



Rapid News – product info

Marketing Department • Daikin Europe N.V.
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CONFIDENTIAL INFO – FOR INTERNAL USE ONLY

Rapid news number: RNPI23-024 – Product (literature) info – VRV – Launch of new DX kits for connection with AHUS (EKEA_EKEXVA)
Date: 10-May-23
From: Commercial DX SBU
Pages: 7

FCD-0951 rev. 3

1. Background:

- ✓ Allow the combination of DX Kits for AHUs with VRV 5 systems;
- ✓ Extend our capacity range to enhance flexibility;
- ✓ Upgrade the existing control logics currently offered, expanding the use of DX systems with AHUs.

2. What has changed:

- ✓ Full compatibility with VRV IV⁺ and VRV 5
- ✓ Additional capacity classes for the expansion valve kits (300, 350 & 450)
- ✓ Additional Z' control logic: Discharge air temperature

3. Timing:

Mass production: September 2023
Sales Launch: October 2023



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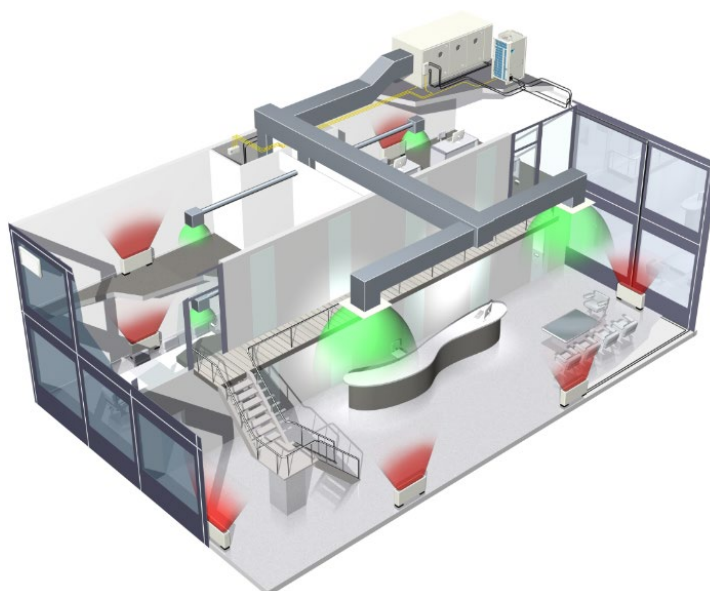
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Dear Madam / Sir,

Hereby we would like to officially announce the launch of the new range of DX kits for connection with Air Handling units.

By means of this Rapid News, we would like to give you some additional information on the following:

- I. Background
- II. Base principle
- III. Range and Material/Product Names
- IV. Combination overview
- V. Specifications
- VI. Options and accessories
- VII. Availability



I Background

It's important, in order to understand the application of these kits, the relevance of fresh air in the air quality of indoor spaces. Contrary to common misconceptions, actually indoor air spaces can be far more polluted than outdoor one's.



Low Pollution Level



High Pollution Level

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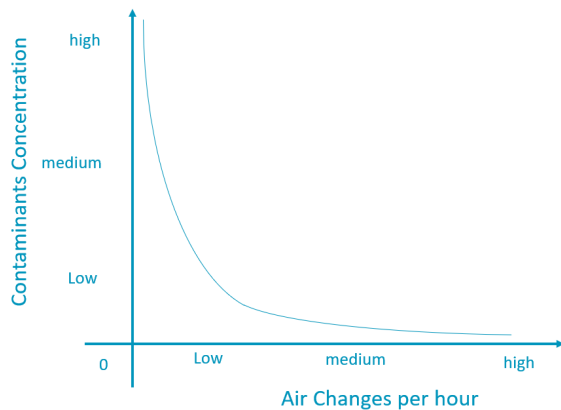
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If we take into consideration spaces with no ventilation, we can observe an increase of different particles and respiratory droplets in the room, due to the absence of an active ventilation system or no windows opened to allow fresh air circulation.



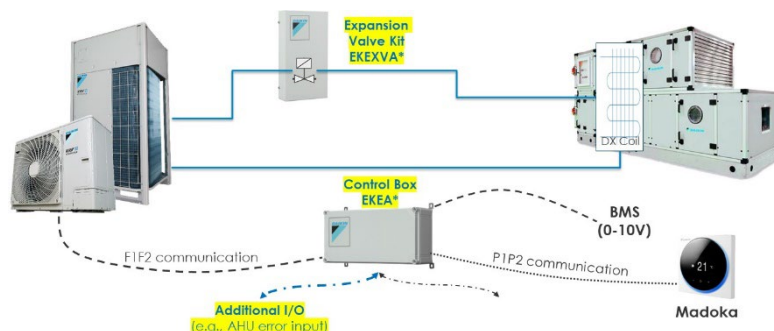
Additionally, without a proper fresh air ventilation, also CO₂ concentration level will be high and above the maximum recommended level

When a solution with ventilation is implemented and fresh air is delivered into to building, we can observe less concentration of the different pollutants.

Also, the CO₂ level is reduced improving IAQ and decreasing the risk of contaminations from the occupants.

II Base principle

The DX kits – Expansion Valve (EKEXVA*) and Control box (EKEA*) – allows you to connect a Daikin VRV or ERQ unit into a centralized fresh air application such as an AHU.



Thanks to this you can take full benefit in your fresh air application of Daikin's heat pumps renowned high energy efficiency, enhanced comfort levels thanks to our DX systems fast response to changing loads and all of this in cost saving, easy to design and install manner, since no additional elements such as boilers, tanks and gas connections etc. are required.

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III Range and Material/Product Names

Description		Product name	Material name
Control box	NEW	EKEACBVE	EKEACB
		EKEXVA50	EKEXVA50
Expansion valve kits		EKEXVA63	EKEXVA63
		EKEXVA80	EKEXVA80
		EKEXVA100	EKEXVA100
		EKEXVA125	EKEXVA125
		EKEXVA140	EKEXVA140
		EKEXVA200	EKEXVA200
		EKEXVA250	EKEXVA250
	NEW	EKEXVA300	EKEXVA300
	NEW	EKEXVA350	EKEXVA350
		EKEXVA400	EKEXVA400
	NEW	EKEXVA450	EKEXVA450
		EKEXVA500	EKEXVA500

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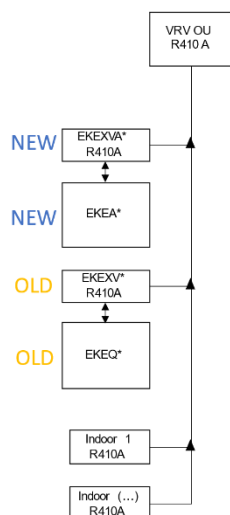
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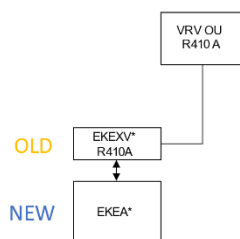
IV Combination overview

	OLD (R10A Only)				NEW (unified R410A / R32)	
	Control box Pair		Control box Multi	Expansion valve kits	control box UNIFIED	Expansion valve kits
	EKEQDCB	EKEQFCBA	EKEQMCBA	EKEXV***		
ERQ*	OK	OK	NG	OK	OK	OK
VRV IV	NG	OK	OK	OK	OK	OK
VRV 5	NG	NG	NG	NG	OK	OK

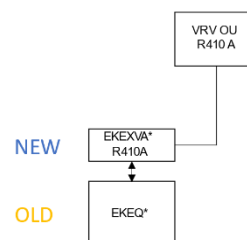
Scenario 1



Scenario 2



Scenario 3



Note: For detailed combination please consult relevant documentation (installation manual and Data books)

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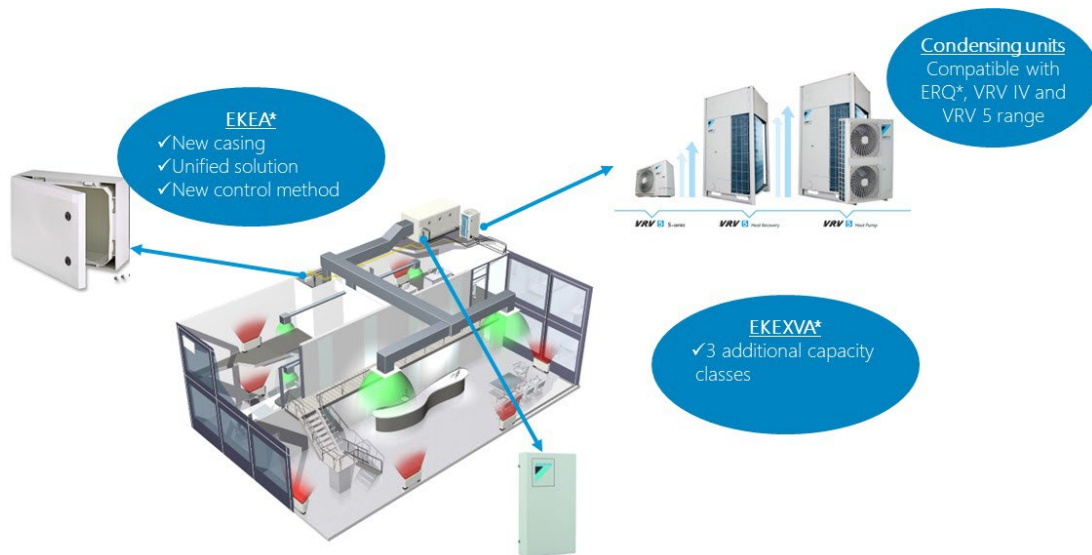
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V Specifications

The base principles of how the DX kits are working and should be selected and installed are the same comparing to the previous generation, with the addition of the following new features:



- ✓ Expanded control types:
 - W: 0~10 V Absolute control: 0V= 0% , 10 V = 100% capacity
 - X : 0~10 V Relative control : 5 levels of settings in function of difference between the setpoint and measured temperature (suction, discharge or Room temp.)
 - Y: Fixed Te/Tc
 - Z: Suction air temperature
 - New Z': Discharge air temperature
- ✓ New control box has been unified from 3 different models to only 1 (including all control types : W/X/Y/Z/Z')
- ✓ New Compatible with both VRV IV (R410A) & VRV 5 (R32)
- ✓ New Control box compatible with both 50 Hz & 60 Hz power input
- ✓ New Extended ambient temperatures from -20°C ~ 52 °C.
- ✓ Compliant to GKA207-X and IEC 60335-2-40 ed. 7.
- ✓ New Lower the limit of connection ratio for pair applications.
- ✓ New 3 additional capacity classes for the EKEXVA kits (300, 350 & 450)
- ✓ New Extend number of field connections from 28 → 37

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- ✓ **New** Simplified wiring method for multiple control boxes serving interlaced coils thanks to the introduction of the master/slave logic.

More details will be available on the Pre-sales package and relevant documentation.

VI Options and accessories

		control box - UNIFIED
		EKEACBVE
Standard (OLD)	BRC1D528	NG
Stylish - language version 1	BRC1E52A7	NG
Stylish - language version 2	BRC1E52B7	NG
Simplified - (with 'mode')	BRC2E52C7	NG
Simplified - (without 'mode')	BRC3E52C7	NG
Madoka Controller - EU	BRC1H52*	OK
Madoka Controller - DAME	BRC1H82*	OK
Modbus interface DIII	EKMBDXA7V1	OK
ITM II	DCM601A51	OK
Remote indoor sensor	KRCS01-1	OK

VII Availability

Range	Mass Production	Sales Launch
EKEACB	Sept. 2023	Oct. 2023
EKEXVA*		



Note: A phase-in/phase-out period of about 6 months is foreseen, please ensure that in case you have public tenders or already negotiated orders with the old kits that you have them allocated in the system.

Sincerely yours,

VRV SBU

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