



JMI-0107



JQA-1452

About ISO 9001

ISO 9001 is a plant certification system defined by the International Organization for Standardization (ISO) relating to quality assurance. ISO 9001 certification covers quality assurance aspects related to the "design, development, manufacture, installation, and supplementary service" of products manufactured at the plant.



EC99J2044

About ISO 14001

ISO 14001 is the standard defined by the International Organization for Standardization (ISO) relating to environmental management systems. Our group has been acknowledged by an internationally accredited compliance organisation as having an appropriate programme of environmental protection procedures and activities to meet the requirements of ISO 14001.

NOTE

- Ask an authorized Daikin dealer to install Daikin products. Do not try to install the product yourself or get it installed by any unauthorized dealer. Improper installation can result in water or refrigerant leakage, electrical shock, fire or explosion. Warranty of the product shall be void if not installed by an authorized Daikin dealer.
- Use only those part and accessories supplied or specified by Daikin. Ask authorized Daikin dealer for any repair or components. Warranty of the product/component shall be void if not specified spares are used or repaired by a non Daikin dealer.
- Please ensure to install ELCB (Earth Leakage Circuit Breaker) for outdoor units to prevent ground fault effect. For details, please refer Note 7. Field wiring of page 10 in installation manual which comes along with the product.

For any inquiries, either call the number mentioned below or contact your Daikin dealer.



"Daikin products mentioned in this brochure comply with RoHS regulations as per E-waste (Management & Handling) Rules, 2011 and should not be mixed with general household waste at the end of their useful life. For more details kindly visit our website www.daikinindia.com or contact our customer care centre at 1800 102 9300 / 1800 22 9300."

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.

As a continuing policy of product innovation at Daikin, the design and specifications are subject to change without prior notice. The visuals of the products in the brochure are representative only, actual products might differ from the ones shown. Sales revenue includes revenue through sales of all Daikin Airconditioning Systems. World's no.1 position based on internal assessment of total sales revenue for 2012/13.

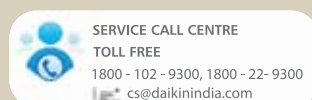
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Everywhere with you.

**VRV INTEGRATION WITH
AHU FOR SPECIAL APPLICATIONS**



THE WORLD'S NO.1 AIRCONDITIONING COMPANY FROM JAPAN

VRV III - DEVELOPED TO FACILITATE MORE FLEXIBLE SYSTEM DESIGN IN LARGE-SIZED BUILDINGS

VRV AIR HANDLING APPLICATIONS

Daikin's constant efforts have been devoted towards using the latest and most revolutionary technologies in the development of the VRV III system for large-sized buildings. The system offers larger outdoor capacities, greater energy savings, easier installation, longer actual and total piping and more.

With Daikin's proprietary inverter technology and cutting-edge control technology for refrigerant, the VRV III Airconditioning system operates with outstanding efficiency. This contributes to high energy savings, thereby greatly reducing the running costs and facilitating better building management.

To provide a comfortable air environment, Daikin offers air treatment systems beyond mere airconditioning. As well as bringing air to a comfortable temperature, the air quality can be treated with ventilation, humidification and other processes. Ease of use is realized through advanced, centralized control system.

GROUNDBREAKING TECHNOLOGY HAS BEEN APPLIED TO VRV

Compressor

- Variable speed inverter compressor
- Scroll compressor with relief mechanism
- Contact-less scroll compressor
- Hydraulic thrust force control
- Reluctance DC motor (IPM (Inner Permanent Magnet) synchronous motor)
- Neodymium magnet
- Sensor-less DC inverter
- Sine wave inverter
- Less suction pressure loss discharge gas compressor motor cooling



Heat exchanger

- Sub cool circuit for longer piping
- e-Pass cooling pipe location

Refrigerant circuit

- Oil recovery control logic

For small to large commercial spaces, Daikin offers a range of R410A VRV Condensing Units for use in conjunction with Air Handling Units. In situations where Daikin commercial range ventilation units cannot satisfy the ventilation requirement due to building constraints (large atriums, banquet halls, etc.) AHUs represent the ideal solution.

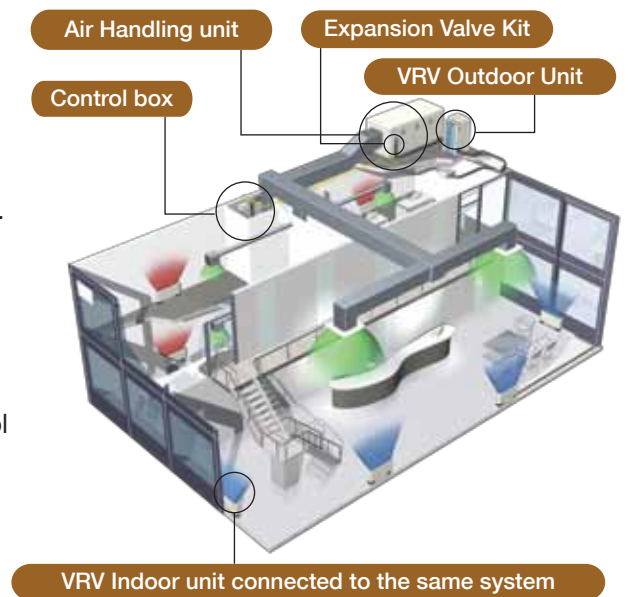
AHUs provide large fresh air volumes (>1,000 m³/h) and high ESPs enabling the use of extensive ductwork runs.

AHU – Perfect solution for your larger needs. Integrate your AHU in a total solution for your shop or office building.

VRV/Heat Pump

- Inverter controlled units
- Integrates in all VRV and heat pump systems up to 54 HP
- Control of air temperature via standard Daikin wired remote control
- Large range of expansion valve kits available

For more information on VRV units, refer to the VRV catalogue



BENEFITS

High comfort levels

Daikin VRV units respond rapidly to fluctuations in supply air temperature, resulting in a steady indoor temperature and resultant high comfort levels for the end user.

Easy design and installation

The system is easy to design and install since no additional water systems such as boilers, tanks and gas connections, etc. are required. This also reduces the total system cost.

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.

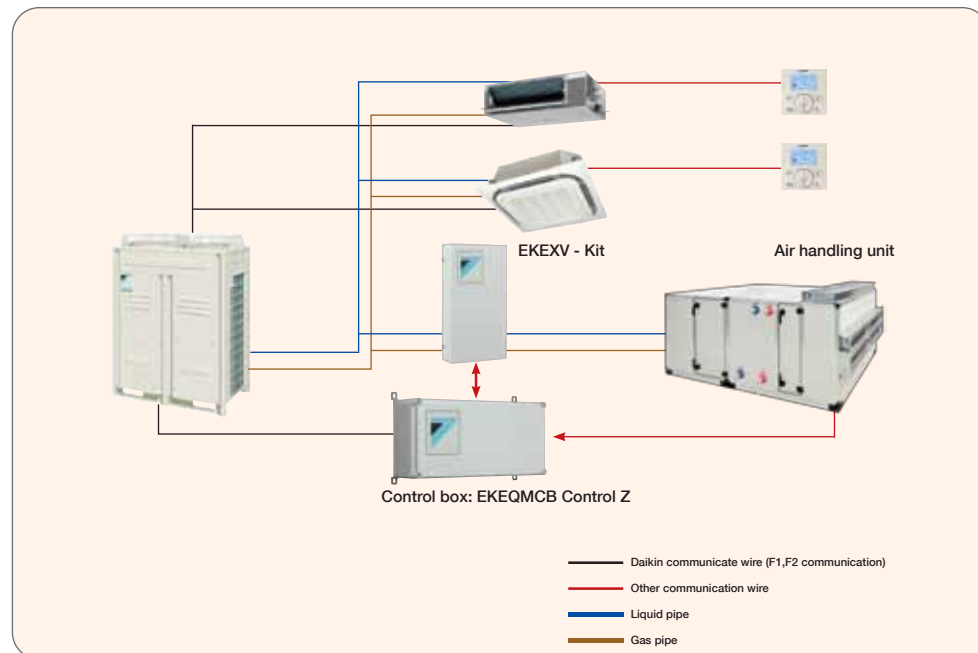
ODU LINEUP

System	Type	4	5	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54
Cooling capacity (Kw)		11.2	14.0	15.5	22.4	28.0	33.5	40.5	45.0	49.0	55.9	61.5	67.0	71.4	77.0	82.5	89.0	94.0	98.0	105.0	111.0	116.0	120.0	126.0	132.0	138.0	143.0	147.0
Heating capacity (Kw)		12.5	16.0	18.0	25.0	31.5	37.5	45.0	50.0	56.5	62.5	69.0	75.0	81.5	88.0	94.0	102.0	107.0	113.0	119.0	126.0	132.0	138.0	145.0	151.0	158.0	163.0	170.0
Air-cooled VRV	Heat pump																											

■ Available

MULTI APPLICATION: VRV

CAUTION & REMARKS

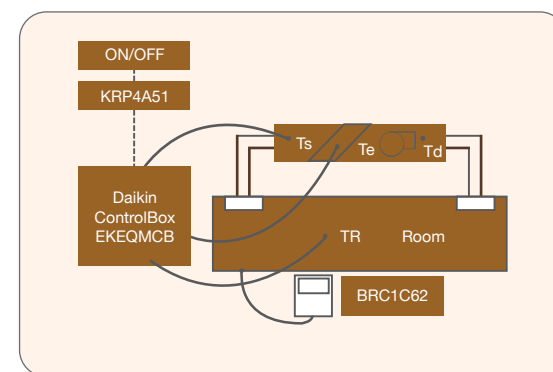


Note: When AHU Suction Air is using fresh air and standard indoor units are connected, in such case the connection proportion of the AHU in the mix of AHU+IDU must not exceed 30%.

CONTROLLING SYSTEM

Set point can be fixed via standard Daikin wired remote controller. Remote ON/OFF can be achieved by an optional adaptor 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.

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



SELECTION OF EXV KIT

Select required capacity of the AHU

Based on the required capacity of the AHU select the expansion valve e.g. if the required capacity of the AHU is 6.9kw in cooling, which lies between 6.3 and 7.8, the EKEXV63 can be selected.

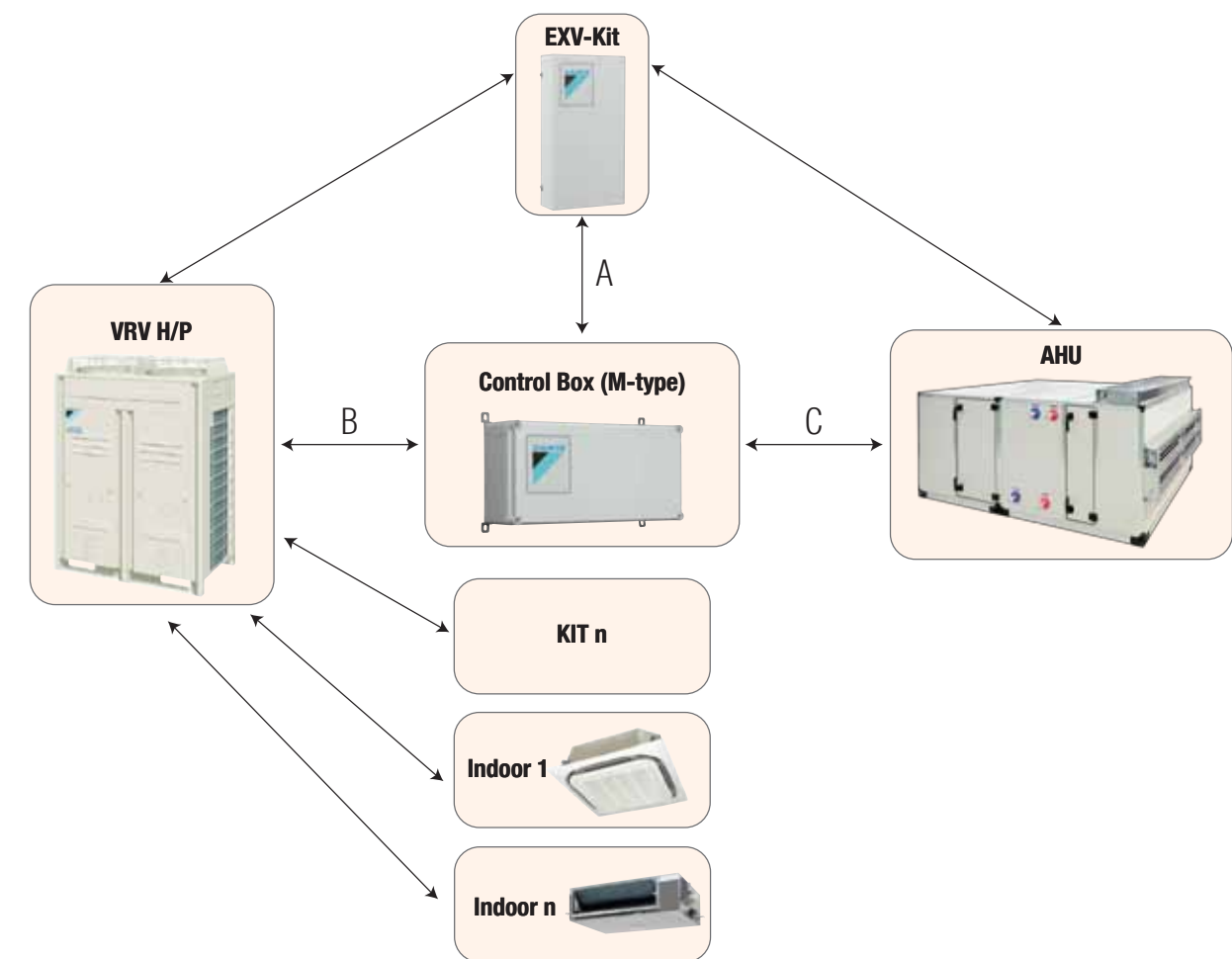
EKEXV CLASS	Allowed heat exchange capacity in cooling (KW)			Allowed heat exchange capacity in heating (KW)		
	Minimum	Standard	Maximum	Minimum	Standard	Maximum
50	5.0	5.6	6.2	5.6	6.3	7.0
63	6.9	7.1	7.8	7.1	8.0	8.8
80	7.9	9.0	9.9	8.9	10.0	11.1
100	10	11.2	12.3	11.2	12.5	13.8
125	12.4	14.0	15.4	13.9	16.0	17.3
140	15.5	16.0	17.6	17.4	18.0	19.8
200	17.7	22.4	24.6	19.9	25.0	27.7
250	24.7	28.0	30.8	27.8	31.5	34.7

EKEXV: Expansion valve kit EKEQ: Control box

Caution for options

- If you need to connect the system to DIII-net devices (Intelligent Touch Controller, Intelligent Touch Manager, LONWORKS interface, BACnet interface...) please consult Daikin Engineering Team before designing.
- Only use the EKEQ, EKEXV in combination with an AHU. Do not connect this system to other indoor units

Allowable lengths and heights



Communication		
B	C	A
≤ 100 m	≤ 20 m	≤ 20 m

