FCLI

Fan coil for box installation

- **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 modularity of false ceilings, whereas the larger sizes (measuring 800x800) are designed for quiet operation and optimum performance of these large models.

Load-bearing structure

Models with a 600x600 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 800x800 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 microproccessor control

ACCESSORIES

Intake grids and distribution of the air, compulsory accessory

GLFI10: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600; 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 800x800 not available).

GLFI10EH: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600; adapts perfectly to standard false ceilings without overlapping parts. Suitable for use with the RXLE heater (managed via an external thermostat, supplied by Aermec or another manufacturer). 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 800x800 not available).

GLFI10M: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600; adapts perfectly to standard false ceilings without overlapping parts. Fitted with an infrared receiver with an emergency operation button. 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 800x800 not available).

GLFI10N: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600; 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 orientated with the remote control (size 800x800 not available).

GLLI100: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600; 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; adapts perfectly to standard false ceilings without overlapping parts. Suitable for use with the RXLE heater (managed via an external thermostat, supplied by Aermec or another manufacturer). 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.

GLLI100N: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600; 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.

GLLI20: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 840x840; 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; 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.

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: Expansion board that extends the availability of digital inputs and outputs (configured via the dip switches).

VMF-IR: User interface, only available in combination with the GLF M or GLFI M grille and supplied in the form of an infrared remote control.

VMF-SW: Water temperature probe.

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

Control panels and their accessories

AER503: Wall-mounted panel.

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

SWAI: External air or water temperature probe.

TX: Electronic control panel.

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 electrothermal 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.

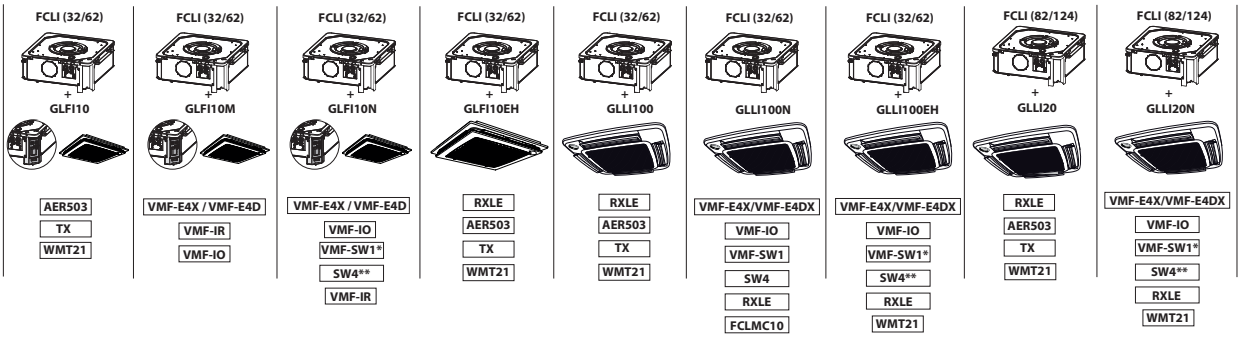
KFLD20: Suction flange, allows to introduce external air directly into the room without mixing. Up to two KFL20D can be assembled on a single unit.

FCLMC10: Perimeter housing in painted galvanised sheet metal, 600x600, 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, 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 that can be combined with the grilles



* : For 4-pipe system
** : Standard coils

ACCESSORIES COMPATIBILITY

Intake grids and distribution of the air

Model	Ver	32	34	42	44	62	64	82	122	124
GLFI10 (1)	FCLI,V2,VL	•	•	•	•	•	•			
GLFI10EH (2)	FCLI,V2,VL	•	•	•	•	•	•			
GLFI10M (3)	FCLI,V2,VL	•	•	•	•	•	•			
GLFI10N (3)	FCLI,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
GLLI100 (1)	FCLI,V2,VL	•	•	•	•	•	•			
GLLI100EH (2)	FCLI,V2,VL	•	•	•	•	•	•			
GLLI100N (3)	FCLI,V2,VL	•	•	•	•	•	•			
GLLI20 (1)	FCLI,V2,VL							•	•	•
GLLI20N (3)	FCLI,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.

VMF system

Model	Ver	32	34	42	44	62	64	82	122	124
VMF-E4DX	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
VMF-E4X	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
VMF-IO	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
VMF-IR	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
VMF-SW	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
VMF-SW1	FCLI,V2,VL	•	•	•	•	•	•	•	•	•

Control panels and dedicated accessories

Model	Ver	32	34	42	44	62	64	82	122	124
AER503	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
SW4	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
SWAI (1)	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
TX (2)	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
WMT21	FCLI,V2,VL	•	•	•	•	•	•	•	•	•

(1) Probe for thermostat WMT21.
(2) Wall-mount installation.

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	FCLI,V2,VL	•	•	•	•	•	•			

Delivery and suction flange

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

Perimeter case

Model	Ver	32	34	42	44	62	64	82	122	124
FCLMC10 (1)	FCLI,V2,VL	•	•	•	•	•	•			
FCLMC20 (1)	FCLI,V2,VL							•	•	•
FCLMC20IK (2)	FCLI,V2,VL							•	•	•

(1) Can only be combined with GLL/GLLI grilles
(2) Mandatory for units with FCLMC20.

PERFORMANCE SPECIFICATIONS

2-pipe

		FCLI32			FCLI42			FCLI62			FCLI82			FCLI122		
		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	m^3/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	44,0	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
Diametre 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.

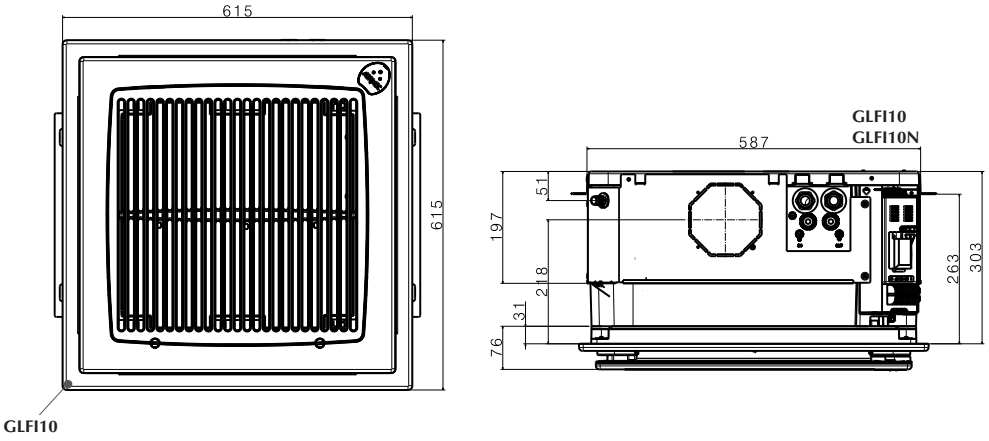
4-pipe

		FCLI34			FCLI44			FCLI64			FCLI124		
		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	m^3/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	53,0	38,0	39,0	53,0	41,0	47,0	61,0	44,0	52,0	60,0
Sound pressure	dB(A)	26,0	29,0	44,0	29,0	30,0	44,0	32,0	38,0	52,0	35,0	41,0	51,0
Diametre hydraulic fittings													
Main coil	Ø	3/4"											
Secondary coil	Ø	1/2"											
Power supply													
Power supply		230V~50Hz											

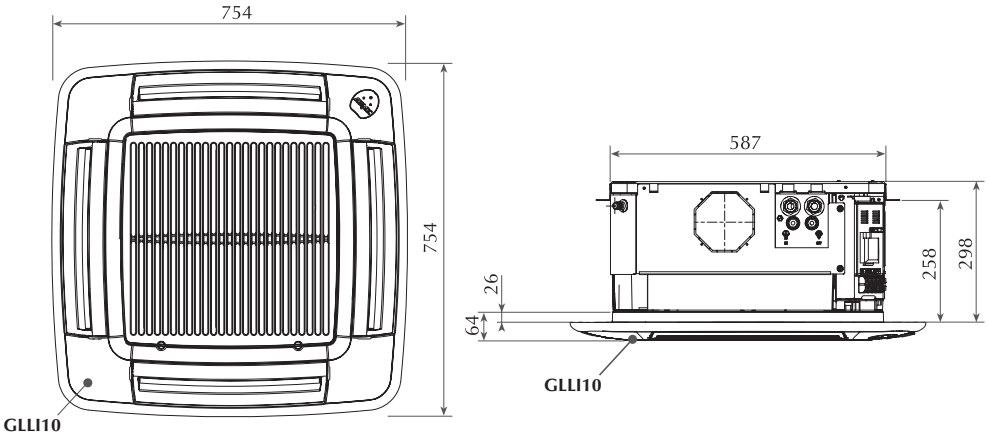
(1) Room air temperature 20 °C d.b.; Water (in/out) 65 °C/55 °C;
(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(3) For the cassettes, Aermec determines the value of the sound power on the basis of measurements carried out in accordance with the standard UNI EN 16583:15, 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

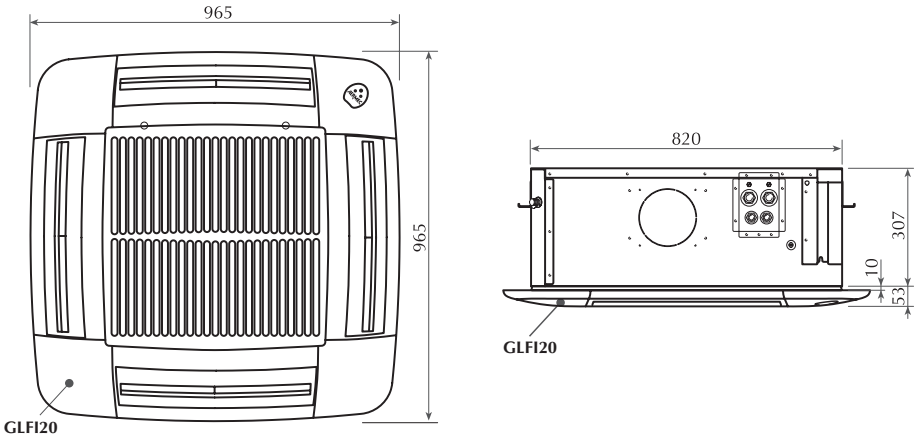
Dimensions FCLI 32 - 34 - 42 - 44 - 62 - 64 con GLFI



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											
Weight empty	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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