FCZI EU

Fan coil for universal and floor installation

Cooling capacity 2.2 ÷ 26 MBtu/h
Heating capacity 4.9 ÷ 58.1 MBtu/h

- **Electric saving equal to 50% with respect to a fan coil with 3-speed motor**
- **Total comfort: reduced variations in temperature and relative humidity**
- **Vertical and horizontal installation**
- **Very quiet**

Intertek

DESCRIPTION

fan coil 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.

FEATURES

Case

Protective metal cabinet with anti-corrosion polyester RAL 9003 paint, whereas the head with the air distribution grille is in RAL 7047 plastic.

Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.
Their characteristics permit energy savings compared to conventional fans.
They are statically and dynamically balanced and directly coupled to the motor shaft.
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.

Finned pack heat exchanger

With copper pipes and aluminium louvers, the standard or oversized heat exchanger and the possible secondary heat exchanger have female gas water connections on the left side and the manifolds have air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.
The unit is supplied with nipple adapters with male gas type thread on the exchanger side and NPT female type on the system side.
Reversibility of hydraulic connections when ordering.

Condensate drip

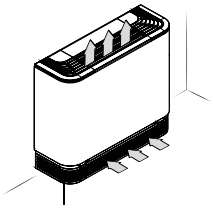
Provided standard in plastic and fixed to the interior structure; with external condensate discharge.

Air filter

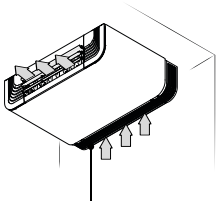
Air filter easily removed and cleaned.

Versions

EU With casing for ceiling installation
EUF With casing for ceiling installation, with adjustable outlet grille



With mandatory FIKIT and GA accessories



With GA accessory

Options

Without options
TL Electronic control board for 120V power supply
TH Electronic control board for 240V power supply

Types of installation

HORIZONTAL INSTALLATION	VERTICAL INSTALLATION
EU	EU
	EUF

CONFIGURATOR

Field		Description
1,2,3,4		**FCZI**
5		**Size** 2, 3, 4, 5, 7, 9
6		**main heat exchanger**
	0	Standard 3-row
	5	Oversized 4-row
7		**Secondary heat exchanger**
	0	Without heat exchanger
	1	Standard 1-row (only heating) (1)
8,9		**Version (2)**
	EU	With casing for ceiling installation
	EUF	With casing for ceiling installation, with adjustable outlet grille
10		**Options**
	.	Without options

Field	Description
TH	Electronic control board for 240V power supply
TL	Electronic control board for 120V power supply

(1) 1-row secondary coil is available with the standard 3-row main coil only
(2) For floor installation, it is mandatory to add the FIKIT and GA accessories (bottom supports)

ACCESSORIES

Control panels

TX24: Wall-mounting thermostat for controlling 2/4 tube fan coils with brushless motors.

Water valves

VCZ4124: 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.
VCZ4224: 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.
VCZ4324: 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.
VCZD124: 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
VCZD224: 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
VCZD324: 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
VCF4424: The 3-way motorised valve kit for the secondary coil heat only. The kit consists of a valve with its insulating shell, actuator and relevant water fittings; it is suitable to be installed on the fan coils with right and left water connections.
VCF4524: The 3-way motorised valve kit for the secondary coil heat only. The kit consists of a valve with its insulating shell, actuator and relevant water fittings; it is suitable to be installed on the fan coils with right and left water connections.
VCFD124: Motorized 2-way valve kit without insulating shell, can be installed on the main or secondary battery or a battery that is only warm. The kit is made up of a valve, actuator and relative hydraulic fittings. It can be installed on fan coils with connections on the right and on the left.
VCFD224: Motorized 2-way valve kit without insulating shell, can be installed on the main or secondary battery or a battery that is only warm. The kit is made up of a valve, actuator and relative hydraulic fittings. It can be installed on fan coils with connections on the right and on the left.
VCFD324: Motorized 2-way valve kit without insulating shell, can be installed on the main or secondary battery or a battery that is only warm. The kit is made up of a valve, actuator and relative hydraulic fittings. It can be installed on fan coils with connections on the right and on the left.
VCFD424: Motorized 2-way valve kit without insulating shell, can be installed on the main or secondary battery or a battery that is only warm. The kit is made up of a valve, actuator and relative hydraulic fittings. It can be installed on fan coils with connections on the right and on the left.
The actuator is 24 Volt for all valves.

Installation accessories

BC: Condensate drip.
BCZ: Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.
FIKIT200: Structural bracket in floor installation.
FIKIT300: Structural bracket in floor installation.
FIKIT500: Structural bracket in floor installation.
FIKIT800: Structural bracket in floor installation.
GA: Lower intake grille for encapsulated fan coils. Can also be used in wall-mounted or floor installations, the FIKIT accessory is needed only in the case of floor installation.

ACCESSORIES COMPATIBILITY

Control panels

Accessory	FCZI200EU	FCZI201EU	FCZI250EU	FCZI300EU	FCZI301EU	FCZI350EU	FCZI400EU	FCZI401EU	FCZI450 EU
TX24	•	•	•	•	•	•	•	•	•

Accessory	FCZI500EU	FCZI501EU	FCZI550EU	FCZI700EU	FCZI701EU	FCZI750EU	FCZI900EU	FCZI901EU	FCZI950EU
TX24	•	•	•	•	•	•	•	•	•

Water valves

3 way valve kit

	200	201	202	250	300	301	302	350	400	401	402	450
Main coil	VCZ4124	VCZ4124	VCZ4124	VCZ4124	VCZ4224	VCZ4224	VCZ4224	VCZ4224	VCZ4224	VCZ4224	VCZ4224	VCZ4224
Secondary coil	-	VCF4424	VCF4424	-	-	VCF4424	VCF4424	-	-	VCF4424	VCF4424	-

	500	501	502	550	700	701	702	750	900	901	950
Main coil	VCZ4224	VCZ4224	VCZ4224	VCZ4224	VCZ4224	VCZ4224	VCZ4224	VCZ4224	VCZ4324	VCZ4324	VCZ4324
Secondary coil	-	VCF4424	VCF4424	-	-	VCF4424	VCF4424	-	-	VCF4524	-

VCZ4124 - 4224 - 4324; VCF4224 - 4524 (24V)

2 way valve kit

	200	201	202	250	300	301	302	350	400	401	402	450
Main coil	VCZD124	VCZD124	VCZD124	VCZD124	VCZD224	VCZD224	VCZD224	VCZD224	VCZD224	VCZD224	VCZD224	VCZD224
Secondary coil	-	VCFD424	VCFD424	-	-	VCFD424	VCFD424	-	-	VCFD424	VCFD424	-

	500	501	502	550	700	701	702	750	900	901	950
Main coil	VCZD224	VCZD224	VCZD224	VCZD224	VCZD224	VCZD224	VCZD224	VCZD224	VCZD324	VCZD324	VCZD324
Secondary coil	-	VCFD424	VCFD424	-	-	VCFD424	VCFD424	-	-	VCFD424	-

VCZD124 - 224 - 324; VCFD424 (24V)

Installation accessories

Accessory	FCZI200EU	FCZI201EU	FCZI250EU	FCZI300EU	FCZI301EU	FCZI350EU	FCZI400EU	FCZI401EU	FCZI450 EU
FIKIT200	•	•	•						
FIKIT300				•	•	•			
FIKIT500							•	•	•
FIKIT800									

Accessory	FCZI500EU	FCZI501EU	FCZI550EU	FCZI700EU	FCZI701EU	FCZI750EU	FCZI900EU	FCZI901EU	FCZI950EU
FIKIT200									
FIKIT300									
FIKIT500	•	•	•						
FIKIT800				•	•	•	•	•	•

Accessory	FCZI200EU	FCZI201EU	FCZI250EU	FCZI300EU	FCZI301EU	FCZI350EU	FCZI400EU	FCZI401EU	FCZI450 EU
GA200	•	•	•						
GA300				•	•	•			
GA500							•	•	•
GA800									

Accessory	FCZI500EU	FCZI501EU	FCZI550EU	FCZI700EU	FCZI701EU	FCZI750EU	FCZI900EU	FCZI901EU	FCZI950EU
GA200									
GA300									
GA500	•	•	•						
GA800				•	•	•	•	•	•

Condensate drip

Accessory	FCZI200EU	FCZI201EU	FCZI250EU	FCZI300EU	FCZI301EU	FCZI350EU	FCZI400EU	FCZI401EU	FCZI450 EU
BCZ4	•	•	•	•	•	•	•	•	•
BCZ5	•	•	•	•	•	•	•	•	•
BCZ6									

Accessory	FCZI500EU	FCZI501EU	FCZI550EU	FCZI700EU	FCZI701EU	FCZI750EU	FCZI900EU	FCZI901EU	FCZI950EU
BCZ4	•	•	•	•	•	•	•		•
BCZ5	•	•	•	•	•	•			
BCZ6							•	•	•

Accessory	FCZI200EU	FCZI201EU	FCZI250EU	FCZI300EU	FCZI301EU	FCZI350EU	FCZI400EU	FCZI401EU	FCZI450 EU
BC8	•	•	•	•	•	•	•	•	•
BC9									

Accessory	FCZI500EU	FCZI501EU	FCZI550EU	FCZI700EU	FCZI701EU	FCZI750EU	FCZI900EU	FCZI901EU	FCZI950EU
BC8	•	•	•	•	•	•			
BC9							•	•	•

PERFORMANCE SPECIFICATIONS

Technical data - 2-pipe systems (main coil)

2-pipe

		FCZI200EU			FCZI250EU			FCZI300EU			FCZI350EU			FCZI400EU			FCZI450EU		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 158 °F / 140 °F (1)																			
Heating capacity	MBH	6.9	10.1	12.6	7.5	10.9	13.8	11.8	15.2	18.8	12.9	16.8	21.0	14.7	19.6	24.4	15.6	21.5	26.7
Water flow rate system side	gpm	0.8	1.1	1.4	0.8	1.2	1.6	1.3	1.7	2.1	1.5	1.9	2.4	1.7	2.2	2.8	1.8	2.4	3.0
Pressure drop system side	ft H_2O	2.01	4.01	6.02	2.34	5.02	7.69	2.34	4.01	6.02	2.68	4.68	6.69	3.01	5.35	8.03	2.01	3.68	5.35
Heating performance 113 °F / 104 °F (2)																			
Heating capacity	MBH	3.4	5.0	6.3	3.7	5.4	6.9	5.9	7.5	9.3	6.4	8.3	10.4	7.3	9.7	12.1	7.7	10.6	13.2
Water flow rate system side	gpm	0.8	1.1	1.4	0.8	1.2	1.5	1.3	1.7	2.1	1.4	1.9	2.3	1.6	2.2	2.7	1.7	2.4	3.0
Pressure drop system side	ft H_2O	2.01	4.01	6.02	2.68	5.02	7.36	2.68	4.01	6.02	3.01	4.68	7.03	3.35	5.35	8.03	2.01	3.68	5.35
Cooling performances 44.6 °F / 53.6 °F (3)																			
Cooling capacity	MBH	3.0	4.4	5.5	3.6	5.3	6.6	5.7	7.4	9.0	6.4	8.4	10.3	7.5	10.0	12.3	8.2	11.0	13.8
Sensible cooling capacity	MBH	2.4	3.6	4.5	2.7	4.1	5.2	4.3	5.6	7.0	4.5	6.0	7.4	5.4	7.3	9.1	5.8	7.8	9.9
Water flow rate system side	gpm	0.7	1.0	1.2	0.8	1.2	1.5	1.3	1.6	2.0	1.5	2.0	2.5	1.7	2.2	2.7	1.8	2.4	3.1
Pressure drop system side	ft H_2O	2.01	4.01	6.02	2.68	5.69	8.36	2.68	4.35	6.02	3.68	6.02	8.36	3.35	5.69	8.03	3.01	5.02	7.36
Fan																			
Type	type	Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal		
Fan motor	type	Inverter			Inverter			Inverter			Inverter			Inverter			Inverter		
Number	no.	1			1			2			2			2			2		
Air flow rate	cfm	82	129	171	82	129	171	153	206	265	153	206	265	194	271	353	194	271	353
Fan coil sound data (4)																			
Sound power level	dB(A)	35.0	46.0	51.0	35.0	46.0	51.0	34.0	41.0	48.0	34.0	41.0	48.0	37.0	44.0	51.0	37.0	44.0	51.0
Sound pressure level	dB(A)	27.0	38.0	43.0	27.0	38.0	43.0	26.0	33.0	40.0	26.0	33.0	40.0	29.0	36.0	43.0	29.0	36.0	43.0
Diametre hydraulic fittings																			
Main heat exchanger	Ø	1/2"			1/2"			3/4"			3/4"			3/4"			3/4"		
Fan																			
Fan input power	W	5	8	14	5	8	14	5	7	13	5	7	13	5	10	18	5	10	18
Signal 0-10V	%	44	68	90	44	68	90	52	70	90	52	70	90	49	68	90	49	68	90
Power supply																			
Power supply		110-240 V			110-240 V			110-240 V			110-240 V			110-240 V			110-240 V		

		FCZI500EU			FCZI550EU			FCZI700EU			FCZI750EU			FCZI900EU			FCZI950EU		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 158 °F / 140 °F (1)																			
Heating capacity	MBH	18.0	24.9	29.0	19.9	28.5	33.3	27.6	33.4	37.5	31.1	38.6	42.7	36.7	45.6	51.7	38.2	49.2	58.3
Water flow rate system side	gpm	2.0	2.8	3.3	2.2	3.2	3.8	3.1	3.8	4.2	3.4	4.4	4.8	4.2	5.2	5.8	4.3	5.6	6.6
Pressure drop system side	ft H_2O	4.01	7.03	9.37	3.35	6.69	8.70	5.69	7.69	9.70	3.60	5.02	6.02	4.01	5.69	7.36	5.35	8.36	11.04
Heating performance 113 °F / 104 °F (2)																			
Heating capacity	MBH	8.9	12.4	14.4	9.9	14.1	16.5	13.8	16.6	18.7	15.4	19.1	21.2	18.3	22.7	25.7	19.9	24.5	29.0
Water flow rate system side	gpm	2.0	2.8	3.2	2.2	3.2	3.7	3.1	3.7	4.2	3.5	4.3	4.8	4.1	5.1	5.8	4.3	5.5	6.5
Pressure drop system side	ft H_2O	4.01	7.03	9.37	3.35	6.69	8.70	5.69	8.03	9.70	3.35	5.02	6.02	4.01	5.69	7.36	5.02	8.03	11.04
Cooling performances 44.6 °F / 53.6 °F (3)																			
Cooling capacity	MBH	9.1	12.6	14.5	9.9	14.1	16.3	13.4	16.7	18.8	14.6	18.2	21.0	14.6	17.1	23.6	19.7	25.0	29.3
Sensible cooling capacity	MBH	6.6	9.3	10.9	7.1	10.2	11.9	10.2	12.8	14.7	10.9	13.8	16.1	10.1	12.9	19.4	13.0	16.6	19.7
Water flow rate system side	gpm	2.0	2.8	3.2	2.2	3.1	3.6	3.0	3.7	4.2	3.2	4.0	4.6	3.2	3.8	5.2	4.4	5.5	6.5
Pressure drop system side	ft H_2O	4.35	7.69	9.70	4.01	7.36	9.37	5.69	8.36	10.04	3.35	5.02	6.36	3.35	4.35	7.36	5.02	7.69	10.04
Fan																			
Type	type	Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal		
Fan motor	type	Inverter			Inverter			Inverter			Inverter			Inverter			Inverter		
Number	no.	2			2			3			3			3			3		
Air flow rate	cfm	235	353	424	235	353	424	412	547	671	412	547	671	412	547	671	412	547	671
Fan coil sound data (4)																			
Sound power level	dB(A)	42.0	51.0	56.0	42.0	51.0	56.0	50.0	57.0	62.0	50.0	57.0	62.0	51.0	57.0	62.0	51.0	57.0	62.0
Sound pressure level	dB(A)	34.0	43.0	48.0	34.0	43.0	48.0	42.0	49.0	54.0	42.0	49.0	54.0	43.0	49.0	54.0	43.0	49.0	54.0
Diametre hydraulic fittings																			
Main heat exchanger	Ø	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Fan																			
Fan input power	W	7	18	34	7	18	38	30	40	80	30	40	80	30	40	80	30	40	80
Signal 0-10V	%	50	74	90	50	74	90	56	72	90	56	72	90	56	72	90	56	72	90
Power supply																			
Power supply		110-240 V			110-240 V			110-240 V			110-240 V			110-240 V			110-240 V		

(1) Room air temperature 68 °F d.b.; Water (in/out) 158 °F/140 °F
(2) Room air temperature 68 °F d.b.; Water (in/out)113 °F/104 °F
(3) Room air temperature 80.6 °F d.b./66.2 °F w.b.; Water (in/out) 44.6 °F/53.6 °F
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583.

The unit is supplied with nipples for hydraulic connections.

Technical data - 4-pipe systems (main coil + secondary coil)

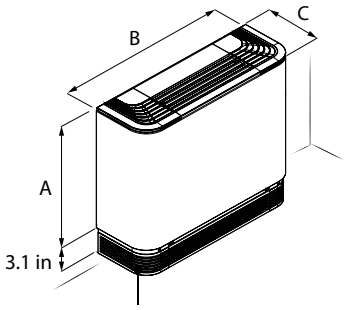
4-pipe

		FCZI201EU			FCZI301EU			FCZI401EU			FCZI501EU			FCZI701EU			FCZI901EU		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 149 °F / 131 °F (1)																			
Heating capacity	MBH	3.5	4.6	5.5	6.1	7.4	8.7	7.5	9	10.6	8.8	11.4	12.7	12.5	14.6	16.9	16.1	19.2	19.5
Water flow rate system side	gpm	0.4	0.5	0.6	0.7	0.8	1.0	0.8	1.0	1.2	1.0	1.3	1.4	1.4	1.7	1.9	1.8	2.2	2.2
Pressure drop system side	ft H_2O	1.67	2.68	3.68	5.69	7.69	10.37	1.67	2.34	3.01	2.01	3.01	3.68	3.68	5.02	6.36	3.01	4.01	4.01
Cooling performances 44.6 °F / 53.6 °F (2)																			
Cooling capacity	MBH	3.0	4.4	5.5	5.7	7.4	9.0	7.5	10.0	12.3	9.1	12.6	14.5	13.4	16.7	18.8	14.6	17.1	23.6
Sensible cooling capacity	MBH	2.4	3.6	4.5	4.3	5.6	7.0	5.4	7.3	9.1	6.6	9.3	10.9	10.2	12.8	14.7	10.1	12.9	19.4
Water flow rate system side	gpm	0.7	1.0	1.2	1.3	1.6	2.0	1.7	2.2	2.7	2.0	2.8	3.2	3.0	3.7	4.2	3.2	3.8	5.2
Pressure drop system side	ft H_2O	2.34	4.35	6.02	2.68	4.35	6.02	4.68	8.03	11.37	4.35	7.69	9.70	5.69	8.36	10.04	3.35	4.01	7.36
Fan																			
Type	type	Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal		
Fan motor	type	Inverter			Inverter			Inverter			Inverter			Inverter			Inverter		
Number	no.	1			2			2			2			3			3		
Air flow rate	cfm	82	129	171	153	206	265	194	271	353	235	353	424	412	547	671	412	547	671
Sound power level (3)	dB(A)	35.0	46.0	51.0	34.0	41.0	48.0	37.0	44.0	51.0	42.0	51.0	56.0	50.0	57.0	62.0	51.0	57.0	62.0
Sound pressure level (10 m)	dB(A)	27.0	38.0	43.0	26.0	33.0	40.0	29.0	36.0	43.0	34.0	43.0	48.0	42.0	49.0	54.0	43.0	49.0	54.0
Diametre hydraulic fittings																			
Main heat exchanger	Ø	1/2"			3/4"			3/4"			3/4"			3/4"			3/4"		
Secondary heat exchanger	Ø	1/2"			1/2"			1/2"			1/2"			1/2"			1/2"		
Fan																			
Fan input power	W	7	8	14	5	7	13	5	10	18	7	16	31	30	40	80	30	40	80
Signal 0-10V	%	44	68	90	52	70	90	49	68	90	50	74	90	56	72	90	56	72	90
Power supply																			
Power supply		110-240 V			110-240 V			110-240 V			110-240 V			110-240 V			110-240 V		

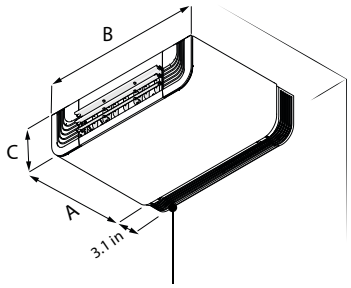
(1) Room air temperature 68 °F d.b.; Water (in/out) 149 °F/131 °F
(2) Room air temperature 80.6 °F d.b./66.2 °F w.b.; Water (in/out) 44.6 °F/53.6 °F
(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

The unit is supplied with nipples for hydraulic connections.

DIMENSIONS



With mandatory FIKIT and GA accessories



With GA accessory

		FCZI200EU	FCZI201EU	FCZI250EU	FCZI300EU	FCZI301EU	FCZI350EU
Dimensions and weights							
A	in	19.1	19.1	19.1	19.1	19.1	19.1
B	in	29.5	29.5	29.5	38.6	38.6	38.6
C	in	8.7	8.7	8.7	8.7	8.7	8.7
Empty weight	lbs	35	37	37	40	42	42

		FCZI400EU	FCZI401EU	FCZI450 EU	FCZI500EU	FCZI501EU	FCZI550EU
Dimensions and weights							
A	in	19.1	19.1	19.1	19.1	19.1	19.1
B	in	47.2	47.2	47.2	47.2	47.2	47.2
C	in	8.7	8.7	8.7	8.7	8.7	8.7
Empty weight	lbs	53	57	57	53	57	57

		FCZI700EU	FCZI701EU	FCZI750EU	FCZI900EU	FCZI901EU	FCZI950EU
Dimensions and weights							
A	in	19.1	19.1	19.1	23.3	23.3	23.3
B	in	52.0	52.0	52.0	52.0	52.0	52.0
C	in	8.7	8.7	8.7	8.7	8.7	8.7
Empty weight	lbs	66	71	71	77	82	82

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