

For Well-Being Life

A specialized manufacturer for
Fan Coil Unit

Venture for
Tomorrow
Certified with venture

INNOBIZ
Innovation Business Association

CE
Certified with CE

Energy Efficient

ISO 9001

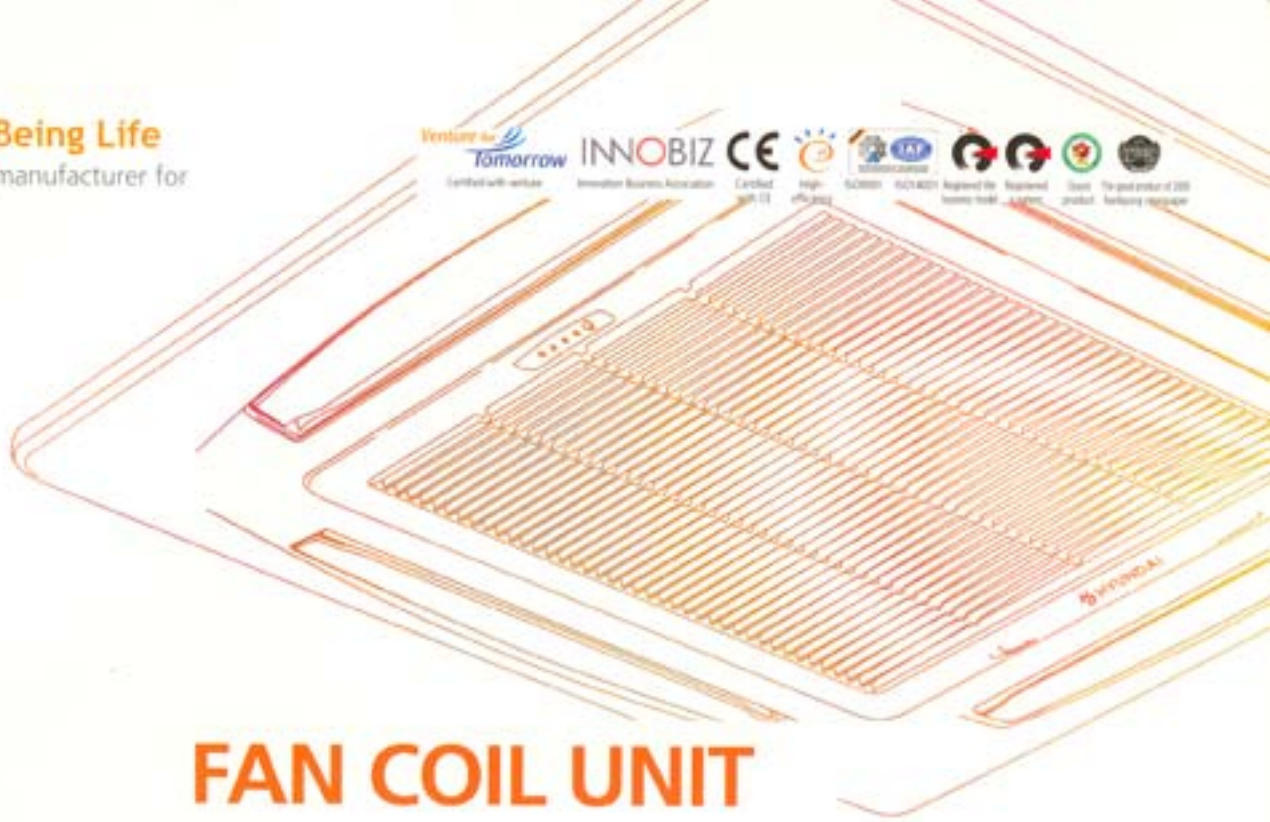
ISO 14001

Approved the
Energy Mark

Registered
Energy Mark

Green
product

The best product of 2009
Building equipment



FAN COIL UNIT

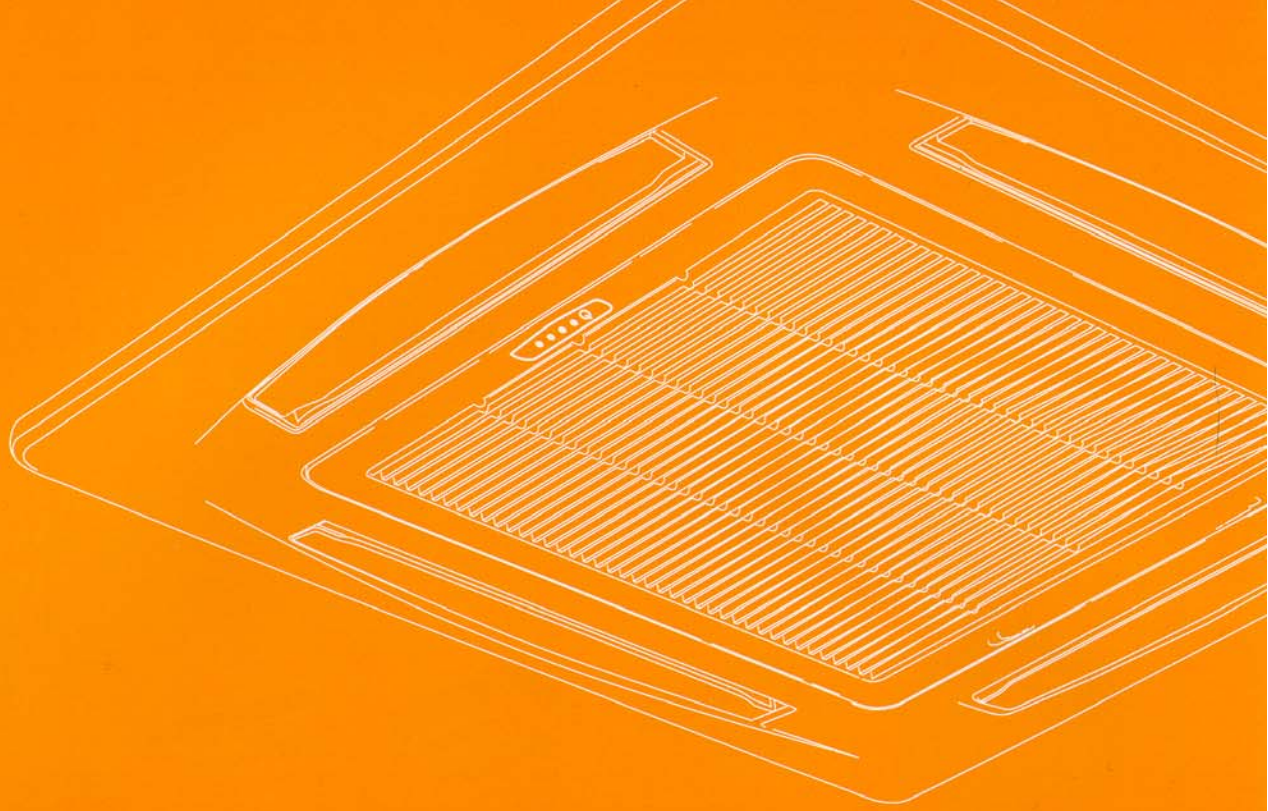




Technologies for cooling and heating ventilation system leading digital age.
HYUNDAI CLIMATE CONTROL CO., LTD. is a major leading company for markets

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 **HYUNDAI**
CLIMATE CONTROL CO., LTD.

HYUNDAI CLIMATE CONTROL CO., LTD. is pursuing for coziness even in what you can't see.



4-WAY CEILING CASSETTE TYPE



2-WAY CEILING CASSETTE TYPE



1-WAY CEILING CASSETTE TYPE



CEILING CASSETTE SLIM TYPE



CEILING CASSETTE TYPE



FLOOR EXPOSED-SLANT DISCHARGE TYPE



FLOOR CONCEALED-SLANT DISCHARGE TYPE



FLOOR EXPOSED-TOP DISCHARGE TYPE



FLOOR CONCEALED-TOP DISCHARGE TYPE



FLOOR CONCEALED-INHALATION TYPE



FLOOR EXPOSED-FRONT DISCHARGE TYPE



FLOOR CONCEALED-FRONT DISCHARGE TYPE



LOWBOY EXPOSED TYPE



LOWBOY CONCEALED TYPE



CEILING EXPOSED TYPE



CEILING CONCEALED TYPE



VERTICAL TYPE-FRONT DISCHARGE



VERTICAL TYPE-TOP DUCT



HIGH PRESSURE CEILING CONCEALED TYPE





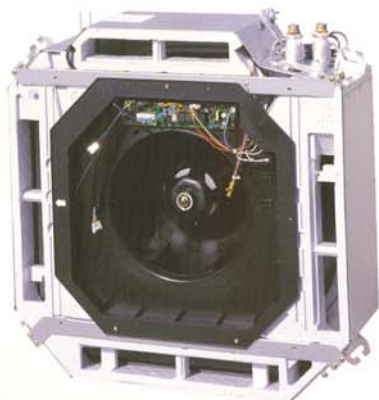
History

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- 1991.** 6 HYUNDAI heavy industries climate control facilities dept. new establishment.
 - 1992.** 2 Absorption chiller & Absorption chiller-heater technical tie-up. (MHI, JAPAN)
 - 1994.** 10 Turbo chiller (R-134a) technical tie-up. (McQUAY, AMERICA)
 - 1996.** 6 Air Handling Unit (AHU) technical tie-up. (Dong-Yang Factory, JAPAN)
 - 1997.** 3 Turbo chiller (R-123) technical tie-up. (MHI, JAPAN)
-
- 2001.** 9 The Foundation to be the law of HYUNDAI climate control Co., LTD.
 - 10 The registration of international Quality Assurance Standard, ISO 9001
 - 2003.** 2 Facilities supplier registration of Ice storage system (KOREA ELECTRICITY)
 - 3 Turbo chiller (R-134a) distributorship agreement (MHI, JAPAN)
 - 12 GHP / EHP distributorship agreement (MHI, JAPAN)
 - 2005.** 12 Registration for Venture business, Technical Innovation Enterprises
 - 2006.** 11 The registration of international Quality Assurance Standard, ISO 14001
 - 2007.** 1 Movement of Head Office from Gyeongju city to Ulsan city
 - 8 The certification of High Efficiency Energy Facility for Absorption Chiller-Heater
 - 9 The certification of ASME for Boiler and Pressure Vessels (U, S, PP)
 - 10 The registration of Special Equipment Fabrication for Pressure Vessels and Storage Tanks (By Korea Gas Safety Corporation)
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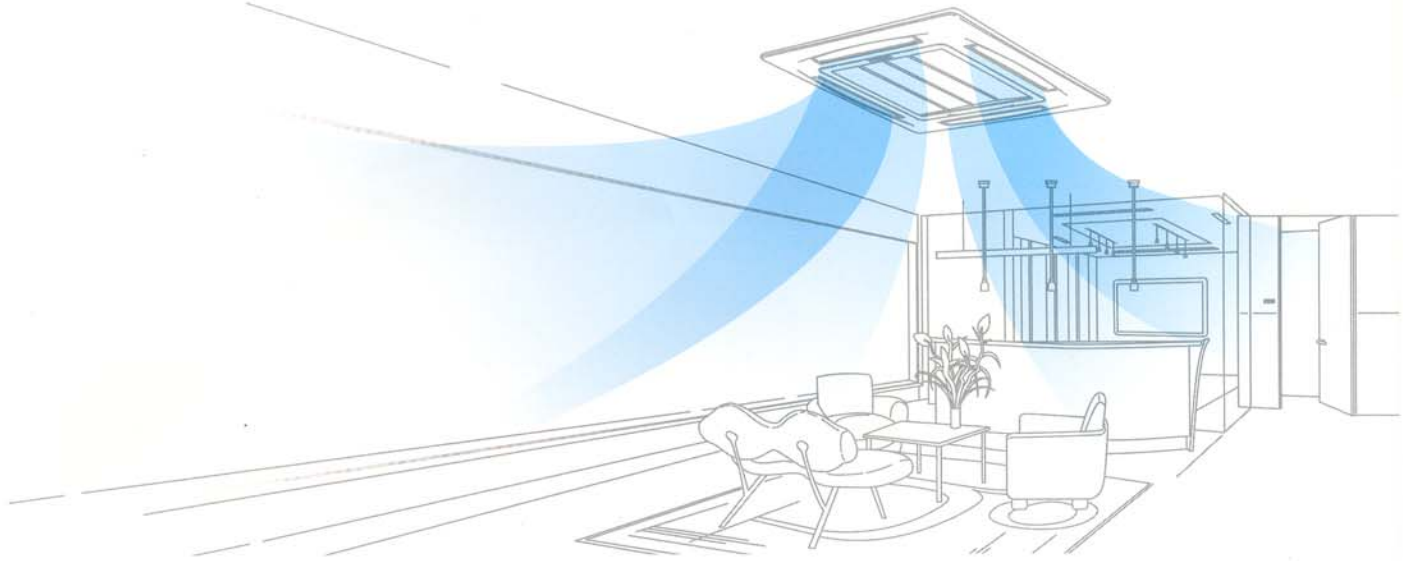
HYUNDAI

HYUNDAI CLIMATE CONTROL CO., LTD. is pursuing for coziness even in what you can't see.



1, 2, 4 - WAY CEILING CASSETTE TYPE

- **Casing** ▶ The cases are made so that their colors and outfits are well harmonized with the surrounding, and also their heat insulating materials and sound absorbs materials use hard-to-be flame resistance in order to minimize noise and condensation.
- **Automatic Drain Pump** ▶ Drain Pump is operated by time control, and it is designed to have its maximum head of 600mm.
- **Interior Grille Panel** ▶ Interior Grille Panel is beautifully equipped, and it swings 4way Air Guide Vane with angle of 30° ~70° for ideal air distribution. In addition, it is designed to be completely closed in order to prevent influx of foreign substance when it is stopped.
- **Coil** ▶ Single-body-typed circular heat exchanger uses water-friendly slit fin whose heat efficiency is maximized, and the connection areas for copper pipes and fins used high-pressured hydraulic extended pipe method in order to improve heat transferring efficiency.
- **Control Switches** ▶ It uses wireless remote controller to reduce construction cost and improve convenience for consumers, and automatic compensation function for power failure and automatic function are added so that wind flow rate can be automatically converted by difference between indoor and desired temperature. (Wired remote controller can be also used with wireless one simultaneously)
- **Fan & Motor Ass'y** ▶ It uses condenser driving single phase inducing motor that has strong durability. In addition, it is running very calmly by introducing high-quality turbo fan made of ABS, and it is designed to select wind flow rates suitable for indoor air-conditioning by adjusting RPMs by 4-steps in turbo, high, medium and low.



FLOOR TYPE

- **Casing** ▶ Its outfits and colors are well harmonized with the surrounding environments, and its noise and condensing is minimized by perfectly attaching heat insulating materials and sound absorbs materials on it (Exposed type is hard to be scratched with its separated painting)
- **Air Vent** ▶ It is designed to be easy to controlled in a way that remaining air in coil can be easily discharged to acquire desired air-conditioning effects, and it is equipped in coil upper side.
- **Air Discharge Grille** ▶ Beautifully equipped Air Discharge Grille is designed to change the direction of wind freely so that discharged air can be uniformly distributed in whole indoor space.
- **Coil** ▶ Water-friendly slit fin whose heat efficiency is maximized, and the connection areas for copper pipes and fins used mechanical extended pipe method in order to improve heat transferring efficiency.
- **Piping Service Space** ▶ It uses Slit Fin whose heat efficiency is maximized, the contacting area between copper pipes and fins is a mechanical extending pipe type to improve heat transferring efficiency.
- **Fan & Motor Ass'y** ▶ It is selectable depending on pipe connection direction (left and right), and as it has wide pipe service space making it easier to do piping works. (Operational switch is attached on the opposite side against the pipes)
- **Drain Pan** ▶ It is designed to have sufficient capacities so that the condensed water coming from coil is not dropping on the ceiling and floor.
- **Air Filter** ▶ As this filter can remove even fine impurities indoor, it is always able to maintain fresh and cozy indoor life environments, and it is also easy-to-handling with its high-capacity removable structure.

Major features for Fan Coil Unit.



Low noised design using turbo fan

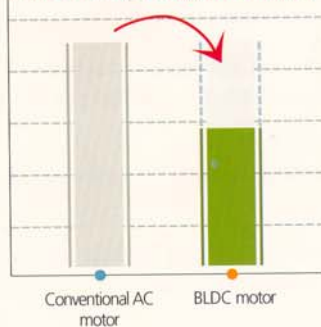
It strengthen wind flow and reduces noise by adopting 3-dimensional aerodynamic typed-turbo fan, and it is also designed to be very slim-type making it easier to be installed even at the low ceiling height.



Low noise and extremely light weight BLDC motor is used

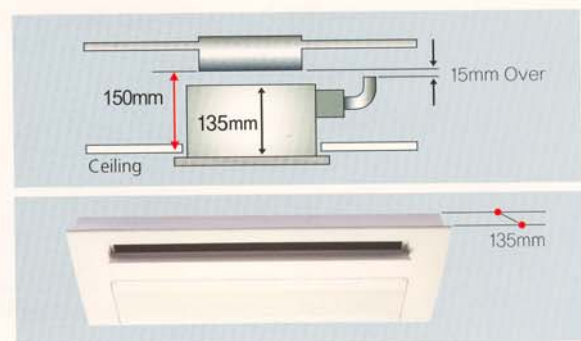
It saves energy cost with its high efficiency and low noise BLDC fan motor and provides comfortable environment.

10~30% of energy cost saving.



Slim, Compact & Clean Design

Compact design for installation in low ceiling is not an issue. In various places can be installed without the constraints of space. Slim, stylish design, grille panel created by the curve consistent with the ceiling, matching Indoor decoration well.



Comfortable and Convenient

It is clean with its high-capacity and bacteria-proof filter. It is easy to be cleaned with removable front grill structure. It provides very comfortable cooling and heating system in a way that produces optimized air flow as its smooth swing blades on the ceiling generate winds uniformly. wireless and wired remote control functions for making the product look more deluxe.

Standard specification for fan coil unit BLDC motor

Model	Division	Model No.	Rating Cooling Capacity		Rating Heating Capacity		Air flow rate	Flow rate	Power consumption	Motor
			kw	kcal/hr	kw	kcal/hr	m ³ /hr	lpm	w	
CASSETTE TYPE	4-WAY Cassette	SFC - 3K	3.7	3,150	5.8	5,050	780	11.0	25	B L D C
		SFC - 4K	5.0	4,300	7.9	6,850	960	14.0	35	
		SFC - 5K	6.1	5,250	9.7	8,400	1,140	18.0	40	
		SFC - 6K	7.2	6,250	11.6	10,000	1,320	21.0	56	
		SFC - 8K	9.4	8,150	15.1	13,000	1,560	27.0	96	
		SFC - 10K	11.6	10,000	18.0	15,500	1,980	33.3	130	
	2-WAY Cassette	SFC2 - 3K	3.6	3,150	5.8	5,050	660	11.0	36	
		SFC2 - 4K	5.0	4,300	7.9	6,850	780	14.0	48	
		SFC2 - 5K	6.1	5,250	9.7	8,400	960	18.0	92	
	1-WAY Cassette	SFC1 - 1.5K	1.9	1,600	3.0	2,560	420	5.3	27	
		SFC1 - 2K	2.5	2,100	3.6	3,090	480	7.0	33	
		SFC1 - 2.5K	2.9	2,500	4.3	3,700	540	9.3	38	
		SFC1 - 3K	3.6	3,100	5.1	4,400	540	10.3	38	
		SFC1 - 3.5K	4.1	3,500	6.2	5,150	660	11.7	48	
Ceiling Cassette Slim Type	SFC - S3KB	3.4	3,000	5.2	4,500	9	10.5	9		
	SFC - S3.5KB	4	3,500	5.9	5,100	11	11.7	11		
	SFC - S4KB	4.5	4,000	7	6,100	15	13.5	15		
	SFC - S4.5KB	5.4	4,800	8.1	7,000	15	15.3	15		

Strong structural design with base pan (cassette type)

Its whole indoor equipment is strengthened with strong structural design, and it is designed to be low noise by completely removing resonance noise from vibration of body



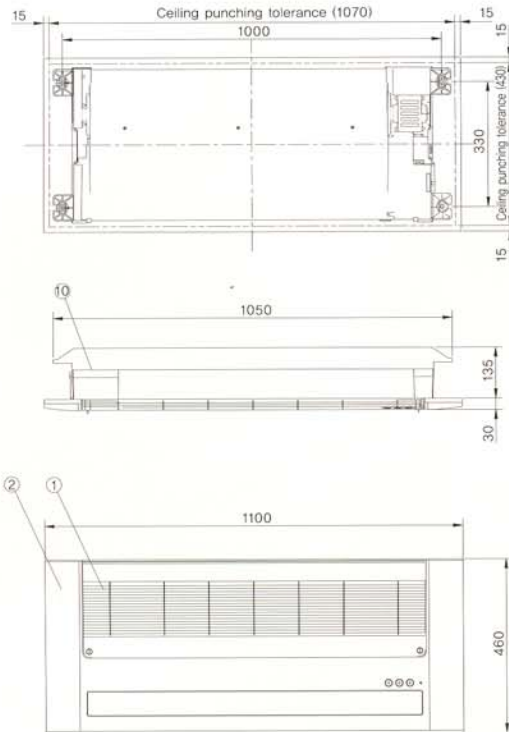
CEILING CASSETTE SLIM TYPE



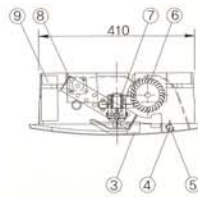
PRODUCT FEATURES

- 1 With its structure capable of in-taking outer air, it is able to suction the constant amount of outer fresh air depending on the construction method of consumers.
- 2 As its indoor equipment is slim, it is easy-to-be installed at lower space ceiling.(135mm)
- 3 As the air flows is not directly contacted with the ceiling by the installed engineering projection, it prevents the ceiling from being polluted.(Registered the patent)
- 4 Built-in automatic drain pump. (with head of 600mm from outlet)
- 5 It is able to connect maximum 16 sets when wired remote control switch is used.
- 6 Discharging air flow is uniform with the added swing function.
- 7 Low power consumption and high efficiency by adopting BLDC motor.

CEILING CASSETTE SLIM TYPE →



DESCRIPTION	DIMENSION	MATL	QTY	REMARK
1 SUCTION GRILL		HIPS	1	WHITE BEIGE
2 INTERIOR GRILL		HIPS	1	WHITE BEIGE
3 DRAIN PAN		ABS	1	
4 FLAP		HIPS	1	
5 SWING MOTOR	DC12V, 15Ω	-	1	STEPPING MOTOR



DESCRIPTION	DIMENSION	MATL	QTY	REMARK
6 FLOWER	D90	SAN G20%	1	D90
7 DRAIN PUMP	HEAD 600m	-	1	∅ 220V, 10W
8 HEAT & COOLING COIL		Cu, Al	1	DESCRIPTION
9 CONTROL BOX		G.I	1	
10 BODY CASE	900 x 460 x 135	G.I	1	

Specification →

Section		Unit	SFC-S3K	SFC-S3.5K	SFC-S4K	SFC-S4.5K
Capacity	Cooling capacity	kW	3.4	4	4.6	5.4
		kcal/h	3,000	3,500	4,000	4,800
	Heating capacity	kW	5.2	5.9	7	8.1
		kcal/h	4,500	5,100	6,100	7,000
	Volume flow	ℓ /min	10.5	11.7	13.5	15.3
Head loss	mAq	1.42	1.74	2.34	4.1	
Fan	Type		Centrifuge Type			
	Air flow rate	m³/min	9	11	15	15
Motor	Type		BLDC			
	Power consumption	W	9	11	15	15
	Number	EA	1			
Heat exchanger	Type		Cross Finned			
	Fin Pitch	mm	2.1			
Piping	Inlet	mm	20A (PF 3/4)	20A (PF 3/4)	20A (PF 3/4)	20A (PF 3/4)
	Outlet	mm	20A	20A	20A	20A
	Drain	mm	16A (PT 1/2)	16A (PT 1/2)	16A (PT 1/2)	16A (PT 1/2)
Electricity			Single phase 220V, 60Hz			
Data link			Shield cable AWG24 x 4C			
Air Filter			Bacteria-proof filter			
Size	Body	D×W×H (mm)	410 x 900 x 135			
	Panel		460 x 1,100 x 30			
	Weight	kg	9	11	15	15

(Note) Temperature condition : Air side cooling DB 27°C, heating DB 21°C Water side cool water inlet 7°C, outlet 12°C, hot water inlet 60°C

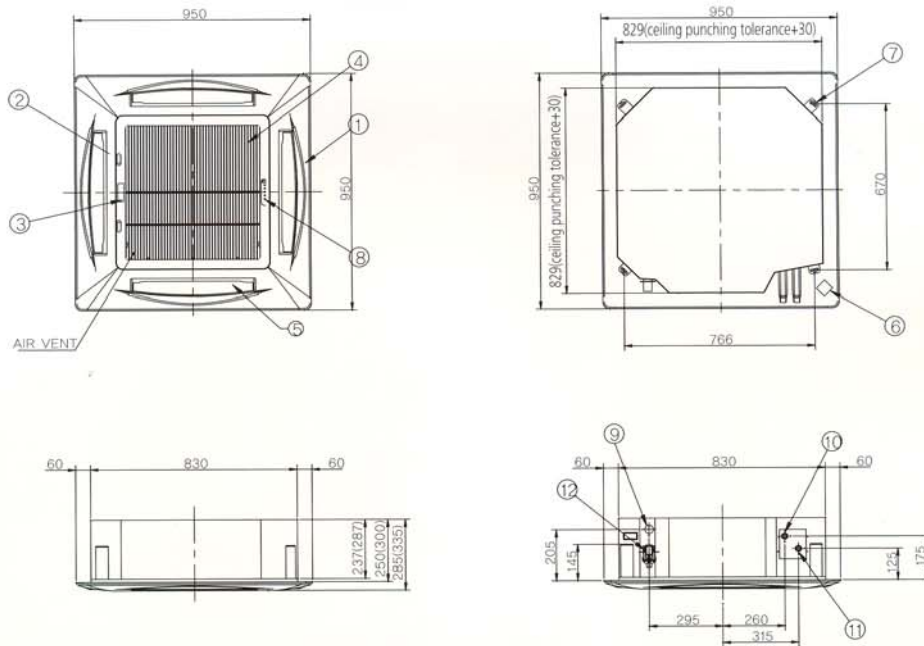
4-WAY CEILING CASSETTE TYPE



PRODUCT FEATURES

- 1 It is operated by wireless remote control switch, and its wind flow rate is adjustable high, medium, weak and turbo, which makes it possible to converted into rapid cooling and heating with strong discharging.
- 2 The wind flow is uniformly discharged in 4-ways front, rear, left and right direction.
- 3 The main body is built into the ceiling, and the rounded grille panel is installed meeting the ceiling space, which has no compelling feel, and is well harmonized with interiors.
- 4 It uses turbo fan that generates much wind and reduces noise.
- 5 Built-in automatic drain pump. (with head of 600mm from outlet)
- 6 It is able to connect maximum 16 sets when wired remote control switch is used.
- 7 Discharging air flow is uniform with the added swing function.
- 8 Low power consumption and high efficiency by adopting BLDC motor. (option)

4-WAY CEILING CASSETTE TYPE →



DESCRIPTION	DIMENSION	MAT'L QTY	REMARK
1 INTERIOR GRILLE ASS'Y		HIPS 1	COLOR : WHITE BEIGE
2 GRILLE BUTTON ATTACHMENT SNAPS		HIPS 2	SLIDING TYPE
3 NAME PLATE		1	
4 RETURN GRILLE		HIPS 1	COLOR : WHITE BEIGE
5 AIR GUIDE VANE		ASS'Y 4	
6 SWING MOTOR		ASS'Y 1	STEPPING MOTOR:DC12V 150Ω

DESCRIPTION	DIMENSION	MAT'L QTY	REMARK
7 HANGING BRACKET	t1.6	GI 4	
8 RECEIVER REMOTE CONTROL		Acrylic 1	Wireless remote controller
9 DRAIN JOINT PORT	ø16(External diameter)	1	
10 COLD / HOT WATER OUTLET		BS 1	
11 COLD/HOT WATER INLET	PF 3/4" (20A)	BS 1	
12 DRAIN PUMP	PF 3/4" (20A)	1	1ø, 220V, 60Hz

※ Dimension in () is for SFC-10K

Specification →

Section	Unit	SFC-3K	SFC-4K	SFC-5K	SFC-6K	SFC-8K	SFC-10K							
Capacity	Capacity condition		A	B	A	B	A	B	A	B	A	B		
	Cooling capacity	Kcal/h	4,350	3,150	5,950	4,300	7,250	5,250	8,650	6,250	11,300	8,150	13,500	10,000
	Heating capacity	Kcal/h	8,080	5,050	10,900	6,850	13,400	8,400	16,000	10,000	21,000	13,000	25,000	15,500
	Volume flow	ℓ / min	15	11	20	14	24	18	29	21	38	27	45	33.3
	Head loss	mAq	2.9	2.6	3.1	2.8	3.7	2.9	5.1	3.5	5.8	4.9	8.1	7.2
Fan	Type		Single suction turbo type											
	Size	mm	ø480											
	Air flow rate	m ³ /min	13	16	19	22	26	33						
	Driving		Motor connected driving											
Motor	Type		Semi - hermetic (six pole, b type insulation)											
	Power consumption	W	110 (40)	110 (40)	110 (40)	140 (56)	140 (96)	200 (130)						
	Number	EA	1											
Heat exchanger	Type		Unite type Multi-Pass Cross Finned Tube (Slit Fin)											
	Fin Pitch	mm	2.1											
Piping	Inlet	A	PF 3/4" (20A)											
	Outlet	A	PF 3/4" (20A)											
	Drain	mm	ø16 (external diameter) / Drain Pump embedded (10W) / Head 600mm											
Exterior		Body : Galvanized steel (0.8t, 1.0t), grille panel : plastic (HIPS, ABS material)												
Lagging sound-absorbing materials		P.U Foam, Styrofoam, P.E Foam / Flame resistance												
Air flow rate control		Turbo and high, medium, weak, operated by wireless remote control (Wire remote control option)												
Electricity		Single phase 220V, 60Hz												
Air Filter		Vinyl chloride (Flush)												
Discharge grille swing motor		DC 12V, Stepping Motor												
Weight	Kg	34.0			34.5			35.5		39.0				

(Note) 1. capacity condition A : cooling capacity : indoor air DB 27°C WB 21°C entrance water temperature 5°C heating capacity : indoor air 18°C entrance water temperature 80°C
 2. capacity condition B : cooling capacity : indoor air DB 27°C WB 19.5°C entrance water temperature 7°C heating capacity : indoor air 21°C entrance water temperature 60°C

※ () adopting BLDC motor

2-WAY CEILING CASSETTE TYPE

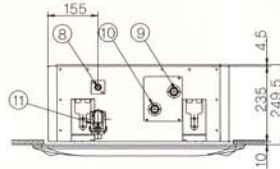
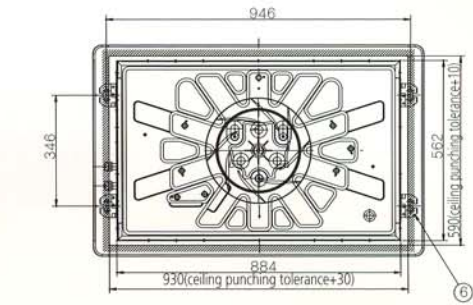


PRODUCT FEATURES

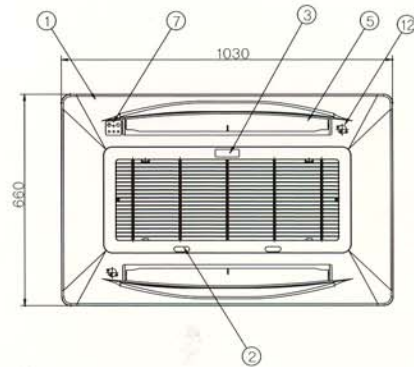
- 1 With its structure capable of in-taking outer air, it is able to suction the constant amount of outer fresh air depending on the construction method of consumers.
- 2 It is possible to acquire more calm and strong air flow rate using turbo fan.
- 3 As its indoor equipment is slim, it is easy-to-be installed at lower space ceiling.
- 4 As the air flows is not directly contacted with the ceiling by the installed engineering projection, it prevents the ceiling from being polluted.(Registered the patent)
- 5 Built-in automatic drain pump (with head of 600mm from outlet)
- 6 It is able to connect maximum 16 sets when wired remote control switch is used.
- 7 Discharging air flow is uniform with the added swing function.
- 8 Low power consumption and high efficiency by adopting BLDC motor. (option)

2-WAY CEILING CASSETTE TYPE →

DESCRIPTION	DIMENSION	MAT'L	Q'TY	REMARK
1 INTERIOR GRILLE ASS'Y		HIPS	1	COLOR : WHITE BEIGE
2 GRILLE BUTTON ATTACHMENT SNAPS		HIPS	2	SLIDING TYPE
3 NAME PLATE			1	
4 RETURN GRILLE		HIPS	1	COLOR : WHITE BEIGE
5 AIR GUIDE VANE		ASS'Y	4	
6 HANGING BRACKET	t1.6	GI	4	



DESCRIPTION	DIMENSION	MAT'L	Q'TY	REMARK
7 RECEIVER REMOTE CONTROL		ACRYLIC	4	BLACK (WIRELESS REMOTE CONTROLLER)
8 DRAIN JOINT PORT	ø16(External diameter)		1	
9 COLD / HOT WATER OUTLET	PF 3/4" (20A)		1	
10 COLD/HOT WATER INLET	PF 3/4" (20A)		1	
11 DRAIN PUMP			1	1ø, 220V, 60HZ
12 SWING MOTOR	DC12V 150Q		2	STEPPING MOTOR



Specification →

Section		Unit	SFC2-3K		SFC2-4K		SFC2-5K	
Capacity	Capacity condition		A	B	A	B	A	B
	Cooling capacity	Kcal/h	4,850	3,150	5,700	4,200	6,435	5,000
	Heating capacity	Kcal/h	8,900	5,050	10,400	6,335	11,900	7,300
	Volume flow	ℓ / min	15	11	20	14	24	18
	Head loss	mAq	0.7	0.6	2.0	1.0	2.9	1.6
Fan	Type		Single suction turbo type					
	Size	mm	ø325					
	Air flow rate	m³/min	11		13		16	
	Driving		Motor connected driving					
Motor	Number	EA	1					
	Type		Semi-hermetic (six pole, b type insulation)					
	power consumption	W	80 (36)		95 (48)		110 (92)	
Heat exchanger	Type		Unite type Multi-Pass Cross Finned Tube (Slit Fin)					
	Fin Pitch	mm	2.1					
	Inlet	A	PF 3/4" (20A)					
	Outlet	A	PF 3/4" (20A)					
Piping	Drain	mm	ø16 (external diameter) / Drain Pump embedded (10W) / head 600mm					
	Exterior		Body : Galvanized steel (0.8t, 1.0t), grille panel: plastic (HIPS, ABS material)					
Lagging sound-absorbing materials		P.U Foam, Styrofoam, P.E Foam / flame resistant						
Air flow rate control		Turbo and high, medium, weak, operated by wireless remote control (wire remote control option)						
Electricity		Single phase 220V, 60Hz						
Air Filter		Vinyl chloride(wash)						
Discharge grille swing motor		DC 12V, Stepping Motor						
Weight	Kg	31		31		33		

(Note) 1. capacity condition A : cooling capacity : indoor air DB 27°C WB 21°C entrance water temperature 5°C heating capacity : indoor air 18°C entrance water temperature 80°C
2. capacity condition B : cooling capacity : indoor air DB 27°C WB 19.5°C entrance water temperature 7°C heating capacity : indoor air 21°C entrance water temperature 60°C

※ () adopting BLDC motor

1-WAY CEILING CASSETTE TYPE

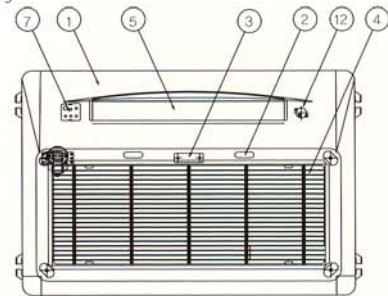
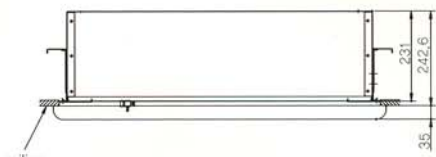
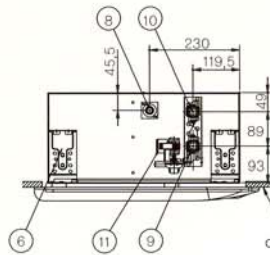
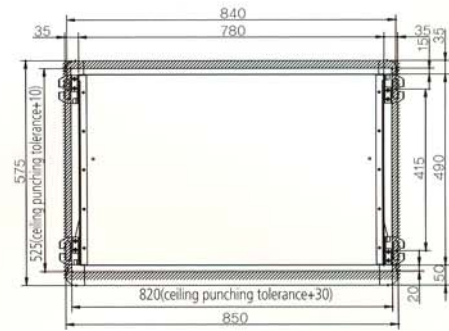


PRODUCT FEATURES

- 1 With its structure capable of in-taking outer air, it is able to suction the constant amount of outer fresh air depending on the construction method of consumers.
- 2 It provides calm operation using SIROCCO FAN.
- 3 As its indoor equipment is thin, it is easy-to-be installed at lower space ceiling. (235mm)
- 4 As the air flows is not directly contacted with the ceiling by the installed engineering projection, it prevents the ceiling from being polluted.(Registered the patent)
- 5 Built-in automatic drain pump (head 600mm)
- 6 It is able to connect maximum 16 sets when wired remote control switch is used.
- 7 Discharging air flow is uniform with the added swing function.
- 8 Low power consumption and high efficiency by adopting BLDC motor. (option)

1-WAY CEILING CASSETTE TYPE →

DESCRIPTION	DIMENSION	MAT'L	QTY	REMARK
1 INTERIOR GRILLE ASS'Y		HIPS	1	COLOR : WHITE BEIGE
2 GRILLE BUTTON ATTACHMENT SNAPS		HIPS	1	SLIDING TYPE
3 NAME PLATE			1	
4 RETURN GRILLE		HIPS	2	COLOR : WHITE BEIGE
5 AIR GUIDE VANE		ASS'Y	2	
6 HANGING BRACKET		GI	4	



DESCRIPTION	DIMENSION	MAT'L	QTY	REMARK
7 RECEIVER REMOTE CONTROL		Acrylic	4	BLACK (WIRELESS REMOTE CONTROLLER)
8 DRAIN JOINT PORT	ø16(External diameter)		1	
9 COLD/HOT WATER OUTLET	PF 3/4" (20A)		1	
10 COLD/HOT WATER INLET	PF 3/4" (20A)		1	
11 DRAIN PUMP			1	1ø, 220V, 60Hz
12 SWING MOTOR	DC12V 15ø		1	STEPPING MOTOR

Specification →

Section		Unit	SFC1-1.5K		SFC1-2K		SFC1-2.5K		SFC1-3K		SFC1-3.5K	
Capacity	Capacity condition		A	B	A	B	A	B	A	B	A	B
	Cooling capacity	Kcal/h	2,240	1,600	2,700	2,100	3,020	2,500	4,000	3,100	4,550	3,500
	Heating capacity	Kcal/h	4,400	2,560	5,000	3,200	5,780	3,700	7,300	4,500	8,450	5,300
	Volume flow	ø / min	7.5	5.3	9.0	7.0	10.1	8.3	13.3	10.3	15.2	11.7
	Head loss	mAq	0.43	0.22	0.62	0.38	0.78	0.53	2.05	1.24	2.64	1.56
Fan	Type		Double suction turbo type									
	Size	mm	ø140 x 165 x 1		ø140 x 200 x 1		ø140 x 200 x 2		ø140 x 200 x 2		ø140 x 200 x 2	
	Air flow rate	m³/min	5.6		7		9		9		11	
	Driving		Motor connected driving									
Motor	Number	EA	1 set									
	Type		Semi-hermetic (six pole, b type insulation)									
	Power consumption	W	50 (27)		50 (33)		65 (38)		65 (38)		65 (48)	
Heat exchanger	Number	EA	1									
	Type		Unite type Multi-Pass Cross Finned Tube (Slit Fin)									
	Fin Pitch	mm	2.1									
	Inlet	A	PF 3/4" (20A)									
Piping	Outlet	A	PF 3/4" (20A)									
	Drain	mm	ø16 (external diameter) / Drain Pump embedded (10W) / head 600mm									
	Exterior		Body : galvanized steel (0.8t, 1.0t), grille panel : plastic (HIPS, ABS material)									
Lagging sound-absorbing		P.U Foam, Styrofoam, P.E Foam / Flame resistant										
Materials		Turbo and high, medium, weak, operated by wireless remote control (Wire remote control option)										
Air flow rate control		Single phase 220V, 60Hz										
Electricity		DC 12V, Stepping Motor										
Air Filter		Vinyl chloride (Flush)										
Motor	mm	850 x 576 x 280										
Weight	Kg	28	28	28	28	30	30					

(Note) 1. capacity condition A : cooling capacity : indoor air DB 27°C WB 21°C entrance water temperature 5°C heating capacity : indoor air 18°C entrance water temperature 80°C
2. capacity condition B : cooling capacity : indoor air DB 27°C WB 19.5°C entrance water temperature 7°C heating capacity : indoor air 21°C entrance water temperature 60°C

※ () adopting BLDC motor

CEILING CASSETTE TYPE

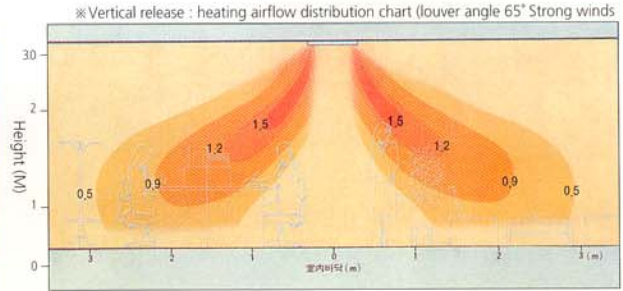
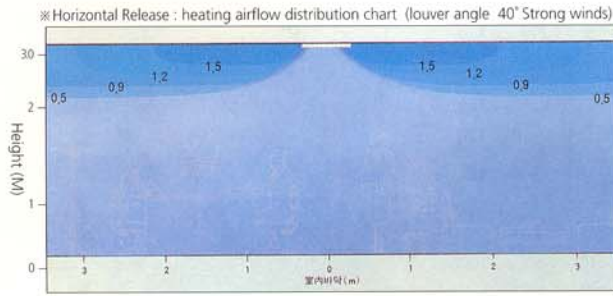


PRODUCT FEATURES

- 1 The main body is built into the ceiling, and the rounded grill panel is installed meeting the ceiling space, which has no compelling feel, and is well harmonized with interiors.
- 2 Thanks to its down flow type, air distribution is good, and discharging air is adjustable for each season.
- 3 It uses condenser resin mould motor that has long life and low noise.
- 4 The panel is made of aluminum, and the air box is made of high-density styrofoam weighting lower, and the body is adjustable up to 70 mm depending on the height of the ceiling.
- 5 Air flow adjusting switch is additionally provided apart from unit.
- 6 Micom wireless remote control switch can be attached. (For additional request)

CEILING CASSETTE TYPE →

Indoor use and indoor interior and harmony with the inlet air to maintain comfortable indoor conditions, was designed for optimal airflow.

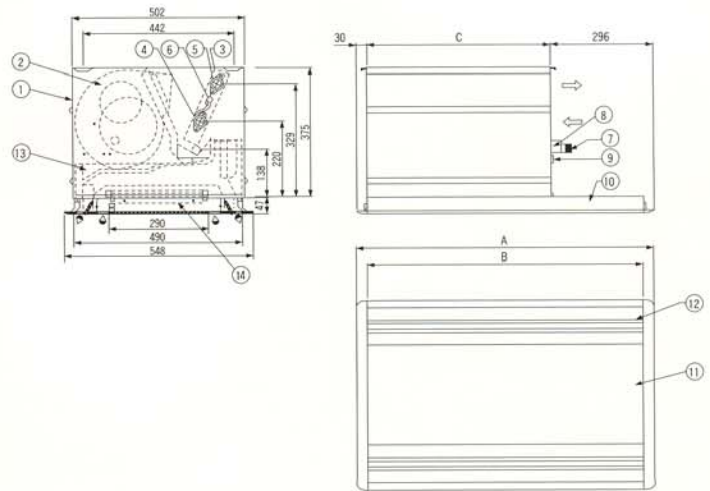


CEILING CASSETTE TYPE →

MODEL	A	B	C	CEILING PUNCHING
SFC-20CC	856	796	530	520×828
SFC-30CC	986	926	660	520×958
SFC-40CC	1136	1076	810	520×1108
SFC-60CC	1446	1386	1120	520×1418
SFC-80CC	1756	1696	1430	520×1728

※ Maximum height of drain : 255mm

DESCRIPTION	DIMENSION	MATL	QTY	REMARK
1 BODY SIDE PLATE	t0.8	GI	2	
2 FAN	ø192	ABS	E	SIROCCO
3 HEAT & COOLING COIL	3/8" × t0.35	CU-AL	1	SILT FIN ADOPT
4 WATER INLET	PF 3/4" (20A)	BS	1	
5 WATER OUTLET	PF 3/4" (20A)	BS	1	
6 AIR VENT	PT 1/8"	BS	1	MANUAL
7 DRAIN CONNECTION	PT 3/4" (20A)		1	
8 DRAIN PAN	t0.8	CR	1	COATING
9 TERMINAL BLOCK	20A, 6P		1	
10 GRILLE PANEL		CR+AL	1	COATING
11 SERVICE PANEL	t0.8	CR	1	COATING
12 AIR FLOOR CONTROL GRILLE		AL	2	COATING
13 AIR CHAMBER		STYROFOAM	1	
14 AIR FILTER		VINYL CHLORIDE	1	FLUSH



Specification →

Section		Unit	SFC-20CC		SFC-30CC		SFC-40CC		SFC-60CC		SFC-80CC	
Capacity	Capacity condition		A	B	A	B	A	B	A	B	A	B
	Cooling capacity	Kcal/h	2,670	1,820	3,500	2,420	4,730	3,480	6,370	4,720	9,320	6,770
	Heating capacity	Kcal/h	4,630	2,980	6,790	4,100	9,250	5,770	12,500	7,530	18,310	11,140
	Volume flow	Q / min	10	6	12	8	15	11.5	20	15.7	30	22.4
	Head loss	mAq	1.5	0.72	2.4	1.5	4.1	2.9	1.9	1.3	4.1	2.7
Fan	Type		Double suction turbo type									
	Size	mm	ø192 × L170		ø192 × L200		ø192 × L170		ø192 × L200		ø192 × L200	
	Air flow rate	m³/min	5.7		8.5		11.3		17		22.6	
	Driving		Motor connected driving									
Motor	Number	EA	1		1		2		2		3	
	Type		Semi-hermetic (six pole, b type insulation)									
	Power consumption	W	45		55		75		95		55 + 95W	
Heat exchanger	Type		Unite type Multi-Pass Cross Finned Tube (Slit Fin)									
	Fin Pitch	mm	2.1									
Piping	Inlet	A	PF 3/4" (20A)									
	Outlet	A	PF 3/4" (20A)									
	Drain	mm	NIPPLE 3/4" (20A)									
Exterior	Galvanized steel											
Lagging sound-absorbing materials	Styrofoam, P.E Foam / Flame resistance											
Air flow rate control	High, Medium, Low 3 Steps Rotary Switch											
Electricity	Single phase 220V, 60Hz											
Air Filter	Vinyl chloride(Flush)											
Weight	Kg	23		27		33		39		52		

(Note) 1. capacity condition A : cooling capacity : indoor air DB 27°C WB 21°C entrance water temperature 5°C heating capacity : indoor air 18°C entrance water temperature 80°C
2. capacity condition B : cooling capacity : indoor air DB 27°C WB 19.5°C entrance water temperature 7°C heating capacity : indoor air 21°C entrance water temperature 60°C

FLOOR EXPOSED - SLANT DISCHARGE TYPE

Standard Type ▶



Micom wireless remote control ▶

FLOOR CONCEALED - SLANT DISCHARGE TYPE



PRODUCT FEATURES

- 1 With stylish and rounded design its front and side area, its color is well harmonized with every interior. (White Beige - exposed type)
- 2 Air flow rate is freely adjustable with 3-stepped rotary switch.
- 3 It uses condenser resin mould motor that has long life and low noise.
- 4 It is easy for pipe connection using flexible tubes.
- 5 It uses a simple discharging grill capable of adjusting air flow rate by 90 degree so that indoor air can be uniformly distributed. (Exposed type)
- 6 Micom wireless remote control switch can be attached.(for additional request)

FLOOR EXPOSED - TOP DISCHARGE TYPE

Standard Type ▶

Micom wireless remote control ▶



FLOOR CONCEALED - TOP DISCHARGE TYPE



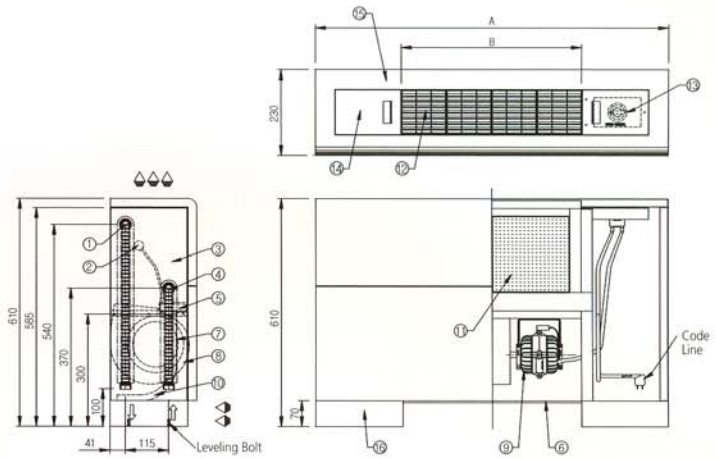
PRODUCT FEATURES

- 1 With stylish and rounded design its front and side area, its color is well harmonized with every interior. (White Beige)
- 2 It is design to be capable of changing into front discharging type for indoor purpose.
- 3 It uses condenser resin mould motor that has long life and low noise.
- 4 It is easy for pipe connection using flexible tubes.
- 5 It uses a simple discharging grill capable of adjusting air flow rate by 90 degree so that indoor air can be uniformly distributed. (Exposed type).
- 6 Air flow rate is freely selectable with 3-stepped rotary switch (High, Medium, Low)
- 7 Micom wireless remote control switch can be attached (Exposed type - for additional request)

FLOOR EXPOSED - TOP DISCHARGE TYPE →

MODEL	A	B	G	M	F
SFC-20T	940	120×4=480	4	1	1
SFC-30T	1060	120×5=600	5	1	1
SFC-40T	1180	120×6=720	6	1	2
SFC-60T	1420	120×8=960	8	1	2
SFC-80T	1660	120×10=1200	10	2	3
SFC-120T	1900	120×12=1440	12	2	4

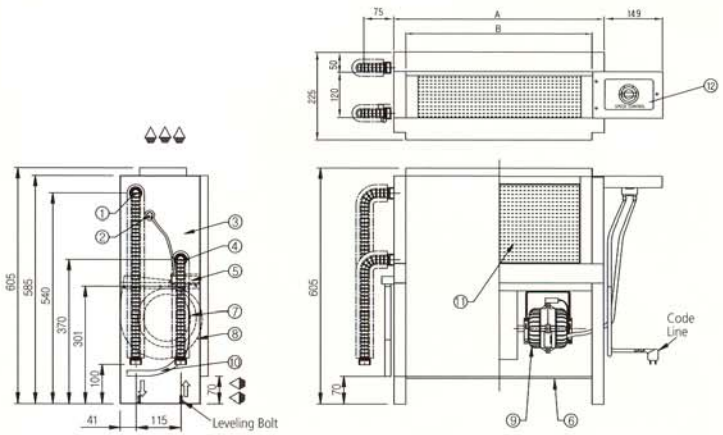
DESCRIPTION	DIMENSION	MAT'L	Q'TY	REMARK
1 WATER OUTLET	PF 3/4" (20A)	BS	1	
2 AIR VENT	PT 1/8"	BS	1	MANUAL
3 INNER SIDE CASING	t1.2	GI	2	
4 WATER INLET	PF 3/4" (20A)	BS	1	
5 DRAIN PAN		ABS	1	PLASTIC
6 AIR FILTER		VINYL CHLORIDE	1	Flush
7 FAN IMPELLER	ø145	ABS	F	SIROCCO
8 FAN HOUSING		ABS	F	
9 MOTOR	1ø 220V 60Hz	ASS' Y	M	
10 DRAIN HOSE	IDø14,OD ø18	SOFT VINYL	1	
11 HEAT & COOLING COIL	3/8" ×10.35	CU-AL	1	SLIT FIN
12 GRILLE	120×120	HEAT-RESISTING ABS	G	
13 CONTROL SW	High, Medium, Low 3-steps		1	ROTARY
14 ACCESS DOOR	120×200	ABS	2	
15 EXTERIOR PANEL	11.0	CR	1	COATING
16 BASE	t3.0	Mixed PP	2	T/K 30%



FLOOR CONCEALED- TOP DISCHARGE TYPE →

MODEL	A	B	M	F
SFC-20TM	540	480	1	1
SFC-30TM	660	600	1	1
SFC-40TM	780	720	1	2
SFC-60TM	1020	960	1	2
SFC-80TM	1260	1200	2	3
SFC-120TM	1500	1440	2	4

DESCRIPTION	DIMENSION	MAT'L	Q'TY	REMARK
1 WATER OUTLET	PF 3/4" (20A)	BS	1	
2 AIR VENT	PT 1/8"	BS	1	MANUAL
3 INNER SIDE CASING	t1.2	GI	2	
4 WATER INLET	PF 3/4" (20A)	BS	1	
5 DRAIN PAN		ABS	1	PLASTIC
6 AIR FILTER		VINYL CHLORIDE	1	FLUSH
7 FAN IMPELLER	ø145	ABS	F	SIROCCO
8 FAN HOUSING		ABS	F	
9 MOTOR	1ø 220V 60Hz	ABS	M	
10 DRAIN HOSE	IDø14,OD ø18	ASS' Y	1	
11 HEAT & COOLING COIL	3/8" ×10.35	SOFT VINYL	1	SILT FIN
12 CONTROL SW	High, Medium, Low 3-steps	CU-AL	1	ROTARY



Specification →

Section	Unit	SFC-20T, TM	SFC-30T, TM	SFC-40T, TM	SFC-60T, TM	SFC-80T, TM	SFC-120T, TM	
Capacity	Capacity condition	A	B	A	B	A	B	
	Cooling capacity	Kcal/h	2,670	1,820	3,500	2,420	4,730	3,480
	Heating capacity	Kcal/h	4,630	2,980	6,790	4,100	9,250	5,770
	Volume flow	Q / min	10	6	12	8	15	11.5
Fan	Head loss	mAq	1.5	0.72	2.4	1.5	4.1	2.9
	Type		Double suction turbo type					
	Size	mm	ø145 × L165	ø145 × L200	ø145 × L165	ø145 × L200	ø145 × L200	ø145 × L200
	Air flow rate	m³/min	5.7	8.5	11.3	17	22.6	34
Motor	Driving		Motor connected driving					
	Number	EA	1	1	2	2	3	4
	Type		Semi-hermetic (six pole, b type insulation)					
Heat exchanger	Power consumption	W	25	35	45	65	40 + 50	65 × 2
	Number	EA	1	1	1	1	2	2
Piping	Type		Unite type Multi-Pass Cross Finned Tube (Slit Fin)					
	Fin Pitch	mm	2.1					
	Inlet	A	PF 3/4" (20A)					
	Outlet	A	PF 3/4" (20A)					
Exterior	Drain	mm	Soft vinyl hose(IDø14 ODø18)					
			Exposed Type: cold rolling steel(t1.0)+powder,heat and dry coating(white beige), Concealed Type:galvanized steel(t0.8)					
Lagging sound-absorbing materials		P.U Foam, Styrofoam, P.E Foam / Flame resistance						
Air flow rate control		High, Medium, Low 3 Steps Rotary Switch						
Electricity		Single phase 220V, 60Hz						
Air Filter		Vinyl chloride (Flush)						
Weight	Kg	24 (14)	27 (16)	31 (20)	36 (25)	41 (32)	49 (40)	

(Note) 1. capacity condition A : cooling capacity : indoor air DB 27°C WB 21°C entrance water temperature 5°C heating capacity : indoor air 18°C entrance water temperature 80°C
 2. capacity condition B : cooling capacity : indoor air DB 27°C WB 19.5°C entrance water temperature 7°C heating capacity : indoor air 21°C entrance water temperature 60°C

※ Dimension in () is for concealed type

FLOOR EXPOSED - FRONT DISCHARGE TYPE

Micom wireless remote control ▶



FLOOR CONCEALED - FRONT DISCHARGE TYPE



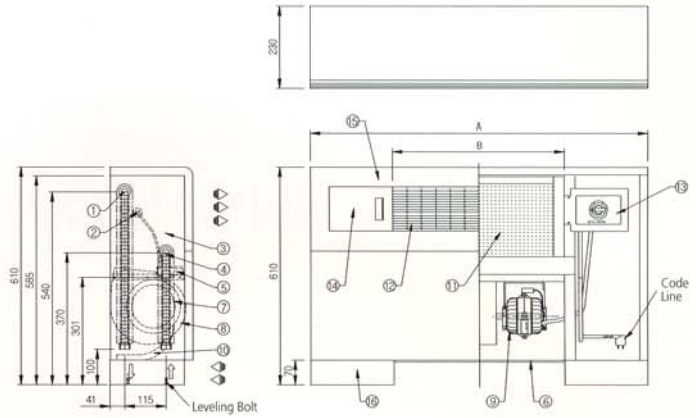
PRODUCT FEATURES

- 1 Additional case cover is selectable so that it can be harmonized with interior.
- 2 Air flow rate is freely selectable with 3-stepped rotary switch (High, Medium, Low)
- 3 It uses condenser resin mould motor that has long life and low noise.
- 4 Galvanized steel with strong corrosion-proof capability is used for finishing.
- 5 It is easy for pipe connection using flexible tubes.

FLOOR EXPOSED - FRONT DISCHARGE TYPE →

MODEL	A	B	G	M	F
SFC-20F	940	120×4=480	4	1	1
SFC-30F	1060	120×5=600	5	1	1
SFC-40F	1180	120×6=720	6	1	2
SFC-60F	1420	120×8=960	8	1	2
SFC-80F	1660	120×10=1200	10	2	3
SFC-120F	1900	120×12=1440	12	2	4

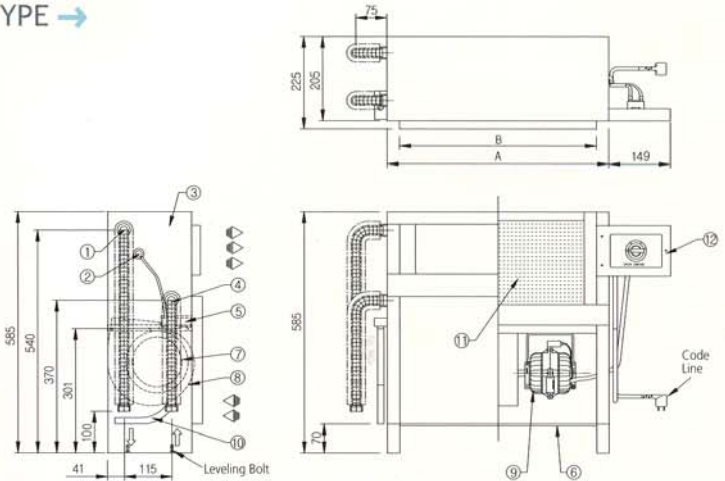
DESCRIPTION	DIMENSION	MAT'L	QTY	REMARK
1 WATER OUTLET	PF 3/4" (20A)	BS	1	
2 AIR VENT	PT 1/8"	BS	1	MANUAL
3 INNER SIDE CASING	t1.2	GI	2	
4 WATER INLET	PF 3/4" (20A)	BS	1	
5 DRAIN PAN		ABS	1	PLASTIC
6 AIR FILTER		VINYL CHLORIDE	1	FLUSH
7 FAN IMPELLER	ø145	ABS	F	SIROCCO
8 FAN HOUSING		ABS	F	
9 MOTOR	1ø 220V 60Hz	ASS'Y	M	
10 DRAIN HOSE	IDø14, ODø18	SOFT VINYL	1	
11 HEAT & COOLING COIL	3/8" × 10.35	CU-AL	1	SLIT FIN
12 GRILLE	120 × 120	HEAT-RESISTING ABS	G	
13 CONTROL SW	High, Medium, Low 3-steps		1	ROTARY
14 ACCESS DOOR	120 × 200	ABS	2	
15 EXTERIOR PANEL	t1.0	CR	1	COATING
16 BASE	t3.0	COMPLEX PP	2	T/K 30%



FLOOR CONCEALED - FRONT DISCHARGE TYPE →

MODEL	A	B	M	F
SFC-20FM	540	480	1	1
SFC-30FM	660	600	1	1
SFC-40FM	780	720	1	2
SFC-60FM	1020	960	1	2
SFC-80FM	1260	1200	2	3
SFC-120FM	1500	1440	2	4

DESCRIPTION	DIMENSION	MAT'L	QTY	REMARK
1 WATER OUTLET	PF 3/4" (20A)	BS	1	
2 AIR VENT	PT 1/8"	BS	1	MANUAL
3 INNER SIDE CASING	t1.2	GI	2	
4 WATER INLET	PF 3/4" (20A)	BS	1	
5 DRAIN PAN		ABS	1	PLASTIC
6 AIR FILTER		VINYL CHLORIDE	1	FLUSH
7 FAN IMPELLER	ø145	ABS	F	SIROCCO
8 FAN HOUSING		ABS	F	
9 MOTOR	1ø 220V 60Hz	ASS'Y	M	
10 DRAIN HOSE	IDø14, ODø18	SOFT VINYL	1	
11 HEAT & COOLING COIL	3/8" × 10.35	CU-AL	1	SILT FIN
12 CONTROL SW	High, Medium, Low 3-steps		1	ROTARY



Specification →

Section	Unit	SFC-20F, FM		SFC-30F, FM		SFC-40F, FM		SFC-60F, FM		SFC-80F, FM		SFC-120F, FM		
Capacity	Capacity condition		A	B	A	B	A	B	A	B	A	B	A	B
	Cooling capacity	Kcal/h	2,670	1,820	3,500	2,420	4,730	3,480	6,370	4,720	9,320	6,770	12,020	8,820
	Heating capacity	Kcal/h	4,630	2,980	6,790	4,100	9,250	5,770	12,500	7,530	18,310	11,140	20,530	12,330
	Volume flow	ℓ / min	10	6	12	8	15	11.5	20	15.7	30	22.4	40	29.3
	Head loss	mAq	1.5	0.72	2.4	1.5	4.1	2.9	1.9	1.3	4.1	2.7	4.1	2.3
Fan	Type		Double suction turbo type											
	Size	mm	ø145 × L165		ø145 × L200		ø145 × L165		ø145 × L200		ø145 × L200		ø145 × L200	
	Air flow rate	m³/min	5.7		8.5		11.3		17		22.6		34	
	Driving		Motor connected driving											
Motor	Number	EA	1		1		2		2		3		4	
	Type		Semi-hermetic (six pole, b type insulation)											
	Power consumption	W	25		35		45		65		40 + 50		65 × 2	
Heat exchanger	Number	EA	1		1		1		1		2		2	
	Type		Unite type Multi-Pass Cross Finned Tube (Slit Fin)											
Piping	Fin Pitch	mm	2.1											
	Inlet	A	PF 3/4" (20A)											
	Outlet	A	PF 3/4" (20A)											
Exterior	Drain	mm	Soft vinyl hose(IDø14 ODø18)											
			Exposed Type : cold rolling steel(t1.0)+powder,heat and dry coating(white beige), Concealed Type : galvanized steel(t0.8)											
Lagging sound-absorbing materials		P.U Foam, Styrofoam, P.E Foam / Flame resistance												
Air flow rate control		High, Medium, Low 3 Steps Rotary Switch												
Electricity		Single phase 220V, 60Hz												
Air Filter		Vinyl chloride (Flush)												
Weight	Kg	24(14)		27(16)		31(20)		36(25)		40(32)		49(40)		

(Note) 1. capacity condition A : cooling capacity : indoor air DB 27°C WB 21°C entrance water temperature 5°C heating capacity : indoor air 18°C entrance water temperature 80°C
 2. capacity condition B : cooling capacity : indoor air DB 27°C WB 19.5°C entrance water temperature 7°C heating capacity : indoor air 21°C entrance water temperature 60°C

FLOOR CONCEALED FRONT INHALATION TYPE

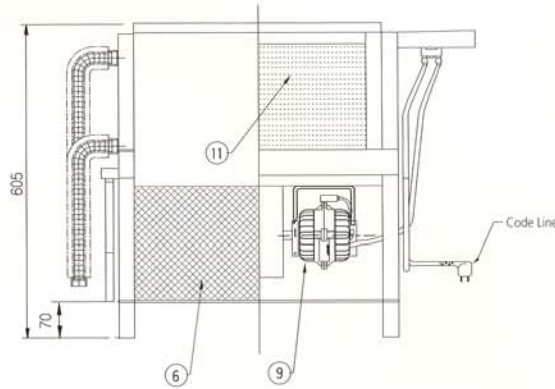
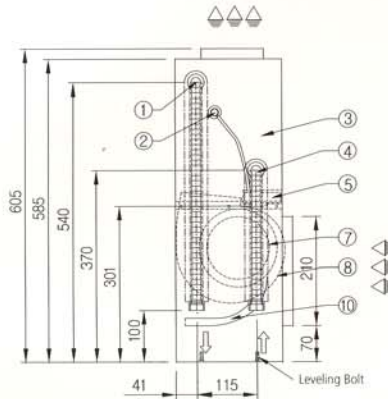
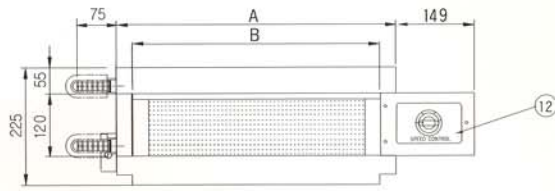


PRODUCT FEATURES

- 1 Additional case cover is selectable so that it can be harmonized with interior.
- 2 it is equipped with a removable filter in front of FCU for preventing interference from floor clothe hanger in the bottom of the case cover,
- 3 Air flow rate is freely selectable with 3-stepped rotary switch (High, Medium, Low)
- 4 It uses condenser resin mould motor that has long life and low noise.
- 5 Zinc-plated steel plate with strong corrosion-proof capability is used for finishing.
- 6 It is easy for pipe connection using flexible tubes.
- 7 FCU can be produced down to minimum 520mm in its height (For additional request)

FLOOR CONCEALED FRONT INHALATION TYPE →

MODEL	A	B	M	F
SFC-20TFM	540	480	1	1
SFC-30TFM	660	600	1	1
SFC-40TFM	780	720	1	2
SFC-60TFM	1020	960	1	2
SFC-80TFM	1260	1200	2	3
SFC-120TFM	1500	1440	2	4



DESCRIPTION	DIMENSION	MAT'L	QTY	REMARK
1 WATER OUTLET	PF 3/4" (20A)	BS	1	
2 AIR VENT	PT 1/8"	BS	1	MANUAL
3 INNER SIDE CASING	t1.2	GI	2	
4 WATER INLET	PF 3/4" (20A)	BS	1	
5 DRAIN PAN		ABS	1	PLASTIC
6 AIR FILTER		VINYL CHLORIDE	1	FLUSH

DESCRIPTION	DIMENSION	MAT'L	QTY	REMARK
7 FAN IMPELLER	ø145	ABS	F	SIROCCO
8 FAN HOUSING		ABS	F	
9 MOTOR	1ø 220V 60Hz	ASS'Y	M	
10 DRAIN HOSE	IDø14, ODø18	SOFT VINYL	1	
11 HEAT & COOLING COIL	OD3/8" × t0.35	CU-AL	1	SLIT FIN
12 CONTROL SW	High, Medium, Low 3steps		1	ROTARY

Specification →

Section		Unit	SFC-20TFM		SFC-30TFM		SFC-40TFM		SFC-60TFM		SFC-80TFM		SFC-120TFM	
Capacity	Capacity condition		A	B	A	B	A	B	A	B	A	B	A	B
	Cooling capacity	Kcal/h	2,670	1,820	3,500	2,420	4,730	3,480	6,370	4,720	9,320	6,770	12,020	8,820
	Heating capacity	Kcal/h	4,630	2,980	6,790	4,100	9,250	5,770	12,500	7,530	18,310	11,140	20,530	12,330
	Volume flow	Q / min	10	6	12	8	15	11.5	20	15.7	30	22.4	40	29.3
	Head loss	mAq	1.5	0.72	2.4	1.5	4.1	2.9	1.9	1.3	4.1	2.7	4.1	2.3
Fan	Type		Double suction turbo type											
	Size	mm	ø145 × L165		ø145 × L200		ø145 × L165		ø145 × L200		ø145 × L200		ø145 × L200	
	Air flow rate	m³/min	5.7		8.5		11.3		17		22.6		34	
	Driving		Motor connected driving											
Motor	Number	EA	1		1		2		2		3		4	
	Type		Semi-hermetic (six pole, b type insulation)											
	Power consumption	W	25		35		45		65		40 + 50		65 × 2	
Heat exchanger	Number	EA	1		1		1		1		2		2	
	Type		Unite type Multi-Pass Cross Finned Tube (Slit Fin)											
	Fin Pitch	mm	2.1										1.8	
	Inlet	A	PF 3/4" (20A)											
Piping	Outlet	A	PF 3/4" (20A)											
	Drain	mm	Soft vinyl hose (IDø14 ODø18)											
Exterior		Galvanized steel (t0.8)												
Lagging sound-absorbing materials		P.U Foam, Styrofoam, P.E Foam / Flame resistance												
Air flow rate control		High, Medium, Low 3 Steps Rotary Switch												
Electricity		Single phase 220V, 60Hz												
Air Filter		Vinyl chloride (Flush)												
Weight	Kg	14		16		20		25		32		40		

(Note) 1. capacity condition A : cooling capacity : indoor air DB 27°C WB 21°C entrance water temperature 5°C heating capacity : indoor air 18°C entrance water temperature 80°C
 2. capacity condition B : cooling capacity : indoor air DB 27°C WB 19.5°C entrance water temperature 7°C heating capacity : indoor air 21°C entrance water temperature 60°C

LOWBOY EXPOSED TYPE

Standard Type ▶



▲ Micom wireless remote control

LOWBOY CONCEALED TYPE



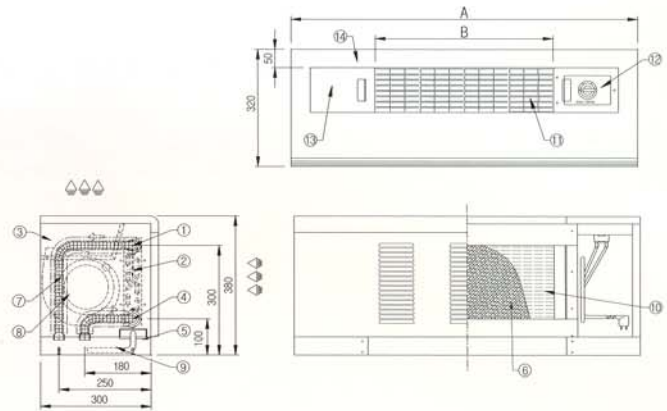
PRODUCT FEATURES

- 1 It is well matched to be installed at hotels and restaurants with lower height, bright and wide windowed-offices and leisure facilities.
- 2 Air flow rate is freely selectable with 3-stepped rotary switch (High, Medium, Low)
- 3 As its side cover can be opened left and right, its pipes are easy to be constructed, and pipe directions are easily adjustable depending on the site environments.
- 4 It uses condenser driving single phase inducing motor that has long life and low noise.
- 5 It is easy for pipe connection using flexible tubes.
- 6 Micom wireless remote control switch can be attached (Exposed type - for additional request)

LOWBOY EXPOSED TYPE →

MODEL	A	B	G	M	F
SFC-20L	940	120×4=480	4	1	1
SFC-30L	1060	120×5=600	5	1	1
SFC-40L	1180	120×6=720	6	1	2
SFC-60L	1420	120×8=960	8	1	2
SFC-80L	1660	120×10=1200	10	2	3
SFC-120L	1900	120×12=1440	12	2	4

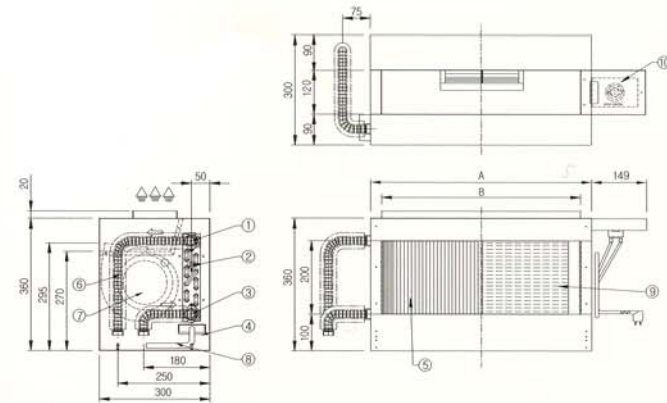
DESCRIPTION	DIMENSION	MAT'L	QTY	REMARK
1 WATER OUTLET	PF 3/4" (20A)	BS	1	
2 AIR VENT	PT 1/8"	BS	1	MANUAL
3 INNER SIDE CASING	1.2T	GI	2	
4 WATER INLET	PF 3/4" (20A)	BS	1	
5 DRAIN PAN		ABS	1	PLASTIC
6 AIR FILTER		VINYL CHLORIDE	1	WASH
7 FAN IMPELLER	ø145	ABS	F	SIROCCO
8 MOTOR	1ø 220V 60Hz	ASS' Y	M	
9 DRAIN HOSE	IDø14, ODø18	SOFT VINYL	1	
10 HEAT & COOLING COIL	OD3/8" × 10.35	CU-AL	1	SILT FIN
11 GRILLE	120 × 120	HEAT-RESISTING ABS	G	
12 CONTROL SW	High, Medium, Low 3-steps		1	ROTARY
13 ACCESS DOOR	120 × 200	ABS	2	COATING
14 EXTERIOR PANEL	t1.0	CR	1	



LOWBOY CONCEALED TYPE →

MODEL	A	B	M	F
SFC-20LM	540	480	1	1
SFC-30LM	660	600	1	1
SFC-40LM	780	720	1	2
SFC-60LM	1020	960	1	2
SFC-80LM	1260	1200	2	3
SFC-120LM	1500	1440	2	4

DESCRIPTION	DIMENSION	MAT'L	QTY	REMARK
1 WATER OUTLET	PF 3/4" (20A)	BS	1	
2 AIR VENT	PT 1/8"	BS	1	MANUAL
3 WATER INLET	PF 3/4" (20A)	BS	1	
4 DRAIN PAN		ABS	1	PLASTIC
5 AIR FILTER		VINYL CHLORIDE	1	WASH
6 FAN IMPELLER	ø145	ABS	F	SIROCCO
7 MOTOR	1ø 220V 60Hz	ASS' Y	M	
8 DRAIN HOSE	IDø14, ODø18	SOFT VINYL	1	
9 HEAT & COOLING COIL	OD3/8" × 10.35	CU-AL	1	SLIT FIN
10 CONTROL SW	High, Medium, Low 3steps		1	ROTARY



Specification →

Section		Unit	SFC-20L, LM		SFC-30L, LM		SFC-40L, LM		SFC-60L, LM		SFC-80L, LM		SFC-120L, LM	
Capacity	Capacity condition		A	B	A	B	A	B	A	B	A	B	A	B
	Cooling capacity	Kcal/h	2,670	1,820	3,500	2,420	4,730	3,480	6,370	4,720	9,320	6,770	12,020	8,820
	Heating capacity	Kcal/h	4,630	2,980	6,790	4,100	9,250	5,770	12,500	7,530	18,310	11,140	20,530	12,330
	Volume flow	ℓ / min	10	6	12	8	15	11.5	20	15.7	30	22.4	40	29.3
	Head loss	mAq	1.5	0.72	2.4	1.5	4.1	2.9	1.9	1.3	4.1	2.7	4.1	2.3
Fan	Type		Double suction turbo type											
	Size	mm	ø145 × L165		ø145 × L200		ø145 × L165		ø145 × L200		ø145 × L200		ø145 × L200	
	Air flow rate	m³/min	5.7		8.5		11.3		17		22.6		34	
	Driving		Motor connected driving											
Motor	Number	EA	1		1		2		2		3		4	
	Type		Semi-hermetic (six pole, b type insulation)											
Heat exchanger	Power consumption	W	25		35		45		65		40 + 50		65 × 2	
	Number	EA	1		1		1		1		2		2	
Piping	Type		Unite type Multi-Pass Cross Finned Tube (Slit Fin)											
	Fin Pitch	mm	2.1											
Piping	Inlet	A	PF 3/4" (20A)											
	Outlet	A	PF 3/4" (20A)											
	Drain	mm	Soft vinyl hose (IDø14 ODø18)											
Exterior	Exposed Type : cold rolling steel(t1.0)+powder,heat and dry coating(white beige), Concealed Type : galvanized steel(t0.8)													
Lagging sound-absorbing materials	P.U Foam, Styrofoam, P.E Foam / Flame resistance													
Air flow rate control	High, Medium, Low 3 Steps Rotary Switch													
Electricity	Single phase 220V, 60Hz													
Air Filter	Vinyl chloride (Flush)													
Weight	Kg	24(15)		27(18)		31(20)		36(25)		41(32)		49(40)		

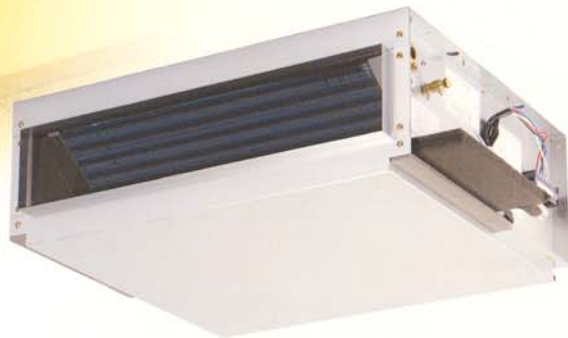
(Note) 1. capacity condition A : cooling capacity : indoor air DB 27°C WB 21°C entrance water temperature 5°C heating capacity : indoor air 18°C entrance water temperature 80°C
 2. capacity condition B : cooling capacity : indoor air DB 27°C WB 19.5°C entrance water temperature 7°C heating capacity : indoor air 21°C entrance water temperature 60°C

※ Dimension in () is for concealed type

CEILING EXPOSED TYPE



CEILING CONCEALED TYPE



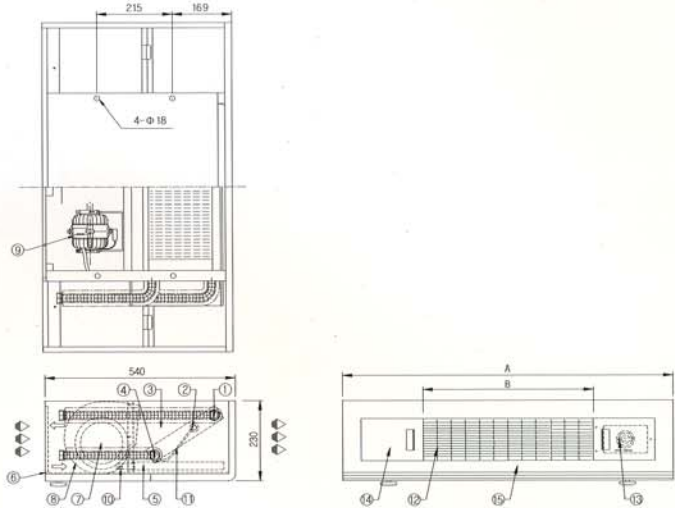
PRODUCT FEATURES

- 1 Indoor space utilization is better by installing it on the ceiling.
- 2 Air flow adjusting switch is additionally provided apart from unit.
- 3 It uses condenser resin mould motor that has long life and low noise
- 4 It is easy for pipe connection using flexible tubes.
- 5 Micom wireless remote control switch can be attached (Exposed type - for additional request)

CEILING EXPOSED TYPE →

MODEL	A	B	G	M	F
SFC-20C	940	120×4=480	4	1	1
SFC-30C	1060	120×5=600	5	1	1
SFC-40C	1180	120×6=720	6	1	2
SFC-60C	1420	120×8=960	8	1	2
SFC-80C	1660	120×10=1200	10	2	3
SFC-120C	1900	120×12=1440	12	2	4

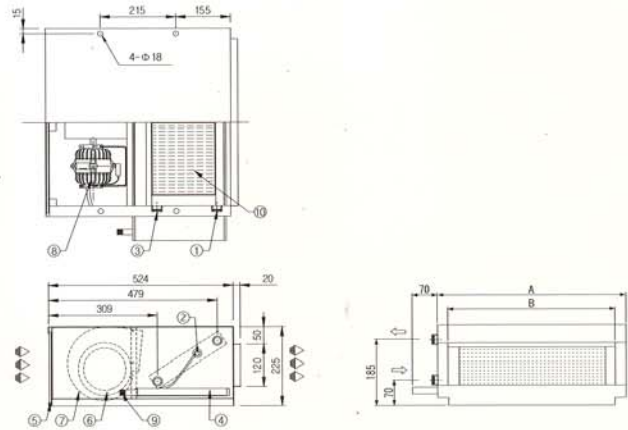
DESCRIPTION	DIMENSION	MAT'L	Q'TY	REMARK
1 WATER OUTLET	PF 3/4" (20A)	BS	1	
2 AIR VENT	PT 1/8"	BS	1	
3 INNER SIDE CASING	t1.2	GI	2	
4 WATER INLET	PF 3/4" (20A)	BS	1	Manual
5 DRAIN PAN		GI	1	
6 AIR FILTER		vinyl chloride	1	vinyl chloride
7 FAN IMPELLER	ø145	ABS	F	
8 FAN HOUSING		ABS	F	
9 MOTOR	1ø 220V 60Hz	ASS' Y	M	
10 DRAIN CONNECTION	NIPPLE 1/2" (15A)		1	
11 HEAT & COOLING COIL	OD3/8" × t0.35	CU-AL	1	SLIT FINE adopt
12 GRILLE	120×120	내열ABS	G	
13 CONTROL SW	High, Medium, Low 3-stepped		1	Rotary Type
14 ACCESS DOOR	120×200	ABS	2	
15 OUTER AIR PANEL	t1.0	CR	1	



CEILING CONCEALED TYPE →

MODEL	A	B	M	F
SFC-20CM	540	480	1	1
SFC-30CM	660	600	1	1
SFC-40CM	780	720	1	2
SFC-60CM	1020	960	1	2
SFC-80CM	1260	1200	2	3
SFC-120CM	1500	1440	2	4

DESCRIPTION	DIMENSION	MAT'L	Q'TY	REMARK
1 WATER OUTLET	PF 3/4" (20A)	BS	1	
2 AIR VENT	PT 1/8"	BS	1	MANUAL
3 WATER INLET	PF 3/4" (20A)	BS	1	
4 DRAIN PAN		GI	1	
5 AIR FILTER		VINYL CHLORIDE	1	FLUSH
6 FAN IMPELLER	ø145	ABS	F	SIROCCO
7 FAN HOUSING		ABS	F	
8 MOTOR	1ø 220V 60Hz	ASS' Y	M	
9 DRAIN CONNECTION	NIPPLE 1/2" (15A)		1	
10 HEAT & COOLING COIL	OD3/8" × t0.35	CU-AL	1	SILT FIN T



Specification →

Section	Unit	SFC-20C, CM	SFC-30C, CM	SFC-40C, CM	SFC-60C, CM	SFC-80C, CM	SFC-120C, CM	
Capacity	Capacity condition	A	B	A	B	A	B	
	Cooling capacity	Kcal/h	2,670	1,820	3,500	2,420	4,730	3,480
	Heating capacity	Kcal/h	4,630	2,980	6,790	4,100	9,250	5,770
	Volume flow	ℓ / min	10	6	12	8	15	11.5
Fan	Head loss	mAq	1.5	0.72	2.4	1.5	4.1	2.9
	Type		Double suction turbo type					
	Size	mm	ø145 × L165	ø145 × L200	ø145 × L165	ø145 × L200	ø145 × L200	ø145 × L200
	Air flow rate	m³/min	5.7		8.5		17	
Motor	Driving		Motor connected driving					
	Number	EA	1	1	2	2	3	4
	Type		Semi-hermetic (six pole, b type insulation)					
Heat exchanger	Power consumption	W	40	50	65	80	40 + 50	80 × 2
	Number	EA	1	1	1	1	2	2
Piping	Type		Unite type Multi-Pass Cross Finned Tube (Slit Fin)					
	Fin Pitch	mm	2.1				1.8	
Exterior	Inlet	A	PF 3/4" (20A)					
	Outlet	A	PF 3/4" (20A)					
	Drain	mm	NIPPLE 3/4" (20A)					
Lagging sound-absorbing materials		Exposed Type : cold rolling steel(t1.0)+powder,heat and dry coating(white beige), Concealed Type : galvanized steel(t0.8) P.U Foam, Styrofoam, P.E Foam / Flame resistance						
Air flow rate control		High, Medium, Low 3 Steps Rotary Switch						
Electricity		Single phase 220V, 60Hz						
Air Filter		Vinyl chloride (Flush)						
Weight	Kg	23(15)	26(17)	29(20)	34(24)	41(32)	49(40)	

(Note) 1. capacity condition A : cooling capacity : indoor air DB 27°C WB 21°C entrance water temperature 5°C heating capacity : indoor air 18°C entrance water temperature 80°C
2. capacity condition B : cooling capacity : indoor air DB 27°C WB 19.5°C entrance water temperature 7°C heating capacity : indoor air 21°C entrance water temperature 60°C

※ Dimension in () is for concealed type

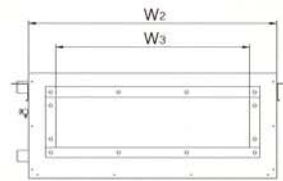
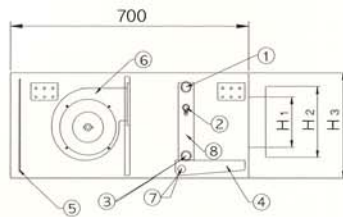
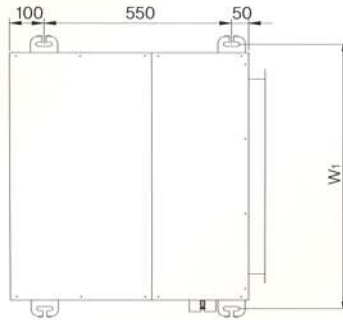
HIGH PRESSURE CEILING CONCEALED TYPE (DUCT CONNECTION TYPE)



PRODUCT FEATURES

- ① Heat exchanger and air fan are designed and produced to be compacted in order for comfortable air conditioning to be possible meeting all environments and spaces.
- ② It is designed to be easily constructed, for maintenance job to be easily performed
- ③ It is easy to be taken in and installed thanks to its light weight and robust design.
- ④ As it is built into the ceiling, utilization for indoor space is maximized.
- ⑤ As the units are able to be installed for each floor, the seasonal cooling and heating is easy to be performed depending on the purposes of buildings.
- ⑥ Taking into account that the system is installed for the ceiling and exposed type, the noise is significantly reduced.
- ⑦ It is designed for consumers to control 3-stepped switch depending on the load.

HIGH PRESSURE CEILING CONCEALED TYPE (DUCT CONNECTION TYPE) →



	DESCRIPTION	MAT'L	Q'TY	REMARK
1	WATER OUTLET	BS	1	PF 3/4" (20A)
2	AIR VENT	BS	1	PT 1/8"
3	WATER INLET	BS	1	PF 3/4" (20A)
4	DRAIN PAN	GI	1	-
5	AIR FILTER	VINYL	1	Flush
6	MOTOR	ASS' Y	1	BLDC
7	DRAIN CONNECTION	GI	1	NIPPLE 3/4" (20A)
8	HEAT & COOLING COIL	Cu-Al	1	3/8" x t0.35 (SLIT FIN)

MODEL	SFC-H132	SFC-H172	SFC-H212	SFC-H282	SFC-H312	SFC-H352	SFC-H402	SFC-H452	SFC-H502	SFC-H552
W ₁	540	780	780	1340	1340	1340	1340	1340	1570	1570
W ₂	490	730	730	1290	1290	1290	1290	1290	1520	1520
W ₃	330	570	570	1130	1130	1130	1130	1130	1360	1360
H ₁	150	150	150	150	150	150	200	200	200	200
H ₂	210	210	210	210	210	210	260	260	260	260
H ₃	310	310	310	310	310	310	360	360	360	360

Specification →

Section	Unit	SFC-H132		SFC-H172		SFC-H212		SFC-H282		SFC-H312		SFC-H352		SFC-H402		SFC-H452		SFC-H502		SFC-H552		
Capacity condition																						
Capacity	Cooling capacity	Kcal/h	5,100	3,380	5,540	4,300	8,430	6,400	9,450	6,720	12,900	9,900	14,800	11,000	16,500	12,700	17,700	13,800	20,860	16,000	22,600	17,000
	Heating capacity	Kcal/h	9,710	5,720	10,700	6,520	15,770	9,400	18,150	10,500	23,890	14,500	27,280	16,200	30,500	18,650	33,100	20,400	38,870	23,400	41,490	25,000
	Volume flow	ℓ / min	17	12.9	18.5	14.3	28.1	21.3	31.5	22.4	43	33	49.3	36.7	55	42.3	59	46	69.5	53.3	75.3	56.7
	Head loss	mAq	3.2	1.8	4.2	2.5	4.3	2.5	6.2	3.1	3.7	2.2	4.9	2.7	1.8	1.1	2.1	1.2	3.6	1.5	4.2	2.4
Fan	Type	Double suction turbo type (SIROCCO FAN)																				
	Air flow rate	m ³ /min	13	17	21	28	31	35	40	45	50	55										
		mmAq	Motor connected driving																			
Motor	Type	BLDC MOTOR																				
	Power consumption	W	92	115	164	198	248	276	340	370	440	470										
	Number	EA	1	2	2	3	3	3	3	3	3	3										
Heat exchanger	Type	Unite type Multi-Pass Cross Finned Tube (Slit Fin)																				
	Fin Pitch	mm	2.1																			
Piping	Inlet	A	PF 3/4" (20A)										PT 1" (25A)									
	Outlet	A	PF 3/4" (20A)										PT 1" (25A)									
	Drain	mm	NIPPLE PT 3/4" (20A)																			
Exterior	cold rolling steel (t1.0)																					
Lagging sound-absorbing materials	P.U Foam, P.E Foam / flame resistant																					
Air flow rate control	Micom switch (Auto, High, Medium, Low)																					
Electricity	single step 220V 60Hz																					
Air Filter	Vinyl chloride (Flush)																					
Size (D x W x H)	mm	490 x 700 x 310	730 x 700 x 310	730 x 700 x 310	1290 x 700 x 310	1290 x 700 x 310	1290 x 700 x 310	1290 x 700 x 310	1290 x 700 x 360	1290 x 700 x 360	1290 x 700 x 360	1290 x 700 x 360										
Weight	Kg	32	35	35	50	50	50	54	54	58	58											

(Note) 1. capacity condition A : cooling capacity : indoor air DB 27°C WB 21°C entrance water temperature 5°C heating capacity : indoor air 18°C entrance water temperature 80°C
 2. capacity condition B : cooling capacity : indoor air DB 27°C WB 19.5°C entrance water temperature 7°C heating capacity : indoor air 21°C entrance water temperature 60°C

VERTICAL TYPE - FRONT DISCHARGE



VERTICAL TYPE - TOP DUCT

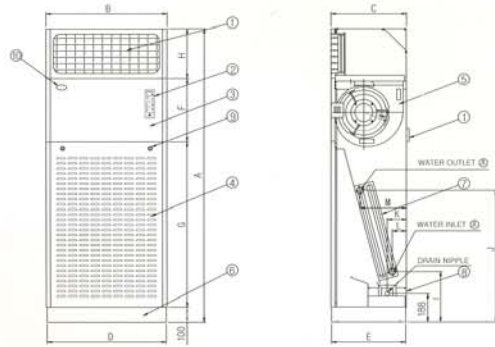


PRODUCT FEATURES

- 1 Air flow rate is freely selectable, and indoor temperature is constantly maintained making it possible to economically cool and heating space by using 4-contacts touch-typed Micom switch. (Single phase 220V/60hz - wireless remote controller is used)
- 2 It is suitable for public facilities including gymnasium, church, Catholic Church and dining rooms where cooling and heating are difficult to be performed due to individual FCU.
- 3 It uses low-noised SIROCCO FAN.
- 4 It is possible to perform ON/OFF from remote area with added remote controlling function (Optional specification)

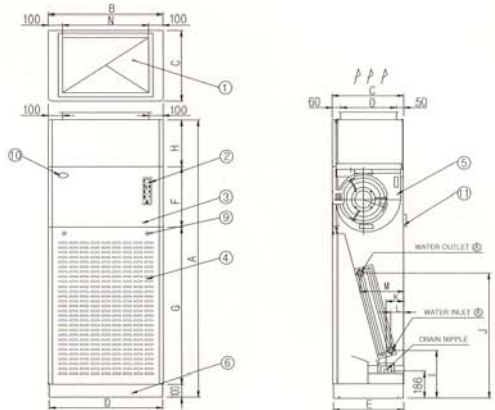
VERTICAL TYPE - FRONT DISCHARGE →

DESCRIPTION	DIMENSION	MAT'L	Q'TY	REMARK
1 AIR OUT GRILL		AL	1	COATING
2 CONTROL SWITCH	4-contacts touch-type		1	1ø 220V 60HZ
3 CASING	t1.2	CR	1	COATING
4 AIR INLET	t1.2	CR	1	COATING
5 FAN & MOTOR			1	SIROCCO FAN
6 BASE	t2.3	CR	1	COATING
7 HEAT & COOLING COIL	OD 3/8" x10.35	CU-AL	1	HOT AND COLD COIL
8 DRAIN PANEL	t1.2	CR	1	COATING
9 SCREW BOLT		SUS	2	
10 NAME PLATE			1	
11 TERMINAL BLOCK	20A 8P		1	



VERTICAL TYPE - TOP DUCT →

DESCRIPTION	DIMENSION	MAT'L	Q'TY	REMARK
1 SUPPLY AIR		CR	1	COATING
2 CONTROL SWITCH	4-contacts touch-type		1	1ø 220V 60HZ
3 CASING	t1.2	CR	1	COATING
4 AIR INLET	t1.2	CR	1	COATING
5 FAN & MOTOR			1	SIROCCO FAN
6 BASE	t2.3	CR	1	COATING
7 HEAT & COOLING COIL	OD 3/8" x10.35	CU-AL	1	HOT AND COLD COIL
8 DRAIN PANEL	t1.2	CR	1	COATING
9 SCREW BOLT		SUS	2	
10 NAME PLATE			1	
11 CONTROL BOX	20A 8P		1	



MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	Ⓐ
SFC-20S	1800	800	500	790	490	390	1050	260	334	730	125	90	264			20
SFC-30S	1950	800	500	790	490	420	1100	330	334	730	125	90	264	600	390	25
SFC-50S	1950	1000	500	990	490	420	1100	330	334	875	125	90	303	800	390	32
SFC-75S	1950	1200	500	1190	490	460	1140	430	314	915	157	120	306	1000	390	40
SFC-100S	1950	1400	500	1390	490	370	1050	430	314	963	157	120	326	1200	390	40
SFC-150S	2100	1600	750	1590	740	450	1100	450	317	1073	252	222	566	1400	640	50
SFC-200S	2100	1700	750	1690	740	410	1140	450	317	1073	252	222	566	1500	640	50

Specification →

Section	Unit	SFC-20S	SFC-30S	SFC-50S	SFC-75S	SFC-100S	SFC-150S	SFC-200S
Capacity	Capacity condition		A	B	A	B	A	B
	Cooling capacity	Kcal/h	6,000	4,400	9,000	6,600	17,500	15,000
	Heating capacity	Kcal/h	11,600	7,100	17,400	10,560	34,000	22,100
	Volume flow	ℓ / min	20	15	30	21.5	58	50
Fan	Type		Double suction turbo type					
	Air flow rate	m ³ /min	23	34	48	70	90	130
	Driving		Motor connected driving					
	Number	EA	1	1	1	2	2	2
Motor	Type		Semi-hermetic (six pole, b type insulation)					
	Power consumption	W	145	420	420	840	900	1100
Heat exchanger	Type		Unite type Multi-Pass Cross Finned Tube (Slit Fin)					
	Fin Pitch	mm	2.1					
	Inlet	A	20	25	32	40	40	50
	Outlet	A	20	25	32	40	40	50
Piping	Drain	mm	NIPPLE (25A)					
	Exterior		cold rolling steel(t1.0)+powder,heat and dry coating(white beige)					
Lagging sound-absorbing materials		P.U Foam, P.E Foam / flame resistant						
Air flow rate control		Micom switch (Auto, High, Medium, Low)						
Electricity		single step 220V 60Hz						
Air Filter		Vinyl chloride (Flush)						
Weight	Kg	107	122	145	179	220	300	315

(Note) 1. capacity condition A : cooling capacity : indoor air DB 27°C WB 21°C entrance water temperature 5°C heating capacity : indoor air 18°C entrance water temperature 80°C
 2. capacity condition B : cooling capacity : indoor air DB 27°C WB 19.5°C entrance water temperature 7°C heating capacity : indoor air 21°C entrance water temperature 60°C

※ Top of duct is required static pressure change the motor output

Large Temperature Differential Type Fan Coil Unit



4-WAY CEILING CASSETTE TYPE



2-WAY CEILING CASSETTE TYPE



1-WAY CEILING CASSETTE TYPE



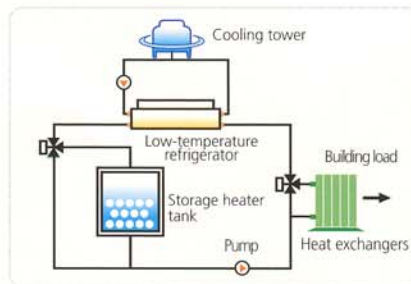
HIGH PRESSURE CEILING CONCEALED TYPE

Air conditioning system by large temperature differential method has benefits as following :

- **Approximately more than 10% of cost saving in initial investment** (flow rate is reduced to 60% compared with conventional system)
- **Implementation for low power consumption** ▶ Approximately 20% of saving of in conditioning transferring power by reducing circulation amount in fan, cooling and heating water.
- **Approximately 20% of operational and management cost saving** ▶ Approximately 20% of cost saving for transferring power and electricity
- **Construction cost saving with lower height of the building**



Large temperature differential system using absorbing heating and cooling water



Large temperature differential system using ice storage system



Large temperature differential system using local heating

Differential temperature based on cooling 8°C ($7^{\circ}\text{C} \Rightarrow 15^{\circ}\text{C}$) Large temperature differential type fan coil unit

Heat exchanger and circulating circuit is designed to be suitable for large differential temperature. Various indoor equipment can be chosen for size and type of each room



Large temperature differential type fan coil unit

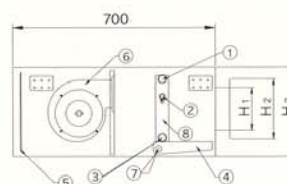
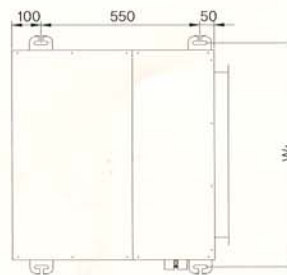
Model	Division	Model Number	Rating Cooling Capacity		Rating Heating Capacity		Air flow rate m ³ /min	Flow rate lpm	Power consumption w	Motor
			kw	kcal/hr	kw	kcal/hr				
Large temperature differential type FCU	4-WAY Cassette	SFC-3K	3.4	3,000	5.5	4,800	13	6.3	80	B L D C
		SFC-4K	4.6	4,000	7.4	6,400	16	8.3	80	
		SFC-5K	5.8	5,000	9.3	8,000	19	10.4	80	
		SFC-6K	7.0	6,000	11.1	9,600	26	12.5	100	
		SFC-8K	9.3	8,000	14.9	12,800	33	16.7	140	
	2-WAY Cassette	SFC2-3K	3.4	3,000	5.5	4,800	11	6.3	36	
		SFC2-4K	4.5	3,900	6.7	5,800	13	8.1	48	
	1-WAY Cassette	SFC1-1K	1.7	1,500	2.8	2,400	7	3.1	27	
		SFC1-2K	3.2	2,800	5	4,300	9	6	38	
	High Pressure Ceiling Concealed Type	SFC-H132	3.9	3,420	6.1	5,280	13	7.1	92	
		SFC-H172	4.4	3,770	6.8	5,880	17	7.9	115	
		SFC-H212	6.5	5,600	10.1	8,650	21	11.7	164	
		SFC-H282	7.3	6,250	11.4	9,850	28	13.0	198	
SFC-H312		10.3	8,850	15.6	13,380	31	18.4	248		
SFC-H352		11.5	9,900	17.4	15,000	35	20.6	276		
SFC-H402		12.9	11,100	19.8	17,000	40	23.1	340		
SFC-H452		14.3	12,300	21.6	18,600	45	25.6	370		
SFC-H502		16.6	14,280	25.2	21,650	50	29.8	440		
SFC-H552	17.4	15,000	26.9	23,130	55	31.3	470			

Options for high pressure ceiling concealed type (duct connection type)

■ CONTROL

- Wired remote controller
- group controlling for 16 sets
- PC central control
- Individual control up to 256 sets, and group control for 32 sets
- Central integrated calculation system 2 (or 3)
- directional control valve

High pressure ceiling concealed Type (duct connection type)



We will attract customer's mind with the distinctive design know-how.

Declaring high-quality of fan coil unit.

Sample

- Micom-attached type for controlling temperature

Detail Photograph



- Digital micom attached type for wireless remote controller

Detail Photograph



- An example of micom-attached type for controlling temperature

Floor Exposed



Floor Concealed



- An example of Digital micom attached type for wireless remote controller.

Ceiling cassette type



Wire and wireless remote controller



The product is more advanced with high quality.

- Operation status, air flow rate and current temperature (digital) are displayed on LED lamp.

The problems occurred from using 2way and 3way valve are cleared.

■ The problems

- ① As the cooling and heating are recognized by copper pipe sensor, the wrong recognizing problem between heating and cooling has continuously occurred due to wrong attaching position of the sensor (This problem is cycling arising from dual systems consisting of heat controller assembling company and pipe installation company)
- ② In case of N.C (it is usually closed) valve, risk for frozen breakage existed.
- ③ In case of N.O (it is usually opened) valve, flow rate charge was accumulated by water circulation although it was turned OFF.
→ In order to the problems, we've improved location of the switch for cooling and heating and function for preventing frozen breakage and air flow rate control.

※ N.C valve is designed to opened under 5°C, and N.O valve is designed to reduce the consumption of air flow rate in a way that its valve is closed by supplying the power in ordinary state.

As automatic operation is possible, the valve is switched into ON/OFF by controlling air flow rate with 3-steps depending on temperature.

30 seconds timer function

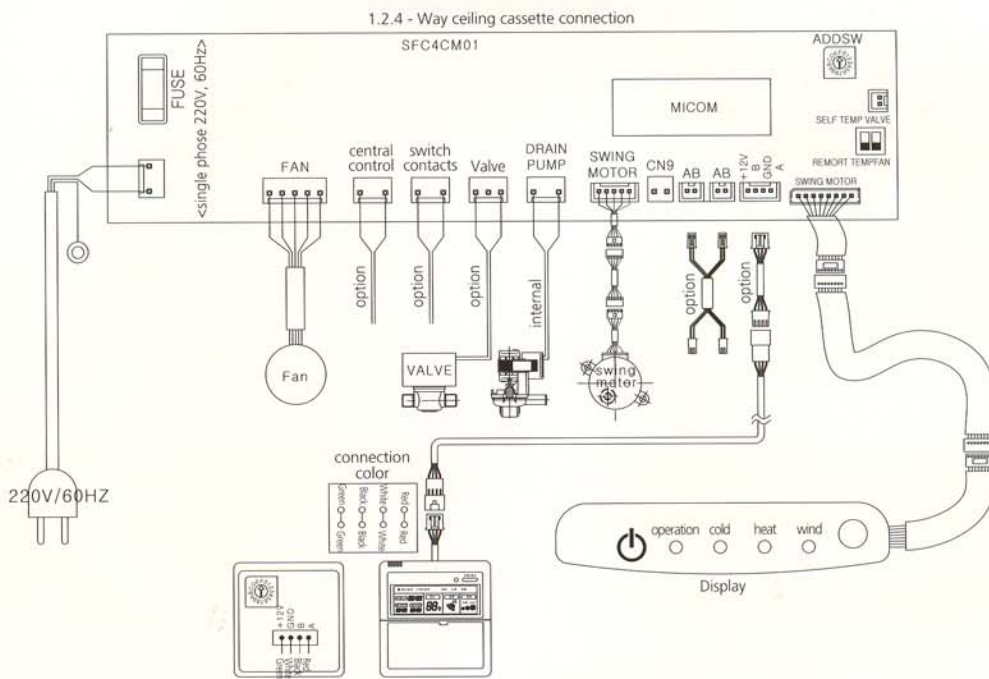
- The valve and fan in the previous product, in case of mechanical air flow controlling, was turned OFF immediately right after the product was turned OFF. But in case of the current product, its valve is turned OFF immediately, and its fan is turned OFF after lasting 20 seconds which is needed for discharging internal heat in unit.

Other additional functions

- Function for power failure compensation
 - When the Main Power failure occurs, the product memorizes various operational conditions including ON/OFF, automatic/high/medium/low for air flow rates, which makes it possible to resume the operation by previous conditions.
- FAN MODE / VALVE MODE is freely selectable (By DIP switch)
 - ▶ **What is FAN MODE** : FAN and valve is turned ON or OFF simultaneously by the difference between the assigned (desired) temperature and the current temperature.
 - ▶ **What is VALVE MODE** : Only the valve is turned ON or OFF, the FAN maintains ON by the difference between the assigned (desired) temperature and the current temperature.
- DIP switch adjustment makes it possible to use the product continuously regardless of the valve type (N.C or N.O) is changed during its use.
- Self-diagnostics function
 - If the abnormality for temperature sensor occurs, the circuit board is not running (Operation LED lamp is not running)

Standard electrical wiring diagram

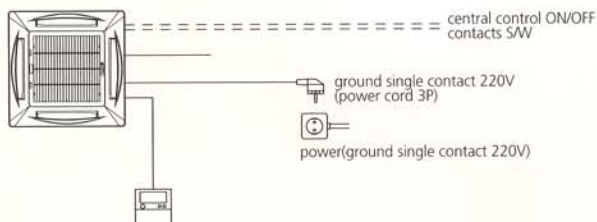
1, 2, 4 - Way Connection



Multi Connection

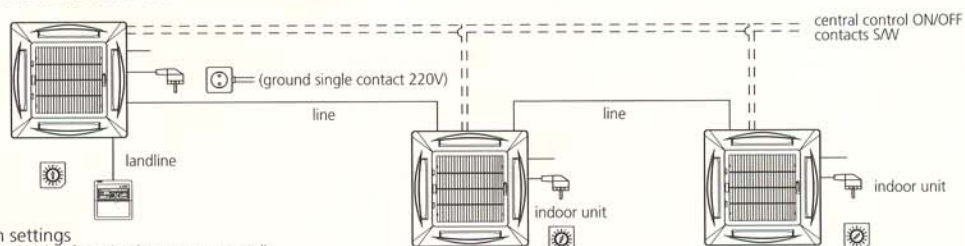
1. Individual control, electrical drawings.

(1) Central control line is connect



2. Individual control, electrical drawings.

(1) Central control line is connect



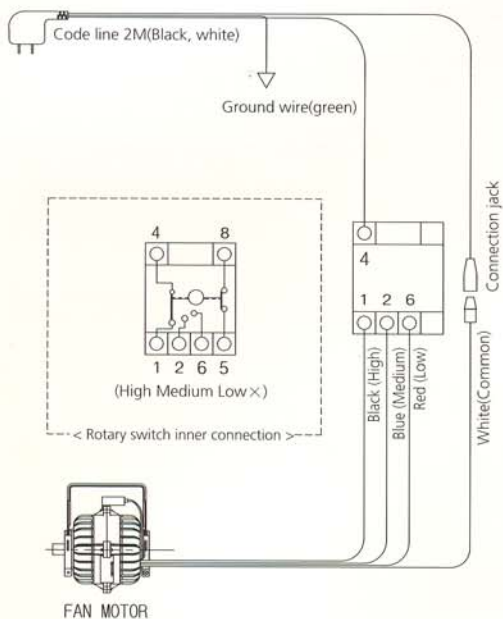
3. Code switch settings (example: The back of a wired remote control)



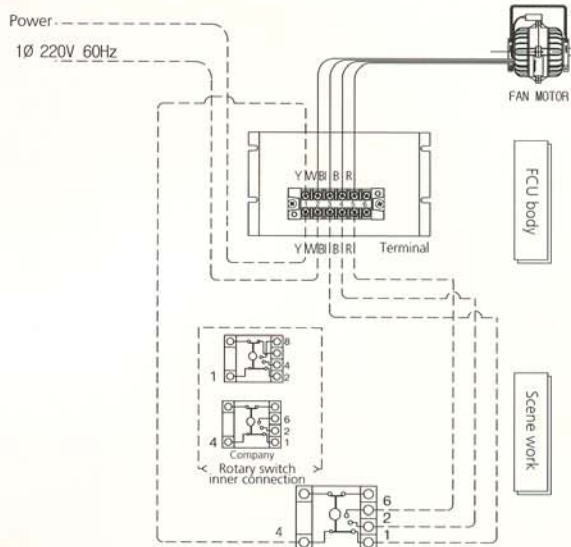
1. Central control structure is optional and unlimited connection.
2. Central controlling has only ON/OFF with the connected product, and air flow rate is controlled by wired remote control switch where connection is grouped.
3. Multi-composing is possible up to maximum 16 sets
4. The power lines have 2 jacks for each product, they are same functions, bi-directional and possible to be multi-connected.
5. Multi-composing is also possible by power line connection between bodies without wired remote controller.



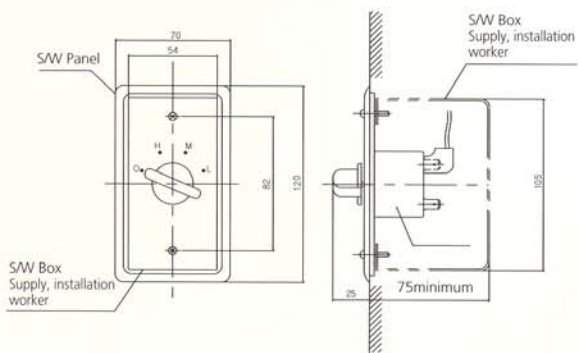
Floor Type Connection



Ceiling Type Connection

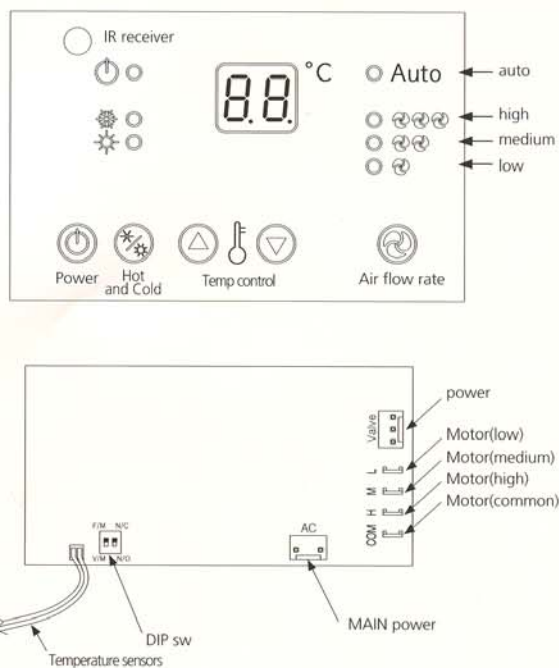


Ceiling Switch Assembly Diagram



▶ As a unit separate from the standard parts fan coil unit, and a switch box buried in the field to suitable location, please (Provide a worker to install the switch box)

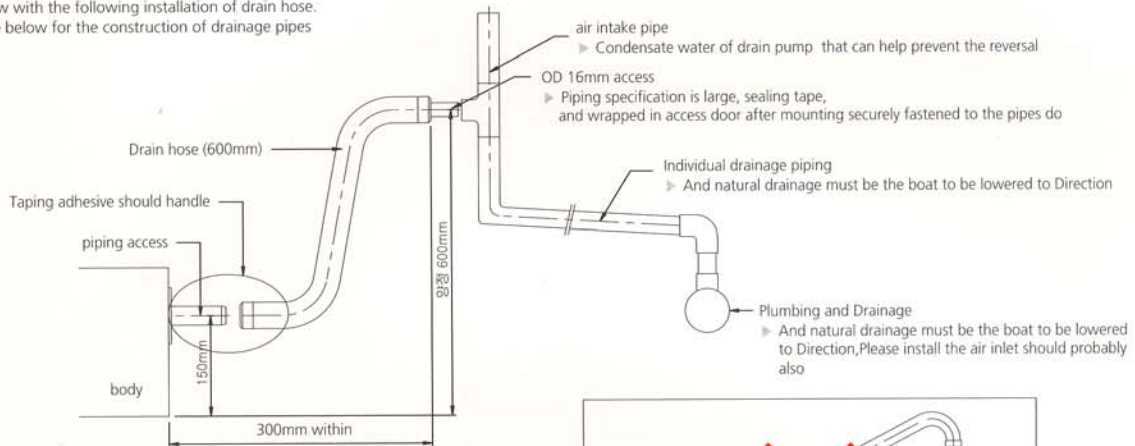
Micom Switch





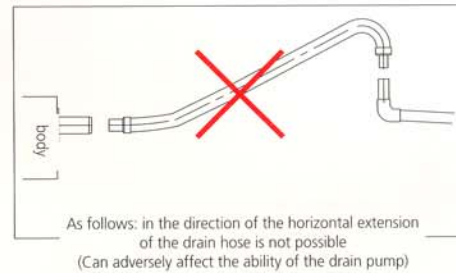
Drain Hose Installation and Construction of Drainage Pipes

- Now with the following installation of drain hose.
- See below for the construction of drainage pipes



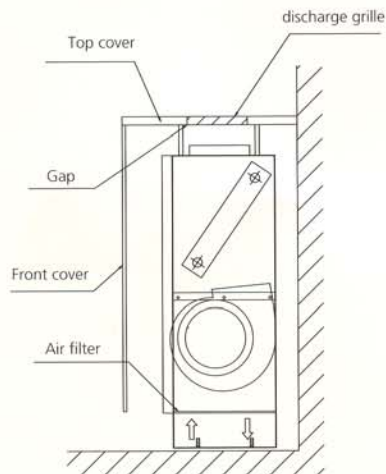
<Cautions before installation>

1. Fix each connection area so that water leakage is not occurring.
2. Lists for supplied components.
 - Connection pipe for drain hose (attached on the body) - drain hose
3. The length for drain hose : 600mm
4. Make sure to construct individual and common discharging water pipe with downward slope.
5. **Make sure to install air ventilation pipe at inlet of the individual discharging pipe.**
6. Make sure to construct discharging pipes within the length of drain hose.
7. Wrap drain hose and copper pipe with tapes sufficiently after they are connected.
8. Make sure to insulate heat after the connection is completed.

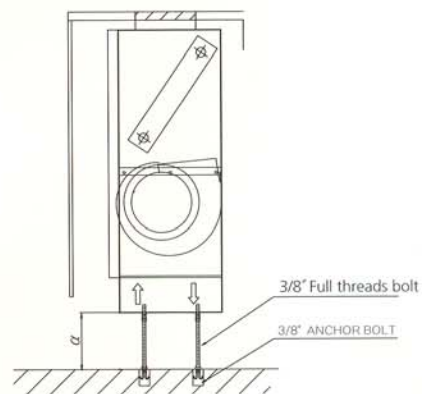


Floor Concealed Type

Floor Concealed type



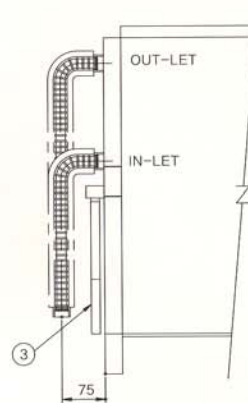
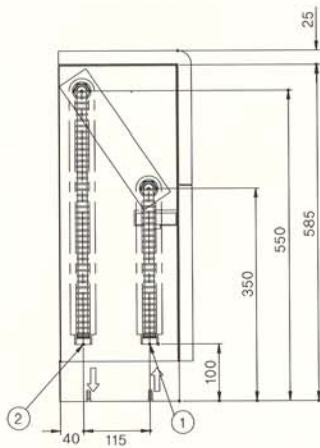
Floor Concealed installation diagram



- ▶ Take into full account area of air suction and discharging.
- ▶ Take into account that air filter is drawn to the front side
- ▶ Front suction type has no interference with floor cloth hanger
- ▶ Fill the gap between fan coil unit and discharging grille.

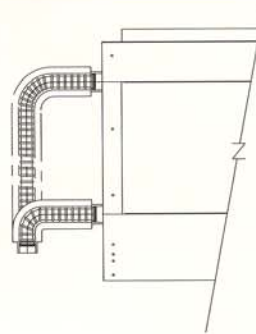
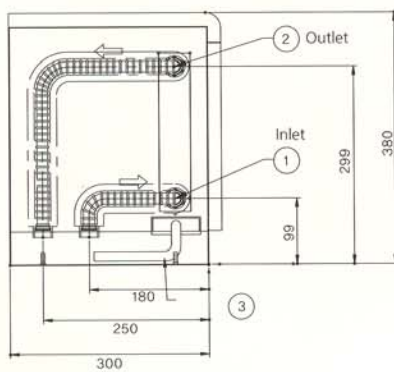
Product installation diagram

Floor Type



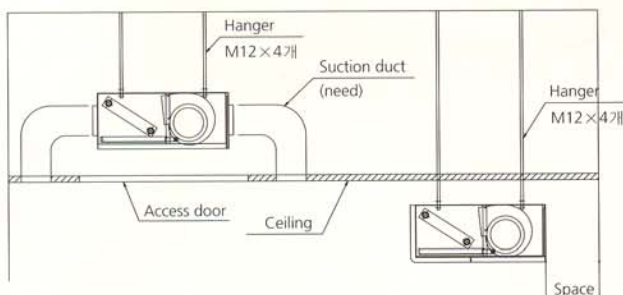
① IN-LET ② OUT-LET ③ DRAIN

Lowboy Type



① IN-LET ② OUT-LET ③ DRAIN

Ceiling Type



- ▶ Secure the area for air suction and discharge up to the area for filter.
- ▶ Make sure to keep the unit horizontal.
- ▶ Install a discharging duct for built-into the ceiling type.
- ▶ Make sure to secure hole and space (600mm × 600mm) for maintenance in filter side.
- ▶ Secure a space for unplugging the filter.

Cooling Performance Data

Unit : Kcal/h

Type	Airflow rate (m ³ /min)	Number (1/min)	Head loss (mAq)	Heated entrance temperature (°C)	indoor Air Dry Bulb Temperature(°C) / indoor Air Wet Bulb Temperature(°C)					
					25 / 17		26 / 19		27 / 21	
					Transfer heat volume	Sensible heat volume	Transfer heat volume	Sensible heat volume	Transfer heat volume	Sensible heat volume
SFC - 20	5.7	4	0.34	5	1,420	1,160	1,710	1,200	1,870	1,170
				7	1,236	1,060	1,530	1,140	1,700	1,110
				9	1,090	960	1,360	1,070	1,500	1,020
		10	1.5	5	1,920	1,550	2,410	1,590	2,660	1,500
				7	1,770	1,430	2,180	1,480	2,390	1,420
				9	1,530	1,280	1,950	1,360	2,130	1,320
		16	3.5	5	2,350	1,810	2,935	1,870	3,190	1,760
				7	2,040	1,690	2,590	1,720	2,870	1,640
				9	1,880	1,550	2,350	1,630	2,560	1,550
SFC - 30	8.5	6	0.72	5	1,840	1,490	2,260	1,590	2,750	1,730
				7	1,680	1,410	2,060	1,510	2,440	1,600
				9	1,470	1,340	1,890	1,480	2,220	1,480
		12	2.4	5	2,430	1,940	2,910	2,030	3,490	2,050
				7	2,160	1,730	2,640	1,870	3,170	1,900
				9	1,890	1,530	2,380	1,730	2,800	1,760
		18	5.0	5	2,640	2,060	3,240	2,140	3,860	2,200
				7	2,430	1,940	2,910	2,040	3,490	2,050
				9	2,060	1,670	2,590	1,840	3,070	1,870
SFC - 40	11.3	8	1.3	5	2,670	2,180	3,260	2,330	3,830	2,370
				7	2,350	1,980	2,930	2,170	3,520	2,210
				9	2,140	1,900	2,620	2,020	3,150	2,100
		15	4.1	5	3,200	2,560	3,940	2,670	4,720	2,760
				7	2,830	2,300	3,570	2,480	4,250	2,530
				9	2,500	2,130	3,140	2,250	3,780	2,350
		20	7.2	5	3,570	2,790	4,310	2,860	5,190	3,000
				7	3,200	2,560	3,940	2,670	4,670	2,720
				9	2,780	2,260	3,520	2,550	4,150	2,530
SFC - 60	17	10	0.6	5	3,480	2,920	4,210	3,080	4,700	2,990
				7	3,040	2,570	3,810	2,870	4,330	2,820
				9	2,710	2,410	3,370	2,680	3,810	2,610
		15	1.1	5	4,090	3,360	4,970	3,430	5,740	3,420
				7	3,650	3,020	4,540	3,270	5,160	3,130
				9	3,270	2,830	4,040	2,990	4,600	2,920
		20	1.9	5	4,540	3,590	5,530	3,680	6,360	3,670
				7	4,090	3,360	4,980	3,430	5,740	3,420
				9	3,550	2,990	4,470	3,250	5,120	3,110
SFC - 80	22.6	16	1.4	5	5,200	4,240	6,330	4,520	7,550	4,660
				7	4,570	3,860	5,710	4,220	6,930	4,350
				9	4,150	3,700	5,090	3,950	6,210	4,140
		30	4.1	5	6,230	4,980	7,680	5,200	9,310	5,420
				7	5,510	4,460	6,950	4,840	8,380	4,970
				9	4,880	4,130	6,130	4,360	7,450	4,640
		40	7.0	5	6,950	5,430	8,400	5,570	10,240	5,900
				7	6,230	4,980	7,680	5,200	9,210	5,340
				9	5,400	4,400	6,850	4,960	8,170	4,970
SFC - 120	34	20	1.2	5	7,040	5,840	8,440	6,120	10,150	6,370
				7	6,170	5,310	7,510	5,750	9,110	6,120
				9	4,980	4,410	6,270	5,230	7,820	5,740
		30	2.4	5	7,920	6,320	9,480	6,530	11,390	6,790
				7	7,040	5,840	8,540	6,220	10,360	6,410
				9	5,750	4,920	7,300	5,750	9,060	6,110
		40	4.1	5	8,390	6,420	10,090	6,690	12,010	6,850
				7	7,510	6,060	9,620	6,420	11,130	6,700
				9	6,210	5,370	7,870	5,960	9,790	6,270

Heating Performance Data

Unit : Kcal/h

Type	Airflow rate (m ³ /min)	Number (1/min)	Head loss (mAq)	Heated entrance temperature (°C)	indoor Air Dry Bulb Temperature (°C)			Heated entrance temperature (°C)	indoor Air Dry Bulb Temperature (°C)		
					18	20	22		18	20	22
SFC - 20	5.7	4	0.34	40	1,500	1,370	1,230	60	2,850	2,720	2,580
				45	1,840	1,700	1,580	70	3,140	3,020	2,900
				50	2,180	2,040	1,910	80	3,430	3,320	3,210
		10	1.5	40	2,020	1,830	1,650	60	3,830	3,650	3,460
				45	2,470	2,290	2,100	70	4,230	4,040	3,890
				50	2,920	2,740	2,560	80	4,620	4,420	4,310
	16	3.5	40	2,130	1,940	1,750	60	4,050	3,850	3,660	
			45	2,600	2,420	2,230	70	4,460	4,290	4,110	
			50	3,090	2,900	2,700	80	4,870	4,720	4,560	
SFC - 30	8.5	6	0.72	40	2,180	1,980	1,780	60	4,130	3,950	3,740
				45	2,660	2,480	2,270	70	5,000	4,810	4,620
				50	3,160	2,960	2,760	80	5,570	5,670	5,500
		12	2.4	40	2,510	2,280	2,060	60	4,780	4,560	4,320
				45	3,080	2,850	2,630	70	5,780	5,570	5,340
				50	3,640	3,420	3,200	80	6,780	6,570	6,350
	18	5.0	40	2,600	2,360	2,120	60	4,930	4,690	4,460	
			45	3,180	2,950	2,710	70	5,960	5,730	5,500	
			50	3,770	3,520	3,290	80	6,990	6,770	6,540	
SFC - 40	11.3	8	1.3	40	2,900	2,640	2,380	60	5,520	5,270	5,020
				45	3,560	3,580	3,040	70	6,730	6,470	6,220
				50	4,220	3,950	3,690	80	7,930	7,670	7,410
		15	4.1	40	3,390	3,090	2,790	60	6,440	6,150	5,840
				45	4,150	3,850	3,550	70	7,840	7,550	7,250
				50	4,910	4,620	4,320	80	9,240	8,950	8,660
	20	7.2	40	3,440	3,130	2,820	60	6,550	6,230	5,930	
			45	4,220	3,900	3,590	70	7,980	7,660	7,350	
			50	5,000	4,690	4,370	80	9,400	9,080	8,760	
SFC - 60	17	10	0.6	40	3,660	3,340	3,010	60	6,980	6,650	6,330
				45	4,490	4,170	3,830	70	8,560	8,230	7,910
				50	5,320	5,000	4,670	80	10,130	9,810	9,490
		15	1.1	40	4,160	3,780	3,400	60	7,920	7,540	7,160
				45	5,100	4,720	5,400	70	10,050	9,340	8,940
				50	6,040	5,660	5,280	80	12,180	11,140	10,720
	20	1.9	40	4,480	4,080	3,670	60	8,530	8,130	7,730	
			45	5,490	5,090	4,690	70	10,510	10,050	9,670	
			50	6,510	6,100	5,700	80	12,490	11,970	11,610	
SFC - 80	22.6	16	1.4	40	5,640	5,130	4,630	60	10,750	10,250	9,740
				45	6,920	6,420	5,890	70	13,230	12,720	12,200
				50	8,210	7,700	7,170	80	15,700	15,180	14,660
		30	4.1	40	6,580	6,000	5,410	60	12,540	11,960	11,390
				45	8,070	7,490	6,900	70	15,420	14,850	14,270
				50	9,580	8,980	8,390	80	18,300	17,730	17,150
	40	7.0	40	6,690	6,080	5,470	60	12,750	12,120	11,540	
			45	8,210	7,590	6,980	70	15,680	15,060	14,460	
			50	9,720	9,110	8,500	80	18,610	17,990	17,370	
SFC - 120	34	20	1.2	40	6,120	5,560	5,000	60	11,640	11,080	10,530
				45	7,500	6,950	6,390	70	14,430	13,870	13,320
				50	8,890	8,330	7,770	80	17,170	16,670	16,110
		30	2.4	40	6,850	6,230	5,610	60	13,060	14,450	11,840
				45	8,400	7,780	7,170	70	16,160	15,550	14,940
				50	9,960	9,340	8,720	80	19,250	18,650	18,040
	40	4.1	40	7,280	6,620	5,960	60	13,870	13,220	12,560	
			45	8,930	8,270	7,610	70	17,170	16,510	15,850	
			50	10,580	9,920	9,260	80	20,520	19,810	19,150	

Notice

- 1 Make sure to check the voltage to be used before operation.
- 2 Keep the equipment horizontal by checking if the floor is horizontal and adjusting high and low (projection and slope) using adjustment bolts.
- 3 For built-into the ceiling type, install and fix it firmly on the ceiling.
- 4 When you disassemble exposed-typed circuit board for each model, it is easily disassembled by lowering the fixed circular bar located in the circuit board.
- 5 Make it easier to be drained for installing the product, and be careful not to vent the hose.
- 6 For the first operation of the equipment, remove air in the coil using air ventilation for easy ventilation of water when cooling is switched to heating and vice versa.
- 7 Make sure to insulate heat for discharging system.
- 8 Fan coil unit is basically supposed to cool and heat space using cool and hot water, if you use other substance other than water, make sure to contact us.
- 9 Wash air filter minimum more than 2 times a month.
- 10 If you do not run the equipment for a long time, prevent frozen breakage by discharging water remaining in the coil.
- 11 Clean dirties in drain fan.
- 12 If there is no attached automatic valve, automatic operation is not available, and it may cause frost when cooling is performed.
- 13 Stop water ventilation if you do not use the equipment for more than 4 hours for cooling. (Frost created in the body, motor and grill may cause the life of the product to be shortened)

Conversion table for cooling and heating area per 1 set.

Use \ Type	Unit	SFC-20	SFC-30	SFC-40	SFC-60	SFC-80	SFC-120
OFFICE	m ² (평)	13-16 (4-5)	21-27 (6.5-8.5)	28-35 (8.5-11)	41-50 (12.5-15.5)	54-66 (16-20)	80-97 (23-29)
BANK	m ² (평)	12-16 (3.5-5)	19-21 (6-6.5)	25-35 (7.5-11)	35-50 (11-15.5)	49-66 (15-20)	64-97 (19.5-29)
HOSPITAL	m ² (평)	9-15 (2.5-4.5)	15-28 (4.5-8.5)	19-31 (6-9.5)	27-44 (8.5-13.5)	37-59 (11-18)	71-79 (21.5-24)
HOTEL	m ² (평)	12-16 (3.5-5)	16-21 (5-6.5)	25-35 (7.5-11)	35-50 (11-15.5)	50-66 (15-20)	76-86 (23-26)
RESTAURANT	m ² (평)	8-11 (2.5-3.5)	13-18 (4-5.5)	16-23 (5-7)	23-33 (7-10)	32-44 (10-13)	71-79 (21.5-24)
CONFERENCE ROOM	m ² (평)	15-18 (4.5-5.5)	25-31 (7.5-9.5)	33-40 (10-12.5)	46-57 (14-17.5)	63-76 (19-23)	82-92 (25-28)

(note) Based on the ceiling is 3m high reinforced concrete building.

User manual

Transportation	<ul style="list-style-type: none"> ▶ Transport the product gripped by two people at both end, and be careful not to drop it or make it collide with others during transportation, otherwise, it may cause damage of the equipment.
Loading	<ul style="list-style-type: none"> ▶ When you heap the product up on the site, do not heap it up to 6 steps without unpacking it. When you heap it up outdoor, pack it well with vinyl so that it is not exposed to rain and snow
After unwrapping the packing	<ul style="list-style-type: none"> ▶ If dust and impurities penetrates into the equipment on the construction site during unpacking, installation and operation, it may cause the performance to be deteriorated. Therefore, make sure to cover the upper side. ▶ Make sure not to use the equipment during construction. Otherwise, dust is stuck with fan, which causes vibration. In this case, free A/S is not available. ▶ If casing of outer feature is scratched, it is impossible to paint it again, therefore be careful for handling it.
How to install	<ul style="list-style-type: none"> ▶ Keep the unit horizontal using bolts for adjusting level. ▶ Secure a space for plugging and unplugging air filter for built-into type (Longer than 22 cm forward) ▶ Any barrier shouldn't exist for easy air suction, and barriers should be apart from the discharging direction more than 50cm. ▶ Clean impurities on the floor.
Pipe construction	<ul style="list-style-type: none"> ▶ Lower head of heat exchanger becomes SUPPLY, and upper head is DISCHARGE (If they are reversely connected, poor circulation occurs, and frozen breakage may occur) ▶ Make sure to install manual valve. ▶ After pipes are constructed, keep flexible nuts and pipes warm, and insulate heat from them. ▶ If heat insulation is not perfect, condensed water is created, which soak the floor. ▶ Inspect water pressure after pipe construction. ▶ Remove air in pipes by air ventilation before initiating operation, if air is remaining in pipes, water is not well ventilated, which cause performance deteriorated. ▶ Construct the equipment without its drain hose vent. (Do not plug air hose at outlet of drain)
Electrical wiring	<ul style="list-style-type: none"> ▶ As upper installation type and lowboy-type are delivered with attached and wired air flow rate switch on them, plug the power for operation (Check the power) ▶ As ceiling type additionally provides switches, wire it on the site (Refer to electrical circuit chart and switch) ▶ If you want to control multiple fan coil units with a single air flow rate control switch, multi and simultaneous operation is possible (It is limited to same model, air flow rate is not controlled)
Cautions for operation	<ul style="list-style-type: none"> ▶ For cooling purpose in window rayed by direct sunlight, effective cooling is available by attaching blind and curtain on it. ▶ When water ventilation is performed while fan is stopped for a long time for cooling, air inside the equipment is cooled causing frost in the equipment body. Therefore close the valve and stop water ventilation. ▶ When the heating is stopped for winter and if indoor temperature is below 0°C, water in heat exchanger is frozen causing breakage. Therefore circulate water by running circulation pump. When you don't use the equipment for a long time, remove water completely from heat exchanger. ▶ Do not let hot water temperature exceed 80°C when heating is performed. ▶ When indoor temperature is low in winter, you can acquire normal heat by running the equipment for 1 hour with putting its switch in H (High) ▶ Never put other materials on fan coil unit and sit on them in any case. ▶ Do not run the equipment during construction (Otherwise, dust is stuck, which cause noise, vibration and damage of the motor)
How to handle	<ul style="list-style-type: none"> ▶ Make sure to clean air filter when seasons are changing, and clean it twice a month during its use. ▶ It is effective to wash them with water in usual temperature using neutral detergent ▶ Clean impurities on outer cases with clean and dried clothes, do not use benzene, gasoline and thinner in any case. ▶ Clean precipitated impurities in drain fan.



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