TOSHIBA
Carrier

VRF

Toshiba Carrier
VRF Catalog

2022-2023 Edition | North America

We Don't Just Build Units. **We Help You Engineer Comfort.**

Comfort is a system that works for everyone. At Carrier, we recognize there's no one solution for all HVAC needs, so we've invested in a full range of them, including Variable Refrigerant Flow (VRF) products.

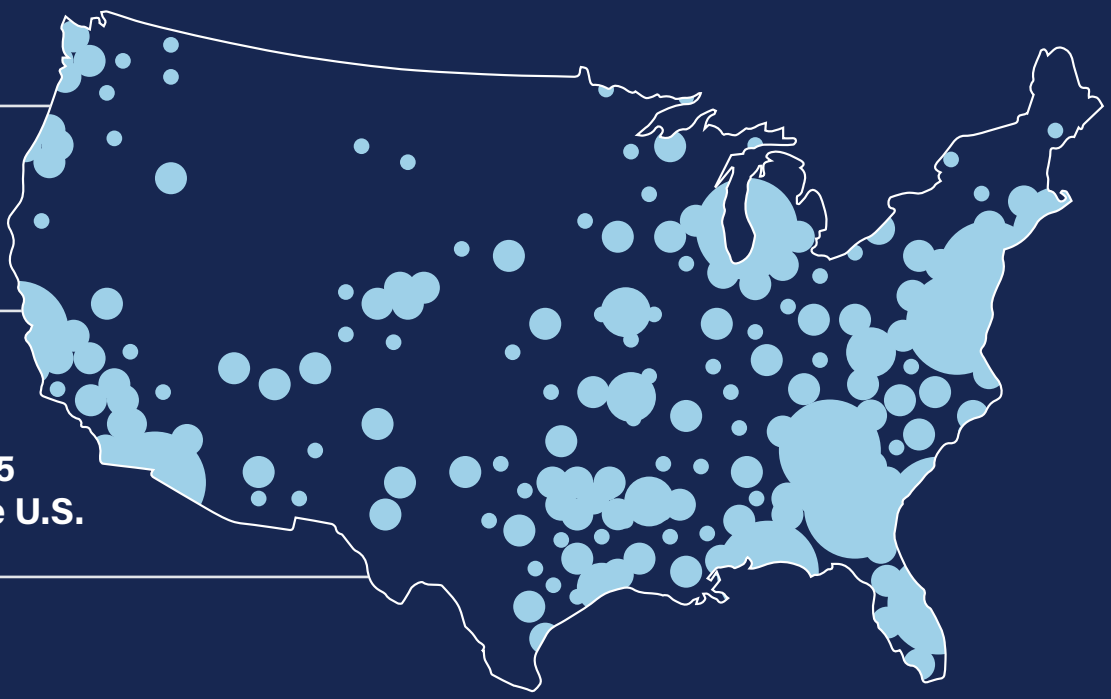
We found a natural partner in Toshiba, the creator of two key technologies for modern VRF. From the world's first inverter in AC in 1980 and the world's first DC twin rotary compressor in 1993 to the Carrier joint venture in 1999, Toshiba's legacy moves in one direction: forward.

Designed and engineered specifically for North America, Toshiba Carrier VRF joins two early innovators of variable refrigerant flow for one total system solution.

So you can trade the sourcing of components for the design and redesign of indoor comfort systems—for virtually any application or need.

Engineered for **North America**

Toshiba Carrier VRF systems have been **installed across all 5 climate zones in the U.S.**



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What Is VRF

A Comfortable Experience...

Variable Refrigerant Flow (VRF) systems allow for the heating and/or cooling of individual zones throughout a building, as opposed to an “all or nothing” temperature setting. The system achieves this customization by adjusting the flow of refrigerant to multiple indoor units connected to one operating system.

...Without the Waste

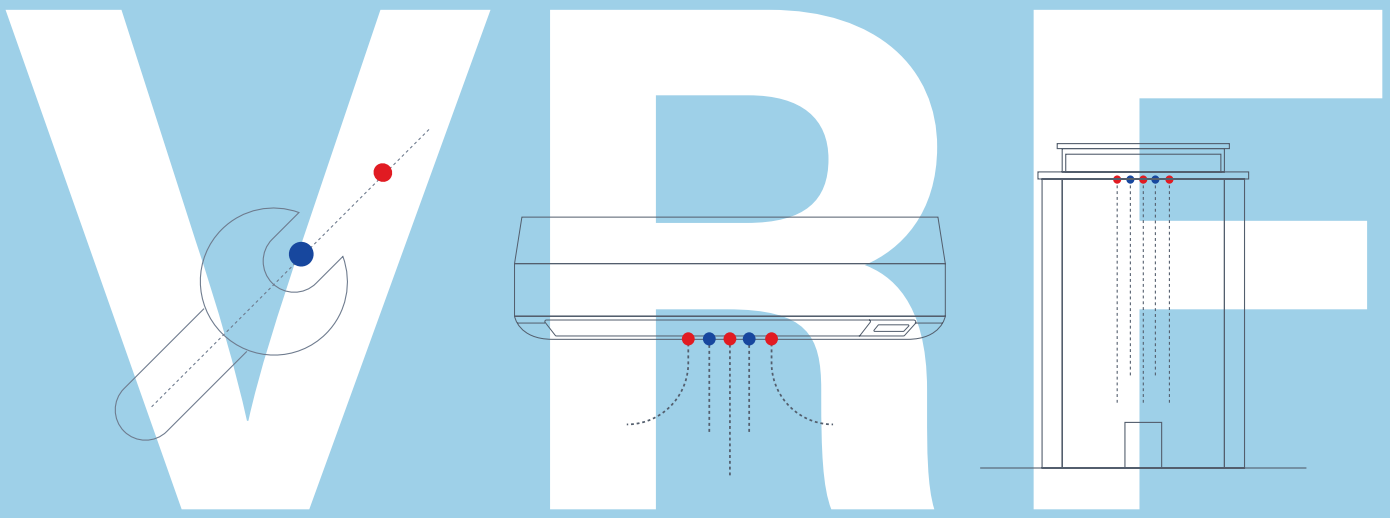
VRF is not just about sophisticated control. It computes the precise amount of refrigerant required by each indoor unit and controls the refrigerant flow accordingly. This avoids over cooling or heating—and adds major operational efficiency.

Why VRF

It's Hard to Object to **the Flexibility of VRF**

Whether you're looking to maximize comfort in a new building or retrofit an existing one, VRF systems join design flexibility with space and potential energy savings—but the only thing occupants notice is the comfort.

It pays to choose wisely—and choose the efficiency of VRF. According to the U.S. Department of Energy (DOE), heating, cooling and ventilation account for 40% of energy costs in the average commercial building.[1]



Sustainability and Efficiency

- Enjoy simplified maintenance and efficient operation
- Gain energy savings that contribute to Leadership in Energy and Environmental Design (LEED) certification

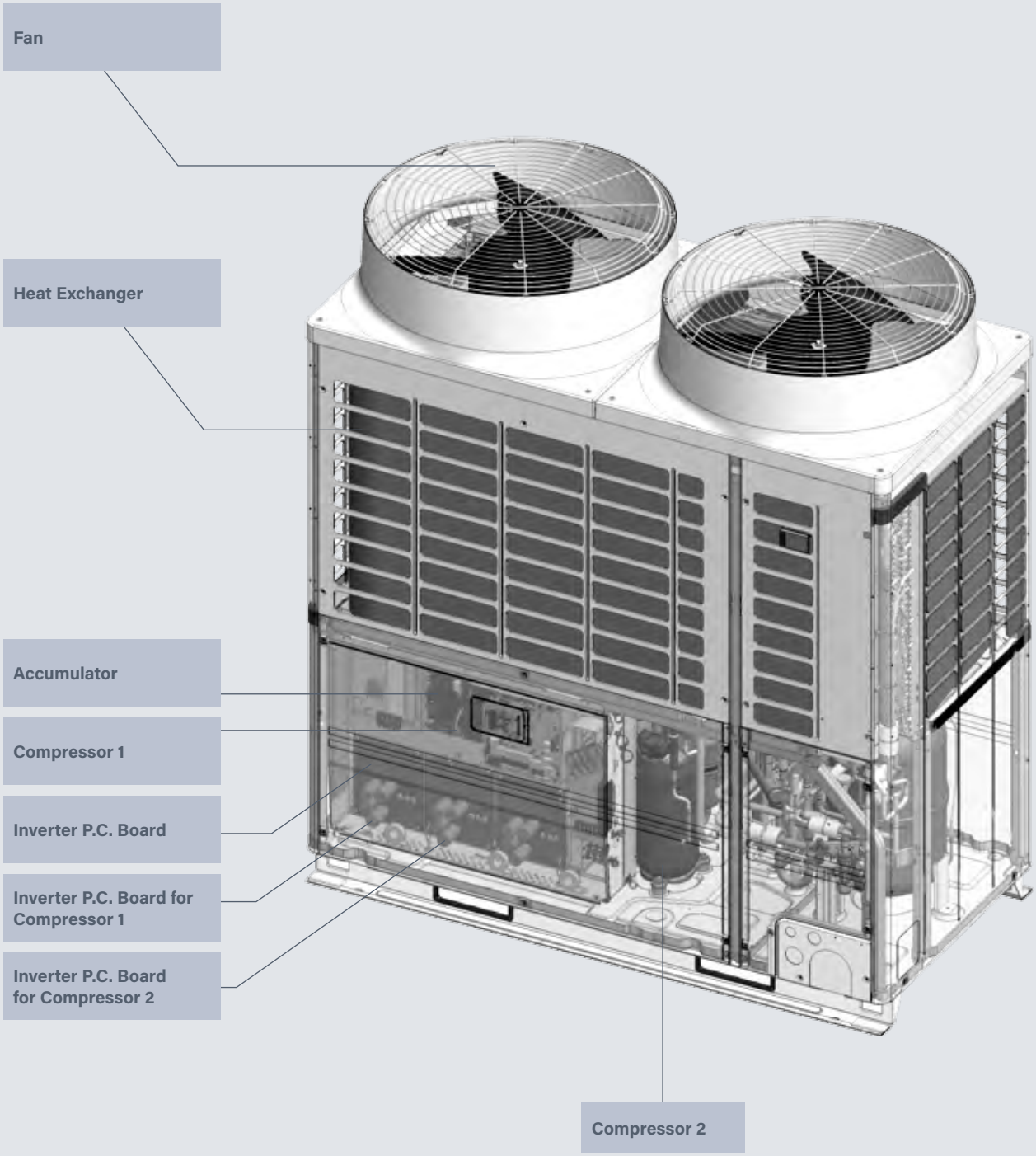
Ease of Design

- Connect up to 64 indoor units to one outdoor module
- Maximize limited ceiling space and eliminate need for maintenance rooms and service shafts
- Precisely match building capacity or power requirements

Performance

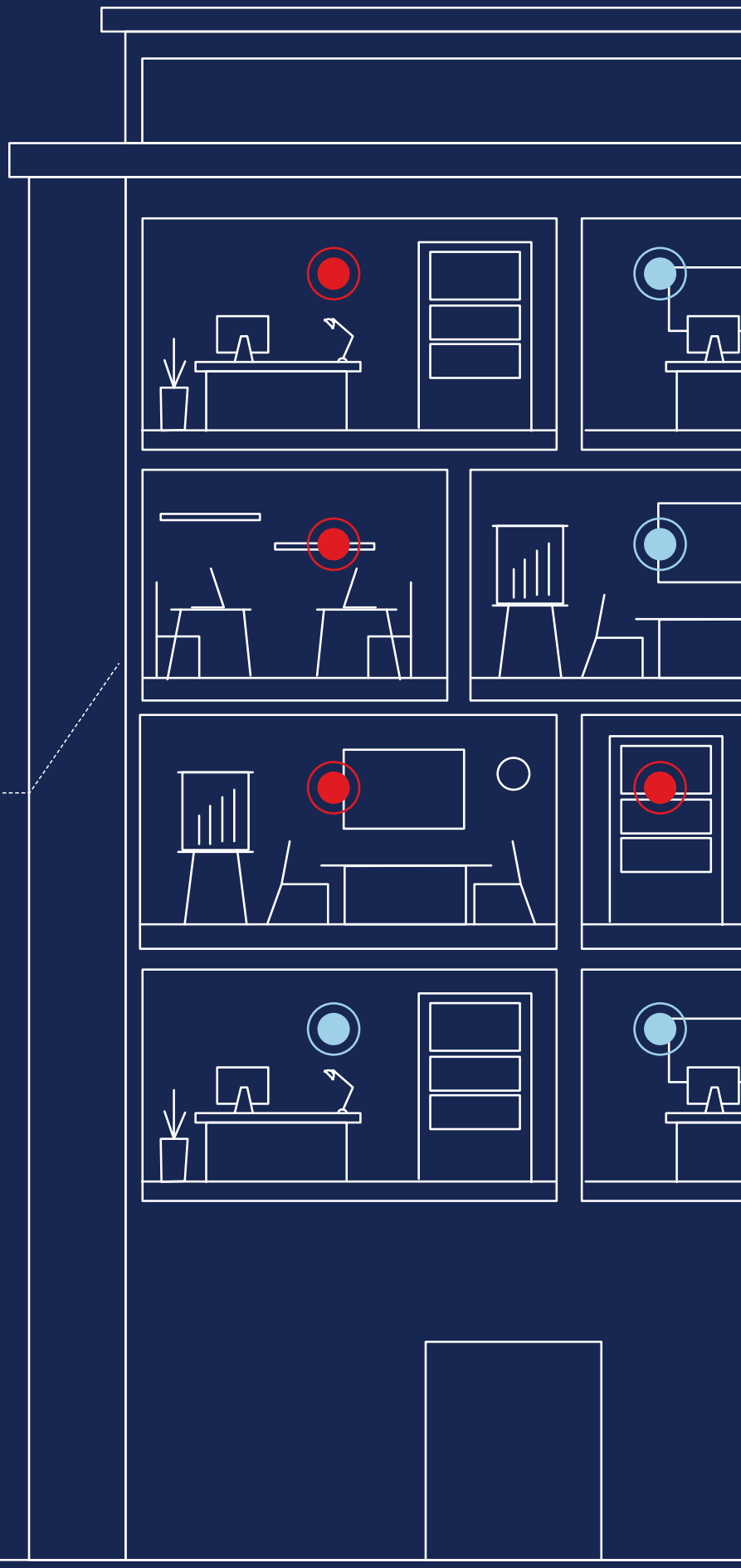
- Zoned temperature control for ideal comfort
- Simultaneous heating and cooling with heat recovery systems
- Optimum part-load performance

[1]https://www.pnnl.gov/main/publications/external/technical_reports/PNNL-20955.pdf


Fan
Heat Exchanger
Accumulator
Compressor 1
Inverter P.C. Board
Inverter P.C. Board for Compressor 1
Inverter P.C. Board for Compressor 2
Compressor 2

To Heat or to Cool? Or Both?

Perfect for large open spaces, **VRF heat pumps** provide either heating or cooling at a given time. And for buildings with varying temperature zones, **VRF heat recovery systems** can heat and cool different zones at the same time. The heat recovery system reuses energy from one zone, like a sunlit lobby, in a cooler part of the building.



38 Tons

Toshiba Carrier VRF systems now offer heat recovery up to 38 tons—meaning serious cooling power for your next project.

Toshiba Carrier 3-Pipe
VRF Heat Recovery

Since heat recovery provides simultaneous heating and cooling of different building zones on a single refrigerant piping system, it's ideal for highly zoned areas, areas that require multiple thermal zones or spaces that naturally include high zone diversity. The system also works well for retrofit needs, since it doesn't require ducting. It also offers design flexibility by allocating one flow selector box for each indoor unit.

Your choice of Toshiba Carrier VRF heat recovery will depend on a range of factors specific to your project, including local climate, specific building needs and project type (remodel, retrofit or new construction). The system can be an ideal fit for a variety of verticals, including, but not limited to, hotels, assisted living and office spaces.

Heat Recovery

Toshiba Carrier
VRF Heat Pump

VRF heat pumps are ideal for large, open spaces with single common zones, since all indoor units will share the same load. It can also accommodate spaces with limited roof support or unique structural needs when paired with the Toshiba Carrier 40QQ-E rooftop outdoor unit.

The system is an ideal fit for restaurants, retail, places of worship, storage facilities, parking garages—and more. Your choice of Toshiba Carrier VRF heat pump systems still depend on factors specific to your project, including local climate, specific building needs and project type (remodel, retrofit, or new construction).

Heat Pump

Why Toshiba Carrier VRF

VRF Comfort. **Built on Toshiba Carrier Confidence.**

More Than Just Components. A Total System Solution.

Your choice of VRF system makes a difference. We're invested in advancements that help your VRF system serve the design needs and function of a space—not the other way around. Case in point: we were the first in the industry to offer single-phase VRF heat recovery.

But our commitment extends well beyond setup. When you invest in Toshiba Carrier VRF, you create a system that delivers on the promise of comfort, time after time. Because performance and reliability are the backbone of Toshiba Carrier confidence.

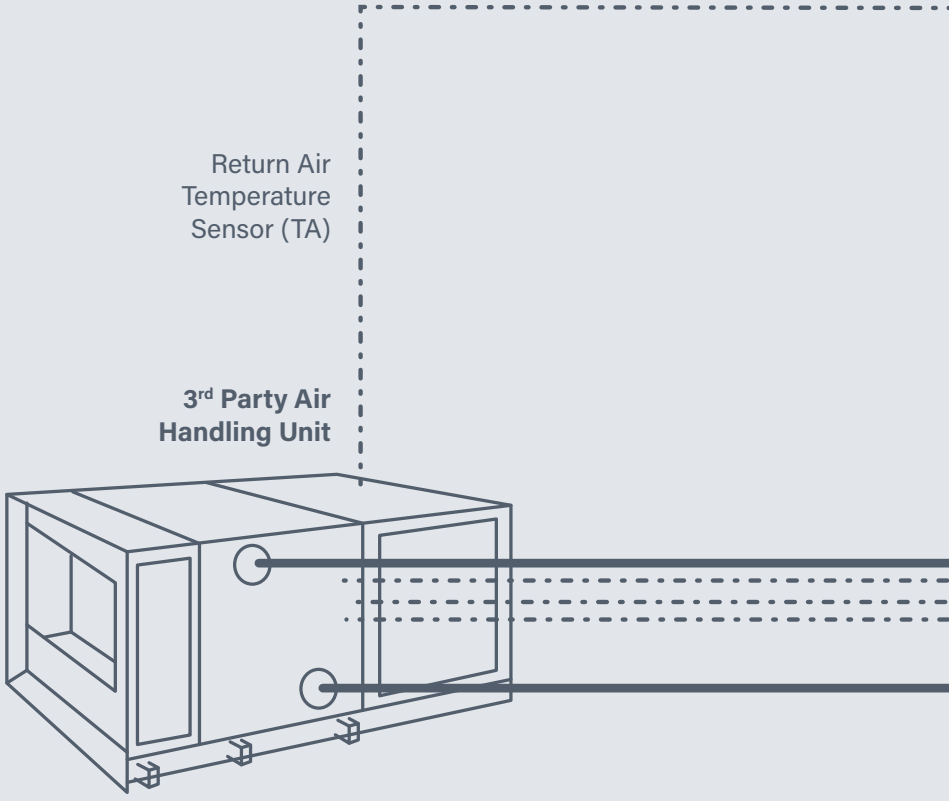
Toshiba Carrier VRF expects the unexpected **—and doesn't waste energy on it.**

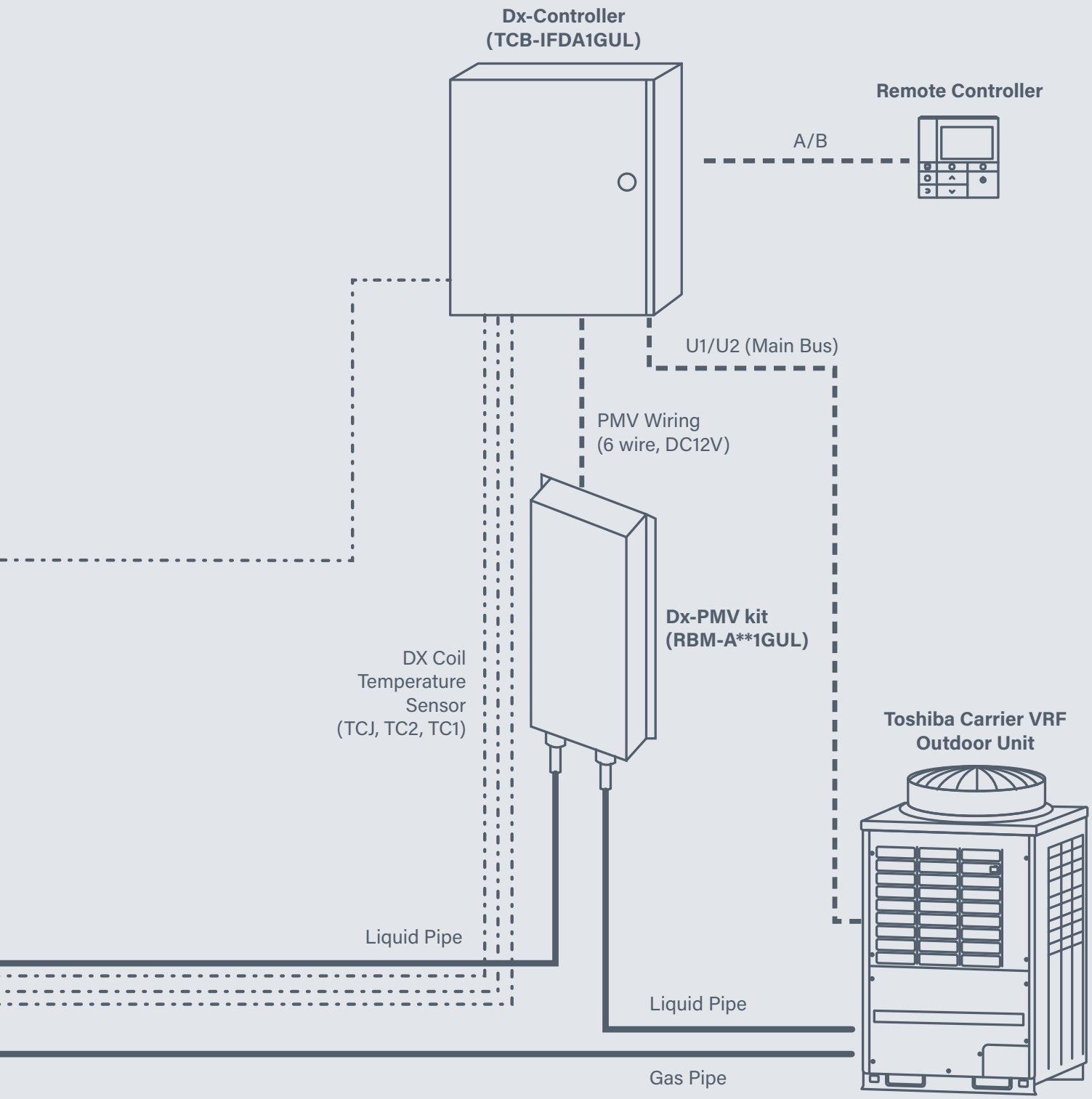
DX Interface

Choose a Compatible Outlook

Why manage multiple vendors when you can have VRF technology that integrates with everything? The DX Interface from Toshiba Carrier allows integration with an air handling unit (AHU) to meet ventilation requirements. Using the DX Interface, Toshiba Carrier VRF integrates with Carrier's market-leading AHUs. If you're already using an AHU from another manufacturer, Toshiba Carrier VRF will integrate with those, too.

Why manage multiple vendors when you can have **VRF technology that integrates with everything?**




Dx-Controller
(TCB-IFDA1GUL)
Remote Controller
A/B
U1/U2 (Main Bus)
PMV Wiring
(6 wire, DC12V)
Dx-PMV kit
(RBM-A**1GUL)
DX Coil
Temperature
Sensor
(TCJ, TC2, TC1)
Toshiba Carrier VRF
Outdoor Unit
Liquid Pipe
Liquid Pipe
Gas Pipe

Built for

Extreme Temperature Performance

Toshiba Carrier VRF delivers heating down to -13° F and cooling up to 122° F in cooling mode. And there are no “hard shutoffs” when operating outside these temperatures or based on outdoor temperatures.

The system also features dual rotary compressors, which function well in harsh environments, in addition to delivering optimal efficiency at all speeds (and being easy to maintain).

Sample Application:
Place of Worship

Location
Omaha, NE

Background
A historic property built in 1915, this place of worship needed a heating and cooling system that would maintain structural integrity of the building and withstand extreme ambient temperatures.

Challenge
The building structure and location presented several design challenges, including:

- Coping with the existing steam heat with radiators
- No cooling in the building
- Property line and security issues
- Low ambient temperatures (-15° F to -20° F common temperature during cool season)

Solution
Three, 10-ton outdoor condensing units were installed indoors. We also created custom-built wood cabinets for the floor consoles to match the historic church's existing woodwork and fit the footprint of the old radiators.

Results
CO_2 sensors connect to the Toshiba Carrier ERV interface, driving the opening and closing of fresh air dampers in the ductwork based on occupancy to meet ventilation code. When a compressor is running and the outside air temperature is above 50° F, control dampers are driven open and units are vented in the mechanical room. During cold temperatures, outside air intake dampers close and gas unit heaters maintain ambient temperatures in the mechanical room.

Built for

Smooth (and Quiet) Operations

Comfort isn't a disruption—so Toshiba Carrier VRF keeps it quiet. Intentionally designed for efficient operations and reduced compressor stress, compressor load stays within 30-80% of full load range. That means the output is as quiet as it is steady and reliable.

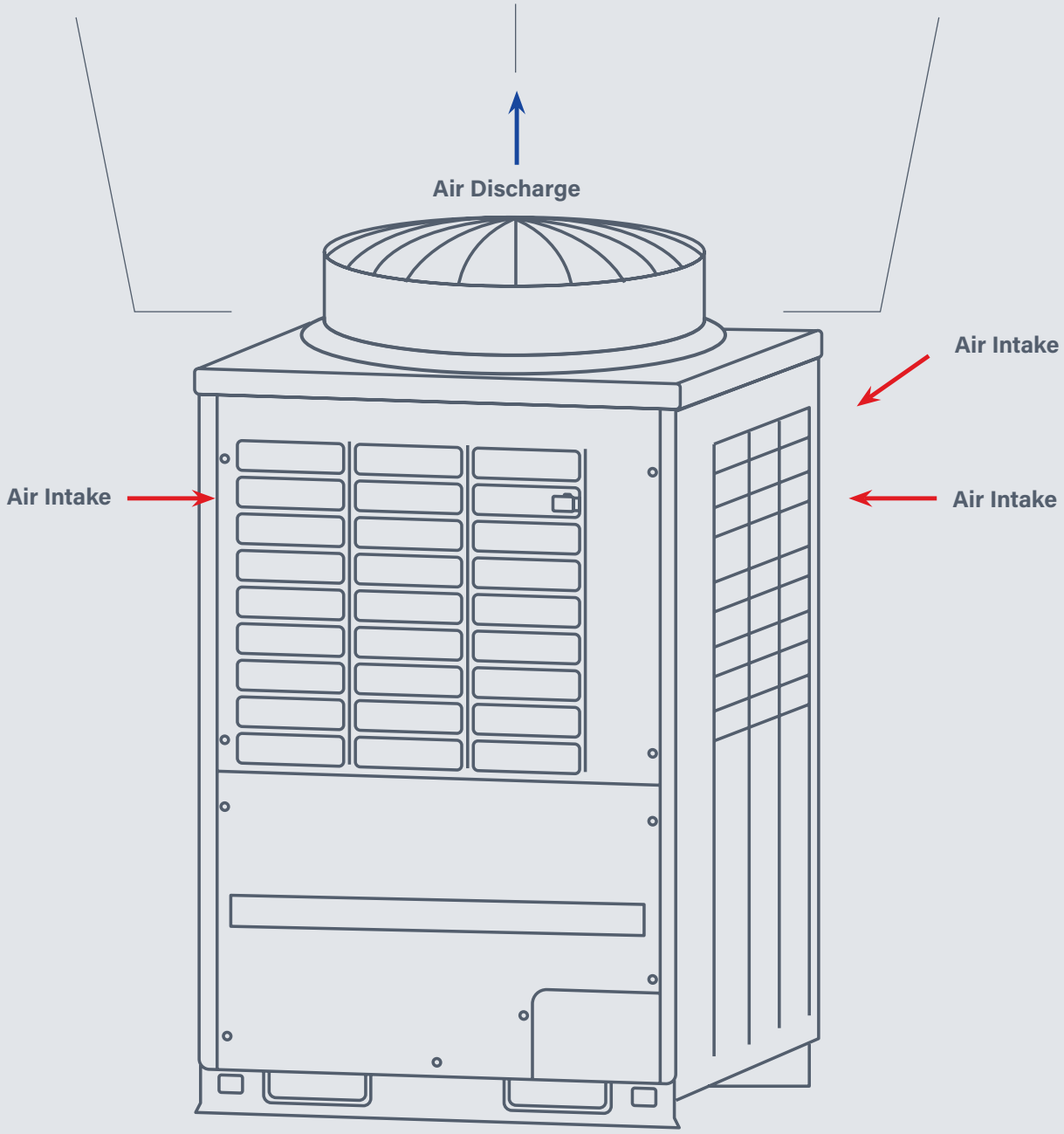
Similarly, the outdoor unit's air discharge propeller fan features a unique profile and shape that minimizes air resistance, maximizes power—and reduces sound.

Stays within
30-80%
of full compressor load range

Minimized
Air Resistance

Reduced
Sound

Maximized
Power



Built for

Even Flow

Control each compressor and maintain consistent overall compressor performance. How? The system's operating sequence rotates between compressors in a single outdoor unit or between outdoor units in a modular system for an even spread of operating hours.

Intelligent Refrigerant Flow

Toshiba Carrier VRF uses over 300 sensors and multiple Pulse Motor Valves (PMV) to pinpoint the needed refrigerant flow for each indoor unit, creating increased efficiency at full or partial building loads.

Contingencies Upon Contingencies

From multiple inverter-driven compressors to a three-stage oil monitoring system, Toshiba Carrier VRF systems flag, and correct for, potential disruptions long before they delay anyone's comfort.

The system's design flexibility helps you anticipate structural limitations, confined spacing and industry regulations with sustainable, efficient solutions for heating and cooling.

Taking Rooftop Units to a New Level

The 40QQ-E Rooftop Unit

The Toshiba Carrier VRF 40QQ-E rooftop unit is the first rooftop product line designed using VRF technology. The 40QQ-E features EcoBlue™ technology, which includes a more compact vane axial fan and a simplified design for better performance. And, options like electric heat with sing-point power connection, horizontal or vertical discharge, economizer and use of existing curb can help you complete a replacement job faster and more cost-effectively with less downtime.

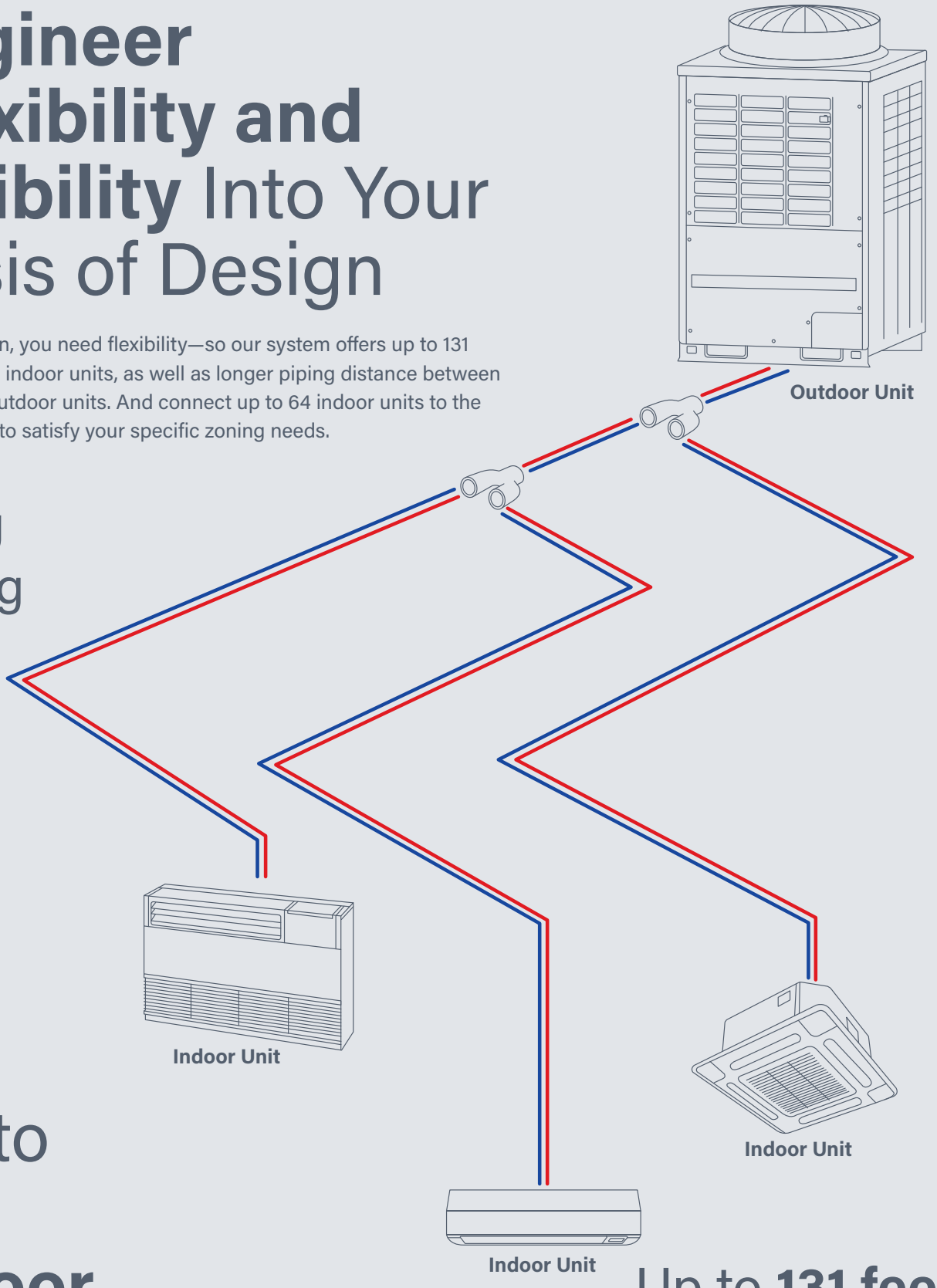
Other 40QQ-E benefits include:

- Provides outside air circulation without the full weight of a traditional rooftop unit
- Curb-compatible rooftop unit
- Economizer provides Title 24 compliant outside air circulation
- Provides flexibility for expansion, if needed

ecoblue™ technology

Engineer Flexibility and Visibility Into Your Basis of Design

As you design, you need flexibility—so our system offers up to 131 feet between indoor units, as well as longer piping distance between indoor and outdoor units. And connect up to 64 indoor units to the outdoor unit to satisfy your specific zoning needs.



Long piping

Up to **64 indoor** units

Up to **131 feet** between flow selector and indoor units

VRoom

Once you've chosen Toshiba Carrier VRF, easily design, layout and prepare VRF systems for quote with our advanced software, VRoom. It's a selection tool designed for engineers with built-in error checking and system performance checks every step of the way. So you enjoy technical support as early as ideation, and issues are consistently easy to identify and resolve from day one.

And that's just the start of how VRoom helps you get going:

- Drag and drop feature for easy selection of indoor units
- Quick edits of indoor unit type, piping length and operating conditions using Excel feature
- Automatic software updates

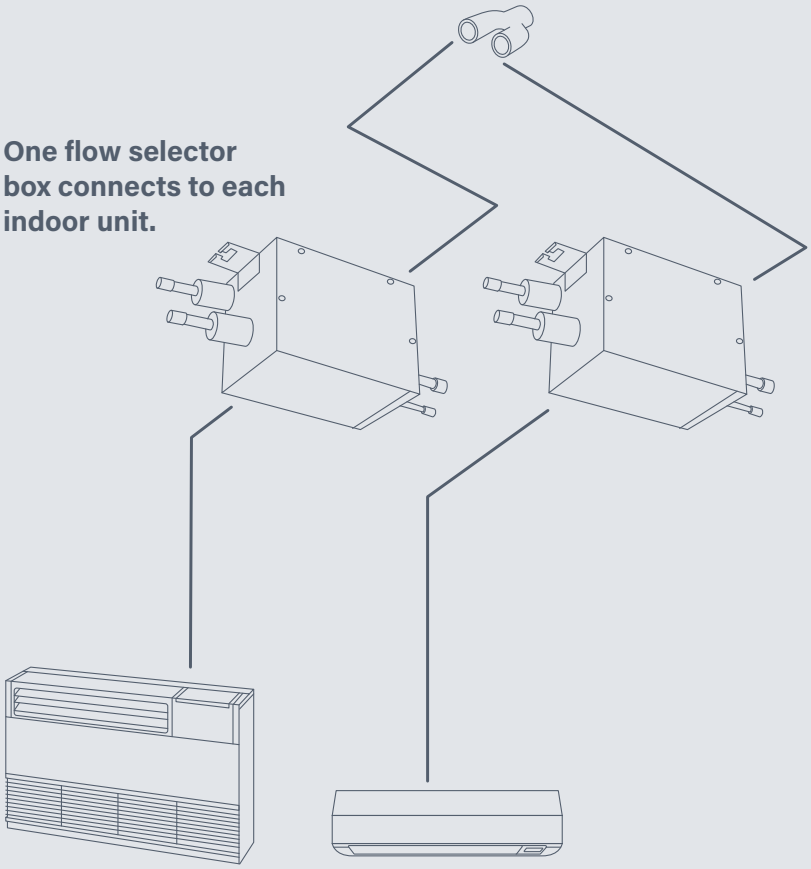
Contact VRoomhelp@carrier.com for assistance and support.

We're Ready for Implementation When You Are

Carrier didn't invent air—but we did invent modern air conditioning. Our longstanding commitment to convenient comfort is your support system throughout the design and installation of Toshiba Carrier VRF.

The system itself is intentionally designed to make installation simpler. For example, Toshiba Carrier VRF heat recovery systems offer both single "one to one" flow selector boxes to optimize system configuration, meaning you have more options for outdoor unit placement.

In addition, Carrier offers training and support to help the build out of a complete VRF system—with everything from specs to start-up to commissioning.



VRF Startup Assistance

Our assistance program helps you make sure nothing's in the way of a successful start to your heating and cooling operations. Post-installation, but before your system is commissioned or operational, a factory-authorized Carrier HVAC Technician works onsite during normal business hours to assess, and anticipate any issues with, your VRF installation.

At a minimum, the technician will do the following:

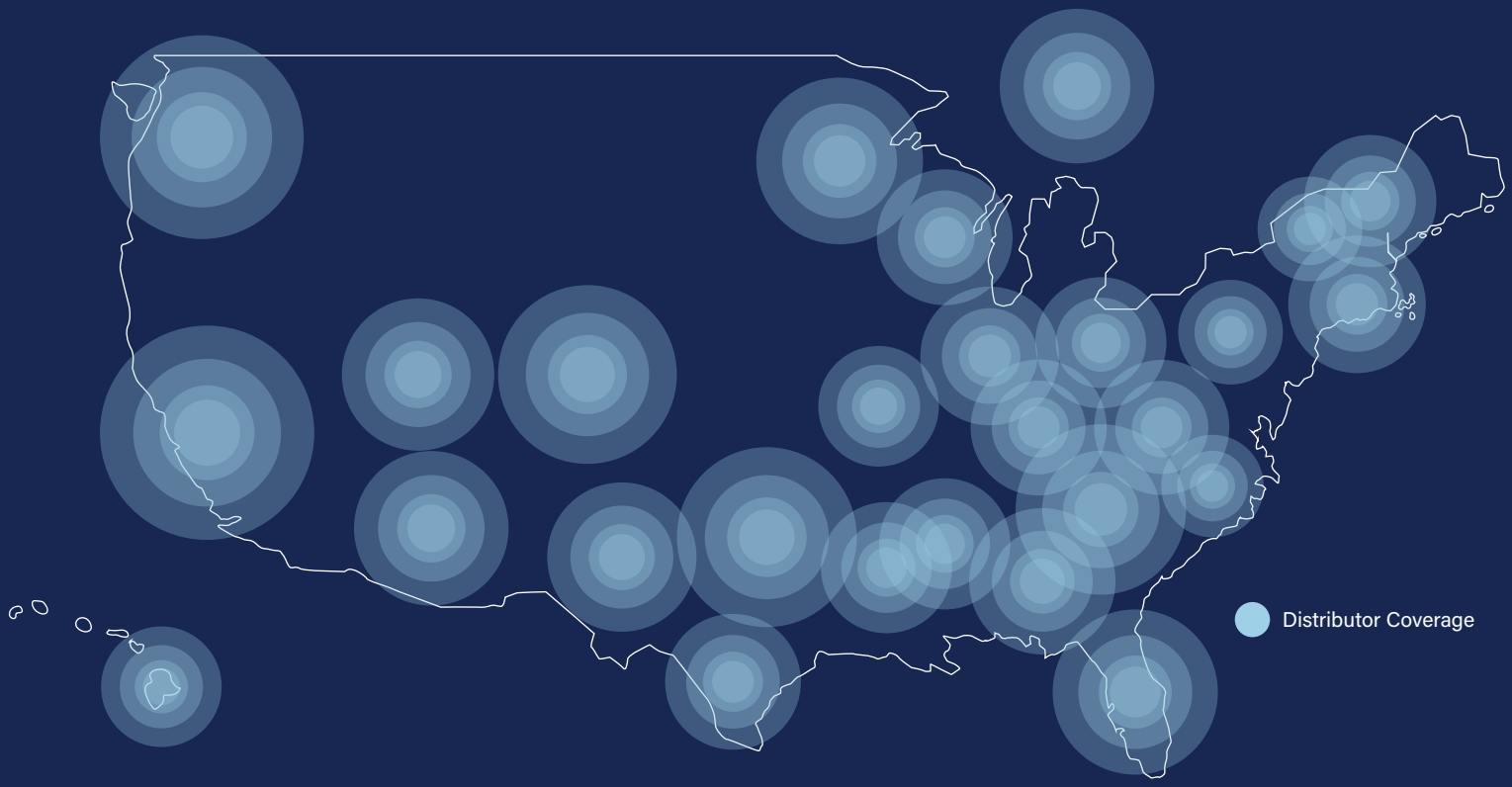
- Reference engineering and installation manuals to identify and document installation issues that may impact the startup
- Utilize service software to communicate with the VRF system and collect real runtime data for a fixed period of time to insure optimum operation at the time of commissioning
- Verify operating conditions of other system components
- Conduct on-site training for owner/end user personnel

At the conclusion of the engagement, the technician will create and deliver a post-visit Startup Report that includes all insights gleaned to the distributor.

Please contact vrfstartup@carrier.com for factory startup assistance.

Your VRF System Is **a Distributor Away**

Toshiba Carrier offers a single-source solution through a nationwide network of distributors. It's as easy to find us as it is to work with us. We serve heating and cooling needs in all regions with many experienced, longstanding distributor relationships. Our distributors combine high product knowledge with high levels of training so you can make confident choices when it comes to Toshiba Carrier VRF.

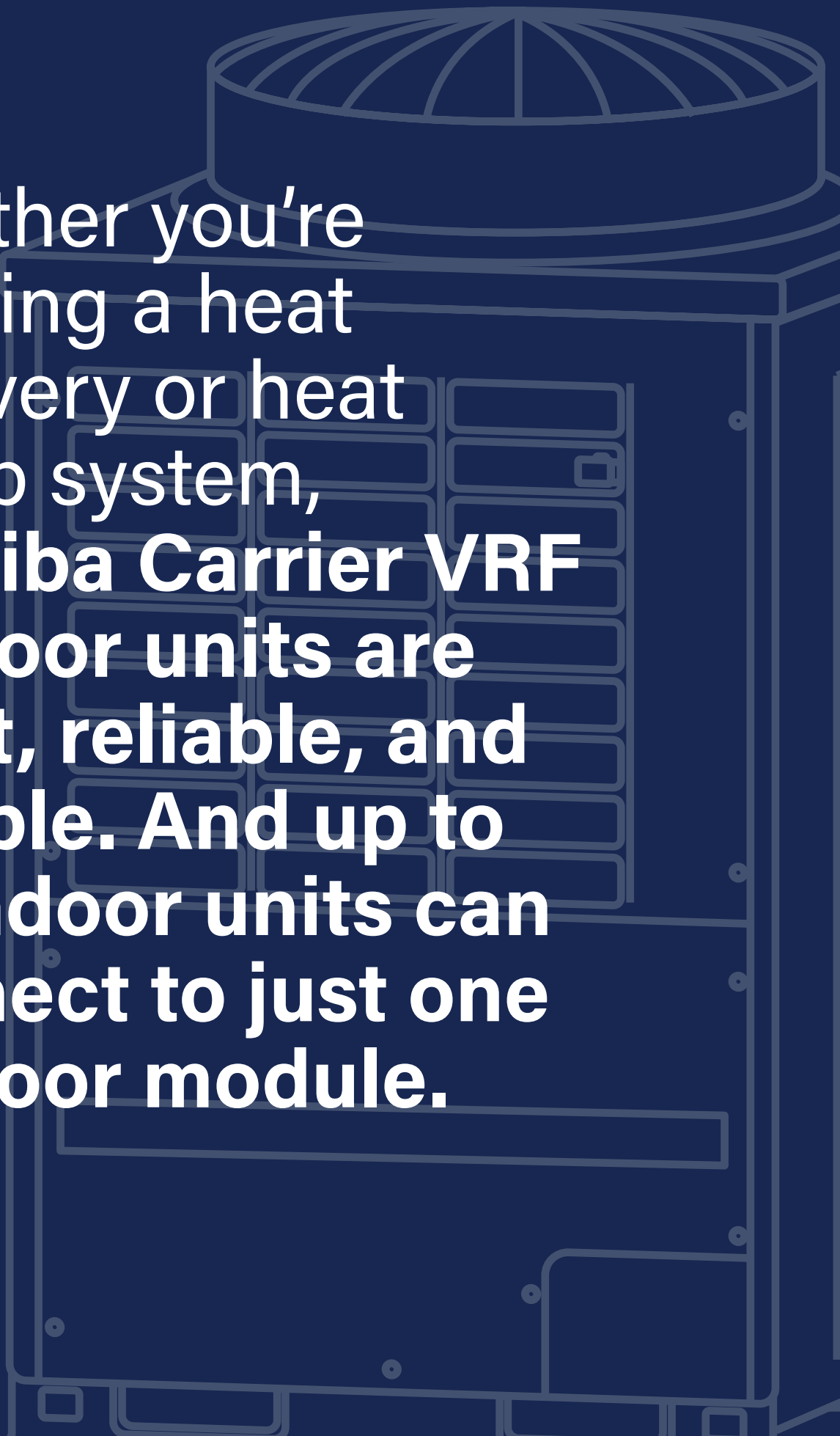


The results speak for themselves:

Our network of experts have successfully installed VRF systems in a wide range of regions and climate zones. **Will yours be next?**

VRF

Outdoor Units



Whether you're building a heat recovery or heat pump system, **Toshiba Carrier VRF outdoor units are quiet, reliable, and flexible. And up to 64 indoor units can connect to just one outdoor module.**

VRF Outdoor Units Overview




Tonnage	Heat Recovery*					Heat Pump			
	Single-phase		3-phase			Single-phase	3-phase		
	1 Module	2 Module	1 Module	2 Module	3 Module	1 Module	1 Module	2 Module	3 Module
3						3			
4						4			
5						5			
6	6		6				6		
8			8				8		
10			10				10		
12		6 + 6	12				12		
14			14				14		
16				8 + 8				8 + 8	
16**				10 + 6				10 + 6	
18				10 + 8				10 + 8	
20				12 + 8				12 + 8	
20**				10 + 10				10 + 10	
22				12 + 10				12 + 10	
24				12 + 12				12 + 12	
24**				14 + 10				14 + 10	
26				14 + 12				14 + 12	
28					10 + 10 + 8			14 + 14	
28**				14 + 14					
30					10 + 10 + 10				10 + 10 + 10
32					12 + 10 + 10				12 + 10 + 10
34					12 + 12 + 10				12 + 12 + 10
34**									14 + 10 + 10
36					12 + 12 + 12				14 + 12 + 10
38					14 + 12 + 12				14 + 14 + 10

*For use with Flow Selector "FS" box and multiport FS box on page 82.
**Space Saving model.

Single-Phase Heat Recovery Outdoor Unit (MMYF-1P) **208/230V-1-60**

Standard Model (Combination)						
Outdoor Unit Model Name				**MMY-**	**MAP0726FT2P-UL**	**AP1446FT2P-UL**
Nominal Tons					6	12
Combination Model				MMY-	-	MAP0726FT2P-UL
					-	MAP0726FT2P-UL
Cooling Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal		kBtu/h	72	144
		Rated		kBtu/h	69	138
Heating Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal		kBtu/h	81	162
		Rated		kBtu/h	77	154
With Non-Ducted Indoor Units Electrical Characteristics	Power Supply[2]				208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz
	Cooling	Power Consumption[3]		kW	4.53	9.92
		IEER[4]		Btu/W*hr	26.6	25.7
	Heating	Power Consumption[3]		kW	5.98	11.69
		SCHE[5]		Btu/W*hr	30.6	31.3
With Ducted Indoor Units Electrical Characteristics	Power Supply[2]				208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz
	Cooling	Power Consumption[3]		kW	5.11	10.10
		IEER[4]		Btu/W*hr	19.5	20.0
	Heating	Power Consumption[3]		kW	6.25	11.82
		SCHE[5]		Btu/W*hr	26.9	26.6
External Dimensions		Height		in	72.9	72.9
		Width		in	39.0	39.0 x 2
		Depth		in	30.7	30.7
Total Weight	Unit			lb	600	600 x 2
Compressor	Type				Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor
	Motor Output			kW	2.1 x 2	2.1 x 4
Fan Unit	Motor Output			kW	1.0	1.0 x 2
	Air Volume			cfm	5,900	5,900 x 2
	Maximum External Static Pressure			in WG	0.24	0.24
Refrigerant[6] (Charged Refrigerant Amount)				lb	24.3	24.3 x 2
Electrical Specifications	Unit	MCA[7]		A	47	47 + 47
		Recommended Fuse Size		A	50	50 + 50
Refrigerant Piping	Connecting Port Diameter	Gas Side (Main Pipe) (Brazing)		in	7/8	1-1/8
		Liquid Side (Main Pipe) (Flare)		in	1/2	5/8
		Discharge (Main Pipe) (Flare)		in	3/4	7/8
		Balance Pipe (Flare)		in	3/8	3/8
Operation Temperature Range		Cooling		° F DB	14-122	14-122
		Heating		° F WB	-13-60	-13-60
Maximum Number of Connected Indoor Units					12	25
Maximum Capacity of Combined Indoor Units[8]					50-150%	50-150%
Sound Pressure Level Cooling / Heating				dB(A)	57/60	60/63

[1]Rated conditions:
Cooling: Indoor 80° F dry bulb / 67° F wet bulb, Outdoor 95° F dry bulb.
Heating: Indoor 70° F dry bulb, Outdoor 47° F dry bulb / 43° F wet bulb.
[2]The source voltage must not fluctuate more than ±10%.
[3]Only for outdoor unit.
[4]IEER: Integrated Energy Efficiency Ratio.
[5]SCHE: Simultaneous Cooling & Heating Efficiency.
[6]The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.
[7]Select wire size based on the larger value of MCA. MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).
[8]In case the diversity exceeds 135%, the type of indoor unit is limited and the maximum number of indoor units is reduced.

SMMS e
SUPER MODULAR MULTI SYSTEM

The standard pipe
144 type – 228 type

Equivalent piping length
25 ft, Height difference: 0 ft

Heat Recovery Outdoor Unit (MMYF) **208/230V-3-60**

Standard Model (Single Unit)

Outdoor Unit Model Name			MMY-	MAP0726FT9P-UL	MAP0966FT9P-UL	MAP1206FT9P-UL	MAP1446FT9P-UL	MAP1686FT9P-UL
Nominal Tons				6	8	10	12	14
Cooling Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	72	96	120	144	168
		Rated	kBtu/h	69	92	114	138	160
Heating Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	81	108	135	162	189
		Rated	kBtu/h	77	103	129	154	180
With Non-Ducted Indoor Units Electrical Characteristics	Power Supply[2]			208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	4.53	7.16	9.39	11.03	14.55
		IEER[4]	Btu/W*hr	26.6	28.3	27.5	25.9	23.3
	Heating	Power Consumption[3]	kW	5.98	7.66	10.21	11.76	15.05
		SCHE[5]	Btu/W*hr	30.6	31.3	34.9	33.6	30.2
With Ducted Indoor Units Electrical Characteristics	Power Supply[2]			208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	5.11	7.34	9.05	11.29	14.48
		IEER[4]	Btu/W*hr	19.5	21.4	20.0	20.2	19.2
	Heating	Power Consumption[3]	kW	6.25	7.61	10.34	12.02	15.38
		SCHE[5]	Btu/W*hr	26.9	26.7	26.7	29.9	26.9
External Dimensions		Height	in	72.9	72.9	72.9	72.9	72.9
		Width	in	39.0	47.6	47.6	63.0	63.0
		Depth	in	30.7	30.7	30.7	30.7	30.7
Total Weight	Unit		lb	600	721	721	882	882
Compressor	Type			Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor
	Motor Output		kW	2.1 x 2	3.0 x 2	4.0 x 2	5.4 x 2	6.5 x 2
Fan Unit	Motor Output		kW	1.0	1.0	1.0	1.0 x 2	1.0 x 2
	Air Volume		cfm	5,900	7,480	7,700	10,850	10,850
	Maximum External Static Pressure		in WG	0.24	0.16	0.16	0.16	0.16
Refrigerant[6] (Charged Refrigerant Amount)			lb	24.3	24.3	24.3	24.3	24.3
Electrical Specifications	Unit	MCA[7]	A	23.3	34.2	45.4	52.1	66.2
		Recommended Fuse Size	A	30	40	50	60	70
Refrigerant Piping	Connecting Port Diameter	Gas Side (Main Pipe) (Brazing)	in	7/8	7/8	1-1/8	1-1/8	1-1/8
		Liquid Side (Main Pipe) (Flare)	in	1/2	1/2	1/2	5/8	3/4
		Discharge (Main Pipe) (Flare)	in	3/4	3/4	3/4	7/8	7/8
		Balance Pipe (Flare)	in	3/8	3/8	3/8	3/8	3/8
Operation Temperature Range		Cooling	° F DB	14-122	14-122	14-122	14-122	14-122
		Heating	° F WB	-13-60	-13-60	-13-60	-13-60	-13-60
Maximum Number of Connected Indoor Units				12	16	21	25	30
Maximum Capacity of Combined Indoor Units[8]				50-150%	50-150%	50-150%	50-150%	50-150%
Sound Pressure Level Cooling / Heating			dB(A)	57/60	62/62	63/64	66.5/66.5	66.5/67.0

[1]Rated conditions:
Cooling: Indoor 80° F dry bulb / 67° F wet bulb, Outdoor 95° F dry bulb.
Heating: Indoor 70° F dry bulb, Outdoor 47° F dry bulb / 43° F wet bulb.
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SMMS e SUPER MODULAR MULTI SYSTEM

The standard pipe
072 type – 120 type

Equivalent piping length
25 ft, Height difference: 0 ft

Heat Recovery Outdoor Unit (MMYF) **208/230V-3-60**

Standard Model (Combination)

Outdoor Unit Model Name			MMY-	AP1926FT9P-UL	AP2166FT9P-UL	AP2406FT9P-UL	AP2646FT9P-UL	AP2886FT9P-UL	AP3126FT9P-UL
Nominal Tons				16	18	20	22	24	26
Combination Model			MMY-	MAP0966FT9P-UL MAP0966FT9P-UL	MAP1206FT9P-UL MAP0966FT9P-UL	MAP1446FT9P-UL MAP0966FT9P-UL	MAP1446FT9P-UL MAP1206FT9P-UL	MAP1446FT9P-UL MAP1446FT9P-UL	MAP1686FT9P-UL MAP1446FT9P-UL
Cooling Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	192	216	240	264	288	312
		Rated	kBtu/h	184	206	230	252	276	298
Heating Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	216	243	270	297	324	351
		Rated	kBtu/h	206	232	256	282	308	334
With Non-Ducted Indoor Units Electrical Characteristics	Power Supply[2]			208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	14.60	17.22	19.29	22.44	24.14	28.14
		IEER[4]	Btu/W*hr	26.1	24.2	23.3	23.1	22.8	22.1
	Heating	Power Consumption[3]	kW	15.91	18.63	20.30	23.76	25.50	28.98
		SCHE[5]	Btu/W*hr	29.5	29.0	29.0	27.7	28.1	26.7
With Ducted Indoor Units Electrical Characteristics	Power Supply[2]			208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	14.91	17.29	19.26	22.01	23.96	28.61
		IEER[4]	Btu/W*hr	20.4	20.5	20.8	20.5	20.2	19.7
	Heating	Power Consumption[3]	kW	15.36	17.09	19.99	22.80	24.97	28.61
		SCHE[5]	Btu/W*hr	27.4	27.6	27.7	27.0	25.9	24.7
External Dimensions		Height	in	72.9	72.9	72.9	72.9	72.9	72.9
		Width	in	47.6 x 2	47.6 x 2	63.0 + 47.6	63.0 + 47.6	63.0 x 2	63.0 x 2
		Depth	in	30.7	30.7	30.7	30.7	30.7	30.7
Total Weight	Unit		lb	721 x 2	721 x 2	882 + 721	882 + 721	882 x 2	882 x 2
Compressor	Type			Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor
	Motor Output		kW	3.0 x 4	4.0 x 2 + 3.0 x 2	5.4 x 2 + 3.0 x 2	5.4 x 2 + 4.0 x 2	5.4 x 4	6.5 x 2 + 5.4 x 2
Fan Unit	Motor Output		kW	1.0 x 2	1.0 x 2	1.0 x 3	1.0 x 3	1.0 x 4	1.0 x 4
	Air Volume		cfm	7,480 x 2	7,700 + 7,480	10,850 + 7,480	10,850 + 7,700	10,850 x 2	10,850 x 2
	Maximum External Static Pressure		in WG	0.16	0.16	0.16	0.16	0.16	0.16
Refrigerant[6] (Charged Refrigerant Amount)			lb	24.3 x 2	24.3 x 2	24.3 x 2	24.3 x 2	24.3 x 2	24.3 x 2
Electrical Specifications	Unit	MCA[7]	A	34.2 + 34.2	45.4 + 34.2	52.1 + 34.2	52.1 + 45.4	52.1 + 52.1	66.2 + 52.1
		Recommended Fuse Size	A	40 + 40	50 + 40	60 + 40	60 + 50	60 + 60	70 + 60
Refrigerant Piping	Connecting Port Diameter	Gas Side (Main Pipe) (Brazing)	in	1-1/8	1-3/8	1-3/8	1-3/8	1-3/8	1-3/8
		Liquid Side (Main Pipe) (Flare)	in	3/4	3/4	3/4	7/8	7/8	7/8
		Discharge (Main Pipe) (Flare)	in	7/8	1-1/8	1-1/8	1-1/8	1-1/8	1-1/8
		Balance Pipe (Flare)	in	3/8	3/8	3/8	3/8	3/8	3/8
Operation Temperature Range		Cooling	° F DB	14-122	14-122	14-122	14-122	14-122	14-122
		Heating	° F WB	-13-60	-13-60	-13-60	-13-60	-13-60	-13-60
Maximum Number of Connected Indoor Units				34	38	42	46	50	55
Maximum Capacity of Combined Indoor Units[8]				50-150%	50-150%	50-150%	50-150%	50-150%	50-150%
Sound Pressure Level Cooling / Heating			dB(A)	65/65	65.5/66.5	68/68	68.5/68.5	69.5/69.5	69.5/70.0

[1]Rated conditions:
Cooling: Indoor 80° F dry bulb / 67° F wet bulb, Outdoor 95° F dry bulb.
Heating: Indoor 70° F dry bulb, Outdoor 47° F dry bulb / 43° F wet bulb.
[2]The source voltage must not fluctuate more than ±10%.
[3]Only for outdoor unit.
[4]IEER: Integrated Energy Efficiency Ratio.
[5]SCHE: Simultaneous Cooling & Heating Efficiency.
[6]The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.
[7]Select wire size based on the larger value of MCA. MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).
[8]In case the diversity exceeds 135%, the type of indoor unit is limited and the maximum number of indoor units is reduced.

SMMS e SUPER MODULAR MULTI SYSTEM

The standard pipe
144 type – 240 type

Equivalent piping length
50 ft, Height difference: 0 ft

Heat Recovery Outdoor Unit (MMYF) **208/230V-3-60**

Standard Model (Combination)

Outdoor Unit Model Name				MMY-	AP3366FT9P-UL	AP3606FT9P-UL	AP3846FT9P-UL	AP4086FT9P-UL	AP4326FT9P-UL	AP4566FT9P-UL
Nominal Tons					28	30	32	34	36	38
Combination Model				MMY-	MAP1206FT9P-UL MAP1206FT9P-UL MAP0966FT9P-UL	MAP1206FT9P-UL MAP1206FT9P-UL MAP1206FT9P-UL	MAP1446FT9P-UL MAP1206FT9P-UL MAP1206FT9P-UL	MAP1446FT9P-UL MAP1446FT9P-UL MAP1206FT9P-UL	MAP1446FT9P-UL MAP1446FT9P-UL MAP1446FT9P-UL	MAP1686FT9P-UL MAP1446FT9P-UL MAP1446FT9P-UL
Cooling Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h		336	360	384	408	432	456
		Rated	kBtu/h		320	342	366	390	410	430
Heating Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h		378	405	432	459	486	513
		Rated	kBtu/h		360	386	412	436	462	488
With Non-Ducted Indoor Units Electrical Characteristics	Power Supply[2]				208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW		29.11	34.26	36.70	39.49	41.28	46.39
		IEER[4]	Btu/W*hr		23.9	23.3	22.7	21.9	21.4	19.4
	Heating	Power Consumption[3]	kW		30.23	33.48	36.34	38.73	40.99	43.60
		SCHE[5]	Btu/W*hr		26.0	25.1	24.5	23.5	23.2	23.2
With Ducted Indoor Units Electrical Characteristics	Power Supply[2]				208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW		30.20	34.72	37.21	39.70	42.09	45.32
		IEER[4]	Btu/W*hr		20.7	20.2	19.8	19.4	19.0	18.9
	Heating	Power Consumption[3]	kW		30.63	32.39	35.72	37.84	41.05	43.36
		SCHE[5]	Btu/W*hr		22.4	22.2	21.6	21.1	20.6	20.8
External Dimensions		Height	in		72.9	72.9	72.9	72.9	72.9	72.9
		Width	in		47.6 x 3	47.6 x 3	63.0 + 47.6 x 2	63.0 x 2 + 47.6	63.0 x 3	63.0 x 3
		Depth	in		30.7	30.7	30.7	30.7	30.7	30.7
Total Weight	Unit		lb		721 x 3	721 x 3	882 + 721 x 2	882 x 2 + 721	882 x 3	882 x 3
Compressor	Type				Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor
	Motor Output		kW		4.0 x 4 + 3.0 x 2	4.0 x 6	5.4 x 2 + 4.0 x 4	5.4 x 4 + 4.0 x 2	5.4 x 6	6.5 x 2 + 5.4 x 4
Fan Unit	Motor Output		kW		1.0 x 3	1.0 x 3	1.0 x 4	1.0 x 5	1.0 x 6	1.0 x 6
	Air Volume		cfm		7,700 x 2 + 7,480	7,700 x 3	10,850 + 7,700 x 2	10,850 x 2 + 7,700	10,850 x 3	10,850 x 3
	Maximum External Static Pressure		in WG		0.16	0.16	0.16	0.16	0.16	0.16
Refrigerant[6] (Charged Refrigerant Amount)			lb		24.3 x 3	24.3 x 3	24.3 x 3	24.3 x 3	24.3 x 3	24.3 x 3
Electrical Specifications	Unit	MCA[7]	A		45.4 + 45.4 + 34.2	45.4 + 45.4 + 45.4	52.1 + 45.4 + 45.4	52.1 + 52.1 + 45.4	52.1 + 52.1 + 52.1	66.2 + 52.1 + 52.1
		Recommended Fuse Size	A		50 + 50 + 40	50 + 50 + 50	60 + 50 + 50	60 + 60 + 50	60 + 60 + 60	70 + 60 + 60
Refrigerant Piping	Connecting Port Diameter	Gas Side (Main Pipe) (Brazing)	in		1-3/8	1-5/8	1-5/8	1-5/8	1-5/8	1-5/8
		Liquid Side (Main Pipe) (Flare)	in		7/8	7/8	7/8	7/8	7/8	7/8
		Discharge (Main Pipe) (Flare)	in		1-1/8	1-3/8	1-3/8	1-3/8	1-3/8	1-3/8
		Balance Pipe (Flare)	in		3/8	3/8	3/8	3/8	3/8	3/8
Operation Temperature Range		Cooling	° F DB		14-122	14-122	14-122	14-122	14-122	14-122
		Heating	° F WB		-13-60	-13-60	-13-60	-13-60	-13-60	-13-60
Maximum Number of Connected Indoor Units					60	63	64	64	64	64
Maximum Capacity of Combined Indoor Units[8]					50-150%	50-150%	50-150%	50-150%	50-150%	50-150%
Sound Pressure Level Cooling / Heating			dB(A)		67.5/68.5	68/69	69.5/70.0	70.5/71.0	71.5/71.5	71.5/71.5

[1]Rated conditions:
Cooling: Indoor 80° F dry bulb / 67° F wet bulb, Outdoor 95° F dry bulb.
Heating: Indoor 70° F dry bulb, Outdoor 47° F dry bulb / 43° F wet bulb.
[2]The source voltage must not fluctuate more than ±10%.
[3]Only for outdoor unit.
[4]IEER: Integrated Energy Efficiency Ratio.
[5]SCHE: Simultaneous Cooling & Heating Efficiency.
[6]The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.
[7]Select wire size based on the larger value of MCA. MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).
[8]In case the diversity exceeds 135%, the type of indoor unit is limited and the maximum number of indoor units is reduced.

SMMS e
SUPER MODULAR MULTI SYSTEM

The standard pipe
072 type – 120 type

Equivalent piping length
25 ft, Height difference: 0 ft

Heat Recovery Outdoor Unit (MMYF) **208/230V-3-60**

Space Saving Model (Combination)

Outdoor Unit Model Name			MMY-	AP192S6FT9P-UL	AP240S6FT9P-UL	AP288S6FT9P-UL	AP336S6FT9P-UL
Nominal Tons				16	20	24	28
Combination Model			MMY-	MAP1206FT9P-UL	MAP1206FT9P-UL	MAP1686FT9P-UL	MAP1686FT9P-UL
				MAP0726FT9P-UL	MAP1206FT9P-UL	MAP1206FT9P-UL	MAP1686FT9P-UL
Cooling Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	192	240	288	336
		Rated	kBtu/h	184	230	276	320
Heating Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	216	270	324	378
		Rated	kBtu/h	206	256	308	360
With Non-Ducted Indoor Units Electrical Characteristics	Power Supply[2]			208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	15.29	20.91	26.12	30.88
		IEER[4]	Btu/W*hr	25.3	22.8	22.4	21.9
	Heating	Power Consumption[3]	kW	16.36	20.90	26.28	31.66
		SCHE[5]	Btu/W*hr	29.5	29.0	28.1	26.0
With Ducted Indoor Units Electrical Characteristics	Power Supply[2]			208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	15.19	20.81	26.99	32.44
		IEER[4]	Btu/W*hr	19.9	20.3	19.7	19.3
	Heating	Power Consumption[3]	kW	15.82	20.60	25.67	31.82
		SCHE[5]	Btu/W*hr	27.4	27.7	25.9	22.4
External Dimensions		Height	in	72.9	72.9	72.9	72.9
		Width	in	47.6 + 39.0	47.6 x 2	63.0 + 47.6	63.0 x 2
		Depth	in	30.7	30.7	30.7	30.7
Total Weight	Unit		lb	721 + 600	721 x 2	882 + 721	882 x 2
Compressor	Type			Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor
	Motor Output		kW	4.0 x 2 + 2.1 x 2	4.0 x 4	6.5 x 2 + 4.0 x 2	6.5 x 4
Fan Unit	Motor Output		kW	1.0 x 2	1.0 x 2	1.0 x 3	1.0 x 4
	Air Volume		cfm	7,700 + 5,900	7,700 x 2	10,850 + 7,700	10,850 x 2
	Maximum External Static Pressure		in WG	0.16	0.16	0.16	0.16
Refrigerant[6] (Charged Refrigerant Amount)			lb	24.3 x 2	24.3 x 2	24.3 x 2	24.3 x 2
Electrical Specifications	Unit	MCA[7]	A	45.4 + 23.3	45.4 + 45.4	66.2 + 45.4	66.2 + 66.2
		Recommended Fuse Size	A	50 + 30	50 + 50	70 + 50	70 + 70
Refrigerant Piping	Connecting Port Diameter	Gas Side (Main Pipe) (Brazing)	in	1-1/8	1-3/8	1-3/8	1-3/8
		Liquid Side (Main Pipe) (Flare)	in	7/8	7/8	7/8	7/8
		Discharge (Main Pipe) (Flare)	in	7/8	1-1/8	1-1/8	1-1/8
		Balance Pipe (Flare)	in	3/8	3/8	3/8	3/8
Operation Temperature Range		Cooling	° F DB	14-122	14-122	14-122	14-122
		Heating	° F WB	-13-60	-13-60	-13-60	-13-60
Maximum Number of Connected Indoor Units				34	42	50	60
Maximum Capacity of Combined Indoor Units[8]				50-150%	50-150%	50-150%	50-150%
Sound Pressure Level Cooling / Heating			dB(A)	64.0/65.5	66/67	68.5/67.0	69.5/70.0

[1]Rated conditions:
Cooling: Indoor 80° F dry bulb / 67° F wet bulb, Outdoor 95° F dry bulb.
Heating: Indoor 70° F dry bulb, Outdoor 47° F dry bulb / 43° F wet bulb.
[2]The source voltage must not fluctuate more than ±10%.
[3]Only for outdoor unit.
[4]IEER: Integrated Energy Efficiency Ratio.
[5]SCHE: Simultaneous Cooling & Heating Efficiency.
[6]The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.
[7]Select wire size based on the larger value of MCA. MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).
[8]In case the diversity exceeds 135%, the type of indoor unit is limited and the maximum number of indoor units is reduced.

SMMS e
SUPER MODULAR MULTI SYSTEM

The standard pipe
144 type – 240 type

Equivalent piping length
50 ft, Height difference: 0 ft

Heat Recovery Outdoor Unit (MMYF) **460V-3-60**

Standard Model (Single Unit)								
Outdoor Unit Model Name				**MMY-**	**MAP0726FT6P-UL**	**MAP0966FT6P-UL**	**MAP1206FT6P-UL**	**MAP1446FT6P-UL**	**MAP1686FT6P-UL**
Nominal Tons					6	8	10	12	14
Cooling Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal		kBtu/h	72	96	120	144	168
		Rated		kBtu/h	69	92	114	138	160
Heating Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal		kBtu/h	81	108	135	162	189
		Rated		kBtu/h	77	103	129	154	180
With Non-Ducted Indoor Units Electrical Characteristics	Power Supply[2]				460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]		kW	4.53	7.16	9.39	11.03	14.55
		IEER[4]		Btu/W*hr	26.6	28.3	27.5	25.9	23.3
	Heating	Power Consumption[3]		kW	5.98	7.66	10.21	11.76	15.05
		SCHE[5]		Btu/W*hr	30.6	31.3	34.9	33.6	30.2
With Ducted Indoor Units Electrical Characteristics	Power Supply[2]				460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]		kW	5.11	7.34	9.05	11.29	14.48
		IEER[4]		Btu/W*hr	19.5	21.4	20.0	20.2	19.2
	Heating	Power Consumption[3]		kW	6.25	7.61	10.34	12.02	15.38
		SCHE[5]		Btu/W*hr	26.9	26.7	26.7	29.9	26.9
External Dimensions		Height		in	72.9	72.9	72.9	72.9	72.9
		Width		in	39.0	47.6	47.6	63.0	63.0
		Depth		in	30.7	30.7	30.7	30.7	30.7
Total Weight	Unit			lb	615	736	736	875	875
Compressor	Type				Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor
	Motor Output			kW	2.1 x 2	3.0 x 2	4.0 x 2	5.4 x 2	6.5 x 2
Fan Unit	Motor Output			kW	1.0	1.0	1.0	1.0 x 2	1.0 x 2
	Air Volume			cfm	5,900	7,480	7,700	10,850	10,850
	Maximum External Static Pressure			in WG	0.24	0.16	0.16	0.16	0.16
Refrigerant[6] (Charged Refrigerant Amount)				lb	24.3	24.3	24.3	24.3	24.3
Electrical Specifications	Unit	MCA[7]		A	11.8	17.0	22.0	23.4	29.7
		Recommended Fuse Size		A	15	20	25	30	35
Refrigerant Piping	Connecting Port Diameter	Gas Side (Main Pipe) (Brazing)		in	7/8	7/8	1-1/8	1-1/8	1-1/8
		Liquid Side (Main Pipe) (Flare)		in	1/2	1/2	1/2	5/8	3/4
		Discharge (Main Pipe) (Flare)		in	3/4	3/4	3/4	7/8	7/8
		Balance Pipe (Flare)		in	3/8	3/8	3/8	3/8	3/8
Operation Temperature Range		Cooling		° F DB	14-122	14-122	14-122	14-122	14-122
		Heating		° F WB	-13-60	-13-60	-13-60	-13-60	-13-60
Maximum Number of Connected Indoor Units					12	16	21	25	30
Maximum Capacity of Combined Indoor Units[8]					50-150%	50-150%	50-150%	50-150%	50-150%
Sound Pressure Level Cooling / Heating				dB(A)	57/60	62/62	63/64	66.5/66.5	66.5/67.0

[1]Rated conditions:
Cooling: Indoor 80° F dry bulb / 67° F wet bulb, Outdoor 95° F dry bulb.
Heating: Indoor 70° F dry bulb, Outdoor 47° F dry bulb / 43° F wet bulb.
[2]The source voltage must not fluctuate more than ±10%.
[3]Only for outdoor unit.
[4]IEER: Integrated Energy Efficiency Ratio.
[5]SCHE: Simultaneous Cooling & Heating Efficiency.
[6]The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.
[7]Select wire size based on the larger value of MCA. MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).
[8]In case the diversity exceeds 135%, the type of indoor unit is limited and the maximum number of indoor units is reduced.

SMMS e
SUPER MODULAR MULTI SYSTEM

The standard pipe
072 type – 114 type

Equivalent piping length
25 ft, Height difference: 0 ft

Heat Recovery Outdoor Unit (MMYF) **460V-3-60**

Standard Model (Combination)

Outdoor Unit Model Name			MMY-	AP1926FT6P-UL	AP2166FT6P-UL	AP2406FT6P-UL	AP2646FT6P-UL	AP2886FT6P-UL	AP3126FT6P-UL
Nominal Tons				16	18	20	22	24	26
Combination Model			MMY-	MAP0966FT6P-UL	MAP1206FT6P-UL	MAP1446FT6P-UL	MAP1446FT6P-UL	MAP1446FT6P-UL	MAP1686FT6P-UL
				MAP0966FT6P-UL	MAP0966FT6P-UL	MAP0966FT6P-UL	MAP1206FT6P-UL	MAP1446FT6P-UL	MAP1446FT6P-UL
Cooling Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	192	216	240	264	288	312
		Rated	kBtu/h	184	206	230	252	276	298
Heating Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	216	243	270	297	324	351
		Rated	kBtu/h	206	232	256	282	308	334
With Non-Ducted Indoor Units Electrical Characteristics	Power Supply[2]			460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	14.60	17.22	19.29	22.44	24.14	28.14
		IEER[4]	Btu/W*hr	26.1	24.2	23.3	23.1	22.8	22.1
	Heating	Power Consumption[3]	kW	15.91	18.63	20.30	23.76	25.50	28.98
		SCHE[5]	Btu/W*hr	29.5	29.0	29.0	27.7	28.1	26.7
With Ducted Indoor Units Electrical Characteristics	Power Supply[2]			460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	14.91	17.29	19.26	22.01	23.96	28.61
		IEER[4]	Btu/W*hr	20.4	20.5	20.8	20.5	20.2	19.7
	Heating	Power Consumption[3]	kW	15.36	17.09	19.99	22.80	24.97	28.61
		SCHE[5]	Btu/W*hr	27.4	27.6	27.7	27.0	25.9	24.7
External Dimensions		Height	in	72.9	72.9	72.9	72.9	72.9	72.9
		Width	in	47.6 x 2	47.6 x 2	63.0 + 47.6	63.0 + 47.6	63.0 x 2	63.0 x 2
		Depth	in	30.7	30.7	30.7	30.7	30.7	30.7
Total Weight	Unit		lb	736 x 2	736 x 2	875 + 736	875 + 736	875 x 2	875 x 2
Compressor	Type			Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor
	Motor Output		kW	3.0 x 4	4.0 x 2 + 3.0 x 2	5.4 x 2 + 3.0 x 2	5.4 x 2 + 4.0 x 2	5.4 x 4	6.5 x 2 + 5.4 x 2
Fan Unit	Motor Output		kW	1.0 x 2	1.0 x 2	1.0 x 3	1.0 x 3	1.0 x 4	1.0 x 4
	Air Volume		cfm	7,480 x 2	7,700 + 7,480	10,850 + 7,480	10,850 + 7,700	10,850 x 2	10,850 x 2
	Maximum External Static Pressure		in WG	0.16	0.16	0.16	0.16	0.16	0.16
Refrigerant[6] (Charged Refrigerant Amount)			lb	24.3 x 2	24.3 x 2	24.3 x 2	24.3 x 2	24.3 x 2	24.3 x 2
Electrical Specifications	Unit	MCA[7]	A	17 + 17	22 + 17	23.4 + 17	23.4 + 22	23.4 + 23.4	29.7 + 23.4
		Recommended Fuse Size	A	20 + 20	25 + 20	30 + 20	30 + 25	30 + 30	35 + 30
Refrigerant Piping	Connecting Port Diameter	Gas Side (Main Pipe) (Brazing)	in	1-1/8	1-3/8	1-3/8	1-3/8	1-3/8	1-3/8
		Liquid Side (Main Pipe) (Flare)	in	3/4	3/4	3/4	7/8	7/8	7/8
		Discharge (Main Pipe) (Flare)	in	7/8	1-1/8	1-1/8	1-1/8	1-1/8	1-1/8
		Balance Pipe (Flare)	in	3/8	3/8	3/8	3/8	3/8	3/8
Operation Temperature Range		Cooling	° F DB	14-122	14-122	14-122	14-122	14-122	14-122
		Heating	° F WB	-13-60	-13-60	-13-60	-13-60	-13-60	-13-60
Maximum Number of Connected Indoor Units				34	38	42	46	50	55
Maximum Capacity of Combined Indoor Units[8]				50-150%	50-150%	50-150%	50-150%	50-150%	50-150%
Sound Pressure Level Cooling / Heating			dB(A)	65/65	65.5/66.5	68/68	68.5/68.5	69.5/69.5	69.5/70.0

[1]Rated conditions:
Cooling: Indoor 80° F dry bulb / 67° F wet bulb, Outdoor 95° F dry bulb.
Heating: Indoor 70° F dry bulb, Outdoor 47° F dry bulb / 43° F wet bulb.
[2]The source voltage must not fluctuate more than ±10%.
[3]Only for outdoor unit.
[4]IEER: Integrated Energy Efficiency Ratio.
[5]SCHE: Simultaneous Cooling & Heating Efficiency.
[6]The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.
[7]Select wire size based on the larger value of MCA. MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).
[8]In case the diversity exceeds 135%, the type of indoor unit is limited and the maximum number of indoor units is reduced.

SMMS e SUPER MODULAR MULTI SYSTEM

The standard pipe
144 type – 240 type

Equivalent piping length
50 ft, Height difference: 0 ft

Heat Recovery Outdoor Unit (MMYF) **460V-3-60**

Standard Model (Combination)

Outdoor Unit Model Name			MMY-	AP3366FT6P-UL	AP3606FT6P-UL	AP3846FT6P-UL	AP4086FT6P-UL	AP4326FT6P-UL	AP4566FT6P-UL
Nominal Tons				28	30	32	34	36	38
Combination Model			MMY-	MAP1206FT6P-UL MAP1206FT6P-UL MAP0966FT6P-UL	MAP1206FT6P-UL MAP1206FT6P-UL MAP1206FT6P-UL	MAP1446FT6P-UL MAP1206FT6P-UL MAP1206FT6P-UL	MAP1446FT6P-UL MAP1446FT6P-UL MAP1206FT6P-UL	MAP1446FT6P-UL MAP1446FT6P-UL MAP1446FT6P-UL	MAP1686FT6P-UL MAP1446FT6P-UL MAP1446FT6P-UL
Cooling Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	336	360	384	408	432	456
		Rated	kBtu/h	320	342	366	390	412	434
Heating Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	378	405	432	459	486	513
		Rated	kBtu/h	360	386	412	436	462	488
With Non-Ducted Indoor Units Electrical Characteristics	Power Supply[2]			460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	29.11	34.26	36.70	39.49	40.14	44.58
		IEER[4]	Btu/W*hr	23.9	23.3	22.7	21.9	21.4	19.4
	Heating	Power Consumption[3]	kW	30.23	33.48	36.34	38.73	40.99	43.60
		SCHE[5]	Btu/W*hr	26.0	25.1	24.5	23.5	23.2	23.2
With Ducted Indoor Units Electrical Characteristics	Power Supply[2]			460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	30.20	34.72	37.21	39.70	42.09	45.32
		IEER[4]	Btu/W*hr	20.7	20.2	19.8	19.4	19.0	18.9
	Heating	Power Consumption[3]	kW	30.63	32.39	35.72	37.84	41.05	43.36
		SCHE[5]	Btu/W*hr	22.4	22.2	21.6	21.1	20.6	20.8
External Dimensions		Height	in	72.9	72.9	72.9	72.9	72.9	72.9
		Width	in	47.6 x 3	47.6 x 3	63.0 + 47.6 x 2	63.0 x 2 + 47.6	63.0 x 3	63.0 x 3
		Depth	in	30.7	30.7	30.7	30.7	30.7	30.7
Total Weight	Unit		lb	736 x 3	736 x 3	875 + 736 x 2	875 x 2 + 736	875 x 3	875 x 3
Compressor	Type			Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor
	Motor Output		kW	4.0 x 4 + 3.0 x 2	4.0 x 6	5.4 x 2 + 4.0 x 4	5.4 x 4 + 4.0 x 2	5.4 x 6	6.5 x 2 + 5.4 x 4
Fan Unit	Motor Output		kW	1.0 x 3	1.0 x 3	1.0 x 4	1.0 x 5	1.0 x 6	1.0 x 6
	Air Volume		cfm	7,700 x 2 + 7,480	7,700 x 3	10,850 + 7,700 x 2	10,850 x 2 + 7,700	10,850 x 3	10,850 x 3
	Maximum External Static Pressure		in WG	0.16	0.16	0.16	0.16	0.16	0.16
Refrigerant[6] (Charged Refrigerant Amount)			lb	24.3 x 3	24.3 x 3	24.3 x 3	24.3 x 3	24.3 x 3	24.3 x 3
Electrical Specifications	Unit	MCA[7]	A	22 + 22 + 17	22 + 22 + 22	23.4 + 22 + 22	23.4 + 23.4 + 22	23.4 + 23.4 + 23.4	29.7 + 23.4 + 23.4
		Recommended Fuse Size	A	25 + 25 + 20	25 + 25 + 20	30 + 25 + 25	30 + 30 + 25	30 + 30 + 30	35 + 30 + 30
Refrigerant Piping	Connecting Port Diameter	Gas Side (Main Pipe) (Brazing)	in	1-3/8	1-5/8	1-5/8	1-5/8	1-5/8	1-5/8
		Liquid Side (Main Pipe) (Flare)	in	7/8	7/8	7/8	7/8	7/8	7/8
		Discharge (Main Pipe) (Flare)	in	1-1/8	1-3/8	1-3/8	1-3/8	1-3/8	1-3/8
		Balance Pipe (Flare)	in	3/8	3/8	3/8	3/8	3/8	3/8
Operation Temperature Range		Cooling	° F DB	14-122	14-122	14-122	14-122	14-122	14-122
		Heating	° F WB	-13-60	-13-60	-13-60	-13-60	-13-60	-13-60
Maximum Number of Connected Indoor Units				60	63	64	64	64	64
Maximum Capacity of Combined Indoor Units[8]				50-150%	50-150%	50-150%	50-150%	50-150%	50-150%
Sound Pressure Level Cooling / Heating			dB(A)	67.5/68.5	68/69	69.5/70.0	70.5/71.0	71.5/71.5	71.5/71.5

[1]Rated conditions:
Cooling: Indoor 80° F dry bulb / 67° F wet bulb, Outdoor 95° F dry bulb.
Heating: Indoor 70° F dry bulb, Outdoor 47° F dry bulb / 43° F wet bulb.
[2]The source voltage must not fluctuate more than ±10%.
[3]Only for outdoor unit.
[4]IEER: Integrated Energy Efficiency Ratio.
[5]SCHE: Simultaneous Cooling & Heating Efficiency.
[6]The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.
[7]Select wire size based on the larger value of MCA. MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).
[8]In case the diversity exceeds 135%, the type of indoor unit is limited and the maximum number of indoor units is reduced.

SMMS e
SUPER MODULAR MULTI SYSTEM

The standard pipe
072 type – 114 type

Equivalent piping length
25 ft, Height difference: 0 ft

Heat Recovery Outdoor Unit (MMYF) **460V-3-60**

Space Saving Model (Combination)

Outdoor Unit Model Name			MMY-	AP192S6FT6P-UL	AP240S6FT6P-UL	AP288S6FT6P-UL	AP336S6FT6P-UL
Nominal Tons				16	20	24	28
Combination Model			MMY-	MAP1206FT6P-UL MAP0726FT6P-UL	MAP1206FT6P-UL MAP1206FT6P-UL	MAP1686FT6P-UL MAP1206FT6P-UL	MAP1686FT6P-UL MAP1686FT6P-UL
Cooling Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	192	240	288	336
		Rated	kBtu/h	184	230	276	320
Heating Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	216	270	324	378
		Rated	kBtu/h	206	256	308	360
With Non-Ducted Indoor Units Electrical Characteristics	Power Supply[2]			460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	15.29	20.91	26.12	30.88
		IEER[4]	Btu/W*hr	25.3	22.8	22.4	21.9
	Heating	Power Consumption[3]	kW	16.36	20.90	26.28	31.66
		SCHE[5]	Btu/W*hr	29.5	29.0	28.1	26.0
With Ducted Indoor Units Electrical Characteristics	Power Supply[2]			460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	15.19	20.81	26.99	32.44
		IEER[4]	Btu/W*hr	19.9	20.3	19.7	19.3
	Heating	Power Consumption[3]	kW	15.82	20.60	25.67	31.82
		SCHE[5]	Btu/W*hr	27.4	27.7	25.9	22.4
External Dimensions		Height	in	72.9	72.9	72.9	72.9
		Width	in	47.6 + 39.0	47.6 x 2	63.0 + 47.6	63.0 x 2
		Depth	in	30.7	30.7	30.7	30.7
Total Weight	Unit		lb	736 + 615	736 x 2	875 + 736	875 x 2
Compressor	Type			Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor
	Motor Output		kW	4.0 x 2 + 2.1 x 2	4.0 x 4	6.5 x 2 + 4.0 x 2	6.5 x 4
Fan Unit	Motor Output		kW	1.0 x 2	1.0 x 2	1.0 x 3	1.0 x 4
	Air Volume		cfm	7,700 + 5,900	7,700 x 2	10,850 + 7,700	10,850 x 2
	Maximum External Static Pressure		in WG	0.16	0.16	0.16	0.16
Refrigerant[6] (Charged Refrigerant Amount)			lb	24.3 x 2	24.3 x 2	24.3 x 2	24.3 x 2
Electrical Specifications	Unit	MCA[7]	A	22 + 11.8	22 + 22	29.7 + 22	29.7 + 29.7
		Recommended Fuse Size	A	25 + 15	25 + 25	35 + 25	35 + 35
Refrigerant Piping	Connecting Port Diameter	Gas Side (Main Pipe) (Brazing)	in	1-1/8	1-3/8	1-3/8	1-3/8
		Liquid Side (Main Pipe) (Flare)	in	7/8	7/8	7/8	7/8
		Discharge (Main Pipe) (Flare)	in	7/8	1-1/8	1-1/8	1-1/8
		Balance Pipe (Flare)	in	3/8	3/8	3/8	3/8
Operation Temperature Range		Cooling	° F DB	14-122	14-122	14-122	14-122
		Heating	° F WB	-13-60	-13-60	-13-60	-13-60
Maximum Number of Connected Indoor Units				34	42	50	60
Maximum Capacity of Combined Indoor Units[8]				50-150%	50-150%	50-150%	50-150%
Sound Pressure Level Cooling / Heating			dB(A)	64/65.5	66/67	68.5/67	69.5/70

[1]Rated conditions:
Cooling: Indoor 80° F dry bulb / 67° F wet bulb, Outdoor 95° F dry bulb.
Heating: Indoor 70° F dry bulb, Outdoor 47° F dry bulb / 43° F wet bulb.
[2]The source voltage must not fluctuate more than ±10%.
[3]Only for outdoor unit.
[4]IEER: Integrated Energy Efficiency Ratio.
[5]SCHE: Simultaneous Cooling & Heating Efficiency.
[6]The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.
[7]Select wire size based on the larger value of MCA. MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).
[8]In case the diversity exceeds 135%, the type of indoor unit is limited and the maximum number of indoor units is reduced.

SMMS e SUPER MODULAR MULTI SYSTEM

The standard pipe
144 type – 240 type

Equivalent piping length
50 ft, Height difference: 0 ft

Single-Phase Heat Pump Outdoor Unit (MCY7) **208/230V-1-60**

Standard Model (Single Unit)

Outdoor Unit Model Name			MCY-	MAP0367HS-UL	MAP0487HS-UL	MAP0607HS-UL
Nominal Tons				3	4	5
Cooling Capacity[1] (With Non-Ducted Indoor Units / Ducted)	Nominal		kBtu/h	36	48	60
Heating Capacity[1] (With Non-Ducted Indoor Units / Ducted)	Nominal		kBtu/h	40	54	66
With Non-Ducted Indoor Units Electrical Characteristics (Nominal)[1]	Power Supply[2]			208/230V, 1Phase, 60Hz	208/230V, 1Phase, 60Hz	208/230V, 1Phase, 60Hz
	Cooling	Power Consumption[3]	kW	2.29	3.71	5.26
		EER[4]	Btu/W*hr	15.7	12.95	11.4
	Heating	Power Consumption[3]	kW	2.79	3.95	5.16
		COP[5]	Btu/W*hr	4.20	4.01	3.75
	SEER[6]			22.7	21.0	20.5
	HSPF[7]			11.5	11.5	11.5
With Ducted Indoor Units Electrical Characteristics (Nominal)[1]	Power Supply[2]			208/230V, 1Phase, 60Hz	208/230V, 1Phase, 60Hz	208/230V, 1Phase, 60Hz
	Cooling	Power Consumption[3]	kW	2.76	4.87	5.76
		EER[4]	Btu/W*hr	13.05	9.85	10.40
	Heating	Power Consumption[3]	kW	3.45	5.27	5.34
		COP[5]	Btu/W*hr	3.40	3.00	3.62
	SEER[6]			17.70	16.60	17.60
	HSPF[7]			10.5	9.5	11.0
External Dimensions		Height	in	61	61	61
		Width	in	39.8	39.8	39.8
		Depth	in	14.6	14.6	14.6
Total Weight	Unit		lb	311	311	311
Compressor	Type			Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor
	Motor Output		kW	3.75	3.75	3.75
Fan Unit	Motor Output		kW	100 + 100	100 + 100	100 + 100
	Air Volume		cfm	4,520	4,690	4,850
Refrigerant[8] (Charged Refrigerant Amount)			lb	14.8	14.8	14.8
Electrical Specifications	Unit	MCA[9]	A	36.3	36.3	36.3
		Recommended Fuse Size	A	40	40	40
Refrigerant Piping	Connecting Port Diameter	Gas Side (Main Pipe) (Brazing)	in	5/8	5/8	3/4
		Liquid Side (Main Pipe) (Flare)	in	3/8	3/8	3/8
Operation Temperature Range		Cooling	° F DB	23-122	23-122	23-122
		Heating	° F WB	-13-60	-13-60	-13-60
Maximum Number of Connected Indoor Units				6	8	9
Maximum Capacity of Combined Indoor Units[10]				80-135%	80-135%	50-135%
Sound Pressure Level Cooling / Heating			dB(A)	52/56	54/57	55/58

[1]Rated conditions:
Cooling: Indoor 80° F dry bulb / 67° F wet bulb, Outdoor 95° F dry bulb.
Heating: Indoor 70° F dry bulb, Outdoor 47° F dry bulb / 43° F wet bulb.
[2]The source voltage must not fluctuate more than ±10%.
[3]Only for outdoor unit.
[4]EER: Energy Efficiency Ratio.
[5]COP: Coefficient of Performance.
[6]SEER: Seasonal Energy Efficiency Ratio.
[7]HSPF: Heating Seasonal Performance Ratio.
[8]The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.
[9]Select wire size based on the larger value of MCA. MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).
[10]In case the diversity exceeds 135%, the type of indoor unit is limited and the maximum number of indoor units is reduced.

Heat Pump
Outdoor Unit (MMYH)
208/230V-3-60

Standard Model (Single Unit)

Outdoor Unit Model Name			MMY-	MAP0726HT9P-UL	MAP0966HT9P-UL	MAP1206HT9P-UL	MAP1446HT9P-UL	MAP1686HT9P-UL
Nominal Tons				6	8	10	12	14
Cooling Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	72	96	120	144	168
		Rated	kBtu/h	69	92	114	138	160
Heating Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	81	108	135	162	189
		Rated	kBtu/h	77	103	129	154	180
With Non-Ducted Indoor Units Electrical Characteristics	Power Supply[2]			208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	4.49	7.12	8.65	10.85	14.26
		IEER[4]	Btu/W*hr	29.0	28.0	25.1	25.6	23.8
	Heating	Power Consumption[3]	kW	5.17	6.53	9.22	10.68	13.82
		COP[5]	W/W	4.23	4.50	3.99	4.12	3.74
With Ducted Indoor Units Electrical Characteristics	Power Supply[2]			208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	4.69	6.28	8.81	11.09	13.39
		IEER[4]	Btu/W*hr	22.7	22.3	21.6	20.0	19.0
	Heating	Power Consumption[3]	kW	5.47	6.83	9.04	10.47	13.36
		COP[5]	W/W	3.79	4.00	3.89	3.91	3.63
External Dimensions		Height	in	72.9	72.9	72.9	72.9	72.9
		Width	in	39.0	47.6	47.6	63.0	63.0
		Depth	in	30.7	30.7	30.7	30.7	30.7
Total Weight	Unit		lb	574	684	684	838	838
Compressor	Type			Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor
	Motor Output		kW	2.1 x 2	3.0 x 2	4.0 x 2	5.4 x 2	6.5 x 2
Fan Unit	Motor Output		kW	1.0	1.0	1.0	1.0 x 2	1.0 x 2
	Air Volume		cfm	6,700	7,480	7,480	9,760	10,100
	Maximum External Static Pressure		in WG	0.24	0.16	0.16	0.16	0.16
Refrigerant[6] (Charged Refrigerant Amount)			lb	25.4	25.4	25.4	25.4	25.4
Electrical Specifications	Unit	MCA[7]	A	27.0	36.0	42.0	54.0	69.0
		Recommended Fuse Size	A	30.0	40.0	45.0	60.0	75.0
Refrigerant Piping	Connecting Port Diameter	Gas Side (Main Pipe) (Brazing)	in	7/8	7/8	1-1/8	1-1/8	1-1/8
		Liquid Side (Main Pipe) (Flare)	in	1/2	1/2	1/2	5/8	5/8
		Balance Pipe (Flare)	in	3/8	3/8	3/8	3/8	3/8
Operation Temperature Range		Cooling	° F DB	14-122	14-122	14-122	14-122	14-122
		Heating	° F WB	-13-60	-13-60	-13-60	-13-60	-13-60
Maximum Number of Connected Indoor Units				12	16	21	25	30
Maximum Capacity of Combined Indoor Units[8]				80-150%	80-150%	80-150%	80-150%	80-150%
Sound Pressure Level Cooling / Heating			dB(A)	56/58	61/61	61/62	63/64	64/65

[1]Rated conditions:
Cooling: Indoor 80° F dry bulb / 67° F wet bulb, Outdoor 95° F dry bulb.
Heating: Indoor 70° F dry bulb, Outdoor 47° F dry bulb / 43° F wet bulb.
[2]The source voltage must not fluctuate more than ±10%.
[3]Only for outdoor unit.
[4]IEER: Integrated Energy Efficiency Ratio.
[5]COP: Coefficient of Performance.
[6]The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.
[7]Select wire size based on the larger value of MCA. MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).
[8]In case the diversity exceeds 135%, the type of indoor unit is limited and the maximum number of indoor units is reduced.

SMMS e
SUPER MODULAR MULTI SYSTEM

The standard pipe
072 type – 120 type

Equivalent piping length
25 ft, Height difference: 0 ft

Heat Pump Outdoor Unit (MMYH) **208/230V-3-60**

Standard Model (Combination)

Outdoor Unit Model Name			MMY-	AP1926HT9P-UL	AP2166HT9P-UL	AP2406HT9P-UL	AP2646HT9P-UL	AP2886HT9P-UL	AP3126HT9P-UL	AP3366HT9P-UL
Nominal Tons				16	18	20	22	24	26	28
Combination Model			MMY-	MAP0966HT9P-UL	MAP1206HT9P-UL	MAP1446HT9P-UL	MAP1446HT9P-UL	MAP1446HT9P-UL	MAP1686HT9P-UL	MAP1686HT9P-UL
				MAP0966HT9P-UL	MAP0966HT9P-UL	MAP0966HT9P-UL	MAP1206HT9P-UL	MAP1446HT9P-UL	MAP1446HT9P-UL	MAP1686HT9P-UL
Cooling Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	192	216	240	264	288	312	336
		Rated	kBtu/h	184	206	230	252	276	298	320
Heating Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	216	243	270	297	324	351	378
		Rated	kBtu/h	206	232	256	282	308	334	360
With Non-Ducted Indoor Units Electrical Characteristics	Power Supply[2]			208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	13.97	16.75	18.63	21.56	24.19	27.97	30.27
		IEER[4]	Btu/W*hr	25.5	24.6	24.1	22.8	22.5	22.1	22.0
	Heating	Power Consumption[3]	kW	14.50	17.01	19.47	22.09	24.40	27.94	30.70
		COP[5]	W/W	4.05	3.90	3.75	3.65	3.60	3.42	3.35
With Ducted Indoor Units Electrical Characteristics	Power Supply[2]			208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	13.40	15.39	17.46	19.57	22.88	25.94	29.04
		IEER[4]	Btu/W*hr	20.3	20.3	20.6	20.4	20.0	19.7	19.6
	Heating	Power Consumption[3]	kW	13.64	15.91	17.67	19.83	22.33	25.31	28.82
		COP[5]	W/W	4.00	3.93	3.95	3.90	3.81	3.66	3.49
External Dimensions		Height	in	72.9	72.9	72.9	72.9	72.9	72.9	72.9
		Width	in	47.6 x 2	47.6 x 2	63.0 + 47.6	63.0 + 47.6	63.0 x 2	63.0 x 2	63.0 x 2
		Depth	in	30.7	30.7	30.7	30.7	30.7	30.7	30.7
Total Weight	Unit		lb	684 x 2	684 x 2	838 + 684	838 + 684	838 x 2	838 x 2	838 x 2
Compressor	Type			Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor
	Motor Output		kW	3.0 x 4	4.0 x 2 + 3.0 x 2	5.4 x 2 + 3.0 x 2	5.4 x 2 + 4.0 x 2	5.4 x 4	6.5 x 2 + 5.4 x 2	6.5 x 4
Fan Unit	Motor Output		kW	1.0 x 2	1.0 x 2	1.0 x 3	1.0 x 3	1.0 x 4	1.0 x 4	1.0 x 4
	Air Volume		cfm	7,480 x 2	7,480 x 2	9,760 + 7,480	9,760 + 7,480	9,760 x 2	10,100 + 9,760	10,100 x 2
	Maximum External Static Pressure		in WG	0.16	0.16	0.16	0.16	0.16	0.16	0.16
Refrigerant[6] (Charged Refrigerant Amount)			lb	25.4 x 2	25.4 x 2	25.4 x 2	25.4 x 2	25.4 x 2	25.4 x 2	25.4 x 2
Electrical Specifications	Unit	MCA[7]	A	36 + 36	42 + 36	54 + 36	54 + 42	54 + 54	69 + 54	69 + 69
		Recommended Fuse Size	A	40 + 40	45 + 40	60 + 40	60 + 45	60 + 60	75 + 60	75 + 75
Refrigerant Piping	Connecting Port Diameter	Gas Side (Main Pipe) (Brazing)	in	1-1/8	1-3/8	1-3/8	1-3/8	1-3/8	1-3/8	1-5/8
		Liquid Side (Main Pipe) (Flare)	in	5/8	3/4	3/4	3/4	3/4	3/4	7/8
		Balance Pipe (Flare)	in	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Operation Temperature Range		Cooling	° F DB	14-122	14-122	14-122	14-122	14-122	14-122	14-122
		Heating	° F WB	-13-60	-13-60	-13-60	-13-60	-13-60	-13-60	-13-60
Maximum Number of Connected Indoor Units				34	38	42	46	50	55	60
Maximum Capacity of Combined Indoor Units[8]				80-150%	80-150%	80-150%	80-150%	80-150%	80-150%	80-150%
Sound Pressure Level Cooling / Heating			dB(A)	64/64	64.0/64.5	65.5/66.0	65.5/66.5	66/67	66.5/67.5	67/68

[1]Rated conditions:
Cooling: Indoor 80° F dry bulb / 67° F wet bulb, Outdoor 95° F dry bulb.
Heating: Indoor 70° F dry bulb, Outdoor 47° F dry bulb / 43° F wet bulb.
[2]The source voltage must not fluctuate more than ±10%.
[3]Only for outdoor unit.
[4]IEER: Integrated Energy Efficiency Ratio.
[5]COP: Coefficient of Performance.
[6]The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.
[7]Select wire size based on the larger value of MCA. MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).
[8]In case the diversity exceeds 135%, the type of indoor unit is limited and the maximum number of indoor units is reduced.

SMMS e SUPER MODULAR MULTI SYSTEM

The standard pipe
144 type – 240 type

Equivalent piping length
50 ft, Height difference: 0 ft

Heat Pump Outdoor Unit (MMYH) **208/230V-3-60**

Standard Model (Single Unit)

Outdoor Unit Model Name			MMY-	AP3606HT9P-UL	AP3846HT9P-UL	AP4086HT9P-UL	AP4326HT9P-UL	AP4566HT9P-UL
Nominal Tons				30	32	34	36	38
Combination Model			MMY-	MAP1206HT9P-UL	MAP1446HT9P-UL	MAP1446HT9P-UL	MAP1686HT9P-UL	MAP1686HT9P-UL
				MAP1206HT9P-UL	MAP1206HT9P-UL	MAP1446HT9P-UL	MAP1446HT9P-UL	MAP1686HT9P-UL
				MAP1206HT9P-UL	MAP1206HT9P-UL	MAP1206HT9P-UL	MAP1206HT9P-UL	MAP1206HT9P-UL
Cooling Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	360	384	408	432	456
		Rated	kBtu/h	342	366	390	412	434
Heating Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	405	432	459	486	513
		Rated	kBtu/h	386	412	436	462	488
With Non-Ducted Indoor Units Electrical Characteristics	Power Supply[2]			208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	28.67	33.60	36.55	40.14	44.58
		IEER[4]	Btu/W*hr	22.4	21.8	21.4	21.3	20.9
	Heating	Power Consumption[3]	kW	31.33	34.58	36.86	40.22	43.60
		COP[5]	W/W	3.52	3.40	3.38	3.28	3.20
With Ducted Indoor Units Electrical Characteristics	Power Supply[2]			208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	27.32	31.47	33.58	38.35	42.06
		IEER[4]	Btu/W*hr	20.3	19.8	19.6	19.1	19.3
	Heating	Power Consumption[3]	kW	29.40	32.52	36.34	39.15	42.27
		COP[5]	W/W	3.66	3.55	3.37	3.32	3.26
External Dimensions		Height	in	72.9	72.9	72.9	72.9	72.9
		Width	in	47.6 x 3	63.0 + 47.6 x 2	63.0 x 2 + 47.6	63.0 x 2 + 47.6	63.0 x 2 + 47.6
		Depth	in	30.7	30.7	30.7	30.7	30.7
Total Weight	Unit		lb	684 x 3	838 + 684 x 2	838 x 2 + 684	838 x 2 + 684	838 x 2 + 684
Compressor	Type			Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor
	Motor Output		kW	4.0 x 6	5.4 x 2 + 4.0 x 4	5.4 x 4 + 4.0 x 2	6.5 x 2 + 5.4 x 2 + 4.0 x 2	6.5 x 4 + 4.0 x 2
Fan Unit	Motor Output		kW	1.0 x 3	1.0 x 4	1.0 x 5	1.0 x 5	1.0 x 5
	Air Volume		cfm	7,480 x 3	9,760 + 7,480 x 2	9,760 x 2 + 7,480	10,100 + 9,760 + 7,480	10,100 x 2 + 7,480
	Maximum External Static Pressure		in WG	0.16	0.16	0.16	0.16	0.16
Refrigerant[6] (Charged Refrigerant Amount)			lb	25.4 x 3	25.4 x 3	25.4 x 3	25.4 x 3	25.4 x 3
Electrical Specifications	Unit	MCA[7]	A	42 + 42 + 42	54 + 42 + 42	54 + 54 + 42	69 + 54 + 42	69 + 69 + 42
		Recommended Fuse Size	A	45 + 45 + 45	60 + 45 + 45	60 + 60 + 45	75 + 60 + 45	75 + 75 + 45
Refrigerant Piping	Connecting Port Diameter	Gas Side (Main Pipe) (Brazing)	in	1-5/8	1-5/8	1-5/8	1-5/8	1-5/8
		Liquid Side (Main Pipe) (Flare)	in	7/8	7/8	7/8	7/8	7/8
		Balance Pipe (Flare)	in	3/8	3/8	3/8	3/8	3/8
Operation Temperature Range		Cooling	° F DB	14-122	14-122	14-122	14-122	14-122
		Heating	° F WB	-13-60	-13-60	-13-60	-13-60	-13-60
Maximum Number of Connected Indoor Units				63	64	64	64	64
Maximum Capacity of Combined Indoor Units[8]				80-150%	80-150%	80-150%	80-150%	80-150%
Sound Pressure Level Cooling / Heating			dB(A)	66/67	66.5/67.5	67.5/68.5	68/69	68/69

[1]Rated conditions:
Cooling: Indoor 80° F dry bulb / 67° F wet bulb, Outdoor 95° F dry bulb.
Heating: Indoor 70° F dry bulb, Outdoor 47° F dry bulb / 43° F wet bulb.
[2]The source voltage must not fluctuate more than ±10%.
[3]Only for outdoor unit.
[4]IEER: Integrated Energy Efficiency Ratio.
[5]COP: Coefficient of Performance.
[6]The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.
[7]Select wire size based on the larger value of MCA. MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).
[8]In case the diversity exceeds 135%, the type of indoor unit is limited and the maximum number of indoor units is reduced.

SMMS e SUPER MODULAR MULTI SYSTEM

The standard pipe
072 type – 120 type

Equivalent piping length
25 ft, Height difference: 0 ft

Heat Pump Outdoor Unit (MMYH) **208/230V-3-60**

Space Saving Model (Combination)

Outdoor Unit Model Name			MMY-	AP192S6HT9P-UL	AP240S6HT9P-UL	AP288S6HT9P-UL	AP408S6HT9P-UL
Nominal Tons				16	20	24	34
Combination Model			MMY-	MAP1206HT9P-UL	MAP1206HT9P-UL	MAP1686HT9P-UL	MAP1686HT9P-UL
				MAP0726HT9P-UL	MAP1206HT9P-UL	MAP1206HT9P-UL	MAP1206HT9P-UL
				-	-	-	MAP1206HT9P-UL
Cooling Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	192	240	288	408
		Rated	kBtu/h	184	230	276	390
Heating Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	216	270	324	459
		Rated	kBtu/h	206	256	308	436
With Non-Ducted Indoor Units Electrical Characteristics	Power Supply[2]			208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	14.19	19.29	24.65	37.29
		IEER[4]	Btu/W*hr	25.1	23.6	22.2	21.0
	Heating	Power Consumption[3]	kW	14.87	19.74	25.12	37.77
		COP[5]	W/W	3.95	3.70	3.50	3.30
With Ducted Indoor Units Electrical Characteristics	Power Supply[2]			208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz	208/230V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	13.87	17.61	23.09	34.87
		IEER[4]	Btu/W*hr	19.9	30.3	19.6	19.3
	Heating	Power Consumption[3]	kW	14.31	17.90	22.64	36.90
		COP[5]	W/W	3.83	3.90	3.76	3.32
External Dimensions		Height	in	72.9	72.9	72.9	72.9
		Width	in	47.6 + 39.0	47.6 x 2	63.0 + 47.6	63.0 + 47.6 x 2
		Depth	in	30.7	30.7	30.7	30.7
Total Weight	Unit		lb	684 + 574	684 x 2	838 + 684	838 + 684 x 2
Compressor	Type			Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor
	Motor Output		kW	4.0 x 2 + 2.1 x 2	4.0 x 4	6.5 x 2 + 4.0 x 2	6.5 x 2 + 4.0 x 4
Fan Unit	Motor Output		kW	1.0 x 2	1.0 x 2	1.0 x 3	1.0 x 4
	Air Volume		cfm	7,480 + 6,700	7,480 x 2	10,100 + 7,480	10,100 + 7,480 x2
	Maximum External Static Pressure		in WG	0.16	0.16	0.16	0.16
Refrigerant[6] (Charged Refrigerant Amount)			lb	25.4 x 2	25.4 x 2	25.4 x 2	25.4 x 3
Electrical Specifications	Unit	MCA[7]	A	42 + 27	42 + 42	69 + 42	69 + 42 + 42
		Recommended Fuse Size	A	45 + 30	45 + 45	75 + 45	75 + 45 + 45
Refrigerant Piping	Connecting Port Diameter	Gas Side (Main Pipe) (Brazing)	in	1-1/8	1-3/8	1-3/8	1-5/8
		Liquid Side (Main Pipe) (Flare)	in	5/8	3/4	3/4	7/8
		Balance Pipe (Flare)	in	3/8	3/8	3/8	3/8
Operation Temperature Range		Cooling	° F DB	14-122	14-122	14-122	14-122
		Heating	° F WB	-13-60	-13-60	-13-60	-13-60
Maximum Number of Connected Indoor Units				34	42	50	64
Maximum Capacity of Combined Indoor Units[8]				80-150%	80-150%	80-150%	80-150%
Sound Pressure Level Cooling / Heating			dB(A)	62.5/63.5	64/65	66/67	67/68

[1]Rated conditions:
Cooling: Indoor 80° F dry bulb / 67° F wet bulb, Outdoor 95° F dry bulb.
Heating: Indoor 70° F dry bulb, Outdoor 47° F dry bulb / 43° F wet bulb.
[2]The source voltage must not fluctuate more than ±10%.
[3]Only for outdoor unit.
[4]IEER: Integrated Energy Efficiency Ratio.
[5]COP: Coefficient of Performance.
[6]The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.
[7]Select wire size based on the larger value of MCA. MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).
[8]In case the diversity exceeds 135%, the type of indoor unit is limited and the maximum number of indoor units is reduced.

SMMS e SUPER MODULAR MULTI SYSTEM

The standard pipe
144 type – 240 type

Equivalent piping length
50 ft, Height difference: 0 ft

Heat Pump Outdoor Unit (MMYH) **460V-3-60**

Standard Model (Single Unit)

Outdoor Unit Model Name			MMY-	MAP0726HT6P-UL	MAP0966HT6P-UL	MAP1206HT6P-UL	MAP1446HT6P-UL	MAP1686HT6P-UL
Nominal Tons				6	8	10	12	14
Cooling Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	72	96	120	144	168
		Rated	kBtu/h	69	92	114	138	160
Heating Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	81	108	135	162	189
		Rated	kBtu/h	77	103	129	154	180
With Non-Ducted Indoor Units Electrical Characteristics	Power Supply[2]			460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	4.49	7.12	8.65	10.85	14.26
		IEER[4]	Btu/W*hr	29.0	28.0	25.1	25.6	23.8
	Heating	Power Consumption[3]	kW	5.17	6.53	9.22	10.68	13.82
		COP[5]	W/W	4.23	4.50	3.99	4.12	3.74
With Ducted Indoor Units Electrical Characteristics	Power Supply[2]			460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	4.69	6.28	8.81	11.09	13.39
		IEER[4]	Btu/W*hr	22.7	22.3	21.6	20.0	19.0
	Heating	Power Consumption[3]	kW	5.47	6.83	9.04	10.47	13.36
		COP[5]	W/W	3.79	4.00	3.89	3.91	3.63
External Dimensions		Height	in	72.9	72.9	72.9	72.9	72.9
		Width	in	39.0	47.6	47.6	63.0	63.0
		Depth	in	30.7	30.7	30.7	30.7	30.7
Total Weight	Unit		lb	574	684	684	838	838
Compressor	Type			Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor
	Motor Output		kW	2.1 x 2	3.0 x 2	4.0 x 2	5.4 x 2	6.5 x 2
Fan Unit	Motor Output		kW	1.0	1.0	1.0	1.0 x 2	1.0 x 2
	Air Volume		cfm	6,700	7,480	7,480	9,760	10,080
	Maximum External Static Pressure		in WG	0.24	0.16	0.16	0.16	0.16
Refrigerant[6] (Charged Refrigerant Amount)			lb	25.4	25.4	25.4	25.4	25.4
Electrical Specifications	Unit	MCA[7]	A	12.9	20.0	23.0	25	31
		Recommended Fuse Size	A	15	25	25	30	35
Refrigerant Piping	Connecting Port Diameter	Gas Side (Main Pipe) (Brazing)	in	7/8	7/8	1-1/8	1-1/8	1-1/8
		Liquid Side (Main Pipe) (Flare)	in	1/2	1/2	1/2	5/8	5/8
		Balance Pipe (Flare)	in	3/8	3/8	3/8	3/8	3/8
Operation Temperature Range		Cooling	° F DB	14-122	14-122	14-122	14-122	14-122
		Heating	° F WB	-13-60	-13-60	-13-60	-13-60	-13-60
Maximum Number of Connected Indoor Units				12	16	21	25	30
Maximum Capacity of Combined Indoor Units[8]				50-150%	50-150%	50-150%	50-150%	50-150%
Sound Pressure Level Cooling / Heating			dB(A)	56/58	61/61	61/62	63/64	64/65

[1]Rated conditions:
Cooling: Indoor 80° F dry bulb / 67° F wet bulb, Outdoor 95° F dry bulb.
Heating: Indoor 70° F dry bulb, Outdoor 47° F dry bulb / 43° F wet bulb.
[2]The source voltage must not fluctuate more than ±10%.
[3]Only for outdoor unit.
[4]IEER: Integrated Energy Efficiency Ratio.
[5]COP: Coefficient of Performance.
[6]The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.
[7]Select wire size based on the larger value of MCA. MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).
[8]In case the diversity exceeds 135%, the type of indoor unit is limited and the maximum number of indoor units is reduced.

SMMS e SUPER MODULAR MULTI SYSTEM

The standard pipe
072 type – 120 type

Equivalent piping length
25 ft, Height difference: 0 ft

Heat Pump Outdoor Unit (MMYH) **460V-3-60**

Standard Model (Combination)

Outdoor Unit Model Name			MMY-	AP1926HT6P-UL	AP2166HT6P-UL	AP2406HT6P-UL	AP2646HT6P-UL	AP2886HT6P-UL	AP3126HT6P-UL	AP3366HT6P-UL
Nominal Tons				16	18	20	22	24	26	28
Combination Model			MMY-	MAP0966HT6P-UL	MAP1206HT6P-UL	MAP1446HT6P-UL	MAP1446HT6P-UL	MAP1446HT6P-UL	MAP1686HT6P-UL	MAP1686HT6P-UL
				MAP0966HT6P-UL	MAP0966HT6P-UL	MAP0966HT6P-UL	MAP1206HT6P-UL	MAP1446HT6P-UL	MAP1446HT6P-UL	MAP1686HT6P-UL
Cooling Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	192	216	240	264	288	312	336
		Rated	kBtu/h	184	206	230	252	276	298	320
Heating Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	216	243	270	297	324	351	378
		Rated	kBtu/h	206	232	256	282	308	334	360
With Non-Ducted Indoor Units Electrical Characteristics	Power Supply[2]			460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	13.97	16.75	18.63	21.56	24.19	27.97	30.27
		IEER[4]	Btu/W*hr	25.5	24.6	24.1	22.8	22.5	22.1	22.0
	Heating	Power Consumption[3]	kW	14.50	17.01	19.47	22.09	24.40	27.94	30.70
		COP[5]	W/W	4.05	3.90	3.75	3.65	3.60	3.42	3.35
With Ducted Indoor Units Electrical Characteristics	Power Supply[2]			460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	13.40	15.39	17.46	19.57	22.88	25.94	29.04
		IEER[4]	Btu/W*hr	20.3	20.3	20.6	20.4	20.0	19.7	19.6
	Heating	Power Consumption[3]	kW	13.64	15.91	17.67	19.83	22.33	25.31	28.82
		COP[5]	W/W	4.00	3.93	3.95	3.90	3.81	3.66	3.49
External Dimensions		Height	in	72.9	72.9	72.9	72.9	72.9	72.9	72.9
		Width	in	47.6 x 2	47.6 x 2	63.0 + 47.6	63.0 + 47.6	63.0 x 2	63.0 x 2	63.0 x 2
		Depth	in	30.7	30.7	30.7	30.7	30.7	30.7	30.7
Total Weight	Unit		lb	684 x 2	684 x 2	838 + 684	838 + 684	838 x 2	838 x 2	838 x 2
Compressor	Type			Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor
	Motor Output		kW	3.0 x 4	4.0 x 2 + 3.0 x 2	5.4 x 2 + 3.0 x 2	5.4 x 2 + 4.0 x 2	5.4 x 4	6.5 x 2 + 5.4 x 2	6.5 x 4
Fan Unit	Motor Output		kW	1.0 x 2	1.0 x 2	1.0 x 3	1.0 x 3	1.0 x 4	1.0 x 4	1.0 x 4
	Air Volume		cfm	7,480 x 2	7,480 x 2	9,760 + 7,480	9,760 + 7,480	9,760 x 2	10,080 + 9,760	10,080 x 2
	Maximum External Static Pressure		in WG	0.16	0.16	0.16	0.16	0.16	0.16	0.16
Refrigerant[6] (Charged Refrigerant Amount)			lb	25.4 x 2	25.4 x 2	25.4 x 2	25.4 x 2	25.4 x 2	25.4 x 2	25.4 x 2
Electrical Specifications	Unit	MCA[7]	A	20 + 20	23 + 20	25 + 20	25 + 23	25 + 25	31 + 25	31 + 31
		Recommended Fuse Size	A	25 + 25	25 + 25	30 + 25	30 + 25	30 + 30	35 + 30	35 + 35
Refrigerant Piping	Connecting Port Diameter	Gas Side (Main Pipe) (Brazing)	in	1-1/8	1-3/8	1-3/8	1-3/8	1-3/8	1-3/8	1-5/8
		Liquid Side (Main Pipe) (Flare)	in	5/8	3/4	3/4	3/4	3/4	3/4	7/8
		Balance Pipe (Flare)	in	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Operation Temperature Range		Cooling	° F DB	14-122	14-122	14-122	14-122	14-122	14-122	14-122
		Heating	° F WB	-13-60	-13-60	-13-60	-13-60	-13-60	-13-60	-13-60
Maximum Number of Connected Indoor Units				34	38	42	46	50	55	60
Maximum Capacity of Combined Indoor Units[8]				50-150%	50-150%	50-150%	50-150%	50-150%	50-150%	50-150%
Sound Pressure Level Cooling / Heating			dB(A)	64/64	64/64.5	65.5/66	65.5/66.5	66/67	66.5/67.5	67/68

[1]Rated conditions:
Cooling: Indoor 80° F dry bulb / 67° F wet bulb, Outdoor 95° F dry bulb.
Heating: Indoor 70° F dry bulb, Outdoor 47° F dry bulb / 43° F wet bulb.
[2]The source voltage must not fluctuate more than ±10%.
[3]Only for outdoor unit.
[4]IEER: Integrated Energy Efficiency Ratio.
[5]COP: Coefficient of Performance.
[6]The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.
[7]Select wire size based on the larger value of MCA. MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).
[8]In case the diversity exceeds 135%, the type of indoor unit is limited and the maximum number of indoor units is reduced.

SMMS e SUPER MODULAR MULTI SYSTEM

The standard pipe
144 type – 240 type

Equivalent piping length
50 ft, Height difference: 0 ft

Heat Pump Outdoor Unit (MMYH) **460V-3-60**

Standard Model (Single Unit)

Outdoor Unit Model Name			MMY-	AP3606HT6P-UL	AP3846HT6P-UL	AP4086HT6P-UL	AP4326HT6P-UL	AP4566HT6P-UL
Nominal Tons				30	32	34	36	38
Combination Model			MMY-	MAP1206HT6P-UL	MAP1446HT6P-UL	MAP1446HT6P-UL	MAP1686HT6P-UL	MAP1686HT6P-UL
				MAP1206HT6P-UL	MAP1206HT6P-UL	MAP1446HT6P-UL	MAP1446HT6P-UL	MAP1686HT6P-UL
				MAP1206HT6P-UL	MAP1206HT6P-UL	MAP1206HT6P-UL	MAP1206HT6P-UL	MAP1206HT6P-UL
Cooling Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	360	384	408	432	456
		Rated	kBtu/h	342	366	390	412	434
Heating Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal	kBtu/h	405	432	459	486	513
		Rated	kBtu/h	386	412	436	462	488
With Non-Ducted Indoor Units Electrical Characteristics	Power Supply[2]			460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	28.67	33.60	36.55	40.14	44.58
		IEER[4]	Btu/W*hr	22.4	21.8	21.4	21.3	20.9
	Heating	Power Consumption[3]	kW	31.33	34.58	36.86	40.22	43.60
		COP[5]	W/W	3.52	3.40	3.38	3.28	3.20
With Ducted Indoor Units Electrical Characteristics	Power Supply[2]			460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]	kW	27.32	31.47	33.58	38.35	42.06
		IEER[4]	Btu/W*hr	20.3	19.8	19.6	19.1	19.3
	Heating	Power Consumption[3]	kW	29.40	32.52	36.34	39.15	42.27
		COP[5]	W/W	3.66	3.55	3.37	3.32	3.26
External Dimensions		Height	in	72.9	72.9	72.9	72.9	72.9
		Width	in	47.6 x 3	63.0 + 47.6 x 2	63.0 x 2 + 47.6	63.0 x 2 + 47.6	63.0 x 2 + 47.6
		Depth	in	30.7	30.7	30.7	30.7	30.7
Total Weight	Unit		lb	684 x 3	838 + 684 x 2	838 x 2 + 684	838 x 2 + 684	838 x 2 + 684
Compressor	Type			Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor
	Motor Output		kW	4.0 x 6	5.4 x 2 + 4.0 x 4	5.4 x 4 + 4.0 x 2	6.5 x 2 + 5.4 x 2 + 4.0 x 2	6.5 x 4 + 4.0 x 2
Fan Unit	Motor Output		kW	1.0 x 3	1.0 x 4	1.0 x 5	1.0 x 5	1.0 x 5
	Air Volume		cfm	7,480 x 3	9,760 + 7,480 x 2	9,760 x 2 + 7,480	10,080 + 9,760 + 7,480	10,080 x 2 + 7,480
	Maximum External Static Pressure		in WG	0.16	0.16	0.16	0.16	0.16
Refrigerant[6] (Charged Refrigerant Amount)			lb	25.4 x 3	25.4 x 3	25.4 x 3	25.4 x 3	25.4 x 3
Electrical Specifications	Unit	MCA[7]	A	23 + 23 + 23	25 + 23 + 23	25 + 25 + 23	31 + 25 + 23	31 + 31 + 23
		Recommended Fuse Size	A	25 + 25 + 25	30 + 25 + 25	30 + 30 + 25	35 + 30 + 25	35 + 35 + 25
Refrigerant Piping	Connecting Port Diameter	Gas Side (Main Pipe) (Brazing)	in	1-5/8	1-5/8	1-5/8	1-5/8	1-5/8
		Liquid Side (Main Pipe) (Flare)	in	7/8	7/8	7/8	7/8	7/8
		Balance Pipe (Flare)	in	3/8	3/8	3/8	3/8	3/8
Operation Temperature Range		Cooling	° F DB	14-122	14-122	14-122	14-122	14-122
		Heating	° F WB	-13-60	-13-60	-13-60	-13-60	-13-60
Maximum Number of Connected Indoor Units				63	64	64	64	64
Maximum Capacity of Combined Indoor Units[8]				50-150%	50-150%	50-150%	50-150%	50-150%
Sound Pressure Level Cooling / Heating			dB(A)	66/67	66.5/67.5	67.5/68.5	68/69	68/69

[1]Rated conditions:
Cooling: Indoor 80° F dry bulb / 67° F wet bulb, Outdoor 95° F dry bulb.
Heating: Indoor 70° F dry bulb, Outdoor 47° F dry bulb / 43° F wet bulb.
[2]The source voltage must not fluctuate more than ±10%.
[3]Only for outdoor unit.
[4]IEER: Integrated Energy Efficiency Ratio.
[5]COP: Coefficient of Performance.
[6]The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.
[7]Select wire size based on the larger value of MCA. MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).
[8]In case the diversity exceeds 135%, the type of indoor unit is limited and the maximum number of indoor units is reduced.

SMMS e SUPER MODULAR MULTI SYSTEM

The standard pipe
072 type – 120 type

Equivalent piping length
25 ft, Height difference: 0 ft

Heat Pump Outdoor Unit (MMYH) **460V-3-60**

Space Saving Model (Combination)							
Outdoor Unit Model Name				**MMY-**	**AP192S6HT6P-UL**	**AP240S6HT6P-UL**	**AP288S6HT6P-UL**	**AP408S6HT6P-UL**
Nominal Tons					16	20	24	34
Combination Model				MMY-	MAP1206HT6P-UL	MAP1206HT6P-UL	MAP1686HT6P-UL	MAP1686HT6P-UL
					MAP0726HT6P-UL	MAP1206HT6P-UL	MAP1206HT6P-UL	MAP1206HT6P-UL
					-	-	-	MAP1206HT6P-UL
Cooling Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal		kBtu/h	192	240	288	408
		Rated		kBtu/h	184	230	276	390
Heating Capacity[1] (With Non-Ducted Indoor Units / Ducted)		Nominal		kBtu/h	216	270	324	459
		Rated		kBtu/h	206	256	308	436
With Non-Ducted Indoor Units Electrical Characteristics	Power Supply[2]				460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]		kW	14.19	19.29	24.65	37.29
		IEER[4]		Btu/W*hr	25.1	23.6	22.2	21.0
	Heating	Power Consumption[3]		kW	14.87	19.74	25.12	37.77
		COP[5]		W/W	3.95	3.70	3.50	3.30
With Ducted Indoor Units Electrical Characteristics	Power Supply[2]				460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz
	Cooling	Power Consumption[3]		kW	13.87	17.61	23.09	34.87
		IEER[4]		Btu/W*hr	19.9	30.3	19.6	19.3
	Heating	Power Consumption[3]		kW	14.31	17.90	22.64	36.90
		COP[5]		W/W	3.83	3.90	3.76	3.32
External Dimensions		Height		in	72.9	72.9	72.9	72.9
		Width		in	47.6 + 39.0	47.6 x 2	63.0 + 47.6	63.0 + 47.6 x 2
		Depth		in	30.7	30.7	30.7	30.7
Total Weight	Unit			lb	684 + 574	684 x 2	838 + 684	838 + 684 x 2
Compressor	Type				Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor	Hermetic Twin Rotary Compressor
	Motor Output			kW	4.0 x 2 + 2.1 x 2	4.0 x 4	6.5 x 2 + 4.0 x 2	6.5 x 2 + 4.0 x 4
Fan Unit	Motor Output			kW	1.0 x 2	1.0 x 2	1.0 x 3	1.0 x 4
	Air Volume			cfm	7,480 + 6,700	7,480 x 2	10,080 + 7,480	10,080 + 7,480 x2
	Maximum External Static Pressure			in WG	0.16	0.16	0.16	0.16
Refrigerant[6] (Charged Refrigerant Amount)				lb	25.4 x 2	25.4 x 2	25.4 x 2	25.4 x 3
Electrical Specifications	Unit	MCA[7]		A	23 + 12.9	23 + 23	31 + 23	31 + 23 + 23
		Recommended Fuse Size		A	25 + 20	25 + 25	35 + 25	35 + 25 + 25
Refrigerant Piping	Connecting Port Diameter	Gas Side (Main Pipe) (Brazing)		in	1-1/8	1-3/8	1-3/8	1-5/8
		Liquid Side (Main Pipe) (Flare)		in	5/8	3/4	3/4	7/8
		Balance Pipe (Flare)		in	3/8	3/8	3/8	3/8
Operation Temperature Range		Cooling		° F DB	14-122	14-122	14-122	14-122
		Heating		° F WB	-13-60	-13-60	-13-60	-13-60
Maximum Number of Connected Indoor Units					34	42	50	64
Maximum Capacity of Combined Indoor Units[8]					80-150%	80-150%	80-150%	80-150%
Sound Pressure Level Cooling / Heating				dB(A)	62.5/63.5	64/65	66/67	67/68

[1]Rated conditions:
Cooling: Indoor 80° F dry bulb / 67° F wet bulb, Outdoor 95° F dry bulb.
Heating: Indoor 70° F dry bulb, Outdoor 47° F dry bulb / 43° F wet bulb.
[2]The source voltage must not fluctuate more than ±10%.
[3]Only for outdoor unit.
[4]IEER: Integrated Energy Efficiency Ratio.
[5]COP: Coefficient of Performance.
[6]The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.
[7]Select wire size based on the larger value of MCA. MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).
[8]In case the diversity exceeds 135%, the type of indoor unit is limited and the maximum number of indoor units is reduced.

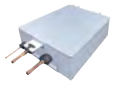
SMMS e SUPER MODULAR MULTI SYSTEM

The standard pipe
144 type – 240 type

Equivalent piping length
50 ft, Height difference: 0 ft

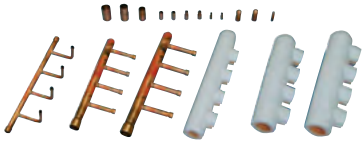
Flow Selector and Branching Joints

Heat Recovery Flow Selectors

Model Name	RBM-Y0383FUL	RBM-Y0613FUL	RBM-Y0963FUL	RBM-Y0384FUL	RBM-Y0614FUL	RBM-Y0964FUL	RBM-Y0611F4PUL	RBM-Y0611F6PUL
	Single Port Applications where the indoor unit is less than 49 ft. from the flow selector.			**Single Port Long** Applications where the indoor unit is less than 164 ft. from the flow selector.			**Multi-port**** Multiple ports which optimizes the piping length between port and indoor unit.	
Appearance								
Connectable Indoor Unit Capacity (kBtu/H)	Below 38	38 to below 61	61 to 96 or less	Below 38	38 to 61	61 to 96	61 or less	61 or less
Connectable indoor units for each port*	5	8	8	5	8	8	10	10

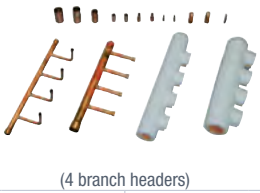
*Only group operation is possible with 1 (or 2) remote controller(s)
**Multi-port flow selector box requires separate power supply
Connection cable kit: RBC-CBK15FE

Heat Recovery Branching Joints

Model Name	RBM-BY55FUL	RBM-BY105FUL	RBM-BY205FUL	RBM-BY305FUL	RBM-HY1043FUL	RBM-HY2043FUL	RBM-HY1083FUL	RBM-HY2083FUL	RBM-BT14FUL	RBM-BT24FUL
	Y-shape Branching Joint				Branch Headers				Outdoor Unit Connection Piping Kit	
Appearance					 (4 branch headers)					
Usage Branches					Max. 4 branches		Max. 8 branches			
Total Usage* (kBtu/H)	Below 61	61 or more and below 134.5	134.5 or more and below 239	239 or more	Below 134.5	134.5 or more	Below 134.5	134.5 or more	Below 247	247 or more

*Classification according to indoor unit capacity code

Heat Pump Branching Joints

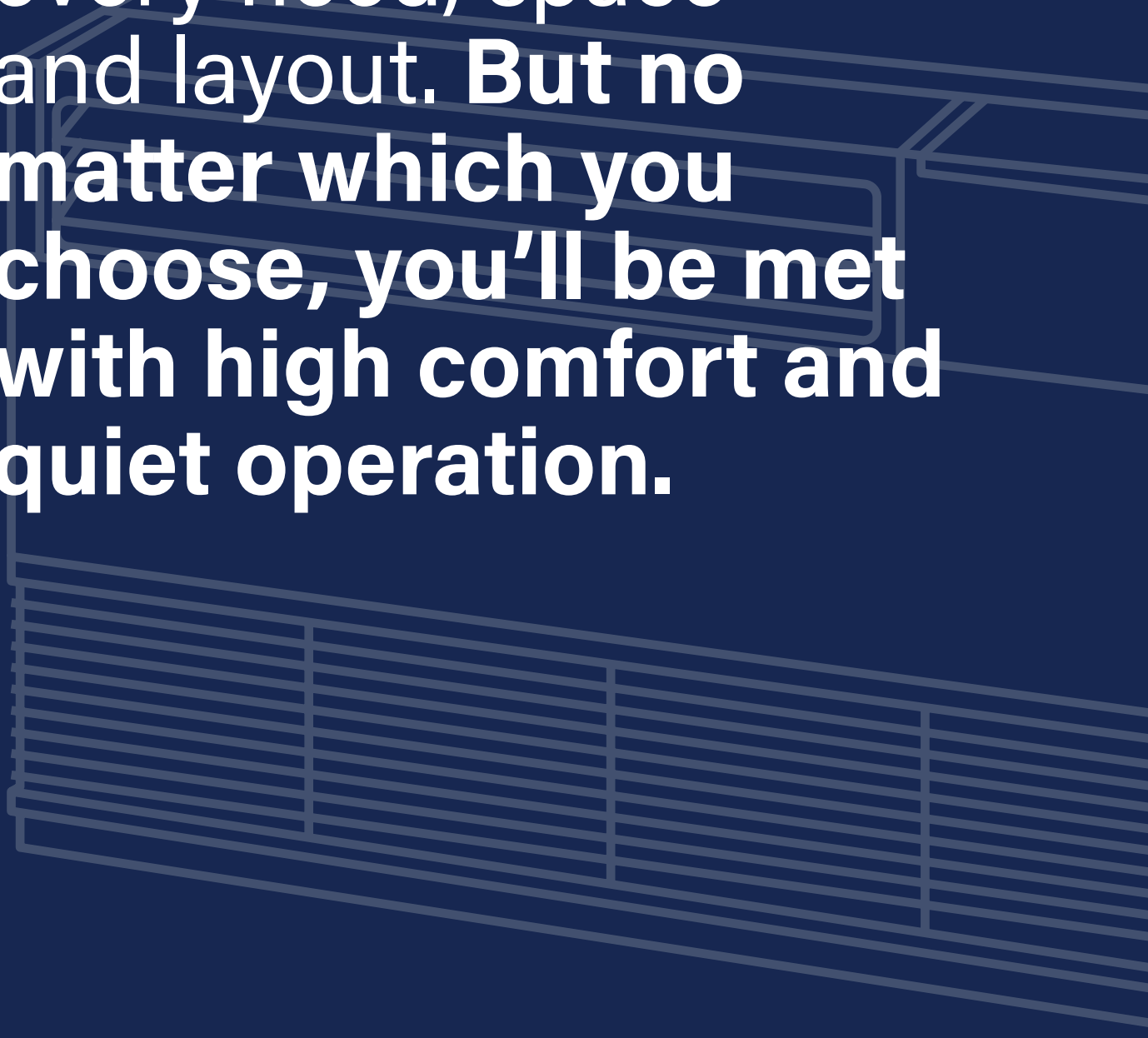
Model Name	RBM-BY55UL	RBM-BY105UL	RBM-BY205UL	RBM-BY305UL	RBM-HY1043UL	RBM-H HY2043UL	RBM-HY1083UL	RBM-HY2083UL	RBM-BT14UL	RBM-BT24UL
	Y-shape Branching Joint for Using 2 Pipes				Branch Headers				Outdoor Unit Connection Piping Kit	
Appearance					 (4 branch headers)					
Usage Branches					Max. 4 branches		Max. 8 branches			
Total Usage* (kBtu/H)	Below 61	61 or more and below 134.5	134.5 or more and below 239	239 or more	Below 136	136 or more	Below 136	136 or more	Below 247	247 or more

*Classification according to indoor unit capacity code

VRF

Indoor Units

We offer a variety of indoor options to fit every need, space and layout. **But no matter which you choose, you'll be met with high comfort and quiet operation.**



VRF Indoor Units Overview

Cooling Capacity kBtu/h (Ton)	Non-Ducted Models						
	1-Way Cassette	Standard 4-Way Cassette	Compact 4-Way Cassette	High Wall	Underceiling	Floor Console (Recessed)	Floor Console (Exposed)
7,500 (0.6)	●	●	●	●		●	●
9,500 (0.8)	●	●	●	●		●	●
12,000 (1)	●	●	●	●		●	●
15,000 (1.25)		●	●	●		●	●
18,000 (1.5)		●	●	●	●	●	●
24,000 (2)		●		●	●	●	●
30,000 (2.5)		●		●	●		
36,000 (3)		●		●	●		
42,000 (3.5)		●					
48,000 (4)		●			●		
54,000 (4.5)		●					

Cooling Capacity kBtu/h (Ton)	Ducted Models					
	Slim Ducted	Concealed Ducted	High Static Ducted	Multipoise Air Handling Unit (AHU)	Outside Air	Rooftop Unit Air Handling Unit (AHU)
7,500 (0.6)	●	●				
9,500 (0.8)	●	●				
12,000 (1)	●	●		●		
15,400 (1.25)	●	●				
18,000 (1.5)	●	●		●		
21,000 (1.75)		●				
24,000 (2)		●	●	●		
30,000 (2.5)		●	●	●		
36,000 (3)		●	●	●		●
42,000 (3.5)		●		●		
48,000 (4)		●	●	●	●	●
54,000 (4.5)		●	●			
60,000 (5)				●		●
72,000 (6)			●		●	
96,000 (8)			●		●	

1-Way Cassette

MMU-AP***1YHPUL

- Single louver that can be positioned at different angles
- Attractive grill / panel
- Built in condensate lift (15.4")

Model Name		MMU-	AP0071YHPUL	AP0091YHPUL	AP0121YHPUL
Cooling Capacity		kBtu/h	7.5	9.5	12.0
Sensible Cooling Capacity		kBtu/h	5.6	7.1	9.0
Heating Capacity		kBtu/h	8.5	10.5	13.5
Electrical Characteristics	Power Supply		230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz
	Power Consumption	kW	0.017	0.018	0.019
Appearance	Main unit		Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate
	Ceiling panel		White (2.5GY 9.0/9.5)	White (2.5GY 9.0/9.5)	White (2.5GY 9.0/9.5)
External Dimensions Main Unit (Ceiling Panel)*	Height	in	5.91(1.18)	5.91(1.18)	5.91(1.18)
	Width	in	39.0(48.0)	39.0(48.0)	39.0(48.0)
	Depth	in	17.7(21.0)	17.7(21.0)	17.7(21.0)
Total Weight (Ceiling Panel)*		lb	30.9(8.8)	30.9(8.8)	30.9(8.8)
Fan Unit	Standard Air Flow (High / Mid / Low)	cfm	297/230/159	306/241/171	317/247/171
	Motor Output	W	30	30	30
	Motor Type		DC	DC	DC
Connecting Pipe	Gas Side	in	3/8	3/8	3/8
	Liquid Side	in	1/4	1/4	1/4
	Drain Port (Nominal Dia.)	in	VP25 (Polyvinyl Chloride Tube: Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: Dia. 1-1/4 Internal Dia. 1)
Sound Pressure Level (High / Mid / Low)[1]		dB(A)	38/34/25	39/35/26	40/36/26

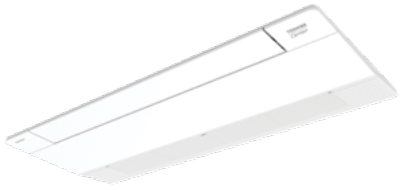
*Figures in parentheses are for ceiling panels.
[1]The actual values in an operating enviroment are generally higher than the indicated values due to the contribution from ambient noise.

Optional Accessories

Occupancy Sensor
TCB-SIR41UYP-UL

Wireless Reciever Kit
RBC-AX33UYP-UL

Required Parts



Ceiling Panel
RBC-UY32P-UL

4-Way Cassette

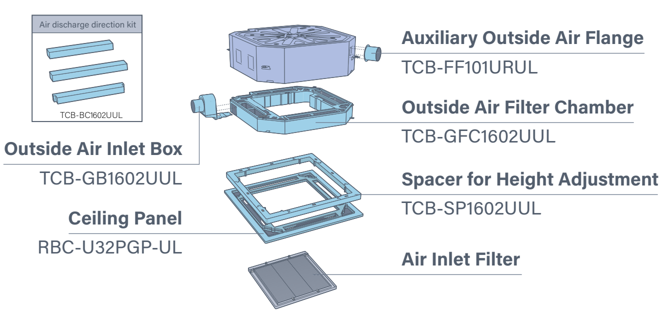
MMU-AP***4HPUL

- Four louvers that can each be positioned at different angles
- Customized airflow control
- Built-in condensate lift mechanism (Up to 26")

Model Name		MMU-	AP0074HPUL	AP0094HPUL	AP0124HPUL	AP0154HPUL	AP0184HPUL	AP0244HPUL	AP0304HPUL	AP0364HPUL	AP0424HPUL	AP0484HPUL	AP0544HPUL
Cooling Capacity		kBtu/h	7.5	9.5	12.0	15.4	18.0	24.0	30.0	36.0	42.0	48.0	54.0
Sensible Cooling Capacity		kBtu/h	5.8	7.1	8.6	12.0	12.8	16.5	20.6	24.7	29.4	33.6	37.8
Heating Capacity		kBtu/h	8.5	10.5	13.5	17.0	20.0	27.0	34.0	40.0	47.5	54.0	60.0
Electrical Characteristics	Power Supply		230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz
	Power Consumption	kW	0.021	0.021	0.023	0.026	0.026	0.036	0.043	0.088	0.112	0.112	0.112
Appearance	Main Unit		Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate
	Ceiling Panel		White (2.5GY 9.0/9.5)	White (2.5GY 9.0/9.5)	White (2.5GY 9.0/9.5)	White (2.5GY 9.0/9.5)	White (2.5GY 9.0/9.5)	White (2.5GY 9.0/9.5)	White (2.5GY 9.0/9.5)	White (2.5GY 9.0/9.5)	White (2.5GY 9.0/9.5)	White (2.5GY 9.0/9.5)	White (2.5GY 9.0/9.5)
External Dimensions Main Unit (Ceiling Panel)*	Height	in	10.1 (1.2)	10.1 (1.2)	10.1 (1.2)	10.1 (1.2)	10.1 (1.2)	10.1 (1.2)	10.1 (1.2)	12.6 (1.2)	12.6 (1.2)	12.6 (1.2)	12.6 (1.2)
	Width	in	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)
	Depth	in	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)
Total Weight (Ceiling Panel)*		lb	42 (10)	42 (10)	46 (10)	46 (10)	46 (10)	48 (10)	48 (10)	59 (10)	59 (10)	60 (10)	60 (10)
Fan Unit	Standard Air Flow (High / Mid / Low)	cfm	470/430/400	470/430/400	550/490/460	550/480/440	550/480/440	670/540/490	730/630/510	1160/840/630	1250/840/670	1250/840/670	1250/890/720
	Motor Output	W	60	60	60	60	60	60	60	150	150	150	150
	Motor Type		DC	DC	DC	DC	DC	DC	DC	DC	DC	DC	DC
Connecting Pipe	Gas Side	in	3/8	3/8	3/8	1/2	1/2	5/8	5/8	5/8	5/8	5/8	5/8
	Liquid Side	in	1/4	1/4	1/4	1/4	1/4	3/8	3/8	3/8	3/8	3/8	3/8
	Drain Port (Nominal Dia.)	in	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)
Sound Pressure Level (High / Mid / Low)[1]		dB(A)	32.5/30.5/29.0	32.5/30.5/29.0	34.0/31.5/29.5	35/33/31	35/33/31	38/33/31	41.0/36.5/34.0	46.0/40.5/36.5	48.5/40.5/37.5	48.5/40.5/37.5	48.5/40.5/33

*Figures in parentheses are for ceiling panels.
[1]The actual values in an operating enviroment are generally higher than the indicated values due to the contribution from ambient noise.

Optional Accessories



Required Parts

Ceiling Panel
RBC-U32PGP-UL

Compact 4-Way Cassette

MMU-AP***1MH2UL

- Perfect for grid-system ceiling
- Matches standard architectural modules—less need to cut ceiling tiles
- Includes 4-Way Cassette features listed on previous page
- Slim design is only 10.6 inches in height, even with an electrical box located inside the unit
- Installation is easy using the panel adjust pocket
- Available for ceilings up to 11.5 feet in height
- Drain-checking hole makes it possible to check the drain pan through the side case
- Built in condensate lift (24.7")

Model Name		MMU-	AP0071MH2UL	AP0091MH2UL	AP0121MH2UL	AP0151MH2UL	AP0181MH2UL
Cooling Capacity		kBtu/h	7.5	9.5	12.0	15.4	18.0
Sensible Cooling Capacity		kBtu/h	5.8	6.7	8.3	10.6	11.5
Heating Capacity		kBtu/h	8.5	10.5	13.5	17.0	20.0
Electrical Characteristics	Power Supply		230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz
	Power Consumption	kW	0.034	0.036	0.038	0.041	0.052
Appearance			Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate
External Dimensions Main Unit (Ceiling Panel)*	Height	in	10.6 (1.1)	10.6 (1.1)	10.6 (1.1)	10.6 (1.1)	10.6 (1.1)
	Width	in	22.6 (27.6)	22.6 (27.6)	22.6 (27.6)	22.6 (27.6)	22.6 (27.6)
	Depth	in	22.6 (27.6)	22.6 (27.6)	22.6 (27.6)	22.6 (27.6)	22.6 (27.6)
Total Weight (Ceiling Panel)*		lb	35 (7)	35 (7)	35 (7)	35 (7)	35 (7)
Fan Unit	Standard Air Flow (High / Mid / Low)	cfm	320/270/220	330/280/220	330/300/240	390/330/280	450/380/310
	Motor Output	W	60	60	60	60	60
	Motor Type		DC	DC	DC	DC	DC
Connecting Pipe	Gas Side	in	3/8	3/8	3/8	1/2	1/2
	Liquid Side	in	1/4	1/4	1/4	1/4	1/4
	Drain Port (Nominal Dia.)	in	VP25 (Polyvinyl Chloride Tube: Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: Dia. 1-1/4 Internal Dia. 1)
Sound Pressure Level (High / Mid / Low)[1]		dB(A)	38.5/35.0/31.0	40.0/35.5/31.0	40/36/32	42.5/37.5/33.0	46.5/41.5/36.0

*Figures in parentheses are for ceiling panels.
[1]The actual values in an operating enviroment are generally higher than the indicated values due to the contribution from ambient noise.

Optional Accessories

Auxiliary Outside Air Flange
TCB-FF101URUL

Required Parts

Ceiling Panel
RBC-UM11PG(W)UL

High Wall

MMK-AP***7HPUL

- Auto-swing louver provides uniform air distribution and enhanced comfort control
- Optional Condensate Drain Kit available
- Aesthetically pleasing and blends with any room's interior decor while efficiently heating and cooling the space

Model Name		MMK-	AP0077HPUL	AP0097HPUL	AP0127HPUL	AP0157HPUL	AP0187HPUL	AP0247HPUL	AP0307HPUL	AP0367HPUL
Cooling Capacity		kBtu/h	7.5	9.5	12.0	15.4	18.0	24.0	30.0	36.0
Sensible Cooling Capacity		kBtu/h	5.6	7.1	9.0	11.6	13.5	18.0	22.5	27.0
Heating Capacity		kBtu/h	8.5	10.5	13.5	17.0	20.0	27.0	34.0	40.0
Electrical Characteristics	Power Supply		230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz
	Power Consumption	kW	0.015	0.016	0.017	0.028	0.032	0.050	0.058	0.066
Appearance			Munsell 2.5GY 9.0/0.5	Munsell 2.5GY 9.0/0.5	Munsell 2.5GY 9.0/0.5	Munsell 2.5GY 9.0/0.5	Munsell 2.5GY 9.0/0.5	Munsell 2.5GY 9.0/0.5	Munsell 2.5GY 9.0/0.5	Munsell 2.5GY 9.0/0.5
External Dimensions Main Unit	Height	in	11.6	11.6	11.6	12.6	12.6	12.6	13.7	13.7
	Width	in	31.5	31.5	31.5	41.4	41.4	41.4	47.2	47.2
	Depth	in	9.1	9.1	9.1	9.9	9.9	9.9	11.0	11.0
Total Weight		lb	27	27	27	36	36	36	46	46
Fan Unit	Standard Air Flow (High / Mid / Low)	cfm	283/226/159	300/232/159	318/241/159	494/406/324	530/424/324	706/530/353	942/824/706	971/912/736
	Motor Output	W	30	30	30	30	30	30	61	61
	Motor Type		DC	DC	DC	DC	DC	DC	DC	DC
Connecting Pipe	Gas Side	in	3/8	3/8	3/8	1/2	1/2	5/8	5/8	5/8
	Liquid Side	in	1/4	1/4	1/4	1/4	1/4	3/8	3/8	3/8
	Drain Port (Nominal Dia.)	in	VP16 (Polyvinyl Chloride Tube: Dia. 0.87 Internal Dia. 0.63)	VP16 (Polyvinyl Chloride Tube: Dia. 0.87 Internal Dia. 0.63)	VP16 (Polyvinyl Chloride Tube: Dia. 0.87 Internal Dia. 0.63)	VP16 (Polyvinyl Chloride Tube: Dia. 0.87 Internal Dia. 0.63)	VP16 (Polyvinyl Chloride Tube: Dia. 0.87 Internal Dia. 0.63)	VP16 (Polyvinyl Chloride Tube: Dia. 0.87 Internal Dia. 0.63)	VP16 (Polyvinyl Chloride Tube: Dia. 0.87 Internal Dia. 0.63)	VP16 (Polyvinyl Chloride Tube: Dia. 0.87 Internal Dia. 0.63)
Sound Pressure Level (High / Mid / Low)[1]		dB(A)	35/30/27	36/31/27	37/32/27	40/36/32	41/37/32	45/39/33	48/44/41	50/47/43

[1]The actual values in an operating enviroment are generally higher than the indicated values due to the contribution from ambient noise.

Optional Accessories

Condensate Drain Kit
53DS-900---118

Included Parts

Wireless Controller

Underceiling

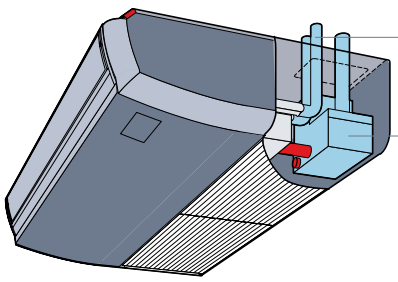
MMC-AP***8HPUL

- Airflow angle is automatically set to the most suitable setting according to cooling or heating needs
- Optional Condensate Drain Kit available
- Automatic swing mode enables airflow to reach all areas of the room to create a comfortable ambiance
- Outside air knockout

Model Name		MMC-	AP0188HPUL	AP0248HPUL	AP0308HPUL	AP0368HPUL	AP0488HPUL
Cooling Capacity		kBtu/h	18.0	24.0	30.0	36.0	48.0
Sensible Cooling Capacity		kBtu/h	13.5	18.0	22.5	27.0	36.0
Heating Capacity		kBtu/h	20.0	27.0	34.0	40.5	54.0
Electrical Characteristics	Power Supply		230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz
	Power Consumption	kW	0.034	0.067	0.067	0.083	0.083
Appearance			Munsell N9.1	Munsell N9.1	Munsell N9.1	Munsell N9.1	Munsell N9.1
External Dimensions Main Unit	Height	in	9.3	9.3	9.3	9.3	9.3
	Width	in	37.5	50.0	50.0	62.5	62.5
	Depth	in	27.2	27.2	27.2	27.2	27.2
Total Weight		lb	58	69	69	89	89
Fan Unit	Standard Air Flow (High / Mid / Low)	cfm	565/424/318	848/600/441	848/600/441	1095/795/600	1095/900/706
	Motor Output	W	94	94	94	139	139
	Motor Type		DC	DC	DC	DC	DC
Connecting Pipe	Gas Side	in	1/2	5/8	5/8	5/8	5/8
	Liquid Side	in	1/4	3/8	3/8	3/8	3/8
	Drain Port (Nominal Dia.)	in	VP20 (Polyvinyl Chloride Tube: Dia. 1 Internal Dia. 0.79)	VP20 (Polyvinyl Chloride Tube: Dia. 1 Internal Dia. 0.79)	VP20 (Polyvinyl Chloride Tube: Dia. 1 Internal Dia. 0.79)	VP20 (Polyvinyl Chloride Tube: Dia. 1 Internal Dia. 0.79)	VP20 (Polyvinyl Chloride Tube: Dia. 1 Internal Dia. 0.79)
Sound Pressure Level (High / Mid / Low)[1]		dB(A)	38/35/32	43/36/33	43/36/33	44/38/32	44/41/35

[1]The actual values in an operating enviroment are generally higher than the indicated values due to the contribution from ambient noise.

Optional Accessories



Elbow Piping Kit

TCB-KP14CPE
TCB-KP24CPE

Drain Pump Kit

TCB-DP31CE

Auxiliary Outside Air Flange
TCB-FF101URUL

Floor Console (Recessed)

MML-AP***4BH2UL

- Installed inside a wall or custom-built cabinet to match interior space design

Model Name		MML-	AP0074BH2UL	AP0094BH2UL	AP0124BH2UL	AP0154BH2UL	AP0184BH2UL	AP0244BH2UL
Cooling Capacity		kBtu/h	7.5	9.5	12.0	15.4	18.0	24.0
Sensible Cooling Capacity		kBtu/h	4.7	5.4	7.3	9.5	11.2	15.2
Heating Capacity		kBtu/h	8.5	10.5	13.5	17.0	20.0	27.0
Electrical Characteristics	Power Supply		230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz
	Power Consumption (208V)	kW	0.047	0.047	0.047	0.095	0.095	0.104
	Power Consumption (230V)	kW	0.056	0.056	0.056	0.114	0.114	0.120
Appearance			Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate
External Dimensions Main Unit	Height	in	23.6	23.6	23.6	23.6	23.6	23.6
	Width	in	29.3	29.3	29.3	41.1	41.1	41.1
	Depth	in	8.7	8.7	8.7	8.7	8.7	8.7
Total Weight		lb	50.7	50.7	50.7	68.3	68.3	68.3
Fan Unit	Standard Air Flow (High / Mid / Low)	cfm	270/240/180	270/240/180	270/240/180	440/350/290	440/350/290	560/470/380
	Motor Output	W	19	19	19	70	70	70
	Motor Type		DC	DC	DC	DC	DC	DC
Connecting Pipe	Gas Side	in	3/8	3/8	3/8	1/2	1/2	5/8
	Liquid Side	in	1/4	1/4	1/4	1/4	1/4	3/8
	Drain Port (Nominal Dia.)	in	0.8" (Polyvinyl Chloride Tube)	0.8" (Polyvinyl Chloride Tube)	0.8" (Polyvinyl Chloride Tube)	0.8" (Polyvinyl Chloride Tube)	0.8" (Polyvinyl Chloride Tube)	0.8" (Polyvinyl Chloride Tube)
Sound Pressure Level (High / Mid / Low)[1]	208V	dB(A)	40/36/33	40/36/33	40/36/33	40/36/33	40/36/33	47/42/35
	230V	dB(A)	42/39/36	42/39/36	42/39/36	42/39/36	42/39/36	49/44/37

[1]The actual values in an operating enviroment are generally higher than the indicated values due to the contribution from ambient noise.

Floor Console (Exposed)

MML-AP***4H2UL

- Installed flush against a wall typically under a window or in a room with an exterior wall

Model Name		MML-	AP0074H2UL	AP0094H2UL	AP0124H2UL	AP0154H2UL	AP0184H2UL	AP0244H2UL
Cooling Capacity		kBtu/h	7.5	9.5	12.0	15.4	18.0	24.0
Sensible Cooling Capacity		kBtu/h	4.7	5.4	7.3	9.5	11.2	15.2
Heating Capacity		kBtu/h	8.5	10.5	13.5	17.0	20.0	27.0
Electrical Characteristics	Power Supply		230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz
	Power Consumption (208V)	kW	0.049	0.049	0.080	0.080	0.098	0.098
	Power Consumption (230V)	kW	0.058	0.058	0.093	0.093	0.113	0.113
Appearance			Silky Shade (Munsell 1Y 8.5/9.5)	Silky Shade (Munsell 1Y 8.5/9.5)	Silky Shade (Munsell 1Y 8.5/9.5)	Silky Shade (Munsell 1Y 8.5/9.5)	Silky Shade (Munsell 1Y 8.5/9.5)	Silky Shade (Munsell 1Y 8.5/9.5)
External Dimensions Main Unit	Height	in	24.8	24.8	24.8	24.8	24.8	24.8
	Width	in	37.4	37.4	37.4	37.4	37.4	37.4
	Depth	in	9.1	9.1	9.1	9.1	9.1	9.1
Total Weight		lb	81.6	81.6	81.6	81.6	88.2	88.2
Fan Unit	Standard Air Flow (High / Mid / Low)	cfm	280/250/210	280/250/210	530/460/380	530/460/380	640/550/460	640/550/460
	Motor Output	W	19	19	45	45	70	70
	Motor Type		DC	DC	DC	DC	DC	DC
Connecting Pipe	Gas Side	in	3/8	3/8	3/8	1/2	1/2	5/8
	Liquid Side	in	1/4	1/4	1/4	1/4	1/4	3/8
	Drain Port (Nominal Dia.)	in	0.8" (Polyvinyl Chloride Tube)	0.8" (Polyvinyl Chloride Tube)	0.8" (Polyvinyl Chloride Tube)	0.8" (Polyvinyl Chloride Tube)	0.8" (Polyvinyl Chloride Tube)	0.8" (Polyvinyl Chloride Tube)
Sound Pressure Level (High / Mid / Low)[1]	208V	dB(A)	39/38/35	39/38/35	47/44/40	47/44/40	51/46/41	51/46/41
	230V	dB(A)	42/40/38	42/40/38	50/46/42	50/46/42	53/48/43	53/48/43

[1]The actual values in an operating enviroment are generally higher than the indicated values due to the contribution from ambient noise.

Slim Ducted (Low Profile)

MMD-AP***4SPH2UL

- Quiet, powerful operation
- Only 8.3 inches in height allows for greater application flexibilty
- Three-step static pressure setup
- Concealed installation within a ceiling void
- Outside air intake available
- Built in condensate lift (23.1")
- No filters provided with the unit
- Can be used with any style of air diffuser

Model Name		MMD-	AP0074SPH2UL	AP0094SPH2UL	AP0124SPH2UL	AP0154SPH2UL	AP0184SPH2UL
Cooling Capacity		kBtu/h	7.5	9.5	12.0	15.4	18.0
Sensible Cooling Capacity		kBtu/h	6.1	7.1	8.3	10.9	12.5
Heating Capacity		kBtu/h	8.5	10.5	13.5	17.0	20.0
Electrical Characteristics	Power Supply		230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz
	Power Consumption	kW	0.043	0.043	0.048	0.061	0.071
Appearance			Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate
External Dimensions Main Unit	Height	in	8.3	8.3	8.3	8.3	8.3
	Width	in	33.3	33.3	33.3	33.3	33.3
	Depth	in	25.4	25.4	25.4	25.4	25.4
Total Weight		lb	49	49	49	51	51
Fan Unit	Standard Air Flow (High / Mid / Low)	cfm	318/276/235	318/276/235	353/306/265	406/353/306	459/400/341
	Motor Output	W	60	60	60	60	60
	Motor Type		DC	DC	DC	DC	DC
	External Static Pressure (Standard)	in WG	0.08	0.08	0.08	0.08	0.08
	External Static Pressure (Max)[1]	in WG	0.14-0.20	0.14-0.20	0.14-0.20	0.14-0.20	0.14-0.20
Connecting Pipe	Gas Side	in	3/8	3/8	3/8	1/2	1/2
	Liquid Side	in	1/4	1/4	1/4	1/4	1/4
	Drain Port (Nominal Dia.)	in	VP25 (Polyvinyl Chloride Tube: Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: Dia. 1-1/4 Internal Dia. 1)
Sound Pressure Level (High / Mid / Low)[2]	Bottom Return	dB(A)	39/36/33	39/36/33	41/38/35	41.0/38.5/35.0	44.5/41.0/37.5
	Rear Return	dB(A)	31/30/28	31/30/28	32.5/31.5/28.5	34.5/33.5/30.0	37/34/32

[1]Without filter
[2]The actual values in an operating enviroment are generally higher than the indicated values due to the contribution from ambient noise.

Optional Accessories

Auxiliary Outside Air Flange
TCB-FF101URUL

Concealed Ducted (Medium Static)

MMD-AP***6BHPUL

- External static pressure can be raised as high as 0.8 inches WG, so all areas of the room can be reached for even temperature distribution, no matter how complex the layout
- Built in condensate lift (24.3")

Model Name		MMD-	AP0076BHPUL	AP0096BHPUL	AP0126BHPUL	AP0156BHPUL	AP0186BHPUL	AP0216BHPUL	AP0246BHPUL	AP0306BHPUL	AP0366BHPUL	AP0426BHPUL	AP0486BHPUL	AP0546BHPUL
Cooling Capacity		kBtu/h	7.5	9.5	12.0	15.4	18.0	21.0	24.0	30.0	36.0	42.0	48.0	54.0
Sensible Cooling Capacity		kBtu/h	5.6	7.1	9.0	11.6	13.5	15.8	18.0	22.5	27.0	31.5	36.0	40.5
Heating Capacity		kBtu/h	8.5	10.5	13.5	17.0	20.0	24.0	27.0	34.0	40.0	47.5	54.0	60.0
Electrical Characteristics	Power Supply		230V (208/230V) 1-Phase, 60Hz	230V (208/230V) 1-Phase, 60Hz	230V (208/230V) 1-Phase, 60Hz	230V (208/230V) 1-Phase, 60Hz	230V (208/230V) 1-Phase, 60Hz	230V (208/230V) 1-Phase, 60Hz	230V (208/230V) 1-Phase, 60Hz	230V (208/230V) 1-Phase, 60Hz	230V (208/230V) 1-Phase, 60Hz	230V (208/230V) 1-Phase, 60Hz	230V (208/230V) 1-Phase, 60Hz	230V (208/230V) 1-Phase, 60Hz
	Power Consumption (230V)	kW	0.07	0.09	0.09	0.13	0.14	0.21	0.21	0.22	0.33	0.33	0.34	0.34
Appearance			Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate
External Dimensions Main Unit	Height	in	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9
	Width	in	27.6	27.6	27.6	39.4	39.4	55.2	55.2	55.2	55.2	55.2	55.2	55.2
	Depth	in	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6
Total Weight		lb	56	56	56	73	73	93	93	93	93	93	93	93
Fan Unit	Standard Air Flow (High / Mid / Low)	cfm	318/265/ 212	395/329/ 263	395/329/ 263	589/489/ 394	624/489/ 394	706/583/ 512	706/583/ 512	742/653/ 547	1,130/954/ 812	1,130/954/ 812	1,177/1,024/ 883	1,177/1,024/ 883
	Motor Output	W	150	150	150	150	150	150	150	150	150	150	150	150
	Motor Type		DC	DC	DC	DC	DC	DC	DC	DC	DC	DC	DC	DC
	External Static Pressure (Default)	in WG	0.4	0.4	0.4	0.4	0.4	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	External Static Pressure	in WG	0.6	0.6	0.6	0.6	0.6	0.8	0.8	0.8	0.6	0.8	0.8	0.8
Connecting Pipe	Gas Side	in	3/8	3/8	3/8	1/2	1/2	5/8	5/8	5/8	5/8	5/8	5/8	5/8
	Liquid Side	in	1/4	1/4	1/4	1/4	1/4	3/8	3/8	3/8	3/8	3/8	3/8	3/8
	Drain Port (Nominal Dia.)	in	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)
Sound Pressure Level (High / Mid / Low)[1]		dB(A)	36/31/27	37/32/29	37/32/29	38/35/29	39/35/29	41/36/33	41/36/33	41/36/33	45/39/36	45/39/36	46/40/37	46/40/37

[1]The actual values in an operating enviroment are generally higher than the indicated values due to the contribution from ambient noise.

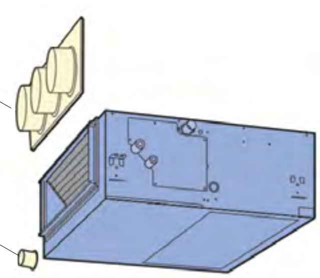
Optional Accessories

Zoning Duct Flange

TCB-SF56C6BP-UL
TCB-SF80C6BP-UL
TCB-SF160C6BP-UL

Auxiliary Fresh Air Flange

TCB-FF151US-E



High Static Ducted

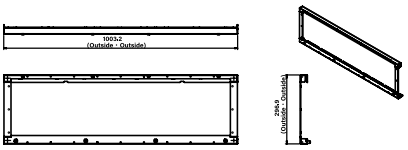
MMD-AP***HPUL

- Compatible with external static pressures up to 1.0 inches WG
- Filters provided with the unit (Except 6 & 8 ton)
- Switchable static pressure
- Built-in condensate lift (24.3") (Except 6 & 8 ton)

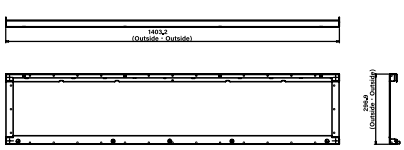
Model Name		MMD-	AP0246HPUL	AP0306HPUL	AP0366HPUL	AP0486HPUL	AP0546HPUL	AP0721HP-UL1	AP0961HP-UL1
Cooling Capacity		kBtu/h	24.0	30.0	36.0	48.0	54.0	72.0	96.0
Sensible Cooling Capacity		kBtu/h	19.2	24.0	28.8	38.4	43.2	60.0	80.6
Heating Capacity		kBtu/h	27.0	34.0	40.0	54.0	60.0	81.0	108.0
Electrical Characteristics	Power Supply		230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz
	Power Consumption (208V)	kW	0.255	0.295	0.35	0.385	0.435	0.54	0.79
	Power Consumption (230V)	kW	0.255	0.295	0.35	0.385	0.435	0.54	0.79
Appearance			Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate	Zinc Hot Dipping Steel Plate
External Dimensions Main Unit	Height	in	11.8	11.8	11.8	11.8	11.8	17.6	17.6
	Width	in	39.4	39.4	55.2	55.2	55.2	55.1	55.1
	Depth	in	29.6	29.6	29.6	29.6	29.6	35.4	35.4
Total Weight		lb	80	80	98	98	98	218	218
Fan Unit	Standard Air Flow (High / Mid / Low)	cfm	706/571/471	883/795/706	1,130/918/789	1,236/1,024/836	1,413/1,200/977	2,236/1,883/1,471	2,825/2,471/2,059
	Motor Output	W	250	250	350	350	350	1,000	1,000
	Motor Type		DC	DC	DC	DC	DC	DC	DC
	External Static Pressure[1] Factory Setting (208V/230V)	in WG	0.8	0.8	0.8	0.8	0.8	0.603	0.603
	External Static Pressure 208V[2] (High Tap / Mid Tap / Low Tap)	in WG	0.2-1.0 (7Step)	0.2-1.0 (7Step)	0.2-1.0 (7Step)	0.2-1.0 (7Step)	0.2-1.0 (7Step)	0.2-1.0 (7 steps)	0.2-1.0 (7 steps)
	External Static Pressure 230V[2] (High Tap / Mid Tap / Low Tap)	in WG	0.2-1.0 (7Step)	0.2-1.0 (7Step)	0.2-1.0 (7Step)	0.2-1.0 (7Step)	0.2-1.0 (7Step)	0.2-1.0 (7 steps)	0.2-1.0 (7 steps)
Connecting Pipe	Gas Side	in	5/8	5/8	5/8	5/8	5/8	7/8	7/8
	Liquid Side	in	3/8	3/8	3/8	3/8	3/8	1/2	1/2
	Drain Port (Nominal Dia.)	in	VP25 (Polyvinyl Chloride Tube: Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: Dia. 1-1/4 Internal Dia. 1)	VP25 (Polyvinyl Chloride Tube: Dia. 1-1/4 Internal Dia. 1)
Sound Pressure Level (High / Mid / Low)[3]	208V	dB(A)	45/39/36	46/41/37	48/42/35	49/43/36	50/44/38	44/40/36	46/42/38
	230V	dB(A)	45/39/36	46/41/37	48/42/35	49/43/36	50/44/38	44/40/36	46/42/38

[1] No filter attached.
[2] The ESP is set by changing the fan motor wire tap.
[3] The actual values in an operating enviroment are generally higher than the indicated values due to the contribution from ambient noise.

Optional Accessories

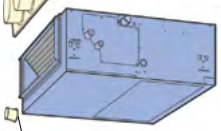


Filter Kit
TCB-LK801D-E



Filter Kit
TCB-LK1401D-E

Zoning Duct Flange
TCB-SF56C6BP-UL
TCB-SF80C6BP-UL
TCB-SF160C6BP-UL



Auxiliary Fresh Air Flange
TCB-FF151US-E

Filter Kit
TCB-LK2801DP-UL

Multipoise Air Handling Unit (AHU)

MMD-AP***VHG2UL

- Multi-position installation option
- Energy-efficient ECM operation ensures proper performance across a wide range of duct static pressure, maximizing cooling and heating capacities
- All sizes of the units are multi-position ready for upflow or horizontal applications
- Units can also be suspended from roof or ceiling joints
- 1" filter rack

Model Name		MMD-	AP0120VHG2UL	AP0180VHG2UL	AP0240VHG2UL	AP0300VHG2UL	AP0360VHG2UL	AP0420VHG2UL	AP0480VHG2UL	AP0600VHG2UL
Cooling Capacity		kBtu/h	12.0	18.0	24.0	30.0	36.0	42.0	48.0	60.0
Sensible Cooling Capacity		kBtu/h	9.1	13.6	17.7	22.8	26.6	31.9	35.5	44.4
Heating Capacity		kBtu/h	13.5	20.0	27.0	34.0	40.0	45.0	54.0	67.0
Electrical Characteristics	Power Supply		230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz
	Power Consumption	kW	0.120	0.174	0.174	0.296	0.410	0.386	0.496	0.938
Appearance			Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey
External Dimensions Main Unit	Height	in	46.9	46.9	46.9	51.9	51.9	55.9	55.9	57.9
	Width	in	17.7	17.7	17.7	20.2	20.2	22.2	22.2	24.2
	Depth	in	22.3	22.3	22.3	25.3	25.3	27.3	27.3	31.3
Total Weight		lb	130	164	164	170	170	200	200	253
Fan Unit	Standard Air Flow (High / Mid / Low)	cfm	480/440/340	670/640/600	760/660/600	1,000/990/950	1,200/1,150/1,050	1,400/1,340/1,260	1,600/1,510/1,420	2,000/1,830/1,640
	Motor	HP	1/3	1/3	1/3	1/2	1/2	3/4	3/4	1
	Motor Type		EC	EC	EC	EC	EC	EC	EC	EC
	External Static Pressure (Standard)	in WG	0.3	0.3	0.3	0.5	0.5	0.5	0.5	0.5
	External Static Pressure (Max)	in WG	0.5	0.5	0.5	0.8	0.8	0.8	0.8	0.8
Connecting Pipe	Gas Side	in	3/8	1/2	5/8	5/8	5/8	5/8	5/8	5/8
	Liquid Side	in	1/4	1/4	3/8	3/8	3/8	3/8	3/8	3/8
	Drain Port (Nominal Dia.)	in	3/4" FPT	3/4" FPT	3/4" FPT	3/4" FPT	3/4" FPT	3/4" FPT	3/4" FPT	3/4" FPT
Sound Pressure Level (High / Mid / Low)[1]		dB(A)	41/38/37	41/39/38	41/39/38	43/42/40	45/44/42	46/45/43	48/47/45	52/51/47

[1]The actual values in an operating enviroment are generally higher than the indicated values due to the contribution from ambient noise (discharge only).

Optional Accessories

Model Name (MMD-)		AP0120VHG2UL	AP0180VHG2UL	AP0240VHG2UL	AP0300VHG2UL	AP0360VHG2UL	AP0420VHG2UL	AP0480VHG2UL	AP0600VHG2UL
Electrial Heater (208V/240V)	TCB-HT101VDGUL	•	•	•	•	•	•	•	•
	TCB-HT301VDGUL	•	•	•	•	•	•	•	•
	TCB-HT501VDGUL	•	•	•	•	•	•	•	•
	TCB-HT601VDGUL		•	•	•	•	•	•	•
	TCB-HT801VDGUL			•	•	•	•	•	•
	TCB-HT951VDGUL				•	•	•	•	•
Plenum with 2" MERV 8 Filter	TCB-PL2S241VDGUL	•	•	•					
	TCB-PL2S361VDGUL				•	•			
	TCB-PL2S481VDGUL						•	•	
	TCB-PL2S601VDGUL								•
Filterbox with 2" MERV 8 Filter	TCB-FB2F241VDGUL	•	•	•					
	TCB-FB2F361VDGUL				•	•			
	TCB-FB2F481VDGUL						•	•	
	TCB-FB2F601VDGUL								•

Outside Air

MMD-AP***1HF2UL

- Controls discharge air temperature
- Energy-efficient DC fan motor
- CFM ranges from 600 to 1,200 for a wide array of outside air applications

Model Name		MMD-	AP0481HF2UL	AP0721HF2UL	AP0961HF2UL
Cooling Capacity		kBtu/h	48.0	72.0	96.0
Heating Capacity		kBtu/h	30.0	47.0	59.0
Electrical Characteristics	Power Supply		230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz	230V (208/230V), 1-Phase, 60Hz
	Power Consumption (208V)	kW	0.31	0.56	0.64
	Power Consumption (230V)	kW	0.34	0.58	0.66
External Dimensions Main Unit	Height	in	19.5	19.5	19.5
	Width	in	35.4	55	55
	Depth	in	49.8	49.8	49.8
Total Weight		lb	212	349	349
Fan Unit	Standard Air Flow (High / Mid / Low)	cfm	636	989	1237
	Motor Output	W	160	160 x 2	160 x 2
	Motor Type		AC	AC	AC
Connecting Pipe	Gas Side	in	5/8	7/8	7/8
	Liquid Side	in	3/8	1/2	1/2
	Drain Port (Nominal Dia.)	in	1-1/4 OD: 1.0 ID (Polyvinyl Chloride Tube)	1-1/4 OD: 1.0 ID (Polyvinyl Chloride Tube)	1-1/4 OD: 1.0 ID (Polyvinyl Chloride Tube)
Sound Pressure Level (High / Mid / Low)[1]	208V	dB(A)	44/43/36	47/46/40	47/45 (H/L)
	230V	dB(A)	46/45/42	48/47/46	50/49 (H/L)
Operating Range for SMMS-e	Cooling[2]	° F	41-115	41-115	41-115
	Heating[3]	° F	23-109	23-109	23-109

[1]The actual values in an operating enviroment are generally higher than the indicated values due to the contribution from ambient noise.
[2]When supply air temperature is "setting temperature + 5.4° F" or less. Outside Air unit operates as FAN mode.
[3]When supply air temperature is "setting temperature - 5.4° F" or over. Outside Air unit operates as FAN mode.

Rooftop Air Handling Unit (AHU)

ecoblue™ technology

40QQ-***ABA*-0A0

- Features EcoBlue™ technology, which includes a more compact vane axial fan and simplified design for better performance
- Lightweight compared to standard rooftop unit
- Direct drive (multi-speed / torque) ECM motor
- Single point electrical connection
- Non-corrossive composite condensate pan
- Access panels with easy grip handles
- 2 inch disposable return air filters

Model Name		40QQ-	030ABA3-0A0	048ABA3-0A0	060ABA3-0A0	030ABA6-0A0	048ABA6-0A0	060ABA6-0A0
Cooling Capacity		kBtu/h	36.0	48.0	60.0	36.0	48.0	60.0
Sensible Cooling Capacity		kBtu/h	35.2	33.6	42.0	35.2	33.6	42.0
Heating Capacity		kBtu/h	38.0	52.0	66.0	38.0	52.0	66.0
Electrical Characteristics	Power Supply		208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz	460V, 3-Phase, 60Hz
	MCA	A	8	8	11	2	2	3
	MOCP	A	15	15	15	15	15	15
Appearance			Painted Grey	Painted Grey	Painted Grey	Painted Grey	Painted Grey	Painted Grey
External Dimensions Main Unit	Height	in	33-3/8	41-3/8	41-3/8	33-3/8	41-3/8	41-3/8
	Width	in	74-3/8	74-3/8	74-3/8	74-3/8	74-3/8	74-3/8
	Depth	in	46-5/8	46-5/8	46-5/8	46-5/8	46-5/8	46-5/8
Total Weight		lb	364	388	401	364	388	401
Fan Unit	Standard Rated Air Flow (Cooling)	cfm	1,050	1,350	1,750	1,050	1,350	1,750
	Standard Rated Air Flow (Heating)	cfm	1,050	1,750	1,750	1,050	1,750	1,750
	Motor	HP	1.10	1.08	1.46	1.10	1.08	1.46
	Motor Type		EC	EC	EC	EC	EC	EC
Connecting Pipe	Gas Side	in	5/8	5/8	5/8	5/8	5/8	5/8
	Liquid Side	in	3/8	3/8	3/8	3/8	3/8	3/8
	Drain Port (Nominal Dia.)	in	3/4	3/4	3/4	3/4	3/4	3/4
Sound Pressure Level (High / Mid / Low)[1]		dB(A)	76/73/68	76/73/66	77/73/66	76/73/68	76/73/66	77/73/66

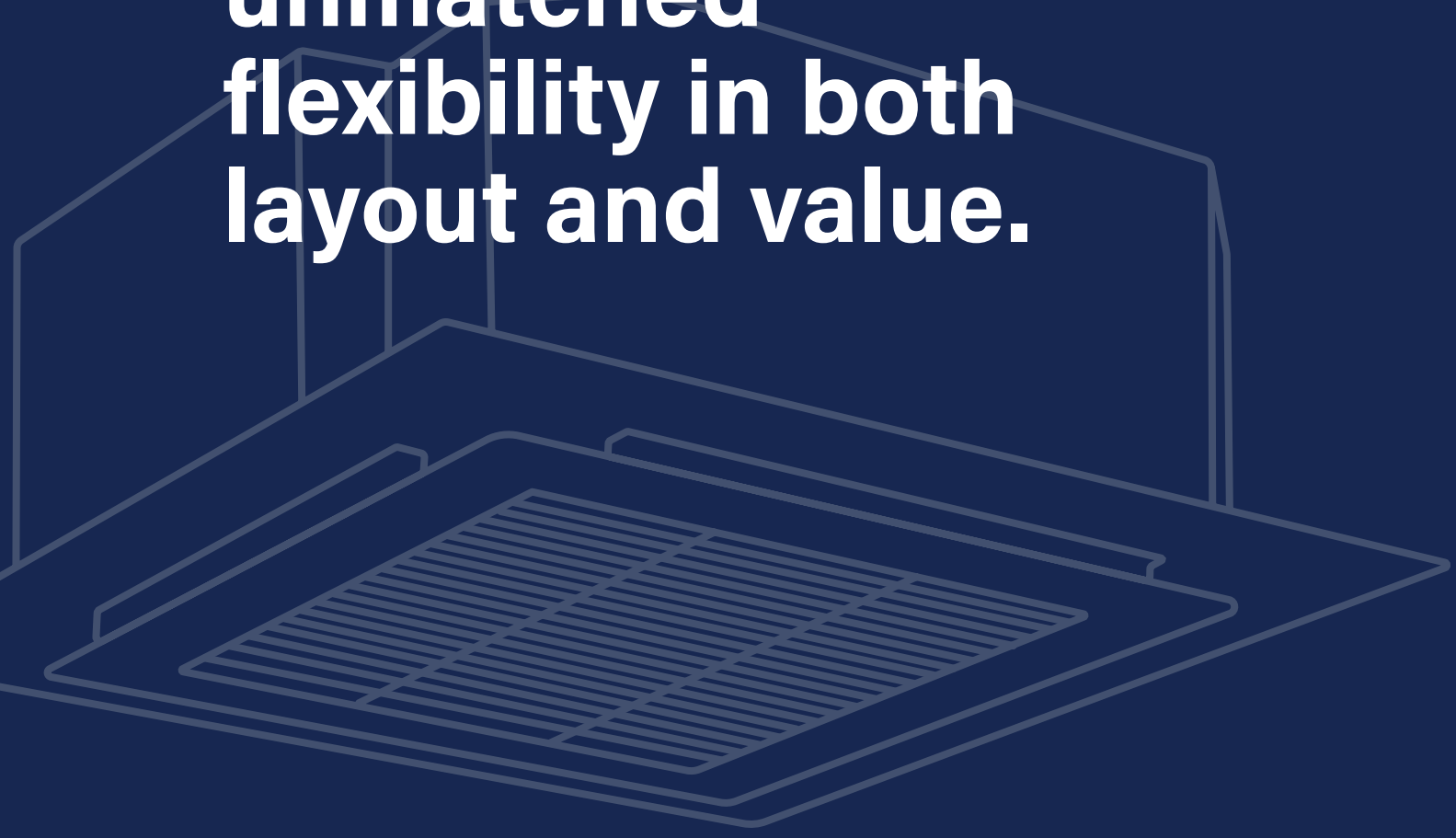
[1]The actual values in an operating enviroment are generally higher than the indicated values due to the contribution from ambient noise.

Model Number	CRHEATER323A00 + CRSINGLE037A00	CRHEATER324A00 + CRSINGLE037A00	CRHEATER325A00 + CRSINGLE037A00	CRHEATER326A00 + CRSINGLE037A00	CRHEATER328A00 + CRSINGLE037A00
Application	4.4 KW, 208/230V, 3-Phase, 60Hz	6.5 KW, 208/230V, 3-Phase, 60Hz	8.7 KW, 208/230V, 3-Phase, 60Hz	10.5 KW, 208/230V, 3-Phase, 60Hz	16.0 KW, 208/230V, 3-Phase, 60Hz
Description	Single Point Electric Heater,				

Model Number	CRHEATER331A00 + CRSINGLE038A00	CRHEATER333A00 + CRSINGLE037A00	CRHEATER334A00 + CRSINGLE037A00	CRHEATER335A00 + CRSINGLE037A00	CRHEATER336A00 + CRSINGLE037A00
Application	21.0 KW, 208/230V, 3-Phase, 60Hz	6.0 KW, 460V, 3-Phase, 60Hz	8.8 KW, 460V, 3-Phase, 60Hz	11.5 KW, 460V, 3-Phase, 60Hz	14.0 KW, 460V, 3-Phase, 60Hz
Description	Single Point Electric Heater,				

Model Number	CRHEATER337A00 + CRSINGLE037A00	CRECOMZR077A00	CRECOMZR076A00	CRRFCURB001A01	CRRFCURB002A01
Application	23.0 KW, 460V, 3-Phase, 60Hz	-	-	-	-
Description	Single Point Electric Heater,	Economizer - Horizontal	Economizer - Vertical	Roofcurbs - 14" Tall	Roofcurbs - 24" Tall

We’re committed to creating light commercial HVAC systems with **unmatched flexibility in both layout and value.**



RAV Ductless System Overview




System Capacity kBtu/h (Ton)	Non-Ducted Models			
	4-Way Cassette	Underceiling	Medium Static Ducted	High Wall
12,000 (1)			●	●
18,000 (1.5)	●	●	●	●
24,000 (2)	●	●	●	●
30,000 (2.5)	●	●	●	●
36,000 (3)	●	●	●	●
42,000 (3.5)	●	●	●	
48,000 (4)	●	●	●	

RAV Ductless Heat Pumps Outdoor Unit

RAV-SP**2ATP-UL

Model Name		RAV-	SP122AT2P-UL	SP182AT2P-UL	SP242AT2P-UL	SP302AT2P-UL	SP362AT2P-UL	SP422AT2P-UL	SP482AT2P-UL
Air Flow Volume	Cooling / Heating	CFM	1590 / 1590	1590 / 1590	2300 / 2220	3570 / 2870	3570 / 3100	3570 / 3290	4540 / 4060
Sound Pressure Level (High)[2]	Cooling / Heating	dB(A)	48 / 52	48 / 52	52 / 54	54 / 54	54 / 54	54 / 54	60 / 60
External Dimensions Main Unit	Height	in	21.7	21.7	35	52.8	52.8	52.8	52.8
	Width	in	30.8	30.8	35.3	35.4	35.4	35.4	35.4
	Depth	in	11.4	11.4	12.6	12.6	12.6	12.6	12.6
Total Weight	Main Unit	lb	99.2	99.2	141.1	218.3	218.3	233.7	233.7
Refrigerant Pipe	Min. Length	ft	16-1/2	16-1/2	16-1/2	16-1/2	16-1/2	16-1/2	16-1/2
	Max. Total Length	ft	164	164	164	246	246	246	246
	Lift (ODU Below IDU)	ft	98	98	98	98	98	98	98
	Lift (ODU Above IDU)	ft	98	98	98	98	98	98	98
Refrigerant[3] (Charged Refrigerant Amount)		lb	3.75	3.75	5.51	6.83	6.83	7.27	7.27
Flare Connections	Gas Side	in	1/2	1/2	5/8	5/8	5/8	5/8	5/8
	Liquid Side	in	1/4	1/4	3/8	3/8	3/8	3/8	3/8
Operating Range	Cooling	° F DB	5 to 115	5 to 115	5 to 115	5 to 115	5 to 115	5 to 115	5 to 115
	Cooling w/ wind baffles	° F DB	5 to 115	5 to 115	5 to 115	-13 to 115	-13 to 115	-13 to 115	-13 to 115
	Heating	° F DB	-13 to 59	-13 to 59	-13 to 59	-13 to 59	-13 to 59	-13 to 59	-13 to 59

[1]The actual values in an operating enviroment are generally higher than the indicated values due to the contribution from ambient noise.
[2]When supply air temperature is "setting temperature + 5.4° F" or less. Outside Air unit operates as FAN mode.
[3]When supply air temperature is "setting temperature - 5.4° F" or over. Outside Air unit operates as FAN mode.

RAV 4-Way Cassette

RAV-SM**2UTP-UL

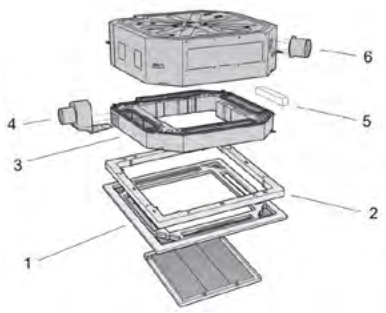
- Four louvers that can each be positioned at different angles
- Customized airflow control
- Built-in condensate lift mechanism (Up to 26")

Model Name		RAV-	SM182UTP-UL	SM242UTP-UL	SM302UTP-UL	SM362UTP-UL	SM422UTP-UL	SM482UTP-UL
Cooling	Capacity[1]	kBtu/h	18.0	24.0	30.0	36.0	42.0	48.0
	SEER		24.3	22.5	22.7	23.2	22.1	21.5
	EER		13.7	12.0	13.9	13.0	11.7	10.3
Heating	Capacity[1]	kBtu/h	20	27	34	40	47	54
	HSPF		12.3	10.7	11.8	11.9	11.1	10.6
	COP		13.9	13.2	13.8	13.3	12.0	11.0
Electrical Requirements	Power Supply		208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz
	MCA[4]	A	14	17	30	30	32	32
	MOCP[5]	A	25	25	40	40	40	40
Indoor Unit								
External Dimensions Main Unit	Height	in	10.1 (1.2)	10.1 (1.2)	12.6 (1.2)	12.6 (1.2)	12.6 (1.2)	12.6 (1.2)
	Width	in	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)
	Depth	in	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)	33.1 (37.4)
Total Weight (Ceiling Panel)*		lb	56.3 (10)	56.3 (10)	65.1 (10)	65.1 (10)	65.1 (10)	65.1 (10)
Main Unit	Standard Rated Air Flow (High / Mid / Low)	cfm	670/540/470	730/630/510	1150/840/630	1200/850/650	1250/870/650	1300/1080/880
	Motor Output	W	60	60	130	130	130	130
	Motor Type		DC	DC	DC	DC	DC	DC
Connecting Pipe	Gas Side	in	1/2	5/8	5/8	5/8	5/8	5/8
	Liquid Side	in	1/4	3/8	3/8	3/8	3/8	3/8
	Drain Port (Nominal Dia.)	in	VP25(Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25(Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25(Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25(Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25(Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25(Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)
Sound Pressure Level (High / Mid / Low)[2]		dB(A)	38/33/31	41/37/34	43/38/34	45/39/35	46/40/36	48/44/41

[1]Rated Conditions
Cooling: Indoor air temperature 80° F dry bulb / 67° F wet bulb, Outdoor air temperature 95° F dry bulb
Heating: Indoor air temperature 70° F dry bulb, Outdoor air temperature 47° F dry bulb / 43° F wet bulb
[2]The actual values in an operating enviroment are generally higher than the indicated values due to the contribution from ambient noise.
[3]The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.
[4] Select wire size based on larger value of MCA
MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design)
[5]MOCP: Maximum Over Current Protection

Optional Accessories

No	Type	Model Name
1	Ceiling Panel	RBC-U32PGP-UL
2	Spacer for Height Adjustment	TCB-SP1602UUL
3	Fresh-Air Chamber	TCB-GFC1602UUL
4	Fresh-Air Inlet Box	TCB-GB1602UUL
5	Air-Discharge Direction Kit	TCB-BC1602UUL
6	Auxiliary Fresh Air Flange	TCB-FF101URUL



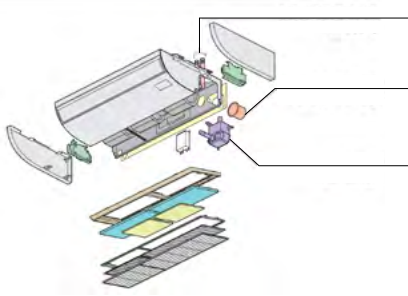
RAV Underceiling

RAV-SM**2CTP-UL

- Airflow angle is automatically set to the most suitable setting according to cooling or heating needs
- Optional Condensate Drain Kit available
- Automatic swing mode enables airflow to reach all areas of the room to create a comfortable ambiance
- Outside air knockout

Model Name		RAV-	SM182CTP-UL	SM242CTP-UL	SM302CTP-UL	SM362CTP-UL	SM422CTP-UL	SM482CTP-UL
Cooling	Capacity[1]	kBtu/h	18.0	24.0	30.0	36.0	42.0	48.0
	SEER		22.9	22.0	21.0	21.6	19.2	18.4
	EER		11.5	12.7	12.5	12.1	9.8	8.8
Heating	Capacity[1]	kBtu/h	20	27	34	40	47	54
	HSPF		11.0	10.4	10.5	12.2	11.3	11.0
	COP		13.1	12.9	12.2	12.5	11.5	11.1
Electrical Requirements	Power Supply		208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz
	MCA[4]	A	14	17	30	30	32	32
	MOCP[5]	A	25	25	40	40	40	40
Indoor Unit								
External Dimensions Main Unit	Height	in	9.3	9.3	9.3	9.3	9.3	9.3
	Width	in	37.5	50	50	62.5	62.5	62.5
	Depth	in	27.2	27.2	27.2	27.2	27.2	27.2
Total Weight		lb	52.9	66.1	66.1	83.8	83.8	83.8
Main Unit	Standard Rated Air Flow (High / Mid / Low)	cfm	565/425/320	845/600/440	845/600/440	1095/795/600	1095/900/705	1250/1125/925
	Motor Output	W	94	94	94	139	139	139
	Motor Type		DC	DC	DC	DC	DC	DC
Connecting Pipe	Gas Side	in	1/2	5/8	5/8	5/8	5/8	5/8
	Liquid Side	in	1/4	3/8	3/8	3/8	3/8	3/8
	Drain Port (Nominal Dia.)	in	VP20 (Polyvinyl Chloride Tube: External Dia. 1.1 Internal Dia. 0.79)	VP20 (Polyvinyl Chloride Tube: External Dia. 1.1 Internal Dia. 0.79)	VP20 (Polyvinyl Chloride Tube: External Dia. 1.1 Internal Dia. 0.79)	VP20 (Polyvinyl Chloride Tube: External Dia. 1.1 Internal Dia. 0.79)	VP20 (Polyvinyl Chloride Tube: External Dia. 1.1 Internal Dia. 0.79)	VP20 (Polyvinyl Chloride Tube: External Dia. 1.1 Internal Dia. 0.79)
Sound Pressure Level (High / Mid / Low)[2]		dB(A)	37/35/28	41/36/29	43/36/33	44/38/32	44/41/35	47/45/41

[1]Rated Conditions
Cooling: Indoor air temperature 80° F dry bulb / 67° F wet bulb, Outdoor air temperature 95° F dry bulb
Heating: Indoor air temperature 70° F dry bulb, Outdoor air temperature 47° F dry bulb / 43° F wet bulb
[2]The actual values in an operating enviroment are generally higher than the indicated values due to the contribution from ambient noise.
[3]The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.
[4] Select wire size based on larger value of MCA
MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design)
[5]MOCP: Maximum Over Current Protection



Elbow Piping
TCB-KB14CPE, TCB-KP24CPE

Auxiliary Fresh Air Flange
TCB-FF101URUL

Drain Pump Kit
TCB-DP31CE

RAV Medium Static Ducted

RAV-SM**2BTP-UL

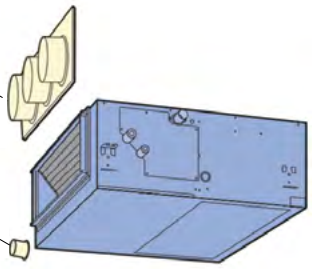
- External static pressure can be raised as high as 0.8 inches WG, so all areas of the room can be reached for even temperature distribution, no matter how complex the layout
- Kit that raises the drain piping up to 24.3 inches from the drain port

Model Name		RAV-	SM122BTP-UL	SM182BTP-UL	SM242BTP-UL	SM302BTP-UL	SM362BTP-UL	SM422BTP-UL	SM482BTP-UL
Cooling	Capacity[1]	kBtu/h	12.0	18.0	24.0	30.0	36.0	42.0	48.0
	SEER		20.8	20.1	22.4	20.0	21.4	19.3	18.2
	EER		14.5	11.5	12.9	12.8	11.5	10.1	9.4
Heating	Capacity[1]	kBtu/h	14	20	27	34	40	47	54
	HSPF		12.4	10.6	11.5	11.9	11.5	10.6	9.5
	COP		13.3	11.4	13.4	14.1	13.1	12.2	11.3
Electrical Requirements	Power Supply		208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz
	MCA[4]	A	14	14	17	30	30	32	32
	MOCP[5]	A	25	25	25	40	40	40	40
Indoor Unit									
External Dimensions Main Unit	Height	in	10.9	10.9	10.9	10.9	10.9	10.9	10.9
	Width	in	27.6	27.6	39.4	55.2	55.2	55.2	55.2
	Depth	in	29.6	29.6	29.6	29.6	29.6	29.6	29.6
Total Weight (Ceiling Panel)*		lb	52.9	52.9	70.5	92.6	92.6	92.6	92.6
Main Unit	Standard Rated Air Flow (High / Mid / Low)	cfm	395/330/265	540/390/315	775/640/510	990/780/650	1130/920/790	1130/955/810	1175/1025/885
	Motor Output	W	150	150	150	250	250	250	250
	Motor Type		DC	DC	DC	DC	DC	DC	DC
Connecting Pipe	Gas Side	in	1/2	1/2	5/8	5/8	5/8	5/8	5/8
	Liquid Side	in	1/4	1/4	3/8	3/8	3/8	3/8	3/8
	Drain Port (Nominal Dia.)	in	VP25(Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25(Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25(Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25(Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25(Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25(Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)	VP25(Polyvinyl Chloride Tube: External Dia. 1-1/4 Internal Dia. 1)
Sound Pressure Level (High / Mid / Low)[2]		dB(A)	33 / 29 / 25	34 / 30 / 26	36 / 31 / 27	37 / 34 / 31	38 / 35 / 32	38 / 35 / 32	40 / 36 / 33

[1]Rated Conditions
Cooling: Indoor air temperature 80° F dry bulb / 67° F wet bulb, Outdoor air temperature 95° F dry bulb
Heating: Indoor air temperature 70° F dry bulb, Outdoor air temperature 47° F dry bulb / 43° F wet bulb
[2]The actual values in an operating enviroment are generally higher than the indicated values due to the contribution from ambient noise.
[3]The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.
[4] Select wire size based on larger value of MCA
MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design)
[5] MOCP: Maximum Over Current Protection

Zoning Duct Flange
TCB-SF56C6BP-UL
TCB-SF80C6BP-UL
TCB-SF160C6BP-UL

Auxiliary Fresh Air Flange
TCB-FF151US-E



RAV High Wall

RAV-SM**2KRTP-UL

- Auto-swing louver provides uniform air distribution and enhanced comfort control
- Optional Condensate Drain Kit available
- Aesthetically pleasing and blends with any room's interior decor while efficiently heating and cooling the space

Model Name		RAV-	SM122KRTP-UL	SM182KRTP-UL	SM242KRTP-UL	SM302KRTP-UL	SM362KRTP-UL
Cooling	Capacity[1]	kBtu/h	12.0	18.0	24.0	30.0	36.0
	SEER		25.2	23.6	21.9	23.0	20.8
	EER		15.6	12.0	11.7	12.6	10.5
Heating	Capacity[1]	kBtu/h	14	20	27	34	40
	HSPF		10.6	10.6	10.0	10.2	10.0
	COP		13.0	11.4	10.6	12.0	10.7
Electrical Requirements	Power Supply		208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz	208/230V, 1-Phase, 60Hz
	MCA[4]	A	14	14	17	30	30
	MOCP[5]	A	25	25	25	40	40
Indoor Unit							
External Dimensions Main Unit	Height	in	12.6	12.6	12.6	13.7	13.7
	Width	in	41.4	41.4	41.4	47.2	47.2
	Depth	in	9.9	9.9	9.9	11	11
Total Weight		lb	33.1	33.1	33.1	44.1	44.1
Main Unit	Standard Rated Air Flow (High / Mid / Low)	cfm	475/355/250	530/425/325	705/530/355	940/825/705	970/910/735
	Motor Output	W	30	30	30	61	61
	Motor Type		DC	DC	DC	DC	DC
Connecting Pipe	Gas Side	in	1/2	1/2	5/8	5/8	5/8
	Liquid Side	in	1/4	1/4	3/8	3/8	3/8
	Drain Port (Nominal Dia.)	in	VP16 (Polyvinyl Chloride Tube: External Dia. 0.87 Internal Dia. 0.63)	VP16 (Polyvinyl Chloride Tube: External Dia. 0.87 Internal Dia. 0.63)	VP16 (Polyvinyl Chloride Tube: External Dia. 0.87 Internal Dia. 0.63)	VP16 (Polyvinyl Chloride Tube: External Dia. 0.87 Internal Dia. 0.63)	VP16 (Polyvinyl Chloride Tube: External Dia. 0.87 Internal Dia. 0.63)
Sound Pressure Level (High / Mid / Low)[2]		dB(A)	37/33/28	41/37/32	46/41/35	48/45/41	50/47/43

[1]Rated Conditions
Cooling: Indoor air temperature 80° F dry bulb / 67° F wet bulb, Outdoor air temperature 95° F dry bulb
Heating: Indoor air temperature 70° F dry bulb, Outdoor air temperature 47° F dry bulb / 43° F wet bulb
[2]The actual values in an operating enviroment are generally higher than the indicated values due to the contribution from ambient noise.
[3]The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.
[4] Select wire size based on larger value of MCA
MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design)
[5]MOCP: Maximum Over Current Protection

Optional Accessories

Condensate Drain Kit
53DS-900---118

Included Parts

Wireless Controller

VRF

Controls and Accessories

Controls

RBC-AMS54E-UL

Wired Zone Controller

The Wired Remote Controller (programmable) is a low voltage thermostat mounted on the wall that maintains room temperature by controlling system operation.

- Backlit
- Fan speed
- Clock setting
- Schedule timer
- Dual set-point
- 1° F temperature indication
- Set temperature range limiting
- Service check mode
- Compatible with Toshiba Carrier RAV and VRF System

BMS-CT5120UL

Touchscreen Central Controller

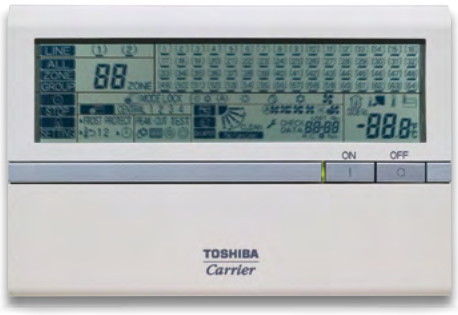
The Touchscreen Central Controller is a line voltage controller mounted on the wall with a touch screen LCD display panel. This controller enables the customer to control and monitor the operation of the VRF system.

- Grouping based on floor, unit, area, tenant and level
- Operating Mode, Turning ON / OFF
- Master Scheduler—Weekly, five special days, monthly
- Alarm display with history
- Web browser monitoring and control (for Intranet PC)
- Up to two concurrent users can be connected
- Additional digital input / output device available
- Maximum of 512 indoor units can be connected
- Ability to display language in English, Spanish or French

Required Parts

BMS-IFLSV4UL
(TCS-Net Relay)
*One Net Relay required for every 64 IDUs

Controls

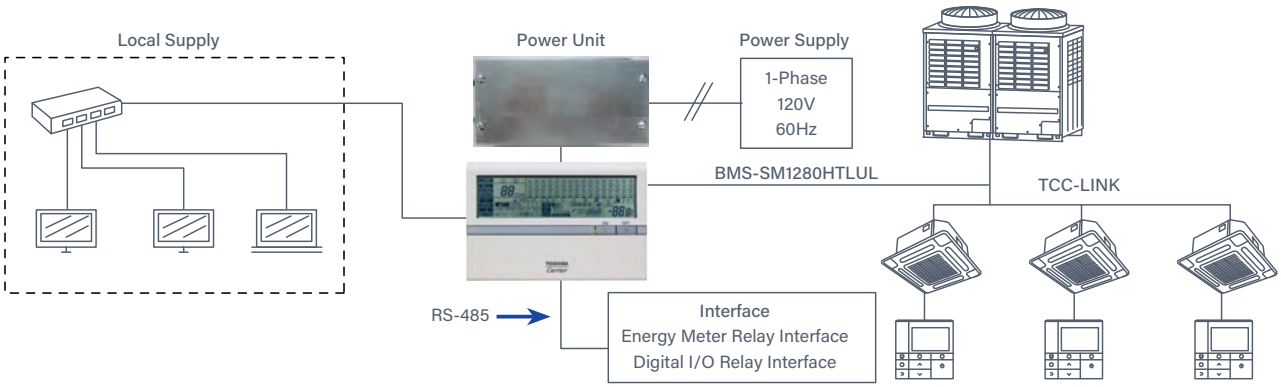


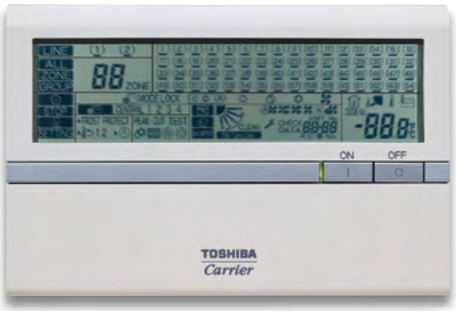
BMS-SM1280HTLUL

Smart Manager Central Controller with Web

The Smart Manager is a line voltage controller mounted on the wall that enables the customer to control and monitor the operation of the VRF system by using an onsite computer.

- List view function allows all indoor units to be displayed on one screen
- Set view functionality to show general indoor settings on main screen
- Advanced operation and master schedule functions with ability to be set on calendar
- Up to four concurrent users can be connected
- Up to 32 user accounts can be programmed with different levels of access (at least one must be administrator level)
- Energy monitoring and report creation functions available
- Thin profile controller and separate power supply unit enables easy installation





BMS-CM1281TLUL

Central Controller

- Individual control (ON / OFF, operating mode, etc.)
- Manages up to 128 units (max: 2 x 64 indoor units)
- Flexible grouping in zones
- External input / output control (input: ON / OFF signal; output: Error signal)

Additional Controls

RBC-AS41UL

Simple Wired Remote Control

The Simple Wired Remote Control is mounted on the wall, allowing remote sensing of room temperature along with user interface with the system.

- Start / Stop
- Temperature setting
- Airflow changing
- Check code display

TCB-TC41LUL

Remote Sensor

The Remote Sensor is mounted on the wall, allowing remote sensing of room temperature without any user interface with the system.

- Prevents overcooling or overheating of the space
- Power supply from indoor unit

Additional Controls

TCB-AX32UL

Stand-Alone Receiver

The Stand-Alone Receiver is a combination of a wall / ceiling mounted receiver and a handheld wireless remote that allows a user to interface with the unit.

- For 4-Way Cassette, Compact 4-Way Cassette, Underceiling, Concealed Duct, Slim Duct and Vertical AHU
- Includes Wireless Remote Control Kit

Wireless Remote Control

- Start / Stop
- Changing mode
- Temperature setting
- Airflow changing
- Timer function
- Control by two remote controllers is available
  - Two wireless remote controllers can operate one indoor unit
  - The indoor unit can then be operated separately from the two different locations
- Check code display

Additional Controls

TCB-1FTH1GUL

24V Thermostat Interface

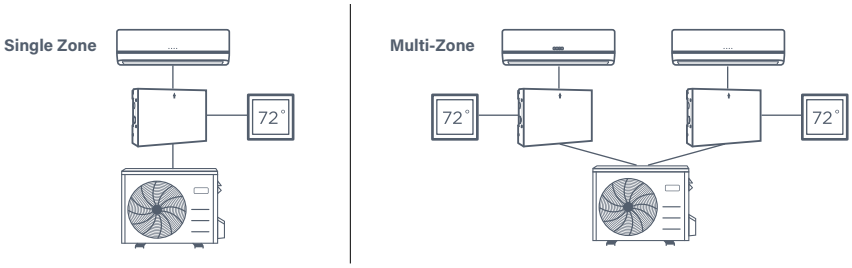
The 24V Interface allows third-party conventional thermostat to communicate and operate Toshiba Carrier VRF indoor fan coil units.

Two Methods of Control

- Inverter control
- Two-stage cooling / heating

Features

- Fan speed control: high, medium and low
- Operating modes: cooling, heating, fan and off



RBC-AX32UW-UL

Integral Receiver

(For 4-Way Cassette)

The Integral Receiver is a combination of a mounted receiver on an 4-way cassette indoor unit and handheld wireless remote that allows a user to interface with the unit.

- ON / OFF
- Operating modes: auto, heat, dry, cool, and fan
- Fan modes: auto, high, medium and low
- Louver setting
- Timer function
- Error display

RBC-AX33C-UL

Integral Receiver

(For Underceiling)

The Integral Receiver is a combination of a mounted receiver on an underceiling indoor unit and handheld wireless remote that allows a user to interface with the unit.

- ON / OFF
- Operating modes: auto, heat, dry, cool, and fan
- Fan modes: auto, high, medium and low
- Louver setting
- Timer function
- Error display

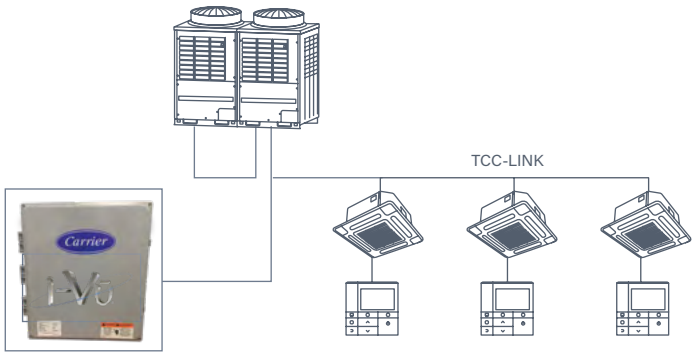
Network Controls

OPN-MTCC

i-Vu® Interface

The i-Vu® Building Automation System brings your system into sharp focus with a 360° view of your building's entire operation. With its ability to communicate with the Toshiba Carrier VRF system, other HVAC systems and ancillary system components, i-Vu gives you a real-time consolidated view of occupant comfort, energy usage and other operating conditions.

- Regardless of the control type or equipment manufacturer, the i-Vu Building Automation System is your connection for seamless, comprehensive and flexible control of all systems in your building
- Easy to install and commission
- Pre-engineered, pre-loaded control programs simplify system set-up and minimize the need for field programming
- Intuitive, graphic-rich i-Vu user interface keeps you connected to your facility from any web-enabled device or locally through a wall-mounted touchscreen
- Unique graphics for individual system components give users total insight and control



Network Controls

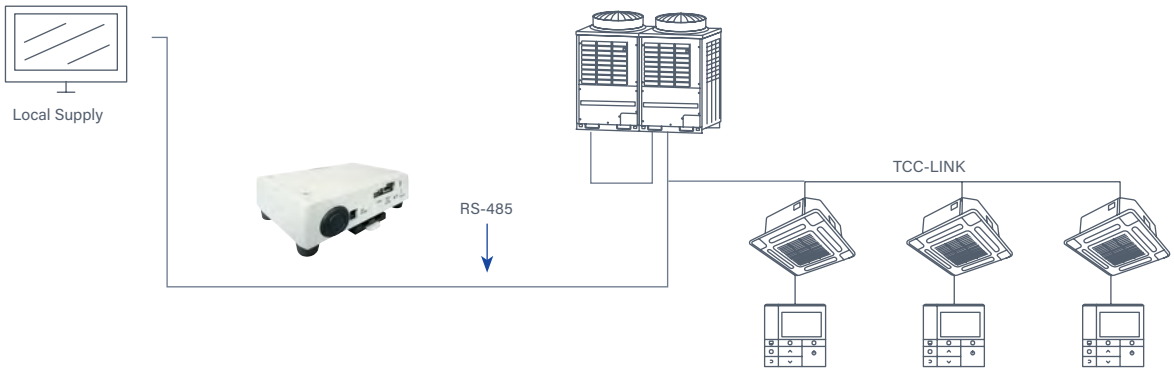
BMS-IFBN640TLUL

BACNet® Interface

The BACNet Interface is a BACNet controller which enables the communication between the building automation system (BAS) and Toshiba Carrier VRF unit. This allows the customer to control the Toshiba Carrier VRF system from a centralized location. The BACNet system uses object signals to provide the following functions:

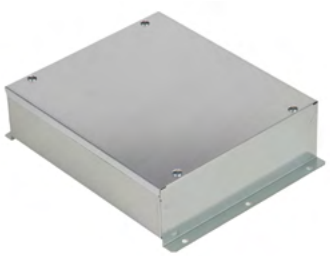
Controller
- ON / OFF
- Operation mode
- Temperature setting
- Fan speed
- Louver
- Permit/prohibit local remote controller

Monitoring
- ON / OFF
- Operation mode
- Temperature setting
- Fan speed
- Louver
- Room temperature
- Permit / prohibit local remote controller
- Error code
- Error status



BACNet®: Trademark registration of American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc.
Integration done in field by customer.

Additional Control Options



TCB-IFLN642TLUL

LonWorks® LN Interface

The LonWorks Interface manages the system as a Lon device to communicate with the customer's building management system and to monitor operational status. A maximum of 64 units are controllable per interface.

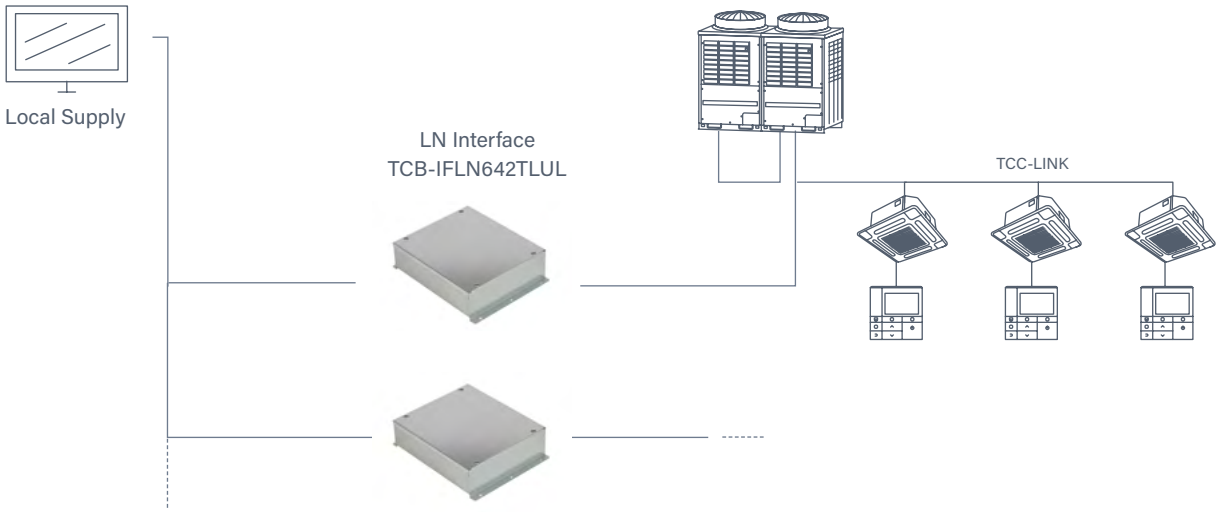
SNVT Signal
Signals and provides the following functions:

Controller

- ON / OFF
- Operation mode
- Temperature setting
- Fan speed
- Louver
- Permit prohibit local remote controller

Monitoring

- ON / OFF
- Operation mode
- Temperature setting
- Fan speed
- Louver
- Room temperature
- Permit prohibit local remote controller
- Error code
- Error status



LonWorks®: Registered trademark of Echelon corporation. Integration done in field by customer.

Additional Control Options

TCB-IF1GUL**
RBM-A*1GUL**

DX Interface

DX Interface enables integration of any third-party heat pump air handling unit (AHU) into the Toshiba Carrier VRF systems.

Two Types of Controls

- Return Air (RA) control
- Supply Air (0-10V) control

For Return Air (RA) Control

- Single (normal) coil AHU up to 16 tons
- Split face coil AHU up to 32 tons

For Supply Air (0-10V) Control

- Single (normal) coil AHU up to 16 tons

TCB-IFVN1UL

ERV Control Interface

The ERV Control Interface is used to connect and operate third-party Energy Recovery Ventilation. The third-party ERV ON / OFF and fan speed is controlled using the Toshiba Carrier Wired Controller, which is connected to the Toshiba Carrier VRF system.

- ON / OFF
- Two-step airflow (high or low)
- Scheduling setting
- Ventilation air volume change by external input like CO2 sensor, motion sensor, etc.
- Individual, group or central control optio
- Requires Wired Zone Controller for programing. Model: RBC-AMS54E-UL

Benchmark Tools

VRoom Selection Software

The Toshiba Carrier VRoom Selection Tool application has been designed to allow you to easily select VRF systems. It enables engineers to easily design, lay out and prepare VRF systems for quote.

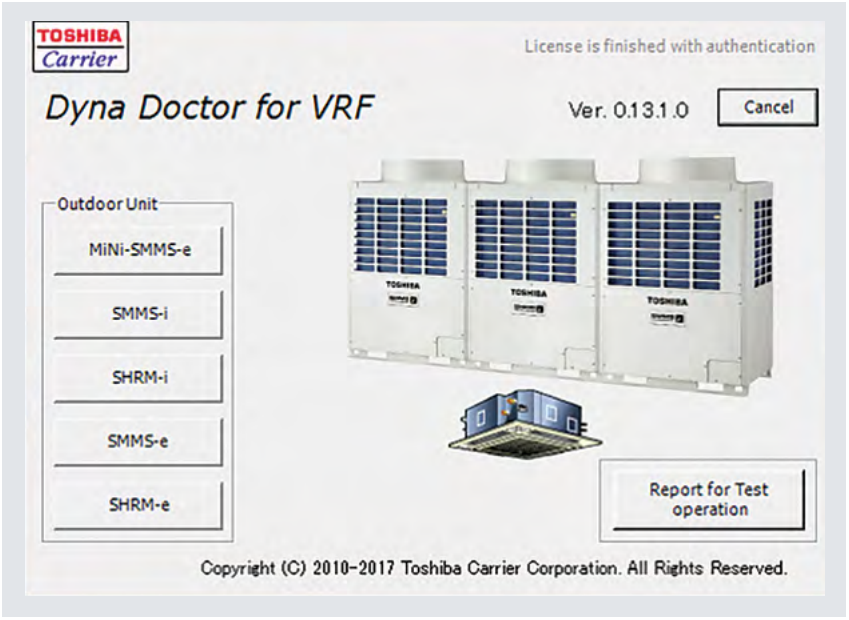
- Automatic software updates
- Sleek drag-and-drop interface
- Table edit features for quick editing of multiple units
- Quick global edits for wired controllers

Contact VRoomhelp@carrier.com for assistance and support.

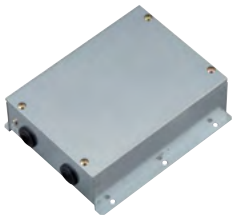
TCB-DK01SS-E

Dyna Doctor

Dyna Doctor is a service tool that provides a graphical view of Toshiba Carrier system operation. Dyna Doctor allows users to run reports and analyze system functionality. Dyna Doctor software can be downloaded for free from hvacpartners.com, but a special connector to communicate with the Toshiba Carrier VRF system is required to use this service tool.



Application Controls

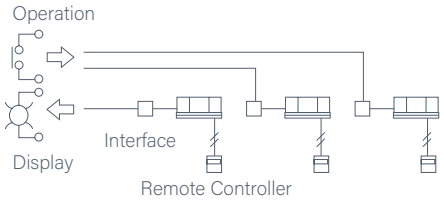


TCB-IFCB-4UL

Size: 7.9 × 6.7 × 2.6 (in.)

Remote Location
ON / OFF Control Box

Start and stop of the air conditioner is possible by an external signal and indication of operation / alarm externally



Monitoring

- ON / OFF status (for indoor unit)
- Alarm status (system and indoor unit stop)
- ON / OFF command
- Air conditioner can be turned ON / OFF by the external signals
- The external ON / OFF signals will initiate the signals shown below

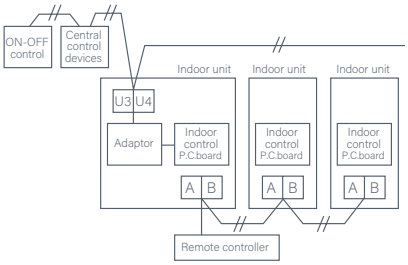
TCB-PCNT31TLUL

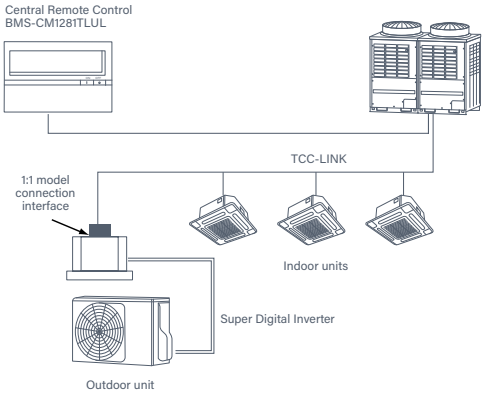
Size: 3.3 × 2.0 (in.)
Install optional P.C. board in E-parts of the indoor unit.

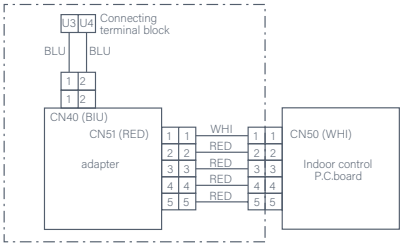
RAV Network Adapter

Link adapter for "1:1 model" to enable connection to VRF system network.

- Super digital inverter
- Used only for light commercial products







Application Controls

TCB-PCDM4UL
Size: 2.8 × 3.3 (in.)

Power Peak-Cut Control

Feature
The upper limit capacity of the outdoor unit is restricted based on the outdoor power peak selected setting

Function
Two control settings are selectable by setting SW07 on the interface P.C. board of the header outdoor unit

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TCB-PCMO4UL
Size: 2.2 × 2.4 (in.)

External Master ON / OFF Control

The outdoor unit can control start or stop to receive the external signal

Operation Mode Selection Control

This control can restrict the selectable operation mode

Night Operation Control
(Sound reduction)

Sound level can be reduced by restricting the compressor and fan speeds

Snowfall Fan Control

The outdoor fan will operate to prevent snow buildup

TCB-PCIN4UL
Size: 2.9 × 3.1 (in.)

Error / Operation Output Control

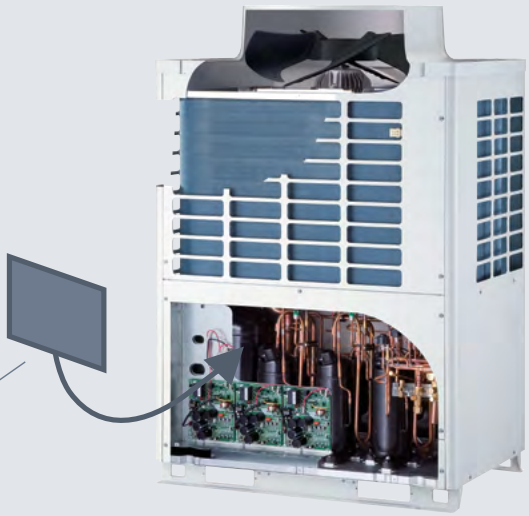
Enables external output of error and operation signals

Compressor Operation Output

Enables external signal output for each compressor that is in operation within any given outdoor unit—this feature provides a practical method for calculating total operating times for each compressor

Operating Rate Output

External output of system operating rates enables remote monitoring of operating conditions



Install the optional P.C. board in the inverter assembly of the outdoor header unit

Toshiba Carrier VRF

carriervrf.com

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