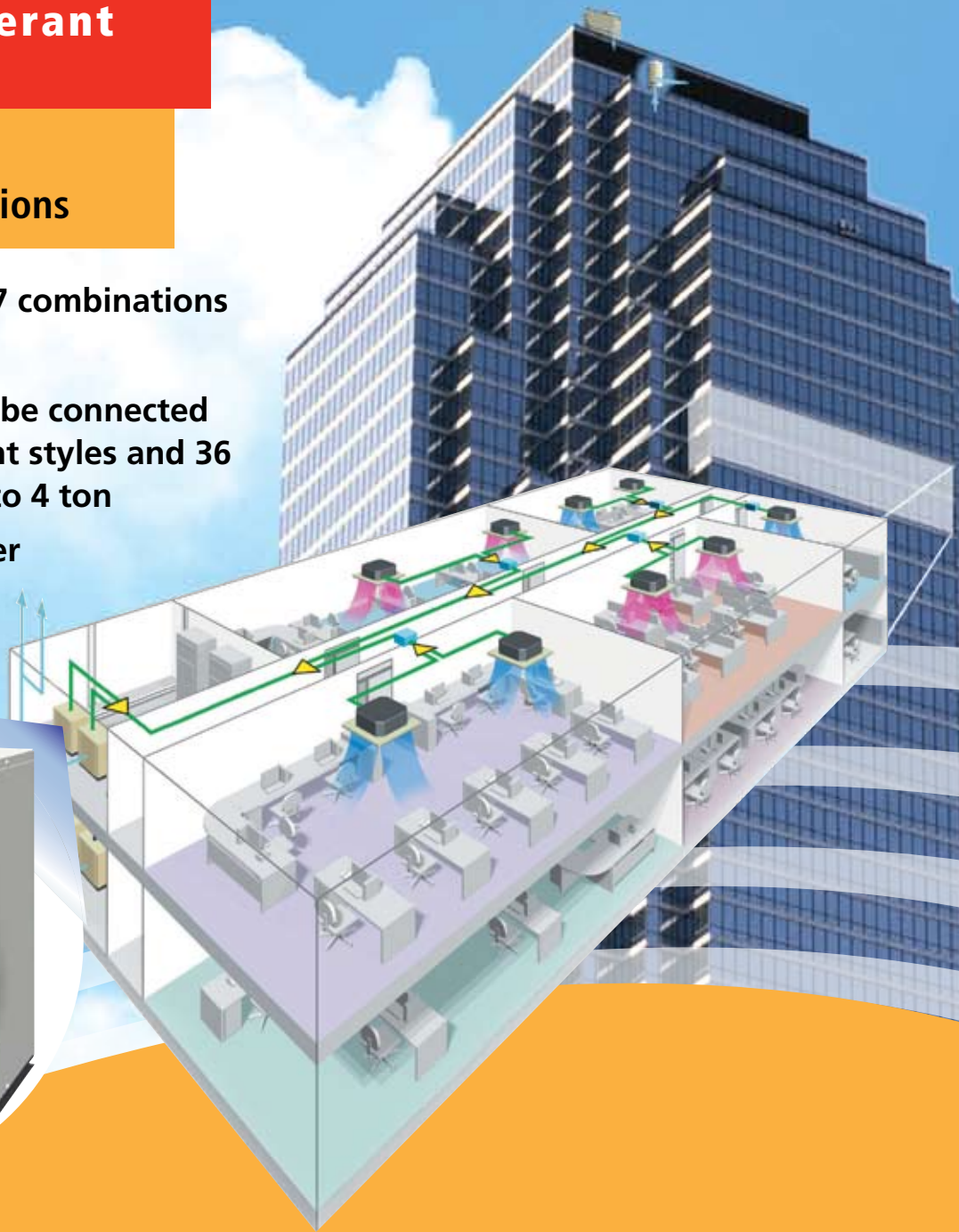


## Variable Refrigerant Volume

### Water Cooled Commercial Applications

- Available up to 21 ton in 7 combinations
- Individual zone control
- Up to 32 indoor units can be connected with a choice of 8 different styles and 36 models ranging from 0.5 to 4 ton
- Connect to a cooling tower (closed loop) and boiler system



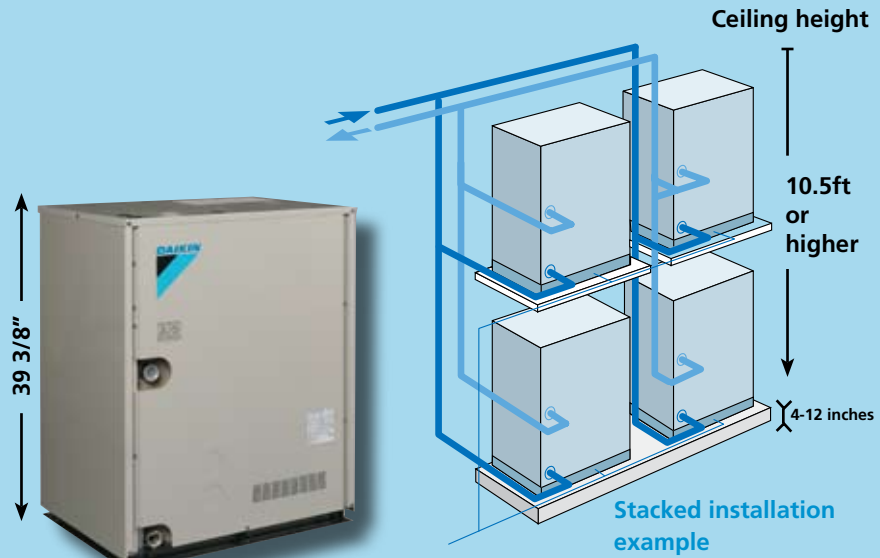
- Unified heat recovery or heat pump condensing units
- Cold climate capability delivering comfortable heating performance with no defrost
- 2-stage heat recovery operation substantially improving energy efficiency
- Long refrigerant piping length
- Fully integrated control suite



## Water Cooled VRV - The Next Generation of VRV







Daikin's water cooled VRV® offers an energy saving alternative to traditional centralized equipment. Its remarkable compact and lightweight structure makes installation of VRV technology in large buildings possible. At only 330 lbs. and less than 40" high, the VRV®-WII can take a ride up the elevator to be installed in a machine room. Offering state of the art comfort for hotels, offices and large commercial applications, the engineer solution toolbox just got bigger.

The VRV system keeps running costs at an absolute minimum by controlling each zone individually and being able to shut down completely in unoccupied areas.



VRV-WII Features & Benefits	
<b>Choice</b>	<ul style="list-style-type: none"> <li>➤ 5, 6, 7, 12, 14, 18 and 21 ton, 208 ~ 230V / 3-phase power for commercial applications.</li> <li>➤ Unified heat pump or heat recovery (simultaneous operation) condensing unit.</li> </ul>
<b>Advanced Zoning</b>	<ul style="list-style-type: none"> <li>➤ 7 combinations of condensing unit, up to 21-ton serving up to 32 indoor units.</li> </ul>
<b>Independent Control</b>	<ul style="list-style-type: none"> <li>➤ Each fan coil has its own control from a single condensing unit.</li> </ul>
<b>VFD/Capacity Control</b>	<ul style="list-style-type: none"> <li>➤ Capacity is modulated automatically by varying refrigerant volume to deliver the precise amount of heating or cooling.</li> <li>➤ Each zone independently controls its capacity by precise PID control to within + / - 1° F in conjunction with electronic expansion valve equipped indoor units.</li> </ul>
<b>Optimized R-410A Design</b>	<ul style="list-style-type: none"> <li>➤ The industry benchmark is the world's first R-410A operated Water Cooled variable refrigerant volume (VRV-WII) system and represents a considerable technological advances over comparable systems.</li> </ul>
<b>Flexible Design</b>	<ul style="list-style-type: none"> <li>➤ Continuous operation allows for cold climate capability delivering comfortable heating performance with no defrost.</li> <li>➤ Long refrigerant lines, up to 980 feet of pipe (390 feet max. linear liquid piping length), 164 feet height difference.</li> <li>➤ The System (Braze Plate Heat Exchanger) can tolerate water pressure up to 285 psi (or 640 ft. of Head).</li> <li>➤ Optimum water flow rates per module of 16 gpm or greater (operable range 13.2 ~ 39.5 gpm).</li> <li>➤ Modular units can be interconnected to make combinations of up to 21 tons systems.</li> <li>➤ Operates with closed loop cooling tower, dry cooler and boiler solutions.</li> <li>➤ System diversity up to 130% connectivity of nominal capacity.</li> </ul>
<b>Indoor Units</b>	<ul style="list-style-type: none"> <li>➤ A choice of ducted fan coils, 4-way cassette, ceiling suspended, wall mounted or floor console.</li> <li>➤ Capacities from 1/2 (7MBH) to 4 (48 MBH) Ton.</li> </ul>
<b>Simple Wiring</b>	<ul style="list-style-type: none"> <li>➤ Daisy chain control wiring, 2 wire, non-shielded, non-polarized cable for simple installation.</li> </ul>
<b>Energy Efficiency</b>	<ul style="list-style-type: none"> <li>➤ VFD Inverter Scroll Compressor &amp; Fan Coil Unit EEV Technology helps boost operational efficiency levels.</li> <li>➤ 2-stage heat recovery operation substantially improving energy efficiency.</li> </ul>
<b>Outside Air</b>	<ul style="list-style-type: none"> <li>➤ Outside air capability with ducted fan coils and ductless cassette units.</li> </ul>
<b>Space Saving</b>	<ul style="list-style-type: none"> <li>➤ Compact size, 39-3/8" in height, 30-3/4" wide and just 330lbs. Modular cabinet enables stacked multiple installation.</li> </ul>
<b>Advanced Diagnostics</b>	<ul style="list-style-type: none"> <li>➤ The advanced, self-diagnostic, auto-check function will detect a malfunction and immediately display the type and location so it can be resolved quickly and effectively.</li> </ul>
<b>Advanced Controls</b>	<ul style="list-style-type: none"> <li>➤ Zone LCD Remote Controller for up to 16 zones and provides a host of operational functions, including 7-Day Programmability.</li> <li>➤ Connects to the full suite of advanced Daikin Control Solutions including I-Touch Controller and I-Manager.</li> <li>➤ Can be intergrated to Open Protocol Building Management Systems via the Daikin BACnet and LONworks Gateways.</li> </ul>
<b>Quiet</b>	<ul style="list-style-type: none"> <li>➤ Indoor and condensing units offer quiet operation. FXFQ indoor unit has a sound pressure level as low as 28dB(A) and the RWEYQ condensing unit as low as 50dB(A).</li> </ul>

		0.5 Ton	0.75 Ton	1.0 Ton	1.5 Ton	2.0 Ton	2.5 Ton	3.0 Ton	4.0 Ton								
<b>INDOOR UNITS - FXSQ Concealed Ceiling Unit</b> (208 - 230V / 1Ph / 60Hz)																	
	Model																
	Cooling Capacity	Btu/h															
	Heating Capacity	Btu/h															
	Sound Pressure Level	dB(A) H/L															
	Airflow H/L	cfm															
	Weight	lbs.															
	Dimensions (H x W x D)	in.															
			FXSQ09MVJU	FXSQ12MVJU	FXSQ18MVJU	FXSQ24MVJU	FXSQ30MVJU	FXSQ36MVJU	FXSQ48MVJU								
			Contact Daikin for further details														
			12,000	18,000	24,000	30,000	36,000	48,000									
			13,500	20,000	27,000	34,000	40,000	54,000									
			41/35 <sup>1</sup>	44/38 <sup>1</sup>	44/38 <sup>1</sup>	45/39 <sup>1</sup>	45/39 <sup>1</sup>	48/43 <sup>1</sup>									
			340/230	530/390	740/490	950/720	990/740	1300/950									
			69	73	95	119	119	122									
			11 7/8 x 21 5/8 x 31 1/2	11 7/8 x 27 1/2 x 31 1/2	11 7/8 x 39 3/8 x 31 1/2	11 7/8 x 55 1/8 x 31 1/2	11 7/8 x 55 1/8 x 31 1/2	11 7/8 x 55 1/8 x 31 1/2									
<b>INDOOR UNITS - FXMQ Concealed Ceiling Unit (medium static)</b> (208 - 230V / 1Ph / 60Hz)																	
	Model																
	Cooling Capacity	Btu/h															
	Heating Capacity	Btu/h															
	Sound Pressure Level	dB(A) H/L															
	Airflow H/L	cfm															
	Weight	lbs.															
	Dimensions (H x W x D)	in.															
						FXMQ30MVJU	FXMQ36MVJU	FXMQ48MVJU									
						30,000	36,000	48,000									
						34,000	40,000	54,000									
						45/41 <sup>2</sup>	45/41 <sup>2</sup>	48/45 <sup>2</sup>									
						690/565	1020/810	1270/1020									
						99	139	144									
						15 3/8 x 28 3/8 x 27 1/8	15 3/8 x 43 3/4 x 27 1/8	15 3/8 x 43 3/4 x 27 1/8									
<b>INDOOR UNITS - FXFQ 4 Way Ceiling Mounted Cassette Unit</b> (208 - 230V / 1Ph / 60Hz)																	
	Model		FXFQ07MVJU	FXFQ09MVJU	FXFQ12MVJU	FXFQ18MVJU	FXFQ24MVJU	FXFQ30MVJU	FXFQ36MVJU								
	Cooling Capacity	Btu/h															
	Heating Capacity	Btu/h															
	Sound Pressure Level	dB(A) H/L															
	Airflow H/L	cfm															
	Weight	lbs.															
	Unit Dimensions (H x W x D)	in.															
			Contact Daikin for further details		Contact Daikin for further details												
			12,000	18,000	24,000	30,000	36,000										
			13,500	20,000	27,000	34,000	40,000										
			31/28 <sup>2</sup>	33/28 <sup>2</sup>	34/29 <sup>2</sup>	38/32 <sup>2</sup>	40/33 <sup>2</sup>										
			460/350	570/390	670/490	990/710	990/740										
			55	55	55	66	66										
			9 1/8 x 33 1/8 x 33 1/8	9 1/8 x 33 1/8 x 33 1/8	9 1/8 x 33 1/8 x 33 1/8	11 3/8 x 33 1/8 x 33 1/8	11 3/8 x 33 1/8 x 33 1/8										
			1 5/8 x 37 3/8 x 37 3/8	1 5/8 x 37 3/8 x 37 3/8	1 5/8 x 37 3/8 x 37 3/8	1 5/8 x 37 3/8 x 37 3/8	1 5/8 x 37 3/8 x 37 3/8										
<b>INDOOR UNITS - FXAQ Wall Mounted Unit</b> (208 - 230V / 1Ph / 60Hz)																	
	Model		FXAQ07MVJU	FXAQ09MVJU	FXAQ12MVJU	FXAQ18MVJU	FXAQ24MVJU										
	Cooling Capacity	Btu/h	7,500	9,500	12,000	18,000	24,000										
	Heating Capacity	Btu/h	8,500	10,500	13,500	20,000	27,000										
	Sound Pressure Level	dB(A) H/L	36/31 <sup>3</sup>	37/31 <sup>3</sup>	38/31 <sup>3</sup>	43/37 <sup>3</sup>	47/40 <sup>3</sup>										
	Airflow H/L	cfm	265/160	285/175	300/180	500/400	635/470										
	Weight	lbs.	25	25	25	31	31										
	Dimensions (H x W x D)	in.	11 3/8 x 31 1/4 x 9	11 3/8 x 31 1/4 x 9	11 3/8 x 31 1/4 x 9	11 3/8 x 41 3/8 x 9	11 3/8 x 41 3/8 x 9										
<b>INDOOR UNITS - FXLQ Floor Console Unit</b> (208 - 230V / 1Ph / 60Hz)																	
	Model			FXLQ12MVJU	FXLQ18MVJU	FXLQ24MVJU											
	Cooling Capacity	Btu/h		12,000	18,000	24,000											
	Heating Capacity	Btu/h		13,500	20,000	27,000											
	Sound Pressure Level	dB(A) H/L		36/33 <sup>4</sup>	40/35 <sup>4</sup>	41/36 <sup>4</sup>											
	Airflow H/L	cfm		280/210	490/380	560/420											
	Weight	lbs.		66	80	80											
	Dimensions (H x W x D)	in.		23 5/8 x 44 7/8 x 8 3/4	23 5/8 x 55 7/8 x 8 3/4	23 5/8 x 55 7/8 x 8 3/4											
<b>INDOOR UNITS - FXNQ Concealed Floor Console Unit</b> (208 - 230V / 1Ph / 60Hz)																	
	Model			FXNQ12MVJU	FXNQ18MVJU	FXNQ24MVJU											
	Cooling Capacity	Btu/h		12,000	18,000	24,000											
	Heating Capacity	Btu/h		13,500	20,000	27,000											
	Sound Pressure Level	dB(A) H/L		36/33 <sup>4</sup>	40/35 <sup>4</sup>	41/36 <sup>4</sup>											
	Airflow H/L	cfm		280/210	490/380	560/420											
	Weight	lbs.		51	59	59											
	Dimensions (H x W x D)	in.		24 x 42 1/8 x 8 5/8	24 x 53 1/8 x 8 5/8	24 x 53 1/8 x 8 5/8											
<b>INDOOR UNITS - FXHQ Ceiling Suspended Cassette Unit</b> (208 - 230V / 1Ph / 60Hz)																	
	Model			FXHQ12MVJU		FXHQ24MVJU		FXHQ36MVJU									
	Cooling Capacity	Btu/h		12,000		24,000		36,000									
	Heating Capacity	Btu/h		13,500		27,000		40,000									
	Sound Pressure Level	dB(A) H/L		38/33 <sup>3</sup>		44/36 <sup>3</sup>		46/41 <sup>3</sup>									
	Airflow H/L	cfm		410/340		710/600		830/670									
	Weight	lbs.		80		80		90									
	Dimensions (H x W x D)	in.		7 11/16 x 37 13/16 x 26 3/4		7 11/16 x 55 1/8 x 26 3/4		7 11/16 x 62 5/8 x 26 3/4									
<b>INDOOR UNITS - FXDQ Slim Duct Built-In Concealed Ceiling Unit</b> (208 - 230V / 1Ph / 60Hz)																	
	Model		FXDQ07MVJU	FXDQ09MVJU	FXDQ12MVJU	FXDQ18MVJU	FXDQ24MVJU										
	Cooling Capacity	Btu/h	7,500	9,500	12,000	18,000	24,000										
	Heating Capacity	Btu/h	8,500	10,500	13,500	20,000	27,000										
	Sound Pressure Level	dB(A) H/L	33/29 <sup>2</sup>	33/29 <sup>2</sup>	33/29 <sup>2</sup>	35/31 <sup>2</sup>	36/32 <sup>2</sup>										
	Airflow H/L	cfm	280/226	280/226	280/226	440/350	580/460										
	Weight	lbs.	49	49	49	68	75										
	Dimensions (H x W x D)	in.	7 7/8 x 27 9/16 x 24 7/16	7 7/8 x 27 9/16 x 24 7/16	7 7/8 x 27 9/16 x 24 7/16	7 7/8 x 35 7/16 x 24 7/16	7 7/8 x 43 5/16 x 24 7/16										
<b>CONDENSING UNIT - Unified Heat Pump and Heat Recovery</b>																	
    	Performance	Model Name	5 Ton		6 Ton		7 Ton		12 Ton		14 Ton		18 Ton		21 Ton		
		Combination		RWEYQ60MTJU	RWEYQ72MTJU	RWEYQ84MTJU	RWEYQ144MTJU	RWEYQ168MTJU	RWEYQ216MTJU	RWEYQ252MTJU							
		Cooling Capacity	Btu/h	60,000	72,000	84,000	144,000	168,000	216,000	252,000							
		Cooling Input Power	kW	3.41	4.2	5.6	8.4	11.2	12.6	16.8							
		Heating Capacity	Btu/h	67,500	81,000	94,500	162,000	189,000	243,000	283,500							
	Heating Input Power	kW (Btu/h)	3.2 (10,918)	4.0 (13,648)	5.4 (18,425)	8.0 (27,296)	10.8 (36,850)	12.0 (40,944)	16.2 (55,274)								
	Power Supply	V/Ph/Hz	208-230/3/60		208-230/3/60		208-230/3/60		208-230/3/60		208-230/3/60		208-230/3/60		208-230/3/60		
	Sound Pressure Level @3ft	dB(A)	50		50		51		53		54		56		57		
	Refrigerant Side	System Configuration		Heat Pump	Heat Recovery	Heat Pump	Heat Recovery	Heat Pump	Heat Recovery	Heat Pump	Heat Recovery	Heat Pump	Heat Recovery	Heat Pump	Heat Recovery	Heat Pump	Heat Recovery
		Liquid Pipe (Main Line)	in.	3/8	3/8	3/8	3/8	3/8	1/2	1/2	5/8	5/8	5/8	5/8	5/8	3/4	3/4
		Suction Gas Pipe (Main Line)	in.	N/A	3/4	N/A	3/4	N/A	7/8	N/A	1-1/8	N/A	1-1/8	N/A	1-3/8	N/A	1-3/8
		Discharge Gas Pipe (Main Line)	in.	3/4	5/8	3/4	5/8	7/8	3/4	1-1/8	7/8	1-1/8	7/8	1-3/8	1-1/8	1-3/8	1-1/8
		Vertical Pipe Length (If unit below FCU)	ft.	164 (130)		164 (130)		164 (130)		164 (130)		164 (130)		164 (130)		164 (130)	
	Water Side	Actual Pipe Length (Equivalent Length)	ft.	390 (459)		390 (459)		390 (459)		390 (459)		390 (459)		390 (459)		390 (459)	
		Total Pipe Length	ft.	980		980		980		980		980		980		980	
BPHE Inlet Pipe (Female Thread)		in.	1-1/4FPT		1-1/4FPT		1-1/4FPT		(1-1/4FPT)x2		(1-1/4FPT)x2		(1-1/4FPT)x3		(1-1/4FPT)x3		
BPHE Outlet Pipe (Female Thread)	in.	1-1/4FPT		1-1/4FPT		1-1/4FPT		(1-1/4FPT)x2		(1-1/4FPT)x2		(1-1/4FPT)x3		(1-1/4FPT)x3			
Drain Pipe (Female Thread)	in.	1/2FPPS		1/2FPPS		1/2FPPS		(1/2FPPS)x2		(1/2FPPS)x2		(1/2FPPS)x3		(1/2FPPS)x3			
Max. System Water Pressure (BPHE)	psi	285		285		285		285		285		285		285			
Unit	Weight	lbs.	330		330		330		330x2		330x2		330x3		330x3		
	Dimensions (H x W x D)	in.	← 39-3/8x30-3/4x21-11/16 →						← (39-3/8x30-3/4x21-11/16)x2 →				← (39-3/8x30-3/4x21-11/16)x3 →				
Ratings based upon:		Operating Ranges				Continuous Operating Ranges				(For use with RWEYQ-Heat Recovery Configurations)							
Cooling Operation 85°F Inlet Water Temperature & 25.4gpm Water Volume per Module 67°F WB Indoor Air Temperature Equivalent Pipe Length 25ft, level difference 0ft		Cooling		Heating		Cooling		Heating		Model		BSVQ36MVJU		BSVQ60MVJU			
Heating Operation 70°F Inlet Water Temperature & 25.4gpm Water Volume per Module 70°F DB Indoor Air Temperature Equivalent Pipe Length 25ft, level difference 0ft		50 - 113		50 - 113		60 - 113		60 - 113		Connection Capacity		36,000 Btu/h		60,000 Btu/h			
		Indoor Temperature (°FDB)		Indoor Temperature (°FDB)		Indoor Temperature (°FDB)		Indoor Temperature (°FDB)		Pipe Work Connections		Condensing Unit Side 5/8" Flare (Suction Gas) 1/2" Flare (Discharge Gas) 3/8" Flare (Liquid) 5/8" Flare (Gas)		Indoor Unit Side 3/8" Flare (Liquid)			
		55 - 80		55 - 80		55 - 80		55 - 80		Weight (lbs)		18		18			
		55 - 80		55 - 80		55 - 80		55 - 80		Dimensions (H x W x D)		7 1/4 x 12 1/4 x 11		7 1/4 x 12 1/4 x 11			

		Individual Zone Controllers			Multi-Zone Controllers		Time Clock Controllers
		7-Day Programmable Wired R/C BRC1D71	Simplified Wired R/C BRC2A71	Wireless R/C BRC7C812 BRC7E83 BRC4C82 BRC7E818	Unified On/Off R/C DSC301C71	Centralized R/C DSC302C71	Schedule DST301B61
Model							
No. of Units Controllable		← 1 Group/16 Units →			16 Groups	64 Groups	128 Groups
Operation	Start/Stop	✓	✓	✓	✓	✓	✓
	Operate Mode	✓	✓	✓	✓	✓	✓
	Temperature Setting	✓	✓	✓	✓	✓	✓
	Set-Point Range	60°-90°F	60°-90°F	60°-90°F		60°-90°F	
	Permit/Prohibit Selection	✓	✓	✓	✓	✓	✓
	Fan Speed	✓	✓	✓	✓	✓	✓
	Airflow Direction	✓	✓	✓	✓	✓	✓
Monitoring	Status	✓	✓	✓	✓	✓	✓
	Malfunction Flashing	✓	✓	✓	✓	✓	✓
	Malfunction Content	✓	✓	✓	✓	✓	✓
	Filter Sign	✓	✓	✓	✓	✓	✓
	Operation Mode	✓	✓	✓	✓	✓	✓
	Temperature Setting	✓	✓	✓	✓	✓	✓
	Permit/Prohibit Selection	✓	✓	✓	✓	✓	✓
	Fan Speed	✓	✓	✓	✓	✓	✓
	Airflow Direction	✓	✓	✓	✓	✓	✓
Scheduling	Weekly						✓
	Timed Starts/Stops Per Day						2
	No. of Weekly Schedules					8	
	Auto ON/OFF Timer	✓	✓	✓	✓	✓	✓
Data	Error History					✓	
Control Management	Field Setting Mode	✓	✓	✓	✓	✓	✓
	Group Setting	✓	✓	✓	✓	✓	✓
	7-Day Time Clock	✓	✓	✓	✓	✓	✓
	5-Temperature Setpoints Per Day	✓	✓	✓	✓	✓	✓
	Minimum Night Setting	✓	✓	✓	✓	✓	✓
	Maximum Day Setting	✓	✓	✓	✓	✓	✓
	Night Set-Back Function	✓	✓	✓	✓	✓	✓
	Home Leave Function	✓	✓	✓	✓	✓	✓
	Auto Restart	✓	✓	✓	✓	✓	✓

### LonWorks® NETWORKS COMPATIBLE GATEWAY

- Interface for connection to LonWorks® networks
- Communication via LON® protocol (twisted pair wire)
- 64 units connectable per DMS-IF
- Unlimited site size
- Quick, easy installation



### INTEGRATED CONTROL SYSTEM CONNECTING VRV SYSTEM WITH BMS SYSTEM

- Interface for BMS system
- Communication via BACnet® protocol (connection via ethernet)
- 256 units connectable per BACnet® gateway
- Unlimited site size
- Quick, easy installation



### touch intelligent Controller

- 64 groups (128 indoor units) connectable
- Management of AC units, facilities, and ancillary equipment
- Touch screen display
- Built-in Ethernet port, Web enabled (optional)



Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this brochure without notice and without incurring any obligations.



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