

## FCL

## Cassette Type Fan Coil Unit



- Standard internal three-way valve
- Version with 2-way valve for variable water flow rate systems
- Version without valves



### DESCRIPTION

4-way cassettes that can be installed in any type of 2- or 4-pipe system with any heat generator, even at low temperatures. Thanks to the selection of versions and configurations, it's easy to choose the best solution for every need.

### FEATURES

#### Intake grid and distribution of the air

The recovery and air diffusion grille has an elegant design. In plastic, RAL 9010.

The dimensions of the first nine sizes respect the 600x600 mm modularity of false ceilings, whereas the larger sizes measuring 840x840 mm are designed for quiet operation and optimum performance.

#### Load-bearing structure

Models with a 600x600 mm module have a reinforced load-bearing structure with side panels in galvanised steel sheet, thermally insulated with internal polystyrene foam elements.

The structure of models with a 840x840 mm module is made entirely of galvanised steel sheet, thermally insulated with polyethylene foam on the inside and with an anti-condensate felt coating.

#### Ventilation group

Formed of a particularly quiet axial-centrifugal fan, statically and dynamically balanced.

The single-phase electric motor offers three or four speeds (depending on the size), is mounted on anti-vibration supports, and has a permanently enabled condenser.

#### Heat exchanger coil

Heat exchanger with shaped profile to increase the exchange surface, and easily accessible drain valves.

There are models with a single coil for 2-pipe systems, with the possibility to add an electric heater too, and models with two coils for 4-pipe systems.

There is the possibility to combine outside air with the inlet ambient air, and to distribute it in separate rooms.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

There is the possibility to combine outside air with the inlet ambient air, and to distribute it in separate rooms.

#### Condensate drip

Condensation drip tray in one piece, with V0 self-extinguishing level and overmoulding to insulation in expanded polystyrene with flame retardant additive.

#### Air filter

Air filter easily removed and cleaned, self-supporting structure, characterised by a high efficiency and low pressure drops, with class-V0 fire resistance (UL 94).

#### Versions

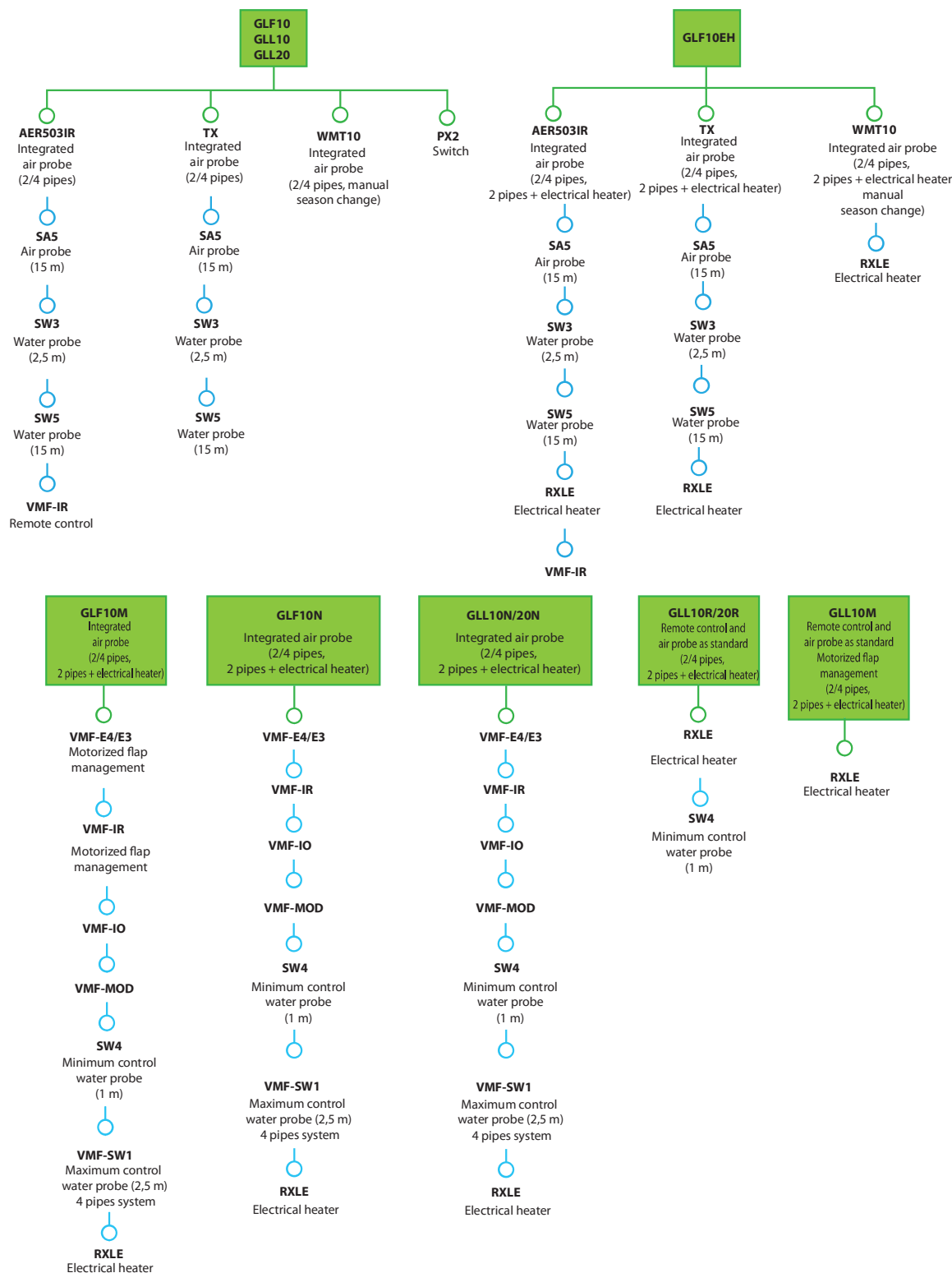
**FCL** Standard with internal 3-way valve

**V2** With internal 2-way valve

**VL** Without internal valve

## ACCESSORIES

Accessories that can be combined with the grilles



### Intake grids and distribution of the air, compulsory accessory

**GLF10:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm adapts perfectly to standard false ceilings without overlapping parts. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits with manually orientated louvers. Must be combined with a wall-mounted panel. (size 840x840 mm not available).

**GLF10EH:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm; adapts perfectly to standard false ceilings without overlapping parts. Suitable for use with the RXLE heater. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits with manually orientated fins. Must be combined with a wall-mounted panel. (size 840x840 mm not available).

**GLF10M:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm adapts perfectly to standard false ceilings without overlapping parts. It is equipped with an infrared receiver with an emergency operation button, a thermostat card which also requires the installation of the VMF-E4 panel or the VMF-IR remote control. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be orientated with the remote control. (size 840x840 mm not available).

**GLF10N:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4 or VMF-IR panel as well. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated. (size 800x800 mm not available).

**GLL10:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm; adapts perfectly to standard false ceilings without overlapping parts. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated. Must be combined with a wall-mounted panel.

**GLL10M:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with an infrared receiver with an emergency operation button, and a remote control. Suitable for use with the RXLE heater. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be orientated with the remote control.

**GLL10N:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4X or VMF-IR panel as well. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated.

**GLL10R:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with an infrared receiver with an emergency operation button, and a remote control. Suitable for use with the RXLE heater. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated.

**GLL20:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 840x840 mm, adapts perfectly to standard false ceilings without overlapping parts. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated. Must be combined with a wall-mounted panel.

**GLL20N:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 840x840 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4X or VMF-IR panel as well. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated.

**GLL20R:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 840x840 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with an infrared receiver with an emergency operation button, and a remote control. Suitable for use

with the RXLE heater. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated.

### VMF system

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IO:** Manage the unit exclusively from a centralized VMF control panel without area control panel.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMF-MOD:** Expansion board for the management of modulating valves.

**VMF-SW1:** Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

### Control panels and their accessories

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SIT3:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.

**SIT5:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel. Commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

**SW3:** Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

**SW4:** Water temperature probe allowing automatic season change on electronic controllers supplied with water-side change over.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

**WMT10:** Electronic thermostat, white, with thermostated or continuous ventilation.

### Electric heaters

**RXLE:** Electric heater for heating, can be installed on board the units.

**RXLE20:** Electric heater for heating, can be installed on board the units.

### Water valve kit

**VCFLX4:** 3-way valve kit for single-coil fan coil for 4-pipe systems. With totally separate "heating" and "cooling" circuits. This kit consists of two 3-way insulated valves and four connections, complete with electro-thermal actuators, insulating shells for the valves, and the relative hydraulic couplings.

**VHL1:** 3-way motorised valve kit with 4 connections including the actuator. 230V~50Hz power supply.

**VHL124:** 3-way motorised valve kit with 4 connections including the actuator. 24V power supply.

**VHL20:** Motorised 3-way valve kit with 4 connections, complete with actuator and the relative hydraulic couplings. 230V~50Hz power supply.

**VHL2024:** Motorised 3-way valve kit with 4 connections, complete with actuator and the relative hydraulic couplings. 24V power supply.

**VHL2:** 2-way motorised valve kit with 2 connections including the actuator. Power supply 230V~50Hz;

**VHL22:** Motorised 2-way valve kit with 2 connections, complete with actuator and the relative hydraulic couplings. Power supply 230V~50Hz;

**VHL2224:** Motorised 2-way valve kit with 2 connections, complete with actuator and the relative hydraulic couplings. 24V power supply.

**VHL224:** 2-way motorised valve kit with 2 connections including the actuator. 24V power supply.

### Installation accessories

**FEL10:** Kit n°5 electrostatically pre-charged air filter, with fire resistance class 2 (UL 900).

**KFL:** Delivery flange, allowing the air to be directed to an adjacent room.

**KFL20:** Delivery flange, allowing the air to be directed to an adjacent room. Up to three KFL20 can be assembled on a single unit.

**KFLD:** Suction flange, allows to introduce external air directly into the room without mixing.

**KFLD20:** Suction flange, allows to introduce external air directly into the room without mixing. Up to two KFLD20 can be assembled on a single unit.

**FCLMC10:** Perimeter housing in painted galvanised sheet metal, 600x600 mm, used when the fan coil is installed outside the false ceiling. It has an aesthetic and protective purpose only, so the technical characteristics of the fan coil remain unaltered. Can only be combined with GLL/GLLI grilles.

**FCLMC20:** Perimeter housing in painted sheet metal, 840x840 mm, used when the fan coil is installed outside the false ceiling. It has an aesthetic and protective purpose only, so the technical characteristics of the fan coil remain unaltered. Can only be combined with GLL/GLLI grilles.

## ACCESSORIES COMPATIBILITY

### Intake grids and distribution of the air

Model	Ver	32	34	36	38	42	44	62	64
GLF10 (1)	FCL,V2,VL	*	*	*	*	*	*	*	*
GLF10EH (2)	FCL,V2,VL	*	*	*	*	*	*	*	*
GLF10M (3)	FCL,V2,VL	*	*	*	*	*	*	*	*
GLF10N (3)	FCL,V2,VL	*	*	*	*	*	*	*	*
Model	Ver	72	82	84	102	104	122	124	
GLF10 (1)	FCL,V2,VL	*							
GLF10EH (2)	FCL,V2,VL	*							
GLF10M (3)	FCL,V2,VL	*							
GLF10N (3)	FCL,V2,VL	*							

(1) Not compatible with the VMF system and electric heaters.

(2) Not compatible with the VMF system, but compatible with electric heaters.

(3) Compatible with the VMF system and electric heaters.

### Intake grid and distribution of the air

Model	Ver	32	34	36	38	42	44	62	64
GLL10 (1)	FCL,V2,VL	*	*	*	*	*	*	*	*
GLL10M (2)	FCL,V2,VL	*	*	*	*	*	*	*	*
GLL10N (3)	FCL,V2,VL	*	*	*	*	*	*	*	*
GLL10R (2)	FCL,V2,VL	*	*	*	*	*	*	*	*
Model	Ver	72	82	84	102	104	122	124	
GLL10 (1)	FCL,V2,VL	*							
GLL10M (2)	FCL,V2,VL	*							
GLL10N (3)	FCL,V2,VL	*							
GLL10R (2)	FCL,V2,VL	*							
GLL20 (1)	FCL,V2,VL		*	*	*	*	*	*	*
GLL20N (3)	FCL,V2,VL		*	*	*	*	*	*	*
GLL20R (4)	FCL,V2,VL		*	*	*	*	*	*	*

(1) Not compatible with the VMF system and electric heaters.

(2) Not compatible with the VMF system, but compatible with electric heaters.

(3) Compatibility with VMF system.

(4) Not compatible with the VMF system.

### VMF system

Model	Ver	32	34	36	38	42	44	62	64
VMF-E3	FCL,V2,VL	*	*	*	*	*	*	*	*
VMF-E4DX	FCL,V2,VL	*	*	*	*	*	*	*	*
VMF-E4X	FCL,V2,VL	*	*	*	*	*	*	*	*
VMF-I0	FCL,V2,VL	*	*	*	*	*	*	*	*
VMF-IR	FCL,V2,VL	*	*	*	*	*	*	*	*
VMF-MOD	FCL,V2,VL	*	*	*	*	*	*	*	*
VMF-SW1	FCL,V2,VL	*	*	*	*	*	*	*	*
Model	Ver	72	82	84	102	104	122	124	
VMF-E3	FCL,V2,VL	*	*	*	*	*	*	*	*
VMF-E4DX	FCL,V2,VL	*	*	*	*	*	*	*	*
VMF-E4X	FCL,V2,VL	*	*	*	*	*	*	*	*
VMF-I0	FCL,V2,VL	*	*	*	*	*	*	*	*
VMF-IR	FCL,V2,VL	*	*	*	*	*	*	*	*
VMF-MOD	FCL,V2,VL	*	*	*	*	*	*	*	*

Model	Ver	72	82	84	102	104	122	124
VMF-SW1	FCL,V2,VL	*	*	*	*	*	*	*

#### Control panels and dedicated accessories

Model	Ver	32	34	36	38	42	44	62	64	72	82	84	102	104	122	124
AER503IR (1)	FCL,V2,VL	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
SAS (2)	FCL,V2,VL	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
SIT3 (3)	FCL,V2,VL	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
SIT5 (4)	FCL,V2,VL	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
SW3 (2)	FCL,V2,VL	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
SW4	FCL,V2,VL	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
SW5 (2)	FCL,V2,VL	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
TX (1)	FCL,V2,VL	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
WMT10 (1)	FCL,V2,VL	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

(2) Probe for AER503IR-TX thermostats, if fitted.

(3) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.

(4) Probe for AER503IR-TX thermostats, if fitted.

**For the compatibility of VMF components and command panels with the intake and delivery grilles, refer to the information given above.**

#### 3 way valve kit

Model	Ver	32	34	36	38	42	44	62	64
VHL1 (1)	FCL,V2,VL		*		*		*		*
VHL124 (1)	FCL,V2,VL		*		*		*		*

Model	Ver	72	82	84	102	104	122	124
VHL20 (1)	FCL,V2,VL			*		*		*
VHL2024 (1)	FCL,V2,VL			*		*		*

(1) Obligatory accessory in 4-pipe systems.

#### 2 way valve kit

Model	Ver	32	34	36	38	42	44	62	64
VHL2 (1)	FCL,V2,VL		*		*		*		*
VHL224 (1)	FCL,V2,VL		*		*		*		*

Model	Ver	72	82	84	102	104	122	124
VHL22 (1)	FCL,V2,VL			*		*		*
VHL2224 (1)	FCL,V2,VL			*		*		*

(1) Compulsory accessory in 4-pipe systems with variable flow rate.

#### Valve Kit for 4 pipe systems

Model	Ver	32	34	36	38	42	44	62	64	72
VCFLX4 (1)	VL	*		*		*		*		*

(1) The valve must be commanded via command panels enabled for valve control.

#### Air filters

Model	Ver	32	34	36	38	42	44	62	64
FEL10	FCL,V2,VL	*	*	*	*	*	*	*	*

Model	Ver	72	82	84	102	104	122	124
FEL10	FCL,V2,VL	*						

#### Delivery flange

Model	Ver	32	34	36	38	42	44	62	64
KFL	FCL,V2,VL	*	*	*	*	*	*	*	*
KFLD	FCL,V2,VL	*	*	*	*	*	*	*	*

Model	Ver	72	82	84	102	104	122	124
KFL	FCL,V2,VL	*						
KFL20	FCL,V2,VL		*	*	*	*	*	*
KFLD	FCL,V2,VL	*						
KFLD20	FCL,V2,VL		*	*	*	*	*	*

#### Perimeter case

Model	Ver	32	34	36	38	42	44	62	64
FCLMC10 (1)	FCL,V2,VL	*	*	*	*	*	*	*	*

Model	Ver	72	82	84	102	104	122	124
FCLMC10 (1)	FCL,V2,VL	*						
FCLMC20 (1)	FCL,V2,VL		*	*	*	*	*	*

(1) Can only be combined with GLL/GLLI grilles

## PERFORMANCE SPECIFICATIONS

### 2-pipe

		FCL32			FCL36			FCL42			FCL62			FCL72			FCL82			FCL102			FCL122		
		1	2	3	1	2	3	1	2	4	1	2	4	1	2	4	1	2	4	1	2	4	1	2	4
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																									
Heating capacity	kW	2,22	2,95	4,00	3,42	4,50	6,27	3,32	4,47	7,34	5,19	6,37	10,49	6,14	7,57	11,32	5,88	8,12	11,88	8,30	11,71	17,73	10,53	14,73	21,75
Water flow rate system side	l/h	194	258	350	300	394	549	290	391	642	454	558	918	538	662	991	514	710	1039	726	1025	1551	921	1289	1903
Pressure drop system side	kPa	4	6	10	6	10	19	6	10	24	12	17	42	14	20	42	7	13	26	6	12	25	11	21	42
Heating performance 45 °C / 40 °C (2)																									
Heating capacity	kW	1,10	1,47	1,98	1,70	2,24	3,12	1,65	2,22	3,64	2,58	3,17	5,21	3,50	3,76	5,63	2,92	4,03	5,90	4,12	5,82	8,81	5,23	7,32	10,80
Water flow rate system side	l/h	192	254	345	295	389	541	287	386	633	448	550	905	530	654	977	507	701	1025	716	1011	1530	909	1271	1877
Pressure drop system side	kPa	4	6	11	6	9	17	5	9	23	10	15	36	13	19	40	7	12	23	4	7	15	10	17	35
Cooling performance 7 °C / 12 °C (3)																									
Cooling capacity	kW	1,14	1,44	1,86	1,77	2,22	2,96	1,94	2,51	3,88	2,63	3,17	4,90	2,75	3,29	5,35	2,76	3,97	5,85	4,00	5,82	8,85	5,31	7,40	10,83
Sensible cooling capacity	kW	0,97	1,22	1,48	1,37	1,75	2,36	1,36	1,79	3,09	1,83	2,23	3,73	1,84	2,29	3,99	1,86	2,69	4,05	2,89	4,22	6,51	3,99	5,63	8,30
Water flow rate system side	l/h	200	253	327	308	387	516	337	437	679	458	551	856	484	571	938	482	695	1032	697	1012	1547	921	1292	1893
Pressure drop system side	kPa	4	7	10	6	9	15	7	11	25	12	16	36	13	18	43	7	14	28	7	13	28	10	19	38
Fan																									
Type	type	Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal		
Fan motor	type	Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous		
Number	no.	1			1			1			1			1			1			1			1		
Air flow rate	m³/h	300	410	600	300	410	600	260	360	700	380	500	880	400	520	900	460	680	1100	560	830	1350	750	1100	1750
Sound power level	dB(A)	35,0	38,0	46,0	35,0	38,0	46,0	35,0	38,0	53,0	41,0	47,0	61,0	44,0	49,0	60,0	39,0	43,0	50,0	40,0	45,0	54,0	44,0	50,0	60,0
Input power	W	21	31	45	21	31	45	-	32	75	26	37	83	50	58	110	45	80	150	50	80	155	55	105	175
Diameter hydraulic fittings																									
Type	type	Gas - F			Gas - F			Gas - F			Gas - F			Gas - F			Gas - F			Gas - F			Gas - F		
Main coil	Ø	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Water coil																									
Water content main coil	l	0,6			0,8			0,8			1,3			1,3			2,6			4,0			4,0		
Power supply																									
Power supply		230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz		

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) Room air temperature 27 °C d.b./19 °C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT

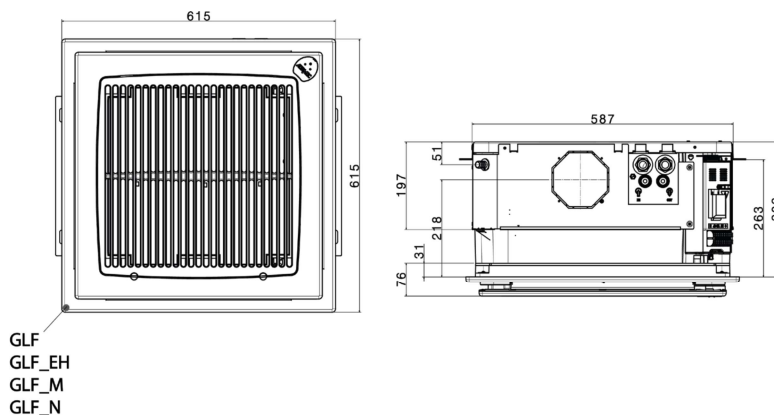
### 4-pipe

#### 4-pipe

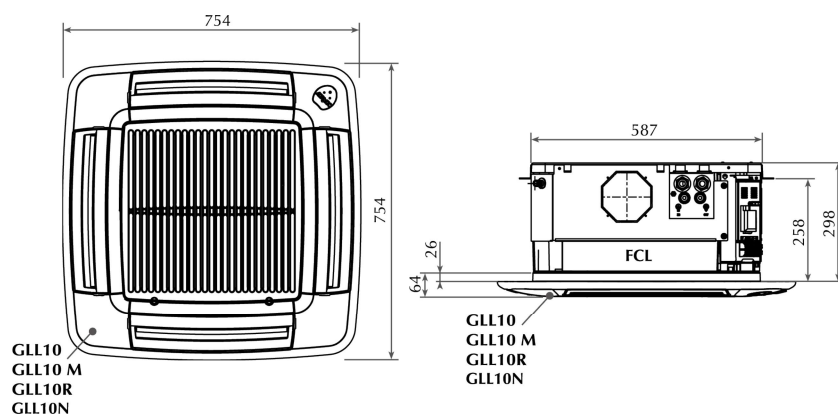
	FCL34			FCL38			FCL44			FCL64			FCL84			FCL104			FCL124			
	1	2	3	1	2	3	1	2	3	1	2	4	1	2	4	1	2	4	1	2	4	
	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	
Heating performance 65 °C / 55 °C (1)																						
Heating capacity	kW			1,74	1,95	2,32	1,74	1,95	2,32	1,75	2,04	2,44	2,21	2,50	3,19	4,73	5,71	7,59	5,27	6,53	8,93	
Water flow rate system side	l/h			152	171	203	152	171	203	153	178	240	194	219	279	414	500	664	461	571	782	
Pressure drop system side	kPa			6	7	10	6	7	10	6	7	10	10	10	19	6	8	12	7	10	17	
Cooling performance 7 °C / 12 °C (2)																						
Cooling capacity	kW			1,14	1,44	1,86	1,63	2,05	2,73	1,79	2,31	2,95	2,43	2,93	4,51	2,76	3,97	5,85	3,45	4,84	7,05	
Sensible cooling capacity	kW			0,97	1,22	1,48	1,28	1,63	2,20	1,25	1,65	2,13	1,69	2,06	3,43	1,86	2,69	4,05	2,43	3,45	5,15	
Water flow rate system side	l/h			200	253	327	284	358	476	314	396	626	424	510	793	482	695	1032	602	845	1238	
Pressure drop system side	kPa			4	7	10	5	8	13	6	10	15	11	16	35	6	12	25	7	13	26	
Fan																						
Type	type	Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal		
Fan motor	type	Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous		
Number	no.	1			1			1			1			1			1			1		
Air flow rate	m³/h	300	410	600	300	410	600	260	360	530	380	500	880	460	680	1100	560	830	1350	750	1100	
Sound power level	dB(A)	35,0	38,0	46,0	35,0	38,0	46,0	35,0	39,0	46,0	41,0	47,0	61,0	39,0	43,0	50,0	40,0	45,0	54,0	46,0	50,0	
Input power	W	21	31	45	21	31	45	22	32	47	32	45	101	45	80	150	50	80	155	55	105	
Diameter hydraulic fittings																						
Type	type	Gas - F			Gas - F			Gas - F			Gas - F			Gas - F			Gas - F			Gas - F		
Main coil	Ø	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Secondary coil	Ø	1/2"			1/2"			1/2"			1/2"			1/2"			1/2"			1/2"		
Water coil																						
Water content main coil	l	0,8			0,8			0,8			1,1			2,6			2,6			2,6		
Water content the secondary coil	l	0,2			0,2			0,2			0,2			1,4			1,4			1,4		
Power supply																						
Power supply		230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz		

## DIMENSIONS

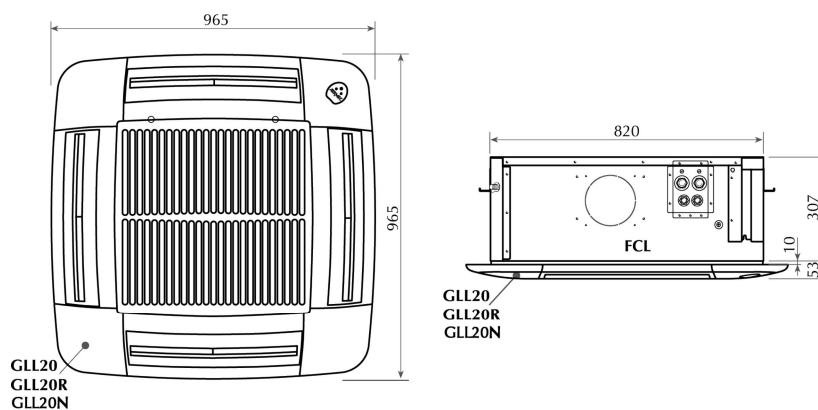
### Dimensions FCL 32 - 34 - 36 - 38 - 42 - 44 - 64 - 72 con GLF



### Dimensions FCL 32 - 34 - 36 - 38 - 42 - 44 - 64 - 72 con GLL



### Dimensions FCL 82 - 84 - 102- 104 - 122 - 124 con GLL



Size		102	104	122	124	32	34	36	38	42	44	62	64	72	82	84
Dimensions and weights																
Empty weight	FCL	kg	36	36	36	36	20	21	20	21	21	22	22	22	35	36
	V2	kg	36	36	36	36	20	21	20	21	20	21	22	22	35	36
	VL	kg	35	35	35	35	20	20	20	20	20	22	22	22	34	35

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume  
responsibility or liability for errors or omissions.

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## FCLI

## Cassette Type Fan Coil Unit



- **Electric saving equal to 50% with respect to a fan coil with 3-speed motor**
- **Total comfort: reduced temperature and relative humidity variations**
- **Standard internal three-way valve**
- **Version with 2-way valve for variable water flow rate systems**
- **Version without valves**



### DESCRIPTION

4-way cassettes that can be installed in any type of 2- or 4-pipe system with any heat generator, even at low temperatures. Thanks to the selection of versions and configurations, it's easy to choose the best solution for every need.

### FEATURES

#### Intake grid and distribution of the air

The recovery and air diffusion grille has an elegant design. In plastic, RAL 9010. The dimensions of the first 5 sizes comply with the 600x600 mm modularity of false ceilings, whereas the larger sizes measuring 840x840 mm are designed for quiet operation and optimum performance of these large models.

#### Load-bearing structure

Models with a 600x600 mm module have a reinforced load-bearing structure with side panels in galvanised steel sheet, thermally insulated with internal polystyrene foam elements.

The structure of models with a 840x840 mm module is made entirely of galvanised steel sheet, thermally insulated with polyethylene foam on the inside and with an anti-condensate felt coating.

#### Ventilation group

Formed of a particularly quiet axial-centrifugal fan, statically and dynamically balanced.

The Brushless electric motor with 0-100% continuous speed variation, which allows precise adaptation to the real demands of the internal environment without temperature fluctuations.

The air flow can be continuously changed through a 1-10 V signal, coming from adjustment and control commands Aermec or from independent adjustment systems.

This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.

The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors).

#### Heat exchanger coil

Heat exchanger with shaped profile to increase the exchange surface, and easily accessible drain valves.

There are models with a single coil for 2-pipe systems, with the possibility to add an electric heater too, and models with two coils for 4-pipe systems.

There is the possibility to combine outside air with the inlet ambient air, and to distribute it in separate rooms.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

#### Condensate drip

Condensation drip tray in one piece, with V0 self-extinguishing level and overmoulding to insulation in expanded polystyrene with flame retardant additive.

#### Air filter

Air filter easily removed and cleaned, self-supporting structure, characterised by a high efficiency and low pressure drops, with class-V0 fire resistance (UL 94).

#### Versions

##### FCLI Standard

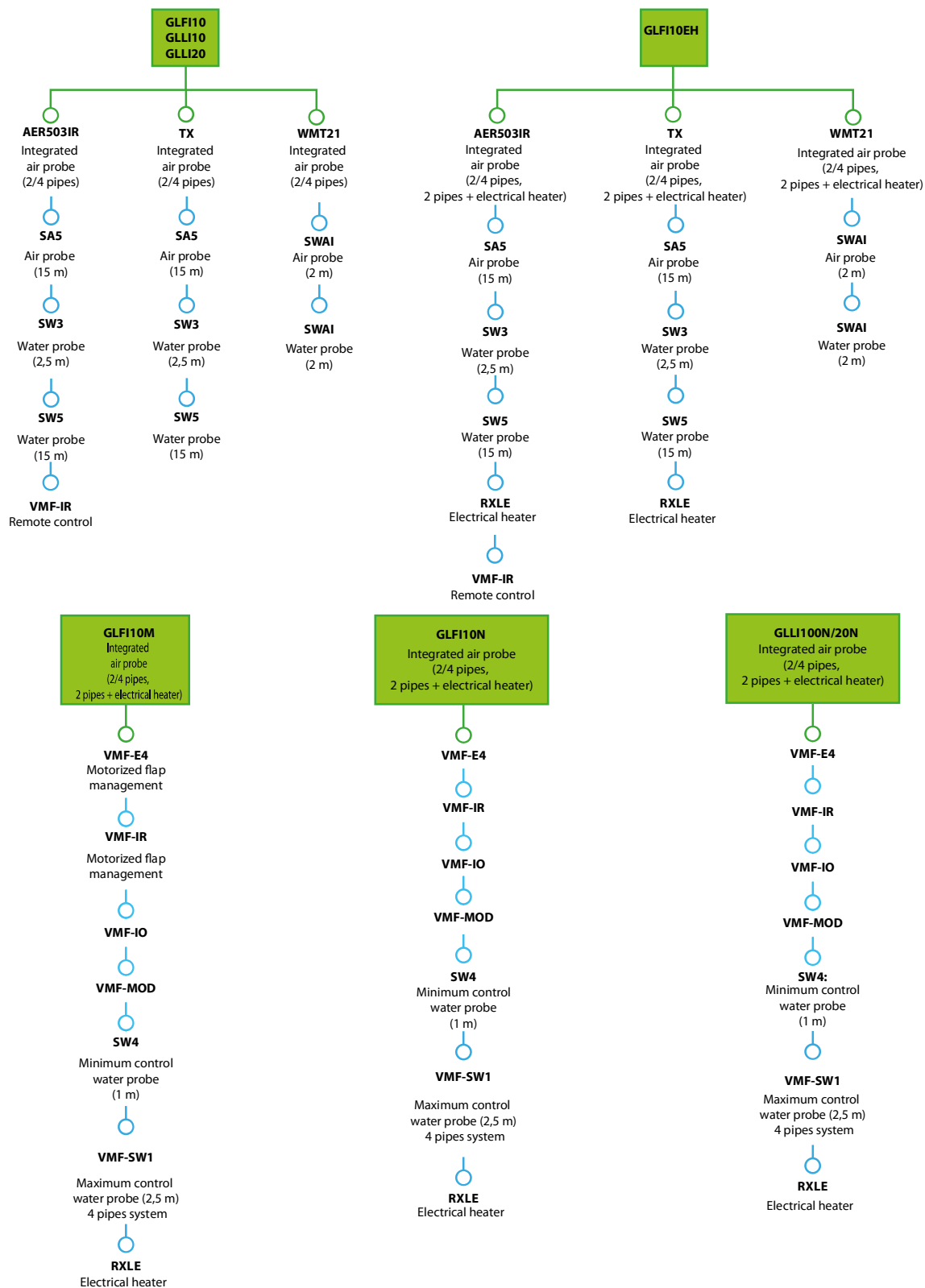
**V2** With internal 2-way valve

**VL** Without internal valve but with microprocessor control



## ACCESSORIES

Accessories that can be combined with the grilles



### Intake grids and distribution of the air, compulsory accessory

**GLFI110:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm adapts perfectly to standard false ceilings without overlapping parts. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits with manually orientated fins. Must be combined with a wall-mounted panel. (size 840x840 mm not available).

**GLFI10EH:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm; adapts perfectly to standard false ceilings without overlapping parts. Suitable for use with the RXLE heater. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits with manually orientated fins. Must be combined with a wall-mounted panel. (size 840x840 mm not available).

**GLFI10M:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm adapts perfectly to standard false ceilings without overlapping parts. It is equipped with an infrared receiver with an emergency operation button, a thermostat card which also requires the installation of the VMF-E4 panel or the VMF-IR remote control. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated. (size 840x840 mm not available).

**GLFI10N:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4 or VMF-IR panel as well. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated. (size 800x800 mm not available).

**GLLI100:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm; adapts perfectly to standard false ceilings without overlapping parts. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated. Must be combined with a wall-mounted panel.

**GLLI100EH:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm; adapts perfectly to standard false ceilings without overlapping parts. Suitable for use with the RXLE heater. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits with manually orientated fins. Must be combined with a wall-mounted panel. (size 840x840 mm not available).

**GLLI100N:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm; adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4X panel as well, and suitable for use with the RXLE heater. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be orientated with the remote control.

**GLLI120:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 840x840 mm, adapts perfectly to standard false ceilings without overlapping parts. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated. Must be combined with a wall-mounted panel.

**GLLI20N:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 840x840 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4X or VMF-IR panel as well. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated.

### VMF system

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IO:** Manage the unit exclusively from a centralized VMF control panel without area control panel.

**VMF-IR:** User interface compatible with the AERS03IR thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMF-SW:** Water temperature probe.

**VMF-SW1:** Extra water probe to be used for 4-pipe systems.

### Control panels and their accessories

**AERS03IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**SW4:** Water temperature probe allowing automatic season change on electronic controllers supplied with water-side change over.

**SWA1:** External air or water temperature probe.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

**WMT21:** Electronic thermostat for inverter fancoils.

### Electric heaters

**RXLE:** Electric heater for heating, can be installed on board the units.

**RXLE20:** Electric heater for heating, can be installed on board the units.

### Water valve kit

**VCFLX4:** 3-way valve kit for single-coil fan coil for 4-pipe systems. With totally separate "heating" and "cooling" circuits. This kit consists of two 3-way insulated valves and four connections, complete with electro-thermal actuators, insulating shells for the valves, and the relative hydraulic couplings.

**VHL1:** 3-way motorised valve kit with 4 connections including the actuator. 230V~50Hz power supply.

**VHL124:** 3-way motorised valve kit with 4 connections including the actuator. 24V power supply.

**VHL20:** Motorised 3-way valve kit with 4 connections, complete with actuator and the relative hydraulic couplings. 230V~50Hz power supply.

**VHL2024:** Motorised 3-way valve kit with 4 connections, complete with actuator and the relative hydraulic couplings. 24V power supply.

**VHL2:** 2-way motorised valve kit with 2 connections including the actuator. Power supply 230V~50Hz;

**VHL22:** Motorised 2-way valve kit with 2 connections, complete with actuator and the relative hydraulic couplings. Power supply 230V~50Hz;

**VHL2224:** Motorised 2-way valve kit with 2 connections, complete with actuator and the relative hydraulic couplings. 24V power supply.

**VHL224:** 2-way motorised valve kit with 2 connections including the actuator. 24V power supply.

### Installation accessories

**FEL10:** Kit n°5 electrostatically pre-charged air filter, with fire resistance class 2 (UL 900).

**KFL:** Delivery flange, allowing the air to be directed to an adjacent room.

**KFL20:** Delivery flange, allowing the air to be directed to an adjacent room. Up to three KFL20 can be assembled on a single unit.

**KFLD:** Suction flange, allows to introduce external air directly into the room without mixing.

**KFLD24:** Suction flange, allows to introduce external air directly into the room without mixing. Up to two KFLD24 can be assembled on a single unit.

**FCLMC10:** Perimeter housing in painted galvanised sheet metal, 600x600 mm, used when the fan coil is installed outside the false ceiling. It has an aesthetic and protective purpose only, so the technical characteristics of the fan coil remain unaltered. Can only be combined with GLL/GLLI grilles.

**FCLMC20:** Perimeter housing in painted sheet metal, 840x840 mm, used when the fan coil is installed outside the false ceiling. It has an aesthetic and protective purpose only, so the technical characteristics of the fan coil remain unaltered. Can only be combined with GLL/GLLI grilles.

**FCLMC20IK:** Installation kit for the inverter controller. Mandatory for units with FCLMC20.

## ACCESSORIES COMPATIBILITY

### Intake grids and distribution of the air

Model	Ver	32	34	42	44	62	64	82	122	124
GLF10 (1)	FCL1,V2,VL	*	*	*	*	*	*			
GLF10EH (2)	FCL1,V2,VL	*	*	*	*	*	*			
GLF110M (3)	FCL1,V2,VL	*	*	*	*	*	*			
GLF110N (3)	FCL1,V2,VL	*	*	*	*	*	*			

(1) Not compatible with the VMF system and electric heaters.

(2) Not compatible with the VMF system.

(3) Compatible with the VMF system and electric heaters.

### Intake grid and distribution of the air

Model	Ver	32	34	42	44	62	64	82	122	124
GLL100 (1)	FCL1,V2,VL	*	*	*	*	*	*			
GLL100EH (2)	FCL1,V2,VL	*	*	*	*	*	*			
GLL100N (3)	FCL1,V2,VL	*	*	*	*	*	*			
GLL20 (1)	FCL1,V2,VL							*	*	*
GLL20N (3)	FCL1,V2,VL							*	*	*

(1) Not compatible with the VMF system and electric heaters.

(2) Not compatible with the VMF system, but compatible with electric heaters.

(3) Compatibility with VMF system.

### VMF system

Model	Ver	32	34	42	44	62	64	82	122	124
VMF-E4DX	FCL1,V2,VL	*	*	*	*	*	*	*	*	*
VMF-E4X	FCL1,V2,VL	*	*	*	*	*	*	*	*	*
VMF-I0	FCL1,V2,VL	*	*	*	*	*	*	*	*	*
VMF-IR	FCL1,V2,VL	*	*	*	*	*	*	*	*	*
VMF-SW	FCL1,V2,VL	*	*	*	*	*	*	*	*	*
VMF-SW1	FCL1,V2,VL	*	*	*	*	*	*	*	*	*

### Control panels and dedicated accessories

Model	Ver	32	34	42	44	62	64	82	122	124
AERS03IR (1)	FCL1,V2,VL	*	*	*	*	*	*	*	*	*
SW4	FCL1,V2,VL	*	*	*	*	*	*	*	*	*
SWAI (2)	FCL1,V2,VL	*	*	*	*	*	*	*	*	*
TX (1)	FCL1,V2,VL	*	*	*	*	*	*	*	*	*
WMT21	FCL1,V2,VL	*	*	*	*	*	*	*	*	*

(1) Wall-mount installation.

(2) Probe for thermostat WMT21.

**For the compatibility of VMF components and command panels with the intake and delivery grilles, refer to the information given above.**

### 3 way valve kit

Model	Ver	32	34	42	44	62	64	82	122	124
VHL1 (1)	VL		*		*		*			
VHL124 (1)	VL		*		*		*			
VHL20 (1)	VL									*
VHL2024 (1)	VL									*

(1) Obligatory accessory in 4-pipe systems.

### 2 way valve kit

Model	Ver	32	34	42	44	62	64	82	122	124
VHL2 (1)	VL		*		*		*			
VHL22 (1)	VL									*
VHL2224 (1)	VL									*
VHL224 (1)	VL		*		*		*			

(1) Compulsory accessory in 4-pipe systems with variable flow rate.

### Valve Kit for 4 pipe systems

Model	Ver	32	34	42	44	62	64	82	122	124
VCFLX4 (1)	VL	*		*		*				

(1) The valve must be commanded via command panels enabled for valve control.

### Air filters

Model	Ver	32	34	42	44	62	64	82	122	124
FEL10	FCL1,V2,VL	*	*	*	*	*	*			

### Delivery and suction flange

Model	Ver	32	34	42	44	62	64	82	122	124
KFL	FCL1,V2,VL	*	*	*	*	*	*			
KFL20	FCL1,V2,VL							*	*	*
KFLD	FCL1,V2,VL	*	*	*	*	*	*			
KFLD20	FCL1,V2,VL							*	*	*

**Perimeter case**

Model	Ver	32	34	42	44	62	64	82	122	124
FCLMC10 (1)	FCL1,V2,VL	*	*	*	*	*	*			
FCLMC20 (1)	FCL1,V2,VL							*	*	*
FCLMC20K (2)	FCL1,V2,VL							*	*	*

(1) Can only be combined with GLL/GLLI grilles

(2) Mandatory for units with FCLMC20.

## PERFORMANCE SPECIFICATIONS

### 2-pipe

	FCLB32			FCLB42			FCLB62			FCLB82			FCLB122			
	1	2	3	1	2	4	1	2	4	1	2	4	1	2	4	
	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	
Heating performance 70 °C / 60 °C (1)																
Heating capacity	kW	2,22	2,95	4,00	3,32	4,47	7,34	5,19	6,37	10,49	5,88	8,12	11,88	10,53	14,73	21,75
Water flow rate system side	l/h	194	258	350	290	391	642	454	558	918	514	710	1039	921	1289	1903
Pressure drop system side	kPa	4	6	10	6	10	24	12	17	42	7	13	26	11	21	42
Heating performance 45 °C / 40 °C (2)																
Heating capacity	kW	1,10	1,47	1,98	1,67	2,21	3,64	2,58	3,21	5,21	2,94	4,05	5,90	5,28	7,37	10,80
Water flow rate system side	l/h	192	254	345	287	386	633	448	550	905	507	701	1025	909	1271	1877
Pressure drop system side	kPa	4	6	11	5	9	21	10	17	41	7	13	23	12	21	41
Cooling performance 7 °C / 12 °C (3)																
Cooling capacity	kW	1,15	1,46	1,88	1,95	2,52	3,90	2,65	3,19	4,92	2,79	4,04	5,97	5,34	7,47	10,87
Sensible cooling capacity	kW	0,98	1,24	1,50	1,37	1,80	3,11	1,85	2,25	3,75	1,89	2,76	4,17	4,02	5,70	8,34
Water flow rate system side	l/h	200	253	327	337	437	679	458	551	856	482	695	1032	921	1292	1893
Pressure drop system side	kPa	4	4	13	7	11	25	12	16	36	7	12	28	10	19	38
Fan																
Type	type	Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal		
Fan motor	type	Inverter			Inverter			Inverter			Inverter			Inverter		
Number	no.	1			1			1			1			1		
Air flow rate	m³/h	300	410	600	260	360	700	380	500	880	460	680	1100	750	1100	1750
Input power	W	10	13	18	12	16	55	14	20	61	10	14	33	16	33	135
Signal 0-10V	%	42	62	90	34	46	90	40	52	90	38	54	90	38	54	90
Cassettes sound data (4)																
Sound power level	dB(A)	35,0	38,0	46,0	35,0	38,0	53,0	41,0	47,0	61,0	39,0	43,0	50,0	44,0	50,0	60,0
Sound pressure	dB(A)	26,0	29,0	37,0	26,0	30,0	44,0	32,0	38,0	52,0	30,0	34,0	41,0	35,0	41,0	51,0
Diameter hydraulic fittings																
Main coil	Ø	3/4"			3/4"			3/4"			3/4"			3/4"		
Secondary coil	Ø	-			-			-			-			-		
Power supply																
Power supply		230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz		

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) Room air temperature 27 °C d.b./19 °C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT

(4) For the cassettes, Aermec determines the value of the sound power on the basis of measurements carried out in accordance with the standard UNI EN 16583:15, in observance of the EUROVENT certification and the level of sound pressure (weighed A) measured in an environment with volume V=100m³, reverberation time t=0.5s direction factor Q=2; distance r=2.5m.

### 4-pipe

		FCLB34			FCLB44			FCLB64			FCLB124		
		1	2	3	1	2	3	1	2	4	1	2	4
		L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 65 °C / 55 °C (1)													
Heating capacity	kW	1,70	1,97	2,32	1,70	2,02	2,74	2,05	2,76	3,14	6,46	8,30	11,10
Water flow rate system side	l/h	152	171	203	153	178	240	194	219	279	551	727	977
Pressure drop system side	kPa	5	7	9	6	7	12	9	11	19	10	15	25
Cooling performance 7 °C / 12 °C (2)													
Cooling capacity	kW	1,15	1,46	1,88	1,80	2,32	3,59	2,29	2,76	4,25	4,55	6,19	8,67
Sensible cooling capacity	kW	0,98	1,24	1,50	1,26	1,66	2,87	1,59	1,93	3,22	3,35	4,64	6,64
Water flow rate system side	l/h	200	253	327	314	396	626	424	510	793	786	1068	1513
Pressure drop system side	kPa	4	7	10	6	10	23	16	23	50	10	20	38
Fan													
type	type	Centrifugal											
Fan motor	type	Inverter											
Number	no.	1			1			1			1		
Air flow rate	m³/h	300	410	600	260	360	700	380	500	880	750	1100	1750
Input power	W	10	13	18	12	16	55	14	20	61	16	33	135
Signal 0-10V	%	42	62	90	34	46	90	40	52	90	38	58	90
Cassettes sound data (3)													
Sound power level	dB(A)	35,0	38,0	46,0	35,0	39,0	53,0	41,0	47,0	61,0	44,0	52,0	60,0
Sound pressure	dB(A)	26,0	29,0	37,0	26,0	30,0	44,0	32,0	38,0	52,0	35,0	41,0	51,0
Diameter hydraulic fittings													
Main coil	Ø	3/4"											
Secondary coil	Ø	1/2"											
Power supply													
Power supply		230V~50Hz											

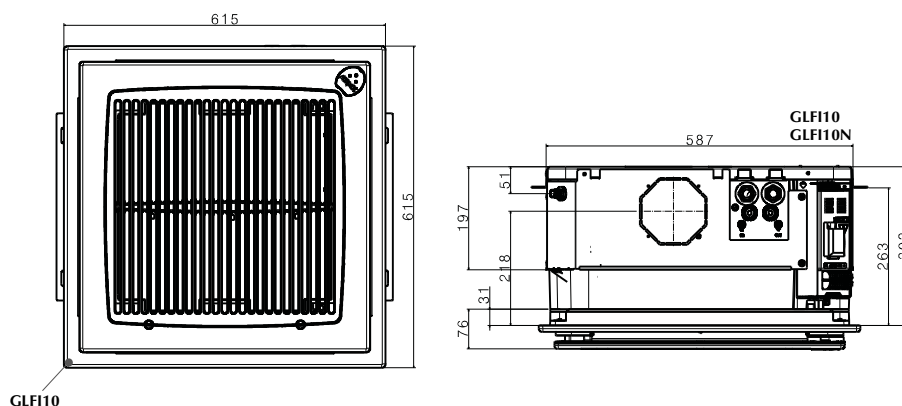
(1) Room air temperature 20 °C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT

(2) Room air temperature 27 °C d.b./19 °C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT

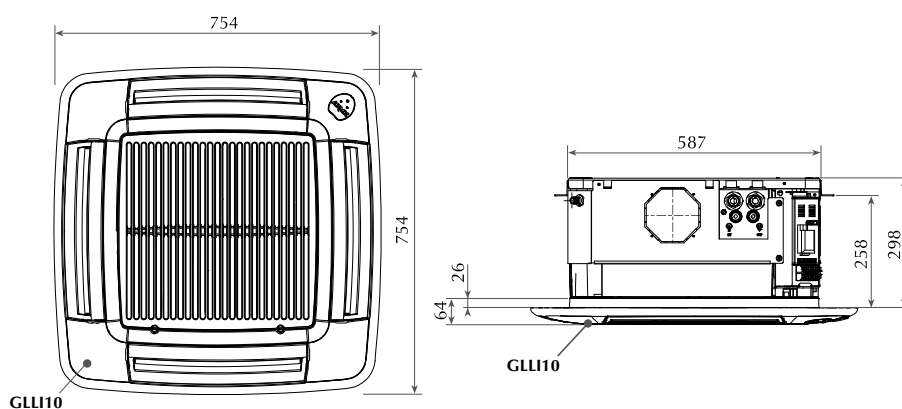
(3) For the cassettes, Aermec determines the value of the sound power on the basis of measurements carried out in accordance with the standard UNI EN 16583:15, in observance of the EUROVENT certification and the level of sound pressure (weighed A) measured in an environment with volume V=100m³, reverberation time t=0.5s direction factor Q=2; distance r=2.5m.

## DIMENSIONS

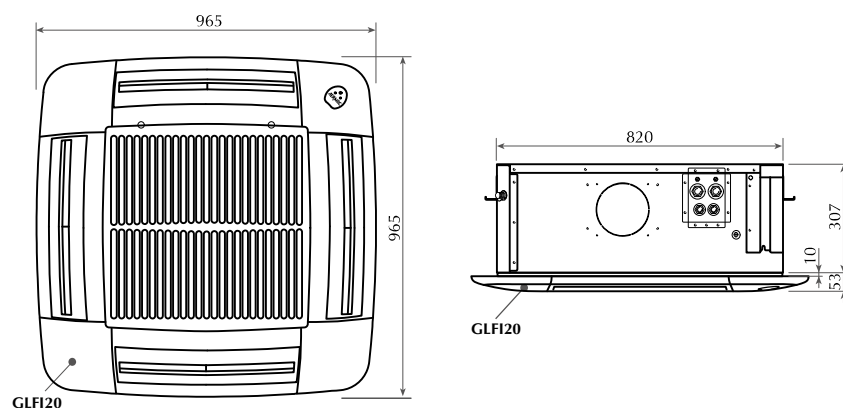
### Dimensions FCLI 32 - 34 - 42 - 44 - 62 - 64 con GLFI



### Dimensions FCLI 32 - 34 - 42 - 44 - 62 - 64 con GLLI



### Dimensions FCLI 82 - 122 - 124 con GLLI



Size			122	124	32	34	42	44	62	64	82
Dimensions and weights											
Empty weight	FCLI	kg	36	36	21	21	22	21	22	23	35
	V2	kg	36	36	21	21	21	21	22	23	35
	VL	kg	35	35	20	21	20	21	22	22	34

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume  
responsibility or liability for errors or omissions.

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