Warning

- Ask a qualified installer or contractor to install this product. Do not try to install the product yourself. Improper installation can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Use only those parts and accessories supplied or specified by Daikin. Ask a qualified installer or contractor to install those parts and accessories. Use of unauthorised parts and accessories or improper installation of parts and accessories can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Read the User's Manual carefully before using this product. The User's Manual provides important safety instructions and warnings. Be sure to follow these instructions and warnings.

If you have any enquiries, please contact your local importer, distributor and/or retailer.

Cautions on product corrosion

1. Air conditioners should not be installed in areas where corrosive gases, such as acid gas or alkaline gas, are produced.
2. If the outdoor unit is to be installed close to the sea shore, direct exposure to the sea breeze should be avoided. If you need to install the outdoor unit close to the sea shore, contact your local distributor.

DAIKIN

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**Specifications, designs and other content appearing in this brochure are current as of October 2017 but subject to change without notice.*

DAIKIN

PCAVSG1714aprv

Daikin *VRV* AHU System

STANDARD SERIES AHUR-DBV/CBV & OUTDOOR AIR SERIES AHUR-DBL/CBL

IE3 MOTOR VERSION

VRV AHU Applications

Airport

Lobby

Hospital

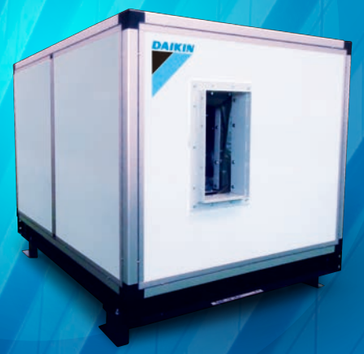
Factory

Shopping Mall

Sports Hall

Showroom

Warehouse

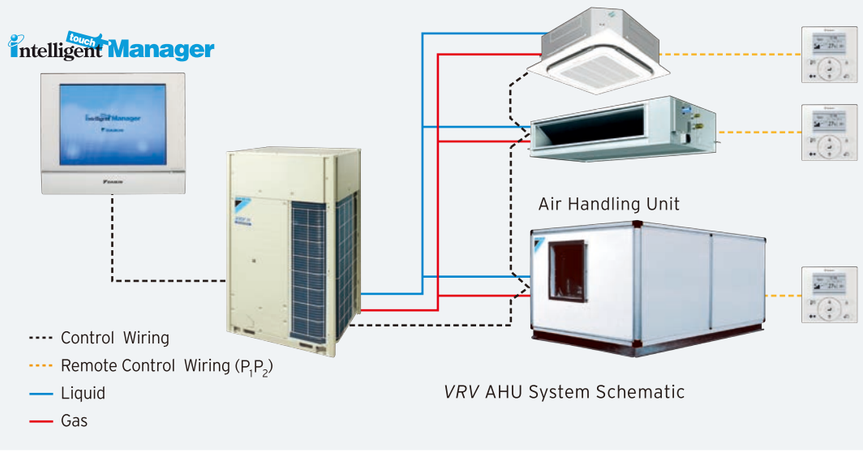


VRV AHU Introduction

Daikin released 2 series of *VRV* AHU, standard series model AHUR-DBV/CBV and outdoor air series model AHUR-DBL/CBL. It is a DX AHU that is specially designed to operate with *VRV* IV outdoor unit. This enabled the users to reduce maintenance costs and enjoy more space savings.

Daikin *VRV* AHU improves the indoor air quality caused by haze, pollutants, etc with options of pre-filers and primary filters.

This is the only total AHU solutions provided and manufactured completely by Daikin.



VRV AHU System Schematic

Total Daikin Solutions

(All products manufacture by Daikin Factory)

What is *VRV*?

Daikin *VRV* system is a multi-split type air conditioner for commercial buildings that uses variable refrigerant flow control invented by Daikin.

It enables long piping length up to 165m and maximum level difference (between outdoor and indoor units) of 90m to provide more design flexibility which can match even large-sized buildings.

It allows one touch selection control using intelligent Touch Manager and includes options to link with BACnet® to enhance the Building Management System (BMS).

VRV AHU Application

From small to large commercial spaces, Daikin offers a wide range of R-410A inverter condensing units for use in conjunction with Air Handling Units (AHU) from 6 HP to 120 HP.

AHU provides large air volumes and high ESP (External Static Pressure) enabling the use of extensive ductworks. The refrigerant flows through the copper pipes using R-410A and operates like a large *VRV* fan coil unit.

Daikin AHU represents the ideal solution for large storage places, atrium, lobby, banquet halls, showrooms, exhibition halls, shopping malls, etc.

It also has the options to customize the specifications such as the filtration type, direction of air in-take and discharge, service access door and blower type (backward or forward curves and plug fan).

Features of *VRV* AHU

- Harnessing *VRV* IV VRT technology
- Inverter controlled system
- Can be easily controlled via standard wired remote control (BRC1E62)
- Comes in double skin panel model (Single skin option available)
- Easily managed using intelligent Touch Manager central control system
  - ✓ Communication protocol using DIII-Net to communicate with all existing Daikin communication devices. (option to connect directly to BACnet® BMS)
- Can be placed indoor or outdoor*1

Benefits of using *VRV* AHU

- Quality and warranty assured
  - ✓ *VRV* AHU are manufactured by Daikin factory.
- Ease of installation
  - ✓ No additional system such as cooling tower, chiller, and long water piping system are required. This also reduces the total system maintenance costs.
  - ✓ Flexible design of the ducting system.
- Cover large area with different ducting configuration.
- *VRV* AHU can provide ESP up to 500Pa*2 (Standard Model)
- Total solution concept
  - ✓ Integrating an AHU into the total building climate system enables both design and installation procedures to be based on a single common technology. This simplifies project follow-up, installation, commissioning and maintenance since only one party is involved.
- *VRV* AHU system can be combined with other types of indoor units to operate concurrently.

Notes:

**1 Optional items required*

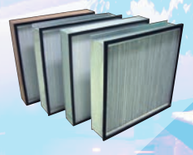
**2 For ESP more than 500Pz, please contact Daikin's Sales Office*

**3 BACnet interface*

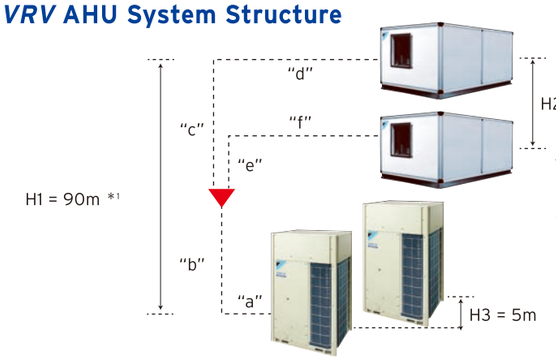
Options

Wide range of options to meet design requirements. Please contact Daikin's Sales Office on options below:

- Fan Type
  - ✓ Backward Curve Aerofoil
  - ✓ Plug Fan
  - ✓ Brushless DC Fan
- Fan Motor control
  - ✓ VSD
  - ✓ Fixed Speed
- AHU Coil Material Type
  - ✓ Copper Fin
  - ✓ Blue Fin
  - ✓ Epoxy Coated Fin and Coil
- AHU Drain Pan Type
  - ✓ Acrylic Enamel with Steel Coating
  - ✓ Galvanized Steel
- AHU Air Filter Type
  - ✓ Medium Filter
  - ✓ Extra Filter
  - ✓ Synthetic
  - ✓ Bag
  - ✓ HEPA
  - ✓ Aluminum
  - ✓ Cartridge
  - ✓ ULPA
- Special Option
  - ✓ Electric Heater
  - ✓ Mixing Box
  - ✓ Outdoor Roof
  - ✓ Heat Pipes
  - ✓ Motor Starter Box
- Customisation
  - ✓ Airflow
  - ✓ Capacity
  - ✓ ESP
  - ✓ Discharge Direction
  - ✓ Heat Recovery Wheel
  - ✓ Piping Outlet
- Controller for Outdoor Air Series
  - ✓ MicroTech III*3 (DDC)



VRV AHU System Structure

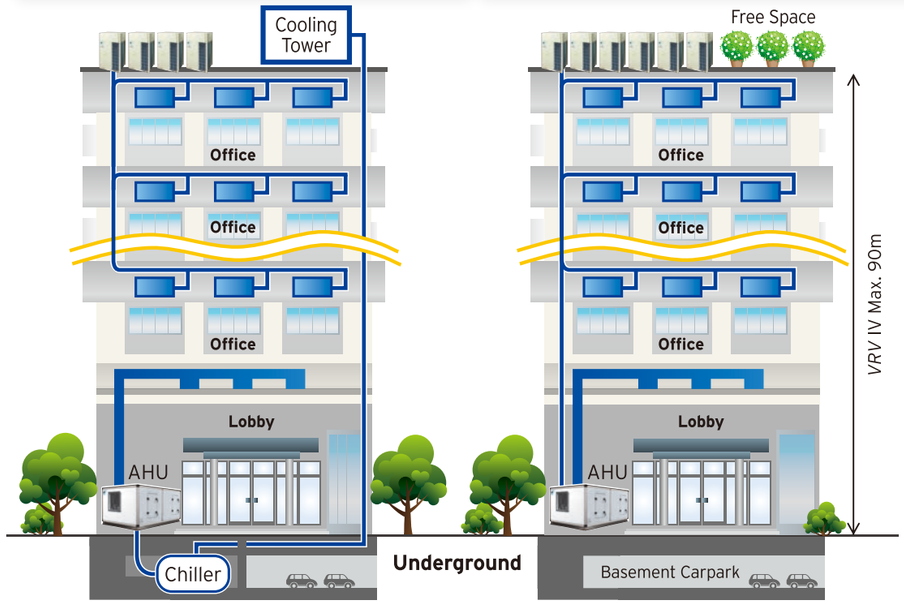


1. Longest Pipe Length = a + b + c + d =165m
2. Longest Pipe Length after First Refnet = c + d = 40m
3. Total Pipe Length = a + b + c + d + e + f = 1,000m

*1 When level differences are 50m or more, the diameter of the main liquid piping size must be increased.
If the outdoor unit is above the indoor unit, a dedicated setting on the outdoor unit is required. Please contact Daikin's Sale Office for more information.

Comparison Table and Diagram for Conventional AHU System and *VRV* AHU System

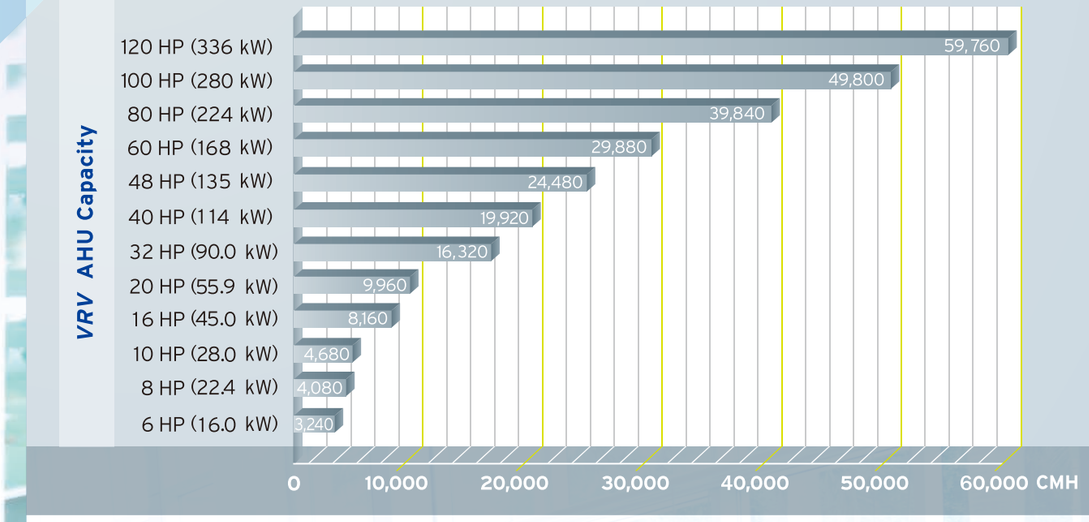
Conventional AHU System	*VRV* AHU System
Require Frequent Maintenance (Cooling Tower + Chiller)	Easy Maintenance (same as common A/C System)
Higher Cost Due to Frequent Maintenance	No Additional Maintenance Cost
Require Larger Installation Space (AHU, Chiller, Cooling Tower)	Require Small Installation Space (AHU, *VRV*)
Complex System (HVAC Ducting, Chiller and Water Piping)	Simple System (HVAC Ducting)
Complex Control (Variable Frequency Device, Variable Air Volume Control)	Simple Control (Remote Control / intelligent Touch Manager / MicroTech III Controller)



Conventional AHU System | ***VRV* AHU System**

VRV AHU Standard Series

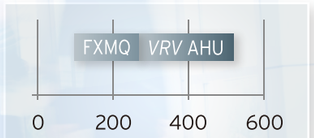
The *VRV* AHU standard series are available from the capacity range of 6 HP to 120 HP, also with airflow ranging from 3,240 CMH – 59,760 CMH.

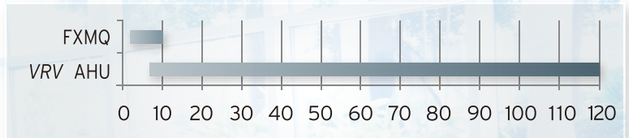


Expanded Line Up for Daikin *VRV* Indoor Series

Comparison for External Static Pressure and Capacity between *VRV* AHU and Duct Typed Unit

VRV AHU offers higher ESP and Capacity as compared to duct type fan coil unit.





	From	To
FXMQ	100 Pa	270 Pa
VRV AHU	250 Pa	500 Pa

	From	To
FXMQ	2 HP	10 HP
VRV AHU	6 HP	120 HP

*For ESP more than 500Pa, please contact Daikin's Sales Office

VRV AHU Operation Range

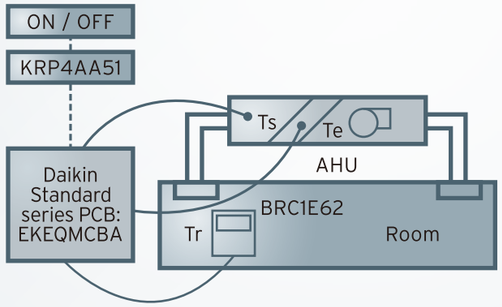
VRV AHU AHUR-DBV/CBV operation is similar as other *VRV* indoor unit. Following table is the list of operation range for AHU unit.

			Temperature Range
			Cooling
Entering Air Temperature to *VRV* AHU		Minimum	14°C WB
		Maximum	35°C DB / 25°C WB
Outdoor Unit	*VRV* IV	Minimum	-5°C DB
		Maximum	49°C DB
Expansion Valve		Minimum	-5°C DB
		Maximum	46°C DB
Standard series PCB		Minimum	-10°C DB
		Maximum	40°C DB

Possibility Z (Ts/Tr control):

Using Daikin wired remote controller (BRC1E62 - optional) Set point can be fixed via standard Daikin wired remote controller. Remote ON/OFF can be achieved by an optional adapter KRP4AA51.

No additional external controller is required.
The cooling load is determined from the air suction temperature and set point on the Daikin remote controller.



Ts = Air suction temperature
Tr = Room temperature
Te = Evaporating temperature
AHU = Air Handling Unit

VRV AHU Standard Series Evaporator Coil, Expansion Valve and Standard series PCB

AHUR-DBV/CBV standard series model use DX coil. Each DX coil will be connected to one external expansion valve (EKEXV) and controlled by one standard series PCB (EKEQMCBA).

VRV AHU Standard Series Evaporator Coils

- 5 capacities of Evaporator Coils
  - 6HP **used on 6HP AHU unit**
  - 8HP **used on 8HP AHU unit**
  - 10HP **used on 10HP AHU unit**
  - 16HP **used on 16HP, 32HP, 48HP AHU unit**
  - 20HP **used on 20HP, 40HP, 60HP, 80HP, 100HP, 120HP AHU unit**

VRV AHU Expansion Valve (EKEXV)

- 5 capacities of AHU Expansion Valve
  - EKEXV140 for 6HP Coil
  - EKEXV200 for 8HP Coil
  - EKEXV250 for 10HP Coil
  - EKEXV400 for 16HP Coil
  - EKEXV500 for 20HP Coil

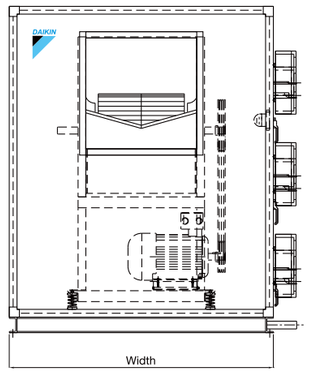
VRV AHU Standard series PCB (EKEQMCBA)

VRV AHU Expansion Valve

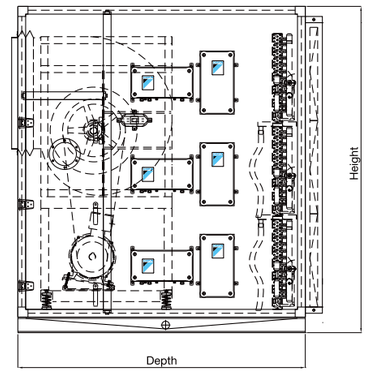
			EKEXV140	EKEXV200	EKEXV250	EKEXV400	EKEXV500
Casing	Colour		Ivory white				
	Material		Metal				
Dimensions	Unit	H x W x D mm	401 x 215 x 78				
Weight	Unit	Kg	2.9				
Operation Range	Cooling	Min. ~ Max. °CDB	-5.0 ~ 46.0				
Refrigerant	Type		R-410A				
Piping connections	Liquid	Type	Braze connection				
		OD mm	9.52		12.7		15.9
	Gas	Type	Braze connection				
		OD mm	9.52				
	Heat Insulation		Both inlet and outlet				

VRV AHU Standard series PCB

			EKEQMCBA
Application			Multi
Outdoor Unit			*VRV* IV
Casing	Colour		White grey
	Material		Resin
Dimensions	Unit	H x W x D mm	132 x 400 x 200
Weight	Unit	Kg	3.6
Operation Range	Cooling	Min. ~ Max. °CDB	-10.0 ~ 40.0
Power Supply	Phase		1
	Frequency	Hz	50/60
	Voltage	V	230/220

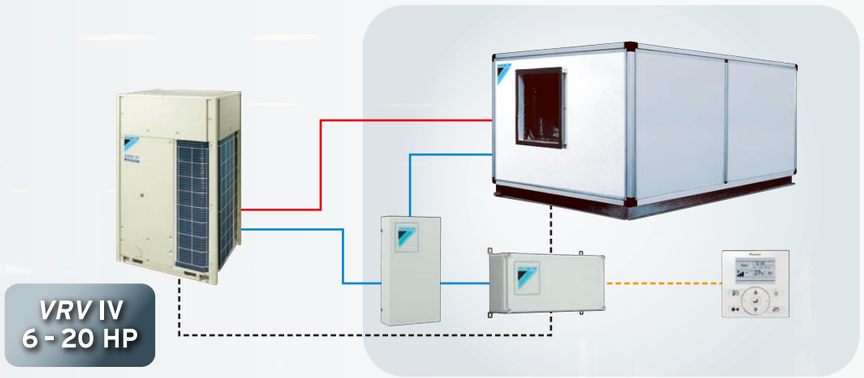


Front View

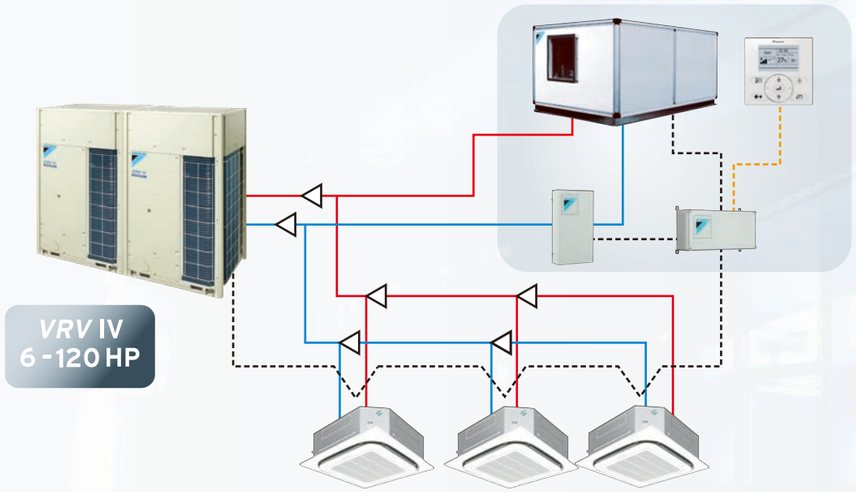


Side View

VRV Connection to AHU Configuration

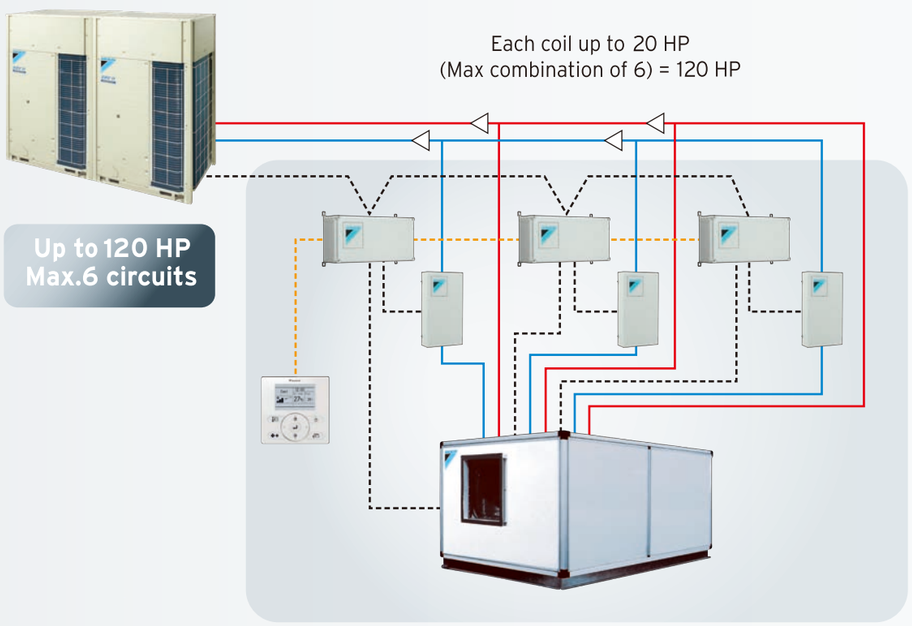


Single VRV System Configuration



Multiple Indoor Units with AHU Configuration

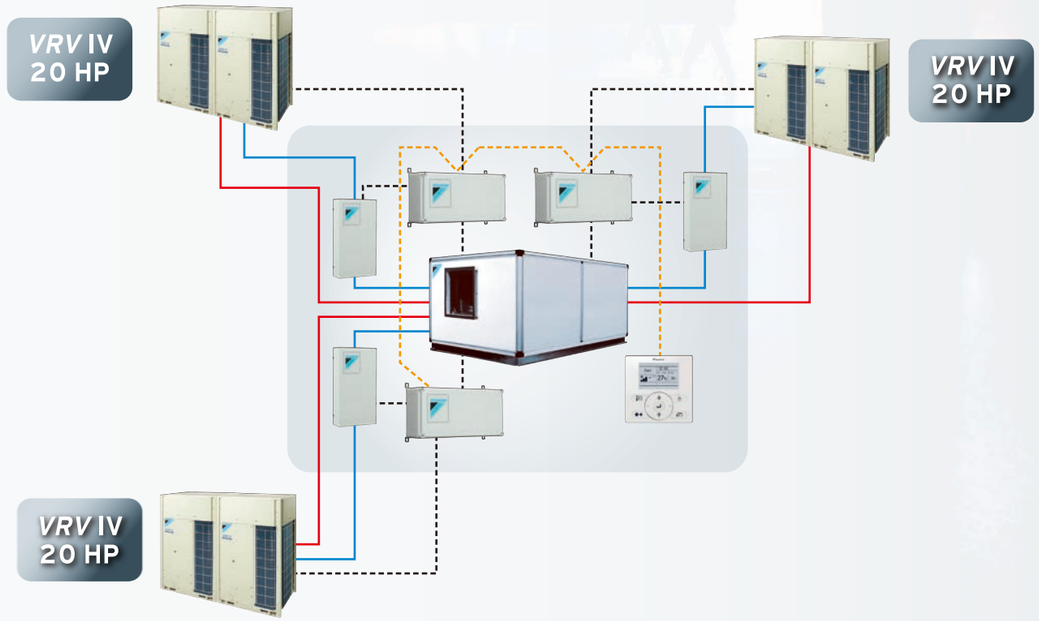
**In case of more than 60 HP system, connection is Multiple VRV system.*



Combined VRV System Configuration

**In case of more than 60 HP system, connection is Multiple VRV system.*

Control Wiring — Remote Control Wiring (P_1P_2) — Liquid — Gas



Multiple VRV Systems Configuration

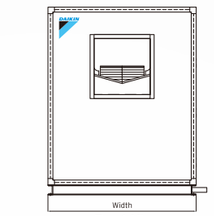
AHU SPECIFICATION *(AHUR-DBV/CBV)*

1	CASING/INSULATION (DB SERIES)	50mm Thickness Double Skinned Panel 0.5mm Thickness White Colourbond Steel Sheet 50mm Thickness Polyurethane Foam 40Kg/m³ Density
	CASING / INSULATION (CB SERIES)	25mm Thickness Double Skinned Panel 0.5mm Thickness White Colourbond Steel Sheet 0.5mm Thickness Galvanized Steel Sheet 25mm Thickness PU Foam 40Kg/m³
2	CASING-FRAME (DB SERIES)	Steel With Black Epoxy Paint
	CASING-FRAME (CB SERIES)	Extruded Aluminium Pentapost Profile
3	COIL	DX Coil
	TUBE	Copper Tube
	FIN	Aluminium Slit
	HEADER	Copper Tube
	FRAME	Galvanized Steel
	WORKING PRESSURE	10Kg/cm²
4	FAN	(Brand = Kruger)
	TYPE	Double Width Double Inlet Forward Curved Centrifugal Belt Drive Fan
	WHEEL	Galvanized Steel
	HOUSING	Galvanized Steel
	FRAME	Steel With Polyester Powder Coating
5	MOTOR	(Brand = Teco) Three-Phase Induction Motor Totally Enclosed Fan-Cooled Type Protection = IP55 Insulation Class = F, IE3
6	VIBRATION ISOLATOR	Spring Isolator
7	DRAIN PAN (DB SERIES)	1.2mm (SUS 304) Beneath The Drain Pan is Covered With PU Insulation 40Kg/m³ Density
	DRAIN PAN (CB SERIES)	1.6mm (Steel Sheet With Epoxy Coated) Beneath The Drain Pan is Covered With PU Insulation 40Kg/m³ Density
8	AIR FILTER	(Brand = AAF) Type = R29 Class = G3 (AFI = 80-85%) Synthetic washable Size = Full (24" x 24" x 2") Half (12" x 24" x 2")

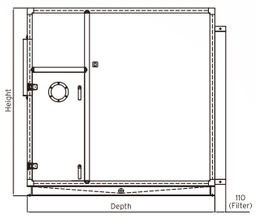
Drawings and Dimension of AHU

Model	Dimension W x D x H (mm)
AHUR06DBV	1,300 X 1,200 X 1,200
AHUR08DBV	1,300 X 1,400 X 1,200
AHUR10DBV	1,500 X 1,400 X 1,200
AHUR16DBV	1,800 X 1,500 X 1,200
AHUR20DBV	2,100 X 1,600 X 1,200
AHUR32DBV	1,800 X 1,800 X 1,600
AHUR40DBV	2,100 X 1,800 X 1,600
AHUR48DBV	1,800 X 1,950 X 2,300
AHUR60DBV	2,100 X 1,950 X 2,300
AHUR80DBV	4,000 X 1,800 X 1,600
AHUR100DBV	4,000 X 1,950 X 2,300
AHUR120DBV	4,000 X 1,950 X 2,350

Model	Dimension W x D x H (mm)
AHUR06CBV	1,200 X 1,100 X 850
AHUR08CBV	1,300 X 1,200 X 1,100
AHUR10CBV	1,500 X 1,200 X 1,100
AHUR16CBV	1,700 X 1,400 X 1,100
AHUR20CBV	2,000 X 1,500 X 1,100
AHUR32CBV	1,700 X 1,700 X 1,500
AHUR40CBV	2,000 X 1,700 X 1,500
AHUR48CBV	1,700 X 1,850 X 2,100
AHUR60CBV	2,000 X 1,950 X 2,200
AHUR80CBV	3,900 X 1,700 X 1,500
AHUR100CBV	3,900 X 1,850 X 2,200
AHUR120CBV	3,900 X 1,950 X 2,200



Front View



Side View

** Dimension does not include Standard series PCB, Expansion Valve and Pre-filter*

AHUR-DBV/CBV SPECIFICATIONS

Model		AHUR06DBV/DBVH AHUR06CBV/CBVH					AHUR08DBV/DBVH AHUR08CBV/CBVH					AHUR10DBV/DBVH AHUR10CBV/CBVH					AHUR16DBV/DBVH AHUR16CBV/CBVH					AHUR20DBV/DBVH AHUR20CBV/CBVH					AHUR32DBV/DBVH AHUR32CBV/CBVH				
Total Cooling Capacity	NET (KW) *1	16.4	16.3	16.2	16.0	15.9	22.9	22.8	22.7	22.4	22.3	28.4	28.3	28.2	28.0	27.8	45.7	45.5	45.3	45.0	44.6	56.8	56.6	56.3	56.0	55.7	91.4	91.0	90.6	90.0	89.2
Total Sensible Cooling Capacity		11.9	11.8	11.7	11.5	11.4	16.8	16.7	16.6	16.3	16.2	20.9	20.8	20.7	20.5	20.3	33.5	33.3	33.1	32.6	32.4	41.8	41.6	41.3	40.9	40.7	67.0	66.6	66.2	65.3	64.8
Total Cooling Capacity	GROSS (KW) *2	17.6					24.0					29.8					48.3					59.4					96.6				
Sensible Cooling Capacity		13.1					17.9					22.3					36.2					44.3					72.4				
Air Flow	CMH	3,240					4,080					4,680					8,160					9,960					16,320				
Ent. Temp.	°CDB/°CWB	27/19					27/19					27/19					27/19					27/19					27/19				
Lea. Temp.	°CDB/°CWB	14.7/13.3					13.6/12.7					12.5/12.4					13.5/12.7					13.4/12.6					13.5/12.7				
Coil Type		DX.COIL (R410A) 8mm. WAVE SLIT SURFACE & STRAIGHT EDGE																													
Coil Face Area	m^2	0.491					0.443					0.54					0.78					0.99					1.56				
Coil Face Vel.	m/s	1.83					2.56					2.41					2.91					2.79					2.91				
Air PD.In Coil	Pa	100					100					100					100					100					100				
Air PD.In Pre Filter *3	Pa	80					80					80					80					80					80				
Air Filter Size 12"X24X2" *3	PCS.	1					1					-					1					-					2				
Air Filter Size 24"X24X2" *3	PCS.	1					1					2					2					3					4				
Air PD.In Casing	Pa	30					30					30					30					30					30				
ESP.Initial	Pa	250	300	350	450	500	250	300	350	450	500	250	300	350	450	500	250	300	350	450	500	250	300	350	450	500	250	300	350	450	500
Total Statics Pressure	Pa	460	510	560	660	710	460	510	560	660	710	460	510	560	660	710	460	510	560	660	710	460	510	560	660	710	460	510	560	660	710
Fan Type		FORWARD CURVE																													
Model		FDA200CM					FDA250TM					FDA250TM					FDA315TM					FDA355TM					FDA450TM				
Fan Motor	KW	1.5		2.2			1.5		2.2			2.2		3.0			3.0		4.0			3.0		4.0		5.5	5.5		7.5		
	POLE	4					4					4					4					4					4				
Power Supply (50Hz/60Hz)	Volt/Ph./Hz.	380/3/50 / 440/3/60																													
FLA	amp.	3.56 (3.0)		4.76 (4.1)			3.56 (3.0)		4.76 (4.1)			4.76 (4.1)				6.6 (5.8)	6.6 (5.8)		8.37 (7.3)			6.6 (5.8)		8.37 (7.3)		10 (9.3)	11.0 (9.3)		14.9 (12.6)		
Motor Efficiency IE3 (Full Load) at 380/50Hz	%	85.3		86.7			85.3		86.7			86.7			87.7		87.7		88.6			87.7		88.6		89.6	89.6		90.4		
Machine Weight (DBV)	kg	545		550			550		560			600			610		765		775			890		900		920	1,090		1,110		
Machine Weight (CBV)	kg	480		485			480		485			530			540		740		750			850		860		880	990		1,010		
Sound Pressure Level (SPL)	dBA	60	61	62	63	64	54	56	57	59	60	54	56	57	59	60	62	63	64	66	67	61	61	62	64	65	62	63	64	65	66
Standard series PCB	Model/PCS.	EKEQMCBAV3 / 1 pc.					EKEQMCBAV3 / 1 pc.					EKEQMCBAV3 / 1 pc.					EKEQMCBAV3 / 1 pc.					EKEQMCBAV3 / 1 pc.					EKEQMCBAV3 / 2 pcs.				
Expansion Valve	Model/PCS.	EKEXV140 / 1 pc.					EKEXV200 / 1 pc.					EKEXV250 / 1 pc.					EKEXV400 / 1 pc.					EKEXV500 / 1 pc.					EKEXV400 / 2 pcs.				
Piping Connections — Liquid pipes	mm	9.5 (Brazing connection)					9.5 (Brazing connection)					9.5 (Brazing connection)					12.7 (Brazing connection)					15.9 (Brazing connection)					12.7 (Brazing connection) x 2				
Piping Connections — Gas pipes *4	mm	15.9 (Brazing connection)					19.1 (Brazing connection)					22.2 (Brazing connection)					28.6 (Brazing connection)					28.6 (Brazing connection)					28.6 (Brazing connection) x 2				
Piping Connections — Drain pipes	mm	32					32					32					32					32					32				
Refrigerant Control		Electronic expansion valve					Electronic expansion valve					Electronic expansion valve					Electronic expansion valve					Electronic expansion valve					Electronic expansion valve				
Panel		Double Skinned																													
Capacity Index		140					200					250					400					500					800				

Model		AHUR40DBV/DBVH AHUR40CBV/CBVH					AHUR48DBV/DBVH AHUR48CBV/CBVH					AHUR60DBV/DBVH AHUR60CBV/CBVH					AHUR80DBV/DBVH AHUR80CBV/CBVH					AHUR100DBV/DBVH AHUR100CBV/CBVH					AHUR120DBV/DBVH AHUR120CBV/CBVH				
Total Cooling Capacity	NET (KW) *1	113.6	113.2	112.7	112.0	111.3	137.1	136.6	136.0	135.0	133.7	170.4	169.7	169.0	168.0	167.0	227.2	226.3	225.4	224.0	222.6	284.0	282.9	281.7	280.0	278.3	340.8	339.5	338.0	336.0	334.0
Total Sensible Cooling Capacity		83.6	83.2	82.7	81.8	81.3	100.5	100.0	99.4	97.9	97.1	125.4	124.7	124.0	122.7	122.0	167.2	166.3	165.4	163.6	162.6	209.0	207.9	206.7	204.5	203.3	250.8	249.5	248.0	245.4	244.0
Total Cooling Capacity	GROSS (KW) *2	118.8					144.9					178.2					237.6					297.0					356.4				
Sensible Cooling Capacity		88.6					108.6					132.9					177.2					221.5					265.8				
Air Flow	CMH	19,920					24,480					29,880					39,840					49,800					59,760				
Ent. Temp.	°CDB/°CWB	27/19					27/19					27/19					27/19					27/19					27/19				
Lea. Temp.	°CDB/°CWB	13.4/12.6					13.5/12.7					13.4/12.6					13.4/12.6					13.4/12.6					13.4/12.6				
Coil Type		DX.COIL (R410A) 8mm. WAVE SLIT SURFACE & STRAIGHT EDGE																													
Coil Face Area	m^2	1.98					2.34					2.97					3.96					4.95					5.94				
Coil Face Vel.	m/s	2.79					2.91					2.79					2.79					2.79					2.79				
Air PD.In Coil	Pa	100					100					100					100					100					100				
Air PD.In Pre Filter *3	Pa	80					80					80					80					80					80				
Air Filter Size 12"X24X2" *3	PCS.	-					3					-					-					-					-				
Air Filter Size 24"X24X2" *3	PCS.	6					6					9					12					18					18				
Air PD.In Casing	Pa	30					30					30					30					30					30				
ESP.Initial	Pa	250	300	350	450	500	250	300	350	450	500	250	300	350	450	500	250	300	350	450	500	250	300	350	450	500	250	300	350	450	500
Total Statics Pressure	Pa	460	510	560	660	710	460	510	560	660	710	460	510	560	660	710	460	510	560	660	710	460	510	560	660	710	460	510	560	660	710
Fan Type		FORWARD CURVE																													
Model		FDA500TM					FDA560TM					FDA630TM					FDA500T2M					FDA560T2M					FDA630T2M				
Fan Motor	KW	7.5		11.0			7.5		11.0			11.0					15.0		18.5			15.0		18.5		22.0	18.5		22.0		30.0
	POLE	4					4					4					4					4					4				
Power Supply (50Hz/60Hz)	Volt/Ph./Hz.	380/3/50 / 440/3/60																													
FLA	amp.	14.9 (12.6)		21.8 (18.4)			14.9 (12.6)		21.8 (18.4)			21.8 (18.4)					29.3 (24.6)		37.2 (32.2)		29.3 (24.6)			37.2 (32.2)		44.4 (38.3)	37.2 (32.2)		44.4 (38.3)		56.6 (48.6)
Motor Efficiency IE3 (Full Load) at 380/50Hz	%	90.4		91.4			90.4		91.4			91.4					92.1		92.6			92.1		92.6		93.0	92.6		93.0		93.6
Machine Weight (DBV)	kg	1,260		1,300			1,400		1,440			1,640					2,160		2,195			2,580		2,615		2,630	2,830		2,845		2,925
Machine Weight (CBV)	kg	1,120		1,160			1,250		1,290			1,480					1,885		1,920			2,280		2,315		2,330	2,470		2,485		2,565
Sound Pressure Level (SPL)	dBA	61	62	63	65	65	64	65	65	66	67	62	63	64	65	66	67	67	68	70	71	68	69	70	71	72	69	69	70	71	73
Standard series PCB	Model/PCS.	EKEQMCBAV3 / 2 pcs.					EKEQMCBAV3 / 3 pcs.					EKEQMCBAV3 / 3 pcs.					EKEQMCBAV3 / 4 pcs.					EKEQMCBAV3 / 5 pcs.					EKEQMCBAV3 / 6 pcs.				
Expansion Valve	Model/PCS.	EKEXV500 / 2 pcs.					EKEXV400 / 3 pcs.					EKEXV500 / 3 pcs.					EKEXV500 / 4 pcs.					EKEXV500 / 5 pcs.					EKEXV500 / 6 pcs.				
Piping Connections — Liquid pipes	mm	15.9 (Brazing connection) x 2					12.7 (Brazing connection) x 3					15.9 (Brazing connection) x 3					15.9 (Brazing connection) x 4					15.9 (Brazing connection) x 5					15.9 (Brazing connection) x 6				
Piping Connections — Gas pipes *4	mm	28.6 (Brazing connection) x 2					28.6 (Brazing connection) x 3					28.6 (Brazing connection) x 3					28.6 (Brazing connection) x 4					28.6 (Brazing connection) x 5					28.6 (Brazing connection) x 6				
Piping Connections — Drain pipes	mm	32					32					32					32					32					32				
Refrigerant Control		Electronic expansion valve					Electronic expansion valve					Electronic expansion valve					Electronic expansion valve					Electronic expansion valve					Electronic expansion valve				
Panel		Double Skinned																													
Capacity Index		1,000					1,200					1,500					2,000					2,500					3,000				

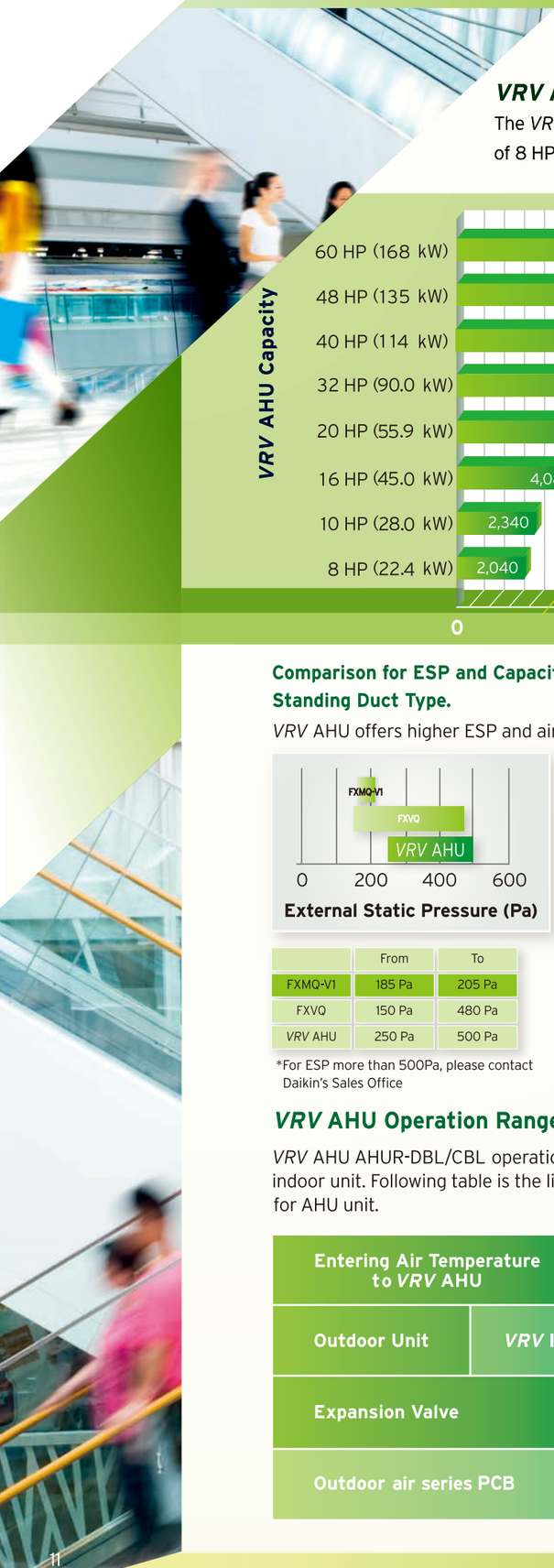
Notes:
1. Net capacity includes indoor fan heat.
2. Gross capacity do not include indoor fan heat.
3. With pre filter, AAF synthetic R29 & class G3 (Washable) eff 80-85%.
4. It is necessary to reduce piping size by reducer when connection (19.1 → 15.9, 22.2 → 19.1, 28.6 → 22.2, 34.9 → 28.6)

■Connection ratio

System Pattern	Total CR	*VRV* Indoor	AHU
VRV DX Indoor unit(s) + AHU	50-110%	0-110%	0-60%
Only AHU (Pair AHU & Multi AHU)	50-110%	-	50-110%

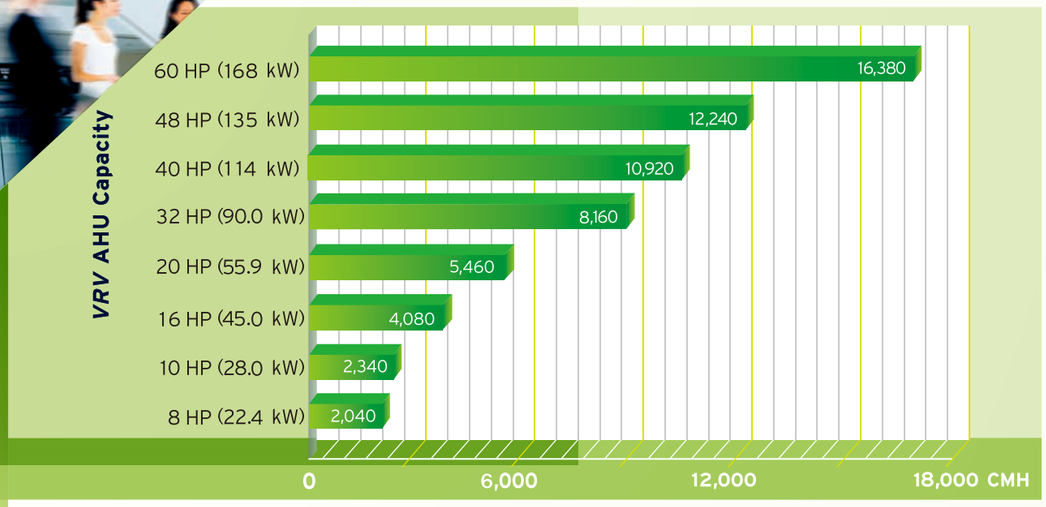
Conversion formula

kcal/h=kWx860
Btu/h=kWx3412
cfm=m3/minx35.3



VRV AHU Outdoor Air Series

The *VRV* AHU Outdoor air series are available from the capacity range of 8 HP to 60 HP, also with airflow ranging from 2,040 CMH – 16,380 CMH.

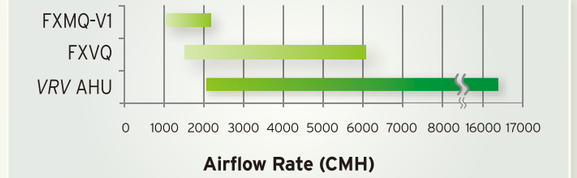


Comparison for ESP and Capacity between VRV AHU, Ceiling Mounted Duct Type and Floor Standing Duct Type.

VRV AHU offers higher ESP and airflow rate as compared to duct type units.

	From	To
FXMQ-V1	185 Pa	205 Pa
FXVQ	150 Pa	480 Pa
VRV AHU	250 Pa	500 Pa

*For ESP more than 500Pa, please contact Daikin's Sales Office



	From (CMH)	To (CMH)
FXMQ-V1	1,080	2,100
FXVQ	1,518	6,072
VRV AHU	2,040	16,380

VRV AHU Operation Range

VRV AHU AHUR-DBL/CBL operation is similar as other *VRV* indoor unit. Following table is the list of operation range for AHU unit.

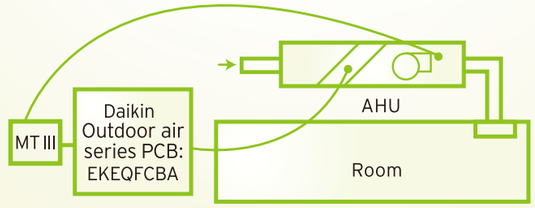
			Temperature Range
			Cooling
Entering Air Temperature to *VRV* AHU		Minimum	14°C WB
		Maximum	32°C WB
Outdoor Unit	*VRV* IV	Minimum	-5°C DB
		Maximum	49°C DB
Expansion Valve		Minimum	-5°C DB
		Maximum	46°C DB
Outdoor air series PCB		Minimum	-10°C DB
		Maximum	40°C DB

Possibility X (Td/Tr control):

Precise air temperature control via MicroTech III (MT III) controller (option)

Room temperature is controlled as a function of the air handling unit suction or discharge air (customer selection). The MT III controller translates the temperature difference between set point and air suction temperature (or air discharge temperature or room temperature) into a reference voltage (0-10V) which is transferred to the Daikin Outdoor air series PCB (EKEQFCBA).

This reference voltage will be used as the main input value for the compressor frequency control.



Td = Air discharge temperature (13°C ~ 28°C)

Te = Evaporating temperature
AHU = Air Handling Unit

MicroTech III controller (option)

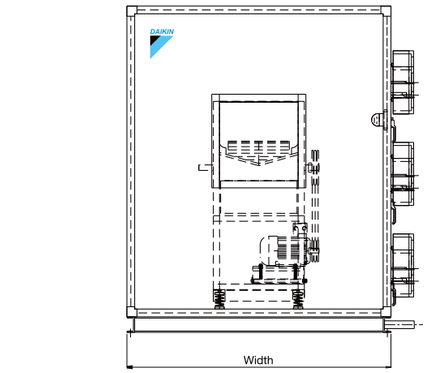
MT III controller is recommended for Outdoor air series AHU controlling, switching and monitoring functions.
This controller is programmed to optimize the performance and efficiency of *VRV* AHU automatically.
It can also communicate with Daikin's intelligent Touch Manager via BACnet protocol easily.

VRV AHU Expansion Valve

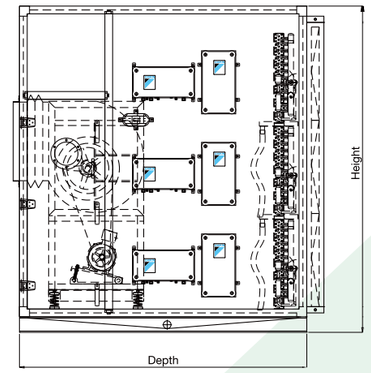
			EKEXV200	EKEXV250	EKEXV400	EKEXV500
Casing	Colour		Ivory white			
	Material		Metal			
Dimensions	Unit	H x W x D mm	401 x 215 x 78			
Weight	Unit	Kg	2.9			
Operation Range	Cooling	Min. ~ Max. °CDB	-5.0 ~ 46.0			
Refrigerant	Type		R-410A			
Piping connections	Liquid	Type	Braze connection			
		OD mm	9.52	12.7	15.9	
	Gas	Type	Braze connection			
		OD mm	9.52			
	Heat Insulation		Both inlet and outlet			

VRV AHU Outdoor Air Series PCB

			EKEQFCBA
Application			Multi
Outdoor Unit			*VRV* IV
Casing	Colour		White grey
	Material		Resin
Dimensions	Unit	H x W x D mm	132 x 400 x 200
Weight	Unit	Kg	3.9
Operation Range	Cooling	Min. ~ Max. °CDB	-10.0 ~ 40.0
Power Supply	Phase		1
	Frequency	Hz	50/60
	Voltage	V	230/220



Front View



Side View

VRV AHU Outdoor Air Series Evaporator Coil, Expansion Valve and Outdoor Air Series PCB

AHUR-DBL/CBL Outdoor air series use DX coil. Each DX coil will be connected to one external expansion valve (EKEXV) and controlled by one Outdoor air series PCB (EKEQFCBA).

VRV AHU Outdoor air Series Evaporator Coil

- 4 capacities of Evaporator Coil
  - 8HP **used on 8HP AHU unit**
  - 10HP **used on 10HP AHU unit**
  - 16HP **used on 16HP, 32HP, 48HP AHU unit**
  - 20HP **used on 20HP, 40HP, 60HP AHU unit**

VRV AHU Expansion Valve (EKEXV)

- 4 capacities of AHU Expansion Valve
  - EKEXV200 for 8HP Coil
  - EKEXV250 for 10HP Coil
  - EKEXV400 for 16HP Coil
  - EKEXV500 for 20HP Coil

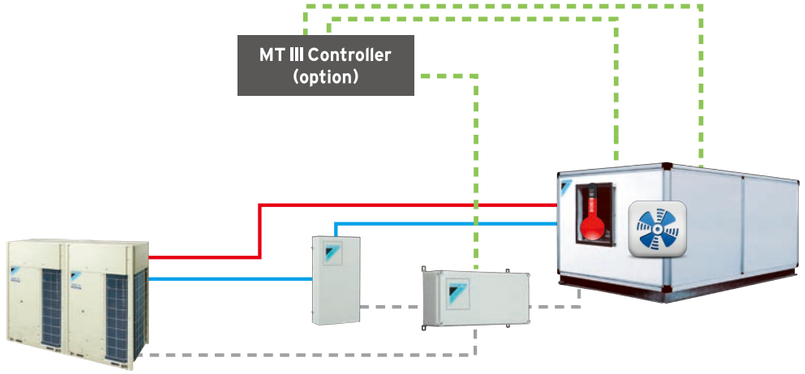
VRV AHU Outdoor air series PCB (EKEQFCBA)

Installation of AHU Outdoor air series PCB should be positioned under a shaded area. Alternatively, a panel should be provided at the Outdoor air series PCB to block off direct sunlight.

Direct sunlight will increase the temperature inside the Outdoor air series PCB and may reduce its lifetime and influence its operation.

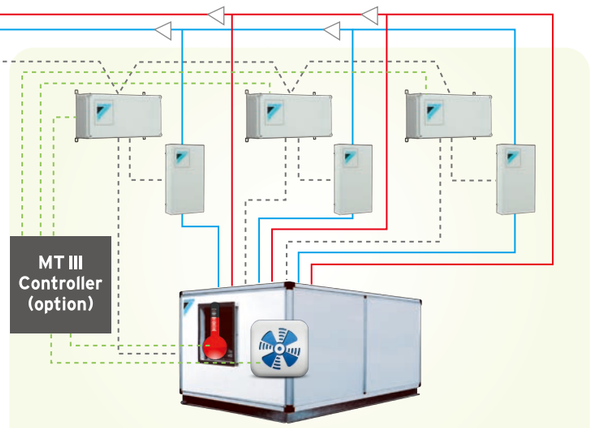
Operating temperature of the Outdoor air series PCB is between -10°C and 40°C.

VRV AHU Configuration



Each coil up to 20 HP
(Max combination of 3) = 60 HP

Up to 60 HP
Max. 3 circuits



Combined VRV System Configuration

Control Wiring — MT III Control Wiring — Liquid — Gas

AHU SPECIFICATION *(AHUR-DBL/CBL)*

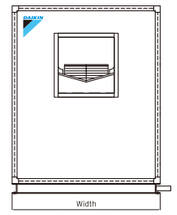
1	**CASING / INSULATION (DBL SERIES)**	50mm Thickness Double Skinned Panel (Thermal Break) 0.5mm Thickness White Colourbond Steel Sheet 50mm Thickness Polyurethane Foam 40Kg/m³ Density
	WEATHER PROOF ROOF	SUS 304
	CASING / INSULATION (CBL SERIES)	25mm Thickness Double Skinned Panel 0.5mm Thickness White Colourbond Steel Sheet 0.5mm Thickness Galvanized Steel Sheet 25mm Thickness Polyurethane Foam 40Kg/m³ Density
2	**CASING-FRAME (DBL SERIES)**	Steel With Black Epoxy Paint
	CASING-FRAME (CBL SERIES)	Extruded Aluminium Profile
3	**COIL**	DX Coil
	TUBE	Copper Tube
	FIN	Aluminum Slit Type
	HEADER	Copper Tube-Connect
	FRAME	Galvanized Steel
	WORKING PRESSURE	10Kg/cm²
4	**FAN**	(Brand = Kruger)
	TYPE	Double Width Double Inlet Forward Curved Centrifugal Belt Drive Fan
	WHEEL	Galvanized Steel Sheet
	HOUSING	Galvanized Steel Sheet
	FRAME	Steel With Polyester Powder Coating
5	**MOTOR**	(Brand = Teco) Three-Phase Induction Motor Totally Enclosed Fan-Cooled Type Protection = IP55 Insulation Class = F, IE3
6	**VIBRATION ISOLATOR**	Spring Isolator
7	**DRAIN PAN (DBL SERIES)**	1.2mm (SUS 304) The Drain Pan is Covered With PU Insulation 40Kg/m³ Density
	DRAIN PAN (CBL SERIES)	1.6mm (Steel Sheet With Epoxy Coated) Beneath The Drain Pan is Covered With PU Insulation 40Kg/m³ Density
8	**AIR FILTER**	(Brand = AAF) Type = R29 Class = G3 (AFI = 80-85%) Synthetic Washable Size = Full (24" x 24" x 2") Half (12" x 24" x 2")

Drawings and Dimension of AHU

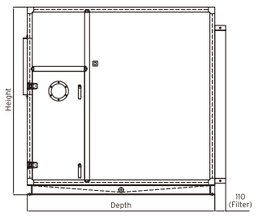
Model	Dimension W x D x H (mm)
AHUR08DBL	1,300 X 1,400 X 1,200
AHUR10DBL	1,500 X 1,400 X 1,200
AHUR16DBL	1,800 X 1,500 X 1,200
AHUR20DBL	2,100 X 1,600 X 1,200
AHUR32DBL	1,800 X 1,800 X 1,600
AHUR40DBL	2,100 X 1,800 X 1,600
AHUR48DBL	1,800 X 1,950 X 2,200
AHUR60DBL	2,100 X 1,950 X 2,200

Model	Dimension W x D x H (mm)
AHUR08CBL	1,300 X 1,200 X 1,100
AHUR10CBL	1,500 X 1,200 X 1,100
AHUR16CBL	1,700 X 1,400 X 1,100
AHUR20CBL	2,000 X 1,500 X 1,100
AHUR32CBL	1,700 X 1,700 X 1,500
AHUR40CBL	2,000 X 1,700 X 1,500
AHUR48CBL	1,700 X 1,850 X 2,100
AHUR60CBL	2,000 X 1,950 X 2,200

** Dimension does not include Outdoor air series PCB, Expansion Valve and Pre-filter*



Front View



Side View

AHUR-DBL/CBL SPECIFICATIONS

Model		AHUR08DBL/CBL AHUR08DBLH/CBLH					AHUR10DBL/CBL AHUR10DBLH/CBLH					AHUR16DBL/CBL AHUR16DBLH/CBLH					AHUR20DBL/CBL AHUR20DBLH/CBLH				
Total Cooling Capacity	NET (KW) *1	22.8	22.8	22.7	22.6	22.5	28.3	28.3	28.2	28.1	28.0	45.3	45.2	45.1	44.9	44.7	56.7	56.6	56.5	56.2	56.1
Total Sensible Cooling Capacity		10.9	10.9	10.8	10.7	10.6	13.2	13.2	13.1	13.0	12.9	21.7	21.6	21.5	21.3	21.1	27.6	27.5	27.4	27.1	27.0
Total Cooling Capacity	GROSS (KW) *2	23.3					28.9					46.3					58.4				
Sensible Cooling Capacity		11.4					13.8					22.7					29.3				
Air Flow	CMH	2,040					2,340					4,080					5,460				
Ent. Temp.	°CDB/°CWB	33/28					33/28					33/28					33/28				
Lea. Temp.	°CDB/°CWB	19.4/18.9					18.4/18					19.3/19.0					19.9/19.6				
Coil Type		DX.COIL (R410A) 8mm. WAVE SLIT SURFACE & STRAIGHT EDGE																			
Coil Face Area	m^2	0.443					0.54					0.784					0.99				
Coil Face Vel.	m/s	1.28					1.20					1.45					1.53				
Air PD.In Coil	Pa	50					50					50					50				
Air PD.In Pre Filter *3	Pa	80					80					80					80				
Air Filter Size 12"X24X2" *3	PCS.	1					-					1					-				
Air Filter Size 24"X24X2" *3	PCS.	1					2					2					3				
Air PD.In Casing	Pa	30					30					30					30				
ESP.Initial	Pa	250	300	350	450	500	250	300	350	450	500	250	300	350	450	500	250	300	350	450	500
Total Statics Pressure	Pa	410	460	510	610	660	410	460	510	610	660	410	460	510	610	660	410	460	510	610	660
Fan Type		FORWARD CURVE																			
Model		FSA280CM					FSA280CM					FDA250TM					FDA250TM				
Fan Motor	KW	0.75			1.1		0.75		1.1			1.5			2.2		2.2			3.0	
	POLE	4					4					4					4				
Power Supply (50Hz/60Hz)	Volt/Ph./Hz.	380/3/50 / 440/3/60																			
FLA	amp.	1.88 (1.7)			2.5 (2.1)		1.88 (1.7)		2.5 (2.1)			3.56 (3.0)			4.76 (4.1)		4.76 (4.1)			6.66 (5.8)	
Motor Efficiency IE3 (Full Load) at 380/50Hz	%	82.5			84.1		82.5		84.1			85.3			86.7		86.7			87.7	
Machine Weight (DBL)	kg	545			550		605		610			700			710		815			825	
Machine Weight (CBL)	kg	475			480		520		525			670			680		775			785	
Sound Pressure Level (SPL)	dBA	56	58	60	62	63	56	57	58	60	62	55	56	57	58	59	55	56	57	58	59
Outdoor Air series PCB	Model/PCS.	EKEQFCBAV3 / 1 pc.					EKEQFCBAV3 / 1 pc.					EKEQFCBAV3 / 1 pc.					EKEQFCBAV3 / 1 pc.				
Expansion Valve	Model/PCS.	EKEXV200 / 1 pc.					EKEXV250 / 1 pc.					EKEXV400 / 1 pc.					EKEXV500 / 1 pc.				
Piping Connections Liquid pipes	mm	9.5 (Brazing connection)					9.5 (Brazing connection)					12.7 (Brazing connection)					15.9 (Brazing connection)				
Piping Connections Gas pipes *4	mm	19.1 (Brazing connection)					22.2 (Brazing connection)					28.6 (Brazing connection)					28.6 (Brazing connection)				
Piping Connections Drain pipes	mm	32					32					32					32				
Refrigerant Control		Electronic expansion valve					Electronic expansion valve					Electronic expansion valve					Electronic expansion valve				
Panel		Double Skinned																			
Capacity Index		200					250					400					500				

Model		AHUR32DBL/CBL AHUR32DBLH/CBLH					AHUR40DBL/CBL AHUR40DBLH/CBLH					AHUR48DBL/CBL AHUR48DBLH/CBLH					AHUR60DBL/CBL AHUR60DBLH/CBLH				
Total Cooling Capacity	NET (KW) *1	90.3	90.1	89.9	89.5	89.3	114.4	114.2	114.0	113.5	113.2	136.0	135.8	135.6	135.1	134.8	171.7	171.4	171.0	170.3	170.0
Total Sensible Cooling Capacity		43.1	42.9	42.7	42.3	42.1	56.2	56.0	55.8	55.3	55.0	65.2	65.0	64.8	64.3	64.0	84.4	84.1	83.7	83.0	82.7
Total Cooling Capacity	GROSS (KW) *2	92.6					116.8					138.9					175.2				
Sensible Cooling Capacity		45.4					58.6					68.1					87.9				
Air Flow	CMH	8,160					10,920					12,240					16,380				
Ent. Temp.	°CDB/°CWB	33/28					33/28					33/28					33/28				
Lea. Temp.	°CDB/°CWB	19.3/19.0					19.9/19.6					19.3/19.0					19.9/19.6				
Coil Type		DX.COIL (R410A) 8mm. WAVE SLIT SURFACE & STRAIGHT EDGE																			
Coil Face Area	m^2	1.568					1.98					2.35					2.97				
Coil Face Vel.	m/s	1.45					1.53					1.45					1.53				
Air PD.In Coil	Pa	50					50					50					50				
Air PD.In Pre Filter *3	Pa	80					80					80					80				
Air Filter Size 12"X24X2" *3	PCS.	2					-					3					-				
Air Filter Size 24"X24X2" *3	PCS.	4					6					6					9				
Air PD.In Casing	Pa	30					30					30					30				
ESP.Initial	Pa	250	300	350	450	500	250	300	350	450	500	250	300	350	450	500	250	300	350	450	500
Total Statics Pressure	Pa	410	460	510	610	660	410	460	510	610	660	410	460	510	610	660	410	460	510	610	660
Fan Type		FORWARD CURVE																			
Model		FDA315TM					FDA400TM					FDA400TM					FDA500TM				
Fan Motor	KW	3.0			4.0		3.0		4.0		5.5	4.0			5.5		4.0		5.5		7.5
	POLE	4					4					4					4				
Power Supply (50Hz/60Hz)	Volt/Ph./Hz.	380/3/50 / 440/3/60																			
FLA	amp.	6.66 (5.8)			8.37 (7.3)		6.66 (5.8)		8.37 (7.3)		11.0 (9.3)	8.37 (7.3)			11.0 (9.3)		8.37 (7.3)		11.0 (9.3)		14.9 (12.6)
Motor Efficiency IE3 (Full Load) at 380/50Hz	%	87.7			88.6		87.7		88.6		89.6	88.6			89.6		88.6		89.6		90.4
Machine Weight (DBL)	kg	985			1,005		1,175		1,180		1,185	1,280			1,285		1,615		1,625		1,645
Machine Weight (CBL)	kg	870			890		975		980		985	1,075			1,080		1,265		1,275		1,295
Sound Pressure Level (SPL)	dBA	63	64	65	66	67	60	61	62	63	64	60	61	62	63	64	61	62	63	64	65
Outdoor Air series PCB	Model/PCS.	EKEQFCBAV3 / 2 pcs.					EKEQFCBAV3 / 2 pcs.					EKEQFCBAV3 / 3 pcs.					EKEQFCBAV3 / 3 pcs.				
Expansion Valve	Model/PCS.	EKEXV400 / 2 pcs.					EKEXV500 / 2 pcs.					EKEXV400 / 3 pcs.					EKEXV500 / 3 pcs.				
Piping Connections Liquid pipes	mm	12.7 (Brazing connection) x 2					15.9 (Brazing connection) x 2					12.7 (Brazing connection) x 3					15.9 (Brazing connection) x 3				
Piping Connections Gas pipes *4	mm	28.6 (Brazing connection) x 2					28.6 (Brazing connection) x 2					28.6 (Brazing connection) x 3					28.6 (Brazing connection) x 3				
Piping Connections Drain pipes	mm	32					32					32					32				
Refrigerant Control		Electronic expansion valve					Electronic expansion valve					Electronic expansion valve					Electronic expansion valve				
Panel		Double Skinned																			
Capacity Index		800					1,000					1,200					1,500				

Notes:
1. Net capacity includes indoor fan heat.
2. Gross capacity do not include indoor fan heat.
3. With pre filter, AAF synthetic R29 & class G3 (Washable) eff 80-85%.
4. It is necessary to reduce piping size by reducer when connection (19.1 → 15.9, 22.2 → 19.1, 28.6 → 22.2, 34.9 → 28.6)
5. Air temperature control via an external MT III controller (option).

■Connection ratio

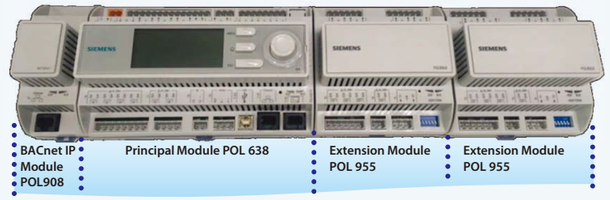
System Pattern	Total CR	*VRV* Indoor	AHU
Only AHU (Pair AHU)	50-110%	-	50-110%

Conversion formula

kcal/h=kWx860
Btu/h=kWx3412
cfm=m3/minx35.3

MicroTech III Controller (Option)

MicroTech III consists of 4 components in a fixed configuration.



Features of MicroTech III

1. **BACnet IP Module for integration of MicroTech III AHU Controller in networks featuring the BACnet Protocol. Compatible with Daikin intelligent Touch Manager (iTM) or 3rd party BMS.**
2. **Principal Module POL 638 and Extension Module POL 955 have selected analog and digital I/O contacts programmed for control and monitoring of sensors and other related devices in a *VRV* Outdoor Air Series AHU.**
3. **HMI screen on the Principal Module POL 638 allows easy testing and commissioning and even without a centralised controller or 3rd party BMS.**

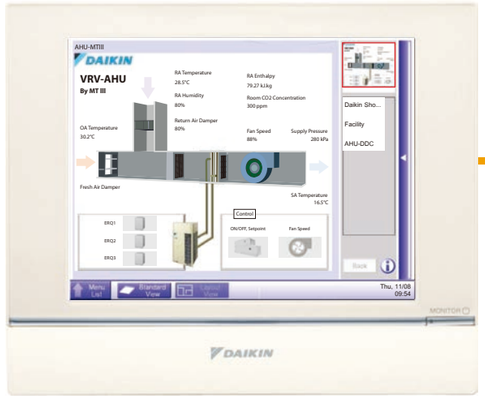
Functions of MicroTech III

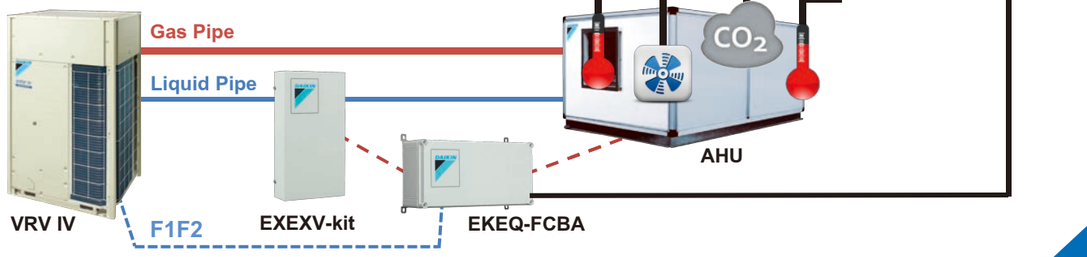
1. **Supply air control using the supply air sensor**
   - **Used for temperature control.**
2. **Air quality control – CO2 Levels**
   - **The controls of the mixing damper can be dependent on the CO2 set point.**
   - **User can define the CO2 set point.**
   - **The fresh air damper will be difference between 100% and the percentage opening of the mixing damper.**
3. **Fan airflow control**
   - **The fan speed control can be done through**
     i. **Direct (w/o inverters).**
     ii. **DirectVar (with inverters).**
     iii. **Analog controlled variable speed drive with digital release.**
     iv. **Pressure control to meet the pressure set points in the duct.**
4. **Monitoring points for other features**
     i. **Room humidity**
     ii. **Electric heating coil**
     iii. **Outside, room and return temperature**
     iv. ***VRV* alarm**

MicroTech III can connect to intelligent Touch Manager.

Monitor and control devices related to AHU such as fan, sensors, and damper

Available object list
- BACnet BI/BO/BV
- BACnet AI/AO/AV





Flexible customization of AHU

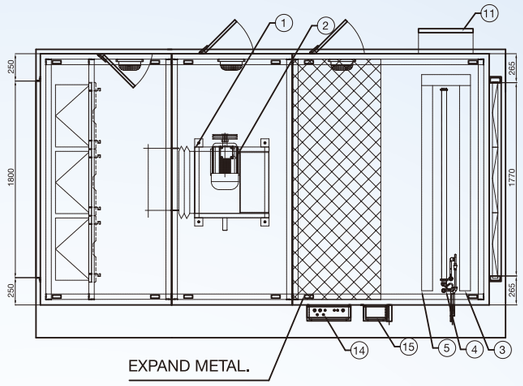
Daikin's AHU can be customized to meet your requirements

Case 1

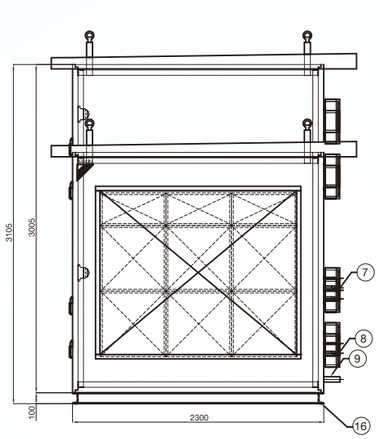
■ Specification

SA FLOW	14,000	CMH.	PRECOIL CAPACITY	23,960	Kcal/Hr.
BYPASS FLOW	-	CMH.	MAINCOIL CAPACITY	224,598	Kcal/Hr.
RA FLOW	14,000	CMH.	REHEATCOIL CAPACITY	23,960	Kcal/Hr.
OA FLOW	-	CMH.	ESP.	800 Pa	
			TSP.	1,400 Pa	

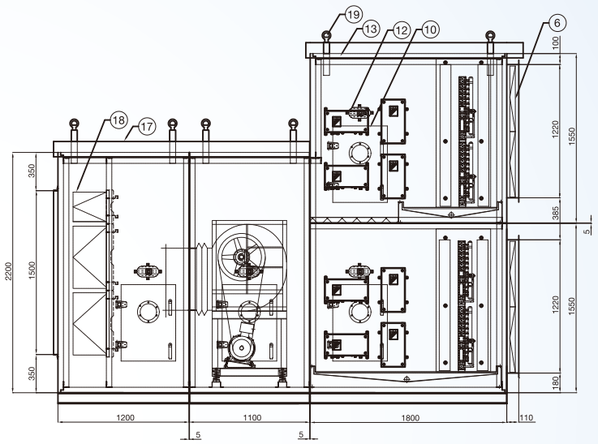
■ Drawing



Top View



Front View



Side View

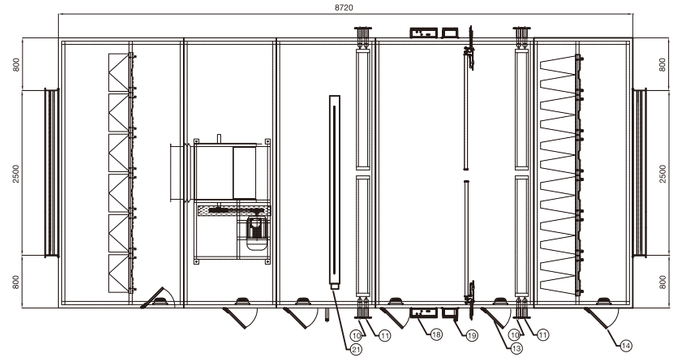
NO.	Parts name	NO.	Parts name	NO.	Parts name
1	FAN	8	SUCTION PIPE = 2 PCS.	14	OUTDOOR AIR SERIES PCB (EKEQFCBA) = 4 PCS.
2	MOTOR		(REDUCER PIPE 1B = 2 PCS)	15	EXPANSION VALVE (EKEXV500) = 4 PCS.
3	PRE COIL = 2 PCS.	9	DRAIN PIPE = 1 PC.	16	ANCHOR HOLE Ø18-ALL
4	MAIN COIL = 4 PCS.	10	ACCESS DOOR = 4 PCS.	17	ROOF (SUS)
5	HEATING COIL = 2 PCS.	11	SERVICE PANEL = 2 PCS.	18	MED FILTER = 9 PCS.
6	PRE FILTER = 12 PCS.	12	MARINE LAMP 11W+SWITCH = 4 PCS.	19	EYE BOLTS B-1130-20 = 12 PCS.
7	LIQUID PIPE = 2 PCS.	13	SANWICH PANEL		

Case 2

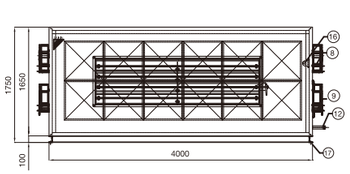
■ Specification

SA FLOW	31,794	CMH.	PRE COOLING CAPACITY	12,383	Kcal/hr.
BYPASS FLOW	-	CMH.	MAIN COOLING CAPACITY	190,318	Kcal/hr.
RA FLOW	31,794	CMH.	RE-HEAT CAPACITY	12,383	Kcal/hr.
OA FLOW	-	CMH.	ESP.	750 Pa	
			TSP.	1,460 Pa	

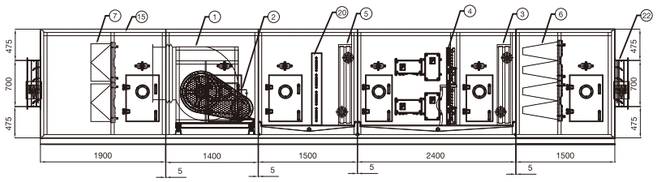
■ Drawing



Top View



Front View



Side View

NO.	Parts name	NO.	Parts name	NO.	Parts name
1	FAN BDB630TM	9	SUCTION PIPE 1-3/8B = 4 PCS.	16	MARINE LAMP 11W+SWITCH = 2 PCS.
2	MOTOR22KW.4P (380/3PH/60HZ)		(REDUCER PIPE 1B = 4 PCS)	17	ANCHOR HOLE ø18-ALL
3	PRE WC. 3/8"-2Rx13FPIx45STx1730=2PCS.	10	INLET PIPE (PRE,RE-HEAT) 2B = 4PCS.	18	STANDARD SERIES PCB (EKEQMCBA) = 4 PCS.
4	MAIN DC. 3/8"-4Rx14FPIx22STx1730=4PCS.	11	OUTLET PIPE (PRE,RE-HEAT) 2B = 4PCS.	19	EXPANSION VALVE (EKEXV500) = 4 PCS.
5	RH WC. 3/8"-2Rx13FPIx45STx1730=2PCS.	12	DRAIN PIPE 2 B = 2 PCS.	20	E/H 3PH/380V/50HZ/30KW
6	BAG FILTER 24"X24"X21" = 12 PCS.	13	ACCESS DOOR 400X700MM = 2 PCS.	21	TERMINAL BOX
7	MED FILTER 24"X24"X12" = 12 PCS.	14	ACCESS DOOR 500X700MM = 4 PCS.	22	VOLUME DAMPER
8	LIQUID PIPE 5/8B = 4 PCS.	15	SANWICH PANEL 50 MM.		

*Please contact to Daikin sales office for more information