



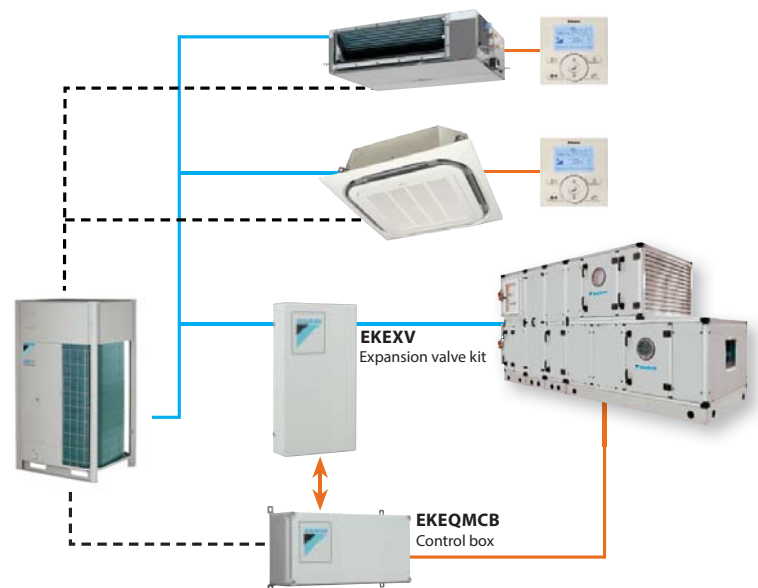
Air handling applications VRV

Daikin air handling units provide high levels of indoor air quality whilst reducing the load on your air conditioning system.

Integrating the AHU with a heat recovery system is highly effective since an office system can frequently be in cooling mode while the outdoor air is too cold to be brought inside in an unconditioned state. In this case heat from the offices is merely transferred to heat up the cold incoming fresh air. In the absence of an AHU this 'free heating' the incoming fresh air would not be possible.

Features and benefits:

- > Inverter controlled units
- > Large capacity range (from 5 to 54HP) heat recovery, heat pump R-410A
- > Control of room temperature via Daikin control
- > Large range of expansion valve kits available
- > BRC1E52A/B is used to set the set point temperature (connected to the EKEQMCB)
- > Connectable to all VRV heat recovery and heat pump systems (see technical data book for detailed requirements)



- piping (2 pipes for heat pumps, 3 pipes for heat recovery upto BS boxes and then 2 pipes to the connecting units).
- - - F1-F2
- other communication

Air handling applications

Daikin offers a range of expansion valve kits and control boxes to connect VRV condensing units to third party air handling units, also connectable to a range of ERQ's, see our Sky Air range for more details.

VRV Capacity table:

EKEXV Class	Allowed heat exchanger capacity (kW)			
	Cooling		Heating	
	Saturated evaporating temperature: 6°C Air temperature: 27°C DB / 19°C WB		Saturated condensing temperature: 46°C Air temperature: 20°C DB	
	Minimum	Maximum	Minimum	Maximum
50	5.0	6.2	5.6	7.0
63	6.3	7.8	7.1	8.8
80	7.9	9.9	8.9	11.1
100	10.0	12.3	11.2	13.8
125	12.4	15.4	13.9	17.3
140	15.5	17.6	17.4	19.8
200	17.7	24.6	19.9	27.7
250	24.7	30.8	27.8	34.7
400	35.4	49.5	39.8	55.0
500	49.6	61.6	55.1	69.3

EKEXV - Expansion valve kit for air handling applications:

Ventilation				EKEXV50	EKEXV63 - EKEXV250	EKEXV400	EKEXV500
Dimensions	Unit	HeightxWidthxDepth	mm	401x215x78			
Weight	Unit			kg			
Sound pressure level	Nom.			dB(A)			
Operation range	On coil temperature	Heating	Min.	°CDB			
		Cooling	Max.	°CDB			
Refrigerant	Type			R-410A			
Piping connections	Liquid	OD	mm	6.35	9.52	12.7	15.9



(1) The temperature of the air entering the coil in heating mode can be reduced to -5°CDB. Contact your local dealer for more information. (2) 45% Relative humidity.

EKEQ - Control box for air handling applications

VENTILATION				EKEQFCBA	EKEQMCBA
Application				Multi	
Outdoor unit				VRV	
Dimensions	Unit	HeightxWidthxDepth	mm	132x400x200	
Weight	Unit			kg	
Power supply	Phase/Frequency/Voltage			Hz/V	



Controls

	OPTION KIT	FEATURES
Possibility w	EKEQFCBA	DDC controller is required temperature control using air suction or air discharge temperature
Possibility x		DDC and Microtech controller is required Precise Temperature control using air suction on air discharge temperature
Possibility y		Using fixed evaporating temperature, no set point can be set using remote control
Possibility z	EKFQMCBA*	Using Daikin infrared remote control BRC1D52 or BRC1E52A/B Temperature control using air suction temperature

* EKEQMCB (for 'multi' application)

Possibility Z (Ts/Tr) control:

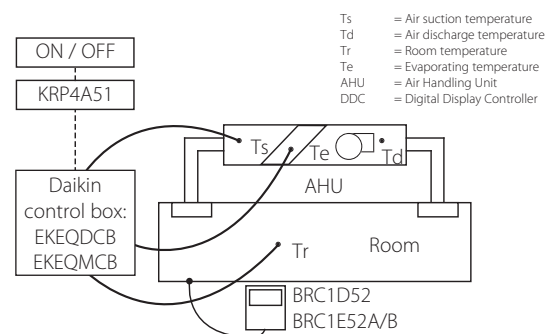
Using Daikin infrared remote control (BRC1D52 or BRC1E52A/B - optional)

Set point can be fixed via standard Daikin infrared remote control.

Remote ON/OFF can be achieved by an optional adapter KRP4A51.

No external DDC controller should be connected.

The cooling load is determined from the air suction temperature and set point on the Daikin controller.



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