

## **TECHNICAL INSTRUCTIONS**

# CWX 6 - CWX 8 - CWX 10

## **CASSETTE TYPE TERMINAL UNIT**



		Cooling	Heating
CWX 6	2 pipes	6.00 kW	7.70 kW
CWX 8	2 pipes	8.00 kW	10.50 kW
<b>CWX</b> 10	2 pipes	9.92 kW	13.00 kW

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## MARKING ( E

This product marked  $\mathbf{C}$  conforms to the essential requirements of the Directives:

- Low voltage no. 2006/95/EC.
- Electromagnetic Compatibility no. 89/336 EEC, modified 92/31 and 93/68 EEC.



## **SUMMARY**

1	-	Presentation
2	-	Technical characteristics
3	-	Physical characteristics
4	-	Description
5	_	Accessories

## 1 - PRESENTATION

### 1.1 - USE

- Unit intended for climate control in buildings and the comfort of people.
- Do not place the device in rooms with high humidity or exposed to projections of water.

## 1.2 - FUNCTIONS

- Cooling or heating by means of a 2-pipe water coil.
- Ventilation with filtration (built-in filter).

## 1.3 - APPLICATIONS

• This unit was designed for installation in locations such as offices, businesses and hotels.

#### 1.4 - MODELS

• "2-pipe" for all sizes, with wire or infrared remote control: CWX B 5B and CWX B 5X.

## 2 - TECHNICAL CHARACTERISTICS

### 2.1 - NOMINAL CONDITIONS

Total cooling capacity	Model				CWX 6 B	CWX 8 B	CWX 10 B
LS	Total cooling capacity	(1)	HS	kW	6.00	8.00	9.92
Sensible cooling capacity			MS	kW	5.00	6.50	8.09
MS			LS	kW	4.20	5.50	6.23
LS	Sensible cooling capacity	<b>(1</b> )	HS	kW	4.70	6.40	7.90
Heating capacity			MS	kW	3.80	5.40	6.22
MS			LS	kW	3.20	4.10	4.62
LS	Heating capacity	(2)	HS	kW	7.70	9.42	11.69
Air flow rate      HS   m³/h   1,300   1,270   2,300     m³/s   0.361   0.353   0.631     MS   m³/h   1,060   1,090   1,700     m³/s   0.294   0.303   0.472     LS   m³/h   850   830   1,200     m³/s   0.233   0.231   0.339     Water flow rate in cooling   (1)			MS	kW	6.40	8.52	9.53
MS   MS   MS   MS   MS   MS   MS   MS			LS	kW	5.40	6.28	7.34
MS   m³/h   1,060   1,090   1,700   m³/s   0.294   0.303   0.472   LS   m³/h   850   830   1,200   m³/s   0.233   0.231   0.339   Mater flow rate in cooling   (1)	Air flow rate		HS	m³/h	1,300	1,270	2,300
Max. power consumption   HS   NB   NB   NB   NB   NB   NB   NB   N					0.361	0.353	0.631
LS   m³/h   850   830   1,200   m³/s   0.233   0.231   0.339   Mater flow rate in cooling   (1)			MS	m³/h	1,060	1,090	1,700
m³/s         0.233         0.231         0.339           Water flow rate in cooling         (1)         HS         I/h         1,030         1,380         1,700           MS         I/h         860         1,120         1,400           LS         I/h         720         950         1,070           Pressure drop on water in cooling mode         (1)         HS         kPa         30         41         63           MS         kPa         19         31         42         2           LS         kPa         14         23         26           Pressure drop on water in heating mode         (2)         HS         kPa         27         39         60           Pressure drop of the valve         HS         kPa         17         25         45           Power supply         V/ph/Hz         230/1/50         230/1/50         230/1/50         230/1/50           Max. power consumption         HS         kW         0.12         0.12         0.18           Max. current consumption         HS         A         0.50         0.50         0.80           Hydraulic connection         3/4" gas female         •         •         •				m³/s	0.294	0.303	0.472
Mater flow rate in cooling   (1)			LS	m³/h	850	830	1,200
MS				m³/s	0.233	0.231	0.339
LS	Water flow rate in cooling	<b>(1</b> )	HS	I/h	1,030	1,380	1,700
Pressure drop on water in cooling mode         (1)         HS         kPa         30         41         63           MS         kPa         19         31         42           LS         kPa         14         23         26           Pressure drop on water in heating mode         (2)         HS         kPa         27         39         60           Pressure drop of the valve         HS         kPa         17         25         45           Power supply         V/ph/Hz         230/1/50         230/1/50         230/1/50         230/1/50           Max. power consumption         HS         kW         0.12         0.12         0.18           Max. current consumption         HS         A         0.50         0.50         0.80           Hydraulic connection         3/4" gas female         ●         ●         ●           Sound power level         HS         dB(A)         51         50         57           MS         dB(A)         44         46         49           LS         dB(A)         40         37         43           Sound pressure level (at 2 m indoors)         HS         dB(A)         42         41         48			MS	l/h	860	1,120	1,400
MS			LS	l/h	720	950	1,070
LS         kPa         14         23         26           Pressure drop on water in heating mode         (2)         HS         kPa         27         39         60           Pressure drop of the valve         HS         kPa         17         25         45           Power supply         V/ph/Hz         230/1/50         230/1/50         230/1/50         230/1/50           Max. power consumption         HS         kW         0.12         0.12         0.18           Max. current consumption         HS         A         0.50         0.50         0.80           Hydraulic connection         3/4" gas female         ●         ●         ●           Sound power level         HS         dB(A)         51         50         57           MS         dB(A)         44         46         49           LS         dB(A)         40         37         43           Sound pressure level (at 2 m indoors)         HS         dB(A)         42         41         48           MS         dB(A)         35         37         40	Pressure drop on water in cooling mode	(1)	HS	kPa	30	41	63
Pressure drop on water in heating mode         (2)         HS         kPa         27         39         60           Pressure drop of the valve         HS         kPa         17         25         45           Power supply         V/ph/Hz         230/1/50         230/1/50         230/1/50         230/1/50           Max. power consumption         HS         kW         0.12         0.12         0.18           Max. current consumption         HS         A         0.50         0.50         0.80           Hydraulic connection         3/4" gas female         ●         ●         ●           Sound power level         HS         dB(A)         51         50         57           MS         dB(A)         44         46         49           LS         dB(A)         40         37         43           Sound pressure level (at 2 m indoors)         HS         dB(A)         42         41         48           MS         dB(A)         35         37         40			MS	kPa	19	31	42
Pressure drop of the valve         HS         kPa         17         25         45           Power supply         V/ph/Hz         230/1/50         230/1/50         230/1/50         230/1/50           Max. power consumption         HS         kW         0.12         0.12         0.18           Max. current consumption         HS         A         0.50         0.50         0.80           Hydraulic connection         3/4" gas female         ●         ●         ●           Sound power level         HS         dB(A)         51         50         57           MS         dB(A)         44         46         49           LS         dB(A)         40         37         43           Sound pressure level (at 2 m indoors)         HS         dB(A)         42         41         48           MS         dB(A)         35         37         40			LS	kPa	14	23	26
Power supply         V/ph/Hz         230/1/50         230/1/50         230/1/50           Max. power consumption         HS         kW         0.12         0.12         0.18           Max. current consumption         HS         A         0.50         0.50         0.80           Hydraulic connection         3/4" gas female         ●         ●         ●           Sound power level         HS         dB(A)         51         50         57           MS         dB(A)         44         46         49           LS         dB(A)         40         37         43           Sound pressure level (at 2 m indoors)         HS         dB(A)         42         41         48           MS         dB(A)         35         37         40	Pressure drop on water in heating mode	(2)	HS	kPa	27	39	60
Max. power consumption         HS         kW         0.12         0.12         0.18           Max. current consumption         HS         A         0.50         0.50         0.80           Hydraulic connection         3/4" gas female         ●         ●         ●           Sound power level         HS         dB(A)         51         50         57           MS         dB(A)         44         46         49           LS         dB(A)         40         37         43           Sound pressure level (at 2 m indoors)         HS         dB(A)         42         41         48           MS         dB(A)         35         37         40	Pressure drop of the valve		HS	kPa	17	25	45
Max. current consumption         HS         A         0.50         0.50         0.80           Hydraulic connection         3/4" gas female         ●         ●         ●         ●           Sound power level         HS         dB(A)         51         50         57           MS         dB(A)         44         46         49           LS         dB(A)         40         37         43           Sound pressure level (at 2 m indoors)         HS         dB(A)         42         41         48           MS         dB(A)         35         37         40	Power supply			V/ph/Hz	230/1/50	230/1/50	230/1/50
Hydraulic connection       3/4" gas female       ●       ●         Sound power level       HS dB(A) 51 50 57         MS dB(A) 44 46 49         LS dB(A) 40 37 43         Sound pressure level (at 2 m indoors)       HS dB(A) 42 41 48         MS dB(A) 35 37 40	Max. power consumption		HS	kW	0.12	0.12	0.18
Sound power level   HS   dB(A)   51   50   57   MS   dB(A)   44   46   49   LS   dB(A)   40   37   43   Sound pressure level (at 2 m indoors)   HS   dB(A)   42   41   48   MS   dB(A)   35   37   40	Max. current consumption		HS	Α	0.50	0.50	0.80
MS dB(A) 44 46 49 LS dB(A) 40 37 43  Sound pressure level (at 2 m indoors) HS dB(A) 42 41 48 MS dB(A) 35 37 40	Hydraulic connection 3/4"		3/4"	gas female	•	•	•
LS dB(A) 40 37 43  Sound pressure level (at 2 m indoors) HS dB(A) 42 41 48  MS dB(A) 35 37 40	Sound power level		HS	dB(A)	51	50	57
Sound pressure level (at 2 m indoors)         HS         dB(A)         42         41         48           MS         dB(A)         35         37         40				dB(A)	44	46	49
MS dB(A) 35 37 40			LS	dB(A)	40	37	43
	Sound pressure level (at 2 m indoors)		HS	dB(A)	42	41	48
LS <b>dB(A)</b> 31 28 34				` '		37	_
			LS	dB(A)	31	28	34

Air inlet: 27°C (DB) / 19°C (WB) - Water inlet: 7°C - Water outlet: 12°C. Air inlet: 20°C - Water inlet 50°C (same flow-rate as under other conditions (1)).

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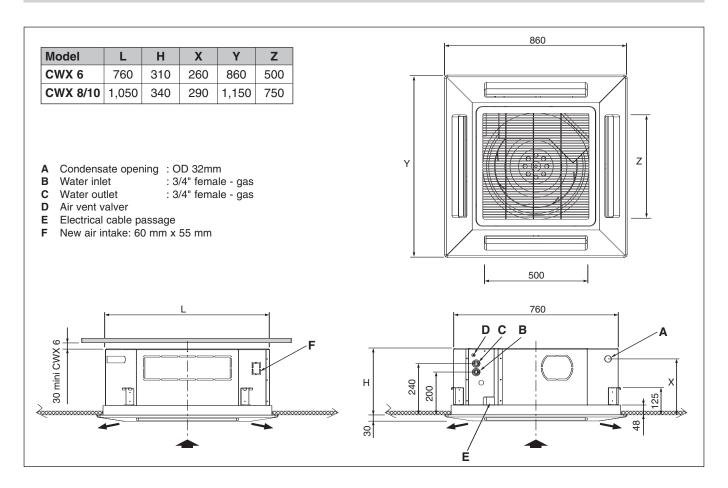
## 2.2 - OTHER CONDITIONS

- · Consult us.
- Operating limits:
  - Minimum water inlet temperature : 4°C.
  - Maximum water inlet temperature: 60°C.

**Note**: For reasons relating to comfort (homogeneity of the air temperature in the room), not exceeding a water inlet temperature of 55°C in the battery is recommended.

- Maximum operating pressure of the hydraulic circuit: 16 bar.
- Minimum air recirculation temperature : 5°C.
- Maximum air recirculation temperature: 32°C.

## 3 - PHYSICAL CHARACTERISTICS



## **NET WEIGHT**

Model	CWX 6	CWX 8/10
Unit	23 kg	29 kg
Facade / grille assembly	5 kg	7 kg

## **PACKED UNITS**

Model			CWX 6	CWX 8/10
Unit	length	mm	860	1,150
	width	mm	820	820
	height	mm	300	330
	weight	kg	26	33
Front	length	mm	960	1,250
panel	width	mm	960	960
	height	mm	105	105
	weight	kg	8	10

## 4 - DESCRIPTION

del	CWX 6	CWX 8	CWX 10
Construction			
Material	Galvanised steel	Galvanised steel	Galvanised ste
Polyethylene insulation	3 mm exterior	3 mm exterior	3 mm exterior
Front panel material	Polystyrene	Polystyrene	Polystyrene
Front panel colour	RAL 9001	RAL 9001	RAL 9001
Electric box protection	IP 20	IP 20	IP 20
Copper/aluminium thermal exchanger			
Number of rows	2	2	2
Frontal surface area m <sup>2</sup>	0.349	0.556	0.556
Pitch between fins mm	1.5	1.5	1.5
Water capacity litres	1	1.5	1.5
Connections	3/4" gas female	3/4" gas female	3/4" gas femal
Manual air bleeder	•	•	•
Motor			
Power supply 230V/1/50Hz	•	•	•
Number	1	1	1
Internal thermal protection	•	•	•
Class	А	А	А
Number of poles	6	6	6
Rotation speed (at high speed) rpm	440	470	510
Max. power consumption kW	0.115	0.140	0.180
Max. current consumption A	0.5	0.6	0.8
Fan			
Туре	Centrifugal	Centrifugal	Centrifugal
Number	1	1	1
Diameter mm	450	450	450
Length mm	160	200	200
Air filter			
Polypropylene, class HB (UL 94) – Washable	•	•	•
Number	1	1	1
Condensate pump			
Power supply 230V/1/50Hz	•	•	•
Nominal flow rate litres/hour	36	36	36
Lift height above the unit mm	250	250	250
Power consumption kW	0.015	0.015	0.015
Fresh air intake (knock-out)			
Number	1	1	1
Connection dimensions mm	60 x 55	60 x 55	60 x 55
Wire remote control version	•	•	•
Infrared remote control version	•	•	•

## 5 - ACCESSORIES

## 5.1 - 3-WAY VALVE + BY-PASS

- Code 70600088.
- This valve kit can be mounted on all models and is obligatory for cold water use.
- If this valve is not installed there is a risk of the condensate tray overflowing when the machine is switched off by the thermostat or if the condensate pump breaks down.
- A standard auxiliary condensate tray (for the valve) is delivered with the units.
- · Characteristics:
  - Connection: 3/4" male gas (the valve is supplied with the connections for installation directly on the unit's outlet).
  - Kvs: 2.5.
  - "On/Off" 230V thermal actuator.
  - Open time: 3 min.

### 5.2 - REMOTE CONTROLS (for the wire remote control version)

Model	CWX 6 B	CWX 8 B	CWX 10 B
70250076		•	•
RAB 30 Manual remote control			
70250051			
RCC 10 automatic remote control			
70250053		•	
Change/over sensor or air recirculation with bracket for RCC			
70250054	•	•	•
Air temperature sensor in box for RCC			

Note: "On-Off" action on valve, 230 VAC (accessory).

#### A - MANUAL REMOTE CONTROL

• Code 70250076

• The operating mode is selected manually by a switch on the front of the control unit.

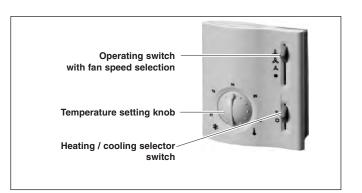
Technology : electromechanic
Power supply : 230 Vac
Set-point adjustment range : 8 / 30°C

(possibility of mechanical limitation by jumpers on the knob)

• "On-Off" action

 $\begin{array}{lll} \bullet & \text{Control differential} & : \leq 1^{\mathsf{K}} \\ \bullet & \text{Operating temperature} & : 0 \ / \ 50^{\circ}\text{C} \\ \bullet & \text{Relative humidity} & : < 95\% \\ \bullet & \text{Protection class} & : \ \text{cl. II} \\ \bullet & \text{IP} & : \ 30 \\ \end{array}$ 

• Colour : White RAL 9003



### **B - AUTOMATIC REMOTE CONTROL**

• Type RCC 10 - code 70250051

· Selection of the operating mode is done automatically.

• For the units capable of heating and cooling operation, a change-over sensor must be connected (accessory, code 70250053) to the installation on the water piping.

This change-over sensor can be replaced by a potential-free contact (not supplied), the closing of which causes changeover to cooling mode.

- There is a possibility to connect a remote air temperature sensor, bare (accessory, code 70250053) or box mounted (accessory, code 70250054).
- Permanent or slaved ventilation.
- Mode change is possible (Eco or Stand-by) by an external potential-free contact (not supplied).

Technology : electronic
Power supply : 230 Vac
Set-point adjustment range: 8 / 30°C

(possibility of mechanical limitation by jumpers on the knob)

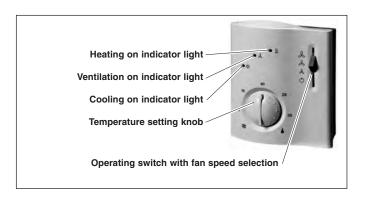
• "On-Off" action

Heating differential : adjustable 1 or 4<sup>K</sup>
 Cooling differential : adjustable 0.5 or 2<sup>K</sup>
 Neutral zone (on RCC 20) : adjustable 2 or 5<sup>K</sup>
 Setpoint in "Eco" mode : 16°C in heating mode 28°C in cooling mode

• Setpoint in "Standby" : 8°C in heating mode

Operating temperature : 0 / 50°C
Relative humidity : < 95%</li>
Protection class : cl. II
IP : 30

• Colour : White RAL 9003



## C - TEMPERATURE PROBE (BARE) - CODE 70250053

- For RCC type remote control.
- 2 possible uses:
  - change over probe (equipped with a tube retaining clip) for appliances may operate in heating and cooling mode,
  - air temperature probe (to be placed on the air intake).
- Thermistance type CTN 3 k $\Omega$  at 25°C.
- IP 65 protection class: cl. II.

## D - BOX-MOUNTED AIR TEMPERATURE PROBE - CODE 70250054

- For RCC remote controls.
- Enables the control unit to be placed outside the room to be air conditioned.
- Thermistance type CTN 3 k $\Omega$  at 25°C.
- The unit is mounted in a box similar to the remote control (IP 30 protection class: cl. II colour: white RAL 9003).

Due to our policy of continuous development, our products are liable to modification without notice.