



Air Curtains

Catalogue | 2018

AIRTECNICS: The Air Curtain Specialist



Founded in 1986 and placed in Castellar del Vallès (Barcelona), Airtècnics has a large experience producing air curtains, air handling units, fan boxes, fan filter units, axial fans, centrifugal fans and other special and OEM equipment.

We export our products to more than 45 countries worldwide.

Besides our own production, Airtècnics distributes a wide range of HVAC products, mostly produced by Rosenberg Group companies.

Loyal to our commitments regarding our customers, our products fulfill the highest standards of quality criteria.

We are proud of our highly qualified team composed by master engineers, designers, specialized technicians and skilled professionals, ready to assist you in any questions you may have in design, installation or service maintenance requirements.



Airtècnics headquarters in Castellar del Vallès (Spain)

Airtècnics is from 1993 fully integrated in the Rosenberg Group, an organization specializing in the design, manufacturing and distribution of equipments and components of ventilation and air conditioning with factories, subsidiaries and agencies in more than 50 countries.

Founded in 1981, with a total of 1.400 employees, 14 production sites on 4 continents, as well as 4 development centres.

Rosenberg develops, produces and distributes its products worldwide.

Through a combination of human know how and innovative production technology Rosenberg products achieve a quality which meets the highest requirements.



Be sure that Airtècnics or our worldwide distributors network will give you the right solution for any air curtains application.

- Air curtains market leading
- Producing +20 years
- Exporting +45 countries
- Catalogue +25 languages
- Experimented R+D+i
- Continuous improving
- Complete range, all applications
- University knowledge collaboration

www.airtechnics.com

Find more information and our distributors list in our specialized air curtain websites:

български	www.vazdushnizavesi.com	Lietuviškai	www.orouzuolaidos.com
Català	www.cortinesaire.com	Magyar	www.legfuggonyok.com
Česky	www.vzduchoveclony.com	Nederlands	www.luchtgordijnen.com
Српски	www.vazdusnezavese.com	Norsk	www.lufterporter.com
Dansk	www.lufttaepper.com	Polski	www.kurtynapowietrzna.com
Deutsch	www.luftschieleranlagen.net	Português	www.cortinadear.com
Ελληνικά	www.aerokourtines.com	Ukraine	www.air-stream.holbidev.co.uk
English	www.dooraircurtain.com	Românesc	www.perdeledeaer.com
Español	www.cortinasdeaire.es	Slovenski	www.zracnezavese.com
Français	www.rideauxdair.com	Suomalainen	www.ilmaverho.com
Italiano	www.barrieraadaria.com	Svenska	www.luftridaer.com
Latviešu	www.gaisaaizkari.com	Türk	www.havaperdeleri.eu



AIR CURTAINS



The new and attractive generation of Airtècnics air curtains are the ideal solution to maintain a comfortable interior climate in commercial outlets and public buildings that need to keep their doors open.

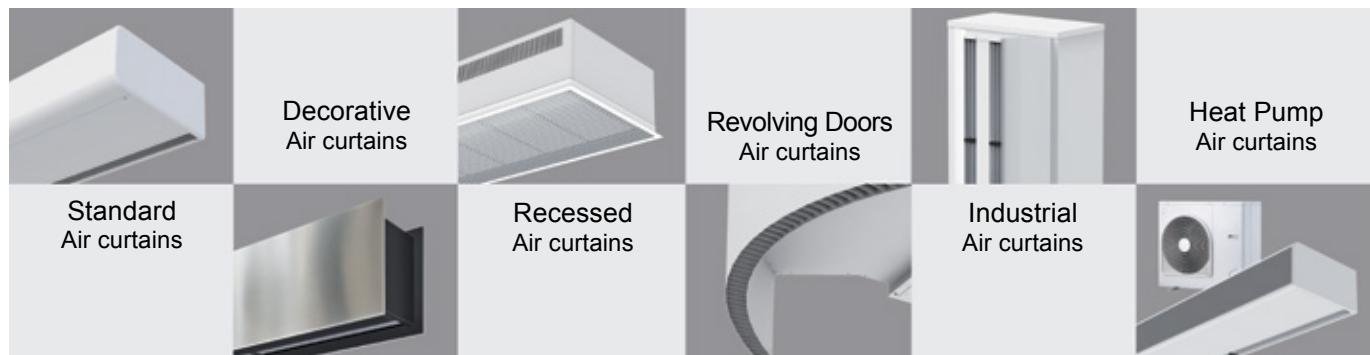
Airtècnics air curtains create an air stream layer over the doorway and act as an invisible barrier which efficiently divides the inside environment from the outside one. Therefore, it substantially reduces heating and cooling costs up to 80%, while increasing employees and clients comfort.

For shops, Airtècnics air curtains allow a clear view of the inside of the shop, welcoming the client to enter easily and freely.

The end result is more customers and an increase in sales. Airtècnics air curtains are a protection from the cold and heat, repel gusts of wind and minimize dust, fumes, pollution and insects entering the building.

In order to obtain these advantages it's very important to choose the appropriate air curtain. Factors such as interior drop, strong winds, the door's location, stairs between floors, opposite doors, and the installation height have to be taken into consideration.

Our expert consultants with their extensive experience are at your disposal to help you choose.



Advantages

MAINTAIN:

- Heating levels
- Refrigeration
- Air conditioning
- Comfort
- Clean atmosphere



PROTECT FROM:

- Cold winter temperatures
- Hot summer temperatures
- Car fumes
- Dust in the air
- Pollution
- Bad smells and odours
- Insects

Selection of an air curtain

To select an air curtain the following factors have to be kept in mind:

- The height of the installation measured from the discharge diffuser to the floor
- The width of the door
- The location of the building to determine the level of protection needed against weather conditions
- If the building has several doors in the same, different or opposite facade
- If the building has several stores connected by escalators
- Pressure differences between the inside and outside of the building
- Door characteristics: if always open, if automatic door, manual door, revolving door, etc.
- Characteristics of the ventilation and air conditioning installation
- Voltage and electrical power availability
- Type of business, style and decoration of the premises



WIDE RANGE

*Models and main characteristics,
Selection and applications*

6



SMART

*Decorative high pressure for commercial and
industrial doors 2,5 - 4,2 m*

16-17



MINIBEL

Economical for openings up to 1,8 m

7



ZEN

*Customizable design with bespoke panels
for commercial doors 2,5 - 4,2 m*

18-19



OPTIMA WIRELESS

For commercial doors 2,2 - 2,8 m

8



RUND

*Decorative cylindrical for vertical or
horizontal installation 2,5 - 4,2 m*

20-21



RECESSED OPTIMA WIRELESS

*For commercial doors, recessed installation
in false ceiling 2,2 - 2,8 m*

9



DECO

*Decorative with aluminium profiles for
commercial doors 2,5 - 4,2 m*

22-23



OPTIMA

For commercial doors 2,2 - 2,8 m

10



DAM

*High pressure for commercial doors with
front panel 2,5 - 4,2 m*

24-25



RECESSED OPTIMA

*For commercial doors, recessed installation
in false ceiling 2,2 - 2,8 m*

11



RECESSED DAM

*Compact recessed for commercial and
industrial doors 2,5 - 4,2 m*

26-27



WINDBOX M,G

*High pressure for commercial and
industrial doors 2,5 - 4,2 m*

12-13



HEAT PUMP AIR CURTAINS

*Energy saving and very low consumption
technology for commercial doors 2,5 - 4,2 m*

28-39



RECESSED WINDBOX

*High pressure for commercial doors, recessed
installation in false ceiling 2,5 - 4,2 m*

14-15



WINDBOX BB

*High pressure for large commercial and
industrial doors 5 - 7 m*

40-41



RECESSED WINDBOX BB 42-43

High pressure recessed for large commercial and industrial doors 5 - 7 m



MAXWELL, MAX

Large industrial doors vertical or horizontal 4 - 6 m



WINDBOX L,XL 44-45

High pressure for large industrial and commercial doors 4 - 7 m



ACCESSORIES, SPECIAL OPTIONS

56

Supports, valves, sensors, etc.



INVISAIR 46-47

Recessed in column or bulkhead vertical or horizontal 2,5 - 4,2 m



POWER COEFFICIENTS

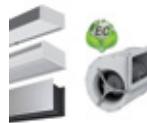
57

Water heated air curtains at different water temperatures



ROTWIND 48-49

Tailor made for revolving doors 2,5 - 4,2 m



EC TECHNOLOGY

58

Centrifugal EC fans with very low consumption technology



VARIWIND 50

Tailor made variable length, VP or VW construction 2,5 - 4,2 m



REGULATION

59-61

Basic regulation: standard controls, Advanced regulation: Clever control



RECESSED COMPACT 51

Air only compact recessed for commercial and industrial doors 2,5 - 4,2 m



GALLERY

62-65

Installation pictures



KOOL 52

High velocity for cold store and freezer doors 2,5 - 4,2 m



REFERENCES

66-69

Clients brand names



TRIOJET SYSTEM 53

Combination system with multijets for large cold stores 2 - 3 m



DISTRIBUTORS

70-71

Worldwide distributors



Applications

Model	Kind	Recommended Installation Height (*)	A	E	P	Heating DX	Common Applications
Minibel		1,8 m	•	•			Kiosks, Fast Food and small sized shops. Restaurants and places with usually closed door or automatic door when low pedestrian flow.
Optima Wireless (A,E) Recessed Optima Wireless (A,E)							Small and medium sized premises. Restaurants, shops and places with a medium and high pedestrian flow. Creation of different environment zones. Protection against dust, fumes, pollutants and insects. False ceiling installations. Isolation and sealing of smoking areas.
Optima Recessed Optima		2,2 - 2,8 m	•	•	•		
Windbox Recessed Windbox	M	2,5 - 3,5 m	•	•	•		
Smart, Zen, Rund, Deco Dam, Recessed Dam	ECM	2,5 - 3,8 m	•	•	•	•	Medium and large sized premises with a high pedestrian flow. Protection against dust, fumes, pollutants and insects. Cold rooms. False ceiling installations. Isolation and sealing of smoking areas.
Invisair, Rotowind Variwind	G	3,0 - 4,0 m	•	•	•		
Recessed Compact (A) Kool (A)	ECG	3,0 - 4,2 m	•	•	•	•	
Triojet		2 - 3 m	•				Industrial doors for large cold rooms and freezers with very low temperatures or problems with ice production.
	L	4 - 5 m	•	•	•	(**)	
Windbox	LT	4 - 6 m	•	•	•		Medium and large sized premises with a high pedestrian flow. Industrial doors. Protection against dust, fumes, pollutants and insects. Cold rooms. False ceiling installations.
Recessed Windbox (BB)	XL, BB	5 - 7 m	•	•	•	(**)	
	XLT	5 - 8 m	•	•	•		
Maxwell Max		4 - 6 m	•	•	•		Industrial doors. Loading dock. Vertical Installation to one side of the door or at each side of the door. Horizontal Installation.

(*) The maximum height of installation depends on the conditions of the premises. Contact us to clear up your queries or doubts.

(**) Available under request.

(A) Air Only, (E) Electrical Heating, (P) Water Coil Heating LPHW, (DX) Heat Pump



Characteristics

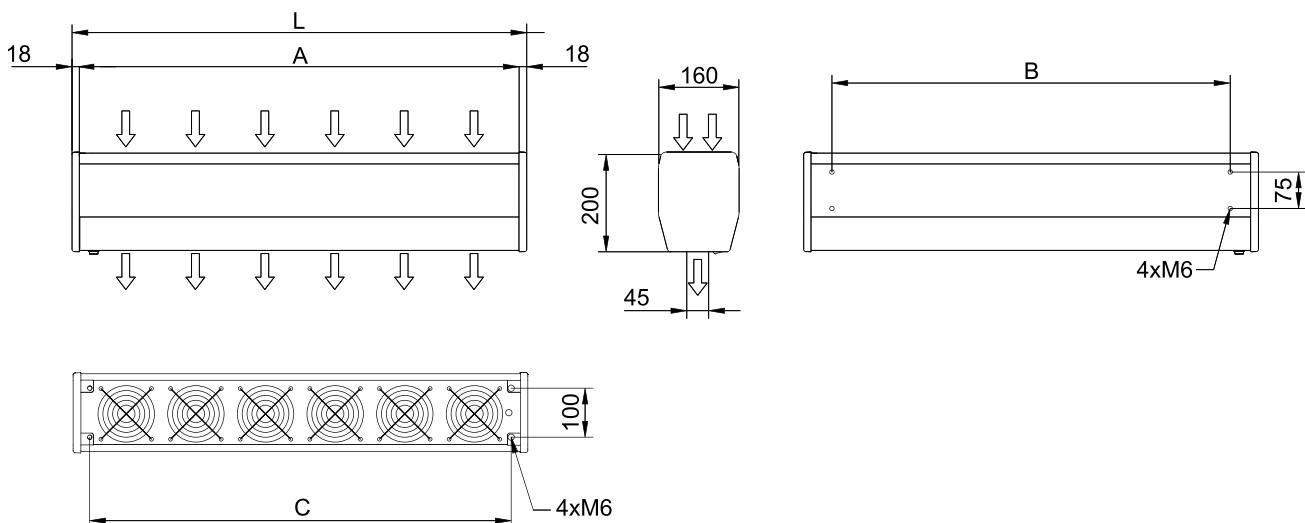


- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours are available on request.
- Anodized aluminium outlet vanes, airfoil shaped.
- Compact axial fans, low noise level.
- "E" type with electrical shielded element. "A" type without heating, air only.
- Integrated switch for ventilation and heating control.
- Cable connection 1,5m length, integrated.
- Wall support included.

Specifications

		MIN 600 A	MIN 600 E230	MIN 900 A	MIN 900 E230
Power (fans)	W	60	60	90	90
Voltage (fans)	V	230~1	230~1	230~1	230~1
Current (fans)	A	0,52	0,52	0,78	0,78
Airflow	m ³ /h	420	420	630	630
Power (heating)	kW	-	2,5	-	3,2
Voltage (heating)	V	-	230~1	-	230~1
Current (heating)	A	-	10,8	-	13,9
Temperature Rise	°C	-	18	-	15
Weight	kg	9	10	12,5	13,5
Noise Level	dB(A)	46	46	47	47

Dimensions



	L	A	B	C
MIN 600	636	600	520	566
MIN 900	936	900	820	866



Characteristics



- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours are available on request.
- Micro-perforated inlet grille with filter functions and easy service. It does not need prefilter.
- Anodized aluminium outlet vanes, airfoil shaped.
- Low noise twisted cross-flow fans driven by a 2-speed external rotor motor.
- "E" type with electrical shielded elements, two stages with integrated regulation. "A" type without heating, air only.
- Included regulation with infrared remote control and inbuilt keypad with leds.

Specifications

AIR ONLY

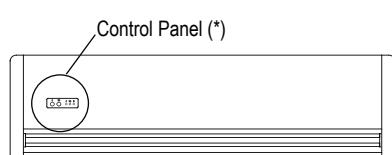
Model	Airflow m³/h	Power Fans 230V-50Hz W	Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
OPT W 1000 A	1500	80	0,41	35/50	17,5
OPT W 1500 A	2150	117	0,53	36/51	25,5
OPT W 2000 A	2900	160	0,82	38/53	33

ELECTRICAL HEATED

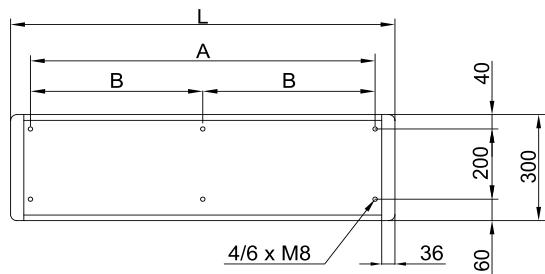
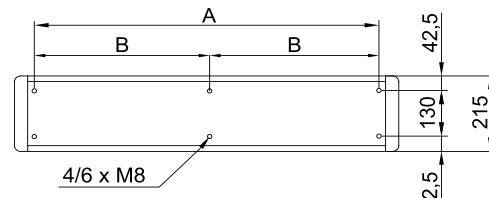
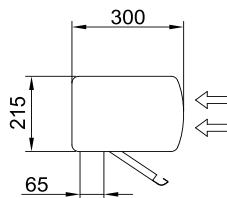
Model	Airflow m³/h	Electrical Heating Capacity kW	Power Supply	Maximum Electrical Heating Current A	Power Fans 230V-50Hz W	Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
OPT W 1000 E	1500	3,8/5,6	400Vx3	8,7	80	0,41	35/50	20,5
OPT W 1000 E230	1500	3,8/5,6	230Vx1	24,5	80	0,41	35/50	20,5
OPT W 1500 E	2150	6,9	400Vx3	13,0	117	0,53	36/51	27,5
OPT W 1500 E230-6	2150	3,8/5,6	230Vx1	24,5	117	0,53	36/51	27,5
OPT W 1500 E230-9	2150	6,9	230Vx1 (*)	39,1	117	0,53	36/51	27,5
OPT W 2000 E	2900	5,6/11,3	400Vx3	16,3	160	0,82	38/53	42
OPT W 2000 E230	2900	5,6/11,3	230Vx1 (*)	49,1	160	0,82	38/53	42

(*) 2 separated power supplies.

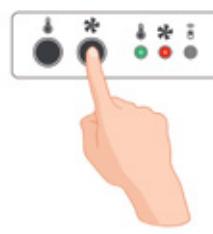
Dimensions



	L	A	B
OPT W 1000	1050	940	-
OPT W 1500	1550	1440	-
OPT W 2000	2050	1940	970



(*) Manual regulation using inbuilt keypad or by infrared remote control





Characteristics



- Self-supporting casing construction made of galvanized steel plate, ready to be installed recessed in a false ceiling.
- Inlet grille panel (free of maintenance) integrated in a single frame colour white RAL 9016 or black RAL 9005. Other colours are available on request.
- Anodized aluminium outlet vanes, airfoil shaped.
- Low noise twisted cross-flow fans driven by a 2-speed external rotor motor.
- "E" type with electrical shielded elements, two stages with integrated regulation. "A" type without heating, air only.
- Included regulation with infrared remote control and inbuilt keypad with leds.

Specifications

AIR ONLY

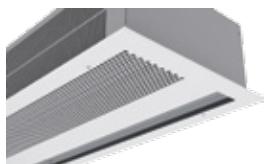
Model	Airflow m³/h	Power Fans 230V-50Hz W	Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
RO W 1000 A	1700	80	0,41	35/50	23
RO W 1500 A	2200	117	0,53	36/51	33
RO W 2000 A	3200	160	0,82	38/53	43

ELECTRICAL HEATED

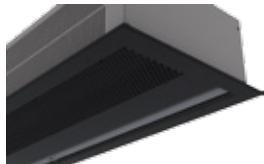
Model	Airflow m³/h	Electrical Heating Capacity kW	Power Supply	Maximum Electrical Heating Current A	Power Fans 230V-50Hz W	Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
RO W 1000 E	1700	3,8/5,6	400Vx3	8,7	80	0,41	35/50	25
RO W 1000 E230	1700	3,8/5,6	230Vx1	24,5	80	0,41	35/50	25
RO W 1500 E	2200	6/9	400Vx3	13,0	117	0,53	36/51	36
RO W 1500 E230-6	2200	3,8/5,6	230Vx1	24,5	117	0,53	36/51	36
RO W 1500 E230-9	2200	6/9	230Vx1 (*)	39,1	117	0,53	36/51	36
RO W 2000 E	3200	5,6/11,3	400Vx3	16,3	160	0,82	38/53	51
RO W 2000 E230	3200	5,6/11,3	230Vx1 (*)	49,1	160	0,82	38/53	51

(*) 2 separated power supplies.

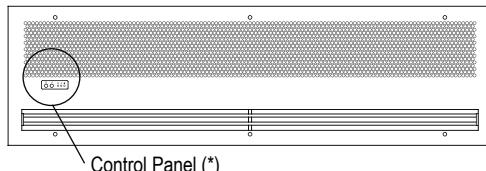
Dimensions and finishes



White Finish RAL 9016

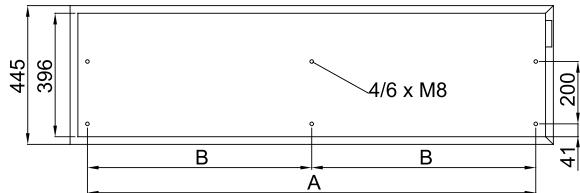
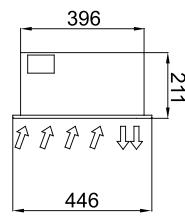
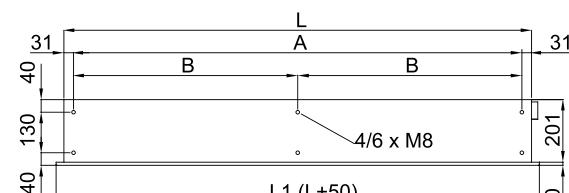
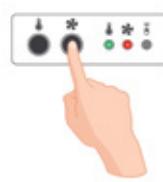


Black Finish RAL 9005



Control Panel (*)

(*) Manual regulation using inbuilt keypad or by infrared remote control



	L	L1	A	B
RO W 1000	1000	1050	938	-
RO W 1500	1500	1550	1438	-
RO W 2000	2000	2050	1938	969



Characteristics



- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours are available on request.
- Micro-perforated inlet grille with filter functions and easy service. It does not need prefilter.
- Anodized aluminium outlet vanes, airfoil shaped.
- Low noise twisted cross-flow fans driven by a 2-speed external rotor motor.
- "P" type with water heated coil. "E" type with electrical shielded elements, two stages with integrated regulation. "A" type without heating, air only.
- Includes Plug&Play control with 7m RJ45 cable and infrared remote control. Optional: Clever control (programmable, automatic, intelligent, energy saving, Modbus RTU for BMS...).

Specifications

AIR ONLY					
Model	Airflow m³/h	Power Fans W	Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
OPT 1000 A	1500	80	0,41	35/50	17,5
OPT 1500 A	2150	117	0,53	36/51	25,5
OPT 2000 A	2900	160	0,82	38/53	33

WATER HEATED							
Model	Airflow m³/h	Heating Capacity 80/60°C kW	Water Drop Pressure Pa	Power Fans 230V-50Hz W	Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
OPT 1000 P	1400	8,2	7090	80	0,41	37/51	20,5
OPT 1500 P	2100	12,7	7200	117	0,53	38/52	27,5
OPT 2000 P	2750	16,7	6550	160	0,82	40/54	37,5

ELECTRICAL HEATED

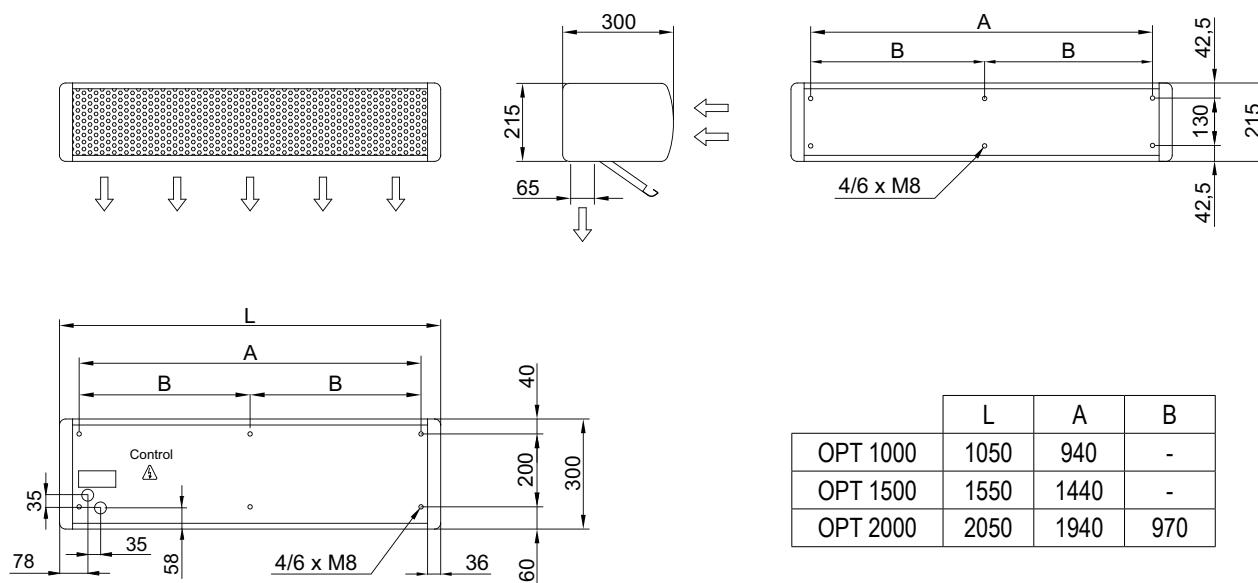
Model	Airflow m³/h	Electrical Heating		Maximum Electrical Heating Current A	Power Fans 230V-50Hz W	Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
		Capacity (**) kW	Power Supply					
OPT 1000 E	1500	3,8/5,6	400Vx3	8,7	80	0,41	35/50	20,5
OPT 1000 E-9	1500	6/9	400Vx3	13,0	80	0,41	35/50	21,5
OPT 1000 E230	1500	3,8/5,6	230Vx1	24,5	80	0,41	35/50	20,5
OPT 1500 E	2150	6/9	400Vx3	13,0	117	0,53	36/51	27,5
OPT 1500 E230-6	2150	3,8/5,6	230Vx1	24,5	117	0,53	36/51	27,5
OPT 1500 E230-9	2150	6/9	230Vx1 (*)	39,1	117	0,53	36/51	27,5
OPT 2000 E	2900	5,6/11,3	400Vx3	16,3	160	0,82	38/53	42
OPT 2000 E230	2900	5,6/11,3	230Vx1 (*)	49,1	160	0,82	38/53	42

Water heated: connection pipes 1/2" female. 2 rows coil.

(*) 2 separated power supplies.

(**) Under request other electrical heating capacities may be supplied.

Dimensions





Characteristics



- Self-supporting casing construction made of galvanized steel plate, ready to be installed recessed in a false ceiling.
- Inlet grille (free of maintenance) made with aluminium profiles and blow-out nozzle, integrated in a single white frame colour RAL 9016. Other colours are available on request.
- Anodized aluminium outlet vanes, airfoil shaped.
- Low noise twisted cross-flow fans driven by a 2-speed external rotor motor.
- "P" type with water heated coil. "E" type with electrical shielded elements, two stages with integrated regulation. "A" type without heating, air only.
- Includes Plug&Play control with 7m RJ45 cable and infrared remote control. Optional: Clever control (programmable, automatic, intelligent, energy saving, Modbus RTU for BMS...).

Specifications

AIR ONLY

Model	Airflow m³/h	Power Fans W	Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
RO 1000 A	1700	80	0,41	35/50	24
RO 1500 A	2200	117	0,53	36/51	34
RO 2000 A	3200	160	0,82	38/53	44,5

WATER HEATED

Model	Airflow m³/h	Heating Capacity 80/60°C kW	Water Drop Pressure Pa	Power Fans 230V-50Hz W	Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
RO 1000 P	1450	8,3	7360	80	0,41	37/51	26,5
RO 1500 P	2175	13	7480	117	0,53	38/52	37,5
RO 2000 P	2850	17,1	6810	160	0,82	40/54	49

ELECTRICAL HEATED

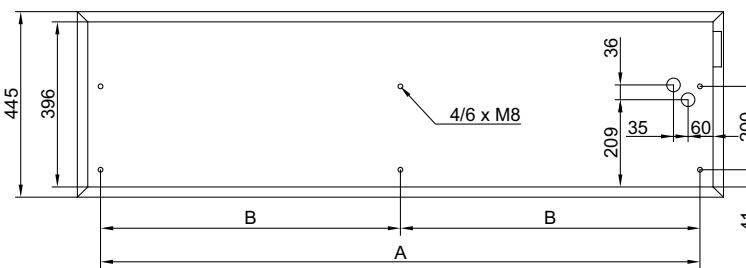
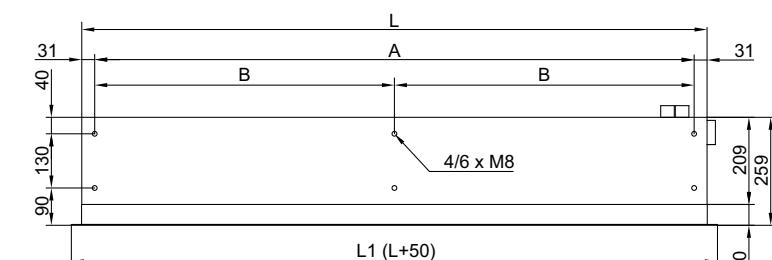
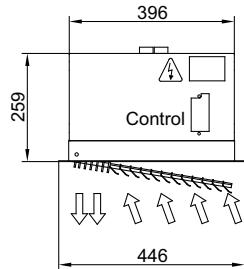
Model	Airflow m³/h	Electrical Heating Capacity (**) kW	Power Supply	Maximum Electrical Heating Current A	Power Fans 230V-50Hz W	Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
RO 1000 E	1700	3,8/5,6	400Vx3	8,7	80	0,41	35/50	26
RO 1000 E-9	1700	6,9	400Vx3	13,0	80	0,41	35/50	27
RO 1000 E230	1700	3,8/5,6	230Vx1	24,5	80	0,41	35/50	26
RO 1500 E	2200	6,9	400Vx3	13,0	117	0,53	36/51	37,5
RO 1500 E230-6	2200	3,8/5,6	230Vx1	24,5	117	0,53	36/51	37,5
RO 1500 E230-9	2200	6,9	230Vx1 (*)	39,1	117	0,53	36/51	37,5
RO 2000 E	3200	5,6/11,3	400Vx3	16,3	160	0,82	38/53	53,5
RO 2000 E230	3200	5,6/11,3	230Vx1 (*)	49,1	160	0,82	38/53	53,5

Water heated: connection pipes 1/2" female. 2 rows coil.

(*) 2 separated power supplies.

(**) Under request other electrical heating capacities may be supplied.

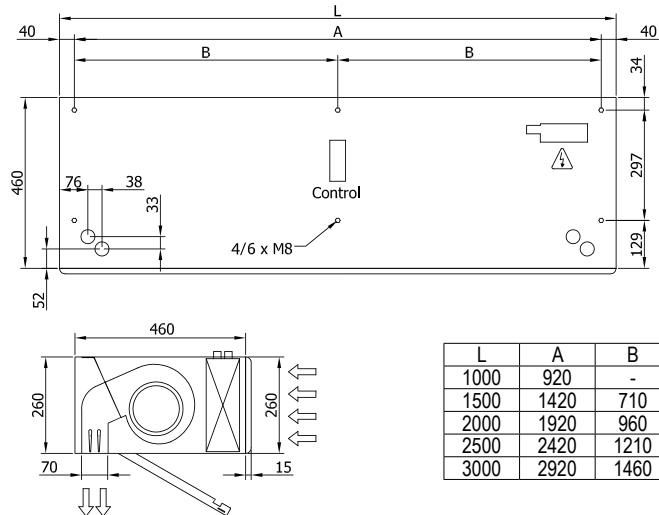
Dimensions



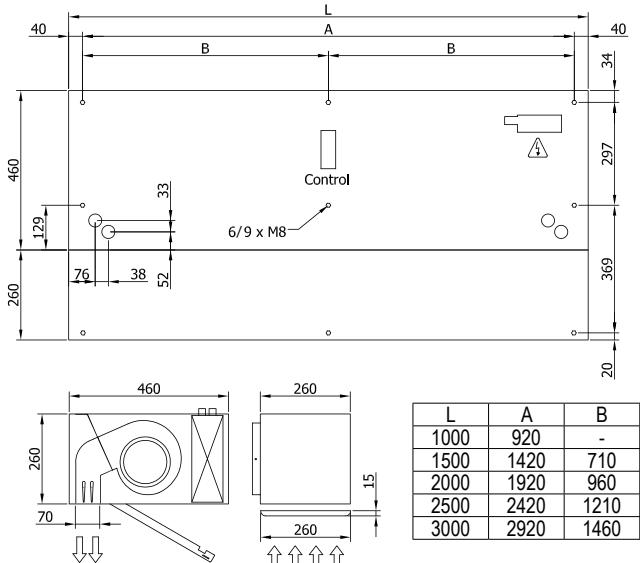
	L	L1	A	B
RO 1000	1000	1050	938	-
RO 1500	1500	1550	1438	-
RO 2000	2000	2050	1938	969



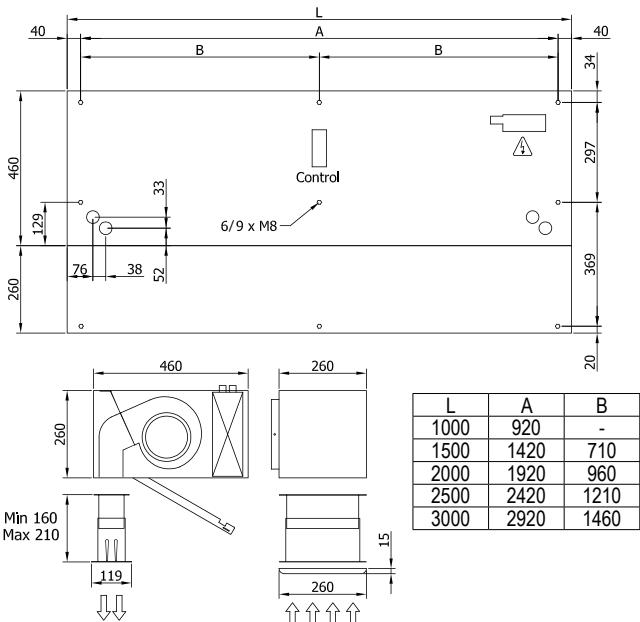
Layouts and dimensions



Free hanging mounting



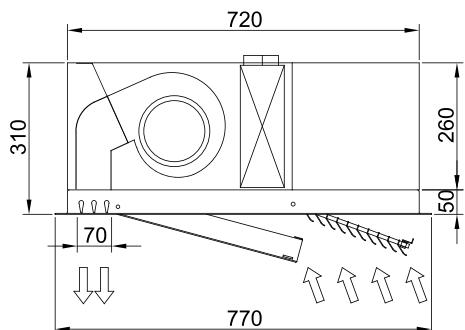
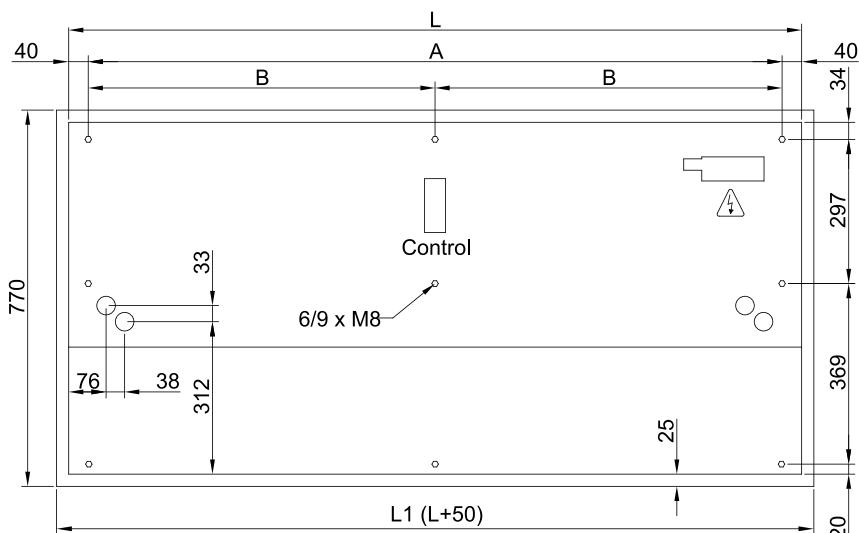
Inside ceiling surface mounting



False ceiling invisible mounting



Dimensions



	L	L1	A	B
RWIN 1000	1000	1050	920	-
RWIN 1500	1500	1550	1420	710
RWIN 2000	2000	2050	1920	960
RWIN 2500	2500	2550	2420	1210

Finishes and details

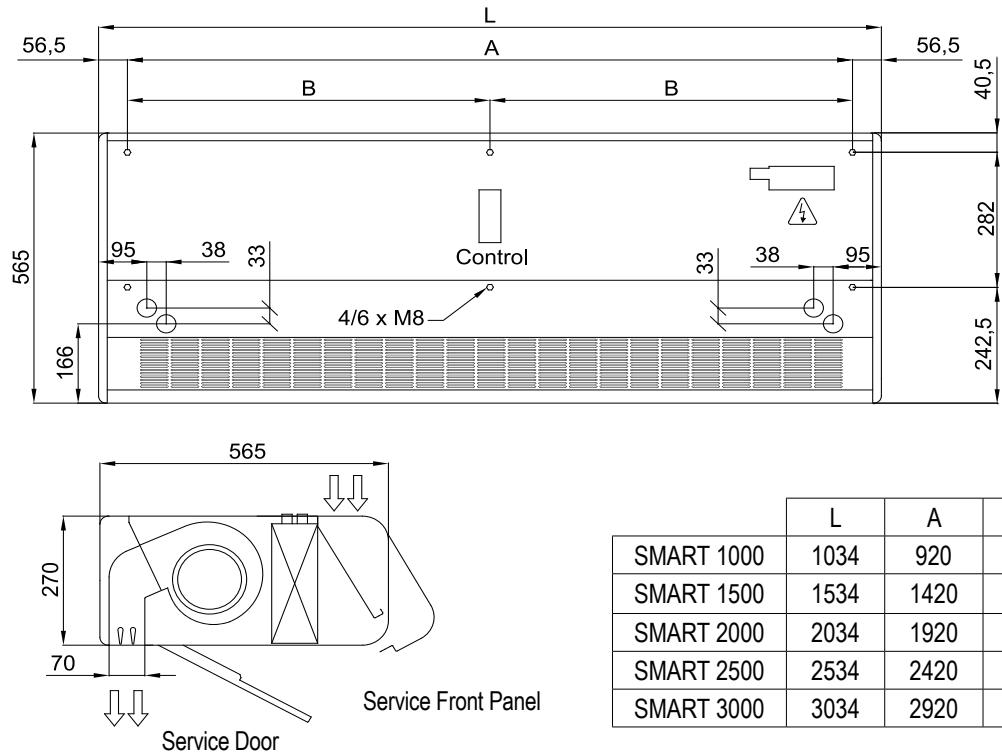
Designed to be integrated in a false ceiling or in a bulkhead at the entrance of a local



Customizable inlet grille in RAL color optionally



Dimensions



Finishes and details

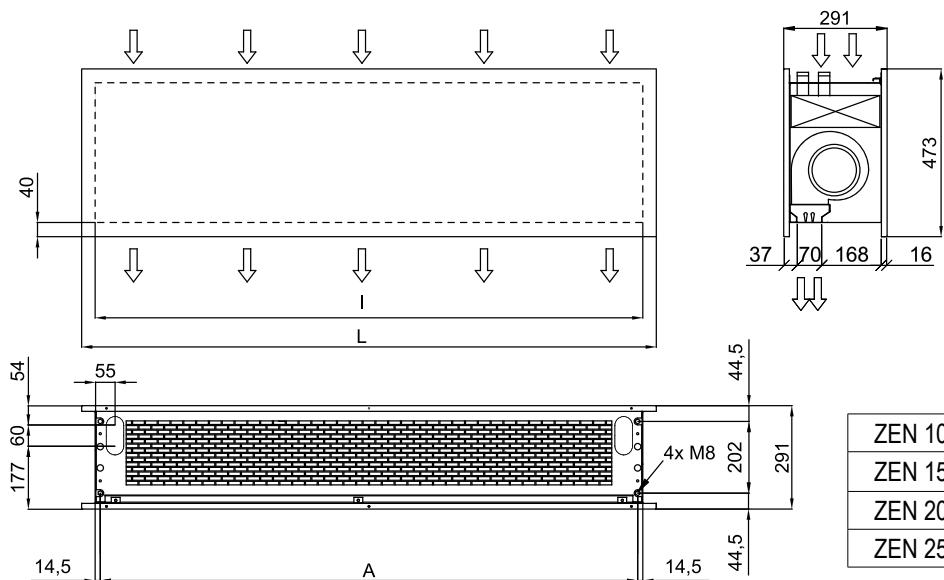


Smooth or customizable front panel
with logos, lighting or signage

Hidden top air entrance



Dimensions



Finishes



Vertical installation

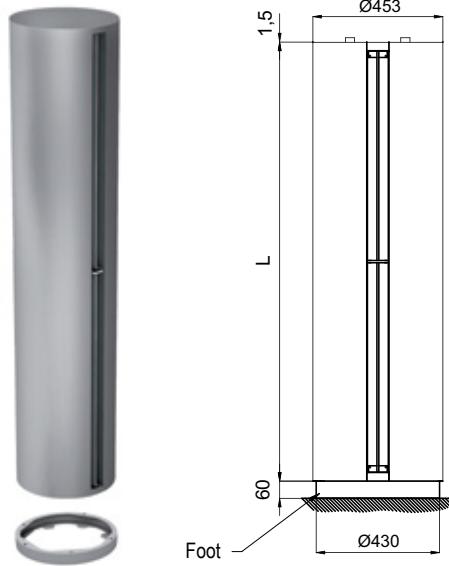


- Painted any RAL colour or metal
- Different materials: aluminium, stainless steel AISI 304 (brushed or polished), wood, glass, PVC/PES, etc.
- Logos, lights, clocks, signs, vinyls, patterns, etc.

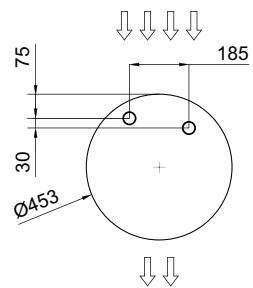


Layouts and dimensions

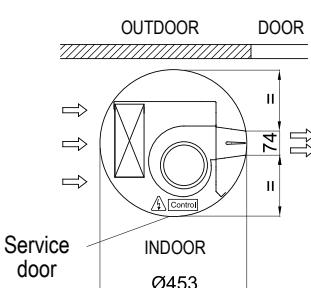
Vertical installation



Water pipes top entrance



Standard installation
(vertical left side)



	L
RUND 1000	1025
RUND 1500	1525
RUND 2000	2030
RUND 2500	2530
RUND 3000	2980

Horizontal installation



Ceiling fixation through threaded rods



Wall/ceiling fixation through arms



Wall/ceiling fixation through angle supports



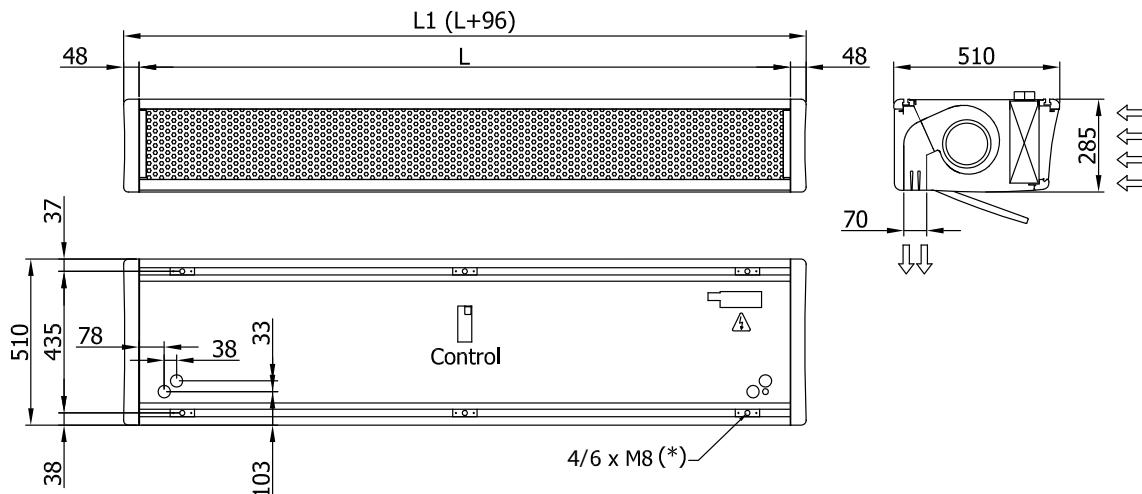
Wall fixation through lateral arms



Floor fixation (goalpost)



Dimensions

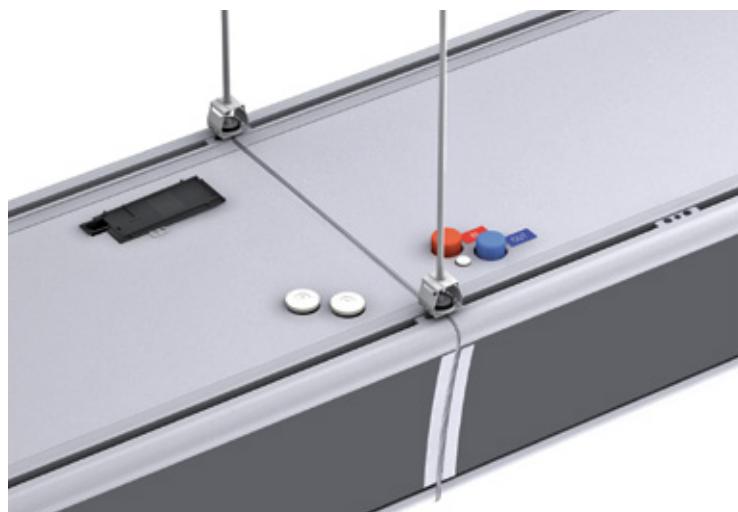


	L	L1
DECO 1000	1000	1096
DECO 1500	1500	1596
DECO 2000	2000	2096
DECO 2500	2500	2596

Details



Different colour finishes



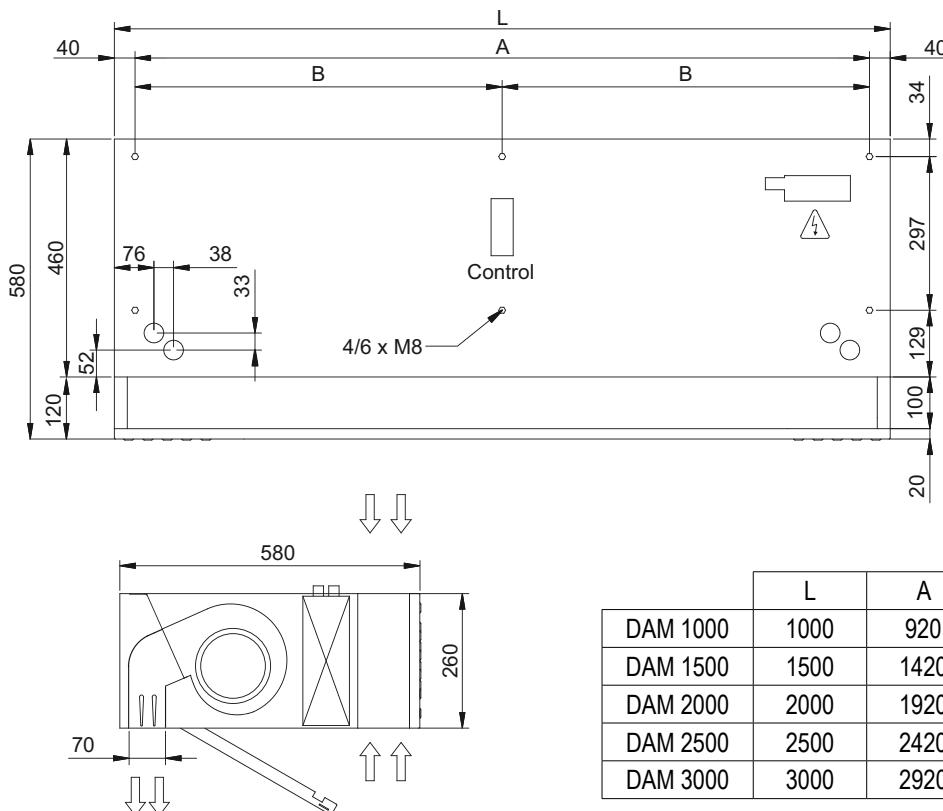
Joining two units



(*) Adjustable fixing points through guide rail



Dimensions



Dam Twin System

The DAM TWIN system consists on two vertical DAM air curtains face to face, one with the air jet ahead and the other behind.

At the end of each jet there is the inlet of the other air curtain helping to close the air barrier.

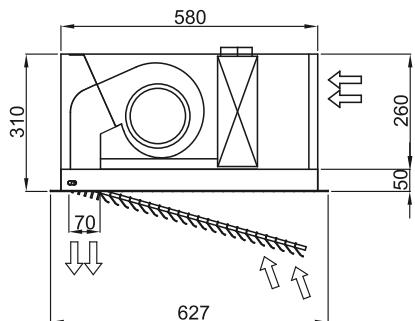
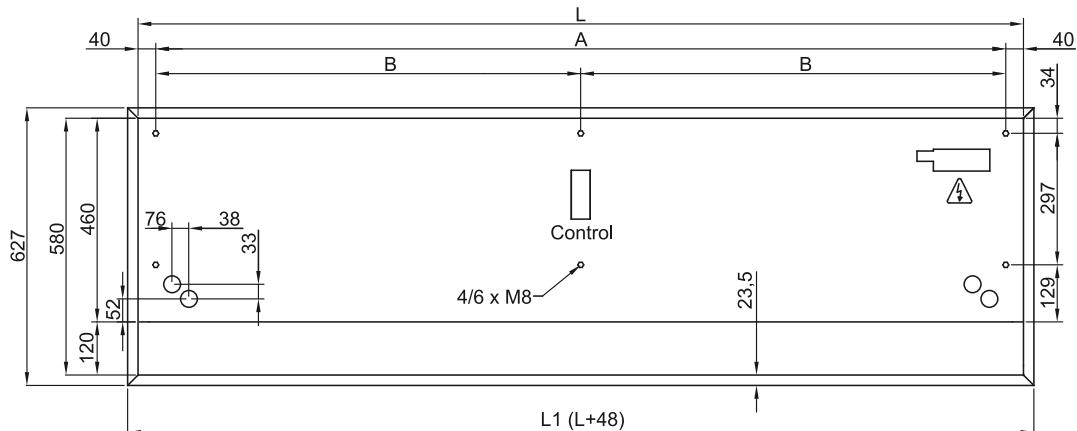
This double jet works as a closed circuit creating a separation zone at the door entrance.

DAM TWIN system is an optimal solution for installations with very adverse conditions.





Dimensions

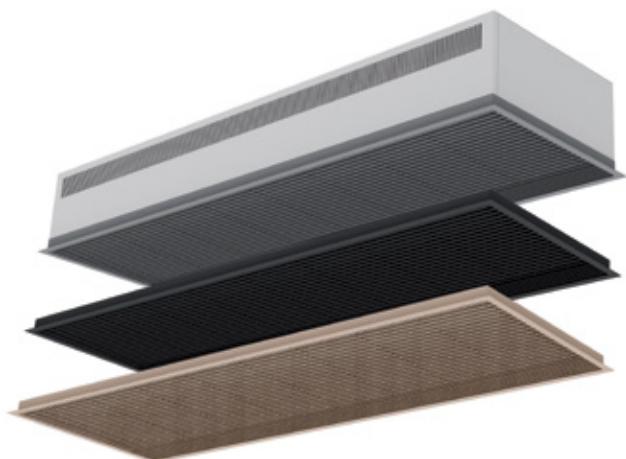


	L	L1	A	B
RDAM 1000	1000	1048	920	-
RDAM 1500	1500	1548	1420	710
RDAM 2000	2000	2048	1920	960
RDAM 2500	2500	2548	2420	1210

Finishes and details



Detail of exposed inlet grille



Customizable inlet grille in RAL color optionally



Complete Solution

Airtècnics manufactures air curtains for heat pumps of different brands and systems for more than 10 years.

Our policy is to design and test the combination in conjunction with each heat pump manufacturer to offer a complete technical solution.

The objective is to facilitate the entire process from the engineering project to the installation, including:

- The selection of curtain model, outdoor unit, Kit Interface and direct expansion valve
- The choice of the regulation system that best suits the customer's needs
- Kit Interface adaptation and configuration of the programmable control to communicate with the air curtain
- Installation and thermal insulation of the temperature sensors in the heat exchanger inside the air curtain
- All the necessary documentation for the combination (installation manual, electrical diagram, regulation ...) to facilitate installation and start-up (avoiding errors and reducing installation time)

Compatible - Brands

Airtècnics air curtains are compatible with the main heat pump brands:



Please consult, for other brands: Midea, Samsung, Mitsubishi Heavy Industries, Panasonic, Fujitsu,

Electrolux ... Compatible - Systems

They can be combined with two systems:

- 1:1 Simple: An exclusive outdoor unit for the air curtain (or 1:2 for great powers: 1 air curtain with 2 outdoor units)
- VRF / VRV Combined: Variable volume systems that share an outdoor machine for several indoor units. This system can be heat pump (2 tubes) or with heat recovery (3 tubes)

Only Heating or Heating / Cooling Mode

It is recommended that heat pump air curtains work only in Heating Mode.

In Cooling Mode, the ventilation speed must be limited to avoid water droplet entrainment. The limitation of ventilation supposes a reduction of the efficiency (barrier effect) of the air curtain. By default the curtains are only heating, but on request they can be heating and cooling.

Regulation - Slave or Master

We have different control options depending on the needs of the client:

- Basic in Slave mode with CS-5DX-NE control (standard) or Master with CD-5AW-IR control.
- Advanced in Slave mode or Master with Clever control

CS-5DX-NE

Basic Control Slave heat pump, 5 ventilation speed, Door contact, Cooling signal and Defrost



CD-5AW-IR

Basic Control Master heat pump, 5 ventilation speed, ON/OFF heat pump



CLEVER

Advanced Control Master/Slave heat pump, Ventilation and heating proportional 0-100%, Mode, Door contact, Cooling signal, Defrost, Modbus RTU



Available Air Curtains Models for Heat Pump

Commercial						Industrial (*)
Standard			Decorative / Tailor Made			
Windbox	Dam	Smart	Zen ❄	Rund ❄	Rotowind	Windbox L,XL
Recessed Windbox	Recessed Dam		Invisair ❄	Windbox M,G		Windbox L,XL False Ceiling Kit
				False Ceiling Kit		

(*) Consult



Models not available in Heating / Cooling



Characteristics



- Energy saving heat pump air curtains: Up to 70% reduction in costs and CO₂ emissions (heating mode).
- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request.
- Micro-perforated inlet grille with filter functions and easy service. Internal prefilter included.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- EC Double-inlet centrifugal fans driven by an external rotor motor and low noise level, with very low consumption efficient fans.
- Includes direct expansion coil with sensors. Optional condensate water pump.
- CS-5DX-NE Plug&Play control with 5 speeds and telephone cable 7m included.
- Requires DAIKIN VRV Interface KIT adapted for air curtain and programmable control, please consult.
- Ready to connect to DAIKIN VRV outdoor heat pump unit (R410A) and expansion valve not included, the customer should purchase it.

Specifications

Model	Airflow m ³ /h	Daikin Direct Expansion Valve	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
ECM 1000 VRV8-DA	1640	EKEXV 63	0,142	1,24	56	35
ECM 1500 VRV12-DA	2460	EKEXV 100	0,213	1,86	57	53
ECM 2000 VRV16-DA	3280	EKEXV 125	0,284	2,48	58	69
ECM 2000 VRV19-DA	3280	EKEXV 140	0,284	2,48	58	69
ECM 2500 VRV21-DA	4100	EKEXV 200	0,355	3,10	59	86
ECM 2500 VRV24-DA	4100	EKEXV 200	0,355	3,10	59	86
ECM 3000 VRV26-DA	4920	EKEXV 200	0,426	3,72	60	103
ECM 3000 VRV30-DA	4920	EKEXV 250	0,426	3,72	60	103
ECG 1000 VRV10-DA	2190	EKEXV 80	0,213	1,86	61	50
ECG 1500 VRV13-DA	2920	EKEXV 100	0,284	2,48	62	59
ECG 1500 VRV15-DA	2920	EKEXV 125	0,284	2,48	62	59
ECG 2000 VRV20-DA	4380	EKEXV 200	0,426	3,72	63	92
ECG 2000 VRV24-DA	4380	EKEXV 200	0,426	3,72	63	92
ECG 2500 VRV25-DA	5110	EKEXV 200	0,497	4,34	64	96
ECG 2500 VRV29-DA	5110	EKEXV 250	0,497	4,34	64	96
ECG 3000 VRV29-DA	5840	EKEXV 250	0,568	5,96	65	109
ECG 3000 VRV34-DA	5840	EKEXV 250	0,568	5,96	65	109

Version available for models:

ECM,ECG - Recessed Windbox, Smart, Dam, Recessed Dam

ECG - Zen, Rund, Invisair, Rotowind

DAIKIN VRV Outdoor Units

VRV IV HP (Heat Pump)

VRV IV HR (Heat Recovery)



When adverse weather conditions, the outdoor unit capacity can decrease. It is recommendable to oversize the units.



Characteristics



- Energy saving heat pump air curtains: Up to 70% reduction in costs and CO₂ emissions (heating mode).
- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request.
- Micro-perforated inlet grille with filter functions and easy service. Internal prefilter included.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- EC Double-inlet centrifugal fans driven by an external rotor motor and low noise level, with very low consumption efficient fans.
- Includes direct expansion coil with sensors. Optional condensate water pump.
- CS-5DX-NE Plug&Play control with 5 speeds and telephone cable 7m included.
- Requires MITSUBISHI ELECTRIC VRF Interface KIT adapted for air curtain with expansion valve and programmable control, please consult.
- Ready to connect to MITSUBISHI ELECTRIC VRF outdoor heat pump unit (R410A), not included, the customer should purchase it.

Specifications

Model	Airflow m ³ /h	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg	Mitsubishi Electric Kit Interface VRF (*)
ECM 1500 VRF12-ME	2460	0.213	1.86	57	53	PAC-AH125M-J
ECM 2000 VRF16-ME	3280	0.284	2.48	58	69	PAC-AH125M-J
ECM 2000 VRF19-ME	3280	0.284	2.48	58	69	PAC-AH250M-J
ECM 2500 VRF21-ME	4100	0.355	3.10	59	86	PAC-AH250M-J
ECM 2500 VRF24-ME	4100	0.355	3.10	59	86	PAC-AH250M-J
ECM 3000 VRF26-ME	4920	0.426	3.72	60	103	PAC-AH250M-J
ECM 3000 VRF30-ME	4920	0.426	3.72	60	103	PAC-AH250M-J
ECG 1000 VRF10-ME	2190	0.213	1.86	61	50	PAC-AH125M-J
ECG 1500 VRF13-ME	2920	0.284	2.48	62	59	PAC-AH125M-J
ECG 1500 VRF15-ME	2920	0.284	2.48	62	59	PAC-AH125M-J
ECG 2000 VRF20-ME	4380	0.426	3.72	63	92	PAC-AH250M-J
ECG 2000 VRF24-ME	4380	0.426	3.72	63	92	PAC-AH250M-J
ECG 2500 VRF25-ME	5110	0.497	4.34	64	96	PAC-AH250M-J
ECG 2500 VRF29-ME	5110	0.497	4.34	64	96	PAC-AH250M-J
ECG 3000 VRF29-ME	5840	0.568	5.96	65	109	PAC-AH250M-J

(*) Includes direct expansion valve.

Version available for models:

ECM,ECG - Recessed Windbox, Smart, Dam, Recessed Dam
ECG - Zen, Rund, Invisair, Rotowind

MITSUBISHI ELECTRIC VRF Outdoor Units	
Range	Series
City Multi	S/Y (Heat Pump)
City Multi	R2 (Heat Recovery)
Mr. Slim	Standard Inverter
Mr. Slim	Power Inverter
Mr. Slim	Zubadan
Industrial	Standard Inverter
Industrial	Power Inverter

When adverse weather conditions, the outdoor unit capacity can decrease. It is recommendable to oversize the units.



Characteristics



- Energy saving heat pump air curtains: Up to 70% reduction in costs and CO₂ emissions (heating mode).
- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request.
- Micro-perforated inlet grille with filter functions and easy service. Internal prefilter included.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- EC Double-inlet centrifugal fans driven by an external rotor motor and low noise level, with very low consumption efficient fans.
- Includes direct expansion coil with sensors. Optional condensate water pump.
- CS-5DX-NE Plug&Play control with 5 speeds and telephone cable 7m included.
- Requires TOSHIBA VRF Interface KIT adapted for air curtain, programmable control and expansion valve, please consult.
- Ready to connect to TOSHIBA VRF outdoor heat pump unit (R410A), not included, the customer should purchase it.

Specifications

Model	Airflow m ³ /h	Toshiba Direct Expansion Valve	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
ECM 1500 VRF12-T0	2460	MMDXV140	0,213	1,86	57	53
ECM 2000 VRF16-T0	3280	MMDXV140	0,284	2,48	58	69
ECM 2000 VRF19-T0	3280	MMDXV280	0,284	2,48	58	69
ECM 2500 VRF21-T0	4100	MMDXV280	0,355	3,10	59	86
ECM 2500 VRF24-T0	4100	MMDXV280	0,355	3,10	59	86
ECM 3000 VRF26-T0	4920	MMDXV280	0,426	3,72	60	103
ECG 1000 VRF10-T0	2190	MMDXV140	0,213	1,86	61	50
ECG 1500 VRF13-T0	2920	MMDXV140	0,284	2,48	62	59
ECG 1500 VRF15-T0	2920	MMDXV140	0,284	2,48	62	59
ECG 2000 VRF20-T0	4380	MMDXV280	0,426	3,72	63	92
ECG 2000 VRF24-T0	4380	MMDXV280	0,426	3,72	63	92
ECG 2500 VRF25-T0	5110	MMDXV280	0,497	4,34	64	96
ECG 2500 VRF29-T0	5110	MMDXV280	0,497	4,34	64	96
ECG 3000 VRF29-T0	5840	MMDXV280	0,568	5,96	65	109

Version available for models:

ECM,ECG - Recessed Windbox, Smart, Dam, Recessed Dam
ECG - Zen, Rund, Invisair, Rotowind

TOSHIBA VRF Outdoor Units

Mini, Mini SMMSe, SMMSe (Heat Pump)

SHRMe (Heat Recovery)



When adverse weather conditions, the outdoor unit capacity can decrease. It is recommendable to oversize the units.



Characteristics



- Energy saving heat pump air curtains: Up to 70% reduction in costs and CO₂ emissions (heating mode).
- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request.
- Micro-perforated inlet grille with filter functions and easy service. Internal prefilter included.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- EC Double-inlet centrifugal fans driven by an external rotor motor and low noise level, with very low consumption efficient fans.
- Includes direct expansion coil with sensors. Optional condensate water pump.
- CS-5DX-NE Plug&Play control with 5 speeds and telephone cable 7m included.

- Requires HITACHI VRF Interface KIT adapted for air curtain with expansion valve and programmable control, please consult.
- Ready to connect to HITACHI VRF outdoor heat pump unit (R410A), not included, the customer should purchase it.

Specifications

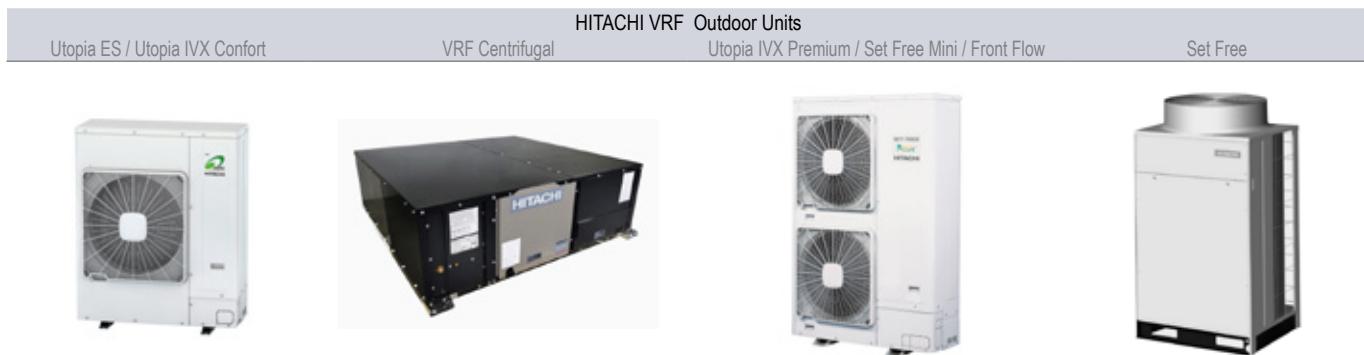
Model	Airflow m ³ /h	Hitachi Kit Interface VRF (*)	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
ECM 1000 VRF8-HI	1640	EXV-3.0E2	0,142	1,24	56	35
ECM 1500 VRF12-HI	2460	EXV-4.0E2	0,213	1,86	57	53
ECM 2000 VRF16-HI	3280	EXV-6.0E2	0,284	2,48	58	69
ECM 2000 VRF19-HI	3280	EXV-8.0E2	0,284	2,48	58	69
ECM 2500 VRF21-HI	4100	EXV-8.0E2	0,355	3,10	59	86
ECM 2500 VRF24-HI	4100	EXV-10.0E2	0,355	3,10	59	86
ECM 3000 VRF26-HI	4920	EXV-10.0E2	0,426	3,72	60	103
ECG 1000 VRF10-HI	2190	EXV-4.0E2	0,213	1,86	61	50
ECG 1500 VRF13-HI	2920	EXV-5.0E2	0,284	2,48	62	59
ECG 1500 VRF15-HI	2920	EXV-6.0E2	0,284	2,48	62	59
ECG 2000 VRF20-HI	4380	EXV-8.0E2	0,426	3,72	63	92
ECG 2000 VRF24-HI	4380	EXV-8.0E2	0,426	3,72	63	92
ECG 2500 VRF25-HI	5110	EXV-8.0E2	0,497	4,34	64	96
ECG 2500 VRF29-HI	5110	EXV-10.0E2	0,497	4,34	64	96
ECG 3000 VRF29-HI	5840	EXV-10.0E2	0,568	5,96	65	109

(*) Includes direct expansion valve.

Version available for models:

ECM,ECG - Recessed Windbox, Smart, Dam, Recessed Dam

ECG - Zen, Rund, Invisair, Rotowind



When adverse weather conditions, the outdoor unit capacity can decrease. It is recommendable to oversize the units.



Characteristics



- Energy saving heat pump air curtains: Up to 70% reduction in costs and CO₂ emissions (heating mode).
- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request.
- Micro-perforated inlet grille with filter functions and easy service. Internal prefilter included.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- EC Double-inlet centrifugal fans driven by an external rotor motor and low noise level, with very low consumption efficient fans.
- Includes direct expansion coil with sensors. Optional condensate water pump.
- CS-5DX-NE Plug&Play control with 5 speeds and telephone cable 7m included.
- Requires LG DX Interface KIT adapted for air curtain and programmable control, please consult.
- Ready to connect to LG Inverter outdoor heat pump unit (R410A) with expansion valve, not included, the customer should purchase it.

Specifications

Model	Airflow m ³ /h	Outdoor Unit (*) 230Vx1	Outdoor Unit (*) 400Vx3	Power Fans 230V-50Hz	Current Fans 230V-50Hz	Noise Level (5m) dB(A)	Weight kg
ECM 1000 DX8-LG	1640	UU30W U44	-	0,142	1,24	56	35
ECM 1500 DX11-LG	2460	UU36W UO2	UU37W UO2	0,213	1,86	57	53
ECM 2000 DX15-LG	3280	UU48W U32	UU49W U32	0,284	2,48	58	69
ECM 2000 DX17-LG	3280	UU60W U32	UU61W U32	0,284	2,48	58	69
ECM 2500 DX22-LG	4100	-	UU70W U34	0,355	3,10	59	86
ECM 3000 DX27-LG	4920	-	UU85W U74	0,426	3,72	60	103
ECG 1000 DX9-LG	2190	UU30W U44	-	0,213	1,86	61	50
ECG 1500 DX15-LG	2920	UU48W U32	UU49W U32	0,284	2,48	62	59
ECG 2000 DX22-LG	4380	-	UU70W U34	0,426	3,72	63	92
ECG 2500 DX22-LG	5110	-	UU70W U34	0,497	4,34	64	96
ECG 2500 DX27-LG	5110	-	UU85W U74	0,497	4,34	64	96
ECG 3000 DX27-LG	5840	-	UU85W U74	0,568	5,96	65	109

(*) Includes direct expansion valve.

Version available for models:

ECM,ECG - Recessed Windbox, Smart, Dam, Recessed Dam

ECG - Zen, Rund, Invisair, Rotowind

LG Inverter Outdoor Units	Heating Capacity kW	Heating Power kW	SCOP or COP	Cooling Capacity kW	Cooling Power kW	SEER or EER	Power Supply	Pipes Gas inch	Pipes Liquid inch	Pipes Minimum Length m	Pipes Maximum Length m	Pipes Maximum Height m
UU30W U44	9,0	2,62	4,00	7,8	2,41	6,10	230Vx1	5/8	3/8	5	50	30
UU36W UO2	11,2	3,19	3,81	10,0	3,12	5,11	230Vx1	5/8	3/8	5	50	30
UU37W UO2	11,2	3,19	3,81	10,0	3,12	5,11	400Vx3	5/8	3/8	5	50	30
UU48W U32	15,4	4,39	3,50	14,0	4,10	3,41	230Vx1	5/8	3/8	5	75	30
UU49W U32	15,4	4,39	3,50	14,0	4,10	3,41	400Vx3	5/8	3/8	5	75	30
UU60W U32	16,8	4,79	3,51	14,8	4,53	3,31	230Vx1	5/8	3/8	5	75	30
UU61W U32	16,8	4,79	3,51	14,8	4,53	3,31	400Vx3	5/8	3/8	5	75	30
UU70W U34	22,4	6,40	3,50	19,0	6,69	2,84	400Vx3	1	3/8	5	75	30
UU85W U74	27,0	8,31	3,25	23,0	8,19	2,81	400Vx3	7/8	1/2	5	75	30

Energy efficiency: SCOP/SEER seasonal ≤12kW, COP/EER >12kW.

Outdoor unit capacities depending on standard conditions: heating 20°CDB indoor / 7°CDB and 6°CWB outdoor, cooling 27°CDB and 19°CWB indoor / 35°CDB outdoor.
When adverse weather conditions, the outdoor unit capacity can decrease. It is recommendable to oversize the units.



Characteristics



- Energy saving heat pump air curtains: Up to 70% reduction in costs and CO₂ emissions (heating mode).
- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request.
- Micro-perforated inlet grille with filter functions and easy service. Internal prefilter included.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- EC Double-inlet centrifugal fans driven by an external rotor motor and low noise level, with very low consumption efficient fans.
- Includes direct expansion coil with sensors. Optional condensate water pump.
- CS-5DX-NE Plug&Play control with 5 speeds and telephone cable 7m included.
- Requires LG VRF Interface KIT adapted for air curtain and programmable control, please consult.
- Ready to connect to LG VRF outdoor heat pump unit (R410A) and expansion valve not included, the customer should purchase it.

Specifications

Model	Airflow m ³ /h	LG Direct Expansion Valve	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
ECM 1000 VRF8-LG	1640	PRLK048A0	0,142	1,24	56	35
ECM 1500 VRF13-LG	2460	PRLK048A0	0,213	1,86	57	53
ECM 2000 VRF16-LG	3280	PRLK048A0	0,284	2,48	58	69
ECM 2000 VRF19-LG	3280	PRLK048A0	0,284	2,48	58	69
ECM 2500 VRF21-LG	4100	PRLK048A0	0,355	3,10	59	86
ECM 2500 VRF24-LG	4100	PRLK048A0	0,355	3,10	59	86
ECM 3000 VRF26-LG	4920	PRLK048A0	0,426	3,72	60	103
ECM 3000 VRF30-LG	4920	PRLK048A0	0,426	3,72	60	103
ECG 1000 VRF10-LG	2190	PRLK048A0	0,213	1,86	61	50
ECG 1500 VRF15-LG	2920	PRLK048A0	0,284	2,48	62	59
ECG 2000 VRF24-LG	4380	PRLK048A0	0,426	3,72	63	92
ECG 2500 VRF25-LG	5110	PRLK048A0	0,497	4,34	64	96
ECG 2500 VRF29-LG	5110	PRLK048A0	0,497	4,34	64	96
ECG 3000 VRF29-LG	5840	PRLK048A0	0,568	5,96	65	109
ECG 3000 VRF34-LG	5840	PRLK96A0	0,568	5,96	65	109

Version available for models:

ECM,ECG - Recessed Windbox, Smart, Dam, Recessed Dam

ECG - Zen, Rund, Invisair, Rotowind

LG VRF Outdoor Units (Heat Pump or Heat Recovery depending on Tonnage)

Multi V S

Multi V 5

Multi V IV



When adverse weather conditions, the outdoor unit capacity can decrease. It is recommendable to oversize the units.



Characteristics



- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request.
- Micro-perforated inlet grille with filter functions and easy service. It does not need prefilter.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- EC Double-inlet centrifugal fans driven by an external rotor motor and low noise level, with very low consumption efficient fans.
- "P" type with water heated coil. "E" type with electrical shielded elements, three stages with integrated regulation. "A" type without heating, air only. Optional "DX" with direct expansion coil.
- Includes Advanced Clever control (programmable, automatic, intelligent, energy saving, Modbus RTU for BMS...) with Plug&Play control and 7m RJ11 cable.

Specifications

AIR ONLY						ELECTRICAL HEATED						
Model	Airflow m³/h	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg	Model	Airflow m³/h	Electrical Heating Capacity 400Vx3-50Hz kW	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
BB 1000 A	4.020	0,873	3,87	66	38	BB 1000 E	4.020	6/15/21	0,873	3,87	66	49
BB 1500 A	5.360	1,164	5,16	67	55	BB 1500 E	5.360	8/19/27	1,164	5,16	67	71
BB 2000 A	8.040	1,746	7,74	68	77	BB 2000 E	8.040	12/30/42	1,746	7,74	68	98
BB 2500 A	9.380	2,037	9,03	69	93	BB 2500 E	9.380	16/30/46	2,037	9,03	69	119
BB 3000 A	10.720	2,328	10,32	70	110	BB 3000 E	10.720	20/30/50	2,328	10,32	70	141

WATER HEATED													
Model	Airflow m³/h	P86			P64			P54			Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
		Heating Capacity 80/60°C kW	Water Drop Pressure 80/60°C Pa	Heating Capacity 60/40°C kW	Water Drop Pressure 60/40°C Pa	Heating Capacity 50/40°C kW	Water Drop Pressure 50/40°C Pa	Power Fans 230V-50Hz kW					
BB 1000 P	3.750	16,48	12180	15,16	16190	18,21	15190	0,873	3,87	65	47		
BB 1500 P	5.000	24,15	15260	21,87	10990	26,46	10420	1,164	5,16	66	67		
BB 2000 P	7.500	35,04	12680	31,13	7350	38,44	10260	1,746	7,74	67	93		
BB 2500 P	8.750	42,12	11880	38,96	13420	46,38	9110	2,037	9,03	68	115		
BB 3000 P	10.000	48,68	8090	45,49	11230	49,27	10920	2,328	10,32	69	135		

Water heated:

P86, P64 2x1", P54 1000-2000 2x1" and 2500-3000 2x1¼".

Connection pipes P86, P64 and P54 are female (male if lateral pipes).

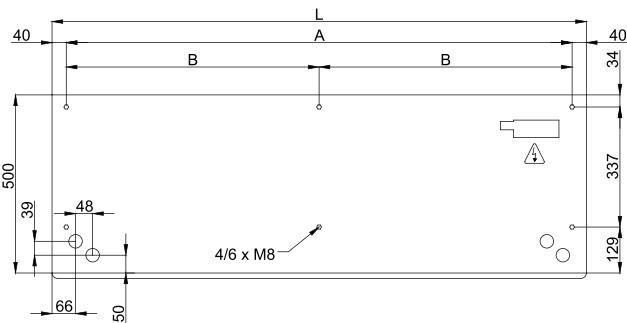
P86 2 rows coil, P64 3 rows coil, P54 4 rows coil.



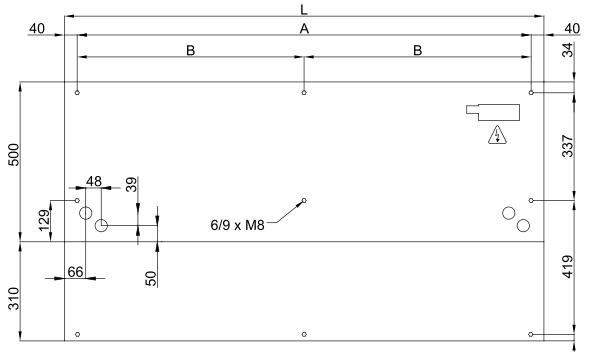
Layouts and dimensions



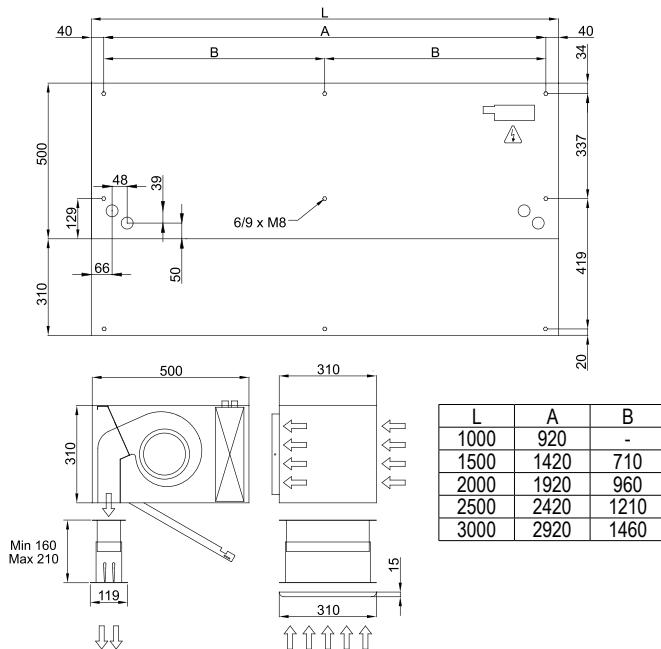
Free hanging mounting



Inside ceiling surface mounting

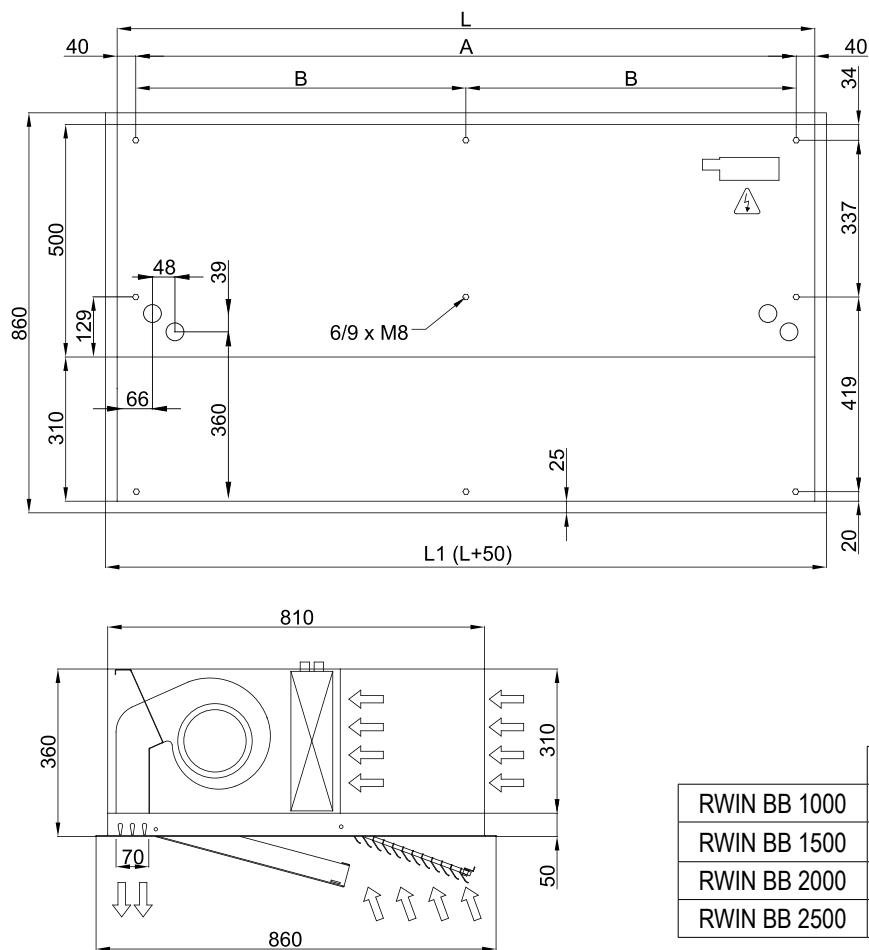


False ceiling invisible mounting





Dimensions



Finishes and details



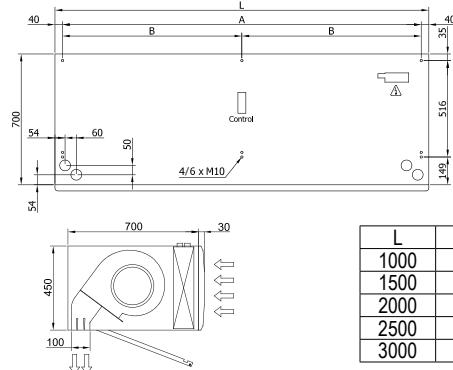
Detail of the upper area of the air curtain



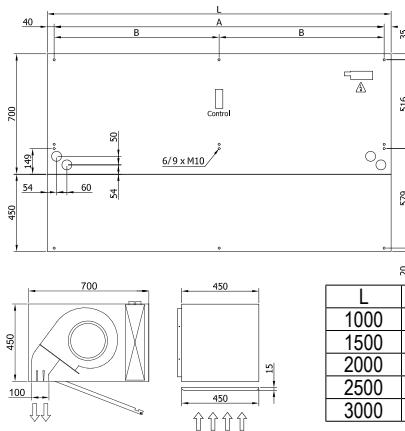
Customizable inlet grille in RAL color optionally



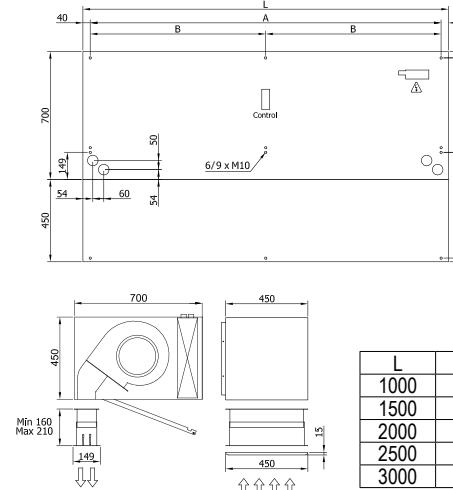
Layouts and dimensions



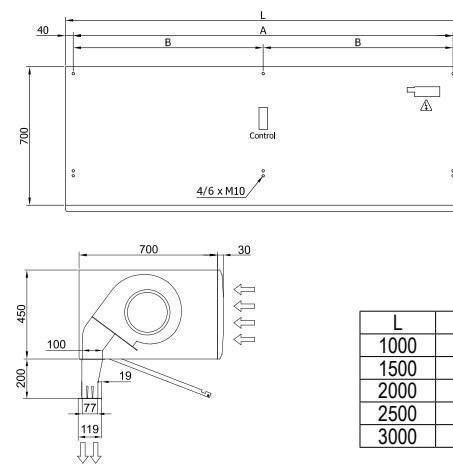
Free hanging mounting



Inside ceiling surface mounting



False ceiling invisible mounting



Insects outlet kit mounting



Characteristics



- Specially designed for applications where the body of the air curtain is to be installed inside a column or bulkhead for architectural reasons. It can be vertically or horizontally mounted.
- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request.
- The air flow of Invisair follows a straight line from the air inlet grille to the discharge. Inlet area inside a bulkhead or column should be designed with suitable grille provided by others.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- Double-inlet centrifugal fans driven by an external rotor motor and low noise level. 5-speed selector. "EC" models with very low consumption efficient fans.
- "P" type with water heated coil. "E" type with electrical shielded elements, three stages with integrated regulation. "A" type without heating, air only. Optional "DX" with direct expansion coil.
- Includes Plug&Play control with 7m RJ45 cable and infrared remote control. Optional: Clever control (programmable, automatic, intelligent, energy saving, Modbus RTU for BMS...).

Specifications

AIR ONLY

Model	Airflow m³/h	Power Fans		Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
		230V-50Hz kW	230V-50Hz A			
IM 1500 A	2640	0,424	1,88	56	55	
IM 2000 A	3960	0,636	2,82	57	68	
IM 2500 A	4620	0,742	3,29	58	73	
IG 1500 A	3200	0,856	3,80	58	60	
IG 2000 A	4800	1,284	5,70	59	78	
IG 2500 A	5600	1,498	6,65	60	83	
IECG 1500 A	3600	0,284	2,48	62	60	
IECG 2000 A	5400	0,426	3,72	63	78	
IECG 2500 A	6300	0,497	4,34	64	83	

ELECTRICAL HEATED

Model	Airflow m³/h	Electrical Heating			Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
		Capacity 400Vx3-50Hz kW	Power Fans 230V-50Hz kW	230V-50Hz A			
IM 1500 E	2640	4/8/12	0,424	1,88	56	67	
IM 2000 E	3960	6/12/18	0,636	2,82	57	86	
IM 2500 E	4620	6/12/18	0,742	3,29	58	93	
IG 1500 E	3200	7,5/15/22,5	0,856	3,80	58	73	
IG 2000 E	4800	10/20/30	1,284	5,70	59	96	
IG 2500 E	5600	10/20/30	1,498	6,65	60	103	
IECG 1500 E	3600	7,5/15/22,5	0,284	2,48	62	73	
IECG 2000 E	5400	10/20/30	0,426	3,72	63	96	
IECG 2500 E	6300	10/20/30	0,497	4,34	64	103	

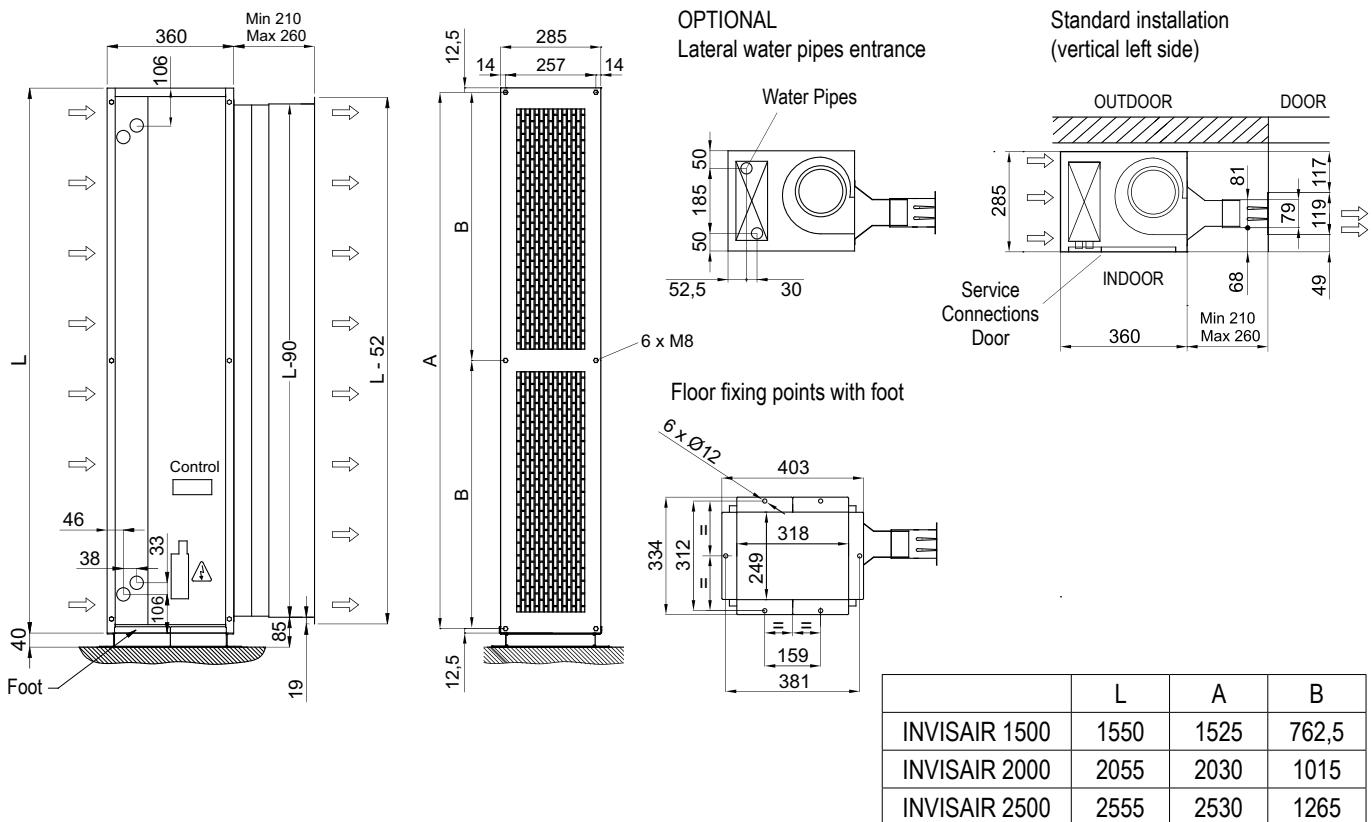
WATER HEATED

Model	Airflow m³/h	P86		P64		P54		Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
		Heating Capacity 80/60°C kW	Water Drop Pressure 80/60°C Pa	Heating Capacity 60/40°C kW	Water Drop Pressure 60/40°C Pa	Heating Capacity 50/40°C kW	Water Drop Pressure 50/40°C Pa			
IM 1500 P	2480	14,23	760	13,65	6430	-	-	0,424	1,88	56
IM 2000 P	3720	22,17	2190	19,70	5470	-	-	0,636	2,82	57
IM 2500 P	4340	27,69	4000	23,48	4060	-	-	0,742	3,29	58
IG 1500 P	3000	16,02	940	15,47	8020	16,37	5670	0,856	3,80	58
IG 2000 P	4500	24,92	2700	22,29	6810	23,15	3030	1,284	5,70	59
IG 2500 P	5250	31,16	4930	26,61	5060	28,76	5450	1,498	6,65	60
IECG 1500 P	3400	17,29	1070	16,77	9240	17,86	6620	0,284	2,48	69
IECG 2000 P	5100	26,86	3080	24,14	7850	25,24	3530	0,426	3,72	89
IECG 2500 P	5950	33,63	5650	28,84	5840	31,38	6360	0,497	4,34	94

Water heated: connection pipes P86 and P64 are 2x3/4" female (male if lateral pipes), P54 2x1" male. P86 2 rows coil, P64 3 rows coil, P54 4 rows coil.



Layouts and dimensions



Installation examples





Characteristics



- Specially designed to be installed in all type of revolving doors. Two possible layouts, tailored dimensions: standard (on top mounting) or inverted (false ceiling mounting).
- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request.
- Large perforated inlet grille avoiding intensive maintenance.
- Circular anodized aluminium outlet vanes, airfoil shaped.
- Double-inlet centrifugal fans driven by an external rotor motor and low noise level. 5-speed selector. "EC" models with very low consumption efficient fans.
- "P" type with water heated coil. "E" type with electrical shielded elements, three stages with integrated regulation. "A" type without heating, air only. Optional "DX" with direct expansion coil.
- Includes Plug&Play control with 7m RJ45 cable and infrared remote control. Optional: Clever control (programmable, automatic, intelligent, energy saving, Modbus RTU for BMS...).

Specifications

AIR ONLY						
Model	Airflow m ³ /h	Power Fans kW	Current Fans	Noise Level (5m) dB(A)	Weight kg	
			230V-50Hz	A		
ROTO G 1000 A	2400	0,642	2,85	57	-	
ROTO G 1500 A	3200	0,856	3,80	58	-	
ROTO G 2000 A	4800	1,284	5,70	59	-	
ROTO G 2500 A	5600	1,498	6,65	60	-	
ROTO ECG 1000 A	2700	0,213	1,86	61	-	
ROTO ECG 1500 A	3600	0,284	2,48	62	-	
ROTO ECG 2000 A	5400	0,426	3,72	63	-	
ROTO ECG 2500 A	6300	0,497	4,34	64	-	

ELECTRICAL HEATED						
Model	Airflow m ³ /h	Electrical Heating Capacity 400Vx3-50Hz kW		Power Fans	Current Fans	Noise Level (5m) dB(A)
		230V-50Hz kW	230V-50Hz A	230V-50Hz kW	230V-50Hz A	Weight kg
ROTO G 1000 E	2400	5/10/15	0,642	2,85	57	-
ROTO G 1500 E	3200	7,5/15/22,5	0,856	3,80	58	-
ROTO G 2000 E	4800	10/20/30	1,284	5,70	59	-
ROTO G 2500 E	5600	10/20/30	1,498	6,65	60	-
ROTO ECG 1000 E	2700	5/10/15	0,213	1,86	61	-
ROTO ECG 1500 E	3600	7,5/15/22,5	0,284	2,48	62	-
ROTO ECG 2000 E	5400	10/20/30	0,426	3,72	63	-
ROTO ECG 2500 E	6300	10/20/30	0,497	4,34	64	-

WATER HEATED										
Model	Airflow m ³ /h	P86		P64		P54		Current Fans		
		Heating Capacity 80/60°C kW	Water Drop Pressure 80/60°C Pa	Heating Capacity 60/40°C kW	Water Drop Pressure 60/40°C Pa	Heating Capacity 50/40°C kW	Water Drop Pressure 50/40°C Pa	Power Fans 230V-50Hz kW	230V-50Hz A	Noise Level (5m) dB(A)
ROTO G 1000 P	2250	11,04	1230	10,42	6190	10,56	1790	0,642	2,85	57
ROTO G 1500 P	3000	16,02	940	15,47	8020	16,37	5670	0,856	3,80	58
ROTO G 2000 P	4500	24,92	2700	22,29	6810	23,15	3030	1,284	5,70	59
ROTO G 2500 P	5250	31,16	4930	26,61	5060	28,76	5450	1,498	6,65	60
ROTO ECG 1000 P	2550	11,89	1400	11,27	7110	11,50	2090	0,213	1,86	61
ROTO ECG 1500 P	3400	17,29	1070	16,77	9240	17,86	6620	0,284	2,48	62
ROTO ECG 2000 P	5100	26,86	3080	24,14	7850	25,24	3530	0,426	3,72	63
ROTO ECG 2500 P	5950	33,63	5650	28,84	5840	31,38	6360	0,497	4,34	64

Water heated: connection pipes P86 and P64 are 2x3/4" female (male if lateral pipes), P54 2x1" male. P86 2 rows coil, P64 3 rows coil, P54 4 rows coil.



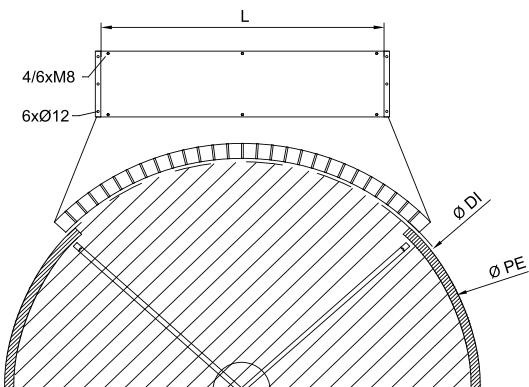
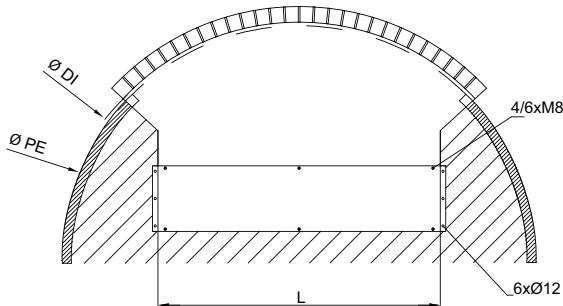
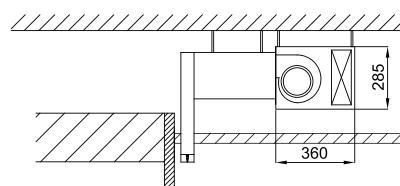
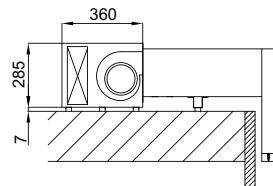
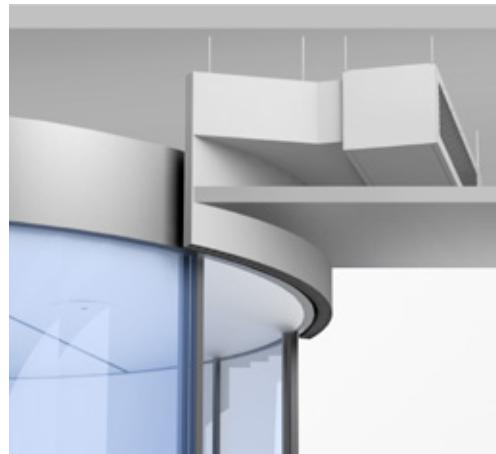
Layouts and dimensions

Rotowind air curtains are tailor-made for any kind of revolving door according to the following layouts:

Standard: On top mounting



Inverted: False ceiling mounting



Fixation system



Fixed onto the door



Hanging from the ceiling

Optional decorative front cover



RAL 9016 (standard), optional:

- Colour from RAL palette
- Stainless steel AISI 304



Characteristics

VP (with profiles)



- Designed to be tailor-made, adaptable to any customer's needs.
- Option VP: Structure made of aluminium profiles and galvanized steel panels, finished white RAL 9016 as standard. Other colours are available on request. VP construction allow the service from the top and the bottom. Large perforated inlet grille avoiding intensive maintenance.
- Option VW: Same construction as Windbox M-G. Self-supporting casing construction made of galvanized steel plate, finished in structural epoxypolyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request. Micro-perforated inlet grille with filter functions and easy service. It does not need prefilter.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- Double-inlet centrifugal fans driven by an external rotor motor and low noise level. 5-speed selector. "EC" models with very low consumption efficient fans.
- "P" type with water heated coil. "E" type with electrical shielded elements, three stages with integrated regulation. "A" type without heating, air only.
- Includes Plug&Play control with 7m RJ45 cable and infrared remote control. Optional: Clever control (programmable, automatic, intelligent, energy saving, Modbus RTU for BMS...).

VW (Windbox construction)



Specifications

The performance of Variwind air curtains is the same as Windbox M.G.

Models M, ECM, G and ECG from 1000 to 3000 mm length. It's available unheated, water heated, electrical heated or with heat pump.

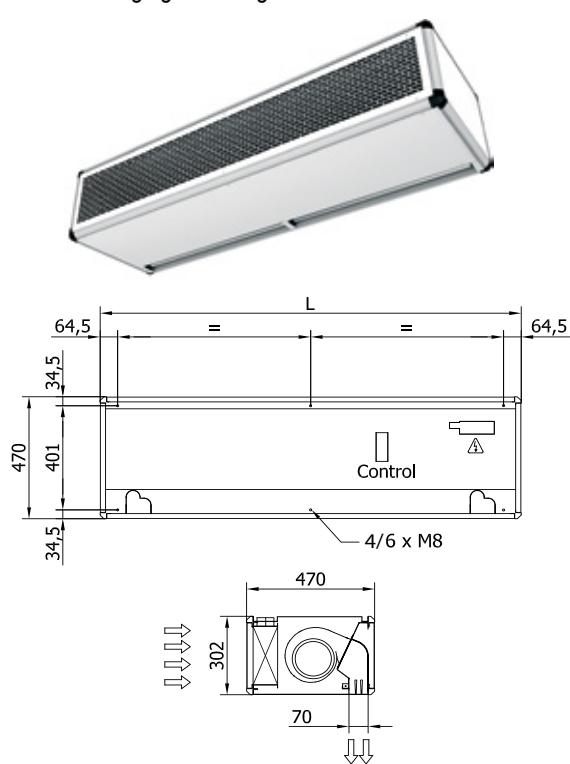
Layouts and dimensions

Variwind air curtains can be tailor-made at the request of the customers in any length from 1045 mm to 3000 mm.

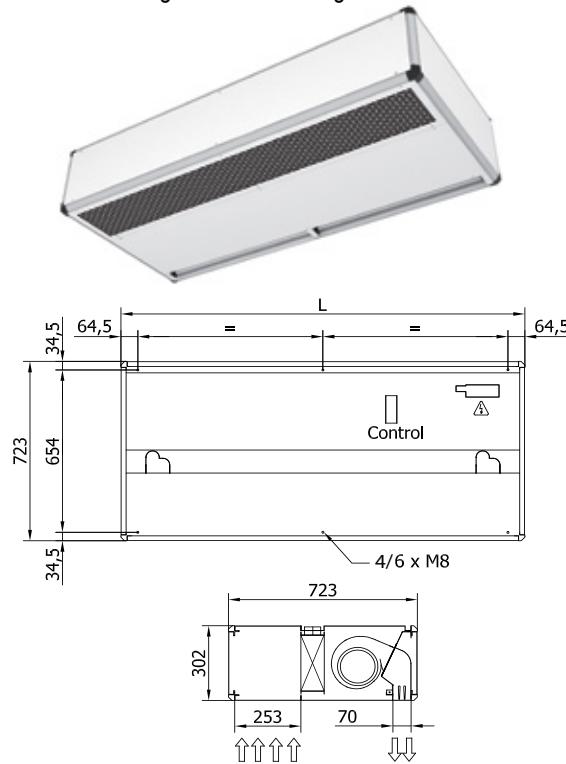
Example: Standard Variwind 1500 will have similar performance as Windbox 1500 (air volume, heating, consumption, etc.). If the customized length is 400 mm or more than the nominal length, you can add a fan and/or put the electric shielded element of the higher measurement.

Nominal length	Customized length	
	VP	VW
VARIWIND 1000	1045-1399	1000-1399
VARIWIND 1500	1400-1999	1400-1999
VARIWIND 2000	2000-2399	2000-2399
VARIWIND 2500	2400-3000	2400-3000

VP Free hanging mounting



VP Inside ceiling surface mounting



VW Construction: see Windbox M-G dimensions



Characteristics



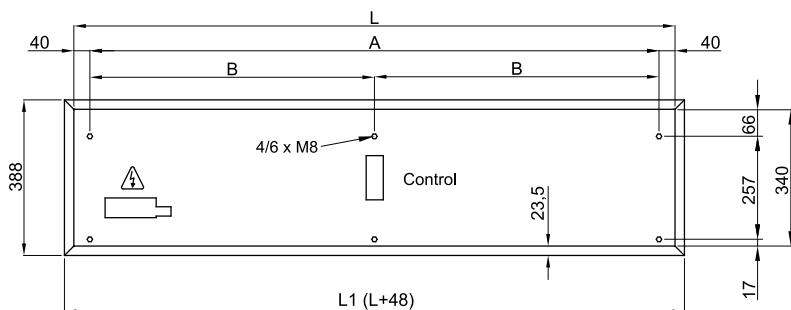
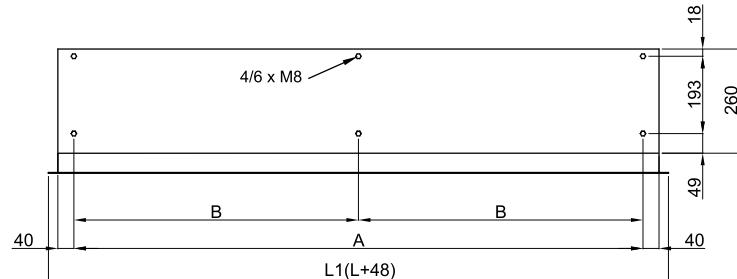
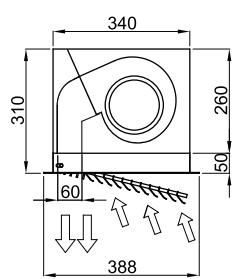
- Compact and low profile air only recessed air curtain, with full grille view, specially designed for applications without heating.
- Self-supporting casing construction made of galvanized steel plate, ready to be installed recessed in a false ceiling.
- Inlet grille (free of maintenance) made with aluminium profiles and blow-out nozzle, integrated in a single white frame colour RAL 9016. Other colours are available on request.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable in both directions.
- Double-inlet centrifugal fans driven by an external rotor motor and low noise level. 5-speed selector. "EC" models with very low consumption efficient fans.
- "A" type without heating, air only.
- Includes Plug&Play control with 7m RJ45 cable and infrared remote control. Optional: Clever control (programmable, automatic, intelligent, energy saving, Modbus RTU for BMS...).

Specifications

AIR ONLY

Model	Airflow m³/h	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
RC M 1000 A	1800	0,212	0,94	55	33
RC M 1500 A	2700	0,318	1,41	56	50
RC M 2000 A	3600	0,424	1,88	57	61
RC M 2500 A	4500	0,530	2,35	58	68
RC ECM 1000 A	1840	0,142	1,24	56	33
RC ECM 1500 A	2760	0,213	1,86	57	50
RC ECM 2000 A	3680	0,284	2,48	58	61
RC ECM 2500 A	4600	0,355	3,10	59	68
RC G 1000 A	2400	0,642	2,85	57	37
RC G 1500 A	3200	0,856	3,80	58	55
RC G 2000 A	4800	1,284	5,70	59	71
RC G 2500 A	5600	1,498	6,65	60	78
RC ECG 1000 A	2700	0,213	1,86	61	37
RC ECG 1500 A	3600	0,284	2,48	62	56
RC ECG 2000 A	5400	0,426	3,72	63	71
RC ECG 2500 A	6300	0,497	4,34	64	78

Dimensions



	L	L1	A	B
RC 1000	1000	1048	920	-
RC 1500	1500	1548	1420	710
RC 2000	2000	2048	1920	960
RC 2500	2500	2548	2420	1210



Characteristics



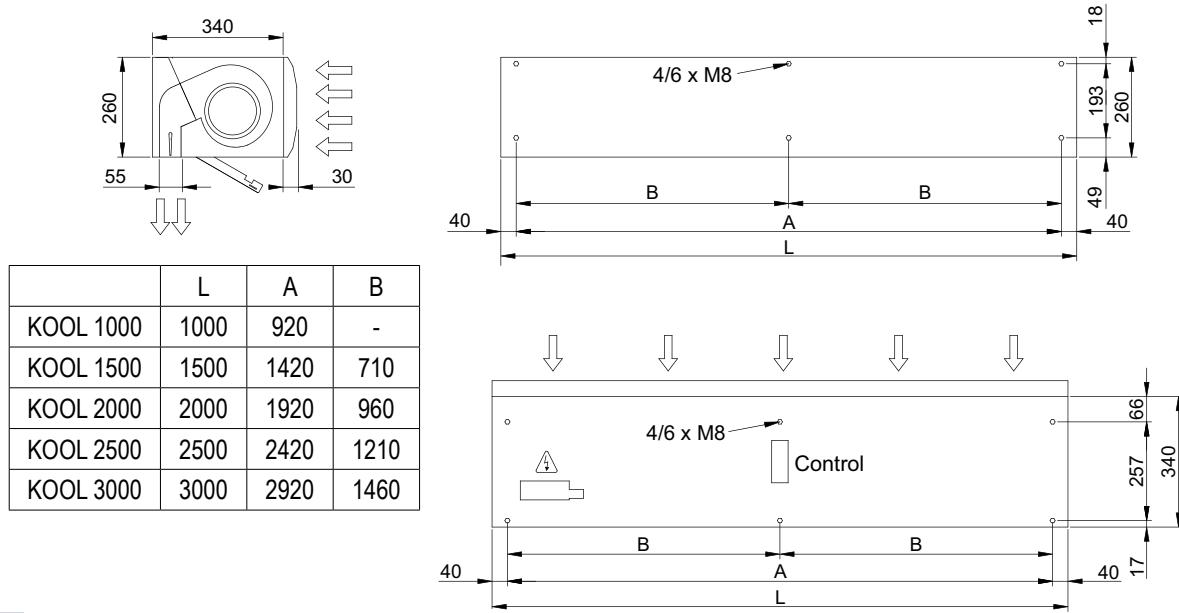
- Specially designed to be installed in doors of cold stores and freezers.
- In option, "IP" version under request.
- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request.
- Large perforated inlet grille avoiding intensive maintenance. Also available with flat micro-perforated inlet grille, more elegant for commercial doors where heating is not needed.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- Double-inlet centrifugal fans driven by an external rotor motor and low noise level. 5-speed selector. "EC" models with very low consumption efficient fans.
- "A" type without heating, air only.
- Includes Plug&Play control with 7m RJ45 cable and infrared remote control. Optional: Clever control (programmable, automatic, intelligent, energy saving, Modbus RTU for BMS...).

Specifications

AIR ONLY

Model	Airflow m³/h	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
KM 1000 A	1800	0,212	0,94	55	29
KM 1500 A	2700	0,318	1,41	56	44
KM 2000 A	3600	0,424	1,88	57	53
KM 2500 A	4500	0,530	2,35	58	58
KM 3000 A	5400	0,636	2,82	59	76
KECM 1000 A	1840	0,142	1,24	56	33
KECM 1500 A	2760	0,213	1,86	57	50
KECM 2000 A	3680	0,284	2,48	58	61
KECM 2500 A	4600	0,355	3,10	59	68
KECM 3000 A	5520	0,426	3,72	60	76
KG 1000 A	2400	0,642	2,85	57	37
KG 1500 A	3200	0,856	3,80	58	55
KG 2000 A	4800	1,284	5,70	59	71
KG 2500 A	5600	1,498	6,65	60	78
KG 3000 A	6400	1,712	7,60	61	86
KECG 1000 A	2700	0,213	1,86	61	37
KECG 1500 A	3600	0,284	2,48	62	56
KECG 2000 A	5400	0,426	3,72	63	71
KECG 2500 A	6300	0,497	4,34	64	78
KECG 3000 A	7200	0,568	5,96	65	86

Dimensions





Characteristics

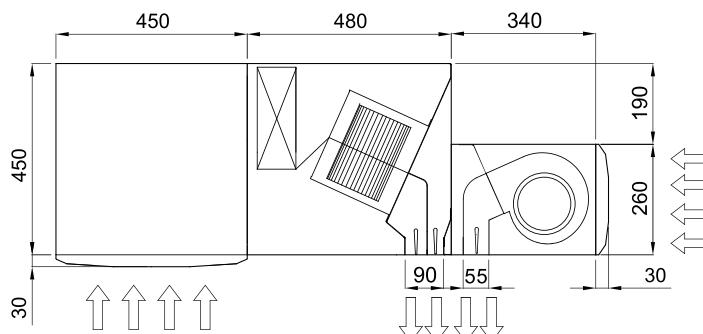


- Specially designed to be installed on doors of industrial cold stores and freezers with big temperature differences.
- Reduces mist, snow and ice decreasing risk of accidents.
- System composed by two air curtains: special Duojet air curtain with plenum and Kool air curtain. The result is a combination system of 3 jets at different temperatures and different speeds.
- High efficiency barrier against big amount of thermal losses due to a big temperature difference (shorter payback).
- A lateral enclosure structure is required to cover 100% of the opening up to 3 jets, not included.
- Self-supporting casing construction made of stainless steel plate. Galvanized steel structural epoxy-polyester painting white RAL9016 or other colors under request.
- Large perforated inlet grille avoiding intensive maintenance.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- Duojet with IP55 AC centrifugal fans and Kool with EC fans (both double inlet, external rotor motors and built-in thermal protection contact). All provided with 5-speed selection, very low noise level.
- Includes electrical shielded element of 3 power stages with integrated regulation.
- Triojet is automatically fully controlled by Clever control. Electronics and controller protected inside IP65 boxes. Plug & Play connections.
- Ready for BMS connection via Modbus RTU.

Specifications

Model	Airflow m³/h	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Electrical Heating Capacity 400Vx3-50Hz kW	Noise Level (5m) dB(A)	Weight kg
TRIOJET SYSTEM 1000 INOX	5900	1,08	5,75	3/6/9	62	125
TRIOJET SYSTEM 1500 INOX	8400	1,58	8,30	4/8/12	63	182
TRIOJET SYSTEM 2000 INOX	11800	2,16	11,50	6/12/18	64	234
TRIOJET SYSTEM 2500 INOX	14300	2,66	14,05	6/12/18	65	275
TRIOJET SYSTEM 3000 INOX	16800	3,17	16,60	8/16/24	66	314

Dimensions





Characteristics



- High performance industrial air curtains for vertical or horizontal installations for large industrial doors. Available in 1.5, 2.0, 2.5, 3.0 and 3.5 meters length. Easy dockable modules to reach large dimensions.
- Heavy self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours are available on request.
- Double outlet with Coanda effect to achieve larger and efficient air jet. Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- High efficiency and low noise axial fans, driven with external rotor motor single phase 230V. Optionally three phase 400V. Maintenance free.
- "P" type with water heated coil. "A" type without heating, air only. "E" type with electrical shielded elements with contactors included.
- Regulation not included. Optional: Basic regulation with Plug&Play control panel provided with 5-speed selection, 10m RJ45 cable and remote control. Advanced regulation with Clever (automatic, intelligent, energy saving, Modbus RTU for BMS...).

Specifications

AIR ONLY

Model	Airflow m³/h	Power Fans		Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
		230V-50Hz kW	230V-50Hz			
MXW 1500 A	7000	0,68	2,96	60	79	
MXW 2000 A	10500	1,02	4,44	61	103	
MXW 2500 A	14000	1,36	5,92	62	126	
MXW 3000 A	17500	1,70	7,40	63	150	
MXW 3500 A	20800	2,04	8,88	64	173	

ELECTRICAL HEATED

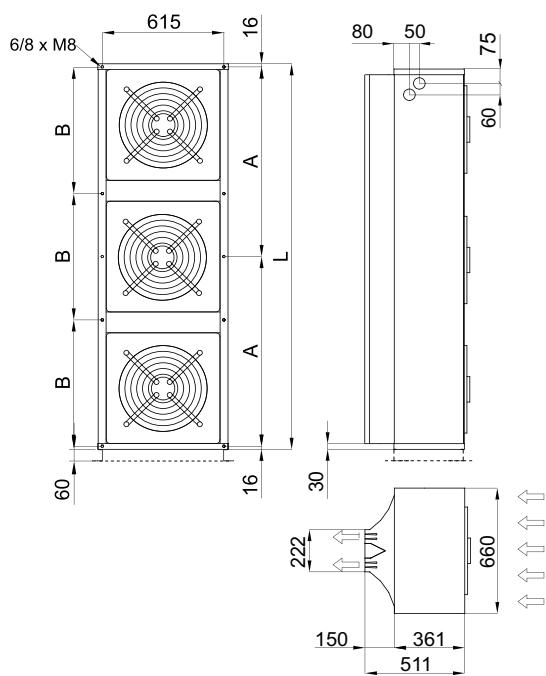
Model	Airflow m³/h	Electrical Heating Capacity 400Vx3-50Hz kW		Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
		230V-50Hz kW	230V-50Hz kW				
MXW 1500 E	7000	consult	0,68	2,96	62	96	
MXW 2000 E	10500	consult	1,02	4,44	63	133	
MXW 2500 E	14000	consult	1,36	5,92	64	167	
MXW 3000 E	17500	consult	1,70	7,40	65	201	
MXW 3500 E	20800	consult	2,04	8,88	66	231	

WATER HEATED

Model	Airflow m³/h	P86		P64		Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg			
		Heating Capacity 80/60°C kW	Water Drop Pressure 80/60°C Pa	Water Connections 80/60°C	Heating Capacity 60/40°C kW	Water Drop Pressure 60/40°C Pa	Water Connections 60/40°C				
MXW 1500 P	6800	41,39	12040	2x1¼"	34,09	12620	2x1¼"	0,68	2,96	59	95
MXW 2000 P	10200	61,25	16920	2x1¼"	50,16	13660	2x1¼"	1,02	4,44	60	126
MXW 2500 P	13600	80,05	13940	2x1¼"	66,19	14600	2x1¼"	1,36	5,92	61	158
MXW 3000 P	17000	99,88	16260	2x1¼"	82,22	14560	2x1¼"	1,70	7,40	62	189
MXW 3500 P	20300	118,28	14080	2x1¼"	97,92	14910	2x1¼"	2,04	8,88	63	221

Water heated: P86 2 rows coil, P64 3 rows coil.

Dimensions



L	A	B
MXW 1500	1500	734
MXW 2000	2000	984
MXW 2500	2500	1234
MXW 3000	3040	-
MXW 3500	3620	1000,5
		1196



Characteristics



- High performance industrial air curtains for vertical or horizontal installations for large industrial doors. Easy dockable modules to reach large dimensions.
- Heavy casing made of double chamber aluminium profiles and galvanized plated steel panels, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours are available on request.
- Double outlet with Coanda effect to achieve larger and efficient air jet. Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- High efficiency and low noise axial fans, driven with external rotor motor single phase 230V. Optionally three phase 400V. Provided with 5-speed selection. Maintenance free.
- "P" type with water heated coil. "E" type with electrical shielded elements, three stages with integrated regulation. "A" type without heating, air only.
- Includes Plug&Play control with 10m RJ45 cable and infrared remote control. Optional: Clever control (programmable, automatic, intelligent, energy saving, Modbus RTU for BMS...).

Specifications

AIR ONLY

Model	Airflow m³/h	Power Fans		Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
		230V-50Hz kW	230V-50Hz A			
MAX 2 A	6600	0,68	2,96	62	59	
MAX 3 A	9900	1,02	4,44	63	79	
MAX 4 A	13200	1,36	5,92	64	103	
MAX 5 A	16500	1,70	7,40	65	124	
MAX 6 A	19800	2,04	8,88	66	151	

ELECTRICAL HEATED

Model	Airflow m³/h	Electrical Heating Capacity 400Vx3-50Hz kW		Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
		230V-50Hz kW	400Vx3-50Hz kW				
MAX 2 E	6600	15/25/40	0,68	2,96	62	74	
MAX 3 E	9900	22,5/37,5/60 (*)	1,02	4,44	63	100	
MAX 4 E	13200	30/50/80 (**)	1,36	5,92	64	133	
MAX 5 E	16500	30/60/90 (**)	1,70	7,40	65	159	
MAX 6 E	19800	30/60/90 (**)	2,04	8,88	66	186	

(*) 2 separated power supplies.

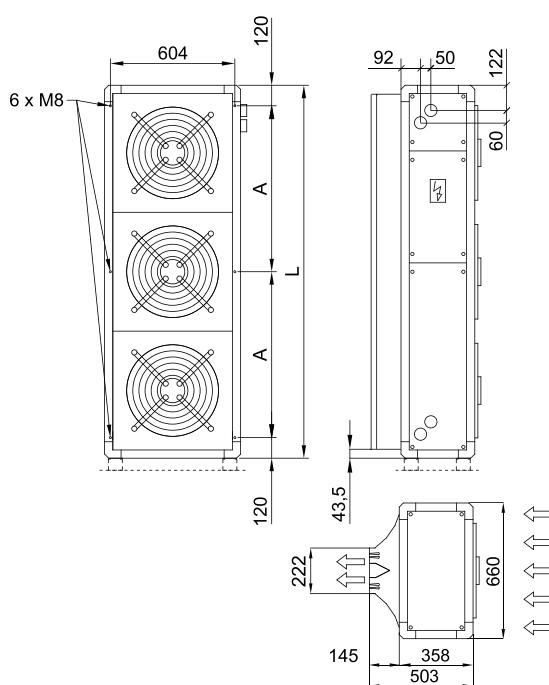
(**) 3 separated power supplies.

WATER HEATED

Model	Airflow m³/h	P86			P64			Current Fans 230V-50Hz A	Noise Level (5m) dB(A)	Weight kg
		Heating Capacity 80/60°C kW	Water Drop Pressure 80/60°C Pa	Water Connections 80/60°C	Heating Capacity 60/40°C kW	Water Drop Pressure 60/40°C Pa	Water Connections 60/40°C			
MAX 2 P	6400	28,74	350	2x1¼"	29,71	8690	2x1¼"	0,68	2,96	61
MAX 3 P	9600	51,77	1440	2x1¼"	47,10	11930	2x1¼"	1,02	4,44	62
MAX 4 P	12800	74,15	2580	2x1¼"	63,30	9340	2x1¼"	1,36	5,92	63
MAX 5 P	16000	96,43	7070	2x1¼"	82,16	18450	2x1¼"	1,70	7,40	64
MAX 6 P	19200	118,69	12160	2x1¼"	91,92	3770	2x1¼"	2,04	8,88	65

Water heated: P86 2 rows coil, P64 3 rows coil.

Dimensions



	L	A
MAX 2	1234	498
MAX 3	1811	786
MAX 4	2388	1074
MAX 5	2965	1363
MAX 6	3542	1651

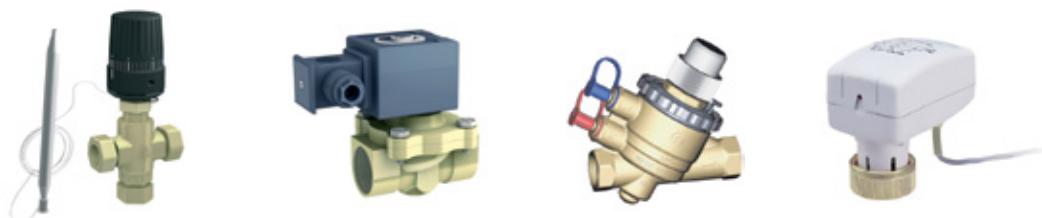
ACCESSORIES - SPECIAL OPTIONS



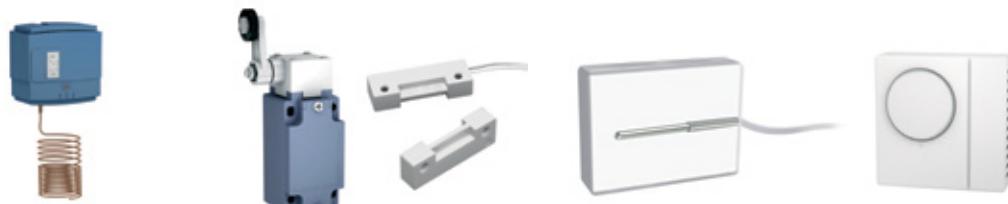
Accessories



Feet, wall or ceiling supports, tailor made arms, vibration dampers...



Thermostatic valve, solenoid valve (ON/OFF), modulating valves...



Anti-freeze sensor, door contact, ambient thermostat, external temperature sensor...



Telephone cables: RJ45, RJ11, different lengths...

Special Options

Airtecnics, as an air curtains specialist, can produce units with special requirements under request.

Here there are some of the possibilities:

- External alarm signals as: unit working, heating ON, airflow detector, dirty grille sensor, electronic overheating signal, fans overheating thermo contact TK, electrical heating blocked, etc.
- Special water or steam coils for higher temperatures or different power than standard
- Tailor made electrical heating elements at desired heating power (kW) and electrical power supply (400Vx3 to 230Vx3 or 230Vx1)
- Dummies (empty air curtains) to combine with working units
- Industrial air curtains at 400Vx3 with the same advantages of electronic regulation 5 speed range
- Industrial MAX/MXW with higher volume (MAX/MXW L)
- Industrial MAX/MXW with explosion proof EX fans
- Stainless steel AISI-316 or other materials under request
- Special RAL colour with gloss or other finishes. Special BS (British Standard), Tiger Drylac, etc.
- Complete tailor made air curtain or our standard range customized according to client needs

Please consult us for further information or other options.



Correction factors for water temperatures (M, ECM, G, ECG)

The technical data tables give the nominal heat capacity for warm water coils supplied with water at 80/60°C, 60/40°C and 50/40°C with the air inlet temperature at 20°C.

These tables supply the corresponding factors for calculating the heat capacity with different air and water inlet temperatures.

Water			Air Inlet Temperature			Water			Air Inlet Temperature		
Coil	Difference	Temperatures	15°C	18°C	20°C	Coil	Difference	Temperatures	15°C	18°C	20°C
80/60 2 rows	20°C	100/80	1,58	1,53	1,46	50/40 4 rows	20°C	100/80	3,26	3,11	3,01
		90/70	1,35	1,27	1,22			90/70	2,79	2,64	2,54
		80/60	1,11	1,04	1,00			80/60	2,32	2,17	2,07
		70/50	0,89	0,82	0,78			70/50	1,83	1,69	1,59
		60/40	0,66	0,59	0,54			60/40	1,35	1,21	1,11
		55/35	0,54	0,47	0,42			50/30	0,85	0,68	0,58
	15°C	100/85	1,72	1,64	1,59	15°C		80/65	2,47	2,34	2,24
		90/75	1,47	1,40	1,35			70/55	2,01	1,86	1,77
		80/65	1,22	1,14	1,09			60/45	1,53	1,39	1,30
		70/55	0,97	0,90	0,86			50/35	1,05	0,91	0,83
		60/45	0,73	0,66	0,61			45/30	0,85	0,71	0,63
		50/35	0,48	0,40	0,35			10°C	60/50	1,71	1,57
	10°C	80/70	-	1,28	1,20			50/40	1,24	1,10	1,00
		70/60	1,09	1,02	0,97			40/30	0,77	0,62	0,53
		60/50	0,84	0,77	0,72						
		50/40	0,59	0,52	0,48						
		40/30	0,35	0,27	0,22						
60/40 3 rows	20°C	100/80	2,86	2,71	2,62						
		90/70	2,45	2,30	2,21						
		80/60	2,03	1,89	1,81						
		70/50	1,61	1,48	1,40						
		60/40	1,21	1,08	1,00						
		50/30	0,80	0,67	0,59						
	15°C	60/45	-	1,22	1,14						
		50/35	0,94	0,82	0,75						
		40/30	0,69	0,57	0,49						

Example of heat capacity calculation:

Model M 2000 P 80/60°C

Air inlet temperature 15°C, Water temperature 90/70°C

$$\text{HEAT CAPACITY} = \frac{\text{Nominal Power}}{(20,65 \text{ kW})} \times \frac{\text{Coefficient}}{(1,35)} = 27,87 \text{ kW}$$



EC Concept

EC technology (Electronically Commutated) consists of a direct current (DC) motor that incorporates a converter to be able to connect to alternating current (AC).
The static part of the fan (stator) includes an electronic board that transforms the AC to DC current and also allows regulating the fan speed proportionally from 0 to 100%.
EC motor have no slippage losses, thus increasing efficiency versus AC motor.

EC Motor Principle

- DC motor with permanent magnets in the rotor
- An electronic board controls the electronic switches that replace the carbon brushes
- An electronic system recognizes the position and direction of rotation of the rotor (software, Hall effect sensors)
- Power supply with alternating current, valid for 50Hz or 60Hz indistinctly

Advantages and Benefits

EC air curtains are absolutely efficient reducing the running cost of the ventilation up to 65% using EC instead of AC fans.

- Energy saving: high efficiency, reducing consumption compared to an AC
- Longer life because the motor works at a lower temperature than an equivalent AC
- Control: proportional fan speed 0-100% easily controllable with 0-10V regulation
- Simplicity: 50Hz or 60Hz indistinctly, electronic transformation and power are completely integrated in the motor

Available EC Air Curtains:

Windbox ECM-ECG, Smart, Kool, Recessed Windbox, Dam, Recessed Dam, Variwind, Recessed Compact, Rund, Zen, Rotowind, Invisair, Windbox BB, Recessed Windbox BB.

EC vs AC Air Curtain - Energy Saving up to 65%

How much money can I save using an EC Air curtain?

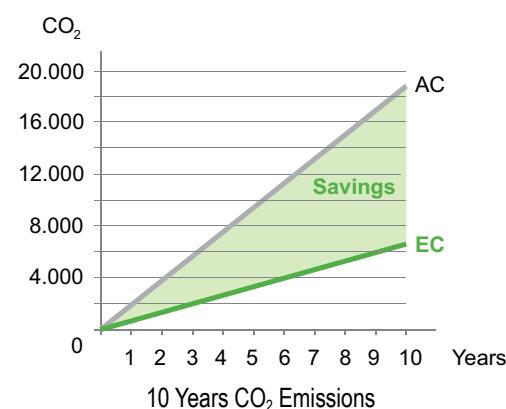
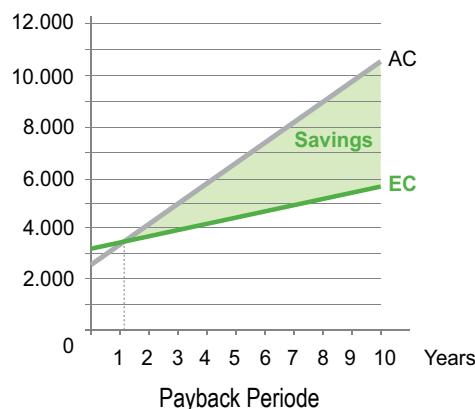
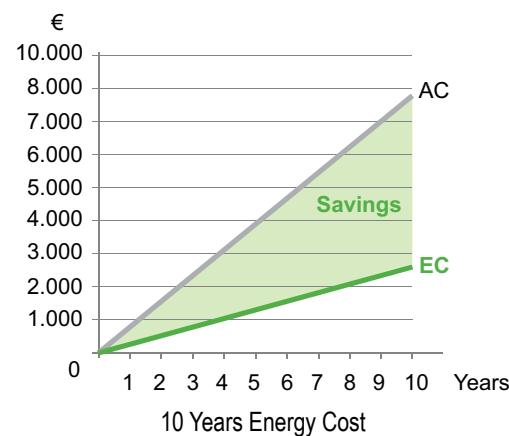
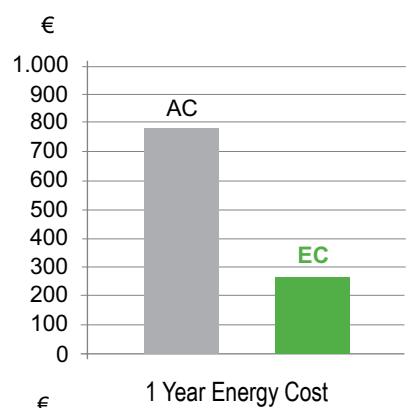
Example:

Door dimension: 2 m width by 3,8 m height
Running time: 12 hours/day, 6 days/week, 50 weeks (~ 1 year)
Energy cost: 0,17 €/kW/h (EU-27 average cost)
Selected unit: AC: G 2000, EC: ECG 2000

	AC Air Curtain	EC Air Curtain	Difference
Total Fans Power	1,284 kW	0,450 kW	- 0,834 kW
Air Curtain Price	2.500 €/unit	3.127 €/unit	+ 627 €
Energy Consumption	4.622 kW/h	1.620 kW/h	- 3.002 kW/h
Energy Cost	786 €	275 €	- 510 €
CO ₂ Emissions	1.849 kg	648 kg	- 1.201 kg

Result:

The payback period is 1 year and 3 months. In addition, 65% of energy and CO₂ emissions to the environment are saved every year.



BASIC REGULATION: Standard Controls



Two ranges of control panels, both designed for easy and quick Plug & Play connection, free of mistakes, by using a telephone cable with RJ45 connectors. The digital communication between the control panel and air curtain is a very reliable connection without information losses even at long distances. All control panels can be turned ON/OFF externally and have internal memory (if the power supply is cut off, the unit goes back to the selected state).

2 Speed Range Controls

Infrared remote control included. Suitable for air curtains: Optima, Recessed Optima.

CA-2AO-IR

Only air, 2 fan speed



CW-2EV-IR

Water heated, 2 fan speed and electro-valve switch



CE-2AO-IR

Electrical heated, 2 fan speed, 2 heating stages



5 Speed Range Controls

Infrared remote control included (except CS). Suitable for air curtains:

Windbox M,G,BB,L,XL, Dam, Smart, Recessed Windbox, Recessed Dam, Recessed Compact, Kool, Zen, Rund, Deco, Rotowind, Invisair, Variwind, Max, Maxwell.

CA-5AW-IR

Only air, 5 fan speed



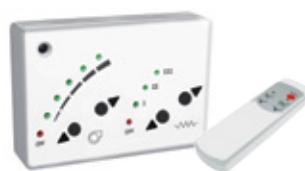
CW-5AW-IR

Water heated, 5 fan speed and electro-valve switch



CE-5AW-IR

Electrical heated, 5 fan speed and 3 heating stages



CS-5DX-NE

Heat pump heated, 5 fan speed, door contact, cooling and defrost



Optional Controls

Hand Auto

Water heated: with manual and automatic operating.
Auxiliary functions: anti-freezing sensor, door contact (with delay) and room thermostat.



CH-2HO-NE



CH-5HW-NE

Digital Thermostat

Only electrical heated: modifies heat stages and fan speed depending on temperature and selected program.



TD-NE-II

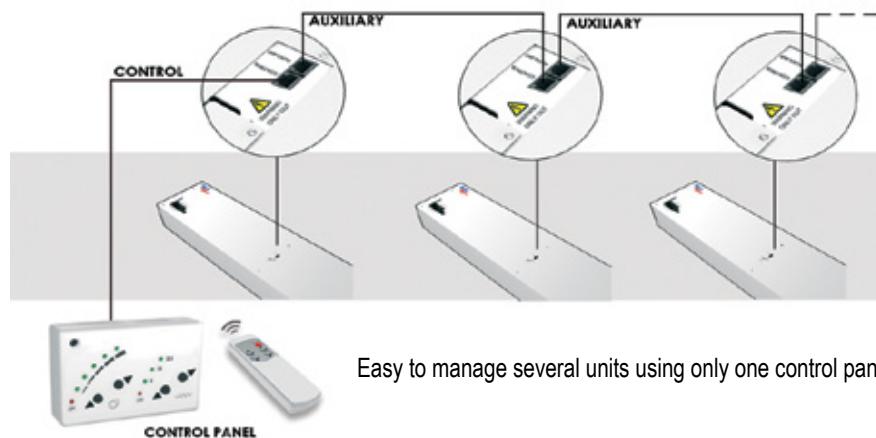
Interface

Allows the connection to a centralized management system like BMS and also to standard controllers.



IN-NE-II

Multiple air curtain connection



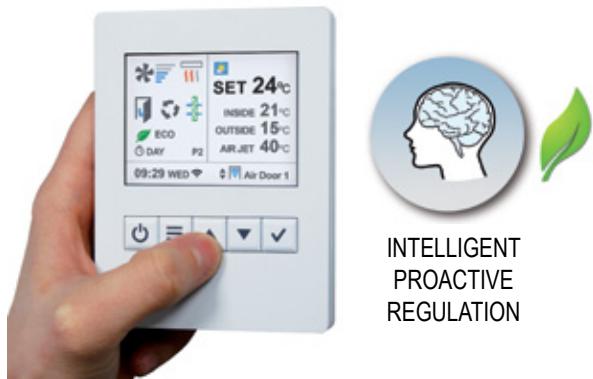
ADVANCED REGULATION: Clever Control



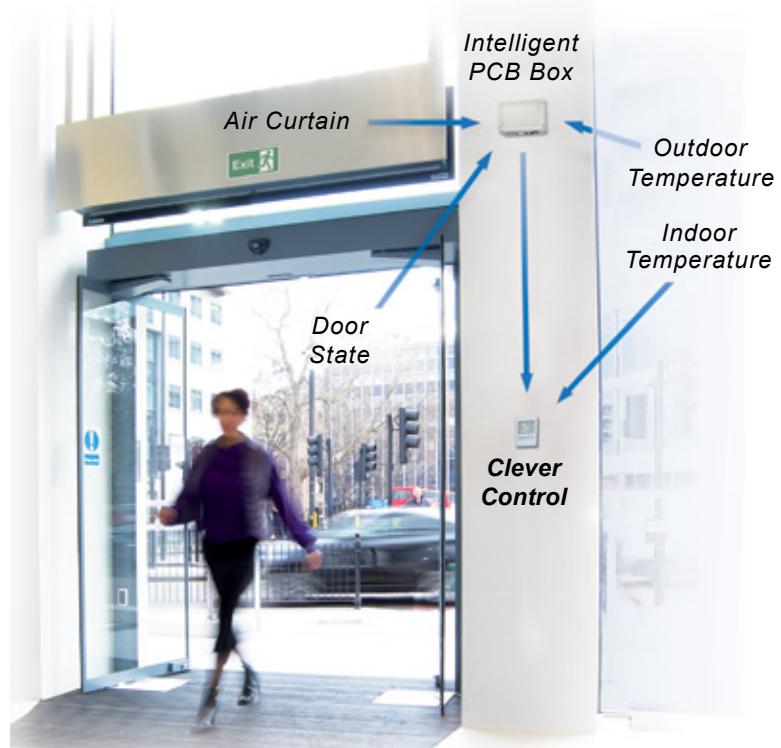
The future is here with the new generation Clever control. Maximum control with maximum energy saving.

What is Clever control?

Clever control automatically adapts the functioning of the air curtain to the entrance conditions, maintaining comfort while saving energy. It optimizes the ventilation and heating to make an efficient barrier for an optimal climate separation.



It includes manual or automatic functioning with many different programs depending on heating type (water, electrical, heat pump or unheated) and installed temperature sensors.



Clever kit includes:



Clever Control

- Color TFT screen 2.8 inch
- 114 (h) x 85 (w) x 14 (d) mm
- Prepared for flush-mount installation



PCB Power Supply

- Input: 100-240Vx1 50/60Hz (AC)
- Output: 24V 2A (DC)
- EU 2 pins / BS 3 pin plugs



Outdoor Temperature Sensor

- Real-time temperature values
- IP65 Protection



Intelligent PCB Box

- Electronic PCB Regulation
- 218 (w) x 140 (h) x 64 (d) mm
- Varnish Protection



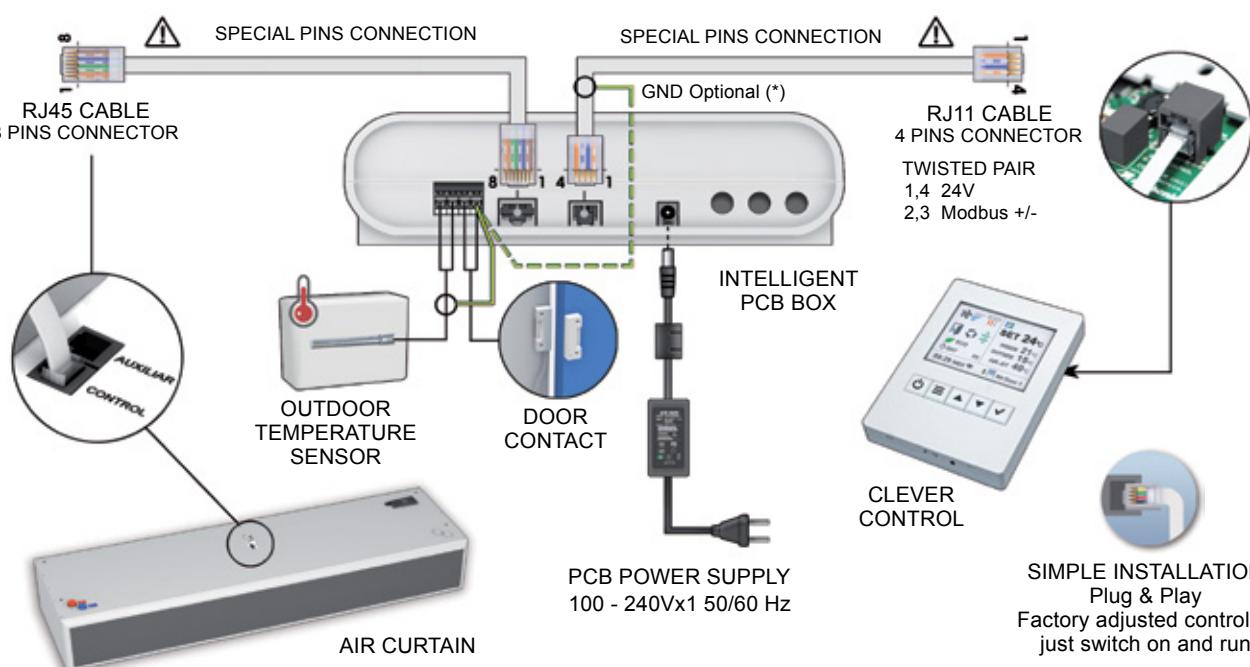
RJ11 + RJ45 Cables

- Easy Plug & Play installation
- RJ11 (4 Pins), 7m length
- RJ45 (8 Pins), provided with the air curtain



Door Contact

- Monitoring Door Status
- Magnetic contact



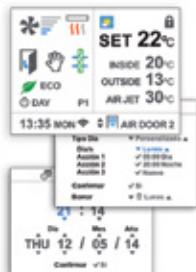
(*) If there are communication issues (interferences), use shielded cable connected to GND

ADVANCED REGULATION: Clever Control



Clever control includes lots of advanced functions and extras to fulfill all client needs.

Advanced functions:



USER FRIENDLY DESIGN

Multilanguage and easy icons for fully understanding.
Main state screen: ventilation speed, heating, temperatures, door state, working mode and program, filter state, day/hour, timer, etc. 3 different menu configurations depending on who is managing the equipment: user, basic or advanced.



ENERGY SAVING

3 grades of comfort and energy efficiency:
“Eco” uses the less energy possible without compromising too much the comfort.
“Comfort” spends more ventilation/heating to maintain / achieve quicker the Set temperature. “Medium” is in between.



ADAPTIVE DOOR DELAY

When the door closes, the air curtain remains working at door open conditions for certain time to be ready if it opens again.
2 modes with two strength stages:
“Fixed” where you define the duration
“Flexible” which adapts automatically the time depending on how often the door is open.



TIMER (DAY/NIGHT)

To turn ON DAY, ON NIGHT or OFF automatically the unit depending on each different day of the week or predefined groups of days.
User can select between Day or Night modes with 2 different Set temperatures in order to save energy.



COMPATIBLE

Android or Apple smartphone application with user functions connected via WIFI.
BMS communication with Modbus RTU protocol or using digital and analogical IN/OUT to control or monitor directly the unit.
Modbus TCP/Bluetooth optional modules. PC Windows program (RS485).



FILTER ALARM

Indicates when filter needs replacing/cleaning. 2 options: by “Timer” of functioning hours or by “Pressure Sensor” switch.



FULLY PROGRAMMABLE

All parameters can be configured at Basic or Advanced menu.
Lots of extra functions to fulfill all clients applications. Editable device names for easy identification.



MULTI-EQUIPMENT

Clever works with different types of units: air curtains, fan heater, AHU, etc.
Once programmed, PCB can work by itself without any controller.
One Clever TFT can manage up to 255 different units, each one with its own program.

Other Characteristics:

- Clever is factory adjusted according to the device/s and client requirements
- Once installed, the system checks automatically all connected units and its temperature sensors
- Different integrated programs and functions for particular applications
- Different programs depending on installed temperature sensors: inside, outside and air jet
- Able to regulate by itself the ventilation and heating depending on: door state, temperature sensors, selected working mode, grade of energy saving, program and other parameters
- Alarms: general, filter state, anti freezing, overheating, fans overheating, airflow, fire, external, heating locked, etc.
- Security control buttons lock option by code
- Modulating valve for water heated (includes 24VDC power supply)
- Multiple functions: temporized door, excessive temperature of water return, cooling mode and others



Minibel

Ideal for small openings (service windows)



Optima

Installation in a shop entrance



Windbox M,G

In a chain restaurant



Windbox M,G

Invisible installation with false ceiling kit



Dam

With smooth customizable front panel in a fashion store



Dam Twin

System with two curtains for adverse situations

**Zen**

Elegant with aluminum panels in an offices building

**Zen**

Exclusive design with custom finishes

**Zen**

With wood panels in a chain restaurant

**Rund**

Rounded, vertical and in stainless steel design

**Rund**

Tailor made-linear installation for large openings

**Rund**

Installation with special goalposts supports



Smart

Elegant and discreet design with hidden inlet grille



Recessed Optima

Designed to install in false ceiling



Recessed Windbox

Integration in false ceiling in a shopping center



Recessed Dam

Model with exposed inlet grille



Invisair

Fully invisible installation integrated in vertical bulkhead



Rotowind

Tailor-made design for all types of revolving doors



Rotowind

Special solution for glass revolving doors



Windbox L,XL

Multiple installation of industrial curtains in a factory



Kool

Cold chamber in a food factory



Triojet System

Special for great cold chambers and freezers



Maxwell

Jet with Coanda effect for industrial doors



Max

Multipe modular towers on large industrial doors

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Producing for Worldwide Brands





Public Buildings



Buildings

- Alhambra (Granada, Spain)
- Royal Courts of Justice (London, UK)
- Riffa King Palace (Manama, Bahrain)
- Fire Brigade headquarters (London, UK)
- O2 Space (Dublin, Ireland)
- Expo Georgia (Tbilisi, Georgia)
- Darwen Leisure Centre (Darwen, UK)
- Park Pavilion (London, UK)

- La Defense (Paris, France)
- Sagrada Família (Barcelona, Spain)
- Expo 2015 (Milan, Italy)
- National Audit Office (London, UK)
- Centre des Conventions (Oran, Algiers)
- Roca Gallery (London, UK)
- Expo Ourense (Ourense, Spain)
- Repsol Auditorio (Madrid, Spain)

- Palace of the United Nations (Geneva, Switzerland)
- Palacio de Ferias y Congresos (Málaga, Spain)
- Generalitat de Catalunya (Barcelona, Spain)
- Congreso de los Diputados (Madrid, Spain)
- Prefecture Des Yvelines (Versailles, France)
- Palacio Euskalduna Jauregia (Bilbao, Spain)
- Comissaria Mossos d'Esquadra (Amposta, Spain)
- Commissariat de Police (Aulnay-sous-Bois, France)



Airports

- JFK (New York, USA)
- Gatwick (London, UK)
- El Prat (Barcelona, Spain)
- Heathrow (London, UK)
- Leonardo da Vinci (Roma, Italy)

- Hamad (Doha, Qatar)
- Malpensa (Milan, Italy)
- Vladivostok (Ayrton, Russia)
- Norman Manley (Kingston, Jamaica)
- Danylo Halytskyi (Lviv, Ukraine)

- José Martí (La Habana, Cuba)
- Queen Alia (Amman, Jordania)
- Jorge Newbery (Buenos Aires, Argentina)
- Ashgabat Airport (Ashgabat, Turkmenistan)
- Tirana International Airport (Tirana, Albania)



Train Stations

- Central Station (Vienna, Austria)
- AVE (Lleida, Spain)
- Stratford (London, UK)

- Kings Cross (London, UK)
- Atocha (Madrid, Spain)
- Ebbsfleet (London, UK)

- Haramain Highspeed (Jeddah, Saudi Arabia)
- ADIF - Estació de Sants (Barcelona, Spain)
- FFCC Plaça Catalunya (Barcelona, Spain)



Hospitals

- Barking (London, UK)
- CAP Rambla (Terrassa, Spain)
- Dexeus (Barcelona, Spain)
- Forth Valley (Larbert, Scotland)

- Hygeia (Athens, Greece)
- Mútua (Terrassa, Spain)
- Sant Joan de Déu (Barcelona, Spain)
- Virgen del Castillo (Yecla, Spain)

- Asepeyo (Sant Cugat del Vallès, Spain)
- St. Peters (Chertsey, UK)
- Bellvitge (Hospitalet de Llobregat, Spain)
- Parc Taulí (Sabadell, Spain)



Colleges / Universities

- Hope (Liverpool, UK)
- Imperial (London, UK)
- Redbridge (Romford, UK)
- San Pablo CEU (Madrid, Spain)

- Blanquerna (Barcelona, Spain)
- Colegio Americano (Madrid, Spain)
- Evelyn Grace (London, UK)
- James Watt (Greenock, UK)

- National Physics Technology since Centre (Vilnius, Lithuania)
- Liverpool University (Liverpool, UK)



Museums

- Louvre (Paris, France)
- Picasso (Barcelona, Spain)
- MNAC (Barcelona, Spain)

- Victoria Gallery (Liverpool, UK)
- Palacio de Carlos V (Granada, Spain)
- People's History (Manchester, UK)

- Bob Marley (Kingston, Jamaica)
- Arts Santa Mónica (Barcelona, Spain)
- Palacio Real (Madrid, Spain)



Theaters

- National Theatre (London, UK)

- Teatro de la Zarzuela (Madrid, Spain)

- Royal Albert Hall (London, UK)



Chains



Stores

- Apple headquarters (London, UK)
- Media Markt (Badajoz, Spain)
- Ikea (Växjö, Sweden)
- Leroy Merlin (Valladolid, Spain)
- FNAC (Zaragoza, Spain)
- T Mobile (Schwäbisch Hall, Germany)

- Adidas (Barcelona, Spain)
- Vodafone (Galway, Ireland)
- Swarovski (Norwich, UK)
- Nike (Dublin, Ireland)
- Sephora (Milan, Italy)
- Kipling (La Roca del Vallès, Spain)

- Dior (Stuttgart, Germany)
- El Corte Inglés (Talavera de la Reina, Spain)
- Decathlon (Sainte-Suzanne, Réunion Island)
- Gillette (Reading, UK)
- Yves Rocher (Amsterdam, Netherlands)
- Alain Afflelou (Barcelona, Spain)



Clothes

- Louis Vuitton (London, UK)
- Mango (Faro, Portugal)
- H&M (Amsterdam, Netherlands)
- Next (Manchester, UK)
- Primark (Madrid, Spain)
- Levi's (Barcelona, Spain)
- Napapijri (Oslo, Norway)

- Zara (Milan, Italy)
- Kiabi (Aubenas, France)
- Calzedonia (Badalona, Spain)
- Massimo Dutti (Berna, Switzerland)
- Le Coq Sportif (Barcelona, Spain)
- Hugo Boss (Dublin, Ireland)
- Marks & Spencer (Glasgow, Scotland)

- Lacoste (Amsterdam, Netherlands)
- Billabong (Barcelona, Spain)
- Desigual (Dublin, Ireland)
- Guess (Barcelona, Spain)
- Pepe Jeans (Amsterdam, Netherlands)
- Stradivarius (Sabadell, Spain)
- C&A (Schwäbisch Hall, Germany)



Shoes

- Crocs (Amsterdam, Netherlands)
- Fila (Amsterdam, Netherlands)
- Fosco (Barcelona, Spain)

- Geox (Madrid, Spain)
- JD Sport King (Rotterdam, Netherlands)

- Foot Locker (Amsterdam, Netherlands)
- Vives (Vic, Spain)



Supermarkets

- Carrefour (Lleida, Spain)
- Aldi (Collado Villalba, Spain)
- Intermarché (Polliat, France)

- Lidl (Bydgoszcz, Poland)
- Tesco (Cheltenham, UK)
- E.Leclerc (Loudun, France)

- Eroski (Sant Cugat del Vallès, Spain)
- Alcampo (A Coruña, Spain)



Food

- McDonald's (Amsterdam, Netherlands)
- Starbucks (Warsaw, Poland)
- Nestlé (Halifax, UK)
- Pizza Hut (Frankfurt, Germany)

- Hard Rock Cafe (Venezia, Italy)
- KFC (Amsterdam, Netherlands)
- Viena (Zaragoza, Spain)

- Häagen-Dazs (Palma de Mallorca, Spain)
- Subway (Rotterdam, Netherlands)
- Fosters Hollywood (Sabadell, Spain)



Cars

- Porsche (Stuttgart, Germany)
- Ford (Almussafes, Spain)
- BMW (Abrera, Spain)

- Nissan (Sunderland, UK)
- Ferrari (Las Rozas, Spain)
- Mercedes (Alcobendas, Spain)

- Citroen (Vigo, Spain)
- Toyota (Madrid, Spain)

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Companies



Banks

- Barclays (Leeds, UK)
- Sabadell Atlántico (Palafrugell, Spain)
- Kutxa Bank (Getaria, Spain)

- BBVA Headquarters (Bilbao, Spain)
- La Caixa (Torelló, Spain)

- Lloyds TSB (Northampton, UK)
- Morabank (Andorra la Vella, Andorra)



Factories

- Pepsi (Jeddah, Saudi Arabia)
- Atlas Copco (Köln, Germany)
- Bosch (Barcelona, Spain)
- Pirelli (Milan, Italy)
- Telefónica (Madrid, Spain)
- Tuko Logistics (Kerava, Finland)
- ABB HVDC (Ludvika, Sweden)

- Bristol-Myers Squibb (Paris, France)
- Procter & Gamble (Agbara, Nigeria)
- Würth (Kouvolta, Finland)
- Bayer (Esplugues de Llobregat, Spain)
- Siemens Vdo (Abrera, Spain)
- Cadbury (Lagos, Nigeria)
- Basf (Milan, Italy)

- Siemens (Durham, USA)
- Allianz (Madrid, Spain)
- EAM Maliban Textile (Colombo, Sri Lanka)
- Bodega J. García Carrión (Daimiel, Spain)
- Vestas Technology Ltd (Isle of Wight, UK)
- Findus (Pamplona, Spain)



Others

- American Naval Base (Juffar, Bahrain)
- US Army Camp Liberty (Baghdad, Iraq)
- Sarrià Market (Barcelona, Spain)
- Barfoots Ltd Farm (Bognor Regis, UK)

- BBC TV (Cardiff, Wales)
- BFI Imax Cinema (London, UK)
- The Reef Hotel Casino (Cairns, Australia)
- Gran Casino (Barcelona, Spain)

- Nuclear Plant (Saint-Laurent-Nouan, France)
- Ceccato Car Wash (Milan, Italy)
- Spine Tower Carrefour SA (Istanbul, Turkey)

Leisure



Malls / Shopping Centers

- Darinok (Kiev, Ukraine)
- Union Square (Aberdeen, UK)
- Les Arenes (Barcelona, Spain)
- Victoria (Nottingham, UK)

- Orjin Maslak (Istanbul, Turkey)
- Kingsway (Newport, UK)
- Peris XV (Paris, France)
- Albufera (Madrid, Spain)

- Esselunga (Casale Monferrato, Italy)
- El Bulevar (Ávila, Spain)
- Zorlu Center (Istanbul, Turkey)



Hotels

- Hilton (Addis Ababa, Ethiopia)
- Indigo (New York, USA)
- NH (Madrid, Spain)
- Polaris (Ulaanbaatar, Mongolia)
- Novotel Paddington (London, UK)

- Crowne Plaza (Montpellier, France)
- Pegaso (Bergamo, Italy)
- Holiday Inn (Chessington, UK)
- Ritz (Almaty, Kazakhstan)
- NH Las Tablas (Madrid, Spain)

- Wyndham (Doha, Qatar)
- Le Jura (Dijon, France)
- Park Plaza (London, UK)
- Assila Rocco Forte (Jeddah, Saudi Arabia)



Restaurants

- Kyochon (New York, USA)
- Lujo Ibérico (Sabadell, Spain)
- Panorama (Sofia, Bulgaria)
- Tagliatella (Alicante, Spain)

- Atresmedia Café (Madrid, Spain)
- Deserie (Barnet, UK)
- CalaBoca (Sabadell, Spain)
- Filandón (Madrid, Spain)

- Paul Bocuse (Collonges-au-Mont-d'Or, France)
- El Refugi Alpí (Andorra la Vella, Andorra)
- Hatay Medeniyetler Sofrasi (Istanbul, Turkey)
- La Esquina del Bernabéu (Madrid, Spain)



Theme Parks / Sports

- Disneyland (Paris, France)
- Europapark (Rust, Germany)
- Port Aventura (Salou, Spain)

- Camp Nou (Barcelona, Spain)
- Santiago Bernabéu (Madrid, Spain)
- Olympic Village (Ashgabat, Turkmenistan)

- Meydan Horse Racing Club (Dubai, UAE)
- Circuit de Catalunya F1 (Montmeló, Spain)

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Conca de Barberà, 6 - Pol. Ind. Pla de la Bruguera
E-08211 Castellar del Vallès (Barcelona) Spain
+ 34 93 715 99 88
airtechnics@airtechnics.com

www.airtechnics.com

