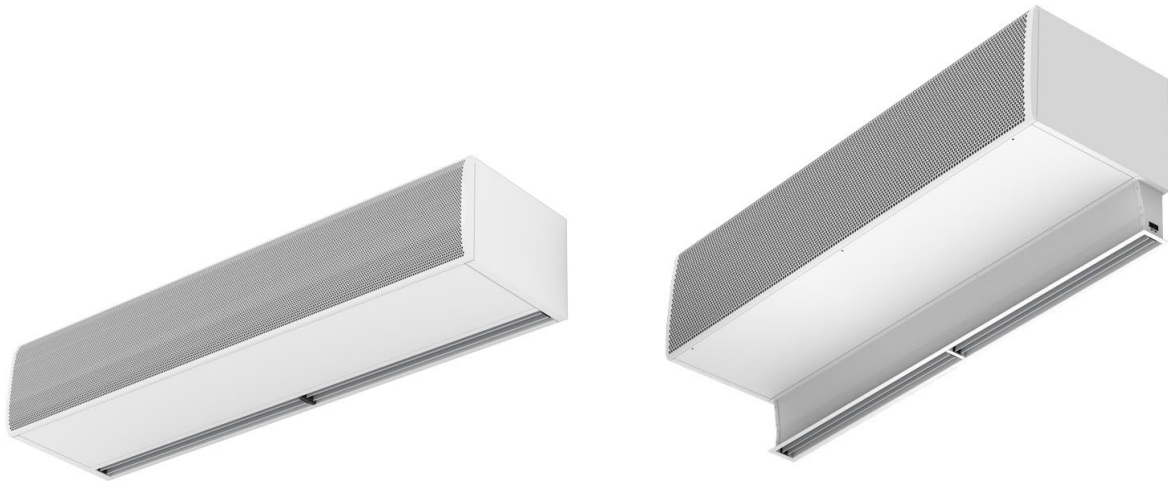




INSTALLATION, OPERATION AND MAINTENANCE MANUAL



Air Curtains: Fly (K, KBB, KL, KXL)

Please, read these instructions carefully before attempting installation

SECURITY ADVISE SYMBOLS



Attention, Danger, Safety Advice!



Danger from electric current or high voltage!



Injuries risk!



Danger! Do not stay underneath: Heavy load.



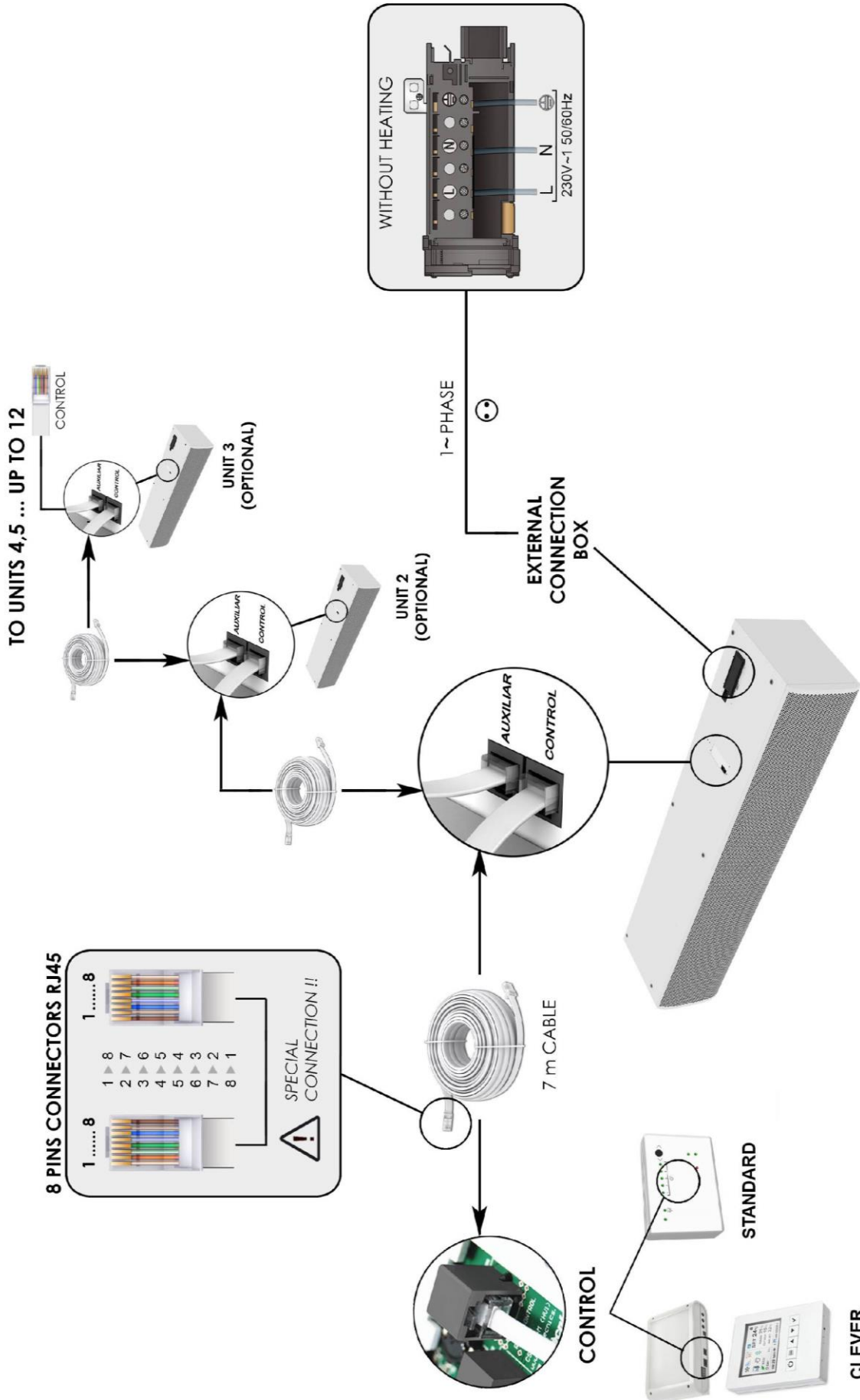
Important information.

AIRDOM05216-R13 (02/09/20)

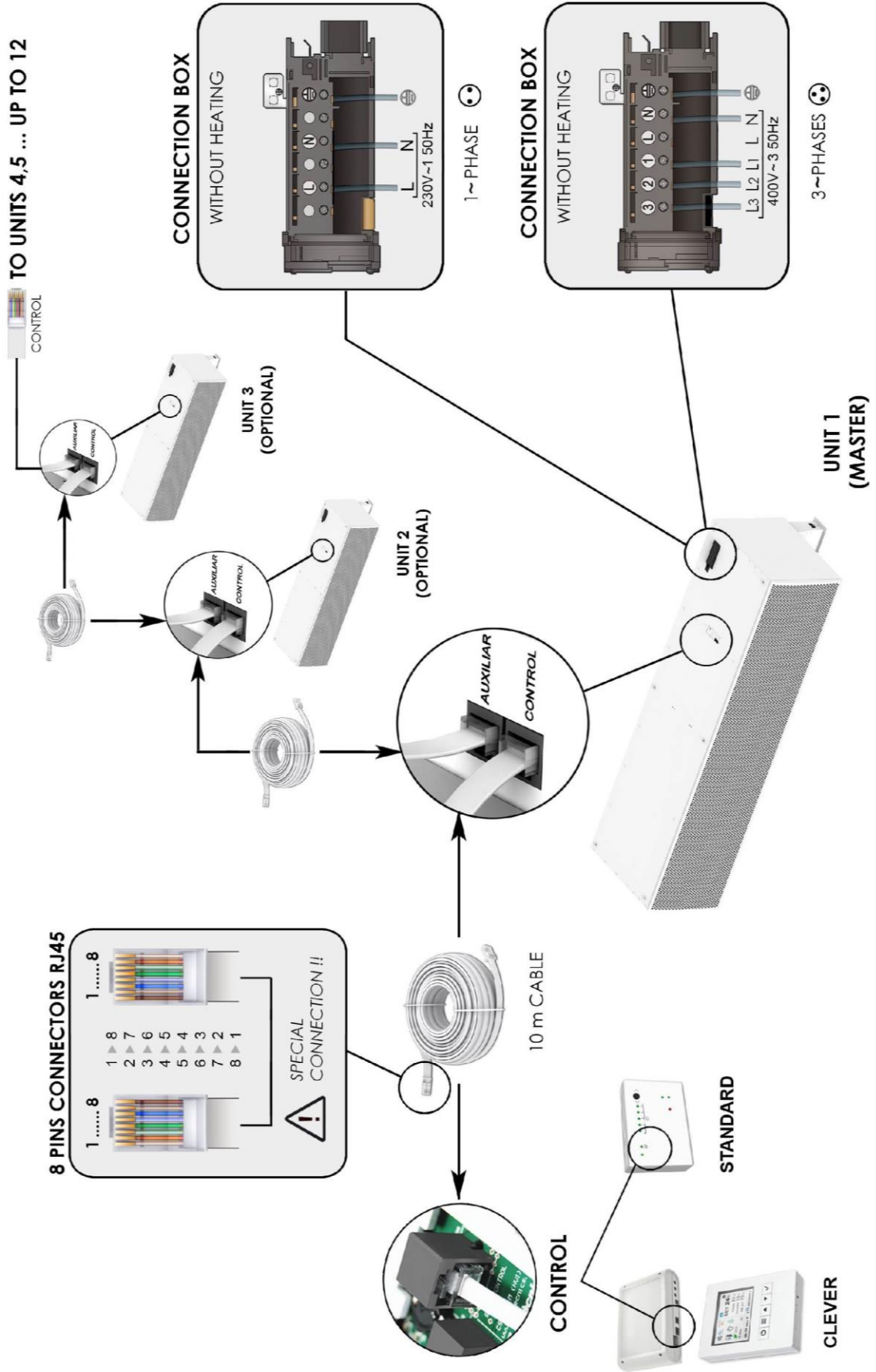
INDEX

CONNECTION DIAGRAM FLY K & FLY KBB	3
CONNECTION DIAGRAM FLY KL & FLY KXL.....	4
INSTALLATION	5
Application and installation recommendations	5
Power Supply	6
PCBoard and Control	6
Fixing	6
STORAGE AND TRANSPORT	6
WORKING INSTRUCTIONS	7
Control PCBoard characteristics	7
Controller's common characteristics	7
Common characteristics to all controllers for air curtains	7
Special controls	9
WIRING DIAGRAMS	9
DATASHEET	15
MAINTENANCE INSTRUCTIONS	19
External cleaning.....	19
REPAIRS AND REPLACEMENTS	19
Fan replacing.....	20
Replacing the power board or fuse	21
FAILURES AND SOLUTIONS.....	22
ACCESSORIES.....	23
DECLARATION OF CONFORMITY	24
GUARANTEE	25

CONNECTION DIAGRAM FLY K & FLY KBB



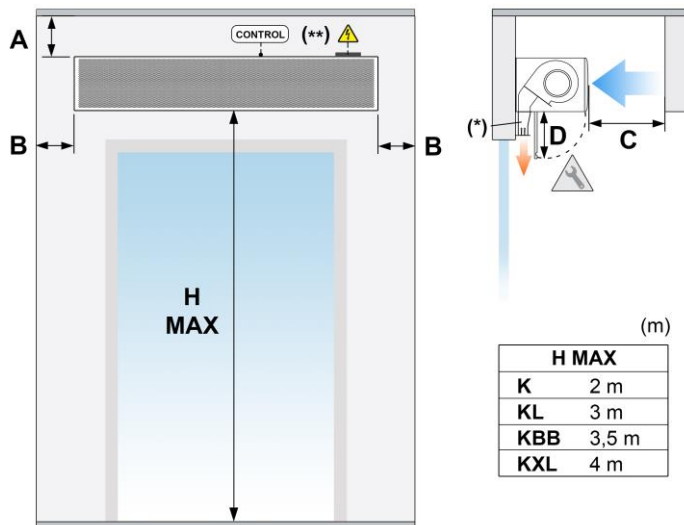
CONNECTION DIAGRAM FLY KL & FLY KXL



INSTALLATION

Valid for the models:

**K, KBB,
KL, KXL**



(m)	
H MAX	
K	2 m
KL	3 m
KBB	3,5 m
KXL	4 m

(*) Anti Insect Kit only on
KL, KXL models.

(mm)				
	A(min)	B(min)	C(min)	D
K	100	10	200	226
KL				260
KBB				404
KXL				415

MAX. Maximum recommended height, MIN. Minimum recommended distance

(*) Standard equipment. Upon request this distance can be reduced to 1 cm when the connections are located inside the equipment.

The minimum recommended distance between the intake grill and any obstacle is 200 mm.

	<p>Installation work, connection, disconnection, electrical wiring, mechanical maintenance and service must be done by qualified people observing these instructions and in accordance with all applicable norms and standards.</p> <p>If the unit is operated with additional controller, please consider its specific instructions.</p>
	<p>There is no need to open the service door to connect the air curtain. All connections (power supply, control, water pipes when existing) and fixations are external. They are placed on top or lateral of the units. See how to open service door at repairs section.</p>
	<p>For safety, the air curtains never have to be stopped by disconnecting them from the main supply, always through the controller and waiting 10 minutes at least to disconnect the main supply. In case to not follow these instructions, the internal parts of the air curtain can be damaged.</p>

Application and installation recommendations

FLY air curtains serve to prevent the entry of insects.

To substantially reduce the entry of flies and other flying insects into the building, a high-speed air jet is required (standard climatic separation curtains are not valid).

FLY air curtains are specially designed to comply with NSF/ANSI Standard 37 "Air Curtains for Food Inlets and Food Service".

The presence of these insects in food and beverage production plants, restaurants, public canteens, supermarkets, hospitals, and other premises in the food sector, can cause food contamination and consequently endanger public health.

Installation recommendations:

- Respect the maximum installation height according to the catalogue
- Air barrier must cover the entire width of the opening

- Must be installed just above the door (not separate from it)
- With the door open, the curtain must be at maximum speed
- The curtain should be on as soon as possible when opening the door:
 - o By default, the “Hand Auto” control and a door contact supplied allow to automatically have a low speed with the door closed and the maximum speed when the door is open (in this way it reaches the maximum flow earlier).
 - o As an option, there is an advanced “Clever” control that has a delayed door contact that will not let us open the door until the curtain is on.
 - o As an option, the door contact supplied can be changed by a motion detector in such a way that when we perceive the approach of a person we already activate the air curtain and in this way the curtain reaches maximum speed before opening the door.
 - o In low consumption EC fans that have a slower start it is more important to always have a low speed with the door closed, or to install a detector so that they start in advance.
- In the case of indoor odours that encourage the entry of insects, the curtain should be installed outside to work with clean air. If it is placed outside, it must be protected from the rain with a roof that prevents the curtain from getting wet.

Power Supply

To connect the power supply there is a black connection box outside the air curtain (located on top).

For curtains, only 230V single-phase current should be connected for the fans or 400Vx3 as an option for the Fly KL and Fly KXL models.

PCBoard and Control

To connect the controller there is a PCBoard (printed circuit) located outside the air curtain (located on top). There is no need to open the unit to connect it.

Use the 7 (or 10) meters RJ45 cable supplied with the equipment. The communication between the controller and the PCB is digital and low-voltage.

Optionally, there are different accessories and controllers available, to meet every customer needs (Clever, door contacts, supports, etc.).

The new total control for ventilation technology is advanced *Clever* regulation. Leading the new generation of air curtains management with maximum control providing maximum energy saving. For more information ask for *Clever Control* manual.

Fixing

Units are provided of several external suspension points, depending on the weight and length of each model (see exact situation of the points at the air curtains characteristics page).

Generally, air curtains are installed horizontally, for vertical installation use the foot kit (see accessories section).

The fixing of the air curtain should be managed according to the weights of each unit shown on the technical data page. The installation can be made through threaded rods, cable tensors or other supports. See available supports in the accessories section.

STORAGE AND TRANSPORT



Attention! Heavy load.
Do not step underneath hanging load during the transport or assembly.

Store in a dry place and weather protected in its original packaging. In case the packing is opened, cover the air curtain to protect it from dust. Do not step or put heavy load over the package to avoid damages to the material. Store temperatures are between -20°C and +40°C.

When carrying material, make sure it is not damaged by the forklift (fork penetration in the packaging). Please see the Packaging indications.

WORKING INSTRUCTIONS



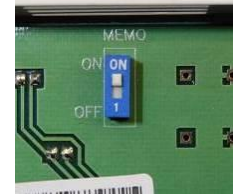
For safety, the air curtains never have to be stopped by disconnecting them from the main supply, always through the controller and wait for 10 minutes at least to disconnect the main supply. In case to not follow these instructions, the internal parts of the air curtain can be damaged.

Control PCBoard characteristics

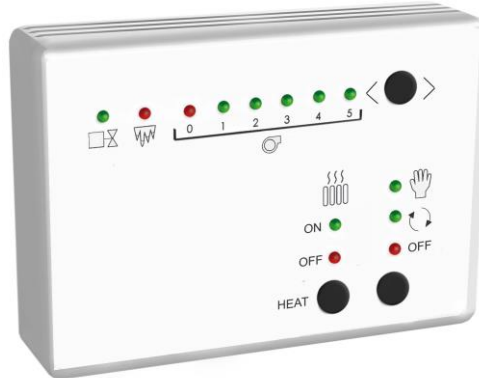
The speed of the fans is regulated by varying the input voltage of the fan assembly. The electronic board has 5 voltage outputs: 120, 140, 170, 200 and 230 Volts.

Controller's common characteristics

- **Controllers:** There are several models depending on the customer's needs (timers, etc.).
- **5 ventilation speed.**
- **Memory:** When a power shortage happens, it guarantees that the selected speed will be maintained when the service is re-established. This function can be connected or disconnected through the switch ON/OFF placed inside the controller.
- **RJ45 cable and digital communication:** "Plug and Play" easy and fast connection through RJ45 cable and digital communication between the controller and the air curtain. This kind of communication is more reliable even at long distances.
- **External ON/OFF:** Inside the controller we can connect a normally open contact (1, 2) that controls the ON/OFF of the equipment through any external device, the contact is potential-free. When the contact is Open, the air curtain is ON. When the contact is closed the air curtain is OFF. It can be used with programmable timer, fire alarms, PLC, etc.



Common characteristics to all controllers for air curtains



The CH-5HW-NE (HAND AUTO) controller is specially designed for anti-insect curtains. In relation to the standard regulator that we serve by default with the blind, the HAND AUTO has some additional functions.

This controller is designed for places with a door where you want to optimize the operation of the air curtain according to the state of the door (open or closed). By automating the operation according to these variables, better performance is achieved with lower consumption and therefore a great improvement in efficiency.

Allows **manual or automatic control**. Furthermore, it incorporates the functions of external On/Off, door contact.

- **Manual:** manual selection of the fan speed (indicated by a green LED).
- **Automatic:** Works automatically depending on:
 - **Door contact:** The operation of this regulator is not justified without connecting it to a door contact, so it is essential that it interact with one. It can be supplied by the manufacturer or an existing one on the door.

Functioning:

- While the **door is open**, we can modify the “air speed with door open” (orange led). The curtain will operate at the chosen speed while the door is open and also during the delay time.
- With the **door closed**, we can choose the “**closed door air speed**” using the speed button. The curtain will operate at this speed as long as the door is closed after the delay time has elapsed (time from when the door closes until it returns to door closed operation 10-150 seconds). The speed is indicated by a green led.
- With the **internal switches** we can modify the **delay time** (time from when the door closes until it returns to the closed door operation 10-150 seconds).

If at any time the door opens the curtain goes at door open speed.

When the door is closed, the curtain remains at the door open speed for the time stipulated in switches 5 and 6 (delay time between 10-150 seconds).

Auxiliary functions of the CH (Hand-Auto):

- **Door contact (+, T):** only in automatic operation, when the door is opened, the air curtain changes from the closed door speed (green led) to the open door speed (orange led). All types of detectors can be used (motion sensors, infrared, etc.).
- **(+, F):** not used
- **(+, R):** not used.
- **External ON/OFF (1, 2):** If we close this contact, the curtain stops working, it is usually connected to a timer, a PLC/BMS, etc.

Programming dip (CH control):

Programming for Magnetic/Mechanical door contact



2 and 7 position ON – With magnetical/mechanical door contact



7 position ON – Without magnetical/mechanical door contact

Inside the control box there is a small battery of microswitches numbered from 1 to 9 that serve to:

- **1:** OFF
- **2:** door contact inverter. OFF-NO position, ON-NC position.
- **3:** OFF

- **5 and 6:** the combination of these two switches is used to modify the delay time from when the door is closed until the equipment returns to normal operation.

Switch 5	Switch 6	Delay Time
Off	Off	10 sec.
On	Off	50 sec.
Off	On	100 sec.
On	On	150 sec.

- **7:** allows you to choose between memory ON/OFF (if the light supply is interrupted and it is ON, the curtain will return to the previous position when the power is restored).
- **8 y 9:** not used

Special controls

If there is a need to be able to control more parameters, there is 1 controller that allows many more possibilities compared to the standard control, the Clever.

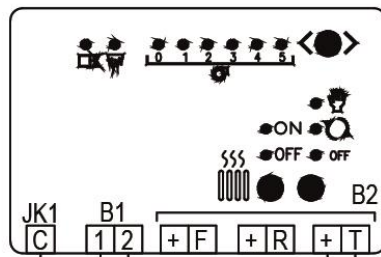
WIRING DIAGRAMS

The following diagrams are enclosed:

- Air curtain with Hand Auto. Fly K/Fly KBB 1000-1500-2000. Diagram: AIRDOE09041
- Air curtain with Hand Auto. Fly KBB 2500-3000. Diagram: AIRDOE09042
- Air curtain with Hand Auto. Fly KL 1000-1500/Fly KXL 1000. Diagram: AIRDOE09251
- Air curtain with Hand Auto. Fly KL 2000-2500-3000/Fly KXL 1500-2000. Diagram: AIRDOE09867
- Air curtain with Hand Auto. Fly KXL 2500-3000. Diagram: AIRDOE09880

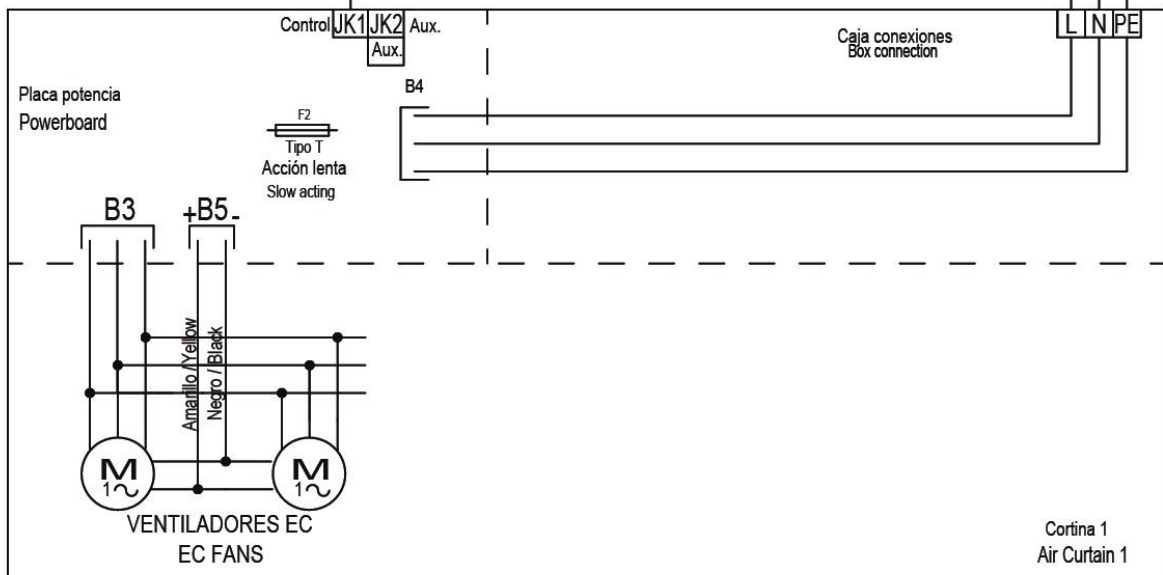
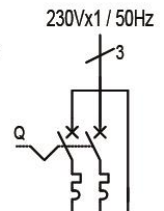
In case you need to connect the equipment to a PLC, the corresponding wiring diagrams will be supplied.

Hand-Auto
Reguladores de 5 velocidades
5 Speeds remote Control



Q = Interruptor magnetotérmico
Si el interruptor es de 30mA, recomendamos poner
un interruptor por cada cortina.

Q = Circuit breaker
If uses a 30mA circuit breaker, we recommend to install
one Circuit breaker for each air Curtain.

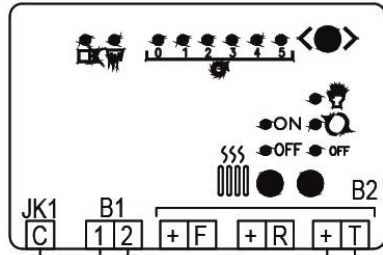


ESQUEMAS ELÉCTRICOS CORTINA DE AIRE VENTILADORES EC
WIRING DIAGRAMS OF AIR CURTAIN EC FANS

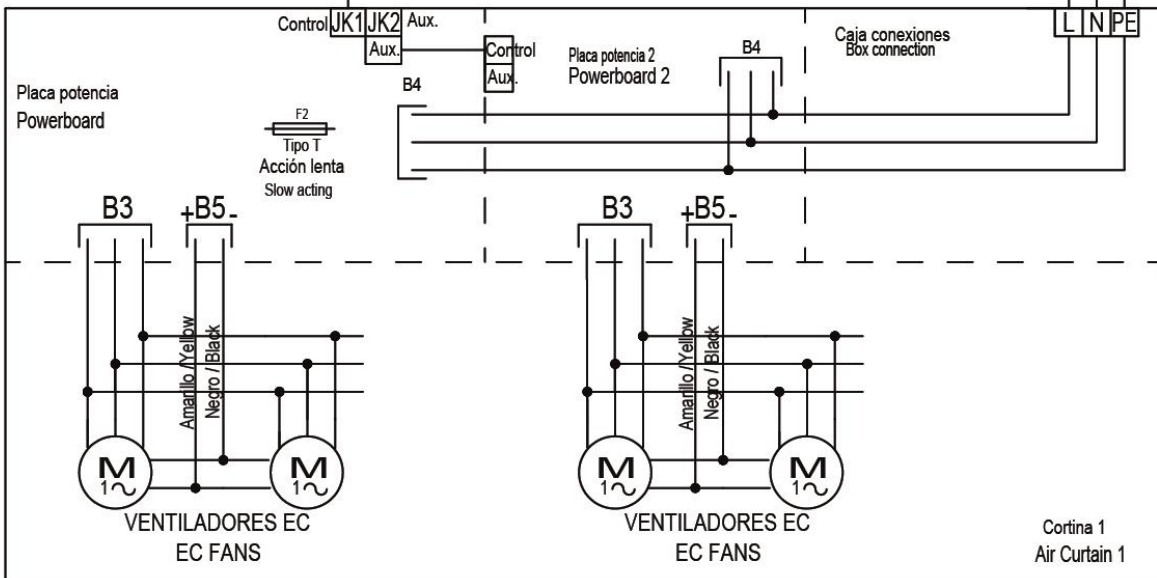
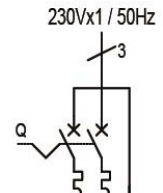
CONTROLADOR HAND AUTO AIRE CORTINA FLY K (TODAS LAS MEDIDAS) Y FLY KBB1000, 1500, 2000
HAND AUTO CONTROLLER ONLY AIR AIR CURTAIN FLY K (ALL MODELS) AND FLY KBB 1000, 1500, 2000

Pág./ Page 1 de/ 1
Doc. AIRDOE09041
R3 - 02/09/2020

Hand-Auto
Reguladores de 5 velocidades
5 Speeds remote Control



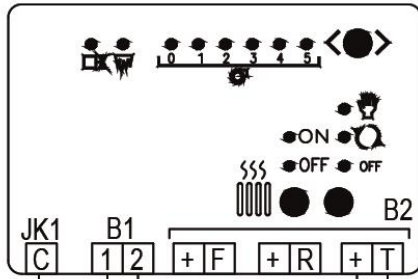
ON/OFF externo
ON/OFF Extern (optional)



ESQUEMAS ELÉCTRICOS CORTINA DE AIRE VENTILADOR EC
WIRING DIAGRAMS OF AIR CURTAIN EC FANS
CONTROLADOR HAND AUTO AIRE FLY KBB 2500, 3000
HAND AUTO CONTROLLER ONLY AIR FLY KBB 2500, 3000

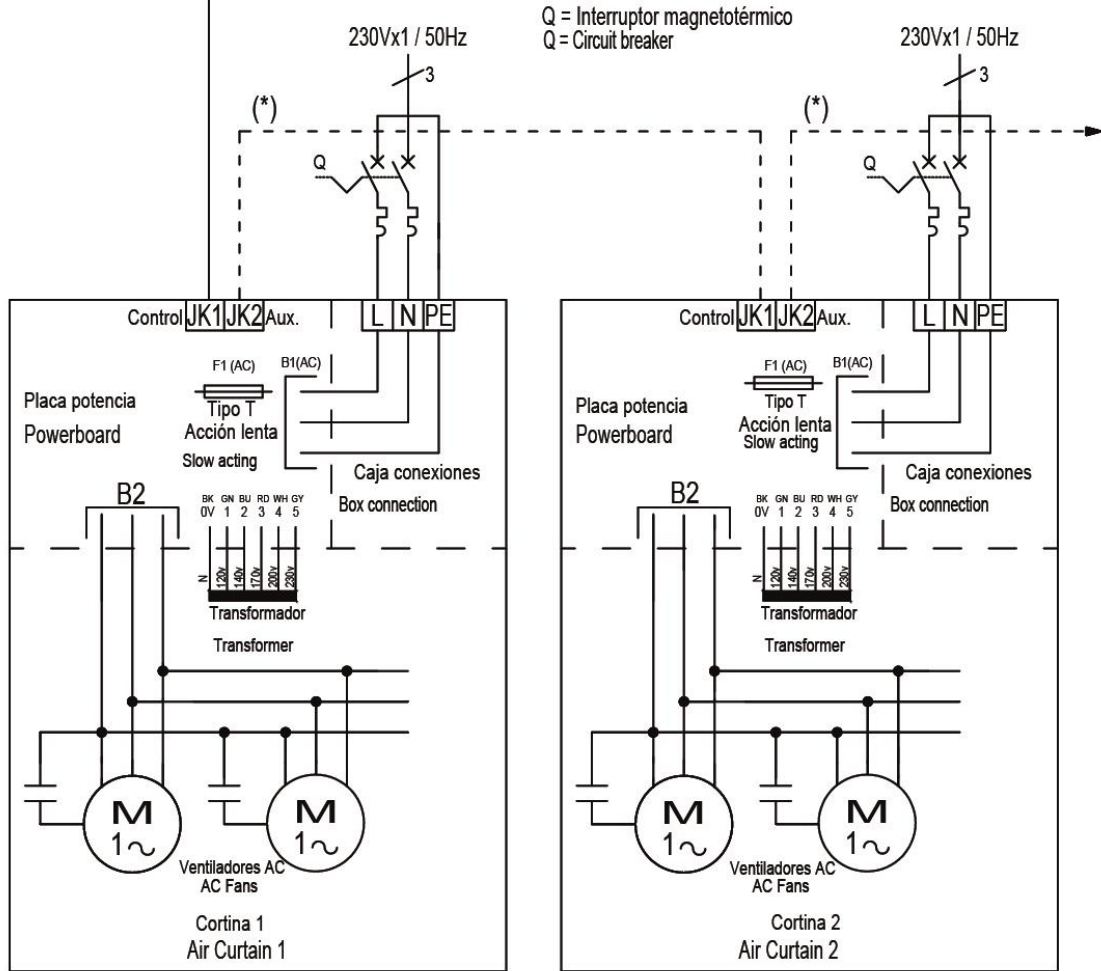
Pág./Page 1 de/of 1
Doc. AIRDOE09042
R3 - 02/09/2020

Hand-Auto
Reguladores de 5 velocidades
5 Speeds remote Control



ON/OFF externo
ON/OFF Extern (optional)

Q = Interruptor magnetotérmico
Q = Circuit breaker

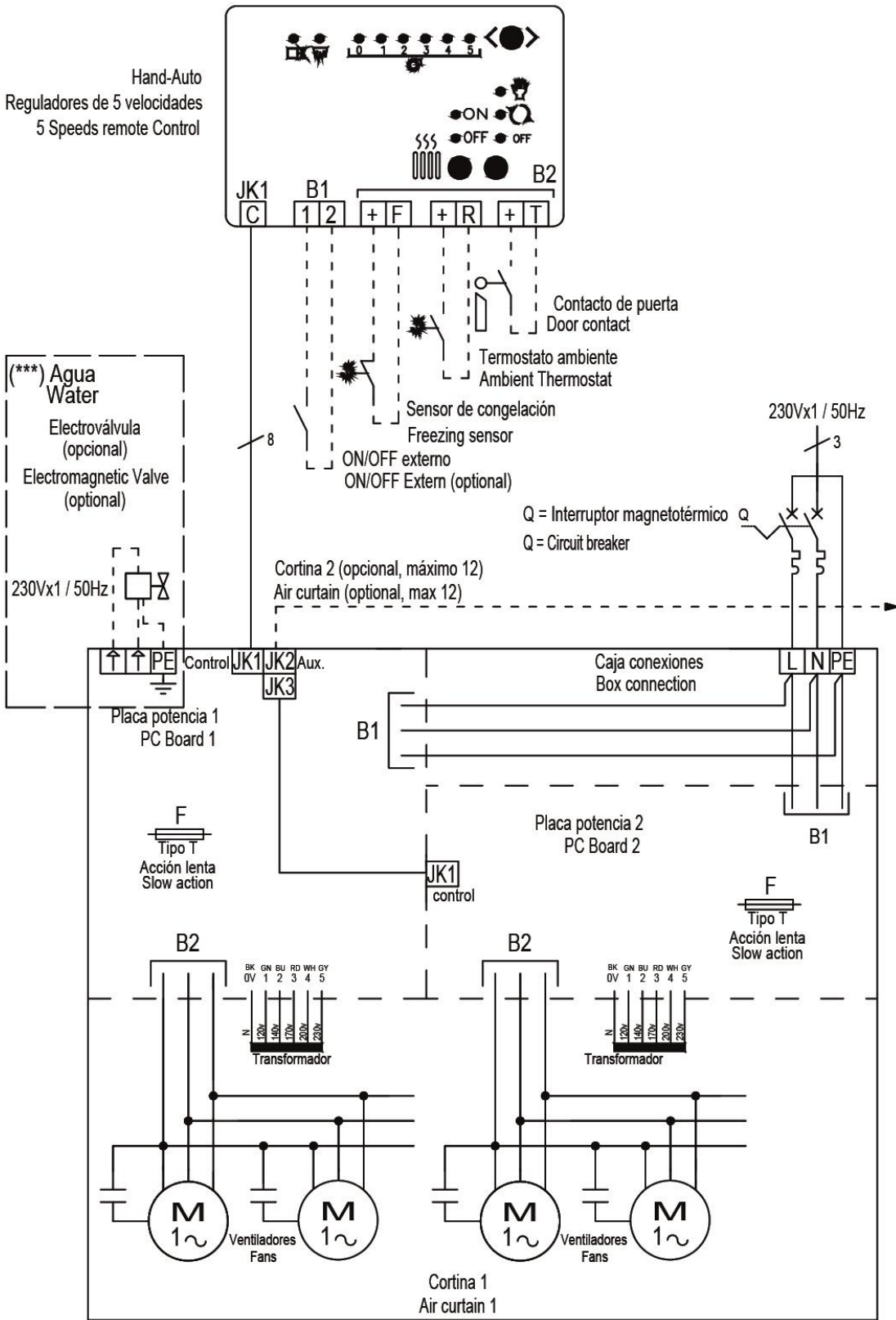


(*) Cortina 2 (opcional, máximo 12)
Air Curtain 2 (optional, Max 12)

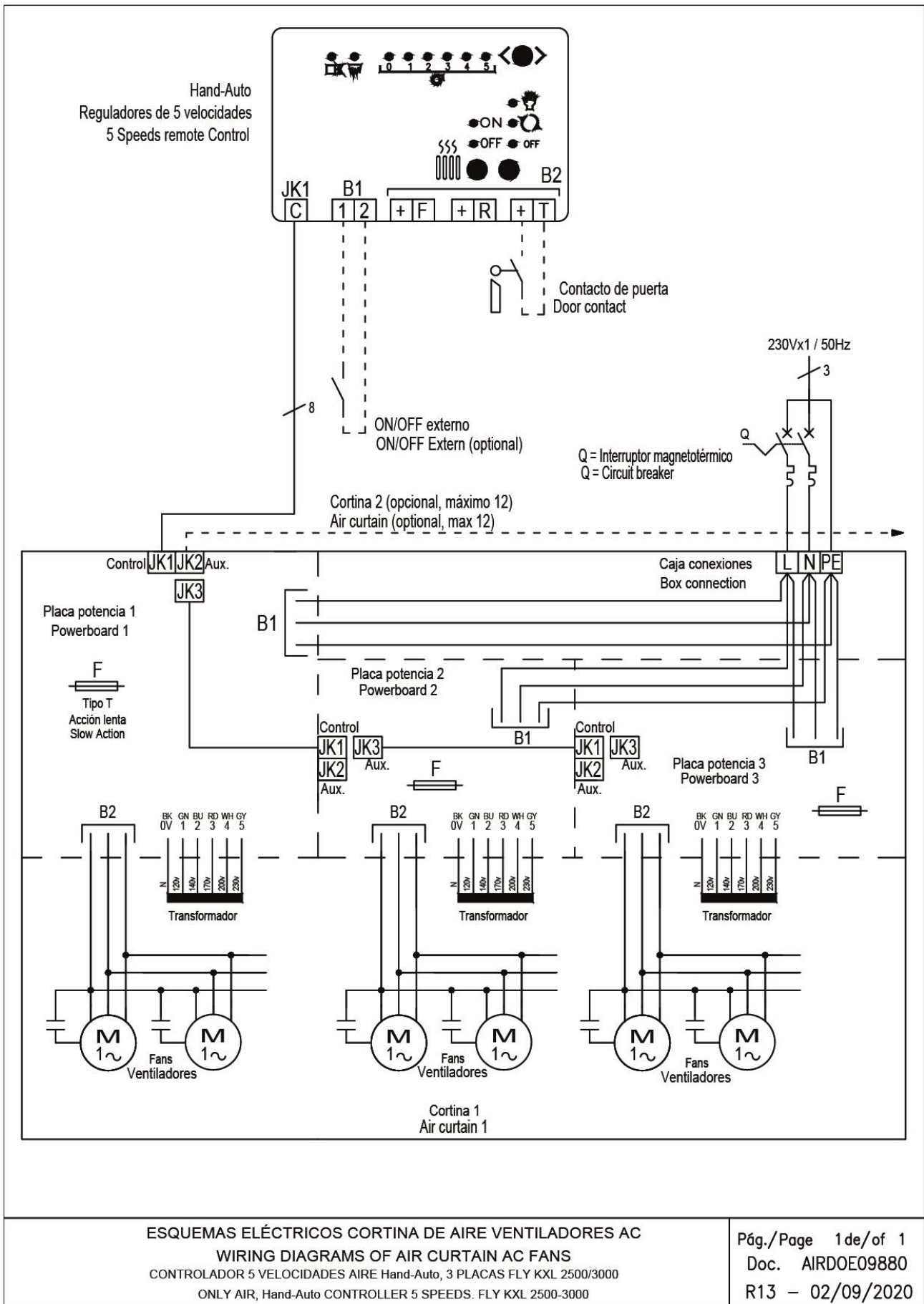
ESQUEMAS ELÉCTRICOS CORTINA DE AIRE VENTILADORES AC
WIRING DIAGRAMS OF AIR CURTAIN AC FANS
CONTROLADOR Hand-Auto AIRE FLY KL 1000-1500, FLY KXL 1000
ONLY AIR, CONTROLLER HAND AUTO. FLY KL 1000-1500, FLY KXL 1000

Pág./Page 1 de/of 1
Doc. AIRDOE09251
R13 - 02/09/2020

Hand-Auto
Reguladores de 5 velocidades
5 Speeds remote Control



ESQUEMAS ELÉCTRICOS CORTINA DE AIRE VENTILADORES AC
WIRING DIAGRAMS OF AIR CURTAIN AC FANS
CONTROLADOR 5 VELOCIDADES Hand-Auto AIRE FLY KL 2000-2500-3000, FLY KXL 1500-2000
ONLY AIR, Hand-Auto CONTROLLER 5 SPEEDS. FLY KL 2000-2500-3000, FLY KXL 1500-2000



DATASHEET

FLY K | High Pressure Insect Control Air Curtains For Commercial And Industrial Doors



Characteristics

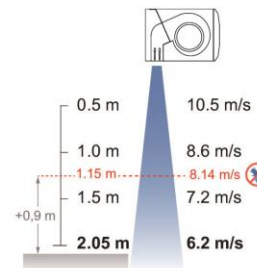
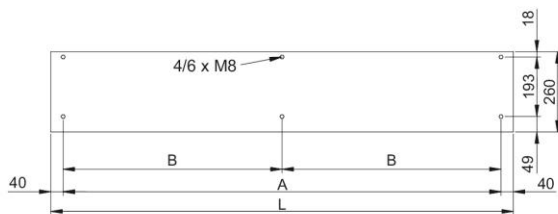
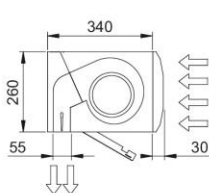


- Specially designed for insects control at entranceways such as food establishments and industry, hospitals or clean zones.
 - High velocity air barrier to prevent flying insects from entering a building. Up to 2m height doors according to NSF 37 standard
 - Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request.
 - Large perforated inlet grille avoiding intensive maintenance.
 - Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
 - EC Double-inlet centrifugal fans driven by an external rotor motor and low noise level, with very low consumption efficiency fans.
 - "A" type without heating, air only.
 - Includes Plug&Play Hand Auto control with 7m RJ45 cable and magnetical door contact.
- Optional: Clever control (programmable, automatic, intelligent, energy saving, Modbus RTU for BMS...).

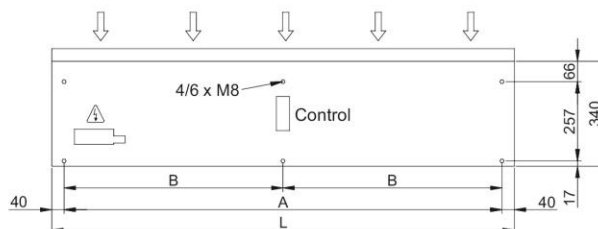
Specifications

AIR ONLY						
Model	Airflow m ³ /h	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg	
FLY K 1000 A	2700	0,225	1,95	61	37	
FLY K 1500 A	3600	0,300	2,60	62	56	
FLY K 2000 A	5400	0,450	3,90	63	71	
FLY K 2500 A	6300	0,525	4,55	64	78	
FLY K 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



According to standard NSF-37-2012, the maximum installation height is the speed profile point at 8,14m/s plus 0,9m. So FLY K can be used until 1,15m+0,9m=2,05m.



Characteristics

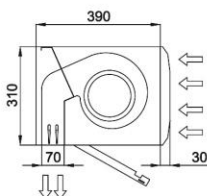


- Specially designed for insects control at entranceways such as food establishments and industry, hospitals or clean zones.
 - High velocity air barrier to prevent flying insects from entering a building. Up to 3,5m height doors according to NSF 37 standard
 - Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request.
 - Large perforated inlet grille avoiding intensive maintenance.
 - Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
 - EC Double-inlet centrifugal fans driven by an external rotor motor and low noise level, with very low consumption efficiency fans.
 - "A" type without heating, air only.
 - Includes Plug&Play Hand Auto control with 7m RJ45 cable and magnetical door contact.
- Optional: Clever control (programmable, automatic, intelligent, energy saving, Modbus RTU for BMS...).

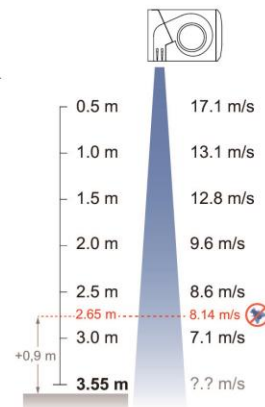
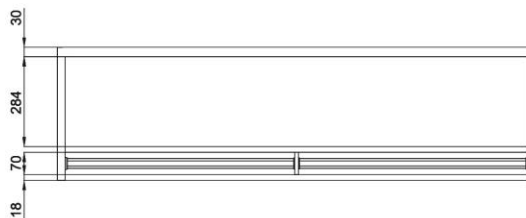
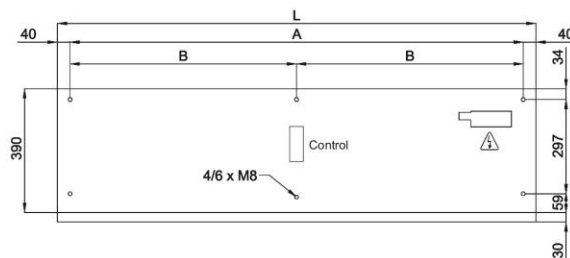
Specifications

AIR ONLY					
Model	Airflow m ³ /h	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
FLY KBB 1000 A	3900	0,921	4,08	67	38
FLY KBB 1500 A	5200	1,228	5,44	67,5	62
FLY KBB 2000 A	7800	1,842	8,16	68	77
FLY KBB 2500 A	9100	2,149	9,52	68,5	93
FLY KBB 3000 A	10400	2,456	10,88	69	106

Dimensions



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



According to standard NSF-37-2012, the maximum installation height is the speed profile point at 8,14m/s plus 0,9m. So FLY KBB can be used until 2,65m+0,9m=3,55m.



Characteristics

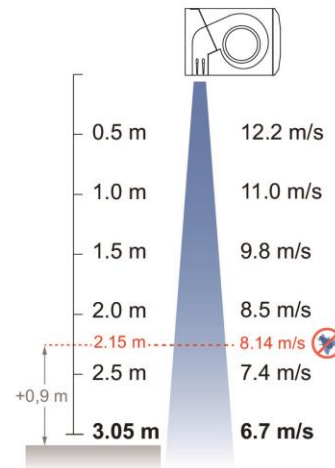
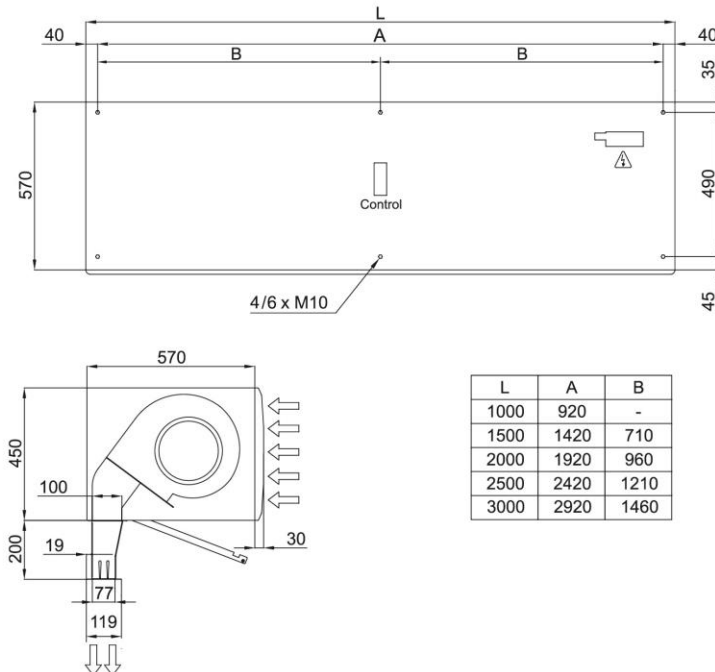


- Specially designed for insects control at entranceways such as food establishments and industry, hospitals or clean zones.
 - High velocity air barrier to prevent flying insects from entering a building. Up to 3m height doors according to NSF 37 standard
 - Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request.
 - Large perforated inlet grille avoiding intensive maintenance.
 - Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
 - Double-inlet centrifugal fans driven by an external rotor motor and low noise level. 5-speed selector.
 - "A" type without heating, air only.
 - Includes Plug&Play Hand Auto control with 10m RJ45 cable and magnetical door contact.
- Optional: Clever control (programmable, automatic, intelligent, energy saving, Modbus RTU for BMS...).

Specifications

AIR ONLY					
Model	Airflow m ³ /h	Fans Power 230V-50Hz kW	Fans Current 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
FLY KL 1000 A	4000	1,04	4,40	63	76
FLY KL 1500 A	6000	1,56	6,60	64	114
FLY KL 2000 A	8000	2,08	8,80	65	153
FLY KL 2500 A	10000	2,60	11,00	66	187
FLY KL 3000 A	12000	3,12	13,20	67	225

Dimensions



According to standard NSF-37-2012, the maximum installation height is the speed profile point at 8,14m/s plus 0,9m. So FLY KL can be used until 2,15m+0,9m=3,05m.



Characteristics

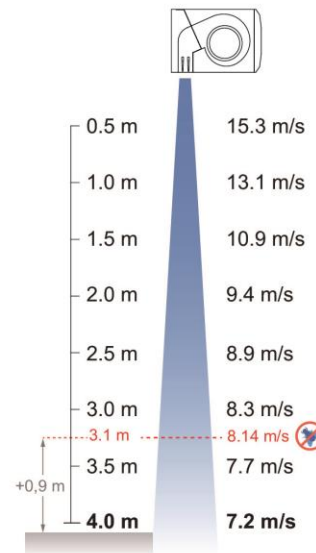
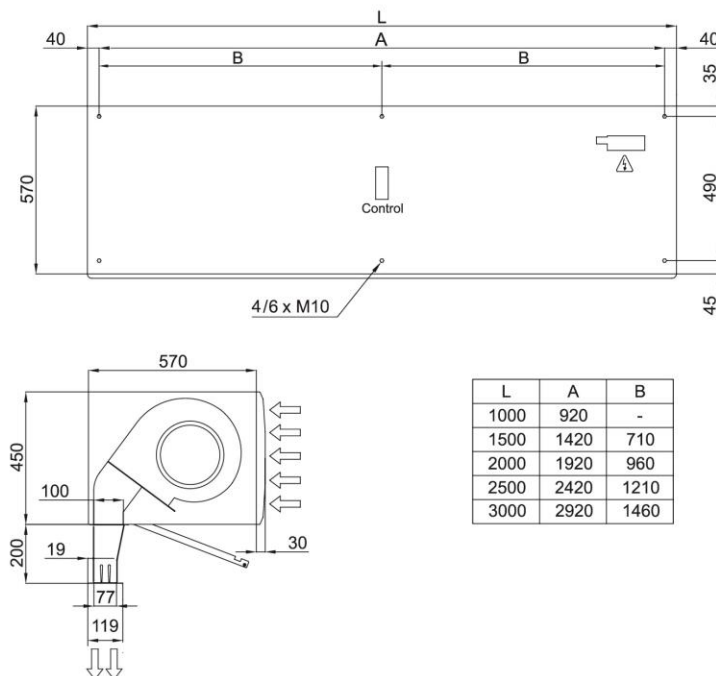


- Specially designed for insects control at entranceways such as food establishments and industry, hospitals or clean zones.
 - High velocity air barrier to prevent flying insects from entering a building. Up to 4m height doors according to NSF 37 standard
 - Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request.
 - Large perforated inlet grille avoiding intensive maintenance.
 - Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
 - Double-inlet centrifugal fans driven by an external rotor motor and low noise level. 5-speed selector.
 - "A" type without heating, air only.
 - Includes Plug&Play Hand Auto control with 10m RJ45 cable and magnetical door contact.
- Optional: Clever control (programmable, automatic, intelligent, energy saving, Modbus RTU for BMS...).

Specifications




AIR ONLY						
Model	Airflow m ³ /h	Fans Power 230V-50Hz kW	Fans Current 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg	
FLY KXL 1000 A	5300	1,40	6,00	65	82	
FLY KXL 1500 A	7950	2,10	9,00	66	123	
FLY KXL 2000 A	10600	2,80	12,00	67	165	
FLY KXL 2500 A	13250	3,50	15,00	68	202	
FLY KXL 3000 A	15900	4,20	18,00	69	243	

Dimensions



According to standard NSF-37-2012, the maximum installation height is the speed profile point at 8,14m/s plus 0,9m. So FLY KXL can be used until 3,1m+0,9m=4,0m.

MAINTENANCE INSTRUCTIONS

	<i>For safety, before any cleaning, disconnect power supply using the controller.</i>
	<i>It is forbidden to open the service door (risk of electrical discharge and being trapped in fans). Service and maintenance should be done only by introduced and qualified workers.</i>
	<i>Do not use water or steam for cleaning the internal parts and components of the air curtain.</i>

External cleaning

Air curtains don't need any kind of maintenance except from the cleaning of the casing and the inlet grille.

It is recommended to weekly clean the inlet grille. It is important to make sure that the air curtain is OFF, otherwise the dust mixed with a wet cloth would create a kind of paste that will damage the fan rotor when it sucks the air.




Annual cleaning of the discharge area (outlet).

The casing of the air curtain should be cleaned with a wet cloth and non-aggressive detergent. Do not use caustic soap or acids.

The inlet grille prevents the settling of dust and strange objects in the internal elements. It is recommended to check periodically that the inlet grille is free of any object that could interfere the air entrance (plastic bags, papers, etc.).



REPAIRS AND REPLACEMENTS

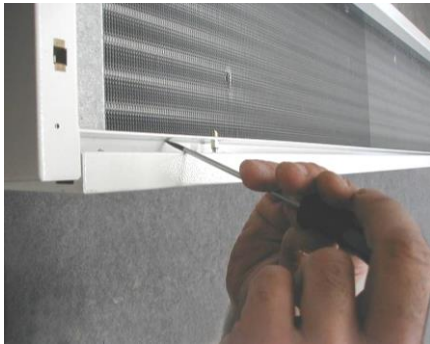
  	<p><i>Installation and electrical connections must be done by qualified workers and following these instructions.</i></p> <p><i>Before any repairs are undertaken, please:</i></p> <ul style="list-style-type: none"> • <i>Inform people that there is work in progress.</i> • <i>Disconnect the power supply and protect the thermal magnet (so nobody can restart it accidentally).</i> • <i>Make sure there is no tension in the air curtain.</i> • <i>Make sure the fans are stopped.</i> • <i>Use only original spare parts.</i>
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To **open the service door**, follow these steps

1.- Insert a flat screwdriver between the frame and the rack and push the rack out. The grille is snap closed with pivots. It has a safety cable to prevent accidental falls.



2.- **OPTIONAL:** Remove the security screw from the service door.



3.- Insert a screwdriver and press next to the pivots to open the service door. In the case of a curtain with **plenum box** or **suction and discharge kits**, the lever must be made on the side of the door where a slot has been made to facilitate the entry of a flat screwdriver.



Fan replacing

Before changing the fan, notify and indicate that is working, disconnect the power supply, make sure that there is no voltage and that the fans have stopped.

K, KBB: Unplug the fan from the cable tree. Remove the fan by loosening the fixing screws and assemble the new fan following the process in reverse order.



KL: Next identify and release the fan cables. Remove the fan by loosening the fixing screws and fit the replacement fan in reverse order.

KXL: Next, identify and release the fan cables. Remove the flange bolts (photo 2) to remove it from the curtain (photo 1), remove the fan bolts and mount the replacement fan following the process in reverse order.



Photo 1



Photo 2

Replacing the power board or fuse

Before changing the power board or fuse, warn and indicate that it is working, disconnect the power supply, make sure that there is no voltage and that fans have stopped.

Fuse change: Open the service door and remove the fuse by hand or the help of a screwdriver by pressing towards the plate and turning it counter clockwise and replace it.



Power plate replacement: Open the service door and simply unscrew the power plate from the inside of the shade so that you can remove the plate and perform the necessary repair.



FAILURES AND SOLUTIONS

More than 95% of the complaints are submitted during the start of operation of the equipment and are due to installations errors.

More than 90% of the failures are solved only by **checking the connections**. Following the three following points, we can make sure that the installation is correct:

A) RJ45 cable manipulated: The cable that connects the controller to the air curtains is an 8 lines crossed RJ45 cable. **If manipulated (cut or removed the connector) and incorrectly joined (reverse way) the air curtain will not work well.** Moreover it can damage the electronics. To solve the problem just turn the connector of the cable (see connection diagram in the first page).

B) Wrong connection of the RJ45 cable. Verify whether the connector position is the correct, between the “control” and “auxiliary”, according to the installation diagram (particularly if there are several air curtains with a single controller).

C) Wrong current supply/input. The air curtain input depends on the type of current available and also on the heating type of the unit. Connect the unit according to the connection diagrams of the first page.

More common failures and solutions		
Effect	Problems	Solutions
All lights of the controller are OFF	Is the RJ45 cable the original (not manipulated), with no enlargements either shortenings?	Change the cable or connect it again correctly.
	Does the current reaches the connection box?	Connect correctly the terminals of the junction box: Between L and N there must be 230V and if the air curtain goes with three-phase electrical element, there must be 400V among terminals L1, L2 and L3.
	Is the controller connected to the air curtain, to the connector “Control” of the PCBoard?	Connect the cable from the controller to the “Control”, never to the “Aux”.
	Is the fuse of the PCBoard in good conditions?	Check the fuse and replace it in case it is necessary (type T, slow action).
Some lights of the controller are Flashing.	The green LED of the maximum speed flashes when we stop the air curtain after having been operating with heating.	It is not a failure, but a safety mechanism. The air curtain turns on by itself to the maximum speed to get cold and protect its components. When it decreases from the safety temperature, it will stop.
	Some speed or heating lights are flashing when the air curtain is working.	It is a protection mechanism of the air curtain so that the internal parts of the air curtain do not suffer damages. Situations on which the problem continuously recurs and the way to solve it: 1. Inlet grille blocked (objects, dirtiness...) the ambient temperature inside the equipment can increase a lot if the air cannot circulate. Clean the grille. 2. Small room: we recommend installing a thermostat to control the heating power so the protection device do not activates. 3. In case that the ambient temperature is already high, we recommend to lower the power heating or install a thermostat. 4. Inlet air already warm, that comes from another heating equipment beyond the air curtain. Move the air curtain away, place a thermostat in the inlet part of the curtain or lower the heating power. 5. Any motor does not work: call the technical service.
The heating does not work	Does the three-phase current reach the connections box?	Check installation.
The speed and/or the heat changes continuously with no apparent reason but the lights of the controller are not flashing.	Probably the RJ45 cable is near interference sources, transmitters, cable plates, particularly those that supply current to Motors, etc.	Pass the cable the furthest possible away from interference sources, particularly when long distances or use a screened table.

ACCESSORIES



Clever Control

Intelligent proactive regulation, advanced functions, Automatic/manual working, door delay, timer, save energy program, multi equipment management, BMS Modbus connection, etc.



External temperature Sensor

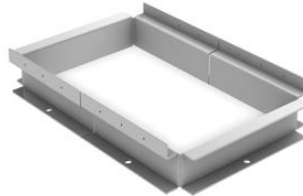
It permits to take the temperature from a place different to the control.



Interface II

Allows the connection to a centralized management system (BMS, PLC, etc.).

Supports, feet, vibration dampers, etc. depending on the model.



Cable RJ45 20m y 50m



DECLARATION OF CONFORMITY



Declaration of conformity / Declaración de conformidad

Manufacturer **Motors i Ventiladors S.L. (AIRTECNICS)**
Fabricante **Conca de Barberà 6, Pol. Ind. Pla de la Bruguera
08211 Castellar del Vallès (Barcelona) Spain**

We declare, under our sole responsibility, that the product
Declaramos, bajo nuestra única responsabilidad, que el producto

Air Curtains
Cortinas de aire

with models
con los modelos

**Minibel, Optima, Recessed Optima, Optima Wireless, Recessed Optima
Wireless, Windbox, Recessed Windbox, Smart, Dam, Deco, Kool, Variwind,
Rotowind, Invisair, Rund, Zen, Triojet System, Duojet, Max, Recessed Dam,
Recessed Compact, Maxwell, Windbox BB, Recessed Windbox BB, Zen BB,
Compact Fly, Aris, Fly K, Fly KL-KXL, Fly KBB, Windbox L-XL.**

is/are developed, designed and manufactured in accordance with the following directive(s)
ha(n) sido desarrollado(s), diseñado(s) y fabricado(s) de acuerdo con la(s) siguiente(s) directiva(s)

Low Voltage Directive 2014/35/UE
Directiva Baja Tensión 2014/35/UE

Electromagnetic Compatibility Directive 2014/30/UE
Directiva Compatibilidad Electromagnética 2014/30/UE

Restriction Certain Hazardous Substances Directive 2011/65/EU (RoHS)
Directiva Restricción Substancias Peligrosas 2011/65/EU

Eco-design Energy-related Products Directive 2009/125/EC
Directiva Diseño Ecológico Productos Con Energía 2009/125/CE

applying the following harmonized standards in particular
aplicando las siguientes normas armonizadas en particular

**LVD: EN 60335-1:2012 / AC:2014 / A11:2014 / A13:2017 / A:14:2020
EN 60335-2-30:2010 / A11:2012 / A1:2020**

**EMC: EN 61000-3-11:2002
EN 61000-3-12:2012
EN 55014-1:2017
EN 55014-2:2015**

RoHS: EN 50561:2012

Date / Fecha **13/07/2020**
Name / Nombre **Jordi Hierro**
Position / Cargo **Technical Manager / Director Técnico**



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08211 Castellar del Vallès
Tel. 937159368 - Fax 937159988



Model <i>Modelo</i>	WINDBOX M 2000 E				
Airflow <i>Caudal</i>	3600	m3/h			
Blowers <i>Ventiladores</i>	1,88	A	0,424	kW	230 V/50Hz
Heating capacity <i>Calefacción</i>	80/60 °C		60/40 °C		
Water Coil <i>Agua</i>		kW		kW	
Electric Coil <i>Batería Eléctrica</i>	6/12/18		kW	400V~3 50Hz	
Serial Number <i>Número de Serie</i>	2015-07-06 / 61.990				

Air curtain identification

Each air curtain is identified by a unique serial number printed in a label located inside the door service. There is also indicated the model and their technical characteristics (flow, fans technical characteristics and power heating).

It is indispensable to have this number to facilitate possible replacements or technical information of the air curtain in question.

If you detect some error in this manual, we'll be pleased to receive your *feedback*, it helps us to improve even more.

Airtècnics reserves the right to modify some of the specifications in this manual.

GUARANTEE

Your air curtain is guaranteed for a period of one year from the date of purchase. We will adjust, repair or replace at our discretion from our warehouse any defect, system failure or part found to be defective. The assembly cost out of our warehouse is at buyer expense. The products that, in our eyes, have been inadequately used, incorrectly manipulated, improperly installed, connected to different nominal tensions, modified, repaired by non-authorized workers or that have suffered damages during transport are totally excluded from the guarantee.

To validate the guarantee it should be correctly filled and enclosed with the invoice that vouches for the buying date. If it is manipulated, it will lose all validity.

It is the buyer's responsibility to take the necessary safety measures because in case of a failure or mistake in one of our products, no damages to third parties, sets or installations will occur.

✂ -----

Guarantee draft

Air curtains data:

Model: Series number:
 Invoice date: Invoice number:

Buyer data:

Name:
 Address:
 Country: Phone: Fax:

Seller data:

Name:
 Address:
 Country: Phone: Fax:

Buyer signature and stamp

Seller signature and stamp