Efficient heat exchange combined with fresh ventilation

The use of a high-efficiency heat-exchanging process achieves outstanding energy efficiency and quiet operation. The heat-exchanging mode or the normal ventilation mode can be appropriately selected according to the air conditioning requirements of the space to create a comfortable air-conditioned space.
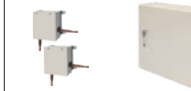
Residential, Commercial & Light Commercial

VENTILATION

VENTILATION Lineup

VENTILATION

Lineup

Airflow rate (m³/h)	250	350	500	800	1000
Energy Recovery Ventilator	UTZ-BD025C	UTZ-BD035C	UTZ-BD050C	UTZ-BD080C	UTZ-BD100C

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 for VRF Outdoor unit	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

Connectable capacity class (kW)	2.5 - 22.0
DX kit for Air handling applications for Single Split Outdoor Units	UTY-XDZX

Energy Recovery Ventilator

The energy recovery ventilator unit provides energy efficiency for comfort and improved savings.

Heat exchange ventilation and normal ventilation

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

Normal ventilation
Used when the indoor space does not require cooling or heating, i.e., when there is little temperature difference between the indoor and outdoor environments.
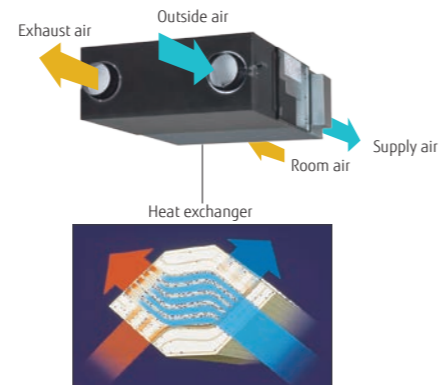
Exhaust air
Outside air
Supply air
Room air
Heat exchanger

A high-efficiency counter-flow heat-exchanging element is used in the setup.

Energy efficiency and ecology

The use of a counter-flow heat-exchanging element, designed to recover up to 77% of heat from the outgoing air, significantly reduces energy consumption. The air conditioning load is reduced by approximately 20%, which results in substantial savings in energy cost.

Comparison of heat-exchanging elements

Air flows in a straight line through a crossflow element. In contrast, air flows for a longer time (a longer distance) through a counter-flow element to achieve more consistent heat-exchanging performance.

Other element
(Cross-flow element)

Fujitsu element
(Counter-flow element)
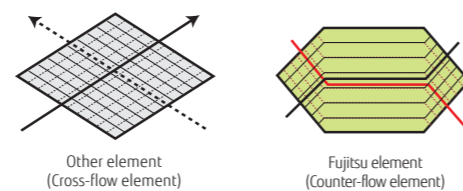
Quiet operation

Significantly lower noise levels are achieved by reducing pressure loss.

25.5dB
(UTZ-BD035C)

Extended range of external static pressure

The use of a powerful fan motor improves the external static pressure. This allows it to be installed in a variety of buildings.
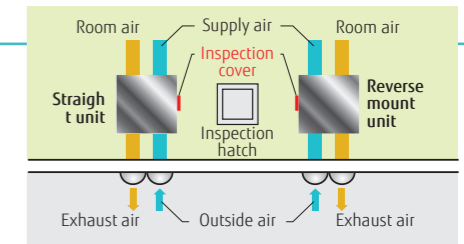
Slim design for easier installation

The use of a counter-flow heat-exchanging element made it possible to design a quieter, slimmer unit.

Height
270 mm
UTZ-BD025C

Height
388 mm
UTZ-BD080C/BD100C

Height
317 mm
UTZ-BD035C/BD050C

Reverse-mountable direct air supply and exhaust system

Simplifies the duct design, due to its straight ducts for air supply and exhaust. Since each unit can be mounted facing opposite directions, only one inspection hole is needed for two units. This makes duct work easier and more flexible.

Room air | Supply air | Room air
Inspection cover
Straight unit
Reverse mount unit
Inspection hatch
Exhaust air | Outside air | Exhaust air

Simple remote operation

Easy operation with connected liquid crystal switch

- Power On/Off
- On/Off Timer
- Air volume High/Low
- Clean filter display
- Heat exchange ventilation and normal ventilation

Model: UTZ-BD025C/UTZ-BD035C/UTZ-BD050C/UTZ-BD080C/UTZ-BD100C

UTZ-BD025C | UTZ-BD035C | UTZ-BD050C | UTZ-BD080C | UTZ-BD100C

Specifications

				250 m³/h	350 m³/h	500 m³/h	800 m³/h	1000 m³/h
Rated flow rate								
Model name				UTZ-BD025C	UTZ-BD035C	UTZ-BD050C	UTZ-BD080C	UTZ-BD100C
Power source				Single phase, ~220 to 240 V, 50 Hz				
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
	Airflow rate	(Extra high)/High/Low	m³/h	250/25/190	350/350/240	500/500/440	800/800/630	1,000/1,000/700
	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
	Sound pressure level	(Extra high)/High/Low	dB*	31.5/30.5/26.5	33.0/31.0/25.5	37.5/35.5/32.5	37.5/37.0/34.5	38.5/37.5/34.5
Normal Ventilation	Input power	(Extra high)/High/Low	W	128/123/96	190/185/168	289/225/185	418/378/295	464/432/311
	Airflow rate	(Extra high)/High/Low	m³/h	250/25/190	350/350/240	500/500/440	800/800/630	1,000/1,000/700
	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	33.0/31.0/25.5	38.5/38.0/32.5	37.5/37.0/34.5	40.5/39.5/36.5
Dimensions	W × D × H		mm	882 × 599 × 270	1,050 × 804 × 317	1,090 × 904 × 317	1,322 × 884 × 388	1,322 × 1,134 × 388
Weight			kg	29	49	57	71	83
Outlet duct diameter			mm	150	150	200	250	250
Operating range			°C	-10 to 40	-10 to 40	-10 to 40	-10 to 40	-10 to 40
Maximum humidity			%	85	85	85	85	85

* Noise level measured 1.5 m below the center of the unit

Dimensions
(Unit: mm)

A
G
H
D
EA
B
C
F
OA
D
E
G
Maintenance space
K
Maintenance opening
Z M
M
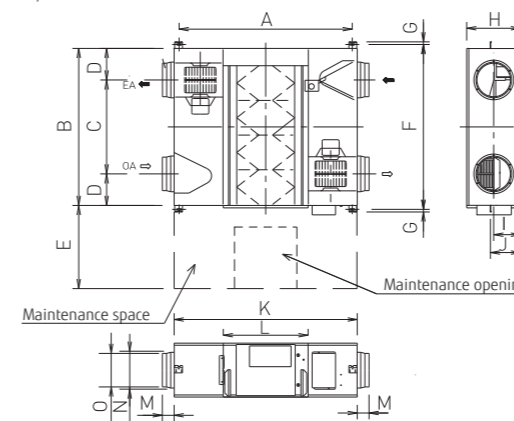
	UTZ-BD025C	UTZ-BD035C	UTZ-BD050C	UTZ-BD080C	UTZ-BD100C
A	810	978	1,018	1,250	1,250
B	599	804	904	884	1,134
C	315	580	640	428	678
D	142	112	132	228	228
E	600	600	600	600	600
F	655	860	960	940	1,190
G	19	19	19	19	19
H	270	317	317	388	388
I	135	159	159	194	194
J	159	182	182	218	218
K	882	1,050	1,090	1,322	1,322
L	414	470	470	612	612
M	95	70	70	85	85
N	Ø164	Ø164	Ø210	Ø258	Ø258
O	Ø144	Ø144	Ø194	Ø242	Ø242

DX kit
for Air handling applications
for VRF Outdoor unit

With these kits, air handling units (AHUs) and fan coil units (FCUs) from other manufacturers can be incorporated into Fujitsu General VRF systems, or one AHU can be connected to one Fujitsu General VRF dedicated outdoor unit to control outdoor ventilation and room temperatures.
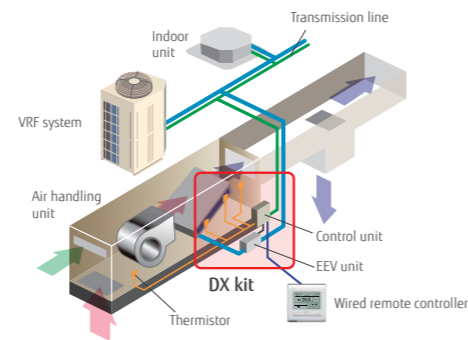
Multiple temperature sensors optimally control an Air handling unit and a fan coil unit.
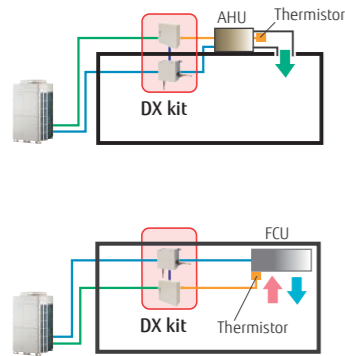
When connected to an Air handling unit, the temperature of supply air is controlled by a discharge air sensor.
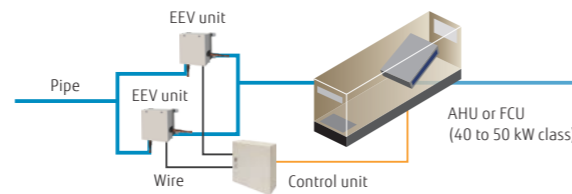
When connected to a fan coil unit, the room temperature is controlled by the discharge air sensor.

Application as part of a VRF system

Supports a wide range of capacity classes

• Two EEV units can be connected in parallel to large-capacity units of up to 20 HP (50 kW). (UTP-LX180A separation tube required)
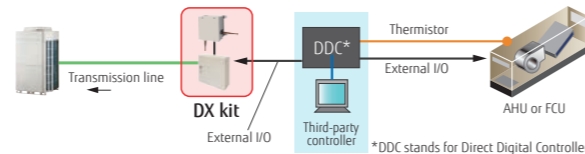• Connectable capacity range: 5 kW to 50 kW

A variety of control options that meet application requirements

Central control enabled by our VRF controllers or central management controllers
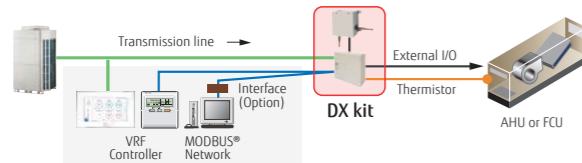
Central control from external controllers

*DDC stands for Direct Digital Controller

Summary of functions

Inputs
• On/Off
• Setting temperature
• Capacity demand
• Heating/Cooling operation modes
• Fault information

Outputs
• On/Off indication
• Fan On/Off indication
• Thermostat On/Off indication
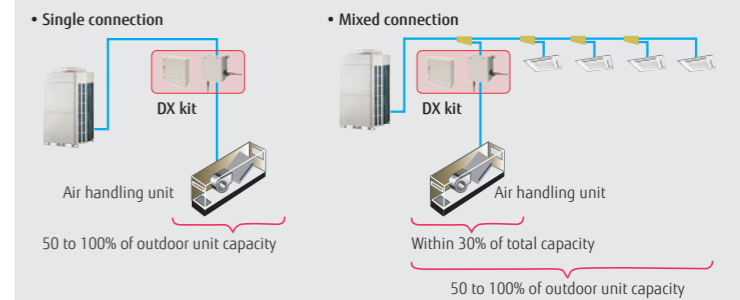• Defrost indication
• Fault indication

MODBUS® Control
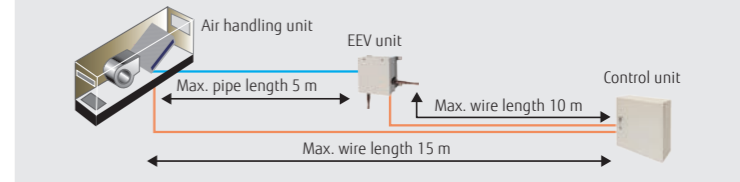Can be controlled via a MODBUS®-enabled BMS using an optional interface.

Installation requirements

• Connectable VRF Series: All VRF Series
• Capacity range of connectable DX kit systems with outdoor units: 50 to 100% of capacity
• Capacity range of connectable DX kit systems with indoor units: 30% or less of capacity
• Max. wire length from a control unit: 10 m
• Max. pipe length between EEV unit and indoor unit: 5 m
• A control unit (IP54 class) and an EEV unit can be installed outdoors.
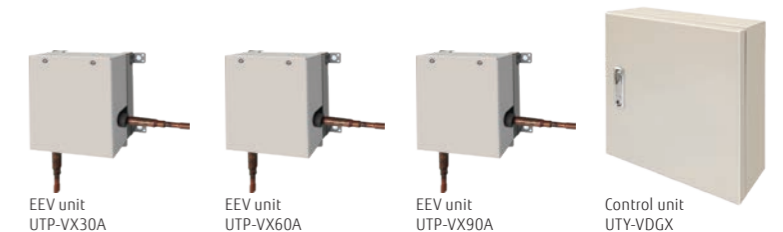
Connectable capacity
• Single connection
50 to 100% of outdoor unit capacity

• Mixed connection
Within 30% of total capacity
50 to 100% of outdoor unit capacity

Optional separation tube to connect two EEV units: UTP-LX180A

Pipe and wire length
Max. pipe length 5 m
Max. wire length 10 m
Max. wire length 15 m

Control unit: UTY-VDGX
EEV unit: UTP-VX30A/UTP-VX60A/UTP-VX90A

EEV unit UTP-VX30A | EEV unit UTP-VX60A | EEV unit UTP-VX90A | Control unit UTY-VDGX

Specifications

Connectable capacity class			5.0 kW	6.3 kW	8.0 kW	10.0 kW	12.5 kW	14.0 kW	20.0 kW	25.0 kW	40.0 kW	50.0 kW
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	Ø12.70	Ø12.70	Ø12.70
Dimensions (H × W × D)		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].

DX kit
for Air handling applications
for Single Split Outdoor Units

With this kit, other manufacturers' Air handling units (AHUs) and fan coil units (FCUs) can be incorporated into Fujitsu General Split outdoor units.

Flexible connectivity

This kit allows connections to third-party equipment. This control unit can also be used in conjunction with Fujitsu General single-split outdoor units, providing a perfect solution when a stand-alone Air handling unit is needed.
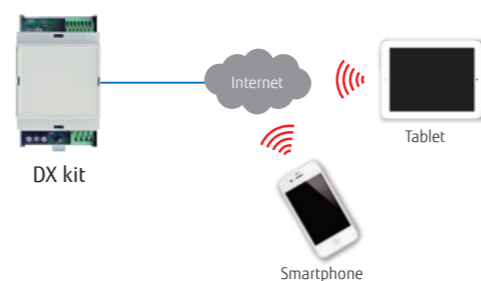
Air handling unit

DX kit

Wire

Thermistor wiring

Outdoor unit

Pipe
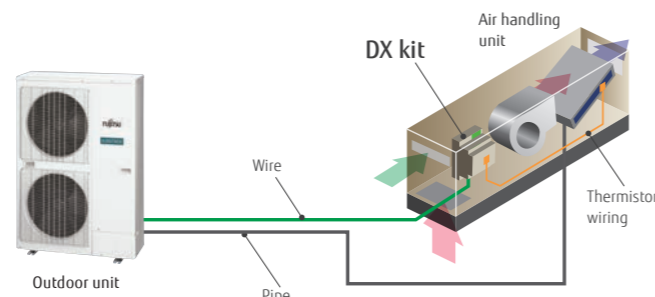
Supports a wide range of capacity classes

Capable of connecting large capacities in the range of 2.5 kW to 22.0 kW (Nominal)

2.5 kW ← → 22.0 kW

Mobile devices allow for operation from anywhere

Can be operated and managed remotely using your smartphone or tablet.

Internet

Tablet

DX kit

Smartphone

Summary of functions

Inputs
- On/Off
- Heating/Cooling operation modes
- Capacity demand (analogue 0 to 10 V)
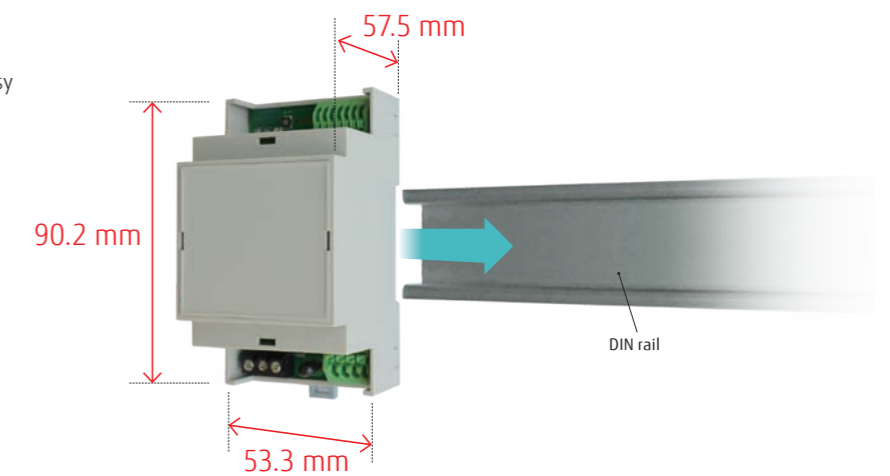- Heat exchanger temperature

Outputs
- Status of Compressor, Defrost, and Errors (Potential free relays)
- Status indicator with LED

Wireless LAN Control
Wireless LAN control through cloud connectivity enables secure remote monitoring and control from anywhere.

Easy installation

- Compact DIN rail mountable enclosure for easy installation
- No expansion devise required
- No separate external power supply required

57.5 mm

90.2 mm

53.3 mm

DIN rail

Model: UTY-XDZX

Specifications

R410A models

BTU			12	14	18	24	30	36	45	54	60	72	90
Capacity (Nominal)	Cooling	kW	3.5	4.3	5.2	6.8	8.5	9.4	12.1	13.3	15.0	19.0	22.0
	Heating		4.1	5.0	6.0	7.8	10.0	10.8	13.3	15.8	18.0	22.4	27.0

R32 models

BTU			09	12	14	18	22	24	30	36	45	54
Capacity (Nominal)	Cooling	kW	2.5	3.5	4.3	5.2	6.0	6.8	8.5	9.4	12.1	13.3
	Heating		3.2	4.1	5.0	6.0	7.0	7.5	10.0	10.8	13.3	15.8

Model name		UTY-XDZX
Power source	V/Ø/Hz	230/1/50
Dimensions (H × W × D)	mm	90.2 × 53.3 × 57.5
Weight	g	110

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: 5.0 m   Voltage: 230 [V].