

FCL

Cassette type fan coil False ceiling installation and cooling power from 1900 to 11000W



Aermec adheres to the EUROVENT Certification Programme. The products concerned appear in the EUROVENT Certified Products Guide.

Models:
FCL 32, FCL36, FCL42, FCL62
FCL 34, FCL38, FCL44, FCL64

Models:
FCL 82, FCL102, FCL122
FCL 84, FCL104, FCL124



GLL10 - GLL10M - GLL10R
White: RAL 9010



Standard remote control
for GLL10M
GLL10R - GLL20R



GLL20 - GLL20R
White: RAL 9010

- **3 CONFIGURATIONS ON ONE CASSETTE-TYPE FAN COIL:**
 - WITH MOTORISED FINS THAT CAN BE ORIENTED VIA THE REMOTE CONTROL (GLLIOM ONLY)
 - WITH FINS THAT CAN BE ORIENTED MANUALLY, REMOTE CONTROL
 - WITH FINS THAT CAN BE ORIENTATED MANUALLY, WALL-MOUNTED CONTROL PANEL
- **STANDARD INTERNAL 3-WAY VALVE, WITH FAST CONNECTION ACTUATOR AND VISUAL POSITION SIGNALLING**
- **VERSION WITH 2-WAY VALVE FOR VARIABLE WATER FLOW RATE SYSTEMS**
- **VERSION WITHOUT VALVES**
- **HEAT EXCHANGE COIL WITH SHAPED PROFILE AND ENHANCED SURFACE**
- **FAN PURPOSELY DESIGNED FOR LOW SOUND EMISSIONS**
- **VERSIONS FOR 2-PIPE AND 4-PIPE SYSTEMS**
- **ALSO AVAILABLE WITH ELECTRIC HEATER FOR HEATING**

Characteristics

- 7 sizes for 2-pipe versions:
FCL 32-36-42-62-82-102-122
- 7 sizes for 4-pipe versions:
FCL 34-38-44-64-84-104-124
- Standard preparation with standard internal three-way valve, with fast connection actuator and position visual signalling.
- FCL_V2 preparation (available upon request), with internal two-way valve, suitable for variable water flow rate systems.
- FCL_VL preparation (available upon request), without internal valve.
- 3 configurations on one cassette-type fan coil:
 - fins that can be oriented by means of a remote control and electronic control if coupled with the accessory GLL10M;
 - with remote control, fins that can be oriented manually and by means of electronic control if coupled with the accessory GLL10R or GLL20R;
 - with fins that can be oriented manually if coupled with the accessory GLL10 or GLL20, also requires a wired control panel (accessory).
- High design aesthetics.
- Grille dimensions perfectly integrable in standard suspended ceiling panels of 600x600mm and 840x840mm for the most powerful units.
- Fan designed for low sound emissions.
- 3-speed and 4-speed mixed flow (axial + centrifugal) fan unit for larger sizes (FCL 42-44-62-64-82-84-102-104-122-124), in order to select the 3 speeds that best meet delivered power and quiet operation requirements.
- The load-bearing structure, reinforced with a galvanised steel side band, contains insulation elements in expanded polystyrene obtained from injection moulding for purposes of noise reduction and air routing (FCL 42-44-62-64).
- Structure made entirely of galvanised steel, containing insulation elements in closed cell expanded polystyrene and externally covered with anti-condensate felt (FCL 82-84-102-104-122-124).
- Condensation drip tray in one piece, with V0 self-extinguishing level and overmoulding to insulation in expanded polystyrene with flame retardant additive.
- Heat exchanger with shaped profile to increase the exchange surface, and easily accessible drain valves.
- Continuous fan operation to prevent stratification of room air.
- Possibility of direct release of external air regardless of indoor unit ventilation.
- Possibility to control the climate of adjacent rooms as well. The versions FCL 82-84-102-104-122-124 allow 3-direction delivery.
- 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).
- Electrostatically pre-charged air filter regenerated with fire resistance class 2 (UL 900), (FEL 10 accessory for GLL10, GLL10R, GLL10M).
- Full compliance with safety regulations.
- Easy installation and maintenance.

Accessories

Obligatory GLL accessories, essential for unit operation:

- GLL10M (600x600)
Delivery grille with adjustable blades by means of a remote control and air intake, supplied with an infrared receiver with emergency operation switch. White RAL 9010.
- GLL10R (600x600)
GLL20R (840x840)
Delivery grille with blades manually adjustable and air intake. With remote control, supplied with an infrared receiver with emergency operation switch. White RAL 9010.
- GLL10 (600x600)
GLL20 (840x840)
Delivery grille with blades manually adjustable and air intake. Combined with wall-mounted control panel. White RAL 9010.

Accessories:

- FEL10: electrostatically pre-charged air filter, regenerated with fire resistance class 2 (UL 900).
- KFL10: 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.
- KFLD10: suction flange, allowing the air to be directed to an adjacent room.
- KFLD20 (**): suction flange, allowing the air to be directed to an adjacent room. Up to two KFL20D can be assembled on a single

unit.

- RXLE: electric heater for heating, can be installed on the single-fan FCL units. Requires GLL-M or GLL-R.
- SIT 3-5: Thermostat Interface Cards. They allow the creation of a network of fan coils (max. 6) commanded by a central control panel (selector or thermostat).
SIT3: commands the 3 fan speeds and must be installed on each fan coil of the network; receives the commands from the selector or the SIT5 card.
SIT5: commands the 3 fan speeds and up to 2 valves (four pipes systems); transmits the thermostat commands to the network of fan coils fitted with SIT3.
- SW3: Minimum water temperature probe, to be used with electronic PXAE thermostats.
- SW4: Minimum water temperature probe, to be used with the units fitted with a grille with remote control.
- SWA: External SWA probe accessory for FMT20AW panels. Detects the ambient air temperature if connected to the connector (A); the probe in the panel will be automatically disabled. Detects the temperature of the water in the system, for ventilation consent, if connected to the connector (W) (Length L = 6m)
- VHL1 - VHL20: motor-driven three-way valve for the heating battery in 4-pipe systems. Obligatory accessory in 4-pipe systems.
- VHL2 - VHL22: motor-driven two-way valve for the heating battery in 4-pipe systems. Obligatory accessory in 4-pipe systems with variable flow rates.

Control panels *:

- FMT10: electronic thermostat for fan coils installed in systems with 4 pipes, 2 pipes and 2 pipes with heater, with the possibility of connecting two On - Off valves to shut off the water feeding the coils. Commands simplified with only two selectors for temperature and ventilation control (3 speeds). Ambient air probe (supplied with probe holder) to be positioned inside the fan coil. Installation inside a box module 503.
- FMT20AW: electronic thermostat with LCD display for fan coils installed in systems with 4 pipes, 2 pipes and 2 pipes with heater, with the possibility of connecting two On-Off valves to shut off the water feeding the coils. Air temperature probe inside the panel. Two SWA probes can be connected simultaneously to the FMT20AW panel; one for the ambient air temperature and the other for the temperature of the water in the system. Flush-mounting installation.
- PXAE: electronic thermostat for fan coils installed in 2-pipe or 4-pipe systems. Simplified commands with just two selectors for controlling temperature and ventilation (3 speeds managed manually or automatically). It can control up to two On-Off valves. Wall-mounted installation.
- PX: control panel with selector. Wall-mounted installation.
- PX2: control panel with selector. Wall-mounted installation.
- WMT10: electromechanical thermostat for fan coils installed in 4-pipe, 2-pipe and 2-pipe with heater systems, with the possibility of connecting two On-Off valves to shut off the water feeding the coils. Wall-mounted installation.

Compatibility of accessories

Mod. FCL	32	34	36	38	42	44	62	64	82	84	102	104	122	124
GLL10	✓	✓	✓	✓	✓	✓	✓	✓						
GLL10M	✓	✓	✓	✓	✓	✓	✓	✓						
GLL10R	✓	✓	✓	✓	✓	✓	✓	✓						
GLL20									✓	✓	✓	✓	✓	✓
GLL20R									✓	✓	✓	✓	✓	✓
FEL10	✓	✓	✓	✓	✓	✓	✓	✓						
KFL	✓	✓	✓	✓	✓	✓	✓	✓						
KFL20									✓	✓			✓	✓
KFLD***	✓	✓	✓	✓	✓	✓	✓	✓					✓	✓
KFLD20***									✓	✓	✓	✓	✓	✓
RXLE**	✓		✓		✓		✓							
RXLE20**									✓		✓		✓	
SW3*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SW4**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SWA*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
VHL1		✓		✓		✓		✓						
VHL20										✓				✓
VHL2		✓		✓		✓		✓						
VHL22										✓			✓	✓
SIT 3*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SIT 5*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FMT10*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FMT20AW*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PX*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PX 2*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PXAE*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
WMT10*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

* Accessories that can only be used in combination with GLL10 and GLL20 grilles.

** Requires GLL-M or GLL-R

*** A maximum of three KFL20 / KFL20D can be assembled on a single unit

Technical data

Mod. FCL	2-pipe versions	32	36	42	62	82	102	122	
Heating capacity 50°C (E)	speed (max) - W	2380	3750	4950	-	6250	7100	10600	13000
Water flow rate 50°C	speed (max) l/h	327	516	679		857	1032	1548	1892
Pressure drops 50°C (VL) (E)	speed (max) kPa	9	14	23		32	23	25	34
Total cooling capacity (E)	speed (max.) W	1900	3000	3400		4310	6000	9000	11000
Sensible cooling capacity(E)	speed (max.) W	1680	2480	2725		3680	4200	6660	8470
Water flow rate	speed (max.) l/h	327	516	679		857	1032	1548	1892
Pressure drops (VL) (E)	speed (max.) kPa	10	22	16		25	25	28	38
Air flow rate (E)	speed 4 m³/h	-	-	700		880	1100	1350	1750
	speed 3 m³/h	600	600	530		660	830	1010	1350
	speed 2 m³/h	410	410	360		500	680	830	1100
	speed 1 (min.) m³/h	300	300	260		380	460	560	750
Fans	n.	1	1	1		1	1	1	1
Sound power (E)	speed (max.) dB (A)	46	46	53		61	50	54	60
	speed 4 dB (A)	-	-	44		52	41	45	51
Sound pressure	speed 3 dB (A)	37	37	37		45	36	39	45
	speed 2 dB (A)	29	29	29		38	34	36	41
	speed 1 (min.) dB (A)	26	26	26		32	30	31	35
Heat exchanger water content	l	1,2	1,5	1,5		2,1	3	4,5	4,5
Water connections	ø Gas	3/4"	3/4"	3/4"		3/4"	3/4"	3/4"	3/4"
Kvs (standard version 3R valve)		2,5	2,5	2,5		2,5	4	4	4
Input power (E)	(max.) W	45	45	75		83	150	155	175
Input current	(max.) A	0,22	0,22	0,33		0,37	0,70	0,69	0,75
Starting current	A	0,66	0,66	0,99		1,11	2,10	2,07	2,25

Mod. FCL	4-pipe versions	34	38	44	64	84	104	124	
Heating capacity 70°C (E)	speed (max) W	2600	2600	3070		3800	8500	10000	12500
Water flow rate 70°C	l/h	224	224	264		327	731	860	1075
Pressure drops 70°C (VL) (E)	kPa	10	10	13		19	14	19	29
Total cooling capacity (E)	speed (max.) W	1900	2770	3650		4610	6000	7200	8800
Sensible cooling capacity(E)	speed (max.) W	1520	2240	2920		3530	4200	5300	6770
Water flow rate (E)	speed (max.) l/h	327	476	628		793	1032	1238	1514
Pressure drops (VL) (E)	speed (max.) kPa	10	19	14		21	25	26	38
Air flow rate (E)	speed 4 m³/h	-	-	700		880	1100	1350	1750
	speed 3 m³/h	600	600	530		660	830	1010	1350
	speed 2 m³/h	410	410	360		500	680	830	1100
	speed 1 (min.) m³/h	300	300	260		380	460	560	750
Fans	n.	1	1	1		1	1	1	1
Sound power (E)	speed (max.) dB (A)	46	46	53		61	50	54	60
	speed 4 dB (A)	-	-	44		52	41	45	51
Sound pressure	speed 3 dB (A)	37	37	37		45	36	39	45
	speed 2 dB (A)	29	29	29		38	34	36	41
	speed 1 (min.) dB (A)	26	26	26		32	30	31	35
Heat exchanger water content	l	1,2	1,5	1,5		1,5	3	3	3
Heat exchanger water content (hot circuit)	l	0,3	0,5	0,5		0,6	1,5	1,5	1,5
Water connections	ø Gas	3/4"	3/4"	3/4"		3/4"	3/4"	3/4"	3/4"
Water connections (hot circuit)	ø Gas	1/2"	1/2"	1/2"		1/2"	1/2"	1/2"	1/2"
Kvs (standard version 3R valve)		2,5	2,5	2,5		2,5	4	4	4
Kvs (hot circuit valve)		1,6	1,6	1,6		1,6	2,5	2,5	2,5
Input power (E)	(max.) W	45	45	75		83	150	155	175
Input current	(max.) A	0,22	0,22	0,33		0,37	0,70	0,69	0,75
Starting current	A	0,66	0,66	0,99		1,11	2,10	2,07	2,25

Power supply = 230V ~ 50Hz

(E) = EUROVENT certificate performances

The performances are the same for all the configurations:
FCL (standard), FCL V2 and FCL VL.

Performance values refer to the following conditions:

♪ = sound pressure measured in a semi-reverberating chamber of 100 cu.m and with a reverberation time of Tr = 0.5 sec.

■ Cooling:

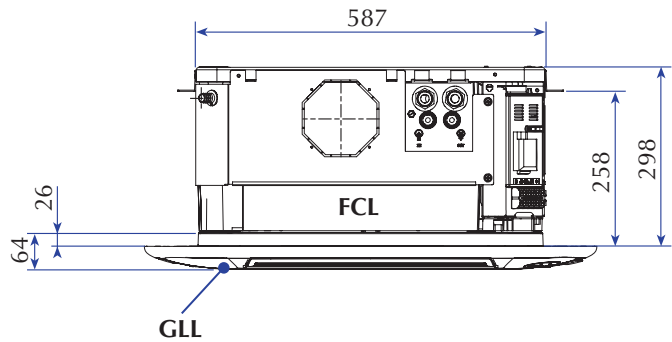
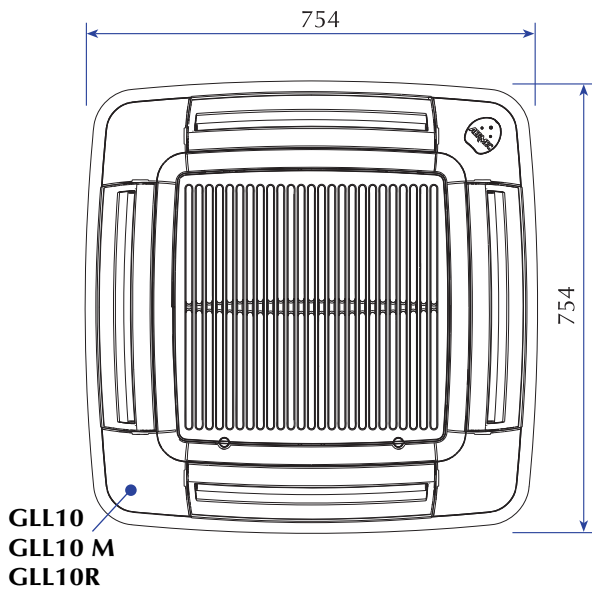
- room air temperature 27°C B.S., 19°C B.U;
- inlet water temperature 7°C; maximum speed;
Δt water 5°C.

■ Heating:

- room air temperature 20°C ;
- inlet water temperature: 70°C; Δt water 10°C;
- inlet water temperature: 50°C; maximum speed;
- water flow rate as in cool mode;

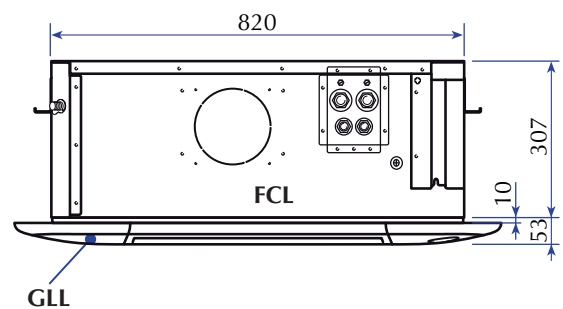
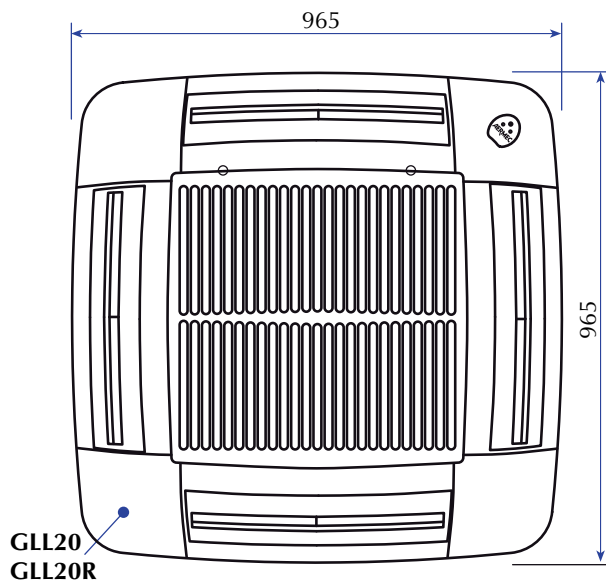
Dimensions (mm)

FCL 32 - 34 - 36 - 38 - 42 - 44 - 62 - 64
 FCL 32 V2 - 34 V2 - 36 V2 - 38 V2 - 42 V2 - 44 V2 - 62 V2 - 64 V2
 FCL 32 VL - 34 VL - 36 VL - 38 VL - 42 VL - 44 VL - 62 VL - 64 VL



Mod. FCL	32	34	36	38	42	44	62	64
Weight	kg 20,5	21	20,5	21	20,5	21	22	22,5
Mod. FCL	32 V2	34 V2	36 V2	38 V2	42 V2	44 V2	62 V2	64 V2
Weight	kg 20,5	21	20,5	21	20,5	21	21	22,5
Mod. FCL	32 VL	34 VL	36 VL	38 VL	42 VL	44 VL	62 VL	64 VL
Weight	kg 20	20,5	20	20,5	20	20,5	21,5	22

FCL 82 - 84 - 102 - 104 - 122 - 124
 FCL 82 V2 - 84 V2 - 102 V2 - 104 V2 - 122 V2 - 124 V2
 FCL 82 VL - 84 VL - 102 VL - 104 VL - 122 VL - 124 VL



Mod. FCL	82	84	102	104	122	124
Weight	kg 35	36	36	36	36	36
Mod. FCL	82 V2	84 V2	102 V2	104 V2	122 V2	124 V2
Weight	kg 35	36	36	36	36	36
Mod. FCL	32 VL	34 VL	102 VL	104 VL	122 VL	124 VL
Weight	kg 34	35	35	35	35	35

The technical data in this document are not binding. Aermec S.p.A. shall have the right to introduce at any time whatever modifications deemed necessary for the improvement of the product.

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