

# AIR CURTAINS

## Description

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 opened.

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

### MAINTAINS:

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



### PROTECTS 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

### По вопросам продаж и поддержки обращайтесь:

Архангельск (8182)63-90-72  
Астана +7(7172)727-132  
Белгород (4722)40-23-64  
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Волгоград (844)278-03-48  
Вологда (8172)26-41-59  
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Казань (843)206-01-48

Калининград (4012)72-03-81  
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Киров (8332)68-02-04  
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Липецк (4742)52-20-81  
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Нижний Новгород (831)429-08-12  
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Оренбург (3532)37-68-04  
Пенза (8412)22-31-16  
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Ростов-на-Дону (863)308-18-15  
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Санкт-Петербург (812)309-46-40  
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Смоленск (4812)29-41-54  
Сочи (862)225-72-31  
Ставрополь (8652)20-65-13  
Тверь (4822)63-31-35  
Томск (3822)98-41-53  
Тула (4872)74-02-29  
Тюмень (3452)66-21-18  
Ульяновск (8422)24-23-59  
Уфа (347)229-48-12  
Челябинск (351)202-03-61  
Череповец (8202)49-02-64  
Ярославль (4852)69-52-93

Единый адрес для всех регионов: [rgs@nt-rt.ru](mailto:rgs@nt-rt.ru) || <http://rosenberg.nt-rt.ru/>



	<b>WIDE RANGE</b> <i>Models and main characteristics Selection and applications</i>	4		<b>INVISAIR</b> <i>Recessed in column or bulkhead vertical or horizontal 2,5 - 4,2 m</i>	30-31
	<b>MINIBEL</b> <i>Economical for openings up to 1,8 m</i>	5		<b>ROTOWIND</b> <i>Tailor made for revolving doors 2,5 - 4,2 m</i>	32-33
	<b>OPTIMA</b> <i>For commercial doors 2,2 - 2,8 m</i>	6		<b>VARIWIND</b> <i>Tailor made variable length VP or VW construction 2,5 - 4,2 m</i>	34
	<b>RECESSED OPTIMA</b> <i>For commercial doors 2,2 - 2,8 m recessed installation in false ceiling</i>	7		<b>RECESSED COMPACT</b> <i>Air only compact recessed for commercial and industrial doors 2,5 - 4,2m</i>	35
	<b>WINDBOX M, ECM, G, ECG</b> <i>High pressure for commercial and industrial doors 2,5 - 4,2 m</i>	8-9		<b>KOOL</b> <i>High velocity for cold store and freezer doors 2,5 - 4,2 m</i>	36
	<b>RECESSED WINDBOX</b> <i>High pressure for commercial doors recessed installation in false ceiling 2,5 - 4,2 m</i>	10-11		<b>TRIOJET SYSTEM</b> <i>Combination system with multijets for large cold stores 2 - 3 m</i>	37
	<b>SMART</b> <i>Decorative high pressure for commercial and industrial doors 2,5 - 4,2 m</i>	12-13		<b>MAXWELL</b> <i>Large industrial doors vertical or horizontal 4 - 6 m</i>	38
	<b>ZEN</b> <i>Customizable design with bespoke panels for commercial doors 2,5 - 4,2 m</i>	14-15		<b>MAX</b> <i>Large industrial doors vertical or horizontal 4 - 6 m</i>	39
	<b>RUND</b> <i>Decorative cylindrical for vertical or horizontal installation 2,5 - 4,2 m</i>	16-17		<b>ACCESSORIES SPECIAL OPTIONS</b> <i>Supports, valves, sensors, etc...</i>	40
	<b>DECO</b> <i>Decorative with aluminium profiles for commercial doors 2,5 - 4,2 m</i>	18-19		<b>POWER COEFFICIENTS</b> <i>Water heated air curtains at different water temperatures</i>	41
	<b>DAM</b> <i>High pressure for commercial doors with front panel 2,5 - 4,2 m</i>	20-21		<b>EC FANS</b> <i>Centrifugal fans with very low consumption technology</i>	42
	<b>RECESSED DAM</b> <i>Compact recessed for commercial and industrial doors 2,5 - 4,2 m</i>	22-23		<b>REGULATION</b> <i>Basic regulation: standard controls Advanced regulation: Clever control</i>	43-45
	<b>HEAT PUMP AIR CURTAINS</b> <i>Energy saving and very low consumption technology for commercial doors 2,5 - 4,2 m</i>	24-27		<b>REFERENCES, PARTNERS, GALLERY</b> <i>Clients brand names, distributors map, installation pictures</i>	46-47
	<b>WINDBOX L, XL</b> <i>High pressure for commercial and large industrial doors 4 - 7 m</i>	28-29			





**Characteristics**

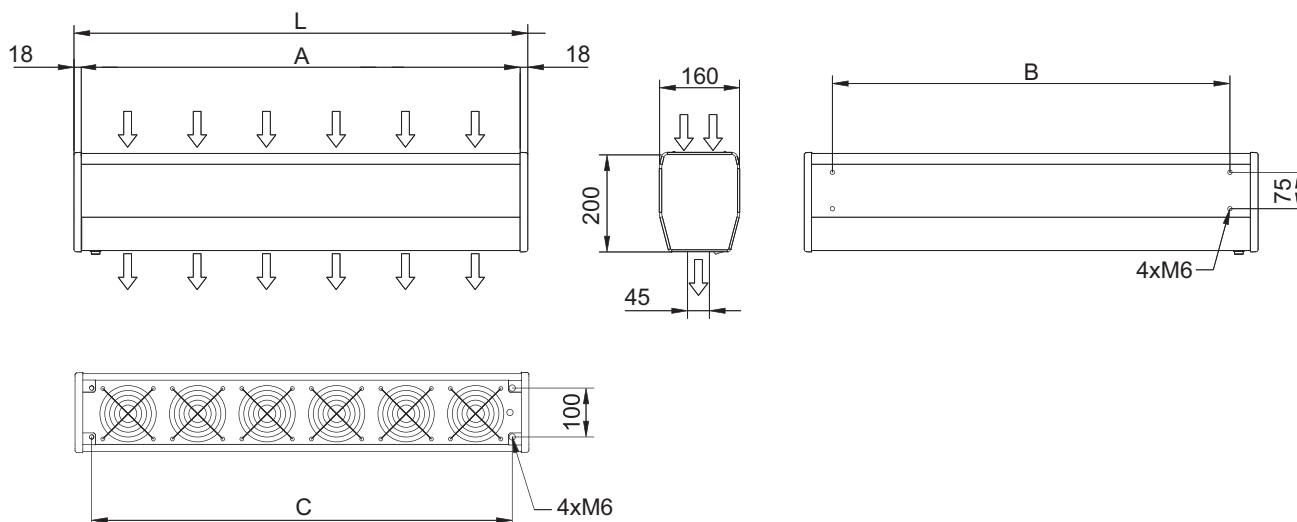


- Self-supporting casing construction made of galvanized plated steel, painted epoxy-polyester structural white colour RAL 9016 as standard. Other colours are available on request.
- Low noise compact axial fans.
- “E” type with heating includes electrical shielded element. “A” type is without heating, air only.
- Linear blow-out jets with airfoil profiled anodized aluminium vanes.
- 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	m³/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 plated steel, painted epoxy-polyester structural white colour RAL 9016 as standard. Other colours are available on request.
- Low noise twisted cross-flow fans driven by a 2-speed external rotor motor.
- Micro-perforated inlet grille with filter functions and easy service. It does not need prefilter.
- “P” type with water heated coil. “E” type with electrical shielded elements, 2 stages with power switches. “A” type without heating (only air).
- Linear blow-out jet with airfoil profiled anodized aluminium vanes.
- Included: Plug&Play control, infrared remote IR, 7m telephone cable. Optional Clever control: Automatic, intelligent, energy saving, Modbus RTU for BMS...

**Specifications**

**AIR ONLY**

Model	Airflow m³/h	Power Fans 230V-50Hz W	Current Fans 230V-50Hz A	Noise Level (5 m) 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 P86**

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 (5 m) 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

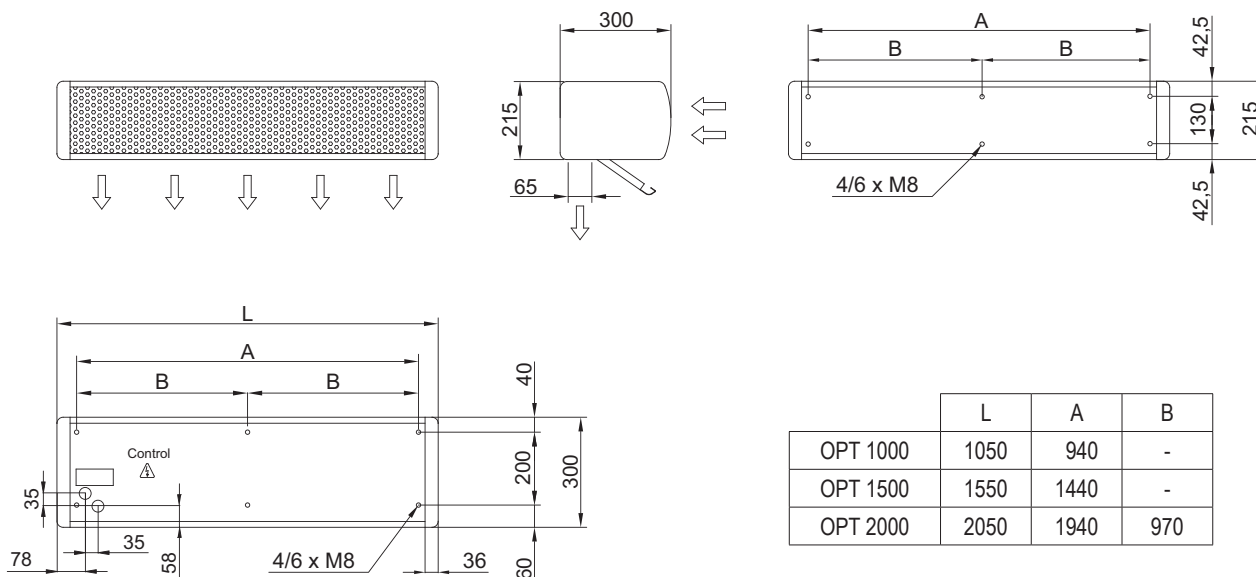
**ELECTRICAL HEATED**

Model	Airflow m³/h	Electrical Heating Capacity (*) kW	Electrical Heating Voltage V	Electrical Heating Current A	Power Fans 230V-50Hz W	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
OPT 1000 E	1500	4/6	400Vx3	5,8/8,7	80	0,41	35/50	20,5
OPT 1000 E9	1500	6/9	400Vx3	8,7/13	80	0,41	35/50	21/5
OPT 1000 E230	1500	3,8/5,6	230Vx1	16,5/24,5	80	0,41	35/50	20,5
OPT 1500 E	2150	6/9	400Vx3	8,7/13	117	0,53	36/51	27,5
OPT 1500 E230-6	2150	3,8/5,6	230Vx1	16,5/24,5	117	0,53	36/51	27,5
OPT 1500 E230-9	2150	6/9	230Vx1	26/39,1	117	0,53	36/51	27,5
OPT 2000 E	2900	5,6/11,3	400Vx3	8,1/16,3	160	0,82	38/53	42
OPT 2000 E230	2900	5,6/11,3	230Vx1	24,5/49,1	160	0,82	38/53	42

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

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

**Dimensions**







## Characteristics



- Self-supporting casing construction made of galvanized plated steel, 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.
- 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, 2 stages with power switches. “A” type without heating (only air).
- Included: Plug&Play control, infrared remote IR, 7m telephone cable. Optional Clever control: Automatic, intelligent, energy saving, Modbus RTU for BMS...

## Specifications

### AIR ONLY

Model	Airflow m <sup>3</sup> /h	Power Fans 230V-50Hz W	Current Fans 230V-50Hz A	Noise Level (5 m) 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 P86

Model	Airflow m <sup>3</sup> /h	Heating capacity 80/60°C kW	Water Drop Pressure Pa	Power Fans 230V-50Hz W	Current Fans 230V-50Hz A	Noise Level (5 m) 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

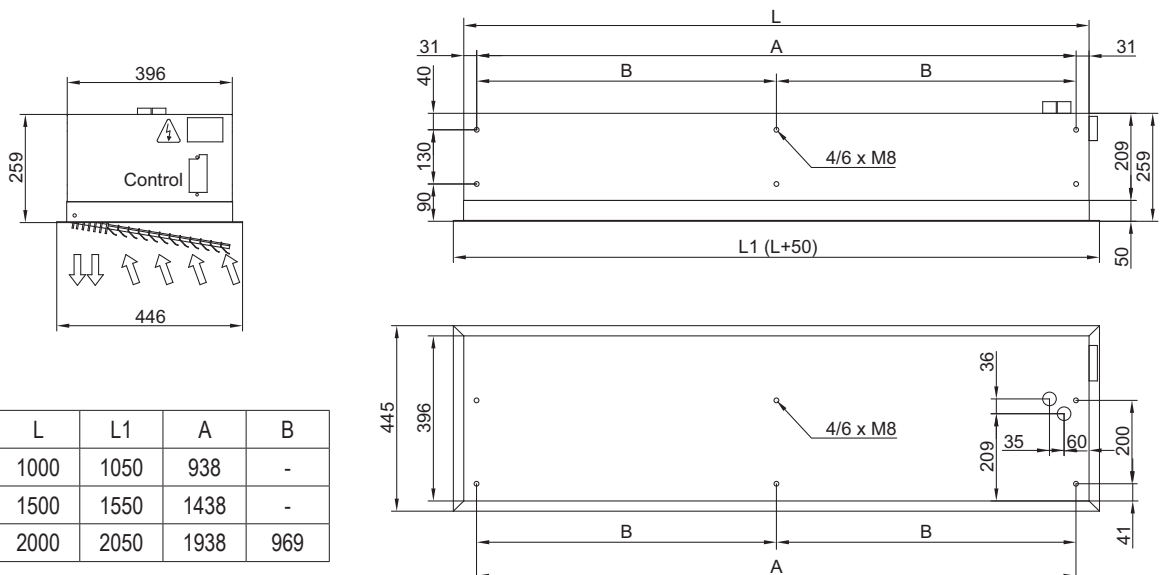
### ELECTRICAL HEATED

Model	Airflow m <sup>3</sup> /h	Electrical Heating Capacity (*) kW	Electrical Heating Voltage V	Electrical Heating Current A	Power Fans 230V-50Hz W	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
RO 1000 E	1700	4/6	400Vx3	5,8/8,7	80	0,41	35/50	26
RO 1000 E9	1700	6/9	400Vx3	8,7/13	80	0,41	35/50	27
RO 1000 E230	1700	3,8/5,6	230Vx1	16,5/24,5	80	0,41	35/50	26
RO 1500 E	2200	6/9	400Vx3	8,7/13	117	0,53	36/51	37,5
RO 1500 E230-6	2200	3,8/5,6	230Vx1	16,5/24,5	117	0,53	36/51	37,5
RO 1500 E230-9	2200	6/9	230Vx1	26/39,1	117	0,53	36/51	37,5
RO 2000 E	3200	5,6/11,3	400Vx3	8,1/16,3	160	0,82	38/53	53,5
RO 2000 E230	3200	5,6/11,3	230Vx1	24,5/49,1	160	0,82	38/53	53,5

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

(\*) 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



## Characteristics



- Self-supporting casing construction made of galvanized plated steel, finished in structural epoxy-polyester RAL 9016 as standard. Other colours or stainless steel construction are available on request.
- Double-inlet centrifugal fans driven by an external rotor motor with built-in thermal protection contact. Provided with 5-speed selection. Very low noise level.
- Micro-perforated inlet grille with filter functions and easy service. It does not need prefilter.
- "P" type with water heated coil. "E" type with electrical shielded elements, 3 stages with power switches. "A" type without heating (only air). Optional expansion DX coil.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- Included: Plug&Play control, infrared remote IR, 7m telephone cable. Optional Clever control: Automatic, intelligent, energy saving, Modbus RTU for BMS...

## Specifications

AIR ONLY					
Model	Airflow m <sup>3</sup> /h	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
M 1000 A	1800	0,212	0,94	55	31
M 1500 A	2700	0,318	1,41	56	46
M 2000 A	3600	0,424	1,88	57	58
M 2500 A	4500	0,530	2,35	58	72
M 3000 A	5400	0,636	2,82	59	86
ECM 1000 A	1840	0,150	1,30	56	31
ECM 1500 A	2760	0,225	1,95	57	46
ECM 2000 A	3680	0,300	2,60	58	58
ECM 2500 A	4600	0,375	3,25	59	72
ECM 3000 A	5520	0,450	3,90	60	86
G 1000 A	2400	0,642	2,85	57	43
G 1500 A	3200	0,856	3,80	58	51
G 2000 A	4800	1,284	5,70	59	80
G 2500 A	5600	1,498	6,65	60	84
G 3000 A	6400	1,712	7,60	61	95
ECG 1000 A	2700	0,225	1,95	61	43
ECG 1500 A	3600	0,300	2,60	62	51
ECG 2000 A	5400	0,450	3,90	63	80
ECG 2500 A	6300	0,525	4,55	64	84
ECG 3000 A	7200	0,600	5,20	65	95

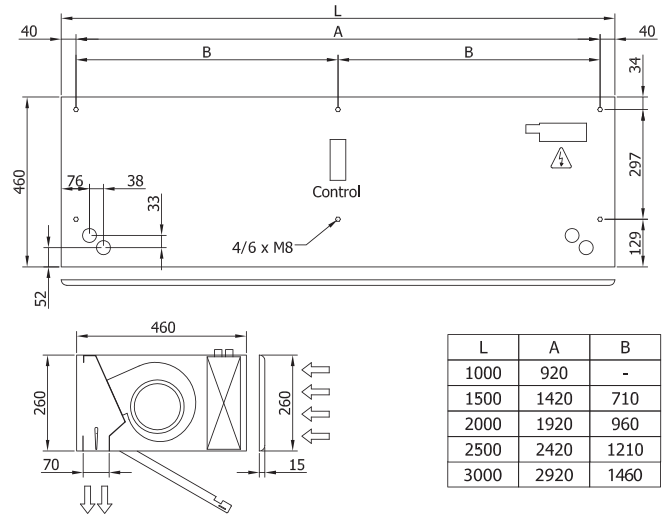
ELECTRICAL HEATED						
Model	Airflow m <sup>3</sup> /h	Electrical Heating Capacity 400Vx3-50Hz kW	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
M 1000 E	1800	3/6/9	0,212	0,94	55	37
M 1500 E	2700	4/8/12	0,318	1,41	56	57
M 2000 E	3600	6/12/18	0,424	1,88	57	75
M 2500 E	4500	6/12/18	0,530	2,35	58	94
M 3000 E	5400	8/16/24	0,636	2,82	59	112
ECM 1000 E	1840	3/6/9	0,150	1,30	56	37
ECM 1500 E	2760	4/8/12	0,225	1,95	57	57
ECM 2000 E	3680	6/12/18	0,300	2,60	58	75
ECM 2500 E	4600	6/12/18	0,375	3,25	59	94
ECM 3000 E	5520	8/16/24	0,450	3,90	60	112
G 1000 E	2400	5/10/15	0,642	2,85	57	52
G 1500 E	3200	7,5/15/22,5	0,856	3,80	58	63
G 2000 E	4800	10/20/30	1,284	5,70	59	100
G 2500 E	5600	10/20/30	1,498	6,65	60	106
G 3000 E	6400	10/20/30	1,712	7,60	61	120
ECG 1000 E	2700	5/10/15	0,225	1,95	61	52
ECG 1500 E	3600	7,5/15/22,5	0,300	2,60	62	63
ECG 2000 E	5400	10/20/30	0,450	3,90	63	100
ECG 2500 E	6300	10/20/30	0,525	4,55	64	106
ECG 3000 E	7200	10/20/30	0,600	5,20	65	120

WATER HEATED											
Model	Airflow m <sup>3</sup> /h	P86		P64		P54		Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) 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				
M 1000 P	1660	9,17	880	8,56	4370	8,52	1220	0,428	1,90	56	35
M 1500 P	2490	14,26	760	13,69	6460	14,34	4480	0,642	2,85	57	53
M 2000 P	3320	20,65	1930	18,26	4790	18,65	2060	0,856	3,80	58	69
M 2500 P	4150	26,92	3810	22,12	3850	24,32	4040	1,070	4,75	59	86
M 3000 P	4980	33,24	6590	28,37	6760	29,77	5660	1,280	5,70	60	103
ECM 1000 P	1720	9,38	920	8,77	4560	8,74	1280	0,150	1,30	56	35
ECM 1500 P	2580	14,58	790	14,02	6730	14,71	4690	0,225	1,95	57	53
ECM 2000 P	3440	21,12	2010	18,70	4990	19,13	2150	0,300	2,60	58	69
ECM 2500 P	4300	27,53	3960	23,33	4010	24,95	4230	0,375	3,25	59	86
ECM 3000 P	5160	40,00	6860	29,05	7050	30,54	5920	0,450	3,90	60	103
G 1000 P	2250	11,04	1230	10,42	6190	10,56	1790	0,642	2,85	57	50
G 1500 P	3000	16,02	940	15,47	8020	16,37	5670	0,856	3,80	58	59
G 2000 P	4500	24,92	2700	22,29	6810	23,15	3030	1,284	5,70	59	92
G 2500 P	5250	31,16	4930	26,61	5060	28,76	5450	1,498	6,65	60	96
G 3000 P	6000	37,35	8110	32,10	8410	34,03	7180	1,712	7,60	61	109
ECG 1000 P	2550	11,89	1400	11,27	7110	11,50	2090	0,225	1,95	61	50
ECG 1500 P	3400	17,29	1070	16,77	9240	17,86	6620	0,300	2,60	62	59
ECG 2000 P	5100	26,86	3080	24,14	7850	25,24	3530	0,450	3,90	63	92
ECG 2500 P	5950	33,63	5650	28,84	5840	31,38	6360	0,525	4,55	64	96
ECG 3000 P	6800	40,34	9290	34,81	9710	37,16	8400	0,600	5,20	65	109

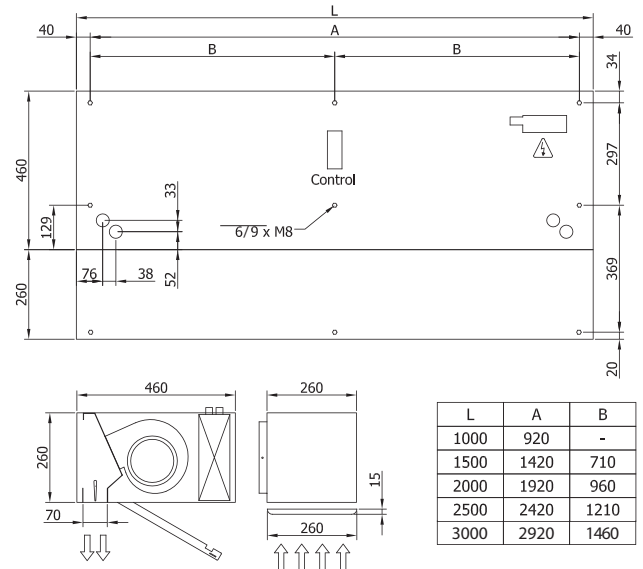
Water heated: connection pipes P86 and P64 are 2x3/4" female (male if lateral pipes), P54 2x1" male. P86 2 rows coil, P64 3 rows coil, P54 4 rows coil.



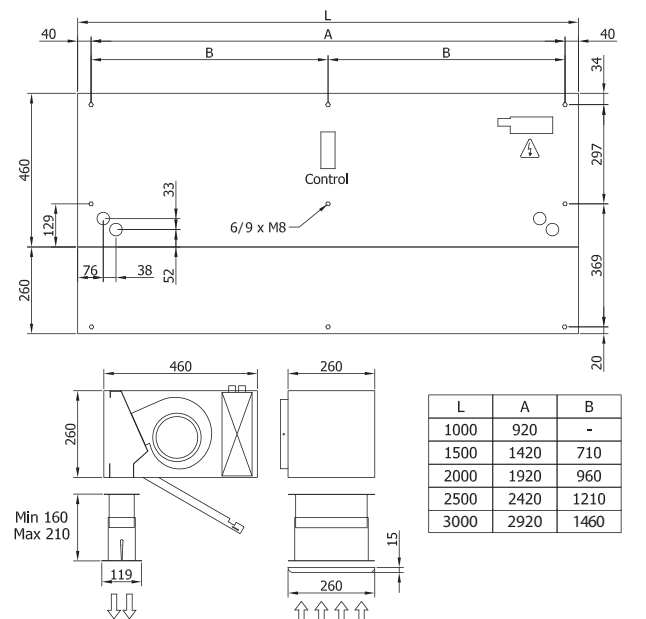
Layouts and dimensions



Free hanging mounting



Inside ceiling surface mounting



False ceiling invisible mounting





## Characteristics



- Self-supporting casing construction made of galvanized plated steel, 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.
- Double-inlet centrifugal fans driven by an external rotor motor with built-in thermal protection contact provided with 5-speed selection. Very low noise level.
- “P” type with water heated coil. “E” type with electrical shielded elements, 3 stages with power switches. “A” type without heating (only air). Optional expansion DX coil.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- Included: Plug&Play control, infrared remote IR, 7m telephone cable. Optional Clever control: Automatic, intelligent, energy saving, Modbus RTU for BMS...

## Specifications

AIR ONLY					
Model	Airflow m <sup>3</sup> /h	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
RM 1000 A	1800	0,212	0,94	55	57
RM 1500 A	2700	0,318	1,41	56	85
RM 2000 A	3600	0,424	1,88	57	109
RM 2500 A	4500	0,530	2,35	58	137
RECM 1000 A	1840	0,150	1,30	56	57
RECM 1500 A	2760	0,225	1,95	57	85
RECM 2000 A	3680	0,300	2,60	58	109
RECM 2500 A	4600	0,375	3,25	59	137
RG 1000 A	2400	0,642	2,85	57	61
RG 1500 A	3200	0,856	3,80	58	90
RG 2000 A	4800	1,284	5,70	59	118
RG 2500 A	5600	1,498	6,65	60	145
RECG 1000 A	2700	0,225	1,95	61	61
RECG 1500 A	3600	0,300	2,60	62	90
RECG 2000 A	5400	0,450	3,90	63	118
RECG 2500 A	6300	0,525	4,55	64	145

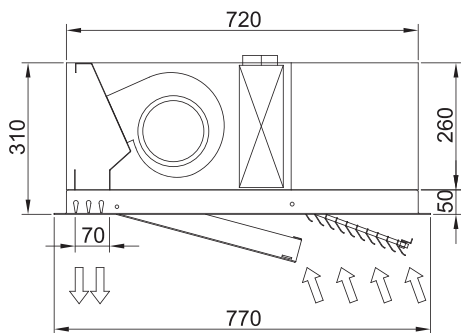
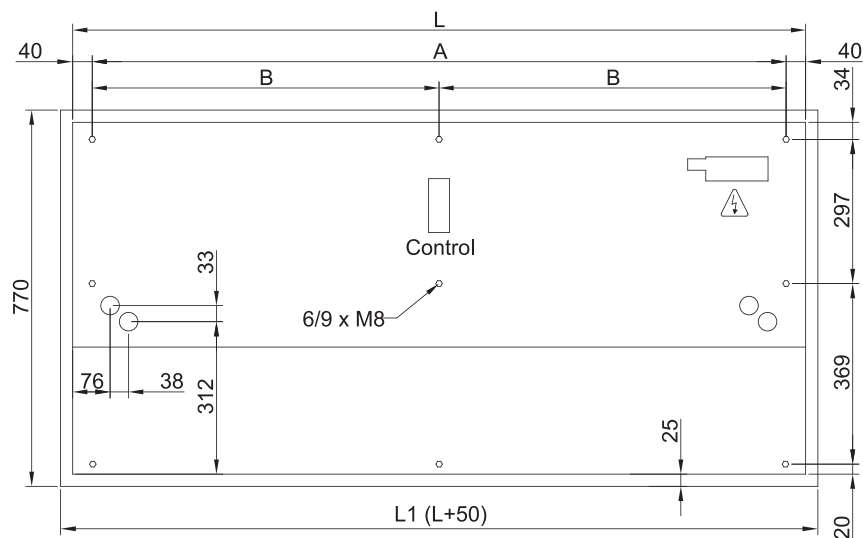
ELECTRICAL HEATED						
Model	Airflow m <sup>3</sup> /h	Electrical Heating Capacity 400Vx3-50Hz kW	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
RM 1000 E	1800	3/6/9	0,212	0,94	55	65
RM 1500 E	2700	4/8/12	0,318	1,41	56	98
RM 2000 E	3600	6/12/18	0,424	1,88	57	130
RM 2500 E	4500	6/12/18	0,530	2,35	58	162
RECM 1000 E	1840	3/6/9	0,150	1,30	56	65
RECM 1500 E	2760	4/8/12	0,225	1,95	57	98
RECM 2000 E	3680	6/12/18	0,300	2,60	58	130
RECM 2500 E	4600	6/12/18	0,375	3,25	59	162
RG 1000 E	2400	5/10/15	0,642	2,85	57	70
RG 1500 E	3200	7,5/15/22,5	0,856	3,80	58	104
RG 2000 E	4800	10/20/30	1,284	5,70	59	140
RG 2500 E	5600	10/20/30	1,498	6,65	60	172
RECG 1000 E	2700	5/10/15	0,225	1,95	61	70
RECG 1500 E	3600	7,5/15/22,5	0,300	2,60	62	104
RECG 2000 E	5400	10/20/30	0,450	3,90	63	140
RECG 2500 E	6300	10/20/30	0,525	4,55	64	172

WATER HEATED											
Model	Airflow m <sup>3</sup> /h	P86		P64		P54		Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) 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				
RM 1000 P	1660	9,17	880	8,56	4370	8,52	1220	0,428	1,90	56	63
RM 1500 P	2490	14,26	760	13,69	6460	14,34	4480	0,642	2,85	57	93
RM 2000 P	3320	20,65	1930	18,26	4790	18,65	2060	0,856	3,80	58	122
RM 2500 P	4150	26,92	3810	22,12	3850	24,32	4040	1,070	4,75	59	153
RECM 1000 P	1720	9,38	920	8,77	4560	8,74	1280	0,150	1,30	56	63
RECM 1500 P	2580	14,58	790	14,02	6730	14,71	4690	0,225	1,95	57	93
RECM 2000 P	3440	21,12	2010	18,70	4990	19,13	2150	0,300	2,60	58	122
RECM 2500 P	4300	27,53	3960	23,33	4010	24,95	4230	0,375	3,25	59	153
RG 1000 P	2250	11,04	1230	10,42	6190	10,56	1790	0,642	2,85	57	67
RG 1500 P	3000	16,02	940	15,47	8020	16,37	5670	0,856	3,80	58	98
RG 2000 P	4500	24,92	2700	22,29	6810	23,15	3030	1,284	5,70	59	131
RG 2500 P	5250	31,16	4930	26,61	5060	28,76	5450	1,498	6,65	60	163
RECG 1000 P	2550	11,89	1400	11,27	7110	11,50	2090	0,225	1,95	61	67
RECG 1500 P	3400	17,29	1070	16,77	9240	17,86	6620	0,300	2,60	62	98
RECG 2000 P	5100	26,86	3080	24,14	7850	25,24	3530	0,450	3,90	63	131
RECG 2500 P	5950	33,63	5650	28,84	5840	31,38	6360	0,525	4,55	64	163

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.



**Dimensions**



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



**Characteristics**



- Stylish, discreet and contemporary design adaptive to any interior architecture.
- Smooth front panel with hidden top air entrance, avoiding the inside view of the unit and the inlet grille with the filter.
- Self-supporting steel rounded casing with edgeless plastic side covers, finished in epoxy-polyester paint white RAL 9016 as standard.
- Front panel can be customized with logotypes, lighting, lettering or safety and informative signals, according to the client requirements.
- Low noise centrifugal fans, outer rotor type, with built-in thermal protection contact. Provided with 5-speed selection.
- “P” type with water heated coil. “E” type with electrical shielded elements, 3 stages with power switches. “A” type without heating (only air). Optional expansion DX coil.
- Airfoil shaped anodized aluminium outlet vanes, adjustable from 0 to 15° each side.
- Included: Plug&Play control, infrared remote IR, 7m telephone cable. Optional Clever control: 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 (5 m) dB(A)	Weight kg
SMART M 1000 A	1800	0,212	0,94	53	34
SMART M 1500 A	2700	0,318	1,41	54	50
SMART M 2000 A	3600	0,424	1,88	55	62
SMART M 2500 A	4500	0,530	2,35	56	66
SMART M 3000 A	5400	0,636	2,82	57	76
SMART ECM 1000 A	1840	0,150	1,30	54	34
SMART ECM 1500 A	2760	0,225	1,95	55	50
SMART ECM 2000 A	3680	0,300	2,60	56	62
SMART ECM 2500 A	4600	0,375	3,25	57	66
SMART ECM 3000 A	5520	0,450	3,90	58	76
SMART G 1000 A	2400	0,642	2,85	55	38
SMART G 1500 A	3200	0,856	3,80	56	55
SMART G 2000 A	4800	1,284	5,70	57	72
SMART G 2500 A	5600	1,498	6,65	58	76
SMART G 3000 A	6400	1,712	7,60	59	86
SMART ECG 1000 A	2700	0,225	1,95	59	38
SMART ECG 1500 A	3600	0,300	2,60	60	55
SMART ECG 2000 A	5400	0,450	3,90	61	72
SMART ECG 2500 A	6300	0,525	4,55	62	76
SMART ECG 3000 A	7200	0,600	5,20	63	86

**ELECTRICAL HEATED**

Model	Airflow m³/h	Electrical Heating Capacity 400Vx3-50Hz kW	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
SMART M 1000 E	1800	3/6/9	0,212	0,94	53	41
SMART M 1500 E	2700	4/8/12	0,318	1,41	54	62
SMART M 2000 E	3600	6/12/18	0,424	1,88	55	80
SMART M 2500 E	4500	6/12/18	0,530	2,35	56	86
SMART M 3000 E	5400	8/16/24	0,636	2,82	57	99
SMART ECM 1000 E	1840	3/6/9	0,150	1,30	54	41
SMART ECM 1500 E	2760	4/8/12	0,225	1,95	55	62
SMART ECM 2000 E	3680	6/12/18	0,300	2,60	56	80
SMART ECM 2500 E	4600	6/12/18	0,375	3,25	57	86
SMART ECM 3000 E	5520	8/16/24	0,450	3,90	58	99
SMART G 1000 E	2400	5/10/15	0,642	2,85	55	46
SMART G 1500 E	3200	7,5/15/22,5	0,856	3,80	56	68
SMART G 2000 E	4800	10/20/30	1,284	5,70	57	90
SMART G 2500 E	5600	10/20/30	1,498	6,65	58	96
SMART G 3000 E	6400	10/20/30	1,712	7,60	59	109
SMART ECG 1000 E	2700	5/10/15	0,225	1,95	59	46
SMART ECG 1500 E	3600	7,5/15/22,5	0,300	2,60	60	68
SMART ECG 2000 E	5400	10/20/30	0,450	3,90	61	90
SMART ECG 2500 E	6300	10/20/30	0,525	4,55	62	96
SMART ECG 3000 E	7200	10/20/30	0,600	5,20	63	109

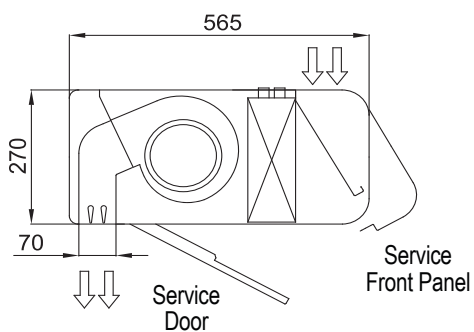
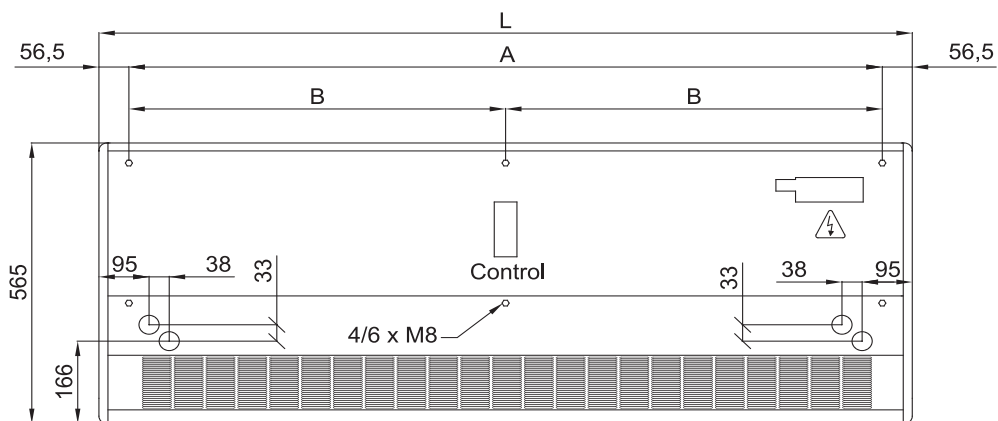
**WATER HEATED**

Model	Airflow m³/h	P86		P64		P54		Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) 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				
SMART M 1000 P	1660	9,17	880	8,56	4370	8,52	1220	0,428	1,90	54	39
SMART M 1500 P	2490	14,26	760	13,69	6460	14,34	4480	0,642	2,85	55	58
SMART M 2000 P	3320	20,65	1930	18,26	4790	18,65	2060	0,856	3,80	56	73
SMART M 2500 P	4150	26,92	3810	22,12	3850	24,32	4040	1,070	4,75	57	79
SMART M 3000 P	4980	33,24	6590	28,37	6760	29,77	5660	1,280	5,70	58	91
SMART ECM 1000 P	1720	9,38	920	8,77	4560	8,74	1280	0,150	1,30	54	39
SMART ECM 1500 P	2580	14,58	790	14,02	6730	14,71	4690	0,225	1,95	55	58
SMART ECM 2000 P	3440	21,12	2010	18,70	4990	19,13	2150	0,300	2,60	56	73
SMART ECM 2500 P	4300	27,53	3960	23,33	4010	24,95	4230	0,375	3,25	57	79
SMART ECM 3000 P	5160	40,00	6860	29,05	7050	30,54	5920	0,450	3,90	58	91
SMART G 1000 P	2250	11,04	1230	10,42	6190	10,56	1790	0,642	2,85	55	44
SMART G 1500 P	3000	16,02	940	15,47	8020	16,37	5670	0,856	3,80	56	64
SMART G 2000 P	4500	24,92	2700	22,29	6810	23,15	3030	1,284	5,70	57	83
SMART G 2500 P	5250	31,16	4930	26,61	5060	28,76	5450	1,498	6,65	58	87
SMART G 3000 P	6000	37,35	8110	32,10	8410	34,03	7180	1,712	7,60	59	99
SMART ECG 1000 P	2550	11,89	1400	11,27	7110	11,50	2090	0,225	1,95	59	44
SMART ECG 1500 P	3400	17,29	1070	16,77	9240	17,86	6620	0,300	2,60	60	64
SMART ECG 2000 P	5100	26,86	3080	24,14	7850	25,24	3530	0,450	3,90	61	83
SMART ECG 2500 P	5950	33,63	5650	28,84	5840	31,38	6360	0,525	4,55	62	87
SMART ECG 3000 P	6800	40,34	9290	34,81	9710	37,16	8400	0,600	5,20	63	99

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



**Dimensions**



	L	A	B
Smart 1000	1034	920	-
Smart 1500	1534	1420	710
Smart 2000	2034	1920	960
Smart 2500	2534	2420	1210
Smart 3000	3034	2920	1460

**Finishes and Details**





**Characteristics**



- Decorative air curtain in contemporary architectural style. Its minimalist and smart design integrates in any environment and we offer the option to customize, meeting our clients need.
- Can include personalized logos, signs or graphic designs. It can even incorporate clocks, lighting, etc.
- Front panels are anodized aluminium. Options for stainless steel and gloss, matt or brushed paint finishes. Other materials are possible, as wood, metal, etc.
- Central structure made of steel finished in black forge as standard. Other colours available on request.
- Centrifugal double-inlet fans with external rotor motors, with built-in thermal protection contact, provided with 5-speed selection. Very low noise level.
- "P" type with water heated coil. "E" type with electrical shielded elements, 3 stages with power switches. "A" type without heating (only air). Optional expansion DX coil.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable each side.
- Included: Plug&Play control, infrared remote IR, 7m telephone cable. Optional Clever control: 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 (5 m) dB(A)	Weight kg
ZEN M 1000 A	1980	0,318	1,41	55	32
ZEN M 1500 A	2640	0,424	1,88	56	46
ZEN M 2000 A	3960	0,636	2,82	57	62
ZEN M 2500 A	4620	0,742	3,29	58	75
ZEN G 1000 A	2400	0,642	2,85	57	36
ZEN G 1500 A	3200	0,856	3,80	58	50
ZEN G 2000 A	4800	1,284	5,70	59	69
ZEN G 2500 A	5600	1,498	6,65	60	83
ZEN ECG 1000 A	2700	0,225	1,95	61	36
ZEN ECG 1500 A	3600	0,300	2,60	62	50
ZEN ECG 2000 A	5400	0,450	3,90	63	69
ZEN ECG 2500 A	6300	0,525	4,55	64	83

**ELECTRICAL HEATED**

Model	Airflow m³/h	Electrical Heating Capacity 400Vx3-50Hz kW	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
ZEN M 1000 E	1980	3/6/9	0,318	1,41	55	40
ZEN M 1500 E	2640	4/8/12	0,424	1,88	56	58
ZEN M 2000 E	3960	6/12/18	0,636	2,82	57	77
ZEN M 2500 E	4620	6/12/18	0,742	3,29	58	94
ZEN G 1000 E	2400	5/10/15	0,642	2,85	57	43
ZEN G 1500 E	3200	7,5/15/22,5	0,856	3,80	58	62
ZEN G 2000 E	4800	10/20/30	1,284	5,70	59	85
ZEN G 2500 E	5600	10/20/30	1,498	6,65	60	103
ZEN ECG 1000 E	2700	5/10/15	0,225	1,95	61	43
ZEN ECG 1500 E	3600	7,5/15/22,5	0,300	2,60	62	62
ZEN ECG 2000 E	5400	10/20/30	0,450	3,90	63	85
ZEN ECG 2500 E	6300	10/20/30	0,525	4,55	64	103

**WATER HEATED**

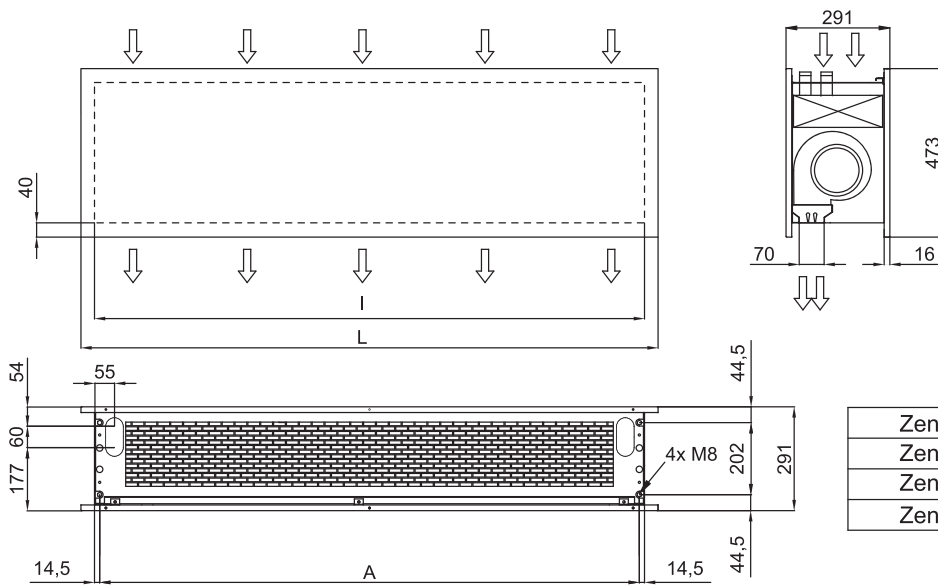
Model	Airflow m³/h	P86		P64		P54		Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
		Heating capacity 80/60°C kW	Water Drop Pressure 80/60°C Pa	Heating Capacity 60/40°C kW	Water Drop Pressure 60/40°C Pa	Heating Capacity 50/40°C kW	Water Drop Pressure 50/40°C Pa				
ZEN M 1000 P	1860	9,84	1000	9,22	4990	9,24	1420	0,318	1,41	55	37
ZEN M 1500 P	2480	14,23	760	13,65	6430	14,30	4460	0,424	1,88	56	53
ZEN M 2000 P	3720	22,17	2190	19,70	5470	20,24	2380	0,636	2,82	57	71
ZEN M 2500 P	4340	27,69	4000	23,48	4060	25,12	4280	0,742	3,29	58	86
ZEN G 1000 P	2250	11,04	1230	10,42	6190	10,56	1790	0,642	2,85	57	40
ZEN G 1500 P	3000	16,02	940	15,47	8020	16,37	5670	0,856	3,80	58	57
ZEN G 2000 P	4500	24,92	2700	22,29	6810	23,15	3030	1,284	5,70	59	78
ZEN G 2500 P	5250	31,16	4930	26,61	5060	28,76	5450	1,498	6,65	60	95
ZEN ECG 1000 P	2550	11,89	1400	11,27	7110	11,50	2090	0,225	1,95	61	40
ZEN ECG 1500 P	3400	17,29	1070	16,77	9240	17,86	6620	0,300	2,60	62	57
ZEN ECG 2000 P	5100	26,86	3080	24,14	7850	25,24	3530	0,450	3,90	63	78
ZEN ECG 2500 P	5950	33,63	5650	28,84	5840	31,38	6360	0,525	4,55	64	95

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.





**Dimensions**



	L	I	A
Zen 1000	1220	1140	1115
Zen 1500	1620	1544	1515
Zen 2000	2120	2044	2015
Zen 2500	2620	2544	2515

**Finishes**



**standard /  
Painted**

**floral**

**crocco/  
leather**

**screen**

**vintage**

**wood**

**logos /  
signage**

Examples of customised front panels, to meet customers needs



- 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.



**Characteristics**



- Decorative rounded air curtain for vertical or horizontal installation.
- Faceted self-supporting casing construction made of galvanized plated steel, finished in structural epoxy-polyester white RAL 9016 or silver grey RAL 9006 as standard. Other colours or stainless steel construction are available on request.
- Double-inlet centrifugal fans with external rotor motors, with built-in thermal protection contact, provided with 5-speed selection. Very low noise level.
- Perforated inlet grille with filter functions and easy service. It does not need prefilter.
- "P" type with water heated coil. "E" type with electrical shielded elements, 3 stages with power switches. "A" type without heating (only air). Optional expansion DX coil.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- Included: Plug&Play control, infrared remote IR, 7m telephone cable. Optional Clever control: Automatic, intelligent, energy saving, Modbus RTU for BMS...

**Specifications**

AIR ONLY					
Model	Airflow m <sup>3</sup> /h	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
RUND M 1000 A	1980	0,318	1,41	55	42
RUND M 1500 A	2640	0,424	1,88	56	63
RUND M 2000 A	3960	0,636	2,82	57	79
RUND M 2500 A	4620	0,742	3,29	58	88
RUND M 3000 A	5280	0,848	3,76	59	99
RUND G 1000 A	2400	0,642	2,85	57	46
RUND G 1500 A	3200	0,856	3,80	58	68
RUND G 2000 A	4800	1,284	5,70	59	89
RUND G 2500 A	5600	1,498	6,65	60	98
RUND G 3000 A	6400	1,712	7,60	61	108
RUND ECG 1000 A	2700	0,225	1,95	61	46
RUND ECG 1500 A	3600	0,300	2,60	62	68
RUND ECG 2000 A	5400	0,450	3,90	63	89
RUND ECG 2500 A	6300	0,525	4,55	64	98
RUND ECG 3000 A	7200	0,600	5,20	65	108

ELECTRICAL HEATED						
Model	Airflow m <sup>3</sup> /h	Electrical Heating Capacity 400Vx3-50Hz kW	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
RUND M 1000 E	1980	3/6/9	0,318	1,41	55	49
RUND M 1500 E	2640	4/8/12	0,424	1,88	56	75
RUND M 2000 E	3960	6/12/18	0,636	2,82	57	97
RUND M 2500 E	4620	6/12/18	0,742	3,29	58	108
RUND M 3000 E	5280	8/16/24	0,848	3,76	59	119
RUND G 1000 E	2400	5/10/15	0,642	2,85	57	54
RUND G 1500 E	3200	7,5/15/22,5	0,856	3,80	58	81
RUND G 2000 E	4800	10/20/30	1,284	5,70	59	107
RUND G 2500 E	5600	10/20/30	1,498	6,65	60	118
RUND G 3000 E	6400	10/20/30	1,712	7,60	61	128
RUND ECG 1000 E	2700	5/10/15	0,225	1,95	61	54
RUND ECG 1500 E	3600	7,5/15/22,5	0,300	2,60	62	81
RUND ECG 2000 E	5400	10/20/30	0,450	3,90	63	107
RUND ECG 2500 E	6300	10/20/30	0,525	4,55	64	118
RUND ECG 3000 E	7200	10/20/30	0,600	5,20	65	128

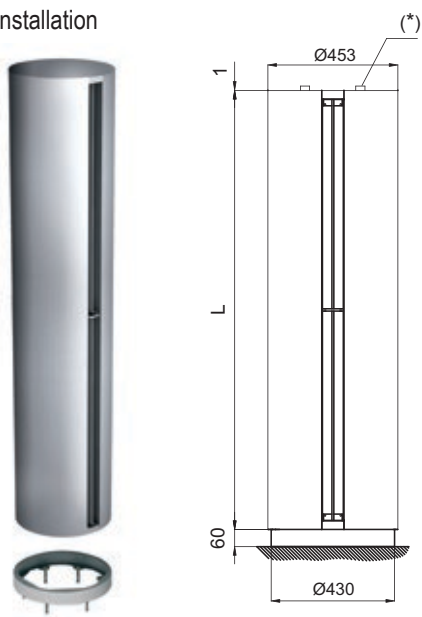
WATER HEATED											
Model	Airflow m <sup>3</sup> /h	P86		P64		P54		Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
		Heating capacity 80/60°C kW	Water Drop Pressure 80/60°C Pa	Heating Capacity 60/40°C kW	Water Drop Pressure 60/40°C Pa	Heating Capacity 50/40°C kW	Water Drop Pressure 50/40°C Pa				
RUND M 1000 P	1860	9,84	1000	9,22	4990	9,24	1420	0,318	1,41	55	47
RUND M 1500 P	2480	14,23	760	13,65	6430	14,30	4460	0,424	1,88	56	71
RUND M 2000 P	3720	22,17	2190	19,70	5470	20,24	2380	0,636	2,82	57	90
RUND M 2500 P	4340	27,69	4000	23,48	4060	25,12	4280	0,742	3,29	58	101
RUND M 3000 P	4960	33,15	6560	28,29	6730	29,67	5630	0,848	3,76	59	112
RUND G 1000 P	2250	11,04	1230	10,42	6190	10,56	1790	0,642	2,85	57	52
RUND G 1500 P	3000	16,02	940	15,47	8020	16,37	5670	0,856	3,80	58	77
RUND G 2000 P	4500	24,92	2700	22,29	6810	23,15	3030	1,284	5,70	59	100
RUND G 2500 P	5250	31,16	4930	26,61	5060	28,76	5450	1,498	6,65	60	109
RUND G 3000 P	6000	37,35	8110	32,10	8410	34,03	7180	1,712	7,60	61	119
RUND ECG 1000 P	2550	11,89	1400	11,27	7110	11,50	2090	0,225	1,95	61	52
RUND ECG 1500 P	3400	17,29	1070	16,77	9240	17,86	6620	0,300	2,60	62	77
RUND ECG 2000 P	5100	26,86	3080	24,14	7850	25,24	3530	0,450	3,90	63	100
RUND ECG 2500 P	5950	33,63	5650	28,84	5840	31,38	6360	0,525	4,55	64	109
RUND ECG 3000 P	6800	40,34	9290	34,81	9710	37,16	8400	0,600	5,20	65	119

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

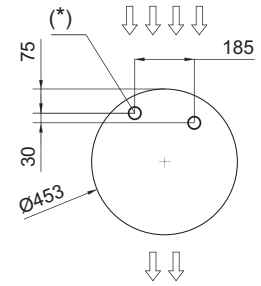
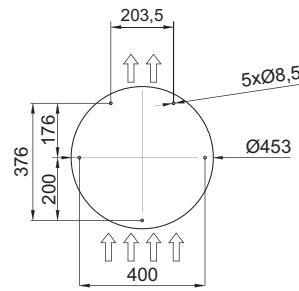


Layouts and dimensions

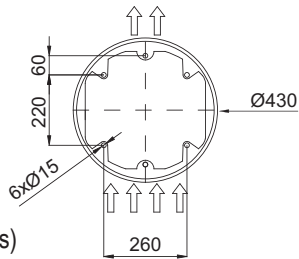
Vertical installation



Floor fixing points without foot



Floor fixing points with foot



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

(\*) IN/OUT Water pipes connection (in water heated units)

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)



**Characteristics**



- Structure made of aluminium profiles and galvanized plated steel panels, finished in structural epoxy-polyester white RAL 9016 or silver grey RAL 9006 as standard. Other colours are available on request.
- Double-inlet centrifugal fans driven by an external rotor motor with built-in thermal protection contact. Provided with 5-speed selection. Very low noise level.
- Micro-perforated inlet grille with filter functions and easy service. It does not need prefilter.
- “P” type with water heated coil. “E” type with electrical shielded elements, 3 stages with power switches. “A” type without heating (only air). Optional expansion DX coil.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- Included: Plug&Play control, infrared remote IR, 7m telephone cable. Optional Clever control: 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 (5 m) dB(A)	Weight kg
DM 1000 A	1800	0,212	0,94	55	51
DM 1500 A	2700	0,318	1,41	56	75
DM 2000 A	3600	0,424	1,88	57	96
DM 2500 A	4500	0,530	2,35	58	108
DECM 1000 A	1840	0,150	1,30	56	51
DECM 1500 A	2760	0,225	1,95	57	75
DECM 2000 A	3680	0,300	2,60	58	96
DECM 2500 A	4600	0,375	3,25	59	108
DG 1000 A	2400	0,642	2,85	57	55
DG 1500 A	3200	0,856	3,80	58	80
DG 2000 A	4800	1,284	5,70	59	106
DG 2500 A	5600	1,498	6,65	60	118
DECG 1000 A	2700	0,225	1,95	61	55
DECG 1500 A	3600	0,300	2,60	62	80
DECG 2000 A	5400	0,450	3,90	63	106
DECG 2500 A	6300	0,525	4,55	64	118

ELECTRICAL HEATED						
Model	Airflow m³/h	Electrical Heating Capacity 400Vx3-50Hz kW	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
DM 1000 E	1800	3/6/9	0,212	0,94	55	58
DM 1500 E	2700	4/8/12	0,318	1,41	56	87
DM 2000 E	3600	6/12/18	0,424	1,88	57	114
DM 2500 E	4500	6/12/18	0,530	2,35	58	128
DECM 1000 E	1840	3/6/9	0,150	1,30	56	58
DECM 1500 E	2760	4/8/12	0,225	1,95	57	87
DECM 2000 E	3680	6/12/18	0,300	2,60	58	114
DECM 2500 E	4600	6/12/18	0,375	3,25	59	128
DG 1000 E	2400	5/10/15	0,642	2,85	57	63
DG 1500 E	3200	7,5/15/22,5	0,856	3,80	58	93
DG 2000 E	4800	10/20/30	1,284	5,70	59	124
DG 2500 E	5600	10/20/30	1,498	6,65	60	138
DECG 1000 E	2700	5/10/15	0,225	1,95	61	63
DECG 1500 E	3600	7,5/15/22,5	0,300	2,60	62	93
DECG 2000 E	5400	10/20/30	0,450	3,90	63	124
DECG 2500 E	6300	10/20/30	0,525	4,55	64	138

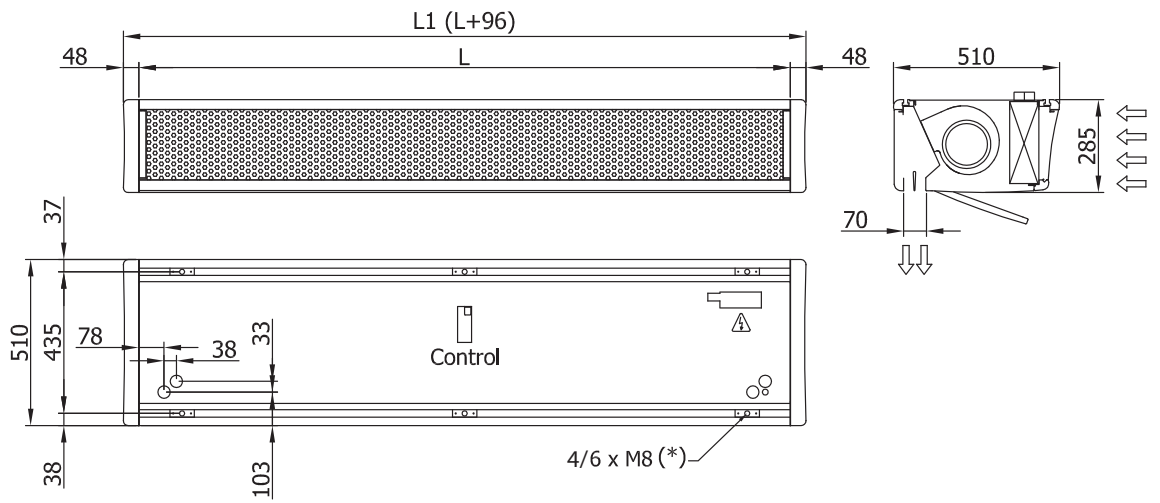
WATER HEATED											
Model	Airflow m³/h	P86		P64		P54		Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
		Heating capacity 80/60°C kW	Water Drop Pressure 80/60°C Pa	Heating Capacity 60/40°C kW	Water Drop Pressure 60/40°C Pa	Heating Capacity 50/40°C kW	Water Drop Pressure 50/40°C Pa				
DM 1000 P	1660	9,17	880	8,56	4370	8,52	1220	0,428	1,90	56	56
DM 1500 P	2490	14,26	760	13,69	6460	14,34	4480	0,642	2,85	57	83
DM 2000 P	3320	20,65	1930	18,26	4790	18,65	2060	0,856	3,80	58	107
DM 2500 P	4150	26,92	3810	22,12	3850	24,32	4040	1,070	4,75	59	121
DECM 1000 P	1720	9,38	920	8,77	4560	8,74	1280	0,150	1,30	56	56
DECM 1500 P	2580	14,58	790	14,02	6730	14,71	4690	0,225	1,95	57	83
DECM 2000 P	3440	21,12	2010	18,70	4990	19,13	2150	0,300	2,60	58	107
DECM 2500 P	4300	27,53	3960	23,33	4010	24,95	4230	0,375	3,25	59	121
DG 1000 P	2250	11,04	1230	10,42	6190	10,56	1790	0,642	2,85	57	61
DG 1500 P	3000	16,02	940	15,47	8020	16,37	5670	0,856	3,80	58	89
DG 2000 P	4500	24,92	2700	22,29	6810	23,15	3030	1,284	5,70	59	117
DG 2500 P	5250	31,16	4930	26,61	5060	28,76	5450	1,498	6,65	60	129
DECG 1000 P	2550	11,89	1400	11,27	7110	11,50	2090	0,225	1,95	61	61
DECG 1500 P	3400	17,29	1070	16,77	9240	17,86	6620	0,300	2,60	62	89
DECG 2000 P	5100	26,86	3080	24,14	7850	25,24	3530	0,450	3,90	63	117
DECG 2500 P	5950	33,63	5650	28,84	5840	31,38	6360	0,525	4,55	64	129

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





**Dimensions**

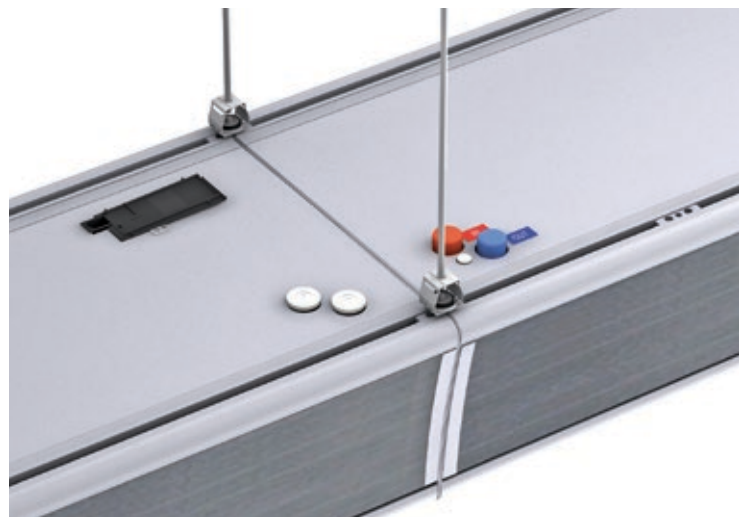


	L	L1
Deco 1000	1000	1096
Deco 1500	1500	1596
Deco 2000	2000	2096
Deco 2500	2500	2596

**Details**



Different colour finishes



Joining two units



(\*) Adjustable fixing points through guide rail





**Characteristics**



- Self-supporting casing construction made of galvanized plated steel, finished in structural white RAL 9016 as standard. Other colours or stainless steel construction are available on request.
- The inlet areas are located behind the front panel. They do not need maintenance.
- Front panel with option to customize and the possibility of including personalized logos, signs, graphic designs, images, etc.
- Double-inlet centrifugal fans driven by an external rotor motor with built-in thermal protection contact provided with 5-speed selection. Very low noise level.
- “P” type with water heated coil. “E” type with electrical shielded elements, 3 stages with power switches. “A” type without heating (only air). Optional expansion DX coil.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- Included: Plug&Play control, infrared remote IR, 7m telephone cable. Optional Clever control: 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 (5 m) dB(A)	Weight kg
DAM M 1000 A	1800	0,212	0,94	55	38
DAM M 1500 A	2700	0,318	1,41	56	56
DAM M 2000 A	3600	0,424	1,88	57	70
DAM M 2500 A	4500	0,530	2,35	58	76
DAM M 3000 A	5400	0,636	2,82	59	88
DAM ECM 1000 A	1840	0,150	1,30	56	38
DAM ECM 1500 A	2760	0,225	1,95	57	56
DAM ECM 2000 A	3680	0,300	2,60	58	70
DAM ECM 2500 A	4600	0,375	3,25	59	76
DAM ECM 3000 A	5520	0,450	3,90	60	88
DAM G 1000 A	2400	0,642	2,85	57	42
DAM G 1500 A	3200	0,856	3,80	58	61
DAM G 2000 A	4800	1,284	5,70	59	80
DAM G 2500 A	5600	1,498	6,65	60	86
DAM G 3000 A	6400	1,712	7,60	61	98
DAM ECG 1000 A	2700	0,225	1,95	61	42
DAM ECG 1500 A	3600	0,300	2,60	62	61
DAM ECG 2000 A	5400	0,450	3,90	63	80
DAM ECG 2500 A	6300	0,525	4,55	64	86
DAM ECG 3000 A	7200	0,600	5,20	65	98

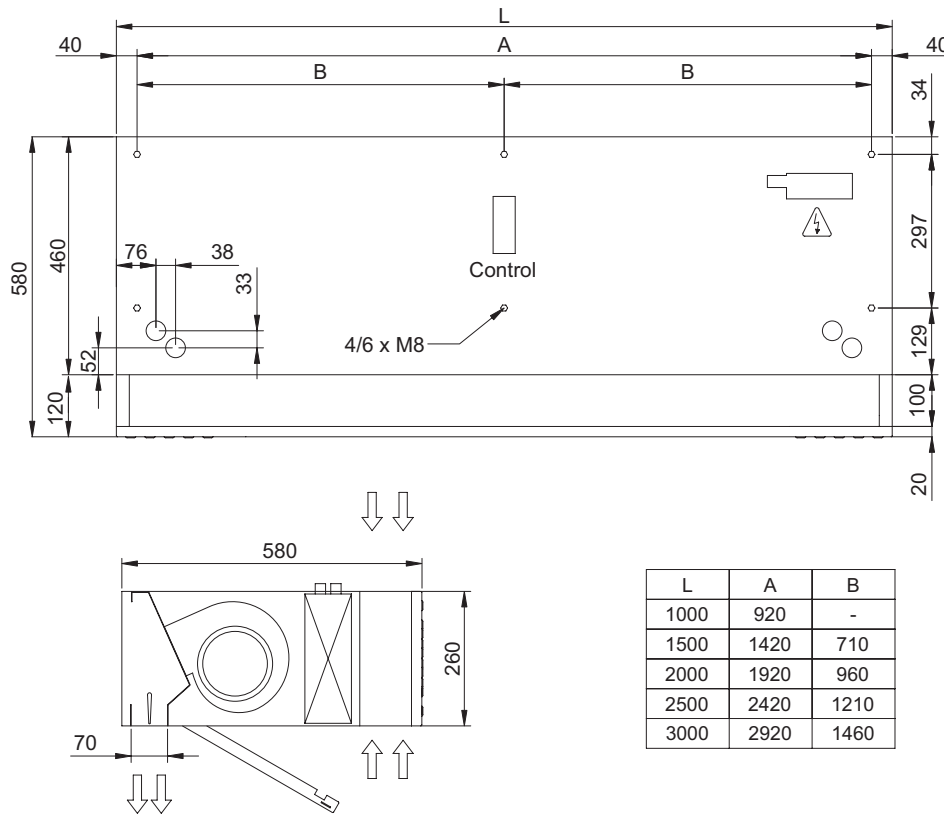
ELECTRICAL HEATED						
Model	Airflow m³/h	Electrical Heating Capacity 400Vx3-50Hz kW	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
DAM M 1000 E	1800	3/6/9	0,212	0,94	55	45
DAM M 1500 E	2700	4/8/12	0,318	1,41	56	68
DAM M 2000 E	3600	6/12/18	0,424	1,88	57	88
DAM M 2500 E	4500	6/12/18	0,530	2,35	58	96
DAM M 3000 E	5400	8/16/24	0,636	2,82	59	111
DAM ECM 1000 E	1840	3/6/9	0,150	1,30	56	45
DAM ECM 1500 E	2760	4/8/12	0,225	1,95	57	68
DAM ECM 2000 E	3680	6/12/18	0,300	2,60	58	88
DAM ECM 2500 E	4600	6/12/18	0,375	3,25	59	96
DAM ECM 3000 E	5520	8/16/24	0,450	3,90	60	111
DAM G 1000 E	2400	5/10/15	0,642	2,85	57	50
DAM G 1500 E	3200	7,5/15/22,5	0,856	3,80	58	74
DAM G 2000 E	4800	10/20/30	1,284	5,70	59	98
DAM G 2500 E	5600	10/20/30	1,498	6,65	60	106
DAM G 3000 E	6400	10/20/30	1,712	7,60	61	121
DAM ECG 1000 E	2700	5/10/15	0,225	1,95	61	50
DAM ECG 1500 E	3600	7,5/15/22,5	0,300	2,60	62	74
DAM ECG 2000 E	5400	10/20/30	0,450	3,90	63	98
DAM ECG 2500 E	6300	10/20/30	0,525	4,55	64	106
DAM ECG 3000 E	7200	10/20/30	0,600	5,20	65	121

WATER HEATED											
Model	Airflow m³/h	P86		P64		P54		Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) 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				
DAM M 1000 P	1660	9,17	880	8,56	4370	8,52	1220	0,428	1,90	56	43
DAM M 1500 P	2490	14,26	760	13,69	6460	14,34	4480	0,642	2,85	57	64
DAM M 2000 P	3320	20,65	1930	18,26	4790	18,65	2060	0,856	3,80	58	81
DAM M 2500 P	4150	26,92	3810	22,12	3850	24,32	4040	1,070	4,75	59	89
DAM M 3000 P	4980	33,24	6590	28,37	6760	29,77	5660	1,280	5,70	60	103
DAM ECM 1000 P	1720	9,38	920	8,77	4560	8,74	1280	0,150	1,30	56	43
DAM ECM 1500 P	2580	14,58	790	14,02	6730	14,71	4690	0,225	1,95	57	64
DAM ECM 2000 P	3440	21,12	2010	18,70	4990	19,13	2150	0,300	2,60	58	81
DAM ECM 2500 P	4300	27,53	3960	23,33	4010	24,95	4230	0,375	3,25	59	89
DAM ECM 3000 P	5160	40,00	6860	29,05	7050	30,54	5920	0,450	3,90	60	103
DAM G 1000 P	2250	11,04	1230	10,42	6190	10,56	1790	0,642	2,85	57	48
DAM G 1500 P	3000	16,02	940	15,47	8020	16,37	5670	0,856	3,80	58	70
DAM G 2000 P	4500	24,92	2700	22,29	6810	23,15	3030	1,284	5,70	59	91
DAM G 2500 P	5250	31,16	4930	26,61	5060	28,76	5450	1,498	6,65	60	97
DAM G 3000 P	6000	37,35	8110	32,10	8410	34,03	7180	1,712	7,60	61	111
DAM ECG 1000 P	2550	11,89	1400	11,27	7110	11,50	2090	0,225	1,95	61	48
DAM ECG 1500 P	3400	17,29	1070	16,77	9240	17,86	6620	0,300	2,60	62	70
DAM ECG 2000 P	5100	26,86	3080	24,14	7850	25,24	3530	0,450	3,90	63	91
DAM ECG 2500 P	5950	33,63	5650	28,84	5840	31,38	6360	0,525	4,55	64	97
DAM ECG 3000 P	6800	40,34	9290	34,81	9710	37,16	8400	0,600	5,20	65	111

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.



**Dimensions**



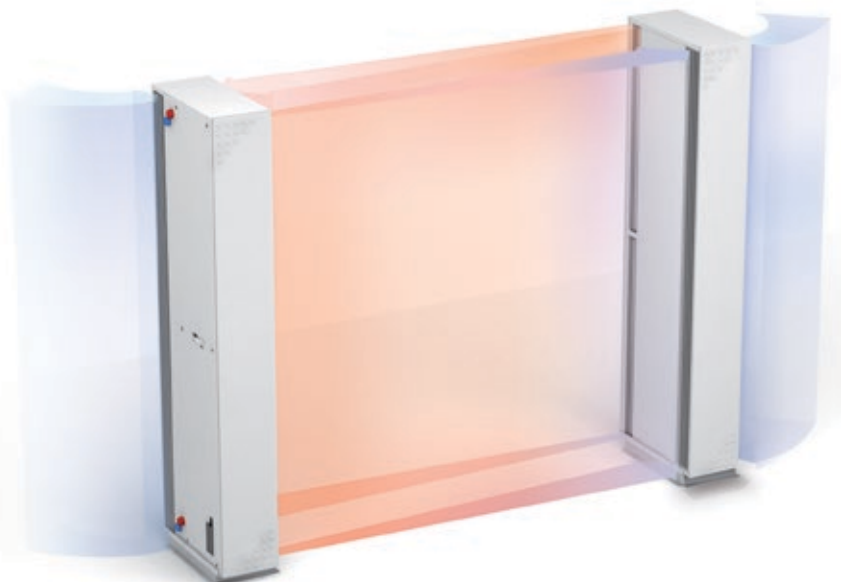
**Dam Twin System**

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.





## Characteristics



- Compact and low profile recessed air curtain with full grille view.
- Self-supporting casing construction made of galvanized plated steel, 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.
- Double inlet centrifugal fans driven by an external rotor motor with built-in thermal protection contact provided with 5-speed selection. Very low noise level.
- “P” type with water heated coil. “E” type with electrical shielded elements, 3 stages with power switches. “A” type without heating (only air). Optional expansion DX coil.
- Included: Plug&Play control, infrared remote IR, 7m telephone cable. Optional Clever control: Automatic, intelligent, energy saving, Modbus RTU for BMS...

## Specifications

AIR ONLY					
Model	Airflow m <sup>3</sup> /h	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
RDAM M 1000 A	1800	0,212	0,94	55	45
RDAM M 1500 A	2700	0,318	1,41	56	66
RDAM M 2000 A	3600	0,424	1,88	57	84
RDAM M 2500 A	4500	0,530	2,35	58	93
RDAM ECM 1000 A	1840	0,150	1,30	56	45
RDAM ECM 1500 A	2760	0,225	1,95	57	66
RDAM ECM 2000 A	3680	0,300	2,60	58	84
RDAM ECM 2500 A	4600	0,375	3,25	59	93
RDAM G 1000 A	2400	0,642	2,85	57	49
RDAM G 1500 A	3200	0,856	3,80	58	71
RDAM G 2000 A	4800	1,284	5,70	59	94
RDAM G 2500 A	5600	1,498	6,65	60	103
RDAM ECG 1000 A	2700	0,225	1,95	61	49
RDAM ECG 1500 A	3600	0,300	2,60	62	71
RDAM ECG 2000 A	5400	0,450	3,90	63	94
RDAM ECG 2500 A	6300	0,525	4,55	64	103

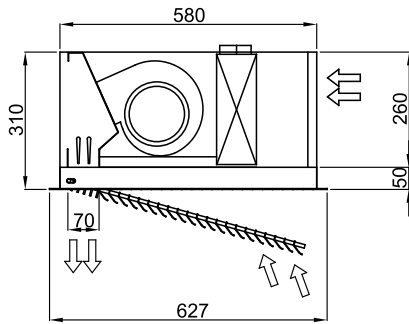
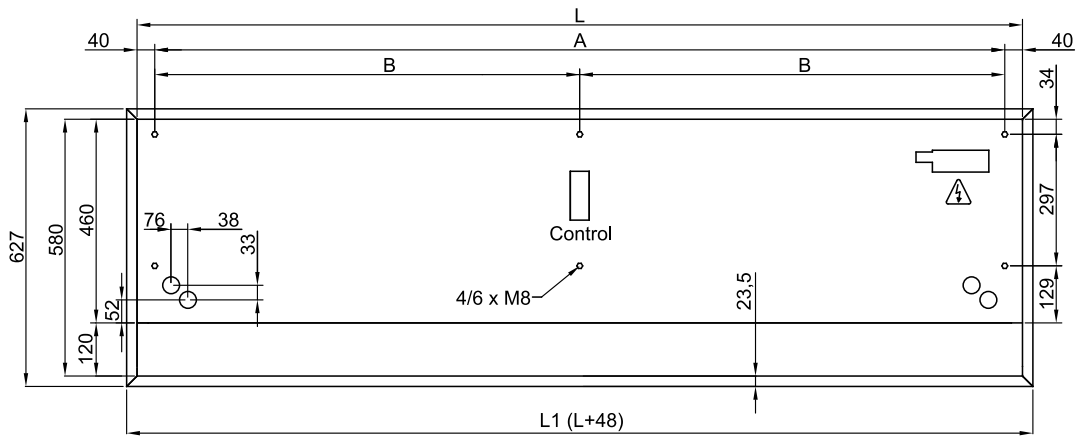
ELECTRICAL HEATED						
Model	Airflow m <sup>3</sup> /h	Electrical Heating Capacity 400Vx3-50Hz kW	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
RDAM M 1000 E	1800	3/6/9	0,212	0,94	55	52
RDAM M 1500 E	2700	4/8/12	0,318	1,41	56	78
RDAM M 2000 E	3600	6/12/18	0,424	1,88	57	102
RDAM M 2500 E	4500	6/12/18	0,530	2,35	58	113
RDAM ECM 1000 E	1840	3/6/9	0,150	1,30	56	52
RDAM ECM 1500 E	2760	4/8/12	0,225	1,95	57	78
RDAM ECM 2000 E	3680	6/12/18	0,300	2,60	58	102
RDAM ECM 2500 E	4600	6/12/18	0,375	3,25	59	113
RDAM G 1000 E	2400	5/10/15	0,642	2,85	57	57
RDAM G 1500 E	3200	7,5/15/22,5	0,856	3,80	58	84
RDAM G 2000 E	4800	10/20/30	1,284	5,70	59	112
RDAM G 2500 E	5600	10/20/30	1,498	6,65	60	123
RDAM ECG 1000 E	2700	5/10/15	0,225	1,95	61	57
RDAM ECG 1500 E	3600	7,5/15/22,5	0,300	2,60	62	84
RDAM ECG 2000 E	5400	10/20/30	0,450	3,90	63	112
RDAM ECG 2500 E	6300	10/20/30	0,525	4,55	64	123

WATER HEATED											
Model	Airflow m <sup>3</sup> /h	P86		P64		P54		Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) 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				
RDAM M 1000 P	1660	9,17	880	8,56	4370	8,52	1220	0,428	1,90	56	50
RDAM M 1500 P	2490	14,26	760	13,69	6460	14,34	4480	0,642	2,85	57	74
RDAM M 2000 P	3320	20,65	1930	18,26	4790	18,65	2060	0,856	3,80	58	95
RDAM M 2500 P	4150	26,92	3810	22,12	3850	24,32	4040	1,070	4,75	59	106
RDAM ECM 1000 P	1720	9,38	920	8,77	4560	8,74	1280	0,150	1,30	56	50
RDAM ECM 1500 P	2580	14,58	790	14,02	6730	14,71	4690	0,225	1,95	57	74
RDAM ECM 2000 P	3440	21,12	2010	18,70	4990	19,13	2150	0,300	2,60	58	95
RDAM ECM 2500 P	4300	27,53	3960	23,33	4010	24,95	4230	0,375	3,25	59	106
RDAM G 1000 P	2250	11,04	1230	10,42	6190	10,56	1790	0,642	2,85	57	55
RDAM G 1500 P	3000	16,02	940	15,47	8020	16,37	5670	0,856	3,80	58	80
RDAM G 2000 P	4500	24,92	2700	22,29	6810	23,15	3030	1,284	5,70	59	105
RDAM G 2500 P	5250	31,16	4930	26,61	5060	28,76	5450	1,498	6,65	60	114
RDAM ECG 1000 P	2550	11,89	1400	11,27	7110	11,50	2090	0,225	1,95	61	55
RDAM ECG 1500 P	3400	17,29	1070	16,77	9240	17,86	6620	0,300	2,60	62	80
RDAM ECG 2000 P	5100	26,86	3080	24,14	7850	25,24	3530	0,450	3,90	63	105
RDAM ECG 2500 P	5950	33,63	5650	28,84	5840	31,38	6360	0,525	4,55	64	114

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.



**Dimensions**

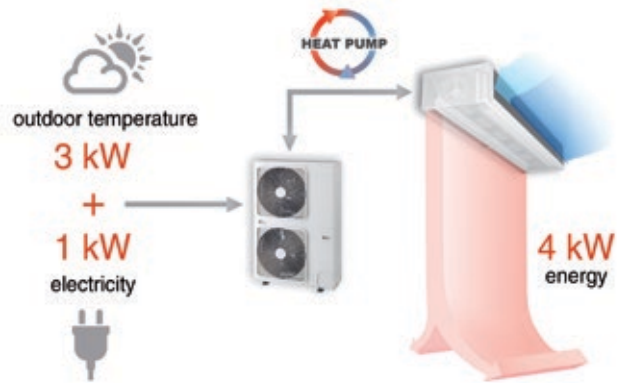


	L	L1	A	B
Recessed Dam 1000	1000	1048	920	-
Recessed Dam 1500	1500	1548	1420	710
Recessed Dam 2000	2000	2048	1920	960
Recessed Dam 2500	2500	2548	2420	1210



## Heat Pump Technology

Heat pump is a device that uses a small amount of energy to move heat from one location to another. This system is extremely efficient because it simply transfers heat, rather than burn fuel to create it. It consists of a closed circuit through which a special fluid (refrigerant) flows. This fluid takes on a liquid or gaseous state according to temperature and pressure conditions. The circuit is composed by: compressor, condenser, expansion valve and evaporator.



## Advantages and Benefits

The new Airtecnic Heat Pump Air curtains are absolutely efficient reducing the heating cost and CO<sub>2</sub> emissions up to 70%.

- Very high energy efficiency ratings to save big amounts of money on your energy bill
- Short Payback Period thanks to very high level of energy saving
- Heating and cooling included in the same system (reverse cycle)
- Environmentally Friendly as uses such low amounts of energy

Available Airtecnic Heat Pump Air Curtains:

- Heating/Cooling: Windbox MGLXL, Dam, Recessed Windbox, Wec, Rec, Variwind VW and Duojet.
- Only Heating: Deco, Rund, Zen, Rotowind, Variwind VP and Invisair.

## Heat Pump vs Electrical Air Curtain - Energy Saving Example

How much money can I save using a Heat Pump Air curtain?

Example:

Door dimension: 2 m width by 3 m height

Running time: 12 hours/day, 6 days/week,  
26 weeks (~ 1/2 year)

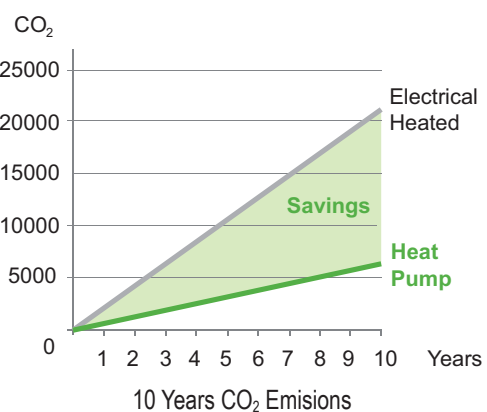
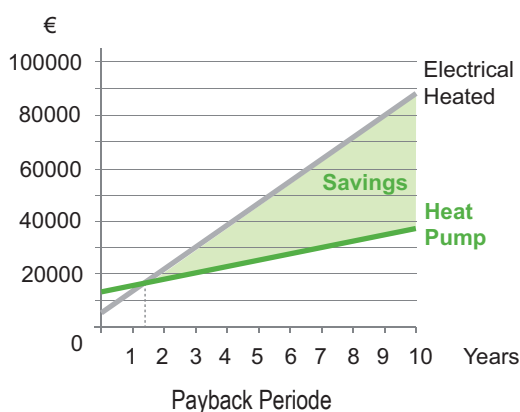
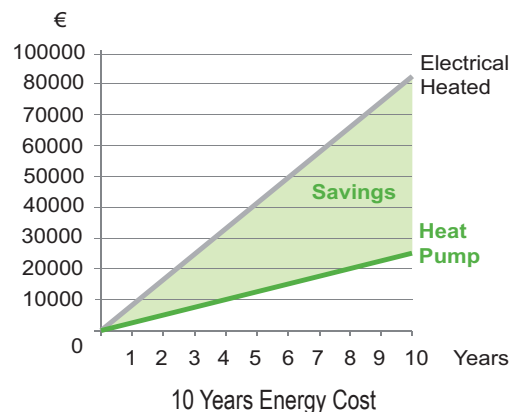
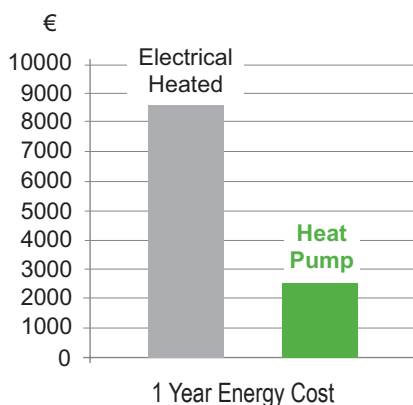
Energy cost: 0,17 €/kW/h (EU-27 average cost)

Selected unit: G 2000, 27kW

COP: 3,31 (Coefficient of Performance)

	Electrical Air Curtain		Heat Pump Air Curtain		Difference
Total Heating Power	27	kW	27	kW	0 kW
Air Curtain Price	3.828	€/unit	11.761	€/unit	+ 7.933 €
Energy Consumption	50.544	kW/h	15.270	kW/h	- 35.274 kW/h
Energy Cost	8.592	€	2.596	€	- 5.996 €
CO <sub>2</sub> Emissions	20.218	kg	6.108	kg	- 14.110 kg

Result: The payback periode is 1,32 years. We recover the price increase of Heat Pump air curtain in nearly 16 months and then we start saving money. From the beginning we save energy and reduce CO<sub>2</sub> emissions to the environment.







## Characteristics



- Energy saving heat pump air curtains: up to 70% reduction in costs and CO<sub>2</sub> emissions (in heat/cool mode).
- Self-supporting casing construction made of galvanized plated steel, finished in structural epoxy-polyester RAL 9016 as standard. Other colours or stainless steel construction are available on request.
- Double-inlet centrifugal fans driven by an external rotor EC motor with built-in thermal protection contact. Provided with 5-speed selection. Very low noise level.
- Micro-perforated inlet grille with filter functions and easy service. It does not need prefilter.
- Low turbulence discharge nozzle with double blow-out vane, airfoil shaped, adjustable from 0 to 15° each side.
- Includes direct expansion coil with sensors. Optional condensate water pump.
- Plug&Play control panel, infrared remote IR and 7m telephone cable included.
- DX Interface KIT with TOSHIBA programmable control.
- TOSHIBA Digital Inverter outdoor heat pump unit (R410A) with expansion valve.

## Specifications

Model (*)	Airflow m <sup>3</sup> /h	Outdoor unit		Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
		Power Supply 230Vx1	Power Supply 400Vx3				
M 1500 DX11-TO	2160	RAV-SM1104ATP-E	RAV-SP1104AT8-E	0,642	2,85	57	53
M 2000 DX16-TO	2880	RAV-SM1603AT-E	RAV-SP1604AT8-E	0,856	3,80	58	69
M 2500 DX22-TO	3600	-	RAV-SM2244AT8-E	1,070	4,75	59	86
M 3000 DX27-TO	4320	-	RAV-SM2804AT8-E	1,280	5,70	60	103
ECM 1000 DX8-TO	1640	RAV-SM804ATP-E	-	0,150	1,30	56	35
ECM 1500 DX11-TO	2460	RAV-SM1104ATP-E	RAV-SP1104AT8-E	0,225	1,95	57	53
ECM 2000 DX16-TO	3280	RAV-SM1603AT-E	RAV-SP1604AT8-E	0,300	2,60	58	69
ECM 2500 DX22-TO	4100	-	RAV-SM2244AT8-E	0,375	3,25	59	86
ECM 3000 DX27-TO	4920	-	RAV-SM2804AT8-E	0,450	3,90	60	103
G 1000 DX11-TO	2100	RAV-SM1104ATP-E	RAV-SP1104AT8-E	0,642	2,85	57	50
G 1500 DX16-TO	2800	RAV-SM1603AT-E	RAV-SP1604AT8-E	0,856	3,80	58	59
G 2000 DX22-TO	4200	-	RAV-SM2244AT8-E	1,284	5,70	59	92
G 2000 DX27-TO	4200	-	RAV-SM2804AT8-E	1,284	5,70	59	92
G 2500 DX27-TO	4900	-	RAV-SM2804AT8-E	1,498	6,65	60	96
G 3000 DX27-TO	5600	-	RAV-SM2804AT8-E	1,712	7,60	61	99
G 3000 DX32/2-TO	5600	2x RAV-SM1603AT-E	2x RAV-SP1604AT8-E	1,712	7,60	61	109
ECG 1000 DX11-TO	2190	RAV-SM1104ATP-E	RAV-SP1104AT8-E	0,225	1,95	61	50
ECG 1500 DX16-TO	2920	RAV-SM1603AT-E	RAV-SP1604AT8-E	0,300	2,60	62	59
ECG 2000 DX22-TO	4380	-	RAV-SM2244AT8-E	0,450	3,90	63	92
ECG 2000 DX27-TO	4380	-	RAV-SM2804AT8-E	0,450	3,90	63	92
ECG 2500 DX27-TO	5110	-	RAV-SM2804AT8-E	0,525	4,55	64	96
ECG 3000 DX27-TO	5840	-	RAV-SM2804AT8-E	0,600	5,20	65	109
ECG 3000 DX32/2-TO	5840	2x RAV-SM1603AT-E	2x RAV-SP1604AT8-E	0,600	5,20	65	109

(\*) DX is also applicable to the models: Recessed Windbox MG, DAM, WEC, REC, DECO, VARIWIND, RUND, ZEN, ROTOWIND, INVISAIR.

/2 Coil with double circuit and two outdoor units (eg. DX32/2 is composed by two units of 16kW, DX38/2 composed by 1x 22kW + 1x 16kW)

(\*\*) Air curtains supply is always 230Vx1

TOSHIBA Digital Inverter Outdoor Units	Heating Capacity kW	Heating Power kW	SCOP COP (**) W/W	Cooling Capacity kW	Cooling Power kW	SEER EER (*) W/W	Power Supply	Pipes		Pipes Minimum Length m	Pipes Maximum Length m	Pipes Maximum Height m
								Gas	Liquid			
RAV-SM804ATP-E	8,0	2,21	4,02	6,7	2,09	5,63	230Vx1	5/8	3/8	5	30	30
RAV-SM1104ATP-E	11,2	2,93	3,54	10,0	3,11	5,58	230Vx1	5/8	3/8	5	50	30
RAV-SP1104AT8-E	11,2	2,42	4,28	10,0	2,37	6,57	400Vx3	5/8	3/8	3	75	30
RAV-SM1603AT-E	16,0	4,43	3,61	14,0	4,49	3,12	230Vx1	5/8	3/8	5	50	30
RAV-SP1604AT8-E	16,0	4,30	3,72	14,0	4,49	3,12	400Vx3	5/8	3/8	3	75	30
RAV-SM2244AT8-E	22,4	6,49	3,45	20,0	7,20	2,78	400Vx3	1"1/8	1/2"	7,5	70	30
RAV-SM2804AT8-E	27,0	8,15	3,31	23,0	8,75	2,63	400Vx3	1"1/8	1/2"	7,5	70	30

(\*) Energy efficiency: SCOP and SEER seasonal ratio under 12kW and COP and EER over 12kW



## Characteristics



- Energy saving heat pump air curtains: up to 70% reduction in costs and CO<sub>2</sub> emissions (in heat/cool mode).
- Self-supporting casing construction made of galvanized plated steel, finished in structural epoxy-polyester RAL 9016 as standard. Other colours or stainless steel construction are available on request.
- Double-inlet centrifugal fans driven by an external rotor EC motor with built-in thermal protection contact. Provided with 5-speed selection. Very low noise level.
- Micro-perforated inlet grille with filter functions and easy service. It does not need prefilter.
- Low turbulence discharge nozzle with double blow-out vane, airfoil shaped, adjustable from 0 to 15° each side.
- Includes direct expansion coil with sensors. Optional condensate water pump.
- Plug&Play control panel, infrared remote IR and 7m telephone cable included.
- DX Interface KIT with MITSUBISHI programmable control.
- MITSUBISHI Digital Inverter outdoor heat pump unit (R410A) with expansion valve.

## Specifications

Model (*)	Airflow m <sup>3</sup> /h	Outdoor unit Power Supply		Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
		230Vx1	400Vx3				
M 1500 DX11-ME	2160	PUHZ-ZRP100VKA	PUHZ-ZRP100YKA	0,642	2,85	57	53
M 2000 DX14-ME	2880	PUHZ-ZRP125VKA	PUHZ-ZRP125YKA	0,856	3,80	58	69
M 2000 DX16-ME	2880	PUHZ-ZRP140VKA	PUHZ-ZRP140YKA	0,856	3,80	58	69
M 2500 DX22-ME	3600	-	PUHZ-ZRP200YKA	1,070	4,75	59	86
M 3000 DX27-ME	4320	-	PUHZ-ZRP250YKA	1,280	5,70	60	103
ECM 1000 DX8-ME	1640	PUHZ-ZRP71VHA	-	0,150	1,30	56	35
ECM 1500 DX11-ME	2460	PUHZ-ZRP100VKA	PUHZ-ZRP100YKA	0,225	1,95	57	53
ECM 1500 DX14-ME	2460	PUHZ-ZRP125VKA	PUHZ-ZRP125YKA	0,225	1,95	57	53
ECM 2000 DX16-ME	3280	PUHZ-ZRP140VKA	PUHZ-ZRP140YKA	0,300	2,60	58	69
ECM 2500 DX22-ME	4100	-	PUHZ-ZRP200YKA	0,375	3,25	59	86
ECM 3000 DX27-ME	4920	-	PUHZ-ZRP250YKA	0,450	3,90	60	103
G 1000 DX8-ME	2100	PUHZ-ZRP71VHA	-	0,642	2,85	57	50
G 1500 DX14-ME	2800	PUHZ-ZRP125VKA	PUHZ-ZRP125YKA	0,856	3,80	58	59
G 2000 DX22-ME	4200	-	PUHZ-ZRP200YKA	1,284	5,70	59	92
G 2500 DX27-ME	4900	-	PUHZ-ZRP250YKA	1,498	6,65	60	96
G 3000 DX27-ME	5600	-	PUHZ-ZRP250YKA	1,712	7,60	61	109
G 3000 DX32/2-ME	5600	2xPUHZ-ZRP140VKA	2xPUHZ-ZRP140YKA	1,712	7,60	61	109
ECG 1000 DX8-ME	2190	PUHZ-ZRP71VHA	-	0,225	1,95	61	50
ECG 1500 DX16-ME	2920	PUHZ-ZRP140VKA	PUHZ-ZRP140YKA	0,300	2,60	62	59
ECG 2000 DX22-ME	4380	-	PUHZ-ZRP200YKA	0,450	3,90	63	92
ECG 2500 DX27-ME	5110	-	PUHZ-ZRP250YKA	0,525	4,55	64	96
ECG 3000 DX27-ME	5840	-	PUHZ-ZRP250YKA	0,600	5,20	65	109
ECG 3000 DX32/2-ME	5840	2xPUHZ-ZRP140VKA	2xPUHZ-ZRP140YKA	0,600	5,20	65	109

(\*) DX is also applicable to the models: Recessed Windbox MG, DAM, WEC, REC, DECO, DUOJET, VARIWIND, RUND, ZEN, ROTOWIND, INVAIR.

/2 Coil with double circuit and two outdoor units (eg. DX32/2 is composed by two units of 16kW, DX38/2 composed by 1x 22kW + 1x 16kW)

(\*\*) Air curtains supply is always 230Vx1

MITSUBISHI Digital Inverter Outdoor Units	Heating Capacity kW	Heating Power kW	SCOP COP (**) W/W	Cooling Capacity kW	Cooling Power kW	SEER EER (*) W/W	Power Supply	Pipes		Pipes Minimum Lenght m	Pipes Maximum Lenght m	Pipes Maximum Height m
								Gas	Liquid			
PUHZ-ZRP71VHA	8	2,03	3,94	7,1	2,01	3,53	230Vx1	5/8	3/8	-	50	30
PUHZ-ZRP100VKA	11,2	2,06	4,31	10	2,63	3,80	230Vx1	5/8	3/8	-	75	30
PUHZ-ZRP100YKA	11,2	2,06	4,31	10	2,63	3,80	400Vx3	5/8	3/8	-	75	30
PUHZ-ZRP125VKA	14	3,63	3,86	12,5	4,05	3,09	230Vx1	5/8	3/8	-	75	30
PUHZ-ZRP125YKA	14	3,63	3,86	12,5	4,05	3,09	400Vx3	5/8	3/8	-	75	30
PUHZ-ZRP140VKA	16	4,20	3,81	13,4	4,36	3,07	230Vx1	5/8	3/8	-	75	30
PUHZ-ZRP140YKA	16	4,20	3,81	13,4	4,36	3,07	400Vx3	5/8	3/8	-	75	30
PUHZ-ZRP200YKA	22,4	6,94	3,68	19	6,46	2,94	400Vx3	1	3/8	-	100	30
PUHZ-ZRP250YKA	27	6,94	3,02	22	8,31	2,65	400Vx3	1	1/2	-	100	30

(\*) Energy efficiency: SCOP and SEER seasonal ratio under 12kW and COP and EER over 12kW



## Characteristics



HITACHI



- Energy saving heat pump air curtains: up to 70% reduction in costs and CO<sub>2</sub> emissions (in heat/cool mode).
- Self-supporting casing construction made of galvanized plated steel, finished in structural epoxy-polyester RAL 9016 as standard. Other colours or stainless steel construction are available on request.
- Double-inlet centrifugal fans driven by an external rotor EC motor with built-in thermal protection contact. Provided with 5-speed selection. Very low noise level.
- Micro-perforated inlet grille with filter functions of easy service. It does not need prefilter.
- Low turbulence discharge nozzle with double blow-out vane, airfoil shaped, adjustable from 0 to 15° each side.
- Includes direct expansion coil with sensors. Optional condensate water pump.
- Plug&Play control panel, infrared remote IR and 7m telephone cable included.
- HITACHI DX Interface KIT with expansion valve and programmable control.
- HITACHI Reversible DC Inverter outdoor heat pump unit (R410A).

## Specifications

Model (*)	Airflow m <sup>3</sup> /h	Outdoor unit	Outdoor unit	Power	Current	Noise Level (5 m) dB(A)	Weight kg
		Power Supply 230Vx1	Power Supply 400Vx3	Fans 230V-50Hz kW	Fans 230V-50Hz A		
M 1500 DX11-HI	2160	RAS-4H(V)NCE	RAS-4H(V)NCE	0,642	2,85	57	53
M 2500 DX22-HI	3600	-	RAS-8HNCE	1,070	4,75	59	86
ECM 1500 DX11-HI	2460	RAS-4H(V)NCE	RAS-4H(V)NCE	0,225	1,95	57	53
ECM 2500 DX22-HI	4100	-	RAS-8HNCE	0,375	3,25	59	86
ECM 3000 DX28-HI	4920	-	RAS-10HNCE	0,450	3,90	60	103
G 1000 DX8-HI	2100	RAS-3HVNC	-	0,642	2,85	57	50
G 1500 DX16-HI	2800	RAS-6H(V)NCE	RAS-6H(V)NCE	0,856	3,80	58	59
G 2000 DX22-HI	4200	-	RAS-8HNCE	1,284	5,70	59	92
G 2500 DX22-HI	4900	-	RAS-8HNCE	1,498	6,65	60	96
G 2500 DX28-HI	4900	-	RAS-10HNCE	1,498	6,65	60	96
G 3000 DX28-HI	5600	-	RAS-10HNCE	1,712	7,60	61	109
ECG 1000 DX8-HI	2190	RAS-3HVNC	-	0,225	1,95	61	50
ECG 1000 DX11-HI	2190	RAS-4H(V)NCE	RAS-4H(V)NCE	0,225	1,95	61	50
ECG 1500 DX14-HI	2920	RAS-5H(V)NCE	RAS-5H(V)NCE	0,300	2,60	62	59
ECG 1500 DX16-HI	2920	RAS-6H(V)NCE	RAS-6H(V)NCE	0,300	2,60	62	59
ECG 2000 DX22-HI	4380	-	RAS-8HNCE	0,450	3,90	63	92
ECG 2500 DX22-HI	5110	-	RAS-8HNCE	0,525	4,55	64	96
ECG 2500 DX28-HI	5110	-	RAS-10HNCE	0,525	4,55	64	96
ECG 3000 DX28-HI	5840	-	RAS-10HNCE	0,600	5,20	65	109

(\*) DX is also applicable to the models: Recessed Windbox MG, DAM, WEC, REC, DECO, DUOJET, VARIWIND, RUND, ZEN, ROTOWIND, INVISAIR.

/2 Coil with double circuit and two outdoor units (eg. DX32/2 is composed by two units of 16kW, DX45/2 composed by 2x 22,4kW).

(\*\*) Air curtains supply is always 230Vx1

HITACHI Reversible DC Inverter Outdoor Units	Heating Capacity	Heating Power	COP	Cooling Capacity	Cooling Power	EER	Power Supply	Pipes	Pipes Maximum Lenght	Pipes Maximum Height
	kW	kW		W/W	kW			kW		
RAS-3HVNC	8,0	1,90	4,21	7,1	1,94	3,66	230Vx1	5/8 3/8	50	30
RAS-4H(V)NCE	11,2	2,54	4,41	10,0	2,44	4,10	230Vx1/400Vx3	5/8 3/8	70	30
RAS-5H(V)NCE	14	3,39	4,12	12,5	3,53	3,54	230Vx1/400Vx3	5/8 3/8	75	30
RAS-6H(V)NCE	16,0	4,23	3,78	14,0	4,25	3,29	230Vx1/400Vx3	5/8 3/8	75	30
RAS-8HNCE	22,4	5,28	4,24	20,0	5,95	3,36	400Vx3	1 3/8	100	30
RAS-10HNCE	28,0	7,12	3,93	25,0	7,81	3,20	400Vx3	1 1/2	100	30



## Characteristics



- Self-supporting casing construction made of galvanized plated steel, finished in structural epoxy-polyester RAL 9016 as standard. Other colours or stainless steel construction are available on request.
- Double-inlet centrifugal fans driven by an external rotor motor with built-in thermal protection contact. Provided with 5-speed selection. Very low noise level.
- Two frontal grille options. Industrial by default.
- "P" type with water heated coil. "E" type with electrical shielded elements, 3 stages with power switches. "A" type without heating (only air). Optional expansion DX coil.
- Anodized aluminium blow-out vanes, airfoil shaped, adjustable from 0 to 15° each side.
- Included: Plug&Play control, infrared remote IR, 10m telephone cable. Optional Clever control: Automatic, intelligent, energy saving, Modbus RTU for BMS...

## Specifications

### AIR ONLY

Model	Airflow m <sup>3</sup> /h	Fans Power 230V-50Hz kW	Fans Current 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
L 1000 A	4000	1,04	4,40	63	72
L 1500 A	6000	1,56	6,60	64	108
L 2000 A	8000	2,08	8,80	65	145
L 2500 A	10000	2,60	11	66	177
L 3000 A	12000	3,12	13,20	67	213
XL 1000 A	5300	1,40	6	65	78
XL 1500 A	7950	2,10	9	66	117
XL 2000 A	10600	2,80	12	67	157
XL 2500 A	13250	3,50	15	68	192
XL 3000 A	15900	4,20	18	69	211

### ELECTRICAL HEATED

Model	Airflow m <sup>3</sup> /h	Electrical Heating Capacity 400Vx3-50Hz kW	Fans Power 230V-50Hz kW	Fans Current 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
L 1000 E	4000	10/15/25	1,04	4,40	63	90
L 1500 E	6000	15/22,5/37,5	1,56	6,60	64	135
L 2000 E	8000	20/30/50	2,08	8,80	65	180
L 2500 E	10000	24/36/60	2,60	11	66	225
L 3000 E	12000	24/36/60	3,12	13,20	67	270
XL 1000 E	5300	10/15/25	1,40	6	65	95
XL 1000 E37	5300	15/22,5/37,5	1,40	6	65	96
XL 1500 E	7950	15/22,5/37,5	2,10	9	66	144
XL 1500 E50	7950	20/30/50	2,10	9	66	150
XL 2000 E	10600	20/30/50	2,80	12	67	192
XL 2000 E60	10600	24/36/60	2,80	12	67	200
XL 2500 E	13250	24/36/60	3,50	15	68	240
XL 2500 E74	13250	27,8/46,4/74,2	3,50	15	68	250
XL 3000 E	15900	24/36/60	4,20	18	69	288
XL 3000 E93	15900	34,8/58,2/93	4,20	18	69	300

### WATER HEATED

Model	Airflow m <sup>3</sup> /h	Heating Capacity 80/60°C kW	P86		P64			Fans Power 230V-50Hz kW	Fans Current 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
			Water Drop Pressure 80/60°C Pa	Water Connection 80/60°C	Heating Capacity 60/40°C kW	Water Drop Pressure 60/40°C Pa	Water Connection 60/40°C				
L 1000 P	3800	19,68	1730	2x1"	16,18	2570	2x1"	1,04	4,40	62	89
L 1500 P	5700	29,64	950	2x1"	25,92	3210	2x1"	1,56	6,60	63	128
L 2000 P	7600	43,01	2390	2x1¼"	35,58	3680	2x1¼"	2,08	8,80	64	171
L 2500 P	9500	56,01	4670	2x1¼"	45,55	4750	2x1¼"	2,60	11	65	214
L 3000 P	11400	69,27	8090	2x1½"	56,78	8350	2x1½"	3,12	13,20	66	260
XL 1000 P	4900	22,68	2250	2x1"	18,98	3410	2x1"	1,40	6	64	94
XL 1500 P	7350	34,52	1240	2x1"	30,45	4270	2x1"	2,10	9	65	137
XL 2000 P	9800	50,10	3140	2x1¼"	41,83	4910	2x1¼"	2,80	12	66	183
XL 2500 P	12250	65,29	6130	2x1¼"	53,56	6330	2x1¼"	3,50	15	67	227
XL 3000 P	14700	80,79	10640	2x1½"	66,78	11140	2x1½"	4,20	18	68	278

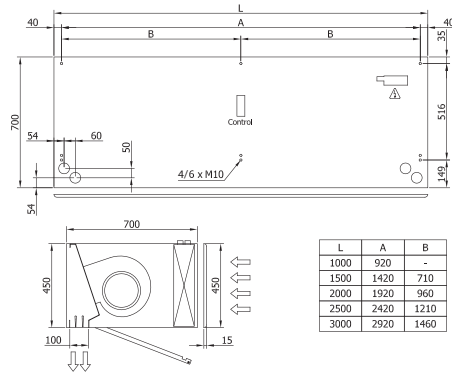
Water heated: P86 2 rows coil, P64 3 rows coil.



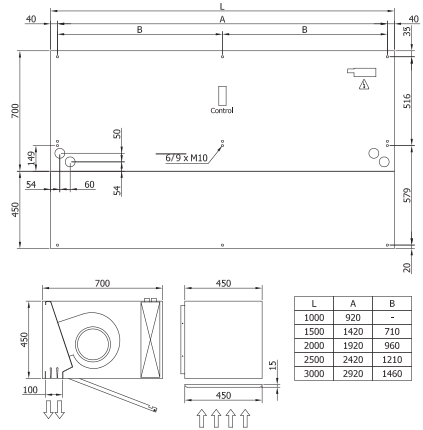
Layouts and dimensions



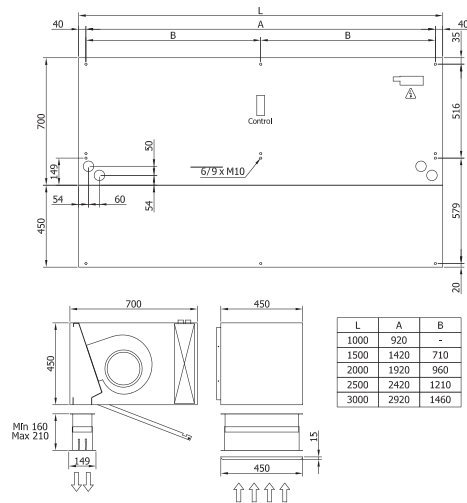
Free hanging mounting



Inside ceiling surface mounting



False ceiling invisible mounting

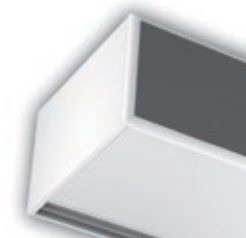


Grille Finishes

Industrial



Decorative







**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.
- Invisair air inlet and discharge grille are at the same level. Thus, the air flow through the unit follows a straight direction. Inlet area when installation inside a bulkhead or column should be designed with suitable grille provided by others.
- Two anodized aluminium adjustable lamellas, airfoil shaped, so that air discharge direction can be adjusted to 0 – 15 degrees either side.
- Structure made of galvanized plated steel finished in structural epoxy-polyester white RAL 9016 as standard. Other colours are available on request.
- Double-inlet centrifugal fans driven by an external rotor EC motor with built-in thermal protection contact. Provided with 5-speed selection. Very low noise level.
- “P” type with water heated coil. “E” type with electrical shielded elements, 3 stages with power switches. “A” type without heating (only air). Optional expansion DX coil.
- Included: Plug&Play control, infrared remote IR, 7m telephone cable. Optional Clever control: Automatic, intelligent, energy saving, Modbus RTU for BMS...

**Specifications**

AIR ONLY					
Model	Airflow m <sup>3</sup> /h	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
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	0,300	2,60	62	60
IECG 2000 A	5400	0,450	3,90	63	78
IECG 2500 A	6300	0,525	4,55	64	83

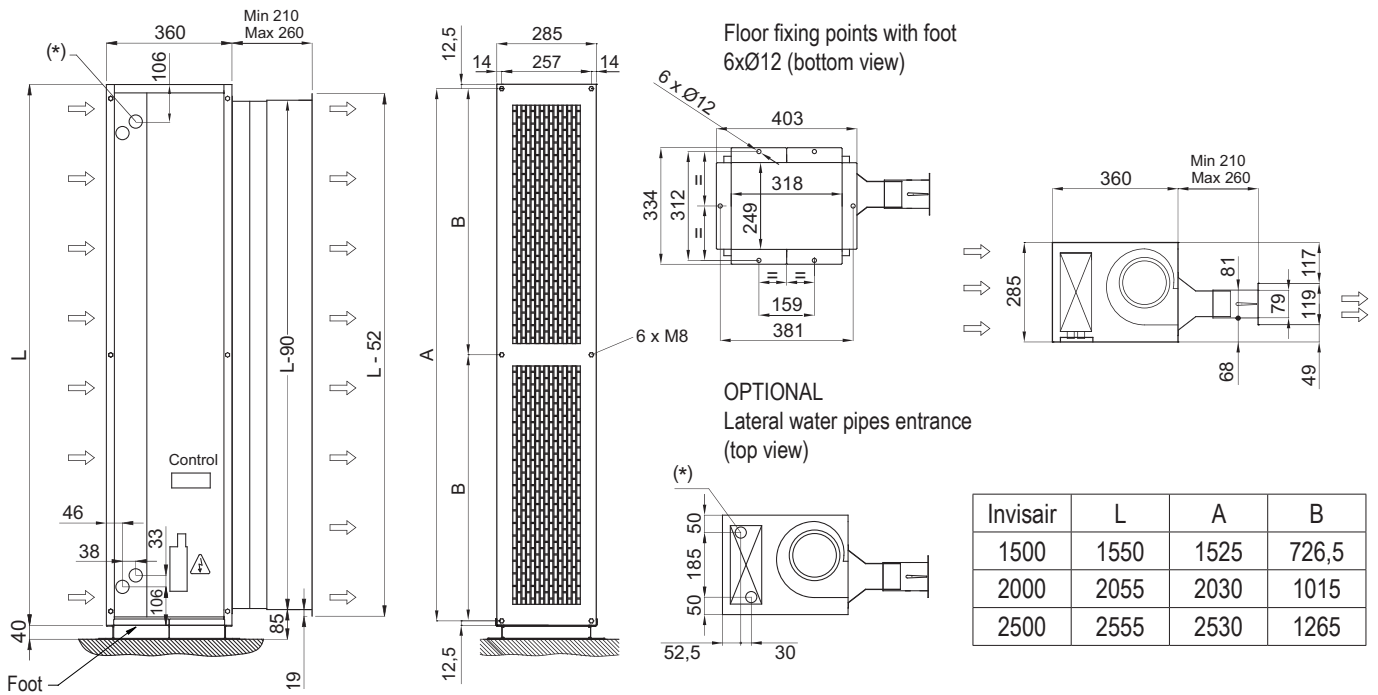
ELECTRICAL HEATED						
Model	Airflow m <sup>3</sup> /h	Electrical Heating Capacity 400Vx3-50Hz kW	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
IM 1500 E	2640	4/8/12	0,424	1,88	56	67
IM 2000 E	3960	6/12/18	0,636	2,82	57	86
IM 2500 E	4620	6/12/18	0,742	3,29	58	93
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	0,300	2,60	62	73
IECG 2000 E	5400	10/20/30	0,450	3,90	63	96
IECG 2500 E	6300	10/20/30	0,525	4,55	64	103

WATER HEATED											
Model	Airflow m <sup>3</sup> /h	P86		P64		P54		Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) 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	14,30	4460	0,424	1,88	56	63
IM 2000 P	3720	22,17	2190	19,70	5470	20,24	2380	0,636	2,82	57	78
IM 2500 P	4340	27,69	4000	23,48	4060	25,12	4280	0,742	3,29	58	86
IG 1500 P	3000	16,02	940	15,47	8020	16,37	5670	0,856	3,80	58	69
IG 2000 P	4500	24,92	2700	22,29	6810	23,15	3030	1,284	5,70	59	89
IG 2500 P	5250	31,16	4930	26,61	5060	28,76	5450	1,498	6,65	60	94
IECG 1500 P	3400	17,29	1070	16,77	9240	17,86	6620	0,300	2,60	62	69
IECG 2000 P	5100	26,86	3080	24,14	7850	25,24	3530	0,450	3,90	63	89
IECG 2500 P	5950	33,63	5650	28,84	5840	31,38	6360	0,525	4,55	64	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.

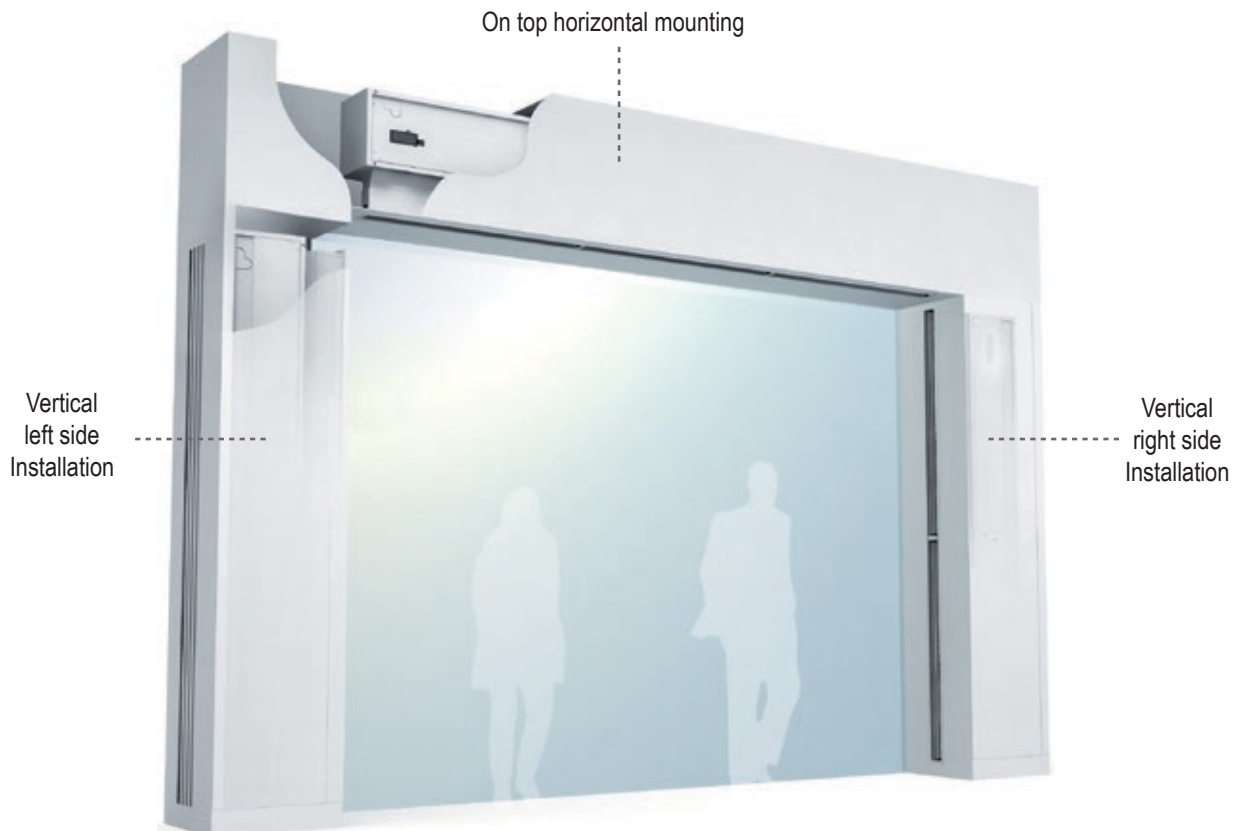


**Layouts and dimensions**



(\*) IN/OUT Water pipes connection (in water heated units)

**Installation examples**





**Characteristics**



- Specially designed to be installed in all type of revolving doors. Two possible layouts, tailored dimensions.
- Structure made of galvanized plated steel, finished in structural epoxy-polyester white RAL 9016 as standard. Other colours are available on request.
- Double-inlet centrifugal fans driven by an external rotor EC motor with built-in thermal protection contact. Provided with 5-speed selection. Very low noise level.
- Perforated inlet grille with filter functions and easy service. It does not need prefilter.
- “P” type with water heated coil. “E” type with electrical shielded elements, 3 stages with power switches. “A” type without heating (only air). Optional expansion DX coil.
- Circular anodized aluminium outlet vanes, airfoil shaped.
- Included: Plug&Play control, infrared remote IR, 7m telephone cable. Optional Clever control: 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 (5 m) dB(A)	Weight kg
ROTO M 1000 A	1980	0,318	1,41	55	-
ROTO M 1500 A	2640	0,424	1,88	56	-
ROTO M 2000 A	3960	0,636	2,82	57	-
ROTO M 2500 A	4620	0,742	3,29	58	-
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	0,225	1,95	61	-
ROTO ECG 1500 A	3600	0,300	2,60	62	-
ROTO ECG 2000 A	5400	0,450	3,90	63	-
ROTO ECG 2500 A	6300	0,525	4,55	64	-

ELECTRICAL HEATED						
Model	Airflow m³/h	Electrical Heating Capacity 400Vx3-50Hz kW	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
ROTO M 1000 E	1980	3/6/9	0,318	1,41	55	-
ROTO M 1500 E	2640	4/8/12	0,424	1,88	56	-
ROTO M 2000 E	3960	6/12/18	0,636	2,82	57	-
ROTO M 2500 E	4620	6/12/18	0,742	3,29	58	-
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	0,225	1,95	61	-
ROTO ECG 1500 E	3600	7,5/15/22,5	0,300	2,60	62	-
ROTO ECG 2000 E	5400	10/20/30	0,450	3,90	63	-
ROTO ECG 2500 E	6300	10/20/30	0,525	4,55	64	-

WATER HEATED											
Model	Airflow m³/h	P86		P64		P54		Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) 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				
ROTO M 1000 P	1860	9,84	1000	9,22	4990	9,24	1420	0,318	1,41	55	-
ROTO M 1500 P	2480	14,23	760	13,65	6430	14,30	4460	0,424	1,88	56	-
ROTO M 2000 P	3720	22,17	2190	19,70	5470	20,24	2380	0,636	2,82	57	-
ROTO M 2500 P	4340	27,69	4000	23,48	4060	25,12	4280	0,742	3,29	58	-
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	0,225	1,95	61	-
ROTO ECG 1500 P	3400	17,29	1070	16,77	9240	17,86	6620	0,300	2,60	62	-
ROTO ECG 2000 P	5100	26,86	3080	24,14	7850	25,24	3530	0,450	3,90	63	-
ROTO ECG 2500 P	5950	33,63	5650	28,84	5840	31,38	6360	0,525	4,55	64	-

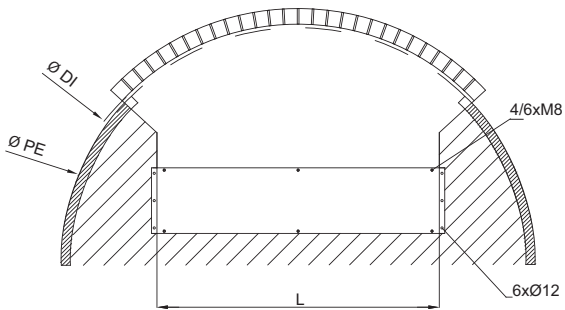
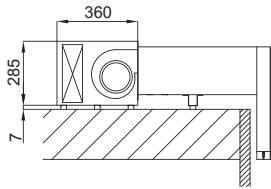
Water heated: connection pipes P86 and P64 are 2x3/4" female (male if lateral pipes), P54 2x1" male. P86 2 rows coil, P64 3 rows coil, P54 4 rows coil.



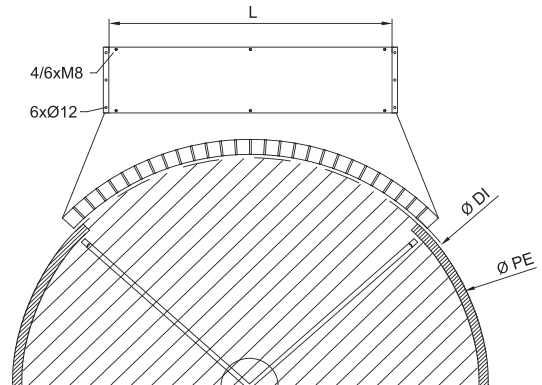
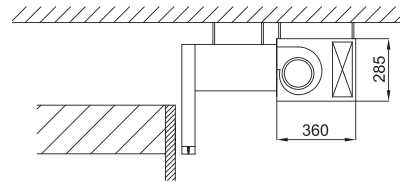
**Layouts and dimensions**

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

On top mounting



False ceiling mounting



Fixation system



Fixed onto the door



Hanging from the ceiling

Optional decorative front cover



1. RAL 9016 standard
2. Colour from RAL palette
3. Stainless Steel AISI 304

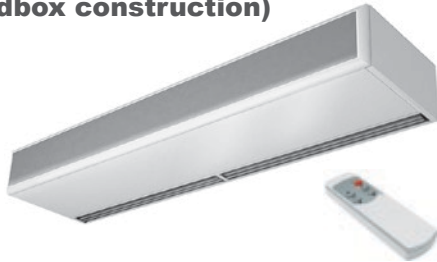


**Characteristics**

**VP  
(with profiles)**



**VW  
(windbox construction)**



- Designed to be tailor-made, adaptable to any customer's needs.
- Option VP: Structure made of aluminium profiles and galvanized plated 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.
- Option VW: Self-supporting casing construction as Windbox MG, made of galvanized plated steel, finished in structural epoxy-polyester RAL 9016 as standard. Other colours or stainless steel construction are available on request.
- Centrifugal double-inlet fans driven by an external rotor EC motor with built-in thermal protection contact. Provided with 5-speed selection. Very low noise level.
- "P" type with water heated coil. "E" type with electrical shielded elements, 3 stages with power switches. "A" type without heating (only air). Optional expansion DX coil.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- Included: Plug&Play control, infrared remote IR, 7m telephone cable. Optional Clever control: Automatic, intelligent, energy saving, Modbus RTU for BMS...

**Specifications**

The performance of Variwind air curtains is the same as Windbox M, ECM,G and ECG. There all types from 1000 to 3000 mm length. It's available unheated, water heated, electrical heated or with heat pump.

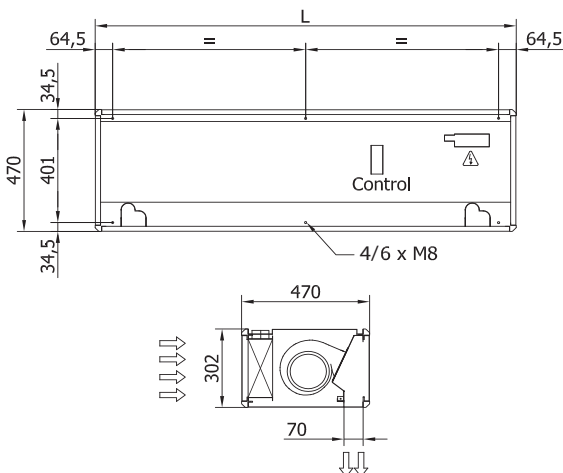
**Layouts and dimensions**

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

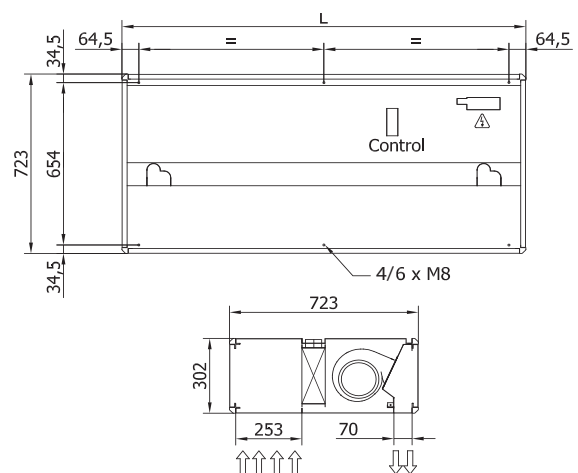
Example: Standard Variwind 1500 will have similar performance as Windbox 1500 (air volume, heating, consumption, etc...). Depending on how many mm we add to the nominal dimension 1500mm, we could put more fans and power heating if required (consult if possible).

	Standard L (mm)	Customised L (mm)
Variwind 1000	1045	1045-1544
Variwind 1500	1545	1545-2049
Variwind 2000	2050	2050-2549
Variwind 2500	2550	2550-3000

**Free hanging mounting**



**Inside ceiling surface mounting**







## Characteristics

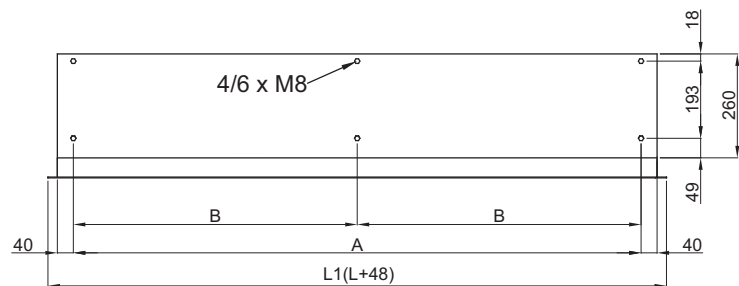
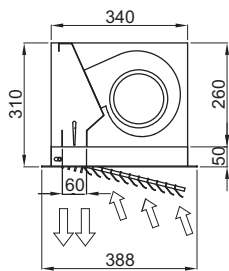


- Compact and low profile recessed air only air curtain with full grille view, specially designed for applications without heating.
- Self-supporting casing construction made of galvanized plated steel, ready to be installed recessed in a false ceiling.
- Inlet grille (free of maintenance) made with aluminium profiles and blow-out nozzle, integrated in a single white frame, colour RAL 9016. Other colours are available on request.
- Double inlet centrifugal fans driven by an external rotor motor with built-in thermal protection contact provided with 5-speed selection. Very low noise level.
- Included: Plug&Play control, infrared remote IR, 7m telephone cable. Optional Clever control: Automatic, intelligent, energy saving, Modbus RTU for BMS...

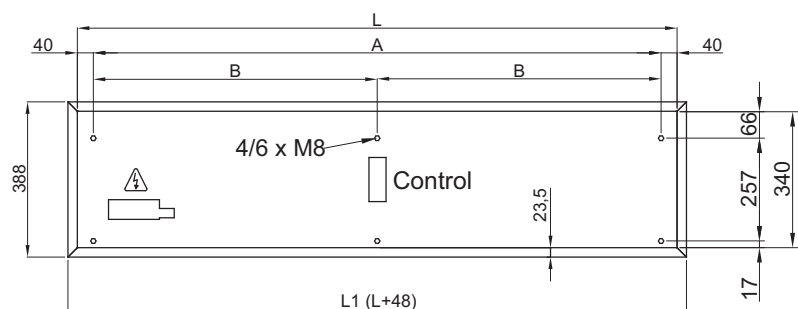
## Specifications

AIR ONLY					
Model	Airflow m <sup>3</sup> /h	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) 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	0,150	1,30	56	33
RC ECM 1500 A	2760	0,225	1,95	57	50
RC ECM 2000 A	3680	0,300	2,60	58	61
RC ECM 2500 A	4600	0,375	3,25	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	0,225	1,95	61	37
RC ECG 1500 A	3600	0,300	2,60	62	56
RC ECG 2000 A	5400	0,450	3,90	63	71
RC ECG 2500 A	6300	0,525	4,55	64	78

## Dimensions



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





**Characteristics**

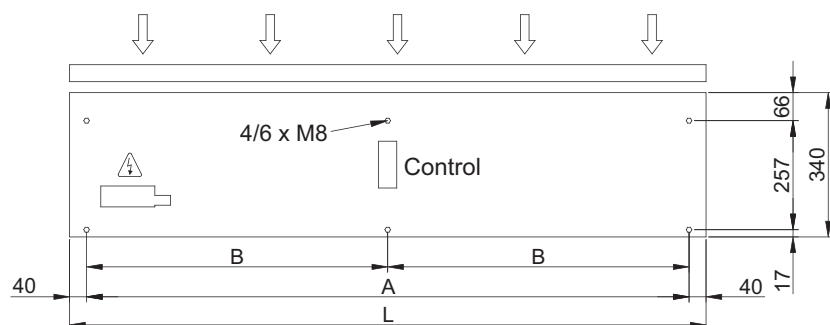
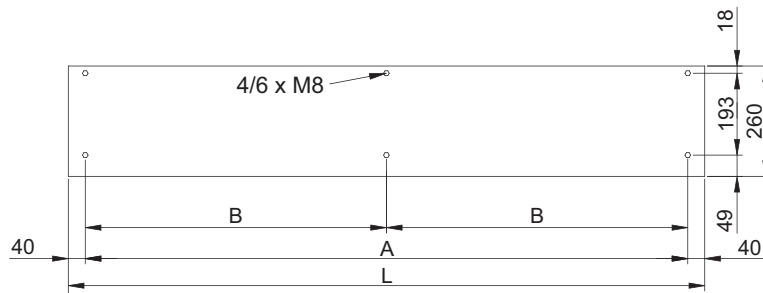
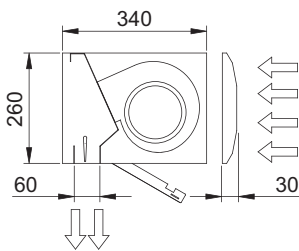


- Specially designed to be installed on doors of cold stores and freezers.
- Self-supporting casing construction made of galvanized plated steel, finished in structural epoxy-polyester RAL 9016 as standard. Other colours or stainless steel construction are available on request.
- Double-inlet centrifugal fans driven by an external rotor EC motor with built-in thermal protection contact. Provided with 5-speed selection. Very low noise level.
- 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.
- Included: Plug&Play control, infrared remote IR, 7m telephone cable. Optional Clever control: Automatic, intelligent, energy saving, Modbus RTU for BMS...

**Specifications**

AIR ONLY					
Model	Airflow m <sup>3</sup> /h	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) 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	0,150	1,30	56	33
KECM 1500 A	2760	0,225	1,95	57	50
KECM 2000 A	3680	0,300	2,60	58	61
KECM 2500 A	4600	0,375	3,25	59	68
KECM 3000 A	5520	0,450	3,90	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	0,225	1,95	61	37
KECG 1500 A	3600	0,300	2,60	62	56
KECG 2000 A	5400	0,450	3,90	63	71
KECG 2500 A	6300	0,525	4,55	64	78
KECG 3000 A	7200	0,600	5,20	65	86

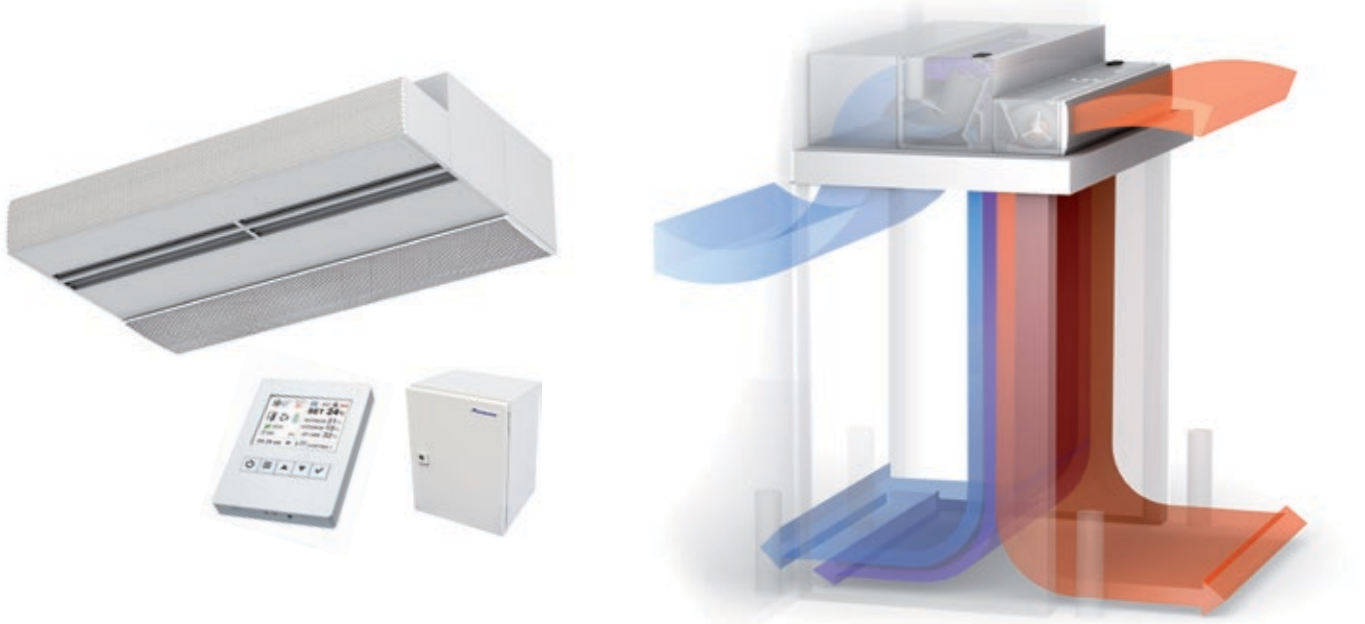
**Dimensions**



L	A	B
1000	920	-
1500	1420	710
2000	1920	960
2500	2420	1210
3000	2920	1460



## Characteristics

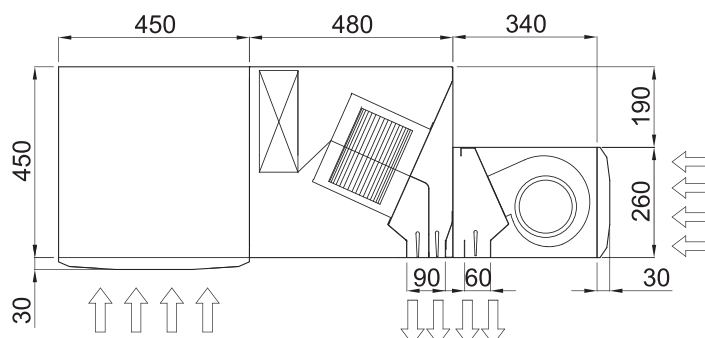


- Specially designed to be installed on big doors of industrial cold stores and freezers.
- System composed by two air curtains: Special Duojet air curtain with plenum and Kool. The result is a combination system of 3 jets at different temperatures and different speeds.
- Structure support with lateral walls to cover 100% of the opening with 3 jets should be provided by others.
- High efficiency barrier against big amount of thermal losses due to a big temperature difference (shorter payback).
- Avoid mist and ice, decreasing risk of accidents.
- Casing construction made of galvanized plated steel, finished in structural epoxy-polyester RAL 9016 as standard. Other colours or stainless steel construction are available on request.
- 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). Provided with 5-speed selection. Very low noise level.
- Includes electrical shielded element, 3 power stages with power switches included.
- Triojet automatically fully controlled by Clever Control. Electronics and controllers inside IP65 box. Plug & Play. Ready for BMS connection via Modbus RTU.

## Specifications

Model	Airflow m <sup>3</sup> /h	Fans Power 230V-50Hz kW	Fans Current 230V-50Hz A	Electrical Heating Capacity 400Vx3-50Hz kW	Noise level (5 m) dB(A)	Weight kg
TRIO 1000	5100	0,87	4,80	3/6/9	62	125
TRIO 1500	7600	1,37	7,35	4/8/12	63	182
TRIO 2000	11000	1,95	10,55	6/12/18	64	234
TRIO 2500	13500	2,54	13,10	6/12/18	65	275

## Dimensions





## Characteristics



- High performance heavy duty industrial air curtains for vertical and horizontal installations, available in 1.5, 2.0 and 2.5 meters length. Easy dockable modules to reach large dimensions.
- Self-supporting galvanized steel plate housing, powder-coated in white RAL 9016 as standard. Other colors are available on customer request.
- High efficiency and extremely low noise axial fans driven with external rotor motor, single phase 230V/50Hz. Optionally three phase 400V/50Hz. Maintenance free.
- “P” type with water heated coil up to 120°C (3-4bar). “A” type without heating (only air).
- Double outlet with Coanda effect to achieve larger and efficient air jet. Adjustable pitch angle outlet vanes, airfoil shaped.
- Different control options, from simple ON/OFF to fully automatic. Optional: Basic regulation with Plug&play control panel, infrared remote IR and 10m telephone cable included. Advanced regulation with Clever (automatic, intelligent, energy saving, Modbus RTU for BMS, ...)

## Specifications

### AIR ONLY

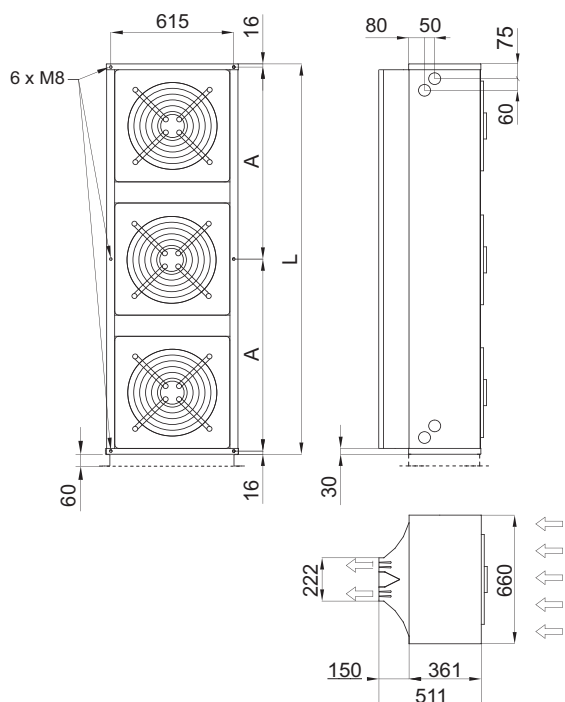
Model	Airflow m <sup>3</sup> /h	Fans power 230V-50Hz kW	Fans current 230V-50Hz A	Noise level (5 m) dB(A)	Weight kg
MXW 1500 A	7000	0,68	2,96	60	79
MXW 2000 A	10500	1,02	4,44	61	103
MXW 2500 A	14000	1,36	5,92	62	126

### WATER HEATED

Model	Airflow m <sup>3</sup> /h	P86		P64		Fans power 230V-50Hz kW	Fans current 230V-50Hz A	Noise level (5 m) dB(A)	Weight kg		
		Water heating capacity 80/60°C kW	Water drop pressure 80/60°C Pa	Water connections 80/60°C	Water 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

Water heated: P86 2 rows coil, P64 3 rows coil. Electrical heated models available on customer request. Let us know your needs

## Dimensions



	L	A
MXW 1500	1500	734
MXW 2000	2000	984
MXW 2500	2500	1234



**Characteristics**



- Usually installed in vertical position but can be mounted horizontally on industrial doors.
- Heavy casing made of double chamber, aluminium profiles and galvanized plated steel panels, finished white RAL 9016 as standard. Other colours are available on request.
- High efficiency and extremely low noise axial fans driven with external rotor motor, single phase 230V/50Hz. Optionally three phase 400V/50Hz. Provided with 5-speed selection. Maintenance free.
- “P” type with water heated coil. “E” type with electrical shielded elements, 3 stages with power switches. “A” type without heating (only air).
- Double outlet with Coanda effect to achieve larger and efficient air jet. Adjustable pitch angle outlet vanes, airfoil shaped.
- Included: Plug&Play control, infrared remote IR, 10m telephone cable. Optional Clever control: Automatic, intelligent, energy saving, Modbus RTU for BMS...

**Specifications**

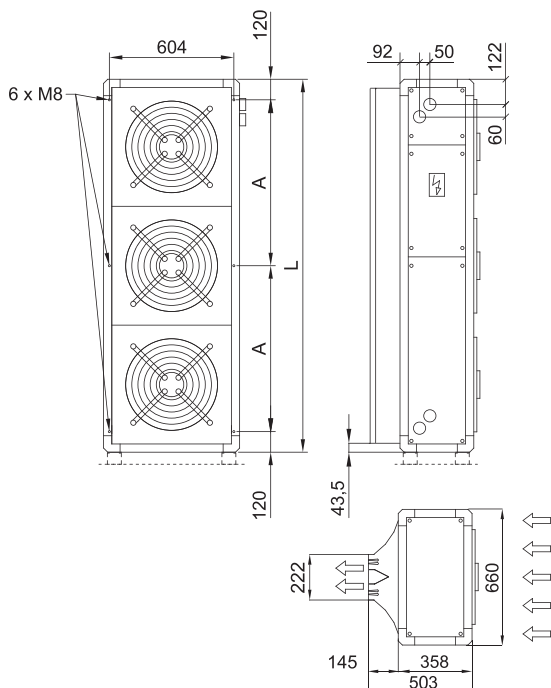
AIR ONLY					
Model	Airflow m <sup>3</sup> /h	Fans power 230V-50Hz kW	Fans current 230V-50Hz A	Noise level (5 m) dB(A)	Weight kg
MAX 2 A	6600	0,68	2,96	62	59
MAX 3 A	9900	1,02	4,44	63	79
MAX 4 A	13200	1,36	5,92	64	103
MAX 5 A	16500	1,70	7,40	65	124
MAX 6 A	19800	2,04	8,88	66	151

ELECTRICAL HEATED						
Model	Airflow m <sup>3</sup> /h	Electrical Heating Capacity 400Vx3-50Hz kW	Fans power 230V-50Hz kW	Fans current 230V-50Hz A	Noise level (5 m) dB(A)	Weight kg
MAX 2 E	6600	13,7/22,9/36,6	0,68	2,96	62	74
MAX 3 E	9900	20,7/34,7/55,4	1,02	4,44	63	100
MAX 4 E	13200	27,8/46,4/74,2	1,36	5,92	64	133
MAX 5 E	16500	34,8/58,2/93	1,70	7,40	65	159
MAX 6 E	19800	consult	2,04	8,88	66	186

WATER HEATED												
Model	Airflow m <sup>3</sup> /h	Water heating capacity 80/60°C kW	P86			P64			Fans power 230V-50Hz kW	Fans current 230V-50Hz A	Noise level (5 m) dB(A)	Weight kg
			Water drop pressure 80/60°C Pa	Water connections 80/60°C	Water 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	75	
MAX 3 P	9600	51,77	1440	2x1¼"	47,10	11930	2x1¼"	1,02	4,44	62	102	
MAX 4 P	12800	74,15	2580	2x1¼"	63,30	9340	2x1¼"	1,36	5,92	63	135	
MAX 5 P	16000	96,43	7070	2x1¼"	82,16	18450	2x1¼"	1,70	7,40	64	162	
MAX 6 P	19200	118,69	12160	2x1¼"	91,92	3770	2x1¼"	2,04	8,88	65	189	

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

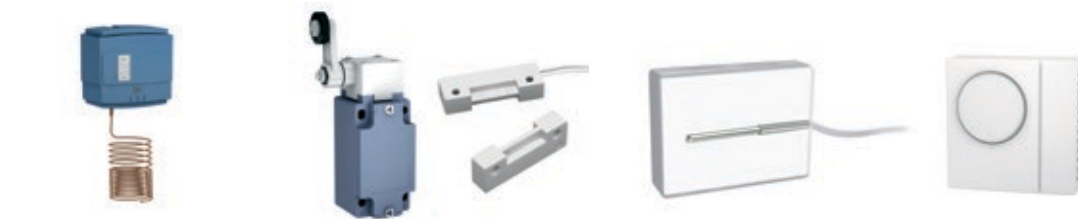
Feet, wall or ceiling supports, tailor made arms, vibration dampers...



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



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



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



### Other Options

Airtecnicos, 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 switch, dirty grille, 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 power and power supply
- Electrical heated air curtains from 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 with higher volume (MAX L)
- Industrial MAX 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, G, L, XL)**

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 15°C, 18°C and 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	1,47	
	10°C	80/70	-	1,28	1,20	50/40		1,24	1,10	1,01		
		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							
10°C		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

HEAT CAPACITY	=	Nominal Power (20,65 kW)	x	Coefficient (1,35)	=	27,87 kW
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## EC Technology

EC technology (Electronically Commutated) combines AC and DC voltages, bringing the best of both technologies: the motor runs on a DC voltage, but with a normal AC supply. The EC motor transforms the voltage within the motor. The non-rotating part of the motor (stator) includes an electronic PCB board which incorporates power transformation AC to DC, as well as the controls. EC motors have no slippage losses, thus increasing efficiency versus AC motors.

## EC Motor Principle

- Permanent-magnet brushless DC motor within the rotor.
- The stator is driven by electronic switches (which replace the Carbon brushes), controlled by a microcontroller.
- Electronic system (hall effect sensor or software is used to recognize the rotor position).
- AC operate 230Vx1 or 400Vx3, valid for 50/60Hz.

## Advantages and Benefits

The new Airtecnicos EC Air curtains are fascinatingly efficient reducing the running cost of the ventilation up to 67% using EC instead of AC fans.

- Energy savings : Minimum power consumption and better efficiency than AC equivalent.
- Low motor temperature : for longer lifetime than AC equivalent
- Simplicity : Electronic and power transformation are completely integrated within the motor.
- High performance: Speed can be driven up to 3600rpm.

Available EC Air Curtains: Windbox MG, Wec, Rec, Deco, Kool, Recessed Windbox, Dam, Duojet, Variwind, Rund, Zen, Rotowind and Invisair.

## EC vs AC Air Curtain - Energy Saving Example

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

Example:

Door dimension: 2 m width by 3,8 m height

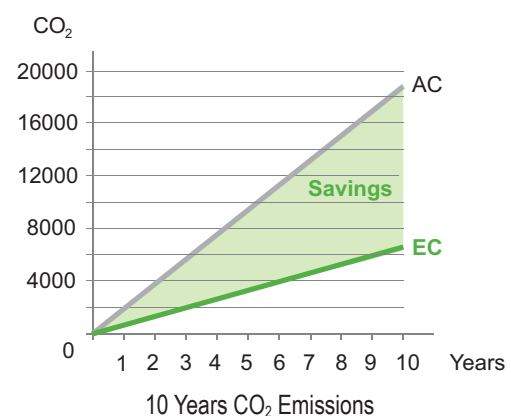
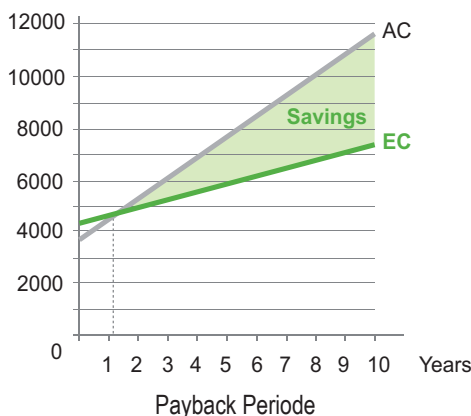
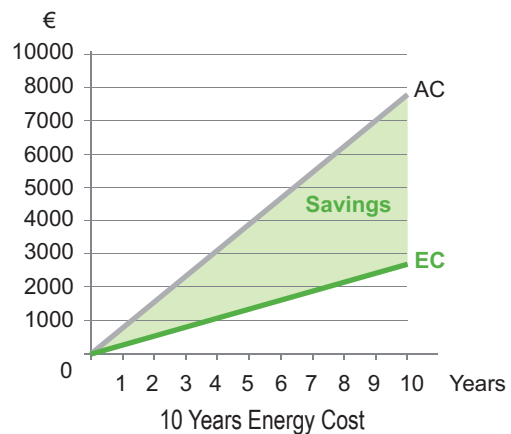
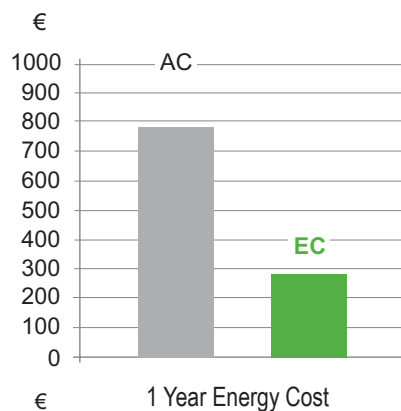
Running time: 12 hours/day, 6 days/week,  
50 weeks (~ 1 year)

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	2.451	€/unit	3.066	€/unit	+ 615 €
Energy Consumption	4.622	kW/h	1.620	kW/h	- 3.002 kW/h
Energy Cost	786	€	275	€	- 511 €
CO <sub>2</sub> Emissions	1.849	kg	648	kg	- 1.201 kg

Result: The payback periode is 1,2 years. We recover the price increase of EC air curtain in about 1 year and then we start saving money. From the beginning we save energy and reduce CO<sub>2</sub> emissions to the environment.



# 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

Suitable for Optima and Recessed Optima air curtains. Infrared remote control included.



**CW-2AO-IR**  
Only air and water heated  
2 fan speed



**CE-2AO-IR**  
Electrical heated  
2 fan speed  
2 heating stages

## 5 Speed Range Controls

Suitable for Windbox M,ECM,G,ECG,L,XL, Dam, Smart, Recessed Windbox, Recessed Dam, Recessed Compact, Kool, Zen, Rund, Deco, Rotowind, Invisair, Variwind, Max and Maxwell air curtains. Infrared remote control included.

**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



**CD-5AW-IR**  
Heat pump heated, 5 fan speed  
and heating ON/OFF



## Optional Controls

### D-805 Hand / Auto

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



### TD Digital Thermostat

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

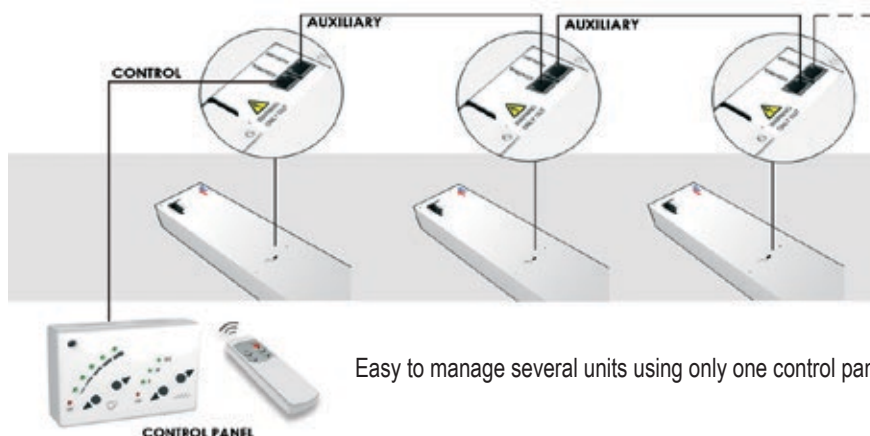


### Interface

Allows the connection to a centralized management system like BMS.



## Multiple air curtain connection



Easy to manage several units using only one control panel.

# 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.



INTELLIGENT  
PROACTIVE  
REGULATION



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



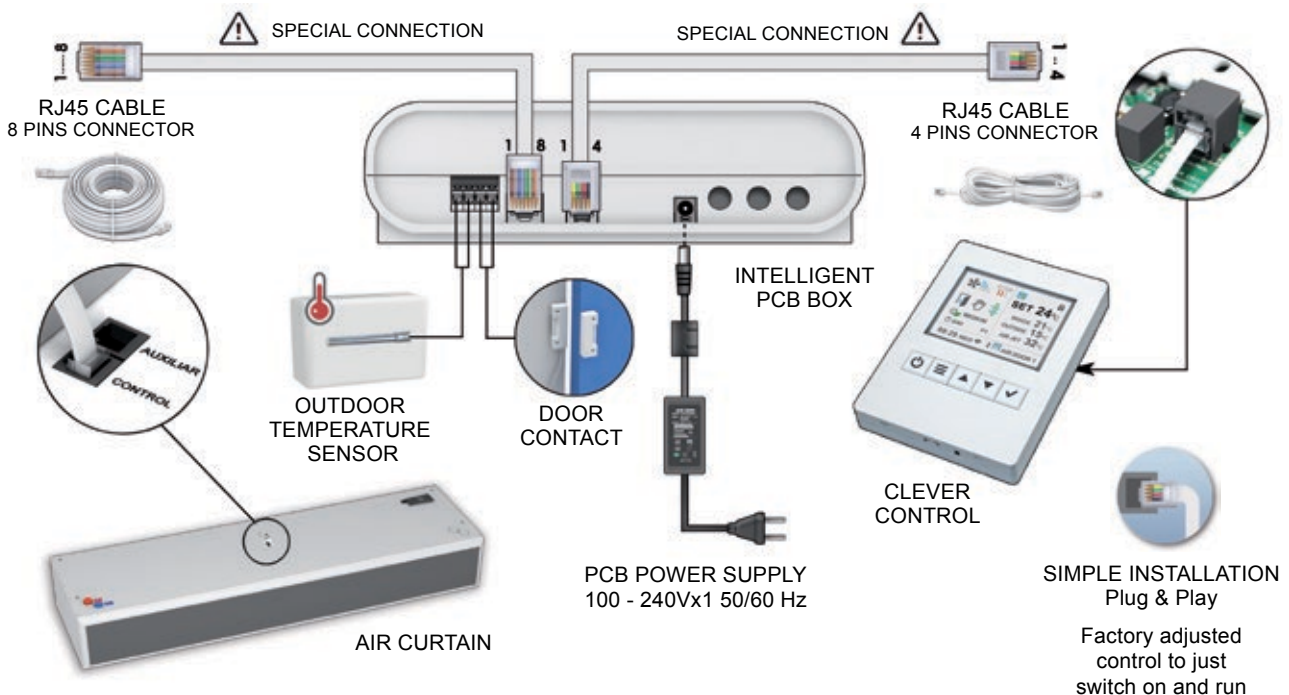
### RJ11 + RJ45 Cables

- Easy Plug & Play installation
- RJ11 (4 Pins), 7m length
- RJ45 (8 Pins), 3m length



### Door Contact

- Monitoring Door Status
- Magnetic contact





# 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 devices 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, sensors, selected mode and parameters.
- Alarms: general, filter state, anti freezing, overheating, fans overheating, airflow, fire, external, heating locked, etc...
- Security control lock option by code.
- Modulating valve for water heated (includes 24V power supply).
- Multiple functions: Temporised door, Excessive temperature of water return, cooling mode and others.

# GALLERY



**Optima**  
Installation in a shopping center

**Recessed Windbox**  
Designed to be installed in a false ceiling



**ZEN**  
Exclusive design and custom finishes

**Dam**  
Free hanging in a big mall



**Rotowind**  
Tailor-made for any revolving door

**Invisair**  
Invisible inbuild Column or bulkhead air curtain



**Rund**  
Vertical Stainless Steel design air curtain

**Max**  
Multiple towers on large industrial doors



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Единый адрес для всех регионов: [rgs@nt-rt.ru](mailto:rgs@nt-rt.ru) || <http://rosenberg.nt-rt.ru/>