

FCLI

INVERTER
TECHNOLOGY



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Variable Multi Flow

VMF

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

Models:
FCLI32, FCLI42, FCLI62
FCLI34, FCLI44, FCLI64

Models:
FCLI82, FCLI122, FCLI124

FCLI with accessory **FCLMC**



GLLI10 - GLLI10N
White: RAL 9010



GLLI20 - GLLI20N
White: RAL 9010



FCLMC
White: RAL 9010

- **ENERGY 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**

Features

- Fan unit with Brushless motor (Continuous 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
- High design aesthetics
- 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
- Air filter easily removed and cleaned, self-supporting 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

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.
- **SWI** : Water temperature probe for WMT20 control panels. Cable length L = 2m.
- **GLLI10N (600x600)**
GLLI20N (840x840)
Delivery grille without water probe, 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
- **SW4** : Water temperature probe for the control of maximum / minimum temperature (2-pipe system) or for the control of minimum temperature in the heating coil (4-pipe system)
- **VMF-SW1** : Water temperature probe for the control of maximum temperature in the cooling coil (4-pipe system)
- **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

FCL remain unvaried. FCLMC20 requires the combination with the FCLMC20IK accessory.

- **FCLMC20IK** : Installation kit for Controller Inverter, compulsory for units with **FCLM20**.
- **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.

Compatibility of accessories									
Mod. FCL	32	34	42	44	62	64	82	122	124
GLLI10	•	•	•	•	•	•			
GLLI20							•	•	•
WMT20	•	•	•	•	•	•	•	•	•
GLLI10N	•	•	•	•	•	•			
GLLI20N							•	•	•
VMF-E4 *	•	•	•	•	•	•	•	•	•
FCLMC10	•	•	•	•	•	•			
FCLMC20 **							•	•	•
FCLMC20IK **							•	•	•
FEL10	•	•	•	•	•	•			
KFL	•	•	•	•	•	•			
KFL20							•	•	•
KFLD	•	•	•	•	•	•			
KFLD20							•	•	•
VHL1		•		•		•			•
VHL2		•		•		•			•
SWI	•	•	•	•	•	•	•	•	•
SW4 *	•	•	•	•	•	•	•	•	•
VMF-SW1 *		•		•		•			•

* Accessory for GLLI_N

** FCLMC20 requires the combination with the FCLMC20IK accessory

Technical data

FCL I			32			34			42			44			62			64		
Fan speed			H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
Heating Performance																				
2 pipe configuration																				
Heating capacity (70°C)	(1)	kW	4,00	2,95	2,22	/	/	/	7,34	4,47	3,32	/	/	/	10,49	6,37	5,19	/	/	/
Water flow rate	(1)	l/h	350	258	194	/	/	/	642	391	290	/	/	/	918	558	454	/	/	/
Pressure drops	(1)	kPa	10	6	4	/	/	/	24	10	6	/	/	/	42	17	12	/	/	/
Heating capacity (50°C)	(2)	kW	2,38	1,76	1,33	/	/	/	4,40	2,69	2,00	/	/	/	6,25	3,83	3,10	/	/	/
Water flow rate	(2)	l/h	327	253	200	/	/	/	679	437	337	/	/	/	856	551	458	/	/	/
Pressure drops	(2)	kPa	9	6	3.8	/	/	/	27	12	8	/	/	/	37	17	12	/	/	/
Heating capacity (45°C)	(3)	kW	1,99	1,47	1,10	/	/	/	3,65	2,23	1,65	/	/	/	5,22	3,17	2,58	/	/	/
Water flow rate	(3)	l/h	345	254	192	/	/	/	633	386	287	/	/	/	905	550	448	/	/	/
Pressure drops	(3)	kPa	10	6	4	/	/	/	23	10	6	/	/	/	41	17	11	/	/	/
4 Pipe configuration with Additional Heat Exchanger																				
Heating capacity (70°C)	(4)	kW	/	/	/	2,60	2,19	1,95	/	/	/	3,07	2,28	1,96	/	/	/	3,57	2,81	2,48
Water flow rate	(4)	l/h	/	/	/	228	192	171	/	/	/	269	200	172	/	/	/	312	246	217
Pressure drops	(4)	kPa	/	/	/	11,4	8,4	6,8	/	/	/	14,5	8,5	6,5	/	/	/	22,9	14,8	11,9
Cooling Performance																				
Total cooling capacity	(5)	kW	1,90	1,47	1,16	1,90	1,47	1,16	3,95	2,54	1,96	3,64	2,30	1,83	4,98	3,21	2,66	4,61	2,96	2,46
Sensible cooling capacity	(5)	kW	0,99	1,25	1,52	1,52	1,25	0,99	3,16	1,82	1,38	2,91	1,62	1,30	3,81	2,24	1,87	3,53	2,08	1,73
Water flow rate	(5)	l/h	327	253	200	327	253	200	679	437	337	626	396	314	856	551	458	793	510	424
Pressure drops	(5)	kPa	11,7	7,4	4,8	12,7	8	5,2	32,4	14,7	9,2	31,7	13,9	9,2	47,8	21,6	15,5	50,3	22,7	16,3
Water content		l	1,2			1,2			1,5			1,5			2,1			2,1		
Fans																				
Fan	type/n°	centrifugal/1																		
Air flow rate	m³/h	600	410	300	600	410	300	700	360	260	700	360	260	880	500	380	880	500	380	
Sound data																				
Sound power level	(6)	dB(A)	46	38	35	46	38	35	53	39	35	53	39	35	61	47	41	61	47	41
Sound pressure level		dB(A)	37	29	26	37	29	26	44	30	26	44	30	26	52	38	32	52	38	32
Diameter connections																				
Standard coil	Ø	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			
Additional coil	Ø	/			1/2"			/			1/2"			/			1/2"			
Increased coil	Ø	/			/			/			/			/			/			
Electrical Features																				
Absorbed power	W	18	13	10	18	13	10	55	16	12	55	16	12	61	20	14	61	20	14	
Max. input current	A	0,28			0,28			0,43			0,43			0,47			0,47			
Signal 0-10V	%	90	62	42	90	62	42	90	46	34	90	46	34	90	52	40	90	52	40	
Power supply	V/ph/Hz	230V~50Hz																		
Energy Efficiency classification (EUROVENT)																				
FCEER		D			D			D			C			C			D			
FCCOP	(7)	D			D			D			D			C			D			

FCL			82			122			124		
Fan speed			H	M	L	H	M	L	H	M	L
Heating Performance											
2 pipe configuration											
Heating capacity (70°C)	(1)	kW	11,88	8,12	5,88	21,75	14,73	10,53	/	/	/
Water flow rate	(1)	l/h	1039	710	514	1903	1289	921	/	/	/
Pressure drops	(1)	kPa	26	13	7	42	21	11	/	/	/
Heating capacity (50°C)	(2)	kW	7,10	4,85	3,50	13,00	8,80	6,30	/	/	/
Water flow rate	(2)	l/h	1032	695	482	1893	1292	921	/	/	/
Pressure drops	(2)	kPa	26	13	7	41	21	11	/	/	/
Heating capacity (45°C)	(3)	kW	5,91	4,04	2,92	10,82	7,33	5,24	/	/	/
Water flow rate	(3)	l/h	1025	701	507	1877	1271	909	/	/	/
Pressure drops	(3)	kPa	25	13	7	41	20	11	/	/	/
4 Pipe configuration with Additional Heat Exchanger											
Heating capacity (70°C)	(4)	kW	/	/	/	/	/	/	12,50	9,30	7,05
Water flow rate	(4)	l/h	/	/	/	/	/	/	1094	814	617
Pressure drops	(4)	kPa	/	/	/	/	/	/	30,1	17,7	10,7
Cooling Performance											
Total cooling capacity	(5)	kW	6,00	4,04	2,80	11,00	7,51	5,36	8,80	6,21	4,57
Sensible cooling capacity	(5)	kW	4,20	2,76	1,90	8,47	5,74	4,04	6,77	4,67	3,37
Water flow rate	(5)	l/h	1032	695	482	1893	1292	921	1513	1068	786
Pressure drops	(5)	kPa	34,7	17	8,8	60,1	30,2	16,4	52,3	28	16,1
Water content	l		3,0			4,5			4,5		
Fans											
Fan	type/n°		centrifugal/1								
Air flow rate	m³/h		1100	680	460	1750	1100	750	1750	1100	750
Sound data											
Sound power level	(6)	dB(A)	50	43	39	60	50	44	60	50	44
Sound pressure level		dB(A)	41	34	30	51	41	35	51	41	35
Diameter connections											
Standard coil	Ø		3/4"			3/4"			3/4"		
Additional coil	Ø		/			/			1/2"		
Increased coil	Ø		/			/			/		
Electrical Features											
Absorbed power	W		33	14	9	135	33	16	135	33	16
Max. input current	A		0,71			0,80			0,80		
Signal 0-10V	%		90	54	38	90	58	38	90	58	38
Power supply	V/ph/Hz										
Energy Efficiency classification (EUROVENT)											
FCEER			D			D			D		
FCCOP	(7)		D			D			D		

H max. speed; M med.speed; L min.speed

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

(2) Room air 20°C b.s.; Water (in) 50°C; Water flow rate as in cooling mode (EUROVENT)

(3) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)

(4) Room air 20°C b.s.; Water (in/out) 70°C/60°C (EUROVENT)

(5) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

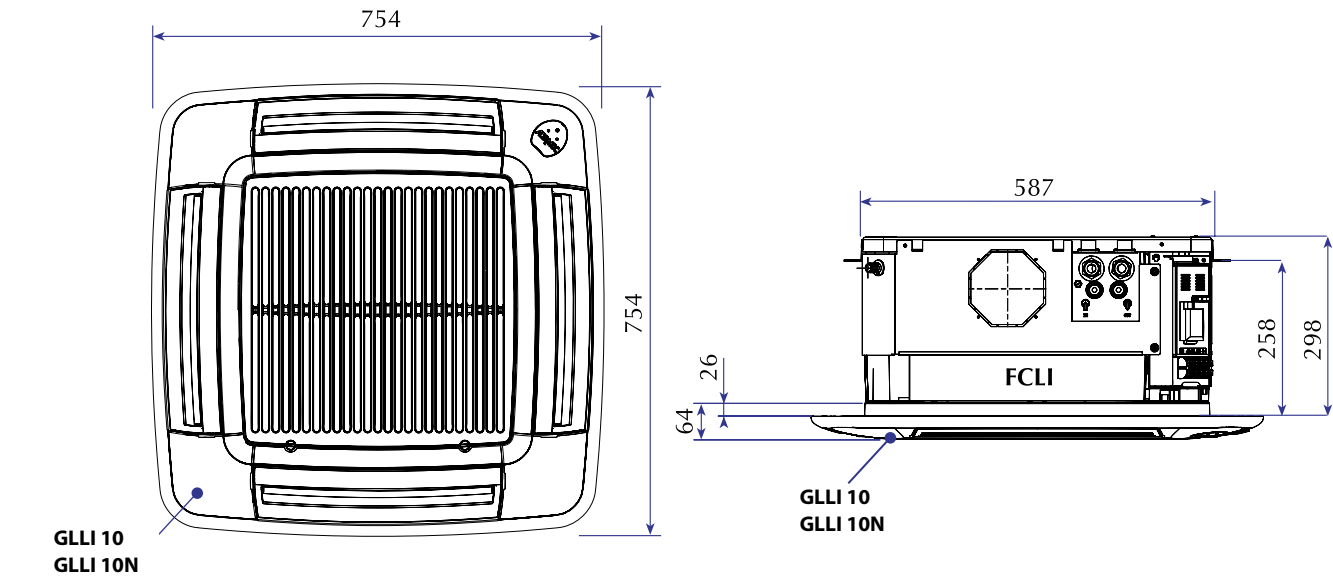
(6) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

(7) FCCOP Related to: Room air 20°C b.s.; Water (in) 50°C; Water flow rate as in cooling mode

Sound pressure level (A-weighted) measured in the room with volume V=100 m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

Dimensions (mm)

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

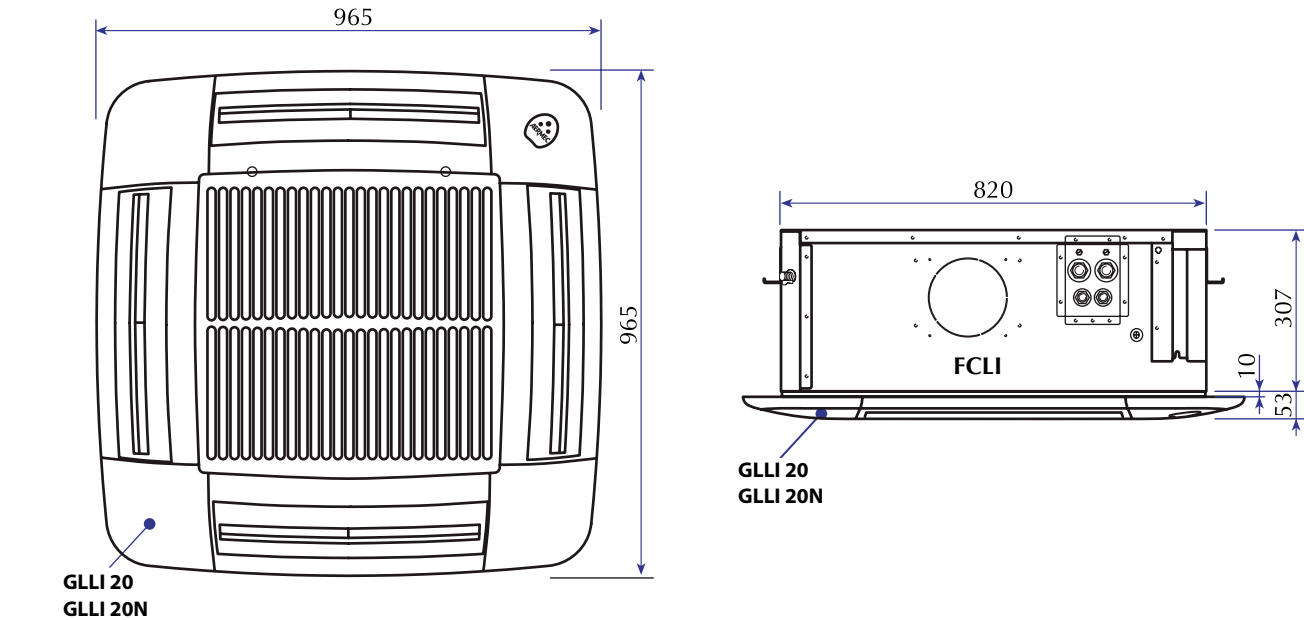


Mod. FCLI		32	34	42	44	62	64
Weight	kg	20,5	21	20,5	21	22	22,5

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

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions

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