

Standesse

- [] Water heater
- [] Electric heater
- [] Without heater
- [] Opening heights of up to 4m



Features

- Four capacity lines, for opening heights of up to 4m
- 1.0m, 1.5m and 2.0m lengths
- Water heater, electric heater or air-only version
- Adjustable outlet lamellas
- Three controller options
- 24-month guarantee

Standesse air curtains are designed for the barrier free separation of two areas with differing climatic conditions. These air curtains are particularly suitable for installation in shopping centres, banks, hotels, restaurants, administrative buildings and so on. The air curtain should be used in an environment free of rough dust, grease, chemical fumes and other impurities.

The Standesse is supplied in white RAL9010 gloss. Alternative RAL colours are available at an extra charge.

Primary parameters

- The air curtain should be installed indoors in a dry area with ambient temperatures ranging from 0°C up to +40°C with a relative humidity up to 80%.
- The IP rating of the air curtain is IP20.
- All air curtains with electric heaters are fitted with a safety thermostat with automatic reset and an emergency thermostat with a manual reset.
- The warm-water exchangers are designed for a maximum operating temperature of +100°C and a maximum operating pressure of 1.6MPa.

All air curtain projects should be calculated by a HVAC designer.



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Air curtain type	Door height * [m]	Air capacity [m ³ /h]			Noise** [dB(A)]			Heater power [kW]	Heater voltage/current [V/A]	Fan voltage/current [V/A]	Weight [kg]
		3rd level	2nd level	1st level	3rd level	2nd level	1st level				
VCS3B-10S-	2.8****	2240	1570	880	54.7	49.8	33.5	-	-	230/2.5	28
VCS3B-15S-		3360	2350	1320	59.3	54.6	38.3	-	-	230/3.8	40
VCS3B-20S-		4480	3140	1760	60.9	55.8	39.5	-	-	230/5.0	54
VCS3B-10E-		2220	1560	870	54.7	49.8	33.5	9	400/13	230/2.5	32
VCS3B-15E-		3330	2330	1300	59.3	54.6	38.3	13.5	400/19.5	230/3.8	47
VCS3B-20E-		4440	3110	1740	60.9	55.8	39.5	18	400/26	230/5.0	61
VCS3B-10M-		2220	1560	870	54.7	49.8	33.5	9	230/39	230/2.5	32
VCS3B-15M-		3330	2330	1300	59.3	54.6	38.3	9	230/39	230/3.8	47
VCS3B-10W-		2150	1510	840	52.8	47.8	33.2	23.9***	-	230/2.5	37
VCS3B-15W-		3230	2260	1270	57.6	51.3	38	38.0***	-	230/3.5	54
VCS3B-20W-		4300	3010	1690	58.8	53.8	39.2	52.0***	-	230/5.0	70
VCS3C-10S-		3.5****	2860	2000	1070	55.1	49.9	35.1	-	-	230/3.6
VCS3C-15S-	3990		2800	1500	59.5	53	37	-	-	230/4.8	46
VCS3C-20S-	5040		3530	1890	61.3	55.6	38	-	-	230/6.0	63
VCS3C-10E-	2790		1950	1050	55.1	49.9	35.1	9	400/13	230/3.6	37
VCS3C-15E-	3890		2730	1460	59.5	53	37	13.5	400/19.5	230/4.8	53
VCS3C-20E-	4920		3450	1850	61.3	55.6	38	18	400/26	230/6.0	70
VCS3C-10M-	2790		1950	1050	55.1	49.9	35.1	9	230/39	230/3.6	37
VCS3C-15M-	3890		2730	1460	59.5	53	37	9	230/39	230/4.8	53
VCS3C-10W-	2610		1830	980	53.7	48.3	34.8	27.0***	-	230/3.6	42
VCS3C-15W-	3640		2550	1370	57.9	51.4	36.7	41.0***	-	230/4.8	60
VCS3C-20W-	4600		3220	1730	58.9	53.8	36.9	54.0***	-	230/6.0	79
VCS3D-10S-	4.0		5100	4150	1940	57.4	53.7	37.5	-	-	230/6.0
VCS3D-15S-		7650	6225	2910	62.2	58.5	42.3	-	-	230/9.0	88
VCS3D-20S-		10200	8300	3880	63.4	59.7	43.5	-	-	230/12.0	116
VCS3D-10V-		4750	3850	1800	56.4	52.9	37.2	28.6***	-	230/6.0	70
VCS3D-15V-		7125	5775	2700	61.2	57.7	42	46.2***	-	230/9.0	100
VCS3D-20V-		9500	7700	3600	62.4	58.9	43.2	64.6***	-	230/12.0	132

* Limited distance when air flow speed decreases to 2m/s. Applies to the highest capacity type under z optimum conditions.

** Sound pressure measured 3m from the air curtain intake.

*** At the temperature gradient of 82/71 and temperature of intake air equal to +18 °C.

**** DA controlled units are not available with single phase electrically heated air curtains.



Electric heater parameters

Air curtain type	Air capacity [m ³ /h]	Heater power [kW]		Temperature increase* ΔT [°C]
		1st level	2nd level	
VCS3B-10E-	2220	4.5	9.0	11.9
VCS3B-15E-	3330	6.8	13.5	11.9
VCS3B-20E-	4440	9.0	18.0	11.9
VCS3B-10M-	2220	4.5	9.0	11.9
VCS3B-15M-	3330	4.5	9.0	7.9
VCS3C-10E-	2790	4.5	9.0	9.5
VCS3C-15E-	3890	6.8	13.5	10.2
VCS3C-20E-	4920	9.0	18.0	10.8
VCS3C-10M-	2790	4.5	9.0	9.5
VCS3C-15M-	3890	4.5	9.0	6.8

- At the maximum air flow and maximum heater power

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

Air curtain type	Air capacity* [m ³ /h]	Heater power* [kW]	Outlet temperature [°C]	Water flow [l/s]	Water pressure loss [kPa]
VCS3B-10W-	2150	20.6	46.3	0.24	1.71
VCS3B-15W-	3230	33.9	48.9	0.4	5.67
VCS3B-20W-	4300	45.2	49	0.53	9.42
VCS3C-10W-	2610	23.2	44.2	0.27	2.11
VCS3C-15W-	3640	36.5	47.6	0.43	6.48
VCS3C-20W-	4600	47.1	48.2	0.56	10.18
VCS3D-10V-	4750	21.9	31.6	0.26	1.49
VCS3D-15V-	7125	37.1	33.3	0.44	5.11
VCS3D-20V-	9500	50.7	33.7	0.6	5.14

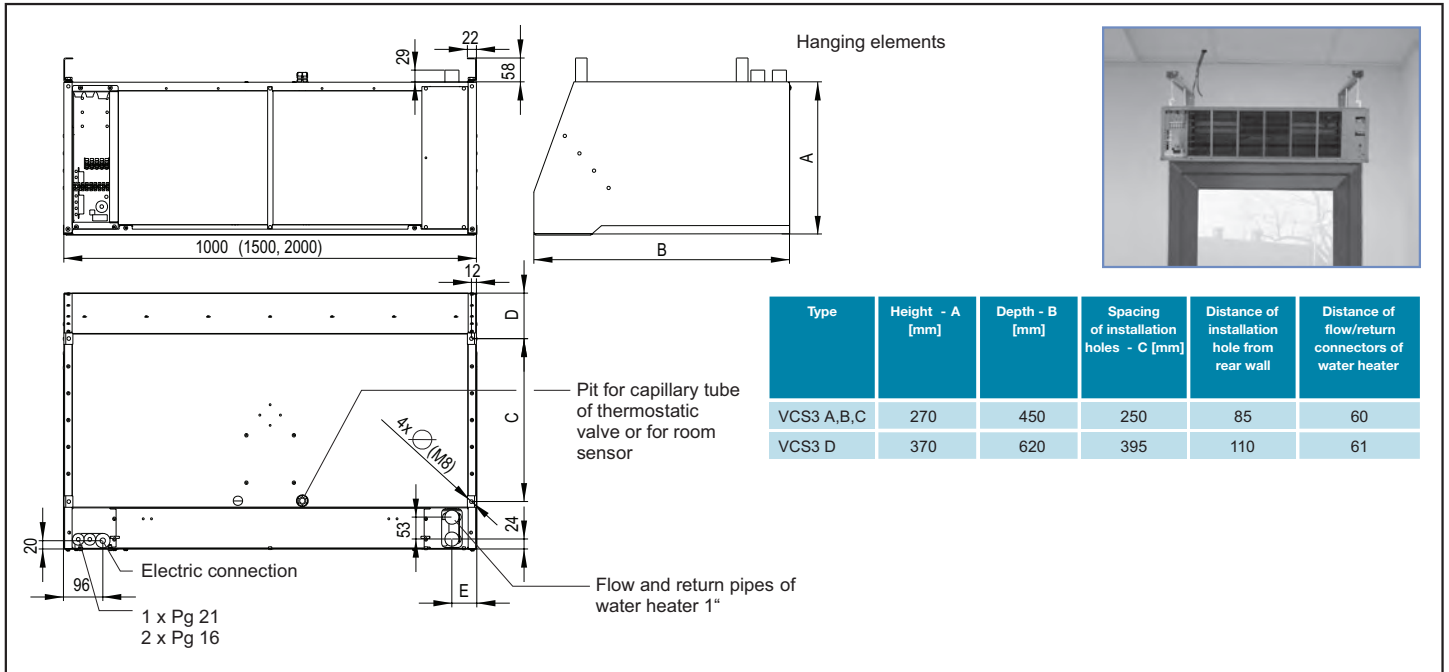
- Temperature of intake air: +18 °C

Water exchanger parameters for water temperature gradient of 82/71°C

Air curtain type	Air capacity* [m ³ /h]	Heater power* [kW]	Outlet temperature [°C]	Water flow [l/s]	Water pressure loss [kPa]
VCS3B-10W-	2150	23.9	32.80	0.510	10.3
VCS3B-15W-	3230	38.0	34.70	0.820	22.1
VCS3B-20W-	4300	52.0	35.70	1.120	34.9
VCS3C-10W-	2610	27.0	30.50	0.580	12.8
VCS3C-15W-	3640	41.0	33.30	0.890	25.3
VCS3C-20W-	4600	54.4	34.90	1.170	37.8
VCS3D-10V-	4750	28.6	36.08	0.615	42.6
VCS3D-15V-	7125	46.2	37.50	0.990	50.2
VCS3D-20V-	9500	64.6	38.40	1.390	79.2

- Temperature of intake air: +18 °C

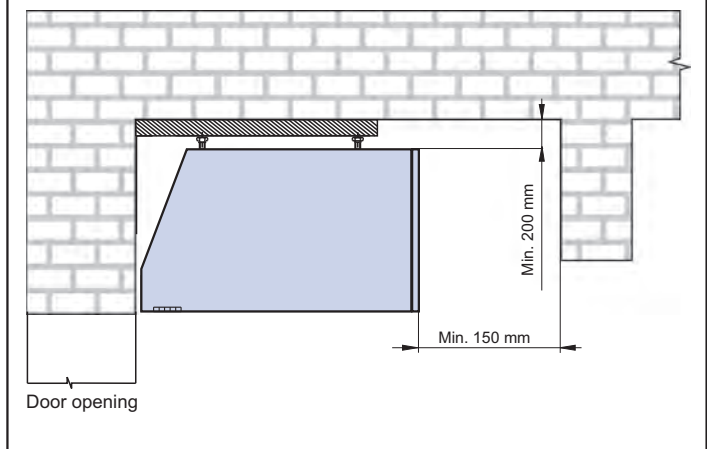
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Installation and assembly

- The air curtain shall be installed in a horizontal position only.
- The air curtain shall be located as close to the top edge of the doorway as possible, see figure.
- To ensure a correct function it is recommended that the air curtain overlaps the doorway by 100mm on both sides.
- Correct operation of the air curtain requires that specified distances from the surrounding objects are observed, see diagram opposite.
- Position of the heating water and power supply connections shall be taken into consideration during installation.
- Suspension holders are used for installing the air curtains, see ACCESSORIES.

Minimum distance from solid construction



Control

The STANDESSE air curtains are controlled by a wired remote control. The differences between individual controller types are detailed in the table over the page.

In addition to this, the LonWorks module is also available on a special order for air curtains with the DA control. This module utilizes the standard LonTalk protocol facilitating integration of the air curtain into the centralized building management system. If the air curtains are chained, the LonWorks module is required for the MASTER air curtain only. Contact your supplier for more detailed information and data necessary for integration into such system.

Possibilities of individual types of controller



	SM	DM	DA
Type of controller		Manual	Manual/Automatic
Regulation of air output		3 speeds	3 speeds
Regulation of electric heater		2 levels	2 levels
Possibility of connecting a door contact			YES
Connection of a special thermostat		YES (Only one of the mentioned items)	YES (Only one of the mentioned items)
Connection of a timer			YES
External temperature sensor		NO	YES (Standard)
FILTER Indication of blocked filter (differential pressure switch)		NO	YES
ALARM Indication of overheating of the electric heater		NO	YES
Aftercooling electric heater		NO	30 s
Chaining air curtains		NO	Up to 6
Delayed cut off by external sensor		-	30s
Light indication of selected function		NO	YES
Controller connection to air curtain		Power cable (230V) with max. length of 100m	Low-voltage cable (12V) with max. length of 50m

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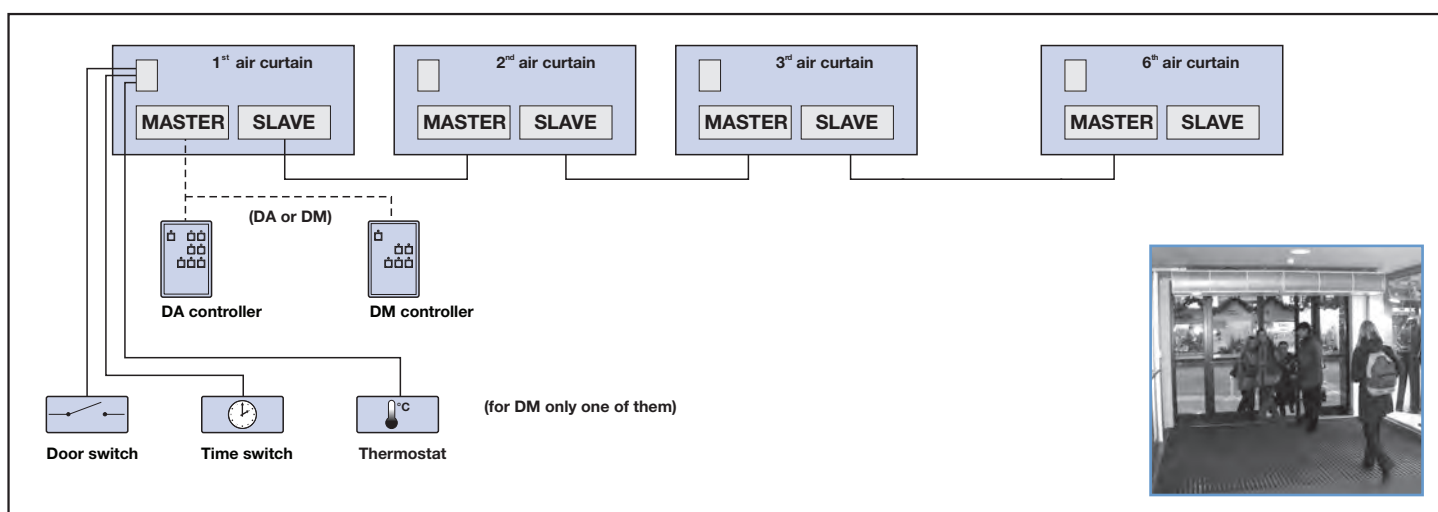
One external switch can be connected to air curtains with the SM and DM control (door contact, thermostat or timer). Such external switches activates and deactivates the air curtain. Air curtains fitted with the DA controller include an external temperature sensor that monitors outdoor conditions and regulates the output of the fan and heater accordingly. This model can also be fitted with a time switch, door switch or indoor temperature sensor to further control the air curtain's operation.

The DM and DA controls allow for air curtain chaining, i.e. a single controller can be used for controlling up to six air curtains at the

same time in the same mode.

One of the air curtains is fitted with a controller and acts as a master unit. Other air curtains are connected to the master unit through a communication cable and operate as slave units. The same cable type is used both for interconnecting the individual air curtains and for connecting the air curtain with a controller. Any external switches should be connected to the master air curtain. These in turn will control the slave units.

See diagram below:



Water control

The air curtains are not equipped with an integrated water control, this need to be designed separately.

Basic – by throttling

TV1 Thermostatic Valve - The valve controls the flow of the warm water supply into the air curtain depending on the temperature of air leaving the air curtain. One valve is required for each air curtain.

Economical – by diverting

ZV3 Three Way Zone Valve (open/closed) with servo drive - Each ZV3 Zone valve should be selected with either a TER-K (channel thermostat) or TER-P (room thermostat).

The valve switches the warm water supply in to the air curtain and back towards the heat source depending on the temperature of the

air leaving the air curtain or depending on the room temperature.

One valve is required per air curtain.

Precise – by mixing

SMU Mixing Point, OSMU-01-6A mixing point controller (max temperature 110°C), P12L1000 channel sensor or P10L1000 room sensor.

The mixing system controls the ratio of supply and return heated water into the air curtain depending on the temperature of air leaving the air curtain and/or depending on the room temperature.

One mixing point may be used for multiple air curtains provided they are an identical length and that the exchangers are connected in a parallel arrangement.

Accessories

These accessories should be ordered to make the air curtain operational.

Control panel

A control panel shall be ordered for air curtains fitted with the DM and DA controls according to the key provided below. Air curtains equipped with the SM control already include the control panel and it does not need to be ordered separately.

A "communication" light-current cable with a length of 5 m is available for air curtains fitted with the DM and DA controls. The cable is designed for connecting the air curtain to the control panel or for interconnecting chained air curtains.



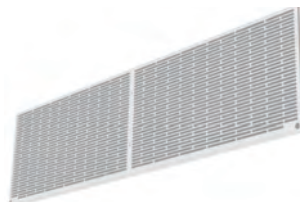
PANEL-V/DM

- DM - DM controller
- DA - DA controller
- V - for air curtains with water heater or without heater
- E - for air curtains with an electric heater
- PANEL - remote control

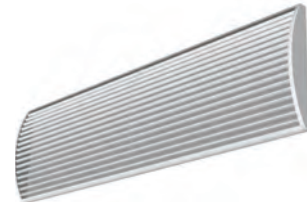
Controller for air curtains with the SM control is connected using common wiring cable (230 V control voltage), see "Wiring diagrams" chapter. A suitable cross-section of the cable shall be determined based on the particular installation conditions. This cable should be delivered by a company performing the air curtain electrical wiring.

Inlet cover

An inlet cover shall be ordered for all types of air curtains. Inlet covers are supplied in two designs



Flat inlet covering VCS3-NKD



Rounded inlet covering VCS3-NKZ

Optional accessories

Connection cable

The communication cable is designed for connecting the DM/DA controller to the air curtain or for interconnecting chained air curtains.

The standard length of the cable delivered with the air curtain is 5m. Other lengths are available based on the coding key provided below.

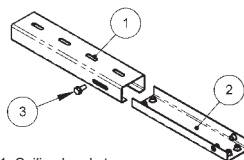


KABEL-05M

- 03, 05, 08, 10, 15, 20, 30, 40 - cable length in m (unless otherwise stated in the order, the cable is a standard 5m) Maximum cable length is 50m.
- KABEL - connection cable

Ceiling holder

The holder is designed for attaching the air curtain to a ceiling. Suitable number of holders per air curtain is specified in table over the page.



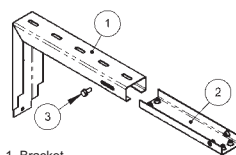
- 1 Ceiling bracket
- 2 Hanging strip
- 3 Securing screw

VCS3-SD-A-SET

- A-SET - for A, B and C air curtains (2 pcs.)
- D-SET - for D air curtains (2 pcs.)
- VCS3-SD - ceiling holder

Wall mounting bracket

Bracket designed for mounting the air curtain onto the wall. Suitable number of brackets per air curtain is specified in the table over the page.



- 1 Bracket
- 2 Hanging strip
- 3 Securing screw

VCS3-SKD-A-SET

- A-SET - for B and C air curtains (2 pcs.)
- VCS3-SKD - wall mounting bracket

Number of hanging elements according to number of air curtain modules in the chain	Number of air curtain modules (in chain)				
	1	2	3	4	n
Number of VCS3-SKD-x brackets	2	3	4	5	n + 1
Number of VCS3-SD-x ceiling brackets	2	3	4	5	n + 1
Number of ZTZ-M8 threaded bars	4	8	12	16	4 x n

**Thermostatic valve
TV1-1/1**



**Door switch for air curtains
fitted with the SM control
DS**



**Three-way valve with servo drive
ZV-3**



**Door switch for air curtains fitted
with the DM and DA controls
DK1**



**Flexible connection hoses
OH-01-1/1-xxx**



**Timer with a weekly program
SH-TM-848**



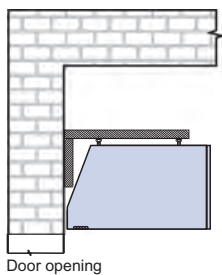
**Mixing point
SMU-xx-xx**



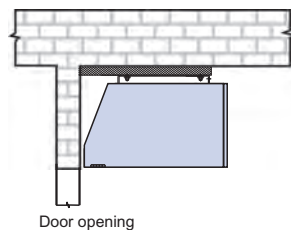
**Room thermostat
TER-P**



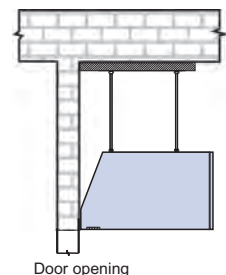
Hanging the air curtain with the aid of the VCS3-SKD wall bracket.



Hanging the air curtain with the aid of the VCS3-SD ceiling bracket.



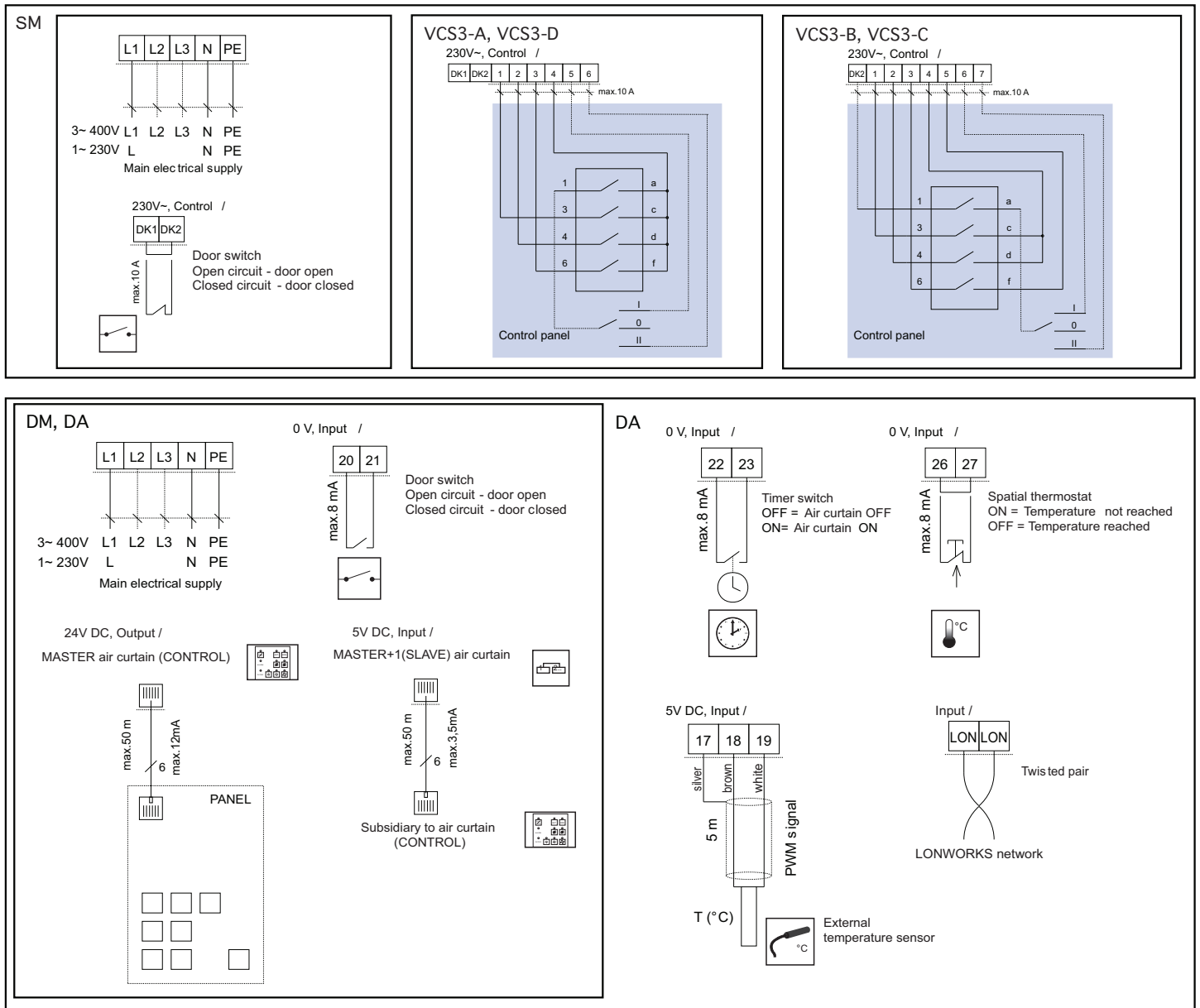
Hanging of the air curtain with the aid of threaded screws and the VCS3-SD ceiling bracket.



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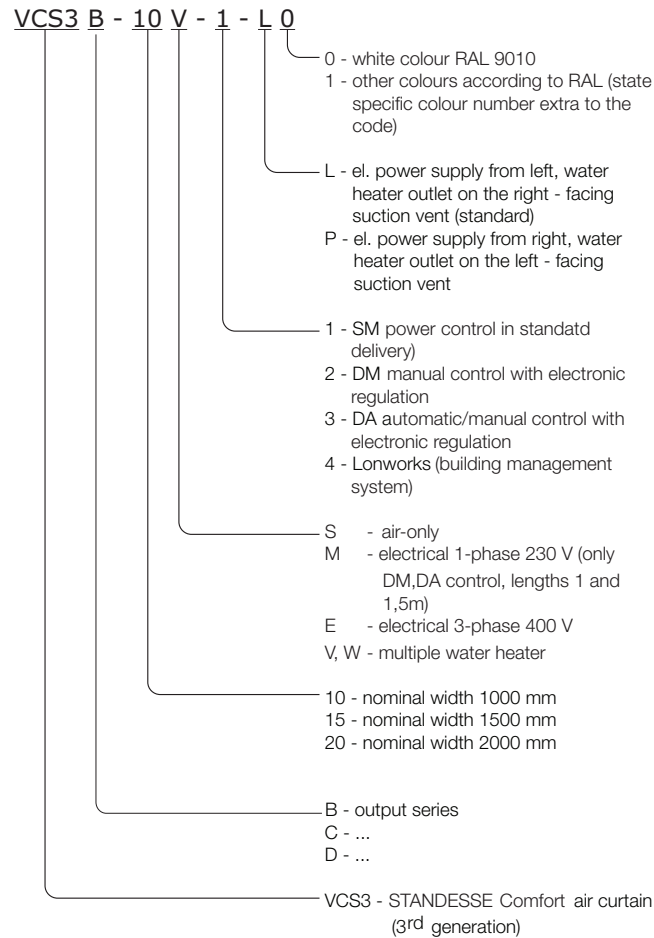
Wiring diagrams

The recommended cross-section of the main power supply cable is stated in the Instruction Manual. All wiring diagrams provided in the technical catalog are indicative only. When assembling the product, observe strictly the nameplate ratings as well as directions and diagrams affixed directly to the product or enclosed to the product



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Key to coding



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JS has a policy of continually improving products and performance. Actual specifications might vary from those shown.

JS Air Curtains

Artex Avenue, Rustington, LITTLEHAMPTON,
West Sussex, BN16 3LN, UK.

Tel: +44 (0)1903 858656 ● Fax: +44 (0)1903 850345

Email: sales@jsaircurtains.com



Part of the JS Humidifiers Group



JS Air Curtains

