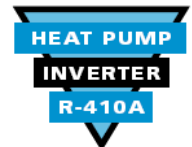


Date: July 24, 2010
To: Daikin Sales, Service and Distribution
Subject: FTQ_PAVJU / RZQ_PVJU9 - New Inverter Unitary Ducted System

Daikin AC is pleased to announce the launch of the Daikin FTQ_PAVJU / RZQ_PVJU9 Inverter Unitary Ducted System. The new FTQ/RZQ system is aimed at the residential market as an energy efficient alternative or replacement for a standard split system or gas furnace. This system offers wide application flexibility with optional horizontal right configuration and optional electric heat coupled with new control logic. Sales availability of the New Inverter Unitary Ducted System is end of July 2010.



Features

- Combines a traditional style split system air handling unit with Daikin's energy efficient inverter compressor, fan and control technology
- High efficiency cooling with up to SEER 18.15
- Energy Star Tier II rated and qualifies for \$1,500 tax credit
- High efficiency heating with up to HSPF 8.92
- Ability to provide heat in ambient conditions as low as 0°F
- Unmatched heating capabilities with up to 100% capacity available at 14°F WB
- Increased application flexibility with long piping capability (165ft) and compact outdoor unit
- Outdoor unit sound levels as low as 48dB(A) as compared to traditional unitary condensers
- Reduced installation time with integrated electronic expansion valve and printed circuit boards
- Reduced piping costs with small piping diameters (3/8"x5/8")
- Wide application range with dual voltage 208-230V/1/60Hz power supply
- Both upflow and horizontal right installation is permitted
- Increased application flexibility with optional electric resistance heat (see pages 6-7 for details)
- Improved user comfort with 2 selectable fan speeds (H and L)
- Fan "Auto" logic allowing the unit to be commissioned where the fan operation will cycle on and off with the load. Heating and Cooling Fan Auto mode can be configured separately



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- The ECM Fan Motor as standard contributes to an increase in energy efficiency, reduction in sound and increased External Static Pressure (up to 0.5" WG)
- Installation cost can be reduced with the ability to use the thermistor in the optional BRC1E71 remote controller as the primary temperature sensor (see controller section below)
- Each unit is provided with a gravity fed drain connection. Integration of a field supplied volt free float switch is possible
- A field supplied secondary drain pan is recommended for installations where water damage from unit condensation may occur

Applications

- Perfect for new construction or replacement for a standard ducted split system
- Energy efficient option to a traditional gas furnace eliminating the need for fossil fuels
- Multiple units can be used to provide zoning in larger residences
- Long piping capabilities and low sound levels make it ideal for multi-family residence applications

Specifications Summary

FTQ / RZQ Specifications		1.5-Ton	2-Ton
Model		18	24
Indoor Unit		FXTQ18PAVJU	FXTQ24PAVJU
Outdoor Unit		RZQ18PVJU9	RZQ24PVJU9
Power Supply	V/ph/Hz	208-230/1/60	
Rated Cooling Capacity	Btu/h	18,000	24,000
EER		13.9	12.5
SEER		18.15	18.0
Rated Heating Capacity	Btu/h	20,000	27,000
HSPF		8.92	8.89
Refrigerant		R-410A	R-410A
Refrigerant Control		Electronic Expansion Valve	
Airflow Rate H/L	cfm	600/420	800/560
Indoor Unit Weight	lbs.	169	169
Indoor Unit Height	in.	53-1/4	53-1/4
Indoor Unit Width	in.	22	22
Indoor Unit Depth	in.	24	24
Outdoor Unit Weight	lbs.	150	150
Outdoor Unit Height	in.	30-5/16	30-5/16
Outdoor Unit Width	in.	35-7/16	35-7/16
Outdoor Unit Depth	in.	12-5/8	12-5/8
Outdoor Unit Sound Pressure H/L	dB(A)	48/49	49/51
External Static Pressure Range	in. W.G.	up to 0.5	up to 0.5
Unit Condensate Connection	in. O.D.	3/4 (fpt)	3/4 (fpt)
Pipe Connections	Gas	5/8 (Braze)	5/8 (Braze)
	Liquid	3/8 (Braze)	3/8 (Braze)
External Finish		Fully insulated, painted steel cabinet with gray finish	
Protection Devices		Fuse/Breaker	
		Fan Motor Thermal Protector	
MOP	A	15	15

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Operating Ranges

- Cooling Operating Range: 23°FDB - 115°FDB (0°FDB - 115°FDB with optional wind baffle)
- Heating Operating Range: 0°FDB - 77°FDB

Capacity Information

Cooling Capacity

FTQ / RZQ 18

Cooling Capacity Outdoor Air Temp. °FDB										
Indoor Air Temp.		68			77			86		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
°FDB	°FWB	kBTUH	MBh	kW	kBTUH	MBh	kW	kBTUH	MBh	kW
68.0	57.0	11.68	11.1	0.50	11.68	11.1	0.54	11.68	11.1	0.61
72.0	61.0	14.21	12.5	0.48	14.21	12.5	0.66	14.21	12.5	0.76
77.0	64.0	16.10	13.4	0.55	16.10	13.4	0.77	16.10	13.4	0.88
80.0	67.0	18.00	14.0	0.64	18.00	14.0	0.88	18.00	14.0	1.02
86.0	72.0	20.79	14.9	0.79	20.06	14.7	1.00	19.32	14.0	1.10
90.0	75.0	21.14	14.2	0.80	20.41	13.9	1.01	19.68	13.4	1.10

Cooling Capacity Outdoor Air Temp. °FDB										
Indoor Air Temp.		90			95			104		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
°FDB	°FWB	kBTUH	MBh	kW	kBTUH	MBh	kW	kBTUH	MBh	kW
68.0	57.0	11.68	11.1	0.64	11.68	11.1	0.69	11.68	11.1	0.78
72.0	61.0	14.21	12.5	0.80	14.21	12.5	0.87	14.21	12.5	0.99
77.0	64.0	16.10	13.4	0.94	16.10	13.4	1.01	16.10	13.4	1.17
80.0	67.0	18.00	14.0	1.09	18.00	14.0	1.18	17.27	14.0	1.27
86.0	72.0	19.00	14.0	1.14	18.59	13.9	1.19	17.86	13.4	1.29
90.0	75.0	19.35	13.5	1.14	18.95	13.2	1.20	18.21	12.9	1.29

FTQ / RZQ 24

Cooling Capacity Outdoor Air Temp. °FDB										
Indoor Air Temp.		68			77			86		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
°FDB	°FWB	kBTUH	MBh	kW	kBTUH	MBh	kW	kBTUH	MBh	kW
68.0	57.0	15.57	13.6	0.71	15.57	13.6	0.77	15.57	13.6	0.88
72.0	61.0	18.94	16.0	0.85	18.94	16.0	0.96	18.94	16.0	1.11
77.0	64.0	21.47	17.6	0.97	21.47	17.6	1.12	21.47	17.6	1.30
80.0	67.0	24.00	18.4	1.11	24.00	18.4	1.30	24.00	18.4	1.51
86.0	72.0	27.72	18.9	1.34	26.74	18.2	1.48	25.76	17.8	1.63
90.0	75.0	28.19	18.2	1.35	27.21	17.6	1.49	26.24	16.9	1.64

FTQ / RZQ 24 Outdoor Air Temp. °FDB										
Indoor Air Temp.		90			95			104		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
°FDB	°FWB	kBTUH	MBh	kW	kBTUH	MBh	kW	kBTUH	MBh	kW
68.0	57.0	15.57	13.6	0.93	15.57	13.6	1.00	15.57	13.6	1.15
72.0	61.0	18.94	16.0	1.18	18.94	16.0	1.28	18.94	16.0	1.47
77.0	64.0	21.47	17.6	1.39	21.47	17.6	1.50	21.47	17.6	1.74
80.0	67.0	24.00	18.4	1.61	24.00	18.4	1.75	23.02	17.7	1.90
86.0	72.0	25.33	17.4	1.69	24.79	17.3	1.77	23.81	16.7	1.92
90.0	75.0	25.80	16.7	1.70	25.26	16.4	1.79	24.29	15.7	1.93

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**Heating Capacity
FTQ / RZQ 18**

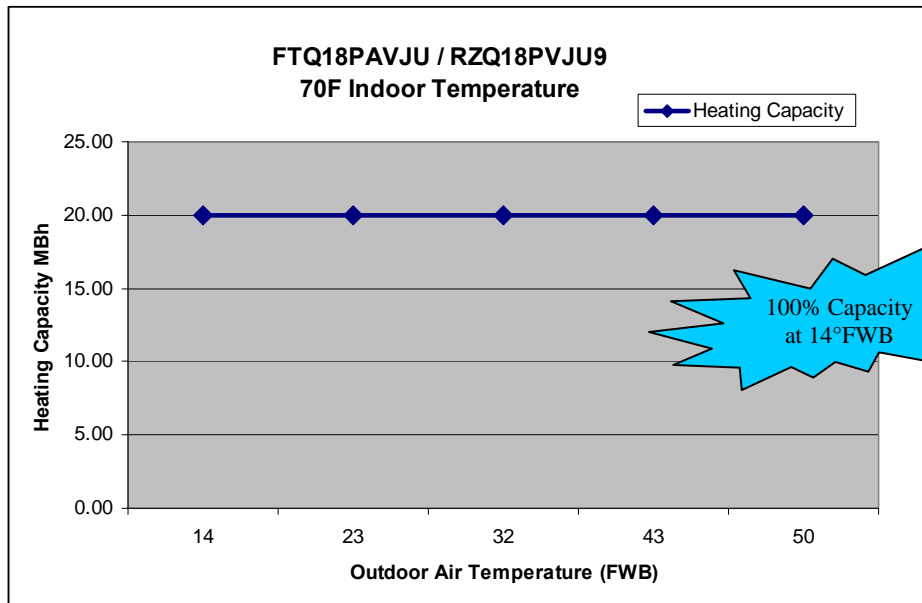
Heating Capacity Outdoor Air Temp. °FWB										
Indoor Air Temp. °FDB	14		23		32		43		50	
	TC MBh	PI kW	TC MBh	PI kW	TC MBh	PI kW	TC MBh	PI kW	TC MBh	PI kW
61.0	23.33	2.65	23.33	2.33	23.33	1.98	23.33	1.74	23.33	1.62
64.0	22.22	2.49	22.22	2.20	22.22	1.87	22.22	1.65	22.22	1.53
68.0	20.74	2.28	20.74	2.02	20.74	1.72	20.74	1.52	20.74	1.42
70.0	20.00	2.18	20.00	1.94	20.00	1.65	20.00	1.46	20.00	1.37
72.0	19.26	2.08	19.26	1.85	19.26	1.59	19.26	1.41	19.26	1.31
75.0	18.15	1.94	18.15	1.73	18.15	1.49	18.15	1.32	18.15	1.24

FTQ / RZQ 24

Heating Capacity Outdoor Air Temp. °FWB										
Indoor Air Temp. °FDB	14		23		32		43		50	
	TC MBh	PI kW	TC MBh	PI kW	TC MBh	PI kW	TC MBh	PI kW	TC MBh	PI kW
61.0	24.18	2.38	26.67	2.48	30.49	2.60	31.50	2.40	31.50	2.23
64.0	24.14	2.43	26.63	2.52	30.00	2.58	30.00	2.27	30.00	2.11
68.0	24.09	2.49	26.57	2.58	28.00	2.38	28.00	2.10	28.00	1.95
70.0	24.06	2.52	26.55	2.61	27.00	2.28	27.00	2.01	27.00	1.88
72.0	24.03	2.55	26.00	2.56	26.00	2.18	26.00	1.93	26.00	1.80
75.0	23.99	2.60	24.50	2.39	24.50	2.04	24.50	1.81	24.50	1.69

Superior Heating Capacity at Low Ambient Conditions

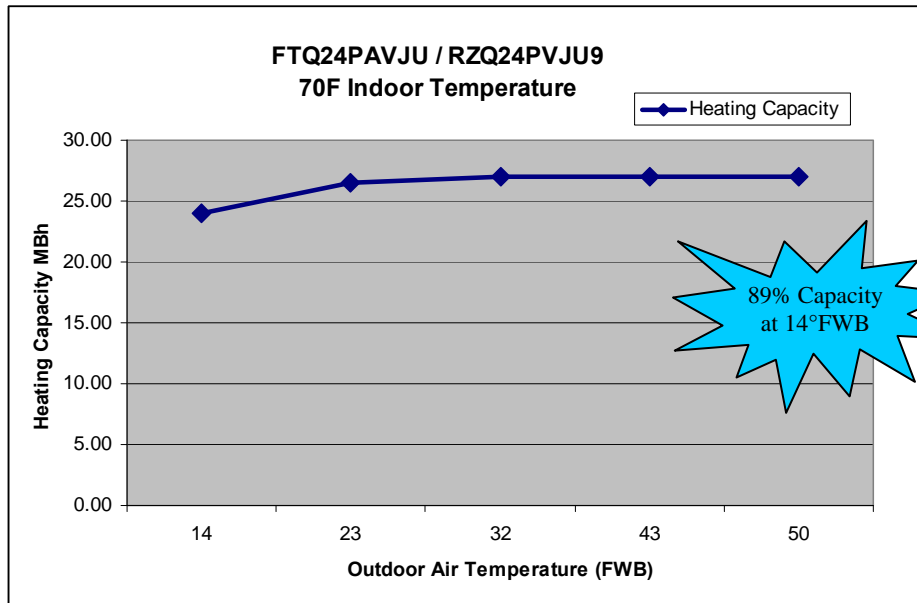
- Unlike traditional residential unitary heat pump systems, which require back up heat below 45°F ambient, the Daikin Inverter Unitary Ducted system can provide heating as low as 0°F
- Superior heating performance and user comfort can be realized with up to 100% capacity available at 14°FWB



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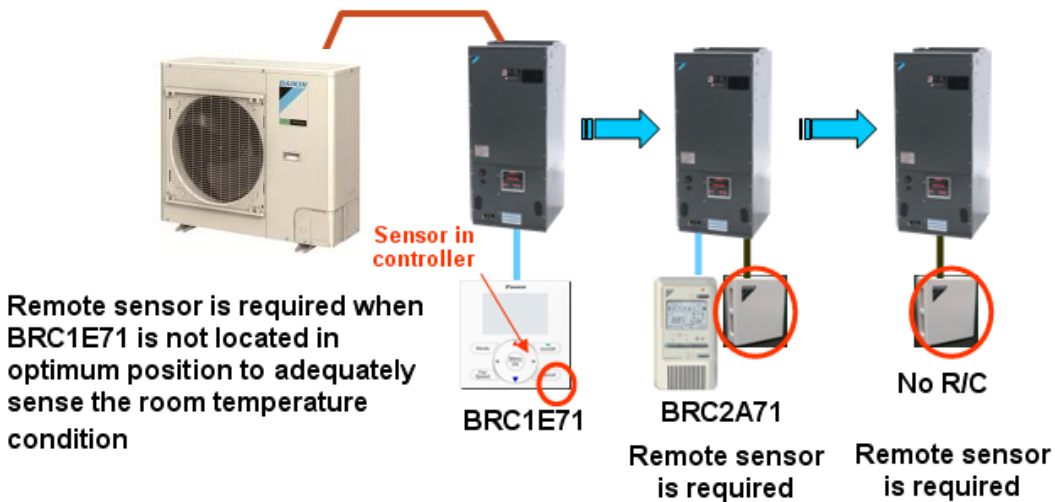
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Controller Configurations

The FTQ / RZQ is not equipped with a return air sensor. The sensor in the local remote controller (factory set) or remote sensor (KRCS01-4B) is utilized to help control the indoor unit, whichever is applicable



Note: System price does not include a remote controller. Please refer to the additional accessories table on page 8 for controller options.

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Electric Heater Information

- Wide line-up of field installed electric heater options from 3kW to 10kW
- Integrated heater control relays and logic to minimize cost
- Electric booster heater operation in combination with heat pump operation is now possible
- 2-stage heating control available on larger models
- Reduced operational deadband for increased user comfort
- During electric heater operation, the indoor unit fan is fixed in H (High) speed regardless of the controller setting

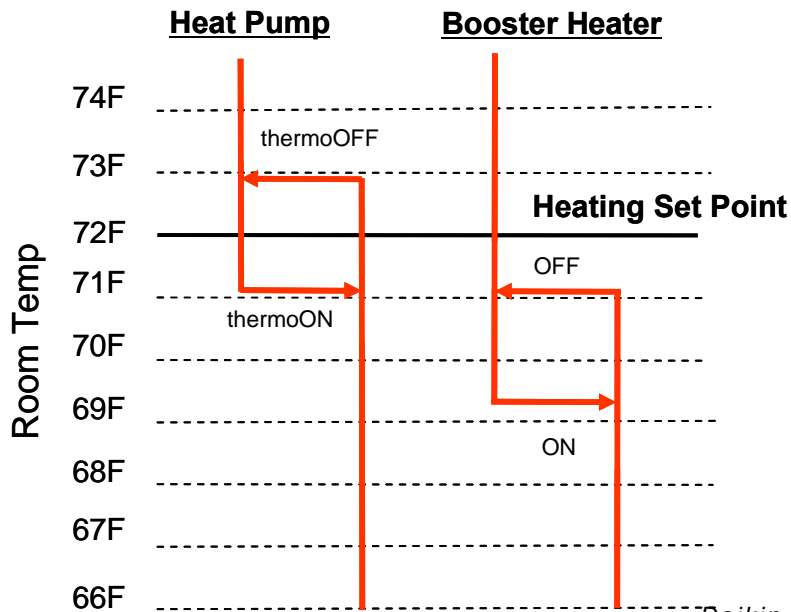
Model Name	Electric Heater Capacity				
	3kW	5kW	6kW	8kW	10kW
FTQ18PAVJU	●	■	■	✗	✗
FTQ24PAVJU	●	■	■	■	■

- Electric heater operation with heat pump is allowed
- Only electric heater operation is allowed
- ✗ Not allowed

- The operating condition of the electric heater is programmable via a field setting. Please refer to the FTQ_PAVJU Installation Manual for additional field setting information

Method 1 – Booster Heater

- For models that allow electric booster heater operation in combination with heat pump operation (see table above), the thermo-on setpoint for the electric heater is programmable. The electric heat can be energized between 7.2°F and 2.7°F below the remote controller heating setpoint
- The thermo-off setpoint for the electric heater is also programmable. The electric heat can be de-energized between 3.6°F below and 0.9°F above the remote controller heating setpoint
- The indoor unit heat pump will continue to operate as normal
- In the example below, the electric heater energizes at 2.7°F below the heating setpoint and de-energizes at 0.9°F above the heating setpoint



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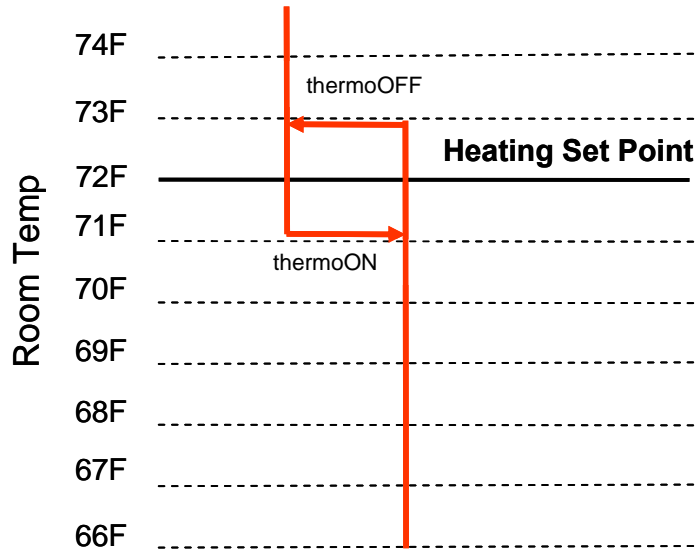
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Method 2 – Electric Heater (Lockout)

- For unit models that allow only electric heat operation (see page 6 for details), the thermo-on setpoint for the electric heater is set to be energized 1°F below the remote controller heating setpoint
- The thermo-off setpoint for the electric heater is set to be de-energized at 1°F above the remote controller heating setpoint
- A BRP2A81 – ABC terminal kit and third party ambient thermostat may be required to configure heat pump lockout operation. Please refer to Sales Bulletin VRV038 and the VRV Systems Basic Operation Guide for additional information on heat pump lockout with the BRP2A81-ABC terminal kit
- In the following example, the electric heater energizes at 1°F below the heating setpoint and de-energizes at 1°F above the heating setpoint

Electric Heat (Lockout)



Heat Pump Lockout Mode Settings

TYPE	DESCRIPTION	Actions					
		Field Setting	Shortened Between	Heating Thermo-on		Heating Thermo-off	
				Heater	Fan	Heater	Fan
I	Heat Pump heating is always locked out	2-16 = ON	--	ON	ON (H/L)	OFF	LL
II	Lockout is controlled by ABC terminals	2-37=Mode 1	A-C	ON	ON (H/L)	OFF	LL
			B-C				OFF
		2-37=Mode 2	A-C	ON	OFF	OFF	LL
			B-C				OFF

Note: The FTQ_PAVJU fan is fixed in H speed during heating regardless of the controller setting
See VRV Basic Operation Guide for further details on Heat Pump Lockout Mode

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Additional Accessories

FTQ / RZQ Accessories		
Model	18	24
Indoor Unit	FTQ18PAVJU	FTQ24PAVJU
Outdoor Unit	RZQ18PVJU9	RZQ24PVJU9
Navigation Remote Controller	BRC1E71	BRC1E71
Simplified Wired Remote Controller *	BRC2A71	BRC2A71
Wireless Remote Controller	BRC4C82	BRC4C82
Remote Sensor kit	KRCS01-4B	KRCS01-4B
Wiring Adaptor PCB (interface with aux/primary heater, humidifier, OA damper/fan)	KRP1C75¹	KRP1C75¹
Group Control Adaptor PCB (connects to external BMS)	KRP4A74²	KRP4A74²
External Control Adapter for Outdoor Unit	DTA104A53²	DTA104A53²
Fixing Box	KRP1B101³	KRP1B101³
Air Filter	FIL 48-61	FIL 48-61
Insulation Kit (vertical)	DPI 48-61/20	DPI 48-61/20
Insulation Kit (horizontal)	DPIH 48-61	DPIH 48-61
Electric Heater Kit	HKR-03, HKR-05C, HKR-06, HKR-08C, HKR-10C	HKR-03, HKR-05C, HKR-06, HKR-08C, HKR-10C

1 Need 24VAC power supply

2 Need 16VDC power supply

3 Fixing box installed beside the unit

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

List Price July 2010

	Model Name	List Price (in US\$)
FTQ/RZQ	FXTQ18PAVJU / RZQ18PVJU9	\$6,444
	FXTQ24PAVJU / RZQ24PVJU9	\$6,667

Note: System price does not include a remote controller or indoor unit filter. Please refer to the additional accessories table above for controller and filter options.

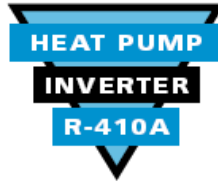
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Product and Documentation Availability

	FTQ / RZQ 2010			
	June	July	August	Sept
TRL Pricing		◆		
Sales Presentation			◆	
Submittal Data Sheets		◆		
Engineering Data Book			◆	
Sales Promotion Leaflet (FTQ/RZQ only) - Marketing				◆
FTQ/RZQ Sales Availability		◆		



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