



Ductable units

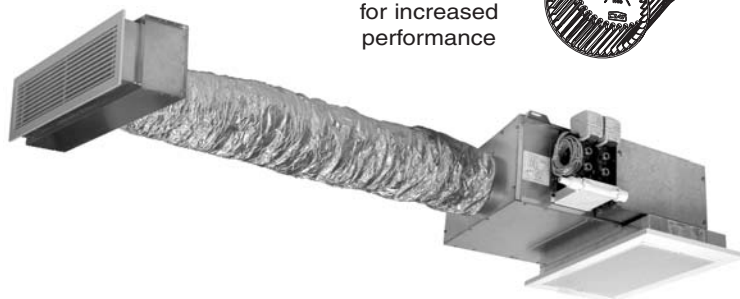
Product designed
for hospital rooms

NEW

HEE impeller
for increased
performance



"COADIS COMFORT"
a global concept for guaranteed
COMFORT and **HYGIENE**



COADIS COMFORT



Optional motor



COADIS COMFORT:

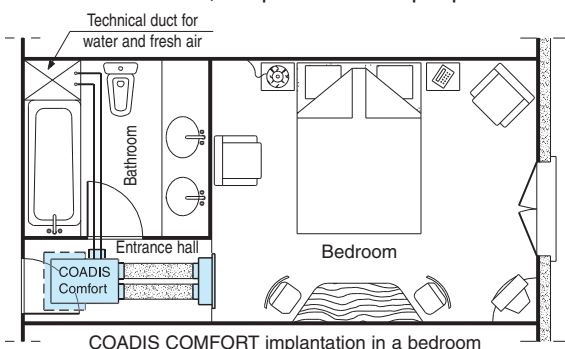
- A complete offer, consisting of a terminal unit and a diffusion kit.
- Discreet integration in suspended ceiling
- Integrated air recovery, "L" technology (no bulk air recovery in the suspended ceiling)
- The assurance of thermal, aeraulic and acoustic comfort
- Easy and low cost installation
- Low installation costs with guaranteed investment return benefits
- Simplified maintenance, without dismantling the unit, easy

access to the fan motor assembly, condensates drain pan electric heaters, as well as to the hydraulic coil assembly.

- Easy filter withdrawal, without dismantling the unit, nor the suspended ceiling.
- Hygienic: no fouled air recovery from bathroom, via suspended ceiling
- A particularly low sound level
- Large diameter impellers (Ø160mm) to satisfy the requirement for available static pressure and capable of keeping suitable performances in spite of filter fouling.
- A smooth, sloping drain pan avoiding water retention and bacteria proliferation.

Use

COADIS COMFORT is a non-independant air conditioning terminal unit designed for soffit installation. It is especially adapted for hotel rooms, hospitals and old people's homes.



2 models of **COADIS COMFORT** are available:

- **LI Model:** Air discharge by rectangular sleeve and Coanda air diffusion grille (grille consisting of fixed horizontal fins and adjustable vertical shutters).
- **LY Model:** Air discharge by circular spigots, through an air diffusion kit including:
 - an isophonic circular duct
 - a connection plenum
 - a telescopic sleeve
 - a Coanda effect diffusion grille (as model LI).

Small dimension unit, Coadis Comfort comes in 3 sizes, with the following frame dimensions: 600x600, 600x900, 600x1200

The air recovery grille is completely integrated in a suspended ceiling tile frame

The easy access to the fan motor assembly, filter and coil + condensate drain pan simplifies maintenance operations (filter withdrawal through the grille without dismantling).

The condensates drain pan is designed so as to avoid water retention. "Dry" drain pan prevents bacteria proliferation and interior corrosion.

Dismantling of condensate pan from underneath the unit, without coil removal.

RANGE

COADIS COMFORT is available in 2-pipe, 2-pipe + 2-wire and 4-pipe systems. Air intake is made at the lower part, through a perforated air intake grille ("L" technology included in the unit).



The CIAT company participates to the EUROVENT certification programme for fan coil units. See performances in Eurovent mode, on last page of the range. The list of certified products and characteristics is listed in the EUROVENT manual, also available on the internet site www.eurovent-certification.com

COADIS COMFORT ... UNEQUALLED COMFORT

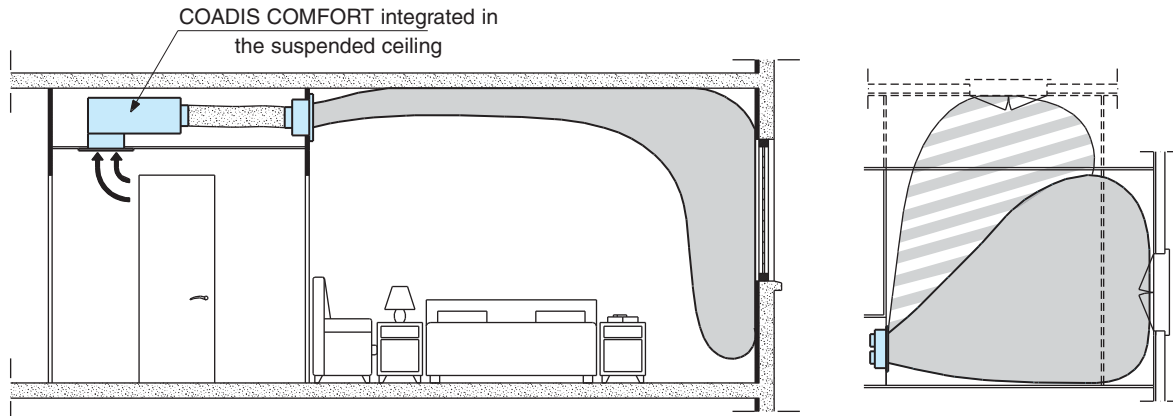
COADIS COMFORT is easy to install: four threaded rods are all that is required. The use of resilient mounts is recommended.

This latest CIAT addition offers the mastering of an exclusive air diffusion system:

- A **diffusion grille**, composed of upwards tilted horizontal fins and adjustable vertical louvres, enabling optimisation of

comfort according to room dimensions.

- A **flexible circular duct** allowing sound attenuation of the assembly.
- **Insulated air discharge plenum**, allowing the connection of each duct to the diffusion grille



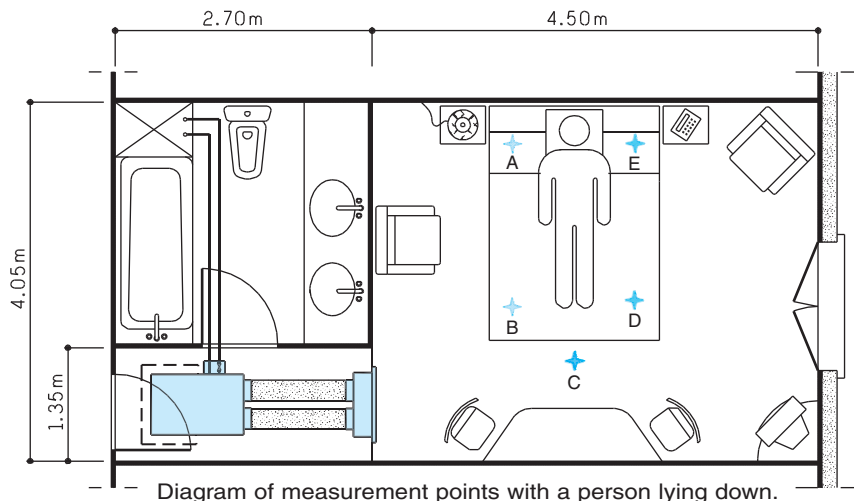
The air is blown upwards thanks to the horizontal fins allowing the air stream to adhere perfectly to the ceiling by **COANDA** effect. The air goes down along the walls, respecting the room occupancy volume.

The directional vertical louvres allow the air jet range, and consequently its lateral component, to be adjusted.

In the same way, it is possible to adjust the air jet according to a desired direction. The correct air distribution is thus ensured even in narrow rooms or in case of air diffusion from a room angle: guaranteed comfort.

For more information concerning air discharge ranges, consult us.

Global comfort



Test conditions:

- Case of a hotel room tested by the CIAT laboratory in a "comfort" cell
- Model LY unit, size 235/33 N
- Measurements taken at 0.6m from the ground (height corresponding to the position of a person lying down)
- Room temperature 24°C
- Water temperature 7/12°C
- Medium speed (R5)

Results:

Points	A	B	C	D	E
NR Comfort level	21	22	22	21	20
dBA Comfort level	26	27	27	26	24
Temperature in °C	23.7	23.6	23.5	23.7	23.6
Residual speed m/s	0.05	0.05	0.06	0.1	0.08

The **COADIS COMFORT** has a particularly low acoustic level. **COADIS COMFORT** meets the requirements of ISO 7730

TECHNICAL DESCRIPTION

Water coil, 2 or 4-pipe system

- Galvanised sheet metal
- Copper pipes, continuous aluminium fins
- Monoblock connector with 40mm between axis for facilitated control valve mounting
- Air vent and drain
- Nominal pressure 16 bar (at 20°C)
- Test pressure: 24 bar
- Max water temperature: 110°C (PN 10)
- Water coil connectors on the left or right side of the unit when facing the air discharge (to be mentioned on order).

Electric heater, 2-pipe-2wire system

- Single-tube electric heating elements 230/1/50 integrated in the aluminium block.
- 2 capillary-tube temperature limiters with manual and automatic reset integrated in the aluminium housing.

Condensate drain pan

- Drain pan in self-extinguishing polymer
- Fire rating M1
- Without water retention, condensates draining at the level of the sloping drain pan bottom
- Drainage connectors reversible manually to the front or rear
- 4 drainage diameters: 15, 16, 22 or 28mm in standard
- Easily removed via underside without having to dismantle the coil, in accordance with DGS 97/311 on Legionellosis.

Fan motor assembly

→ Motor

- 7 speeds 3-pre-wired in factory (this wiring can be modified on site)
- Sealed, tropicalised, with protected shaft and ball-bearings.
- Permanent condenser
- Automatic normally closed overload protection mounted in series on coil
- Resilient mounts
- Power supply 230/1/50
- Reduced power consumption

→ Fan(s)

- Galvanised sheet metal scroll(s)
- Dia. 160 mm dynamically balanced impeller(s) with forward-curved blades and dual inlets.
- V0 fire rating

Air filter

- Positioned on the air recovery, the filter is easily accessible from the clipped air intake grille
- Flexible filtering media in polyester fibers, renewable
- Class EN 779: G3 efficiency
- Fire rating M1
- Rigid metallic frame

Frame

- Galvanised sheet metal
- Thermal and acoustic insulation in melamine resin on discharge and recovery sides, open cells soft foam, with aluminium film, fire rating M1, 15 mm thick.
- Air discharge through Ø200mm circular spigots, auto-extinguishable polymer material for the standard version (1 for 235/11 N, 2 for 235/22 N and 3 for 235/33 N) for LY model
- Air discharge through rectangular sleeve for LI model.
- Ø100 mm or Ø125 mm pre-cut hole for treated fresh air intake
- Oblong holes for fixation

Electric box

- On hydraulic connection side
- Entirely sealed

- DIN railing in accordance with EN 50022, 7.5mm depth
- Cable stopping devices for customer's connection

Air recovery grille with sheet metal frame

- Plain white, RAL 9010 for all components
- Integrating in a semi-tile 300x600, 300x900, 300x1200 for integration in the suspended ceiling
- Perforated metallic sheet with integrated filter, quick dismantling
- Completely integrated for fixing on the unit.
- The whole assembly is delivered separately

Diffusion kit (delivered separately)

LI Model:

→ Air discharge grille

- Plain white, RAL 9010
- Double deflection louvres allowing air stream to adhere to the ceiling by COANDA effect
- Simplified assembly with a quarter turn lock

→ Counterframe

LY Model:

→ Air discharge grille

- Plain white, RAL 9010
- Double deflection louvres allowing air stream to adhere to the ceiling by COANDA effect
- Simplified assembly with a quarter turn lock

→ Air discharge plenum

- Galvanised steel sheet with grille fixation
- Thermal insulation avoiding condensation
- Ø160 mm circular nozzle (1 for 235/11 N, 2 for 23/22 N and 3 for 235/33 N)
- Pre-cut Ø 100 mm hole for fresh air inlet

→ Telescopic sleeve

- Allows the connection between grille and plenum
- Can be integrated in a 120 mm max. thickness wall

→ Circular isophonic flexible duct

- Sold separately per standard lengths, to be cut on site



Note: Refer to user's brochure for further information.

ACCESSORIES

Resilient fixation mounts.

Ø100 mm smooth sleeve for treated fresh air inlet

Ø100 mm smooth sleeve with gasket and self-adjusting module for treated fresh air inlet

Ø125 mm sleeve with or without self-adjusting module, consult us.

Condensates draining pump

CONTROLS

Wall-mounted electro-mechanical thermostat range

V30 electronic range

V200 electronic range

V2000®, V3000 electronic range

LON control, consult us

OPTIONAL (CONSULT US)

- 60Hz operation (230V)

- Raised version

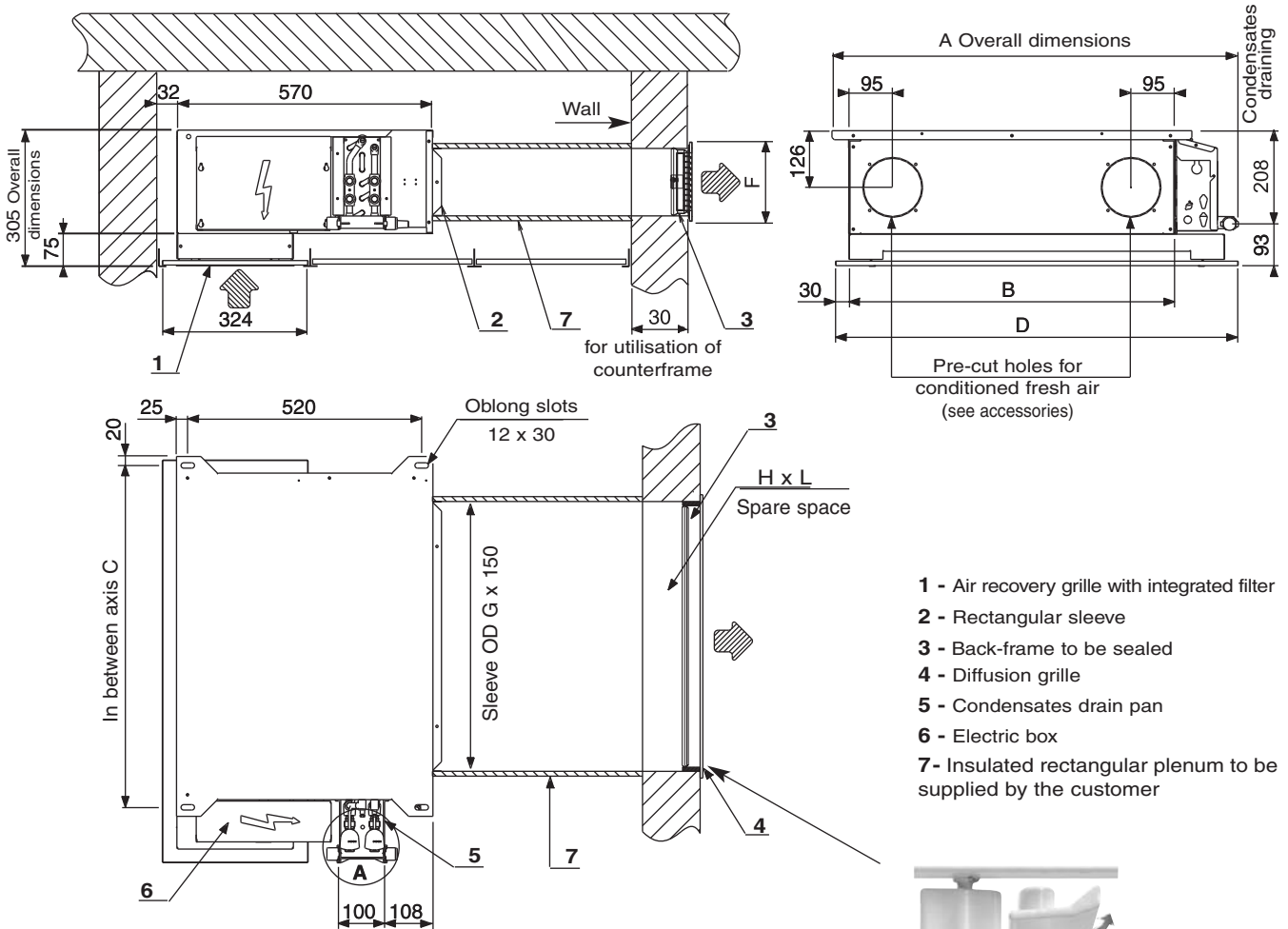
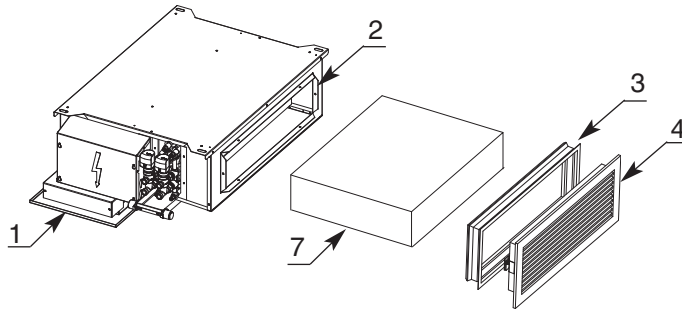
- High Energy Efficiency (HEE) motor

- Special return air panels

- Supply air grille in other colours

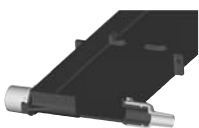
- Other filtration

- Medical Comfort version for the healthcare market

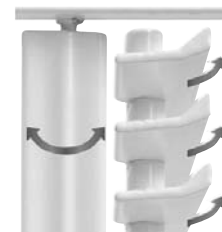


- 1 - Air recovery grille with integrated filter
- 2 - Rectangular sleeve
- 3 - Back-frame to be sealed
- 4 - Diffusion grille
- 5 - Condensates drain pan
- 6 - Electric box
- 7 - Insulated rectangular plenum to be supplied by the customer

DETAIL A



- "Dry" drain pan without water retention avoiding bacteria proliferation
- Smooth drain pan in self-extinguishing polymer
- Reversible connectors with 4 diameters of connection: 15, 16, 22 or 28 mm



Diffusion grille detail

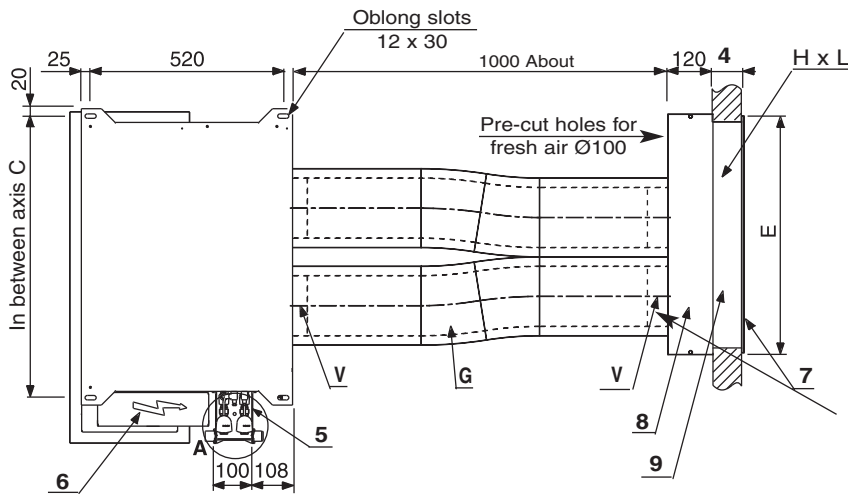
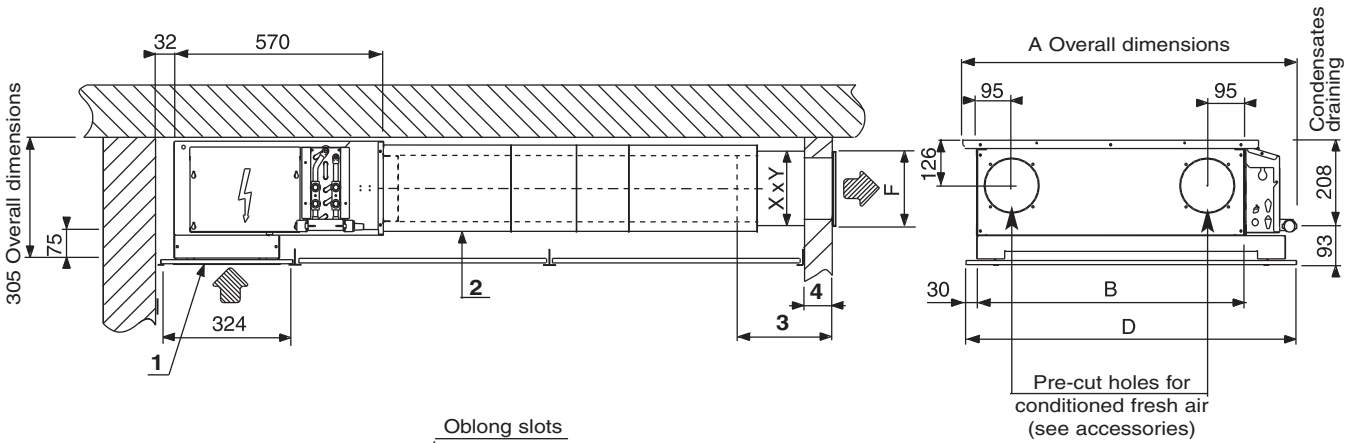
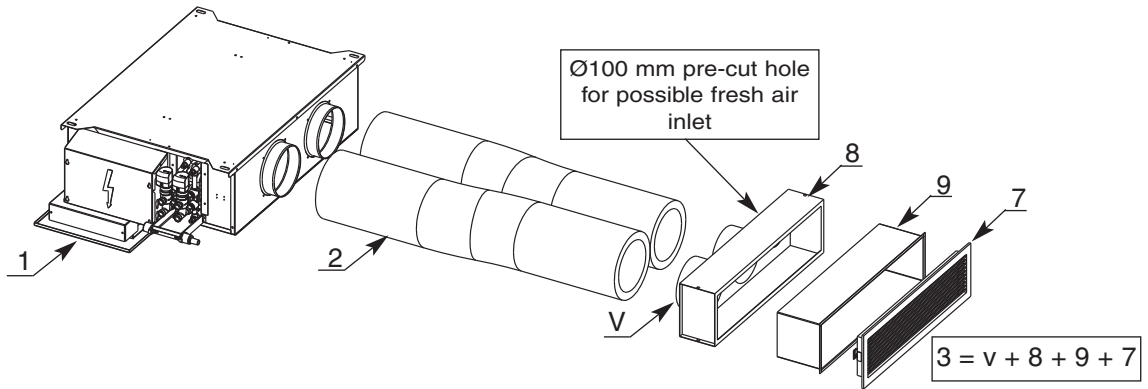
	A	B	C	D	E	F	G	H x L*	Mass kg unit only
235/11 N	604	425	460	595	430	180	400	150 x 400	22
235/22 N	904	725	760	895	630	180	600	150 x 600	30
235/33 N	1204	1025	1060	1195	830	180	800	150 x 800	40

* H x L is the spare space dimensions in the wall



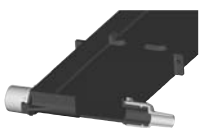
Ductable units

COADIS COMFORT, LY MODEL + DIFFUSION KIT

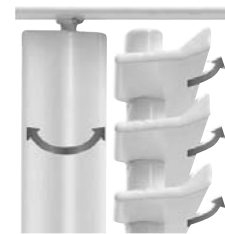


- 1 - Air recovery grille with integrated filter
- 2 - Isophonic flexible duct, length 1 meter approx.
- 3 - Telescopic diffuser kit = V + 8 + 9 + 7
- 4 - Partition thickness between 30 and 120 mm
- 5 - Condensates drain pan
- 6 - Electric box
- 7 - Diffusion grille
- 8 - Plenum to be mounted on partitions
- 9 - Telescopic sleeve

DETAIL A



- "Dry" drain pan without water retention avoiding bacteria proliferation
- Smooth drain pan in self-extinguishing polymer
- Reversible connectors with 4 diameters of connection: 15, 16, 22 or 28 mm



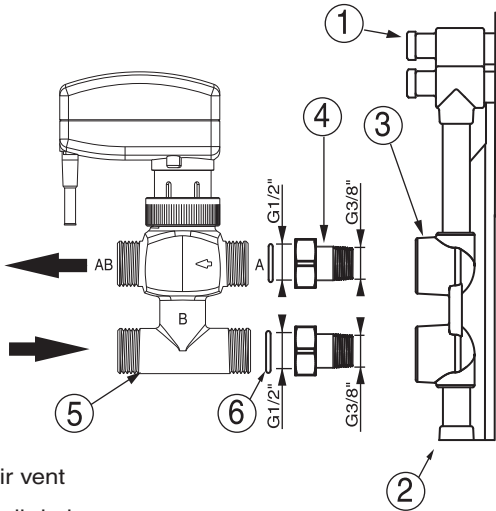
Diffusion grille detail

	A	B	C	D	E	F	G	V	X x Y	H x L*	Mass kg unit only
235/11 N	604	425	460	595	430	180	1 duct	1 spigots Ø 160	180 x 440	150 x 400	22
235/22 N	904	725	760	895	630	180	2 ducts	2 spigots Ø 160	180 x 640	150 x 600	30
235/33 N	1204	1025	1060	1195	830	180	3 ducts	3 spigots Ø 160	180 x 840	150 x 800	40

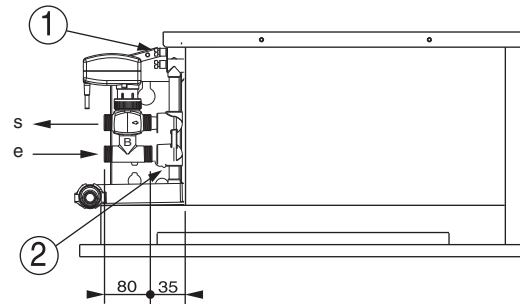
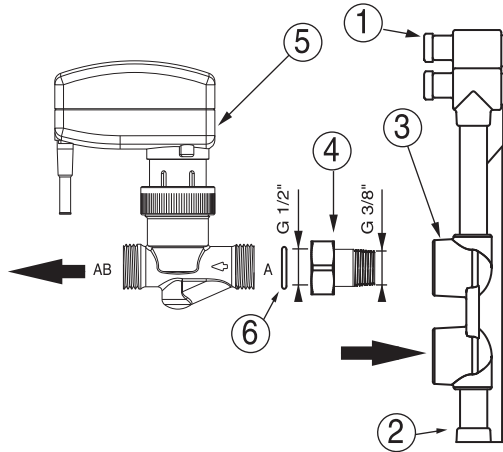
* H x L is the spare space dimensions in the wall

HYDRAULIC CONNECTIONS LI AND LY MODELS

4-way valve



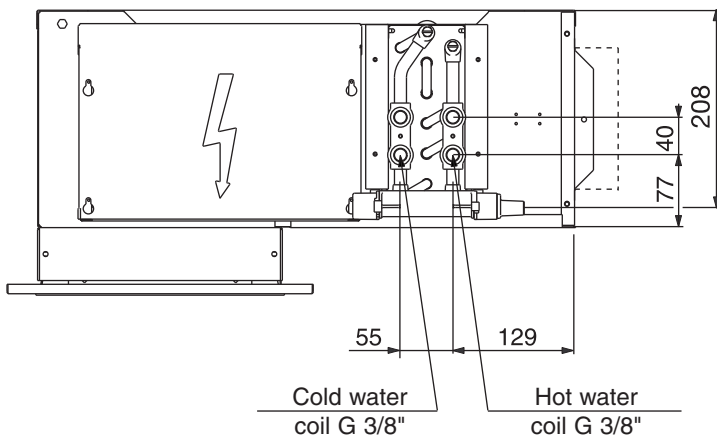
2-way valve



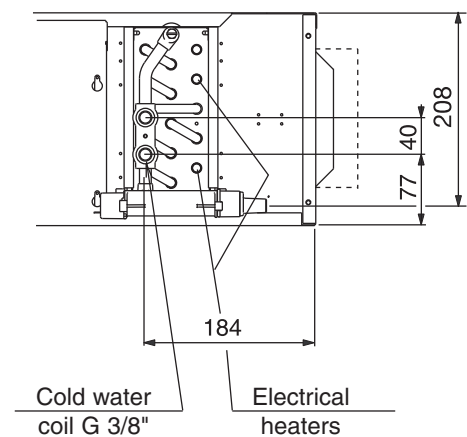
- 1 - Air vent
- 2 - Coil drain
- 3 - Monobloc connectors with fixed 40 mm between axis
- 4 - 2 piece flat surface male/female hydraulic connectors 3/8" → 1/2"
- 5 - Mounting example of a 2 or 4-way flat surface valve mounting (integrated with water regulation loop)
- 6 - O-ring
- e: Water coil inlet
- s: Water coil outlet

Note: The drawings herein are for information only and subject to modification without prior notice.

4-pipe coil



2-pipe +2 wire electrical battery





Ductable units

COADIS COMFORT

LI AND LY MODELS PERFORMANCE

COADIS COMFORT	Motor reference	Air flow m³/h	2-pipe system W Coil heating capacity	Cooling capacity W		4-pipe system W Coil heating capacity	ISO or NR Comfort level	Air temperature mean rise in K Auxiliary electric heater 230/1/50			
				Totale	Sensible			1R		2R	
235/11 N	R1	440	6 240	2 010	1 690	2 070	42	600 W	4,1	1200 W	8,1
	R2	405	5 930	1 920	1 600	2 010	40		4,4		8,8
	R3	370	5 540	1 790	1 480	1 940	36		4,8		9,6
	R4	315	4 940	1 650	1 320	1 830	32		5,7		11,3
	R5	250	4 120	1 410	1 100	1 650	26		7,1		14,3
	R6	175	3 080	1 100	827	1 400	19		10,2		20,4
	R7	120	2 200	818	596	1 140	<15		14,9		29,7
235/22 N	R1	710	10 500	3 200	2 670	4 320	44	800 W	3,3	1600 W	6,7
	R2	640	9 750	3 020	2 470	4 120	40		3,7		7,4
	R3	550	8 770	2 720	2 190	3 850	36		4,3		8,6
	R4	460	7 630	2 420	1 920	3 520	31		5,2		10,3
	R5	385	6 640	2 170	1 680	3 220	26		6,2		12,3
	R6	305	5 460	1 810	1 380	2 820	21		7,8		15,6
	R7	220	4 110	1 400	1 050	2 320	<15		10,8		21,6
235/33 N	R1	915	14 300	4 920	3 860	6 590	43	1 200 W	3,9	2400 W	7,8
	R2	795	12 900	4 520	3 480	6 190	38		4,5		9,0
	R3	655	11 100	3 980	2 990	5 630	33		5,4		10,9
	R4	545	9 540	3 500	2 580	5 130	28		6,5		13,1
	R5	455	8 250	3 080	2 240	4 670	23		7,8		15,7
	R6	355	6 710	2 580	1 830	4 060	17		10,0		20,1
	R7	255	4 940	1 950	1 360	3 270	<15		14,0		28,0

Standard factory wiring

Hot water temperatures: 90/70°C, winter air temperatures: 19°C – Cold water temperatures: 7/12°C, summer air temperatures: 27°C, 50% RH.

Comfort level given for Coadis Comfort LY model + diffusion kit. Attenuation of 14dB taking into account the room, the isophonic duct and the insulated diffusion plenum. For LI model, add 2dB to the above table values

ELECTRICAL CHARACTERISTICS OF 230V-1PH-50Hz MOTORS

Coadis Comfort	Motor reference	235/11 N	235/22 N	235/33 N
Power input (W)	R1	76	105	117
	R2	64	89	97
	R3	53	74	79
	R4	44	62	66
	R5	39	57	59
	R6	35	51	52
	R7	30	46	48
Absorbed intensity (A)	R1	0,33	0,46	0,51
	R2	0,28	0,39	0,42
	R3	0,23	0,32	0,34
	R4	0,19	0,27	0,29
	R5	0,17	0,25	0,26
	R6	0,15	0,22	0,23
	R7	0,13	0,20	0,21

COIL CAPACITY (L)

COADIS COMFORT	235/11 N	235/22 N	235/33 N
2-pipe system Cold water coil and hot water coil	0.4	0.78	1.05
4-pipe system Cold water coil	0.4	0.78	1.05
Hot water coil	0.12	0.22	0.3

COADIS COMFORT		Standard unit									
		Water coil only				Water coil + electricalbattery (2 tubes + 2 wires)					
		Connectors on the left		Connectors on the right		Connectors on the left		Connectors on the left			
	2-pipe system	4-pipe system	2-pipe system	4-pipe system	1 heating element	2 heating elements	1 heating element	2 heating elements			
235/11 N	Unit Code	7062226	7086956	7086960	7086964	600 W 7086968	1200 W 7086969	600 W 7086975	1200 W 7086976		
	Diffusion kit code	7064788									
		●	●	●	●	●	●	●	●		
Model LI 235/22 N	Unit Code	7062227	7086957	7086961	7086966	900 W 7086970	1800W 7086971	900 W 7086979	1800 W 7086980		
	Diffusion kit code	7064789									
		●	●	●	●	●	●	●	●		
235/33 N	Unit Code	7062229	7086958	7086963	7086967	1200W 7086972	1800W 7086973	2400 W 7086974	1200W 7086981	1800W 7086982	2400 W 7086983
	Diffusion kit code	7064790									
		●	●	●	●	●	●	●	●	●	
235/11 N	Unit Code	7062230	7086992	7086995	7086998	600W 7087001	1200 W 7087003	600W 7087010	1200 W 7087011		
	Diffusion kit code	E046175									
		●	●	●	●	●	●	●	●		
Model LY 235/22 N	Unit Code	7062231	7086993	7086996	7086999	900W 7087004	1800 W 7087005	900W 7087012	1800 W 7087013		
	Diffusion kit code	E046183									
		●	●	●	●	●	●	●	●		
235/33 N	Unit Code	7062233	7086994	7086997	7087000	1200W 7087007	1800W 7087008	2400 W 7087009	1200W 7087014	1800W 7087015	2400 W 7087016
	Diffusion kit code	E046191									
		●	●	●	●	●	●	●	●	●	

See controls page for a complete offer: terminal unit + control

Coadis Comfort option (mounted on the unit only)

Designation		Code
	Condensate drain pump mounted on the unit with overflow safety device. - 7l/h maximum flow for 1m draining height and 5m maximal length of piping. - 6l/h maximum flow for 1m draining height and 10m maximal length of piping. Draining : 6mm internal diameter flexible tube, 8mm diameter nozzle. For higher drain heights, consult us. One regulation for each valve must be added to allow slaving the overflow safety device to the valve closing (condensates stopped). Approximate calculation of the condensed water flow :	E045004
	$Q_v \text{ (l/h)} = \frac{P \text{ total} - P \text{ sensible (W)}}{680}$	






(1) For pump kit, see accessories.

Note: The drawings herein are for information only and subject to modification without prior notice.



Ductable units

Coadis Comfort Accessories (supplied separately)

Designation		Code	
	SU1 Resilient mounts supplied separately (4 per unit necessary).	0219453	●
	MO1 Smooth sleeve Ø 100 mm* with nuts and screws. * Diameter 125 mm, consult us.	7013442	●
	MO7 Smooth spigot Ø 100 mm* with air flow rate controller, fitted with a gasket. Packed with nuts and screws and a drawing. The air flow rate controller is designed to supply a determined flow** with a pressure between 50 and 100 Pa.	15/30/45 m³/h 7013440	●
	MO4 * Diameter 125 mm, to consult us ** The lower air flow is by default.	60/75/90 m³/h 7013544	●
	RA1 2 piece male / female connector 3/8" → 1/2" with seal	5202314	●
	Extension du bac des condensats pour récupération des condensats sous la robinetterie Extended condensate pan collects condensates beneath the piping.	7158842	●
<p>Condensate drain pump kit to mount on the unit with overflow safety device.</p> <ul style="list-style-type: none"> • 7l/h maximum flow for 1m draining height and 5m maximal length of piping. • 6l/h maximum flow for 1m draining height and 10m maximal length of piping. <p>Draining: 6mm internal diameter flexible tube, 8mm diameter nozzle. For higher drain heights, consult us.</p> <p>One regulation for each valve must be added to allow slaving the overflow safety device to the valve closing (condensates stopped).</p> <p>Fixation assembly supplied with the diagram.</p>		7023316	●
<p>Approximate calculation of the condensed water flow: $Q_v (l/h) = \frac{P_{total} - P_{sensible} (W)}{680}$</p>			



EUROVENT PERFORMANCES - 2-PIPE SYSTEM

CIAT takes part in the EUROVENT fan coil unit certification program. In order to benefit from the latest updates, we advise you to consult the EUROVENT Internet site www.eurovent-certification.com



EUROVENT mode, 2-pipe system:

- Summer: cold water 7/12°C, air 27°C WB 19°C
- Winter: hot water inlet 50°C for determined water flow in summer mode, air 20°C

COADIS COMFORT	Motor reference	Air flow m³/h	Sensible cooling capacity	Total cooling capacity	Total heating capacity	Dp Cooling kPa	Dp Heating kPa	Lw dBA
			kW	kW	kW			
11 N	R4	340	1.330	1.450	2.100	15.5	13.2	50
	R5	265	1.100	1.240	1.740	11.7	9.93	44
	R7	120	0.574	0.694	0.907	3.99	3.57	28
22 N	R4	490	1.940	2.150	3.210	12.2	10.6	48
	R5	410	1.690	1.900	2.800	9.67	8.48	44
	R7	230	1.050	1.240	1.740	4.38	3.92	32
33 N	R3	715	3.070	3.550	4.860	32.1	27.7	49
	R4	590	2.630	3.110	4.180	25.5	21.9	45
	R6	380	1.820	2.250	2.910	14.1	12.2	34

Dp: Water pressure drop in kPa

Lw: Overall acoustic power in dBA

Unit without diffusion kit

EUROVENT PERFORMANCES - 4-PIPE SYSTEM

CIAT takes part in the EUROVENT fan coil unit certification program. In order to benefit from the latest updates, we advise you to consult the EUROVENT Internet site www.eurovent-certification.com

EUROVENT mode, 4-pipe system:

- Summer: cold water 7/12°C, air 27°C WB 19°C
- Winter: hot water inlet 70°C/60°, air 20°C

COADIS COMFORT	Motor reference	Air flow m³/h	Sensible cooling capacity	Total cooling capacity	Total heating capacity	Dp Cooling kPa	Dp Heating kPa	Lw dBA
			kW	kW	kW			
11 N	R4	340	1.330	1.450	1.440	15.5	1.98	50
	R5	265	1.100	1.240	1.280	11.7	1.62	44
	R7	120	0.574	0.694	0.851	3.99	0.790	28
22 N	R4	490	1.940	2.150	2.650	12.2	8.27	48
	R5	410	1.690	1.900	2.420	9.67	7.06	44
	R7	230	1.050	1.240	1.750	4.38	3.98	32
33 N	R3	715	3.070	3.550	4.250	32.9	22.8	49
	R4	590	2.630	3.110	3.850	26.0	19.3	45
	R6	380	1.820	2.250	3.020	14.4	12.5	34

Dp: Water pressure drop in kPa

Lw: Overall acoustic power in dBA

Unit without diffusion kit