



▶ **Venkon**  
Fan coils

## Venkon

Fan coils, recirculation air.

Heating, cooling and filtering for the ultimate in comfort

▶ **Technical catalogue**

**KAMPFMAN**



[Kampmanngroup.com/venkon](http://Kampmanngroup.com/venkon)

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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

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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

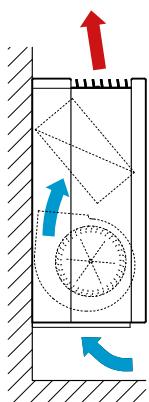
and offices, where the noise levels lie far below the audible threshold or the usual measuring range. The energy-saving Venkon EC is designed in such a way that the lowest sound emissions can be reached at low speed stages as well as at very high speed stages. The right solution can therefore be combined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

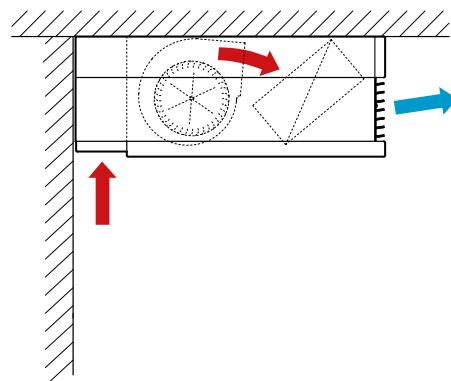
### Heating example

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



## 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] <sup>1)</sup>	> 662 – 26532
Cooling output [W] <sup>2)</sup>	> 314 – 11351
Sound pressure level [dB(A)] <sup>3)</sup>	> 15 – 54
Sound power level [dB(A)]	> 23 – 62

<sup>1)</sup> at LPHW 75/65 °C, t<sub>l1</sub> = 20 °C

<sup>2)</sup> at CHW 7/12 °C, t<sub>l1</sub> = 27 °C, 48% relative humidity

<sup>3)</sup> 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 m<sup>3</sup> 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. Inlet air temperature: 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.



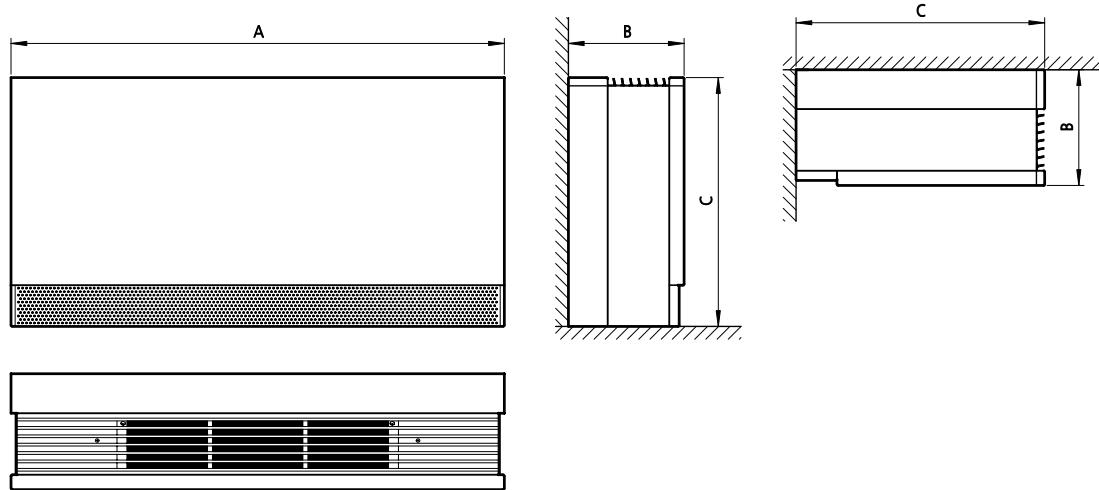
# Selection guide

Filter class	System				Model	Dimensions including casing			
	2-pipe		4-pipe			Length (A) [mm]	Depth (B) [mm]	Height (C) [mm]	
	Heat output <sup>1)</sup> [W]	Cooling output <sup>2)</sup> [W]	Heat output <sup>1)</sup> [W]	Cooling output <sup>2)</sup> [W]					
ISO Coarse filter (G0)	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			
	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			

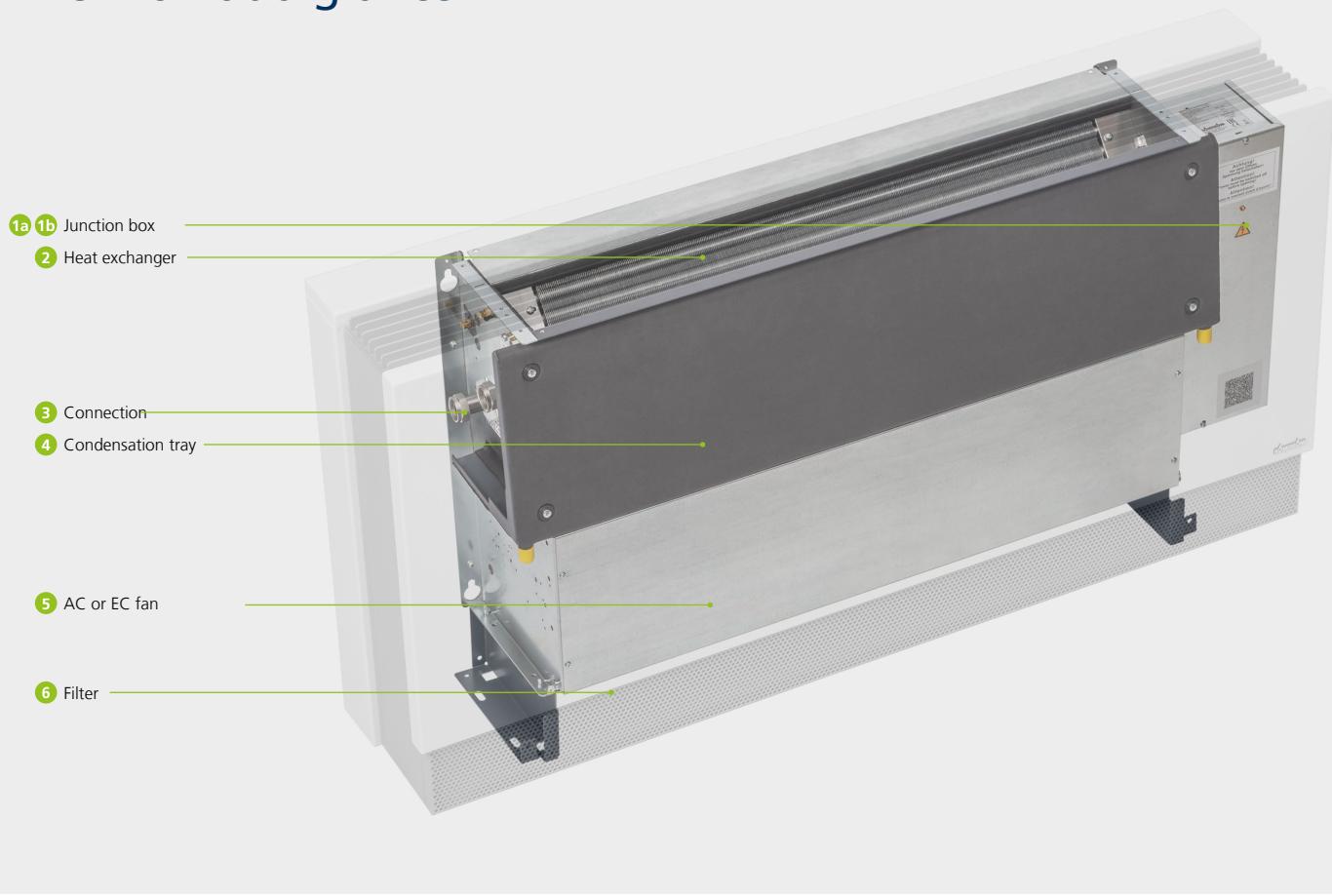
<sup>1)</sup> at LPHW 75/65 °C,  $t_{L1} = 20$  °C

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

## Technical drawing (Dimensions in mm)

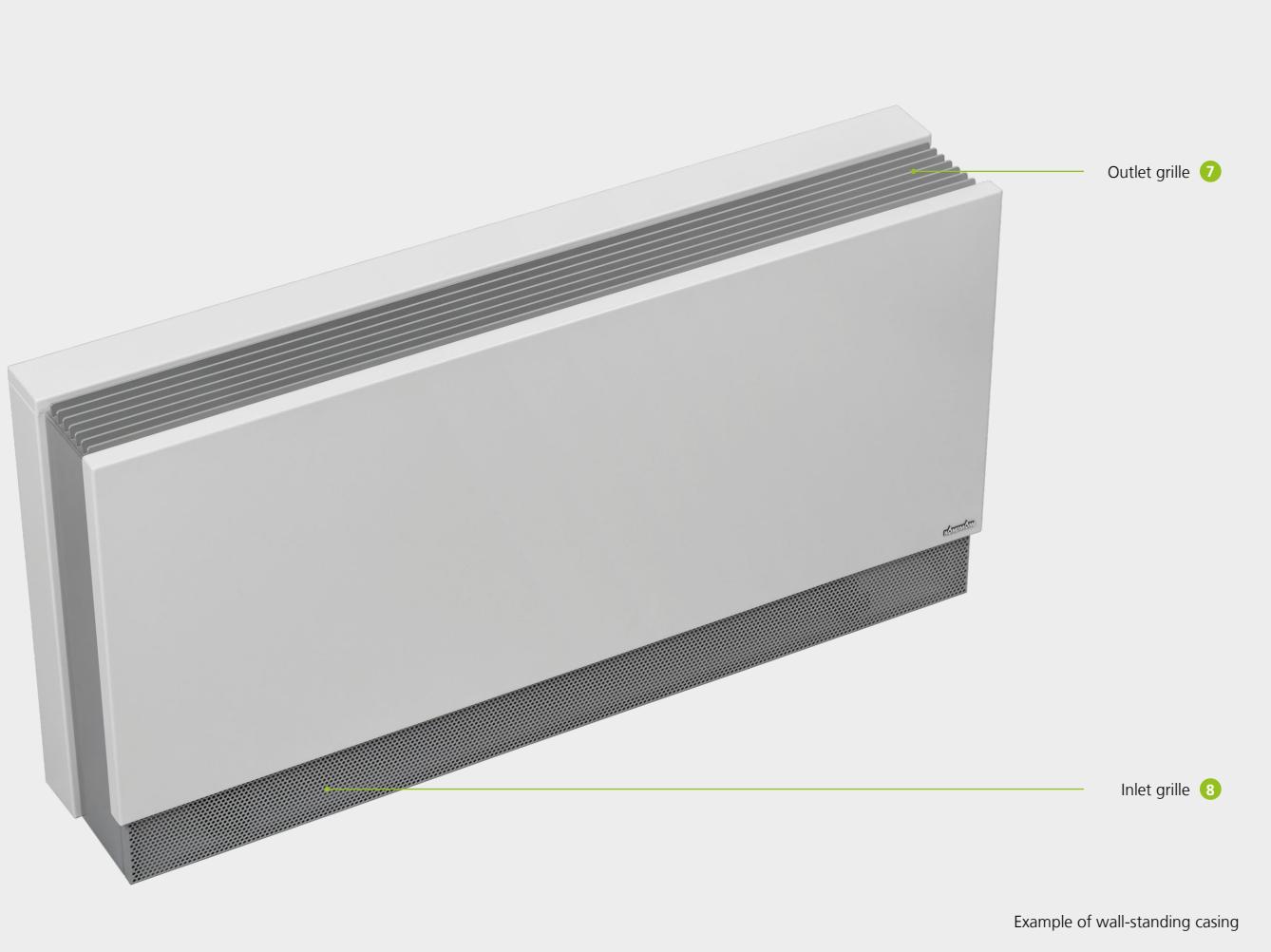


## Venkon at a glance



## Features





**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 or AC fans**

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

**6 Filter**

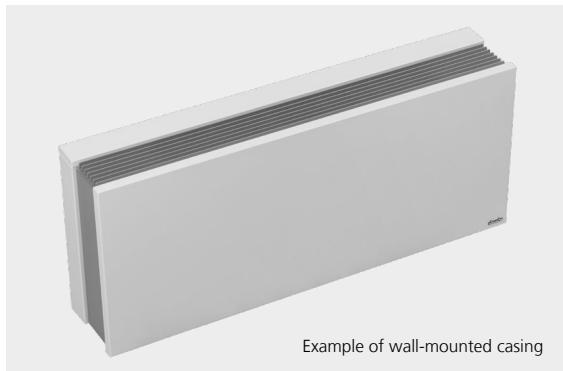
- ▶ maintenance-friendly filter removal at each installation position
- ▶ washable and hence recyclable filter

**7 Output grille**

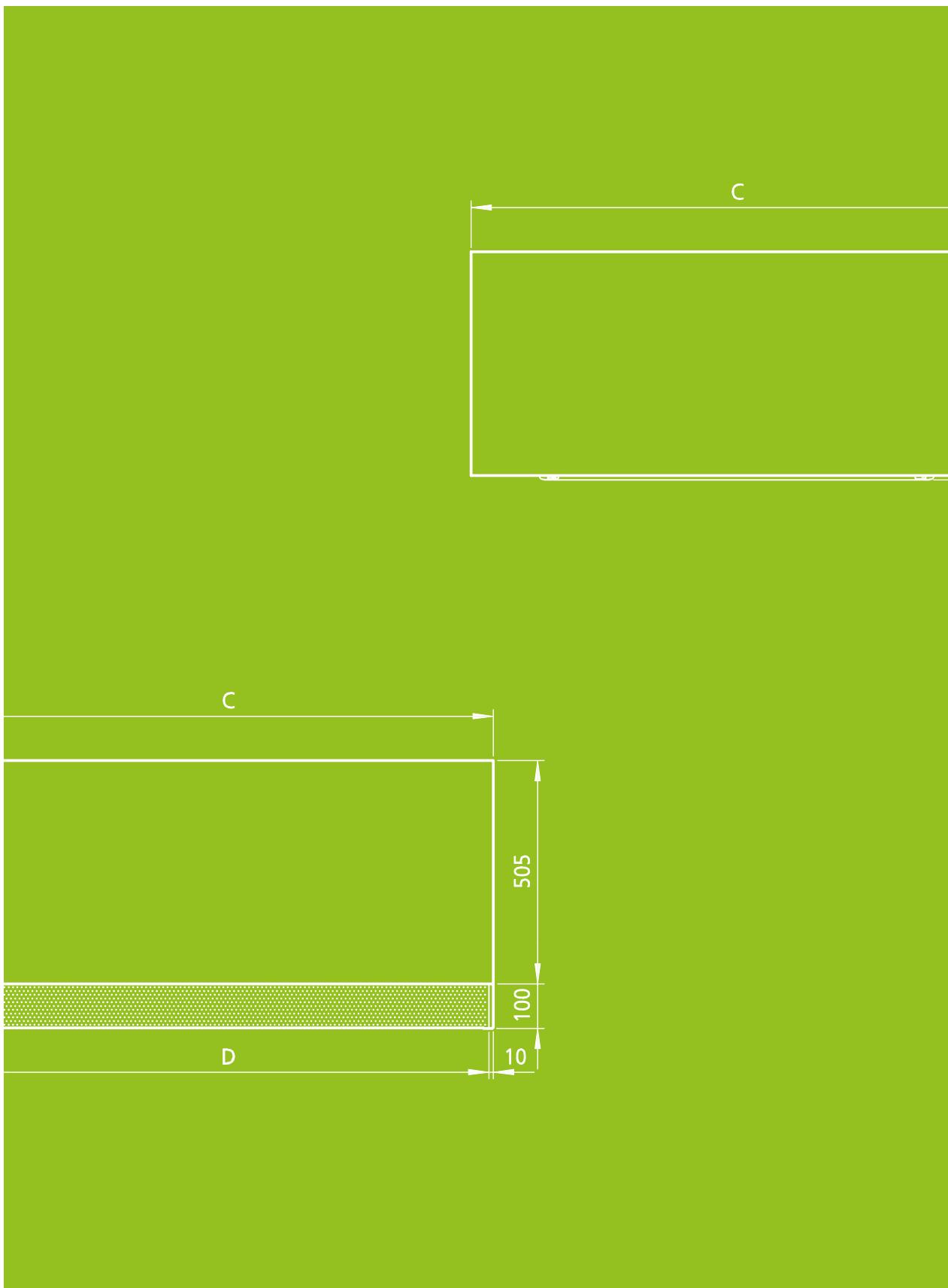
- ▶ flow-optimised output behaviour by means of outlet grille
- ▶ change of outlet air angle, can also be subsequently retrofitted

**8 Inlet grille**

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



## 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

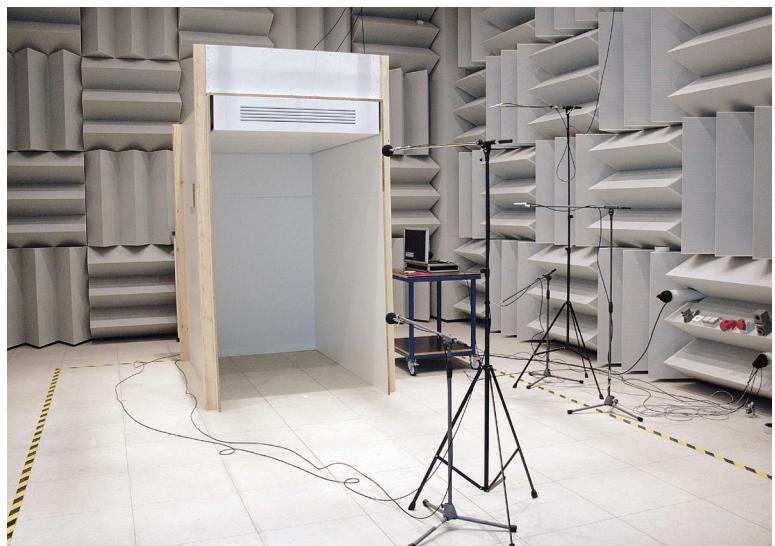
The entering air temperature of the fan convector is selected as the reference / air temperature, which should not be confused with the ambient temperature.

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 1.5 m).

### 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.

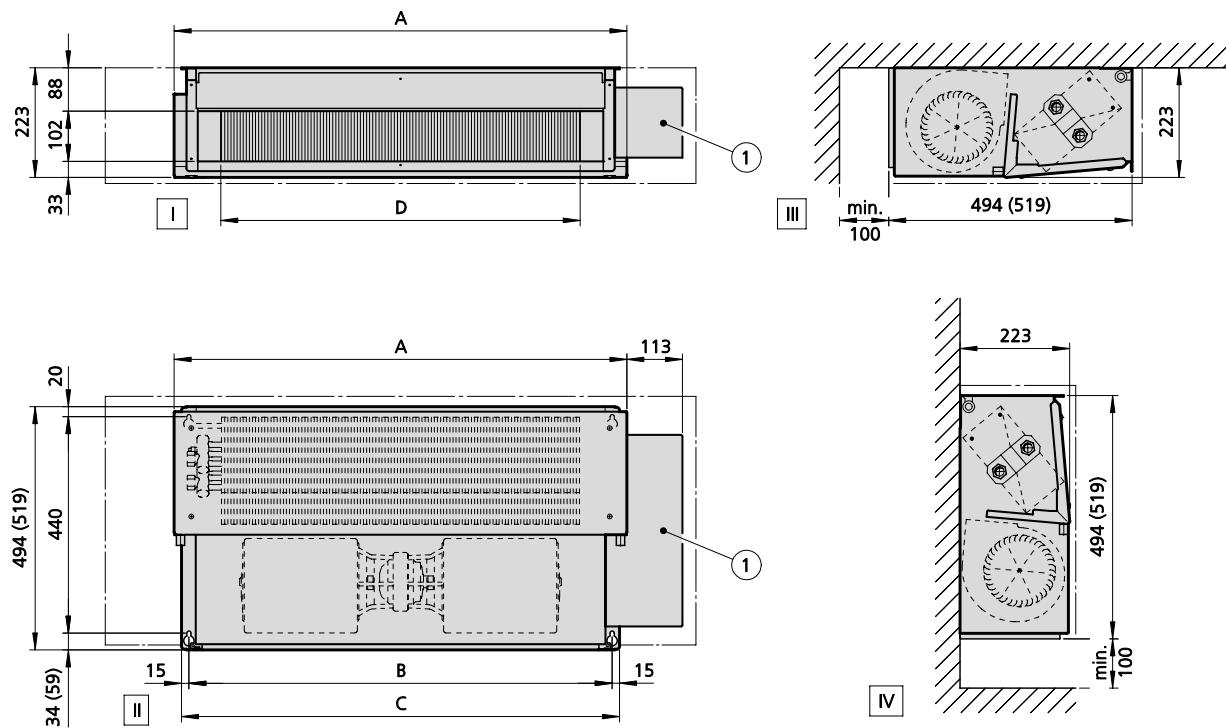


Acoustic laboratory

# Venkon

## Model 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	18	2-pipe	1/2"	---	---
Filter ePM10>50% (M5)	625	560	590	431	17	2-pipe	1/2"	---	---
Filter ePM1>50% (F7)	625	560	590	431	17	2-pipe	1/2"	---	---

**Performance data**

Filter class	Control voltage	Air flow	cooling output, total <sup>1)</sup>	Cooling output, sensitive	Outlet air temperature	Mass Flow cooling	Pressure loss cooling	Heat output <sup>2)</sup>	Outlet air temperature	Pressure loss heating	Pressure loss heating	Power consumption	Ampereage	SFP	Sound pressure level <sup>3)</sup>	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 (G0)	10	562	3567	2977	10.6	613	38.3	8332	64.7	734	45.6	45	390	287	54	62
	8	458	2930	2446	10.4	504	26.7	6860	65.2	605	31.7	25	228	198	48	56
	6	264	1729	1443	10.0	297	10.2	4072	66.5	359	12.0	7	84	96	33	41
	4	205	1355	1131	9.9	233	6.5	3201	67.1	282	7.7	5	68	81	28	36
	1.5	132	885	738	9.6	152	3.0	2100	68.1	185	3.5	3	57	70	21	29
Filter ePM10>50% (M5)	10	480	3065	2558	10.4	527	29.0	7171	65.1	632	34.5	40	354	302	54	62
	8	380	2450	2045	10.3	421	19.2	5747	65.6	507	22.8	23	207	214	48	56
	6	193	1279	1067	9.8	220	5.8	3023	67.2	266	6.9	6	79	115	33	41
	4	141	943	787	9.6	162	3.3	2235	68.0	197	3.9	4	64	104	28	36
	1.5	84	574	479	9.2	99	1.3	1372	69.5	121	1.6	2	56	106	21	29
Filter ePM1>50% (F7)	10	379	2447	2042	10.3	420	19.2	5740	65.6	506	22.8	35	312	332	54	62
	8	284	1854	1548	10.1	319	11.5	4365	66.3	385	13.7	19	181	244	48	56
	6	123	830	693	9.5	143	2.6	1971	68.3	174	3.1	5	72	154	33	41
	4	84	574	479	9.2	99	1.3	1372	69.5	121	1.6	4	62	152	28	36
	1.5	46	321	268	8.7	55	0.5	783	71.9	69	0.6	2	55	194	21	29

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>

<sup>1)</sup> at CHW 7/12 °C, t<sub>l,1</sub> = 27 °C, 48% relative humidity

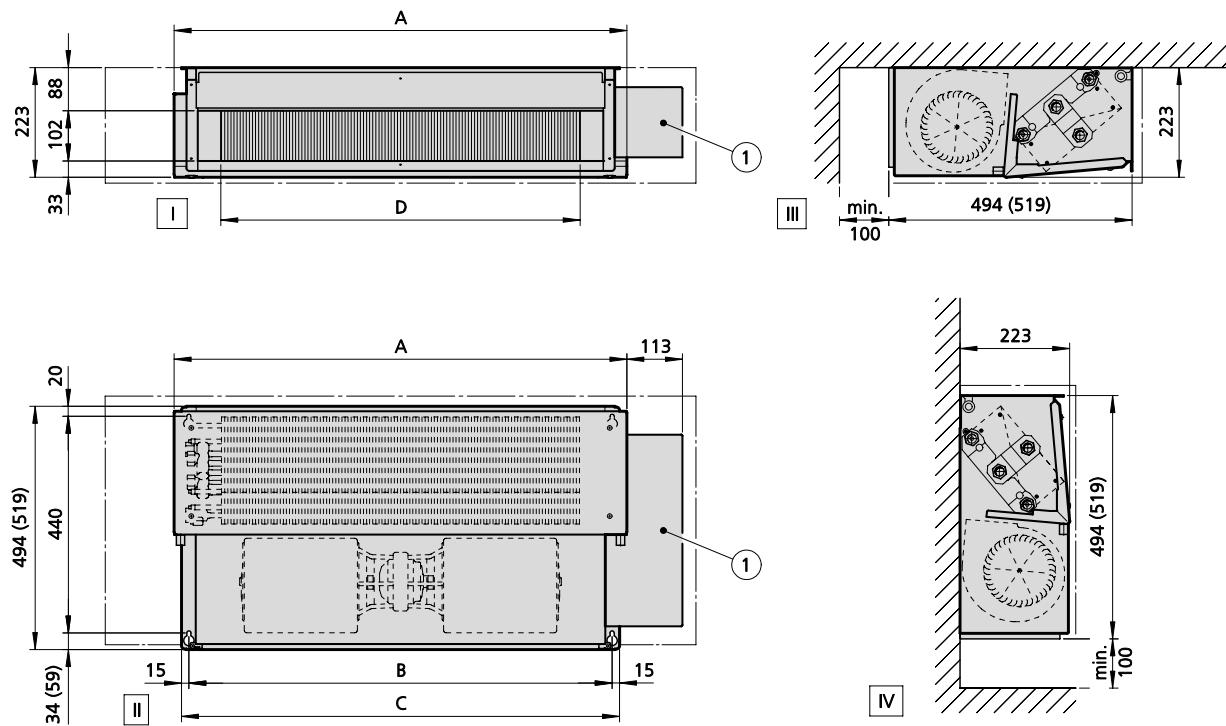
<sup>2)</sup> at LPHW 75/65 °C, t<sub>l,1</sub> = 20 °C

<sup>3)</sup> 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 m<sup>3</sup> and a reverberation time of 0.5 s (in accordance with VDI 2081)

# Venkon

## Model 4-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	18	4-pipe	---	1/2"	1/2"
Filter ePM10>50% (M5)	625	560	590	431	17	4-pipe	---	1/2"	1/2"
Filter ePM1>50% (F7)	625	560	590	431	17	4-pipe	---	1/2"	1/2"

**Performance data**

Filter class	Control voltage	Air flow	cooling output, total <sup>1)</sup>	Cooling output, sensitive	Outlet air temperature	Mass Flow cooling	Pressure loss cooling	Heat output <sup>2)</sup>	Outlet air temperature	Pressure loss heating	Pressure loss heating	Power consumption	Ampereage	SFP	Sound pressure level <sup>3)</sup>	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 (G0)	10	562	3355	2800	11.5	577	26.7	5179	47.8	456	34.6	45	390	287	54	62
	8	458	2764	2307	11.4	475	18.8	4427	49.2	390	25.7	25	228	198	48	56
	6	264	1642	1371	10.9	282	7.3	2888	53.0	255	11.5	7	84	96	33	41
	4	205	1291	1078	10.7	222	4.7	2362	54.7	208	7.9	5	68	81	28	36
	1.5	132	849	708	10.3	146	2.2	1646	57.7	145	4.0	3	57	70	21	29
Filter ePM10>50% (M5)	10	480	2889	2411	11.4	496	20.3	4589	48.8	404	27.5	40	354	302	54	62
	8	380	2316	1933	11.2	398	13.6	3834	50.4	338	19.6	23	207	214	48	56
	6	193	1220	1018	10.6	210	4.2	2251	55.1	198	7.2	6	79	115	33	41
	4	141	903	754	10.4	155	2.4	1738	57.3	153	4.4	4	64	104	28	36
	1.5	84	555	463	9.8	95	1.0	1121	60.5	99	1.9	2	56	106	21	29
Filter ePM1>50% (F7)	10	379	2313	1931	11.2	398	13.6	3830	50.5	338	19.6	35	312	332	54	62
	8	284	1760	1469	11.0	302	8.2	3059	52.5	270	12.8	19	181	244	48	56
	6	123	797	665	10.2	137	1.9	1557	58.1	137	3.6	5	72	154	33	41
	4	84	555	463	9.8	95	1.0	1121	60.5	99	1.9	4	62	152	28	36
	1.5	46	314	262	9.1	54	0.4	662	63.9	58	0.7	2	55	194	21	29

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>

<sup>1)</sup> at CHW 7/12 °C, t<sub>u1</sub> = 27 °C, 48% relative humidity

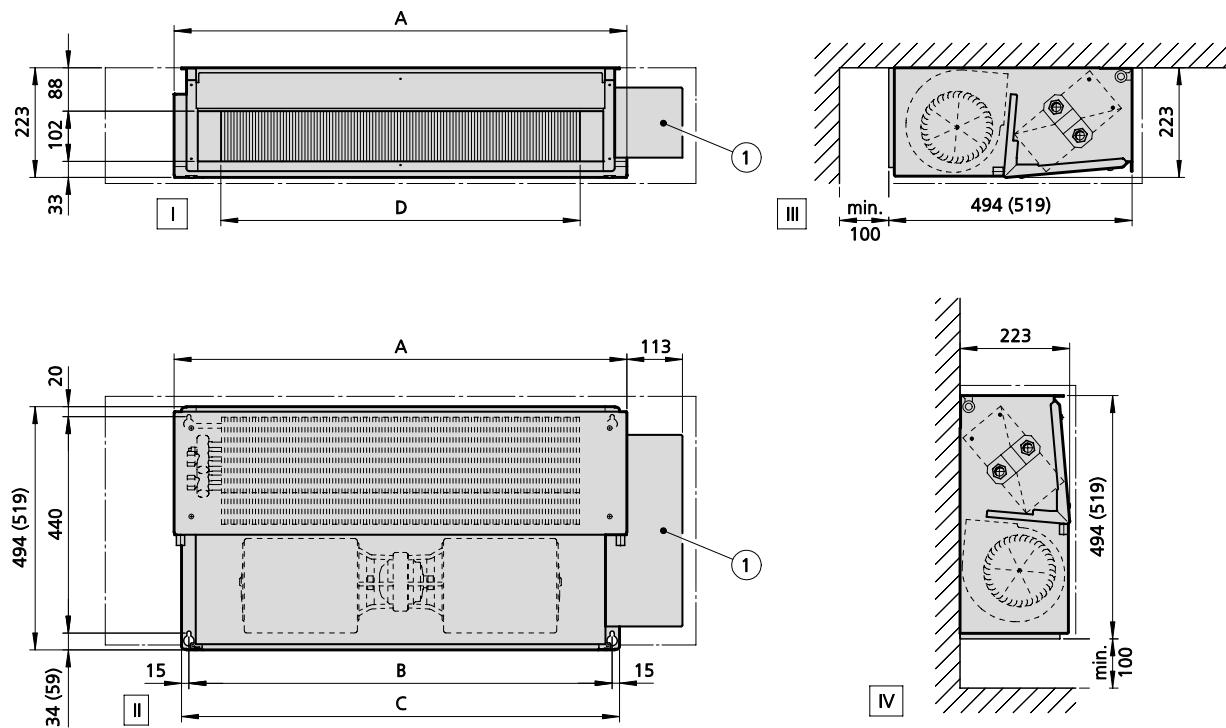
<sup>2)</sup> at LPHW 75/65 °C, t<sub>u1</sub> = 20 °C

<sup>3)</sup> 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 m<sup>3</sup> and a reverberation time of 0.5 s (in accordance with VDI 2081)

# Venkon

## Model 2-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	24	2-pipe	1/2"	---	---
Filter ePM10>50% (M5)	925	860	890	731	24	2-pipe	1/2"	---	---
Filter ePM1>50% (F7)	925	860	890	731	24	2-pipe	1/2"	---	---

**Performance data**

Filter class	Control voltage	Air flow	cooling output, total <sup>1)</sup>	Cooling output, sensitive	Outlet air temperature	Mass Flow cooling	Pressure loss cooling	Heat output <sup>2)</sup>	Outlet air temperature	Pressure loss heating	Pressure loss heating	Power consumption	Ampereage	SFP	Sound pressure level <sup>3)</sup>	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 (G0)	10	858	5206	4345	11.3	895	42.8	12885	65.3	1136	57.6	50	441	210	51	59
	8	684	4201	3506	11.1	722	28.4	10396	65.8	916	38.4	26	241	138	44	52
	6	380	2403	2006	10.6	413	9.8	5944	67.2	524	13.4	6	84	61	29	37
	4	297	1897	1584	10.4	326	6.2	4692	67.7	414	8.6	4	67	52	23	31
	1.5	188	1232	1028	10.0	212	2.7	3042	68.8	268	3.8	3	58	51	15	23
Filter ePM10>50% (M5)	10	693	4253	3550	11.1	731	29.1	10526	65.8	928	39.3	46	405	237	51	59
	8	530	3298	2753	10.9	567	17.9	8160	66.4	719	24.3	23	217	157	44	52
	6	258	1662	1387	10.3	286	4.8	4109	68.0	362	6.7	6	77	80	29	37
	4	186	1220	1018	10.0	210	2.7	3012	68.8	265	3.7	4	64	72	23	31
	1.5	105	710	593	9.4	122	1.0	1757	70.7	155	1.3	2	58	81	15	23
Filter ePM1>50% (F7)	10	526	3271	2731	10.9	562	17.6	8094	66.4	713	24.0	39	354	270	51	59
	8	376	2376	1983	10.6	408	9.6	5877	67.2	518	13.1	19	185	185	44	52
	6	156	1031	860	9.8	177	1.9	2544	69.3	224	2.7	5	72	115	29	37
	4	107	726	606	9.4	125	1.0	1796	70.6	158	1.4	3	62	110	23	31
	1.5	56	390	326	8.8	67	0.3	978	73.1	86	0.4	2	57	149	15	23

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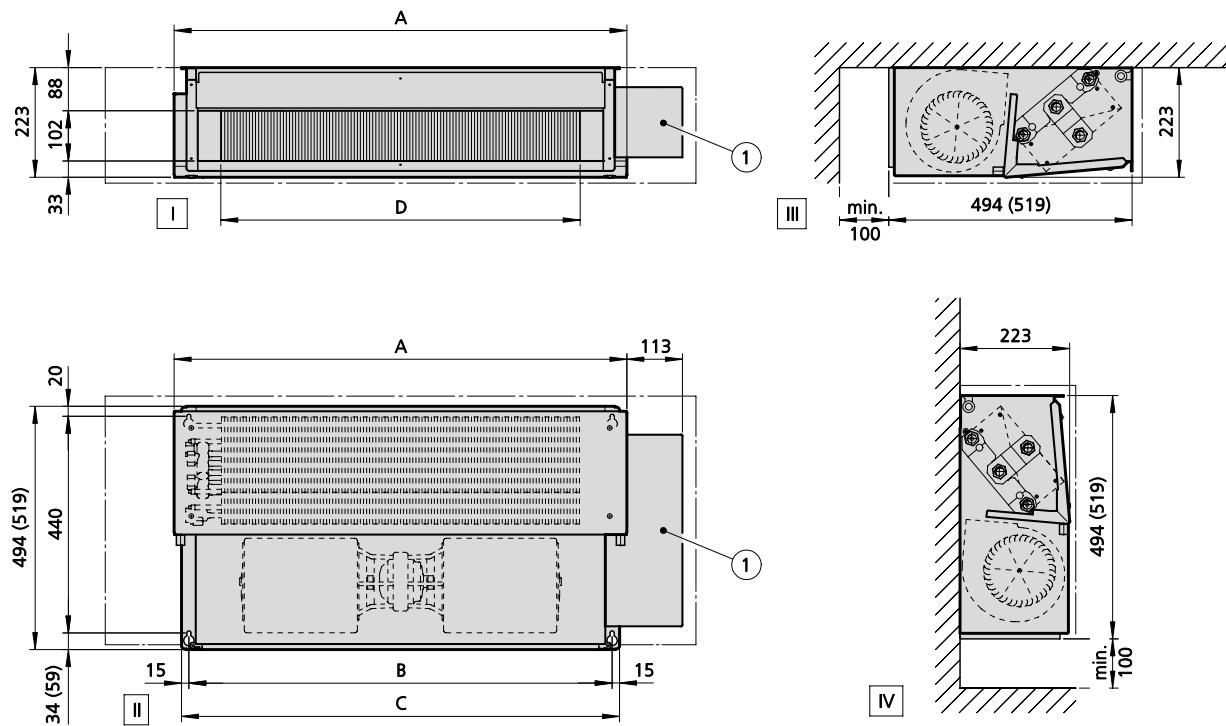
<sup>2)</sup> at LPHW 75/65 °C, t<sub>l,1</sub> = 20 °C

<sup>3)</sup> 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 m<sup>3</sup> and a reverberation time of 0.5 s (in accordance with VDI 2081)

# Venkon

## Model 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	25	4-pipe	---	1/2"	1/2"
Filter ePM10>50% (M5)	925	860	890	731	24	4-pipe	---	1/2"	1/2"
Filter ePM1>50% (F7)	925	860	890	731	24	4-pipe	---	1/2"	1/2"

## Performance data

Filter class	Control voltage	Air flow	cooling output, total <sup>1)</sup>	Cooling output, sensitive	Outlet air temperature	Mass Flow cooling	Pressure loss cooling	Heat output <sup>2)</sup>	Outlet air temperature	Pressure loss heating	Pressure loss heating	Power consumption	Ampereage	SFP	Sound pressure level <sup>3)</sup>	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 (G0)	10	858	4722	3941	12.7	811	30.0	8244	49.0	727	84.4	50	441	210	51	59
	8	684	3826	3194	12.5	658	19.9	6923	50.5	610	61.6	26	241	138	44	52
	6	380	2212	1846	11.9	380	6.9	4358	54.6	384	26.8	6	84	61	29	37
	4	297	1755	1464	11.7	302	4.4	3568	56.3	315	18.7	4	67	52	23	31
	1.5	188	1152	961	11.1	198	1.9	2455	59.4	216	9.5	3	58	51	15	23
Filter ePM10>50% (M5)	10	693	3873	3233	12.5	666	20.4	6994	50.4	616	62.7	46	405	237	51	59
	8	530	3017	2519	12.3	519	12.6	5674	52.3	500	43.0	23	217	157	44	52
	6	258	1542	1287	11.5	265	3.4	3187	57.2	281	15.2	6	77	80	29	37
	4	186	1140	952	11.1	196	1.9	2434	59.4	214	9.4	4	64	72	23	31
	1.5	105	676	564	10.3	116	0.7	1492	63.0	131	3.9	2	58	81	15	23
Filter ePM1>50% (F7)	10	526	2994	2499	12.2	514	12.4	5636	52.3	497	42.5	39	354	270	51	59
	8	376	2187	1825	11.9	376	6.7	4317	54.7	380	26.3	19	185	185	44	52
	6	156	969	808	10.9	166	1.4	2095	60.6	185	7.1	5	72	115	29	37
	4	107	690	576	10.3	119	0.7	1522	62.9	134	4.0	3	62	110	23	31
	1.5	56	378	316	9.4	65	0.2	855	66.4	75	1.4	2	57	149	15	23

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<sup>1)</sup> at CHW 7/12 °C, t<sub>l,1</sub> = 27 °C, 48% relative humidity

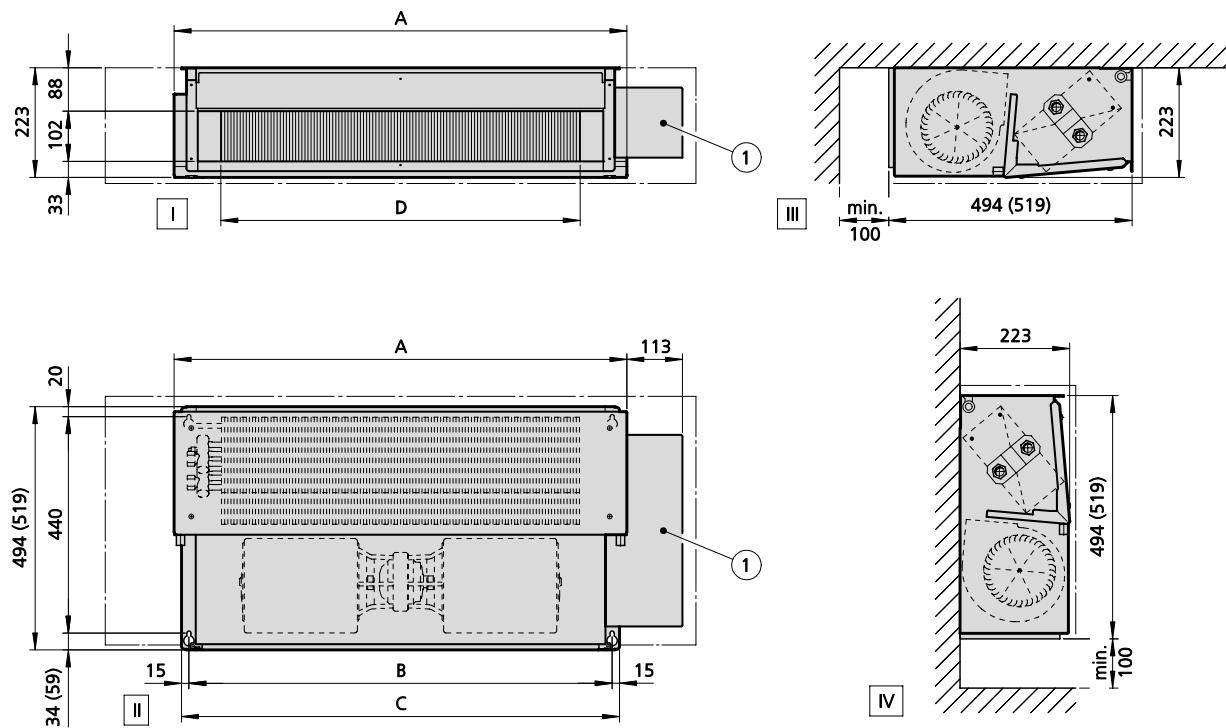
<sup>2)</sup> at LPHW 75/65 °C, t<sub>l,1</sub> = 20 °C

<sup>3)</sup> 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 m<sup>3</sup> and a reverberation time of 0.5 s (in accordance with VDI 2081)

# Venkon

## Model 2-pipe 66

### 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	35	2-pipe	3/4"	---	---
Filter ePM10>50% (M5)	1375	1310	1340	1181	35	2-pipe	3/4"	---	---
Filter ePM1>50% (F7)	1375	1310	1340	1181	35	2-pipe	3/4"	---	---

## Performance data

Filter class	Control voltage	Air flow	cooling output, total <sup>1)</sup>	Cooling output, sensitive	Outlet air temperature	Mass Flow cooling	Pressure loss cooling	Heat output <sup>2)</sup>	Outlet air temperature	Pressure loss heating	Pressure loss heating	Power consumption	Ampereage	SFP	Sound pressure level <sup>3)</sup>	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 (G0)	10	1410	8692	7255	11.0	1494	18.7	20520	63.9	1809	22.3	94	834	240	54	62
	8	1107	6907	5765	10.8	1187	11.9	16335	64.5	1440	14.4	46	460	151	48	56
	6	634	4058	3388	10.4	697	4.2	9640	65.9	850	5.2	13	245	74	34	42
	4	490	3174	2649	10.2	545	2.6	7551	66.5	666	3.3	8	227	62	29	37
	1.5	316	2096	1749	9.8	360	1.1	5003	67.7	441	1.5	5	218	57	20	28
Filter ePM10>50% (M5)	10	1141	7112	5936	10.9	1222	12.6	16815	64.4	1482	15.2	84	760	266	54	62
	8	850	5373	4484	10.6	923	7.2	12733	65.2	1122	8.9	40	418	171	48	56
	6	430	2802	2339	10.1	482	2.0	6673	66.8	588	2.6	11	238	95	34	42
	4	314	2083	1739	9.8	358	1.1	4973	67.7	438	1.5	8	224	89	29	37
	1.5	184	1259	1051	9.3	216	0.4	3038	69.8	268	0.6	5	217	98	20	28
Filter ePM1>50% (F7)	10	869	5487	4580	10.6	943	7.6	13002	65.1	1146	9.3	73	671	303	54	62
	8	601	3856	3219	10.4	663	3.8	9163	66.0	808	4.8	34	371	203	48	56
	6	262	1756	1466	9.6	302	0.8	4203	68.4	370	1.1	10	231	135	34	42
	4	182	1243	1037	9.3	214	0.4	3001	69.8	264	0.6	7	222	140	29	37
	1.5	97	683	570	8.8	117	0.1	1690	72.5	149	0.2	5	216	169	20	28

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<sup>1)</sup> at CHW 7/12 °C, t<sub>l,1</sub> = 27 °C, 48% relative humidity

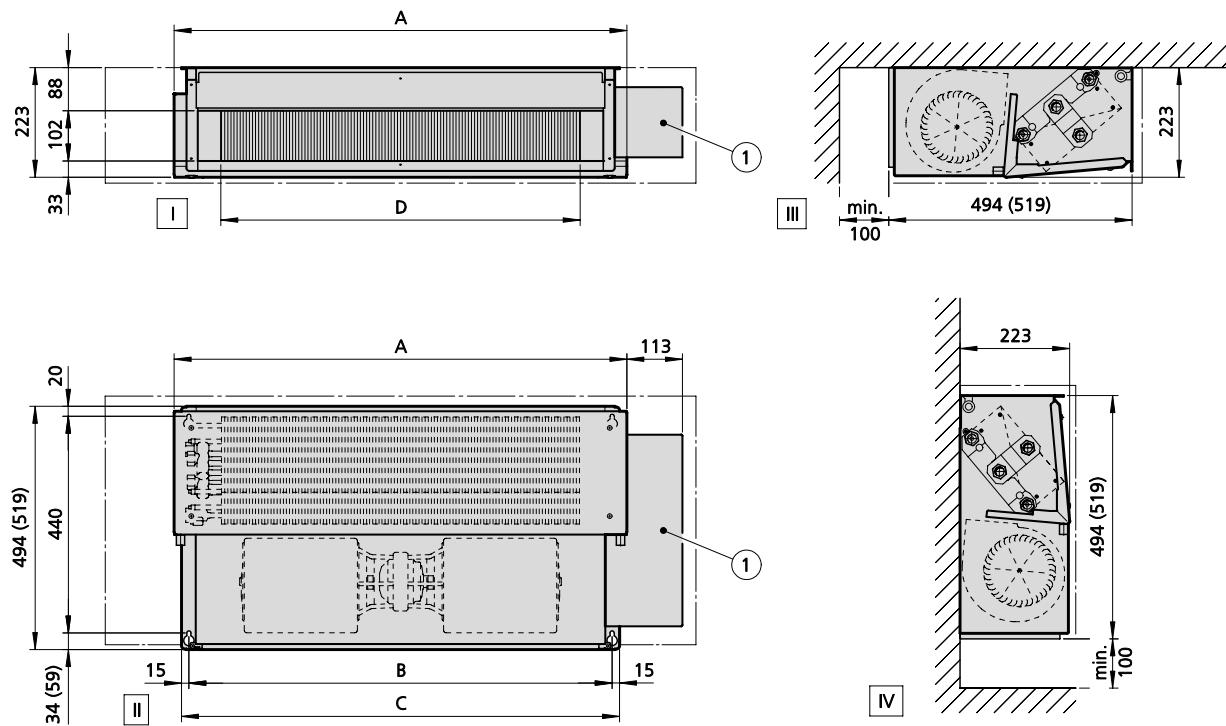
<sup>2)</sup> at LPHW 75/65 °C, t<sub>l,1</sub> = 20 °C

<sup>3)</sup> 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 m<sup>3</sup> and a reverberation time of 0.5 s (in accordance with VDI 2081)

# Venkon

## Model 4-pipe 66

**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	35	4-pipe	---	1/2"	3/4"
Filter ePM10>50% (M5)	1375	1310	1340	1181	35	4-pipe	---	1/2"	3/4"
Filter ePM1>50% (F7)	1375	1310	1340	1181	36	4-pipe	---	1/2"	3/4"

## Performance data

Filter class	Control voltage	Air flow	cooling output, total <sup>1)</sup>	Cooling output, sensitive	Outlet air temperature	Mass Flow cooling	Pressure loss cooling	Heat output <sup>2)</sup>	Outlet air temperature	Pressure loss heating	Pressure loss heating	Power consumption	Ampereage	SFP	Sound pressure level <sup>3)</sup>	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 (G0)	10	1410	7257	6057	13.7	1247	11.2	12565	46.9	1107	50.3	94	834	240	54	62
	8	1107	5812	4851	13.4	999	7.6	10457	48.5	922	36.3	46	460	151	48	56
	6	634	3477	2902	12.8	598	3.0	6793	52.3	599	16.9	13	245	74	34	42
	4	490	2746	2292	12.5	472	2.0	5542	54.1	488	11.7	8	227	62	29	37
	1.5	316	1848	1543	11.8	318	1.0	3893	57.1	343	6.3	5	218	57	20	28
Filter ePM10>50% (M5)	10	1141	5978	4990	13.4	1027	8.0	10705	48.3	943	37.8	84	760	266	54	62
	8	850	4559	3805	13.1	784	4.9	8541	50.3	753	25.3	40	418	171	48	56
	6	430	2438	2035	12.3	419	1.6	4992	55.0	440	9.7	11	238	95	34	42
	4	314	1838	1534	11.8	316	1.0	3873	57.2	341	6.2	8	224	89	29	37
	1.5	184	1141	953	10.9	196	0.4	2475	60.5	218	2.8	5	217	98	20	28
Filter ePM1>50% (F7)	10	869	4653	3884	13.1	800	5.1	8688	50.1	766	26.1	73	671	303	54	62
	8	601	3310	2763	12.7	569	2.8	6514	52.7	574	15.6	34	371	203	48	56
	6	262	1564	1305	11.5	269	0.7	3335	58.4	294	4.8	10	231	135	34	42
	4	182	1127	941	10.9	194	0.4	2447	60.6	216	2.7	7	222	140	29	37
	1.5	97	638	533	10.0	110	0.1	1426	64.3	126	1.0	5	216	169	20	28

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<sup>1)</sup> at CHW 7/12 °C, t<sub>l,1</sub> = 27 °C, 48% relative humidity

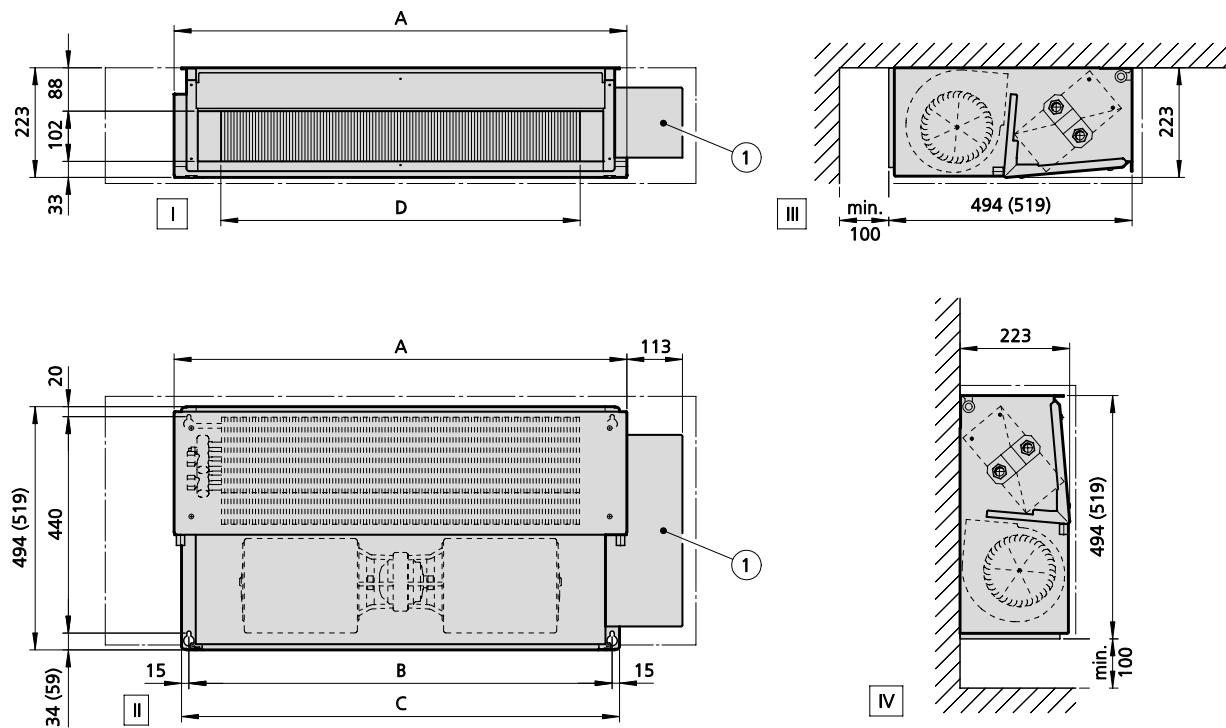
<sup>2)</sup> at LPHW 75/65 °C, t<sub>l,1</sub> = 20 °C

<sup>3)</sup> 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 m<sup>3</sup> and a reverberation time of 0.5 s (in accordance with VDI 2081)

# Venkon

## Model 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	45	2-pipe	3/4"	---	---
Filter ePM10>50% (M5)	1725	1660	1690	1531	44	2-pipe	3/4"	---	---
Filter ePM1>50% (F7)	1725	1660	1690	1531	44	2-pipe	3/4"	---	---

## Performance data

Filter class	Control voltage	Air flow	cooling output, total <sup>1)</sup>	Cooling output, sensitive	Outlet air temperature	Mass Flow cooling	Pressure loss cooling	Heat output <sup>2)</sup>	Outlet air temperature	Pressure loss heating	Pressure loss heating	Power consumption	Ampereage	SFP	Sound pressure level <sup>3)</sup>	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 (G0)	10	1713	11351	9474	9.8	1951	36.2	26532	66.7	2338	41.8	100	887	211	53	61
	8	1363	9101	7597	9.7	1564	23.4	21341	67.2	1881	27.7	52	509	137	46	54
	6	766	5204	4344	9.4	894	7.8	12301	68.4	1084	9.8	13	250	60	31	39
	4	588	4020	3356	9.3	691	4.7	9537	68.9	841	6.1	9	232	53	26	34
	1.5	355	2466	2058	9.0	424	1.8	5891	70.0	519	2.5	5	226	48	18	26
Filter ePM10>50% (M5)	10	1369	9137	7626	9.7	1570	23.6	21423	67.2	1888	27.9	90	810	237	53	61
	8	1047	7049	5884	9.6	1211	14.2	16590	67.8	1462	17.3	46	463	159	46	54
	6	498	3424	2858	9.2	588	3.4	8139	69.3	717	4.5	11	242	81	31	39
	4	359	2493	2081	9.0	428	1.8	5954	70.0	525	2.5	7	229	72	26	34
	1.5	206	1454	1214	8.7	250	0.6	3520	71.6	310	0.9	5	225	82	18	26
Filter ePM1>50% (F7)	10	1029	6932	5786	9.6	1191	13.7	16317	67.8	1438	16.7	77	710	271	53	61
	8	735	4999	4173	9.4	859	7.2	11823	68.5	1042	9.1	38	407	188	46	54
	6	299	2086	1741	8.9	358	1.3	4999	70.5	441	1.8	9	236	114	31	39
	4	206	1457	1217	8.7	250	0.6	3528	71.6	311	0.9	7	227	116	26	34
	1.5	107	769	642	8.4	132	0.2	1908	73.7	168	0.3	4	224	148	18	26

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<sup>1)</sup> at CHW 7/12 °C, t<sub>l,1</sub> = 27 °C, 48% relative humidity

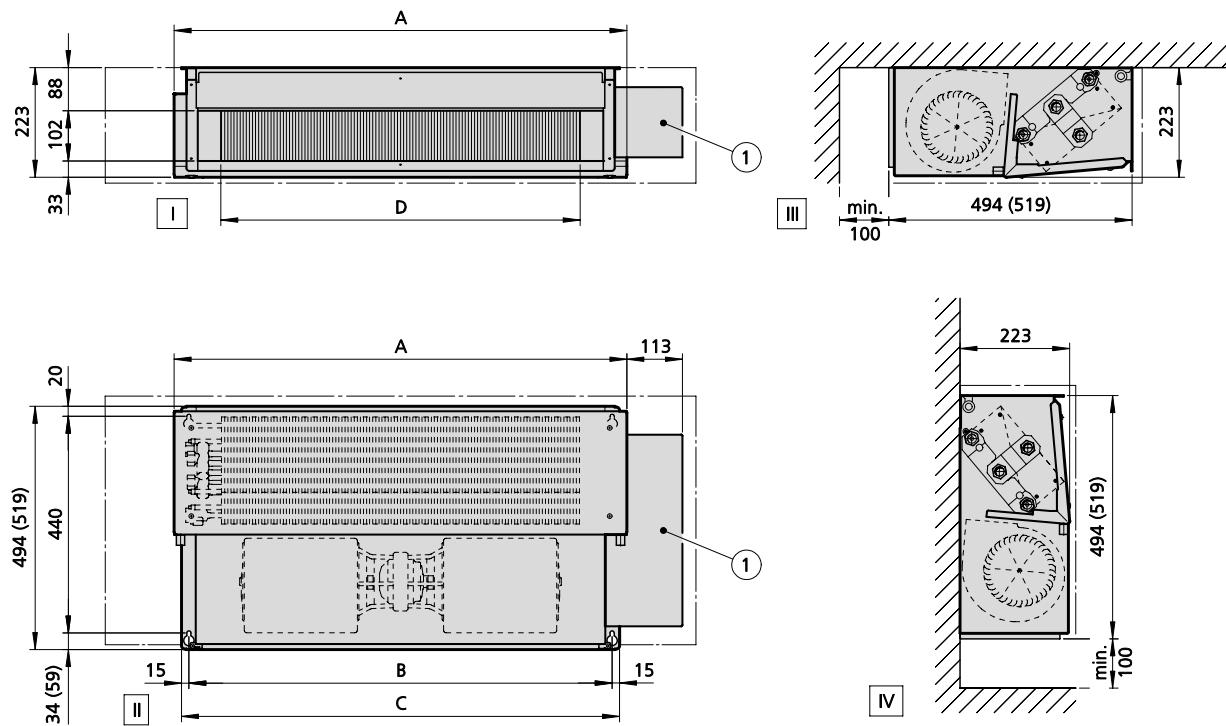
<sup>2)</sup> at LPHW 75/65 °C, t<sub>l,1</sub> = 20 °C

<sup>3)</sup> 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 m<sup>3</sup> and a reverberation time of 0.5 s (in accordance with VDI 2081)

# Venkon

## Model 4-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	45	4-pipe	---	1/2"	3/4"
Filter ePM10>50% (M5)	1725	1660	1690	1531	45	4-pipe	---	1/2"	3/4"
Filter ePM1>50% (F7)	1725	1660	1690	1531	45	4-pipe	---	1/2"	3/4"

## Performance data

Filter class	Control voltage	Air flow	cooling output, total <sup>1)</sup>	Cooling output, sensitive	Outlet air temperature	Mass Flow cooling	Pressure loss cooling	Heat output <sup>2)</sup>	Outlet air temperature	Pressure loss heating	Pressure loss heating	Power consumption	Ampereage	SFP	Sound pressure level <sup>3)</sup>	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 (G0)	10	1713	9967	8319	11.9	1713	24.5	16113	48.4	1420	93.4	100	887	211	53	61
	8	1363	8044	6714	11.7	1382	16.4	13521	49.9	1192	68.1	52	509	137	46	54
	6	766	4674	3901	11.2	803	5.9	8610	53.9	759	30.3	13	250	60	31	39
	4	588	3639	3037	11.0	625	3.7	6961	55.7	614	20.6	9	232	53	26	34
	1.5	355	2271	1896	10.4	390	1.5	4610	59.1	406	9.8	5	226	48	18	26
Filter ePM10>50% (M5)	10	1369	8074	6740	11.7	1388	16.5	13563	49.9	1195	68.5	90	810	237	53	61
	8	1047	6276	5239	11.5	1079	10.3	11016	51.7	971	47.1	46	463	159	46	54
	6	498	3115	2600	10.8	535	2.8	6089	56.9	537	16.2	11	242	81	31	39
	4	359	2295	1915	10.4	394	1.6	4653	59.1	410	10.0	7	229	72	26	34
	1.5	206	1371	1145	9.7	236	0.6	2902	62.6	256	4.3	5	225	82	18	26
Filter ePM1>50% (F7)	10	1029	6175	5154	11.5	1061	10.0	10868	51.8	958	46.0	77	710	271	53	61
	8	735	4494	3751	11.2	772	5.5	8331	54.2	734	28.5	38	407	188	46	54
	6	299	1934	1615	10.2	332	1.1	3989	60.3	352	7.6	9	236	114	31	39
	4	206	1374	1147	9.7	236	0.6	2908	62.5	256	4.3	7	227	116	26	34
	1.5	107	745	622	9.0	128	0.2	1639	66.2	144	1.5	4	224	148	18	26

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<sup>1)</sup> at CHW 7/12 °C, t<sub>l,1</sub> = 27 °C, 48% relative humidity

<sup>2)</sup> at LPHW 75/65 °C, t<sub>l,1</sub> = 20 °C

<sup>3)</sup> 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 m<sup>3</sup> 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 m<sup>3</sup> and a reverberation time of 0.5 s (in accordance with VDI 2081).

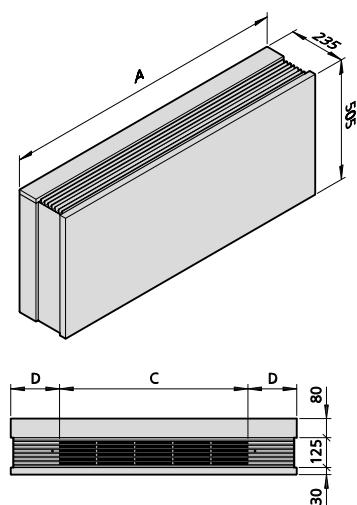
As the sound level is not only due to the Venkon but is also influenced by the number of units and also very significantly by the acoustic characteristics of the room, the actual figure may vary in practice. We would recommend designing Venkons taking into account the respective permitted sound pressure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

## Comfort

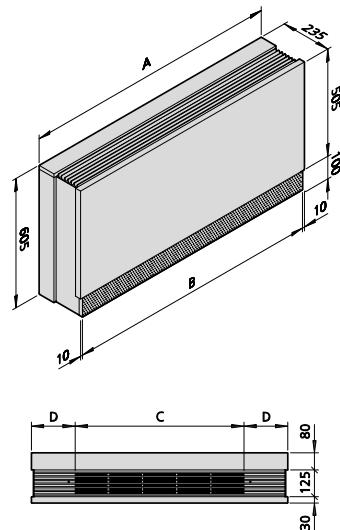
The comfort was calculated taking into consideration DIN EN ISO 7730 (May 2006) "Ergonomics of the thermal environment – analytical determination and interpretation of thermal comfort by calculation of the PMV and the PDB indexes and criteria of local thermal comfort (ISO 7730: 2005). The air outlet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

## Casing selection

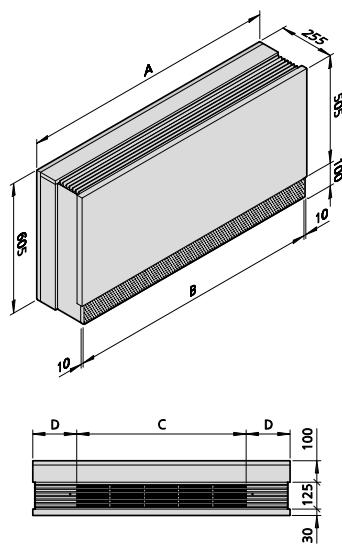
**Casing, wall-mounted without inlet grille**



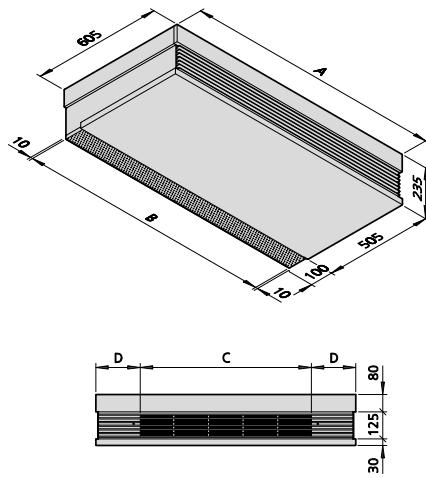
**Casing, wall-mounted with inlet grille**



**Free-standing casing without air inlet grille with rear panel**



**Casing, ceiling-mounted with inlet grille**

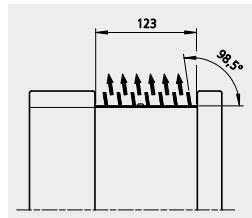


### Dimensions

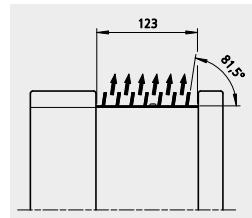
Model	A [mm]	W [mm]	C [mm]	D [mm]
<b>61</b>	900	880	470	215
<b>63</b>	1200	1180	790	205
<b>66</b>	1650	1630	1270	190
<b>67</b>	2000	1980	1590	205

## 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.



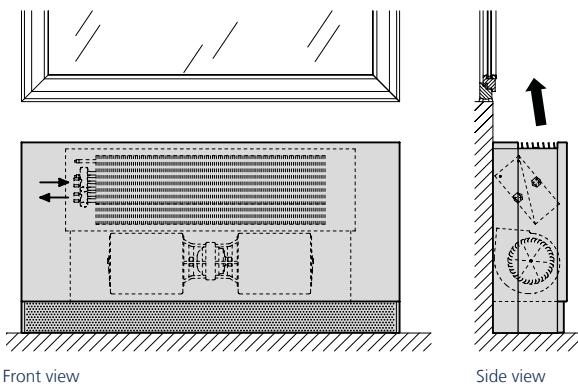
Standard air discharge direction



Alternative air discharge direction

## Connections, definition of the water connection side

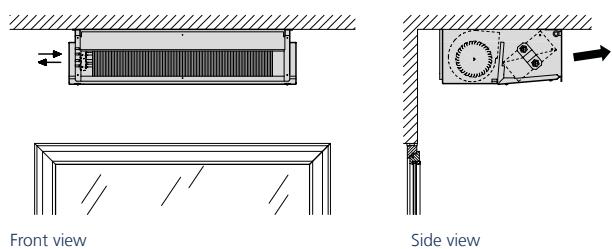
**Water connection on left, illustrated by Venkon with casing, wall-standing**



Front view

Side view

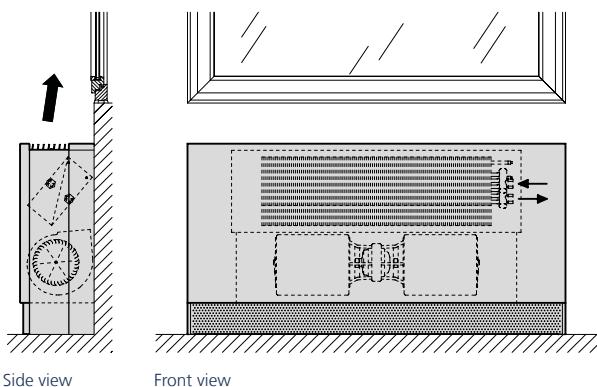
**Water connection on left, illustrated by Venkon basic unit, ceiling-mounted model**



Front view

Side view

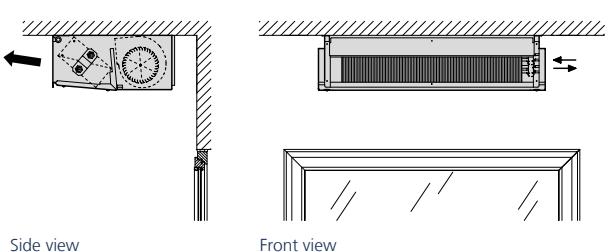
**Water connection on right, illustrated by Venkon with casing, wall-standing**



Side view

Front view

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



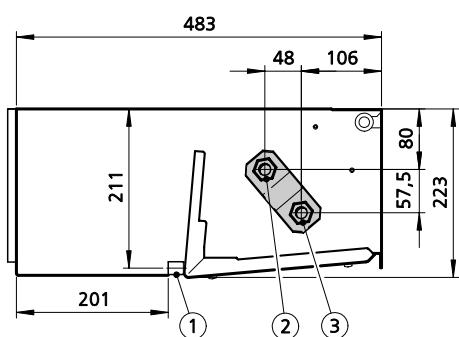
Side view

Front view

## Water connections

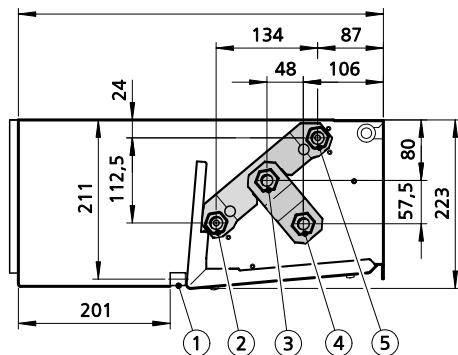
### 2-pipe

(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

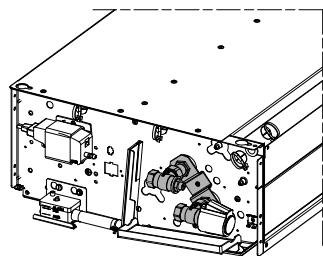


- ① Condensation connection Ø 15 mm
- ② Heating return Rp 1/2"
- ③ Cooling return Rp 1/2" / Rp 3/4"\*
- ④ Cooling flow Rp 1/2" / Rp 3/4"\*
- ⑤ Heating flow Rp 1/2"

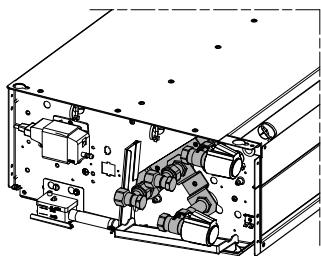
Models 61 – 63 1 / 2", models 66 – 67: 3/4"

## Water connection accessories, valve kit selection

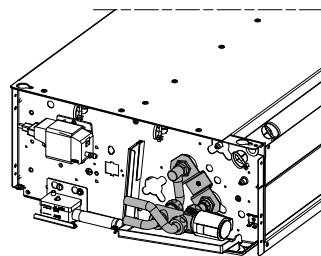
2-way valve kit, 2-pipe



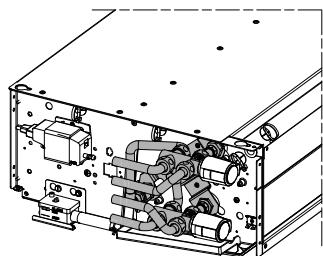
2-way valve kit, 4-pipe



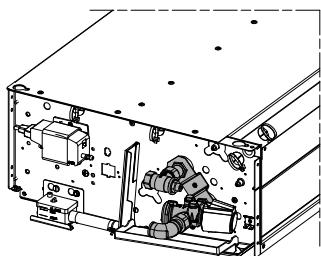
3-way valve kit, 2-pipe



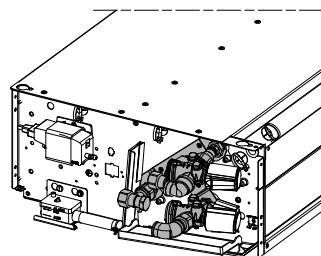
3-way valve kit, 4-pipe



Differential pressure-independent valve kit, 2-pipe



Differential pressure-independent valve kit, 4-pipe



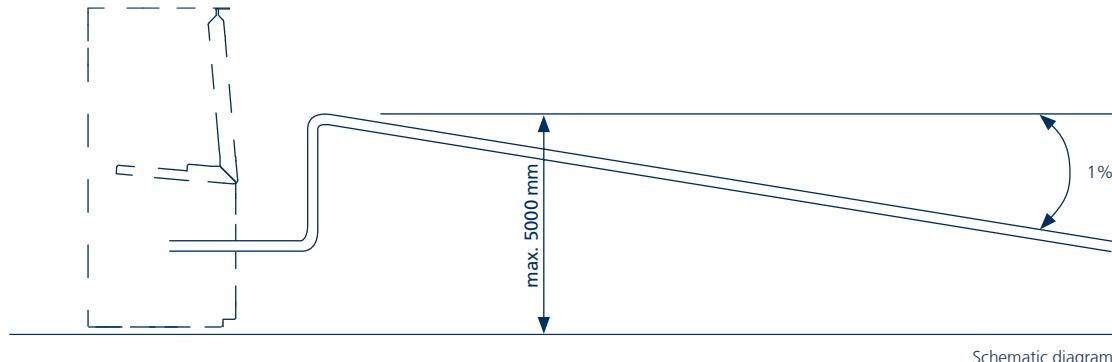
## Condensation drain

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:**

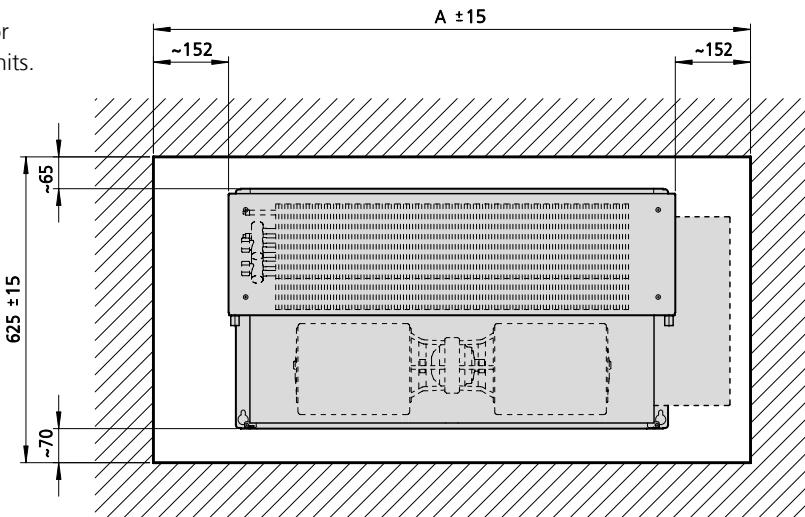
The condensation can be monitored via a dewpoint sensor fitted to the basic unit with "dry cooling" (optional accessories).



## 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 °C → 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 °C → 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 °C = heating valve open, fan stage 1
- ▶ parametrisable unit frost protection function → RT < 4° 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 mm<sup>2</sup>.
- ▶ Only pulse and/or all-current sensitive residual current protective devices (type A or B) are permitted

when using residual current protective devices.

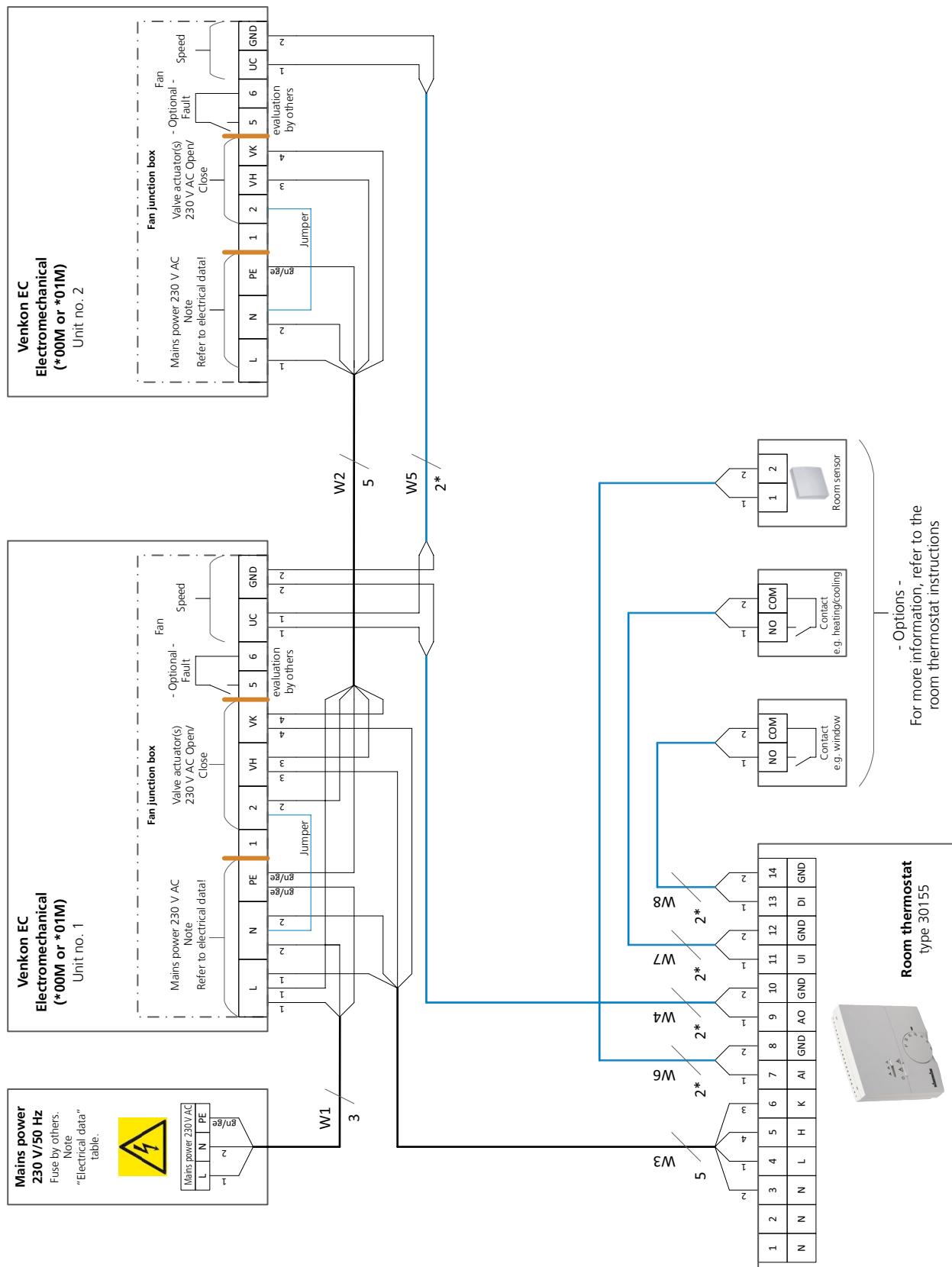
When power is applied to the unit, pulse-like capacitor load currents in the integrated EMC filter can lead to the RCCB being immediately tripped. We recommend residual current protective switches with a threshold of 300 mA and delayed triggering (super resistant, characteristic K).

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

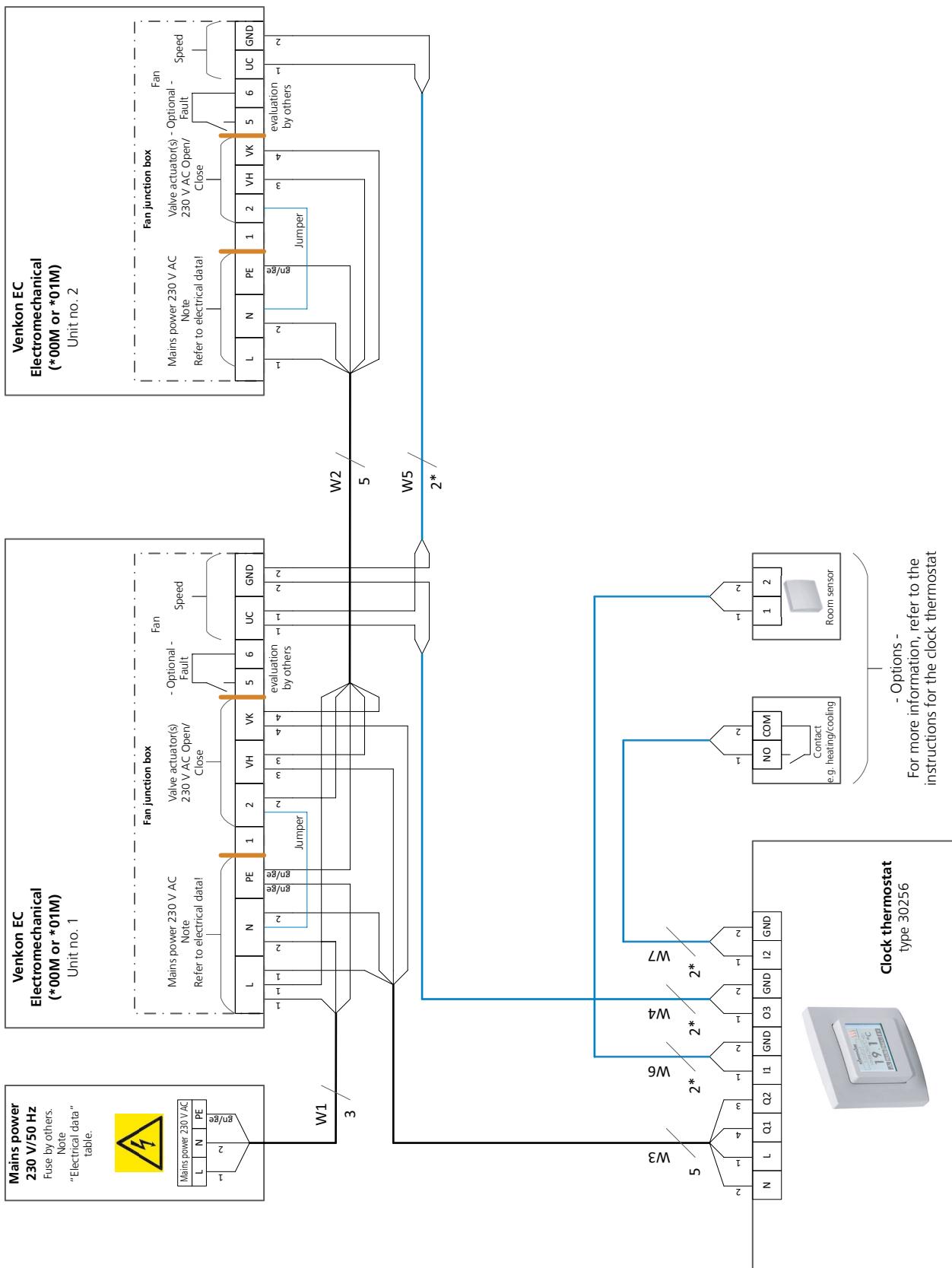
**Electrical data for Venkon EC, electromechanical model (\*00M / \*01M)**

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

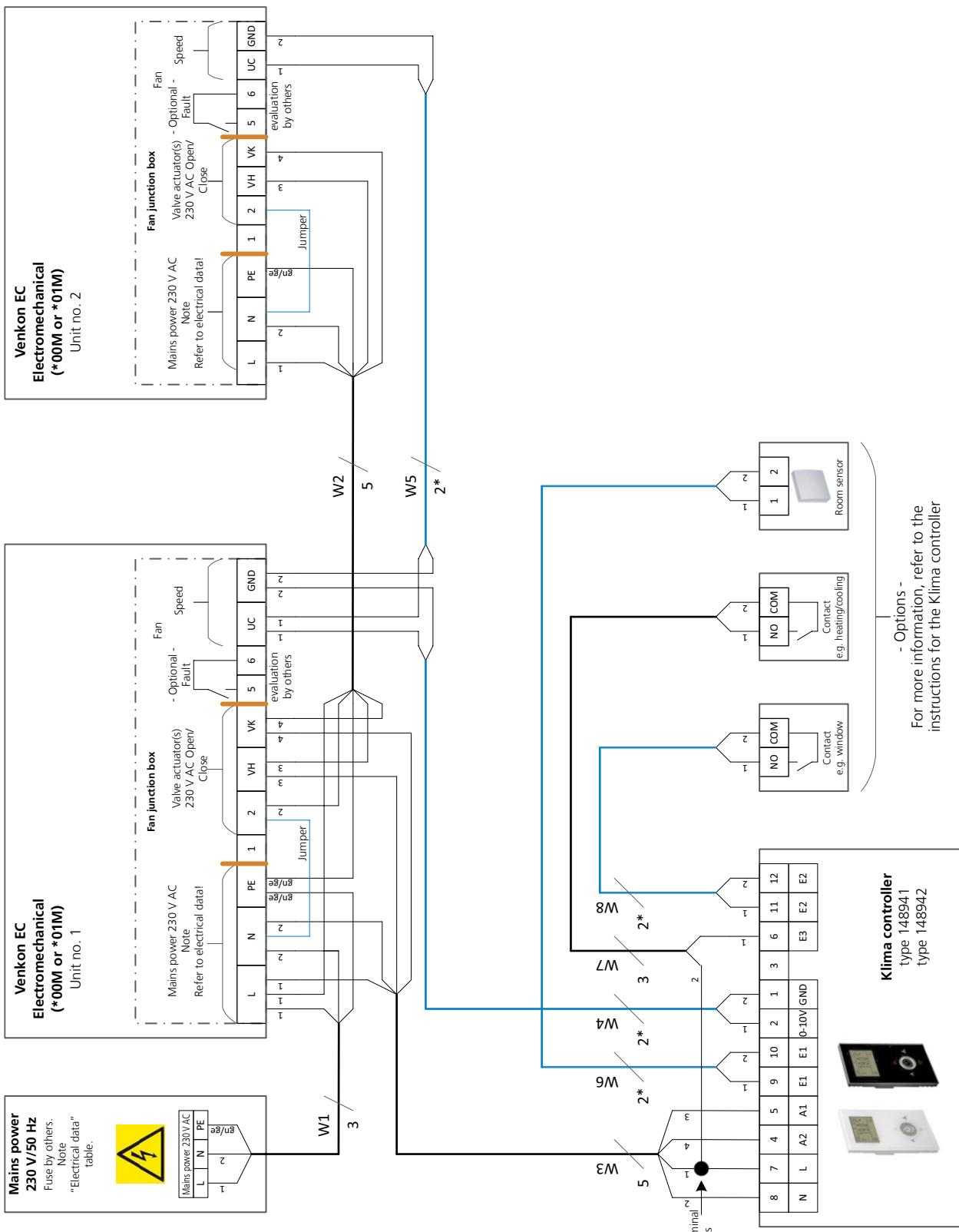
**Cabling and wiring for Venkon EC electromechanical (\*00M, \*01M),  
2- or 4-pipe, valve actuator(s) 230 V AC Open/Closed, motor fault optional,  
room thermostat type 196000030155**



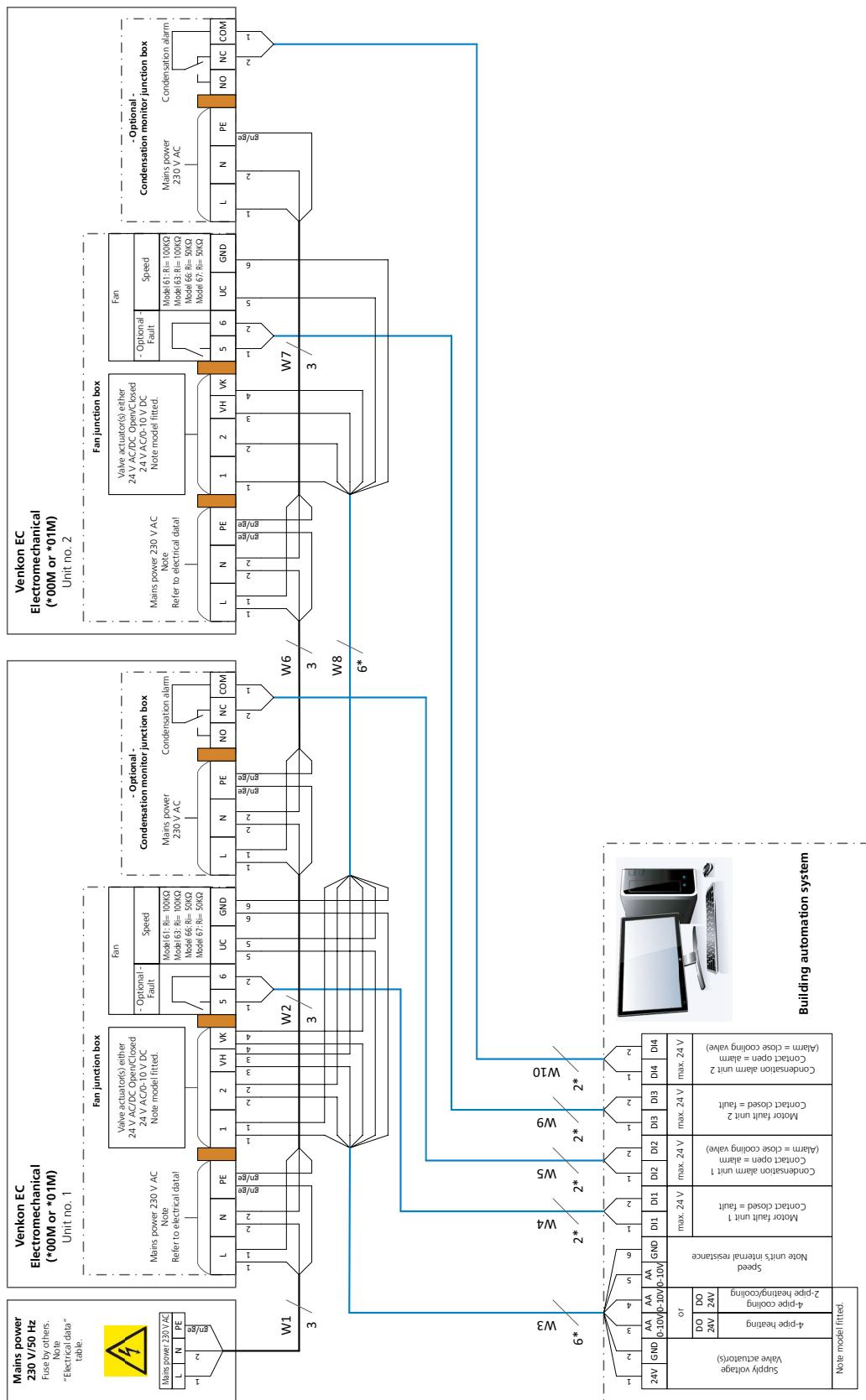
Cabling and wiring for Venkon EC electromechanical (\*00M, \*01M),  
2- or 4-pipe, valve actuator(s) 230 V AC Open/Closed, motor fault optional,  
Clock thermostat type 196000030256



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 °C = heating valve open, fan stage 1
- ▶ unit frost protection function → RT < 4° = 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 mm<sup>2</sup>. 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 mm<sup>2</sup>.

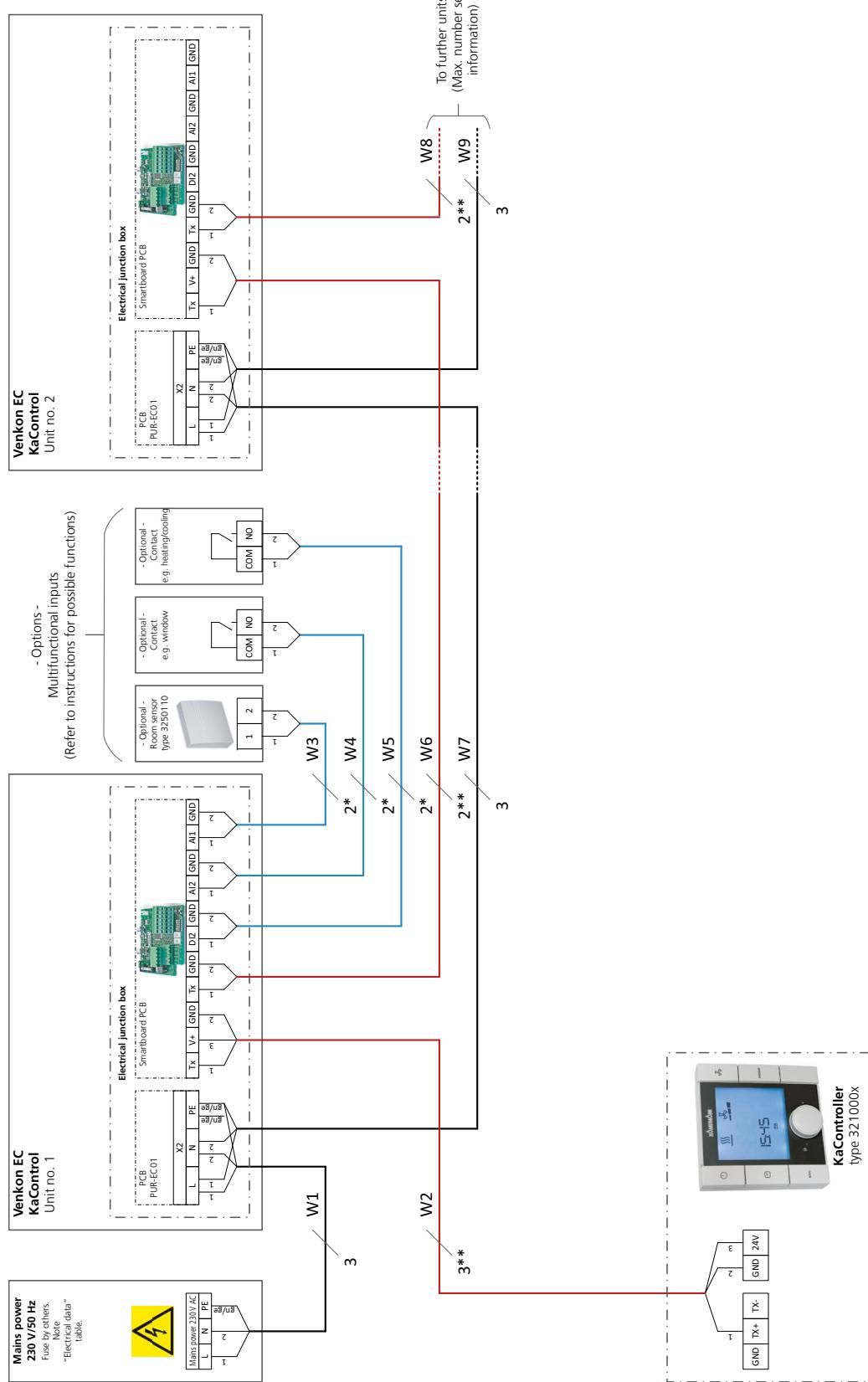
- ▶ Only pulse and/or all-current sensitive residual current protective devices (type A or B) are permitted when using residual current protective devices. When power is applied to the unit, pulse-like capacitor load currents in the integrated EMC filter can lead to the RCCB being immediately tripped. 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]	
<b>61</b>	1 x Single	230	50	48	0.42	< 3.5	20	IP21	I
<b>63</b>	1 x Tandem	230	50	54	0.47	< 3.5	20	IP21	I
<b>66</b>	1 x Single, 1 x Tandem	230	50	98	0.87	< 3.5	20	IP21	I
<b>67</b>	2 x Tandem	230	50	105	0.92	< 3.5	20	IP21	I

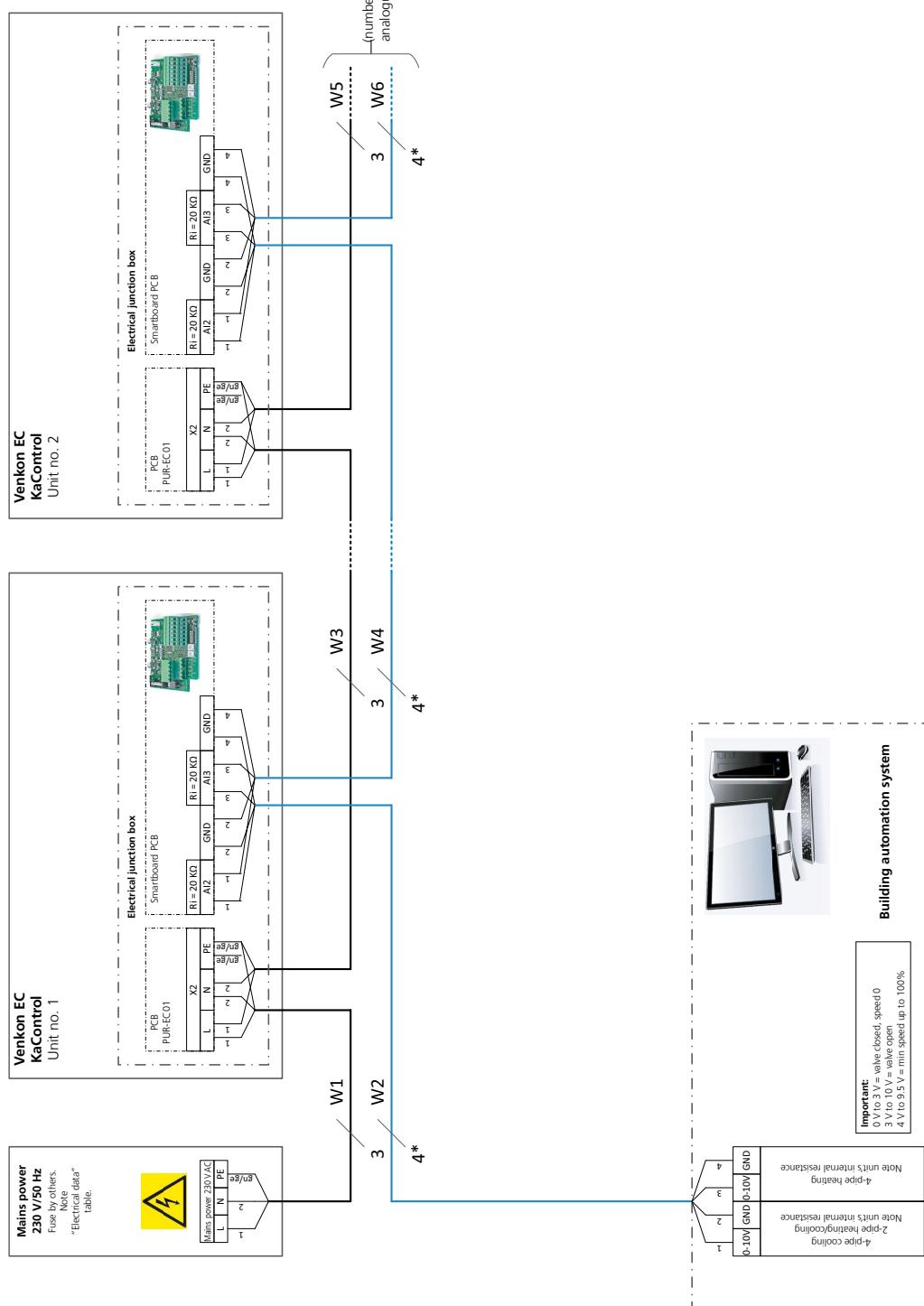
## Venkon EC with KaControl (\*C1M or \*C1E)

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 of 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**



**KaControl AUL 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

- ▶ 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 [mm]	Suitable for	Article no.
<b>Control accessories KaControl</b>					
	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, plastic	86 x 52 x 86	all units with control option KaControl -C1	<b>196003210001</b>
	KaController	with one-button operation, 24 V wall-mounted room control unit, with integral room temperature sensor, Protection class IP 30, Colour similar to RAL 9017 traffic black, plastic	86 x 52 x 86	all units with control option KaControl -C1	<b>196003210006</b>
	KaController	with side operating keys, 24 V wall-mounted room control unit, with integral room temperature sensor, Protection class IP 30, Colour similar to RAL 9010 pure white, plastic	86 x 52 x 86	all units with control option KaControl -C1	<b>196003210002</b>
	Room temperature sensor	Wall-mounted, Surface-mounted, Protection class IP 30, Colour similar to RAL 9010 pure white, plastic 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*	<b>196003250110</b>
	Clip-on pipe sensor	to detect the medium temperature, heating/cooling changeover function only in conjunction with 3-way valve!, Protection class IP 67, Temperature setting range -20 - 70 °C, Colour black 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!	5 x 6 x 3000	all units with KaControl -C1 and climate controller art. no. 19600014894*	<b>196003250115</b>
	Serial KNX card	for integration into a KNX/EIB network, interface PCOS00KXN0, Type 3260702 The communication card slots into the free interface on the PCB.	35 x 20 x 80	all units with control option KaControl -C1	<b>196003260702</b>
	Serial CANbus card	to increase the number of units in a single-circuit system from 7 to a maximum of 30 units, one required per unit, Extension of the cable length from the first to the last unit from 30 m to 500 m Can only be used with the KaControl configuration.	35 x 30 x 60	all units with control option KaControl -C1	<b>196003260301</b>
	Serial Modbus card	Required for each device for connection to KaControl panels or on-site Modbus networks. The communication card slots into the free interface on the PCB.	31 x 12 x 61	all units with control option KaControl -C1	<b>196003260101</b>

CONTINUED ➤

## Accessories

Article	Article	Properties	Dimensions [mm]	Suitable for	Article no.
<b>Control accessories electromechanical 230 V</b>					
	Room thermostat	Heating/Cooling, 2- and 4-pipe, 3-stage. Only in conjunction with valves/valve kits with actuator, 230 V AC, Open/Closed, with OFF/Manual/Automatic fan switch-over, Surface-mounted, Temperature setting range 5 - 30 °C, Colour similar to RAL 9010 pure white	110 x 111 x 26	EC units electromechanical, 5 Katherm HK Trench Technology, 2 TOP or Ultra Unit Heaters, 5 Venkon Fan Coils, 2 KaCool D AF, KaCool W or KaDeck Fan Coils	<b>196000030155</b>
	Clock thermostat	Heating/Cooling, 2- and 4-pipe, 230 V AC, continuously variable, with LCD operating menu and integrated timer program, flush-mounted, Protection class IP 30, Colour similar to RAL 9010 pure white	85 x 46 x 81	EC units electromechanical, 2 TOP or Ultra Unit Heaters, 5 Venkon Fan Coils, 2 KaCool D AF, KaCool W or KaDeck Fan Coils	<b>196000030256</b>
	Remote sensor	Connection cable max. 50 m	78 x 79 x 14	Room thermostats art. no. 196000148916, 196000030155, 196000030256 und 196000030456	<b>196000148921</b>
	Climate Controller	Heating/Cooling, 2- and 4-pipe, Without Modbus, only with valves/valve kits, 230 V AC, Open/Closed, continuously variable, with LCD operating menu and integrated timer program, Surface-mounted, Colour similar to RAL 9010 pure white	78 x 140 x 15	EC units electromechanical, 4 Katherm HK Trench Technology, 2 KaCool D AF, KaCool W, Venkon or KaDeck Fan Coils	<b>196000148941</b>
	Climate Controller	Heating/Cooling, 2- and 4-pipe, Without Modbus, only with valves/valve kits, 230 V AC, Open/Closed, continuously variable, with LCD operating menu and integrated timer program, Surface-mounted, Colour similar to RAL 9004 signal black	78 x 140 x 15	EC units electromechanical, 4 Katherm HK Trench Technology, 2 KaCool D AF, KaCool W, Venkon or KaDeck Fan Coils	<b>196000148942</b>

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## Accessories

Article	Article	Properties	Dimensions [mm]	Suitable for	Article no.
	Surface-mounted frame	for surface-mounted installation of room thermostats, if no flush-mounted box is possible, Surface-mounted	170 x 42 x 170	Room thermostats art. no. 196000100915, 196000148916, 196000148917, 196000148918 und 19600030155	<b>196000030159</b>

### Valve kits

	2-way valve kit	2-pipe, with lockable return shut-off valve, 2-way valve, pre-settable, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model 61, Water connections Left <b>14863BBL212A</b> Model 63, Water connections Left <b>14863BBL232A</b> Model 66, Water connections Left <b>14863BBL262A</b> Model 67, Water connections Left <b>14863BBL272A</b>	
	2-way valve kit	4-pipe, with lockable return shut-off valve, 2-way valve, pre-settable, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model 61, Water connections Left <b>14863BBL412A</b> Model 63, Water connections Left <b>14863BBL432A</b> Model 66, Water connections Left <b>14863BBL462A</b> Model 67, Water connections Left <b>14863BBL472A</b>	
	2-way valve kit	2-pipe, with lockable return shut-off valve, 2-way valve, pre-settable, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model 61, Water connections Right <b>14863BBR212A</b> Model 63, Water connections Right <b>14863BBR232A</b> Model 66, Water connections Right <b>14863BBR262A</b> Model 67, Water connections Right <b>14863BBR272A</b>	
	2-way valve kit	4-pipe, with lockable return shut-off valve, 2-way valve, pre-settable, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model 61, Water connections Right <b>14863BBR412A</b> Model 63, Water connections Right <b>14863BBR432A</b> Model 66, Water connections Right <b>14863BBR462A</b> Model 67, Water connections Right <b>14863BBR472A</b>	
	3-way valve kit	2-pipe, 3-way valve, factory pressure-tested and fitted to the basic unit Copper pipe connections suitable for press-fitting.	180 x 180 x 180	Model 61, Water connections Left, DN 15 <b>14863BBL213A</b> Model 63, Water connections Left, DN 15 <b>14863BBL233A</b> Model 66, Water connections Left, DN 18 <b>14863BBL263A</b> Model 67, Water connections Left, DN 18 <b>14863BBL273A</b>	
	3-way valve kit	4-pipe, 3-way valve, factory pressure-tested and fitted to the basic unit Copper pipe connections suitable for press-fitting.	180 x 180 x 180	Model 61, Water connections Left, DN 15 <b>14863BBL413A</b> Model 63, Water connections Left, DN 15 <b>14863BBL433A</b> Model 66, Water connections Left, DN 18 <b>14863BBL463A</b> Model 67, Water connections Left, DN 18 <b>14863BBL473A</b>	
	3-way valve kit	2-pipe, 3-way valve, factory pressure-tested and fitted to the basic unit Copper pipe connections suitable for press-fitting.	180 x 180 x 180	Model 61, Water connections Right, DN 15 <b>14863BBR213A</b> Model 63, Water connections Right, DN 15 <b>14863BBR233A</b> Model 66, Water connections Right, DN 18 <b>14863BBR263A</b> Model 67, Water connections Right, DN 18 <b>14863BBR273A</b>	
	3-way valve kit	4-pipe, 3-way valve, factory pressure-tested and fitted to the basic unit Copper pipe connections suitable for press-fitting.	180 x 180 x 180	Model 61, Water connections Right, DN 15 <b>14863BBR413A</b> Model 63, Water connections Right, DN 15 <b>14863BBR433A</b> Model 66, Water connections Right, DN 18 <b>14863BBR463A</b> Model 67, Water connections Right, DN 18 <b>14863BBR473A</b>	

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## Accessories

Article	Article	Properties	Dimensions	Suitable for	Article no.
			[mm]		
	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 61, Water connections Left, Flow volume Cooling (min./max.) 30 - 210 l/h	<b>14863BAL21DA</b>
				Model 63, Water connections Left, Flow volume Cooling (min./max.) 30 - 210 l/h	<b>14863BAL23DA</b>
	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 61, Water connections Left, Flow volume Cooling (min./max.) 30 - 210 l/h	<b>14863BAL41DA</b>
				Model 63, Water connections Left, Flow volume Cooling (min./max.) 30 - 210 l/h	<b>14863BAL43DA</b>
	Differential pressure-independent valve kit	4-pipe, small heating & large cooling flow rates, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model 61, Water connections Left, Flow volume Cooling (min./max.) 150 - 1050 l/h, Heating (min./max.) 30 - 210 l/h	<b>14863BCL41DA</b>
				Model 63, Water connections Left, Flow volume Cooling (min./max.) 150 - 1050 l/h, Heating (min./max.) 30 - 210 l/h	<b>14863BCL43DA</b>
	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 61, Water connections Right, Flow volume Cooling (min./max.) 30 - 210 l/h	<b>14863BAR21DA</b>
				Model 63, Water connections Right, Flow volume Cooling (min./max.) 30 - 210 l/h	<b>14863BAR23DA</b>
	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 61, Water connections Right, Flow volume Cooling (min./max.) 30 - 210 l/h	<b>14863BAR41DA</b>
				Model 63, Water connections Right, Flow volume Cooling (min./max.) 30 - 210 l/h	<b>14863BAR43DA</b>
	Differential pressure-independent valve kit	4-pipe, small heating & large cooling flow rates, factory pressure-tested and fitted to the basic unit	180 x 180 x 180	Model 61, Water connections Right, Flow volume Cooling (min./max.) 150 - 1050 l/h, Heating (min./max.) 30 - 210 l/h	<b>14863BCR41DA</b>
				Model 63, Water connections Right, Flow volume Cooling (min./max.) 150 - 1050 l/h, Heating (min./max.) 30 - 210 l/h	<b>14863BCR43DA</b>
	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 61, Water connections Left, Flow volume Cooling (min./max.) 150 - 1050 l/h	<b>14863BBL21DA</b>
				Model 63, Water connections Left, Flow volume Cooling (min./max.) 150 - 1050 l/h	<b>14863BBL23DA</b>
				Model 66, Water connections Left, Flow volume Cooling (min./max.) 250 - 1800 l/h	<b>14863BBL26DA</b>
				Model 67, Water connections Left, Flow volume Cooling (min./max.) 250 - 1800 l/h	<b>14863BBL27DA</b>
	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 61, Water connections Left, Flow volume Cooling (min./max.) 150 - 1050 l/h	<b>14863BBL41DA</b>
				Model 63, Water connections Left, Flow volume Cooling (min./max.) 150 - 1050 l/h	<b>14863BBL43DA</b>
				Model 66, Water connections Left, Flow volume Cooling (min./max.) 250 - 1800 l/h, Heating (min./max.) 150 - 1050 l/h	<b>14863BBL46DA</b>
				Model 67, Water connections Left, Flow volume Cooling (min./max.) 250 - 1800 l/h, Heating (min./max.) 150 - 1050 l/h	<b>14863BBL47DA</b>

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## Accessories

Article	Article	Properties	Dimensions	Suitable for	Article no.
			[mm]		
	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 61, Water connections Right, Flow volume Cooling (min./max.) 150 - 1050 l/h	<b>14863BBR21DA</b>
				Model 63, Water connections Right, Flow volume Cooling (min./max.) 150 - 1050 l/h	<b>14863BBR23DA</b>
				Model 66, Water connections Right, Flow volume Cooling (min./max.) 250 - 1800 l/h	<b>14863BBR26DA</b>
				Model 67, Water connections Right, Flow volume Cooling (min./max.) 250 - 1800 l/h	<b>14863BBR27DA</b>
	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 61, Water connections Right, Flow volume Cooling (min./max.) 150 - 1050 l/h	<b>14863BBR41DA</b>
				Model 63, Water connections Right, Flow volume Cooling (min./max.) 150 - 1050 l/h	<b>14863BBR43DA</b>
				Model 66, Water connections Right, Flow volume Cooling (min./max.) 250 - 1800 l/h, Heating (min./max.) 150 - 1050 l/h	<b>14863BBR46DA</b>
				Model 67, Water connections Right, Flow volume Cooling (min./max.) 250 - 1800 l/h, Heating (min./max.) 150 - 1050 l/h	<b>14863BBR47DA</b>

### 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)	<b>14866BBB204A</b>
		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)	<b>14866BBB404A</b>
	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)	<b>14866BBB201A</b>
		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)	<b>14866BBB401A</b>
		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)	<b>14866BBB202A</b>
		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)	<b>14866BBB402A</b>
	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)	<b>14866BBB203A</b>
		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)	<b>14866BBB403A</b>

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# Accessories

Article	Article	Properties	Dimensions [mm]	Suitable for	Article no.
<b>Perimeter Casings</b>					
	Casing, ceiling-mounted	no rear panel, including air inlet grille, ISO Coarse filter (G0), Colour RAL 9006 white aluminium	605 x 235 x 900	Model 61	<b>14862DUBH100</b>
			605 x 235 x 1200	Model 63	<b>14862DUBH300</b>
			605 x 235 x 1650	Model 66	<b>14862DUBH600</b>
			605 x 235 x 2000	Model 67	<b>14862DUBH700</b>
	Casing, free-standing	no rear panel, including air inlet grille, Cassette filter	605 x 235 x 900	Model 61	<b>14862DUBH110</b>
			605 x 235 x 1200	Model 63	<b>14862DUBH310</b>
			605 x 235 x 1650	Model 66	<b>14862DUBH610</b>
			605 x 235 x 2000	Model 67	<b>14862DUBH710</b>
	Casing, free-standing	including air inlet grille, ISO Coarse filter (G0), Colour RAL 9006 white aluminium	255 x 605 x 900	Model 61	<b>14862WUBF100</b>
			255 x 605 x 1200	Model 63	<b>14862WUBF300</b>
			255 x 605 x 1650	Model 66	<b>14862WUBF600</b>
			255 x 605 x 2000	Model 67	<b>14862WUBF700</b>
	Casing, wall-hanging	including air inlet grille, Cassette filter, Colour RAL 9006 white aluminium	255 x 605 x 900	Model 61	<b>14862WUBF110</b>
			255 x 605 x 1200	Model 63	<b>14862WUBF310</b>
			255 x 605 x 1650	Model 66	<b>14862WUBF610</b>
			255 x 605 x 2000	Model 67	<b>14862WUBF710</b>
	Casing, wall-hanging	without air inlet grille, ISO Coarse filter (G0)	245 x 505 x 900	Model 61	<b>14862WUBH100</b>
			245 x 505 x 1200	Model 63	<b>14862WUBH300</b>
			245 x 505 x 1650	Model 66	<b>14862WUBH600</b>
			245 x 505 x 2000	Model 67	<b>14862WUBH700</b>
	Casing, wall-standing	including air inlet grille, ISO Coarse filter (G0), Colour RAL 9006 white aluminium	235 x 605 x 900	Model 61	<b>14862WUBS100</b>
			235 x 605 x 1200	Model 63	<b>14862WUBS300</b>
			235 x 605 x 1650	Model 66	<b>14862WUBS600</b>
			235 x 605 x 2000	Model 67	<b>14862WUBS700</b>
			235 x 605 x 900	Model 61	<b>14862WUBS110</b>
		including air inlet grille, Cassette filter, Colour RAL 9006 white aluminium	235 x 605 x 1200	Model 63	<b>14862WUBS310</b>
			235 x 605 x 1650	Model 66	<b>14862WUBS610</b>
			235 x 605 x 2000	Model 67	<b>14862WUBS710</b>
<b>Filter</b>					
	Filter	Dry layer filter, regenerable filter, washable, ISO Coarse filter (G0), 1 set = 1 piece(s)	198 x 5 x 519	Model 61, Venkon Fan Coils	<b>14869BBB0101</b>
			198 x 5 x 819	Model 63, Venkon Fan Coils	<b>14869BBB0301</b>
			198 x 5 x 1269	Model 66, Venkon Fan Coils	<b>14869BBB0601</b>
		2x dry layer filters, regenerable filter, washable, ISO Coarse filter (G0), 1 set = 2 piece(s)	198 x 5 x 805	Model 67, Venkon Fan Coils	<b>14869BBB0701</b>
	Hepa filter	valid according to EN 1822, removes 99.995% of all viruses, bacteria and aerosols from the air, filter class H14, 1 set = 1 piece(s), supplied separately	198 x 150 x 517	Model 61	<b>14869BBB0113</b>
			198 x 150 x 817	Model 63	<b>14869BBB0313</b>
			198 x 150 x 1267	Model 66	<b>14869BBB0613</b>
		valid according to EN 1822, removes 99.995% of all viruses, bacteria and aerosols from the air, filter class H14, 1 set = 2 piece(s), supplied separately	198 x 150 x 803	Model 67	<b>14869BBB0713</b>
	Cassette filter box	for Venkon with ISO Coarse pre-filter and H14 particulate filter for subsequent installation on the basic unit, filter class H14, 1 set = 1 piece(s)	220 x 320 x 580	Model 61	<b>14869BBB2113</b>
			220 x 320 x 880	Model 63	<b>14869BBB2313</b>
			220 x 320 x 1330	Model 66	<b>14869BBB2613</b>
		for Venkon with ISO Coarse pre-filter and H14 particulate filter for subsequent installation on the basic unit, filter class H14, 1 set = 2 piece(s)	220 x 320 x 1680	Model 67	<b>14869BBB2713</b>

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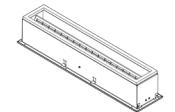
## Accessories

Article	Article	Properties	Dimensions	Suitable for	Article no.
			[mm]		
	Cassette filter box	for subsequent mounting on Venkon units including ISO Coarse pre-filter, ben. Hepa filter, filter classes H 13 + H 14, 1 set = 1 piece(s)	205 x 162 x 570	Model 61	<b>14869BBB1113</b>
			205 x 162 x 870	Model 63	<b>14869BBB1313</b>
			205 x 162 x 1320	Model 66	<b>14869BBB1613</b>
			205 x 162 x 1670	Model 67	<b>14869BBB1713</b>
	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 61	<b>14869BBB1105</b>
			200 x 40 x 872	Model 63	<b>14869BBB1305</b>
			200 x 40 x 1322	Model 66	<b>14869BBB1605</b>
			200 x 40 x 1672	Model 67	<b>14869BBB1705</b>

### Condensate tray/pump

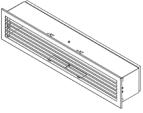
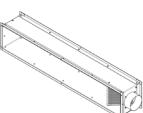
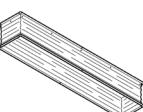
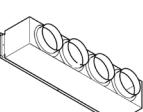
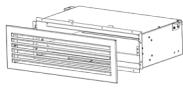
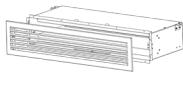
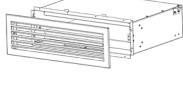
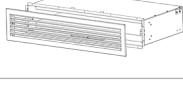
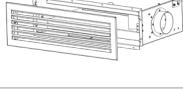
	Valve condensate drip tray	2-way valve kit, Wall-mounted, Connection Left, factory-fitted to the basic unit	200 x 100 x 200	Model 61 - 67	<b>14864WBL002A</b>
		2-way valve kit, Wall-mounted, Connection Right, factory-fitted to the basic unit	200 x 100 x 200	Model 61 - 67	<b>14864WBR002A</b>
		3-way and differential pressure-independent valve kits, Wall-mounted, Connection Left, factory-fitted to the basic unit	200 x 100 x 200	Model 61 - 67	<b>14864WBL003A</b>
		3-way and differential pressure-independent valve kits, Wall-mounted, Connection Right, factory-fitted to the basic unit	200 x 100 x 200	Model 61 - 67	<b>14864WBR003A</b>
		all standard valve kits, Ceiling-mounted, Connection left and right, factory-fitted to the basic unit	200 x 100 x 200	Model 61 - 67	<b>14864DBB000A</b>
	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 61 - 67, with valve condensate tray	<b>14866BBB00KA</b>
	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 61 - 67, without valve condensate tray	<b>14866BBB00TA</b>

### 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 61	<b>14867BBB0105</b>
			200 x 160 x 920	Model 63	<b>14867BBB0305</b>
			200 x 160 x 1370	Model 66	<b>14867BBB0605</b>
			200 x 160 x 1720	Model 67	<b>14867BBB0705</b>
	Inlet box with primary air connection spigot	Unit for installation onto the air inlet of the Venkon	200 x 160 x 588	Model 61, DN 100	<b>14865BBB0107</b>
			200 x 160 x 888	Model 63, DN 100	<b>14865BBB0307</b>
			200 x 160 x 1338	Model 66, DN 100	<b>14865BBB0607</b>
			200 x 160 x 1688	Model 67, DN 100	<b>14865BBB0707</b>

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## Accessories

Article	Article	Properties	Dimensions	Suitable for	Article no.
			[mm]		
	Outlet box with hotel diffuser	unit for installation onto the air discharge of the Venkon	200 x 160 x 620	Model 61	<b>14867BBB0103</b>
			200 x 160 x 920	Model 63	<b>14867BBB0303</b>
			200 x 160 x 1370	Model 66	<b>14867BBB0603</b>
			200 x 160 x 1720	Model 67	<b>14867BBB0703</b>
	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 61, DN 100	<b>14867BBB0104</b>
			200 x 160 x 920	Model 63, DN 100	<b>14867BBB0304</b>
			200 x 160 x 1370	Model 66, DN 100	<b>14867BBB0604</b>
			200 x 160 x 1720	Model 67, DN 100	<b>14867BBB0704</b>
	Outlet box with primary air connection spigot	unit for installation onto the air discharge of the Venkon	200 x 160 x 588	Model 61, DN 100	<b>14865BBB0108</b>
			200 x 160 x 888	Model 63, DN 100	<b>14865BBB0308</b>
			200 x 160 x 1338	Model 66, DN 100	<b>14865BBB0608</b>
			200 x 160 x 1688	Model 67, DN 100	<b>14865BBB0708</b>
	Ceiling swirl diffuser	round, on flexible pipe, Connection diameter 198 mm, painted Colour white	280 x 144 x 280	Model 61 - 67	<b>14867BBB0001</b>
	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 61	<b>14865BBB0104</b>
			200 x 160 x 860	Model 63	<b>14865BBB0304</b>
			200 x 160 x 1320	Model 66	<b>14865BBB0604</b>
			200 x 160 x 1670	Model 67	<b>14865BBB0704</b>
	Flexible pipe connection unit	Connection diameter 180 mm, Number of connecting pieces 2	283 x 205 x 570	Model 61	<b>14865BBB0105</b>
			283 x 205 x 870	Model 63	<b>14865BBB0305</b>
			283 x 205 x 1320	Model 66	<b>14865BBB0605</b>
			283 x 205 x 1670	Model 67	<b>14865BBB0705</b>
	hotel diffuser with sound attenuator	short version, powder coated Colour RAL 9016 traffic-white, supplied separately	620 x 200 x 350	Model 61	<b>14867BBB0113</b>
	hotel diffuser with sound attenuator	short version, powder coated Colour RAL 9016 traffic-white, supplied separately	920 x 200 x 350	Model 63	<b>14867BBB0313</b>
	hotel diffuser with sound attenuator	long version, powder coated Colour RAL 9016 traffic-white, supplied separately	620 x 200 x 450	Model 61	<b>14867BBB0123</b>
	hotel diffuser with sound attenuator	long version, powder coated Colour RAL 9016 traffic-white, supplied separately	920 x 200 x 450	Model 63	<b>14867BBB0323</b>
	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 61, DN 100	<b>14867BBB0114</b>

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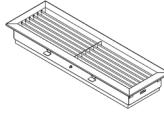
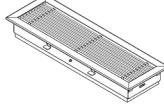
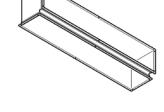
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## Accessories

Article	Article	Properties	Dimensions	Suitable for	Article no.
			[mm]		
	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	920 x 200 x 350	Model 63, DN 100	<b>14867BBB0314</b>
	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 61, DN 100	<b>14867BBB0124</b>
	hotel diffuser with sound attenuator	long version with spigot, Number of connecting pieces 1 St., powder coated Colour RAL 9016 traffic-white, supplied separately	920 x 200 x 450	Model 63, DN 100	<b>14867BBB0324</b>
	Combined 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 61	<b>14867BBB0107</b>
	Combined 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	1150 x 220 x 150	Model 63	<b>14867BBB0307</b>
	Combined 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	1600 x 220 x 150	Model 66	<b>14867BBB0607</b>
	Combined 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	1950 x 220 x 150	Model 67	<b>14867BBB0707</b>
	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 61, DN 100	<b>14867BBB0117</b>
	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	1150 x 220 x 150	Model 63, DN 100	<b>14867BBB0317</b>
	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	1600 x 220 x 150	Model 66, DN 100	<b>14867BBB0617</b>
	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	1950 x 220 x 150	Model 67, DN 100	<b>14867BBB0717</b>

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## Accessories

Article	Article	Properties	Dimensions	Suitable for	Article no.
			[mm]		
	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 61	<b>14867BBB0112</b>
			200 x 65 x 925	Model 63	<b>14867BBB0312</b>
			200 x 65 x 1375	Model 66	<b>14867BBB0612</b>
			200 x 65 x 1725	Model 67	<b>14867BBB0712</b>
	Internal air grille, rigid design	natural aluminium, with plenum box, unit fitted to Venkon air outlet	200 x 65 x 625	Model 61	<b>14867BBB0102</b>
			200 x 65 x 925	Model 63	<b>14867BBB0302</b>
			200 x 65 x 1375	Model 66	<b>14867BBB0602</b>
			200 x 65 x 1725	Model 67	<b>14867BBB0702</b>
	Air duct	Non-standard lengths on request	570 x 200 x 1000	Model 61, Length 1000 mm	<b>14865BBB0101</b>
			870 x 200 x 1000	Model 63, Length 1000 mm	<b>14865BBB0301</b>
			1320 x 200 x 1000	Model 66, Length 1000 mm	<b>14865BBB0601</b>
			1670 x 200 x 1000	Model 67, Length 1000 mm	<b>14865BBB0701</b>
	Air duct, 90° angled	short bend, as a transition from horizontal to vertical ductwork with ceiling installation	220 x 220 x 570	Model 61	<b>14865BBB0103</b>
			220 x 220 x 870	Model 63	<b>14865BBB0303</b>
			220 x 220 x 1320	Model 66	<b>14865BBB0603</b>
			220 x 220 x 1670	Model 67	<b>14865BBB0703</b>
	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	650 x 50 x 950	Model 61	<b>14865BBB0110</b>
			650 x 50 x 1250	Model 63	<b>14865BBB0310</b>
			650 x 50 x 1700	Model 66	<b>14865BBB0610</b>
			650 x 50 x 2050	Model 67	<b>14865BBB0710</b>
	Sound attenuator	Splitter noise attenuator	570 x 200 x 500	Model 61, Length 500 mm	<b>14865BBB0106</b>
			870 x 200 x 500	Model 63, Length 500 mm	<b>14865BBB0306</b>
			1320 x 200 x 500	Model 66, Length 500 mm	<b>14865BBB0606</b>
			1670 x 200 x 500	Model 67, Length 500 mm	<b>14865BBB0706</b>
	Transition panel	Venkon sheet steel accessories for the installation of air inlet or air outlet diffusers	200 x 2 x 570	Model 61	<b>14867BBB0106</b>
	Transition panel	Venkon sheet steel accessories for the installation of air inlet or air outlet diffusers	200 x 2 x 870	Model 63	<b>14867BBB0306</b>
	Transition panel	Venkon sheet steel accessories for the installation of air inlet or air outlet diffusers	200 x 2 x 1320	Model 66	<b>14867BBB0606</b>
	Transition panel	Venkon sheet steel accessories for the installation of air inlet or air outlet diffusers	200 x 2 x 1670	Model 67	<b>14867BBB0706</b>

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## Accessories

Article	Article	Properties	Dimensions [mm]	Suitable for	Article no.
<b>controls</b>					
	CAN bus card	Serial CANbus card for control configuration -C1 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	Venkon	<b>14866BBB00CA</b>
	Frost protection thermostat	factory-installed and wired on the basic unit	100 x 100 x 100	Venkon *00M and *01M	<b>14866BBB00FA</b>
	KNXbus card	KaControl KNX communication card for the integration of Kampmann units into a KNX system for control configuration -C1, factory-installed, wired and parametrised on the basic unit	100 x 100 x 100	Venkon	<b>14866BBB00XA</b>
	Air intake sensor	factory-installed and wired on the basic unit	100 x 100 x 100	Venkon *C1M and *C2M	<b>14866BBB00LA</b>
	Modbus card	KaControl RS485 card for connection to a higher-level controller or BMS station., Serial Modbus card for control configuration -C1 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	Venkon	<b>14866BBB00MA</b>



[kampmanngroup.com/venkon](http://kampmanngroup.com/venkon)

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