

FCZI

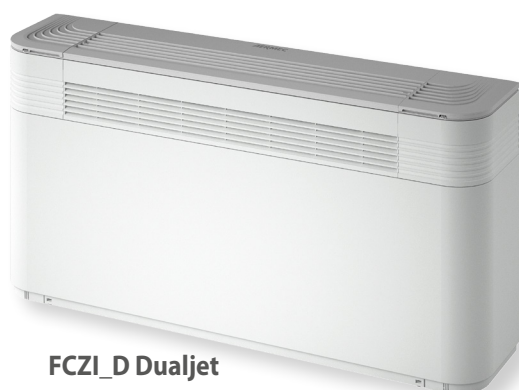
**Fan coils with Inverter Brushless motor (EC)
Universal and floor installation**



Aermec is participating in the EUROVENT Program : FCH The related products can be found at the website www.eurovent-certification.com

Variable Multi Flow

VMF



FCZI_D Dualjet



FCZI_ACT

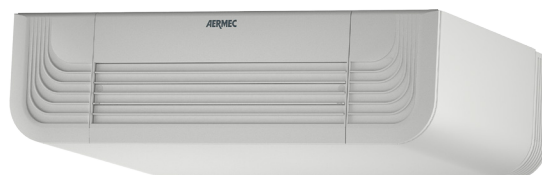


Programming
via smart devices
using Therm App



Electronic T-Touch controller

FCZI_U



- **ELECTRIC SAVING EQUAL TO 50% COMPARED TO A FAN COIL WITH 3-SPEED MOTOR**
- **ADVANCED CONTROLLER ALLOWING PROGRAMMING VIA SMART DEVICES**
- **DUALJET VERSION FOR HIGHEST FOUR-SEASON COMFORT**

Features

Drawing from its wide experience in the field of fan coils, Aermec presents the new FCZI series: the elegant design goes hand in hand with low noise and important energy savings.

inverter motor allows precise adaptation to the real indoor environment requirements without temperature oscillations.

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). In term of noise, in any operating condition exceptional values have been observed.

FCZI can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures, and thanks to varied versions and settings, it is easy to pick the ideal solution for any need.

Versions without installed controller,

Vertical or horizontal installation:

FCZI_U

Vertical installation:

FCZI_AS

With installed controller,

Vertical installation:

FCZI_DT (available from July 2016)

FCZI_D (available from July 2016)

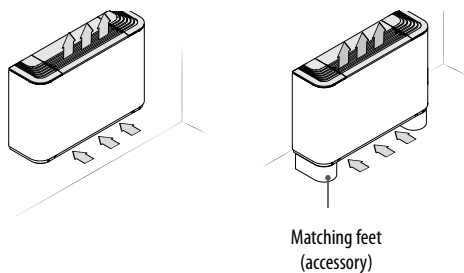
FCZI_ACT

- housing RAL9003, grille/feet RAL 7047
- Brushless motor with 0-100% speed continuous variation to guarantee best performance at very low sound level
- Centrifugal fan designed to guarantee continuous modulation of the air flow rate and to increase comfort and electric saving.
- Metallic protective cabinet with rustproofing polyester paint
- Adjustable air distribution grille (U version)
- Automatic power-off function with closure of the air delivery grille, (U version)
- Low loss of charge in the heat exchanger

- Easy installation and maintenance
- G2 air filter for all versions.
- Extractable shrouds for easy, effective cleaning
- Water connections can be reversed during installation phase
- **The ThermApp application (applicable with T-TOUCH controller) operates by simply placing a smart device on the fan coil. The App allows working mode and time schedule programming, sleep mode activation, alarm listing, etc. ThermApp is available for Android Operating Systems.**

Configurations available

With fixed grille (vertical free-standing) - A



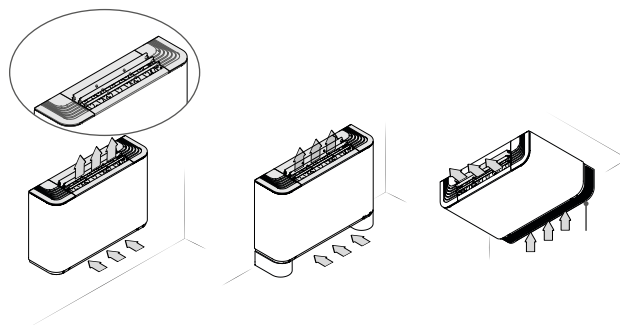
- **FCZ_AS**
Without installed controller
- Compatible with VMF system
- **FCZ_ACT**
- With electronic controller (for 2 pipe systems)

Vertical installation only

- For 2/4 pipe systems

With adjustable/fixed grille (Universal) - U

With adjustable air distribution grille - U



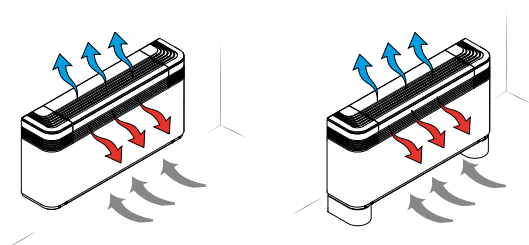
- **FCZI_U**
 - Without installed controller
 - Compatible with VMF system
 - Adjustable air distribution grille
 - Single for size 2-3
 - Three independent for sizes 4-5-7

With the flap completely closed the unit is off

Vertical or horizontal installation

- For 2/4 pipe systems

With double flow (Dualjet) - D



Dualjet, unique to Aermec, offers notably improved seasonal comfort by directing the air flow according to the season. In winter warm air is directed towards the floor; in summer cool air is directed towards the ceiling.

- **FCZI_D** With installed controller
- **FCZI_DT** With installed controller T-Touch

FCZ_D units are compatible with the the VMF system, in this case you will need to contact the headquarter

- You can change the air supply orientation, frontal or from above, by acting directly on the adjustable grid.

Only vertical installation

- For 2 pipe system (4 pipe system with VCF_X4 , VMF system or FCZI_DT)

Unit selection

By appropriately combining the variety of options available, each model can be configured in order to meet all specific system requirements.

Field	Code
1,2,3,4	FCZI
5	Size
	2-3-4-5-7-9
6	Main coil
	0 Standard
	5 Oversized (1)
7	Supplementary coil
	0 Without coil
	1 Standard
	2 Oversized
8,9	Versions
	D Dualjet with installed controller (2)
	DT With installed controller T-Touch (2)
	AS Free standing without installed switch
	ACT Free standing with electronic controller
	U Universal with adjustable grille, without installed controller

(1) Oversized coil "5" does not allow the installation of the supplementary coil "1 or 2"

(2) Available from July 2016

Size available for version

Versioni	Size available main coil only (2 pipes)											
FCZI	200	250	300	350	400	450	500	550	700	750	900	950
AS
ACT
U
D	.	/	.	/	.	/	.	/	/	/	/	/
DT	.	/	.	/	.	/	.	/	/	/	/	/

Versioni	Size available main and supplementary coil (4 pipes)											
FCZI	201	202	301	302	401	402	501	502	701	702	901	
AS
ACT
U
D	/	/	/	/	/	/	/	/	/	/	/	/
DT	/	/	/	/	/	/	/	/	/	/	/	/

Accessories

T-TOUCH: Touch controller mounted on-board. allows remote control with (Android) smart devices using the ThermApp application.

A range of dedicated controls, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

Probes and accessories for control panels

- **WMT21:** Electronic thermostat with LCD display (wall installation).
- **SWAI:** Water temperature probe for WMT21 control panels. Cable length L=2m.
- **PTI22:** Electronic thermostat on board the fan coil

VMF system

- **VMF-E2Z:** User interface for mounting on with two selectors: one to control the temperature and one for the speed
- **VMF-E4:** Wall mounted user interface allowing control via a capacitive touch keyboard.
- **VMF-E5:** Wall recessed panel allowing control of a complete hydronic system via a capacitive touch keyboard.
- **VMF-E18:** Thermostat for serial communication

- **VMF-SW:** water sensor replacing that supplied with VMF-E1 thermostats for installation upstream of the valve.

- **VMF-SW1:** additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.

Coil - Hot water

- **BV:** Single row hot water heat exchanger

Valve kit

- **VCZ_X4:** Valve kits for single coil units, installed in 4 pipe systems with totally separated "Cooling" and "Heating" circuits. The kit consists of 2 valves with 3-way 4 port connection complete with electro-thermal actuators, insulating shells for the valves and associated hydraulic piping. The VCF1X4L valve kit allows left side connection.
- **VCZ or VCF:** kit containing a motorised 3-way valve with insulating shell plus coupling and pipes in insulated copper. Applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
- **VCZD or VCFD:** Kit consisting of powered 2-way valve, copper Applicable for standard or oversized

main coil. Available with 230V and 24V~50Hz power supply.

Installation accessoires

- **AMP:** kit for the wall mounting installation.
- **DSC4:** Condensate drainage device for use when natural run-off is not possible.
- **BC:** Auxiliary condensate drip tray
- **GA:** Grille to hide hydraulics and electrics on ceiling mounted units; also applicable for floor installation.
- **ZXZ:** Copy of esthetical and structural feet

Refer to dedicated product Leaflet for further details concerning control panel and VMF System

Compatibility of accessories

		Single coil model											
FCZI		200	250	300	350	400	450	500	550	700	750	900	950

Probes and accessories for control panels

T-TOUCH	AS-U	•	•	•	•	•	•	•	•	•	•	•	•
PTI2Z	AS-U	•	•	•	•	•	•	•	•	•	•	•	•
WMT21	AS-U	•	•	•	•	•	•	•	•	•	•	•	•
SWAI	AS-U	•	•	•	•	•	•	•	•	•	•	•	•

VMF System

VMF-E18	AS-U-D*	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E2Z	AS-U	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4	AS-U	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E5	AS-U	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW	AS-U	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW1	AS-U	•	•	•	•	•	•	•	•	•	•	•	•

Additional coil (heating only)

BV122	All	•											
BV132	All			•									
BV142	All					•		•					
BVZ800	All									•			
BV162	All											•	

Water valves

Valve Kit for 4 pipe systems with main coil

VCZ1X4L-R	AS-U-(D+sist. VMF or DT)	•	•										
VCZ2X4L-R	AS-U-(D+sist. VMF or DT)			•	•	•	•	•	•	•	•		
VCZ3X4L-R	AS-U-(D+sist. VMF or DT)											•	•

3 way valve kit

VCZ41/4124	All	(1)	•	•									
VCZ42/4224	All	(1)			•	•	•	•	•	•	•	•	
VCZ43/4324	All	(1)										•	•

2 way valve kit

VCZD1/124	All	(1)	•	•									
VCZD2/224	All	(1)			•	•	•	•	•	•	•	•	
VCZD3/324	All	(1)										•	•

Installation accessories

AMP20	U-UA		•	•	•	•	•	•	•	•	•		
AMPZ	U-UA		•	•	•	•	•	•	•	•	•	•	•
DSC4	All	(2)	•	•	•	•	•	•	•	•	•	•	•

Panel to close rear of unit

PCZ200	All		•	•									
PCZ300	All				•	•							
PCZ500	All						•	•	•	•			
PCZ800	All									•	•		
PCZ1000	All											•	•

Grille for ceiling mounted units

GA200			•	•									
GA300					•	•							
GA500							•	•	•	•			
GA800										•	•	•	•
ZXZ	All		•	•	•	•	•	•	•	•	•	•	•

For further details concerning control panels and VMF system refer to the dedicated sheets.

* Contact Aermec

(1) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324 are 24V

(2) DSC4 is not available with AMPZ

Compatibility of accessories

			Twin coil model										
FCZI			201	202	301	302	401	402	501	502	701	702	901
Probes and accessories for control panels													
T-TOUCH	AS-U		•	•	•	•	•	•	•	•	•	•	•
PTI2Z	AS-U		•	•	•	•	•	•	•	•	•	•	•
WMT21	AS-U		•	•	•	•	•	•	•	•	•	•	•
SWAI	AS-U		•	•	•	•	•	•	•	•	•	•	•
VMF System													
VMF-E18	AS-U		•	•	•	•	•	•	•	•	•	•	•
VMF-E2Z	AS-U		•	•	•	•	•	•	•	•	•	•	•
VMF-E4	AS-U		•	•	•	•	•	•	•	•	•	•	•
VMF-E5	AS-U		•	•	•	•	•	•	•	•	•	•	•
VMF-SW	AS-U		•	•	•	•	•	•	•	•	•	•	•
VMF-SW1	AS-U		•	•	•	•	•	•	•	•	•	•	•
Water valves													
3 way valve kit													
VCZ41/4124	All	(1)	•	•									
VCZ42/4224	All	(1)			•	•	•	•	•	•	•	•	
VCF43/4324	All	(1)											•
2 way valve kit													
VCZD1/124	All	(1)	•	•									
VCZD2/224	All	(1)			•	•	•	•	•	•	•	•	
VCFD3/324	All	(1)											•
3 way valve kit for heating coil only													
VCZ44/4424	All	(1)	•	•	•	•	•	•	•	•	•	•	
VCF45/4524	All	(1)											•
2 way valve kit for heating coil only													
VCFD4/424	All	(1)	•	•	•	•	•	•	•	•	•	•	•
Installation accessories													
AMP20	U		•	•	•	•	•	•	•	•			
AMPZ	U		•	•	•	•	•	•	•	•	•	•	•
DSC4	All	(2)	•	•	•	•	•	•	•	•	•	•	•
Panel to close rear of unit													
PCZ200	All		•	•									
PCZ300	All				•	•							
PCZ500	All						•	•	•	•			
PCZ800	All										•	•	
PCZ1000	All												•
Grille for ceiling mounted units													
GA200			•	•									
GA300					•	•							
GA500							•	•	•	•			
GA800											•	•	•
ZXZ	All		•	•	•	•	•	•	•	•	•	•	•

For further concerning control panels and VMF system refer to the dedicated sheets.

(1) VCZ4124-VCZ4224-VCF4324-VCZD124-VCZD224-VCFD324-VCZ4424-VCF4524-VCFD424 are 24V

(2) DSC4 is not available with AMPZ

Technical data - with single coil

FCZI			200			250			300			350			400			450			
Fan speed			H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Heating Performance																					
2 pipe systems																					
Heating capacity (70°C)		(1)	kW	3,70	2,95	2,02	4,05	3,18	2,20	5,50	4,46	3,47	6,15	4,92	3,77	7,15	5,74	4,32	7,82	6,29	4,57
Water flow rate		(1)	l/h	318	253	173	348	273	189	473	383	298	529	423	324	615	493	371	672	532	393
Pressure drop		(1)	kPa	20	13	7	31	20	11	17	12	7	28	19	12	32	21	11	22	13	9
Heating capacity (45°C)		(3)	kW	1,84	1,47	1,00	2,01	1,58	1,09	2,74	2,22	1,72	3,06	2,45	1,87	3,56	2,85	2,15	3,89	3,13	2,27
Water flow rate		(3)	l/h	319	254	174	350	274	190	475	385	299	531	425	325	617	495	373	675	543	394
Pressure drop		(3)	kPa	20	13	7	31	20	11	17	12	7	28	19	12	32	21	11	22	14	9
Cooling Performance																					
Total cooling capacity		(4)	kW	1,60	1,29	0,89	1,94	1,56	1,06	2,65	2,18	1,68	3,03	2,46	1,89	3,60	2,93	2,21	4,04	3,21	2,41
Sensible cooling capacity		(4)	kW	1,33	1,05	0,71	1,52	1,20	0,80	2,04	1,65	1,26	2,18	1,76	1,33	2,67	2,14	1,59	2,91	2,30	1,69
Water flow rate		(4)	l/h	275	221	153	334	267	182	456	374	288	560	460	350	619	503	379	694	552	414
Pressure drop		(4)	kPa	18	12	6	35	25	13	18	13	8	35	25	15	34	26	19	32	24	18
Fans																					
Centrifugal Fans			n°	1			2			2			2			2			2		
Air flow rate			m³/h	290	220	140	290	220	140	450	350	260	450	350	260	600	460	330	600	460	330
Sound level																					
Sound power level		(5)	dB(A)	50	43	31	50	43	31	48	41	34	48	41	34	51	44	39	51	44	39
Sound pressure level			dB(A)	42	35	23	42	35	23	40	33	26	40	33	26	43	36	31	43	36	31
Hydraulic connections																					
Main coil																					
Standard		Ø	1/2"			/			3/4"			/			3/4"			/			
Oversized		Ø	/			1/2"			/			3/4"			/			3/4"			
Electrical data																					
Absorbed power		W	12	8	5	12	8	5	13	7	4	13	7	4	17	9	6	17	9	6	
Power supply		V/ph/Hz	230V~50Hz																		

FCZI			500			550			700			750			900			950			
Fan speed			H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Heating Performance																					
2 pipe systems																					
Heating capacity (70°C)		(1)	kW	8,50	7,31	5,27	9,75	8,34	5,82	11,00	9,80	8,10	12,50	11,30	9,10	15,14	13,35	10,77	17,10	14,42	11,20
Water flow rate		(1)	l/h	731	629	453	838	717	500	946	843	696	1075	972	782	1328	1171	945	1500	1295	982
Pressure drop		(1)	kPa	42	42	42	33	25	14	37	30	21	20	16	11	21	16	11	32	23	15
Heating capacity (45°C)		(3)	kW	4,23	3,64	2,62	4,85	4,15	2,90	5,47	4,88	4,03	6,22	5,62	4,53	7,53	6,64	5,36	8,51	7,17	5,57
Water flow rate		(3)	l/h	734	631	455	842	720	502	950	846	699	1079	975	786	1307	1152	930	1476	1245	967
Pressure drop		(3)	kPa	43	43	43	33	25	14	37	30	21	20	17	11	20	15	11	31	21	15
Cooling Performance																					
Total cooling capacity		(4)	kW	4,25	3,69	2,68	4,80	4,13	2,91	5,50	4,89	3,92	6,14	5,34	4,27	6,91	5,00	4,29	8,60	7,32	5,77
Sensible cooling capacity		(4)	kW	3,18	2,73	1,94	3,49	2,98	2,07	4,31	3,76	2,99	4,72	4,06	3,20	5,68	3,78	2,97	5,78	4,87	2,80
Water flow rate		(4)	l/h	731	634	460	824	711	501	946	841	675	1056	918	734	1189	860	738	1479	1259	992
Pressure drop		(4)	kPa	49	42	25	46	34	18	35	28	19	18	14	9	22	12	9	30	22	15
Fans																					
Centrifugal Fans			n°	2						3						3					
Air flow rate			m³/h	720	600	400	720	600	400	1140	930	700	1140	930	700	1140	930	700	1140	930	700
Sound level																					
Sound power level		(5)	dB(A)	56	51	42	56	51	42	61	57	51	61	57	51	61	57	51	61	57	51
Sound pressure level			dB(A)	48	43	34	48	43	34	53	49	43	53	49	43	53	49	43	53	49	43
Hydraulic connections																					
Main coil																					
Standard		Ø	3/4"			/			3/4"			/			3/4"			/			
Oversized		Ø	/			3/4"			/			3/4"			/			3/4"			
Electrical data																					
Absorbed power		W	37	20	8	37	20	8	80	40	30	80	40	30	80	40	30	80	40	30	
Power supply		V/ph/Hz	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) Sound power level: based on mesurement in compliance with Eurovent 8/2
Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

Technical data - with main + supplementary coil

FCZI			201			202			301			302			401			402			
Fan speed			H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Heating Performance																					
4 pipe systems																					
Heating capacity		(1)	kW	1,80	1,52	1,14	3,05	2,49	1,76	2,87	2,45	2,02	4,84	4,01	3,18	3,50	2,97	2,38	5,92	4,86	3,75
Water flow rate		(1)	l/h	155	130	98	262	214	152	247	210	174	416	345	274	301	255	205	509	418	322
Pressure drop		(1)	kPa	12	9	6	9	6	4	36	27	19	27	19	13	10	8	5	9	5	4
Cooling Performance																					
Total cooling capacity		(2)	kW	1,60	1,29	0,89	1,60	1,29	0,89	2,65	2,18	1,68	2,65	2,18	1,68	3,60	2,93	2,21	3,60	2,93	2,21
Sensible cooling capacity		(2)	kW	1,33	1,05	0,71	1,33	1,05	0,71	2,04	1,65	1,26	2,04	1,65	1,26	2,67	2,14	1,59	2,67	2,14	1,59
Water flow rate		(2)	l/h	275	221	153	275	221	153	456	374	288	456	374	288	619	503	379	619	503	379
Pressure drop		(2)	kPa	18	12	6	18	12	6	18	13	8	18	13	8	34	26	19	34	26	19
Fans																					
Centrifugal Fans		n°	1						2						2						
Air flow rate		m³/h	290	220	140	290	220	140	450	350	260	450	350	260	600	460	330	600	460	330	
Sound level																					
Sound power level		(3)	dB(A)	50	43	31	50	43	31	48	41	34	48	41	34	51	44	39	51	44	39
Sound pressure level			dB(A)	42	35	23	42	35	23	40	33	26	40	33	26	43	36	31	43	36	31
Hydraulic connections																					
Main coil																					
Standard		Ø	1/2"						3/4"						3/4"						
Additional coil																					
Standard		Ø	1/2"			1/2"			3/4"			3/4"			3/4"			3/4"			
Oversized		Ø	1/2"			1/2"			1/2"			1/2"			1/2"			1/2"			
Electrical data																					
Absorbed power		W	12	8	5	12	8	5	13	7	4	13	7	4	17	9	6	17	9	6	
Power supply		V/ph/Hz	230V~50Hz																		

FCZI		501			502			701			702			901				
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L		
Heating Performance																		
4 pipe systems																		
Heating capacity		(1)	kW	4,18	3,74	2,90	7,21	6,33	4,66	5,54	4,80	4,10	9,85	8,37	6,98	6,41	6,30	5,30
Water flow rate		(1)	l/h	360	322	249	619	544	401	476	413	353	847	720	600	562	553	465
Pressure drop		(1)	kPa	12	10	6	9	8	4	25	19	18	20	15	13	15	14	11
Cooling Performance																		
Total cooling capacity		(2)	kW	4,25	3,69	2,68	4,25	3,69	2,68	5,50	4,89	3,92	5,50	4,89	3,92	6,91	5,00	4,29
Sensible cooling capacity		(2)	kW	3,18	2,73	1,94	3,18	2,73	1,94	4,31	3,76	2,99	4,31	3,76	2,99	5,68	3,78	2,97
Water flow rate		(2)	l/h	731	634	460	731	634	460	946	841	675	946	841	675	1189	860	738
Pressure drop		(2)	kPa	49	42	25	49	42	25	35	28	19	35	28	19	22	12	9
Fans																		
Centrifugal Fans		n°	2					3					3					
Air flow rate		m³/h	720	600	400	720	600	400	1140	930	700	1140	930	700	1140	930	700	
Sound level																		
Sound power level		(3)	dB(A)	56	51	42	56	51	42	61	57	51	61	57	51	61	57	51
Sound pressure level			dB(A)	48	43	34	48	43	34	53	49	43	53	49	43	53	49	43
Hydraulic connections																		
Main coil																		
Standard		Ø	3/4"					3/4"					3/4"					
Additional coil																		
Standard		Ø	3/4"			3/4"			3/4"			3/4"			3/4"			
Oversized		Ø	1/2"			1/2"			1/2"			1/2"			1/2"			
Electrical data																		
Absorbed power		W	37	20	8	37	20	8	80	40	30	80	40	30	80	40	30	
Power supply		V/ph/Hz	230V~50Hz															

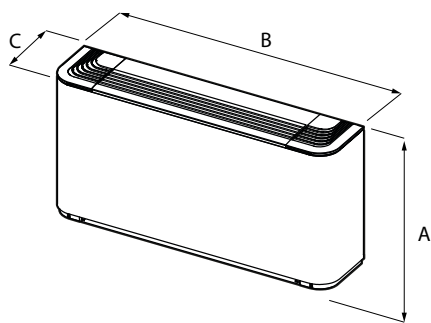
(1) Room air temperature 20°C d.b.; Water (in/out) 70°C/60°C;

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

(3) Sound power level: based on mesurement in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

Dimensions and Weights



FCZI			200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	/	950
Dimensions for all versions																										
Height	A	mm	486				486				486				486				486				591			
Height with feet		mm	576				576				576				576				576				681			
Width	B	mm	750				980				1200				1200				1320				1320			
Depth	C	mm	220				220				220				220				220				220			
Weight		kg	15	15	16	16	17	17	18	18	22	23	24	24	22	23	24	24	29	30	31	31	34			

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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