



**VRV**



**VRV LIFE™**

FLEXIBLE / DUAL-FUEL HEATING /  
INVERTER TECHNOLOGY / QUIET / SPACE-SAVING





# DAIKIN VRV LIFE™

Re-inventing residential air-conditioning by breaking technological barriers, Daikin VRV LIFE systems bring inverter driven VRV technology to solve some of the age-old residential HVAC challenges. Precision engineered for flexibility, zoning, low sound and space saving, with the ability to mix and match ducted and duct-free indoor units in combination with a gas furnace. VRV LIFE systems are an ideal choice for a premium solution.

## SOLVING HVAC CHALLENGES



### Zoning

Modern homes demand zoning for improved comfort and control. Existing air duct zoning kits can quickly add cost, space and complexity of installation. It also does not always provide the desired comfort levels. Many homes are left with areas which are too warm in summer or too cold in winter.

### Operational Efficiencies

Traditional single speed solutions offer basic ON/OFF operation mode only. With the compressor turning ON/OFF constantly, the increased current inrush leads to higher running costs. With little-to-no zoning, operating the entire system when unnecessary reduces savings opportunities.

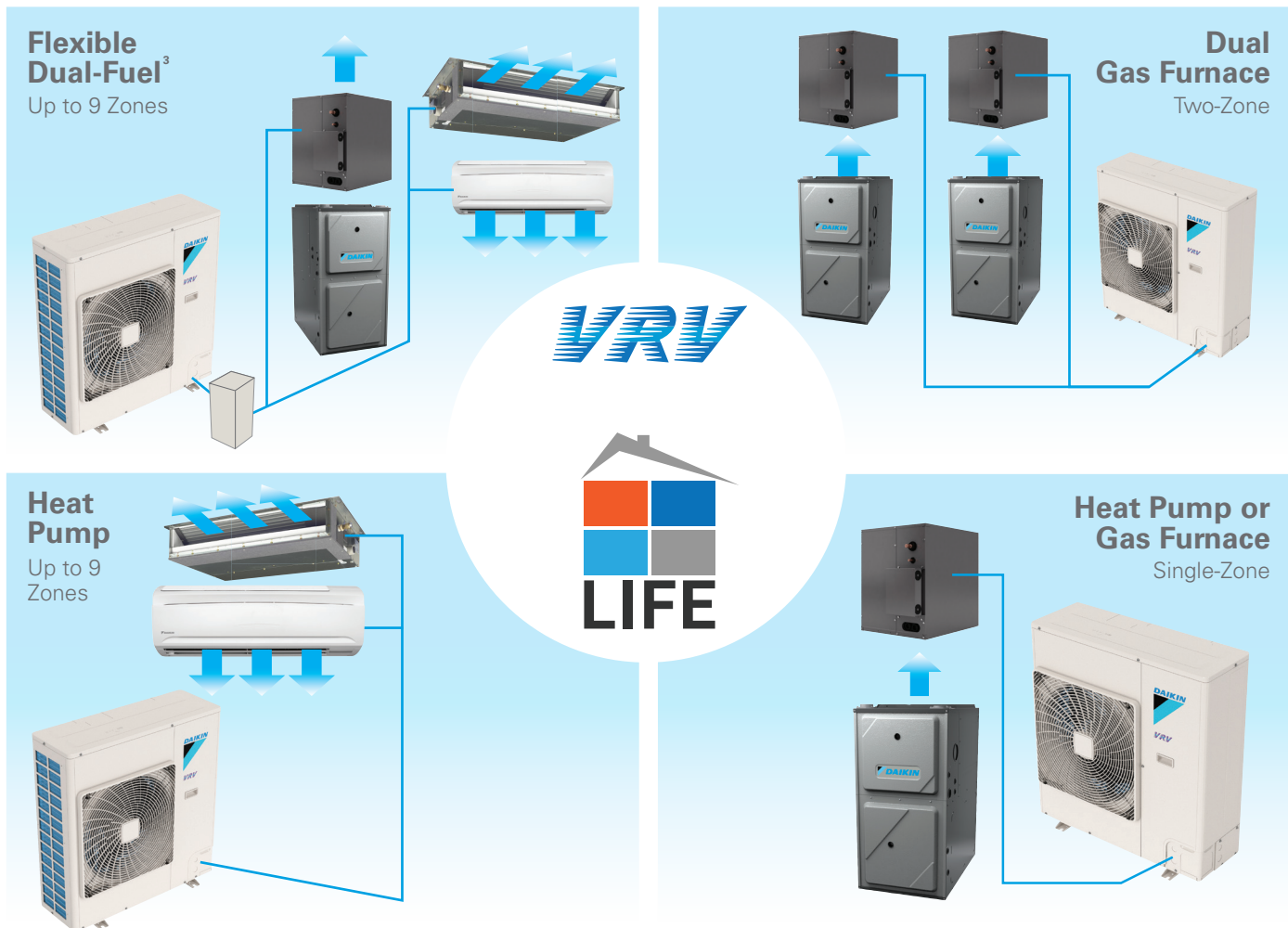
### Sound

The ON/OFF cycles of a traditional single speed system are often accompanied by undesirable operational sounds. These continuous sounds can become a nuisance in yards especially at night or when it is close to a window. Installing traditional units in sound sensitive applications or close to lot lines leaves homeowners with limited options.

### Flexibility

Traditional single-speed ON/OFF systems provide little to no flexibility for adding zones at a later date as the usage of the home changes or expands. The common practice of adding systems to address the HVAC needs of the new zone quickly add cost and reduce yard space.

# THE DAIKIN SOLUTION



Daikin VRV LIFE™ systems are the industry's first VRV Heat Pump with gas furnace connectivity for residential applications. The new VRV LIFE systems offers solutions to some of the traditional HVAC challenges for single family applications.

## Zoning

Daikin VRV LIFE systems provides effective zoning solutions by offering the flexibility to connect up to 9<sup>1</sup> refrigerant zones to a single system. Precision engineered refrigerant control allows system operation to meet the needs of individual zones.

## Operational Efficiencies

VRV LIFE systems are engineered with Daikin inverter and variable refrigerant temperature (VRT) technologies. These empower the compressor to operate at its optimal efficiencies during part load operations and thereby reducing power consumption\* and providing high operational efficiencies.

## Sound

Daikin VRV systems are globally renowned for their quietness. With operating sound pressure levels as low as 57 dbA<sup>1</sup>, VRV LIFE is an optimal solution for installation close to lot lines and sound sensitive applications.

## Space

With a compact, light weight and space saving design of only 37"W x 12-5/8" D, VRV LIFE systems provides up to 75%<sup>2</sup> reduction in installation space compared to similar capacity top discharge unitary condensing units.

\* Compared to non-inverter units

1 Model specific, refer to product engineering manual for details.

2 When compared to a system of two outdoor units combined with two gas furnaces and A-Coils.

3 Dual-Fuel is achievable only when VRV indoor units and gas furnace and A-Coil are connected to one VRV LIFE™ unit.



## VRV LIFE OUTDOOR RXSQ\_TAVJU

### Features and Benefits

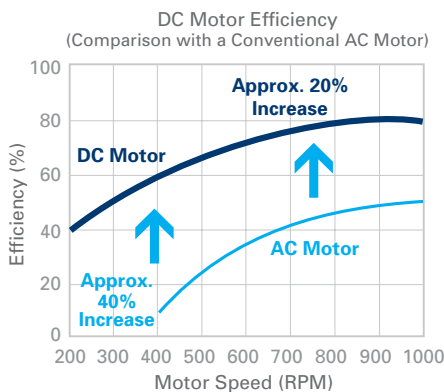
- » Available in 2, 3, 4 and 5-Ton models
- » Excellent zoning flexibility with 1-to-1 and 1-to-multi connections
- » Broader diversity with ability to provide cooling and heating in up to 9 zones<sup>1</sup>
- » Ability to choose heat pump or multi-zone Dual-Fuel<sup>2</sup> heating capability
- » Auto and programmable modes for heat pump to gas heat switch over temperatures
- » Compatible with 12 types and 65 models of Daikin VRV indoor fan coil units and 80 – 97% AFUE Daikin up flow and down flow communicating gas furnaces
- » Dependable heat pump operation in extreme ambient conditions down to -4°F in heating mode and up to 122°F in cooling mode
- » Year round comfort and energy savings delivered by combining VRV and VRT technologies compared to traditional split systems
- » Operation with sound levels of under 58 dbA<sup>1</sup> make for easy install close to lot lines
- » Reduced installation cost with re-use of existing refrigerant lines and uninsulated liquid line<sup>3</sup>
- » Engineered with Daikin's swing Inverter compressor technology
- » Backed by 10-Year Parts Limited Warranty and 10-Year Replacement Compressor Limited Warranty\*



\*Complete warranty details available from your local Daikin manufacturer's representative or distributor or online at [www.daikincomfort.com](http://www.daikincomfort.com).

#### 1 Variable Speed DC Fan.

High efficiency and low sound levels.



Note: Data is based on studies conducted under controlled conditions at a Daikin laboratory.

#### 6 Configurable auto changeover to auxiliary heat.

- 1 Model specific, refer to product engineering manual for details.
- 2 Dual-Fuel is achievable only when VRV indoor units and gas furnace and A-Coil are connected to one VRV LIFE™ unit.
- 3 Rules apply, refer to installation manual for details.

#### 2 Blue Fin Corrosion Coating.

1000 hours salt spray rated as standard. Hydrophilic coating to help with defrost.

#### 3 7mm Coil. High heat exchanger efficiency and compact casing design.

#### 4 Inverter Board Cooled by Refrigerant Circuit<sup>1</sup>.

Elimination of condenser fan pressure drop caused by heat sink used on previous generations.

#### 5 New Swing Compressor.

High efficiency. Low sound levels.



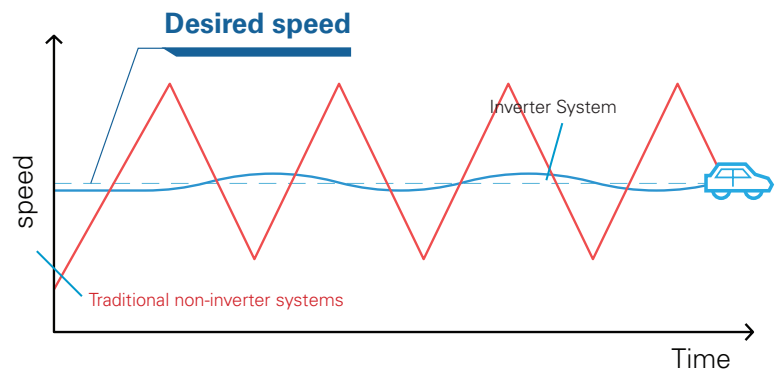
Neodymium magnets



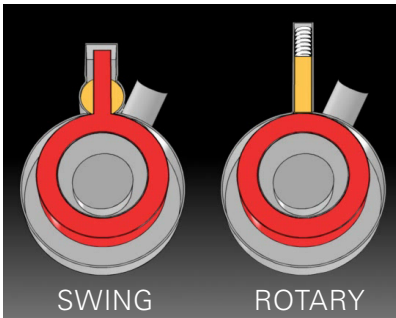


## DAIKIN INVERTER TECHNOLOGY

Wouldn't it be great if your cooling and heating system weren't an energy hog? Daikin inverter technology helps systems run at an energy-conserving level, despite the climate conditions, by making slight adjustments to the compressor's speed. Daikin systems will reach the desired temperature faster and maintain a more constant temperature compared to traditional ON/OFF systems. It will not frequently start and stop the "old fashioned way" just as a car is more efficient and comfortable traveling on a highway than it is in stop-and-go city traffic.



## SWING VS. ROTARY COMPRESSOR



- » VRV LIFE™ Systems are engineered with Daikin swing compressors
- » Main moving parts are integrated into one main component minimizing wear and tear
- » Designed to eliminate refrigerant leaks from high side to low side
- » Best compressor choice for high efficiencies under 65,000 Btu/h systems

## VARIABLE REFRIGERANT TEMPERATURE — VRT

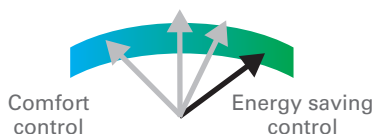
### VRT mode control selection to match user preferences



These charts reflect the operation trend of a VRV system when in normal operation and under VRT control. Actual energy savings through VRT vary based on the building location, load characteristics, occupancy and system usage conditions.

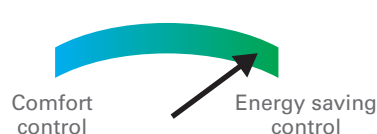
#### A view of the various VRT modes of operation:

**Automatic mode (Default setting on VRV LIFE)**



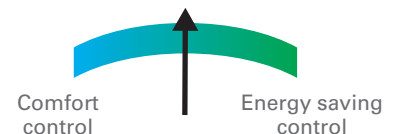
The perfect balance:  
Energy saving control throughout most of the year.  
Maximum comfort control on the hottest and coldest days of the year.

**High sensible mode**



Year round energy saving control.  
Ideal for dryer climates.

**Basic mode (Traditional VRF system)**



Quick reaction to peak load  
to maintain set point.

# WHY CHOOSE VRV LIFE™?

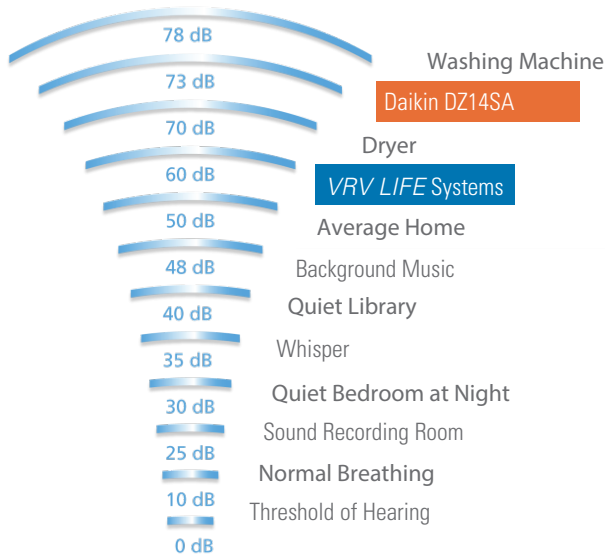
## APPLICATION

- » Flexibility with mix-match of ducted and duct-free indoor units
- » Reduced power consumption with flexibility to turn off indoor units not in use
- » Dual-fuel heating with heat pump and gas heat simultaneously
- » Space-saving with ability to connect 2 gas furnaces to one outdoor unit<sup>2</sup>
- » Quiet operation with sound levels under 58 dBA<sup>1</sup>
- » Choice of gas or heat pump heat
- » Custom, selectable and programmable temperature to switch from heat pump to gas heat
- » Add or remove zones without having to worry about ductwork

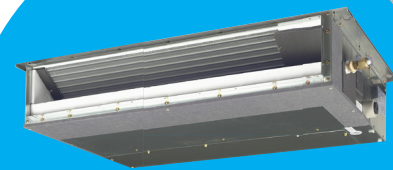
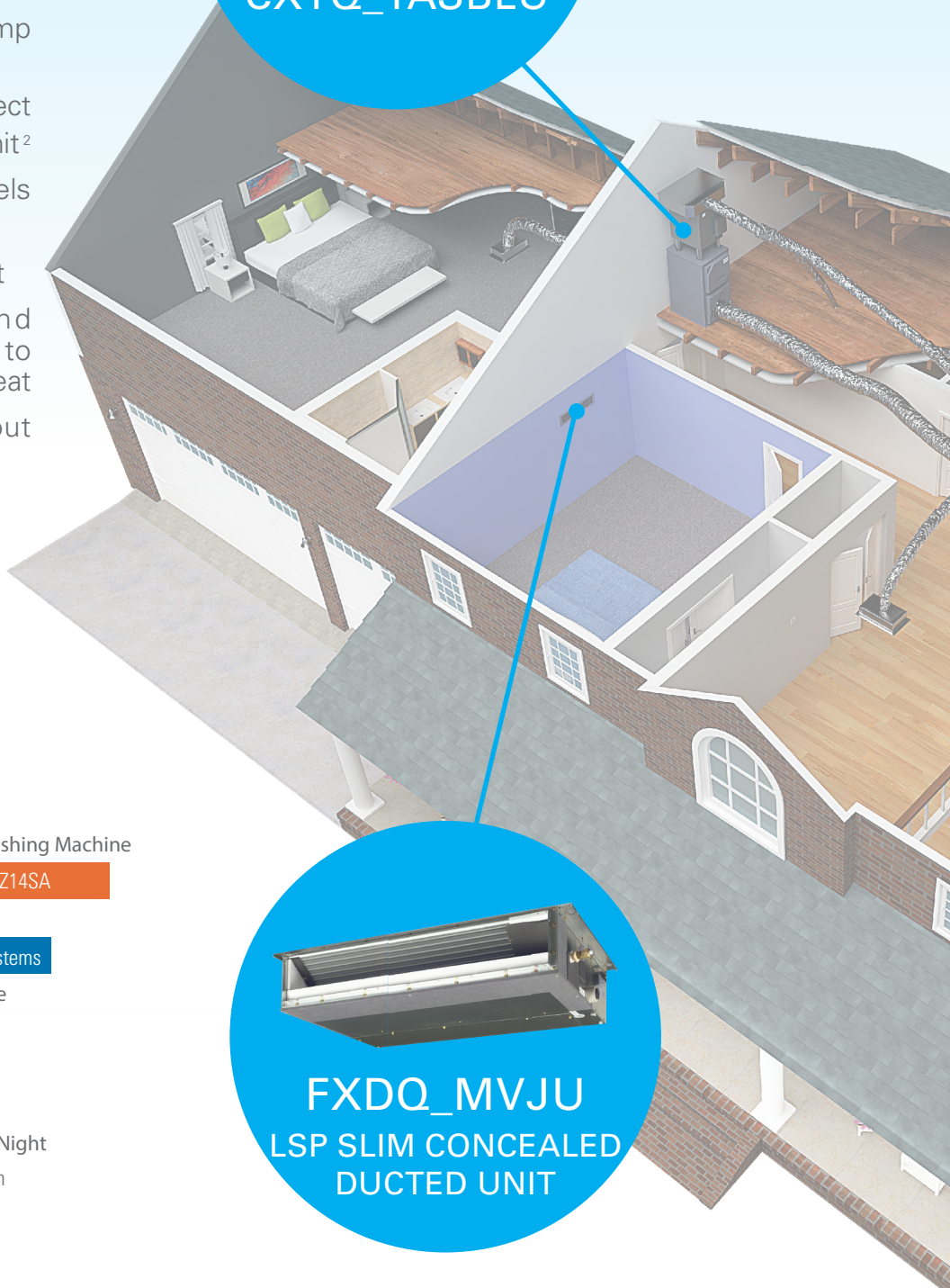
## Quiet operation<sup>3</sup>

- » VRV LIFE Systems generates less noise than a comparable single speed top discharge Unitary system<sup>3</sup> operating at 73 dBA

## Sound levels as low as:



**97% AFUE  
GAS FURNACE &  
CXTQ\_TASBLU**



**FXDQ\_MVJU  
LSP SLIM CONCEALED  
DUCTED UNIT**

<sup>1</sup> Model specific, refer to product engineering manual for details.

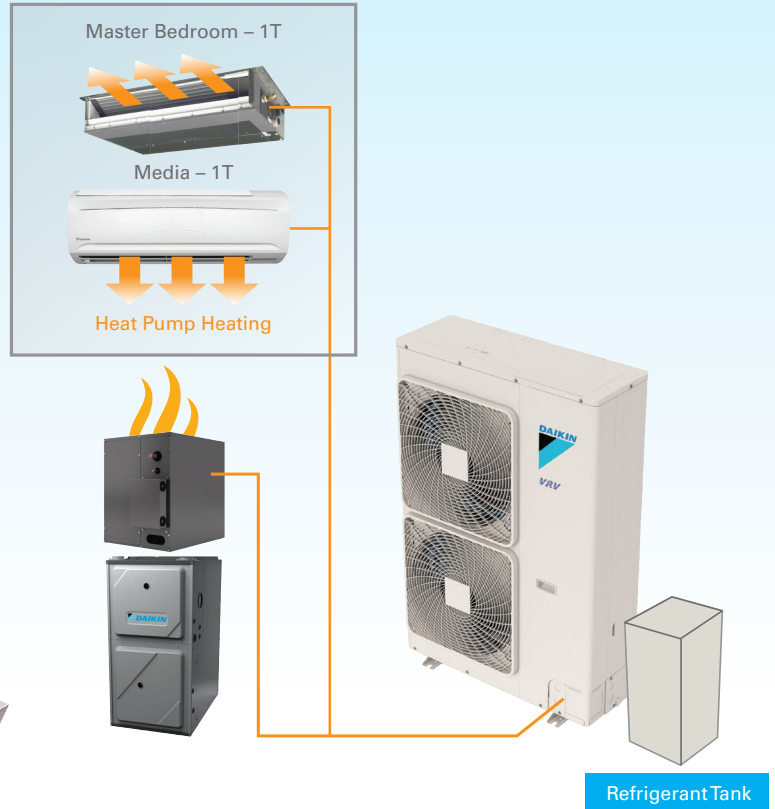
<sup>3</sup> When compared to Daikin DZ14SA.

<sup>2</sup> When compared to a system of two outdoor units combined with two gas furnaces and A-Coils.



## DUAL-FUEL HEATING

- » Flexibility to switch between gas or heat pump heating at various temperatures
- » Expanded range of heating capabilities with pump heat down to -4°F
- » Built-in auto changeover between heat pump and gas heat
- » Continuous gas furnace heating during defrost avoids cold drafts



**FXAQ\_PVJU  
WALL-MOUNTED  
UNIT**

Up to 75%  
Reduction  
in Install  
Space<sup>3</sup>



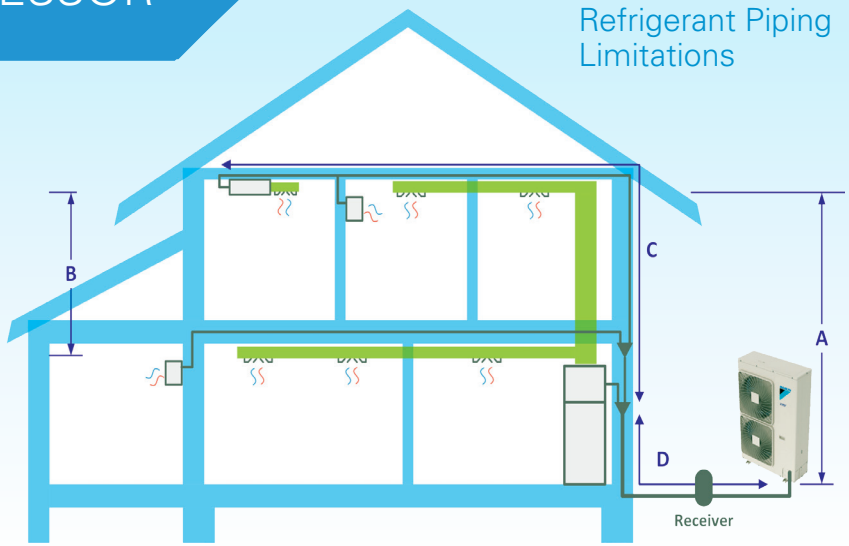
## Space Saving Compact Design

With clearance space as little as 4"<sup>1</sup> from a wall and compact dimensions of 37"W x 12-5/8"D, VRV LIFE minimizes space required for outdoor unit installation. In modern homes with zoning using two separate systems, leveraging the advanced zoning and flexibility offered by VRV LIFE, up to 75%<sup>2</sup> reduction in space required for installation can be achieved.

1 Rules apply, refer to installation manual for details.  
2 When compared to a system of two outdoor units combined with two gas furnaces and A-Coils.  
3 When compared to Daikin DZ14SA.

## EXTENSIVE PIPING CAPABILITIES

- » With allowable vertical separation between outdoor and indoor units of up to 98 ft.<sup>1</sup>, *VRV LIFE™* Systems are a great choice for most single, two and three-story homes
- » The flexibility to handle up to 492 ft.<sup>1</sup> of total piping allows for installing *VRV LIFE™* Systems at a distance from the home
- » Customizable on-site field settings can enable re-use of existing larger diameter pipes or un-insulated liquid line<sup>2</sup>



Refrigerant Piping Limitations

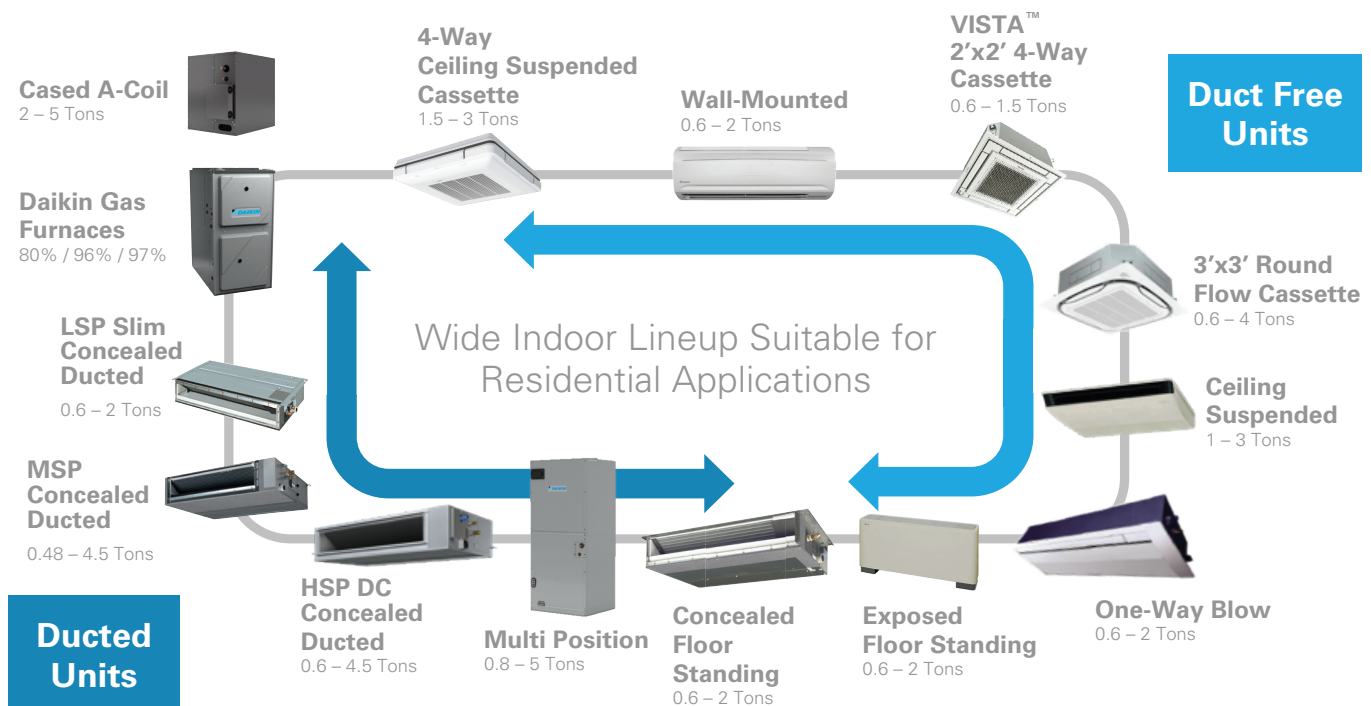
	LIQUID LINE MAX (Ft.)	RXSQ24-36	RXSQ48-60
A	Vertical Separation ODU and IDU (Above and below)	98	98
B	Vertical Separation IDU and IDU	33	49
C	Actual Piping Length	100	100
C+D	Equivalent Piping Length	125	125
-	Total Piping Length	328	492
D	Permissible to <b>reuse</b> an existing <b>main line set only</b> . See following refrigerant piping section for requirements.		

<sup>1</sup> Model specific, refer to product engineering manual for details.

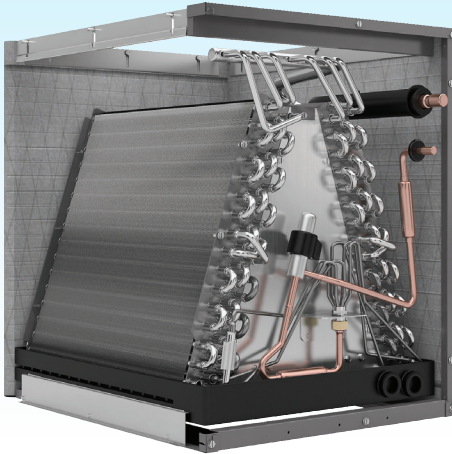
<sup>2</sup> Rules apply, refer to installation manual for details.

## FLEXIBILITY OF INDOOR UNITS

A choice of 13 types and over 80 models, the freedom to select a combination of ducted and duct-free indoor units, and the ability to mix and match any indoor unit while combining with a Gas Furnace and A-Coil to one system gives *VRV LIFE* Systems un-matched flexibility.







## CXTQ ALL ALUMINUM COIL

- » Available in 2, 3, 4, and 5-Ton capacities
- » Engineered for compatibility with VRV LIFE outdoor units
- » Factory installed electronic expansion valve with PID control loop for precision capacity control
- » Seamless integration to full suite of Daikin controls using onboard control board
- » Air cleaner and humidifier integration capable<sup>1</sup>
- » UV and rust resistant, 5VA rated thermoplastic drain pan with integrated secondary drain
- » Foil-faced insulation covers internal casing to reduce cabinet condensation
- » Split seam front for easy installation and service access
- » Light weight all aluminum evaporator coil
- » Ships factory standard up flow with easy field conversion to downflow<sup>1</sup>
- » Backed by best-in-class 10-Year Parts Limited Warranty\*



\*Complete warranty details available from your local Daikin manufacturer's representative or distributor or online at [www.daikincomfort.com](http://www.daikincomfort.com).

<sup>1</sup> Rules apply, refer to installation manual for details.



## DAIKIN 80-97% AFUE COMMUNICATING GAS FURNACE

- » **Durable heat exchanger** – Unique tubular stainless-steel construction formed using wrinkle-bend technology results in an extremely durable heat exchanger. Paired with a stainless-steel secondary heat exchanger, this combination provides for reliability, durability and efficiency.
- » **Modulating gas valve** – Operates between 35% - 100% capacity, providing precise efficiency and the ultimate in comfort.
- » **Continuous air circulation** – Provides added filtration and keeps air moving throughout your home to help maintain comfort.

For information on other VRV indoor units, refer to the product specific flyers at [www.daikinac.com](http://www.daikinac.com)

# VRV INDOOR UNITS

INDOOR UNIT TYPE	MBH TONS	CAPACITY													
		5.8 0.5	7.5 0.6	09 0.75	12 1	15 1.25	18 1.5	24 2	30 2.5	36 3	42 3.5	48 4	54 4.5	60 5	
DUCTED	FXMQ-PBVJU HSP DC Concealed Ducted Unit (High Static)			▲	▲	▲	▲	▲	▲	▲	▲		▲	▲	
	FXSQ-TAVJU MSP Concealed Ducted Unit (Medium Static)		▲	▲	▲	▲	▲	▲	▲	▲	▲		▲	▲	
	FXDQ-MVJU LSP Slim Concealed Ducted Unit (Low Static)			▲	▲	▲		▲	▲						
	FXTQ_TAVJU Multi-Position Air Handling Unit (Upflow, Downflow, Horizontal Left and Horizontal Right)				▲	▲		▲	▲	▲	▲	▲	▲	▲	▲
	FXNQ-MVJU9 Concealed Floor- Standing Unit			▲	▲	▲		▲	▲						
DUCT-FREE	FXFQ-TVJU Round Flow Sensing Cassette, Ceiling Mounted			▲	▲	▲	▲	▲	▲	▲	▲		▲		
	FXUQ-PVJU 4-Way Blow Ceiling-Suspended Cassette							▲	▲	▲	▲				
	FXZQ-TAVJU VISTA™ 2x2 Ceiling Mounted Cassette		▲	▲	▲	▲	▲	▲							
	FXEQ-PVJU Ceiling-Mounted Cassette (Single Flow)			▲	▲	▲	▲	▲	▲						
	FXAQ-PVJU Wall-Mounted Unit			▲	▲	▲		▲	▲						
	FXLQ-MVJU9 Floor-Standing Unit			▲	▲	▲		▲	▲						

## EFFICIENCY<sup>1</sup>

▲ Comfort cooling/heating    Condensate pump standard

### Dual-Fuel System Multi-Zone

SEER – Up to 18.0  
HSPF – Up to 10.5

### Dual Gas Furnace Two-Zone

SEER – Up to 18.0  
HSPF – Up to 10.5

### Heat Pump Multi-Zone

SEER – Up to 18.0  
HSPF – Up to 10.5

### Heat Pump or Gas Furnace Single-Zone

SEER – Up to 16.0  
HSPF – Up to 10.0







1 Refer to AHRI directory for combination-specific ratings.







# VRV LIFE™ SPECIFICATIONS

## VRV LIFE – OUTDOOR – RXSQ

Model Name			RXSQ24TAVJU	RXSQ36TAVJU	RXSQ48TAVJU	RXSQ60TAVJU
ODU Style	Fan Type		Single Fan 	Single Fan 	Single Fan 	Double Fan 
PERFORMANCE	Nominal Cooling Capacity	BTU/h	24,000	36,000	48,000	57,500
	Nominal Heating Capacity	BTU/h	27,000	40,000	52,000	57,500
	Operation Range Cooling	°F DB	23 to 122			
	Operation Range Heating	°F WB	-4 to 60			
	Power	V/p/Hz	208-230/1/60			
	Sound Pressure Level @ 3ft.	dB(A)	58			
REFRIGERANT PIPING	Refrigerant		R-410A			
	Refrigerant Quantity	lbs	6.4		7.5	7.9
	Liquid Pipe (Main Line)	in	3/8			
	Suction Gas Pipe (Main Line)	in	5/8			3/4
	Vertical Pipe Length	ft.	98			
	Maximum vertical pipe length between IDU	ft.	33		49	
	Actual Pipe Length (Equivalent Length)	ft.	100 (125)			
	Total Piping Length	ft.	328		492	
CONNECTION RATIO	Connectible Indoor Unit Ratio	%	50-130			
	Number of Indoor Units	Qty	4	6	8	9
UNIT	Outdoor Unit Size	(HxWxD)	39 x 37 x 12-5/8		39 x 37 x 12-5/8	52-15/16 x 35-7/16 x 12-5/8
	Weight	lbs.	172		176	225
FAN	Airflow	CFM	2682		2682	3741
	Fan Motor Output and Quantity	kW	0.20 x 1		0.20 x 1	0.070 X 2
ELECTRICAL	Maximum Over Current Protection (MOP)	A	25		35	35
	Minimum Circuit Amps (MCA)	A	16.5		29.1	29.1
	Rated Load Amps (RLA)	A	15.3		19.0	23.2
COMPRESSOR	Compressor Type	Type	Daikin Swing			
	Capacity Control	%	14-100			

## VRV LIFE – INDOOR – CXTQ

Model Name			CXTQ24TASBLU	CXTQ36TASBLU	CXTQ48TASBLU	CXTQ60TASBLU
						
Power Supply			24VAC from gas furnace			
Nominal Tons			2	3	4	5
*1,*3 Cooling Capacity	Btu/h (kW)		24,000 (7.0)	36,000 (10.6)	48,000 (14.1)	60,000 (17.6)
*2,*3 Heating Capacity	Btu/h (kW)		27,000 (7.9)	40,000 (11.7)	54,000 (15.8)	66,000 (19.4)
Casing / Color			Daikin Slate Gray			
Dimensions (H x W x D)		in. (mm)	22-1/16 x 17-23/32 x 24-7/32 (560 x 450 x 615)	22-1/16 x 17-23/32 x 24-7/32 (560 x 450 x 615)	30-1/16 x 21-7/32 x 24-7/32 (764 x 539 x 615)	30-1/16 x 24-23/32 x 24-7/32 (764 x 628 x 615)
Coil	Type		Cased Upflow/Downflow A-coil			
	*4 Air pressure drop	in w.g.	0.089"	0.240"	0.310"	0.329"
Weight		lbs (kg)	46 (20.9)	52 (23.6)	72 (32.7)	79 (35.8)
Pipe Connections	Liquid	in. (mm)	3/8" (9.5)			
	Gas	in. (mm)	5/8" (15.8)			
	Drain	in. (mm)	3/4" (19.1)			
Safety devices			Fuse			
Refrigerant Control			Electronic Expansion Valve			
Connectible Outdoor Unit			R-410A VRV LIFE™			



#### WARNINGS:

- >> Always use a licensed installer or contractor to install this product. Do not try to install the product yourself. Improper installation can result in water or refrigerant leakage, electrical shock, fire or explosion.
- >> Use only those parts and accessories supplied or specified by Daikin. Ask a licensed contractor to install those parts and accessories. Use of unauthorized parts and accessories or improper installation of parts and accessories can result in water or refrigerant leakage, electrical shock, fire or explosion.
- >> Read the User's Manual carefully before using this product. The User's Manual provides important safety instructions and warnings. Be sure to follow these instructions and warnings.
- >> For any inquiries, contact your local Daikin sales office.

#### 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.

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Our continuing commitment to quality products may mean a change in specifications without notice.

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CB-VRVLIFE 3-18