

ADIABOX NFG 500 EVAPORATIVE COOLER

ADIABOX NFG 500 NF: No Fan G: Ducting max. output (m³/h)

KEY FEATURES

ADIABOX NFG is the **most economical** cooling solution, which provides **healthy and comfortable air**. Evaporative cooling^(*) is **100** % **natural** principle, which is **very simple**: hot air goes through a wet exchanger and is thus cooled.

The hotter the air, the more efficient the cooling!

(*) also called adiabatic cooling or wet air cooling

FEATURES

- ENERGY SAVINGS: low water consumption and negligible electricity consumption compared to a mechanical system with a cold water battery.
- **SIMPLE MAINTEANCE:** very few moving parts, **yearly servicing** is sufficient (for wintering the equipment).
- LIMITED ENVIRONMENTAL FOOTPRINT: no refrigerant gas and so no pollution, optimised water consumption with the possibility to collect rain water.
- NO RISK OF LEGIONNAIRES' DISEASE: no micro-drops are carried in the air flow.





DESCRIPTION

When hot air comes into contact with water, it leads to evaporation. As the energy required for evaporation is extracted from the air, the air is cooled. To reproduce this fully natural principle, you only run hot air through a wet exchanger.

• That means that air coolers are simple, and therefore sturdy.

They do not need compressors or highpressure refrigerant circuits, a circulation pump, an air inlet solenoid valve and a draining valve is all they need for working.

• Regardless of the temperature of the outside air, it provides cool air.

The relative humidity (RH) drops when the temperature rises. Its efficiency increases with the temperature: cooling is thus maximised when the temperature is the highest.

ADIABOX NFG RANGE

ADIABOX NFG is also available with different max. air flow rates:

- ADIABOX NFG 1000
- ADIABOX NFG 3500
- ADIABOX NFG 6000
 ADIABOX NFG 9000
- ADIABOX NFG 9000
 ADIABOX NFG 12000
- ADIABOX NFG 20000
- ADIABOX NFG 30000

MATERIAL • ALUMINIUM (structure + fasteners)

EXCHANGERS • MUNTERS CELDEK[®] 5090, thick.: 100 mm Exchanger protection: metal insect net *(optional)*

MAXIMUM AIR FLOW • 500 m³/h

ELECTRICITY SUPPLY • 230 VAC

ELECTRICIT CONNECTION • 3G (1,5 mm²)

WATER SUPPLY • 1/2" female, screw type

DRAINING CONNECTION • DN32 male, screw type

WATER INLET • protection: integrated 0.5 mm strainer solenoid valve: 1/2" brass with assisted control

DRAINING SOLENOID VALVE • polypropylene body piston closing

AIR FILTRATION (optional)

BLOWING TEMPERATURE (exchanger efficiency: 85 %)

	AIR	AIR TEMPERATURE at the inlet of ADIABOX $^{\circ}$ (°C)						
	20	25	30	35	40	45		
RH EXT.		BLOW	/N AIR TEM	IPERATUR	E (°C)			
10 %	9.3	12.4	15.6	18.6	21.6	24.7		
20 %	10.7	14.3	17.8	21.2	24.7	28.3		
30 %	12.1	15.9	19.7	23.5	27.4	31.4		
40 %	13.5	17.4	21.5	25.7	29.8	34.0		
50 %	14.6	19.0	23.2	27.5	31.9	36.4		
60 %	15.8	20.2	24.7	29.3	33.9	38.5		
70 %	16.9	21.5	26.2	30.8	35.6	40.3		
80 %	18.0	22.7	27.5	32.3	37.2	41.9		





Example of an adiabatic module on a double-flow unit transfer

SMART WATER MANAGEMENT



4 floats inform the remote display of possible errors:

- Excessively long filling time
- Water level too high
- Float error
- Circulation pump error
- Draining valve error

The floats continuously measure the quantity of evaporated water, which **automatically triggers mineral dilution cycles** (the frequency of cycles is determined on the basis of the water quality and is adjusted when it is put into service).

REGULATION

Each unit has a regulator for the following:

- Automatic starting of the circulation pump (maintenance of a set temperature)
- Facility to connect an outside humidity sensor (*optional*): stopping of adiabatic cooling when the outside humidity is high
- Facility to connect an inside humidity sensor for the upper limit (*optional*): maintenance of relative humidity in the building below a certain limit
- Possibility to control motors or servomotors via the working of devices
- The cooler may be controlled by another system (*dry contact*)
- Possibility to drive the heating from a PLC
- (PLC programming may be customised for some applications as an option)
- Communication with a BMS (Modbus)







THE BUILDING OVERHEATS IN SUMMER!



INSTALLATION POSSIBILITIES

ADIABOX NFG may be placed on the fresh air connection of the AHU... An ADIABOX NFG fitted with temperature and humidity sensors (*optional equipment*) communicates with the AHU via its PLC (BMS).



... or placed on the air extracted by the AHU (AHU exchanger efficiency: 80 %)



... or placed on the air extracted and the air blown by the AHU! (AHU exchanger efficiency: 80 %)





11 rue des Campanules - CS 30066 77436 MARNE-LA-VALLÉE cedex 02 FRANCE

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ADIABOX NFG 1000 EVAPORATIVE COOLER



KEY FEATURES

ADIABOX NFG is the **most economical** cooling solution, which provides **healthy and comfortable air**. Evaporative cooling^(*) is **100 % natural** principle, which is **very simple**: hot air goes through a wet exchanger and is thus cooled.

The hotter the air, the more efficient the cooling!

(*) also called adiabatic cooling or wet air cooling

FEATURES

- ENERGY SAVINGS: low water consumption and negligible electricity consumption compared to a mechanical system with a cold water battery.
- **SIMPLE MAINTEANCE:** very few moving parts, **yearly servicing** is sufficient (for wintering the equipment).
- LIMITED ENVIRONMENTAL FOOTPRINT: no refrigerant gas and so no pollution, optimised water consumption with the possibility to collect rain water.
- NO RISK OF LEGIONNAIRES' DISEASE: no micro-drops are carried in the air flow.





DESCRIPTION

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• That means that air coolers are simple, and therefore sturdy.

They do not need compressors or highpressure refrigerant circuits, a circulation pump, an air inlet solenoid valve and a draining valve is all they need for working.

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ADIABOX NFG RANGE

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- ADIABOX NFG 500
- ADIABOX NFG 3500
- ADIABOX NFG 6000
 ADIABOX NFG 9000
- ADIABOX NFG 9000
 ADIABOX NFG 12000
- ADIABOX NFG 20000
- ADIABOX NFG 30000

MATERIAL • ALUMINIUM (structure + fasteners)

EXCHANGERS • MUNTERS CELDEK[®] 5090, thick.: 100 mm Exchanger protection: metal insect net *(optional)*

MAXIMUM AIR FLOW • 1000 m³/h

ELECTRICITY SUPPLY • 230 VAC

ELECTRICIT CONNECTION • 3G (1,5 mm²)

WATER SUPPLY • 1/2" female, screw type

DRAINING CONNECTION • DN32 male, screw type

WATER INLET • protection: integrated 0.5 mm strainer solenoid valve: 1/2" brass with assisted control

DRAINING SOLENOID VALVE • polypropylene body piston closing

AIR FILTRATION (optional)

BLOWING TEMPERATURE (exchanger efficiency: 85 %)

	AIR TEMPERATURE at the inlet of ADIABOX® (°C)					
	20	25	30	35	40	45
RH EXT.		BLOW	/N AIR TEM	IPERATUR	E (°C)	
10 %	9.3	12.4	15.6	18.6	21.6	24.7
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40 %	13.5	17.4	21.5	25.7	29.8	34.0
50 %	14.6	19.0	23.2	27.5	31.9	36.4
60 %	15.8	20.2	24.7	29.3	33.9	38.5
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REGULATION

Each unit has a regulator for the following:

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- Facility to connect an outside humidity sensor (*optional*): stopping of adiabatic cooling when the outside humidity is high
- Facility to connect an inside humidity sensor for the upper limit (*optional*): maintenance of relative humidity in the building below a certain limit
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- The cooler may be controlled by another system (*dry contact*)
- Possibility to drive the heating from a PLC
- (PLC programming may be customised for some applications as an option)
- Communication with a BMS (Modbus)







THE BUILDING OVERHEATS IN SUMMER!



INSTALLATION POSSIBILITIES

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... or placed on the air extracted by the AHU (AHU exchanger efficiency: 80 %)



... or placed on the air extracted and the air blown by the AHU! (AHU exchanger efficiency: 80 %)



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ADIABOX NFG 3500 EVAPORATIVE COOLER

ADIABOX NFG 3500



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FEATURES

- ENERGY SAVINGS: low water consumption and negligible electricity consumption compared to a mechanical system with a cold water battery.
- **SIMPLE MAINTEANCE:** very few moving parts, **yearly servicing** is sufficient (for wintering the equipment).
- LIMITED ENVIRONMENTAL FOOTPRINT: no refrigerant gas and so no pollution, optimised water consumption with the possibility to collect rain water.
- NO RISK OF LEGIONNAIRES' DISEASE: no micro-drops are carried in the air flow.



ADIABOX NFG 3500



DESCRIPTION

When hot air comes into contact with water, it leads to evaporation. As the energy required for evaporation is extracted from the air, the air is cooled. To reproduce this fully natural principle, you only run hot air through a wet exchanger.

• That means that air coolers are simple, and therefore sturdy.

They do not need compressors or highpressure refrigerant circuits, a circulation pump, an air inlet solenoid valve and a draining valve is all they need for working.

• Regardless of the temperature of the outside air, it provides cool air.

The relative humidity (RH) drops when the temperature rises. Its efficiency increases with the temperature: cooling is thus maximised when the temperature is the highest.

ADIABOX NFG RANGE

ADIABOX NFG is also available with different max. air flow rates:

- ADIABOX NFG 500
- ADIABOX NFG 100
- ADIABOX NFG 6000
 ADIABOX NFG 9000
- ADIABOX NFG 9000
 ADIABOX NFG 12000
- ADIABOX NFG 20000
- ADIABOX NFG 30000

MATERIAL • ALUMINIUM (structure + fasteners)

EXCHANGERS • MUNTERS CELDEK[®] 5090, thick.: 100 mm Exchanger protection: metal insect net *(optional)*

MAXIMUM AIR FLOW • 3500 m³/h

ELECTRICITY SUPPLY • 230 VAC

ELECTRICIT CONNECTION • 3G (1,5 mm²)

WATER SUPPLY • 1/2" female, screw type

DRAINING CONNECTION • DN32 male, screw type

WATER INLET • protection: integrated 0.5 mm strainer solenoid valve: 1/2" brass with assisted control

DRAINING SOLENOID VALVE • polypropylene body piston closing

AIR FILTRATION (optional)

BLOWING TEMPERATURE (exchanger efficiency: 85 %)

	AIR TEMPERATURE at the inlet of ADIABOX® (°C)						
	20	25	30	35	40	45	
RH EXT.		BLOW	/N AIR TEM	IPERATUR	E (°C)		
10 %	9.3	12.4	15.6	18.6	21.6	24.7	
20 %	10.7	14.3	17.8	21.2	24.7	28.3	
30 %	12.1	15.9	19.7	23.5	27.4	31.4	
40 %	13.5	17.4	21.5	25.7	29.8	34.0	
50 %	14.6	19.0	23.2	27.5	31.9	36.4	
60 %	15.8	20.2	24.7	29.3	33.9	38.5	
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80 %	18.0	22.7	27.5	32.3	37.2	41.9	





Example of an adiabatic module on a double-flow unit transfer

SMART WATER MANAGEMENT



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- Float error
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- Draining valve error

The floats continuously measure the quantity of evaporated water, which **automatically triggers mineral dilution cycles** (the frequency of cycles is determined on the basis of the water quality and is adjusted when it is put into service).

REGULATION

Each unit has a regulator for the following:

- Automatic starting of the circulation pump (maintenance of a set temperature)
- Facility to connect an outside humidity sensor (optional):
- stopping of adiabatic cooling when the outside humidity is high
 Facility to connect an inside humidity sensor for the upper limit (optional): maintenance of relative humidity in the building below a certain limit
- Possibility to control motors or servomotors via the working of devices
- The cooler may be controlled by another system (*dry contact*)
- Possibility to drive the heating from a PLC
- (PLC programming may be customised for some applications as an option)
- Communication with a BMS (Modbus)







THE BUILDING OVERHEATS IN SUMMER!



INSTALLATION POSSIBILITIES

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... or placed on the air extracted by the AHU (AHU exchanger efficiency: 80 %)



... or placed on the air extracted and the air blown by the AHU! (AHU exchanger efficiency: 80 %)





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ADIABOX NFG 6000 EVAPORATIVE COOLER

ADIABOX NFG 6000 NF: No Fan G: Ducting max. output (m³/h)

KEY FEATURES

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ALSO AVAILABLE IN SQUARE MODEL

FEATURES

- ENERGY SAVINGS: low water consumption and negligible electricity consumption compared to a mechanical system with a cold water battery.
- **SIMPLE MAINTEANCE:** very few moving parts, **yearly servicing** is sufficient (for wintering the equipment).
- LIMITED ENVIRONMENTAL FOOTPRINT: no refrigerant gas and so no pollution, optimised water consumption with the possibility to collect rain water.
- NO RISK OF LEGIONNAIRES' DISEASE: no micro-drops are carried in the air flow.



DESCRIPTION

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The relative humidity (RH) drops when the temperature rises. Its efficiency increases with the temperature: cooling is thus maximised when the temperature is the highest.

ADIABOX NFG RANGE

ADIABOX NFG is also available with different max. air flow rates:

- ADIABOX NFG 500
- ADIABOX NFG 1000
- ADIABOX NFG 3500
 ADIABOX NFG 9000
- ADIABOX NFG 9000
 ADIABOX NFG 12000
- ADIABOX NFG 20000
- ADIABOX NFG 30000

DIMENSIONS • ADIABOX NFG 6000 is also available in **square model** (*please enquire*)

MATERIAL • ALUMINIUM (structure + fasteners)

EXCHANGERS • MUNTERS CELDEK[®] 5090, thick.: 100 mm Exchanger protection: metal insect net *(optional)*

MAXIMUM AIR FLOW • 6000 m³/h

ELECTRICITY SUPPLY • 230 VAC

ELECTRICIT CONNECTION • 3G (1,5 mm²)

WATER SUPPLY • 1/2" female, screw type

DRAINING CONNECTION • DN32 male, screw type

WATER INLET • protection: integrated 0.5 mm strainer solenoid valve: 1/2" brass with assisted control

DRAINING SOLENOID VALVE • polypropylene body piston closing

AIR FILTRATION (optional)

BLOWING TEMPERATURE (exchanger efficiency: 85 %)

	AIR	TEMPERA	TURE at th	e inlet of <i>i</i>	ADIABOX®	(°C)
	20	25	30	35	40	45
RH EXT.		BLOW	/N AIR TEM	IPERATUR	E (°C)	
10 %	9.3	12.4	15.6	18.6	21.6	24.7
20 %	10.7	14.3	17.8	21.2	24.7	28.3
30 %	12.1	15.9	19.7	23.5	27.4	31.4
40 %	13.5	17.4	21.5	25.7	29.8	34.0
50 %	14.6	19.0	23.2	27.5	31.9	36.4
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70 %	16.9	21.5	26.2	30.8	35.6	40.3
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SMART WATER MANAGEMENT



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REGULATION

Each unit has a regulator for the following:

- Automatic starting of the circulation pump (maintenance of a set temperature)
- Facility to connect an outside humidity sensor (*optional*): stopping of adiabatic cooling when the outside humidity is high
- Facility to connect an inside humidity sensor for the upper limit (*optional*): maintenance of relative humidity in the building below a certain limit
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- The cooler may be controlled by another system (*dry contact*)
- Possibility to drive the heating from a PLC
- (PLC programming may be customised for some applications as an option)
- Communication with a BMS (Modbus)







THE BUILDING OVERHEATS IN SUMMER!



INSTALLATION POSSIBILITIES

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... or placed on the air extracted by the AHU (AHU exchanger efficiency: 80 %)



... or placed on the air extracted and the air blown by the AHU! (AHU exchanger efficiency: 80 %)





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ADIABOX NFG 9000 EVAPORATIVE COOLER



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MATERIAL • ALUMINIUM (structure + fasteners)

EXCHANGERS • MUNTERS CELDEK[®] 5090, thick.: 100 mm Exchanger protection: metal insect net *(optional)*

MAXIMUM AIR FLOW • 9000 m³/h

ELECTRICITY SUPPLY • 230 VAC

ELECTRICIT CONNECTION • 3G (1,5 mm²)

WATER SUPPLY • 1/2" female, screw type

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(PLC programming may be customised for some applications as an option)

Communication with a BMS (Modbus)







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ADIABOX NFG 12000 NF: No Fan G: Ducting max. output (m³/h)

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ADIABOX NFG RANGE

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- ADIABOX NFG 500
- ADIABOX NFG 1000
- ADIABOX NFG 3500
- ADIABOX NFG 6000
 ADIABOX NFG 9000
- ADIABOX NFG 9000
- ADIABOX NFG 30000

MATERIAL • ALUMINIUM (structure + fasteners)

EXCHANGERS • MUNTERS CELDEK[®] 5090, thick.: 100 mm Exchanger protection: metal insect net *(optional)*

MAXIMUM AIR FLOW • 12000 m³/h

ELECTRICITY SUPPLY • 230 VAC

ELECTRICIT CONNECTION • 3G (1,5 mm²)

WATER SUPPLY • 1/2" female, screw type

DRAINING CONNECTION • DN32 male, screw type

WATER INLET • protection: integrated 0.5 mm strainer solenoid valve: 1/2" brass with assisted control

DRAINING SOLENOID VALVE • polypropylene body piston closing

AIR FILTRATION (optional)

BLOWING TEMPERATURE (exchanger efficiency: 85 %)

	AIR	AIR TEMPERATURE at the inlet of ADIABOX $^{\circ}$ (°C)					
	20	25	30	35	40	45	
RH EXT.		BLOW	/N AIR TEM	IPERATUR	E (°C)		
10 %	9.3	12.4	15.6	18.6	21.6	24.7	
20 %	10.7	14.3	17.8	21.2	24.7	28.3	
30 %	12.1	15.9	19.7	23.5	27.4	31.4	
40 %	13.5	17.4	21.5	25.7	29.8	34.0	
50 %	14.6	19.0	23.2	27.5	31.9	36.4	
60 %	15.8	20.2	24.7	29.3	33.9	38.5	
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REGULATION

Each unit has a regulator for the following:

- Automatic starting of the circulation pump (maintenance of a set temperature)
- Facility to connect an outside humidity sensor (optional):
- stopping of adiabatic cooling when the outside humidity is high
 Facility to connect an inside humidity sensor for the upper limit (optional): maintenance of relative humidity in the building below a certain limit
- Possibility to control motors or servomotors via the working of devices
- The cooler may be controlled by another system (*dry contact*)
- Possibility to drive the heating from a PLC
- (PLC programming may be customised for some applications as an option)
- Communication with a BMS (Modbus)







THE BUILDING OVERHEATS IN SUMMER!



INSTALLATION POSSIBILITIES

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... or placed on the air extracted by the AHU (AHU exchanger efficiency: 80 %)



... or placed on the air extracted and the air blown by the AHU! (AHU exchanger efficiency: 80 %)





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last update: January 2017



BOULLET



ADIABOX NFG 20000 EVAPORATIVE COOLER

ADIABOX NFG 20000



KEY FEATURES

ADIABOX NFG is the most economical cooling solution, which provides healthy and comfortable air. Evaporative cooling^(*) is 100 % natural principle, which is very simple: hot air goes through a wet exchanger and is thus cooled.

The hotter the air, the more efficient the cooling!

(*) also called adiabatic cooling or wet air cooling

FEATURES

- ENERGY SAVINGS: low water consumption and negligible electricity consumption compared to a mechanical system with a cold water battery.
- **SIMPLE MAINTEANCE:** very few moving parts, **yearly servicing** is sufficient (for wintering the equipment).
- LIMITED ENVIRONMENTAL FOOTPRINT: no refrigerant gas and so no pollution, optimised water consumption with the possibility to collect rain water.
- NO RISK OF LEGIONNAIRES' DISEASE: no micro-drops are carried in the air flow.





DESCRIPTION

When hot air comes into contact with water, it leads to evaporation. As the energy required for evaporation is extracted from the air, the air is cooled. To reproduce this fully natural principle, you only run hot air through a wet exchanger.

• That means that air coolers are simple, and therefore sturdy.

They do not need compressors or highpressure refrigerant circuits, a circulation pump, an air inlet solenoid valve and a draining valve is all they need for working.

• Regardless of the temperature of the outside air, it provides cool air.

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GAMME ADIABOX NFG

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- ADIABOX NFG 500
- ADIABOX NFG 1000
- ADIABOX NFG 3500
- ADIABOX NFG 6000
- ADIABOX NFG 9000
 ADIABOX NFG 12000
- ADIABOX NFG 12000

MATERIAL • ALUMINIUM (structure + fasteners)

EXCHANGERS • MUNTERS CELDEK[®] 5090, thick.: 100 mm Exchanger protection: metal insect net *(optional)*

MAXIMUM AIR FLOW • 20000 m³/h

ELECTRICITY SUPPLY • 230 VAC

ELECTRICIT CONNECTION • 3G (1,5 mm²)

WATER SUPPLY • 1/2" female, screw type

DRAINING CONNECTION • DN32 male, screw type

WATER INLET • protection: integrated 0.5 mm strainer solenoid valve: 1/2" brass with assisted control

DRAINING SOLENOID VALVE • polypropylene body piston closing

AIR FILTRATION (optional)

BLOWING TEMPERATURE (exchanger efficiency: 85 %)

	AIR	AIR TEMPERATURE at the inlet of ADIABOX [®] (°C)						
	20	25	30	35	40	45		
RH EXT.		BLOW	/N AIR TEM	IPERATUR	E (°C)			
10 %	9.3	12.4	15.6	18.6	21.6	24.7		
20 %	10.7	14.3	17.8	21.2	24.7	28.3		
30 %	12.1	15.9	19.7	23.5	27.4	31.4		
40 %	13.5	17.4	21.5	25.7	29.8	34.0		
50 %	14.6	19.0	23.2	27.5	31.9	36.4		
60 %	15.8	20.2	24.7	29.3	33.9	38.5		
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Example of an adiabatic module on a double-flow unit transfer

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- Draining valve error

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REGULATION

Each unit has a regulator for the following:

- Automatic starting of the circulation pump (maintenance of a set temperature)
- Facility to connect an outside humidity sensor (*optional*): stopping of adiabatic cooling when the outside humidity is high
- Facility to connect an inside humidity sensor for the upper limit (*optional*): maintenance of relative humidity in the building below a certain limit
- Possibility to control motors or servomotors via the working of devices
- The cooler may be controlled by another system (*dry contact*)
- Possibility to drive the heating from a PLC
- (PLC programming may be customised for some applications as an option)
- Communication with a BMS (Modbus)

THE BUILDING OVERHEATS IN SUMMER!

INSTALLATION POSSIBILITIES

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... or placed on the air extracted by the AHU (AHU exchanger efficiency: 80 %)

... or placed on the air extracted and the air blown by the AHU! (AHU exchanger efficiency: 80 %)

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ADIABOX NFG 30000 **EVAPORATIVE COOLER**

ADIABOX NFG 30000 NF: No Fan

KEY FEATURES

ADIABOX NFG is the most economical cooling solution, which provides healthy and comfortable air. Evaporative cooling^(*) is **100 % natural** principle, which is **very simple**: hot air goes through a wet exchanger and is thus cooled.

The hotter the air, the more efficient the cooling!

(*) also called adiabatic cooling or wet air cooling

FEATURES

- ENERGY SAVINGS: low water consumption and negligible electricity consumption compared to a mechanical system with a cold water battery.
- SIMPLE MAINTEANCE: very few moving parts, yearly servicing is sufficient (for wintering the equipment).
- LIMITED ENVIRONMENTAL FOOTPRINT: no refrigerant gas and so no pollution, optimised water consumption with the possibility to collect rain water.
- NO RISK OF LEGIONNAIRES' DISEASE: no micro-drops are carried in the air flow.

DESCRIPTION

When hot air comes into contact with water, it leads to evaporation. As the energy required for evaporation is extracted from the air, the air is cooled. To reproduce this fully natural principle, you only run hot air through a wet exchanger.

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 ADIABOX NFG 9000
- ADIABOX NFG 9000
- ADIABOX NFG 20000

MATERIAL • ALUMINIUM (structure + fasteners)

EXCHANGERS • MUNTERS CELDEK[®] 5090, thick.: 100 mm Exchanger protection: metal insect net *(optional)*

MAXIMUM AIR FLOW • 30000 m³/h

ELECTRICITY SUPPLY • 230 VAC

ELECTRICIT CONNECTION • 3G (1,5 mm²)

WATER SUPPLY • 1/2" female, screw type

DRAINING CONNECTION • DN32 male, screw type

WATER INLET • protection: integrated 0.5 mm strainer solenoid valve: 1/2" brass with assisted control

DRAINING SOLENOID VALVE • polypropylene body piston closing

AIR FILTRATION (optional)

BLOWING TEMPERATURE (exchanger efficiency: 85 %)

	AIR	TEMPERA	TURE at th	e inlet of <i>i</i>	ADIABOX®	(°C)
	20	25	30	35	40	45
RH EXT.		BLOW	/N AIR TEM	IPERATUR	E (°C)	
10 %	9.3	12.4	15.6	18.6	21.6	24.7
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30 %	12.1	15.9	19.7	23.5	27.4	31.4
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WET BOX WFP

ADIABATIC, WHAT IS THIS ?

Evaporative cooling is a 100% natural and very simple principle: hot air passes through a wet pad and is then cooled. When the hot air comes into contact with the water, it evaporates. The energy needed to evaporate the water is extracted from the air, which cools. To reproduce this totally natural principle, hot air is simply passed through a wet pad.

ECOLOGICAL SYST

Only uses water and electricity in small quantities. No gases or refrigerants are used

ECONOMIC SYSTEM

Low operating and capital costs mean significant financial savings on your energy bill.

COMFORT ASSURED

Controlled comfort (natural temperature and humidity) in rooms to ensure the well-being of people, their health and safety.

- Parametric control points
- No risk of Legionnaires

SIMPLIFIED MAINTENANCE

- Easy to implement and maintain
- Rare cases of damage : few moving parts

WITHOUT ANY OBLIGATION TO CLOSE

Need for constant openings in order to maintain a slight overpressure of the building (avoiding the entry of hot air), and to ensure a good air renewal; - Refrigeration method more suitable for the elimination of viruses and bacteria.

TECHNICAL FEATURES WETBOX 16 000

• TEMPERATURE SENSOR

Switch from free-cooling to adiabatic mode as soon as the external temperature of the setting point exceeds the setting point. It also allows you to activate automatic discharge cycles when the water temperature of the tank exceeds the control temperature, thus preventing bacterial proliferation when the device stops.

• 2-SPEED WALL CONTROLLER

A two-speed wall controller allows you to set on the fan speed (simplicity of implementation, especially in industrial and/or commercial buildings).

• DRAINAGE SOLENOID VALVE

It allows to deconcentrate minerals and avoid any proliferation of bacteria in the tank. Frequency and timing of these deconcentration cycles can be adjusted.

• FLOATING VALVE SYSTEM

The water level is maintained at a constant level in the tank thanks to this system. In addition, a float prevents the cooler from no-load operation, indicating an inconsistent water level.

• FORCED MARCH BOX

Box with forced gear that ensures the functioning of the device in case of failure of any component other than the pump and the fan.

AIR FLOW CURVE / PRESSURE DROP

TECHNICAL DESCRIPTION

SUPPLY AIR TEMPERATURES

	EXHAUSTED AIR TEMPERATURE (°C)							
	20	25	30	35	40	45		
OUT. RH		SUPPLY AIR TEMPERATURE (°C)						
10 %	9,3	12,4	15,6	18,6	21,6	24,7		
20 %	10,7	14,3	17,8	21,2	24,7	28,3		
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80 %	18,0	22,7	27,5	32,3	37,2	41,9		

INTELLIGENT WATER MANAGEMENT

• BACTERIAL GROWTH

It is known that below 25°C., bacteria such as Legionella, do not develop or develop little. When the cooler stops, if the temperature of water in the pot exceeds 25°C., it must be drained (after one hour) and rinsed automatically. For very hot countries, you can adjust the temperature to 28°C.

• DECONCENTRATION OF MINERALS

It is known that the concentration of minerals depends on the concentration of starting minerals (water hardness) and the amount of evaporated water. A «hard» water will reach a mineral concentration level « limit » faster than fresh water. A timing system automatically activates the drainage of the tank according to the following frequency:

Hard water: Drainage and rinsing after 2 hours of the circulaion pump operation ;

Normal water: Drainage after 4 hours of circulating pump's operation ;

Fresh water: Drainage after 6 hours of circulating pump's operation ;

Rainwater or demineralized: No deconcentration.

• WATER LEVEL CONTROL

A float ensures there is enough water in the tank.

It also allows you to check if the system of drainage works correctly when it starts.

It thus allows you to avoid the risks of freezing by warning the user that there is still water in the tank when the temperature is close to 0 is C.

(1) TOP PANEL

- (2) POLYPROPYLÈNE FRAME
- (3) HUMID PAD
- (4) SIDE PANEL
- (5) EXHAUST PIPE OF THE PUMP
- (6) WATER SUPPLY SOLENOID VALVE
- (7) CIRCULATION PUMP
- (8) DRAINAGE SOLENOID VALVE
- (9) ELECTRIC MOTOR
- (10) ELECTRONIC CARD
- (11) MOTOR SUPPORT
- (12) PROFILED TANK

WALL CONTROLLER

The wall control includes the following elements:

An Off/Speed 1/Speed 2 switch

• A light failure light indicating problems: Lack of water (Speed 1 or 2 and no water in the tray) Danger of freezing (temperature close to 0 C and drained tank)

A drainage problem (drain on and floats drainage does not detect the water level drop).

Circulating pump failure (water temperature above 25°C. while the pump should run)

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TECHNICAL FEATURES WETBOX 30 000

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Gestion des Energies Naturelles //

TECHNICAL DESCRIPTION

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