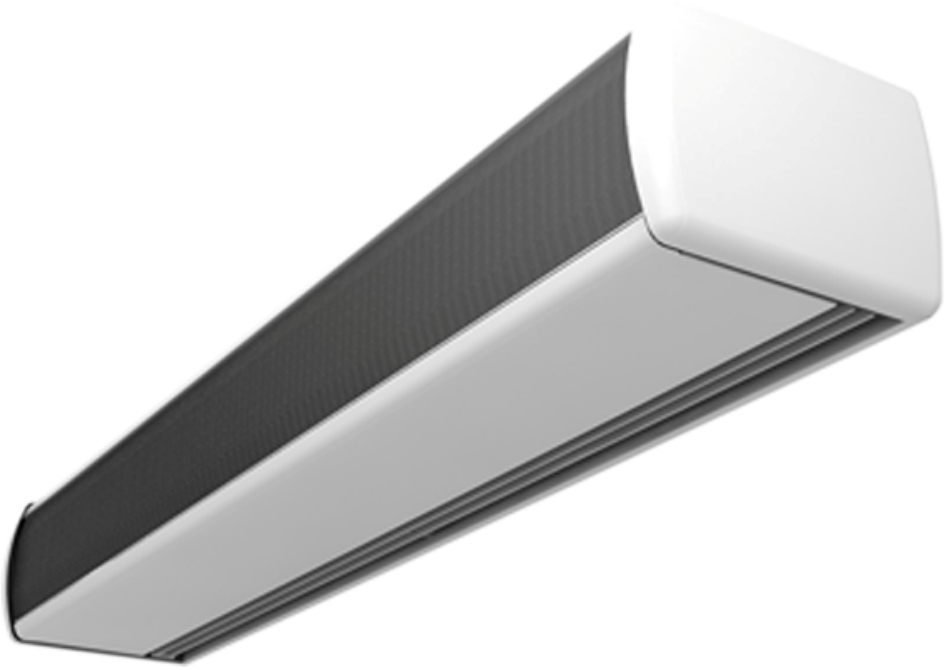
OPERATING MANUAL



OPTIMA

SECURITY ADVISE SIMBOLS

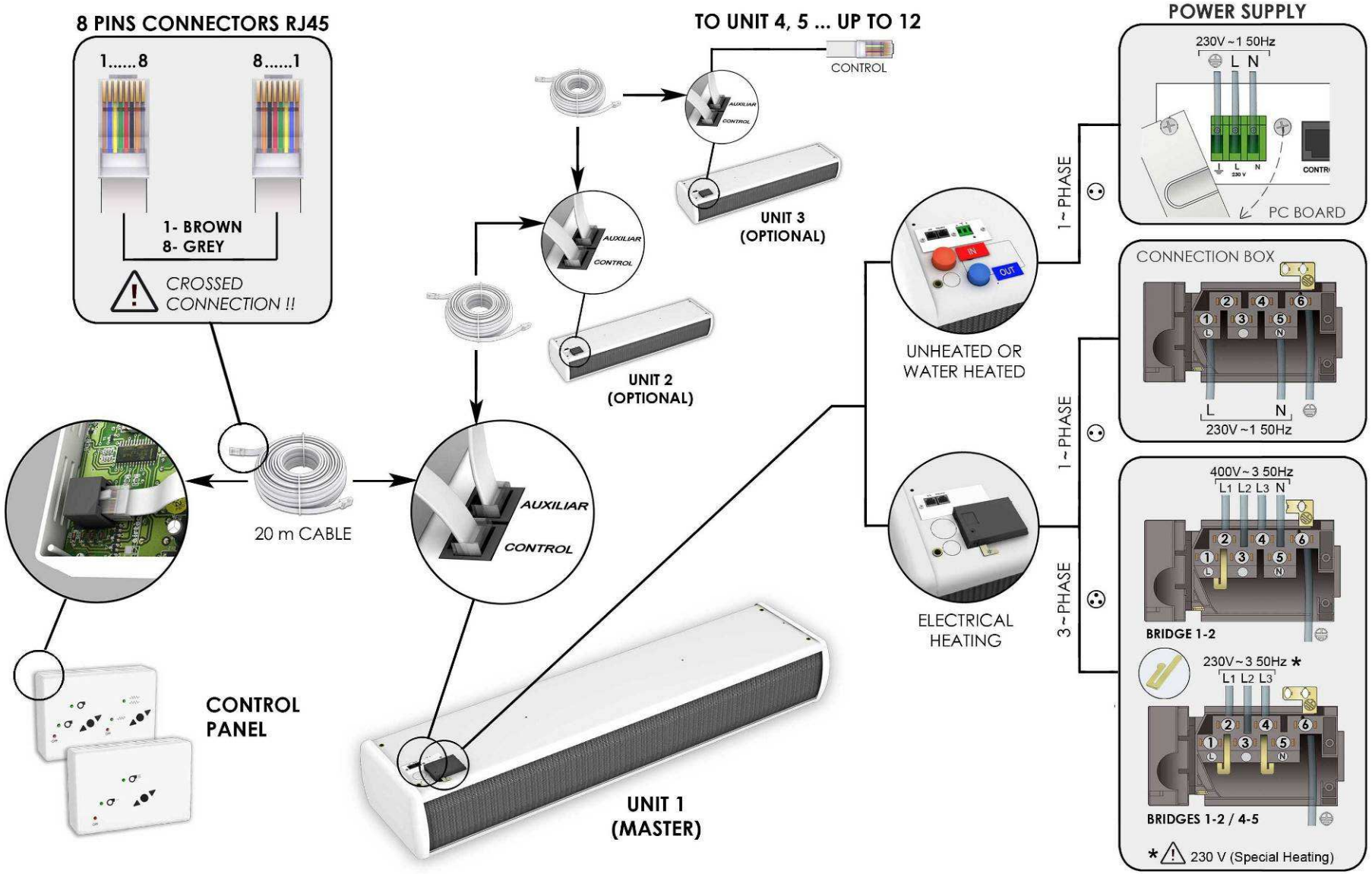
Attention, Danger, Safety Advice!

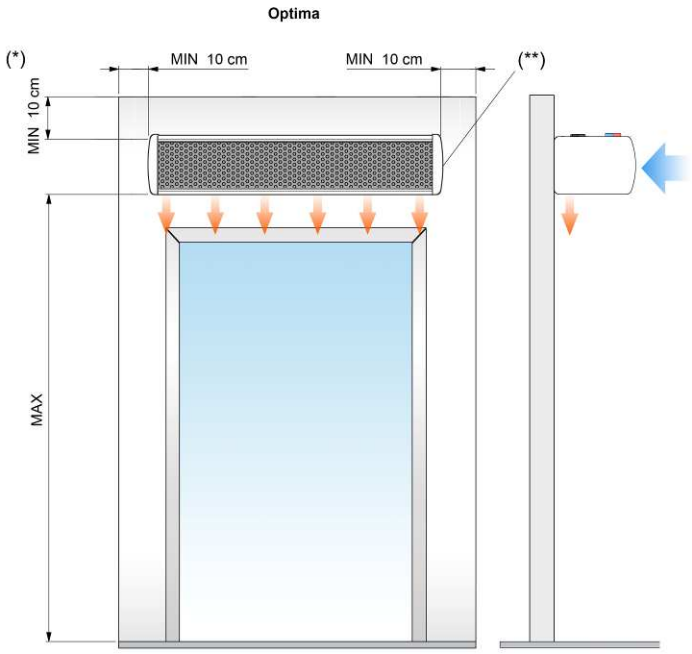
Danger from electric current of high voltage!

Injuries risk!

Danger! Do not step underneath: Heavy load

Important Information!


8 PINS CONNECTORS RJ45
1.....8
8.....1
1- BROWN
8- GREY
CROSSED CONNECTION !!
TO UNIT 4, 5 ... UP TO 12
CONTROL
AUXILIAR
CONTROL
UNIT 3 (OPTIONAL)
UNIT 2 (OPTIONAL)
20 m CABLE
CONTROL PANEL
UNIT 1 (MASTER)
UNHEATED OR WATER HEATED
ELECTRICAL HEATING
IN
OUT
1~ PHASE
1~ PHASE
3~ PHASE
POWER SUPPLY
230V~1 50Hz
L N
PC BOARD
CONNECTION BOX
L N
230V~1 50Hz
400V~3 50Hz
L1 L2 L3 N
BRIDGE 1-2
230V~3 50Hz *
L1 L2 L3
BRIDGES 1-2 / 4-5
* 230 V (Special Heating)



(**)Removable covers
MAX. Maximum recommended height, MIN Minimum recommended distance

Minimum recommended distance between the inlet grille and any obstacle is of 200 mm.

	Installation work, connection, disconnection, electrical wiring, mechanical maintenance and service must be done by qualified persons observing these instructions and in accordance with all applicable norms and standards. If the unit is operated with additional controller, please consider its specific instructions.
	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.
	For safety, the air curtains never have to be stopped by disconnecting from the main supply, always through the controller and wait for 10 minutes at least to disconnect the main supply. In case we do not follow these instructions, the internal parts of the air curtain can be damaged.

Power supply

To connect the power supply there is a black connection box outside the air curtain (on top or lateral). There is no need to open the unit to connect it.

For an ambient air or water heated air curtain, just connect the single phase 230Vx1.

In case of an air curtain with electrical heating we will also connect the three phase 400Vx3 of the electrical element. Optionally under request the current of the electric battery can be three phase 230Vx3 or single phase 230Vx1 depending on model (special wiring diagram will be enclosed).

PCBoard and control

To connect the controller there is a plate located outside the air curtain (on top or lateral). There is no need to open the unit to connect it.

Use the telephone cable of 20 meters (RJ45 connectors) supplied with the equipment. The communication between the connector plate and the controller is digital through low-voltage.

Optionally, there are available different accessories and controllers, to cover every customer's needs (week timer, thermostats, door contacts, anti-freezing sensor, supports, valves, etc.…).

Fixing

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

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

Water coils

It is recommended:

- Close the warm water circulation (by closing the electro valve) to avoid motor overheating while the unit is OFF. The electro valve is optional.
- Install 2 shut-off water valves (supply and return) in order to dismantle the equipment easily.
- Install a bleeding point at the highest part of the heating water circuit.

The ambient temperature should be always over +4ºC, otherwise it will be necessary to provide an anti-frost protection device.
Water coils have a draining point placed at the end part of the intake manifold.

Electrical element

The heat exchanger has 3 resistances in bar form that combined among them they give us 2 stages of power. The control is made through 2 contactors of 2 and 1bars respectively.

All electrical elements are protected electrically and electronically against overheating (see “operating instructions” section).

The electric controllers have the option to install an external thermostat that turns on/off the heating in order to control the temperature.

During the first uses scent can be emitted but it disappears in a few days.

TRANSPORT AND STORAGE

Attention! Heavy load.
Do not steep under hanging load during the transport or assembly.

Store in a dry place and weather protected in its original packaging. In case the packing is open, 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 -20ºC and +40ºC.

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

OPTIMA | Air Curtains For Commercial Doors

Characteristics

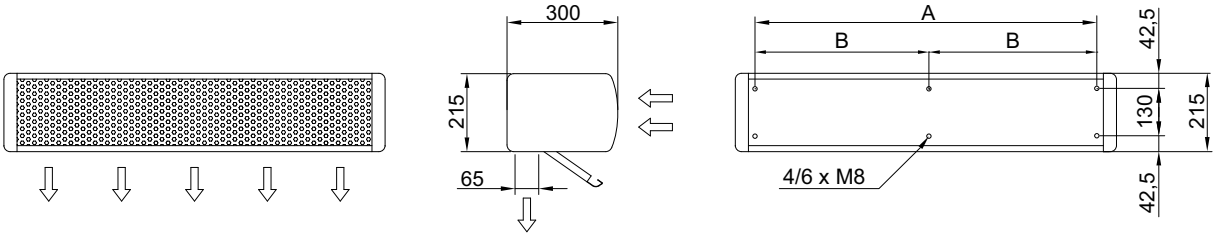
- Self-supporting casing construction made of galvanized plated steel, painted epoxy-polyester structural white colour RAL 9016 as standard. Other colours are available on request.
- Low noise twisted cross-flow fans driven with a two speed external rotor motor.
- Micro-perforated inlet grille with filter functions makes unnecessary an intensive filter servicing, only has to be periodically wiped or vacuumed
- "P" type includes water heated coil. "E" type includes electrical shielded element, two power stages with power switches included. "A" type is without heating, air only.
- Linear blow-out jets with airfoil profiled anodized aluminium lamellas.
- Control panel and 20m of telephonic cable with fast connectors type RJ45 (Plug & Play), included. Optional: Interface to connect to BMS.

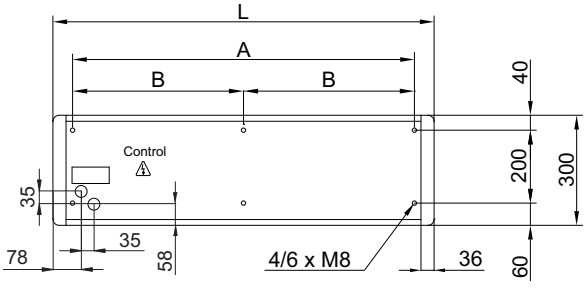
Specifications

Model	Airflow	Heating capacity 80/60ºC	Water Drop Pressure	Electrical Heating Capacity (*)	Electrical Heating Voltage	Electrical Heating Current	Power Fans 230V-50Hz	Current Fans 230V-50Hz	Noise Level (5 m)	Weight
	m3/h	kW	Pa	kW	V	A	W	A	dB(A)	kg
OPT 1000 A	850/1350	-	-	-	-	-	40/87	0,19/0,40	41/50	17,5
OPT 1000 P	725/1150	7,3	4170	-	-	-	40/87	0,19/0,40	41/50	20
OPT 1000 E	850/1350	-	-	4/6	400Vx3	5,8/8,7	40/87	0,19/0,40	41/50	19,5
OPT 1000 E230	850/1350	-	-	3,8/5,6	230Vx1	16,5/24,5	40/87	0,19/0,40	41/50	19,5
OPT 1500 A	1250/2050	-	-	-	-	-	64/117	0,32/0,53	43/52	25
OPT 1500 P	1100/1750	11,4	4500	-	-	-	64/117	0,32/0,53	43/52	28,5
OPT 1500 E	1250/2050	-	-	6/9	400Vx3	8,7/13	64/117	0,32/0,53	43/52	28,5
OPT 1500 E230-6	1250/2050	-	-	3,8/5,6	230Vx1	16,5/24,5	64/117	0,32/0,53	43/52	28,5
OPT 1500 E230-9	1250/2050	-	-	6/9	230Vx1	26/39,1	64/117	0,32/0,53	43/52	28,5
OPT 2000 A	1700/2700	-	-	-	-	-	80/174	0,38/0,80	46/55	33
OPT 2000 P	1450/2300	15	4290	-	-	-	80/174	0,38/0,80	46/55	37,5
OPT 2000 E	1700/2700	-	-	5,6/11,3	400Vx3	8,1/16,3	80/174	0,38/0,80	46/55	42
OPT 2000 E230	1700/2700	-	-	5,6/11,3	230Vx1	24,5/49,1	80/174	0,38/0,80	46/55	42

Water heated pipes connection 1/2"
(*) Under request other electrical heating capacities may be supplied

Dimensions





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

OPERATING INSTRUCTIONS

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

Connector plate characteristics

The relays PCBoard adjust the 2 ventilation speeds according to the connection of the condenser.

Controller's common characteristics:

- **Controllers:** There are several models depending on the customer's needs. (Timers, anti-freezing sensors, thermostats, etc...).
- **Two speed air discharge.**
- **Memory**: Guarantees that in the event of a power shortage, the selected speed will be maintained when the service is re-established.
- **Telephone cable and digital communication**: "Plug and play" easy connection through telephone cable and digital communication between the controller and the air curtain. Digital communication is more reliable than analogue, even at long distances.
- **External ON/OFF:** Inside the controller there is potential free contact (normally open) for remote ON/OFF by any other external device. The most common uses are, for example, the connection with programmable clock timer, room thermostats, door contact, DDC, fire alarms, etc…
- **Remote control:** All the standard controllers have a IR receiver that works by infrared

Only air or warm water heated air curtains controller (photo)

Electrical controller's common characteristics:

Two speed systems that adjust air volume and two different heat powers (C1, C2).

- **Thermal Limitation:** to work the heating there must be any ventilation speed selected, what allow us to choose the maximum heating capacity with the minimum ventilation.

- **Thermostat of delay:** When the equipment is stopped, and it has been working, the electrical heater is still heating during several minutes by thermal inertia with the consequent increase of internal temperature. In order to avoid internal damages by overheating, when we stop the air curtain and the temperature reaches 50ºC, the air curtain go at maximum ventilation speed and will not stop till the temperature decreases below the selected speed.

- **Safety thermostat:** When the heating is operating and the internal temperature increases over 50ºC, the safety function activates: Increases 1 ventilation speed every two minutes till it reaches the maximum speed. Then the air curtain automatically reduces the 1 heating power till it stops. If in any moment the internal temperature reduces to the selected temperature this safety process will stop and the air curtain will go back to the normal function.

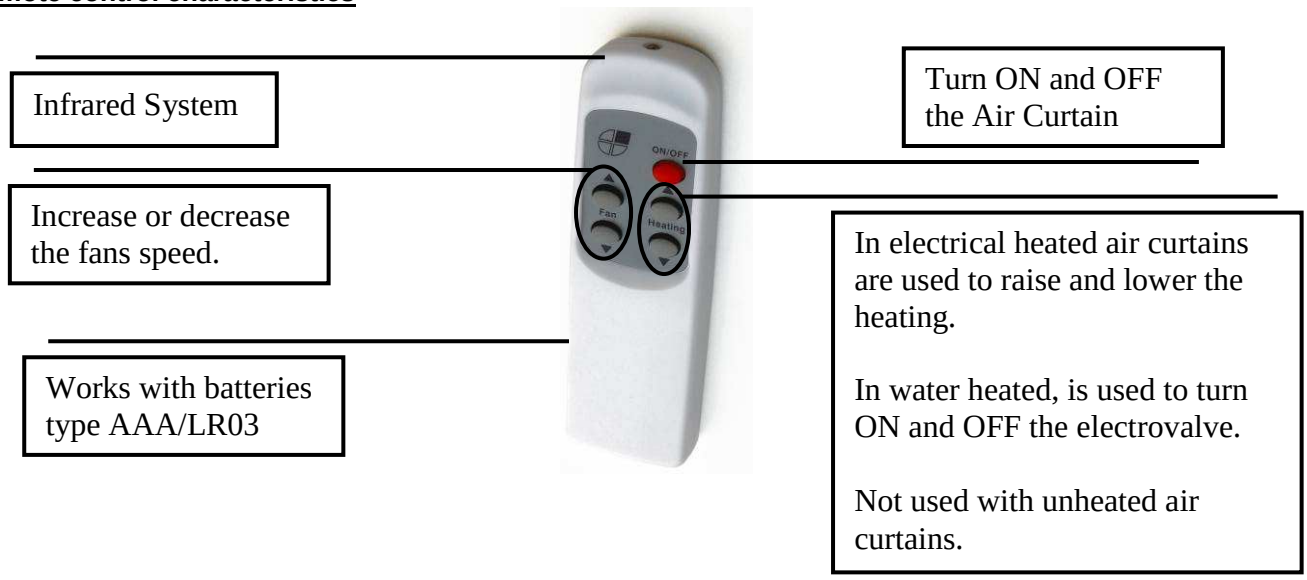
  A delay in cleaning the inlet grille o a high external temperature would be an external temporally reason that could activate the safety function temporally.

  The air speed and the heating stage are indicated by a lighted LED while the safety function is indicated by a flashing LED.

Auxiliary functions controller:

- **Optional room thermostat:** The curtain is equipped with the necessary contacts to install an ambient thermostat that turns off the heating when the programmed temperature is reached. Installation of room thermostat is recommended when the air curtain is installed in a closed small dimensions premise. In case of the thermostat installation, the bridge inside the terminal 4 and 5 must be removed.

Remote control characteristics



Wiring diagrams

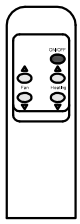
Following connection diagrams are enclosed:

Warm water heated or only air with standard controller. OPTIMA 1000 and 1500 diagram: AIRDOE07053

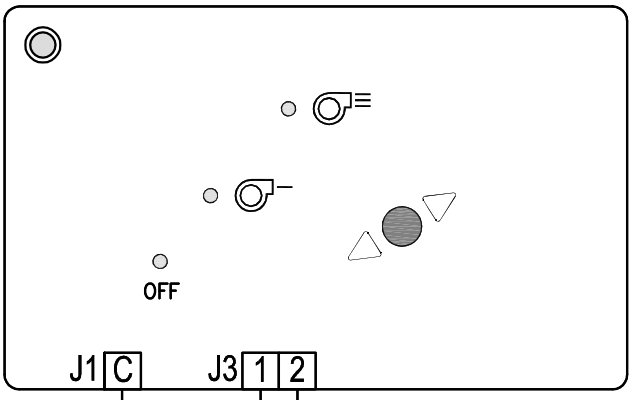
Electrical air curtain:

- OPTIMA 1000 and 1500 three phase 400V diagram: AIRDOE07103
- OPTIMA 1000 and 1500 single phase 230V diagram: AIRDOE07116

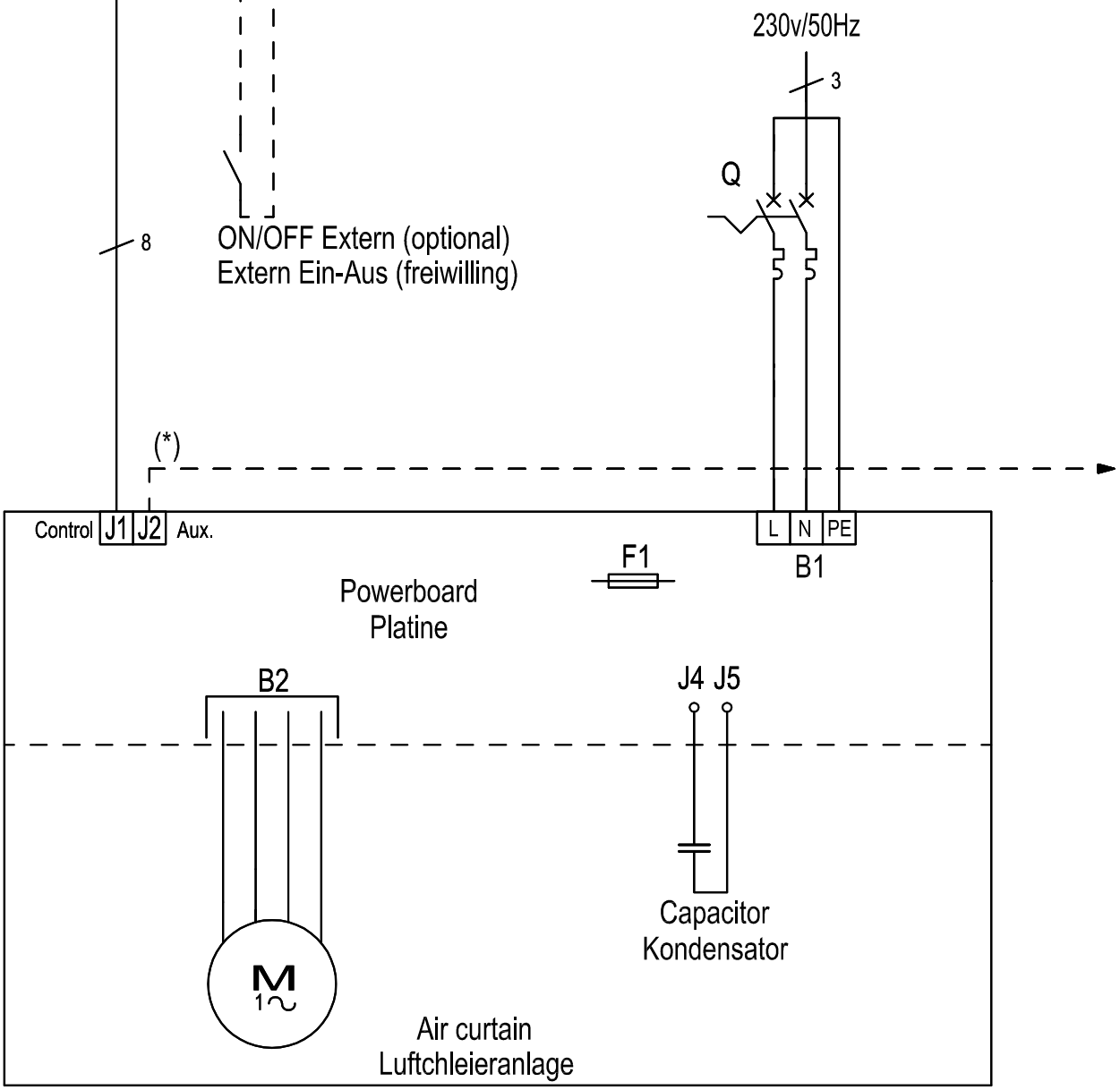
Remote control
Fernbedienung



2 Speeds remote control
2 Geschwindigkeiten standardregler



Q= CIRCUIT BRAKER

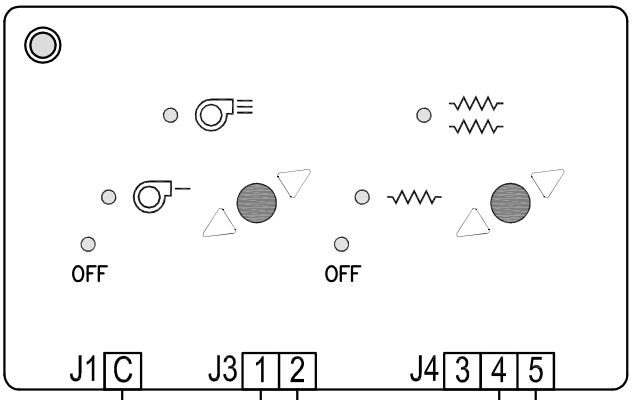


(*) Air curtain 2 (optional, Max 12)
Luftchleieranlage 2 (freiwilling, Max 12)

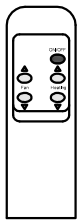
Reg. 2V Optima aigua aire - Neu Ang / Ale Neu (+IES)

	WIRING DIAGRAM OF AIR CURTAIN Schaltpläne Der Luftschleieranlagen WATER AND AIR ONLY, 2 SPEEDS Wasser Und Umluft, 2 Geschwindigkeiten	Page/Seite 1 of/von 1 Doc. AIRDOE07053 R10 – 09/02/12

2 Speeds remote control
2 Geschwindigkeiten standardregler



Remote control
Fernbedienung



Q= Circuit braker

400v/50Hz

5

Q

Room Thermostat (optional)
Bei Anchluss eines Ramthermostaten Brücke (freiwilling)

8

ON/OFF Extern (optional)
Extern Ein-Aus (freiwilling)

(*)

L L1 L2 L3 N PE
1 2 3 4 5

Control J1 J2 Aux.

Powerboard
Platine

F1

J7

B2 J4 J5 TR B3

Connection box
Boxen Sie Verbindungen

F4
50ºC

Negro
Azul
Rojo

Capacitor
Kondensator

60ºC

K3 K2 K1

K1 K2 K3

PRBEO

Stand / Etappe 1 = K1+K2
Stand / Etappe 2 = K1 + K2+K3

Cortina de aire
Barriera d'aria

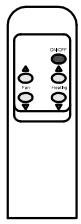
(*) Air curtain 2 (optional, Max 12)
Luftchleieranlage 2 (freiwilling, Max 12)

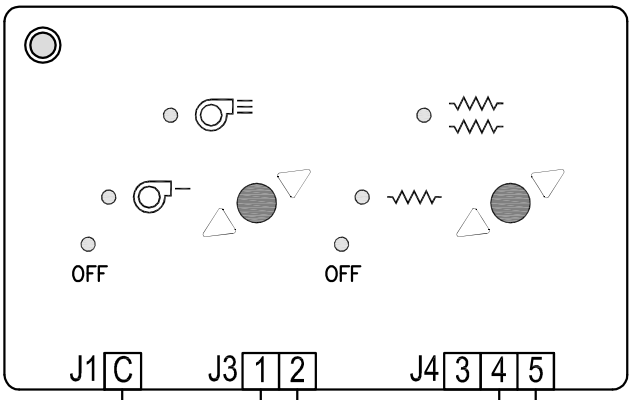
Air curtain
Luftchleieranlage

Reg. 2V Optima electrica - Ang/Ale Neu

	WIRING DIAGRAM OF AIR CURTAIN Schaltpläne Der Luftschleieranlagen ELECTRICAL, 2 SPEEDS Elektrisch, 2 Geschwindigkeiten	Page/Seite 1 of/von 1 Doc. AIRDOE07103 R10 – 09/02/12

2 Speeds remote control
2 Geschwindigkeiten standardregler





Q= Circuit braker

230v/50Hz

3

Q

Room Thermostat (optional)
Bei Anchluss eines Ramthermostaten Brücke (freiwilling)

8

ON/OFF Extern (optional)
Extern Ein-Aus (freiwilling)

(*)

N L PE

Control J1 J2 Aux.

5 1

Connection box
Boxen Sie Verbindungen

F1

Powerboard
Platine

J7

B2

J4 J5

TR

B3

F4

50c°

Negro

Azul

Rojo

Capacitor
Kondensator

60°C

K3 K2 K1

K1 K2 K3

M
1~

PRBEO

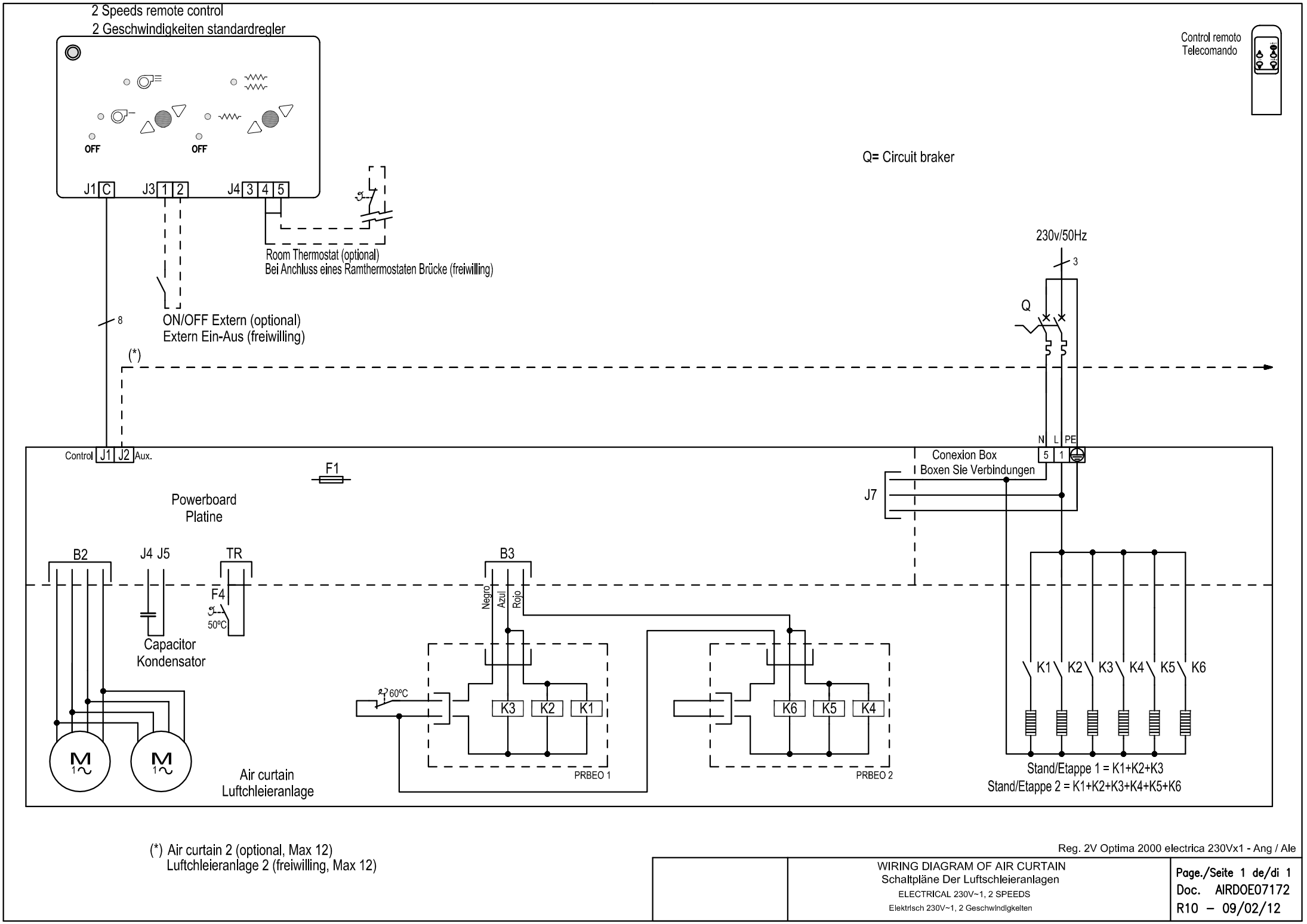
K1+K2: Maximum power

Air curtain
Luftchleieranlage

(*) Air curtain 2 (optional, Max 12)
Luftchleieranlage 2 (freiwilling, Max 12)

Reg. 2V Optima electrica 230Vx1 - Ang / Ale

	WIRING DIAGRAM OF AIR CURTAIN Schaltpläne Der Luftschleieranlagen ELECTRICAL 230V~1, 2 SPEEDS Elektrisch 230V~1, 2 Geschwindigkeiten	Page/Seite 1 of/von 1 Doc. AIRDOE07116 R10 – 09/02/12



(*) Air curtain 2 (optional, Max 12)
Luftchleieranlage 2 (freiwilling, Max 12)

Reg. 2V Optima 2000 electrica 230Vx1 - Ang / Ale

WIRING DIAGRAM OF AIR CURTAIN
Schaltpläne Der Luftschleieranlagen
ELECTRICAL 230V~1, 2 SPEEDS
Elektrisch 230V~1, 2 Geschwindigkeiten

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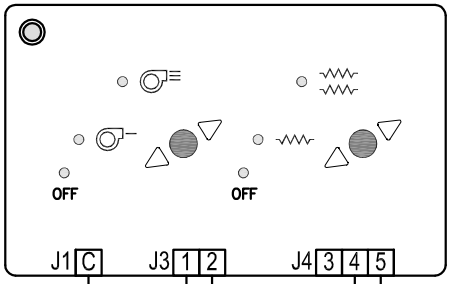
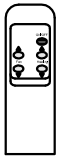
2 Speeds remote control
2 Geschwindigkeiten standardregler



Remote control
Fernbedienung



Q= Circuit braker

J1 C J3 1 2 J4 3 4 5

Room Thermostat (optional)
Bei Anchluss eines Ramthermostaten Brücke (freiwilling)

8

ON/OFF Extern (optional)
Extern Ein-Aus (freiwilling)

(*)

400v/50Hz

5

Q

L L1 L2 L3 N PE

Control J1 J2 Aux.

Conexion Box
IBoxen Sie Verbindungen

1 2 3 4 5

J7

F1

Powerboard
Platine

B2 J4 J5 TR

F4
50ºC

Capacitor
Kondensator

B3

Black Blue Red

60ºC

K3 K2 K1

PRBEO 1

K6 K5 K4

PRBEO 2

K1 K2 K3 K4 K5 K6

M 1~ M 1~

Air curtain
Luftchleieranlage

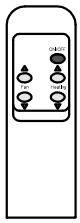
Stand/Etappe 1 = K1+K2+K3
Stand/Etappe 2 = K1+K2+K3+K4+K5+K6

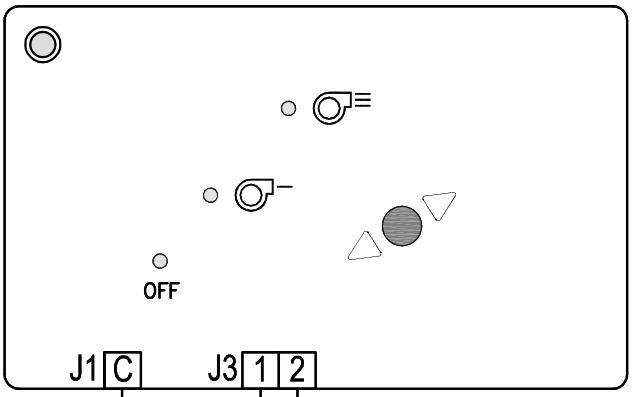
(*) Air curtain 2 (optional, Max 12)
Luftchleieranlage 2 (freiwilling, Max 12)

Reg. 2V Optima 2000 electrica - Ang/Ale Neu

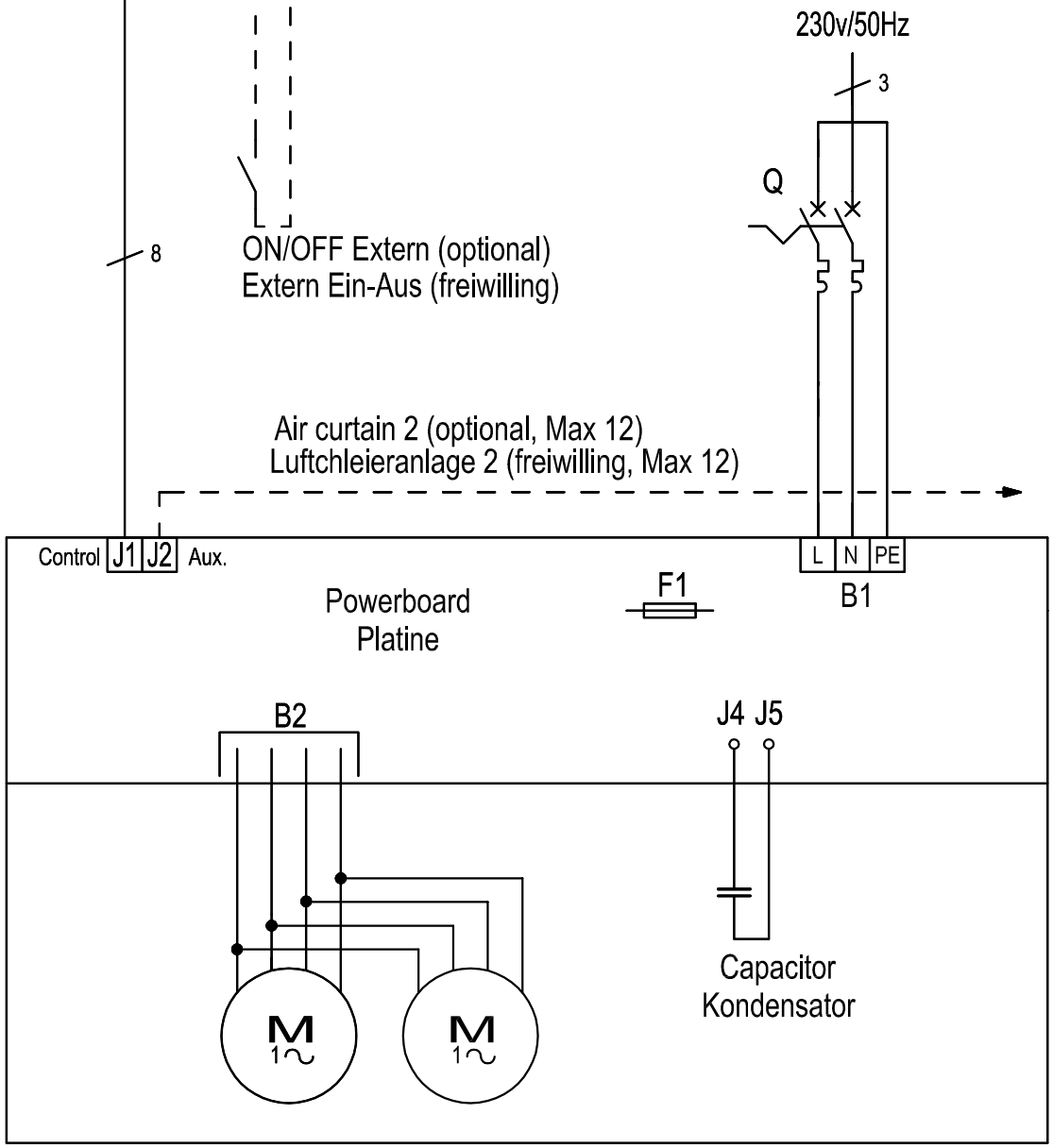
	WIRING DIAGRAM OF AIR CURTAIN Schaltpläne Der Luftschleieranlagen ELECTRICAL, 2 SPEEDS Elektrisch, 2 Geschwindigkeiten	Pág./Pagina 1 de/di 1 Doc. AIRDOE07162 R10 – 09/02/12

2 Speeds remote control
2 Geschwindigkeiten standardregler





Q= Circuit braker



Air curtain
Luftchleieranlage

Reg. 2V Optima 2000 aigua aire - Neu Ang / Ale Neu (+IES)

	WIRING DIAGRAM OF AIR CURTAIN Schaltpläne Der Luftschleieranlagen WATER AND AIR ONLY, 2 SPEEDS Wasser Und Umluft, 2 Geschwindigkeiten	Page/Seite 1 of/von 1 Doc. AIRDOE07152 R10 – 09/02/12

MAINTENANCE INSTRUCTIONS

Air curtains don't need any kind of maintenance except the cleaning.

	***For security, before proceeding with cleaning, switch off the controller. Not doing this may cause serious damage, internal and in the motors, and electrical risk of electric shock.***
	***Do not use water or steam for cleaning.***
	***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.***

- **EXTERNAL CLEANING:**

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…)

In case of a micro drilled inlet grille (it has filter functions to prevent the entrance of dust to the internal elements) use a vacuum cleaner with a soft brush in order to avoid any damages in the micro drilled grille. We recommend cleaning the grille every two weeks (depending on the amount of the incoming air dust).

- **INTERNAL CLEANING:**

In models without micro drilled inlet grille and battery (water or electric) is recommended to clean the inside of the unit with a vacuum at least once a year, best before the winter season.

In places with a high number of particles in suspension is desirable to increase the frequency of the internal cleaning (including the city centers, near construction sites etc.)

	***To open the air curtain must be disconnected the power supply and follow the instructions of this manual. Not doing this may cause serious damage, internal and in the motors, and electrical risk of electric shock.***

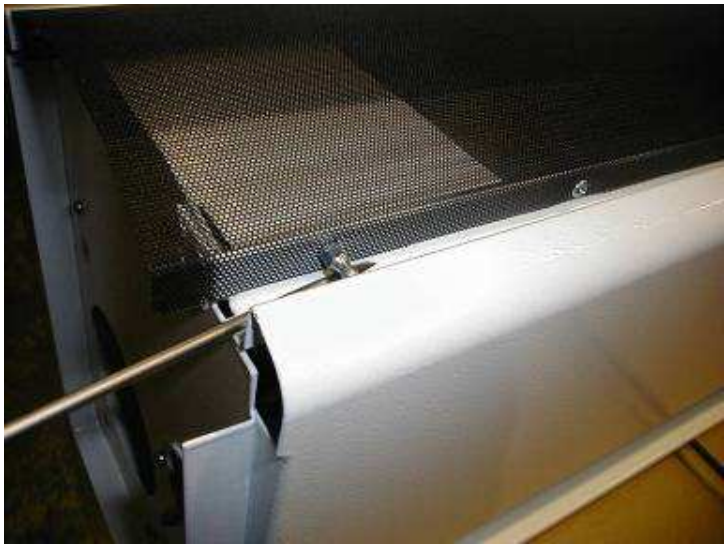
REPAIRS

Installation and electrical connections must be done by qualified workers and following these instructions.
Before any repairs are undertaken, please :

- ***Inform people that there is work in progress.***
- ***Disconnect the power supply and protect the thermal magnet (so nobody can restart it accidentally).***
- ***Make sure there is no tension in the air curtain.***
- ***Make sure the fans are stationary.***
- ***Use only original spare parts.***

To **open the service door,** follow these steps:

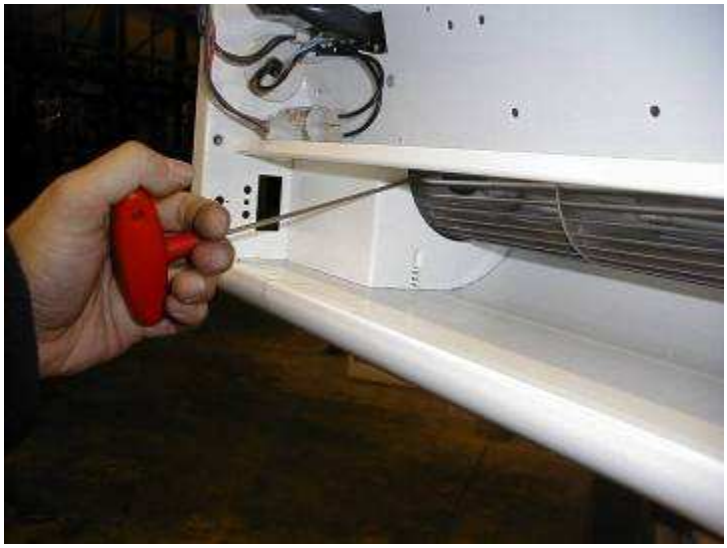
- Remove the lateral.
- Lever softly between the grille and the door.



Motor or turbine replacement:

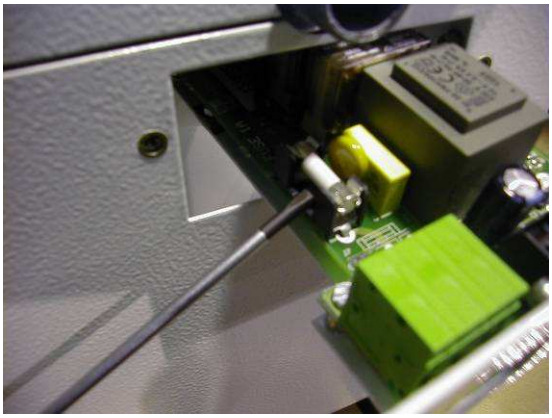
Before the motor replacement, advise people that there is work in progress,
Release the connector of the motor. Release the fixation screw of the impeller (allen 2.5mm.) through the discharge opening.

Remove motor by loosening the fixation screws. Install the replacement motor following the process in reverse order, making sure that the motor and the turbine fit perfectly, the turbine screw must fit in with the flat part of the motor axle.



Fuse and PCB (plate) replacement:

Before the replacement, inform people that there is work in progress, disconnect main supply, make sure that the unit is without tension and that the fans are stationary.



Fuse replacement: Remove the screws that hold the PCBoard on the upper part of the air curtain and pull the plate gently till the fuse appears. Remove the fuse from the fuse holder by hand or pulling with the help of a screwdriver and replace.

Plate replacement: Open the service door and unplug the visible cables from the plate and the condenser.

Unscrew the power plate through the upper external part of the air curtain to remove the plate and unplug the internal cable (Just for electrical heating version) before removing and then make the necessary repairs.

Heat exchanger replacement:

Before change of coil or heater, inform people that there is work in progress, stop the air curtain through the controller and disconnect main supply. Make sure that the unit is without tension and the fans are stationary. Before removing the screws that fix the coil or heater, we have to:

Water coil replacement:

Close the shut-off water valves of the building water circuit to the air curtain (supply and return). Open the service door.

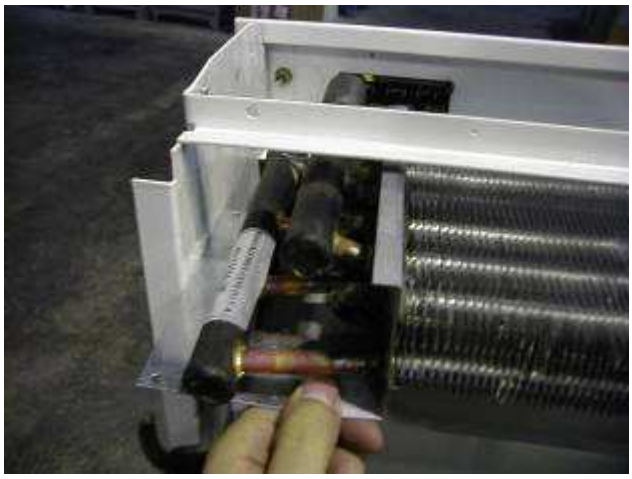
Electric heater replacement: Disconnect the power supply of the battery: remove the screw-earth of the connection box and disassemble from the equipment.

Disconnect the cables 2, 3, 4 of the connections box

Disconnect the two connectors from the PCBoard.

How to remove the electric heating or the water coils.
When we have the coil or heater ready, we proceed to remove the fixation screws of the battery to remove it. To assemble the new heater follow the same process in reverse order.


Once removed the screws we will proceed to remove the battery using gloves to avoid any cut.



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) Telephone cable is been manipulated: The cable that connects the controller to the air curtain is an 8 lines crossed telephone cable. **If manipulated (cut or removing the connector) and incorrectly joined, the air curtain won't work.** Moreover, it can damage the electronics. If the connector is joined wrong side, we can solve the problem only by turning it (connections diagram of first page).

B) Wrong connection of the telephone cable. Verify whether the connector position is correct (between control or auxiliary according to the installation diagram, specially if there is more than one air curtain with a single controller.

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

Common problems and solutions		
Síntoma	Problema	Solución
All lights of the controller are OFF	¿Is the telephone cable the original (not manipulated), with no enlargements either shortenings?	Change the cable or connect it again correctly.
	¿Does the current reaches de connection box?	Connect the terminals of the junction box correctly: Between L and N there must be 230V and if the air curtain goes with a three-phase electrical element, there must be 400V among the terminals L1,L2 y L3.
	¿Is the controller connected to the "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	Does the green LED, when the maximum speed is selected, flashes when we stop the air curtain alter having been operating with heating?	It is not an error but a safety mechanism. The air curtain turns on by itself to the maximum speed to get cold and protect its components. When the temperature decreases from the safety one, it will stop.
	Some speed or heating lights are Flushing 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/avoid it: 1. Inlet grille blocked (objects, dirtiness…) the ambient temperature inside the equipment can increase a loti f the air cannot circulate properly. Keep the grille clean. 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 other 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 is not working. Inform the technical service.
The heating is not working	¿Does the three-phase current reach the connection 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 telephone cable is near interference sources, transmitters, cable plates, specially those that supply current to the Motors, etc..	Pass the cable the furthest possible away from the interference source, specially when long distances or use a screened cable.

ACCESSORIES

TD Digital Thermostat
Modifies the heat stages and the ventilation speed depending on the temperature and programme selected. Only for electrical models.

Interface
Permits the connection to a centralised Management system (BMS, PLC, etc…)

External temperature sensor
It permits to know the temperature from a different place from where the control is placed.

Total Controller
Universal controller, timer, digital display, Ready for all type of auxiliary sensors, incorporated thermostat, automatic operating etc…

Hand Auto (Water control panel)
Manual and automatic operating. Auxiliary functions: with anti-freeze sensor, door contact and ambient thermostat.

Ambient Thermostat
It regulates the operating of the heating depending on the selected temperature.

Supports, feet, shock absorbers, etc… depending on the model.

Door contact, thermostatic valve, solenoid valve, anti-freeze sensor, etc…

Telephone cable 50m, extension adapter …

Plenum and/or inlet/outlet kit (depending on model)

airtècnics

Declaration CE of conformity / Declaración CE de conformidad

Manufacturer
Fabricante

Motors i Ventiladors S.L. (AIRTÈCNICS)
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(s)
Declaramos, bajo nuestra única responsabilidad, que el/los producto(s)

Air Curtains
Cortinas de aire

with models
con los modelos

Minibel, Eco, Optima, Recessed Optima, Windbox, Recessed Windbox, Windbox EC, Recessed Windbox EC, Dam, Deco, Compact, Kool, Variwind, Rotowind, Rund, Zen, Duojet, Max

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)

Machinery Directive 2006/42/ECC
Directiva De Máquinas 2006/42/CEE

Low Voltage Directive 2006/95/EEC
Directiva De Baja Tensión 2006/95/CEE

Electromagnetic Compatibility Directive 2004/108/EEC
Directiva De Compatibilidad Electromagnética 2004/108/CEE

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

MD:	**UNE-EN 60204-1**	**LVD:**	**UNE-EN 60335-1**	**EMC:**	**UNE-EN 61000-6-2**
	UNE-EN 292-1		**UNE-EN 60335-2-30**		**UNE-EN 61000-6-3**
	UNE-EN 294				

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Date / *Fecha* **08/04/2010**
Name / *Nombre* **Jordi Oltra Orta**
Position / *Cargo* **General Manager / Director General**

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

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 one 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: ....

:………………………… Phone: .... Fax: ....

Seller data:

Name: ....

Address: ....

Country: ………………………… Phone: .... Fax: ....

Buyer signature and stamp ***Seller signature and stamp***