

**8/S1**  
v 1.0 (en)



# AIR CURTAINS

SONATA, SONATA-V

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**AIR CURTAIN SONATA**

Air curtain series Sonata from Klimaoprema Quant Line are intended for installation in areas with high estetical demands.

With its oval casing it will elegantly blend into areas like hotels, banks, malls etc.

- Lengths: 1, 1.5, and 2m
- **Airflow up to 4700m<sup>3</sup>/h**
- Intake grill with filter
- Universal connection for control modules(RF, SM, DM)
- Low installation height
- Standard powdercoated to RAL 9010 (all other colours are available on request)

**TECHNICAL CHARACTERISTICS**
**Sonata 22**

Type	Installation height [m]*	Air output [m <sup>3</sup> /h]			Sound pressure [dB(A)]**		Heater power output [kW]		Total consumption [V/A]	Motor consumption [V/A]	Temperature increase Δt [V/A]***	Frequency [Hz]	Weight [kg]****
		Speed 3	Speed 2	Speed 1	3m	5m	1. level	2. level					
22-10-E-5	2,2	1000	880	760	48,5	44,0	2,4	4,7	400/7,1	230/0,3	14	50	15
22-15-E-8		1450	1330	1170	50,3	45,9	3,8	7,6	400/11,4	230/0,4	15	50	20
22-20-E-10		2000	1730	1460	50,9	46,5	4,8	9,5	400/14,1	230/0,5	14	50	25
22-10-N		1000	890	770	48,5	44,0	-	-	230/0,3	230/0,3	-	50	14
22-15-N		1500	1360	1190	50,3	45,9	-	-	230/0,4	230/0,4	-	50	18
22-20-N		2050	1770	1500	50,9	46,5	-	-	230/0,5	230/0,5	-	50	23
22-10-E-3		1000	880	760	48,5	44,0	2,5	2,4	400/6,1	230/0,3	7	50	15
22-15-E-5		1450	1330	1170	50,3	45,9	2,0	4,8	400/8,4	230/0,4	10	50	20
22-20-E-6		2000	1730	1460	50,9	46,5	2,4	5,9	400/10,3	230/0,5	9	50	25

\* Limited distance when air flow speed decreases to app. 3 m/s.  
 \*\* Acoustic pressure measured at 3 and 5 m away from the device at maximum motor speed  
 \*\*\* Suction air temperature +18°C, at maximum heating level and highest fan speed.  
 \*\*\*\* Weight without regulation.

**Sonata 30**

Type	Installation height [m]*	Air output [m <sup>3</sup> /h]			Sound pressure [dB(A)]**		Heater power output [kW]		Total consumption [V/A]	Motor consumption [V/A]	Temperature increase Δt [V/A]***	Frequency [Hz]	Weight [kg]****
		Speed 3	Speed 2	Speed 1	3m	5m	1. level	2. level					
30-10-E-6	3	1450	1320	1120	55,9	51,5	2,4	5,9	400/10,2	230/0,6	12	50	16
30-15-E-10		2150	1860	1500	57,0	52,6	4,9	10,0	400/15,9	230/0,7	15	50	22
30-20-E-13		2800	2260	1770	57,5	53,0	6,0	12,5	400/19,6	230/0,8	14	50	27
30-10-W		1300	1190	1010	55,8	51,3	9,6	9,6	230/0,6	230/0,6	24	50	17
30-15-W		1900	1720	1410	54,4	49,9	15,7	15,7	230/0,7	230/0,7	26	50	23
30-20-W		2550	2160	1730	54,1	49,7	22,4	22,4	230/0,8	230/0,8	27	50	28
30-10-N		1500	1340	1140	56,5	52,0	-	-	230/0,6	230/0,6	-	50	15
30-15-N		2200	1880	1530	58,6	54,2	-	-	230/0,7	230/0,7	-	50	20
30-20-N		2900	2290	1800	57,7	53,2	-	-	230/0,8	230/0,8	-	50	24
30-10-E-10		1450	1320	1120	55,9	51,5	4,7	9,4	400/14,0	230/0,6	21	50	16
30-15-E-15		2150	1860	1500	57,0	52,6	7,6	15,1	400/22,8	230/0,7	22	50	22
30-20-E-19		2800	2260	1770	57,5	53,0	9,6	19,1	400/28,3	230/0,8	20	50	27
30-10-E-5		1450	1320	1120	55,9	51,5	2,4	4,7	400/7,4	230/0,6	10	50	16
30-15-E-8		2150	1860	1500	57,0	52,6	3,8	7,6	400/11,6	230/0,7	11	50	22
30-20-E-10		2800	2260	1770	57,5	53,0	4,9	9,6	400/14,6	230/0,8	10	50	27

\* Limited distance when air flow speed decreases to app. 3 m/s.  
 \*\* Acoustic pressure measured at 3 and 5 m away from the device at maximum motor speed  
 \*\*\* Suction air temperature +18°C, at maximum heating level and highest fan speed.  
 \*\*\*\* Weight without regulation.

## AIR CURTAINS SONATA AND SONATA-V

### Sonata 40

Type	Installation height [m]*	Air output [m³/h]			Sound pressure [dB(A)]**		Heater power output [kW]		Total consumption [V/A]	Motor consumption [V/A]	Temperature increase $\Delta t$ [V/A]***	Frequency [Hz]	Weight [kg]****
		Speed 3	Speed 2	Speed 1	3m	5m	1. level	2. level					
40-10-E-10	4	2500	2250	1700	65,5	61,1	5,0	9,9	400/15,7	230/1,3	12	50	23
40-15-E-15		3600	3250	2700	66,2	61,7	7,9	15,2	400/23,8	230/1,7	13	50	32
40-20-E-19		4500	4000	3400	65,0	60,6	10,2	19,1	400/30,9	230/3,2	13	50	39
40-10-W		2150	1850	1500	65,1	60,6	17,2	17,2	230/1,0	230/1,0	24	50	25
40-15-W		3000	2700	2300	62,4	58,0	25,6	25,6	230/1,4	230/1,4	25	50	33
40-20-W		4250	3800	3050	64,4	59,9	37,0	37,0	230/3,2	230/3,2	24	50	42
40-10-N		2500	2250	1700	65,5	61,1	-	-	230/1,3	230/1,3	-	50	22
40-15-N		3800	3400	2750	66,2	61,7	-	-	230/1,7	230/1,7	-	50	30
40-20-N		4700	4050	3400	65,0	60,6	-	-	230/3,2	230/3,2	-	50	37
40-10-E-6		2500	2250	1700	65,5	61,1	2,5	6,1	400/10,9	230/1,3	7	50	23
40-15-E-10		3600	3250	2700	66,2	61,7	4,8	9,8	400/15,6	230/1,7	8	50	32
40-20-E-13		4550	4000	3400	65,0	60,6	6,7	13,0	400/22,2	230/3,2	9	50	39

- \* Limited distance when air flow speed decreases to app. 3 m/s.  
 \*\* Acoustic pressure measured at 3 and 5 m away from the device at maximum motor speed  
 \*\*\* Suction air temperature +18°C, at maximum heating level and highest fan speed.  
 \*\*\*\* Weight without regulation.

### Water exchanger parameters for water temperature gradient of 90/70 °C

Type	Air output [m³/h]	Heater power output [kW]	Temperature at exhaust [°C]	Pressure loss [kPa]
30-10-W	1300	9,6	42,3	0,5
30-15-W	1900	15,7	44,9	2,6
30-20-W	2550	22,4	46,6	3,2
40-10-W	2150	17,2	42,0	2,5
40-15-W	3000	25,6	43,6	19,2
40-20-W	4250	37,0	44,1	13,8

\* Temperature of intake air: +18 °C

### Water exchanger parameters for water temperature gradient of 80/60 °C

Type	Air output [m³/h]	Heater power output [kW]	Temperature at exhaust [°C]	Pressure loss [kPa]
30-10-W	1300	8,0	37,9	0,4
30-15-W	1900	13,0	40,0	2,0
30-20-W	2550	18,6	41,4	2,2
40-10-W	2150	14,1	37,7	1,8
40-15-W	3000	21,0	39,0	13,7
40-20-W	4250	30,4	39,4	9,9

\* Temperature of intake air: +18 °C

### Water exchanger parameters for water temperature gradient of 70/50 °C

Type	Air output [m³/h]	Heater power output [kW]	Temperature at exhaust [°C]	Pressure loss [kPa]
30-10-W	1300	6,3	33,6	0,2
30-15-W	1900	10,3	35,2	1,5
30-20-W	2550	14,8	36,4	1,4
40-10-W	2150	11,2	33,6	1,2
40-15-W	3000	16,7	34,7	9,2
40-20-W	4250	24,0	35,0	6,7

\* Temperature of intake air: +18 °C

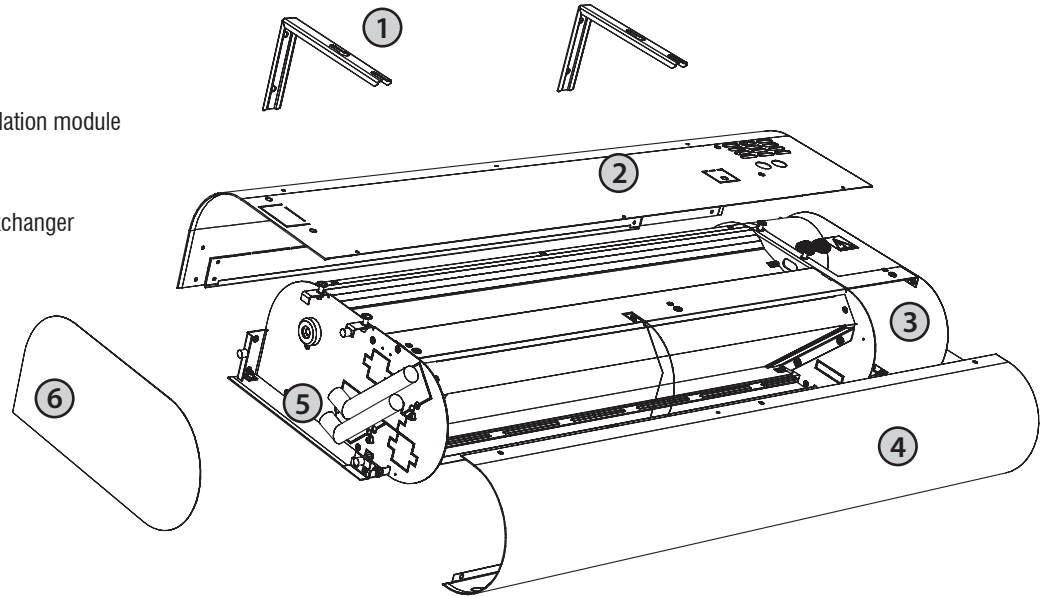
### Water exchanger parameters for water temperature gradient of 60/40 °C

Type	Air output [m³/h]	Heater power output [kW]	Temperature at exhaust [°C]	Pressure loss [kPa]
30-10-W	1300	4,7	29,5	0,2
30-15-W	1900	7,7	30,7	1,0
30-20-W	2550	12,2	31,5	0,8
40-10-W	2150	8,3	29,6	0,7
40-15-W	3000	12,4	30,4	5,6
40-20-W	4250	17,8	30,6	4,2

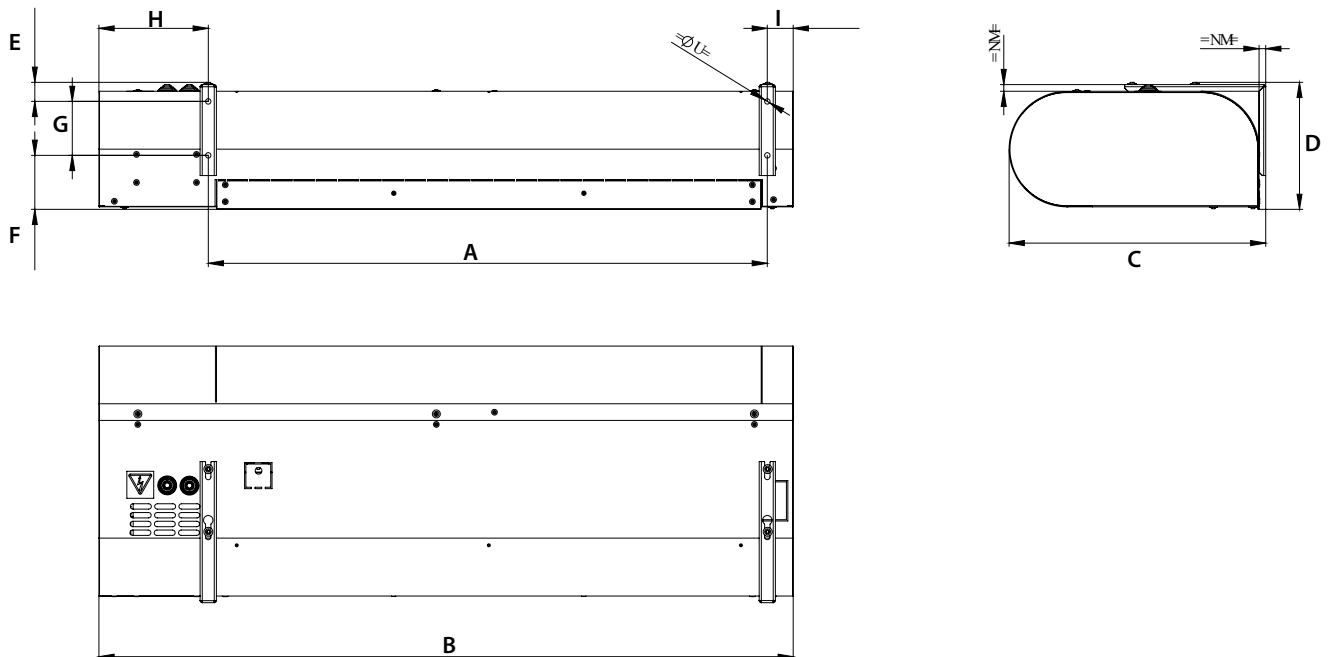
\* Temperature of intake air: +18 °C

**MAIN PARTS**

- ① Mounting brackets
- ② Top cover
- ③ Area for connecting the regulation module
- ④ Suction cover
- ⑤ Connection for water heat exchanger
- ⑥ Side cover

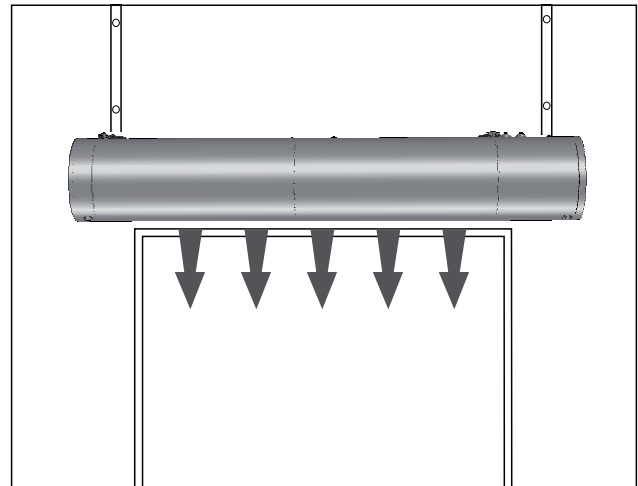
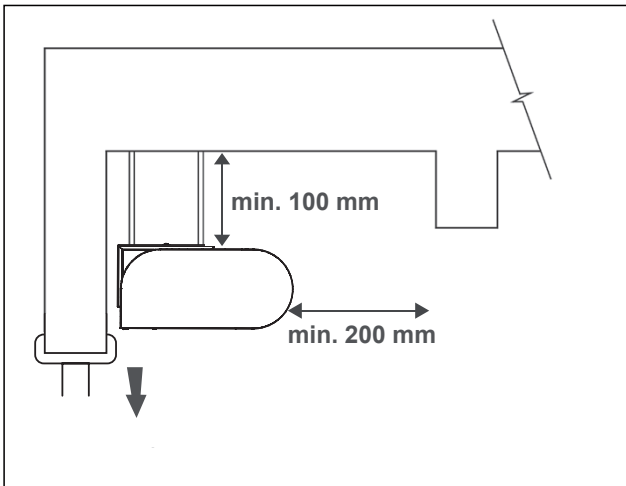


**DIMENSIONS**



**INSTALLATION**

- The air curtain shall be installed in a horizontal position only
- The air curtain shall be located as close as possible to the top edge of the doorway, minimal distance from the walls depending on fire safety and standards in the country, our recommendation see figure
- To ensure a correct function it is recommended that the air curtain overlaps the doorway by 100 mm on both sides.
- Correct operation of the air curtain requires that specified distances from the surrounding objects are observed, see figure.
- Position of the heating water and power supply connections shall be taken into consideration during installation
- The air curtain shall be installed using supplied brackets



**CONTROL**

The Essense air curtains are controlled by the remote control panel or touch panel. The basic parameters of the controller are given in table below.



**N/W-RF**

**E-RF**

**N-DM**

**E/W-DM**

**E-SM**

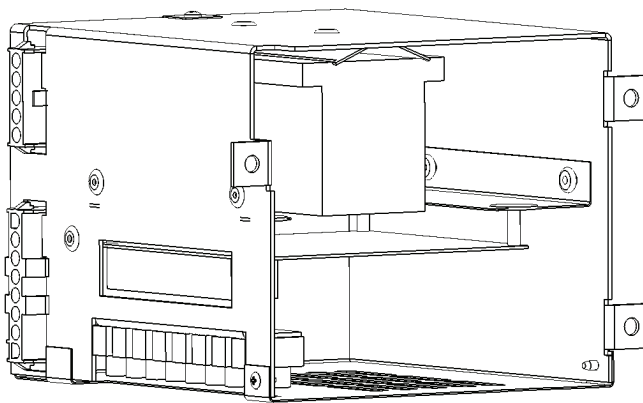
**N/W-SM**

	<b>N/W-RF</b>	<b>E-RF</b>	<b>N-DM</b>	<b>E/W-DM</b>	<b>E-SM</b>	<b>N/W-SM</b>
<b>Controller type</b>	Manual	Manual	Manual	Manual	Manual	Manual
<b>Air regulation</b>	2 speeds	2 speeds	3 speeds	3 speeds	3 speeds	3 speeds
<b>Regulation of electric heater</b>	NO	YES (on/off)	NO	2 speeds	2 speeds	NO
<b>Regulation of water heater</b>	NO	NO	NO	YES	NO	NO
<b>Possibility of connecting a door contact</b>	YES	YES	YES	YES	YES	YES
<b>Temperature measurement</b>	YES	YES (room thermostat)	NO	YES (room thermostat)	YES (room thermostat)	YES (room thermostat)
<b>Aftercooling of the electric heater</b>	NO	YES	NO	YES	NO	NO
<b>Chaining air curtains</b>	YES*	YES*	YES - max. 6 pcs.		NO	NO
<b>Light indication of selected function</b>	YES ( on case)		YES	YES	NO	NO
<b>Controller connection to air curtain</b>	RF signal	RF signal	Signal cable	Signal cable	Power cable 230V max. length 100m	Power cable 230V max. length 100m

**ACCESSORIES**
**Control module (required accessorie)**

A control module is an required accessorie for ESSENSE air curtain and shall be ordered for each air curtain. Control panel is included in delivery of control module. The ordering key for control modules is provided below. Control panels of RF control modules use RF signal communication. DM module uses communication cable with RJ12 and PTPM connector.

Control panel of SM control module is connected using common wiring cable (230 V control voltage). A suitable cross-section of the cable shall be determined based on the particular installation conditions. This cable should be delivered by a company performing the air curtain electrical wiring.

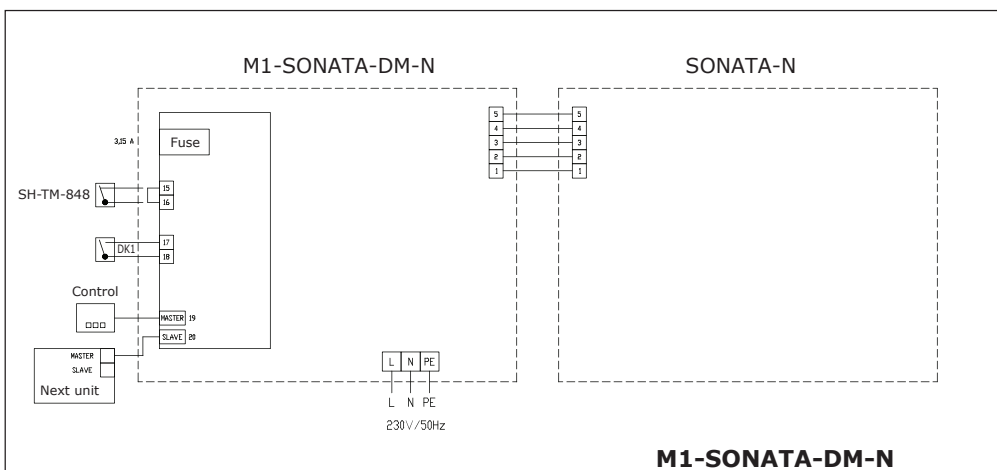
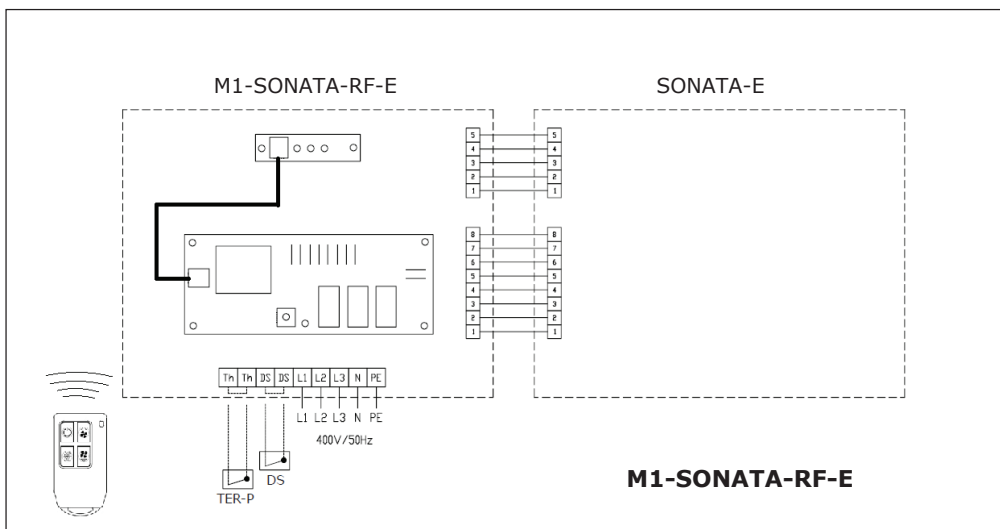
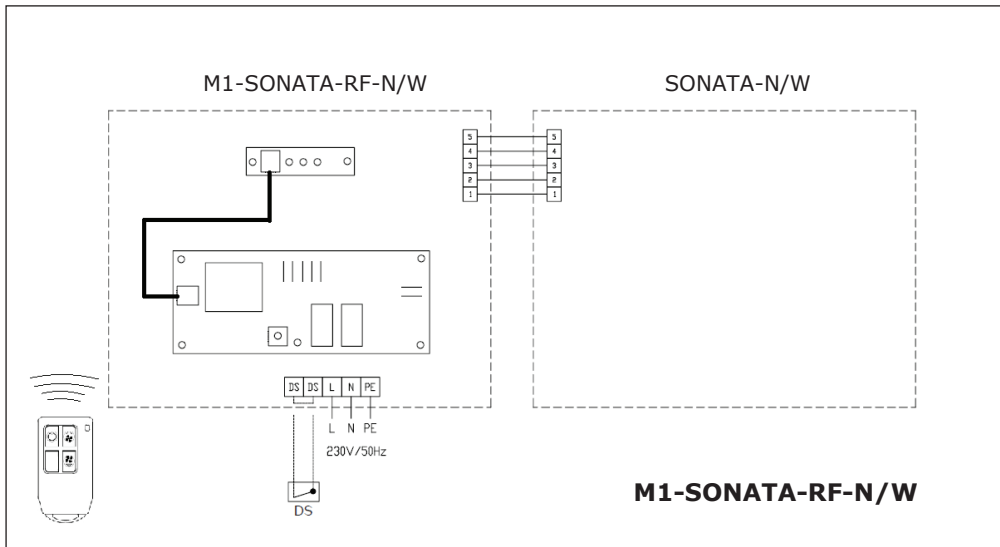

**CONTROLLER ORDERING KEY**

Air curtain type	<b>SONATA - RF - E</b>
Sonata	
Sonata-V	
Controller type	
<b>RF</b> - simple remote control	
<b>DM</b> - digital manual control	
<b>SM</b> - simple manual control	
Heater type	
<b>S</b> - without heating regulation (only for DM)	
<b>E</b> - with electric heater regulation	
<b>V</b> - with water heater regulation (only for DM)	
<b>VS</b> - without heating/water heater (only for RF, SM)	

**OPTIONAL ACCESSORIES**

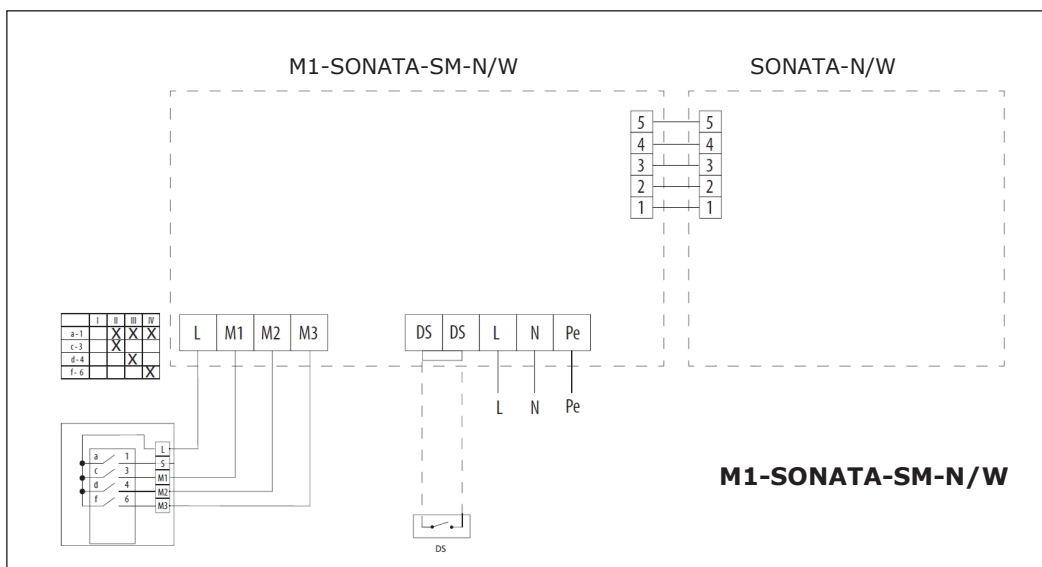
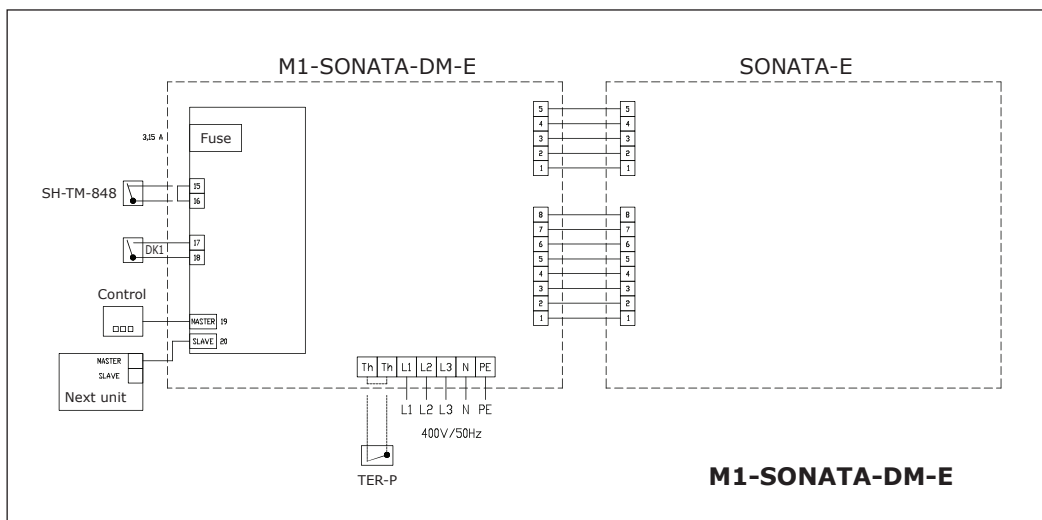
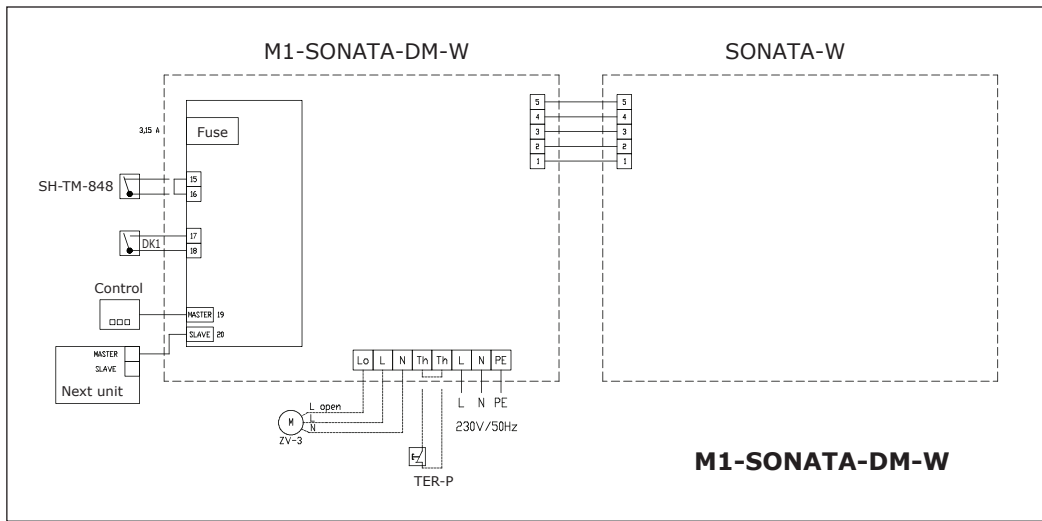
Image	Description	Code	Compatible with
	Thermostat valve	QL-540	All models
	Zone valve servo drive	QL-566	All models
	Door switch	QL-580	All models
	Magnet switch	QL-572	All models
	Room thermostat	QL-526	All models
	Three way valve	QL-548	All models
	Flexible couplings	QL-554	All models

ELECTRICAL SCHEME

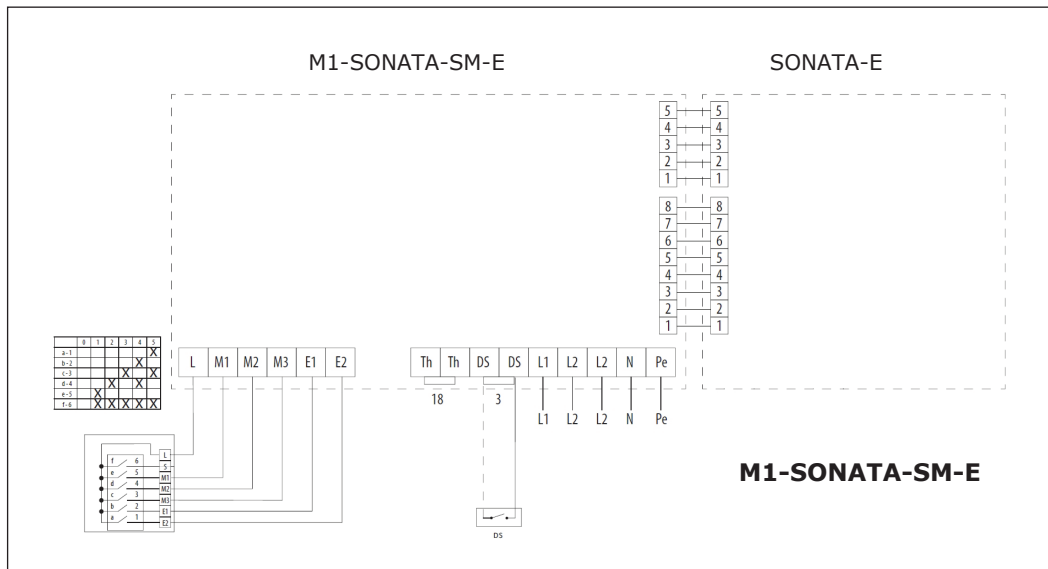




ELECTRICAL SCHEME



**ELECTRICAL SCHEME**



**ORDERING KEY**

Air curtain type	<b>SONATA - 25 - 20 - E - 12</b>
Installation height	22 - 2,2 [m]* 30 - 3,0 [m] 40 - 4,0 [m]
Curatin width	10 = 1 [m] 15 = 1,5 [m] 20 = 2 [m]
Heater type	N - no heater E - electric heater W - water heater
Power output [kW]	



Air-only



Water heater



Electric wire heater

**AIR CURTAIN SONATA-V**

Air curtains Sonata-V form Klimaoprema Quant Line programme are intended for vertical installation with high estetical demands.

With its casing design it will blend into interiors like hotels, banks and shopping malls.

- Length: 2,5 m
- **Airflow up to 5500m<sup>3</sup>/h**
- The construction of the adjustable exhaust lamellas ensures a high output
- The insulated shell means completely silent curtain operation, even at full output
- Easy installation
- Standard colour RAL 9010 (any RAL – based colours may be provided on customer's request)

**TECHNICAL CHARACTERISTICS**
**Sonata-V**

Type	Installation height [m]*	Airflow [m <sup>3</sup> /h]	Sound pressure level [dB(A)]**	Heater output [kW]	Consumption [V/A]	Fan consumption [V/A]	Weight [kg]****
25-N	4,0	5500	56,0	-	-	230/6,5	95
25-E-24		5400	55,5	24,0	400/33,5	230/6,5	103
25-E-36		5400	55,5	36,0	400/50	230/6,5	103
25-W		5100	55,0	38,87***	-	230/6,5	104

\* Limited distance when air flow speed decreases to app. 3 m/s.

\*\* Acoustic pressure measured at 3 and 5 m away from the device at maximum motor speed

\*\*\* Suction air temperature +18°C, at maximum heating level and highest fan speed.

**Electric heater parameters**

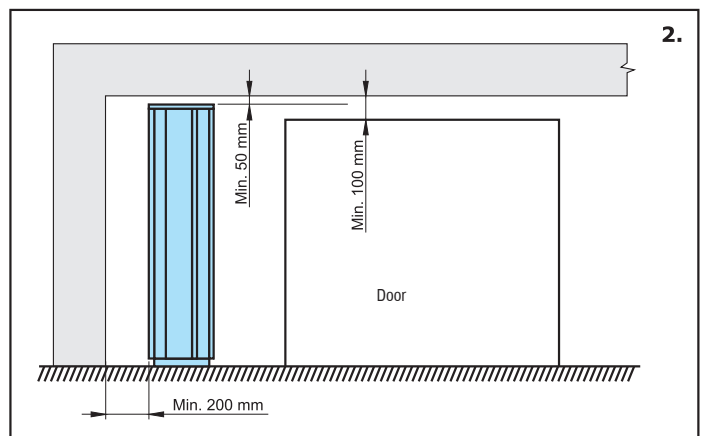
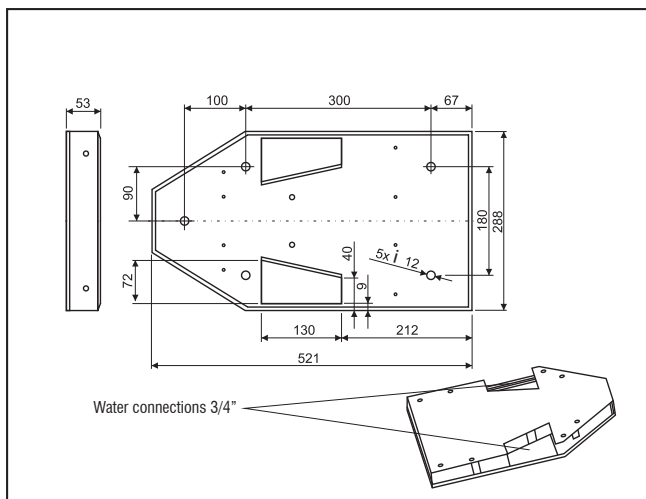
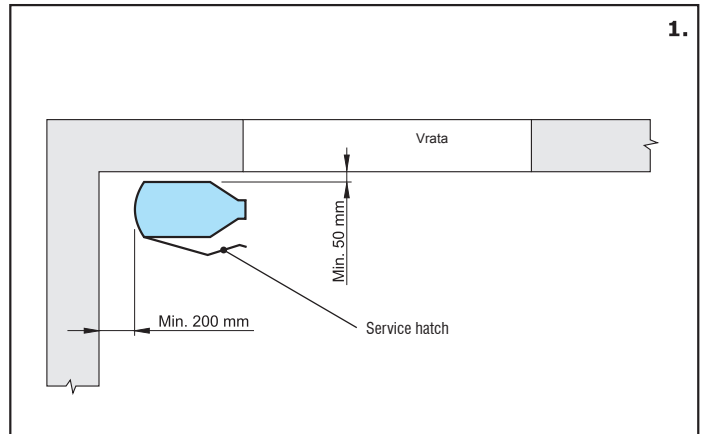
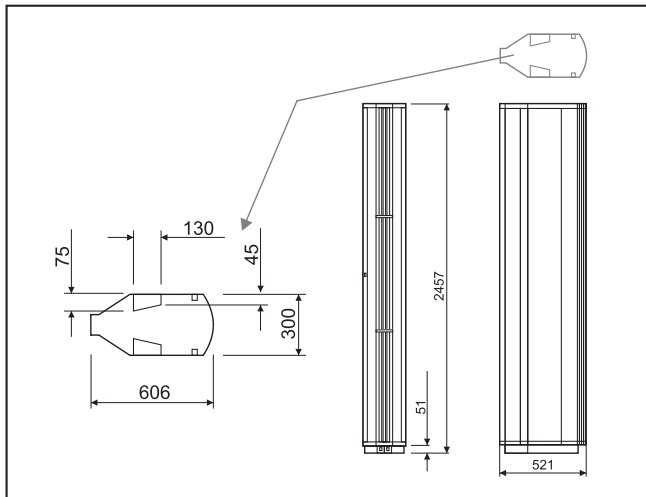
Air curtain type	Air flow volume [m <sup>3</sup> /h]	Heater power [kW]	Temperature increase Δt [°C]
25-E-24	5400	24	13,33
25-E-36	5400	36	20,00

**Water exchanger parameters**

Air curtain type	Air flow volume [m <sup>3</sup> /h]	Heater power [kW]	Outlet temperature [°C]	Water flow [l/s]	Pressure loss [kPa]
<b>for water temperature gradient of 60/40 °C</b>					
25-W	5100	18,85	29	0,22	2,65
<b>for water temperature gradient of 70/50 °C</b>					
25-W	5100	25,37	33,4	0,30	4,21
<b>for water temperature gradient of 80/60 °C</b>					
25-W	5100	32,03	37,6	0,38	6,20
<b>for water temperature gradient of 90/70 °C</b>					
25-W	5100	38,87	41,9	0,46	8,65

Temperature of intake air +18 °C

**DIMENSIONS**



**INSTALLATION**

- Air curtain Sonata-V is intended for vertical installation
- Air curtain should be installed as close as possible to upper edge of the doors
- For optimal operation it is suggested to install curtain above upper edge of the door (approx. 100mm)
- For the air curtain to operate correctly, it must be installed at the correct distance
- The air curtain is universally designed for two-sided operation. Thus, the direction of the service cover can be selected. It should always point into the room.

**CONTROL**

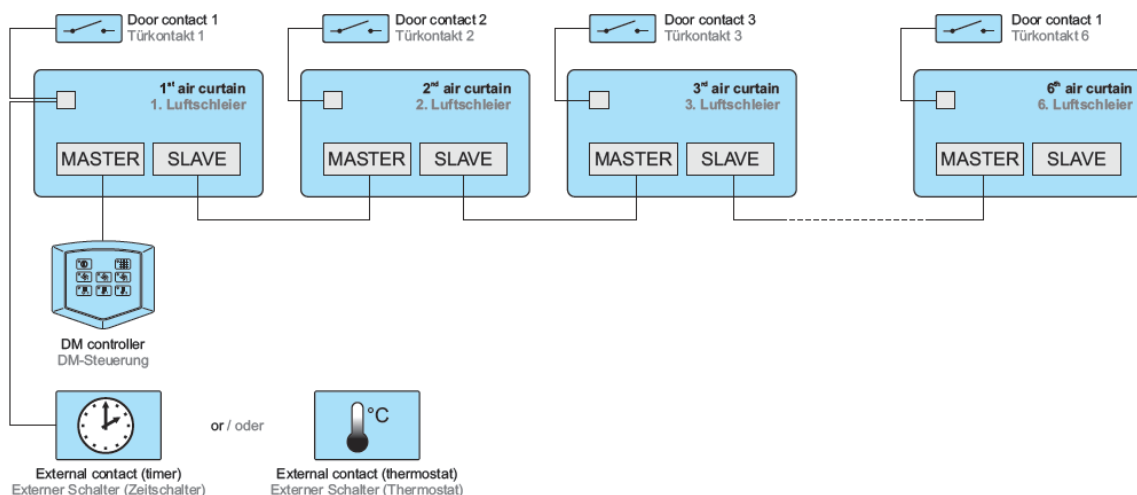

	<b>N-DM</b>	<b>E-DM</b>	<b>W-DM</b>
<b>Controller type</b>	Manual	Manual	Manual
<b>Air control</b>	3-speed	3-speed	3-speed
<b>Electric heater control</b>	NO	2 levels	NO
<b>Water heater controller</b>	NO	NO	ON/OFF
<b>Possibility of connecting a door contact</b>	YES	YES	YES
<b>Temperature measurement</b>	YES	YES	YES
<b>External control</b>	NO	30 s	NO
<b>Chaining air curtains</b>	YES - max. 6 pcs.	YES - max. 6 pcs.	YES - max. 6 pcs.
<b>Light indication of selected function</b>	YES	YES	YES
<b>Controller connection to air curtain</b>	Signal cable	Signal cable	Signal cable
<b>Air curtain cleaning interval indication based on operating hours</b>	YES	YES	YES
<b>Door switch state indication</b>	YES	YES	YES

The DM control allows selecting three fan speeds, two electric heater output levels or water regulation in sense ON/OFF. The DM control allows connecting one external switching element (room thermostat, timer) and a door contact.

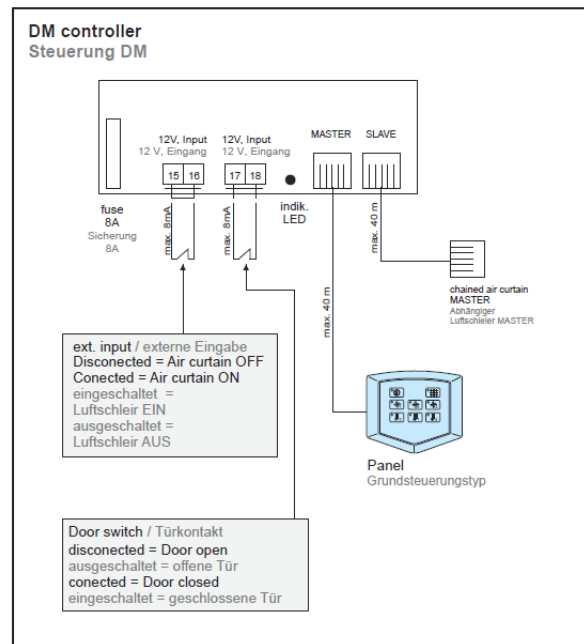
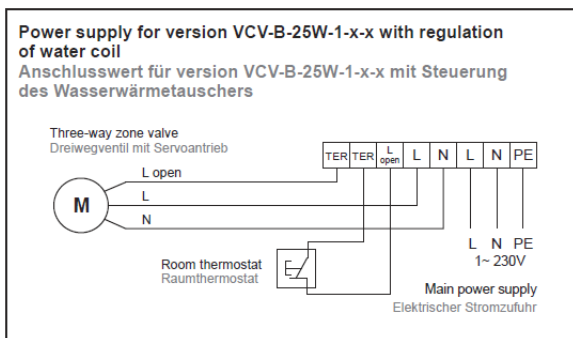
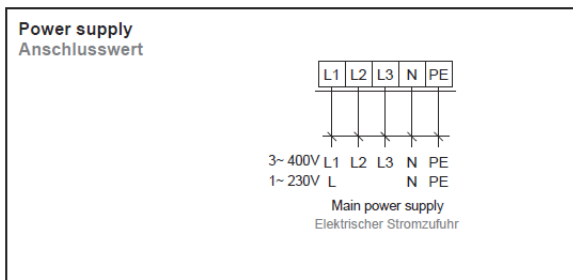
Control system allows selecting one of the operating modes with the door in closed position:

- Air curtain switches off.
- Air curtain operates at the first fan speed level (default factory setting).
- Air curtain runs at the second fan speed level.

The controls allow the air curtains to be linked in a chain, in which one control unit can simultaneously operate 6 air curtains in the same mode, while each air curtain can have its own door contact. (The air curtain then operates according to the state of the door contact connected to it.) Any air curtain can be equipped with the control device and serve as the "MASTER". The other air curtains are then connected to it by communication cables and controlled as "SLAVE". The same type of cable interconnects the air curtains with each other and with the control panel. Besides a door contact, the air curtain with the controlling unit can be connected to other switching elements (such as a time switch and an outdoor temperature sensor). This external switching element will turn all of the linked curtains on and off. The following illustration shows how air curtains can be linked.



ELECTRICAL SCHEME



ORDERING KEY

Air curtain type	<b>SONATA-V - 25 - E - 24</b>
Installation height	25 - 2,5 [m]*
Heater type	N - no heater E - electric heater** W - water heater
Heater power output [kW]	

