Small Footprint Big Impact

HITACHI



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Variable Refrigerant Flow Systems Mini VRF for New Construction and Renovation Projects

Cooling & Heating



HITACHI HERITAGE IN COOLING & HEATING



IDU: Wall Mounted type



IDU: 4-way Ceiling Cassette type



World's first PAC with Scroll Compressor built-in

1982



IDU: Ceiling Cassette type



Scroll Compressor Production for AC unit.



VRF 1st generation



Hitachi's first VRF "High-Multi" series Contains multiple reciprocating compressors
 Individual IDU control available

ercial AC Refrigerators ssor for REF Casting

1960

1980

1940

1950

Roller Casting

Commercial AC Refrigerators Compressor for REF Casting 1970

1972



IDU: Floor Exposed type

1976



IDU: Ceiling Built-in type

1978



ODU: for low-ambient-temperature market

1958



Compressor for Refrigerators

1976

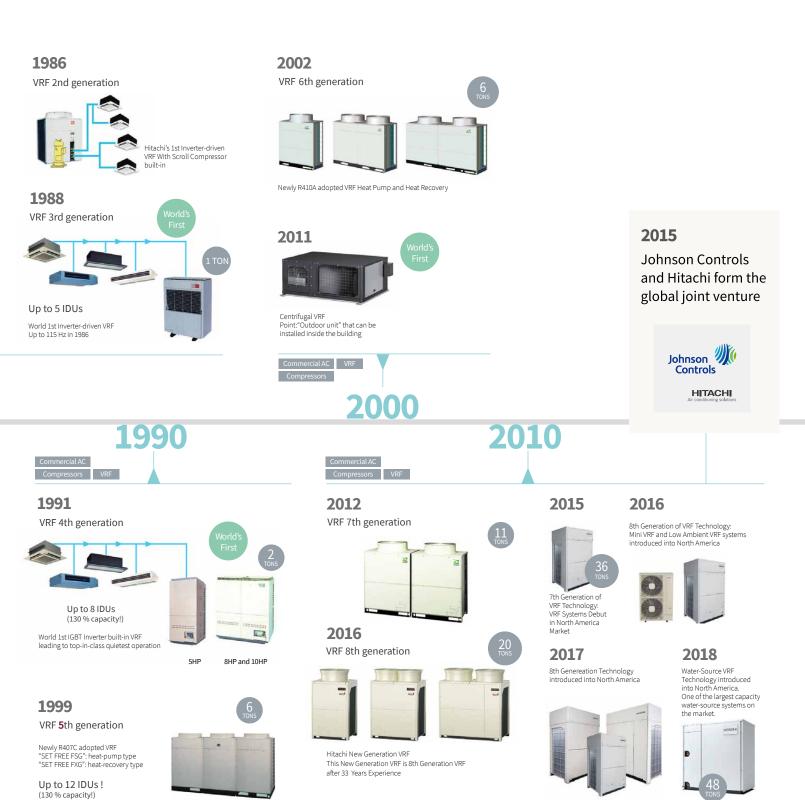


IDU: Ceiling Suspended type

1979



ODU: PAC controlled by micro-computer built-in



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The information contained in this catalog is for illustration purposes only and is subject to change at the sole discretion of Johnson Controls. Statements, figures, calculations, plans, images and representations are only examples. Johnson Controls encourages you, as the purchaser, to analyze your HVAC requirements and to work with Johnson Controls to determine the exact VRF System to fulfill your needs.

SYSTEM ENJOY A BETTER TOMORROW

Mini VRF systems offer a host of benefits to you and your customers. These small-footprint, modular systems offer tremendous design flexibility, enabling you to solve multiple HVAC challenges. And your customers will appreciate the exceptional energy savings and individualized comfort they provide.

Design with freedom

A variety of standard modular components let you customize and size equipment to meet specific project requirements. Because ductwork is generally needed only for ventilation, ducts can be smaller, reducing capital cost. Systems can easily be adapted as space is reconfigured. There is no need to remove and replace the original unit or reconfigure ductwork.

Install with ease

Hitachi Mini VRF systems are designed for quick and simple installation. Piping from the outdoor units can be connected from the front, back, side, or underneath. Indoor units are relatively small and light and easy to transport and handle. Service is simple too: systems need little maintenance beyond changing filters and cleaning coils. Removal of a single panel provides easy access to all components: control boards, electrical connections, compressor and piping.

Enjoy guilt-free comfort

These compact systems are among the most energyefficient HVAC options available today, so customers never have to choose between comfort and savings.

Variable-speed compressors provide extremely high part-load efficiency. And the systems essentially eliminate the energy loss that occurs in conventional, ducted central systems that may account for as much as 30% of energy consumption. In fact, these green technology systems can help customers attain LEED® certification points for resource efficiency.

Occupants will enjoy unparalleled comfort with Hitachi Mini VRF Systems. Temperature can be set individually for multiple zones to suit different needs. And, once the temperature is set, the system's variable-speed compressors and precise modulation help maintain it within a narrow range, ensuring consistent comfort. Occupants will also appreciate the system's whisperquiet operation.

Plan on years of worry-free service

Hitachi Mini VRF Systems feature the Hitachi-designed, high-efficiency scroll compressor. This exclusive technology is known for its excellent reliability and efficiency, and low noise level.

Hitachi Mini VRF Systems boast impressive efficiency ratings

SEER

Seasonal Energy Efficiency Ratio up to **24.1** **EER**

Energy Efficiency Ratio up to **16.7** **HSPF**

Heating Seasonal
Performance Factor
(HSPF) up to 12.8



ENJOY A BETTER TOMORROW (Continued)

You are in control

You set the level of control with options that range from wired individual controllers to gateways for building automation systems.

A wide selection of thermostats (controllers) are available for indoor fan coil units from simple units with on/off, setpoint, load and speed settings, to programmable units that enable scheduling. Wireless units are also available to remotely control conditions.

Central station controllers for larger projects provide remote control and scheduling of the entire system from one or more control points.

Adapters (gateways) enable control of large buildings or campuses through building automation systems such as Facility Explorer®.

The ideal choice for multiple applications

The many advantages offered by the Hitachi Mini VRF System make it the optimal choice for a wide range of new construction and retrofit projects including:

- Buildings with multiple zones that have different comfort needs such as hotels, schools, medical office buildings, and commercial office buildings
- Historical building renovations in which ducted HVAC options are severely limited and the basic building structure must not be disturbed
- Residential buildings including apartments, townhomes, single-family homes and condominiums
- **Light commercial buildings** such as small retail shops and churches





Industry certified

Hitachi VRF Systems are Intertek ETL Listed (Canada & USA), signifying that they comply with the standard of Heating and Cooling Equipment (ANSI/ UL 1995 and CAN/CSA C22.2 No. 236-11, 4th Edition, October 14, 2011). Our Mini VRF products are tested under AHRI 210/240.

The systems are also certified by the Air Conditioning, Heating & Refrigeration Institute.



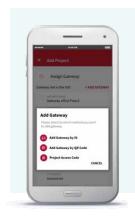
ENERGY STAR certified product (Only for 3 and 4 Ton)

Proper sizing and installation of equipment is critical to achieve optimal performance.

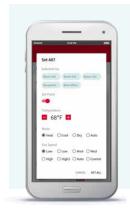
LATEST INDICATE ONS AIRCLOUD PROTM

Control is always close at hand

Monitoring and controlling systems is as easy as 1-2-3



Install and configure equipment quickly. airCloud Pro is a true plug-and-play device.



Optimize energy use for comfort and savings through intuitive interface.



Monitor, control and troubleshoot with ease 24/7 from your phone or laptop.

The app that gives you control on the go

It's never been easier to control Hitachi VRF Systems. Using Internet of Things (IoT) technology, airCloud Pro enables you to manage Hitachi VRF equipment anytime/anywhere. On the web or through a smartphone, control is always close-at-hand.

With airCloud Pro's intuitive interface, you can manage an unlimited number of VRF systems quickly and easily:

- Adjust temperature, fan speed and equipment modes
- Receive error and maintenance alerts
- · Set operating schedules
- Add users with customized permissions
- · And more

Set up is simple with true plug-and-play installation. And functionality is always current with new features and updates pushed to the app.

airCloud Pro puts the latest technology to work for you.



LATEST I<u>NNOVATIO</u>NS

SILENT-ICONIC™ 4-WAY CASSETTE PANEL

Create the perfect atmosphere

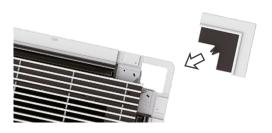
Enjoy the unobtrusive design of ducted indoor units and the cost savings of cassette units with a sophisticated solution that will please the visually discerning and budget-minded alike. The Silent-Iconic 4-Way Cassette Panel gives you the best of both worlds.

The four flaps of the Silent-Iconic are crafted to reduce visual impact yet maintain precise airflow control. Further minimizing the cassette's appearance, the central inlet of the unit is louvred, so it integrates perfectly into the ceiling. Air vents are tastefully hidden, so the indoor unit blends seamlessly into its surroundings.



Installation is a breeze

Corners slide into place for hassle-free fastening.





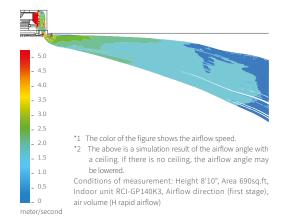
Blind-shaped air inlet port

This unique, award-winning panel turns your indoor unit into a design statement.



Looks and comfort delivered

Used with the Hitachi 4-Way Cassette, air is dispersed uniformly through four artfully concealed ducts, for optimal comfort throughout the space.





Designed with attention to detail

The small space between the panels and the ceiling creates a "lighter" visual effect.







The Silent-Iconic 4-Way Cassette Panel has won design excellence awards in prestigious international competitions. Best of all, it provides a cost-effective solution that is as functional as it is good-looking. Available in white or black, the Silent-Iconic offers style and cost-savings in one optimal solution.

SYSTE SEVERYTHING YOU NEED FOR SUCCESS

Effective training, intuitive design and selection software, advanced logistics timely delivery, and easily-accessible documentation form a powerful support package that adds substantial value to Hitachi Mini VRF Systems.

Expert instructors and hands-on experience for your team

Comprehensive training programs provide knowledge and skills necessary to effectively and efficiently deploy Hitachi Mini VRF technology. Our world-class training centers offer a full VRF course curriculum with specialized modules and topics that help:

• Designers select and configure the right equipment easily and accurately.

- Installers learn the proper procedures and complete jobs accurately, on time, and on budget.
- Service technicians maintain, troubleshoot and repair systems efficiently.

The training centers include a dedicated VRF laboratory to provide hands-on experience with the various systems, components and controls. Videos and webinars supplement classroom learning on specific subjects and refresh and enhance the skills of your design, installation, and service teams.

Hitachi Mini VRF training programs help deliver peace of mind so that your staff is prepared to support your business with the knowledge to compete in a growing industry.





EVERYTHING YOU NEED FOR SUCCESS (Continued)

Right-size systems with intuitive selection software

The Hitachi Mini VRF selection software intuitively guides you step by step through equipment selection so you can quickly and accurately choose an appropriate and cost-effective system configuration for each application. The web-based program allows access from any computer or tablet. The software helps you:

- Design accurate final system drawings including piping and wiring diagrams in an easy, quick, step by step process.
- Accurately select systems using a System Sizing Analysis. The process starts with the indoor fan coil units so that outdoor units are optimally sized. Proprietary algorithms calculate the system size using data input on the indoor units, load and measurements, so your system does not include capacity that will go unutilized.
- Use intuitively-designed features and functionality that make the design process easy, fast and accurate. You can select options and accessories quickly, easily and accurately without the need for additional information or calculations.



EVERYTHING YOU NEED FOR SUCCESS (Continued)

Expect the right equipment on site and on time

Ample inventory and advanced order management and logistics systems can help you complete installations in a timely manner. Consistent service and predictable deliveries help you prevent delays waiting for essential components and enable you to set a project timeline and schedule labor efficiently. Our state-of-the-art main distribution center is located near Memphis, Tennessee, where UPS and FedEx have hubs. This enables us to provide fast, accurate deliveries and simplifies expedited shipments.

Find information you need 24/7



Easy access to product information helps designers, contractors and service personnel work accurately and efficiently.

Our secure web portal, HVACNavigator.com, provides product documentation, technical and service manuals, troubleshooting guides, brochures, videos, technical support, contact information, and more.

Let's go to work - together

Hitachi Mini VRF Systems can be configured to meet your project requirements and deliver exceptional performance. Heat pump units with DC inverter-driven compressors offer energy savings and the ability to scale to size. Indoor units for ducted or non-ducted applications offer optional motion sensing control for even greater energy savings. Additional energy savings can be achieved with the EconoFresh Economizer Indoor Unit which provides free cooling when conditions permit. A host of options, controls and accessories help ensure a custom fit for your project and years of comfort for your customers.

Enjoy the advantages of working with our team while bringing the many benefits of Hitachi Mini VRF Systems to your customers.



ADVANTAGES FOR YOUR ENTIRE TEAM

Summary of features and benefits

FEATURES	ADVANTAGES	BENEFITS			
Compact footprint	Ideal for areas with strict lot-line codes	Expand options for positioning outdoor units			
Modular components Non-ducted systems Ducted systems	Require less indoor space than conventional systems	Simplify design process Allow easy updates in reconfigured or expanded space			
Non-ducted systems	Ultimate in design flexibility Reduce clearance between building floors	Reduce system costs Ideal for historic renovations			
Ducted systems	Accommodate retrofit by making use of existing duct infrastructure Suit unique buildings that include ducted and non-ducted areas	Reduce overall construction costs			
Heat pump VRF systems	Precisely heat or cool multiple zones	Provide extreme flexibility in system design			
Comprehensive training	Tailor modules to specific job functions	Enable effective equipment selection and specification			
Web-based system selection software	Intuitive functionality that simplifies and speeds designs Accessible from any computer or tablet	Allow confident selection and right-sizing of systems			

	FEATURES	ADVANTAGES	BENEFITS			
LLER	Installation simplicity	Outdoor unit piping can be connected from front, side, back, or underneath.	Reduce installation time and cost			
CONTRACTOR/INSTALLER	Comprehensive training	Tailor modules to specific job functions	Enable professional, high-quality, timely installation			
RACTOR	Consistent, reliable product delivery	Ensure correct components are delivered to job sites on time	Enhance installation efficiency Allows efficient labor scheduling			
	Easy maintenance access	All components easily accessible	Speed up time spent on maintenance, repair, and troubleshooting			
MECHANICAL	Easy access to product information	All product information is available on HVACNavigator.com	Simplify and speed maintenance, troubleshooting and repairs			
MECH	Compact and lightweight outdoor units	• Easy to handle	Reduce installation time and cost			

ADVANTAGES FOR YOUR ENTIRE TEAM (Continued)

		FEATURES	ADVANTAGES	BENEFITS
		Single phase power supply	Flexibility in selection of buildings and locations	Mini VRF can be used in most light commercial and residential applications
		Designed for optimized efficiency	SEER is industry's highest for VRF systems Highest COP of Mini VRF systems on the market	Save energy
	System	Optimum individualized comfort	Connect up to 8 Indoor Units to one Outdoor Unit	Efficient heating or cooling Set-temperatures per zone increase occupant comfort
		Noise reduction preference mode	User can choose from several noise reduction levels	Extremely quiet (sound ratings as low as 44 dBA for outdoor units; 28 dBA for indoor units) Ideal where outdoor units are positioned on side of building or in locations where there are noise restrictions
	Compressor	DC inverter-driven scroll compressor	Engineered to deliver the optimum efficiency at normal load conditions	A leader in the Mini VRF system industry Highest SEER Highest COP
	Con	Compressor modulation	Smoothly deliver only the exact amount of refrigerant needed for the load	Allow fine control for optimum comfort Save energy
BUILDING OWNER	Outdoor Units	Demand control	Users can select several power-saving levels	Limit electric demand charges Limit equipment wear and tear Reduce noise
BUILDIN	Outd	Compact and lightweight	Can be placed in tight areas such as patios and balconies	Can save valuable space
	Indoor Units	As high as .74 in. W.G. static pressure in ducted systems	Offer adjustable speeds to match the static pressure requirement	Flexibility to accommodate long or short ductwork runs
	opul	Optional motion and radiant sensors	Set back temperature when space is unoccupied, increasing efficiency even further	• Save energy
		H-Link II Protocol	Control multiple indoor and outdoor units from one control point Add versatility to connect various central control options	Maximize indoor comfort Save energy Improve system management
	Controls	Temperature control	Adjust in 1 degree Fahrenheit increments Adjustable fan speeds	Auto-adjust for daylight saving time Provide options to satisfy multiple projects/ buildings
		VRF Smart Gateway	Enable control of VRF systems by way of a building management system (e.g., Facility Explorer®) for almost unlimited control of buildings in campus enterprises	Reduce integration time and expense with automatic data formatting Full BMS capabilities enable superior control of all system components Access Wi-Fi for 24/7 monitoring and control from laptops, tablets, and smartphones

INDOOR UNITS FEEL THE DIFFERENCE



Indoor Units

The Mini VRF Outdoor Unit is compatible with all Hitachi VRF indoor units. Hitachi VRF indoor units operate quietly and are easy to install, service, and maintain. A wide variety of non-ducted and ducted units are available in styles and capacities to fit multiple applications. Units operate quietly with sound ratings as low as 26 dBA.

Non-Du	cted Units	Ducted Uni	ts

1-Way Cassette Ducted High Static

2-Way Cassette Ducted Medium Static

4-Way Mini Cassette Ducted Slim

4-Way Cassette EconoFresh Economizer

Ceiling-Suspended Multi-Position Air Handler

Wall-Mount Multi air Multi-Position Air

Handler

Floor-Exposed (Built-in Control Box Type)



Choose the style and size from the wide selection of indoor units to meet your requirements for layout and design.

Non-ducted indoor unit model numbers



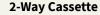






1-Way Cassette

HIC1006B2(1,2)S HIC1008B2(1,2)S HIC1012B2(1,2)S HIC1015B2(1,2)S



HIC2018B21S HIC2024B21S

4-Way Cassette

HIC4008B21S HIC4024B21S HIC4012B21S HIC4030B21S HIC4015B21S HIC4036B21S HIC4018B21S HIC4048B21S

4-Way Mini Cassette

HICM008B21S HICM012B21S HICM015B21S HICM018B21S







Ceiling Suspended

HICS015B2(1,2)S HICS024B2(1,2)S HICS030B2(1,2)S HICS036B2(1,2)S

Wall Mount

TIWM006B2(1,2)S TIWM018B2(1,2)S TIWM008B2(1,2)S TIWM024B2(1,2)S TIWM012B2(1,2)S TIWM030B2(1,2)S TIWM015B2(1,2)S

Floor Exposed

HIFE006B21S HIFE008B21S HIFE012B21S HIFE015B21S

Ducted indoor unit model numbers









Ducted High Static

HIDH015B2(2,3)S HIDH030B2(2,3)S HIDH018B2(2,3)S HIDH036B2(2,3)S HIDH024B2(2,3)S HIDH048B2(2,3)S HIDH027B2(2,3)S HIDH054B2(2,3)S HIDH072B21S HIDH096B21S

Ducted Medium Static

HIDM006B2(2,3)S HIDM024B2(2,3)S HIDM008B2(2,3)S HIDM027B2(2,3)S HIDM012B2(2,3)S HIDM030B2(2,3)S HIDM015B2(2,3)S HIDM036B2(2,3)S HIDM018B2(2,3)S HIDM048B2(2,3)S HIDM054B2(2,3)S

Ducted Slim

HIDS006B21S HIDS008B21S HIDS012B21S HIDS015B21S HIDS018B21S

EconoFresh

HIDM030B21E HIDM036B21E HIDM048B21E

Multi air Multi-Position Air Handler(Built-in Control Box Type)

TIAH008B22M TIAH030B22M TIAH012B22M TIAH036B22M TIAH018B22M TIAH048B22M TIAH024B22M TIAH060B22M



Multi-Position Air Handler

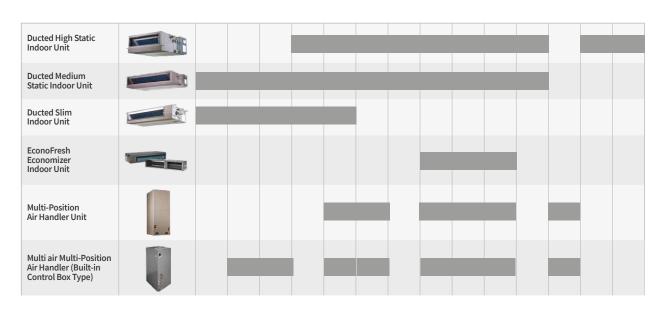
HMAHP18B21S HMAHP48C21S HMAHP24B21S HMAHP48D21S HMAHP30B21S HMAHP60C21S HMAHP36B21S HMAHP60D21S HMAHP36C21S HMAHP60D22S





Choose from a wide array of options





INDOOR UNITS OVERVIEW

1-WAY CASSETTE INDOOR UNIT



This slim and stylish yet inexpensive unit is ideal for spaces that only require one-way airflow.



CEILING SUSPENDED INDOOR UNIT



This unit with its sleek design operates quietly and efficiently while evenly distributing airflow.



2-WAY CASSETTE INDOOR UNIT



Providing bi-directional airflow, this exceptionally quiet unit is a good choice for many different spaces.



WALL MOUNT INDOOR UNIT



With wide-angle louvers, this unit distributes air comfortably throughout a room for an even temperature.



4-WAY MINI CASSETTE INDOOR UNIT



This versatile unit is quiet, energy-efficient and compact, making it a great choice for many applications.



FLOOR EXPOSED INDOOR UNIT



This slim-design unit leaves design options open and is ideal for perimeter conditioning of air.



4-WAY CASSETTE INDOOR UNIT



Compact and lightweight, this unit with 4-way airflow is easy to install even in tight spaces.



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OVERVIEW (Continued)

DUCTED HIGH STATIC INDOOR UNIT



This unit has a high-efficiency fan motor, multiple fan speeds and bottom access for ease of service.



ECONOFRESH ECONOMIZER INDOOR UNIT



This unit combines a ducted Medium Static unit with an Economizer Kit to provide outside air/free cooling when conditions permit.



DUCTED MEDIUM STATIC INDOOR UNIT



With a high-efficiency fan motor, this unit has multiple fan speeds and access from underneath for ease of service.



MULTI-POSITION AIR HANDLER UNIT



This flexible unit with multiple installation positions is ideal both for residential and light commercial applications.



DUCTED SLIM INDOOR UNIT



This slim-line unit features a high-efficiency fan motor, multiple fan speeds, and access from underneath for ease of service.



MULTI AIR MULTI-POSITION AIR HANLDER (BUILT-IN CONTROL BOX TYPE)



This new Multi air AHU simplify installation, comes in three sizes and eight capacities to suit applications as

small as a hotel roomor office, and as large as a single-family house



1-WAY CASSETTE (NON-DUCTED)

Ceiling-mounted one-way cassettes offer compact designs and a choice of corner-mounted, one-way discharge or two-way discharge (from the front and downward).



Capacities 6,000 to 15,000 Btu/hr



Key Features

- Sensor enables remote reading of air supply temperature
- Automatic swing louver distributes airflow evenly for uniform temperature
- Auxiliary/emergency heater control
- Setback temperature control
- Cooling and heating auto-changeover dual-setpoint control
- GentleCool feature enables discharge air temperature to be set, eliminating the rush of cold air that can occur when air conditioning first comes on for more comfortable cooling.
- Optional energy-saving motion and radiant heat sensor for optimized airflow and temperature control in response to room occupancy

Tonnage				0.	5	0.	7	1.	n	1.	2	
1-Way Cassette Indoor Unit Model #			HIC1006B2(1,2)S		HIC1008B2(1,2)S		HIC1012B2(1,2)S		HIC1015B2(1,2)S			
Power Supply					() / -		AC 1 Phase, 2		() /-		() / -	
Nominal Cooling C	Capacity ¹	Btu / h	(kW)	6000	(1.8)	8000	(2.3)	12000	(3.5)	15000	(4.4)	
Nominal Heating (Capacity ¹	Btu / h	(kW)	6700	(2.0)	9000	(2.6)	13500	(4.0)	17000	(5.0)	
Sound Pressure Le (Overall A Scale) (I		dB		34-32-	-29-27	36-34-	-31-28	40-37-	33-31	42-38-	35-31	
Outer Dimensions	Height	in.	(mm)	9-1/4	(235)	9-1/4	(235)	9-1/4	(235)	9-1/4	(235)	
	Width	in.	(mm)	35-7/16	(900)	35-7/16	(900)	35-7/16	(900)	35-7/16	(900)	
	Depth	in.	(mm)	27-15/16	(710)	27-15/16	(710)	27-15/16	(710)	27-15/16	(710)	
Net Weight		lbs.	(kg)	55	(25)	55	(25)	57	(26)	57	(26)	
Refrigerant					R410A							
Indoor Fan	Airflow Rate	cfm		300-265-229-212		335-300-265-229		459-406-353-300		512-459-388-335		
	(Hi2-Hi-Me-Lo)	(m3/min)	(8.5-7.5-6.5-6)		(9.5-8.5-7.5-6.5)		(13-11.5-10-8.5)		(14.5-13-11-9.5)		
Motor Nominal Ou	itput	W		50		50		50		50		
Connections												
Refrigerant Piping						Flare	-Nut Connecti	on (with Flare N	uts)			
	Liquid LIne	in.	(mm)	1/4	(6.35)	1/4	(6.35)	1/4	(6.35)	1/4	(6.35)	
	Gas Line	in.	(mm)	1/2	(12.70)	1/2	(12.70)	1/2	(12.70)	1/2	(12.70)	
Condensate Drain	OU	in.	(mm)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)	
Adjustable Panel N	Model Name				P-AP:	B6CNA		P-AP56CNA				
Applicable Indoor	Unit Model			HIC1006B2(1,2)S and HIC1008B2(1,2)S HIC1012B2(1,2)S and HIC1015B2(1,2)S								
Color				Neutral White								
Dimension	Height	in.	(mm)				1-3/8	3 (35)				
	Width	in.	(mm)				43-5/16	5 (1100)				
	Depth	in.	(mm)				31-1/2	2 (800)				
Net Weight		lbs.	(kg)	10 (4.5)								

- Nominal capacity conditions are based on AHRI standard.
 Visit www.ahrinet.org for more information.
- The sound pressure level is based on the following conditions: 4.9 ft. (1.5m) beneath the units.
 The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

1-Way Cassette			
Compatible Accessories	HIC1006-015B2(1,2)S	Compatible Accessories	HIC1006-015B2(1,2)S
Infrared (IR) Receiver Kit	C1IRK01	Air Outlet Shuttler Plate	PIS-56LS
Grille for Front Discharge	DG-56SW1	Relay and 3-Pin Connector Kit	PSC-5RA
3-Pin Connector Cable	PCC-1A	Motion Sensor Kit (for 1-Way Cassette)	SOR-NES
Connector Cable for Auxiliary Heater	PCC-CN8-H	Remote Sensor (Control)	THM-R2A
Duct Adapter	PD-100		

2-WAY CASSETTE (NON-DUCTED)

With a sound level down to 33 dB(A), this unit is among the quietest on the market. Individual louver control with auto-swing or fixed air exhaust angles brings conditioned comfort to a variety of room layouts.



Capacities 18,000 to 24,000 Btu/hr



Key Features

- Nominal capacity of 18 or 24 MBH
- Compact design requires only 11-3/4" height
- Energy-efficient DC fan motor
- Standard integrated condensate DC drain pump with 33-7/16 inch lift height
- Auxiliary/emergency heater control
- Setback temperature control
- Cooling and heating autochangeover dual-setpoint control
- GentleCool feature enables discharge air temperature to be set, eliminating the rush of cold air that can occur when air conditioning first comes on for more comfortable cooling
- Sensor enables remote reading of air supply temperature
- Optional energy-saving motion and radiant heat sensor for optimized airflow and temperature control in response to room occupancy
- Optional air filter box

Tonnage			1	.5	2	.0		
2-Way Cassette Ind	loor Unit Model#		HIC20:	18B21S	HIC2024B21S			
Power Supply		AC 1 Phase, 2	08/230V, 60Hz					
Nominal Cooling Cap	pacity ¹	Btu/ł	n (kW)	18,000	(5.3)	24,000	(7.0)	
Nominal Heating Cap	pacity ¹	Btu/ł	n (kW)	20,000	(5.9)	27,000	(7.9)	
Sound Pressure Leve (Overall A Scale) (Hi2		dB		42-39	-36-33	46-43	-39-34	
Outer Dimensions	Height	in.	(mm)	11-3/4	(298)	11-3/4	(298)	
	Width	in.	(mm)	33-7/8	(860)	33-7/8	(860)	
	Depth	in.	(mm)	24-13/16	(630)	24-13/16	(630)	
Net Weight		lbs.	(kg)	55.1	(25)	55.1	(25)	
Refrigerant					10A			
Indoor Fan	Airflow Rate	cfm		653-582-512-441		777-688-582-459		
	(Hi2-Hi-Me-Lo)	(m3/	min)	(18.5-16.5-14.5-12.5)		(22-19.5-16.5-13)		
Motor Nominal Outp	ut	W		57		57		
Connections								
Refrigerant Piping				Flare-Nut Connecti		on (with Flare Nuts)		
	Liquid Line	in.	(mm)	3/8	(9.52)	3/8	(9.52)	
	Gas Line	in.	(mm)	5/8	(15.88)	5/8	(15.88)	
Condensate Drain	OU	in.	(mm)	1-1/4	(32)	1-1/4	(32)	
Adaptable Panel Mod	del				P-APS	ODNA		
Color					Neutra	l White		
Outer Dimensions	Height	in.	(mm)	1-3	/16	(3	0)	
	Width	in.	(mm)	43-	5/16	(1,100)		
	Depth	in.	(mm)	27-1	5/16	(7:	LO)	
Net Weight			(mm)	16	5.5	(7.5)		

2-Way Cassette	
Compatibility Accessories	HIC2018-024B21S
Filter Box	B-90HD
IR Receiver Kit	C2IRK01
3-Pin Connector Cable	PCC-1A
Connector Cable for Auxiliary Heater	PCC-CN8-H
Duct Adapter	PD-150D
Relay and 3-Pin Connector Kit	PSC-5RA
Motion Sensor Kit (for 2-Way Cassette)	SOR-NED
Remote Sensor (Control)	THM-R2A

- 1. Nominal capacity conditions are based on AHRI standard. Visit www.ahrinet.org for more information.
- 2. The sound pressure level is based on the following conditions: 4.9 ft. (1.5m) beneath the units. The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

INDOOR UNITS

4-WAY MINI CASSETTE (NON-DUCTED)

Mini-cassette indoor units are designed to meet a variety of building requirements in energy-efficient, quiet packages. Compact size enables installation in tight spaces.



Capacities 8,000 to 18,000 Btu/hr



Key Features

- High-performance and highefficiency heat exchanger
- Efficient turbo fan for low-noise performance
- Wide range of air flow settings
- Motorized 2-, 3- or 4-channel air flow louvers with louver kit
- Auxiliary/emergency heater control
- Cooling and heating autochangeover dual-setpoint control

- Setback temperature control
- GentleCool feature enables discharge air temperature to be set, eliminating the rush of cold air that can occur when air conditioning first comes on for more comfortable cooling.
- Optional energy-saving motion and radiant heat sensor for optimized airflow and temperature control in response to room occupancy.

Tonnage				0.7		1	0	1.	.3	1.	5	
4-Way Mini-Cassette Indoor Unit Model #			HICM008B21S HICM012B21S			12B21S	HICM0:	15B21S	HICM018B21S			
Power Supply							AC 1Phase, 208	3/230V, 60Hz				
Nominal Cooli	ng Capacity¹	Btu / h	(kW)	8,000	(2.3)	12,000	(3.5)	15,000	(4.4)	18,000	(5.3)	
Nominal Heati	ng Capacity¹	Btu / h	(kW)	9,000	(2.6)	13,500	(4.0)	17,000	(5.0)	20,000	(5.9)	
Sound Pressur (Overall A Scale	e Level ² e) (Hi2-Hi-Me-Lo)	dB		38-34-	30-24.5	41-37-	33-27.5	45-39-	-35-31	47-43-	39-35	
Outer Dimensions	Height	in.	(mm)	11-1/4	(285)	11-1/4	(285)	11-1/4	(285)	11-1/4	(285)	
Difficusions	Width	in.	(mm)	22-7/16	(570)	22-7/16	(570)	22-7/16	(570)	22-7/16	(570)	
	Depth	in.	(mm)	22-7/16	(570)	22-7/16	(570)	22-7/16	(570)	22-7/16	(570)	
Net Weight		lbs.	(kg)	35	(16)	35	(16)	37	(17)	37	(17)	
Refrigerant				R410A								
Indoor Fan	Airflow Rate (Hi2-Hi-Me-Lo)	cfm		424-353-300-212		459-388-335-247		530-424-353-282		565-494-424-353		
		(m³/min)		(12-10-8.5-6)		(13-11-9.5-7)		(15-12-10-8)		(16-14-12-10)		
Motor Nomina	Output	W		57		57		57		57		
Connections												
Refrigerant Pip	ing			Flare-Nut Connection (with Flare Nuts)								
	Liquid Line	in.	(mm)	1/4	(6.35)	1/4	(6.35)	1/4	(6.35)	3/8	(9.52)	
	Gas Line	in.	(mm)	1/2	(12.70)	1/2	(12.70)	1/2	(12.70)	5/8	(15.88)	
Condensate Drain	OU	in.	(mm)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)	
Adaptable Pan	el Model						P-AP56	NAM				
Color							Neutral	White				
Outer	Height	in.	(mm)		1-3/	16	(30)					
Dimensions	Width	in.	(mm)		24-13	3/32			(620))		
	Depth	in.	(mm)		24-13	3/32			(620))		
Net Weight		lbs.	(kg)		6			(3)				

- $1. \ Nominal\ capacity\ conditions\ are\ based\ on\ AHRI\ standard.\ Visit\ www.ahrinet.org\ for\ more\ information.$
- 2. The sound pressure level is based on the following conditions: 4.9 ft. (1.5m) beneath the units. The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

4-Way Mini Cassette	
Compatible Accessories	HICM008-018B21S
IR Receiver Kit	CMIRK01
3-Pin Connector Cable	PCC-1A
Connector Cable for Auxiliary Heater	PCC-CN8-H
Duct Adaptor	PD-75C
Relay and 3-Pin Connector Kit	PSC-5RA
Motion Sensor Kit (for Mini 4-Way Cassette)	SOR-NEC
Remote Sensor (Control)	THM-R2A

INDOOR UNITS___

4-WAY CASSETTE (NON-DUCTED)

Ceiling-mounted 4-way cassettes measuring 33 x 33 inch (84 x 84 cm) are offered with standard decorative panels. Compact, thin and lightweight, they are easy to install even in tight spaces.







Capacities: 8,000 to 48,000 Btu/hr

4-way cassette IDU is compatible with silent-iconic panel

Tonnage			0.7		1.0		1.3		1.5			
4-Way Cassette Ind	4-Way Cassette Indoor Unit Model #				HIC40	HIC4012B21S		HIC4015B21S		HIC4018B21S		
Power Supply				AC 1Phase, 208/230V, 60Hz								
Nominal Cooling Cap	pacity ¹	Btu/h	8,0	000	12,	000	15,	000	18,0	000		
		(kW)	(2	.3)	(3	.5)	(4	.4)	(5.	3)		
Nominal Heating Cap	pacity ¹	Btu/h	9,0	000	13,	500	17,	000	20,0	000		
		(kW)	(2	.6)	(4	.0)	(5	.0)	(5.	8)		
Sound Pressure Level ² dB (Overall A Scale) (Hi2-Hi-Me-Lo)		dB	33-30-28-27		35-31-30-27		37-32-30-27		42-36-32-28			
Outer Dimensions	Height	in. (mm)	9-3/4	(248)	9-3/4	(248)	9-3/4	(248)	9-3/4	(248)		
	Width	in. (mm)	33-1/16	(840)	33-1/16	(840)	33-1/16	(840)	33-1/16	(840)		
	Depth	in. (mm)	33-1/16	(840)	33-1/16	(840)	33-1/16	(840)	33-1/16	(840)		
Net Weight		lbs. (kg)	44	(20)	46	(21)	46	(21)	48	(22)		
Refrigerant			R410A									
Indoor Fan	Airflow Rate	cfm	530-459	-388-318	741-600-494-388		777-600-494-388		953-777-635-494			
	(Hi2-Hi-Me-Lo)	(m³/min)	(15-13	3-11-9)	(21-17	-14-11)	(22-17-14-11)		(27-22-18-14)			
Motor Nominal Outp	ut	W	5	7	5	7	57		57			
Connections												
Refrigerant Piping			Flare-Nu			-Nut Connection (with Flare Nuts)						
	Liquid Line	in.(mm)	1/4	(6.35)	1/4	(6.35)	1/4	(6.35)	3/8	(9.52)		
	Gas Line	in.(mm)	1/2	(12.70)	1/2	(12.70)	1/2	(12.70)	5/8	(15.88)		
Condensate Drain	OU	in.(mm)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)		

^{2.} The sound pressure level is based on the following conditions: 4.9 ft. (1.5m) beneath the units. The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

4-Way Cassette	
Compatible Accessories	HIC4008-48B21S
Filter Box	B-160H3
IR Receiver Kit	C4IRK01
Fresh Air Intake Kit (for 4-Way Cassette)	OACI-160K3
3-Pin Connector Cable	PCC-1A
Connector Cable for Auxiliary Heater	PCC-CN8-H
Duct Adapter	PD-75A
Air Outlet Shutter Plate	PI-160LS2
Relay and 3-Pin Connector Kit	PSC-5RA
Remote Sensor (Control)	THM-R2A
T-Tube Connecting Kit	TKCI-160K

 $^{1. \} Nominal\ capacity\ conditions\ are\ based\ on\ AHRI\ standard.\ Visit\ www.ahrinet.org\ for\ more\ information.$

4-WAY CASSETTE (NON-DUCTED) (CONTINUED)

Key Features

- Multiple fan speed settings
- Air filter included
- Four air volume settings including Ultra Hi for higher ceilings
- 4-way airflow standard but can be configured for 2-way or 3-way
- Integrated condensate pumps in all units
- Auxiliary/emergency heater control
- Setback temperature control
- Cooling and heating autochangeover dual-setpoint control
- GentleCool feature enables discharge air temperature to be set, eliminating the rush of cold air that can occur when air conditioning first comes on for more comfortable cooling.
- Sensor enables remote reading of air supply temperature
- Motorized 2-, 3- or 4-channel air flow louvers with louver kit
- Optional energy-saving motion and radiant heat sensor for optimized airflow and temperature control in response to room occupancy
- Optional fresh air kit available

Tonnage			2	.0	2	.5	3	.0	4	.0			
4-Way Cassette Inc	loor Unit Model#		HIC402	24B21S	HIC4030B21S		HIC403	36B21S	HIC4048B21S				
Power Supply			AC 1Phase, 208/230V, 60Hz										
Nominal Cooling Capacity 1 Btu/		Btu/h	24,	000	30,	000	36,	000	48,	000			
		(kW)	(7	.0)	(8	.8)	(10).5)	(14	1.1)			
Nominal Heating Ca	pacity ¹	Btu/h	27,	000	34,	000	40,	000	54,	000			
		(kW)	(7	.9)	(10	0.0)	(11	1.7)	(15	5.8)			
Sound Pressure Leve (Overall A Scale) (Hi		dB	42-36-32-28		48-43-39-33		48-45-40-35		48-46-41-37				
Outer Dimensions	Height	in. (mm)	11-3/4	(298)	11-3/4	(298)	11-3/4	(298)	11-3/4	(298)			
	Width	in. (mm)	33-1/16	(840)	33-1/16	(840)	33-1/16	(840)	33-1/16	(840)			
	Depth	in. (mm)	33-1/16	(840)	33-1/16	(840)	33-1/16	(840)	33-1/16	(840)			
Net Weight		lbs. (kg)	57	(26)	57	(26)	57	(26)	57	(26)			
Refrigerant						R4	10A						
Indoor Fan	Airflow Rate	cfm	953-812	-635-494	1306-109	4-847-706	1306-116	5-918-741	1306-123	6-988-777			
	(Hi2-Hi-Me-Lo)	(m³/min)	(27-23	-18-14)	(37-31	-24-20)	(37-33	-26-21)	(37-35	-28-22)			
Motor Nominal Outp	ut	W	5	7	12	27	12	27	12	27			
Connections	onnections												
Refrigerant Piping					Flar	e-Nut Connecti	tion (with Flare Nuts)						
	Liquid Line	in.(mm)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)			
	Gas Line	in.(mm)	5/8	(15.88)	5/8	(15.88)	5/8	(15.88)	5/8	(15.88)			
Condensate Drain	OU	in.(mm)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)			

NOTES:

1. Nominal capacity conditions are based on AHRI standard. Visit www.ahrinet.org for more information.

2. The sound pressure level is based on the following conditions: 4.9 ft. (1.5m) beneath the units. The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

Adaptable Panel M	lodel		Stand	dard	Silent-Iconic
			P-AP160NA2 (without Motion and Radiant Heat Sensors)	P-AP160NAE1 (with Motion and Radiant Heat Sensors)	P-GP160NAP
(applies to all mod	applies to all models)			3	
Color				Neutral White	
Outer Dimensions	Height	in.(mm)	1-9/16 (40)	1-9/16 (40)	2-1/16 (52)
	Width	in.(mm)	37-3/8 (950)	37-3/8 (950)	37-3/8 (950)
	Depth	in.(mm)	37-3/8 (950)	37-3/8 (950)	37-3/8 (950)
Net Weight		lbs(kg)	14 (6.5)	14 (6.5)	19 (8.5)

INDOOR UNITS

(NON-DUCTED)

Ceiling Suspended indoor units have a stylized design and color that make them among the most elegant units on the market. Units are equipped with an automatic swing louver to ensure even air distribution.



Capacities 15,000 to 36,000 Btu/hr



Key Features

- New fan design for high efficiency and low noise
- Flexible installation for high ceilings
- Cooling and heating autochangeover dual-setpoint control
- Setback temperature control
- Auxiliary/emergency heater control
- Sensor enables remote reading of air supply temperature
- GentleCool feature enables discharge air temperature to be set, eliminating the rush of cold air that can occur when air conditioning first comes on for more comfortable cooling.
- Optional energy-saving motion and radiant heat sensor for optimized airflow and temperature control in response to room occupancy

Tonnage				1	.3	2	.0	2	.5	3	.0
Ceiling Suspende	d Indoor Uni	t Model #		HICS015	B2(1,2)S	HICS024	B2(1,2)S	HICS030	B2(1,2)S	HICS036	B2(1,2)S
Power Supply						1	AC 1Phase, 20	08/230V, 60Hz			
Nominal Cooling Co	apacity ¹	Btu / h	(kW)	15,000	(4.4)	24,000	(7.0)	30,,000	(8.8)	36,000	(10.5)
Nominal Heating C	apacity ¹	Btu / h	(kW)	17,000	(5.0)	27,000	(7.9)	34,000	(10.0)	40,000	(11.7)
Sound Pressure Lev (Overall A Scale) (H		dB		38-35	-31-28	43-40	-36-31	44-42	-37-32	48-45	-41-35
Outer Dimensions	Height	in.	(mm)	9-1/4	(235)	9-1/4	(235)	9-1/4	(235)	9-1/4	(235)
	Width	in.	(mm)	37-13/16	(960)	50	(1270)	62-3/16	(1580)	62-3/16	(1580)
	Depth	in.	(mm)	27-3/16	(690)	27-3/16	(690)	27-3/16	(690)	27-3/16	(690)
Net Weight		lbs.	(kg)	59	(27)	77	(35)	90	(41)	90	(41)
Refrigerant					R410A						
Indoor Fan	Airflow Rate		cfm	530-459	-388-318	847-741-635-512		1059-935-777-600		1236-1094-900-706	
	(Hi2-Hi-Me-L	.0)	(m3/min)	(15-13	3-11-9)	(24-21-	18-14.5)	(30-26.5	5-22-17)	(35-31-2	25.5-20)
Motor Nominal Out	put		W	5	0	8	0	16	50	16	50
Connections								,			
Refrigerant Piping						Flar	e-Nut Connecti	on (with Flare N	uts)		
	Liquid Line		in. (mm)	1/4	(6.35)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)
	Gas Line		in. (mm)	1/2	(12.70)	5/8	(15.88)	5/8	(15.88)	5/8	(15.88)
Condensate Drain	OU		in. (mm)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)

- Nominal capacity conditions are based on AHRI standard.
 Visit www.ahrinet.org for more information.
- Visit www.ahrinet.org for more information.

 2. The sound pressure level is based on the following conditions: 4.9 ft. (1.5m) beneath the units.

 The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

Ceiling Suspended			
Compatible Accessories	HICS015B2(1,2)S	HICS024B2(1,2)S	HICS030-036B2(1,2)S
Filter Box	B-56MP	B-90MP	B-160MP
IR Receiver Kit	CSIRK01	CSIRK01	CSIRK01
Condensate Pump Kit	DUPC-63K1	DUPC-160K1	DUPC-160K1
3-Pin Connector Cable	PCC-1A	PCC-1A	PCC-1A
Connector Cable for Auxiliary Heater	PCC-CN8-H	PCC-CN8-H	PCC-CN8-H
Duct Adapter	PD-100	PD-100	PD-100
Relay and 3-Pin Connector Kit	PSC-5RA	PSC-5RA	PSC-5RA
Motion Sensor Kit (for Ceiling Suspended)	SOR-NEP	SOR-NEP	SOR-NEP
Remote Sensor (Control)	THM-R2A	THM-R2A	THM-R2A

INDOOR UNITS WALL MOUNT

(NON-DUCTED)

Wall Mount indoor units include wide-angle louvers that distribute airflow comfortably. An auto-swing function ensures efficient air distribution and uniform temperature throughout the conditioned space. Condensate piping can be connected at the right, left or rear of the unit for ease of installation.



Capacities: 6,000 to 30,000 Btu/hr



Tonnage			0.	5	0.	.7	1.	0			1.3	
Wall Mount Indoor	Unit Model #		TIWM006	B2(1,2)S	TIWM008	TIWM008B2(1,2)S		TIWM012B2(1,2)S		15B21S	TIWM015B22S	
Power Supply					1		AC 1Phase, 2	08/230V, 60H	z			
Nominal Cooling Capacity ¹		Btu/h	6,0	00	8,0	00	12,0	000		15	5,000	
		(kW)	(1.	8)	(2.	.3)	(3.	5)		(-	4.4)	
Nominal Heating Ca	pacity ¹	Btu/h	6,7	00	9,0	00	13,	500		17	7,000	
		(kW)	(2.	0)	(2.	.6)	(4.	0)		(.	5.0)	
Sound Pressure Leve (Overall A Scale) (Hi		dB	39-35-	32-30	39-35-	-32-30	46-40-	36-33	42-40	-38-33	40-37	-34-31
Outer Dimensions	Height	in.(mm)	11-13/16	(300)	11-13/16	(300)	11-13/16	(300)	13-1/8	(333)	11-13/16	(300)
	Width	in.(mm)	31-1/8	(790)	31-1/8	(790)	35-7/16	(900)	45-1/4	(1150)	43-5/16	(1100)
	Depth	in.(mm)	9-1/16	(230)	9-1/16	(230)	9-1/16	(230)	9-5/8	(245)	10-1/4	(260)
Net Weight		lbs.(kg)	22	(10)	22	(10)	24	(11)	35	(16)	32	(15)
Refrigerant					R41	LOA						
Indoor Fan	Airflow Rate	cfm	353-282-	247-229	353-282-247-229		494-388-318-265		530-494-459-353		512-459-388-335	
	(Hi2-Hi-Me-Lo)	(m³/min)	(10-8-	7-6.5)	(10-8-	7-6.5)	(14-11	-9-7.5)	(15-14	-13-10)	(14.5-13	3-11-9.5)
Motor Nominal Outp	ut	W	3	8	3	8	3	8			38	
Connections												
Refrigerant Piping						Flare	-Nut Connecti	on (with Flar	e Nuts)			
	Liquid Line	in.(mm)	1/4	(6.35)	1/4	(6.35)	1/4	(6.35)	1/4	(6.35)	1/4	(6.35)
	Gas Line	in.(mm)	1/2	(12.70)	1/2	(12.70)	1/2	(12.70)	1/2	(12.70)	1/2	(12.70)
Condensate Drain	OU	in.(mm)	7/8	(22)	7/8	(22)	7/8	(22)	7/8	(22)	7/8	(22)
	IU	in.(mm)	5/8	(16)	5/8	(16)	5/8	(16)	5/8	(16)	5/8	(16)

Indoor Units — Non-Ducted

WALL MOUNT (NON-DUCTED) (CONTINUED)

Key Features

- Removable front panel for easy cleaning.
- Built-in wireless sensor for use with optional wireless zone controller.
- Auxiliary/emergency heater control
- Setback temperature control
- Cooling and heating auto-changeover dual-setpoint control
- GentleCool feature enables discharge air temperature to be set, eliminating the rush of cold air that can occur when air conditioning first comes on for more comfortable cooling.
- Sensor enables remote reading of air supply temperature
- Optional condensate pump

Tonnage				1	5			2	2.0			2	2.5	
Wall Mount Indoor	Unit Model#		TIWM0	18B21S	TIWM0:	18B22S	TIWM0	24B21S	TIWM02	24B22S	TIWM0	30B21S	TIWM03	0B22S
Power Supply		AC 1Phase, 208/230V, 60Hz												
Nominal Cooling Cap	pacity ¹	Btu/h		18,	,000			24	,000			30	,000	
		(kW)		(5	i.3)			(7	7.0)			3)	3.8)	
Nominal Heating Ca	pacity ¹	Btu/h		20,	,000			27	,000			34	,000	
		(kW)		(5	i.8)			(7	7.9)			(1	0.0)	
Sound Pressure Leve (Overall A Scale) (Hi		dB	49-43-	40-36	45-42-	38-35	51-49	-46-41	49-46-	42-38	51-49	-46-41	51-48-	44-39
Outer Dimensions	Height	in.(mm)	13-1/8	(333)	11-13/16	(300)	13-1/8	(333)	11-13/16	(300)	13-1/8	(333)	11-13/16	(300)
	Width	in.(mm)	45-1/4	(1150)	43-5/16	(1100)	45-1/4	(1150)	43-5/16	(1100)	45-1/4	(1150)	43-5/16	(1100)
	Depth	in.(mm)	9-5/8	(245)	10-1/4	(260)	9-5/8	(245)	10-1/4	(260)	9-5/8	(245)	10-1/4	(260)
Net Weight		lbs.(kg)	37	(17)	33	(15)	37	(17)	33	(15)	37	(17)	33	(15)
Refrigerant								R4	10A					
Indoor Fan	Airflow Rate	cfm	671-600-	494-424	653-582-	494-423	777-671-600-530 759-670-582-494			582-494	4 777-671-600-530 812-706		812-706-	618-512
	(Hi2-Hi-Me-Lo)	(m³/min)	(19-17-	14-12)	(18.5-16.	5-14-12)	(22-19	-17-15)	(21.5-19-	16.5-14)	(22-19	-17-15)	(23-20-17	7.5-14.5)
Motor Nominal Outp	ut	W		3	38			3	38			3	38	
Connections														
Refrigerant Piping							Flare-Nu	it Connect	ion (with Fla	re Nuts)				
Liquid Line in.(mm		in.(mm)	3/8 (9.52)				3/8	(9.52)			3/8	(9.52)		
Gas Line in.(mm)		in.(mm)	5/8 (15.88)			5/8 (15.88)			5/8 (15.88)					
Condensate Drain	OU	in.(mm)		7/8	(22)		7/8 (22)			7/8 (22)				
	IU	in.(mm)		5/8	(16)			5/8	(16)		5/8 (16)			

The sound pressure level is based on the following conditions:
 3.3ft (1m) Front of the Unit and 3.3ft (1m) Below the Unit.
 The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

Wall Mount Indoor Unit		
Compatible Accessories	TIWM006-015B2(1,2)S	TIWM018-030B2(1,2)S
Infrared (IR) Receiver Kit	CWDIRK01	CWDIRK01
Strainer Kit	MSF-NP63A	MSF-NP112A
3-Pin Connector Cable	PCC-1A	PCC-1A
Connector Cable for Auxiliary Heater	PCC-CN8-H	PCC-CN8-H
Relay and 3-Pin Connector Kit	PSC-5RA	PSC-5RA
Remote Sensor (Control)	THM-R2A	THM-R2A
Condensate Drain Pump	DPWM-83819	DPWM-83819

Nominal capacity conditions are based on AHRI standard.
 Visit www.ahrinet.org for more information.

FLOOR EXPOSED (NON-DUCTED)

Floor Exposed indoor units have a slim-line design compatible with the style of the room.



Capacities 6,000 to 15,000 Btu/hr



Key Features

- 8.7-inch (220 mm) depth preserves room space
- 24.8-inch height leaves ample window space
- Ideal for perimeter zone air conditioning
- Setback temperature control
- Sensor enables remote reading of air supply temperature
- Auxiliary/emergency heater control
- Cooling and heating autochangeover dual-setpoint control

Tonnage				0	.5	0	.7	1	.0	1.	3	
Floor Exposed Indo	or Unit Model	#		HIFE00	06B21S	HIFE00	08B21S	HIFE01	12B21S	HIFE01	5B21S	
Indoor Unit Power Su	pply						AC 1Phase, 20	08/230V, 60Hz				
Nominal Cooling Cap	acity ¹	Btu / h	(kW)	6,000	(1.8)	8,000	(2.3)	12,000	(3.5)	15,000	(4.4)	
Nominal Heating Cap	acity ¹	Btu / h	(kW)	6,700	(2.0)	9,000	(2.6)	13,500	(4.0)	17,000	(5.0)	
Sound Pressure Leve (Overall A Scale) (Hi-		dB		39-3	33-29	39-3	3-29	43-3	5-32	48-4	3-36	
Outer Dimensions	Height	in.	(mm)	24-13/16	(630)	24-13/16	(630)	24-13/16	(630)	24-13/16	(630)	
	Width	in.	(mm)	41-1/8	(1045)	41-1/8	(1045)	46-1/16	(1170)	55-7/8	(1420)	
	Depth	in.	(mm)	8-11/16	(220)	8-11/16	(220)	8-11/16	(220)	8-11/16	(220)	
Net Weight		lbs.	(kg)	61	(28)	61	(28)	68	(31)	79	(36)	
Refrigerant					R410A							
Indoor Fan	Airflow Rate		cfm	300-2	47-212	300-2	47-212	424-3	53-318	565-49	14-388	
	(Hi-Me-Lo)		(m3/min)	(8.5	-7-6)	(8.5	-7-6)	(12-	10-9)	(16-1-	4-11)	
Motor Nominal Outp	ıt		W	2	20	2	.0	2	8	4.	5	
Connections												
Refrigerant Piping	Refrigerant Piping					Flar	e-Nut Connecti	on (with Flare N	luts)			
	Liquid Line	in.	(mm)	1/4	(6.35)	1/4	(6.35)	1/4	(6.35)	1/4	(6.35)	
	Gas Line	in.	(mm)	1/2	(12.70)	1/2	(12.70)	1/2	(12.70)	1/2	(12.70)	
Condensate Drain	OU	in.	(mm)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)	

- Nominal capacity conditions are based on AHRI standard.
 Visit www.ahrinet.org for more information.
 The sound pressure level is based on the following
- The sound pressure level is based on the following conditions: 4.9 ft. (1.5m) beneath the units.
 The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

Floor Exposed	
Compatible Accessories	HIFE006-015B21S
Infrared (IR) Receiver Kit	CWDIRK01
3-Pin Connector Cable	PCC-1A
Connector Cable for Auxiliary Heater	PCC-CN1925-H
Relay and 3-Pin Connector Kit	PSC-5RA
Remote Sensor (Control)	THM-R2A

DUCTED HIGH STATIC

These indoor units now feature higher static pressure: Up to 0.8" for 1.3 - 4.5 ton units and up to 1.16" for 6 and 8 ton units.



Capacities: 15,000 to 96,000 Btu/hr



Tonnage			1	.3	1	.5	2	.0	2	.3	2	.5
Ducted High Static	Indoor Unit Mod	el#	HIDH015	B2(2,3)S	HIDH018	3B2(2,3)S	HIDH024B2(2,3)S		HIDH027	B2(2,3)S	HIDH030B2(2,3)S	
Power Supply						,	AC 1 Phase, 2	08/230V, 60H	lz			
Nominal Cooling Cap	pacity ¹	Btu/h	15,000		18,	18,000		000	27,	000	30,000	
		(kW)	(4	.4)	(5	.3)	(7	.1)	(8	.0)	(8.	.8)
Nominal Heating Cap	pacity ¹	Btu/h	17,	000	20,	000	27,	000	30,	000	34,	000
		(kW)	(5	.0)	(5	.9)	(8	.0)	(8	.8)	(10	0.0)
Sound Pressure Leve (Overall A Scale) (Hi2		dB	41-38	-35-32	37-35	-32-30	40-37	-34-32	40-37	-34-32	40-37	-34-32
Outer Dimensions	Height	in.(mm)	11-13/16	(300)	11-13/16	(300)	11-13/16	(300)	11-13/16	(300)	11-13/16	(300)
	Width	in.(mm)	27-9/16	(700)	41-5/16	(1050)	41-5/16	(1050)	41-5/16	(1050)	55-1/8	(1400)
	Depth	in.(mm)	31-1/2	(800)	31-1/2	(800)	31-1/2	(800)	31-1/2	(800)	31-1/2	(800)
Net Weight		lbs.(kg)	64	(29)	84	(38)	84	(38)	84	(38)	106	(48)
Refrigerant							R4:	LOA				
Indoor Fan	Airflow Rate	cfm	512-459	-388-335	653-582-512-424		759-671-582-494		759-671-582-494		1059-935-812-706	
	(Hi2-Hi-Me-Lo)	(m3/min)	(14.5-13	-11-9.5)	(18.5-16.5	5-14.5-12)	(21.5-19	-16.5-14)	(21.5-19	-16.5-14)	(30-26.5	5-23-20)
External Pressure ³ St	d (High1 - High2)	in. W.G.	0.2 (0.	4-0.8)	0.2 (0	.4-0.8)	0.2 (0	4-0.8)	0.2 (0	4-0.8)	0.2 (0.	4-0.8)
		(Pa)	(50 (10	0-200))	(50 (10	0-200))	(50 (10	0-200))	(50 (10	0-200))	(50 (10	0-200))
Motor Nominal Outp	ut	W	1!	57	19	90	19	90	19	90	2!	59
Connections												
Refrigerant Piping	Refrigerant Piping					Flare-I	Nut Connecti	on (with Flar	re Nuts)			
	Liquid Line	in.(mm)	1/4	(6.35)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)
	Gas Line	in.(mm)	1/2	(12.7)	5/8	(15.88)	5/8	(15.88)	5/8	(15.88)	5/8	(15.88)
Condensate Drain	OU	in. (mm)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)

B at the Lord				
Ducted High Static				
Compatible Accessories	HIDH015B2(2,3)S	HIDH018-027B2(2,3)S	HIDH030-054B2(2,3)S	HIDH072-096B21S
Filter Box for Long-Life Filter	B-56LI	B-90LI	B-160LI	_
Infrared (IR) Receiver Kit	CWDIRK01	CWDIRK01	CWDIRK01	CWDIRK01
Long-Life Filter	F-56LI	F-90LI	F-160LI	_
3-Pin Connector Cable	PCC-1A	PCC-1A	PCC-1A	PCC-1A
Connector Cable for Auxiliary Heater	PCC-6A	PCC-6A	PCC-6A	PCC-CN1925-H
Relay and 3-Pin Connector Kit	PSC-5RA	PSC-5RA	PSC-5RA	PSC-5RA
Motion Sensor Kit (for Ducted Indoor Units)	SOR-NEZ	SOR-NEZ	SOR-NEZ	_
Seismic Suspension Bracket	_	_	_	SSB-IDH01
Remote Sensor (Control)	THM-R2A	THM-R2A	THM-R2A	THM-R2A

DUCTED HIGH STATIC (CONTINUED)

Key Features

- High-efficiency AC fan motor
- Multiple fan speed settings
- Access from underneath for easy service
- Built-in condensate pump
- Auxiliary/emergency heater control
- Sensor enables remote reading of air supply temperature
- Cooling and heating autochangeover dual-setpoint control
- GentleCool feature enables discharge air temperature to be set, eliminating the rush of cold air that can occur when air conditioning first comes on for more comfortable cooling.



Capacities: 15,000 to 96,000 Btu/hr

Tonnage			3.	.0	4.	.0	4.	5	6	.0	8	.0
Ducted High Static In	door Unit Mode	l #	HIDH036	B2(2,3)S	HIDH048	B2(2,3)S	HIDH054	B2(2,3)S	HIDH0	72B21S	HIDH09	96B21S
Power Supply					1	F	AC 1 Phase, 20	08/230V, 60H	łz			
Nominal Cooling Capac	city 1	Btu/h	36,0	000	48,	000	54,0	000	72,000		96,000	
		(kW)	(10	.6)	(14.1)		(15.8)		(21	1.1)	(28	3.2)
Nominal Heating Capac	city ¹	Btu/h	40,000		54,	000	60,0	000	81,	000	108	,000
		(kW)	(11.8)		(15	5.8)	(17	.6)	(23	3.8)	(31	1.7)
Sound Pressure Level ² (Overall A Scale) (Hi2-Hi-Me-Lo) [(Hi-Lo) (208/230V) for 6.0, 8.0 Ton]		dB	42-39-	36-33	44-40-37-34		44-40-	37-34	47-43	/50-47	51-46,	/54-50
Outer Dimensions	Height	in.(mm)	11-13/16	(300)	11-13/16	(300)	11-13/16	(300)	18-3/8	(466)	18-3/8	(466)
	Width	in.(mm)	55-1/8	(1400)	55-1/8	(1400)	55-1/8	(1400)	49-3/16	(1250)	49-3/16	(1250)
	Depth	in.(mm)	31-1/2	(800)	31-1/2	(800)	31-1/2	(800)	44-1/8	(1120)	44-1/8	(1120)
Net Weight		lbs.(kg)	106	(48)	106	(48)	106	(48)	258	(117)	258	(117)
Refrigerant			R410A									
Indoor Fan	Airflow Rate	cfm	1183-1043	L-918-777	1271-1112-971-847		1271-1112-971-847		2047-1765		2542-2189	
	(Hi2-Hi-Me-Lo)	(m3/min)	(33.5-29.	5-26-22)	(36-31.5	-27.5-24)	(36-31.5-27.5-24)		(58.0-50.0)		(72.0-62.0)	
External Pressure 3 Std		in. W.G.	0.2 (0.	4-0.8)	0.2 (0.	4-0.8)	0.2 (0.	4-0.8)	0.28/0.64	(0.88/1.16)	0.32/0.64	(0.88/1.16)
[(Std (High)) (208/230V)	for 6.0, 8.0 Ton]	(Pa)	(50 (10	0-200))	(50 (10	0-200))	(50 (10	0-200))	(70/160 (220/290))	(80/160 (220/240))
Motor Nominal Output		W	25	59	2!	59	25	59	840 (42	0x2pcs)	1240 (62	20x2pcs)
Connections												
Refrigerant Piping			Flare-N	lut Connecti	on (with Flai	re Nuts)		Brazed		Bra	zed	
	Liquid Line	in.(mm)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)
	Gas Line	in.(mm)	5/8	(15.88)	5/8	(15.88)	5/8	(15.88)	3/4	(19.05)	7/8	(22.20)
Condensate Drain	OU	in. (mm)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)

- 1. Nominal capacity conditions are based on AHRI standard. Visit www.ahrinet.org for more information.
- 2. The sound pressure level is based on the following conditions: 4.9 ft. (1.5m) beneath the unit. The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.
- 3. The data for external pressure 3 indicates Standard Pressure Setting (High Pressure Setting 1 High Pressure Setting 2) values when a filter is not used. The sound pressure level is based on the Standard Pressure Setting.

INDOOR UNITS DUCTED MEDIUM ST

DUCTED MEDIUM STATIC These indoor units feature higher static pressure: up to 0.6" for Medium Static Indoor Units.



Capacities: 6,000 to 54,000 Btu/hr



Tonnage			0	.5	0	.7	1.	.0	1	.3	1.5	
Ducted Medium St	atic Indoor Unit Mo	odel #	HIDM006	5B2(2,3)S	HIDM008	3B2(2,3)S	HIDM012	B2(2,3)S	HIDM015	5B2(2,3)S	HIDM018	B2(2,3)S
Power Supply			'			Α	C 1 Phase, 20	08/230V, 60H	lz			
Nominal Cooling Ca	pacity ¹	Btu/h	6,0	000	8,0	000	12,000		15,000		18,000	
		(kW)	(1	(1.8)		.4)	(3.	.6)	(4	.4)	(5.	.3)
Nominal Heating Ca	pacity ¹	Btu/h	6,7	700	9,0	000	13,	500	17,	000	20,0	000
(kW)		(2	.0)	(2	.7)	(4.	.0)	(5	.0)	(5.	.9)	
Sound Pressure Level ² dB (Overall A Scale) (Hi2-Hi-Me-Lo)		32-30	-28-27	33-31	-29-28	38-35-	-32-30	40-37	-34-31	37-35-	-33-31	
Outer Dimensions	Height	in. (mm)	9-13/16	(250)	9-13/16	(250)	9-13/16	(250)	9-13/16	(250)	9-13/16	(250)
	Width	in. (mm)	27-9/16	(700)	27-9/16	(700)	27-9/16	(700)	27-9/16	(700)	41-5/16	(1050)
	Depth	in. (mm)	31-1/2	(800)	31-1/2	(800)	31-1/2	(800)	31-1/2	(800)	31-1/2	(800)
Net Weight lbs. (kg)		57	(26)	57	(26)	60	(27)	60	(27)	79	(36)	
Refrigerant				R410A								
Indoor Fan	Airflow Rate	cfm	300-265	-229-194	335-300-265-229		459-406-353-300		512-459	-388-335	653-582-494-42	
	(Hi2-Hi-Me-Lo)	(m3/min)	(8.5-7.5	-6.5-5.5)	(9.5-8.5	-7.5-6.5)	(13-11.5	-10-8.5)	(14.5-13	3-11-9.5)	(18.5-16.	.5-14-12)
External Pressure ³ S	td (High1-High2)	in. W.G.	0.2 (0	.4-0.6)	0.2 (0.	.4-0.6)	0.2 (0.4-0.6)		0.2 (0.	.4-0.6)	0.2 (0.	4-0.6)
		(Pa)	(50 (10	0-150))	(50 (10	0-150))	(50 (100-150))		(50 (10	0-150))	(50 (10	0-150))
Motor Nominal Outp	out	W	15	57	15	57	15	57	15	57	19	90
Connections					•							
Refrigerant Piping	efrigerant Piping					Flare-N	lut Connecti	on (with Flai	e Nuts)			
	Liquid Line	in. (mm)	1/4	(6.35)	1/4	(6.35)	1/4	(6.35)	1/4	(6.35)	3/8	(9.52)
	Gas Line	in. (mm)	1/2	(12.7)	1/2	(12.7)	1/2	(12.7)	1/2	(12.7)	5/8	(15.88)
Condensate Drain	OU	in. (mm)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)

Ducted Medium Static			
Compatible Accessories	HIDM006-015B2(2,3)S	HIDM018-027B2(2,3)S	HIDM030-054B2(2,3)S
Filter Box for Long-Life Filter	B-56LI	B-90LI	B-160LI
Infrared (IR) Receiver Kit	CWDIRK01	CWDIRK01	CWDIRK01
Long-Life Filter	F-56LI	F-90LI	F-160LI
3-Pin Connector Cable	PCC-1A	PCC-1A	PCC-1A
Connector Cable for Auxiliary Heater	PCC-6A	PCC-6A	PCC-6A
Relay and 3-Pin Connector Kit	PSC-5RA	PSC-5RA	PSC-5RA
Motion Sensor Kit (for Ducted Indoor Units)	SOR-NEZ	SOR-NEZ	SOR-NEZ
Remote Sensor (Control)	THM-R2A	THM-R2A	THM-R2A

DUCTED MEDIUM STATIC (CONTINUED)

Key Features

- High-efficiency DC fan motor
- Multiple fan speed settings
- Up to 0.6 in. WG static pressure
- Access from underneath for easy service and troubleshooting
- Built-in condensate pump
- Auxiliary/emergency heater control
- Setback temperature control
- Cooling and heating autochangeover dual-setpoint control
- GentleCool feature enables discharge air temperature to be set, eliminating the rush of cold air that can occur when air conditioning first comes on for more comfortable cooling.

Tonnage			2.	.0	2	.3	2.	5	3.		4.	.0	4.	.5
Ducted Medium St	atic Indoor Unit I	Model#	HIDM024	B2(2,3)S	HIDM027	'B2(2,3)S	HIDM030	B2(2,3)S	HIDM036	B2(2,3)S	HIDM048	B2(2,3)S	HIDM054	B2(2,3)S
Power Supply							AC	1 Phase, 2	08/230V, 60)Hz				
Nominal Cooling Cap	pacity ¹	Btu/h	24,0	000	27,	000	30,000		36,000		48,0	000	54,	000
		(kW)	(7.1)		(8	.0)	(8.	8)	(10).6)	(14	.1)	(15	i.8)
Nominal Heating Capacity 1 Btu/h		Btu/h	27,0	27,000 30,000		34,000		40,0	000	54,0	000	60,	000	
(kW)		(kW)	(8.	.0)	(8	.8)	(10	.0)	(11	8)	(15	i.8)	(17	7.6)
Sound Pressure Level ² (Overall A Scale) (Hi2-Hi-Me-Lo) dB		dB	39-37-	-34-32	39-37	-34-32	40-38-	35-32	42-39-	-36-34	43-40-	-37-34	43-40-	-37-34
Outer Dimensions	Height	in.(mm)	9-13/16	(250)	9-13/16	(250)	9-13/16	(250)	9-13/16	(250)	9-13/16	(250)	9-13/16	(250)
	Width	in.(mm)	41-5/16	(1050)	41-5/16	(1050)	55-1/8	(1400)	55-1/8	(1400)	55-1/8	(1400)	55-1/8	(1400)
	Depth	in.(mm)	31-1/2	(800)	31-1/2	(800)	31-1/2	(800)	31-1/2	(800)	31-1/2	(800)	31-1/2	(800)
Net Weight		lbs.(kg)	79	(36)	79	(36)	97	(44)	97	(44)	97	(44)	97	(44)
Refrigerant								R4	10A					
Indoor Fan	Airflow Rate	cfm	759-671-	-582-494	759-671	-582-494	1059-935-812-706		1183-1041-918-777		1271-1112-971-847		1271-111	2-971-847
	(Hi2-Hi-Me-Lo)	(m3/min)	(21.5-19-	16.5-14)	(21.5-19	-16.5-14)	(30-26.5-23-20)		(33.5-29.5-26-22)		(36-31.5-27.5-24)		(36-31.5	-27.5-24)
External Pressure ³ S	td (High1-High2)	in. W.G.	0.2 (0.	4-0.6)	0.2 (0.	.4-0.6)	0.2 (0.	4-0.6)	0.2 (0.4-0.6)		0.2 (0.	4-0.6)	0.2 (0.	4-0.6)
		(Pa)	(50 (10	0-150))	(50 (10	0-150))	(50 (10	0-150))	(50 (10	0-150))	(50 (10	0-150))	(50 (10	0-150))
Motor Nominal Outp	ut	W	19	90	19	90	25	59	25	59	25	59	25	59
Connections														
Refrigerant Piping	Refrigerant Piping						Flare-Nu	t Connecti	ion (with Flare Nuts)					
	Liquid Line	in.(mm)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)
	Gas Line	in.(mm)	5/8	(15.88)	5/8	(15.88)	5/8	(15.88)	5/8	(15.88)	5/8	(15.88)	5/8	(15.88)
Condensate Drain	OU	in. (mm)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)

- Nominal capacity conditions are based on AHRI standard. Visit www.ahrinet.org for more information.
- The sound pressure level is based on the following conditions:4.9 ft. (1.5m) beneath the unit. The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.
- The data for external pressure 3 indicates Standard Pressure Setting (High Pressure Setting 1 - High Pressure Setting 2) values when a filter is not used. The sound pressure level is based on the Standard Pressure Setting.

U-VIJS DUCTED SLIM



Capacities: 6,000 to 18,000 Btu/hr



Key Features

- High-efficiency DC fan motor
- Multiple fan speed settings
- Up to .20 in. WG static pressure
- Access from underneath for easy service and troubleshooting
- Built-in condensate pump
- Setback temperature control
- Auxiliary/emergency heater control
- Cooling and heating autochangeover dual-setpoint control
- Sensor enables remote reading of air supply temperature

Tonnage			0.	5	0	.7	1.	0	1.	.3	1.5	
Ducted Slim Indoo	r Unit Model #		HIDS00	6B21S	HIDS0	08B21S	HIDS01	2B21S	HIDS01	L5B21S	HIDS01	L8B21S
Power Supply						AC	1 Phase, 208	/230V, 60Hz				
Nominal Cooling Cap	pacity ¹	Btu/h	6,0	00	8,0	000	12,000		15,000		18,000	
		(kW)	(1.8)		(2	(2.3)		5)	(4.	.4)	(5.	.3)
Nominal Heating Cap	pacity ¹	Btu/h	6,700		9,0	9,000		500	17,	000	20,	000
(kW)		(kW)	(2.	0)	(2	.6)	(4.	.0)	(5.	.0)	(5.	.9)
	Sound Pressure Level dB (Overall A Scale) (Hi2-Hi-Me-Lo)		32-30-	29-27	32-30	-29-27	34-33.5	5-33-32	36-35-	-33-32	40-38-	-36-34
Outer Dimensions	Height	in.(mm)	7-9/16	(192)	7-9/16	(192)	7-9/16	(192)	7-9/16	(192)	7-9/16	(192)
	Width	in.(mm)	35-3/4	(908)	35-3/4	(908)	35-3/4	(908)	46-3/8	(1178)	46-3/8	(1178)
	Depth	in.(mm)	17-19/32	(447)	17-19/32	(447)	17-19/32	(447)	17-19/32	(447)	17-19/32	(447)
Net Weight		lbs.(kg)	44	(20)	44	(20)	46	(21)	57	(26)	57	(26)
Refrigerant							R410	A				
Indoor Fan	Airflow Rate	cfm	318-289-	244-205	318-289-244-205		346-318-300-268		512-477-441-381		582-530-494-424	
	(Hi2-Hi-Me-Lo)	(m3/min)	(9-8-	7-6)	(9-8	-7-6)	(10-9-9-8)		(15-14-13-11)		(17-15-14-12)	
External Pressure ² St	d (High-Low)	in. W.G.	0.04 (0.1	.2-0.00)	0.04 (0.	12-0.00)	0.04 (0.12-0.00)		0.04 (0.2	20-0.00)	0.04 (0.2	20-0.00)
		(Pa)	(10 (3	0-0))	(10 (30-0))	(10 (3	(0-0)	(10 (5	50-0))	(10 (5	50-0))
Motor Nominal Outp	ut	W	4)	4	0	4	0	6	0	6	0
Connections												
Refrigerant Piping						Flare-Nu	t Connection	ı (with Flare	Nuts)			
	Liquid Line	in.(mm)	1/4	(6.35)	1/4	(6.35)	1/4	(6.35)	1/4	(6.35)	3/8	(9.52)
	Gas Line	in.(mm)	1/2	(12.70)	1/2	(12.70)	1/2	(12.70)	1/2	(12.70)	5/8	(15.88)
Condensate Drain	OU	in.(mm)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)

- Nominal capacity conditions are based on AHRI standard. Visit www. ahrinet.org for more information.
- ahrinet.org for more information.

 2. Data values when a filter is not used.

Compatible Accessories	HIDS006-012B21S	HIDS015-018B21S
Infrared (IR) Receiver Kit	CWDIRK01	CWDIRK01
Air Filter	KW-PP5Q	KW-PP6Q
3-Pin Connector Cable	PCC-1A	PCC-1A
Connector Cable for Auxiliary Heater Control	PCC-CN8-H	PCC-CN8-H
Relay and 3-Pin Connector Kit	PSC-5RA	PSC-5RA
Remote Sensor (Control)	THM-R2A	THM-R2A

LANDO R U-VICTOR ECONOFRESH ECONOMIZER



The EconoFresh unit includes the Economizer Kit and a ducted Medium Static unit in a choice of three capacities: 30,000, 36,000 or 48,000 Btu/hr.



The exclusive EconoFresh unit is a combination of a ducted Medium Static unit paired with an Economizer Kit to provide up to 100% outside air/free cooling when conditions are favorable. Seamlessly integrating with VRF systems, the unit contributes to energy savings and improves air quality.

Key Features

- Excellent for applications with cooling demand during mid seasons and winter
- Inputs for optional CO₂ and enthalpy sensors are available for control based on indoor air quality or temperature/humidity.
- Remote control setting of the outside air damper opening to ensure minimum outside airflow requirements are met.
- Auxiliary/emergency heater control
- Setback temperature control
- Cooling and heating auto-changeover dual-setpoint control
- Sensor enables remote reading of air supply temperature

Tonnage			2	.5	3	.0	4	.0				
EconoFresh (Econor a ducted Medium S		- Model #	HIDM0:	30B21E	HIDM03	36 B 21E	HIDM04	48B21E				
Power Supply			AC 1 Phase, 208/230V, 60Hz									
Nominal Cooling Cap	pacity *	Btu/h	30,	000	36,000		48,	000				
		(kW)	(8.8)		(10.5)		(14.1)					
Nominal Heating Cap	pacity *	Btu/h	34,000		40,	000	54,	000				
		(kW)	(10.0)		(11	1.7)	(15	5.8)				
Sound Pressure Leve (Overall A Scale) (Hi-		dB	38-3	5-32	39-3	5-33	40-3	6-33				
Outer Dimensions	Height	in.(mm)	10-7/8	(275)	10-7/8	(275)	10-7/8	(275)				
Width		in.(mm)	58-1/16	(1474)	58-1/16	(1474)	58-1/16	(1474)				
Depth		in.(mm)	23-5/8	(600)	23-5/8	(600)	23-5/8	(600)				
Net Weight		lbs.(kg)	106	(48)	106	(48)	106	(48)				
Refrigerant					R4:	10A						
Indoor Fan	Airflow Rate ²	cfm	1059-953-847		1236-1094-988		1271-11	30-1024				
	(Hi-Me-Lo)	(m3/min)	(30-27-24)		(35-31-28)		(36-3	2-29)				
External Pressure ²		in. W.G.	0.17-0.	12-0.10	0.16-0.11-0.10		0.12-0.	10-0.08				
(High-Med-Low)		(Pa)	(43-3	0-25)	(40-2	8-25)	(30-2	5-20)				
Motor Nominal Outp	ut	W	2.	50	2.	50	250					
Connections												
Refrigerant Piping				Flare-N	lut Connecti	on (with Fla	re Nuts)					
	Liquid Line	in.(mm)	3/8	(9.52)	3/8	(9.52)		(9.52)				
	Gas Line	in.(mm)	5/8	(15.88)	5/8	(15.88)	5/8	(15.88)				
Condensate Drain	OU	in.(mm)	1-1/4	(32)	1-1/4	(32)	1-1/4	(32)				
Adaptable EconoFresh Kit Model			EF-456NE									
	Height	in. (mm)			10 (254)						
	Width	in. (mm)	55-1/2 (1410)									
	Depth in. (mm)				12-3/1	6 (270)						
	Net Weight	lbs. (kg)	28 (12.5)									

EcoFresh	
Compatible Accessories	HIDM030-048B21E
Infrared (IR) Receiver Kit	CWDIRK01
Air Filter	KW-PP456E
3-Pin Connector Cable	PCC-1A
Connector Cable for Auxiliary Heater	PCC-CN8-H
Relay and 3-Pin Connector Kit	PSC-5RA
Remote Sensor (Control)	THM-R2A

- $1. \ \ Nominal\ capacity\ condition\ is\ based\ on\ AHRI\ standard.\ See\ www.ahrinet.org\ for\ more\ information.$
- 2. Data values when a filter is not used.

ndoor Units — Ducted

MULTI-POSITION AIR HANDLER



Multi-Position Air Handler Capacities: 18,000 to 60,000 Btu/hr

Fully field installed integrated DX-Kit.

Key Features

- RC2 Rigid Case Construction interior endoskeleton for structural support, flush side, and to lock in insulation.
- Powder Painted G30 galvanized steel case provides a coated edge that resists corrosion and rust creep.
- MaxAlloy™ Coil Long life aluminum coils built to deliver lasting performance, efficiency and reliability.
- Quality Construction -Structural components are made of aluminum or G90 galvanized steel to prevent corrosion.
- Improved Insulation
 Design Single piece with
 no external screws to reduce
 thermal transmission paths
 to prevent sweating. Foil
 faced insulation for ease of
 cleaning.
- Case Depth Models are 20.5" deep which enables easy access even in tight applications.

- Thermoset Condensate Pan - Positive slope for condensate to reduce potential for mold or contaminants.
- Factory Sealed Achieves 2% or less total airflow leakage rate at duct leakage test conditions in positive and negative pressure for system airflow verification.
- Enhanced Filter Rack All models have integrated internal filter racks provided for use with 1" thick standard size filters
- Electric Heat Kits Field installed electric heat kits are available for installationfriendly and easy service applications.
- Blowers All models use direct-drive, multi-speed motors.
- **Fully connected** to the VRF system through the DX-Kit.
- Sensor enables remote reading of air supply temperature

MULTI-POSITION AIR HANDLER



Multi-Position Air Handl	er with DX-Kit												
Tonnage			1.5	Ton	2.0	Ton	2.5	Ton		3.0	Ton		
Model#			HMAHP	18B21S	НМАНР	HMAHP24B21S		HMAHP30B21S		HMAHP36B21S		36C21S	
Adaptable Air Handler M	lodel #		AP18BX21		AP24BX21		AP30BX21		AP36BX21		AP36CX21		
Indoor Unit Power Supply						A	AC 1 Phase, 2	08/230V, 60I	Нz				
Nominal Cooling Capacity	1	Btu/h	18,	000	24,000		30,000		36,000		36,	000	
		(kW)	(5	.3)	(7.0)		(8	(8.8)		1.5)	(10	0.5)	
Nominal Heating Capacity	1	Btu/h	20,000		27,000		34,000		40,	000	40,	000	
		(kW)	(5.9)		(7.9)		(10	0.0)	(11	7)	(1:	1.7)	
Outer Dimensions	Height	in. (mm)	41	(1041)	41	(1041)	47-1/2	(1207)	47-1/2	(1207)	51-1/2	(1308)	
	Width	in. (mm)	17-1/2	(445)	17-1/2	(445)	17-1/2	(445)	17-1/2	(445)	21	(533)	
	Depth	in. (mm)	27-7/16	(545)	27-7/16	(545)	27-7/16	(545)	27-7/16	(545)	27-7/16	(545)	
Net Weight		lbs (kg)	85	(39)	87	(40)	113	(51)	113	(51)	114	(52)	
Refrigerant							R4	10A					
Indoor Fan (208/230V)	Air Flow Rate 2	cfm	576-382	/ 687-500	713-457 / 778-605		843-677 / 917-769		1108-968 / 1178-1057		1110-877 / 1186-974		
	(Hi-Lo)	(m³/min)	(16-11)	/ (19-14)	(20-13)	/ (22-17)	(24-19)	/ (26-22)	(31-27)	(33-30)	(31-25)	/ (34-28)	
External Pressure 2		in. W.G.	0	.4	0	.7	0	.7	0	.7	0	.7	
		(Pa)	(9	9)	(17	74)	(17	74)	(17	74)	(1	74)	
Refrigerant Piping	Liquid Line	in. (mm)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)	
	Gas Line ³	in. (mm)	5/8	(15.88)	5/8	(15.88)	5/8	(15.88)	5/8	(15.88)	5/8	(15.88)	
Condensate Drain	OU	in. (mm)	1-1/16	(26.7)	1-1/16	(26.7)	1-1/16	(26.7)	1-1/16	(26.7)	1-1/16	(26.7)	
Ī	IU	in. (mm)	13/16	(20.9)	13/16	(20.9)	13/16	(20.9)	13/16	(20.9)	13/16	(20.9)	

- 1. Nominal capacity conditions are based on AHRI standard. Visit www.ahrinet.org for more information.
 2. Hi and Lo setting on the wired controller. (Hi = Air Handler's High tap and Lo = Air Handler's Medium tap). Make sure both the external pressure and air flow rate match the specification.
 3. Gas connection piping diameter of the air handler is changed by using the reducer (accessory of DX-Kit) to connect to VRF system.

Tonnage		1.5	Ton	2.0	Ton	2.5 Ton		3.0 Ton			
Adaptable DX-Kit Model #		EXV-	018E	EXV-	024E	EXV-030E		EXV-	036E		
Control Box											
Power Supply	-				AC208/230	/, 1Ph, 60Hz					
Outer Dimensions											
Height	in. (mm)	3-3/16	(81)	3-3/16	(81)	3-3/16	(81)	3-3/16	(81)		
Width	in. (mm)	12-5/8	(320)	12-5/8	(320)	12-5/8	(320)	12-5/8	(320)		
Depth	in. (mm)	7-3/8	(187)	7-3/8	(187)	7-3/8	(187)	7-3/8	(187)		
Net Weight	lbs. (kg)	6.57	(2.98)	6.57	(2.98)	6.57	(2.98)	6.57	(2.98)		
Expansion Valve Box Part											
Power Supply	_	DC 12V									
Outer Dimensions											
Height	in. (mm)	4-5/16	(109)	4-5/16	(109)	4-5/16	(109)	4-5/16	(109)		
Width	in. (mm)	17-1/16	(433)	17-1/16	(433)	17-1/16	(433)	17-1/16	(433)		
Depth	in. (mm)	5-5/16	(151)	5-5/16	(151)	5-5/16	(151)	5-5/16	(151)		
Net Weight	lbs. (kg)	8.84	(4.01)	8.84	(4.01)	8.84	(4.01)	8.84	(4.01)		
Refrigerant	-				R4	10A					
Refrigerant Piping											
Liquid Line In	in. (mm)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)		
Liquid Line Out	in. (mm)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)		

IndoorIblands - Diagted ucted

MULTI-POSITION AIR HANDLER (CONTINUED)



Multi-Position Air Handle	r with DX-Kit											
Tonnage				4.0	Ton				5.0	Ton		
Model#			НМАНР	48C21S	НМАНР	48D21S	НМАНР	60C21S	HMAHP60D21S		HMAHP60D22S	
Adaptable Air Handler Mo	del#		AP48	CX21	AP48DX21		AP60CX21		AP60DX21		AP60	DX22
Indoor Unit Power Supply					A	C 1 Phase, 2	08/230V, 60H	łz				
Nominal Cooling Capacity 1		Btu/h	48,	000	48,000		60,000		60,000		60,	000
		(kW)	(14	4.1)	(14.1)		(17.6)		(17	'.6)	(17	7.6)
Nominal Heating Capacity ¹		Btu/h	54,000		54,	54,000		000	64,	000	64,	000
		(kW)	(15.8)		(15	.8)	(18.8)		(18	3.8)	(18.8)	
Outer Dimensions	Height	in. (mm)	51-1/2	(1308)	55-1/2	(1410)	55-3/4	(1416)	55-1/2	(1410)	55-1/2	(1410)
	Width	in. (mm)	21	(533)	24-1/2	(622)	21	(533)	24-1/2	(622)	24-1/2	(622)
	Depth	in. (mm)	27-7/16	(545)	27-7/16	(545)	27-7/16	(545)	27-7/16	(545)	27-7/16	(545)
Net Weight		lbs (kg)	150	(68)	153	(69)	146	(66)	170	(77)	170	(77)
Refrigerant			R410A									
Indoor Fan (208/230V)	Air Flow Rate 2	cfm	1062-971 /	1190-1059	1391-1139	1481-1258	1680-1562 /	1739-1659	1701-1590	/ 1779-1694	1757-1639	/ 1829-1735
	(Hi-Lo)	(m³/min)	(30-28)	/ (34-30)	(39-32)	(42-36)	(48-44) / (49-47)		(48-45)	/ (50-48)	(50-46)	/ (52-49)
External Pressure 2		in. W.G.	0	.7	0.	.7	0.	.4	0	.4	0	.4
		(Pa)	(1	74)	(17	74)	(9	9)	(9	9)	(9	9)
Refrigerant Piping	Liquid Line	in. (mm)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)
	Gas Line ³	in. (mm)	5/8	(15.88)	5/8	(15.88)	3/4	(19.05)	3/4	(19.05)	3/4	(19.05)
Condensate Drain	OU	in. (mm)	1-1/16	(26.7)	1-1/16	(26.7)	1-1/16	(26.7)	1-1/16	(26.7)	1-1/16	(26.67)
	IU	in. (mm)	13/16	(20.9)	13/16	(20.9)	13/16	(20.9)	13/16	(20.9)	13/16	(20.9)

- 1. Nominal capacity conditions are based on AHRI standard. Visit www.ahrinet.org for more information.
- 2. Hi and Lo setting on the wired controller. (Hi = Air Handler's High tap and Lo = Air Handler's Medium tap). Make sure both the external pressure and air flow rate match the specification.
- 3. Gas connection piping diameter of the air handler is changed by using the reducer (accessory of DX-Kit) to connect to VRF system.

Tonnage		4.0	Ton	5.0	Ton
Adaptable DX-Kit Model #		EXV-	048E	EXV-060E	
Control Box					
Power Supply	-		AC208/230	/, 1Ph, 60Hz	
Outer Dimensions					
Height	in. (mm)	3-3/16	(81)	3-3/16	(81)
Width	in. (mm)	12-5/8	(320)	12-5/8	(320)
Depth	in. (mm)	7-3/8	(187)	7-3/8	(187)
Net Weight	lbs. (kg)	6.57	(2.98)	6.57	(2.98)
Expansion Valve Box Part					
Power Supply	_		DC	12V	
Outer Dimensions					
Height	in. (mm)	4-5/16	(109)	4-5/16	(109)
Width	in. (mm)	17-1/16	(433)	17-1/16	(433)
Depth	in. (mm)	5-5/16	(151)	5-5/16	(151)
Net Weight	lbs. (kg)	8.84	(4.01)	11.05	(5.01)
Refrigerant				10A	
Refrigerant Piping					
Liquid Line In	in. (mm)	3/8	(9.52)	3/8	(9.52)
Liquid Line Out	in. (mm)	3/8	(9.52)	3/8	(9.52)

Multi-Position Air Handler	
Compatible Accessories	HMAHP 018-060(B,C,D)2(1,2)S
Electric Heater Kit	6HK Series (UPG)
Infrared (IR) Receiver Kit	CWDIRK01
3-Pin Connector Cable	PCC-1A
Connector Cable for Auxiliary Heater	PCC-CN1925
Relay and 3-Pin Connector Kit	PSC-5RA
Remote Sensor (Control)	THM-R2A

INDOOR UNITS

MULTI AIR MULTI-POSITION AIR HANDLER (BUILT-IN CONTROL BOX TYPE)

Fit more spaces with greater ease

It's faster, easier, and less expensive to solve application challenges with the new Multi-position AHU.

Available in capacities ranging from 0.7 to 5 tons, this unit provides a flexible solution for applications ad diverse as single hotel rooms or entire houses.

Available in three sizes — small, medium, and large — this unit provides the flexibility for installation in any upflow or horizontal application. Compact cabinets, along with return air options in both the upflow and horizontal positions, allow this unit to fit into tight spaces such as closets, attics, and crawl spaces.



Key Features

- Refrigerant components pre-installed, single point of power pre-installed for all sizes
- Electrical components and expansion valve are built in and ready to go
- Available with factory installed electric heating coils
- Pre-painted steel on the top, coil, and blower doors and heavy-gauge embossed galvanized steel cabinet casing resist corrosion and rust creep.
- Insulated with one-inch R-4.5 insulation that delivers lasting performance and efficiency.
- Blowers are sized to circulate air both quietly and efficiently. The motor is four-tap constant torque motor (ECM).
- The rifled copper tube and aluminum fin coils produce high performance ratings and provide long-lasting quality by using the latest in heat transfer technology.
- External static pressure can be selected for high (0.8 in. WG) or standard (0.4 in. WG).
- Connectable condensate pump is supplied in the field.

INDOOR UMITS

MULTI AIR MULTI-POSITION AIR HANDLER (BUILT-IN CONTROL BOX TYPE)



Tonnage			0.7	Ton	1.0	Ton	1.5	Ton	2.0	Ton
Model #			TIAH008B22M		TIAH012B22M		TIAH018B22M		TIAH024B22M	
Indoor Unit Power Supply						AC 1Phase, 2	08/230V, 60Hz			
Nominal Cooling Capacity	/ ¹	Btu/h	8,000		12,000		18,000		24,000	
		(kW)	(2	2.4)	(3	3.6)	(5	.3)	(7.1)	
Nominal Heating Capacity	y ¹	Btu/h	9,000		13,500		20,	000	27,000	
		(kW)	(2	2.7)	(4	1.0)	(5	.9)	(8	.0)
Sound Power Level ² (Overall A Scale) (H-Lo)		dB	Т	BD	Т	BD	Т	3D	TBD	
Outer Dimensions	Height	in. (mm)	43	(1092)	43	(1092)	43	(1092)	43	(1092)
	Width	in. (mm)	17-1/2	(445)	17-1/2	(445)	17-1/2	(445)	17-1/2	(445)
	Depth	in. (mm)	21	(533)	21	(533)	21	(533)	21	(533)
Net Weight		lbs. (kg)	96	(44)	98	(44)	106	(48)	106	(48)
Refrigerant			R410A							·
Indoor Fan	Airflow Rate	cfm	350	350-250		430-300		-440	800-530	
	(Hi-Lo)	(m³/min)	(9.9)-7.1)	(12.2-8.5)		(19.5-12.5)		(22.7-15.0)	
External Pressure 3		in. W.G.	0.4	-0.8	0.4-0.8		0.4-0.8		0.4-0.8	
(Standard-High)		(Pa)	(100)-199)	(100)-199)	(100-199)		(100-199)	
Motor Nominal Output		HP	1	./3	1	./3	1/3		1/3	
Connections							•			
Refrigerant Piping						Bra	zing			
	Liquid Line	in. (mm)	1/4	(6.35)	1/4	(6.35)	3/8	(9.52)	3/8	(9.52)
	Gas Line	in. (mm)	1/2	(12.7)	1/2	(12.7)	5/8	(15.88)	5/8	(15.88)
Condensate Drain	OD	in. (mm)	3/4	(19.05)	3/4	(19.05)	3/4	(19.05)	3/4	(19.05)

NOTES:

 $1\quad \hbox{Nominal capacity is based on combinations within the VRF system under the following conditions:}$

COOLING OPERATION CONDITIONS

Indoor Air Inlet Temperature: 80°F DB (26.7°C DB

80°F DB (26.7°C DB 67°F WB (19.4°C WB)

Outdoor Air Inlet Temperature: 95°F DB (35.0°C DB)

Piping Length:

24.6 ft. (7.5m) 0ft. (0m) HEATING OPERATION CONDITIONS

Indoor Air Inlet Temperature: 70°F DB (21.1°C DB)

Outdoor Air Inlet Temperature: 47°F DB (8.3°C DB) 43°F WB (6.1°C WB)

43°F WB (6.1°C

- 2 The sound power level is based on AHRI 260. The sound data is measured when the External Static Pressure is High setting.
- 3 The data for external pressure indicates the values when a filter is not used.

MULTI AIR MULTI-POSITION AIR HANDLER (BUILT-IN CONTROL BOX TYPE) (CONTINUED)



Tonnage			2.5 Ton		3.0	Ton	4.0	Ton	5.0	Ton	
Model #			TIAH030B22M		TIAH036B22M		TIAH048B22M		TIAH060B22M		
Indoor Unit Power Supply					AC 1Phase, 20	08/230V, 60Hz		1			
Nominal Cooling Capacity	/ ¹	Btu/h	30,	.000	36,000		48,000		60,000		
		(kW)	8)	.8)	(10	0.6)	(14	1.1)	(17.6)		
Nominal Heating Capacity	/ ¹	Btu/h	34,	000	40,	000	54,	000	64,000		
		(kW)	(1	0.0)	(1:	1.8)	(15	5.8)	(18	3.8)	
Sound Power Level ² (Overall A Scale) (H-Lo)		dB	Т	BD	Т	BD	TBD		TBD		
Outer Dimensions	Height	in. (mm)	48	(1219)	48	(1219)	58-3/4	(1492)	58-3/4	(1492)	
	Width	in. (mm)	21	(533)	21	(533)	24-1/2	(622)	24-1/2	(622)	
	Depth	in. (mm)	21	(533)	21	(533)	21-3/4	(553)	21-3/4	(553)	
Net Weight		lbs (kg)	126	(57)	126	(57)	168	(76)	168	(76)	
Refrigerant			R410A								
Indoor Fan	Airflow Rate	cfm	1000-700		1050-750		1520-1060		1800-1260		
	(Hi-Lo)	(m³/min)	(28.3-19.8)		(29.7-21.2)		(43.0-30.0)		(51.0-35.7)		
External Pressure 3		in. W.G.	0.4	-0.8	0.4-0.8		0.4-0.8		0.4-0.8		
(Standard-High)		(Pa)	(100	-199)	(100	-199)	(100-199)		(100-199)		
Motor Nominal Output		HP	1	/2	1	/2	3	/4	3	/4	
Connections											
Refrigerant Piping			Bra				azing				
	Liquid Line	in. (mm)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)	
	Gas Line	in. (mm)	5/8	(15.88)	5/8	(15.88)	5/8	(15.88)	3/4	(19.05)	
Condensate Drain	OD	in. (mm)	3/4	(19.05)	3/4	(19.05)	3/4	(19.05)	3/4	(19.05)	

NOTES:

 $1\quad \hbox{Nominal capacity is based on combinations within the VRF system under the following conditions:}$ COOLING OPERATION CONDITIONS

Indoor Air Inlet Temperature: 80°F DB (26.7°C DB 67°F WB (19.4°C WB)

Outdoor Air Inlet Temperature: 95°F DB (35.0°C DB)

Piping Length: Piping Lift: 24.6 ft. (7.5m) HEATING OPERATION CONDITIONS

Indoor Air Inlet Temperature: 70°F DB (21.1°C DB)

Outdoor Air Inlet Temperature: 47°F DB (8.3°C DB) 43°F WB (6.1°C WB)

- 2 The sound power level is based on AHRI 260. The sound data is measured when the External Static Pressure is High setting.
- The data for external pressure indicates the values when a filter is not used.

Compatible Accessories		TIAH008,012B22M	TIAH018,024B22M	TIAH030,036B22M	TIAH048B22M	TIAH060B22M			
Filter Base Kit		86ET0002		86ET0001	868	ET0003			
Downflow Conversion Kit		DFK-S-JH		DFK-M-JH	DFK-L-JH				
Electrical Heater Kit	2 kW	BSEHK-02B-JH	BSEHK-02B-JH	-	-	-			
	3 kW	-	BSEHK-03B-JH	BMEHK-03B-JH	-	-			
	5 kW	-	-	BMEHK-05B-JH	BLEHK-05B-JH	BLEHK-05B-JH			
	8 kW	-	-	-	BLEHK-08B-JH	BLEHK-08B-JH			
	10 kW	-	-	-	-	BLEHK-10B-JH			
Infrared Receiver (IR) Kit				CWDIRK01					
3-Pin Connector Cable			PCC-1A						
Relay and 3-Pin Connector Kit			PSC-5RA						
Remote Sensor (Control)				THM-R2A					

MINI VRF

OUTDOOR UNITS

SINGLE-PHASE 208/230V (HEAT PUMP)

Meet diverse application needs with Hitachi Mini VRF Outdoor Units. Units are available in a range of capacities, providing exceptional design freedom. Each unit can operate multiple indoor units. Building occupants will appreciate the unit's industry leading quiet operation.

OUTDOOR UNITS MINI VRF OUTDOOR UNITS

Exceptionally efficient Hitachi Mini VRF systems provide design versatility and flexibility and quiet personalized comfort. Single phase (208-230V) 3-, 4- and 5-ton heat pump systems with inverter compressor technology provide cooling up to 118°F and heating down to -4°F ambient. Multiple indoor unit options enable individual comfort control of up to eight rooms/zones.



Mini VRF 208/230V H	P Heat Pump Units	3 Ton	4 Ton	5 Ton				
Mini VRF Outdoor Unit Model		HVAHP036B21S	HVAHP048B21S	HVAHP060B21S				
Performance	Rated Cooling Capacity (Btu/h)	36,000	48,000	60,000				
	Rated Heating Capacity (Btu/h)	40,000	54,000	64,000				
	Operating Range* — Cooling (°F)		23 to 118					
	Operating Range* — Heating (°F)		-4 to 59					
	Power Supply (V/ph/Hz)	208-230 / 1 / 60						
Configurations	Number Of Indoor Units	1 to 6	1 to 8					
Refrigerant Piping	Maximum Piping Length (ft)		492					
	Maximum Total Piping Length (ft)		984					
	Maximum Vertical Distance, IU to OU — OU above IU / OU below IU (ft)		164 / 131					
	Maximum Vertical Distance Between Indoor Units (ft)		49					
Dimensions	H x W x D (in)	54 5/16 x 37 3/8 x 14 9/16						

 $^{^{\}star}$ For more details and limitations, please consult Hitachi sales team or refer to product manuals

Hitachi Mini VRF Outdoor Units

Hitachi Mini VRF Heat Pump units offer an extended operating temperature range: outdoor ambient temperature as low as 23°F (-5°C) in the cooling mode and as low as -4°F (-20°C) in the heating mode.

All outdoor units feature:

- Long refrigerant piping lengths up to 492 feet piping length
- Advanced defrost cycle operation in the heating mode
- Ability to operate up to 8 indoor units on a single piping network
- Power-saving demand control for reduced peak load and energy savings
- Optional Low Sound Mode which reduces the standard low sound level even further



MINI VRF HEAT PUMP OUTDOOR UNITS

208/230V HP | 3-, 4- & 5-TON SYSTEMS

2.48 F Ton Contain	Type Tonnage						Mini VRF Ou	tdoor Units			
3, 4 & 5 Ton Systems					3 T	on ⁵	4 To	on ⁵	5 Ton		
Model #					HVAHP036B21S		HVAHP048B21S		HVAHP060B21S		
Power Supply					208/230V/ 1PH 60Hz		208/230V/ 1PH 60Hz		208/230V/ 1PH 60Hz		
Capacity (Nominal) 1	Cooling Capacity (Nominal)		Btu/h (kW)		36,000 (10.6)		48,000 (14.1)		60,000	(17.6)	
	_	Power input	kW		2.53		3.7	78	5.	05	
		Current input	A		12.3	/ 11.1	18.6 /	16.9	24.8	/ 22.4	
	Heating	Capacity (Nominal)	Btu/h	(kW)	40,000	11.7	54,000	15.8	64,000	18.7	
		Power input		kW	2.	40	4.0	00	4.	40	
		Current input		A	11.8	/ 10.6	19.6 /	17.7	21.7 / 19.6		
Efficiency Ratings ²	Cooling	Capacity (Rated)	В	tu/h	36,000	36,000	48,000	48,000	60,000	55,000	
	(for Non-ducted and Ducted)	EER	Bt	u/Wh	16.70	13.80	16.70	13.10	12.20	9.70	
	and Ducted)	SEER	Bt	u/Wh	23.50	18.70	24.10	18.40	16.80	16.00	
	Heating	Rated Capacity	В	tu/h	40,000	40,000	54,000	54,000	64,000	64,000	
	(for Non-ducted and Ducted)	СОР	W/W		5.12	3.90	4.56	3.86	3.90	3.30	
	and Ducted)	HSPF	Bt	u/Wh	12.80	11.00	11.70	11.80	12.10	11.00	
Cooling Operating Rang	perating Range ³ Outdoor		°F DB (°C DB)		23 (-5) ~ 118 (48)		23 (-5) ~ 118 (48)		23 (-5) ~ 118 (48)		
Heating Operating Rang	ge³	Outdoor	°F WB (°C WB)		-4 (-20) ~ 59 (15)		-4 (-20) ~ 59 (15)		-4 (-20) ~ 59 (15)		
Outer Dimensions	Height		in	(mm)	54-5/16	(1380)	54-5/16	(1380)	54-5/16	(1380)	
	Width		in	(mm)	37-3/8	(950)	37-3/8	(950)	37-3/8	(950)	
	Depth		in	(mm)	14-9/16	(370)	14-9/16	(370)	14-9/16	(370)	
Weight	Net		lbs	(kg)	249	(113)	249	(113)	249	(113)	
Connection Ratio	Total Indoor Unit Capacity		%		60-130		60-130		60-105		
	Max. (Recomment indoor units/syst				(6	8			8	
Compressor	Туре	e		_		HA36PHD-A1S2		HA36PHD-A1S2		D-A1S2	
	Motor Output (Pole)		-/-		3PH / 6		3PH / 6		3PH / 6		
	Operation Range	Operation Range		%		10 ~ 100		10 ~ 100		10 ~ 100	
	Refrigeration Oil	Туре		-	FVC68D		FVC68D		FVC68D		
Fan	Туре			-	Propel	ller Fan	Propeller Fan		Prope	ller Fan	
	Motor Output			W	58	+ 58	58 +	- 58	58	+ 58	
	Quantity		(Q'ty)			
	Air Flow Rate		cfm	(m³/min)	3177	(90)	3530	(100)	3530	(100)	
Electrical	Min Circuit Amps			А	3	31	3:	1	3	31	
	Max. Overcurrent	Protective Device		Α			4	0			
Sound Pressure Level ⁴	Cooling (Night-S	hift)	d	B(A)	51	(44)	52	(46)	53	(46)	
	Heating		d	B(A)	5	52	54	4	5	56	
Refrigerant	Туре			-			R41	LOA	1		
	Charge amount		lbs	(kg)	7.9	(3.6)	7.9	(3.6)	7.9	(3.6)	
Main Refrigerant	Gas Line		in	(mm)	5/8	(15.88)	5/8	(15.88)	5/8	(15.88)	
Piping	Liquid Line		in	(mm)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)	

- 1. Nominal capacity conditions are based on AHRI standard Visit www.ahrinet.org for more information.
- 2. Efficiency ratings are based on the AHRI 210/240 test standard.
- 3. There are some exceptions and notes for cooling and cooling operation ranges. For details, refer to Section 2.12 "Operation Range".
- 4. Measurement Point: 3.3 ft. (1m) from the air outlet side, 4.9 ft. $(1.5 \mathrm{m})$ from floor level. The operation sound is measured in an anechoic chamber. However, the actual operation sound may appear louder or with an echo because of surrounding environmental noise. Be sure to check environmental conditions before installation. The sound of the air inlet side may be 3dB higher than that of the air outlet side.

 5. Unit is ENERGY STAR certified.



A control option for every application

Controllers and Network Adapters

Bring your customers premium control options with Hitachi controllers and gateways. The wide range of options provides an optimal solution for every customer's needs. All Hitachi controllers are compatible with all Hitachi Air-Source and Water-Source Systems.

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Controllers —Overview

CONTROLLERS

OVERVIEW

Project Requirements	Wireless Zone Controller	Simplified Wired Zone Controller	Advanced Color Wired Remote Controller	Mini Central Station	Large Central Station	Central Touch- screen Controller	LON- Works® Adapter	VRF Smart Gateway (BACnet)®	VRF Cloud Gateway	airCloud Gateway
	CIR01	CIS01	CIW02-H	CCM01	CCL01	CCXL02	CLW01	CBN02	CMNETS	HC-IOTGW
Simple individual zone control	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc			\bigcirc	\bigcirc
Independent cool and heat setpoints	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	•	-	\bigcirc	\bigcirc
Individual zone control with weekly programmable scheduling			\bigcirc	\bigcirc	\bigcirc	\bigcirc	•	•	\bigcirc	\bigcirc
Basic central point on/off control of all units				\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Advanced multi-zone control of small to medium size projects				\bigcirc	\bigcirc			•	\bigcirc	\bigcirc
Advanced multi-zone control of large commercial projects					\bigcirc	\bigcirc		-	\bigcirc	\bigcirc
Automatic cooling/heating changeover for heat recovery systems	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc		-	\bigcirc	\bigcirc
Single input batch shutdown of all connected units				\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Multiple tenant power billing for shared condenser applications*						\bigcirc		•		
Temperature set-point range restrictions		\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc			\bigcirc	\odot
Graphical user interface with floor plan layout						\bigcirc		-		
Exposes more points								•		
Exposes outdoor unit points								-		
Capable of reading Indoor and Outdoor Unit sensors								\bigcirc		
Wi-Fi enabled								\bigcirc	\bigcirc	\bigcirc
Easy integration							•	\bigcirc	\bigcirc	\bigcirc
Easy commissioning								\bigcirc	\bigcirc	\bigcirc
Hotel Mode			\bigcirc							

 $[\]bigcirc$ = Native application or feature of this device

Hitachi Mini VRF Systems

⁼ Dependent upon capabilities of a third-party energy management system
* = Additional metering hardware and software is required for consumption-based tenant billing

ZONE CONTROLLERS

ZONE CONTROLLERS - Energy-Saving Features							
Temperature range limit	Set temperature auto reset	Occupancy-based operation (Sensors available on select Indoor Units.)					
Setback	Off timer	Individual function lockout (mode, temperature, fan speed)					



MODEL CIW02-H

Advanced color wired remote controller

- New wired remote controller for VRF with the brand-new global visual design.
- Stylish curve surface with easy-tooperate touch buttons placed at a touch angle.
- Integrated housing with in-mould labeling (IML) process increases durability and a cleaner look.
- Improved visual monitoring with a large 4.3-inch color screen.
- New home menu design with a different display color for each operation mode.
- Optimized menu structure for easy operation. Provides password protection to Service & Installation menu for maintenance operation
- 7 languages are supported, English, Japanese, Chinese (traditional), Chinese (simplified), French, Spanish and Portuguese, and the regional default language is pre-set on each model.
- New feature for "Hotel Mode" with a quick access icon for "Language" and "OFF Timer" assigned on the home screen.
- Service & Installation improvements include new function selection user interface (UI) with command description and quick access from tab design and setting history.



MODEL CIS01

Simplified Wired Zone Controller

- Small size for discreet applications
- Controls 1 to 16 indoor units (same settings)
- Error code diagnosis
- Adjustable fan speed
- Typically used in hotels, offices and restaurants



MODEL CIR01

Wireless Zone Controller

- Controls up to 16 indoor units
- Built-in 23-hour timer
- Wireless receiver must be added for all indoor units except Wall Mount models (built in)



MODEL C3STAT01

5-Wire Thermostat Adapter

- Enables communication from standard 5-wire thermostats into VRF controls logic
- Small size for discreet installation
- Illuminated 7-segment display
- Field-configurable
- Easy-to-use desktop user interface available
- Single 24VAC power connection can power both adapter and third-party thermostat

CENTRAL CONTROLLERS

Central Station

Central Controller Large and Mini systems are available.

- Large version controls up to 64 groups of indoor units (maximum 160 units).
- Mini version controls up to 32 groups of indoor units (maximum 160 units).
- Easy-to-use touchscreen interface
- Records accumulated operations time for tenant billing
- Color-coded graphics for quick reference
- Set up to 10 on/off times per day
- Up to 8 stations can be connected to the H-LINK II.
- In addition to basic control, such as settings for operation/ stop, the operation mode and temperature, the air quantity and auto louver can be set. If a problem occurs, an alarm code immediately shows the details of the problem.
- An external input terminal is provided as standard. External signals enable the following functions:
 - » central operation/stop
 - » demand control
 - » emergency stop
- » central operation output and central alarm output



Large Central Controller: MODEL CCL01



Mini Central Controller: MODEL CCM01

CENTRAL CONTROLLERS



VRF Central Touchscreen Conroller: MODEL CCXL02 Extension Adapter (CCXLA02) (Optional)

Choose how data is displayed, and obtain easy-to-read management reports with up to two years of data for:

- Accumulated operation time (min.)
- Accumulated thermo-ON time (min.)
- Average air intake temperature of indoor units and outdoor units
- Average setting temperature
- Average zone controller sensor temperature (may not be available depending on zone controller settings)

VRF Central Touchscreen Controller

With Remote Access Software (included) & Energy Calculation Software - Tenant Metering (Add-on). Easily control VRF systems in large, commercial properties with the Hitachi Central Touchscreen Controller. And enjoy accurate, easy tenant billing feature with the optional Energy Calculation Software (CCSE01).

The intuitive user interface makes monitoring systems a breeze. Colors and icons enable quick identification and monitoring of commonly00 checked items such as:

- Room name
- Run/stop
- Mode
- Temperature
- Fan speed
- Louver
- · Current status icon
- Air intake temperature

Compatible with the **H-LINK II**

Control up to 2,560 indoor units

Control up to 2,048 VRF groups

Customize to meet your needs

Up to 15 Extension Adapters (CCXLA02) can be connected to a system

External input: 4 (Level or pulse)

^{*}See model details for specifics

NETWORK ADAPTERS

Johnson Controls VRF Smart Gateway

The VRF Smart Gateway enables unprecedented control of Hitachi VRF system components through fast, simple integration into the Facility Explorer® BAS. Complete system data is available for all components in the system.

Enhanced features

- Automatically structures and organizes data for faster, easier and less costly integration
- Works over Ethernet to obtain system data and make it accessible through BAS
- Brings all BAS capabilities to VRF components including User Interface, Global Search, schedules, reporting, and offline configuration
- BACnet® compatible

- · Information conforms to BAS conventions for quick adoption
- Wi-Fi accessibility enables 24/7 monitoring and control of equipment from laptops, tablets and smartphones



MODEL CBN02



LONWorks® Adapter

- Supports up to 64 Remote Control Groups
- Supports up to 160 Indoor Units with a variety of network variables on a per indoor unit basis
- Control points include: Run/Stop, Operation Mode, Fan Speed, Temperature Setpoint, Prohibit Zone Controller Functions
- Monitoring points include: Run/Stop Status, Operation Mode Status, Fan Speed Status, Temperature Setpoint, Thermo Status, Alarm Status



MODEL CLW01

Features

- 24V AC powered
- Connect up to 4 LonWorks Adapters (CLW01) simultaneously to the same H-LINK II segment
- Connect up to 8 Large (CCL01) and/or Mini (CCM01) Central Controllers and/or LONWorks Adapters (CLW01) simultaneously to the same H-LINK II segment
- Support for the following maximum device limits:
 - » 64 refrigerant systems
 - » 160 indoor units
 - » Total of 200 nodes: A combination of up to 160 indoor units and a maximum of 64 outdoor units, not to exceed a total of 200.

IOT DEVICES

airCloud Gateway

- Easy add-on to new and existing VRF systems, Ideal for small to large-site applications
- Remote access from Web and Mobile devices (iOS and Android)
- Available functions including remote individual and group control, error history management, and schedule setting
- Over-the-Air software update function built-in supports automatic delivery of new functions to the Gateway
- Support Internet connection through Ethernet Cable and optional 4G unit (coming soon)
- Each gateway can connect up to 80 IDUs and 16 ODUs
- No limitation on number of gateways/sites, number of users or mobile devices/sites
- Once customer purchases airCloud Gateway, they can access download link and receive standard APP free of charge



airCloud Gateway: Model HC-IOTGW





IOT DEVICES

VRF Cloud Gateway

The new VRF Cloud Gateway by Cool Automation seamlessly integrates VRF systems with smart phones, tablets, or any similar wireless device as well as home automaton control systems. This simplifies monitoring and control as VRF systems can be managed through the same interface as lighting, security and other home systems. It can also be used as a stand-alone device with information accessible over the web. And, it comes with the peace of mind that it has been thoroughly tested by the team at Johnson Controls.



MODEL CMNETS

Features

- Monitor and control equipment from a laptop, tablet or smartphone anytime, anywhere
- Manage and control indoor units through simple touchscreen display
- Install and integrate with ease (true plug-and-play device)
- Interface through H-Link and Ethernet Network



H-LINK II NETWORK SYSTEMS

H-LINK II

H-LINK II is a unique communication system that can be used to control multiple outdoor and indoor units from one control point. Its use assists installers and service engineers by simplifying commissioning and service maintenance. For building owners and occupants, it provides great versatility to connect various types of central control options enabling better system management.

The H-LINK II communication system for connection between outdoor and indoor units provides an extended system configuration and improved functions without sacrificing workability and flexibility.

Our proprietary high-performance communication system enables connection of control wiring between indoor and outdoor units, and between a centralized control system and indoor/outdoor units across two or more refrigerant systems.

H-LINK II System	
Max. Number of Refrigerant Groups / System	64
Max. Number of Indoor Units / System	160
Total Number of Devices in the same H-LINK II	200
Total Max. Wiring Length	Total 3,281 ft

Flexible wiring routes

The H-LINK allows for easy installation through a simple daisy-chain configuration. Simply connect to the adjacent units or the terminal block of a centralized control system.

ACCESSORIES

MINI VRF ACCESSORIES



Unit Type	Accessory	Description
Outdoor Units	Drain Kit	For connection of field supplied drain pipe to drain pan
	Air Flow Guide	Louvers for directing outlet air
	Wind Guard	Protects outlet air from strong winds
	Wind Prevention Tool	Prevents the OU from tipping over
	Snow Protection Hood	Protects OU air outlet from snow
	Toppling Prevention Tool	Prevents OU from tipping over when Snow Protection Hood is in use
	Protection Net	Kit that protects OU heat exchanger
	3-Pin Connector Cable	Kit that provides remote start/stop capability for IU and operating status of IU functions
Ducted Indoor Units	3-Pin Connector Cable	Kit (with 5 sets of 3P Connectors) that provides remote start/stop capability (binary input) to IU and operating status (binary input) of IU functions
	Relay and 3-Pin Connector Kit	Relay and 3 Pin Connector Kit used for input/output signals (ON/OFF, mode, alarm) between central controller and IU
	Remote Temperature Sensor	Remote air temperature sensor
	Air Filter	Washable air filter with mounting flange
	Filter Box	Mounting box for filter
	Air Outlet Shutter Plate	Plate for blocking of air outlet
	Fresh Air Intake Kit	Kit for connection of outside air to the IU
	T-Tube Connecting Kit	Kit for connection of outside air duct to the IU. Requires Fresh Air Intake Kit
	Duct Adapter	Kit for connection of outside air duct to the IU
	Panel with Motion / Radiant Sensors	Air panel with motion and radiant heat sensor. Replaces standard panel
	Motion Sensor Kit	Kit for detection of motion in the area
	Grille for Front Discharge	Grille used for front air outlet from IU
	Strainer Kit	For IU refrigerant circuit
	IR Receiver Kit	Kit for use with wireless controller CIR01
	2-Pin Connector	Printed Board Connector
	Drain Pump Kit	Drain pump kit
	Remote Temperature Sensor	Remote air temperature sensor
	Drain pump (wall mount)	Condensate Pump Kit Capacity - 2.9-3.2 GPH @ 0' Head / 1.2-1.6 GPH @ 33' Head
	3-Pin Connector Cable	Kit (with 5 sets of 3P Connectors) that provides remote start/stop capability (binary input) to IU and operating status (binary input) of IU functions
	Relay and 3-Pin Connector Kit	Relay and 3 Pin Connector Kit used for input/output signals (ON/OFF, mode, alarm) between central controller and IU

NOTES

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NOTES

Hitachi Mini VRF Systems 55



JOHNSON CONTROLS-HITACHI AIR CONDITIONING NORTH AMERICA

CUSTOMER SERVICE

844-873-4445 Option 1 BE-VRFCustomerService@jci-hitachi.com

HITACHI. CERTIFIED QUALITY







Hitachi VRF Systems are Intertek ETL Listed
(Canada & USA), signifying that they comply with the standard of Heating and Cooling
Equipment (ANSI/UL 1995 and CAN/CSA C22.2 No. 236-11, 4th Edition, October 14, 2011).
The systems are also certified by the Air Conditioning, Heating & Refrigeration Institute.

HITACHI. TOTAL WARRANTY





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