DZK and FXMQ-PBVJU

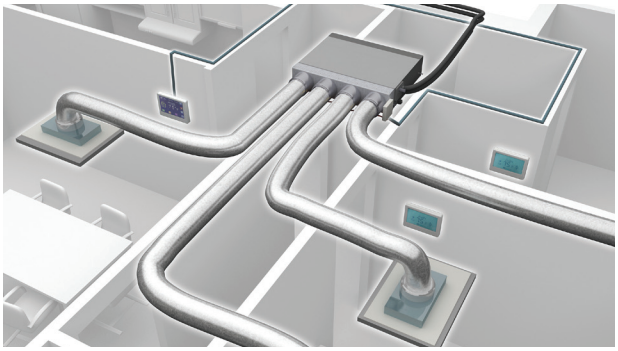
DAIKIN

DZK
DAIKIN ZONING KIT

COMBINED WITH
DC-DUCTED CEILING UNIT

ENERGY-INTELLIGENT™ HEATING AND COOLING SYSTEMS

The Daikin Zoning Kit (DZK)

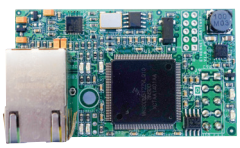


The optional DZK increases the flexibility of the Daikin VRV and SkyAir systems in both residential and commercial applications by adding a Zoning Box to an indoor unit fan coil (FXMQ_P or FBQ_P series, respectively) allowing several separate ducts to supply air to different individually-controlled zones. A zone can be a room, part of room, or several rooms. This flexible and scalable Zoning Kit integrates seamlessly with the indoor unit fan coil controls.

The DZK system controls work together with the regular Daikin zone controller (i.e. BRC1E73) to establish the required set-point, fan speed and mode of operation that is then requested to the VRV indoor unit via the Daikin zone controller. This allows the internal DZK control algorithms to look at the number of zone dampers in operation, and at what position the dampers need to be and adjust the VRV indoor unit operation accordingly.

The DZK system is not directly compatible with the suite of Daikin centralized control options such as iTM and iTC.

DZK BACnet® Gateway Module NEW



If VRV systems are installed with the DZK system to accomplish a variety of zoning solutions and there is a requirement to be able to monitor and control the various DZK zone dampers from a centralized control system, it is possible to utilize the DZK BACnet Gateway module to address this solution.

The DZK BACnet Gateway module will work with any BACnet/IP compatible Building Management System.

Zoning Box with Control Board

The Zoning Box in the DZK mounts easily on Daikin's Indoor Unit FXMQ_P or FBQ_P series fan coils. It consists of the enclosure, individually motorized dampers, and a control box. It is available in different sizes and damper configurations and by utilizing ducts for air supply it can be used to control the air temperature in up to 6 zones. The wired thermostat and the wireless thermostats provide temperature inputs and user interfaces for programming and adjustment of the control functions for each zone.

Wireless Thermostat

The wireless backlit touch-screen thermostat in the DZK can control the temperature for a zone while displaying the air temperature, system time, and day of the week. Additional functions include adjusting set point temperature, automatic configuration, local ventilation activation, and vacation mode.

A wireless thermostat is required for zones not being controlled by a wired thermostat.

Wired Thermostat

The wired thermostat in the DZK is a graphical colored, touch-screen interface with text menus, intuitive icons, and guided scheduling capability. It displays temperatures and operating values, and selects the operating mode for the system. At least one wired thermostat is required per DZK.

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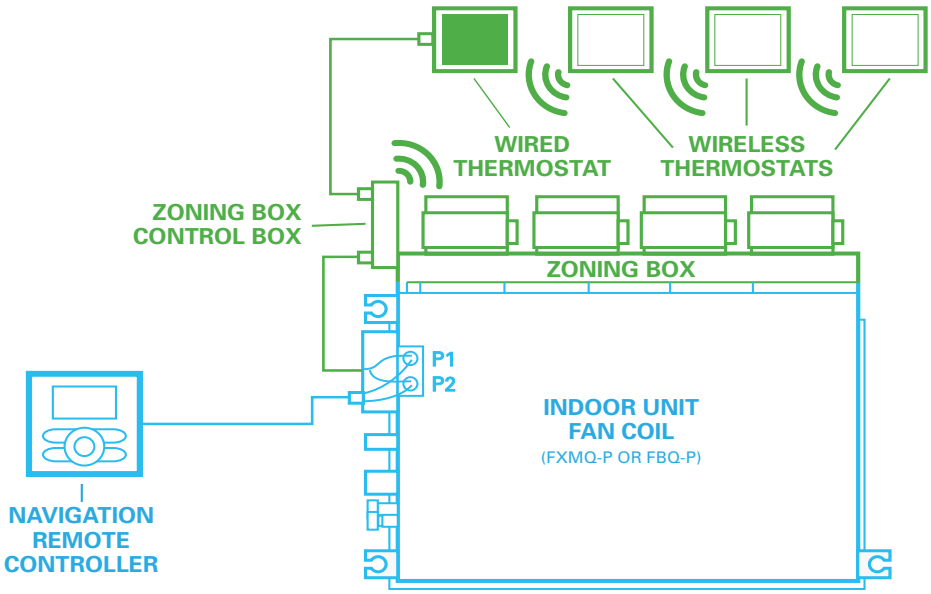
Typical Zoning Kit Configuration — 4 Zones



DZK Kit Structure and General Technical Data

	Zoning Box with Control Board				Wired Thermostat	Wireless Thermostat	BACnet® Gateway	Heat Pump Changeover Master
DZK Product Number	DZK030E4, DZK030E4-2*	DZK030E5, DZK030E5-2*	DZK048E4, DZK048E4-2*	DZK048E6, DZK048E6-2*	DZK-MTS-1-W, DZK-MTS-2-W*	DZK-ZTS-1-W, DZK-ZTS-2-W*	DZK-BACNET-2*	DZK-CM-1
KIT STRUCTURE								
Compatible with Indoor Unit Fan Coils FXMQ15-24PBVJU FBQ18-30PVJU	Yes		No		Yes			
Compatible with Indoor Unit Fan Coils FXMQ30-54PBVJU FBQ36-42PVJU	No		Yes		Yes			
Number of Zones Compatibility	Maximum 4	Maximum 5	Maximum 4	Maximum 6	-	-	-	-
Number of Air Duct Outlets x Diameter (")	4 x Ø8	5 x Ø6	4 x Ø8	6 x Ø6	-	-	-	-
Required Quantity	One Per Indoor Unit Fan Coil DZK030E4-2 Required for BACnet/IP	One Per Indoor Unit Fan Coil DZK030E5-2 Required for BACnet/IP	One Per Indoor Unit Fan Coil DZK048E4-2 Required for BACnet/IP	One Per Indoor Unit Fan Coil DZK048E6-2 Required for BACnet/IP	Minimum One Per Indoor Unit Fan Coil DZK-MTS-2-W Required for BACnet/IP	Number of Zones Minus Number of Wired Thermostats DZK-ZTS-2-W Required for BACnet/IP	One Per DZK Zoning Box with BACnet/IP	One Per VRV HP System, if 2 to 16 DZK Units (without BACnet) in the Same VRV System
TECHNICAL DATA								
Height (")	10.43				3.58		1.6	1.75
Width (")	43.58		53.46		4.13		2.7	2.32
Depth (")	10.43				0.94		1.2	0.67
Weight (lbs)	18.04	20.24		23.32	0.4	0.46	0.063	0.065
Input Voltage	110/230 VAC				12 VDC, from Zoning Box	2 AAA Batteries	12 VDC, from Control Board	12 VDC, from Zoning Box
Full Load Amps (A)	0.25				-	-	-	-

* "-2" in the Product Number indicates that the product has BACnet/IP functionality.
For configuration of DZK systems with BACnet/IP functionality, only Product Numbers ending with "-2" or "-2-W" can be used. For configuration of DZK systems without BACnet, either products with, or without, the BACnet functionality can be used, even "mix and match".

DC-Ducted Ceiling Unit

Powerful, Concealed, Flexible

When combined with the DZK, the ceiling mounted DC-Ducted unit is ideal for small to large spaces in need of a concealed air-conditioning system. It is extremely powerful and the compact design allows it to be completely concealed. This makes it perfect for retail, classrooms, offices, banks, restaurants, shops and hotels common areas.

Features and Benefits

- Capacity range up to 54 MBH.
- Energy efficient due to the DC fan motor
- Ideal to use together with the optional Daikin Zoning Kit, DZK
- Configurable auxiliary heater control logic
- Advanced economizer control logic
- Enhanced indoor air quality and LEED ready with MERV 13 filter options
- Ease of installation with auto adjusting airflow at commissioning based on external static pressure
- Flexible ductwork design with ESP capabilities up to 0.8" W.G.
- Installation flexibility with a low profile, compact design at less than 12" in height
- Easy maintenance with complete service access from below
- Option to permanently turn off the condensate pump via field settings

Auto Adjust External Static Pressure

- After installation, it is possible that the actual duct resistance is lower than expected at the time of designing. As a consequence, the air-flow will be too high.
- With the automatic air-flow adjustment function the unit can adapt its fan speed to a lower curve, so the air-flow decreases.
- The air-flow will always be within 10% of the rated air-flow because of the amount of possible fan curves (more than 8 fan curves available per model).

Condensate Pump as Standard

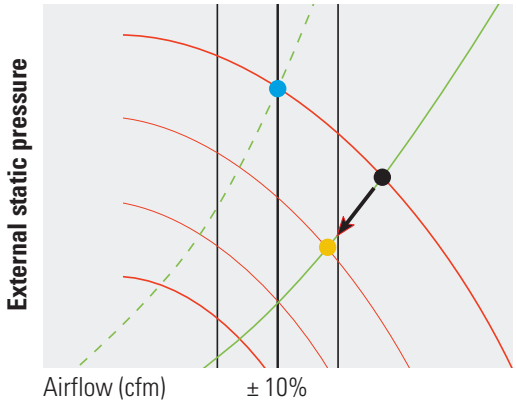
Outside Air Integration Possible

BRC1E73 (option)

BRC2A71 (option)

BRC4C82 (option)

Auto Adjust External Static Pressure



Additional information

Before purchasing this appliance, read important information about its estimated annual energy consumption, yearly operating cost, or energy efficiency rating that is available from your retailer.

FXMQ-PBVJU SPECIFICATIONS			0.6 TON	0.75 TON	1.0 TON	1.25 TON	1.5 TON	2.0 TON	2.5 TON	3.0 TON	4.0 TON	4.5 TON
Model Name			FXMQ07PBVJU	FXMQ09PBVJU	FXMQ12PBVJU	FXMQ15PBVJU	FXMQ18PBVJU	FXMQ24PBVJU	FXMQ30PBVJU	FXMQ36PBVJU	FXMQ48PBVJU	FXMQ54PBVJU
Power Supply		V/ph/Hz	208-230/1/60									
Rated Cooling Capacity		BTU/h	7,500	9,500	12,000	15,000	18,000	24,000	30,000	36,000	48,000	54,000
Rated Heating Capacity		BTU/h	8,500	10,500	13,500	17,000	20,000	27,000	34,000	40,000	54,000	60,000
Airflow Rate (H/M/L)		CFM	317/264/229		450/410/388	560/530/500	635/582/529	688/618/565	1,094/953/812	1,130/953/812	1,377/1,165/988	1,624/1,377/1,130
Height		in.	11-3/16									
Width		in.	21-5/8		27-9/16	39-3/8			55-1/8			
Depth		in.	27-9/16									
Condensate Pump Lift		in.	18-3/8									
Sound Pressure (H/M/L)		dB(A)	33/31/29		39/37/35	40/38/37	41/39/37	42/40/38	43/41/39		44/42/40	46/45/43
Condensate Pipe Connection		in. O.D.	1-1/4									
Pipe Connections	Gas	in.	1/2 (Flare)			5/8 (Flare)						
	Liquid	in.	1/4 (Flare)			3/8 (Flare)						
Refrigerant			R-410A									
Refrigerant Control			Electronic Expansion Valve									
Maximum Overcurrent Protective Device		A	15									
Minimum Circuit Amps		A	0.6		1.4	1.5	1.6	1.8	2.8	2.9	3.4	
Protection Devices			Fuse and Fan Driver Overload Protector									
External Finish			Galvanized Steel Plate									
External Static Pressure (H/L)		in. W.G.	0.40/0.12			0.80/0.20						0.56/0.20

MERV 13 Filter Kit Option contains a MERV 13 filter, adapter frame and easy to follow installation instructions and can be installed on the following models only:

Kit Model	Indoor Unit
DACA-FXMQ12131K	FXMQ07-09PBVJU
DACA-FXMQ14131K	FXMQ12PBVJU
DACA-FXMQ30131K	FXMQ15-24PBVJU
DACA-FXMQ48131K	FXMQ30-54PBVJU

ENTHALPY ECONOMIZER (FIELD APPLIED ACCESSORY)

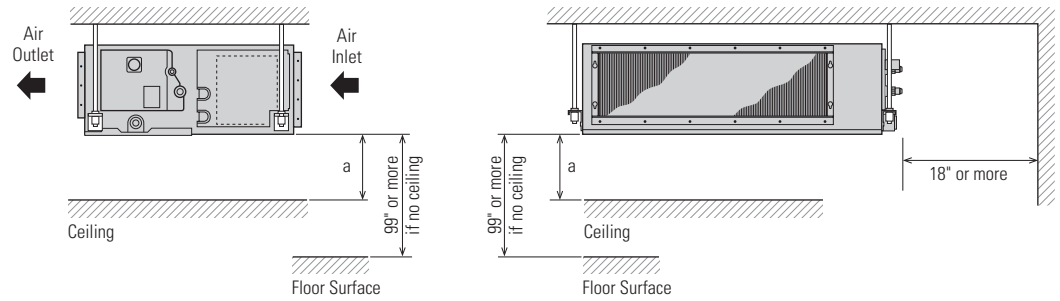
Model	Indoor Unit
ECONMQ12P-8-1K (MERV 8 Filter)	FXMQ07-09PBVJU
ECONMQ12P-13-1K (MERV 13 Filter)	
ECONMQ30P-8-1K (MERV 8 Filter)	FXMQ15-24PBVJU
ECONMQ30P-13-1K (MERV 13 Filter)	
ECONMQ48P-8-1K (MERV 8 Filter)	
ECONMQ48P-13-1K (MERV 13 Filter)	FXMQ30-54PBVJU

FXMQ-PBVJU ACCESSORIES

Model Name	FXMQ07PBVJU	FXMQ09PBVJU	FXMQ12PBVJU	FXMQ15PBVJU	FXMQ18PBVJU	FXMQ24PBVJU	FXMQ30PBVJU	FXMQ36PBVJU	FXMQ48PBVJU	FXMQ54PBVJU
Navigation Remote Controller*	BRC1E73									
Simplified Wired Remote Controller*	BRC2A71									
Wireless Remote Controller	BRC4C82									
Remote Sensor Kit	KRCS01-4B									
Wiring Adapter PCB (interface with aux/ primary heater, humidifier, OA damper/fan)	KRP1C74									
Group Control Adapter PCB (connects to external BMS)	KRP4A71									

*Optional face plates available to provide a more intuitive user interface and disable specific functions

FXMQ-PBVJU INSTALLATION SPACE



a = 12" or more if one inspection hatch (17-3/4" x 17-3/4") on the control box side and a space of 11-13/16" or more under the unit.

a = 1" or more if an inspection hatch the size of the indoor unit plus an additional 12" or more on the control box side is installed.