

The SANKO logo is written vertically in a large, white, stylized font with a blue outline, set against a dark blue background. The background of the entire page features a blue sky with white clouds.

SANKO

AIR HANDLING UNIT

COOL JOY series

High-efficiency, energy saving, and
highly reliable air handling units
built on Japanese technology



SINKO's history is air handling units for Japanese business use

SINKO, leading the forefront of business-use air handling unit technology

SINKO Industries LTD., incorporated in 1950, has constantly maintained its leadership position in the central air conditioning system industry as Japan's top manufacturer of Air Handling Units for varied commercial and industrial applications.

SINKO has two major manufacturing plants in Japan, both equipped with the latest hi-tech manufacturing facilities, machinery, and testing technologies to satisfy the diversified

needs of the customers, both in Japan and abroad.

More recently, in order to meet with the overseas customer demand for the low-cost yet reliable and quality-assured AHU series, SINKO now offers COOL JOY Series AHUs from its manufacturing facility in Thailand, based on the full technical and engineering backup support extended from SINKO Japan.

SINKO advances the technology in the severe environments of Japan

Japan is located in a temperate region roughly 2000 km long from north to south, and it varies in height more than 3000 m from the mountain country to the plains, with the widest point from east to west being no more than 200 km. Because of this fact, the temperature and humidity change greatly from season to season. Japan's severely changing weather demands high performance Air Handling Units to maintain comfort year-round. SINKO has been at the forefront of business-use Air Handling Unit Technology as the top Japanese manufacturer for over 50 years. In various environments, SINKO proudly provides the world the reliability and comfort of our high-level, quality products.



Worldwide Installations

MEDINAT JUMEIRAH
(Dubai UAE)



THE VENETIAN MACAU
(Macau)



CENTRAL JAPAN
INTERNATIONAL AIRPORT
(Nagoya Japan)



HOTEL WINDSOR
(Australia)



SINKO Research & Development

SINKO Laboratory is located in Neyagawa, Osaka, and it is recognized as one of the foremost industrial research centers in Japan's HVAC industry for developing and testing new systems.

Our laboratory features the most modern facilities comprising overall HVAC testing functions: an air movement test room, air purity test room, transparent air flow & velocity measurement room, calorimetry measurement room, temperature and humidity measurement room, sound-proof acoustic room, and reverberation room. Attached to SINKO's AHU factory in Hadano City, Kanagawa, is a branch Laboratory for product and system improvements. Here our research continues on air-conditioning systems and manufacturing technologies, including research for ways to expand improvements on existing product lines. Also included is a showroom that allows visitors to see, touch, and experience our products, so that we can foster greater understanding among customers visiting our facilities.

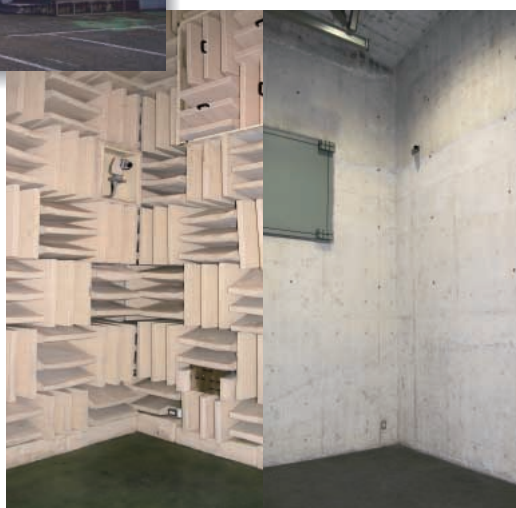


R & D Center
Located in Neyagawa, Osaka



Visualized Airflow Test Room

R & D Center
Located in Hadano, Kanagawa

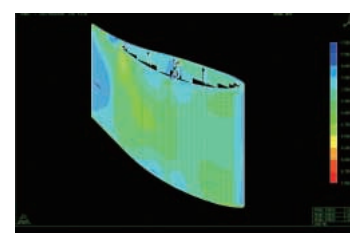


Insulated Acoustic Room
(Semi-Anechoic Wall)

Reverberation Chamber



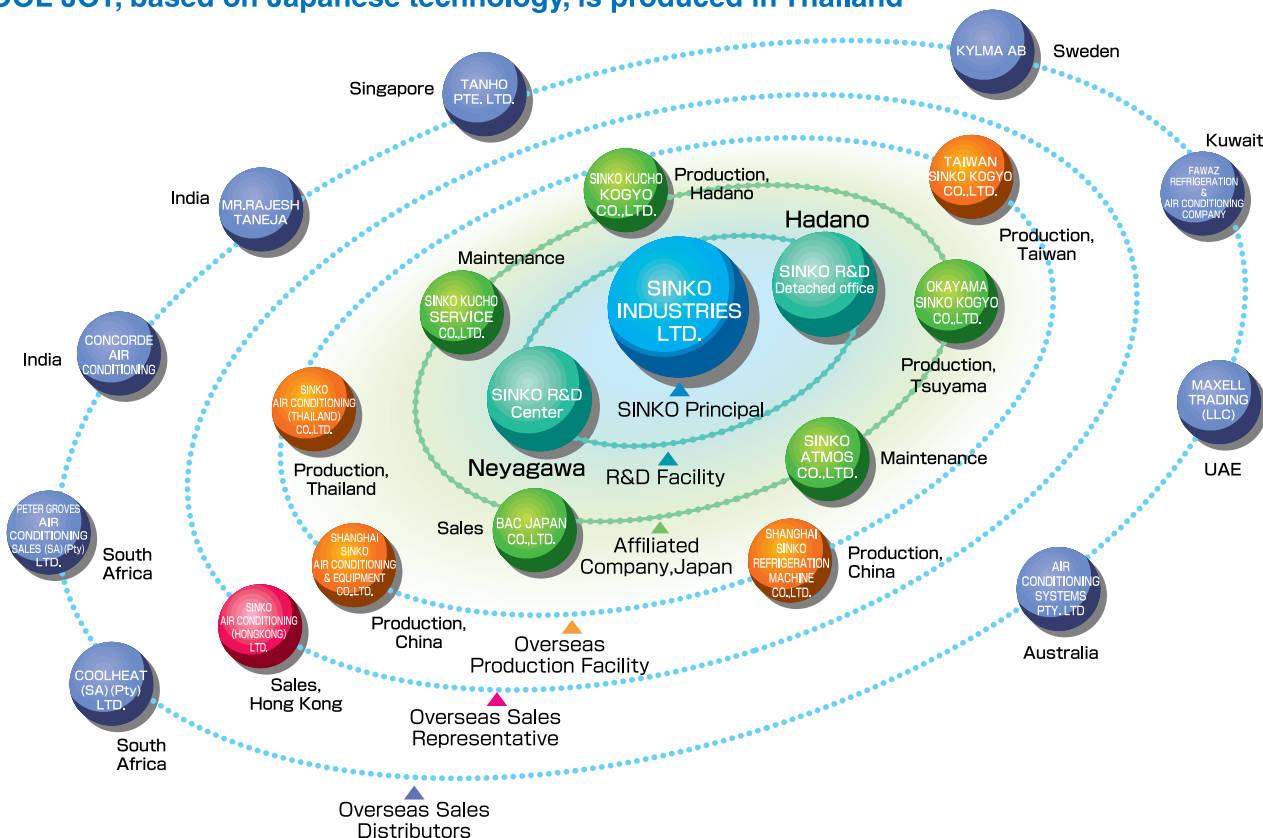
Fluid Analysis



Struture Analysis

SINKO Group Companies

COOL JOY, based on Japanese technology, is produced in Thailand



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R&D Center : Osaka, Kanagawa
Manufacturing Plants: Kanagawa, Okayama

● Overseas Group Companies

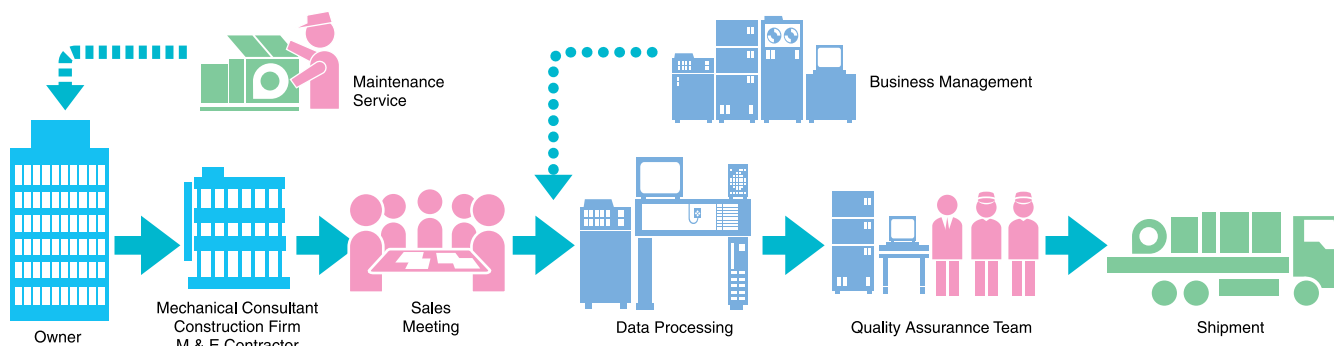
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SINKO Air Conditioning (HK)Ltd.(China)
Shanghai SINKO Air Conditioning Equipment Co., Ltd.(China)
Shanghai SINKO Refrigeration Machine Co., Ltd.(China)
Taiwan SINKO Kogyo Co., Ltd.(Taiwan)

Sales, Production, After Sales Service

SINKO quickly responds to your various needs in the planning, production, and maintenance phases.



COOL JOYseries

Developed for general commercial buildings

COOL JOY is an air handling unit developed for the environments of Asia and the Middle East. To best fit the various environments, we have a large assortment of air handling units, such as for indoor air recirculation and for treating high temperature air. Moreover, as it is designed to be compact and require less assembly work, transportation and installation are very easy. To supply the products speedily to Asia and the Middle East, the factory in Thailand responds to your various needs in cooperation with the Japanese mother factory.

The Characteristics of COOL JOY

- Air Handling Unit developed for general commercial buildings in Asia and the Middle East
- A large assortment, such as indoor air recirculation type and high-temperature fresh air treatment type
- Requires minimum space for installation
- Easy move-in and installation due to compact size
- Less-assembly reduces time before start-up
- Rapid delivery from the factory in Thailand
- Provides full aftercare by an established widespread sales network

RS/RG RS with Higher Thermal Insulation



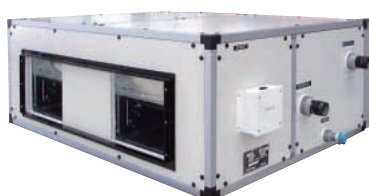
FH



FE



MD



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Realize Comfort with Compact-design
and high reliability

COOL JOY line-up

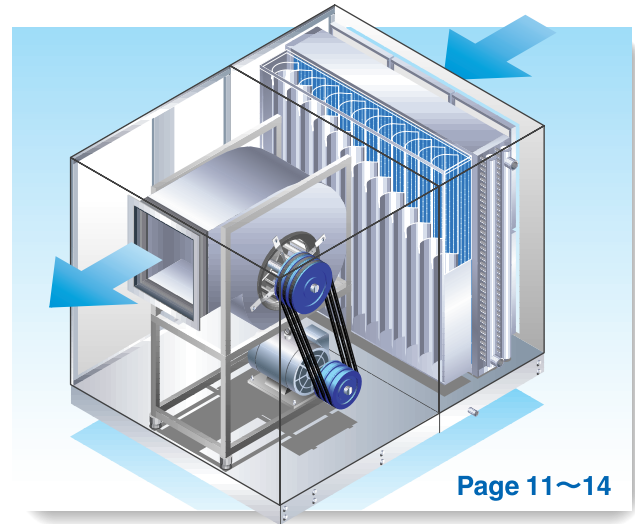
Indoor Air Recirculation Type

RS Basic model for indoor air recirculation

RS is a basic air-recirculation model complete with filter, heat exchanger and fan. Its compact design enables easy move-in/installation and saves installation space.

Characteristics

1. A basic model with minimum necessary functions
2. Saves space and less installation work
3. Suitable for office or general buildings



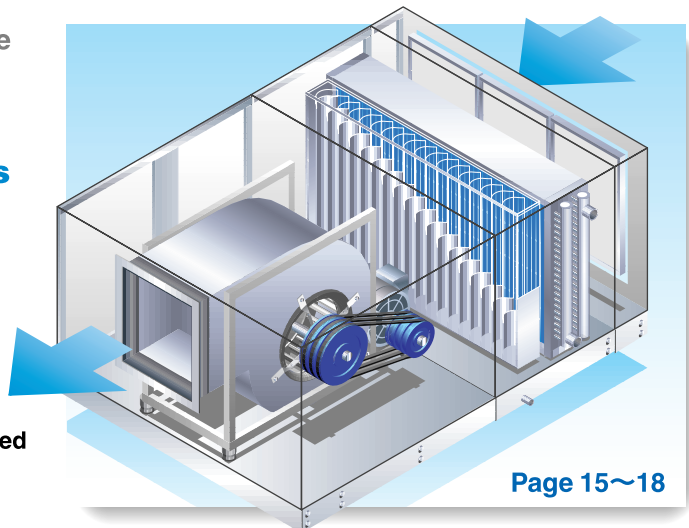
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Indoor Recirculation with upgraded casing Type

RG Uses 50mm thick double skinned panels

Characteristics

1. RG is a higher thermal insulation type of model RS
2. Same frame and panel as the fresh air intake type (FH) are adopted. Casing structure achieves higher thermal insulation and less air leakage.
3. Standard filter size available in the market is selected for easier maintenance work.
4. Suitable for office and general buildings



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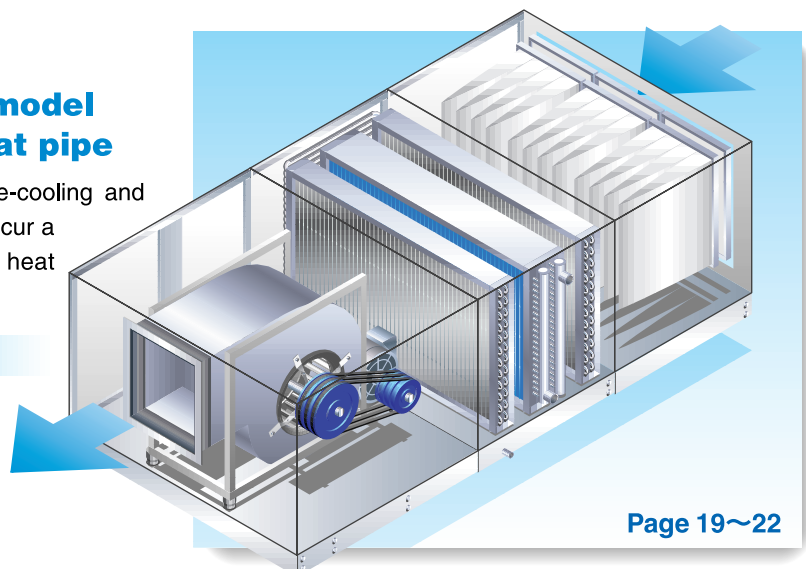
Fresh Air Intake Type

FH Energy-saving model with built-in heat pipe

FH saves energy by using a heat pipe for pre-cooling and reheating. Additionally, the heat pipe does not incur a running cost since it does not require any heat circulation pump or motor to collect the heat.

Characteristics

1. Decrease the load of the heat exchanger with a heat pipe
2. Bag type filter with large capacity to hold dust particles
3. Suitable for office and general buildings



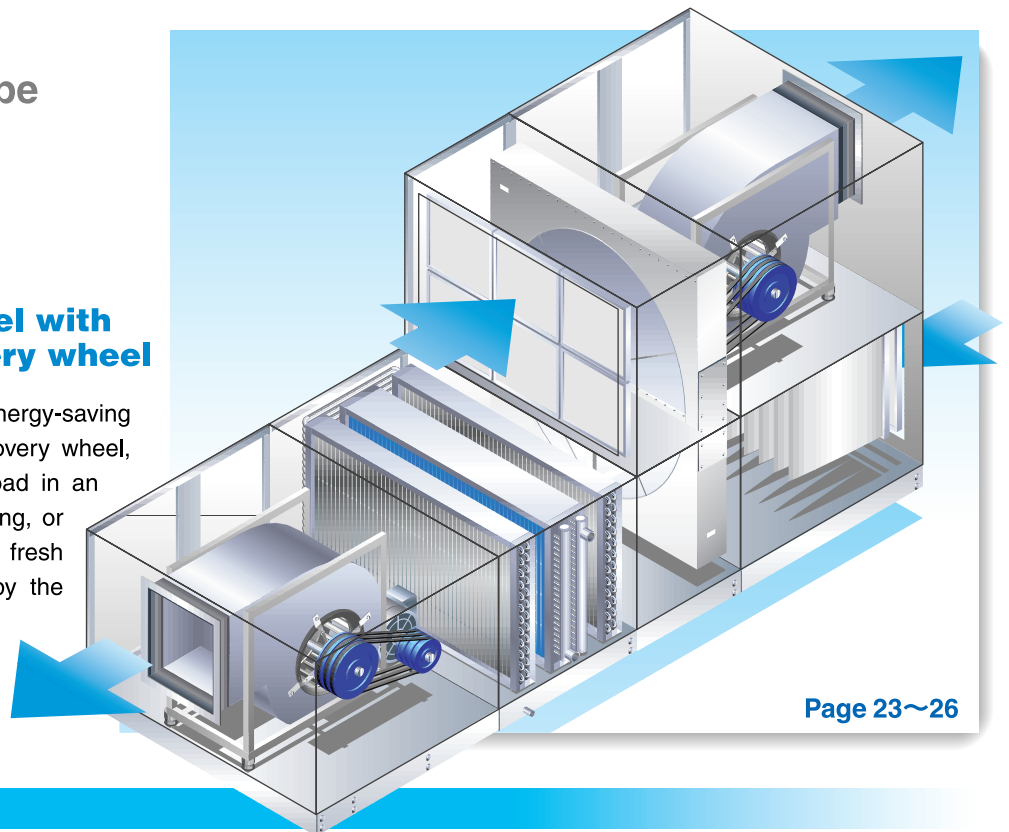
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Fresh Air Intake, Heat Recovery Type

FE

High efficiency and energy-saving model with built-in heat recovery wheel

FE is the high-efficiency and energy-saving model with a built-in heat recovery wheel, which reduces the fresh air load in an office building, a general building, or a factory. The heat energy of fresh and exhaust air is collected by the heat recovery wheel and can be utilized efficiently. Also, the unit is compactly designed for easy installation work.



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Characteristics

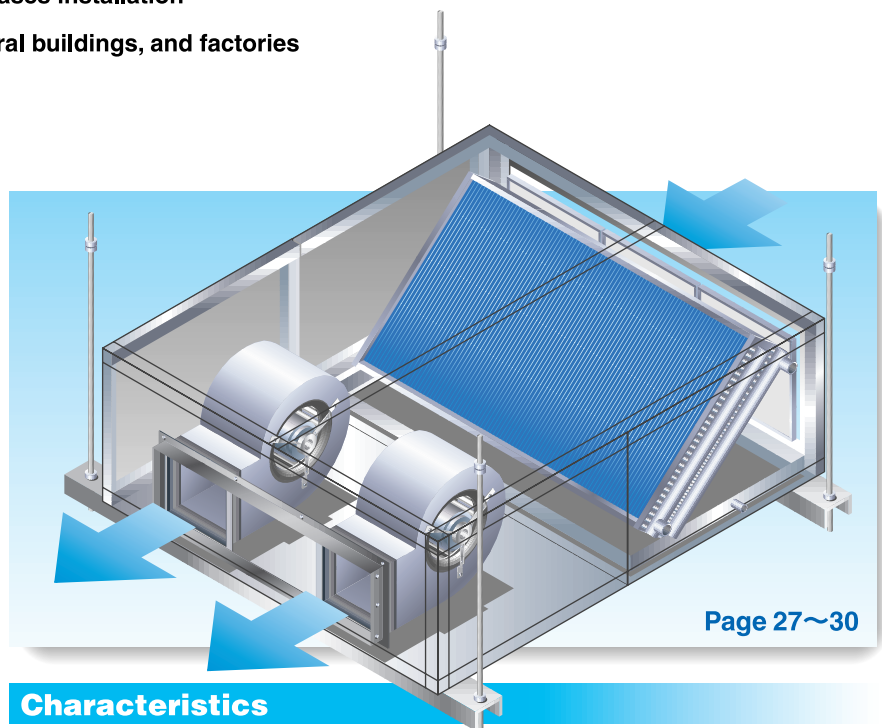
1. Reduces the load of the heat exchanger with a highly energy-efficient heat pipe and heat recovery wheel
2. A space-saving compact design eases installation
3. Suitable for office buildings, general buildings, and factories

Indoor Air Recirculation, Ceiling Mount Type

MD

A high efficiency model for indoor air recirculation

MD is developed with the concept of a large fan coil unit. It is designed to reduce the unit cost per heat capacity. It allows easy maintenance by arranging the location of the piping and wiring work on the same side. As with the other types, a double-skin panel is used to reduce radiation of sound and heat transfer.



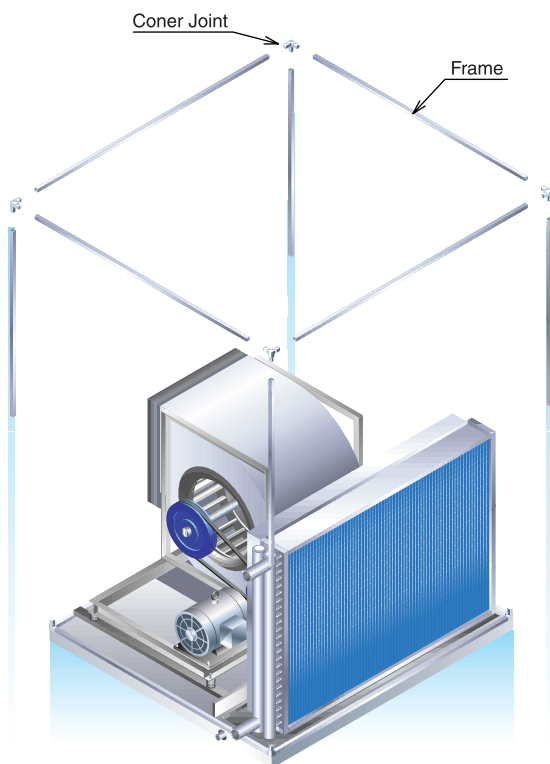
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Characteristics

1. Highly efficient large fan-coil unit
2. Easy maintenance
3. Suitable for office buildings and general buildings

Rigid and easy-to-assemble frame

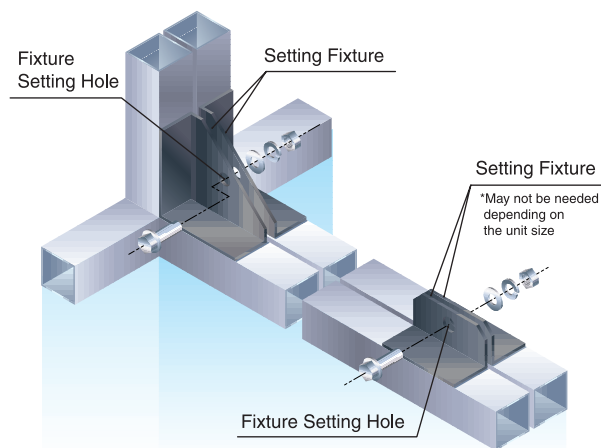
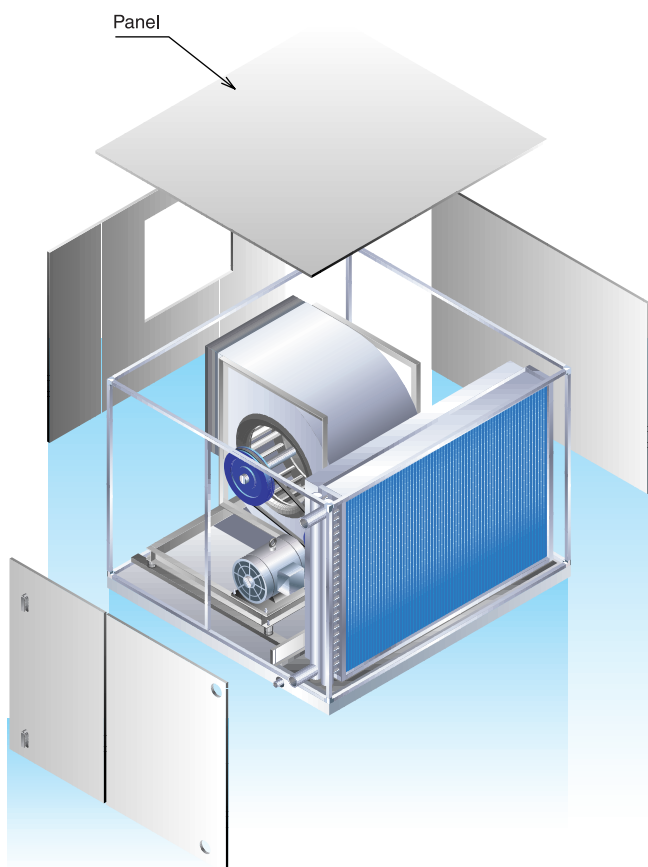
● Main Frame



Features of COOL JOY Frame

- The frame is constructed from the main frame and corner joint
- Easy to assemble at job site via knock-down transportation
- The main frame materials vary depending on the thickness of the casing panel
For 25mm thick panel : Aluminum frame
For 50mm thick panel : Steel frame
- Using triangular metal fittings for corner joints, the units can be assembled easily with nuts and bolts

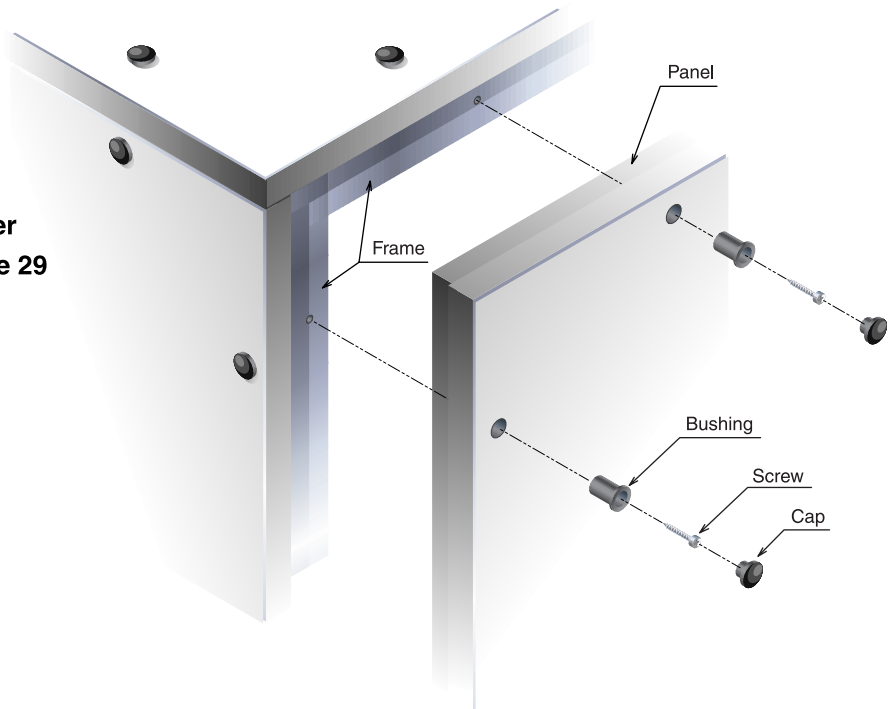
● Setting Fixture



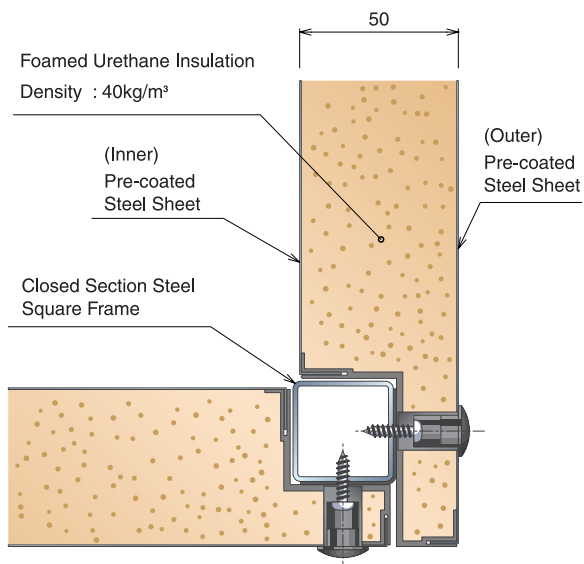
The panel uses an external screw structure that shows great resistant-to-condensation performance in severe environments

Features of COOL JOY Panel

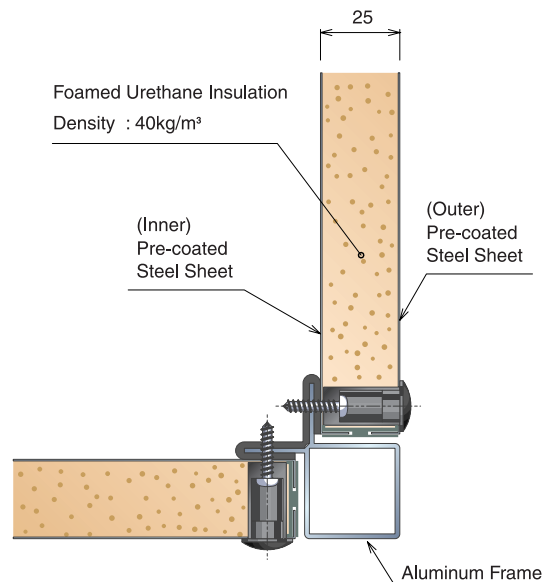
- The panel can be disassembled easily from the outside using the external screws
- Since the top of the screws are not exposed, it is effective against dew condensation as per Insulation limit Diagram on Page 29



●PANEL : 50mm thick double skinned



●PANEL : 25mm thick double skinned



Each unit is manufactured with carefully selected parts and strict quality control

Fan Wheel

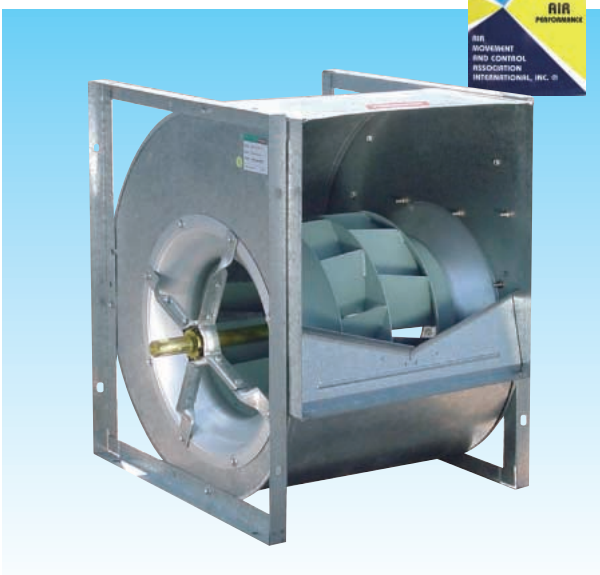
● Forward Fan

Special forward impeller, and AMCA-certified fan.



● Backward Fan

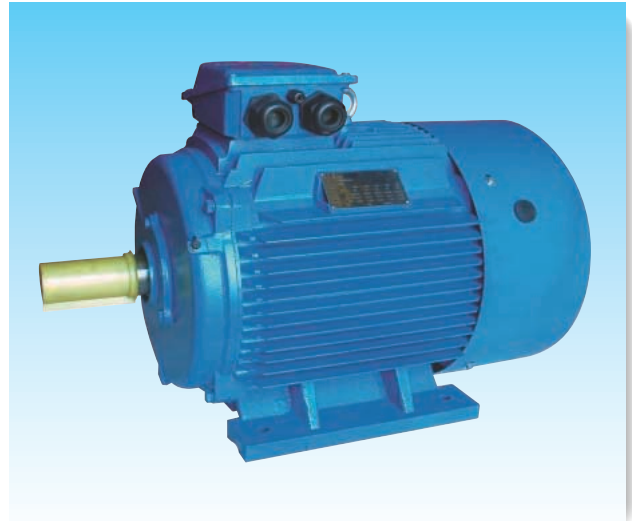
High efficiency, Low power consumption. With the special limit load characteristics, there is no concern of overloading. AMCA certified fan wheel.



Motor

● Standard Motor

TEFC motor with waterproofing performance of IP55 ClassF.



Coil

● Cooling Coil

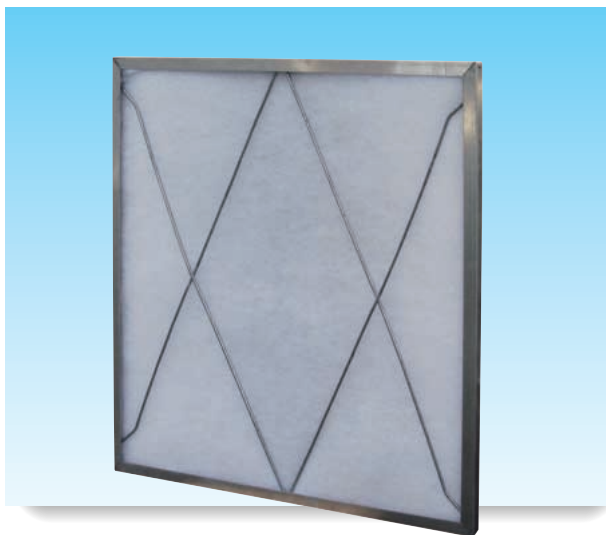
Copper tube and aluminum fin construction. Achieves a higher heat transfer coefficient and lower air resistance.



Filter

● Panel Type

Synthetic non-woven fiber or glass fiber is used as filter media. Both reusable and disposable types are available.



● Bag Type

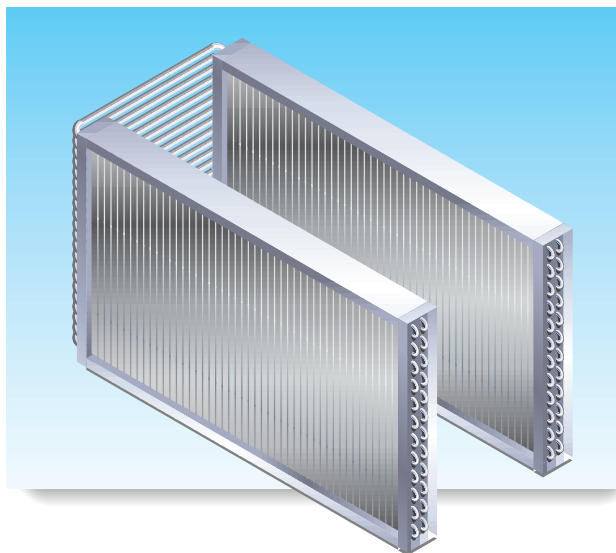
As the dust holding capacity is large, it requires less maintenance.



Heat Pipe

● Heat Pipe

No running cost. Heat circulation pump or motor are not required for Heat Pipe.



Heat Exchanger

● Heat Recovery Wheel

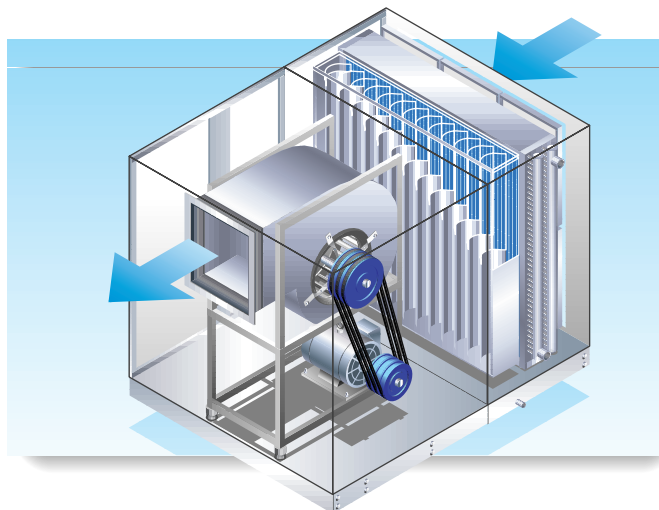
The rotor type heat wheel recovers heat from the exhaust air to the supply air. This system can be used in any air condition, and it decreases power consumption.



Indoor Air Recirculation Type

RS

**Basic model for
indoor air recirculation**



Standard Specifications (Indoor Use)

Main Component	Main Part Name	Standard Specifications
Casing	Panel	25mm thick double skinned casing panel with foamed Urethane insulation · Internal/external panel : 0.5mm thick pre-coated steel sheet · Density of polyurethane foam : 40[kg/m³]
	Main Frame	Aluminum
	Access Door	25mm thick double skinned casing panel with foamed Urethane insulation · Internal/external panel : 0.5mm thick pre-coated steel sheet · Density of polyurethane foam : 40[kg/m³]
	Base	Steel , Epoxy paint finished
Drain Pan	Drain Pan	Stainless steel 304
Fan & Motor	Fan	Forward wheel
	Motor	TEFC type , IP55 , Class F
	Vibration Isolator	Spring Vibration Isolator
Coil	Water Coil	Max. working pressure : 0.98 [MPa] Maximum face velocity : 3.5 [m/s]
	Main Tube	AHU Size RS-50~585 : 3/8"dia copper tube AHU Size RS-665 : 5/8"dia copper tube
	Fin	AHU Size RS-50~585 · Aluminum , 0.115mm thickness , Bare surface · Fin Spacing : 11FPI
		AHU Size RS-665 · Aluminum , 0.15mm thickness , Bare surface · Fin Spacing : 8 , 9 , 11FPI
	Header	Steel , Epoxy paint finished "Air vent with plug" and "Drain plug" is attached.
	Take-off Pipe	20A~80A : Steel , MPT , Epoxy paint finished 100A , 125A : Steel , Steel pipe flanges , Epoxy paint finished
	Casing	Steel , Epoxy paint finished
Eliminator	Eliminator	Aluminum (When face velocity exceeds 2.5m/s)
	Casing	Steel , Epoxy paint finished
Filter	Main-filter	20mm panel type , Non-woven type EN779 Classification : G3

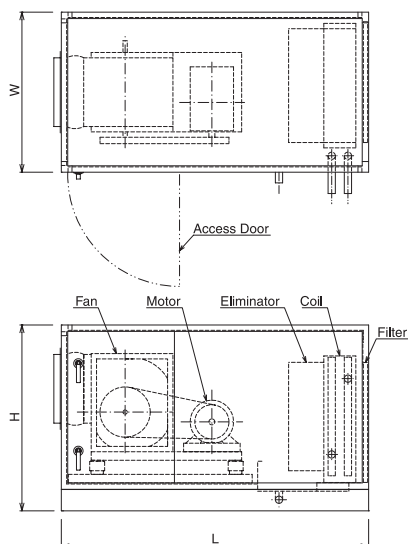
Optional Specifications

Main Component	Main Part Name	Optional Specifications
—	—	Use : Outdoor
Casing	Panel	Thicker pre-coated steel sheet available on request
	Access Door	Thicker pre-coated steel sheet available on request
Fan	Fan	Backward wheel
Coil	Water Coil	Coil for higher working pressure available on request
	Fin	Pre-coated Aluminum fin
	Header	Copper tube
Filter	Main-filter	"50mm zig-zag type , Non-woven type EN779 Classification : G3"

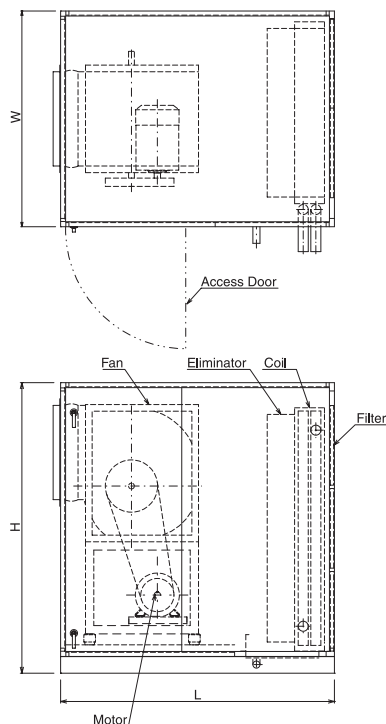
Note : Selection of optional components is subject to change in dimension from the standard.

■ Dimensions

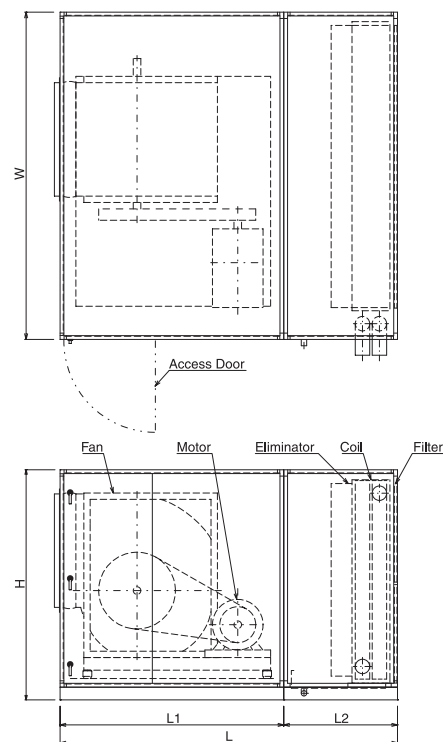
RS-50~85 (Type1)



RS-100~250 (Type2)



RS-285~665 (Type3)



Note : Eliminator is added when coil face velocity exceed 2.5m/s

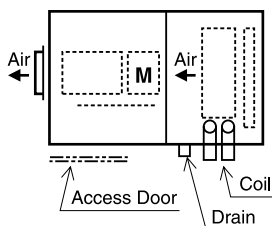
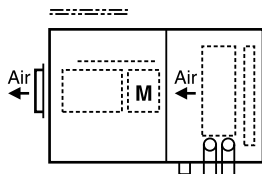
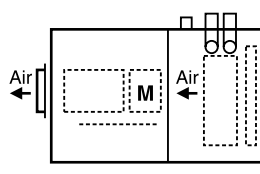
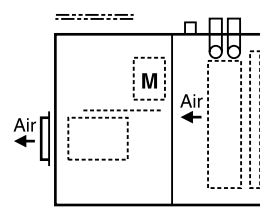
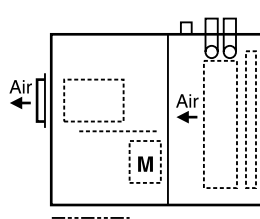
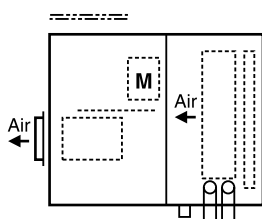
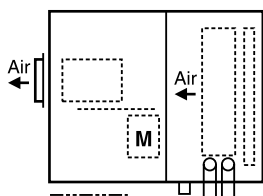
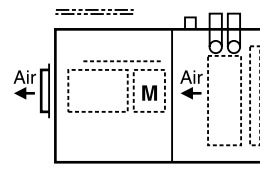
Model	Dimensions [mm]						Maximum Fan Model	Maximum Motor Size
	W	H	L	L1	L2	Type		
RS- 50	750	850	1450	-	-	1	FDA 250	3 kW
RS- 65	900	850	1500	-	-	1	FDA 250	4 kW
RS- 85	1000	900	1500	-	-	1	FDA 280	4 kW
RS-100	850	1400	1300	-	-	2	FDA 280	5.5 kW
RS-120	950	1450	1300	-	-	2	FDA 315	5.5 kW
RS-135	1050	1550	1400	-	-	2	FDA 355	7.5 kW
RS-150	1050	1550	1400	-	-	2	FDA 355	7.5 kW
RS-165	1050	1550	1400	-	-	2	FDA 355	7.5 kW
RS-185	1150	1600	1500	-	-	2	FDA 400	7.5 kW
RS-200	1150	1750	1500	-	-	2	FDA 400	11 kW
RS-215	1300	1850	1600	-	-	2	FDA 450	11 kW
RS-235	1300	1850	1600	-	-	2	FDA 450	11 kW
RS-250	1300	1850	1600	-	-	2	FDA 450	11 kW
RS-285	1950	1350	1900	-	-	3	FDA 500	15 kW
RS-335	2100	1500	1950	-	-	3	FDA 560	15 kW
RS-365	2100	1500	1950	-	-	3	FDA 560	15 kW
RS-415	2300	1650	2100	-	-	3	FDA 630	18.5 kW
RS-450	2350	1650	2150	-	-	3	FDA 630	18.5 kW
RS-500	2350	1650	2350	-	-	3	FDA 630	22 kW
RS-535	2500	1800	2250	-	-	3	FDA 710	22 kW
RS-585	2550	1800	2250	-	-	3	FDA 710	22 kW
RS-665	2850	1800	2550	1600	950	3	FDA 710	30 kW

Cooling Capacity

On coil air temperature : DB26.0 [°C] / WB18.7 [°C] On coil water temperature : 7 [°C] Water temperature difference : 5 [K]

Model	Coil Face Area [m²]	Air Volume			4 Rows			6 Rows			8 Rows		
					Capacity		Water Side	Capacity		Water Side	Capacity		Water Side
		[l/s]	[m³/h]	[CFM]	Sensible [kW]	Total [kW]	Pressure Drop [kPa]	Sensible [kW]	Total [kW]	Pressure Drop [kPa]	Sensible [kW]	Total [kW]	Pressure Drop [kPa]
RS- 50	0.284	711	2560	1510	9.58	10.53	5.9	11.71	15.82	15.7	13.25	19.49	29.4
		853	3070	1811	11.21	11.80	6.9	13.45	17.70	18.6	15.65	22.35	36.3
		972	3500	2065	12.56	12.82	7.8	15.05	19.29	21.6	17.12	24.46	44.1
RS- 65	0.369	925	3330	1965	12.89	14.48	11.8	15.69	21.20	31.4	16.77	24.31	8.8
		1108	3990	2354	14.88	16.00	13.7	18.01	24.01	39.2	19.57	27.56	9.8
		1306	4700	2773	17.26	17.79	15.7	20.64	26.46	46.1	22.30	30.97	12.7
RS- 85	0.465	1164	4190	2472	16.24	18.46	16.7	19.83	27.17	47.1	21.34	30.93	11.8
		1394	5020	2962	18.80	20.66	20.6	21.59	27.68	7.8	24.78	35.40	15.7
		1625	5850	3452	21.52	22.65	23.5	24.47	30.59	8.8	28.03	39.48	18.6
RS- 100	0.568	1419	5110	3015	20.30	23.60	40.2	23.38	31.59	15.7	26.47	38.92	29.4
		1706	6140	3623	23.63	26.26	49.0	27.17	35.75	18.6	30.90	44.78	37.3
		1944	7000	4130	25.14	25.65	7.8	30.10	38.59	21.6	34.24	48.92	43.2
RS-120	0.650	1628	5860	3457	22.62	25.70	13.7	27.49	37.66	38.2	29.69	43.03	9.8
		1953	7030	4148	26.32	28.61	16.7	31.99	42.65	48.1	34.39	49.13	12.7
		2278	8200	4838	29.94	31.52	19.6	33.79	41.71	7.8	39.36	54.66	14.7
RS-135	0.743	1858	6690	3947	26.06	29.95	19.6	30.20	40.26	7.8	34.76	50.38	14.7
		2231	8030	4738	30.49	33.14	23.5	35.08	44.97	8.8	39.70	56.72	17.7
		2583	9300	5487	34.38	36.57	27.5	39.65	48.95	10.8	45.35	62.99	21.6
RS-150	0.826	2067	7440	4390	28.90	33.22	19.6	33.59	44.78	7.8	38.61	55.96	14.7
		2478	8920	5263	33.89	36.84	23.5	38.96	49.95	9.8	44.11	63.01	17.7
		2917	10500	6195	38.91	40.96	28.4	44.16	55.20	10.8	50.31	70.86	21.6
RS-165	0.903	2258	8130	4797	31.38	35.66	13.7	38.15	52.26	38.2	41.24	59.77	9.8
		2711	9760	5758	36.56	39.74	16.7	44.39	59.18	48.1	47.75	68.21	12.7
		3250	11700	6903	42.83	44.61	19.6	48.62	59.29	7.8	56.31	77.14	15.7
RS-185	1.006	2517	9060	5345	35.19	39.99	16.7	42.92	58.79	47.1	46.15	66.88	11.8
		3019	10870	6413	40.72	44.75	19.6	46.75	59.93	7.8	53.73	76.76	15.7
		3569	12850	7582	47.43	49.41	23.5	54.06	66.74	8.8	62.06	86.19	18.6
RS-200	1.123	2808	10110	5965	39.24	44.59	16.7	47.44	64.98	46.1	51.49	74.63	11.8
		3369	12130	7157	45.44	49.93	19.6	52.17	66.88	7.8	59.85	85.50	15.7
		3889	14000	8260	51.78	54.51	23.5	58.80	73.50	8.8	67.08	94.48	17.7
RS-215	1.187	2969	10690	6307	42.41	49.31	37.3	48.91	66.09	14.7	55.37	81.42	26.5
		3564	12830	7570	49.35	54.23	44.1	56.71	74.62	17.7	64.49	93.47	33.3
		4222	15200	8968	53.98	53.98	6.9	65.25	82.60	20.6	74.55	105.00	41.2
RS-235	1.290	3228	11620	6856	46.11	53.62	37.3	53.16	71.84	13.7	60.19	88.51	26.5
		3872	13940	8225	53.61	58.91	43.2	61.66	81.13	17.7	70.13	101.64	34.3
		4542	16350	9647	58.58	59.17	6.9	70.68	89.47	20.6	80.19	112.94	40.2
RS-250	1.355	3389	12200	7198	47.86	55.65	25.5	55.79	74.38	9.8	62.53	91.95	18.6
		4067	14640	8638	55.82	61.34	30.4	64.04	83.17	11.8	74.07	105.81	23.5
		4861	17500	10325	64.57	68.69	37.3	73.86	92.32	13.7	85.33	118.51	28.4
RS-285	1.572	3931	14150	8349	54.61	62.06	13.7	66.39	90.95	40.2	72.08	104.46	10.8
		4717	16980	10018	64.10	69.67	16.7	77.63	103.50	50.0	84.44	118.93	12.7
		5514	19850	11712	72.50	76.32	19.6	85.26	107.93	17.7	95.64	132.84	15.7
RS-335	1.827	4569	16450	9706	64.45	72.42	14.7	77.74	106.49	42.2	83.79	121.44	10.8
		5483	19740	11647	73.89	81.20	17.7	88.21	114.56	15.7	98.52	138.76	13.7
		6486	23350	13777	85.28	89.77	21.6	100.22	126.86	19.6	112.08	155.66	16.7
RS-365	2.013	5033	18120	10691	71.29	81.94	19.6	83.99	113.50	17.7	92.87	136.58	14.7
		6039	21740	12827	82.77	89.97	23.5	96.61	127.12	20.6	108.67	155.24	17.7
		7139	25700	15163	95.10	100.10	27.5	110.53	141.71	25.5	123.15	173.45	21.6
RS-415	2.299	5750	20700	12213	81.61	93.81	20.6	96.17	129.96	17.7	106.09	156.02	14.7
		6900	24840	14656	93.82	103.10	24.5	111.88	145.30	21.6	123.18	175.97	18.6
		8111	29200	17228	107.50	114.36	29.4	125.58	161.00	26.5	142.00	197.22	22.6
RS-450	2.474	6186	22270	13139	87.38	101.60	25.5	103.13	141.28	22.6	115.88	167.94	18.6
		7422	26720	15765	100.94	112.15	30.4	118.89	158.52	27.5	135.18	193.12	23.5
		8750	31500	18585	116.61	124.05	35.3	137.60	176.41	32.4	154.45	217.54	28.4
RS-500	2.752	6883	24780	14620	98.26	114.25	34.3	116.27	159.28	30.4	128.35	188.75	24.5
		8258	29730	17541	114.23	125.53	40.2	134.21	178.95	37.3	151.45	216.36	31.4
		9722	35000	20650	131.11	139.48	48.1	154.03	197.47	43.2	172.63	243.14	38.2
RS-535	2.942	7356	26480	15623	105.52	121.29	30.4	122.63	167.99	26.5	137.16	201.70	22.6
		8828	31780	18750	120.38	133.76	36.3	143.47	191.29	33.3	160.85	229.79	27.5
		10375	37350	22037	139.21	148.10	43.2	163.38	209.46	39.2	183.19	258.02	34.3
RS-585	3.174	7936	28570	16856	113.85	132.38	38.2	134.06	183.65	33.3	149.39	219.69	27.5
		9525	34290	20231	130.95	147.14	45.1	155.41	207.21	41.2	172.76	250.37	34.3
		11347	40850	24102	145.97	147.44	6.9	179.66	230.33	49.0	201.38	283.63	43.2
RS-665	3.677	9194	33100	19529	136.38	168.37	14.7	166.68	241.56	42.2	178.98	267.14	10.8
		11033	39720	23435	155.84	181.21	17.7	187.79	257.25	15.7	207.69	305.43	12.7
		12972	46700	27553	174.96	192.26	18.6	212.54	283.39	18.6	235.28	340.99	15.7

Piping / Access Door Arrangement

HF-R-R

HF-R-L

HF-L-R

HF-L-L

HF-R-R

Horizontal Front Discharge — Access Door Location
Pipe Hand

Note : R , L is decided facing air discharged from the unit.

Sound Power Level

On coil air temperature : DB26.0 [°C] / WB18.7 [°C] Off coil air temperature : DB13.0 [°C] / WB12.5 [°C] Ext Static pressure : 350[Pa]

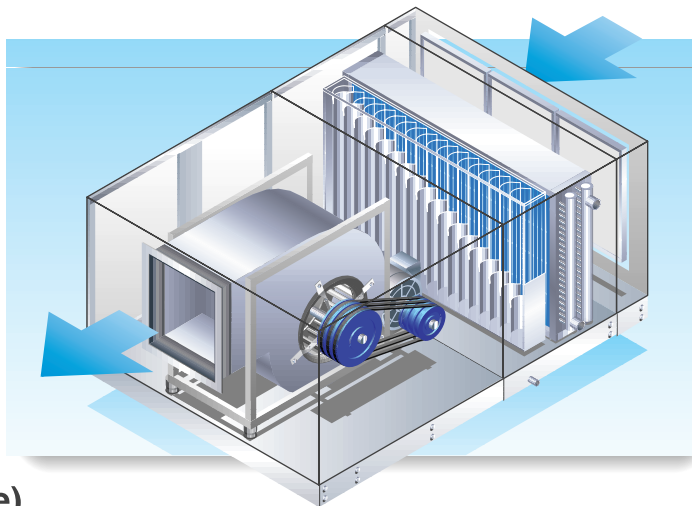
Model	Air Volume			Fan Model	Motor Size	Estimated PWL*							
						Octave Band Center Frequency [Hz]							
	[l/s]	[m³/h]	[CFM]			63	125	250	500	1000	2000	4000	8000
RS- 50	833	3000	1770	FDA 225	2.2kW	92	89	88	85	83	82	80	78
RS- 65	1111	4000	2360	FDA 250	2.2kW	91	90	85	79	75	73	70	64
RS- 85	1389	5000	2950	FDA 280	3 kW	88	89	87	83	84	84	84	81
RS- 100	1667	6000	3540	FDA 280	3 kW	84	88	84	77	79	77	76	72
RS- 120	1944	7000	4130	FDA 315	4 kW	94	92	89	86	88	85	84	80
RS- 135	2222	8000	4720	FDA 355	5.5kW	97	94	91	86	87	82	79	74
RS- 150	2500	9000	5310	FDA 355	5.5kW	97	95	90	86	86	80	77	72
RS- 165	2778	10000	5900	FDA 355	5.5kW	98	95	89	84	84	78	75	69
RS- 185	3056	11000	6490	FDA 400	5.5kW	93	92	89	88	88	83	82	78
RS- 200	3333	12000	7080	FDA 400	7.5kW	92	91	88	87	86	82	81	76
RS- 215	3611	13000	7670	FDA 450	7.5kW	94	92	91	87	89	84	83	80
RS- 235	3889	14000	8260	FDA 450	7.5kW	94	91	91	87	88	83	82	79
RS- 250	4167	15000	8850	FDA 450	7.5kW	94	91	91	87	89	83	82	79
RS- 285	4722	17000	10030	FDA 500	7.5kW	97	93	89	86	85	81	79	74
RS- 335	5556	20000	11800	FDA 560	11 kW	98	94	90	88	87	82	79	74
RS- 365	6111	22000	12980	FDA 560	11 kW	98	95	91	88	88	83	80	75
RS- 415	6944	25000	14750	FDA 630	15 kW	99	96	90	90	83	79	75	69
RS- 450	7500	27000	15930	FDA 630	15 kW	98	95	89	90	83	79	75	69
RS- 500	8333	30000	17700	FDA 630	15 kW	99	96	90	90	83	79	75	69
RS- 535	8889	32000	18880	FDA 710	15 kW	102	96	86	82	77	76	69	61
RS- 585	9722	35000	20650	FDA 710	15 kW	102	96	86	81	76	75	69	60
RS- 665	11111	40000	23600	FDA 710	18.5kW	101	93	84	79	75	73	67	58

*Sound data is discharge sound PWL of independent fan assembly.

Indoor Recirculation with upgraded casing Type

RG

**Uses 50mm thick
double skinned panels**



Standard Specifications (Indoor Use)

Main Component	Main Part Name	Standard Specifications
Casing	Panel	50mm thick double skinned casing panel with foamed Urethane insulation · Internal/external panel : 0.5mm thick pre-coated steel sheet · Density of polyurethane foam : 40[kg/m³]
	Main Frame	Steel
	Access Door	50mm thick double skinned casing panel with foamed Urethane insulation · Internal/external panel : 0.5mm thick pre-coated steel sheet · Density of polyurethane foam : 40[kg/m³]
	Base	Steel , Epoxy paint finished
Drain Pan	Drain Pan	Stainless steel 304
Fan & Motor	Fan	Forward wheel
	Motor	TEFC type , IP55 , Class F
	Vibration Isolator	Spring Vibration Isolator
Coil	Water Coil	Max. working pressure : 0.98 [MPa] Maximum face velocity : 3.5 [m/s]
	Main Tube	AHU Size RG-50~585 : 3/8"dia copper tube AHU Size RG-665 : 5/8"dia copper tube
	Fin	AHU Size RG-50~585 · Aluminum , 0.115mm thickness , Bare surface · Fin Spacing : 11FPI
		AHU Size RG-665 · Aluminum , 0.15mm thickness , Bare surface · Fin Spacing : 8 , 9 , 11FPI
	Header	Steel , Epoxy paint finished "Air vent with plug" and "Drain plug" is attached.
	Take-off Pipe	20A~80A : Steel , MPT , Epoxy paint finished 100A , 125A : Steel , Steel pipe flanges , Epoxy paint finished
	Casing	Steel , Epoxy paint finished
	Eliminator	Aluminum (When face velocity exceeds 2.5m/s)
Eliminator	Casing	Steel , Epoxy paint finished
Filter	Main-filter	20mm panel type , Non-woven type EN779 Classification : G3

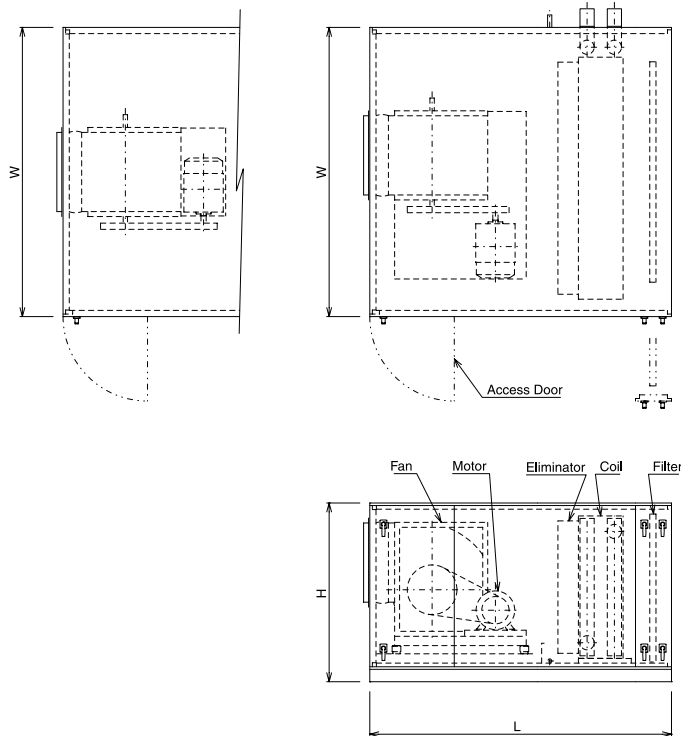
Optional Specifications

Main Component	Main Part Name	Optional Specifications
—	—	Use : Outdoor
Casing	Panel	Thicker pre-coated steel sheet available on request
	Access Door	Thicker pre-coated steel sheet available on request
Fan	Fan	Backward wheel
Coil	Water Coil	Coil for higher working pressure available on request
	Fin	Pre-coated Aluminum fin
	Header	Copper tube
Filter	Main-filter	"50mm zig-zag type , Non-woven type EN779 Classification : G3"

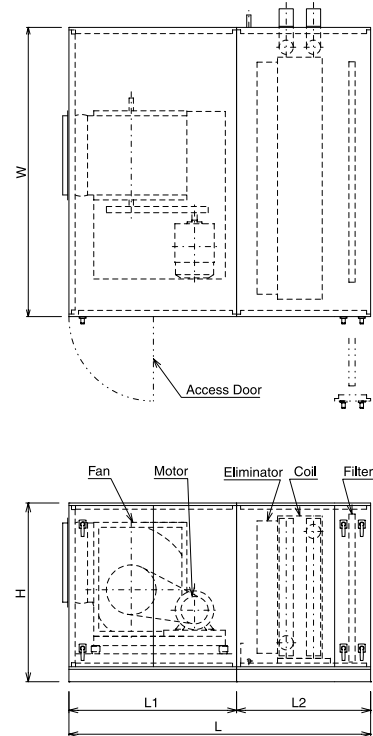
Note : Selection of optional components is subject to change in dimension from the standard.

■ Dimensions

RG-50~200 (Type1)



RG-215~665 (Type2)



Note : Eliminator is added when coil face velocity exceed 2.5m/s

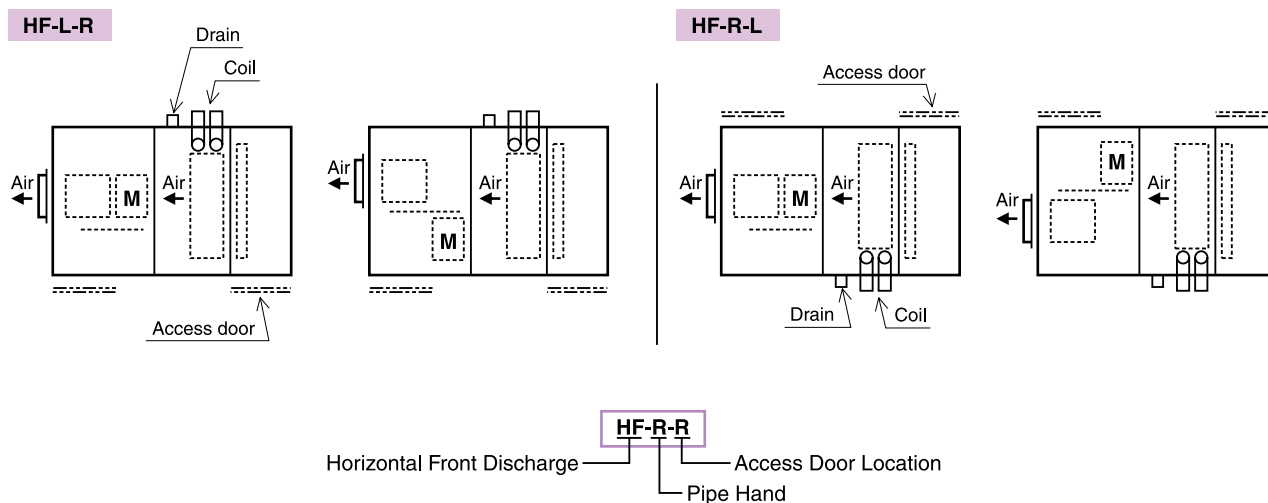
Model	Dimensions [mm]						Maximum Fan Model	Maximum Motor Size
	W	H	L	L1	L2	Type		
RG- 50	1100	1000	1950	-	-	1	FDA 250	3 kW
RG- 65	1100	1000	1950	-	-	1	FDA 250	4 kW
RG- 85	1100	1050	2000	-	-	1	FDA 280	4 kW
RG-100	1700	1050	2100	-	-	1	FDA 280	5.5 kW
RG-120	1700	1100	2100	-	-	1	FDA 315	5.5 kW
RG-135	1700	1250	2100	-	-	1	FDA 355	7.5 kW
RG-150	1700	1250	2100	-	-	1	FDA 355	7.5 kW
RG-165	1700	1250	2100	-	-	1	FDA 355	7.5 kW
RG-185	1700	1300	2150	-	-	1	FDA 400	7.5 kW
RG-200	1800	1300	2350	-	-	1	FDA 400	11 kW
RG-215	2300	1350	2350	1400	950	2	FDA 450	11 kW
RG-235	2300	1350	2350	1400	950	2	FDA 450	11 kW
RG-250	2300	1350	2350	1400	950	2	FDA 450	11 kW
RG-285	2100	1550	2450	1450	1000	2	FDA 500	15 kW
RG-335	2300	1600	2500	1500	1000	2	FDA 560	15 kW
RG-365	2300	1600	2550	1500	1050	2	FDA 560	15 kW
RG-415	2400	1850	2700	1650	1050	2	FDA 630	18.5 kW
RG-450	2550	1850	2750	1700	1050	2	FDA 630	18.5 kW
RG-500	2900	1850	2750	1700	1050	2	FDA 630	22 kW
RG-535	2900	1900	2800	1750	1050	2	FDA 710	22 kW
RG-585	2900	1900	2800	1750	1050	2	FDA 710	22 kW
RG-665	3550	1900	3000	1750	1250	2	FDA 710	30 kW

Cooling Capacity

On coil air temperature : DB26.0 [°C] / WB18.7 [°C] On coil water temperature : 7 [°C] Water temperature difference : 5 [K]

Model	Coil Face Area [m²]	Air Volume			4 Rows			6 Rows			8 Rows		
		[l/s]	[m³/h]	[CFM]	Capacity		Water Side Pressure Drop [kPa]	Capacity		Water Side Pressure Drop [kPa]	Capacity		Water Side Pressure Drop [kPa]
					Sensible [kW]	Total [kW]		Sensible [kW]	Total [kW]		Sensible [kW]	Total [kW]	
RG- 50	0.279	697	2510	1481	9.85	11.45	30.4	11.48	15.30	11.8	13.10	18.99	22.6
		839	3020	1782	11.43	12.70	37.3	13.27	17.23	14.7	15.27	21.82	28.4
		972	3500	2065	13.01	13.84	42.2	14.77	18.70	16.7	17.16	24.17	33.3
RG- 65	0.372	931	3350	1977	12.88	14.15	8.8	15.51	21.25	25.5	17.52	25.76	47.1
		1117	4020	2372	14.94	15.89	10.8	18.13	23.86	31.4	19.72	27.77	8.8
		1306	4700	2773	17.07	17.60	12.7	20.53	26.32	37.3	22.41	30.70	9.8
RG- 85	0.470	1175	4230	2496	16.32	18.55	13.7	19.85	27.19	38.2	21.43	31.06	9.8
		1411	5080	2997	19.03	20.69	16.7	23.04	30.72	47.1	24.85	35.50	12.7
		1625	5850	3452	21.60	22.50	18.6	24.48	30.22	7.8	28.22	39.19	14.7
RG- 100	0.554	1386	4990	2944	19.68	22.62	21.6	22.58	30.10	8.8	25.57	37.61	15.7
		1661	5980	3528	22.61	24.85	26.5	26.18	33.57	9.8	29.67	42.38	19.6
		1944	7000	4130	25.86	27.51	30.4	29.51	36.89	11.8	34.19	47.49	23.5
RG-120	0.650	1628	5860	3457	22.99	26.73	27.5	26.80	35.73	10.8	30.54	44.26	19.6
		1953	7030	4148	26.59	29.54	33.3	30.88	40.11	12.7	35.57	50.81	25.5
		2278	8200	4838	30.43	32.37	38.2	34.63	43.83	14.7	40.21	56.64	30.4
RG-135	0.743	1858	6690	3947	26.25	30.52	27.5	30.59	40.79	10.8	34.88	50.55	19.6
		2231	8030	4738	30.38	33.75	33.3	35.20	46.31	12.7	40.62	58.03	25.5
		2583	9300	5487	34.59	36.80	38.2	39.26	49.70	14.7	45.61	64.24	30.4
RS-150	0.846	2117	7620	4496	30.38	35.32	40.2	34.86	47.11	14.7	39.47	58.04	28.4
		2542	9150	5399	34.94	39.26	48.1	40.65	53.49	18.6	46.10	66.81	36.3
		2917	10500	6195	37.71	38.48	7.8	45.15	57.89	21.6	51.37	73.38	42.2
RG-165	0.929	2325	8370	4938	31.64	35.15	6.9	39.02	52.73	19.6	43.76	64.36	37.3
		2789	10040	5924	37.08	39.45	7.8	44.79	58.93	23.5	51.39	73.42	46.1
		3250	11700	6903	42.31	43.17	9.8	51.10	65.51	28.4	54.90	75.20	7.8
RG-185	1.022	2556	9200	5428	36.38	42.80	48.1	42.79	57.83	18.6	48.10	70.74	34.3
		3067	11040	6514	40.64	43.23	7.8	49.73	64.59	22.6	55.62	80.61	43.2
		3569	12850	7582	46.75	47.22	8.8	56.06	70.96	26.5	60.30	82.60	6.9
RG-200	1.115	2789	10040	5924	38.55	42.36	7.8	46.49	63.69	23.5	52.92	77.82	44.1
		3347	12050	7110	44.73	47.59	9.8	53.61	71.48	28.4	59.06	83.19	7.8
		3889	14000	8260	50.97	52.55	11.8	61.15	78.40	33.3	66.96	91.73	8.8
RG-215	1.226	3067	11040	6514	42.82	47.58	9.8	51.13	70.04	26.5	58.32	85.77	49.0
		3678	13240	7812	49.11	52.81	10.8	59.77	79.69	33.3	64.94	91.46	8.8
		4222	15200	8968	55.56	57.88	12.7	66.36	86.18	37.3	72.12	100.16	9.8
RG-235	1.299	3250	11700	6903	45.35	50.96	10.8	54.90	75.20	31.4	58.95	85.43	7.8
		3900	14040	8284	52.67	56.63	12.7	63.38	84.50	38.2	69.51	97.90	9.8
		4542	16350	9647	60.07	62.57	15.7	71.46	92.80	45.1	77.78	108.03	11.8
RG-250	1.397	3494	12580	7422	48.56	55.18	13.7	59.03	80.86	38.2	64.08	92.87	9.8
		4194	15100	8909	56.77	61.71	15.7	68.91	91.88	47.1	73.87	105.53	12.7
		4861	17500	10325	64.60	67.29	18.6	75.24	95.24	16.7	84.48	117.33	14.7
RG-285	1.572	3931	14150	8349	54.61	62.06	13.7	66.39	90.95	40.2	72.08	104.46	10.8
		4717	16980	10018	64.10	69.67	16.7	77.63	103.50	50.0	84.44	118.93	12.7
		5514	19850	11712	72.50	76.32	19.6	85.26	107.93	17.7	95.64	132.84	15.7
RG-335	1.858	4647	16730	9871	64.94	73.80	15.7	79.21	108.50	44.1	85.22	123.51	11.8
		5575	20070	11841	75.18	82.62	18.6	88.81	116.85	16.7	99.18	141.68	14.7
		6486	23350	13777	86.06	90.59	21.6	100.02	128.23	19.6	111.89	157.59	17.7
RG-365	2.044	5111	18400	10856	72.56	82.46	20.6	85.46	115.48	17.7	94.31	138.69	14.7
		6133	22080	13027	83.37	91.62	24.5	99.42	129.12	21.6	110.46	157.80	18.6
		7139	25700	15163	95.14	101.21	28.4	110.53	141.71	25.5	125.58	174.41	22.6
RG-415	2.315	5789	20840	12296	81.76	95.07	23.5	96.31	131.93	20.6	106.81	157.08	16.7
		6947	25010	14756	95.17	104.58	27.5	112.02	147.40	24.5	126.34	180.49	21.6
		8111	29200	17228	108.10	115.00	32.4	127.55	163.53	29.4	143.22	201.72	26.5
RG-450	2.516	6292	22650	13364	90.18	103.66	29.4	104.90	143.70	25.5	117.31	172.52	21.6
		7550	27180	16036	102.96	114.40	35.3	122.70	163.60	32.4	137.52	196.45	26.5
		8750	31500	18585	118.01	125.54	41.2	138.48	177.54	37.3	155.18	218.57	32.4
RG-500	2.785	6964	25070	14791	99.84	118.86	42.2	119.91	164.26	36.3	132.34	194.62	30.4
		8356	30080	17747	111.35	118.46	6.9	137.72	183.63	44.1	153.23	222.07	37.3
		9722	35000	20650	127.29	129.89	7.8	147.06	183.82	6.9	173.08	247.25	45.1
RG-535	2.981	7453	26830	15830	105.94	123.19	31.4	125.83	172.37	28.4	138.96	204.36	23.5
		8944	32200	18998	121.98	135.53	37.3	145.36	193.81	34.3	163.36	233.37	28.4
		10375	37350	22037	138.94	149.40	44.1	162.85	211.49	40.2	183.19	258.02	34.3
RG-585	3.252	8131	29270	17269	115.63	136.04	41.2	137.35	188.15	35.3	152.19	223.81	29.4
		9756	35120	20721	136.05	151.17	49.0	159.83	213.11	44.1	176.94	256.43	37.3
		11347	40850	24102	146.71	149.70	7.8	168.32	207.80	6.9	199.85	285.50	44.1
RG-665	3.716	9292	33450	19736	137.82	170.15	15.7	168.53	244.24	43.2	180.87	269.96	10.8
		11150	40140	23683	157.48	183.12	17.7	190.12	260.44	15.7	209.89	308.66	13.7
		12972	46700	27553	174.96	192.26	19.6	213.56	284.74	18.6	235.28	340.99	15.7

Piping / Access Door Arrangement



Note : R , L is decided facing air discharged from the unit.

Sound Power Level

On coil air temperature : DB26.0 [°C] / WB18.7 [°C] Off coil air temperature : DB13.0 [°C] / WB12.5 [°C] Ext Static pressure : 350[Pa]

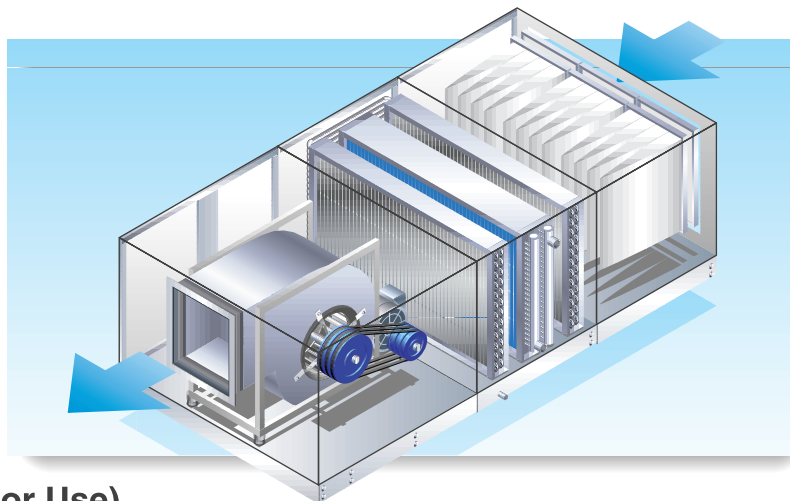
Model	Air Volume			Fan Model	Motor Size	Estimated PWL*							
						Octave Band Center Frequency [Hz]							
	[l/s]	[m³/h]	[CFM]			63	125	250	500	1000	2000	4000	8000
RG- 50	833	3000	1770	FDA 225	2.2kW	93	90	89	85	83	83	81	79
RG- 65	1111	4000	2360	FDA 250	2.2kW	91	90	85	79	75	73	69	63
RG- 85	1389	5000	2950	FDA 280	3 kW	87	88	86	81	82	82	82	78
RG- 100	1667	6000	3540	FDA 280	3 kW	85	88	86	78	80	78	78	74
RG- 120	1944	7000	4130	FDA 315	4 kW	95	92	91	87	90	86	85	82
RG- 135	2222	8000	4720	FDA 355	5.5kW	97	94	91	86	87	82	79	74
RG- 150	2500	9000	5310	FDA 355	5.5kW	97	94	89	84	84	79	76	70
RG- 165	2778	10000	5900	FDA 355	5.5kW	98	95	89	84	84	78	75	69
RG- 185	3056	11000	6490	FDA 400	5.5kW	91	90	87	87	85	81	80	75
RG- 200	3333	12000	7080	FDA 400	5.5kW	91	90	86	86	84	81	79	74
RG- 215	3611	13000	7670	FDA 450	5.5kW	93	90	89	86	86	82	81	77
RG- 235	3889	14000	8260	FDA 450	7.5kW	92	90	89	86	86	82	81	77
RG- 250	4167	15000	8850	FDA 450	7.5kW	92	90	89	86	86	82	81	77
RG- 285	4722	17000	10030	FDA 500	7.5kW	97	93	89	86	85	81	79	74
RG- 335	5556	20000	11800	FDA 560	11 kW	98	95	91	88	88	83	80	75
RG- 365	6111	22000	12980	FDA 560	11 kW	98	94	91	88	87	82	80	74
RG- 415	6944	25000	14750	FDA 630	11 kW	98	95	89	89	82	78	74	68
RG- 450	7500	27000	15930	FDA 630	15 kW	98	95	89	89	82	78	74	68
RG- 500	8333	30000	17700	FDA 630	15 kW	98	95	89	89	82	78	74	68
RG- 535	8889	32000	18880	FDA 710	15 kW	102	95	86	81	76	75	69	60
RG- 585	9722	35000	20650	FDA 710	15 kW	102	95	85	80	76	74	68	59
RG- 665	11111	40000	23600	FDA 710	15 kW	101	93	84	79	75	73	67	57

*Sound data is discharge sound PWL of independent fan assembly.

Fresh air Intake Type

FH

**Energy-saving model
with built-in heat pipe**



Standard Specifications (Indoor Use)

Main Component	Main Part Name	Standard Specifications
Casing	Panel	50mm thick double skinned casing panel with foamed Urethane insulation · Internal/external panel : 0.5mm thick pre-coated steel sheet · Density of polyurethane foam : 40[kg/m³]
	Main Frame	Steel
	Access Door	50mm thick double skinned casing panel with foamed Urethane insulation · Internal/external panel : 0.5mm thick pre-coated steel sheet · Density of polyurethane foam : 40[kg/m³]
	Base	Steel , Epoxy paint finished
Drain Pan	Drain Pan	Stainless steel 304
Fan & Motor	Fan	Forward wheel
	Motor	TEFC type , IP55 , Class F
	Vibration Isolator	Spring Vibration Isolator
Coil	Water Coil	Max.working pressure : 0.98 [MPa] Maximum face velocity : 3.0 [m/s]
	Main Tube	AHU Size FH-50~215 : 3/8"dia copper tube
		AHU Size FH-235~665 : 5/8"dia copper tube
	Fin	AHU Size FH-50~215 · Aluminum , 0.115mm thickness , Bare surface · Fin spacing : 11FPI
		AHU Size FH-235~665 · Aluminum , 0.15mm thickness , Bare surface · Fin spacing : 8 , 9 , 11FPI
	Header	Steel , Epoxy paint finished "Air vent with plug" and "Drain plug" is attached.
	Take-off pipe	20A~80A : Steel , MPT , Epoxy paint finished 100A , 125A : Steel , Steel pipe flanges , Epoxy paint finished
Filter	Casing	Steel , Epoxy paint finished
	Pre-filter	20mm panel type , Non-woven type EN779 Classification : G3 Size : (W)592×(H)592 , (W)592×(H)287 , (W)287×(H)592
	Main-filter	Bag type EN779 Classification : F6 , F7 , F8 Size : (W)592×(H)592 , (W)592×(H)287 , (W)287×(H)592

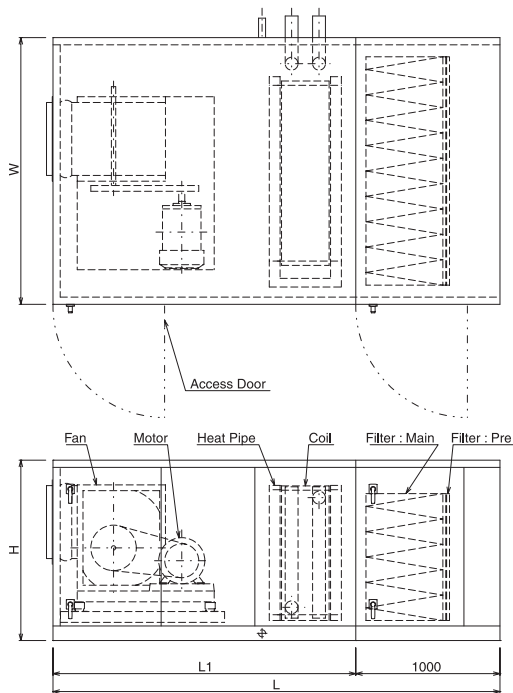
Optional Specifications

Main Component	Main Part Name	Optional Specifications
—	—	Use : Outdoor
Casing	Panel	Thicker pre-coated steel sheet available on request
	Access Door	Thicker pre-coated steel sheet available on request
Fan	Fan	Backward wheel
Coil	Water coil	Coil for higher working pressure available on request
	Fin	Pre-coated Aluminum Fin
	Header	Copper tube

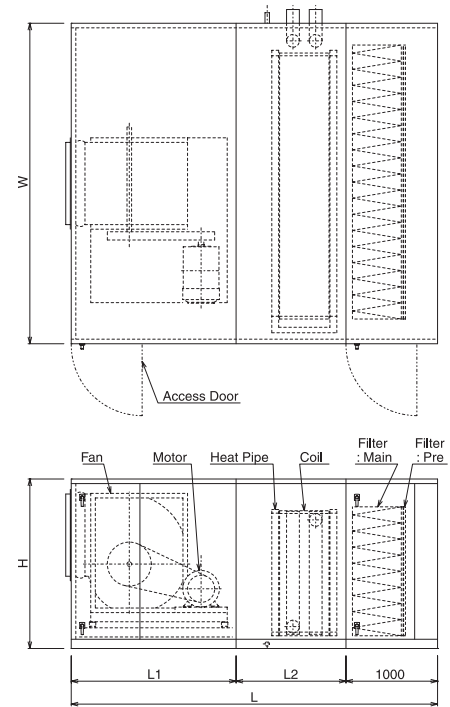
Note : Selection of optional components is subject to change in dimension from the standard.

Dimensions

FH-50~215 (Type1)



FH-235~665 (Type2)



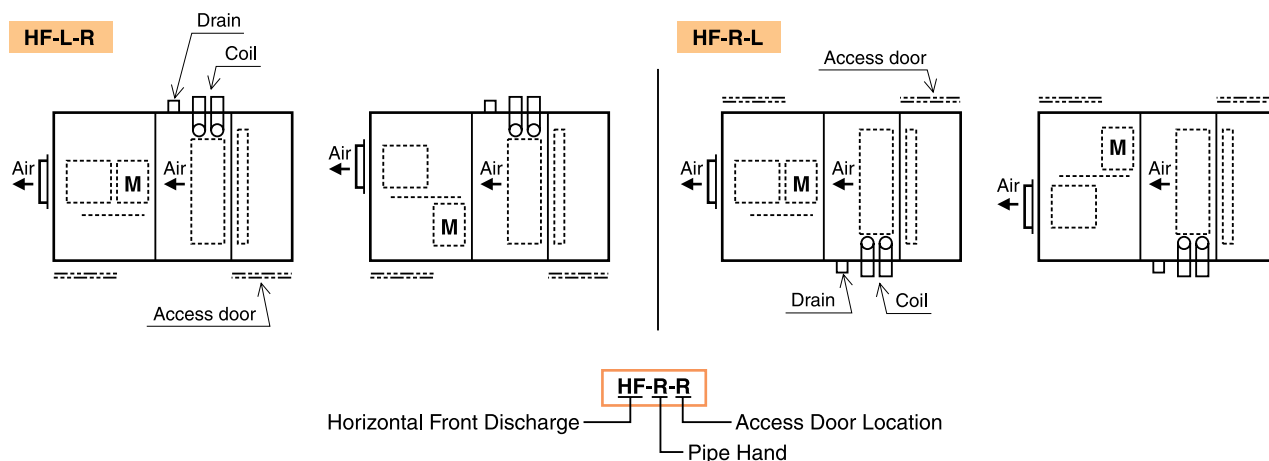
Model	Dimensions [mm]						Maximum Fan Model	Maximum Motor Size
	W	H	L	L1	L2	Type		
FH- 50	1350	950	2700	1700	-	1	FDA 250	5.5 kW
FH- 65	1450	1000	2750	1750	-	1	FDA 280	7.5 kW
FH- 85	1550	1000	2750	1750	-	1	FDA 280	7.5 kW
FH-100	1650	1050	3050	2050	-	1	FDA 315	11 kW
FH-120	1750	1150	3050	2050	-	1	FDA 355	11 kW
FH-135	1850	1250	3100	2100	-	1	FDA 400	11 kW
FH-150	1850	1250	3100	2100	-	1	FDA 400	15 kW
FH-165	1950	1250	3100	2100	-	1	FDA 400	15 kW
FH-185	2050	1300	3100	2100	-	1	FDA 450	15 kW
FH-200	2150	1300	3100	2100	-	1	FDA 450	15 kW
FH-215	2150	1300	3100	2100	-	1	FDA 450	15 kW
FH-235	2250	1400	3650	1450	1200	2	FDA 500	15 kW
FH-250	2250	1400	3700	1500	1200	2	FDA 500	18.5 kW
FH-285	2450	1400	3700	1500	1200	2	FDA 500	18.5 kW
FH-335	2700	1550	3750	1550	1200	2	FDA 560	18.5 kW
FH-365	2700	1550	3750	1550	1200	2	FDA 560	22 kW
FH-415	2900	1700	3750	1550	1200	2	FDA 630	22 kW
FH-450	3100	1700	3850	1650	1200	2	FDA 630	30 kW
FH-500	3100	1700	3850	1650	1200	2	FDA 630	30 kW
FH-535	3300	1850	4000	1800	1200	2	FDA710	30 kW
FH-585	3300	1850	4000	1800	1200	2	FDA 710	37 kW
FH-665	3500	1850	4000	1800	1200	2	FDA 710	37 kW

Cooling Capacity

On coil air temperature : DB39.2 [°C] / WB28.6 [°C] On coil water temperature : 7 [°C] Water temperature difference : 5 [K]

Model	Coil Face Area [m²]	Air Volume			8 Rows			9 Rows			12 Rows		
					Capacity		Water Side Pressure Drop [kPa]	Capacity		Water Side Pressure Drop [kPa]	Capacity		Water Side Pressure Drop [kPa]
		[l/s]	[m³/h]	[CFM]	Sensible [kW]	Total [kW]		Sensible [kW]	Total [kW]		Sensible [kW]	Total [kW]	
FH- 50	0.280	700	2520	1487	21.85	45.52	9.8	22.99	48.92	26.5	25.04	53.27	18.6
		833	3000	1770	25.13	52.36	11.8	26.63	56.65	33.3	29.16	62.05	23.5
FH- 65	0.372	931	3350	1977	29.33	61.11	10.8	30.66	65.24	28.4	33.28	70.81	19.6
		1111	4000	2360	33.54	69.87	13.7	35.56	75.66	36.3	39.02	83.03	26.5
FH- 85	0.465	1164	4190	2472	36.85	76.78	14.7	38.58	82.08	39.2	41.78	88.90	27.5
		1389	5000	2950	42.29	88.10	17.7	43.79	91.22	7.8	48.96	104.18	35.3
FH- 100	0.554	1386	4990	2944	44.10	91.88	17.7	44.50	94.69	6.9	49.92	106.22	33.3
		1667	6000	3540	51.03	106.32	22.6	52.55	109.48	8.8	57.88	123.15	14.7
FH- 120	0.653	1633	5880	3469	51.35	109.26	27.5	52.96	112.69	10.8	58.42	124.29	17.7
		1944	7000	4130	60.12	125.26	34.3	62.34	129.87	13.7	68.05	144.79	22.6
FH- 135	0.743	1858	6690	3947	59.76	124.50	30.4	60.31	128.32	12.7	66.47	141.42	19.6
		2222	8000	4720	68.72	143.17	39.2	69.87	148.65	15.7	78.00	165.95	25.5
FH- 150	0.822	2056	7400	4366	64.90	138.08	32.4	66.90	142.33	12.7	73.56	156.50	20.6
		2500	9000	5310	77.30	161.04	42.2	80.17	167.02	16.7	87.50	186.17	27.5
FH- 165	0.939	2350	8460	4991	74.55	158.62	38.2	76.54	162.86	15.7	84.36	179.49	23.5
		2778	10000	5900	77.25	157.66	38.2	88.12	187.49	19.6	97.93	208.37	30.4
FH- 185	1.012	2531	9110	5375	82.08	170.99	47.1	82.76	176.08	18.6	91.14	193.91	28.4
		3056	11000	6490	80.18	157.22	40.2	96.93	206.24	24.5	107.73	229.21	38.2
FH- 200	1.123	2808	10110	5965	82.52	168.41	42.2	92.16	196.08	20.6	101.15	215.22	31.4
		3333	12000	7080	85.86	168.35	42.2	106.23	226.03	26.5	117.93	250.92	41.2
FH- 215	1.218	3047	10970	6472	88.32	180.25	42.2	100.09	212.95	21.6	109.76	233.53	33.3
		3611	13000	7670	91.67	179.75	42.2	115.09	244.87	27.5	126.89	269.98	42.2
FH- 235	1.299	3247	11690	6897	107.12	227.91	14.7	113.21	240.88	38.2	120.23	255.81	25.5
		3889	14000	8260	123.37	262.49	18.6	126.11	268.32	6.9	141.56	301.20	34.3
FH- 250	1.363	3408	12270	7239	112.43	239.22	16.7	115.20	245.11	6.9	126.48	269.11	29.4
		4167	15000	8850	132.18	281.24	21.6	135.12	287.48	8.8	151.67	322.71	40.2
FH- 285	1.533	3833	13800	8142	127.50	271.28	22.6	130.58	277.83	8.8	142.86	303.96	40.2
		4722	17000	10030	150.50	320.21	29.4	154.26	328.22	11.8	169.52	360.69	18.6
FH- 335	1.835	4589	16520	9747	153.87	327.38	29.4	157.22	334.50	11.8	169.36	360.35	17.7
		5556	20000	11800	173.43	361.32	34.3	183.27	389.93	14.7	200.85	427.33	22.6
FH- 365	2.038	5097	18350	10827	170.92	363.65	31.4	175.04	372.43	12.7	188.45	400.96	18.6
		6111	22000	12980	188.08	391.83	35.3	201.84	429.45	15.7	221.72	471.75	24.5
FH- 415	2.303	5758	20730	12231	193.08	410.81	35.3	198.05	421.38	13.7	213.21	453.63	20.6
		6944	25000	14750	201.92	420.66	36.3	230.99	491.46	17.7	251.96	536.08	27.5
FH- 450	2.493	6233	22440	13240	197.75	420.74	39.2	215.16	457.79	17.7	230.79	491.05	25.5
		7500	27000	15930	206.55	421.53	39.2	250.43	532.84	22.6	273.02	580.89	34.3
FH- 500	2.758	6897	24830	14650	215.37	448.68	40.2	238.67	507.80	18.6	255.51	543.64	28.4
		8333	30000	17700	225.66	451.31	41.2	278.26	592.05	24.5	303.35	645.43	37.3
FH- 535	2.961	7406	26660	15729	216.43	450.90	43.2	257.18	547.19	22.6	275.14	585.41	34.3
		8889	32000	18880	230.46	451.89	44.1	298.06	634.16	29.4	317.93	676.45	43.2
FH- 585	3.221	8053	28990	17104	235.74	481.10	44.1	279.66	595.02	24.5	299.19	636.57	35.3
		9722	35000	20650	245.55	481.47	44.1	326.00	693.61	31.4	339.91	723.21	44.1
FH- 665	3.685	9214	33170	19570	255.84	511.67	48.1	319.98	680.81	29.4	343.39	730.62	44.1
		11111	40000	23600	270.95	511.23	48.1	360.32	766.63	36.3	360.32	766.63	47.1

Piping / Access Door Arrangement



Note : R , L is decided facing air discharged from the unit.

Sound Power Level

On coil air temperature : DB39.2 [°C] / WB28.6 [°C] Off coil air temperature : DB14.0 [°C] / WB13.5 [°C] Ext Static pressure : 350[Pa]

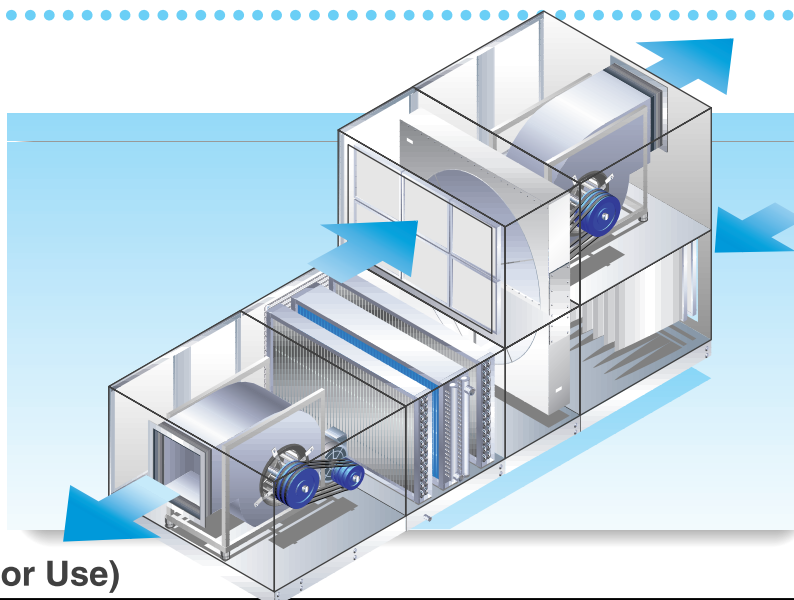
Model	Air Volume			Fan Model	Motor Size	Estimated PWL*							
						Octave Band Center Frequency [Hz]							
	[l/s]	[m³/h]	[CFM]			63	125	250	500	1000	2000	4000	8000
FH- 50	833	3000	1770	FDA 250	4kW	95	94	93	87	83	82	79	75
FH- 65	1111	4000	2360	FDA 250	5.5kW	95	94	94	88	83	82	79	76
FH- 85	1389	5000	2950	FDA 280	5.5kW	95	93	94	92	92	94	95	94
FH- 100	1667	6000	3540	FDA 315	7.5kW	98	95	98	94	97	96	96	95
FH- 120	1944	7000	4130	FDA 315	7.5kW	98	95	97	93	96	95	96	94
FH- 135	2222	8000	4720	FDA 355	11 kW	100	97	100	93	94	91	89	86
FH- 150	2500	9000	5310	FDA 400	11 kW	106	103	102	90	84	81	78	73
FH- 165	2778	10000	5900	FDA 400	11 kW	104	101	101	90	87	82	80	76
FH- 185	3056	11000	6490	FDA 400	11 kW	103	100	100	90	90	85	83	79
FH- 200	3333	12000	7080	FDA 450	11 kW	99	96	99	95	96	94	93	91
FH- 215	3611	13000	7670	FDA 450	11 kW	100	97	98	94	96	93	92	90
FH- 235	3889	14000	8260	FDA 500	11 kW	104	100	95	87	87	81	79	74
FH- 250	4167	15000	8850	FDA 500	11 kW	102	99	96	89	91	85	84	80
FH- 285	4722	17000	10030	FDA 500	11 kW	101	98	96	90	93	87	86	82
FH- 335	5556	20000	11800	FDA 560	15 kW	101	98	96	92	95	88	87	82
FH- 365	6111	22000	12980	FDA 560	15 kW	101	98	96	91	93	87	86	80
FH- 415	6944	25000	14750	FDA 630	18.5kW	98	95	94	94	86	81	74	68
FH- 450	7500	27000	15930	FDA 630	18.5kW	101	98	94	94	88	83	78	73
FH- 500	8333	30000	17700	FDA 630	18.5kW	101	98	94	93	88	83	79	74
FH- 535	8889	32000	18880	FDA 710	22 kW	108	105	94	89	85	86	80	74
FH- 585	9722	35000	20650	FDA 710	22 kW	106	103	92	86	82	82	77	70
FH- 665	11111	40000	23600	FDA 710	30 kW	105	101	90	85	80	80	74	67

*Sound data is discharge sound PWL of independent fan assembly.

Fresh Air Intake,
Heat Recovery Type

FE

High efficiency and
energy-saving model with
built-in heat recovery wheel



Standard Specifications (Indoor Use)

Main Component	Main Part Name	Standard Specifications
Casing	Panel	50mm thick double skinned casing panel with foamed Urethane insulation · Internal/external panel : 0.5mm thick pre-coated steel sheet · Density of polyurethane foam : 40[kg/m³]
	Main Frame	Steel
	Access Door	50mm thick double skinned casing panel with foamed Urethane insulation · Internal/external panel : 0.5mm thick pre-coated steel sheet · Density of polyurethane foam : 40[kg/m³]
	Base	Steel , Epoxy paint finished
Drain Pan	Drain Pan	Stainless steel 304
Fan & Motor	Fan	Forward wheel
	Motor	TEFC type , IP55 , Class F
	Vibration Isolator	Spring Vibration Isolator
Coil	Water Coil	Max.working pressure : 0.98 [MPa] Maximum face velocity : 3.0 [m/s]"
	Main Tube	AHU Size FE-50~215 : 3/8"dia copper tube
		AHU Size FE-235~665 : 5/8"dia copper tube
	Fin	AHU Size FE-50~215 · Aluminum , 0.115mm thickness , Bare surface · Fin spacing : 11FPI
		AHU Size FE-235~665 · Aluminum , 0.15mm thickness , Bare surface · Fin spacing : 8 , 9 , 11FPI
	Header	Steel, Epoxy paint finished "Air vent with plug" and "Drain plug" is attached.
	Take-off pipe	20A~80A : Steel , MPT , Epoxy paint finished 100A , 125A : Steel , Steel pipe flanges , Epoxy paint finished
Filter	Casing	Steel , Epoxy paint finished
	Pre-filter	20mm panel type , Non-woven type EN779 Classification : G3 Size : (W)592×(H)592 , (W)592×(H)287 , (W)287×(H)592
	Main-filter	Bag type EN779 Classification : F6 , F7 , F8 Size : (W)592×(H)592 , (W)592×(H)287 , (W)287×(H)592

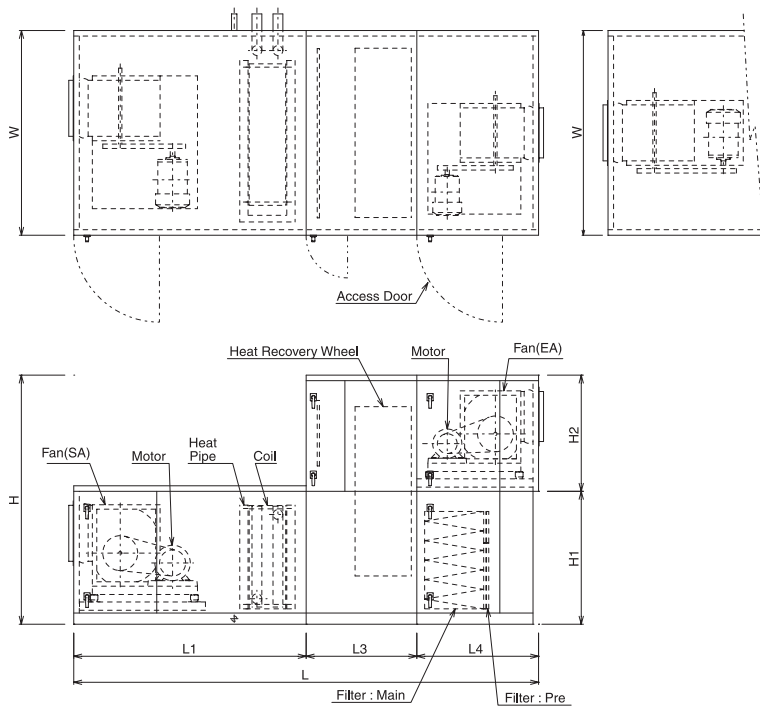
Optional Specifications

Main Component	Main Part Name	Optional Specifications
—	—	Use : Outdoor
Casing	Panel	Thicker pre-coated steel sheet available on request
	Access Door	Thicker pre-coated steel sheet available on request
Fan	Fan	Backward wheel
Coil	Water coil	Coil for higher working pressure available on request
	Fin	Pre-coated Aluminum Fin
	Header	Copper tube

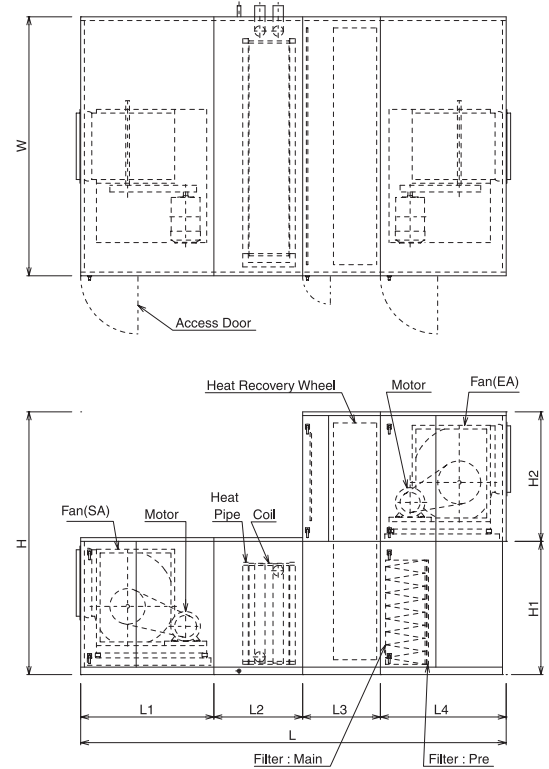
Note : Selection of optional components is subject to change in dimension from the standard.

■ Dimensions

FE-50~215 (Type1)



FE-235~665 (Type1)



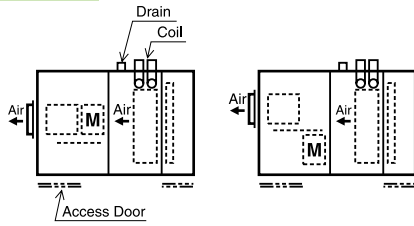
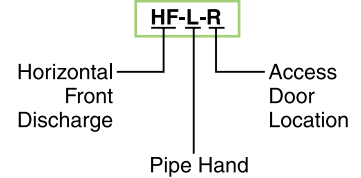
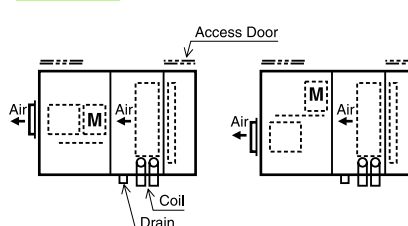
Model	Dimensions [mm]										Supply Side		Exhaust Side	
	W	H	L	H1	H2	L1	L2	L3	L4	Type	Maximum Fan Model	Maximum Motor Size	Maximum Fan Model	Maximum Motor Size
FE- 50	1350	1700	3750	900	800	1700	-	1000	1050	1	FDA 250	5.5 kW	FDA 225	3 kW
FE- 65	1450	1800	3800	950	850	1750	-	1000	1050	1	FDA 280	7.5 kW	FDA 250	3 kW
FE- 85	1550	1850	3800	950	900	1750	-	1000	1050	1	FDA 280	7.5 kW	FDA 280	4 kW
FE-100	1650	1950	4100	1000	950	2050	-	1000	1050	1	FDA 315	11 kW	FDA 315	4 kW
FE-120	1750	2150	4150	1100	1050	2050	-	1000	1100	1	FDA 355	11 kW	FDA 355	5.5 kW
FE-135	1850	2250	4200	1200	1050	2100	-	1000	1100	1	FDA 400	11 kW	FDA 355	5.5 kW
FE-150	1850	2250	4200	1200	1050	2100	-	1000	1100	1	FDA 400	15 kW	FDA 355	5.5 kW
FE-165	1950	2350	4250	1200	1150	2100	-	1000	1150	1	FDA 400	15 kW	FDA 400	5.5 kW
FE-185	2050	2400	4250	1250	1150	2100	-	1000	1150	1	FDA 450	15 kW	FDA 400	5.5 kW
FE-200	2150	2450	4350	1250	1200	2100	-	1000	1250	1	FDA 450	15 kW	FDA 450	7.5 kW
FE-215	2150	2450	4350	1250	1200	2100	-	1000	1250	1	FDA 450	15 kW	FDA 450	7.5 kW
FE-235	2250	2650	5100	1350	1300	1450	1200	1000	1450	2	FDA 500	15 kW	FDA 500	11 kW
FE-250	2250	2650	5150	1350	1300	1500	1200	1000	1450	2	FDA 500	18.5 kW	FDA 500	11 kW
FE-285	2450	2650	5150	1350	1300	1500	1200	1000	1450	2	FDA 500	18.5 kW	FDA 500	11 kW
FE-335	2700	2950	5250	1500	1450	1550	1200	1050	1450	2	FDA 560	18.5 kW	FDA 560	15 kW
FE-365	2700	2950	5350	1500	1450	1550	1200	1050	1550	2	FDA 560	22 kW	FDA 560	15 kW
FE-415	2900	3250	5350	1650	1600	1550	1200	1050	1550	2	FDA 630	22 kW	FDA 630	15 kW
FE-450	3100	3250	5450	1650	1600	1650	1200	1050	1550	2	FDA 630	30 kW	FDA 630	15 kW
FE-500	3100	3250	5550	1650	1600	1650	1200	1050	1650	2	FDA 630	30 kW	FDA 630	18.5 kW
FE-535	3300	3550	5750	1800	1750	1800	1200	1050	1700	2	FDA 710	30 kW	FDA 710	18.5 kW
FE-585	3300	3550	5750	1800	1750	1800	1200	1050	1700	2	FDA 710	37 kW	FDA 710	22 kW
FE-665	3500	3550	5750	1800	1750	1800	1200	1050	1700	2	FDA 710	37 kW	FDA 710	22 kW

Cooling Capacity

On coil air temperature : DB32.2 [°C] / WB25.0 [°C] On coil water temperature : 7 [°C] Water temperature difference : 5 [K]

Model	Coil Face Area [m²]	Air Volume			6 Rows			8 Rows			12 Rows		
					Capacity		Water Side Pressure Drop [kPa]	Capacity		Water Side Pressure Drop [kPa]	Capacity		Water Side Pressure Drop [kPa]
		[l/s]	[m³/h]	[CFM]	Sensible [kW]	Total [kW]		Sensible [kW]	Total [kW]		Sensible [kW]	Total [kW]	
FE- 50	0.280	700	2520	1487	15.23	30.45	23.5	17.18	35.79	40.2	19.53	40.68	24.5
		833	3000	1770	17.19	34.37	28.4	19.05	38.87	7.8	22.82	47.54	32.4
FE- 65	0.372	931	3350	1977	20.24	40.48	24.5	22.84	47.58	44.1	25.96	54.08	27.5
		1111	4000	2360	22.94	45.88	31.4	25.52	52.08	7.8	30.43	63.39	35.3
FE- 85	0.465	1164	4190	2472	25.61	51.22	34.3	27.59	57.48	8.8	32.63	67.97	37.3
		1389	5000	2950	29.08	58.15	43.2	32.37	66.06	10.8	38.20	79.59	49.0
FE- 100	0.554	1386	4990	2944	29.98	61.18	43.2	33.04	68.84	10.8	39.02	81.29	46.1
		1667	6000	3540	34.25	67.15	16.7	39.09	79.78	13.7	45.42	94.62	27.5
FE- 120	0.653	1633	5880	3469	35.48	70.95	21.6	39.20	81.66	16.7	45.78	95.38	32.4
		1944	7000	4130	40.10	80.20	26.5	46.12	94.13	21.6	53.49	111.43	42.2
FE- 135	0.743	1858	6690	3947	40.43	80.85	24.5	44.93	93.61	18.6	52.09	108.52	36.3
		2222	8000	4720	45.83	91.66	29.4	51.72	107.74	23.5	61.13	127.35	47.1
FE- 150	0.822	2056	7400	4366	44.72	89.43	25.5	49.88	103.92	19.6	57.62	120.04	38.2
		2500	9000	5310	51.56	103.12	32.4	59.25	120.91	26.5	67.48	140.58	16.7
FE- 165	0.939	2350	8460	4991	50.47	103.00	30.4	57.03	118.81	23.5	66.16	137.83	45.1
		2778	10000	5900	58.19	116.37	37.3	66.63	135.97	29.4	75.58	157.46	18.6
FE- 185	1.012	2531	9110	5375	54.73	111.70	37.3	61.78	128.70	28.4	70.29	146.43	17.7
		3056	11000	6490	63.01	123.54	44.1	73.26	149.50	37.3	83.27	173.47	23.5
FE- 200	1.123	2808	10110	5965	60.74	123.96	40.2	68.56	142.83	31.4	78.00	162.51	19.6
		3333	12000	7080	67.45	132.26	45.1	80.25	163.78	40.2	91.08	189.74	25.5
FE- 215	1.218	3047	10970	6472	65.91	134.51	42.2	74.39	154.98	33.3	84.81	176.69	20.6
		3611	13000	7670	72.08	141.33	46.1	87.08	177.71	41.2	98.89	206.02	26.5
FE- 235	1.299	3247	11690	6897	66.80	130.99	27.5	76.89	156.92	49.0	88.09	183.52	31.4
		3889	14000	8260	75.11	147.28	33.3	84.60	169.20	8.8	102.09	212.68	41.2
FE- 250	1.363	3408	12270	7239	69.10	138.20	31.4	77.89	158.96	7.8	92.46	192.62	36.3
		4167	15000	8850	80.93	155.64	38.2	90.64	181.28	9.8	109.12	227.34	48.1
FE- 285	1.533	3833	13800	8142	78.41	156.82	43.2	88.20	180.01	10.8	104.46	217.62	50.0
		4722	17000	10030	89.63	172.36	16.7	102.14	208.44	14.7	122.41	255.02	30.4
FE- 335	1.835	4589	16520	9747	93.56	183.45	17.7	106.27	216.88	14.7	124.48	259.34	29.4
		5556	20000	11800	107.06	205.88	21.6	121.05	247.04	17.7	145.50	303.12	38.2
FE- 365	2.038	5097	18350	10827	104.17	204.26	18.6	118.33	241.49	15.7	138.27	288.07	31.4
		6111	22000	12980	118.31	227.51	22.6	134.06	273.59	19.6	160.39	334.15	40.2
FE- 415	2.303	5758	20730	12231	115.90	231.79	21.6	134.22	273.91	17.7	156.65	326.36	35.3
		6944	25000	14750	134.44	258.53	26.5	152.70	311.64	21.6	182.44	380.08	46.1
FE- 450	2.493	6233	22440	13240	128.47	251.90	26.5	146.01	297.98	21.6	169.86	353.88	44.1
		7500	27000	15930	146.47	281.68	32.4	165.71	338.18	27.5	194.02	404.21	18.6
FE- 500	2.758	6897	24830	14650	139.70	279.39	29.4	161.82	330.24	23.5	187.95	391.57	48.1
		8333	30000	17700	160.96	315.60	36.3	184.12	375.76	29.4	215.72	449.42	20.6
FE- 535	2.961	7406	26660	15729	151.49	302.97	36.3	173.85	354.79	28.4	199.90	416.45	18.6
		8889	32000	18880	171.84	336.95	43.2	197.80	403.67	36.3	230.82	480.87	24.5
FE- 585	3.221	8053	28990	17104	164.73	329.45	38.2	189.35	386.42	30.4	217.37	452.85	19.6
		9722	35000	20650	187.96	368.54	46.1	216.34	441.51	38.2	252.34	525.70	25.5
FE- 665	3.685	9214	33170	19570	188.48	376.95	46.1	217.48	443.84	37.3	248.71	518.14	24.5
		11111	40000	23600	207.03	398.13	7.8	247.82	505.75	47.1	290.89	606.02	31.4

Piping / Access Door Arrangement

HF-L-R

HF-R-L


Note : R , L is decided facing air discharged from the unit.

Sound Power Level

On coil air temperature : DB32.2 [°C] / WB25.0 [°C] Off coil air temperature : DB14.5 [°C] / WB14.0 [°C] Ext Static pressure : 350[Pa]

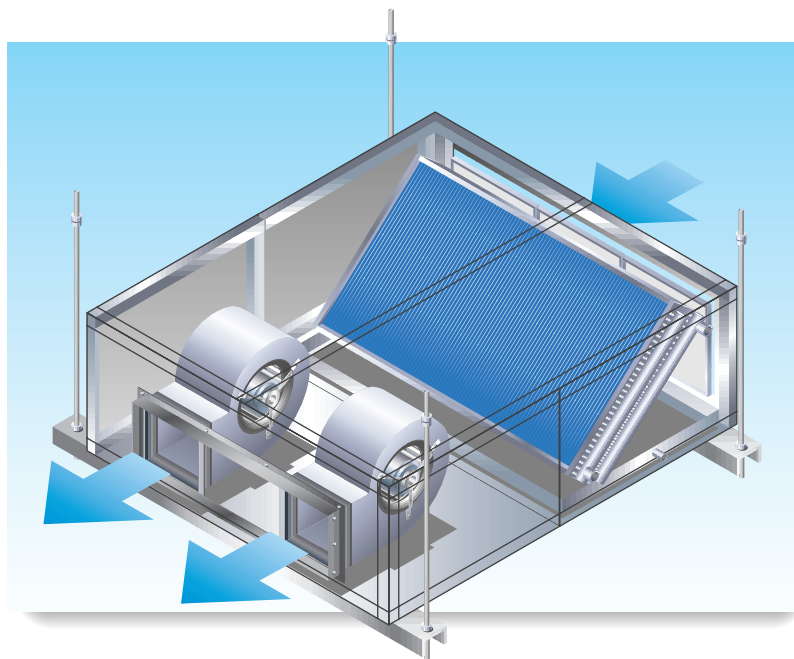
Model	Air side	Air Volume			Fan Model	Motor Size	Estimated PWL *							
		Octave Band Center Frequency [Hz]												
		[l/s]	[m³/h]	[CFM]			63	125	250	500	1000	2000	4000	8000
FE- 50	Supply	833	3000	1770	FDA 250	4 kW	96	94	93	88	83	82	79	75
	Exhaust	667	2400	1416	FDA 200	1.5 kW	91	87	85	80	80	74	71	69
FE- 65	Supply	1111	4000	2360	FDA 250	5.5 kW	96	94	94	89	84	83	80	76
	Exhaust	889	3200	1888	FDA 225	1.5 kW	91	88	86	81	79	77	75	73
FE- 85	Supply	1389	5000	2950	FDA 280	7.5 kW	95	93	95	93	92	94	95	94
	Exhaust	1111	4000	2360	FDA 250	2.2 kW	91	88	83	77	74	71	67	61
FE- 100	Supply	1667	6000	3540	FDA 315	7.5 kW	98	95	98	94	97	97	97	95
	Exhaust	1333	4800	2832	FDA 280	2.2 kW	85	87	84	78	80	79	79	75
FE- 120	Supply	1944	7000	4130	FDA 315	7.5 kW	98	95	98	94	97	96	96	94
	Exhaust	1556	5600	3304	FDA 280	3 kW	84	86	82	76	78	75	74	70
FE- 135	Supply	2222	8000	4720	FDA 355	11 kW	101	98	100	93	95	92	89	87
	Exhaust	1778	6400	3776	FDA 315	3 kW	93	90	87	85	86	83	82	78
FE- 150	Supply	2500	9000	5310	FDA 355	11 kW	101	98	100	93	95	91	89	86
	Exhaust	2000	7200	4248	FDA 315	4 kW	93	91	88	85	86	84	82	78
FE- 165	Supply	2778	10000	5900	FDA 400	11 kW	105	102	101	91	87	83	80	76
	Exhaust	2222	8000	4720	FDA 355	4 kW	95	93	87	83	82	78	74	69
FE- 185	Supply	3056	11000	6490	FDA 400	11 kW	103	100	101	91	90	85	83	79
	Exhaust	2444	8800	5192	FDA 355	4 kW	96	93	86	83	81	76	73	67
FE- 200	Supply	3333	12000	7080	FDA 450	11 kW	100	97	99	95	97	95	94	92
	Exhaust	2667	9600	5664	FDA 400	4 kW	90	90	85	86	83	81	79	74
FE- 215	Supply	3611	13000	7670	FDA 450	15 kW	100	97	99	95	97	94	93	91
	Exhaust	2889	10400	6136	FDA 400	4 kW	90	90	85	86	83	80	78	73
FE- 235	Supply	3889	14000	8260	FDA 450	11 kW	99	96	98	93	96	91	90	88
	Exhaust	3111	11200	6608	FDA 400	5.5 kW	89	89	84	85	82	79	77	72
FE- 250	Supply	4167	15000	8850	FDA 500	15 kW	105	102	98	88	88	82	80	75
	Exhaust	3333	12000	7080	FDA 450	5.5 kW	92	90	88	85	86	82	80	76
FE- 285	Supply	4722	17000	10030	FDA 500	15 kW	103	100	99	92	96	89	89	85
	Exhaust	3778	13600	8024	FDA 450	5.5 kW	91	89	87	84	84	80	79	75
FE- 335	Supply	5556	20000	11800	FDA 560	15 kW	102	99	98	94	97	91	89	85
	Exhaust	4444	16000	9440	FDA 500	5.5 kW	95	92	86	84	82	79	76	71
FE- 365	Supply	6111	22000	12980	FDA 560	18.5 kW	102	100	98	93	96	90	88	84
	Exhaust	4889	17600	10384	FDA 500	7.5 kW	96	92	87	85	83	79	77	72
FE- 415	Supply	6944	25000	14750	FDA 630	22 kW	97	94	94	95	88	80	73	65
	Exhaust	5556	20000	11800	FDA 560	7.5 kW	96	92	87	86	83	79	76	70
FE- 450	Supply	7500	27000	15930	FDA 630	22 kW	100	97	95	95	89	83	77	71
	Exhaust	6000	21600	12744	FDA 560	7.5 kW	95	91	87	85	83	79	76	69
FE- 500	Supply	8333	30000	17700	FDA 630	22 kW	103	100	96	95	90	85	81	76
	Exhaust	6667	24000	14160	FDA 630	11 kW	96	92	87	85	79	75	71	65
FE- 535	Supply	8889	32000	18880	FDA 710	30 kW	110	107	97	92	89	89	84	78
	Exhaust	7111	25600	15104	FDA 630	11 kW	96	92	87	84	78	75	70	64
FE- 585	Supply	9722	35000	20650	FDA 710	30 kW	108	106	96	90	86	86	81	75
	Exhaust	7778	28000	16520	FDA 630	11 kW	96	93	87	85	79	76	71	65
FE- 665	Supply	11111	40000	23600	FDA 710	30 kW	106	103	93	86	82	82	77	70
	Exhaust	8889	32000	18880	FDA 710	11 kW	100	91	82	77	73	71	65	55

*Sound data is discharge sound PWL of independent fan assembly.

Indoor Air Recirculation,
Ceiling Mount Type

MD

**A high efficiency model
for indoor air recirculation**



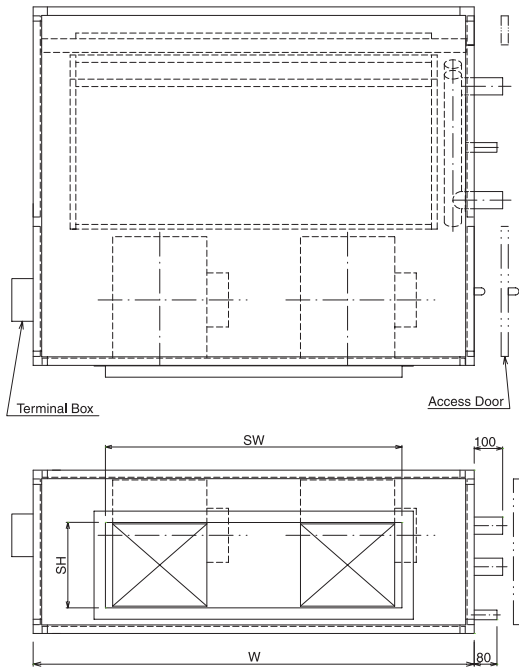
Standard specifications

Main Component	Main Part Name	Standard Specifications
Casing	Panel	25mm thick double skinned casing with foamed Urethane insulation ·Internal/external panel : 0.5mm thick pre-coated steel sheet ·Density of polyurethane foam : 40[kg/m³]
	Main Frame	Aluminum
Drain Pan	Drain Pan	Stainless steel 304
Fan & Motor	Fan	Centrifugal forward curved DIDW direct-driven type
	Motor	Permanent split capacitor 3-speed type with ball bearing
	Power Source	AC220-240V / 1ph / 50Hz
Coil	Water Coil	Max.working pressure : 0.98 [MPa] Higher working pressure available on request
	Main Tube	3/8" dia copper tube
	Fin	Aluminum , 0.115mm thickness , Bare surface
	Header	Steel , Epoxy paint finished
Filter	Main-filter	20mm panel filter , Non-woven type

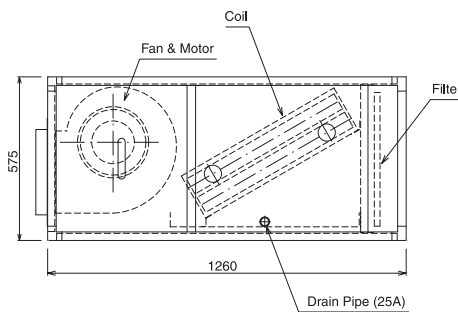
Basic specifications

Model-Size		MD- 25	MD- 50	MD-100	MD-150
Rated Air Volume	[l/s]	417	833	1667	2500
	[m³/h]	1500	3000	6000	9000
	[CFM]	883	1766	3531	5297
Coil	No. of Row	4 ~ 6 Rows			
	Fin Spacing	11 FPI			
	Max Header Size	25A	25A	32A	32A
Motor Capacity [Watt] X Qty		245W X 1	550W X 1	550W X 2	550W X 3
		350W X 1	750W X 1	750W X 2	750W X 3
Filter		20mm panel filter			

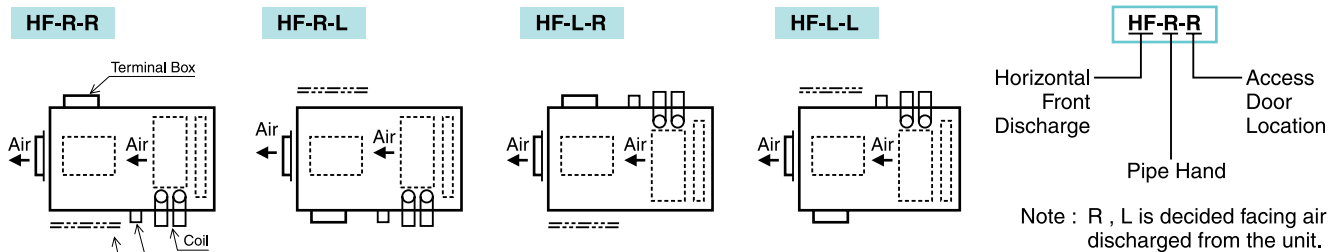
Dimensions



Model	Dimensions [mm]		
	W	SH	SW
MD- 25	650	270	240
MD- 50	1000	300	340
MD-100	1500	300	950
MD-150	2100	300	1550



Piping / Access Door Arrangement



Sound Power Level

Model	Air Volume			External Static Pressure [Pa]	Octave Band Center Frequency [Hz]	63	125	250	500	1000	2000	4000	8000
	[l/s]	[m³/h]	[CFM]										
MD- 25	417	1500	883	150 (70)	Discharge Side Sound Power Level [dB]	87 (83)	83 (79)	79 (75)	73 (69)	70 (66)	65 (61)	63 (59)	60 (56)
					Radiated Sound Pressure Level [dB]	74 (70)	65 (61)	51 (47)	42 (38)	36 (32)	34 (30)	30 (26)	25 (21)
MD- 50	833	3000	1766	180 (110)	Discharge Side Sound Power Level [dB]	89 (88)	85 (84)	81 (80)	75 (74)	72 (71)	67 (66)	65 (64)	62 (61)
					Radiated Sound Pressure Level [dB]	76 (75)	67 (66)	53 (52)	44 (43)	38 (37)	36 (35)	32 (31)	27 (26)
MD-100	1667	6000	3531	170 (80)	Discharge Side Sound Power Level [dB]	92 (91)	88 (87)	84 (83)	78 (77)	75 (74)	70 (69)	68 (67)	65 (64)
					Radiated Sound Pressure Level [dB]	79 (78)	70 (69)	56 (55)	47 (46)	41 (40)	39 (38)	35 (34)	30 (29)
MD-150	2500	9000	5297	150 (50)	Discharge Side Sound Power Level [dB]	94 (93)	90 (89)	86 (85)	80 (79)	77 (76)	72 (71)	70 (69)	67 (66)
					Radiated Sound Pressure Level [dB]	81 (80)	72 (71)	58 (57)	49 (48)	43 (42)	41 (40)	37 (36)	32 (31)

Note 1) Radiated Sound Pressure Level (Semi-free sound field "r=1.0m")
 2) Sound data is based on 6 rows coil and "HIGH" fan-speed.
 3) Sound data given in () is based on "MED" fan-speed.

Cooling Capacity : 4 Rows

On coil air temperature : DB26[°C] / WB18.7[°C]

Model	Air Volume		On coil water temperature 5.5 [°C]						On coil water temperature 7 [°C]					
	[l/s]	[m³/h]	Water Temperature Difference [K]	Water Flow		Capacity		Water Side Pressure Drop [kPa]	Water Temperature Difference [K]	Water flow		Capacity		Water Side Pressure Drop [kPa]
				[l/s]	[l/min]	Sensible [kW]	Total [kW]			[l/s]	[l/min]	Sensible [kW]	Total [kW]	
MD- 25	250	900	7	0.18	11	3.9	5.1	5.9	5	0.25	15	3.9	5.0	8.8
			8	0.15	9	3.8	4.8	3.9	7	0.15	9	3.6	4.3	3.9
			9	0.12	7	3.6	4.3	2.9	9	0.10	6	3.4	3.7	2.0
	333	1200	7	0.22	13	5.0	6.0	6.9	5	0.28	17	4.9	5.9	10.8
			8	0.17	10	4.7	5.5	4.9	7	0.18	11	4.6	5.2	5.9
			9	0.15	9	4.7	5.2	3.9	9	0.12	7	4.3	4.4	2.9
	417	1500	7	0.23	14	5.8	6.7	7.8	5	0.33	20	5.9	6.8	14.7
			8	0.20	12	5.8	6.3	5.9	7	0.20	12	5.6	5.8	5.9
			9	0.17	10	5.5	5.9	4.9	9	0.13	8	5.0	5.0	2.9
MD- 50	500	1800	7	0.38	23	8.3	11.3	32.4	5	0.52	31	8.1	10.8	53.9
			8	0.33	20	8.1	10.7	25.5	7	0.33	20	7.6	9.6	25.5
			9	0.27	16	7.9	10.1	17.7	9	0.23	14	7.2	8.5	13.7
	667	2400	7	0.47	28	10.4	13.3	45.1	5	0.57	34	9.8	11.8	9.8
			8	0.38	23	10.1	12.6	32.4	7	0.40	24	9.6	11.4	34.3
			9	0.32	19	9.8	11.8	23.5	9	0.27	16	9.1	10.0	17.7
	833	3000	7	0.53	32	12.4	15.3	56.9	5	0.65	39	11.9	13.5	12.7
			8	0.43	26	11.9	14.2	39.2	7	0.45	27	11.6	13.0	42.2
			9	0.37	22	11.7	13.4	29.4	9	0.32	19	11.0	11.5	23.5
MD-100	1000	3600	7	0.75	45	16.3	21.8	21.6	5	1.02	61	16.0	21.0	36.3
			8	0.62	37	15.7	20.5	15.7	7	0.63	38	15.0	18.5	15.7
			9	0.52	31	15.2	19.2	11.8	9	0.43	26	14.0	16.1	8.8
	1333	4800	7	0.88	53	20.3	25.7	28.4	5	1.20	72	20.1	24.8	48.1
			8	0.73	44	19.9	24.2	20.6	7	0.75	45	19.1	22.0	21.6
			9	0.60	36	19.2	22.3	14.7	9	0.52	31	17.9	19.2	11.8
	1667	6000	7	1.00	60	24.4	29.0	35.3	5	1.35	81	23.9	28.1	58.8
			8	0.82	49	23.5	27.4	24.5	7	0.87	52	22.8	25.0	27.5
			9	0.68	41	23.1	25.4	18.6	9	0.58	35	21.5	22.0	13.7
MD-150	1833	6600	7	1.20	72	27.9	34.9	10.8	5	1.65	99	27.9	34.4	18.6
			8	1.08	65	28.3	36.3	57.9	7	1.13	68	27.0	32.9	62.8
			9	0.92	55	27.7	34.2	44.1	9	0.77	46	25.4	28.8	32.4
	2167	7800	7	1.33	80	31.9	38.9	12.7	5	1.80	108	31.6	37.6	21.6
			8	1.18	71	32.1	39.7	67.7	7	1.13	68	29.5	32.8	9.8
			9	1.00	60	31.6	37.6	51	9	0.85	51	29.4	31.9	38.2
	2500	9000	7	1.43	86	35.5	41.8	14.7	5	1.97	118	35.3	41.1	25.5
			8	1.17	70	34.9	38.8	10.8	7	1.23	74	33.4	36.0	11.8
			9	1.08	65	35.5	40.3	57.9	9	0.93	56	33.1	34.9	45.1

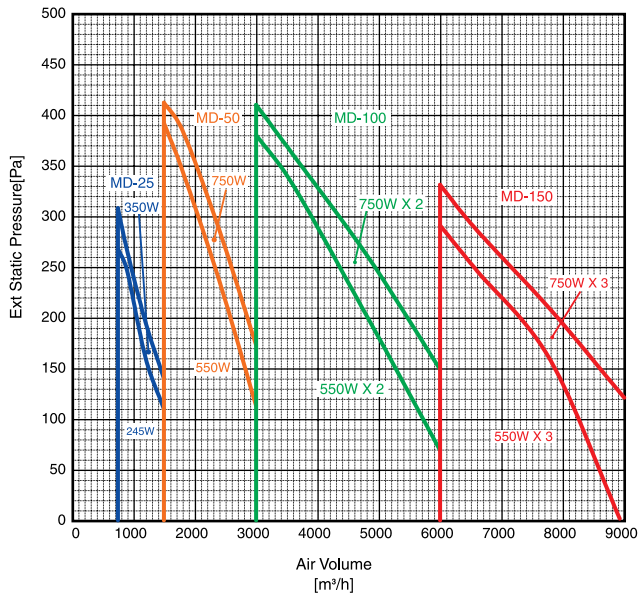
Cooling Capacity : 6 Rows

On coil air temperature : DB26[°C] / WB18.7[°C]

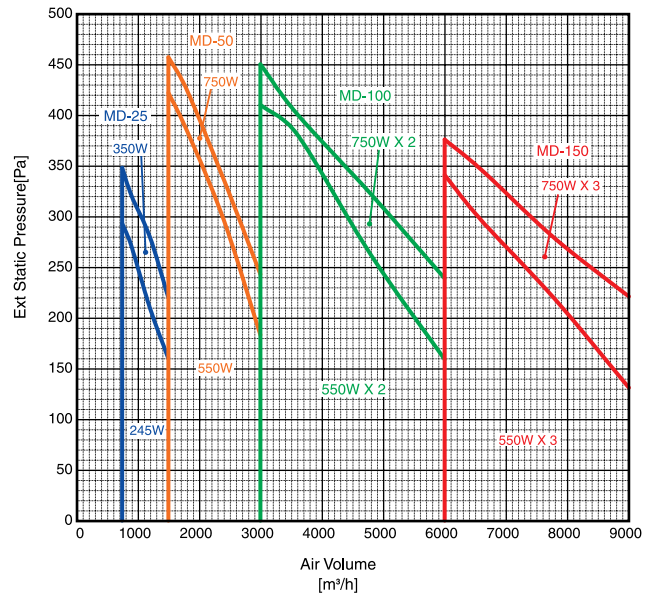
Model	Air Volume		On coil water temperature 5.5 [°C]						On coil water temperature 7 [°C]					
	[l/s]	[m³/h]	Water Temperature Difference [K]	Water Flow		Capacity		Water Side Pressure Drop [kPa]	Water Temperature Difference [K]	Water Flow		Capacity		Water Side Pressure Drop [kPa]
				[l/s]	[l/min]	Sensible [kW]	Total [kW]			[l/s]	[l/min]	Sensible [kW]	Total [kW]	
MD- 25	250	900	7	0.25	15	4.8	7.2	12.7	5	0.33	20	4.7	6.9	21.6
			8	0.22	13	4.7	6.9	10.8	7	0.22	13	4.4	6.3	10.8
			9	0.18	11	4.5	6.6	7.8	9	0.15	9	4.1	5.5	5.9
	333	1200	7	0.30	18	6.0	8.8	17.7	5	0.42	25	5.9	8.5	31.4
			8	0.25	15	5.9	8.4	12.7	7	0.27	16	5.6	7.6	14.7
			9	0.22	13	5.7	7.9	10.8	9	0.18	11	5.2	6.7	7.8
	417	1500	7	0.35	21	7.3	10.2	23.5	5	0.48	29	7.1	9.9	40.2
			8	0.30	18	7.1	9.8	17.7	7	0.30	18	6.7	8.8	17.7
			9	0.25	15	6.8	9.1	12.7	9	0.20	12	6.2	7.6	8.8
MD- 50	500	1800	7	0.50	30	9.6	14.4	11.8	5	0.67	40	9.3	13.7	18.6
			8	0.45	27	9.8	14.7	62.8	7	0.47	28	9.2	13.3	66.7
			9	0.38	23	9.6	14.1	48.1	9	0.33	20	8.6	12.1	37.3
	667	2400	7	0.60	36	12.1	17.5	15.7	5	0.82	49	11.8	16.9	26.5
			8	0.50	30	11.7	16.8	11.8	7	0.52	31	11.2	15.2	12.7
			9	0.47	28	12.0	17.2	66.7	9	0.40	24	11.0	14.7	51.0
	833	3000	7	0.70	42	14.5	20.5	20.6	5	0.95	57	14.2	19.8	35.3
			8	0.58	35	14.2	19.5	15.7	7	0.60	36	13.3	17.5	15.7
			9	0.48	29	13.6	18.1	10.8	9	0.47	28	13.1	17.0	66.7
MD-100	1000	3600	7	1.02	61	19.7	29.4	53.9	5	1.28	77	18.3	26.6	12.7
			8	0.85	51	19.1	28.5	39.2	7	0.90	54	18.2	26.0	43.2
			9	0.73	44	18.6	27.4	30.4	9	0.63	38	17.1	23.4	23.5
	1333	4800	7	1.17	70	23.7	33.9	10.8	5	1.57	94	23.1	32.6	17.7
			8	1.05	63	24.4	34.9	56.9	7	1.08	65	22.8	31.6	59.8
			9	0.90	54	23.8	33.5	43.2	9	0.77	46	21.6	28.4	33.3
	1667	6000	7	1.35	81	28.3	39.3	13.7	5	1.82	109	27.8	38.1	22.6
			8	1.10	66	27.6	36.8	9.8	7	1.15	69	26.2	33.6	10.8
			9	1.03	62	28.1	38.6	54.9	9	0.87	52	25.7	32.6	41.2
MD-150	1833	6600	7	1.72	103	34.5	50.0	29.4	5	2.28	137	33.4	47.7	48.1
			8	1.43	86	33.5	47.8	21.6	7	1.48	89	31.3	43.5	22.6
			9	1.22	73	32.4	45.6	16.7	9	1.03	62	29.3	38.6	12.7
	2167	7800	7	1.93	116	39.5	56.4	36.3	5	2.48	149	37.4	52.0	18.6
			8	1.62	97	38.2	53.8	26.5	7	1.67	100	36.1	48.8	28.4
			9	1.35	81	37.1	50.8	19.6	9	1.15	69	33.5	42.9	14.7
	2500	9000	7	2.13	128	44.1	62.2	43.2	5	2.73	164	41.7	57.1	21.6
			8	1.77	106	43.1	59.0	31.4	7	1.83	110	40.0	53.4	33.3
			9	1.48	89	41.2	55.6	22.6	9	1.25	75	37.6	47.1	17.7

Unit Selection Chart : 4 Rows Coil

Motor Speed "**MED**" (Coil : 4Rows)

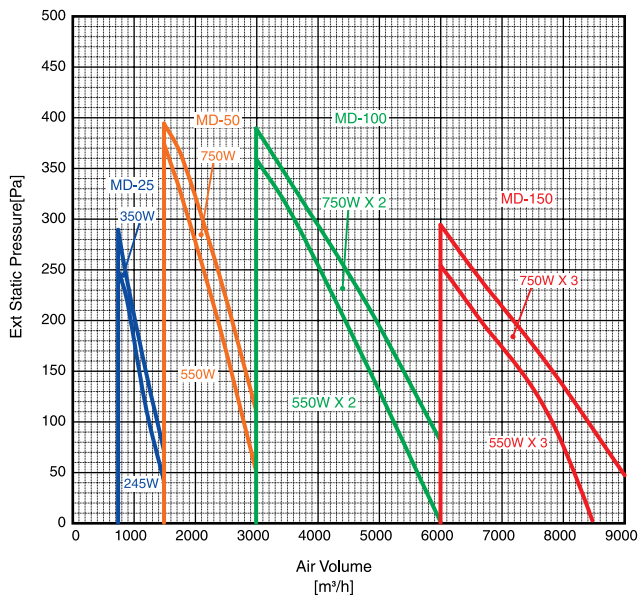


Motor Speed "**HIGH**" (Coil : 4Rows)

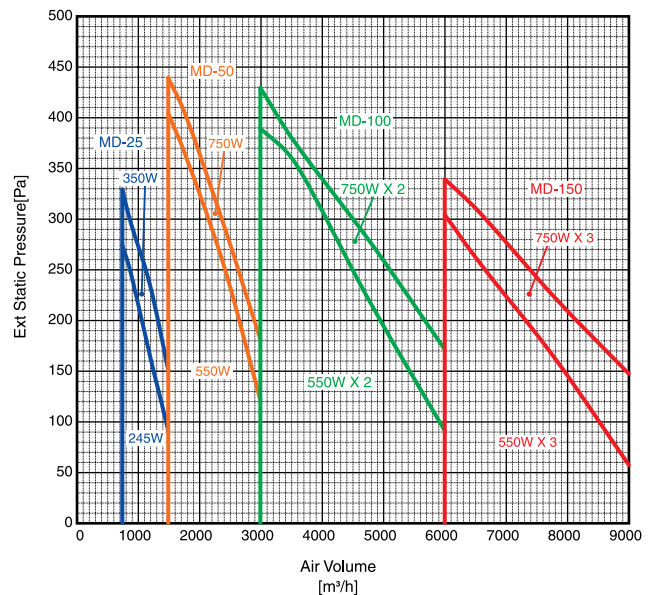


Unit Selection Chart : 6 Rows Coil

Motor Speed "**MED**" (Coil : 6Rows)



Motor Speed "**HIGH**" (Coil : 6Rows)

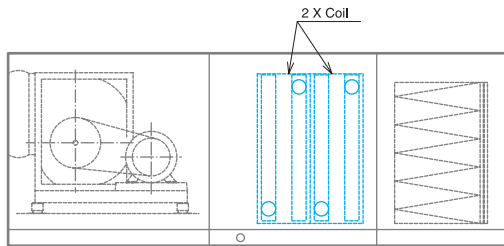


Note : Pressure drop of standard 25mm thick filter is included in unit internal static pressure.

Optional arrangement of COOL JOY(RS,RG,FH,FE Series)

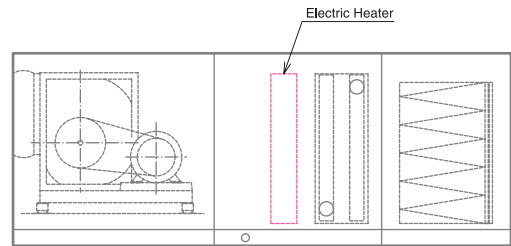
Two Coil Type

Unit is complete with several coils. Additional cooling coil can be installed when there is a requirement for larger cooling load.



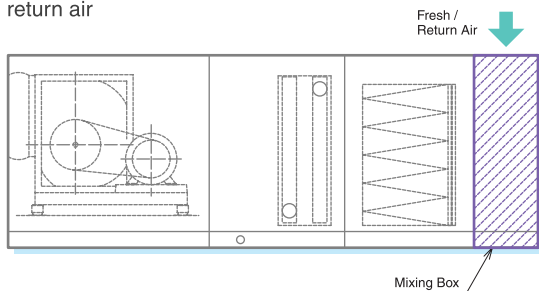
Electric Heater

Unit is complete with electric heater for heating or reheating



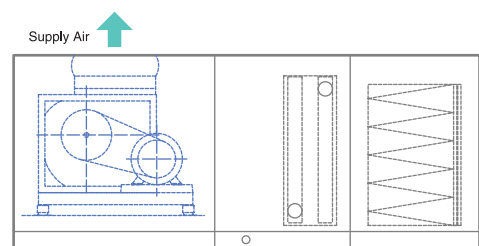
Mixing Box

Unit is complete with mixing box for taking in the fresh air and return air



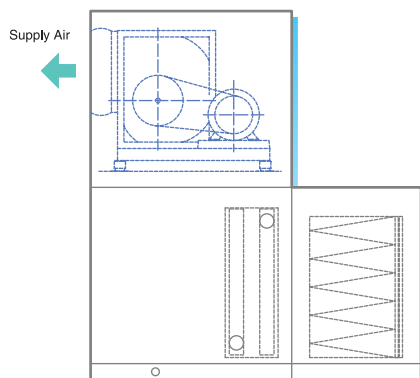
Upper Discharge

Designed to connect to SA duct from the upper side.



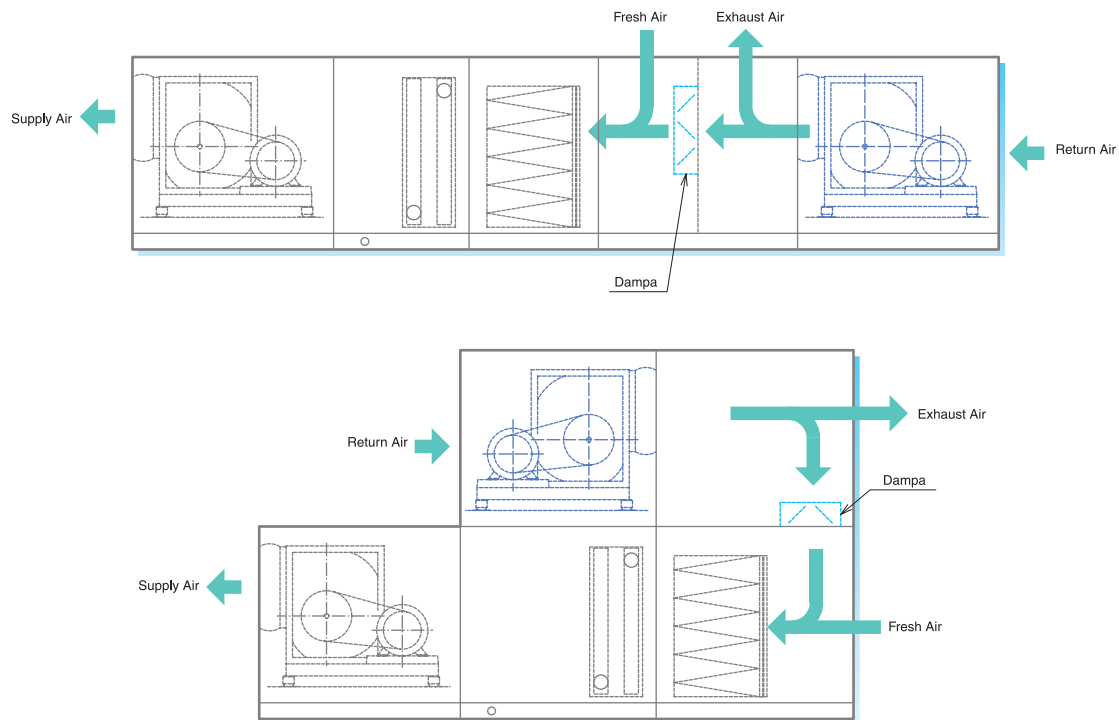
Vertical Mount

Saves space by setting the fan section on top of the coil section.



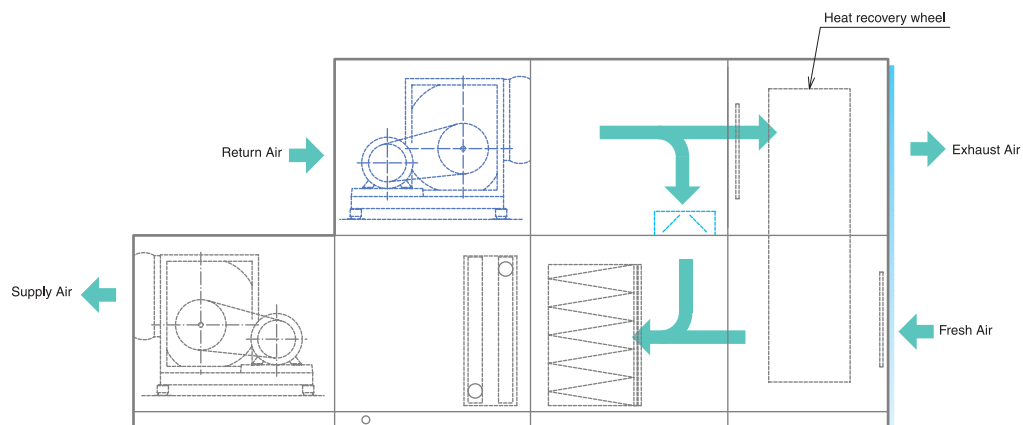
RA Fan Type

Unit is complete with RA fan OA and EA dampers can be added to balance the return and fresh air volume.



RA Fan and Heat Recovery Wheel

In addition to the RA fan, heat recovery wheel is added to recover heat energy of the fresh air and exhaust air effectively.



Insulation Limit vs AHU Components

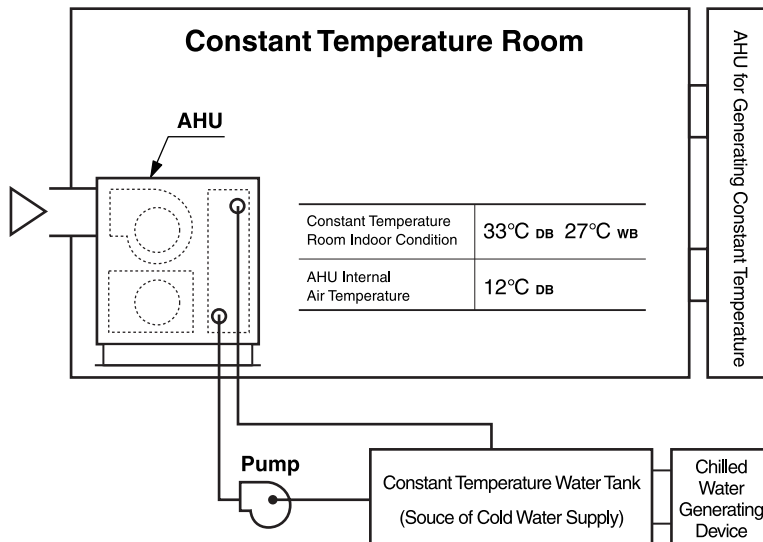
AHUs will be installed at various locations such as plant rooms, ceiling space, or outdoors.

AHUs lined with certain insulation can have dew formation (while in cooling operation) on the outer surface of the unit, depending on the condition of the ambient air (such as temperature or humidity level).

Through laboratory testing, SINKO's AHUs have been verified to have high insulation performance.

Such performance is reported as "Insulation Limit vs AHU Components".

Insulation Limit Test Setup For AHU



$$R' = \frac{DB1 - t_1}{DB1 - t_2}$$

DB1 Constant temperature room indoor dry-bulb temperature(°C)

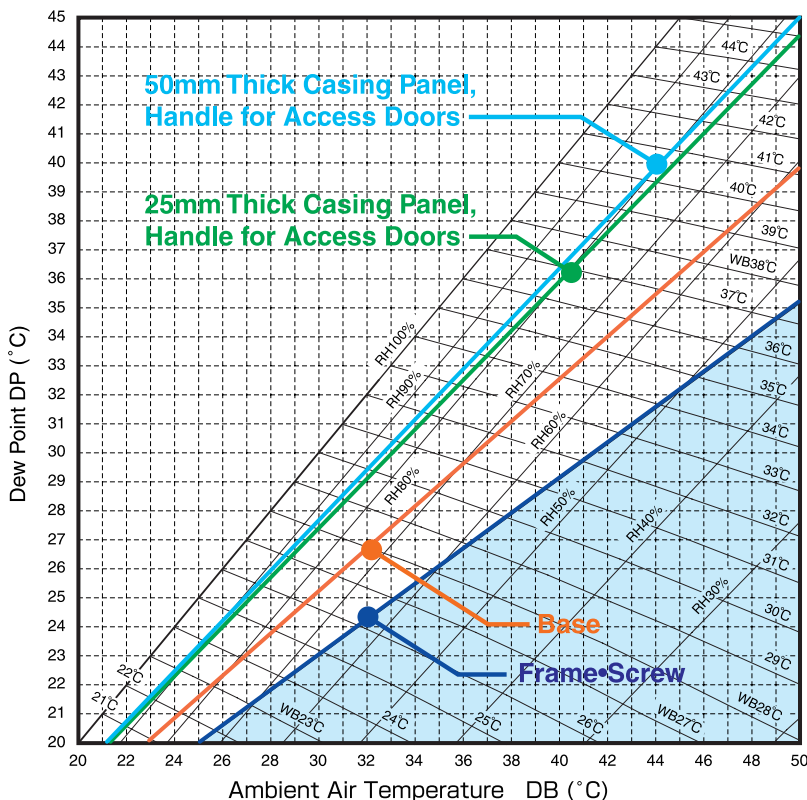
t₁ External surface temperature of component(°C)

t₂ AHU internal air temperature(°C)

Test Result

Component Name	Insulation Coefficient R'
External Panel (25mm)	0.15
External Panel (50mm)	0.13
Base	0.27
Frame	0.39
Screws	0.39
Handle For Access Doors	0.15

Insulation Limit AHU Components at 12°C AHU Internal Air Temperature



Note:

Condensation will not be generated if AHU is installed where the ambient air condition is within the range of .

AHU Specification Check Sheet

Please write a check mark in ☐ and fill in () with specification.

Date: _____

Project Name _____

Item No. _____ Quantity()Units

AHU Specifications

AHU Model	☐ CJ-RS ☐ CJ-MD ☐ CJ-FH ☐ CJ-FE	AHU Size	()
Discharge/ Pipehand	☐ H-R ☐ V-R ☐ H-L ☐ V-L	Location of Installation	☐ Indoor ☐ Outdoor
Power Source	()v	Frequency	☐ 50Hz ☐ 60Hz

Air Supply Side Fan Specifications (Design conditions)

Air Volume ()	☐ m³/h ☐ l/s ☐ ft³/min	Static Pressure	☐ Static Pressure () ☐ Pa ☐ External Static Pressure () ☐ inWg
Fan Type	☐ Forward Wheel ☐ Backward Wheel	Discharge Air Velocity	☐ Yes () ☐ m/s ☐ No () ☐ ft/min

Coil (Design conditions)

Entering Air Conditions	☐ Total Supply Air Volume		☐ Outside Air, Return Air Volume Specified	
	Total Supply Air Volume ()	☐ m³/h ☐ l/s ☐ ft³/min	Outside Air Volume ()	☐ m³/h ☐ l/s ☐ ft³/min
	DB ()	☐ °C ☐ °F	DB ()	☐ °C ☐ °F
	☐ WB ()	☐ °C ☐ °F	☐ WB ()	☐ °C ☐ °F
	☐ RH ()	%	☐ RH ()	%
Capacity	☐ Capacity ()	☐ kW ☐ Btu•h	Leaving Air Temperature	☐ WB () ☐ °C ☐ °F
Chilled Water	Entering Temperature ()	☐ °C ☐ °F	☐ Chilled Water Flow Rate ()	l/m
	☐ Leaving Temperature ()	☐ °C ☐ °F	☐ Temperature Rise ()	☐ °C ☐ °F
Face Air Velocity	Requirement	☐ Yes () ☐ m/s ☐ No () ☐ ft/min		

Heat Recovery Wheel

☐ Yes ☐ No	Heat Exchange Efficiency Total Heat ()%	Outside Air Volume ()	☐ m³/h ☐ l/s ☐ ft³/min	Return Air Volume ()	☐ m³/h ☐ l/s ☐ ft³/min
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Heat Pipe (Precool/Reheat)

☐ Yes ☐ No	☐ Pre-Cool Capacity () ☐ kW ☐ Reheat Capacity () ☐ Btu•h	Pre-Cool/Reheat Temperature Difference ()	☐ °C ☐ °F
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Return Air Fan

☐ Yes ☐ No	Return Air Volume ()	☐ m³/h ☐ l/s ☐ ft³/min	Static Pressure	☐ Static Pressure () ☐ Pa ☐ External Static Pressure () ☐ inWg
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Filter

Bag Type	☐ Yes ☐ No	Efficiency	☐ 60% ☐ 80% ☐ 90%	Panel Type	☐ Yes ☐ No
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therefore the company reserves the right to make changes to the illustrated products.

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