



Cassette-type fancoils with Brushless Inverter motor Continuous 0-100% air flow rate regulation Ceiling and false ceiling installation, cooling power from 1900 up to 11000W



Aermec

participate in the EUROVENT program: FC / 2 / H, FC / 4 / H the products are present on the site www.eurovent-certification.com



Models: FCLI82, FCLI122, FCLI124



FCLI with accessory FCLMC



Variable Multi Flow®

VMF

GLLI10 - GLLI10N White: RAL 9010

FCLI32, FCLI42, FCLI62

FCLI34, FCLI44, FCLI64

GLLI20 - GLLI20N White: RAL 9010

FCLMC White: RAL 9010

The future is Inverter

FCLI is the Aermec range of cassette-type fan coils with continuous 0-100% air flow rate variation and therefore continuous heating/cooling capacity variation.

Thanks to the Inverter technology, the FCLI continuously modifies the air flow rate, adapting it - moment by moment to the real needs in the room.

This produces considerable advantages in terms of electric savings, comfort and noise reduction compared with a traditional on-off 3-speed fan coil.

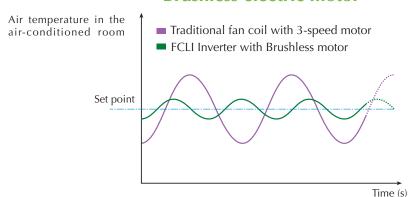
- VMF SYSTEM WITH GLLIION AND GLLI2ON GRILLES
- **ELECTRIC SAVINGS OF 50% COMPARED WITH A FAN COIL WITH TRADITIONAL** 3-SPEED MOTOR
- **VERY QUIET OPERATION**
- TOTAL COMFORT: REDUCED TEMPERATURE AND HUMIDITY VARIATIONS IN THE AIR-CONDITIONED ROOMS
- STANDARD INTERNAL THREE-WAY VALVE, WITH FAST CONNECTION ACTUATOR AND POSITION VISUAL SIGNALLING
- VERSION WITH 2-WAY VALVE FOR VARIABLE WATER FLOW RATE SYSTEMS
- VERSION WITHOUT VALVES
- THERMAL EXCHANGE BATTERY WITH SHAPED PROFILE AND ENHANCED SURFACE
- **FAN FOR LOW SOUND EMISSIONS**
- **VERSIONS FOR SYSTEMS WITH 2 AND 4 PIPES**

Features

- Fan unit with Brushless motor (Continuous High design aesthetics 0-100% speed variation);
- 5 sizes for 2-pipe versions: FCLI 32-42-62-82-122
- 4 sizes for 4-pipe versions: FCLI 34-44-64-124
- Standard preparation with standard internal three-way valve, with fast connection actuator and visual signalling of the position
- FCLI_V2 preparation (available upon request), with internal two-way valve, suitable for variable water flow rate systems
- FCLI_VL preparation (available upon request), without internal valve
- · Requires matching with the obligatory accessories, grill and control panel, necessary for the operation

- Grille dimensions that can be perfectly incorporated into standard suspended ceiling panel sizes (600x600 mm) and (840X840) for more powerful units.
- Fan for low sound emissions
- **EUROVENT** certification
- 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
- The condensation drip tray is in one piece, with V0 self-extinguishing level and joined by means of over-moulding technology to the insulation in expanded polystyrene with flame retardant additive
- · Heat exchanger with shaped profile to increase the exchange surface, and easily accessible drain valves
- Possibility of direct release of external air regardless of indoor unit ventilation
- Possibilità di condizionare anche locali attigui
- Air filter easily removed and cleaned, selfsupporting structure, characterised by a high efficiency and low pressure drops, with a fire resistance class V0 (UL 94)
- Electrostatically pre-charged air filter regenerated with fire resistance class 2 (UL 900), (FEL 10 accessory)
- Full compliance with the accident prevention standards
- Ease of installation and maintenance

Brushless electric motor



The "brushless" electric motor is the result of combining the most sophisticated technologies from the fields of mechanics and electronics.

"Brushless" literally means "without brushes".

The brushless electric motor has no sliding contacts between the rotor and the stator.

In brushless motors, the rotor consists of permanent magnets whose magnetic field interacts - without any mechanical contact - with the stator windings. With the special inverter device, it is possible to control the speed and torque of the rotor continuously, just by means of the stator currents.

Compared with the traditional alternate current motors, the brushless motor offers huge advantages:

- Reduced wear and tear
- The possibility to adjust the rotation speed accurately and continuously (0-100%)

- Higher energy yields
- Longer life and greater reliability

These characteristics have made the brushless motor irreplaceable in a wide variety of applications:

- robotics
- automotive
- precision drives
- CD/DVD players
- medical equipment
- etc

Thanks to Aermec's FCLI range of inverter fan coils, brushless technology can now make inroads in the field of chilled water air conditioning, bringing notable notevoli vantaggi di energy savings along with the precise control of both air temperature and humidity in the air-conditioned rooms

Accessories

Obligatory accessories, essential for unit operation:

• GLLI10 (600x600) GLLI20 (840x840)

Delivery grille with louvers manually adjustable and air intake. Combined with wall-mounted control panel. White RAL 9010.

• WMT20 : Control panel with electronic thermostat and LCD monitor.

Wall mounting.

• GLLI10N (600x600) GLLI20N (840x840)

Delivery grille with Manually adjustable fins and air intake, with "VMF System" advanced electronic thermostat. Individual units, or network master also requires a wired control panel (VMF-E4 compulsory accessory). White RAL 9010.

- VMF-E4: Control panel "VMF System" with electronic thermostat and LCD monitor. Wall-mounting
- Control panels and VMF System: the characteristics are described on the appropriate card.

Accessories:

• FCLMC10

FCLMC20 is a perimeter case in galvanised and painted sheet steel, which is used when the fan coil is installed outside the suspended ceiling. It is used for aesthetics and protection, therefore the technical features of the FCL and FCLI remain unvaried.

 FEL10: electrostatically pre-charged air filter, regenerated with fire resistance class 2 (UL 900)

KFL10

KFL20: Delivery flange, allowing the air to be directed to an adjacent room.

KFLD

KFLD20: suction flange, allows to introduce external air directly into the room without mixing.

- VHL1: motor-driven three-way valve for the heating battery in 4-pipe systems. Obligatory accessory in the 4-pipe systems.
- VHL2: motor-driven two-way valve for the heating battery in 4-pipe systems. Obligatory accessory for 4-pipe systems with variable flow rates.
- **SWI**: Water temperature probe for WMT20 control panels. Cable length L = 2m.

				Compatibility	of accessories				
Mod. FCLI	32	34	42	44	62	64	82	122	124
GLLI10	~	✓	✓	✓	V	✓			
GLLI20							V	V	V
GLLI10N	~	✓	V	V	V	V			
GLLI20N							V	V	V
WMT20	~	V	V	V	V	~	V	V	V
FCLMC10	~	✓	✓	✓	V	/			
FCLMC20							V	V	V
FEL10	~	✓	✓	✓	✓	✓			
KFL	~	V	V	V	V	~			
KFL20							V	V	V
KFLD	~	V	V	V	V	V			
KFLD20							V	V	V
VHL1		V		V		V			V
VHL2		V		V		~			V
SWI	V	V	V	V	V	V	V	V	~

Technical data

Mod. FCLI	2-pipe version	S	32	42	62	82	122
Heating capacity 50°C (E)	vel. (max)	W	2380	4950	6250	7100	13000
Pressure drops (VL) 50°C (E)	vel. (max)	kPa	9	23	16	21	34
Total cooling capacity (E)	vel. (max)	W	1900	3950	4980	6000	11000
Sensible cooling capacity (E)vel. (max)	W		1520	3160	3815	4200	8470
Water flow rate	vel. (max)	l/h	327	679	857	1032	1892
Pressure drops (VL) (E)	vel. (max)	kPa	10	25	36	25	38
Air flow rate (E)	vel. (max)	m³/h	600	700	880	1100	1750
All flow rate (E)	vel. (min)	m³/h	150	150	150	350 350	350
Fans		n.	1	1	1	1	1
Sound power (E)	vel. (max)	dB(A)	46	53	61	50	60
♪ Sound pressure	vel. (max)	dB(A)	37	42	52	41	51
J Sound pressure	vel. (min)	dB(A)	22	23	24	31	31
Heat exchanger water content		I	1,2	1,5	2,1	3	4,5
Water connections		ø Gas	3/4"	3/4"	3/4"	3/4"	3/4"
Kvs (standard version 3R valve)			2,5	2,5	2,5	4	4
Input power (E)	(max)	W	33	55	61	80	90
Input current	(max)	А	0,28	0,43	0,47	0,71	0,8

Mod. FCLI	4-pipe version	ns	34	44	64	124
Heating capacity 70°C		l/h	2600	3070	3800	12500
Water flow rate 70°C (E)	vel. (max)	W	224	264	327	1075
Pressure drops (VL) 70°C (E)		kPa	11	14	21	29
Total cooling capacity (E)	vel. (max)	W	1900	3650	4610	8800
Sensible cooling capacity (E) vel. (max)	W		1520	2920	3530	6770
Water flow rate	vel. (max)	l/h	327	628	793	1514
Pressure drops (VL) (E)	vel. (max)	kPa	10	22	31	38
Air flow rate <i>(E)</i>	vel. (max)	m³/h	600	700	880	1750
Air now rate (E)	vel. (min)	m³/h	150	150	150	350
Fans		n.	1	1	1	1
Sound power (E)	vel. (max)	dB(A)	46	53	61	60
) Cound processing	vel. (max)	dB(A)	37	42	52	51
Sound pressure	vel. (min)	dB(A)	22	23	24	31
Heat exchanger water content		I	1,2	1,5	2,1	4,5
Heat exchanger water content (hot circuit)		I	0,3	0,5	1,5	4,5
Water connections		ø Gas	3/4"	3/4"	3/4"	3/4"
Water connections (hot circuit)		ø Gas	1/2"	1/2"	1/2"	1/2"
Kvs (standard version 3R valve)		·	2,5	2,5	2,5	4
Kvs (hot circuit valve)	-		2,5	2,5	2,5	2,5
Input power (E)	(max)	W	33	55	61	90
Input current	(max)	А	0,28	0,43	0.47	0,8

Power supply = $230V \sim 50Hz$

(E) = EUROVENT certificate performances

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

Performance values refer to the following conditions:

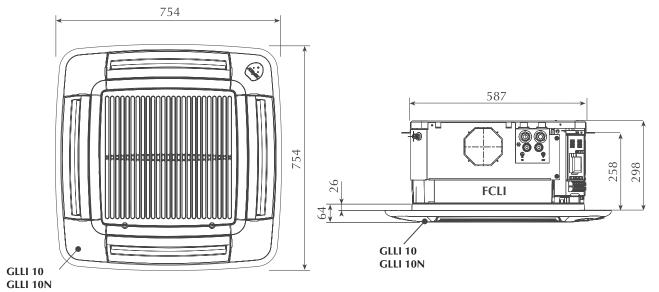
Level of sound pressure (A-weighted) measured in the room with volume V = 85 m 3; reverberation time t = 0.5 s; direction factor Q = 2; distance r = 2.5 m. Cooling:

- room air temperature 27°C B.S.; 19°C B.U.
- inlet water temperature 7°C; maximum speed \(\Delta \text{ water 5°C} \)

Heating

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

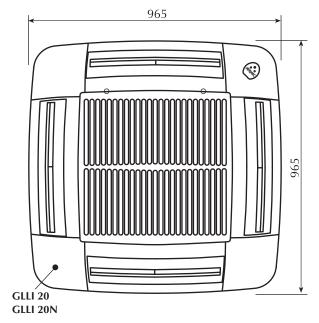
FCLI 32 V2 - 34 V2 - 42 V2 - 44 V2 - 62 V2 - 64 V2 FCLI 32 VL - 34 VL - 42 VL - 44 VL - 62 VL - 64 VL

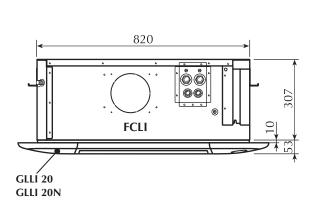


Mod. FCLI		32	34	42	44	62	64
Weight	kg	20,5	21	20,5	21	22	22,5
Mod. FCLI		32 V2	34 V2	42 V2	44 V2	62 V2	64 V2
Weight	kg	20,5	21	20,5	21	21	22,5
Mod. FCLI		32 VL	34 VL	42 VL	44 VL	62 VL	64 VL
Weight	kg	20	20,5	20	20,5	21,5	22

FCLI 82 - 122 - 124

FCLI 82 V2 - 122 V2 - 124 V2 FCLI 82 VL - 122 VL - 124 VL





Mod. FCLI	82	122	124
Weight kg	35	36	36
Mod. FCLI	82 V2	122 V2	124 V2
Weight kg	35	36	36
Mod. FCLI	32 VL	122 VL	124 VL
Weight kg	34	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

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