

Effective heat exchange and
simultaneous fresh air ventilation









VENTILATION











VENTILATION

High Efficiency and low noise levels are achieved by using a highly efficient heat exchange process. A comfortable air conditioned space is achieved by conveniently selecting whether to use heat exchange or normal ventilation setting, according to the requirements of the conditioned space."

VENTILATION LINEUP

Airflow rate (m³/h)	250	350	500	800	1000	1500	2000
Energy Recovery Ventilator Page 188	 UTZ-BD025B	 UTZ-BD035B	 UTZ-BD050B	 UTZ-BD080B	 UTZ-BD100B		
Outdoor Air Unit Page 190					 ARXH054GTAH	 ARXH072GTAH	 ARXH096GTAH

Connectable Capacity class (kW)	5.0	6.3	8.0	10.0	12.5	14.0	20.0	25.0	40.0	50.0	
DX-Kit for air handling applications Page 192	 EEV unit UTP-VX30A		 Control unit UTY-VDGX	 EEV unit UTP-VX60A		 Control unit UTY-VDGX	 EEV unit UTP-VX90A		 Control unit UTY-VDGX	 EEV unit UTP-VX90A × 2	 Control unit UTY-VDGX

188 Energy Recovery Ventilator

190 Outdoor Air Unit

192 DX-Kit for air handling applications



ENERGY RECOVERY VENTILATOR

UTZ-BD025B / UTZ-BD035B / UTZ-BD050B / UTZ-BD080B / UTZ-BD100B

Energy recovery ventilator unit offers maximum comfort and greater energy savings.



UTZ-BD025B



UTZ-BD035B



UTZ-BD050B



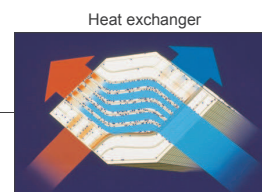
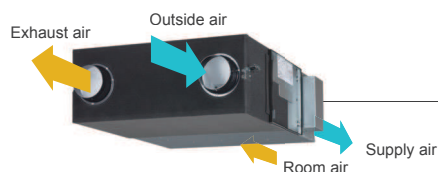
UTZ-BD080B



UTZ-BD100B

Features

Adopts a highly efficient counter-flow heat exchange element



Heat exchange ventilation and normal ventilation

Heat exchange ventilation

When a room is cooled or heated, the exhausted cooling / heating energy is recovered by heat-exchange ventilation.

Normal ventilation

The operation is used during periods when the room space requires no cooling or heating effect, i.e. when there is minimal temperature difference between the indoor and outdoor environments.

High Efficiency

Energy efficiency and ecology

Energy consumption is dramatically reduced by using a counter-flow heat-exchange element. Air conditioning load is reduced by approximately 20%, resulting in significant energy savings. Recovers up to 77% of the heat in the outgoing air.

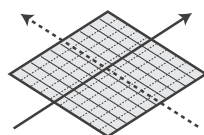
20%
Energy saving

More Comfort

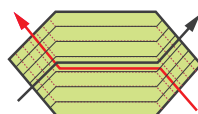
Quiet operation

Significantly reducing low pressure loss and noise allows low-noise operation.

Features of heat exchange element



Other element
(Cross-flow element)



Fujitsu element
(Counter-flow element)

With the cross-flow element, air moves in a straight line across the element. With the counter-flow element, air flows through the element for a longer time (longer distance), so the heat-exchange effect remains unchanged.

Design Flexibility

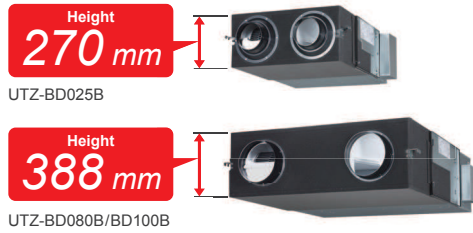
Extended range of an external static pressure

An external static pressure is improved by adopting a powerful fan motor. This allows for application in a wide variety of buildings.

Easy Installation and Maintenance

Slim shape and easier installation

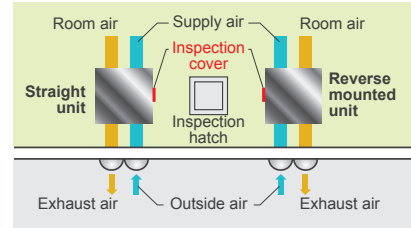
Counter-flow heat exchange element used for reduced noise and slimmer, more compact body shape.



Reverse mountable direct air supply / exhaust system

Adoption of straight air supply / exhaust system: Duct design is simplified because the air supply / exhaust ducts are straight.

Since each unit can be mounted in reverse position, only one inspection hole is needed for two units: Two units can share one inspection hole so duct work is easier and more flexible.



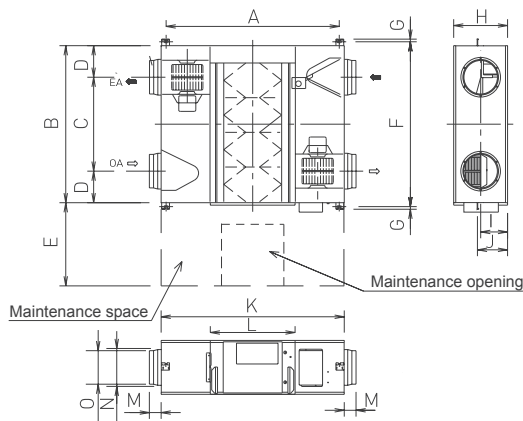
Specifications

Rated flow rate				250 m³/h	350 m³/h	500 m³/h	800 m³/h	1000 m³/h
Model No.				UTZ-BD025B	UTZ-BD035B	UTZ-BD050B	UTZ-BD080B	UTZ-BD100B
Power source				220 - 240V, 50Hz				
Heat Exchange Ventilation	Input power	(Extra high)/High/Low	W	128 / 123 / 96	190 / 185 / 168	289 / 225 / 185	418 / 378 / 295	464 / 432 / 311
	Air flow rate	(Extra high)/High/Low	m³/h	250 / 250 / 190	350 / 350 / 240	500 / 500 / 440	800 / 800 / 630	1000 / 1000 / 700
	External static pressure	(Extra high)/High/Low	Pa	105 / 95 / 45	140 / 60 / 45	120 / 60 / 35	140 / 110 / 55	105 / 80 / 75
	Temperature Exchange Efficiency	(Extra high)/High/Low	%	75 / 75 / 77	75 / 75 / 78	75 / 75 / 76	75 / 75 / 76	75 / 75 / 79
	Energy Exchange Efficiency Cooling	(Extra high)/High/Low	%	63 / 63 / 65	66 / 66 / 71	62 / 62 / 64	65 / 65 / 68	65 / 65 / 70
	Energy Exchange Efficiency Heat pump	(Extra high)/High/Low	%	70 / 70 / 72	69 / 69 / 73	67 / 67 / 69	71 / 71 / 74	71 / 71 / 76
Normal Ventilation	Sound pressure level	(Extra high)/High/Low	dB*	31.5 / 30.5 / 26.5	33 / 31 / 25.5	37.5 / 35.5 / 32.5	37.5 / 37 / 34.5	38.5 / 37.5 / 34.5
	Input power	(Extra high)/High/Low	W	128 / 123 / 96	190 / 185 / 168	289 / 225 / 185	418 / 378 / 295	464 / 432 / 311
	Air flow rate	(Extra high)/High/Low	m³/h	250 / 250 / 190	350 / 350 / 240	500 / 500 / 440	800 / 800 / 630	1000 / 1000 / 700
	External static pressure	(Extra high)/High/Low	Pa	105 / 95 / 45	140 / 60 / 45	120 / 60 / 35	140 / 110 / 55	105 / 80 / 75
	Sound pressure level	(Extra high)/High/Low	dB*	31.5 / 30.5 / 26.5	33 / 31 / 25.5	38.5 / 38 / 32.5	37.5 / 37 / 34.5	40.5 / 39.5 / 36.5
	Dimensions	W×D×H	mm	882 x 599 x 270	1050 x 804 x 317	1090 x 904 x 317	1322 x 884 x 388	1322 x 1134 x 388
Weight			kg	29	49	57	71	83
Outlet duct diameter			mm	150	150	200	250	250
Operation range			°C	-10 to 40	-10 to 40	-10 to 40	-10 to 40	-10 to 40
Maximum humidity			%	85	85	85	85	85

* The noise level must be measured 1.5 m below the centre of the unit.

Dimensions Models : UTZ-BD025B / UTZ-BD035B / UTZ-BD050B / UTZ-BD080B / UTZ-BD100B

(Unit : mm)



	UTZ-BD025B	UTZ-BD035B	UTZ-BD050B	UTZ-BD080B	UTZ-BD100B
A	810	978	1018	1250	1250
B	599	804	904	884	1134
C	315	580	640	428	678
D	142	112	132	228	228
E	600	600	600	600	600
F	655	860	960	940	1190
G	19	19	19	19	19
H	270	317	317	388	388
I	135	159	159	194	194
J	159	182	182	218	218
K	882	1050	1090	1322	1322
L	414	470	470	612	612
M	95	70	127	85	85
N	219	162	210	258	258
O	144	144	194	242	242

OUTDOOR AIR UNIT

ARXH054GTAH / ARXH072GTAH / ARXH096GTAH

Production by order

The heat pump method efficiently processes the outdoor air for cooling and heating and supplies 100% fresh air into a room.



ARXH054GTAH



ARXH072GTAH



ARXH096GTAH

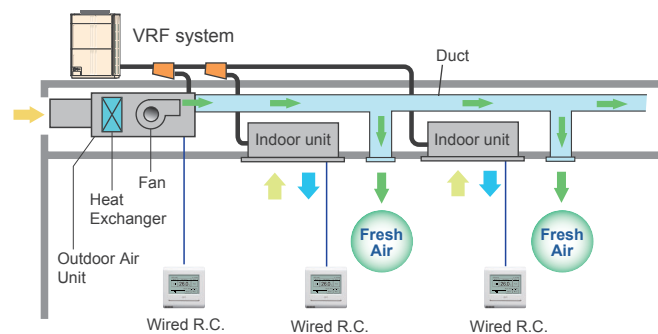
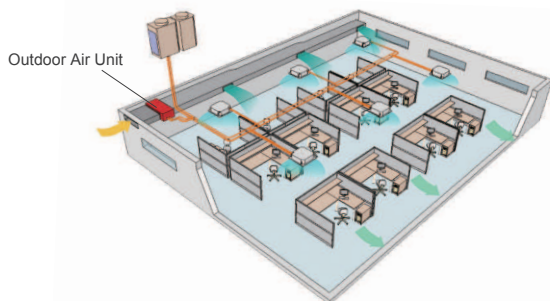
Features

One VRF system can provide air conditioning and air supply at the same time.

Outdoor Air Unit can be connected in a same VRF*1 system as one of indoor unit series and can create fresh and comfortable air supply together from our high advanced technology.

*1. Connectable VRF series: J-IIS, J-II, V-II, VR-II

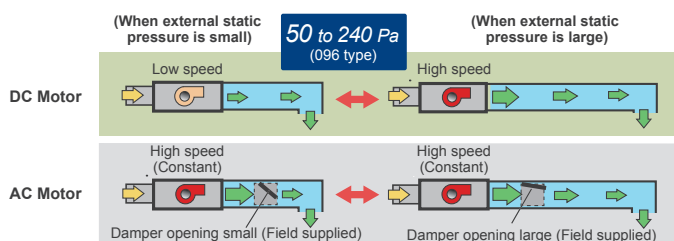
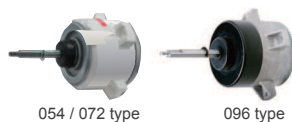
In J-II series alone, OAU is prohibit to connect under the ambient temperature of 40°C or higher.



* Make sure the connected capacity is within the range of 50% to 100% of the outdoor unit capacity. In addition, if there are mixed connections with indoor units, make the Outdoor Air Unit connection capacity 30% or less of the outdoor unit capacity.

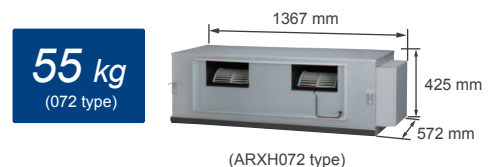
High energy savings and flexible duct design by using DC motor

- Greatly reduces electricity consumption by adopting permanent magnet compared to when using an AC motor.
- Compared with AC motor, changing the speed makes it possible to respond flexibly to the external static pressure from 50 Pa to 240 Pa. Even if damper equipment is not used, static pressure can be adjusted and duct design is easy.
- Static pressure can be set easily using wired remote controller.



Top class compact design

- Top class lightweight compact design at just 425 mm in height, 55 kg in weight for ARXH072 type. This unit can be installed easily even at narrow space.



Features

Various Controller

Supplied variety of controllers as options, such as individual controller, central controller, and building management controller.

Individual Controller



Central Controller



* The temperature setting is discharged air temperature setting. The air volume is set to a constant speed.

Specifications

(Tentative)

Model name			ARXH054GTAH	ARXH072GTAH	ARXH096GTAH
Power Source		V/∅/Hz	230/1/50	230/1/50	230/1/50
Capacity	Cooling	kW	14.0	22.4	28.0
	Heating	kW	8.9	13.9	17.4
Input Power	Cooling/Heating	W	179	292	370
Airflow Rate		m³/h	1,080	1,680	2,100
Static Pressure	Standard (range)	Pa	185 (50-185)	200 (50-200)	200 (50-240)
Sound Pressure Level		dB (A)	42	44	47
Dimensions (H x W x D)		mm	425×1,367×572	425×1,367×572	450×1,583×700
Weight		kg	48	55	71
Connection Pipe Diameter (Small / Large)		mm	∅9.52/∅19.05	∅12.70/∅22.22	∅12.70/∅22.22
Operation Range	Cooling	°CDB	5 to 43	5 to 43	5 to 43
	Heating	°CDB	-7 to 21	-7 to 21	-7 to 21
Refrigerant			R410A	R410A	R410A

Note : Specifications are based on the following conditions.

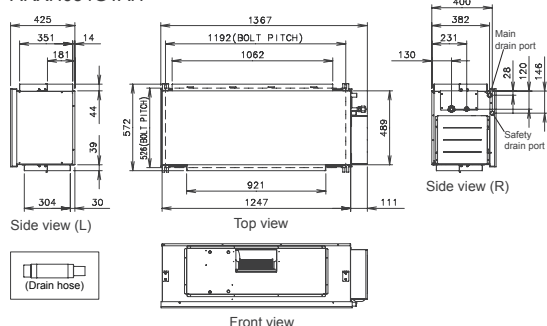
Cooling : Outdoor temperature of 33°CDB / 28°CWB.
Heating : Outdoor temperature of 0°CDB / -2.9°CWB.

Pipe length : 7.5 m Voltage : 230 [V].

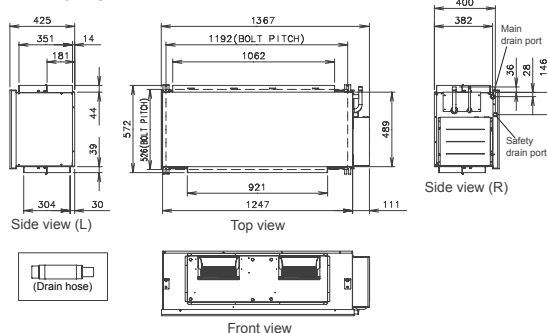
Dimensions Models : ARXH054GTAH/ARXH072GTAH/ARXH096GTAH

(Unit : mm)

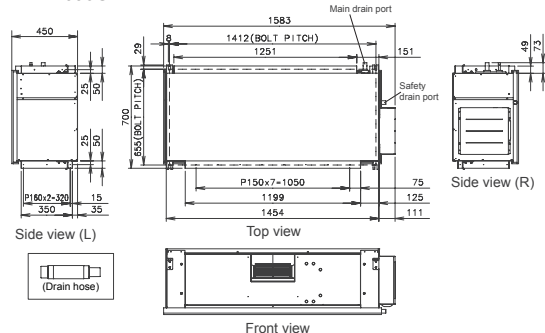
ARXH054GTAH



ARXH072GTAH



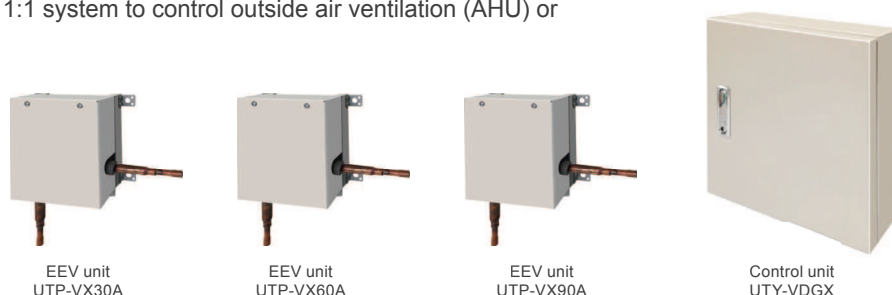
ARXH096GTAH



Control unit : UTY-VDGX

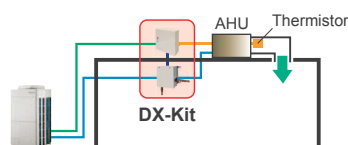
EEV unit : UTP-VX30A / UTP-VX60A / UTP-VX90A

These kits enable other manufacturers air handling units (AHU) and fan coil units (FCU) to be incorporated into a Fujitsu VRF system or, be connected to a dedicated Fujitsu VRF outdoor unit as a 1:1 system to control outside air ventilation (AHU) or room temperature (FCU).

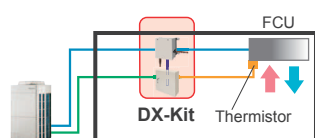


Features

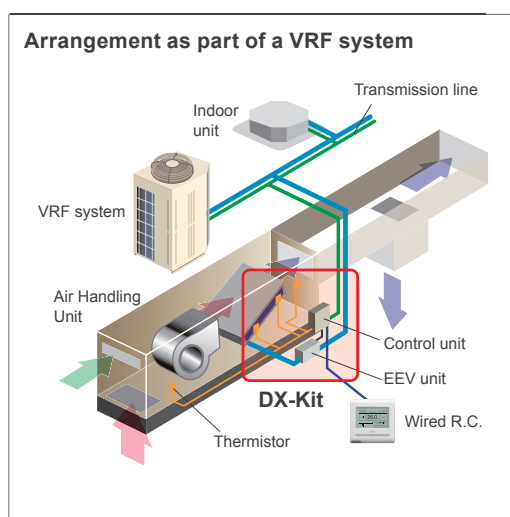
Multiple temperature sensors optimally control the air handling unit and fan coil unit.



When connecting to an air handling unit, the supply air temperature is controlled by the discharge sensor.

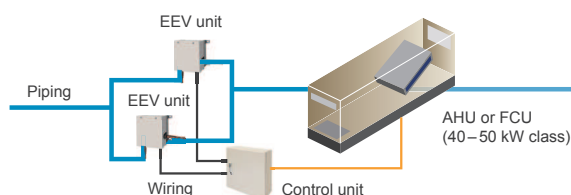


When connecting to a fan coil unit, the room temperature is controlled by the return air temperature sensor.



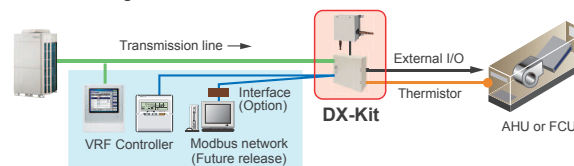
Supports a wide range of capacity classes

- 2 EEV units can be connected in parallel and up to 20 HP (50 kW) large capacity units. (Separation Tube of UTP-LX180A is required.)
- Connectable capacity range: 5 kW to 50 kW

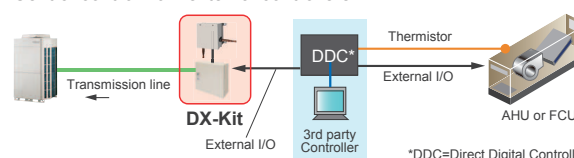


A variety of controls to match the application

- Central control using our VRF controllers or central management controllers



- Central control from external controllers



Functions Summary

Inputs

- ON/OFF
- Setting temperature
- Capacity demand
- Heating / Cooling operation mode
- Fault information

Outputs

- ON/OFF indication
- Fan ON/OFF indication
- Thermo ON/OFF indication
- Defrost indication
- Fault indication

Modbus Control

Future Release

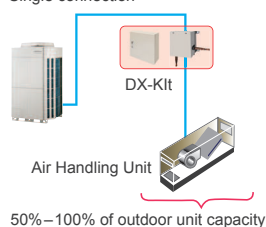
- Possible to control via a Modbus enabled BMS by using optional interface.

Installation Limitation

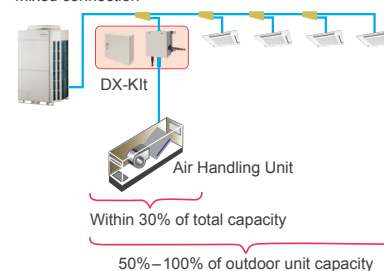
- Connectable VRF series : J-IIS, J-II, V-II, VR-II
- Connectable DX-Kit system capacity range : 50 to 100% of the outdoor unit capacity
- Connectable DX-Kit system capacity range with indoor units : 30% or less of the outdoor unit capacity
- Max. wiring length from control unit : 10 m
- Max. piping length between EEV unit and indoor unit : 5 m
- Outdoor installation : Control unit (IP54 class) and EEV unit can be installed at an outdoor space.

Connectable capacity

• Single connection



• Mixed connection

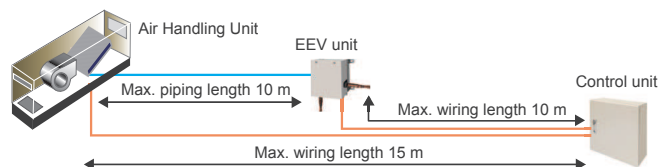


[For 2EEV units connection (option)]

- Separation Tube : UTP-LX180A



Piping and wiring length



Specifications

(Tentative)

Connectable Capacity class			5.0kW	6.3kW	8.0kW	10.0kW	12.5kW	14.0kW	20.0kW	25.0kW	40.0kW	50.0kW
Capacity	Cooling	kW	5.6	6.3	8.0	10.0	12.5	14.0	22.4	25.0	40.0	50.4
	Heating		6.3	7.1	9.0	11.2	14.0	16.0	25.0	28.0	45.0	56.5
Control unit			UTY-VDGX									
Power source		V/Ø/Hz	230 / 1 / 50									
Dimensions (H × W × D)		mm	400 × 400 × 120									
EEV unit			UTP-VX30A			UTP-VX60A			UTP-VX90A		UTP-VX90A×2	
Connection pipe diameter (Liquid)		mm	Ø9.53			Ø12.7			Ø12.7		Ø12.7	
Dimensions (H × W × D)		mm	160 × 220 × 90									

Note : Specifications are based on the following conditions.

Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.

Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.

Pipe length : 7.5 m Voltage : 230 [V].