



Cassette-type fan coil units

New condensate drain pump



MELODY

*Perfect integration
adapt to aesthetic,
financial and material constraints*



USE

This **MELODY** cassette is a non-independent terminal air conditioning unit installed in suspended ceilings which combines low cost installation and operating advantages of

central hot/chilled water production with individual temperature controls in each room.

RANGE

The **MELODY** cassette type fan coil units range consists of 5 models covering a range of air flow from 290 to 1690 m³/h which meet the most stringent sound level requirements.

2 models:

- single cassette FCU type 61 62-63 - dimensions of 600 x 600 mm ceiling tile
- double cassette, type 122 - 123 - dimensions of 600 x 1200 mm ceiling tile

The **MELODY** cassette type fan coil units 61, 62, 63, 122 and 123 are available in 3 versions:

- 2 tube system, heating or cooling operation
- 2 tube + 2 wire system, cooling + heating/cooling + electrical operation
- 4 tube system, cooling and heating operation.

The **MELODY** fan coil units are fitted with a 5-speed motor, enabling all the requirements of acceptable sound levels in the various rooms to be air conditioned to be met.

OPERATING PRINCIPLE

The fan(s) take the air from the room through a grille.

Filtered to be purified, dehumidified, heated or refrigerated through a chilled or hot water exchanger coil, this air is then discharged into the room to be air conditioned through 4

directional louvers so as to obtain a maximum increase of the air stream and ensure the diffusion by Coanda effect.



CIAT takes part in the EUROVENT fan coil unit certification programme, see performances in Eurovent mode, on last page of the range. The list of products and certified characteristics is given in the EUROVENT directory and on the web site www.eurovent-certification.com.

TECHNICAL DESCRIPTION

Recovery/Discharge grille

- Fits perfectly within the suspended ceiling tile dimensions.
- White RAL 9010 colour.
- The manual deflectors are adjustable (3 positions) allowing homogeneous air distribution throughout the room.
- Possibility of closing one or two discharge deflectors with the grille.

Water coil (2-pipe or 4-pipe system)

- Galvanised sheet metal.
- Copper tubes, aluminium fins.
- Air vent and partial drain.
- Nominal pressure: 16 bar.
- Test pressure: 24 bar.
- Maximum water temperature: 70°C (2 T).

Electrical elements

(2 tube + electrical)

- Shrouded heating element, stainless tubes, galvanised fins.
- 2 temperature limiter thermostats (1 auto + 1 manual).

Condensates recovery tray

- A condensate recovery drain pan in expanded polystyrene, covered with a waterproof film.
- Recovery is provided by a draining pump equipped with a safety float and mounted on anti-vibration mounts.
- The auxiliary pan is supplied as an accessory to recover the valve condensates.

Fan motor assembly

■ Motor

- 5 speeds, 3 of which pre-wired in factory.

- Closed type, with protected shaft.
- Permanent capacitor.
- Automatic open thermal protection in series.
- Resilient mounts.
- Supply 230 v/1 ph/50 Hz or 60 Hz.
- Reduced consumption.

■ Fan(s)

- Balanced centrifugal impeller with profiled blades.
- Polymer impeller.

Air filter

- Located on the detachable grille, easy to remove without dismantling.
- Positioned on the fan motor assembly intake, in conformity with E 36102 norm.
- Filtering media in renewable polyester fibers.
- Class UL 94 V2, self-extinguishable.

Standard structure

- Galvanised sheet metal.
- Thermal and sound-proofing by foam insulation (3 mm thick) of external surfaces.
 - . with electrical battery, melamine foam (10 mm).
 - . without electrical battery, isolene PE.
- 100 mm and 200 mm diameter pre-cut holes on the sides for fresh air inlet, allowing the connection of an air discharge duct for the treatment of adjacent rooms.

Electrical connection box

- Connection with pin connectors.
- Separate electrical supply.

ACCESSORIES (DELIVERED SEPARATELY)

- 100 mm diameter smooth sleeves for treated fresh air inlet.
- 200 mm diameter sleeves for air discharge in an adjacent room.
- Diameter 100 mm smooth sleeve with self-adjustable module for fresh air inlet.

CONTROL DEVICES (DELIVERED IN KIT)

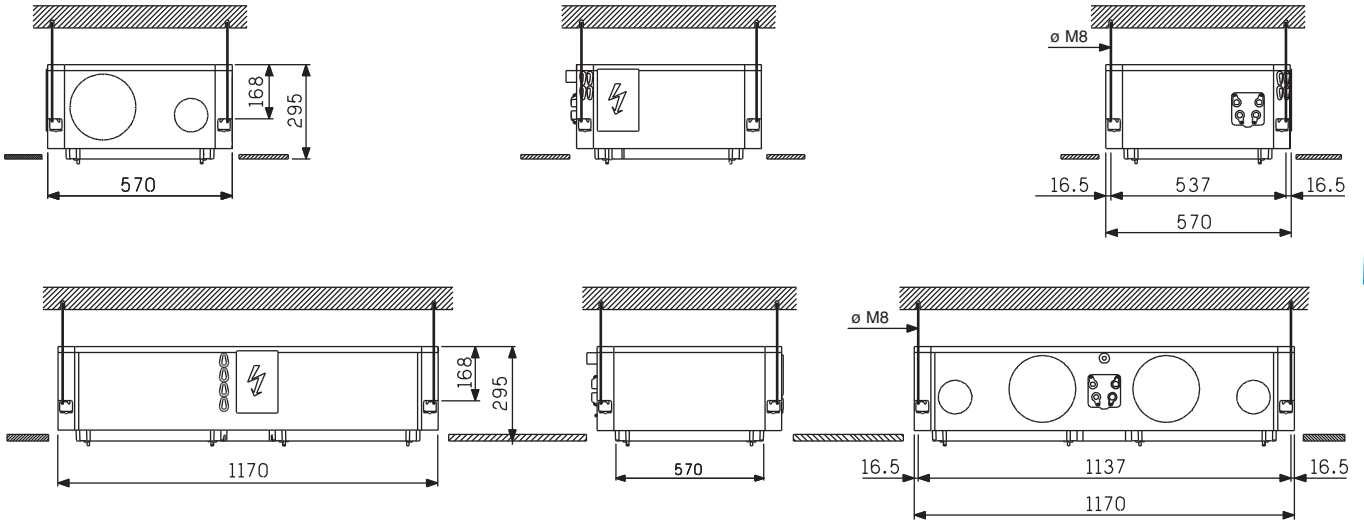
- Electromechanical wall-mounted thermostat range.
- **V30** electronic controller range.
- **V200** electronic controller range.
- **V2000**® communicating electronic controller range.
- **V3000** communicating electronic controller range.
- **LON** control, consult us.



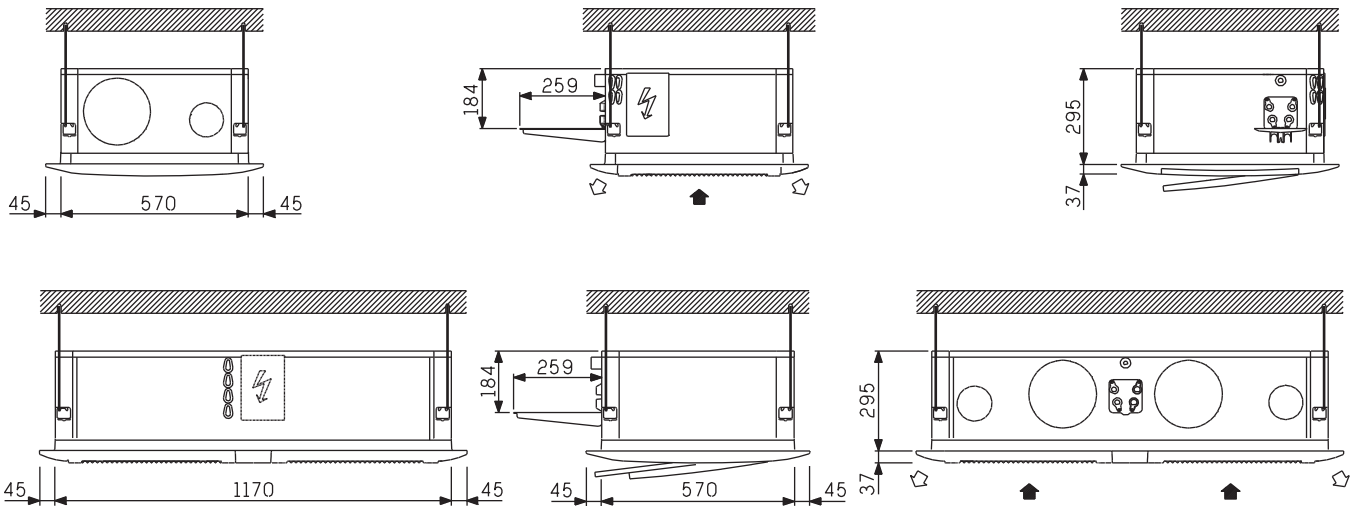
Cassette-type fan coil units

DIMENSIONS

Cassette-type fan coil unit only

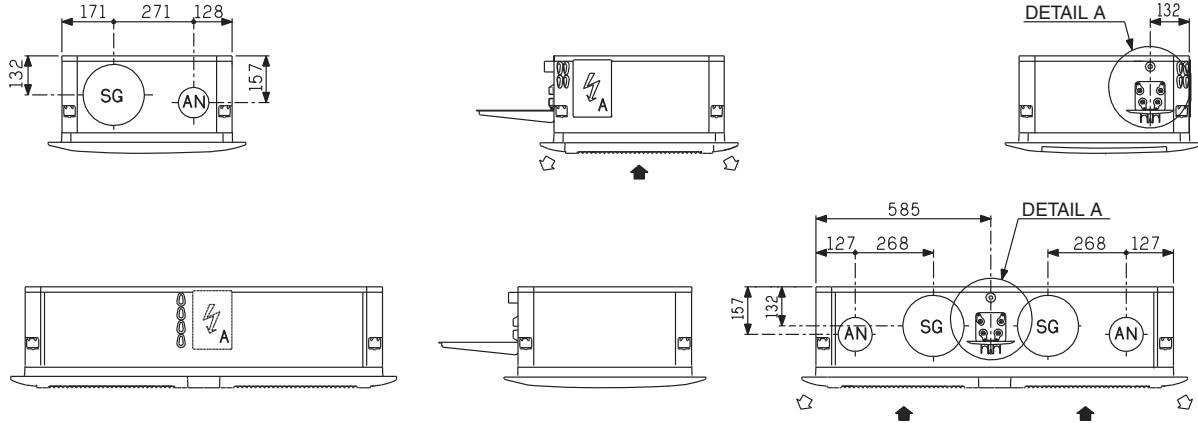


Cassette-type fan coil unit with grille/diffuser



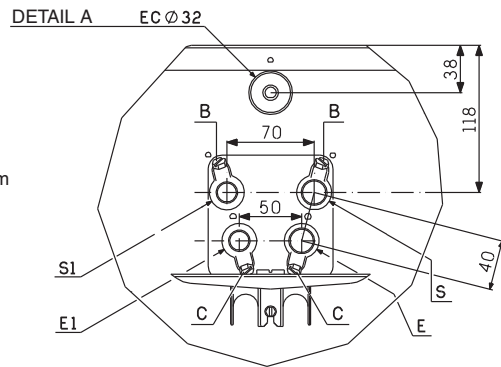
DIMENSIONS

Connections: supply piping, fresh air and discharge ducts



- A** : Electrical box
- AN** : Fresh air \varnothing 100 mm
(duct connection - optional)
- B** : Air vent
- C** : Partial drainage
- E** : Cold water outlet
- E1** : Hot water coil inlet
(4-tube system)

- EC** : Condensates drain \varnothing 32 mm
- S** : Cold water outlet
- S1** : Hot water coil outlet
(4-tube system)
- SG** : Adjacent local discharge \varnothing 200 mm
(duct connection - optional)

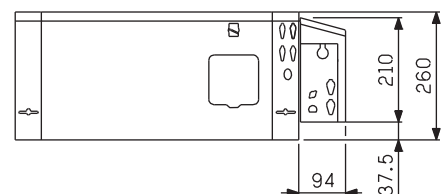
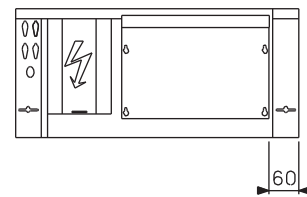
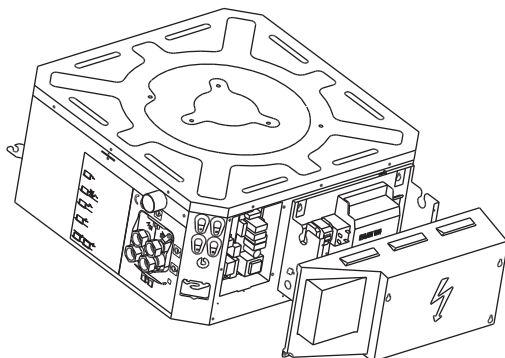


MELODY	Module		Mass Kg			
	2-pipes	4-pipes	Grille	2-pipes	Total	4-pipes
61	18.5	20.5	2.8	21.3		23.3
62	20	20.5	2.8	22.8		23.3
63	21.54	22	2.8	24.3		24.8
122	42	43	5.2	47.2		48.2
123	45	46	5.2	50.2		51.2

Cassette type fan coil with V200; V2000®; V3000 controls

Separate box supplied as an accessory, to be mounted on site.

- 1 - Fit the box with 2 Parker screws
- 2 - Fit the cover



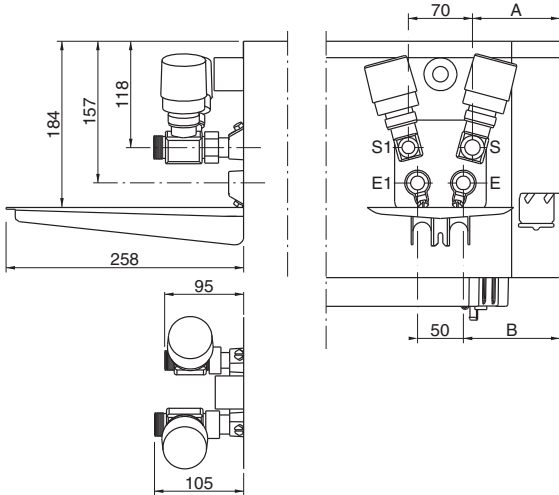


Cassette-type fan coil units

2-way valve kit assembly (option delivered separately)

The kit includes:

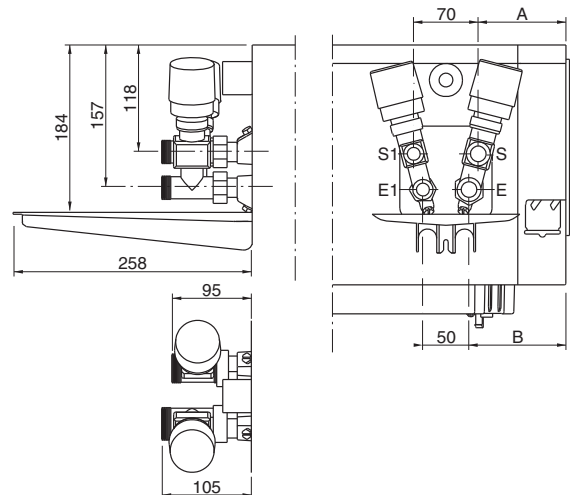
- 1 on/off 2-way valve
- 1 male/female boss



4-way valve kit assembly (option delivered separately)

The kit includes:

- 1 on/off 4-way valve
- 1 male/female boss

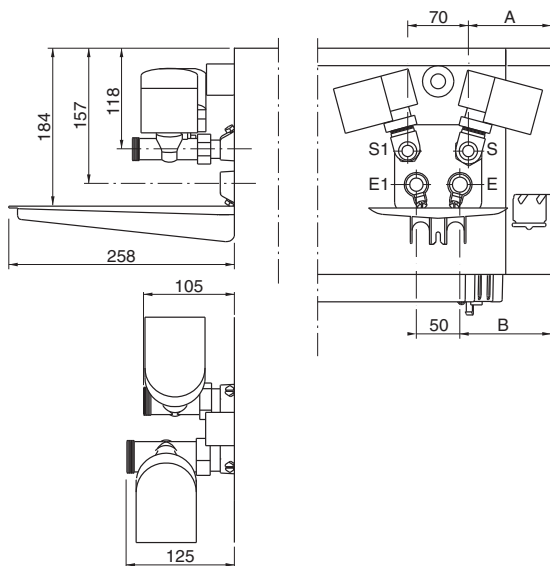


MELODY	A	B	Cooling coil Valve inlet E/outlet S	Heating coil Valve inlet E1/outlet S1
61 - 62	95	105	Ø 1/2"	Ø 1/2"
63	95	105	Ø 3/4"	Ø 1/2"
122 - 123	550	560	Ø 3/4"	Ø 1/2"

V2000®; V3000 2-way valve kit assembly (option delivered separately)

The kit includes:

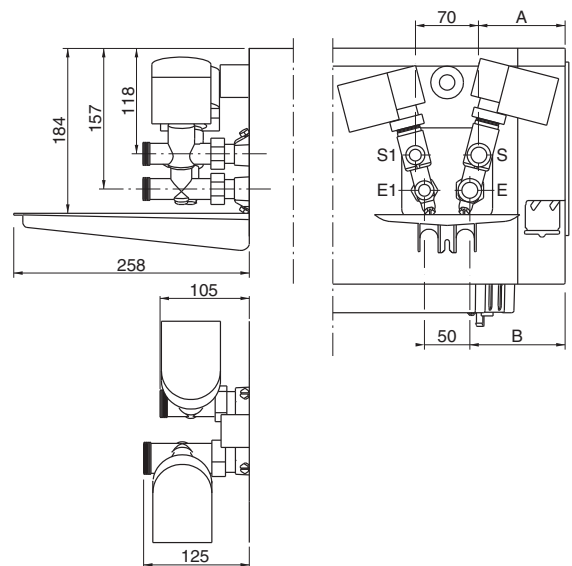
- 1 controller in a separate electrical box
- 1 progressive 2-way valve (24V)
- 1 user's terminal



V2000®; V3000 4-way valve kit assembly (option delivered separately)

The kit includes:

- 1 controller in a separate electrical box
- 1 progressive 4-way valve (24V)
- 1 user's terminal



MELODY	A	B	Cooling coil Valve inlet E/outlet S	Heating coil Valve inlet E1/outlet S1
61 - 62	95	105	Ø 1/2"	Ø 1/2"
63	95	105	Ø 3/4"	Ø 1/2"
122 - 123	550	560	Ø 3/4"	Ø 1/2"



PERFORMANCES

MELODY	Motor ref.	Air flow m ³ /h	2-pipe system			4-pipe system			Comfort level ISO or NR	Air temperature mean rise in K. Auxiliary electric heater 230/1/50		
			Heating capacity W	Cooling capacity W		Heating capacity W	Cooling capacity W			900 W	1500 W	3000 W
				Totale	Sensible		Totale	Sensible				
61	R1	740	9 610	2 820	2 360	-	-	-	39	3.5	-	-
	R2	600	8 350	2 440	2 020	-	-	-	32	4.3	-	-
	R3	500	7 300	2 130	1 760	-	-	-	26	5.2	-	-
	R4	360	6 060	1 810	1 460	-	-	-	20	7.2	-	-
	R5	290	5 080	1 530	1 220	-	-	-	16	8.9	-	-
62	R1	860	15 000	4 790	3 550	5 040	4 160	3 310	42	-	5.2	-
	R2	670	12 700	4 140	3 040	4 270	3 660	2 820	36	-	6.6	-
	R3	550	11 000	3 640	2 660	3 690	3 260	2 470	30	-	8.1	-
	R4	430	9 100	3 100	2 160	2 760	2 810	2 070	24	-	10.4	-
	R5	330	7 150	2 530	1 680	2 290	2 360	1 690	20	-	13.5	-
63	R1	890	19 000	6 390	4 260	6 600	5 590	3 860	44	-	5	-
	R2	730	15 900	5 500	3 580	5 980	4 760	3 210	39	-	6.1	-
	R3	590	13 000	4 660	2 980	5 140	3 980	2 660	34	-	7.6	-
	R4	460	10 100	3 690	2 340	4 340	3 100	2 110	27	-	9.7	-
	R5	370	8 160	3 020	1 920	3 740	2 670	1 700	23	-	12	-
122	R1	1640	27 800	9 560	7 110	9 570	8 490	6 640	45	-	-	5.4
	R2	1320	24 100	8 260	6 130	8 710	7 360	5 630	40	-	-	6.8
	R3	1075	21 100	7 280	5 300	7 920	6 540	4 930	35	-	-	8.3
	R4	820	17 100	6 110	4 280	6 150	5 600	4 070	29	-	-	10.9
	R5	640	13 600	5 070	3 330	4 850	4 700	3 320	25	-	-	13.9
123	R1	1690	36 000	12 800	8 540	12 200	11 200	7 890	47	-	-	5.3
	R2	1390	30 000	11 000	7 260	11 100	9 480	6 650	42	-	-	6.4
	R3	1140	24 800	9 280	5 970	9 750	7 920	5 530	38	-	-	7.8
	R4	870	19 100	7 330	4 670	8 230	6 340	4 400	32	-	-	10.2
	R5	690	15 300	5 960	3 820	7 080	5 300	3 640	27	-	-	12.9

Pre-selected factory wiring.

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

Comfort level: attenuation level of room and installation: 12 dBA

(1) The supply air temperature should not exceed 65°C (CIAT recommendation).

Fresh air intake and air discharge into an adjacent room

On one side of the cassette, pre-punched openings enable separate fresh air intake and air discharge duct connections into an adjacent room.

MELODY		61	62	63	122	123
Nominal flow (high speed)	m ³ /h	740	860	890	1640	1690
(1) Fresh air flow	m ³ /h	74	86	89	164	169
(2) Air flow into adjacent room	m ³ /h	110	130	134	250	254

(1) The fresh air flow must not exceed 20% of the nominal flow.

(2) Air flow given for a 5 m duct with a 90° elbow and one louvre closed on the duct outlet. Decompression with a return air grille should be provided in the adjacent room.



Cassette-type fan coil units

TECHNICAL AND ELECTRICAL CHARACTERISTICS

Coil content (litres)

MELODY	61	62	63	122	123	
Standard 2-pipe system coil	0,5	1,0	1,5	2,3	3,3	
4-pipe system coil	Cooling	-	0,7	1,3	1,9	3,1
	Heating	-	0,1	0,3	0,3	0,6

Supply pipe diameter (tapped connectors)

MELODY	61 - 62	63 - 122 - 123
Standard 2-pipe system coil	G 3/8	G 1/2
4-pipe system coil	Cooling	G 3/8
	Heating	G 3/8

Electrical characteristics (230 V - 1 ph - 50 Hz or 60 Hz) - Fan

MELODY	Motor ref	61	62	63	122	123
Power input in W	R1	80	89	93	179	185
	R2	60	70	74	140	147
	R3	43	56	59	111	118
	R4	29	40	42	81	84
	R5	23	31	32	61	63
Absorbed current in A	R1	0.35	0.38	0.39	0.74	0.77
	R2	0.26	0.30	0.31	0.59	0.61
	R3	0.19	0.24	0.25	0.48	0.50
	R4	0.13	0.18	0.18	0.35	0.36
	R5	0.10	0.14	0.14	0.27	0.28

Electrical characteristics (230 V - 1 ph - 50 Hz or 60 Hz) - Electric heater

MELODY	61 power 900 W	62 - 63 power 1500 W	122 - 123 power 3000 W	
Number of elements	1	1	2	
Intensity	A	3,9	6,5	13
Automatic reset safety thermostat	1 automatic + 1 manual		2 automatic + 2 manual	
Supply wires	mm ²	3 G 1,5	3 G 1,5	
Fuse (type GL)	A	6	8	16

Cooling or heating 2-pipe cassette type fan coil unit

Coil	MELODY	2-pipes cooling or heating				
		61 2TFC	62 2TFC	63 2TFC	122 2TFC	123 2TFC
Air handling section + External auxiliary drain pan	Code	3912092	3912095	3912098	3912104	3912107
Diffusion grille	Code	3943292			3943294	
Total	Code	C063754	C063762	C063800	C063886	C063894
		●	●	●	●	●



Cassette-type fan coil units

MELODY

Cooling or heating 4-pipe cassette type fan coil unit

Coil		4-pipe cooling or heating			
MELODY		62 4TFC	63 4TFC	122 4TFC	123 4TFC
Air handling section + External auxiliary drain pan	Code	3912096	3912099	3912105	3912108
Diffusion grille	Code	3943292		3943294	
Total	Code	C063827	C063835	C063908	C063916
		●	●	●	●

Cooling 2-pipe coil + electric heater cassette type fan coil unit

Coil		2-pipe cooling + electric heater				
Heater		900 W	1500 W		3000 W	
MELODY		61 2TFC-E	62 2TFC-E	63 2TFC-E	122 2TFC-E	123 2TFC-E
Air handling section + External auxiliary drain pan	Code	7195023	3912097	3912100	3912106	3912109
Diffusion grille	Code	3943292		3943294		
Total	Code	C063843	C063851	C063878	C063924	C083932
		●	●	●	●	●

ACCESSORIES (SUPPLIED SEPARATELY)

Description			Code
MO7	Smooth spigot Ø 100 mm with air flow rate controller, with integrated gasket. Packed with nuts and screws and a drawing. The air flow rate controller is designed to supply a determined flow** with air differential pressure between 50 and 100 Pa.	15/30/45 m³/h**	7013440
MO4	** 3 flow rates are available by use of 3 clips. The lower air flow is by default.	60 / 75 /90 m³/h**	7013544
MO1	- Smooth sleeve alone (OD: 100 mm). Screws and bolts supplied separately.		7013442
M17	Smooth sheet metal circular discharge sleeve Ø 200.		5435061
RA1	2 piece male/female connector 3/8" < 1/2" seals included.		5202314 + 5200708
RA2	2 piece male/female connector 1/2" < 3/4" seals included.		5202313 + 5202079

Accessories are in stock to meet your requirements at short notice.

This document is non-contractual. As part of its policy of continual product improvement, CIAT reserves the right to make any technical modification it feels appropriate without prior notification.

Head office

Avenue Jean Falconnier - B.P. 14
01350 - Culoz - France
Tel.: +33 (0)4 79 42 42 42 - Fax: +33 (0)4 79 42 42 10
e-mail: info@ciat.fr - www.ciat.com



CIAT Service
Tel.: +33 (0)4 79 42 42 90 - Fax: +33 (0)4 79 42 42 13

CERTIFIED ISO 9001
QUALITY SYSTEM



Compagnie Industrielle d'Applications Thermiques - S.A. with a registered capital of 26 000 000 € - R.C.S. Belley B 545 620 114