

# Cassette Fan Coil Unit (for water AC system)



cassette fan coil unit are terminals of a hydronic system for installation in ceiling. They are suitable for chilled and/or hot water air conditioning system

## Nomenclature

**FP-68KM4-V/C-EC**

68: Air flow volume, 68x10 CMH

1: 1-way  
2: 2-way  
4: 4-way  
6: 6-way

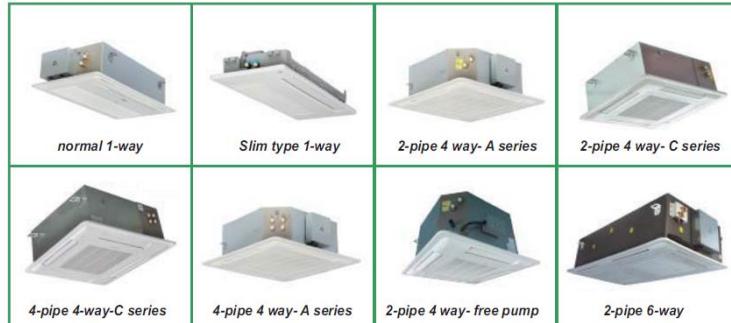
EC: equipped with EC motor  
(Default AC motor)

Desin Series:  
A series / B series / C series  
ACY series: for Marine Duty  
Z series: for self-drainage units

V: 2-pipe system  
P: 4-pipe system

### Kinds of cassette units, including:

- 1-way cassette units (Normal Type)
- 1-way cassette units (Slim Type)
- 2-pipe 4-way cassette units
- 4-pipe 4-way cassette units
- 2-pipe 2-way cassette units
- 2-pipe 6-way cassette units
- 2-pipe 4 way Cassette units  
(self-drainage, drain by nature)
- 2-pipe 4-way cassette units(Marine Duty)



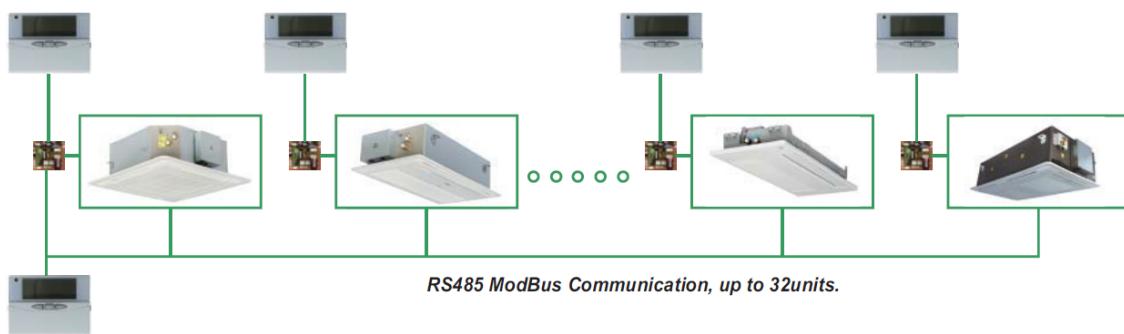
## Network control module --- optional for cassette fan coil unit

The NCM module offers the possibility to control the fan coil unit together. There are two kinds of network control:

A. Master-slave network control. In this way, use wire wall pad and PCB together to control all the FCUs. One group can control at most 32 pcs of FCU.

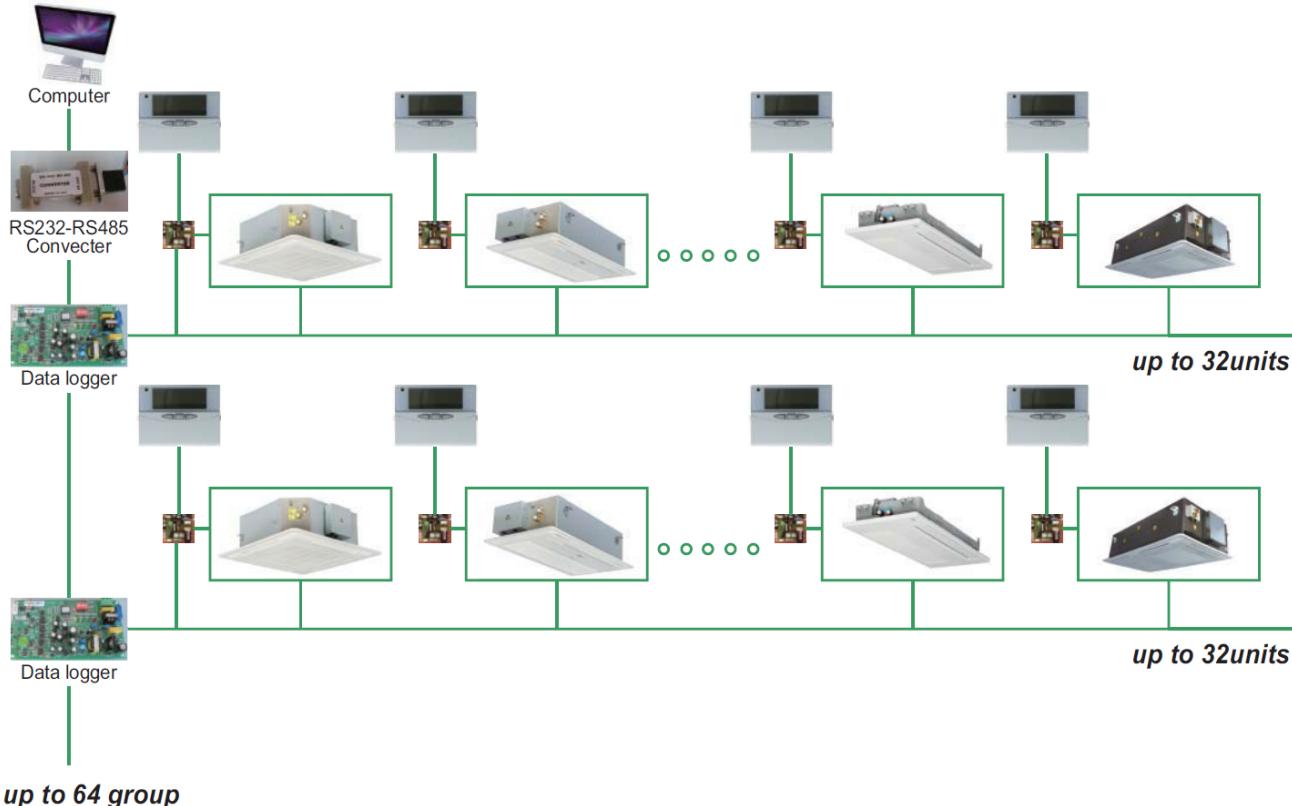
B. Host computer network control. In this way, use computer, converter, data logger and PCB to control all FCUs. The maximum network size is 64 data loggers x 32 FCUs = 2048 FCUs connected to a computer based control system.

### Master-slave network control



There are two methods to use the master-slave network control function, one is by remote controller, and the other is using wire wall pad.

### Host computer network control system



## 1-way Cassette Fan Coil Unit (Drain pump inside) (Normal Type) --- for chilled/hot water AC system

Air Flow: 200 ~ 600cfm  
Cooling Capacity: 1.9KW ~ 5.4KW

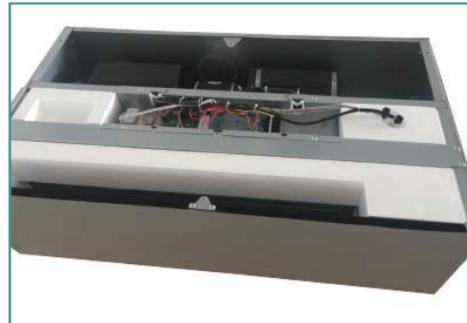


## Design Features

*1-way cassette units, which is easy to be installed in the side of ceiling; and the unit which can be installed in a limited ceiling. (the height of the cassette body is only 235mm)*

### Unit Body

Made of Galvanized steel, with pre-formed expanded polystyrene air passages suitable shaped to allow passage of air, thickness enough for thermal and acoustical insulation.



### Panel Assembly

Aesthetic panel design, in ABS material with synthetic washable and removal air filter, auto-swing.

### Quite running

DIDW centrifugal fans with 3 speed motor



### High Efficiency Coil

Coil are made of 3/8"(9.52mm) O.D copper tubes and high exchange surface area aluminum blue fins. All coils are 100% tested against leaks by 30bar(3Mpa) air pressure. with 3/4"pipe connections and air bleed vent.

### Condensate Drain Pan

In thermoforming high density expanded polystyrene, covered with a vacuum forming polyvinyl chloride, fitted with a condensates draining pump and a safety float.

### Drain pump and Float Switch

700mm head drain pump with no return valve is installed in the unit; an float switch inside as well to prevent from leaking. If the water raising to a certainly position, the float switch will act and alarm, then the unit will cut off the water valve or stop the fan motor.

### Fresh air intake

Pre-stamped hole for fresh air connection

### Microprocessor control system

Wireless remote controller is standard and wired controller is optional; on/off valve controller; daily timer; auto reset; operation mode control; with room sensor & coil sensor; auto-diagnose, protections and error code dispaly; jumpers configurations on electronic board

### Optional:

- a. Wired wall controller
- b. Drainage hose
- c. On/off 2-way or 3 way valve
- d. Electric heater control
- e. 5-speed motor
- f. RS485 ModBus, master-slave network control
- g. BMS computer net control.
- h. External control box as optional
- i. 1200 head drain pump

\* In case of optional "f" and optional "g", the control box will be installed outside of the unit body. Built-in main board with no fuction of "f" and "g".

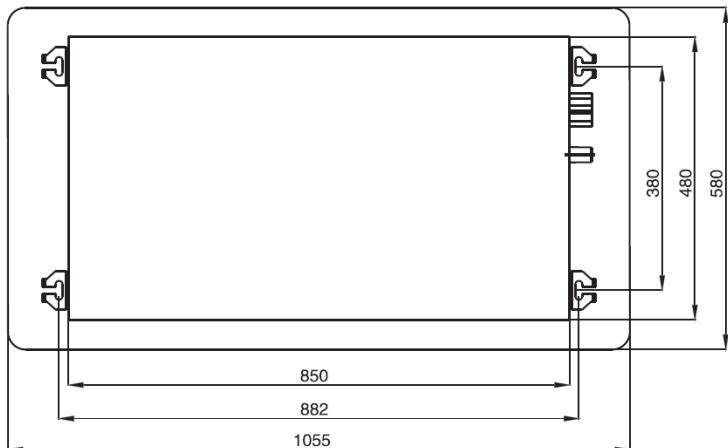
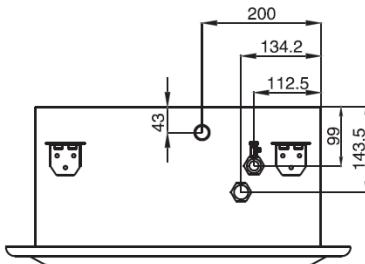
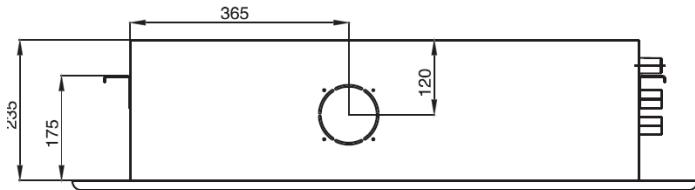


## Cassette type Fan Coil Unit - for Chilled/Hot Water AC System

### Performance Data - 2 pipe, 2 rows

Model: FP-*KM1-V/A			FP-34KM1-V/A	FP-51KM1-V/A	FP-68KM1-V/A	FP-80KM1-V/A	FP-85KM1-V/A	FP-102KM1-V/A
CFM			200	300	400	450	500	600
Air Flow Rate	H	m³/h	340	510	680	800	850	1020
	M	m³/h	270	400	520	650	640	750
	L	m³/h	190	300	400	500	490	600
Cooling	H	KW	1.9	2.7	3.6	4.0	4.5	5.4
	M	KW	1.5	2.2	2.8	3.3	3.4	4.0
	L	KW	1.0	1.6	2.2	2.6	2.6	3.2
Sensible Capacity	H	KW	1.3	1.9	2.5	2.8	3.2	3.8
	M	KW	1.1	2.1	2.1	2.3	2.5	2.8
	L	KW	0.8	1.7	1.7	1.8	2.0	2.4
Water flow rate		l/h	330	480	625	688	780	930
Water pressure drop		kPa	10	15	18	20	25	31
Heat	H	KW	2.7	4.1	5.4	6.6	7.0	8.0
	M	KW	2.2	2.4	4.2	4.8	5.2	6.0
	L	KW	1.5	3.2	3.2	3.5	3.9	4.8
Power supply			220~240V/1PH/50Hz(or 60Hz)					
Power Input			W	45	54	62	70	100
Sound pressure			dB(A)	39	39	40	42	43
Fan	Type		Centrifugal Fan					
	Model		Ø142	Ø142	Ø142	Ø142	Ø155	Ø155
	Quantity	Nr.	2	2	2	2	2	2
Motor	Type		3-speed Motor					
	Quantity	Nr.	1	1	1	1	1	1
	Coil Rows	Nr.	2	2	3	3	4	4
Coil	Max. working pressure	MPa	1.6					
	Tuber Diameter	inch	3/8"					
Dimensions	Unit body	mm	850X480x235					
	Panel assembly	mm	1055x580x30					
Connection	Water inlet/outlet pipe	inch	ZG3/4" / ZG3/4"					
	Condensate discharge	inch	26					
Weight(with feet, with casing)		kg	22	22	22	22	23	23

1. Cooling: inlet air temp. DB+27°C/WB+19.5°C, water inlet/outlet temp. +7°C/+12°C  
 2. Heating: +21°C, water inlet temp. +60°C; Same water flow rate as for the cooling



Standard build-in main board and external control box as optional

## 1-way Cassette Fan Coil Unit (Drain pump inside) (Slim Type) --- for chilled/hot water AC system

Air Flow: 300 ~ 450cfm  
Cooling Capacity: 3.0KW ~4.2KW



### Design Features

**1-way slim type casstte units, the height of the body is only 150mm, which is suitable for some very limited space and narrow space. It's panel and body are made by ABS, high production efficiency, exact dimension and good consistency.**

#### Unit Body

Aesthetic design, in ABS material and very slim, suitable for some limited space and narrow space.



#### Panel Assembly

Aesthetic panel design, in ABS material with synthetic washable and removal air filter, auto-swing.



#### Blower with motor

Cross flow blower with 3 speed motor.

#### High Efficiency Coil

Coil are made of 3/8"(9.52mm) O.D copper tubes and high exchange surface area aluminum blue fins. All coils are 100% tested against leaks by 30bar(3Mpa) air pressure. with 1/2"pipe connections and air bleed vent.

#### Condensate Drain Pan

The drain pan is produced by ABS material via injection forming, with high polystyrene insulation outside.

#### Drain pump and Float Switch

700mm head drain pump with no return valve is installed in the unit; an float switch inside as well to prevent from leaking. If the water raising to a certain position, the float switch will act and alarm, then the unit will cut off the water valve or stop the fan motor.

#### Optional:

- a. Wired wall controller
- b. drainage hose
- c. On/off 2-way or 3 way valve
- d. 5-speed motor
- e. RS485 ModBus, master-slave network control
- f. BMS computer net control.
- g. 1200mm head drain pump

#### Microprocessor control system

- Wireless remote controller is standard and wired controller is optional;
- on/off valve controller;
- daily timer; auto reset;
- operation mode control;
- with room sensor & coil sensor;
- auto-diagnose, protections and error code dispaly;
- jumpers configurations on electronic board



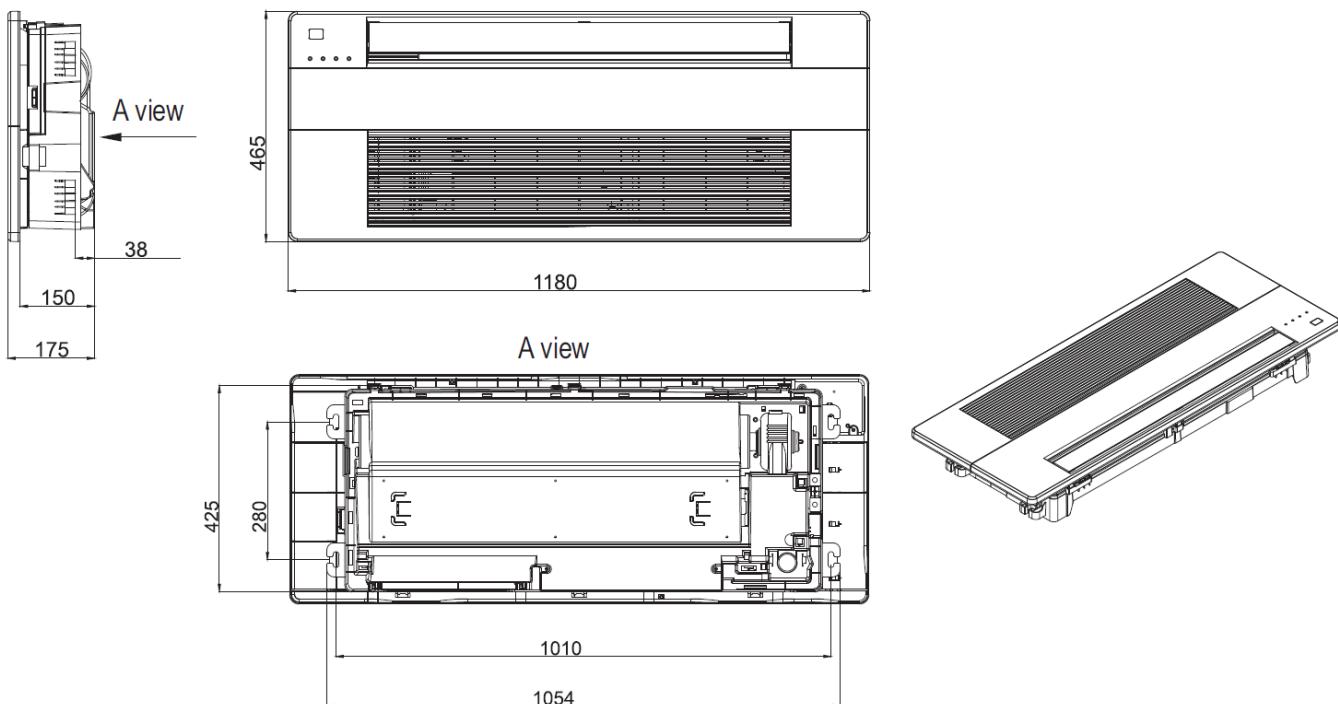
## Cassette type Fan Coil Unit - for Chilled/Hot Water AC System

### Performance Data - 2 pipe, 2 rows

Model: FP-*KM1-V/S			FP-51KM1-V/S	FP-68KM1-V/S	FP-80KM1-V/S		
CFM			300	400	450		
Air Flow Rate			H m³/h 510	680	750		
			M m³/h 400	520	650		
			L m³/h 300	400	500		
Cooling	Total Capacity		H KW 3.0	3.8	4.2		
			M KW 2.6	3.1	3.6		
			L KW 2.2	2.6	3.0		
	Sensible Capacity		H KW 2.2	2.8	3.0		
			M KW 1.8	2.3	2.7		
			L KW 1.5	1.9	2.2		
	Water flow rate		I/h 516	655	720		
	Water pressure drop		kPa 15	18	20		
	Heating Capacity		H KW 5.1	6.4	7.0		
Heat			M KW 4.5	5.2	6.1		
			L KW 3.8	4.5	5.0		
Power supply			220~240V/1PH/50Hz(or 60Hz)				
Power Input			W 40	45	50		
Sound pressure			dB(A) 37	39	40		
Fan	Type	Cross Flow Fan					
	Model	Ø97					
	Quantity	Nr. 1	1		1		
Motor	Type	3-speed Motor					
	Quantity	Nr. 1	1		1		
Coil	Coil Rows	Nr.	2				
	Max. working pressure	MPa	1.6				
	Tuber Diameter	inch	3/8"				
Dimensions	Unit body	mm	1054X425X169				
	Panel assembly	mm	1180X465X25				
Connection	Water inlet/outlet pipe	inch	ZG1/2" / ZG1/2"				
	Condensate discharge	inch	26				
Weight(with feet, with casing)			kg 14				

1. Cooling: inlet air temp. DB+27°C/WB+19.5°C, water inlet/outlet temp. +7°C/+12°C

2. Heating: +21°C, water inlet temp. +60°C; Same water flow rate as for the cooling



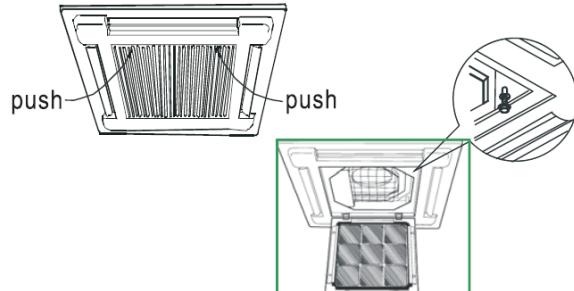
## 4-way cassette units

(Drain pump inside) - including A series & C series, for both 2-pipe & 4-pipe  
--- for chilled/hot water AC system

### Design Features for A series & C Series

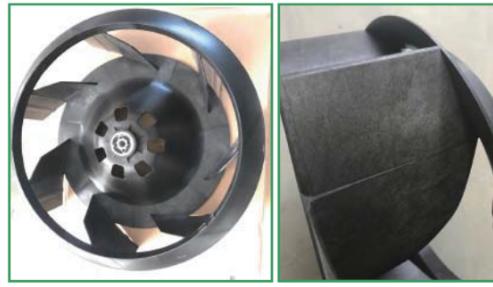
#### Unit Body

Made of Galvanized steel, with pre-formed expanded polystyrene air passages suitable shaped to allow passage of air, thickness enough for thermal and acoustical insulation. The design unit which can be installed in a limited ceiling.(the Min. height is 265mm.)



#### Panel Assembly

Aesthetic panel design, in ABS material with synthetic washable and removal air filter, auto-swing.



#### Plastic Wheel-Quiet running

One-time injection forming, no welding between the fan blades and inlet cone/end plate, it makes the wheel good balancing; an anti-vibration rubber is added in the hub to ensure less vibration, low noise on the wheels and motors. Each wheel will be balanced under G0.5mm/s.



#### High Efficiency Coil

Coil are made of 3/8"(9.52mm) O.D copper tubes and high exchange surface area aluminum blue fins. All coils are 100% tested against leaks by 30bar(3Mpa) air pressure. with 3/4"pipe connections and air bleed vent.

#### Condensate Drain Pan

In thermoforming high density expanded polystyrene, covered with a vacuum forming polyvinyl chloride, fitted with a condensates draining pump and a safety float.

#### Microprocessor control system

Wireless remote controller is standard and wired controller is optional; on/off valve controller; daily timer; auto reset; operation mode control; with room sensor & coil sensor; auto-diagnose, protections and error code display; jumpers configurations on electronic board

#### Drain pump and Float Switch

700mm head drain pump with no return valve is installed in the unit; a float switch inside as well to prevent from leaking. If the water raising to a certain position, the float switch will act and alarm, then the unit will cut off the water valve or stop the fan motor.

#### Optional for 4-way cassette (A & C series)

- a. Wired wall controller
- b. Finger Grille
- c. drainage hose
- d. Fresh Air intake for A series
- e. On/off 2-way or 3 way valve
- f. Electric heater control
- g. 5-speed motor
- h. RS485 ModBus, master-slave network control
- i. BMS computer net control.
- j. 1200mm head drain pump

\* In case of optional "h" and optional "i", the control box will be installed outside of the unit body for "C" series; Built-in main board with no function of optional "h" and "i" for "C" series.



## Cassette type Fan Coil Unit - for Chilled/Hot Water AC System

### 2-pipe 4-way cassette units (C series)

--- for chilled/hot water AC system

Air Flow: 200 ~ 1400cfm

Cooling Capacity: 2.0KW~12.6KW

Standard build-in main board and external control box as optional; (no MBS function in case of the build-in system)

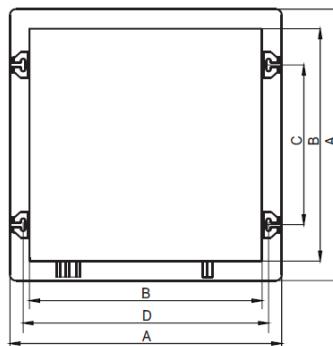
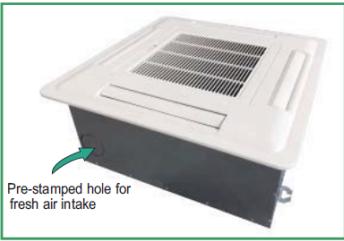
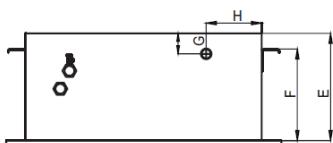


### Performance Data - 2 pipe, 2 rows

Model: FP-KM4-V/C		FP-34KM4-V/C	FP-51KM4-V/C	FP-68KM4-V/C	FP-80KM4-V/C	FP-85KM4-V/C	FP-102KM4-V/C	FP-136KM4-V/C	FP-170KM4-V/C	FP-204KM4-V/C	FP-238KM4-V/C							
CFM		200	300	400	450	500	600	800	1000	1200	1400							
Air Flow Rate	H m³/h	340	510	680	800	850	1020	1360	1700	2040	2380							
	M m³/h	280	390	520	600	680	790	1030	1400	1500	1850							
	L m³/h	180	260	350	410	490	520	590	950	1030	1500							
Cooling	H KW	2.0	2.7	3.7	4.2	4.7	5.8	7.2	9.2	11.0	12.6							
	M KW	1.7	2.3	2.8	3.3	3.8	4.6	5.8	8.0	9.0	10.5							
	L KW	1.1	1.4	2.0	2.3	2.7	3.9	4.3	6.5	7.0	9.0							
Sensible Capacity	H KW	1.4	1.9	2.5	2.9	3.2	4.0	5.0	6.3	7.6	8.7							
	M KW	1.2	1.6	1.9	2.2	3.1	3.2	3.9	5.5	6.0	7.1							
	L KW	0.8	1.0	1.4	1.7	2.4	2.5	2.8	4.3	4.6	6.1							
Water flow rate	l/h	345	470	640	720	808	995	1240	1580	1890	2160							
	Water pressure drop	kPa	15	27	15	16	12	16	21	37	40							
Heat	H KW	2.8	4.2	5.6	6.3	7.0	8.4	11.2	13.9	16.7	19.5							
	M KW	2.5	3.5	4.2	4.9	5.7	6.9	8.7	12.0	13.5	15.7							
	L KW	1.7	2.1	3.0	3.5	4.0	5.8	6.4	9.7	10.5	13.5							
Power supply		220~240V/1PH/50Hz or 60HZ)																
Power Input		W	39	52	62	65	76	96	132	152	189							
Sound pressure		dB(A)	37	39	41	42	43	45	46	47	50							
Fan	Type		Centrifugal Fan															
	Model		Ø315	Ø315	Ø315	Ø315	Ø380	Ø380	Ø380	Ø476	Ø476	Ø476						
	Quantity	Nr.	1	1	1	1	1	1	1	1	1	1						
Motor	Type		3-speed Motor															
	Quantity	Nr.	1	1	1	1	1	1	1	1	1	1						
Coil	Coil Rows	Nr.	2															
	Max. working pressure	MPa	1.6															
Dimensions	Tuber Diameter	inch	3/8"															
	Unit body	mm	582x582x265			712x712x290			827x827x290									
Connection	Panel assembly	mm	680x680x30			830x830x30			980x980x30									
	Water inlet/outlet pipe	inch	ZG3/4" / ZG3/4"															
Condensate discharge		inch	26															
Weight(with feet, with casing)		kg	20	20	20	20	26	26	26	36	36	36						

1. Cooling: inlet air temp. DB+27°C/WB+19.5°C, water inlet/outlet temp. +7°C/+12°C

2. Heating: +21°C, water inlet temp. +60°C; Same water flow rate as for the cooling



Dim.	FP-34KM4-V/C FP-51KM4-V/C FP-68KM4-V/C FP-80KM4-V/C	FP-85KM4-V/C FP-102KM4-V/C FP-136KM4-V/C	FP-170KM4-V/C FP-204KM4-V/C FP-238KM4-V/C
A	680	830	980
B	582	712	827
C	400	544	655
D	614	744	859
E	265	290	290
F	255	220	220
G	51	89	88
H	137	142	146

(mm)

## 4-pipe 4-way cassette units (C series)

--- for chilled/hot water AC system

Air Flow: 200 ~ 1400cfm

Cooling Capacity: 2.7KW ~ 8.8KW

Standard build-in main board and external control box as optional; (no MBS function in case of the build-in system)

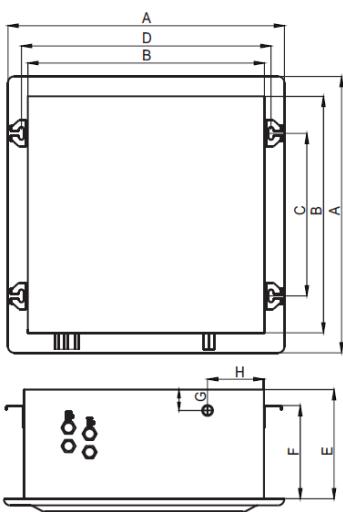


### Performance Data - 4 pipe, 2 rows

Model: FP-*KM4-P/C		FP-68KM4-P/C	FP-80KM4-P/C	FP-85KM4-P/C	FP-102KM4-P/C	FP-136KM4-P/C	FP-170KM4-P/C	FP-204KM4-P/C	FP-238KM4-P/C
CFM		400	450	500	600	800	1000	1200	1400
Air Flow Rate		H m³/h	680	800	850	1020	1360	1700	2040
		M m³/h	520	600	680	790	1030	1290	1500
		L m³/h	350	410	490	520	690	860	1030
Cooling	Total Capacity		H KW	2.7	3.1	3.4	3.8	5.0	6.3
			M KW	2.1	2.4	2.6	2.8	3.8	4.8
			L KW	1.4	1.6	1.9	2.0	2.6	3.2
Sensible Capacity	H KW		1.9	2.2	2.4	2.7	3.6	4.5	5.1
	M KW		1.5	1.7	1.8	2.0	2.8	3.5	3.9
	L KW		1.0	1.1	1.4	1.5	1.8	2.3	2.8
Water flow rate		l/h	464	504	585	650	860	1080	1255
Water pressure drop		kPa	11	13	18	22	24	27	30
Heat	Heating Capacity		H KW	3.2	3.8	4.5	5.1	5.8	7.8
			M KW	2.4	3.0	3.6	4.0	4.4	6.0
			L KW	1.7	2.1	2.4	2.6	3.1	4.0
Power supply									
Power Input		W	62	65	76	96	132	152	189
Sound pressure		dB(A)	41	42	43	45	46	47	50
Fan	Type		Centrifugal Fan						
	Model		Ø315	Ø315	Ø380	Ø380	Ø380	Ø476	Ø476
	Quantity	Nr.	1	1	1	1	1	1	1
Motor	Type		3-speed Motor						
	Quantity	Nr.	1	1	1	1	1	1	1
Coil	Coil Rows	Nr.	2						
	Max. working pressure	MPa	1.6						
	Tuber Diameter	inch	3/8"						
Dimensions	Unit body	mm	582x582x265		712x712x290		827x827x290		
	Panel assembly	mm	680x680x30		830x830x30		980x980x30		
Connection	Water inlet/outlet pipe	inch	ZG3/4" / ZG3/4"						
	Condensate discharge	inch	26						
Weight(with feet, with casing)		kg	21	21	26	26	26	35	35

1. Cooling: inlet air temp. DB+27°C/WB+19.5°C, water inlet/outlet temp. +7°C/+12°C

2. Heating: +21°C, water inlet temp. +60°C; Same water flow rate as for the cooling



Dim.	FP-68KM4-P/C FP-80KM4-P/C	FP-85KM4-P/C FP-102KM4-P/C FP-136KM4-P/C	FP-170KM4-P/C FP-204KM4-P/C FP-238KM4-P/C
A	680	830	980
B	582	712	827
C	400	544	655
D	614	744	859
E	265	290	290
F	255	220	220
G	51	89	88
H	137	142	146

## Cassette type Fan Coil Unit - for Chilled/Hot Water AC System

### 2-pipe 4-way cassette units (A series)

--- for chilled/hot water AC system

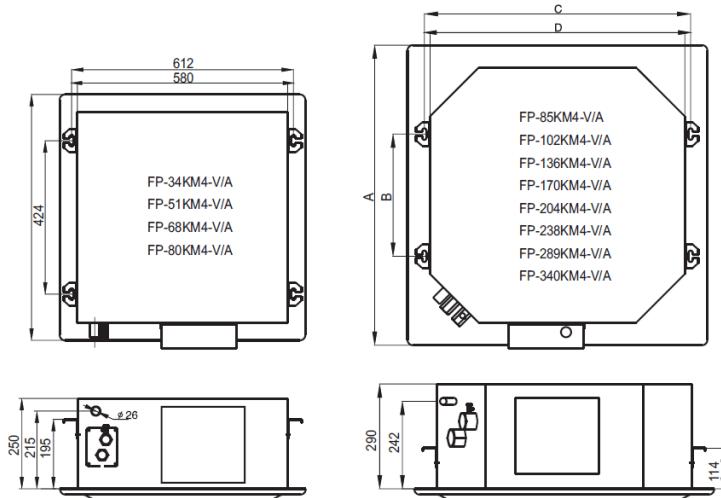
Air Flow: 200 ~ 2000cfm  
Cooling Capacity: 2.0~17.6KW



#### Performance Data - 2 pipe, 2 rows

Model: FP-*KM4-V/A			FP-34KM4-V/A	FP-51KM4-V/A	FP-68KM4-V/A	FP-80KM4-V/A	FP-85KM4-V/A	FP-102KM4-V/A	FP-136KM4-V/A	FP-170KM4-V/A	FP-204KM4-V/A	FP-238KM4-V/A	FP-289KM4-V/A	FP-340KM4-V/A									
CFM			200	300	400	450	500	600	800	1000	1200	1400	1700	2000									
Air Flow Rate	H	m³/h	340	510	680	800	850	1020	1360	1700	2040	2380	2890	3400									
	M	m³/h	280	390	520	580	640	790	1030	1290	1500	1800	2100	2600									
	L	m³/h	180	260	350	390	430	520	690	860	1030	1200	1600	1900									
Cooling	H	KW	2.0	2.7	3.7	4.2	4.5	5.6	7.0	9.1	10.8	12.6	15.3	17.6									
	M	KW	1.8	2.3	3.1	3.8	4.2	4.3	5.7	7.9	8.6	10.0	11.7	13.5									
	L	KW	1.6	1.8	2.6	2.8	3.0	3.6	4.5	6.0	6.8	8.0	9.3	9.9									
Sensible Capacity	H	KW	1.5	1.9	2.6	2.9	3.5	3.9	5.0	6.4	7.7	9.0	11.5	14.8									
	M	KW	1.3	1.7	2.0	2.6	3.2	3.3	4.3	5.9	6.5	7.5	8.4	11.1									
	L	KW	1.2	1.4	1.8	1.9	2.8	2.9	3.6	4.8	5.4	6.4	7.8										
Heat	Water flow rate	l/h	345	470	640	720	780	970	1260	1710	1920	2160	2640	3027									
	Water pressure drop	kPa	7	9	11	14	16	18	19	17	19	22	36	48									
	Heating Capacity	H	KW	2.8	4.2	5.6	6.3	7.0	8.4	11.2	13.9	16.7	19.5	23.7									
	M	KW	2.5	3.4	4.5	5.5	6.3	6.5	8.5	12.0	12.6	15.6	17.5	18.6									
	L	KW	2.0	2.7	4.0	4.5	5.0	5.2	6.7	9.0	10.2	12.0	13.8	13									
	Power supply			220~240V/1PH/50Hz(or 60Hz)																			
Power Input			W	39	52	62	68	76	96	132	152	189	220	330									
Sound pressure			dB(A)	37	39	41	42	43	45	46	47	50	52	57									
Fan	Type			Centrifugal Fan																			
	Model		Ø315	Ø315	Ø315	Ø315	Ø380	Ø380	Ø476	Ø476	Ø476	Ø476	Ø530	Ø530									
	Quantity	Nr.	1	1	1	1	1	1	1	1	1	1	1	1									
Motor	Type			3-speed Motor																			
	Quantity	Nr.	1	1	1	1	1	1	1	1	1	1	1	1									
	Coil Rows	Nr.		2																			
Coil	Max. working pressure	MPa		1.6																			
	Tuber Diameter	inch		3/8"																			
	Dimensions	Unit body	mm	580x580x250		705x705x290		832x832x290		960x960x290													
Connection	Panel assembly	mm		680x680x30		830x830x30		980x980x30		1140x1140x30													
	Water inlet/outlet pipe	inch		ZG3/4" / ZG3/4"																			
	Condensate discharge	inch		26																			
Weight(with feet, with casing)			kg	20	20	20	20	25	25	25	34	34	34	52									
				(mm)																			

1. Cooling: inlet air temp. DB+27°C/WB+19.5°C, water inlet/outlet temp. +7°C/+12°C  
2. Heating: +21°C, water inlet temp. +60°C; Same water flow rate as for the cooling



Dim.	FP-85KM4-V/A FP-102KM4-V/A FP-136KM4-V/A	FP-170KM4-V/A FP-204KM4-V/A FP-238KM4-V/A	FP-289KM4-V/A FP-340KM4-V/A
A	830	980	1140
B	338	416	488
C	737	864	992
D	705	832	960



## 4-pipe 4-way cassette units (A series)

--- for chilled/hot water AC system

Air Flow: 400~2000cfm

Cooling Capacity: 2.6KW~11.5KW

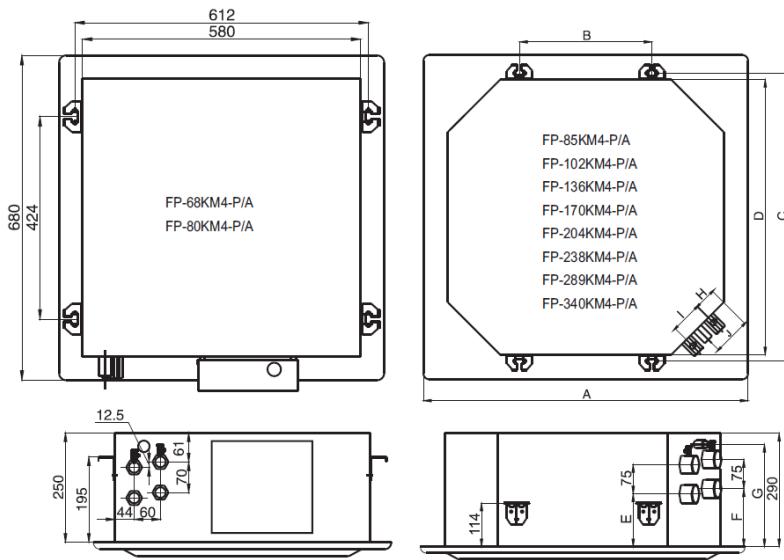


### Performance Data - 4 pipe, 2 rows

Model: FP-KM4-P/A			FP-68KM4-P/A	FP-80KM4-P/A	FP-85KM4-P/A	FP-102KM4-P/A	FP-136KM4-P/A	FP-170KM4-P/A	FP-204KM4-P/A	FP-238KM4-P/A	FP-289KM4-P/A	FP-340KM4-P/A							
CFM			400	450	500	600	800	1000	1200	1400	1700	2000							
Cooling	Air Flow Rate		H m³/h	680	800	850	1020	1360	1700	2040	2380	2890	3400						
			M m³/h	520	580	640	790	1030	1290	1500	1800	2100	2600						
			L m³/h	350	390	430	520	690	860	1030	1200	1600	1900						
	Total Capacity		H KW	2.6	2.8	3.1	3.6	4.8	6.0	7.0	8.4	10.3	11.5						
			M KW	2.0	2.2	2.4	2.8	3.7	4.7	6.0	6.5	7.5	8.3						
			L KW	1.4	1.6	1.8	2.1	3.0	3.6	4.6	5.0	5.7	6.3						
	Sensible Capacity		H KW	1.8	2.0	2.2	2.5	3.4	4.2	4.9	5.9	8.5	9.5						
			M KW	1.5	1.6	1.8	2.1	2.8	3.5	4.5	4.9	6.2	6.9						
			L KW	1.1	1.2	1.4	1.7	2.4	2.9	3.7	4.0	4.7	5.2						
	Water flow rate		l/h	450	468	540	625	830	1050	1400	1500	1800	2000						
	Water pressure drop		kPa	11	13	17	22	24	27	30	35	40	52						
	Heat		H KW	2.6	3.1	3.5	4.3	4.9	6.5	7.2	8.7	11.9	15.2						
			M KW	2.0	2.3	2.7	3.2	4.3	5.4	5.6	7.6	8.7	11.3						
			L KW	1.4	1.7	2.1	2.5	3.5	4.2	4.3	5.8	6.6	8.7						
Power supply			220~240V/1PH/50Hz (or 60Hz)																
Power Input			W	62	68	76	96	132	152	189	220	330	340						
Sound pressure			dB(A)	41	42	43	45	46	47	50	52	57	65						
Fan	Type		Centrifugal Fan																
	Model		Ø315	Ø315	Ø380	Ø380	Ø380	Ø476	Ø476	Ø476	Ø530	Ø530							
	Quantity	Nr.	1	1	1	1	1	1	1	1	1	1							
Motor	Type		3-speed Motor																
	Quantity	Nr.	1	1	1	1	1	1	1	1	1	1							
Coil	Coil Rows	Nr.	2																
	Max. working pressure	MPa	1.6																
Dimensions	Tuber Diameter	inch	3/8"																
	Unit body	mm	580x580x250		705x705x290		832x832x290		980x980x290										
Connection	Panel assembly	mm	680x680x30		830x830x30		980x980x30		1140x1140x30										
	Water inlet/outlet pipe	inch	ZG3/4" / ZG3/4"																
Condensate discharge			26																
Weight (with feet, with casing)			kg	21	21	26	26	26	35	35	35	53	53						

1.Cooling: inlet air temp. DB+27°C/WB+19.5°C, water inlet/outlet temp. +7°C/+12°C

2. Heating: +21°C, water inlet temp. +60°C; Same water flow rate as for the cooling



Dim.	FP-85KM4-P/A FP-102KM4-P/A FP-136KM4-P/A	FP-170KM4-P/A FP-204KM4-P/A FP-238KM4-P/A	FP-289KM4-P/A FP-340KM4-P/A
A	830	980	1140
B	338	416	488
C	737	864	992
D	705	832	960
E	135	139	139
F	148	127	127
G	262	250	250
H	55	65	65
I	80	80	80
J	95	95	100

(mm)



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## Cassette type Fan Coil Unit - for Chilled/Hot Water AC System

### 4-way cassette units

(Free drain pump, Self drainage) (Z series)

--- for chilled/hot water AC system

**System:** 2-pipe/4pipe

**Air Flow:** 200 ~ 1700cfm

**Cooling Capacity:** 2.0KW ~15.3KW



### Design Features

#### Drained by nature

without drain pump inside, running stable because of no drain pump P.C.B which is easy to damaged.

#### Unit Body

The unit height is 397mm(Size 289 is 430mm) which is suitable for the places where have enough installation space.

#### Panel Assembly

Aesthetic panel design, in ABS material with synthetic washable and removal air filter. Adjust the lover by manual, auto-swing function and remote controller is optional after installing the PCB system.

#### Condensate Drain Pan

Special design condensate drain pan with high drained dropping, it drains water quickly.

#### High Efficiency Coil

Coil are made of 3/8"(9.52mm) O.D copper tubes and high exchange surface area aluminum blue fins. All coils are 100% tested against leaks by 30bar(3Mpa) air pressure. with 3/4"pipe connections and air bleed vent.

#### Quite running

One-time injection forming wheel, no welding between the fan blades and inlet cone/end plate, it makes the wheels good balancing; an anti-vibration rubber is added in the hub to ensure less vibration, low noise on the wheels and motors. Each wheel will be balanced under G0.5mm/s.

#### Grille

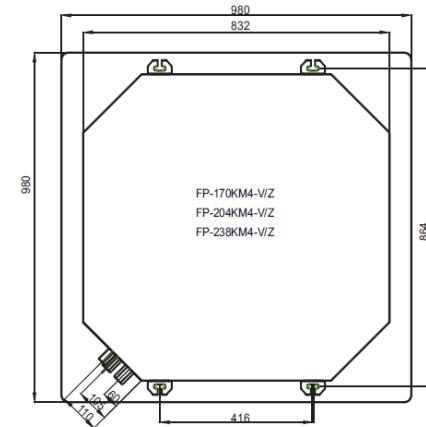
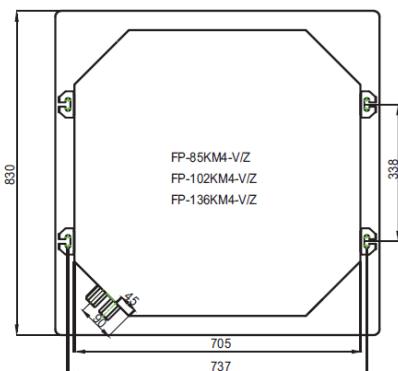
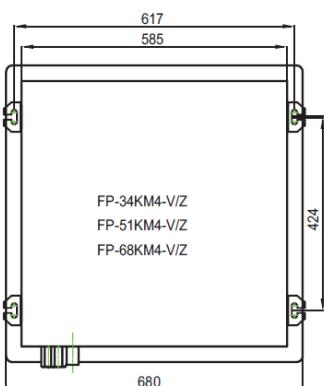
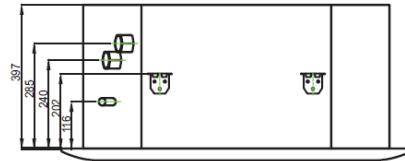
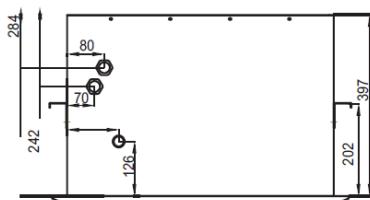
The finger grille is optional to prevent from hand injury

#### Optional for 4-way cassette (Z series)

- a. Auto-Swing functin and remote control
- b. BMS computer control system
- c. drainage hose
- d. 4-pipe system
- e. 2-way/3-way valve
- f. Electric Heater
- g. Finger Grille
- h. 5 speed motor



4-pipe system



### Cassette type Fan Coil Unit - for Chilled/Hot Water AC System

#### Performance Data - 2 pipe, 2 rows

Model: FP-*KM4-V/Z			FP-34KM4-V/Z	FP-51KM4-V/Z	FP-68KM4-V/Z	FP-85KM4-V/Z	FP-102KM4-V/Z	FP-136KM4-V/Z	FP-170KM4-V/Z	FP-204KM4-V/Z	FP-238KM4-V/Z	FP-289KM4-V/Z	
CFM			200	300	400	500	600	800	1000	1200	1400	1700	
Cooling	Air Flow Rate		H m³/h	340	510	680	850	1020	1360	1700	2040	2380	2890
			M m³/h	280	390	520	640	790	1030	1290	1500	1800	2100
			L m³/h	180	260	350	430	520	690	860	1030	1200	1600
	Total Capacity		H KW	2.0	2.7	3.7	5.0	5.6	7.0	9.1	10.8	12.8	15.3
			M KW	1.8	2.3	3.1	4.2	4.3	5.7	7.9	8.6	10.0	11.7
			L KW	1.6	1.8	2.6	3.5	3.6	4.5	6.0	6.8	8.0	9.3
	Sensible Capacity		H KW	1.5	1.9	2.6	3.5	3.9	5.0	6.4	7.7	9.0	11.5
			M KW	1.3	1.7	2.0	3.2	3.3	4.3	5.9	6.5	7.5	8.4
			L KW	1.2	1.4	1.8	2.8	2.9	3.6	4.8	5.4	6.4	6.4
	Water flow rate	I/h	345	470	640	860	970	1260	1710	1920	2200	2640	
	Water pressure drop	kPa	7	9	11	16	18	19	17	19	22	36	
Heat	Heating Capacity		H KW	2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	14.0	17.1
			M KW	1.7	2.3	3.1	3.8	4.7	6.1	7.6	8.9	10.6	12.4
			L KW	1.1	1.5	2.1	2.8	3.1	4.1	5.1	6.1	7.1	9.4
	Power supply		220~240V/1PH/50Hz(or 60Hz)										
Power Input	W	39	54	58	71	84	127	170	175	234	330		
Sound pressure	dB(A)	37	39	41	43	45	46	47	50	52	57		
Dimensions	Fan		Type	Centrifugal Fan									
			Model	Ø315	Ø315	Ø315	Ø380	Ø380	Ø380	Ø476	Ø476	Ø530	Ø530
			Quantity	Nr.	1	1	1	1	1	1	1	1	1
	Motor		Type	3-speed Motor									
			Quantity	Nr.	1	1	1	1	1	1	1	1	1
	Coil	Nr.	Coil Rows	2									
	Dimensions	MPa	Max. working pressure	1.6									
	Connection	inch	Tuber Diameter	3/8"									
Weight(with feet, with casing)	kg	24	24	24	26	26	26	34	34	35	57		

1.Cooling: inlet air temp. DB+27°C/WB+19.5°C, water inlet/outlet temp. +7°C/+12°C

2. Heating: +21°C, water inlet temp. +60°C; Same water flow rate as for the cooling

#### Performance Data - 4 pipe, 2 rows

Model: FP-*KM4-P/Z			FP-68KM4-P/Z	FP-85KM4-P/Z	FP-102KM4-P/Z	FP-136KM4-P/Z	FP-170KM4-P/Z	FP-204KM4-P/Z	FP-238KM4-P/Z	FP-289KM4-P/Z			
CFM			400	500	600	800	1000	1200	1400	1700			
Cooling	Air Flow Rate		H m³/h	680	850	1020	1360	1700	2040	2380	2890		
			M m³/h	520	648	780	1050	1310	1570	1800	2100		
			L m³/h	350	500	600	800	1010	1210	1200	1600		
	Total Capacity		H KW	2.6	3.1	3.6	4.8	6.0	7.0	8.4	10.3		
			M KW	2.0	2.4	2.8	3.7	4.7	6.0	6.5	7.5		
			L KW	1.4	1.8	2.1	3.0	3.6	4.6	5.0	5.7		
	Sensible Capacity		H KW	1.8	2.2	2.5	3.4	4.2	4.9	5.9	8.5		
			M KW	1.5	1.8	2.1	2.8	3.5	4.5	4.9	6.2		
			L KW	1.1	1.4	1.7	2.4	2.9	3.7	4.0	4.7		
	Water flow rate	I/h	450	540	625	830	1050	1400	1500	1800			
	Water pressure drop	kPa	11	17	22	24	27	30	35	40			
Heat	Heating Capacity		H KW	3.0	4.0	4.9	5.6	7.5	8.3	8.7	11.9		
			M KW	2.3	3.1	3.7	5.0	6.2	6.4	7.6	8.7		
			L KW	1.6	2.4	2.9	4.0	4.8	4.9	5.8	6.6		
	Power supply		220~240V/1PH/50Hz(or 60Hz)										
Power Input	W	58	71	84	127	170	175	220	330				
Sound pressure	dB(A)	41	41	44	48	46	50	52	57				
Dimensions	Fan		Type	Centrifugal Fan									
			Model	Ø315	Ø380	Ø380	Ø380	Ø476	Ø476	Ø476	Ø530		
			Quantity	Nr.	1	1	1	1	1	1	1		
	Motor		Type	3-speed Motor									
			Quantity	Nr.	1	1	1	1	1	1	1		
	Coil	Nr.	Coil Rows	2									
	Dimensions	MPa	Max. working pressure	1.6									
	Connection	inch	Tuber Diameter	3/8"									
Weight(with feet, with casing)	kg	24	26	26	26	34	34	35	57				

1.Cooling: inlet air temp. DB+27°C/WB+19.5°C, water inlet/outlet temp. +7°C/+12°C

2. Heating: +21°C, water inlet temp. +60°C; Same water flow rate as for the cooling



## Cassette type Fan Coil Unit - for Chilled/Hot Water AC System

### 2-pipe 4-way cassette units (for Marine Duty) (ACY series) --- for chilled/hot water AC system



Air Flow: 500 ~ 1400cfm

Cooling Capacity: 4.5KW~12.6KW

### Design Features

Ceiling mounted and suitable for chilled/hot water systems.

**Two drain pump design, no spills when the vessel is 22 degree tilted.**

Air Filter: Synthetic washable and removable

Housing: Galvanized steel with high density foam insulation inside

Heat Exchanger: Copper tube and hydrophilic AL fins with air release valve

Drian pan: High density polystyrene foam materia

Drain Pump: 700mm head with float switch and no-return vavle; 2 drain pump inside; 1200mm head is optional

Fan/Motor: Centrifugal fan wiht 3 speed motor or EC motor

Control System: Built-in electric control or extermal electric control, remote controller or wired controller

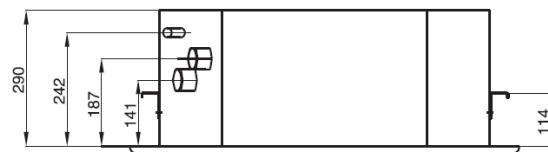
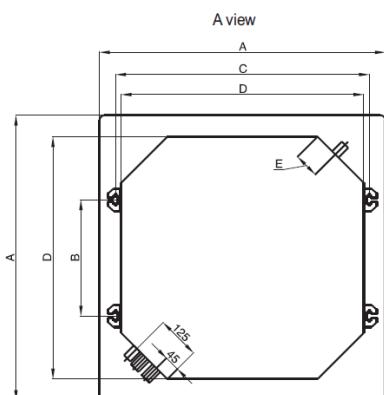
### Performance Data - 2 pipe, 2 rows

Model: FP-KM4-V/ACY		FP-85KM4-V/ACY	FP-102KM4-V/ACY	FP-136KM4-V/ACY	FP-170KM4-V/ACY	FP-204KM4-V/ACY	FP-238KM4-V/ACY	
CFM		500	600	800	1000	1200	1400	
Air Flow Rate	H m³/h	850	1020	1360	1700	2040	2380	
	M m³/h	640	790	1030	1290	1500	1800	
	L m³/h	430	520	690	860	1030	1200	
Cooling	Total Capacity H KW	4.5	5.6	7.0	9.1	10.8	12.6	
	M KW	3.4	4.4	5.3	6.9	8.0	9.6	
	L KW	2.3	2.9	3.6	4.6	5.6	6.5	
Sensible Capacity	H KW	3.1	3.8	4.9	6.3	7.3	8.6	
	M KW	2.4	2.9	3.7	4.8	5.5	6.7	
	L KW	1.5	2.0	2.5	3.1	3.9	4.3	
Water flow rate l/h		780	970	1200	1570	1860	2160	
Water pressure drop kPa		16	18	19	17	19	22	
Heat	Heating Capacity H KW	7.0	8.4	11.2	13.9	16.7	19.5	
		5.3	6.5	8.4	10.6	12.3	14.8	
		3.6	4.3	5.7	7.1	8.5	10.0	
Power supply		220-240V/1PH/50Hz(or 60HZ)						
Power Input W		86	106	142	162	200	230	
Sound pressure dB(A)		43	45	46	47	50	52	
Fan	Type	Centrifugal Fan						
	Model	Ø380	Ø380	Ø380	Ø476	Ø476	Ø476	
	Quantity Nr.	1	1	1	1	1	1	
Motor	Type	3-speed Motor						
	Quantity Nr.	1	1	1	1	1	1	
Coil	Coil Rows Nr.	2						
	Max. working pressure MPa	1.6						
	Tuber Diameter inch	3/8"						
Dimensions	Unit body mm	705x705x290						
	Panel assembly mm	830x830x30						
Connection	Water inlet/outlet pipe inch	ZG3/4" / ZG3/4"						
	Condensate discharge inch	26						
Weight(with feet, with casing) kg		25	25	25	34	34	34	

1.Cooling: inlet air temp. DB+27°C/WB+19.5°C, water inlet/outlet temp. +7°C/+12°C

2. Heating: +21°C, water inlet temp. +60°C; Same water flow rate as for the cooling

A view



Dim.	FP-85KM4-V/ACY FP-102KM4-V/ACY FP-136KM4-V/ACY	FP-170KM4-V/ACY FP-204KM4-V/ACY FP-238KM4-V/ACY
A	830	980
B	338	416
C	737	861
D	705	832
E	75	65

(mm)

## 2-way cassette units

### --- for chilled/hot water AC system

**System:** 2-pipe system

**Air Flow:** 400 ~ 800cfm

**Cooling Capacity:** 3.6KW~7.2KW

## Design Features

### Unit Body

Made of Galvanized steel, with pre-formed expanded polystyrene air passages suitable shaped to allow passage of air, thickness enough for thermal and acoustical insulation.

### Panel Assembly

Aesthetic panel design, in ABS material with synthetic washable and removal air filter, auto-swing.

### Quite running

DIDW centrifugal fans with 3 speed motor

### High Efficiency Coil

Coil are made of 3/8"(9.52mm) O.D copper tubes and high exchange surface area aluminum blue fins. All coils are 100% tested against leaks by 30bar(3Mpa) air pressure. with 3/4"pipe connections and air bleed vent.

### Condensate Drain Pan

In thermoforming high density expanded polystyrene, covered with a vacuum forming polyvinyl chloride, fitted with a condensates draining pump and a safety float.

### Drain pump and Float Switch

700mm head drain pump with no return valve is installed in the unit; an float switch inside as well to prevent from leaking. If the water raising to a certain position, the float switch will act and alarm, then the unit will cut off the water valve or stop the fan motor.

### Fresh air intake

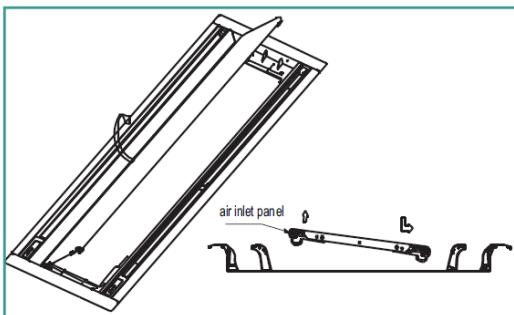
Pre-stamped hole for fresh air connection

### Grille

The finger grille is optional to prevent from hand injury

### Optional:

- a. Wired wall controller
- b. drainage hose
- c. On/off 2-way or 3 way valve
- d. Electric heater control
- e. 5-speed motor
- f. RS485 ModBus, master-slave network control
- g. BMS computer net control.
- h. External control box as optional
- i. 1200 head drian pump



### Microprocessor control system

- Wireless remote controller is standard and wired controller is optional;
- on/off valve controller;
- daily timer; auto reset;
- operation mode control;
- with room sensor & coil sensor;
- auto-diagnose, protections and error code dispaly;
- jumpers configurations on electronic board



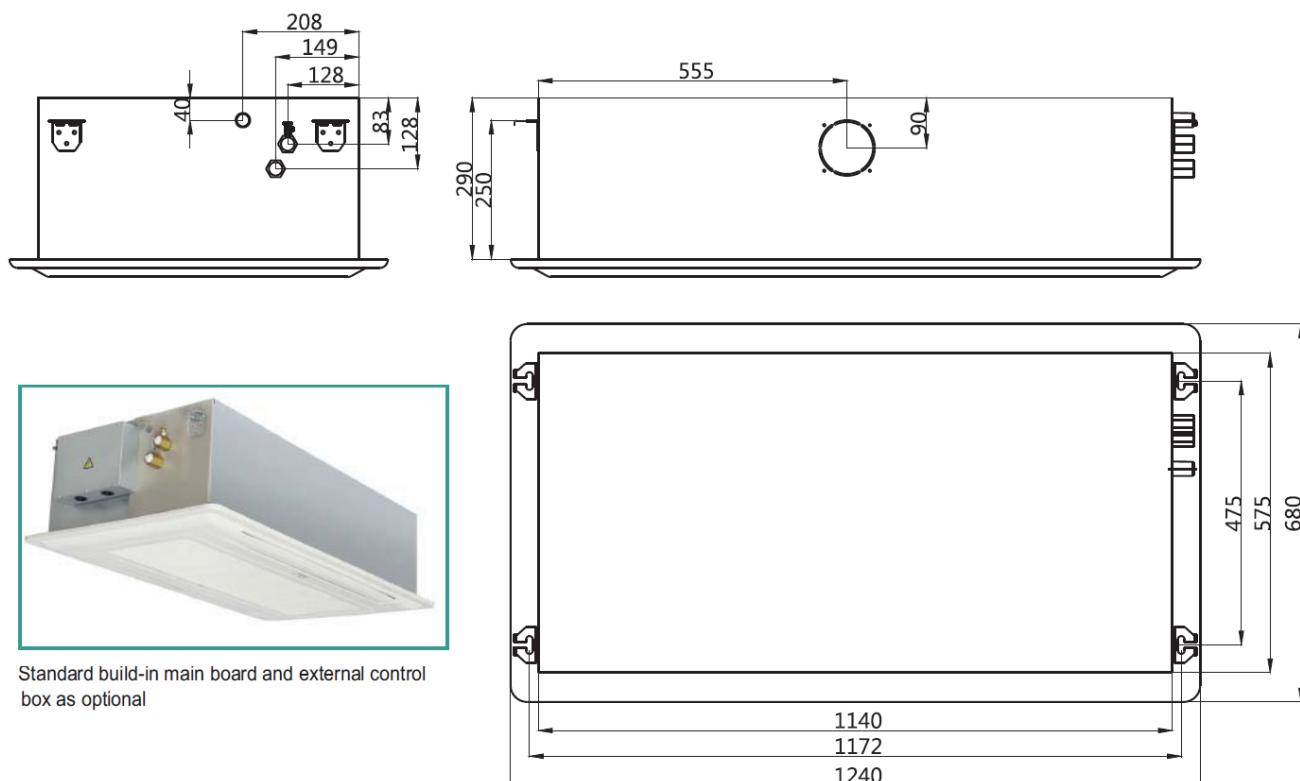
## Cassette type Fan Coil Unit - for Chilled/Hot Water AC System

### Performance Data - 2 pipe

Model: FP-*KM2-V/A			FP-68KM2-V/A	FP-85KM2-V/A	FP-102KM2-V/A	FP-136KM2-V/A
CFM			400	500	600	800
Air Flow Rate	H	m³/h	680	850	1020	1360
	M	m³/h	520	640	765	1050
	L	m³/h	400	490	600	800
Cooling	H	KW	3.6	4.5	5.4	7.2
	M	KW	2.8	3.4	4.1	5.6
	L	KW	2.2	2.6	3.2	4.3
Sensible Capacity	H	KW	2.6	3.2	3.8	5.0
	M	KW	2.2	2.6	3.1	4.3
	L	KW	1.9	2.2	2.6	3.5
Water flow rate		l/h	620	776	730	1245
Water pressure drop		kPa	20	28	23	40
Heat	H	KW	5.5	6.8	8.0	10.8
	M	KW	4.2	5.2	6.2	8.2
	L	KW	3.2	4.0	4.8	6.4
Power supply			220~240V/1PH/50Hz(or 60Hz)			
Power Input			W	64	100	110
Sound pressure			dB(A)	42	43	45
Fan	Type		Centrifugal Fan			
	Model	Ø142	Ø155	Ø155	SYP150/200J	
	Quantity	Nr.	2	2	2	2
Motor	Type		3-speed Motor			
	Quantity	Nr.	1	1	1	1
Coil	Coil Rows	Nr.	2	3	4	4
	Max. working pressure	MPa	1.6			
Dimensions	Tuber Diameter	inch	3/8"			
	Unit body	mm	1140x575x290			
Connection	Panel assembly	mm	1240x680x30			
	Water inlet/outlet pipe	inch	ZG3/4" / ZG3/4"			
Condensate discharge			26			
Weight(with feet, with casing)			kg	32	32	34
						34

1. Cooling: inlet air temp. DB+27°C/WB+19.5°C, water inlet/outlet temp. +7°C/+12°C

2. Heating: +21°C, water inlet temp. +60°C; Same water flow rate as for the cooling



Standard build-in main board and external control box as optional

## 6-way cassette units

(Drain pump inside)

--- for chilled/hot water AC system

**System:** 2-pipe / 4-pipe

**Air Flow:** 500 ~ 1000cfm

**Cooling Capacity:** 6.0KW~9.0KW

## Design Features

### Unit Body

Made of Galvanized steel, with pre-formed expanded polystyrene air passages suitable shaped to allow passage of air, thickness enough for thermal and acoustical insulation.

### Panel Assembly

Aesthetic panel design, in ABS material with synthetic washable and removal air filter, auto-swing.

### Quite running

DIDW centrifugal fans with 3 speed motor

### High Efficiency Coil

Coil are made of 3/8"(9.52mm) O.D copper tubes and high exchange surface area aluminum blue fins. All coils are 100% tested against leaks by 30bar(3MPa) air pressure. with 3/4"pipe connections and air bleed vent.

### Condensate Drain Pan

In thermoforming high density expanded polystyrene, covered with a vacuum forming polyvinyl chloride, fitted with a condensates draining pump and a safety float.

### Drain pump and Float Switch

700mm head drain pump with no return valve is installed in the unit; an float switch inside as well to prevent from leaking. If the water raising to a certainly position, the float switch will act and alarm, then the unit will cut off the water valve or stop the fan motor.

### Fresh air intake

Pre-stamped hole for fresh air connection



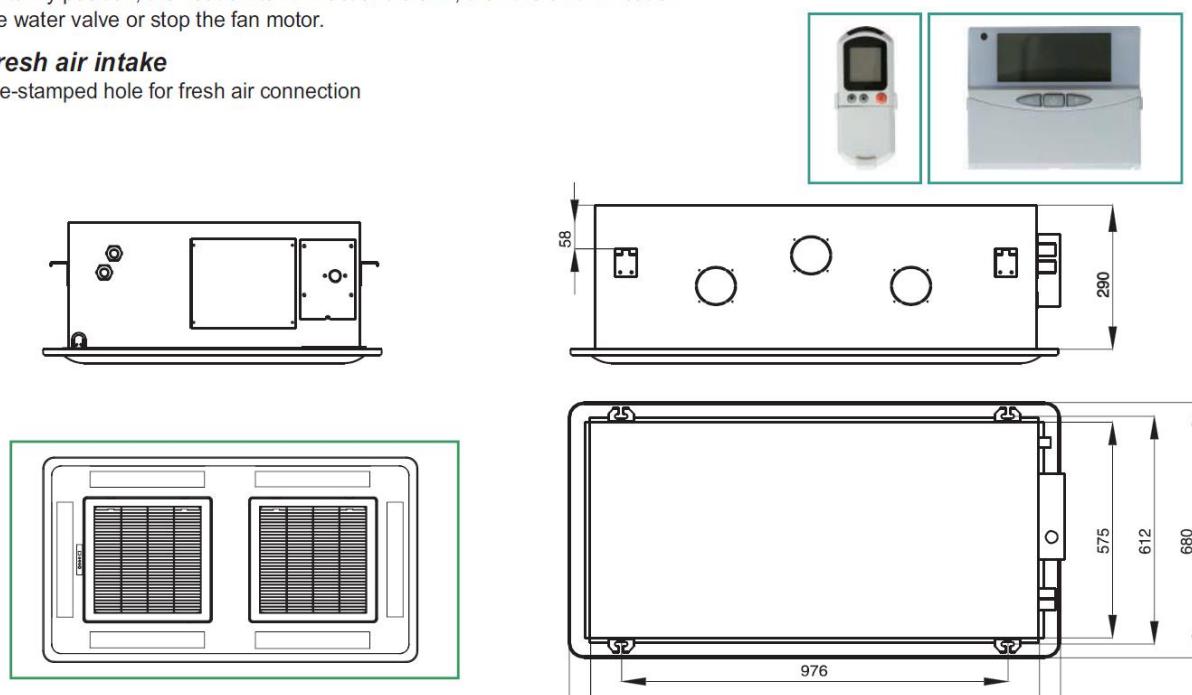
### Microprocessor control system

Wireless remote controller is standard and wired controller is optional; on/off valve controller; daily timer; auto reset; operation mode control; with room sensor & coil sensor; auto-diagnose, protections and error code dispaly; jumpers configurations on electronic board

### Optional:

- a. Wired wall controller
- b. Finger Grille
- c. On/off 2-way or 3 way valve
- d. Electric heater control
- e. 5-speed motor
- f. RS485 ModBus, master-slave network control
- g. BMS computer net control.
- h. 1200mm head drain pump

\* External control box is standard, main board installed outside of the body





## Cassette type Fan Coil Unit - for Chilled/Hot Water AC System

### Performance Data - 2 pipe, 2 rows

Model: FP-KM6-V/B			FP-85KM6-V/B	FP-102KM6-V/B	FP-136KM6-V/B	FP-170KM6-V/B	
CFM			500	600	800	1000	
Air Flow Rate	H	m³/h	850	1020	1360	1700	
	M	m³/h	700	870	1120	1350	
	L	m³/h	550	720	900	1100	
Cooling	Total Capacity	H KW	6.0	7.0	8.0	9.0	
	M KW	5.1	6.0	6.9	7.7		
	L KW	4.2	5.4	6.1	6.9		
Sensible Capacity	H KW	4.1	5.0	6.0	7.0		
	M KW	3.5	4.3	5.4	6.3		
	L KW	2.9	3.8	4.5	5.5		
Heat	Water flow rate	l/h	1030	1200	1375	1550	
	Water pressure drop	kPa	8	10	13	16	
	Heating Capacity	H KW	9.0	10.5	12.0	13.5	
Power supply	M KW	7.6	9.0	10.8	12.0		
	L KW	6.5	8.0	9.2	10.7		
	220~240V/1PH/50Hz(or 60Hz)						
Power Input			W	105	110	118	195
Sound pressure			dB(A)	45	49	52	54
Fan	Type			Centrifugal Fan			
	Model		Ø315	Ø315	Ø315	Ø315	
	Quantity	Nr.	2	2	2	2	
Motor	Type			3-speed Motor			
	Quantity	Nr.	1	1	1	1	
	Coil Rows	Nr.		2			
Coil	Max. working pressure	MPa		1.6			
	Tuber Diameter	inch		3/8"			
	Unit body	mm		1133x575x290			
Dimensions	Panel assembly	mm		1240x680x30			
	Water inlet/outlet pipe	inch		ZG3/4" / ZG3/4"			
	Condensate discharge	inch		26			
Weight(with feet, with casing)			kg	42	42	42	42

1. Cooling: inlet air temp. DB+27°C/WB+19.5°C, water inlet/outlet temp. +7°C/+12°C

2. Heating: +21°C, water inlet temp. +60°C; Same water flow rate as for the cooling

### Performance Data - 4 pipe, 2 rows

Model: FP-KM6-P/B			FP-85KM6-P/B	FP-102KM6-P/B	FP-136KM6-P/B	FP-170KM6-P/B	
CFM			500	600	800	1000	
Air Flow Rate	H	m³/h	850	1020	1360	1700	
	M	m³/h	700	870	1120	1350	
	L	m³/h	550	720	900	1100	
Cooling	Total Capacity	H KW	5.0	6.0	6.5	7.5	
	M KW	4.3	5.3	5.8	6.4		
	L KW	3.6	4.6	5.3	5.9		
Sensible Capacity	H KW	3.7	4.4	5.0	6.0		
	M KW	3.2	3.9	4.5	5.2		
	L KW	2.9	3.3	3.8	4.8		
Heat	Water flow rate	l/h	860	1030	1120	1290	
	Water pressure drop	kPa	18.5	19.0	22.0	26.0	
	Heating Capacity	H KW	7.6	8.4	9.6	10.4	
Power supply	M KW	6.5	7.7	8.6	9.0		
	L KW	5.4	6.6	7.9	8.4		
	220~240V/1PH/50Hz(or 60Hz)						
Power Input			W	105	110	118	195
Sound pressure			dB(A)	45	48	50	52
Fan	Type			Centrifugal Fan			
	Model		Ø315	Ø315	Ø315	Ø315	
	Quantity	Nr.	2	2	2	2	
Motor	Type			3-speed Motor			
	Quantity	Nr.	1	1	1	1	
	Coil Rows	Nr.		2			
Coil	Max. working pressure	MPa		1.6			
	Tuber Diameter	inch		3/8"			
	Unit body	mm		1133x575x290			
Dimensions	Panel assembly	mm		1240x680x30			
	Water inlet/outlet pipe	inch		ZG3/4" / ZG3/4"			
	Condensate discharge	inch		26			
Weight(with feet, with casing)			kg	42	42	42	42

1. Cooling: inlet air temp. DB+27°C/WB+19.5°C, water inlet/outlet temp. +7°C/+12°C

2. Heating: +21°C, water inlet temp. +60°C; Same water flow rate as for the cooling