63, Venkon Fan Coils	14869BBB0301
			198 x 5 x 1269	1 ISO Coarse filter Model size 66, Venkon Fan Coils	14869BBB0601
		Dry layer filter, regenerable filter, washable, ISO Coarse filter, 1 set = 2 piece(s)	198 x 5 x 805	2 ISO Coarse filter Model size 67, Venkon Fan Coils	14869BBB0701
	Cassette filter box	Cassette filter box for Venkon basic units with ISO Coarse Filter for retrofitting a cassette filter	200 x 40 x 572	Model size 61	14869BBB1105
			200 x 40 x 872	Model size 63	14869BBB1305
			200 x 40 x 1322	Model size 66	14869BBB1605
			200 x 40 x 1672	Model size 67	14869BBB1705

Condensate tray/pump

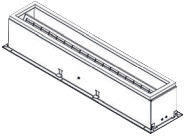



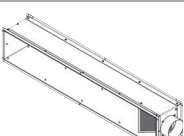

	Valve condensate drip tray	2-way valve kit, Wall-mounted, Connection left, factory-fitted to the basic unit	200 x 100 x 200	Model size 61 - 67	14864WBL002A
		2-way valve kit, Wall-mounted, Connection right, factory-fitted to the basic unit	200 x 100 x 200	Model size 61 - 67	14864WBR002A
		3-way and differential pressure-independent valve kits, Wall-mounted, Connection left, factory-fitted to the basic unit	200 x 100 x 200	Model size 61 - 67	14864WBL003A
		3-way and differential pressure-independent valve kits, Wall-mounted, Connection right, factory-fitted to the basic unit	200 x 100 x 200	Model size 61 - 67	14864WBR003A
		all standard valve kits, Ceiling-mounted, Connection left and right, factory-fitted to the basic unit	200 x 100 x 200	Model size 61 - 67	14864DBB000A

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Accessories

Article	Article	Properties	Dimensions [mm]	Suitable for	Article no.
	Condensate pump	to drain condensate produced on the valves and in the unit, including condensate overflow signalling, factory-fitted and wired	100 x 100 x 100	Model size 61 - 67, with valve condensate tray	14866BBB00KA
	Dewpoint monitor sensor	Condensate monitor for the detection of condensate formation on the water flow, factory-installed and wired on the basic unit	100 x 100 x 100	Model size 61 - 67, without valve condensate tray	14866BBB00TA

Accessories for recirculation air basic unit, air-side

	Air intake box with hotel diffuser and filter	Unit for installation onto the air inlet of the Venkon	200 x 160 x 620	Model size 61	14867BBB0105
			200 x 160 x 920	Model size 63	14867BBB0305
			200 x 160 x 1370	Model size 66	14867BBB0605
			200 x 160 x 1720	Model size 67	14867BBB0705
	Inlet box with primary air connection spigot	Unit for installation onto the air inlet of the Venkon	200 x 160 x 588	Model size 61, DN 100	14865BBB0107
			200 x 160 x 888	Model size 63, DN 100	14865BBB0307
			200 x 160 x 1338	Model size 66, DN 100	14865BBB0607
			200 x 160 x 1688	Model size 67, DN 100	14865BBB0707
	Outlet box with hotel diffuser	unit for installation onto the air discharge of the Venkon	200 x 160 x 620	Model size 61	14867BBB0103
			200 x 160 x 920	Model size 63	14867BBB0303
			200 x 160 x 1370	Model size 66	14867BBB0603
			200 x 160 x 1720	Model size 67	14867BBB0703
	Outlet box with primary air connection spigot and hotel opening	unit for installation onto the air discharge of the Venkon	200 x 160 x 620	Model size 61, DN 100	14867BBB0104
			200 x 160 x 920	Model size 63, DN 100	14867BBB0304
			200 x 160 x 1370	Model size 66, DN 100	14867BBB0604
			200 x 160 x 1720	Model size 67, DN 100	14867BBB0704
	Outlet box with primary air connection spigot	unit for installation onto the air discharge of the Venkon	200 x 160 x 588	Model size 61, DN 100	14865BBB0108
			200 x 160 x 888	Model size 63, DN 100	14865BBB0308
			200 x 160 x 1338	Model size 66, DN 100	14865BBB0608
			200 x 160 x 1688	Model size 67, DN 100	14865BBB0708
	Ceiling swirl diffuser	round, on flexible pipe, Connection diameter 198 mm, painted, Colour white	280 x 144 x 280	Model size 61 - 67	14867BBB0001

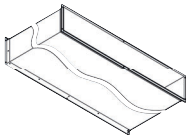
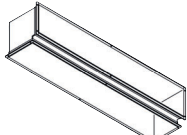
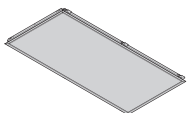
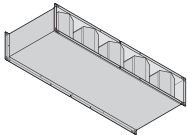

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Accessories




Article	Article	Properties	Dimensions	Suitable for	Article no.
			[mm]		
	Flexible connection	with frame on both sides, including canvas for structure-borne noise decoupling and length compensation of on-site dimensional inaccuracies	200 x 160 x 570	Model size 61	14865BBB0104
			200 x 160 x 860	Model size 63	14865BBB0304
			200 x 160 x 1320	Model size 66	14865BBB0604
			200 x 160 x 1670	Model size 67	14865BBB0704
	Flexible pipe connection unit	Connection diameter 180 mm, Number of connecting pieces 2 St.	248 x 200 x 570	Model size 61, Number of connecting pieces 2 St.	14865BBB0105
		Connection diameter 180 mm, Number of connecting pieces 3 St.	248 x 200 x 870	Model size 63, Number of connecting pieces 3 St.	14865BBB0305
		Connection diameter 180 mm, Number of connecting pieces 4 St.	248 x 200 x 1320	Model size 66, Number of connecting pieces 4 St.	14865BBB0605
		Connection diameter 180 mm, Number of connecting pieces 5 St.	248 x 200 x 1670	Model size 67, Number of connecting pieces 5 St.	14865BBB0705
	hotel diffuser with sound attenuator	short version, powder coated, Colour RAL 9016 traffic-white, supplied separately	620 x 200 x 350	Model size 61	14867BBB0113
			920 x 200 x 350	Model size 63	14867BBB0313
	hotel diffuser with sound attenuator	long version, powder coated, Colour RAL 9016 traffic-white, supplied separately	620 x 200 x 450	Model size 61	14867BBB0123
			920 x 200 x 450	Model size 63	14867BBB0323
	hotel diffuser with sound attenuator	short version with supply air spigot, Number of connecting pieces 1 St., powder coated, Colour RAL 9016 traffic-white, supplied separately	620 x 200 x 350	Model size 61, Number of connecting pieces 1 St., DN 100	14867BBB0114
			920 x 200 x 350	Model size 63, Number of connecting pieces 1 St., DN 100	14867BBB0314
	hotel diffuser with sound attenuator	long version with spigot, Number of connecting pieces 1 St., powder coated, Colour RAL 9016 traffic-white, supplied separately	620 x 200 x 450	Model size 61, Number of connecting pieces 1 St., DN 100	14867BBB0124
			920 x 200 x 450	Model size 63, Number of connecting pieces 1 St., DN 100	14867BBB0324
	Combination air diffuser	for supply air and extract air with plenum box, unit for installation onto the air discharge of the Venkon, powder coated, Colour similar to RAL 9016 traffic white, supplied separately	850 x 220 x 150	Model size 61	14867BBB0107
			1150 x 220 x 150	Model size 63	14867BBB0307
			1600 x 220 x 150	Model size 66	14867BBB0607
			1950 x 220 x 150	Model size 67	14867BBB0707
	Combined diffuser with spigot	for supply air and extract air with plenum box and spigot, unit for installation onto the air discharge of the Venkon, Number of connecting pieces 1 St., powder coated, Colour similar to RAL 9016 traffic white, supplied separately	850 x 220 x 150	Model size 61, Number of connecting pieces 1 St., DN 100	14867BBB0117
			1150 x 220 x 150	Model size 63, Number of connecting pieces 1 St., DN 100	14867BBB0317
			1600 x 220 x 150	Model size 66, Number of connecting pieces 1 St., DN 100	14867BBB0617
			1950 x 220 x 150	Model size 67, Number of connecting pieces 1 St., DN 100	14867BBB0717
	Internal air grille with adjustable outlet air angle	natural aluminium, with plenum box, unit fitted to Venkon air outlet	200 x 65 x 625	Model size 61	14867BBB0112
			200 x 65 x 925	Model size 63	14867BBB0312
			200 x 65 x 1375	Model size 66	14867BBB0612
			200 x 65 x 1725	Model size 67	14867BBB0712
	Internal air grille, rigid design	natural aluminium, with plenum box, unit fitted to Venkon air outlet	200 x 65 x 625	Model size 61	14867BBB0102
			200 x 65 x 925	Model size 63	14867BBB0302
			200 x 65 x 1375	Model size 66	14867BBB0602
			200 x 65 x 1725	Model size 67	14867BBB0702

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Accessories

Article	Article	Properties	Dimensions	Suitable for	Article no.
			[mm]		
	Air duct	Non-standard lengths on request	570 x 200 x 1000	Model size 61, Length 1000 mm	14865BBB0101
			870 x 200 x 1000	Model size 63, Length 1000 mm	14865BBB0301
			1320 x 200 x 1000	Model size 66, Length 1000 mm	14865BBB0601
			1670 x 200 x 1000	Model size 67, Length 1000 mm	14865BBB0701
	Air duct, 90° angled	short bend, as a transition from horizontal to vertical ductwork with ceiling installation	220 x 220 x 570	Model size 61	14865BBB0103
			220 x 220 x 870	Model size 63	14865BBB0303
			220 x 220 x 1320	Model size 66	14865BBB0603
			220 x 220 x 1670	Model size 67	14865BBB0703
	Service hatch, perforated metal with frame	Unit for subsequent maintenance in suspended ceilings, suitable for plasterboard or concrete slab ceilings, Circumferential frame: 25 mm, Colour RAL 9016 traffic-white, supplied separately	650 x 50 x 950	Model size 61	14865BBB0110
			650 x 50 x 1250	Model size 63	14865BBB0310
			650 x 50 x 1700	Model size 66	14865BBB0610
			650 x 50 x 2050	Model size 67	14865BBB0710
	Sound attenuator	Splitter noise attenuator	570 x 200 x 500	Model size 61, Length 500 mm	14865BBB0106
			870 x 200 x 500	Model size 63, Length 500 mm	14865BBB0306
			1320 x 200 x 500	Model size 66, Length 500 mm	14865BBB0606
			1670 x 200 x 500	Model size 67, Length 500 mm	14865BBB0706
	Transition panel	Venkon sheet steel accessories for the installation of air inlet or air outlet diffusers	200 x 2 x 570	Model size 61	14867BBB0106
			200 x 2 x 870	Model size 63	14867BBB0306
			200 x 2 x 1320	Model size 66	14867BBB0606
			200 x 2 x 1670	Model size 67	14867BBB0706

Additional colours

	surcharge for RAL standard colour	Price per unit.		Model size 61, Venkon Fan Coils	148607010011
				Model size 63, Venkon Fan Coils	148607010012
				Model size 66, Venkon Fan Coils	148607010013
				Model size 67, Venkon Fan Coils	148607010014
	surcharge for RAL colour of your choice	Minimum quantity = 5 units (size 61/63) and 3 units (size 66/67) per order and colour. The number of units below the minimum quantity must be requested and calculated separately. Price per unit.		Model size 61, Venkon Fan Coils	148607010021
				Model size 63, Venkon Fan Coils	148607010022
				Model size 66, Venkon Fan Coils	148607010023
				Model size 67, Venkon Fan Coils	148607010024
	surcharge for change of colour	of the powder-coating to the colour version quoted. The surcharge includes the conversion and cleaning of the powder-coating to the requested colour and will be charged once per project and call-off order.		Venkon Fan Coils	148607010010

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