

Adaptable and energy efficient air curtain for large commercial premises

Cordilla has a sleek and versatile design available for horizontal and vertical installation, with two different performances. Both horizontal and vertical units can be ordered with your choice of recessed solution. The air curtain can also be tailored to the exact needs of the entrance by means of length, colour and connections.

The choice is yours

The air curtain is built based on specific order and is available in lengths up to 3 meters. Units can be mounted directly next to each other or directly on top of each other. More specific requests such as extra corrosion resistance may be possible upon special request.

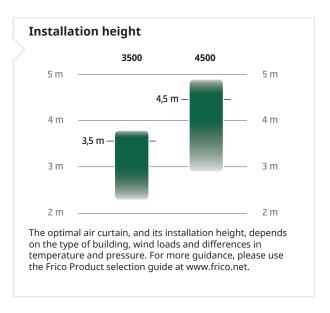
Intelligent air curtain

Cordilla is supplemented with an intelligent control system that allows you to optimise your comfort with minimum effort. Smart and automatic features enable simple setup that easily adapts to your specific opening.

Energy efficient and sustainable

The air curtain is equipped with EC motors that are up to 50% more energy efficient than traditional AC motors, and have a lower weight which makes for easier installations and greener transports.







Frico's Thermozone technology optimizes the air curtain



Frico air curtains create an invisible barrier at openings and doors which separates different temperature zones without limiting access for people and vehicles. Thermozone technology creates a highly uniform air barrier with a perfect balance between air volume and air velocity, regardless of whether it is the heat or the cold that you want to keep inside. The adjustable outlet grille makes it possible to direct the air for an optimal air curtain effect.





Great energy savings

In many premises doors remain open for a significant part of the day, this results in huge losses of expensively heated or cooled air, especially when the temperature difference between outdoor and indoor air is great. With correctly installed air curtains great energy savings can be obtained.

Comfortable indoor climate

Air curtains with Thermozone technology have optimized performance to provide a comfortable indoor climate free from draughts. The air curtain also keeps out emissions and insects.

Low sound level

With Thermozone technology Frico manufactures air curtains with very high airflow performance. This does not just make the air curtain more efficient, but also has other advantages such as extremely low sound levels and reduced turbulence.

Create the optimal solution to suit your specific needs

After you have selected the air curtain to suit your specific needs with the help of the product key, you assemble your control and accessory options:

Select control system

Choose one of our FC Control systems.

Add valve system

Water heated units must be supplemented with a valve system.

Select mounting options

Horizontal, recessed or vertical installation.









Cordilla is manufactured according to your wishes. You select performance, length, way of mounting, connection positions, colour and more with the help of the product key. Three types of recessed mountings are available. Other adaptions may be possible, please contact Frico.

Product key

Type*1	Performa	nce*1 Length*1	Heat*1	Mounting* ²	Recessed	Water connection	Electrical connection	Colour
CDL	35	10	WL	Н	Х	Α	A	RAL Classic*4
	45	15	WLL	VL	ZDS	В	В	
		20	Е	VR	ZDA	C	С	
		25	Α		ZDE	D	D	
		30				X*3		

Bold = standard. Included in standard cost.

- \star^1) See technical specifications on the following pages.
- *2) H = Horizontal, VL = Vertical left, VR = Vertical right, seen from the inside
 *3) State X for units with Electrical heating or Ambient (without heat).
- *4) Other colours available on request.

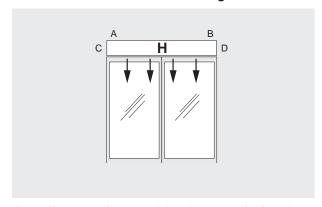
Heat



Mounting

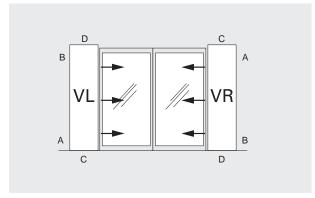


Connections - Horizontal mounting



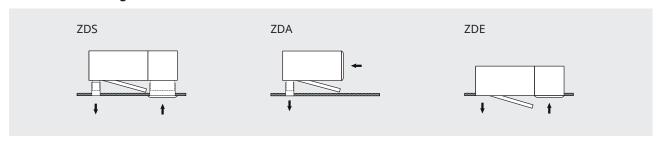
If several units are to be mounted directly next to each other, please state this when ordering.

Connections - Vertical mounting



If two units are to be mounted on top of each other, please state this

Recessed mounting



Example

CDL4520WL - H - ZDS - B - A - RAL9010 is a 2-meter, water heated Cordilla 4500 with WL coil for horizontal recessed mounting according to drawing "ZDS". The water connections are on the top to the right (B) and the electrical connection is on the top to the left (A). It is painted white RAL9010.

Туре	Performance	Length	Heat	Mounting	Recessed	Water connection	Electrical c	connection Colour
CDL	45	20	WL	Н	ZDS	В	Α	RAL9010

Technical specifications Cordilla 3500

Ambient, no heat - Cordilla 3500 A (IP20)

Voltage motor: 230V~

Туре	Output	Airflow*1	Sound power*2	Sound pressure*3	Amperago [A]	e motor Length	Weight	
	[kW]	[m³/h]	[dB(A)]	[dB(A)]	1.4	[mm]	[kg]	
CDL3510A	0	1250/2000	77	49/61	2,3	1000	52	
CDL3515A	0	1850/3000	79	51/63	3,2	1500	69	
CDL3520A	0	2500/4000	79	51/63	4,1	2000	86	
CDL3525A	0	3100/5000	81	53/65	5,1	2500	100	
CDL3530A	0	4200/6800	81	53/65	6,9	3000	115	

Electrical heat - Cordilla 3500 E (IP20)

Туре	Output steps	Airflow*1	Δ t *4	Sound power*2	Sound pressure*3	Amperage motor	Voltage [V] Amperage [A]	Length	Weight
	[kW]	[m³/h]	[°C]	[dB(A)]	[dB(A)]	[A]	(heat)	[mm]	[kg]
CDL3510E09	3/6/9	1200/1900	22/14	77	49/61	2,3	400V3~/13,0	1000	59
CDL3515E12	4/8/12	1750/2850	20/13	79	51/63	3,2	400V3~/17,3	1500	77
CDL3520E18	6/12/18	2350/3800	23/14	79	51/63	4,1	400V3~/26,0	2000	98
CDL3525E18	6/12/18	2950/4750	18/11	81	53/65	5,1	400V3~/26,0	2500	118
CDL3530E30	10/20/30	4100/6600	22/14	81	53/65	6,9	400V3~/43,3	3000	133

Water heat - Cordilla 3500 WL, coil for low water temperature (≤80 °C) (IP20)

Туре	Output*5	Airflow*1	∆ t *4,5	Water volume	Sound power*2	Sound pressure*3	Amperage motor	Length	Weight
	[kW]	[m³/h]	[°C]	[1]	[dB(A)]	[dB(A)]	[A]	[mm]	[kg]
CDL3510WL	11	1200/1900	19/17	1,9	77	48/61	2,3	1000	60
CDL3515WL	17	1750/2850	22/18	2,0	79	50/63	3,2	1500	80
CDL3520WL	21	2350/3800	20/16	2,8	79	50/63	4,1	2000	100
CDL3525WL	31	2950/4750	23/19	3,6	81	52/65	5,1	2500	120
CDL3530WL	35	4100/6600	18/15	5,9	81	52/65	6,9	3000	140

Water heat - Cordilla 3500 WLL, coil for very low temperature water (≤60 °C) (IP20)

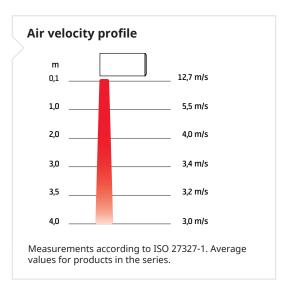
Туре	Output*6	Airflow*1	Δ t *4,6	Water volume	Sound power*2	Sound pressure*3	Ampera motor	ge Length	Weight
	[kW]	[m³/h]	[°C]	[1]	[dB(A)]	[dB(A)]	[A]	[mm]	[kg]
CDL3510WLL	6,9	1200/1900	12/11	2,7	77	48/61	2,3	1000	62
CDL3515WLL	12	1750/2850	14/12	4,2	79	50/63	3,2	1500	83
CDL3520WLL	16	2350/3800	14/13	5,7	79	50/63	4,1	2000	104
CDL3525WLL	19	2950/4750	13/12	7,2	81	52/65	5,1	2500	126
CDL3530WLL	25	4100/6600	13/11	8,7	81	52/65	6,9	3000	146

^{*1)} Low/high airflow (2V/10V).

**) Low/nigh airflow (2V/10V).
**2) Sound power (L_{wA}) measurements according to ISO 27327-2: 2014, Installation type E.
**3) Sound pressure (L_{pA}). Conditions: Distance to the unit 5 metres. Directional factor: 2. Equivalent absorption area: 200 m². At low/high airflow (2V/10V).
**4) Δt = temperature rise of passing air at maximum heat output and low/high airflow (2V/10V).

*5.6) See www.frico.net for additional calculations.

Approved for 220V/1ph/60Hz and 380V/3ph/60Hz. Product performance for 220V/1ph/60Hz and 380V/3ph/60Hz will differ from stated data.



Corrosion proof housing made of hot zinc-plate and powder coated steel panels. Colour housing according to your order, see the product key. Colour inlet grille: grey. Colour outlet grille: black.



^{*5)} Applicable at water temperature 60/40 °C, air temperature, in +18 °C.
*6) Applicable at water temperature 40/30 °C, air temperature, in +18 °C.

Technical specifications Cordilla 4500

Ambient, no heat - Cordilla 4500 A (IP20)

Voltage motor: 230V~

Туре	Output	Airflow*1	Sound power*2	Sound pressure*3	Amperage motor	Length	Weight
	[kW]	[m³/h]	[dB(A)]	[dB(A)]	[A]	[mm]	[kg]
CDL4510A	0	1750/2800	79	51/63	3,2	1000	56
CDL4515A	0	2400/3800	81	53/65	4,1	1500	73
CDL4520A	0	3450/5600	81	53/65	6	2000	90
CDL4525A	0	4100/6600	83	55/67	6,9	2500	104
CDL4530A	0	4650/7500	83	55/67	8,1	3000	129

Electrical heat - Cordilla 4500 E (IP20)

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Туре	Output steps	Airflow*1	∆ t *⁴	Sound power*2	Sound pressure*3	Amperage motor	Voltage [V] Amperage [A]	Length	Weight
	[kW]	[m³/h]	[°C]	[dB(A)]	[dB(A)]	[A]	(heat)	[mm]	[kg]
CDL4510E15	5/10/15	1650/2700	27/17	79	51/63	3,2	400V3~/21,7	1000	63
CDL4515E23	7,5/15/23	2200/3600	31/19	81	53/65	4,1	400V3~/32,5	1500	81
CDL4520E30	10/20/30	3250/5300	28/17	81	53/65	6	400V3~/43,3	2000	102
CDL4525E32	11/21/32	3900/6300	24/15	83	55/67	6,9	400V3~/46,2	2500	122
CDL4530E32	11/21/32	4450/7200	21/13	83	55/67	8,1	400V3~/46,2	3000	137

Water heat - Cordilla 4500 WL, coil for low water temperature (≤80 °C) (IP20)

Туре	Output*5	Airflow*1	∆ t *4,5	Water volume	Sound power*2	Sound pressure*3	Amperage motor	Length	Weight
	[kW]	[m³/h]	[°C]	[1]	[dB(A)]	[dB(A)]	[A]	[mm]	[kg]
CDL4510WL	10	1650/2700	14/11	1,9	79	50/63	3,2	1000	64
CDL4515WL	20	2200/3600	20/16	3,0	81	52/65	4,1	1500	84
CDL4520WL	29	3250/5300	20/16	4,2	81	52/65	6	2000	104
CDL4525WL	36	3900/6300	21/17	5,3	83	54/67	6,9	2500	124
CDL4530WL	37	4450/7200	18/15	5,9	83	54/67	8,1	3000	160

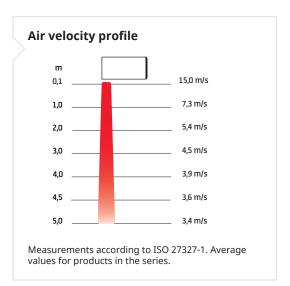
Water heat - Cordilla 4500 WLL, coil for very low temperature water (≤60 °C) (IP20)

Туре	Output*6	Airflow*1	Δ t *4,6	Water volume	Sound power*2	Sound pressure*3	Amperage motor	Length	Weight
	[kW]	[m³/h]	[°C]	[1]	[dB(A)]	[dB(A)]	[A]	[mm]	[kg]
CDL4510WLL	8,0	1650/2700	9/10	2,7	79	50/63	3,2	1000	66
CDL4515WLL	14	2200/3600	13/12	4,2	81	52/65	4,1	1500	87
CDL4520WLL	20	3250/5300	13/11	5,7	81	52/65	6	2000	108
CDL4525WLL	24	3900/6300	13/11	7,2	83	54/67	6,9	2500	130
CDL4530WLL	29	4450/7200	14/12	8,7	83	54/67	8,1	3000	150

^{*1)} Low/high airflow (2V/10V).

*2) Sound power (L_{WA}) measurements according to ISO 27327-2: 2014, Installation type E. *3) Sound pressure (L_{pA}). Conditions: Distance to the unit 5 metres. Directional factor: 2. Equivalent absorption area: 200 m². At low/high airflow (2V/10V). *4) $\Delta t = \text{temperature rise}$ of passing air at maximum heat output and low/high airflow (2V/10V).

Approved for 220V/1ph/60Hz and 380V/3ph/60Hz. Product performance for 220V/1ph/60Hz and 380V/3ph/60Hz will differ from stated data.



Corrosion proof housing made of hot zinc-plate and powder coated steel panels. Colour housing according to your order, see the product key. Colour inlet grille: grey. Colour outlet grille: black.



^{**)} Applicable at water temperature 60/40 °C, air temperature, in +18 °C.

*6) Applicable at water temperature 40/30 °C, air temperature, in +18 °C.

^{*5,6)} See www.frico.net for additional calculations.

Horizontal mounting



Horizontal mounting

The recommended installation height of Cordilla 3500 is 3,5 m and the recommended installation height of Cordilla 4500 is 4,5 m. The air curtain can be installed on a wall or supended from a ceiling. It can also be installed recessed into suspended ceilings.

When the air curtain is mounted horizontally the outlet air grille must be facing downwards as close to the door as possible. For the protection of wider openings, several units can be mounted directly next to each other. This must be specified when ordering, as the air curtains' end gables will be prepared with holes to enable to join the air curtains together.

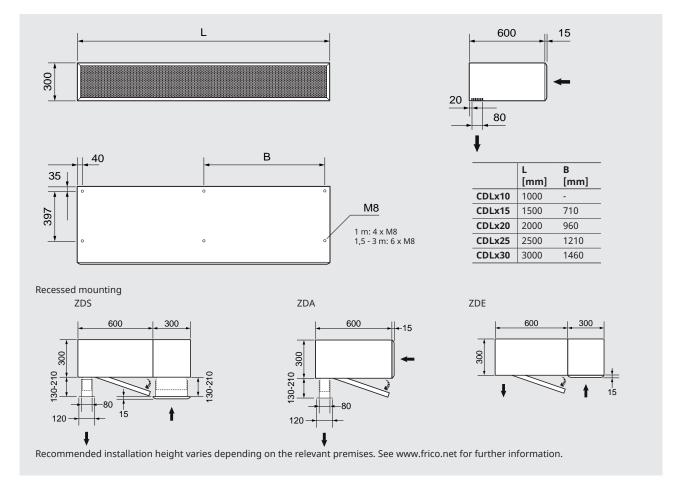
Design covers are available for special order.

Connection

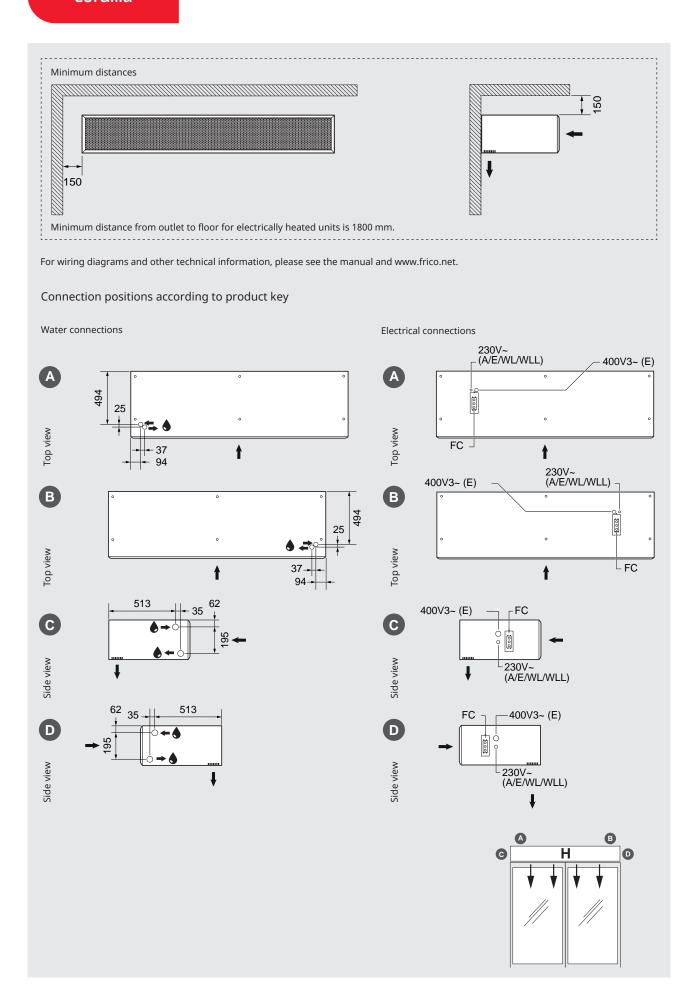
The air curtain has an integrated PC board which is connected to the selected external control system FC. The PC board is mounted on a hatch inside the unit and is accessible by opening the hatch. Communication and sensor cables are connected to the PC board.

Water heated units must always be supplemented with a valve kit mounted outside the unit. For an easy connection of valve systems, there are three different connection kits to choose from (accessories). Flexible hoses are available as accessories. See Valves and Accessories.

Connections for electricity and water are located on the unit according to your order, see the product key.



Horizontal mounting



Vertical mounting

Vertical mounting

The recommended installation width of Cordilla 3500 is 5 m and the recommended installation width of Cordilla 4500 is 6,5 m, with air curtains on both sides of the opening. The air curtain is mounted vertically as close as possible to the door. For the best effect air curtains should be placed on both sides of the opening.

For vertical mounting, the unit must be supplemented with a floor frame CDLFF, ordered separately. The floor frame is premounted on the air curtain at delivery and painted in the same colour as the air curtain.

The air curtain can be placed to the left or to the right of the opening and recessed mounting is possible, see the product key. Two units can be mounted directly on top of each other. This must be specified when ordering, as the air curtains' end gables will be prepared with holes to enable to join the air curtains together.

The air curtain must always be secured at the top.

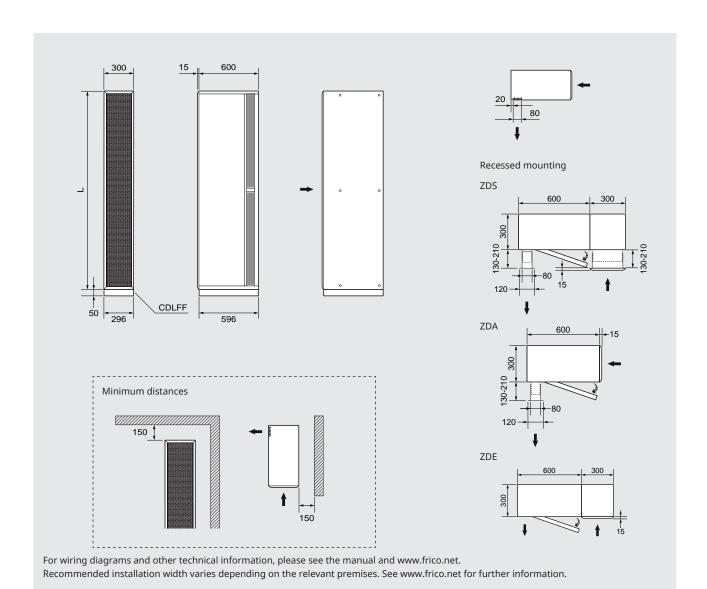
Design covers are available for special order.

Connection

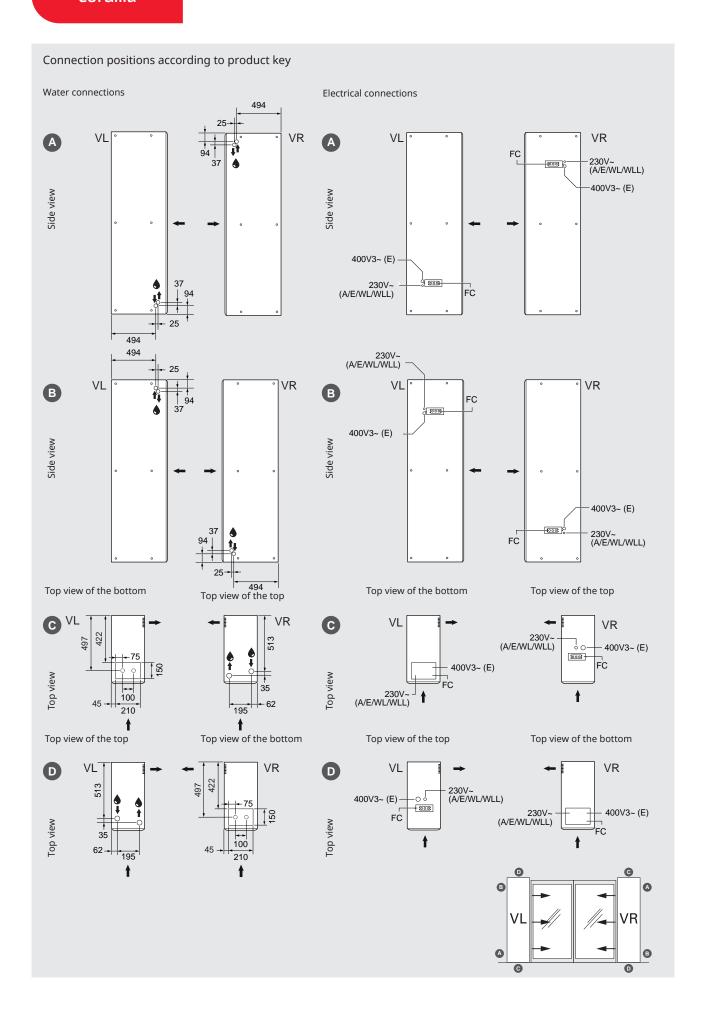
The air curtain has an integrated PC board which is connected to the selected external control system FC. The PC board is mounted on a hatch inside the unit and is accessible by opening the hatch. For vertical units where the connection is made from below (VL-C/VR-D), the PC board is placed in a box in the upper part of the unit, accessible via the service hatch. Communication and sensor cables are connected to the PC board.

Water heated units must always be supplemented with a valve kit mounted outside the unit. For an easy connection of valve systems, there are three different connection kits to choose from (accessories). Flexible hoses are available as accessories. See Valves and Accessories.

Connections for electricity and water are located on the unit according to your order, see the product key. Connections made from below the unit must be prepared in the floor according to the drawing.



Vertical mounting



FC Control system

Frico air curtains come with an integrated PC-board and are supplemented with the intelligent control system FC of your choice, working together to create many smart and energy saving features. There are four different packages to choose from, depending on your requirements.

FC Direct

Entry level

- Door contact
- Calendar function
- Filter timer
- Built-in temperature sensor

FC Smart

FC Direct +

- Control via app (Bluetooth)
- · Wireless sensors possible
- Adjustable calendar function
- · Away and Boost function
- Adjustable filter timer
- Vestibule function
- Zone possibility
- · Enhanced water control possible

FC Pro

FC Direct + FC Smart +

- Automatic air flow control
- · Automatic heat blocking

FC Building - BMS

FC Direct +

- 0-10V, potential free contact or Modbus
- Automatic air flow control*
- Automatic heat blocking*
- · Heat and fan settings
- · Alarm indication
- · Read values
- · Enhanced water control possible
- * Requires outdoor temp signal





FC Direct

Entry level control system for a great start. The door contact provides an automatic energy-saving function, as the air curtain becomes active only when the door is open. When the door is closed, it remains on stand-by or runs on a lower fan speed if extra heat is needed. With the calender function, you can choose periods of comfort and reduced mode. The control panel has a built-in temperature sensor, which is used for control when external sensors are not used.





FC Smart

Second level control system for full freedom. FC Smart comes with all features from FC Direct plus additional energy saving features and the possibility of app control (Bluetooth). The app gives you access to all functions in the system, allowing you to set it up exactly the way you want it. It also enables you to create different zones with different settings in a larger system. The app FRICO CONTROL is available for both iOS and Android.





FC Pro

Third level control system for maximum savings. FC Pro comes with all features from FC Direct and FC Smart plus additional automatic energy saving features. By receiving and reacting to information about indoor and outdoor temperatures, the right amount of heat and air flow is added to avoid overshoots and thus reducing energy consumption.





FC Building - BMS system

Comprehensive control system for buildings, with the option to control via 0-10V, potential free contact (e.g. a relay) and/or Modbus RTU (RS485). FC Building enables you to receive product information status and alarms. Modbus allows for full use of all the energy saving features within the control system.

Item number	Туре	Description
74684	FCDA	FC Direct, first level control system
74685	FCSA	FC Smart, second level control system
74686	FCPA	FC Pro, third level control system
74687	FCBA	FC Building, BMS system

Control system content and accessories

FC Control system helps to create many smart and energy saving features. In addition to our four packages, components can be added to expand and customize the system. With the app levels (FC Smart and FC Pro) it is also possible to create and control different zones. Each added zone needs to be equipped with one FC Direct and can be designed to fit its specific needs by adding different accessories. Air curtains and fan heaters with FC can be installed in separate zones in the same system.



FC Direct, control kit

Control panel for fan and heat, door contact and 5 m communication cable. Used for additional zones with FC Smart and FC Pro. IP44.

FCRTX, external room temperature sensor

For reading of the room temperature on another location than that of the control panel, incl. 10 m sensor cable. IP20.

FCOTX, outdoor temperature sensor

Reading the outdoor temperature, incl. 10 m sensor cable. Enables automatic air curtain control and heat blocking. IP44.

FCLAP, local access point

Local access point for extra wireless sensors (when operating more than 8 sensors) and extended range for wireless sensors or app control (Bluetooth), incl. 10 m communication cable. IP44.

FCSC/FCBC, cable

FCSC Sensor cable available in 10 or 25 m for extra length. FCBC Communication cable for additional products within the same zone, available in 5, 10 or 25 m.

FCDC, door contact

The door contact regulates the airflow on/off. Allows you to control air curtains at different doorways individually within the same zone.

FCTXRF, indoor/outdoor wireless sensor

Indoor/outdoor wireless sensor with same features as FCRTX and FCOTX. The set up as outdoor or indoor sensor is made by a switch inside the sensor. Range up to 50 m. Battery life: 3-5 years (2xAAA). IP44.

FC Direct

Content

- FCCF control panel
- FCBC05
- FCDC

FC Smart

Content

- FCCF control panel
- FCBC10
- FCDC
- FCLAP

FC Pro

Content

- · FCCF control panel
- FCBC10
- FCDC
- FCLAP
- FCTXRF

FC Building - BMS

Content

- FCCF control panel
- FCBC10
- FCDC
- FCBAP building access point

Item number	Туре	Description	Dimensions
74684	FCDA	FC Direct, first level control system	89x89x26 mm (FCCF)
74694	FCRTX	External room temperature sensor	39x39x23 mm
74695	FCOTX	Outdoor temperature sensor	39x39x23 mm
74699	FCLAP	Local access point for extra wireless sensors and extended range	89x89x26 mm
74718	FCBC05	Extra communication cable, 5 m	5 m
74719	FCBC10	Extra communication cable, 10 m	10 m
74720	FCBC25	Extra communication cable, 25 m	25 m
74721	FCSC10	Extra sensor cable, 10 m	10 m
74722	FCSC25	Extra sensor cable, 25 m	25 m
17495	FCDC	Door contact	
74703	FCTXRF	Indoor/outdoor wireless sensor (for FC Smart, FC Pro)	89x89x26 mm

Water control



Water heated units must be supplemented with valves. The valve system controls the water flow and activates maximum heat only when needed. By activating the built-in bypass feature, a small leakage flow is let through to make sure there is always hot water in the heating coil, providing frost protection and faster heating. The return water temperature sensor is making sure that as much energy as possible from the water in the coil is used, thus reducing energy consumption.





Two way pressure independent control and adjustment valve with modulating actuator and shut-off valve. UNSG-R: union set with swiveling nut and female thread.



WCK, Water connection kit

Water connection kit containing all necessary couplings and hoses to connect from product to valve system. The water connection kits are intended for valve systems containing a pressure independent control and adjustment valve.



UNSG and ANS, connection kits for valve system

UNSG: union set with swiveling nut and press end. ANS: adapter nippel set with male thread and press end.



FCWTA, return water temperature sensor

Enables control of return water temperature and automatic bypass function, which provides extended frost protection and reduced energy consumption.

Item number	Туре	DN	Flow range I/s
238293	VPFC15LF	DN15	0,012-0,068
238294	VPFC15NF	DN15	0,024-0,13
238295	VPFC20	DN20	0,058-0,32
238296	VPFC25	DN25	0,10-0,60
238297	VPFC32	DN32	0,22-1,03

Item number	Туре	Description	Length
459330	WCK8	Water connection kit	1000
459331	WCK9	Water connection kit	350

Item number Type		Description	Consists of	
333344	UNSG2015	Union set G20 x 15mm	2	
333345	UNSG2518	Union set G25 x 18mm	2	
333346	UNSG2522	Union set G25 x 22mm	2	
333347	UNSG3228	Union set G32 x 28mm	2	
333348	UNSG4035	Union set G40 x 35mm	2	
333349	ANS1515	Adapter nippel set R15	2	
333350	ANS2018	Adapter nippel set R20	2	
333351	ANS2022	Adapter nippel set R20	2	
333352	ANS2528	Adapter nippel set R25	2	
333353	ANS3235	Adapter nippel set R32	2	
74702	FCWTA	Return water temperature sensor	1	

Accessories - horizontal mounting









Brackets for installing unit horizontally on a wall, length 560 mm.

PA34CB, ceiling brackets

Ceiling brackets for installing the unit from the ceiling using wires or threaded bars (not included). Best combined with vibration dampers (PA34VD) when using threaded bars.

PA34WS, wire suspension kit

Galvanized wires with wire locks to secure the unit from the ceiling. Length 3 m. Used together with ceiling brackets (PA34CB).

PA34TR, threaded bars

Threaded bars for installing unit on to a ceiling. Length 1 m. Used together with ceiling brackets (PA34CB). Supplemented with vibration dampers (PA34VD) for reduced vibration.

PA34VD, vibration dampers

Reduces vibrations for ceiling installations with threaded bars.

Item number	Туре	Used for	Consists of	Length
214951	PAWBL15	CDLx10	2	560 mm
214952	PAWBL20	CDLx15 / CDLx20 / CDLx25 / CDLx30	3	560 mm
18059	PA34CB15	CDLx10	4	
18060	PA34CB20	CDLx15 / CDLx20 / CDLx25 / CDLx30	6	
18062	PA34WS15	CDLx10	4	3 m
18063	PA34WS20	CDLx15 / CDLx20 / CDLx25 / CDLx30	6	3 m
18056	PA34TR15	CDLx10	4	1 m
18057	PA34TR20	CDLx15 / CDLx20 / CDLx25 / CDLx30	6	1 m
18065	PA34VD15	CDLx10 /	4	
18066	PA34VD20	CDLx15 / CDLx20 / CDLx25 / CDLx30	6	

Accessories - vertical mounting





CDLFF, floor frame

Floor frame needed to mount the air curtain vertically. The frame is attached horizontally to the floor. One floor frame per vertical installation is needed. The floor frame is premounted on the air curtain at delivery and painted in the same colour as the air curtain.

AXP300, collision protection

Floor placed protection against impact from e.g. shopping trolleys.

Item number	Туре	Used for	Consists of
FE10398	CDLFF	CDL	1
10028	AXP300	CDL	1

Accessories - water heated units



DTV200S, filter pressure guard

Measures the differential pressure, which indicates how dirty the filter is in water heated units. The metering hose is connected to the suction side of the unit (after the filter). Adjustment is performed on site depending on the unit and the environment. Adjustable range 20-300 Pa. Potential free, changeover alarm contact.

Item number	Туре	Used for	Consists of
17597	DTV200S	CDL WL/WLL	1