HITACHI

PRIMAIRY

LARGE SINGLE SPLIT
INVERTER SERIES | HEAT PUMP

Cooling & Heating

Introducing PRIMAIRY

PRIMAIRY's aims

PRIMAIRY is an air system series made to cope with the foremost daily needs of small business owners and people living and working in small to medium-sized spaces around the world. The name 'PRIMAIRY' signifies the goal of addressing the 'Primary' needs of people in terms of giving them access to cleaner, consistently modified air in their environments.

Some features may not apply to the units sold in your country.

PRIMAIRY R32 IN NUMBERS

-15°C~+48°C

Heating and cooling at exigent temperatures

PRIMAIRY can work with extreme temperatures, from -15°C to +48°C in cooling mode and to +24°C in heating mode. PRIMAIRY enables reliable climatization to users who requires consistent resistance to demanding climates.

30%

Maintains 30% refrigerant level

Ensures the strong performance of the refrigerant circulation components. When the refrigerant volume is less than 30%, the unit automatically registers this and displays the relevant fault code, prompting users to maintain the system.

16 steps

Multiple steps of adjustment

Quiet operation is a must. The outdoor DC motor has 16 steps of automatic adjustment to reduce fan speed and frequency of movement, leading to reduced noise.

50m

Extended height and length

Up to 50m in pipe length can be covered when the unit is being installed, and up to 30m in height, depending on your needs.

Your spaces & PRIMAIRY

PRIMAIRY is prepared to take care of the air around you. You, your colleagues and customers deserve to feel comfortable in every situation. This means finding and installing the ideal unit for your particular interior, a process we will be happy to help with. We will also help you run your unit correctly and intervene when repair is needed.

Restaurant & Café

“Running a café means noise, buzz, activity and trapped heat. Having a correct and consistent A/C lets my customers relax and enjoy their drinks – and I can see the difference in their moods.”

Retail Space

“I work with clothes, and the fabric can heat up in summer and make things stuffy. The store is cold in winter. Without the system to regulate things all year round, the seasons would really get to me.”

Small Work Space

“I stay late at the office along with my colleagues if there is a big project to finish. Having a comfortable setting is essential, and the airflow system that management installed is a big part of this.”

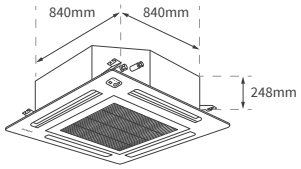
General Features

Features, advantages and benefits

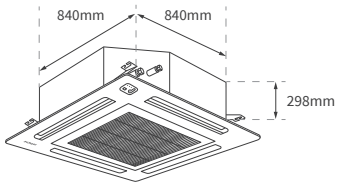
PRIMAIRY includes all required for selection, installation and maintenance, making it the perfect choice for small businesses and workplaces, as well as other interior spaces. When in use, PRIMAIRY responds sensitively to air temperature and maintains it at the desired level, using just the right amount of energy.

INDOOR UNITS

CASSETTE UNIT

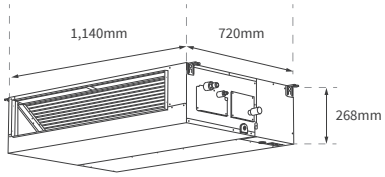


RCI-4.0UFE1NH

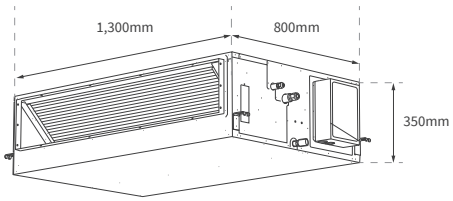


RCI-6.5UFE1NH

DUCTED UNIT



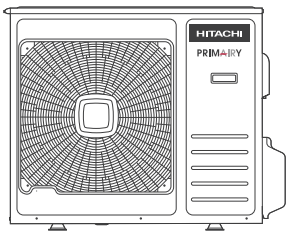
RPIH-4.0UFE1NH



RPIH-6.5UFE1NH

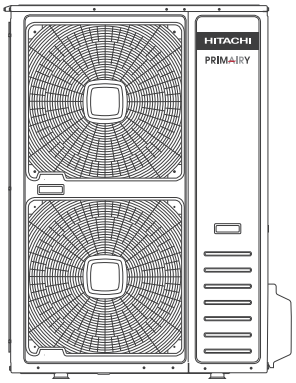
OUTDOOR UNITS

Dimension (W×H×D)
950×840×340mm



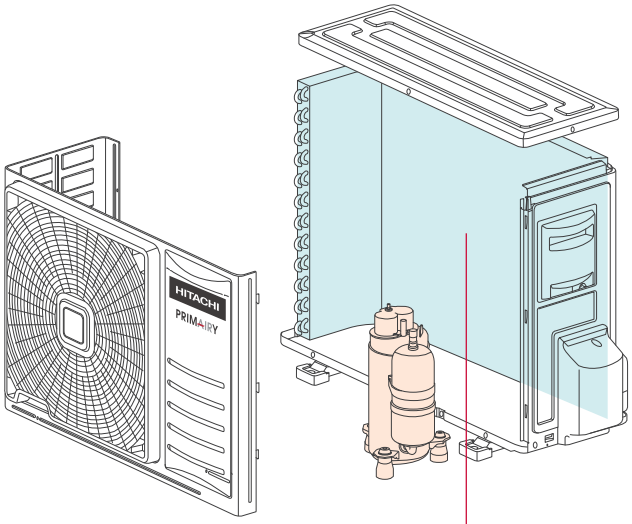
RAS-4.0UFESNH1

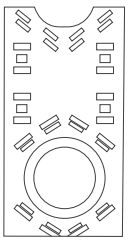
Dimension (W×H×D)
950×1386×340mm



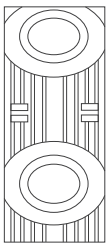
RAS-6.5UFESMH1

HIGH EFFICIENCY FIN
HIGH EFFICIENCY HEAT EXCHANGER

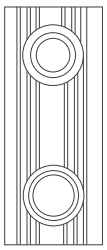




High Φ7 louver



High Φ7 louver



High Φ7.94 louver

SMART DEFROST

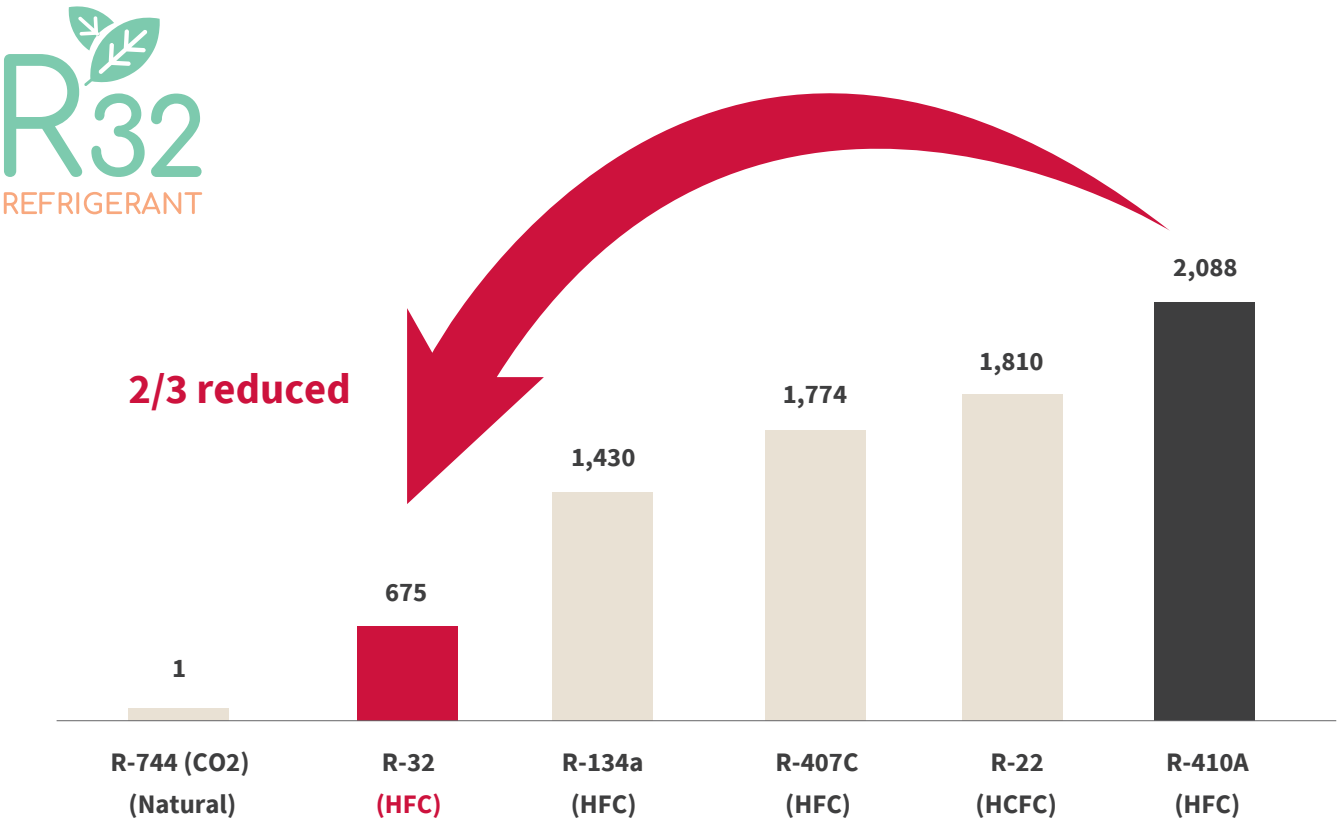
The smart defrost software and added defrost sensor will precisely control the defrost time and effect, which can effectively avoid the defrost delay.

EFFICIENCY & ECOLOGY

Being eco-friendly by applying R32 Refrigerant
To minimize F-Gas emission, Hitachi applies R32 refrigerant in this series which helps to reduce GWP (Global Warming Potential) by 2/3 while ODP (Ozone Depletion Potential) is 0.

R32 adoption leads to better efficiency levels
Adopting the use of R32 refrigerant, allows PRIMAIRY R32 to boost the excelent efficiency levels of its predecessor to an even further level.

Global warming potential (GWP) comparison:

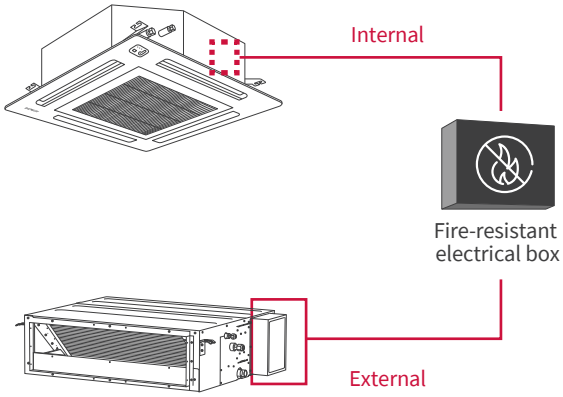


RELIABILITY

How to know when a product is truly safe? When it is hardly ever necessary to check it. Each key area requiring a failsafe feature has been thoroughly researched and a dependable solution incorporated. Where possible, Hitachi air-conditioning units are self-diagnosing when it comes to errors. Physical protection is combined with sensors for a system of smooth operation and security.

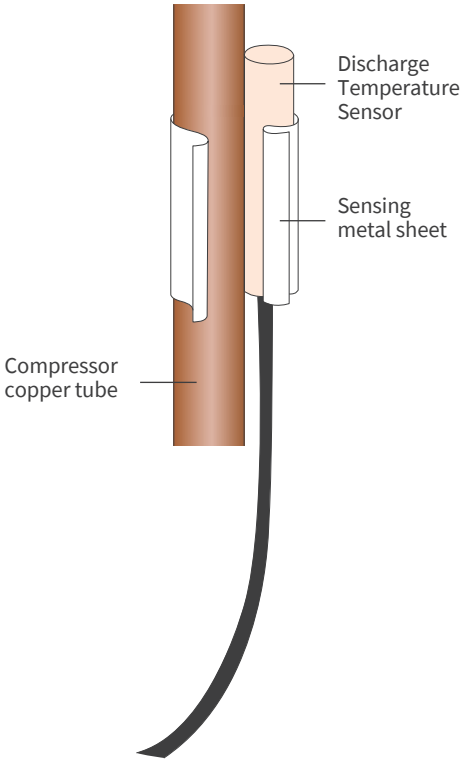
SAFETY PROTECTION

An encompassing metal box design ensures full product safety.



DISCHARGE TEMPERTURE SENSOR

Ensures the compressor will operate in the safety range, and prevent the damage caused by refrigerant leakage.



LOW/HIGH PRESSURE SWITCH

High pressure and Low pressure switches keep the system and compressor reliable.

Comments:
For Inverter series, there's no LP&HP switch for 3.0HP and no LP switch for 4.0HP.

TEMPERATURE PROTECTION SYSTEM

- Fan motor overheating protection
- Compressor overheating protection
- Compressor starts preheating in cold climate (Only for Heat Pump)

RELIABLE RUNNING

Oil viscosity testing was taken for compressor in order to ensure reliable operation.

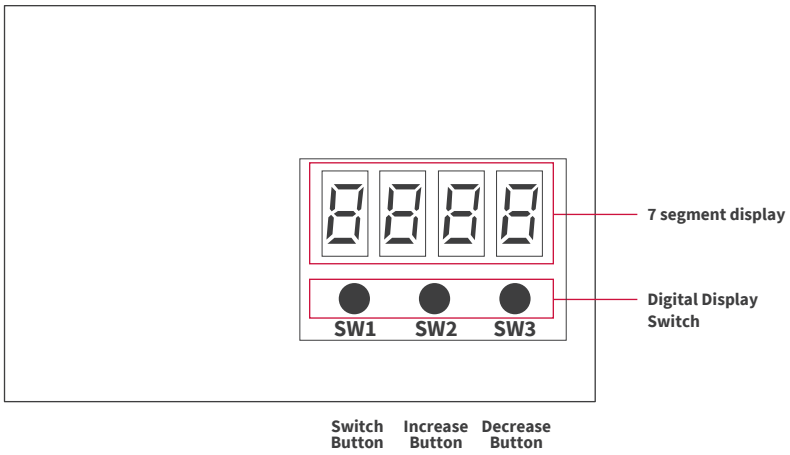
ERROR SELF-DIAGNOSIS FUNCTION

The error code is clearly displayed on the diagnostic panel of the outdoor unit for quick troubleshooting and maintenance.

OUTDOOR UNIT ERROR CODE DISPLAY

ON/OFF UNITARY TYPE
(with outdoor control box)
There are two ways an error is displayed: in digits or via a flashing indicator light on an outdoor control board. Based on the digits or the amount of times the light flashes, various faults are represented.

DC-Inverter outdoor control board



It can be used to check outdoor running parameters.

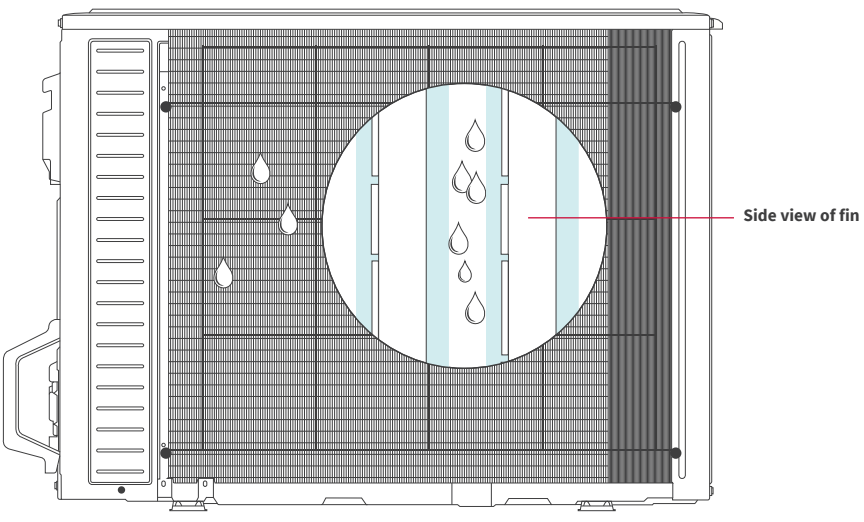
REFRIGERANT LEAKAGE DETECTION

The indoor unit will stop operation automatically and show an error code when the refrigerant charging amount is lower than 30%, which can avoid the compressor being damaged by high temperature due to refrigerant leakage.
When the refrigerant charging amount is between 30%~80%, the unit will judge itself if showing an error code is necessary. This feature can also better ensure the heat transfer efficiency and the safety of the unit.

HYDROPHILIC ALUMINUM FIN

A hydrophilic aluminum fin enhances heat exchanging performance by increasing water mobility on fin surface and preventing water droplets from forming blockage between fins. The blue coating enhances protection from corrosion resulting from environmental and microbiological factors, increasing reliability and ensuring performance.

With hydrophilic coating

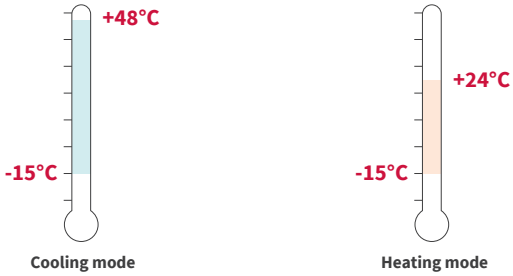


The coating prevents water droplets collecting on the fins and causing blockages.

DESIGN FLEXIBILITY

WIDE AMBIENT TEMPERATURE RANGE

High cooling and heating performance within a wide ambienttemperature range.
If your business requires cooling all year long (technical rooms, server rooms) you can trust PRIMAIRY, as cooling can operate from -15ªC to +48ºC. Focus on your business and PRIMAIRY will take care.



MORE FLEXIBLE PIPING

Both short and long piping may be applicable to the installation needs of different sites. The right placement of the indoor unit is key to distributing the air properly.

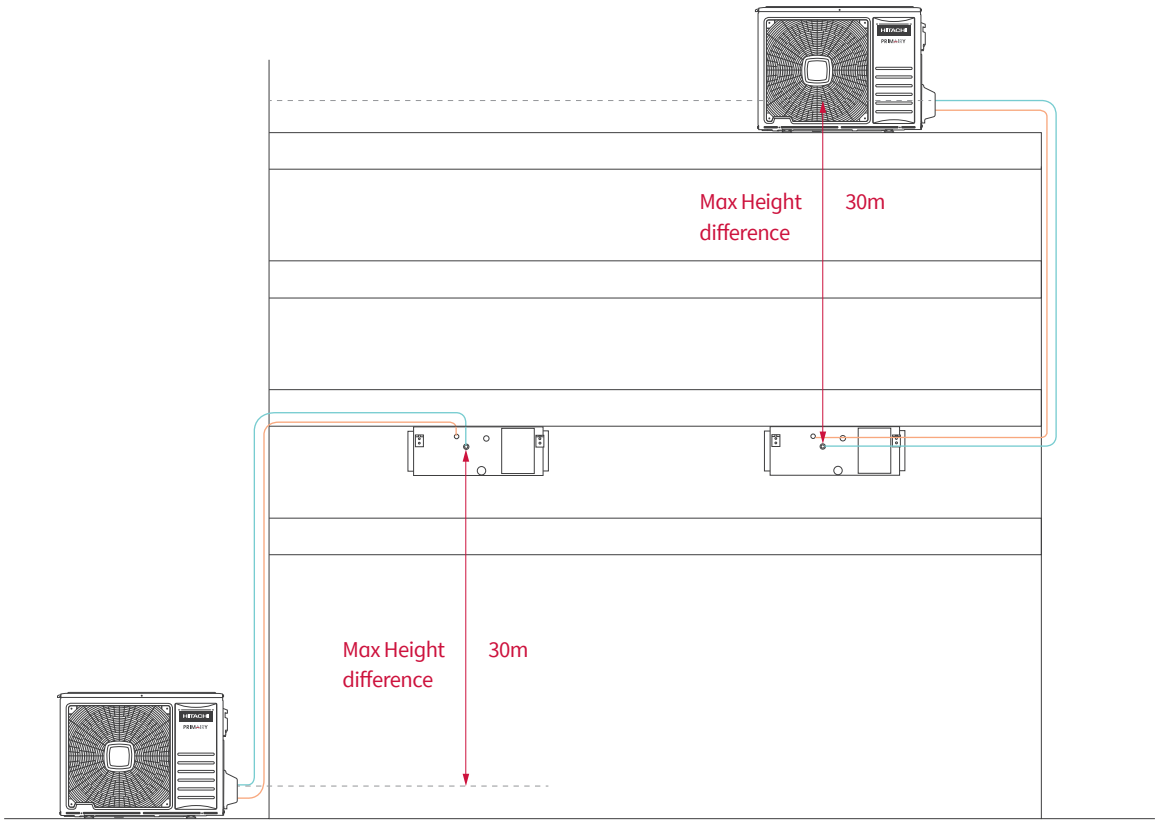
Long piping and large height difference
Up to 50m in piping run and 30m in height can be covered, with great overall flexibility in installation.

Piping	HP	4.0	6.5
Diameter (Liquid)	Inch	3/8	3/8
Diameter (Gas)	Inch	3/4	3/4
Max Length	m	50	50
Max Height	m	30	30

Liquid pipe

Gas pipe

Outdoor unit above the indoor unit.



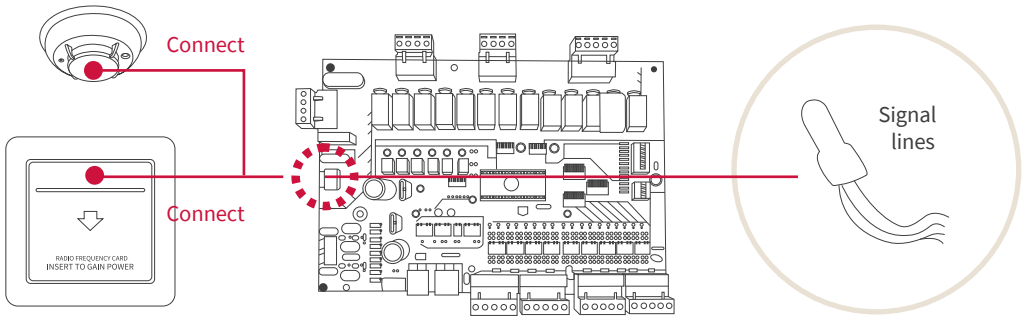
Outdoor unit below the indoor unit.

INDOOR UNIT INPUTS & OUTPUTS

Built in inputs and outputs at the indoor unit enable connection to external systems as key slot or other device.

Inputs typical applications:
· Reserved port for fire alarm device
· Reserved port for key slot
For example: Hotel key card systems, where guests can insert their room's key card to use power.

Outputs typical applications:
· Malfunction alarm signal
For example: for system redundancy, a signal indicating that a duct is not operating could be used to automatically switch on a backup duct.



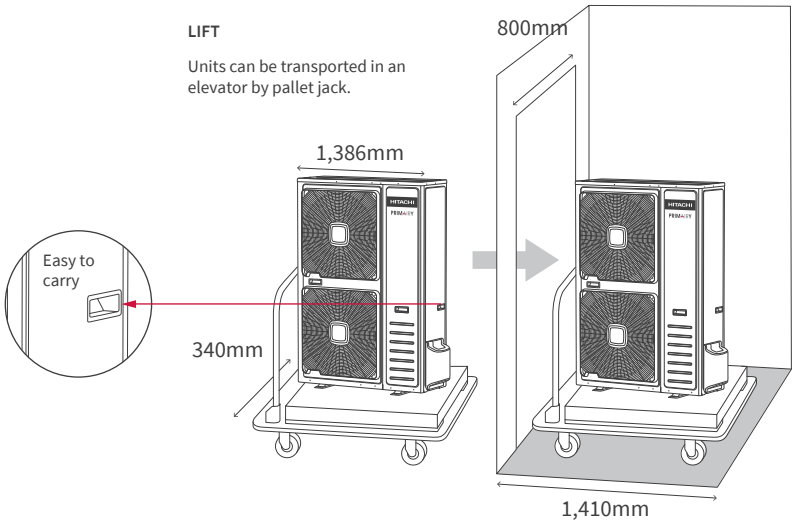
EASY INSTALLATION

EASIER HANDLING OUTDOOR UNITS

As with every other important variable in setting up your PRIMAIRY system, there are multiple alternatives available for the outdoor unit. Each one is modular and straightforward to fix into place. We will assist you in each key phase of installation as you set up your system.

COMPACTNESS AND LIGHTNESS

Free of unnecessary or weighty components, each unit can be carefully slid into place by the installation team.



Indoor Life

Air moves within your interior spaces, making living and working more comfortable. The balanced design of the indoor units is key to making them unobtrusive, reliable and ultra-efficient. The Indoor unit's flexibility solves users' difficulties in conditioning their spaces, creating a comfortable environment for people to focus on their work or their business.

CASSETTE

FEATURES & BENEFITS

HCRA31NEWH
(Standard)

HCWA21NEWH
(Optional) *

HCWA21NEHH
(Standard)**

NEW

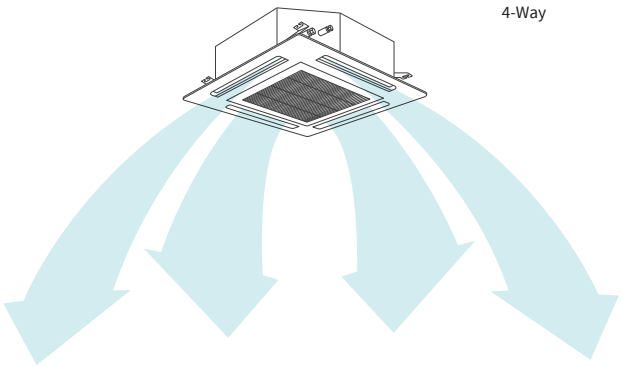
*Available till summer 2021
**Available from summer 2021

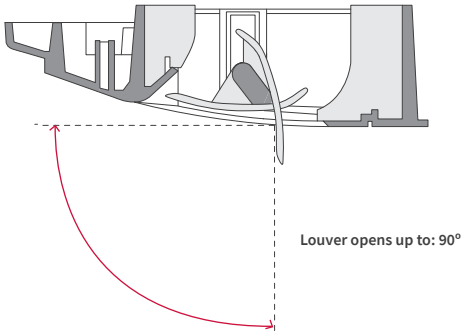
Cassette units are especially suited to narrow ceiling cavities or high ceilings. They fit to a standard ceiling grid and can be easily incorporated between light panels and other overhead fixtures.

COMFORT

Homogeneous air flow with 4-Way louvers

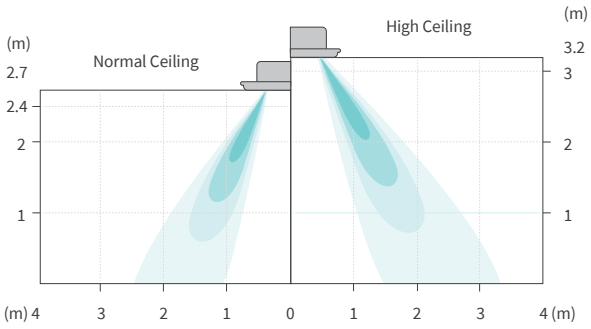
Homogeneous distribution airflow is available with 4 way louvers for an excellent comfort at every corner of the room. Vertical and horizontal swing are available for air redistribution in all directions.





Temperature compensation

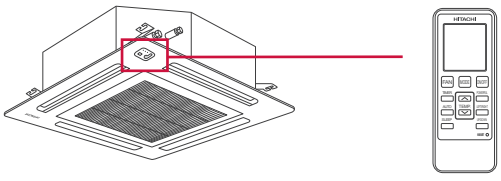
Cassette bring temperature compensation setting by wired controller. This function can revise this temperature difference to make a more accurate temperature control.



DESIGN FLEXIBILITY

Infrared Receiver for Remote Controller

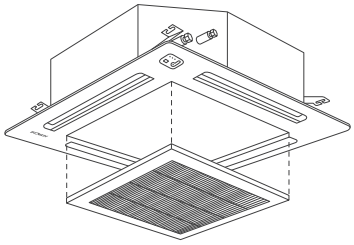
Reserved port for Remote sensing which makes control more convenient.



EASY MAINTENANCE

Washable Filter

A washable filter allows for cost-saving maintenance.

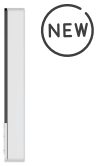


DUCTED

FEATURES & BENEFITS

HCWA21NEWH
(Standard)*

HCWA21NEHH
(Standard)**



HRBA31NEGH
(Optional, includes IR receiver)

*Available till summer 2021
**Available from summer 2021

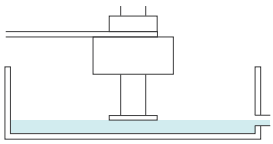
The efficient design makes the Ducted unit especially discreet. Ducted units can be installed in multiple points to thoroughly aerate each part of a space.

COMFORT

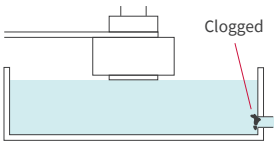
Durable Protection Drainage System

The special design of the drain pan makes condensation water flow smoothly without water leakage, and prevents rust.

When the drain pipe is clogged and the water rises to a certain level, the water level switch will float and send the signal to turn off the unit.



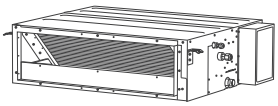
Indoor unit is running.



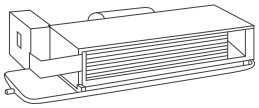
Indoor unit is turned off.

Built-in drain pan

Compared with outside drain pan design, the new built-in drain pan can reduce dust adhesion, and avoid water leakage.



Built-in drain pan



Exposed drain pan

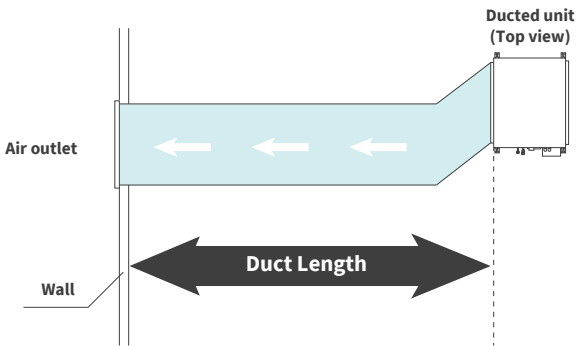
DESIGN FLEXIBILITY

Wide ESP range up to 120Pa*

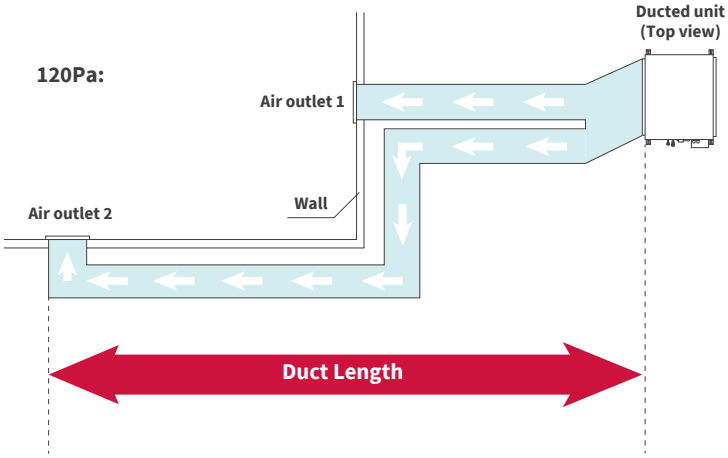
A wide ESP range means PRIMAIRY is suitable for spaces with many discrete areas, including corners and recesses. Multiple outlets can be connected to the ducted unit to ensure a uniform gust of air around a complex space. A system can be set up in a short time and will run reliably into the future.

For example:

60Pa:



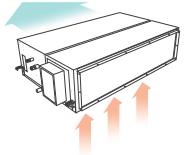
120Pa:

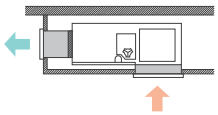


*except 3HP

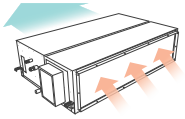
Flexible air return from bottom or rear

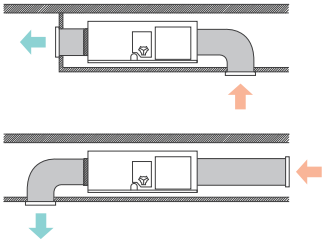
Depending on different space layout, the installation will be highly flexible.





Bottom air intake





Rear air intake

Controllers

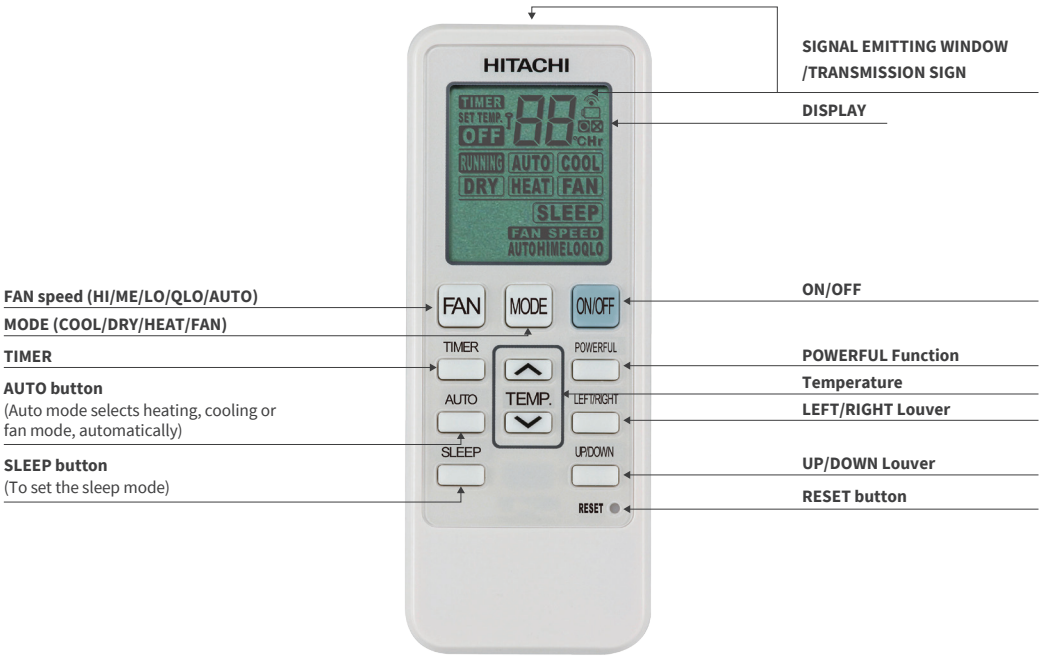
Selecting temperature range and other options on your PRIMAIRY device is crucial to a good experience. The simple interface and dependable functions in the wall-mounted and handheld controls make assigning the correct settings easy.

INDIVIDUAL CONTROLLERS

REMOTE CONTROLLER

The remote control is practical and intuitive in design, with a simple button set that allows you to control your unit instantly. The classic LCD display matches the wired control point, with each working element represented in one frame. The remote uses a minimum amount of power, running on a single battery for a long period, before requiring a replacement.

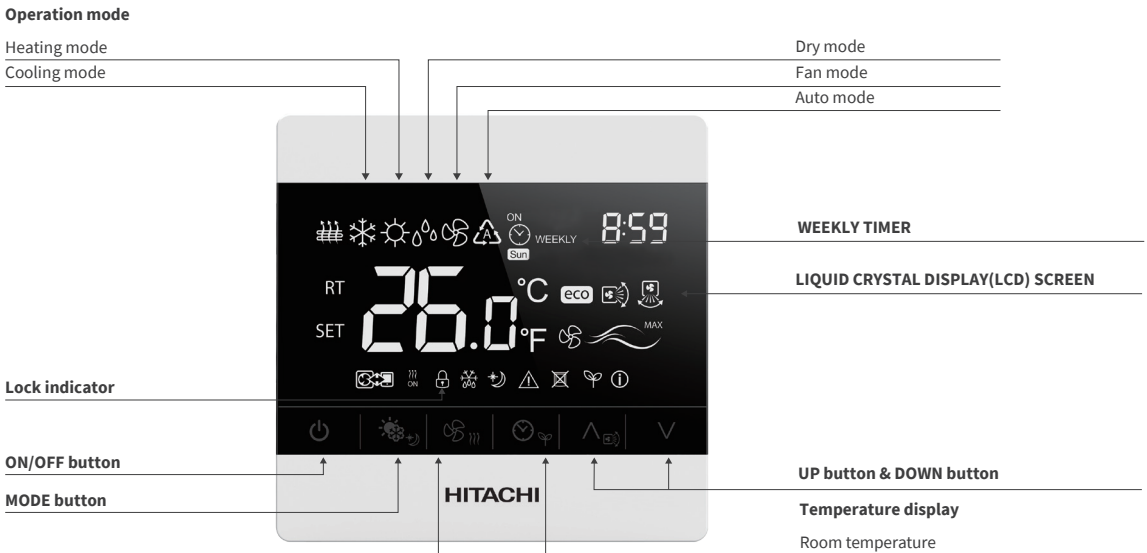
HRBA31NEGH for duct, includes IR receiver



WIRED CONTROLLER

You can keep an eye on exactly what your system is doing thanks to the ultra-clear touchscreen display on the Wired Control Point. This is your main interaction point with your PRIMAIRY system, so it is thankfully easy to use from the first try onwards. Choose the temperature, fan speed and timing for your system to ensure an ideal working and living space.
Weekly timer to schedule operation for the week ,
lock function to avoid your customers to accidentaly modify the operation gives you freedom to fully dedicate yourself to your business.
Room temperature can also be measured at the remote thanks to its built in thermostat, so comfort temperature will be with your customers.

HCWA21NEWH



Fan speed setting

Auto fan speed
Ultrahigh fan speed
High fan speed
Mideum fan speed
Low fan speed
Ultralow fan speed

Timer setting

Timer ON
Timer OFF
Timer valid for one time
Timer valid for one day
Timer set for a week

Room temperature

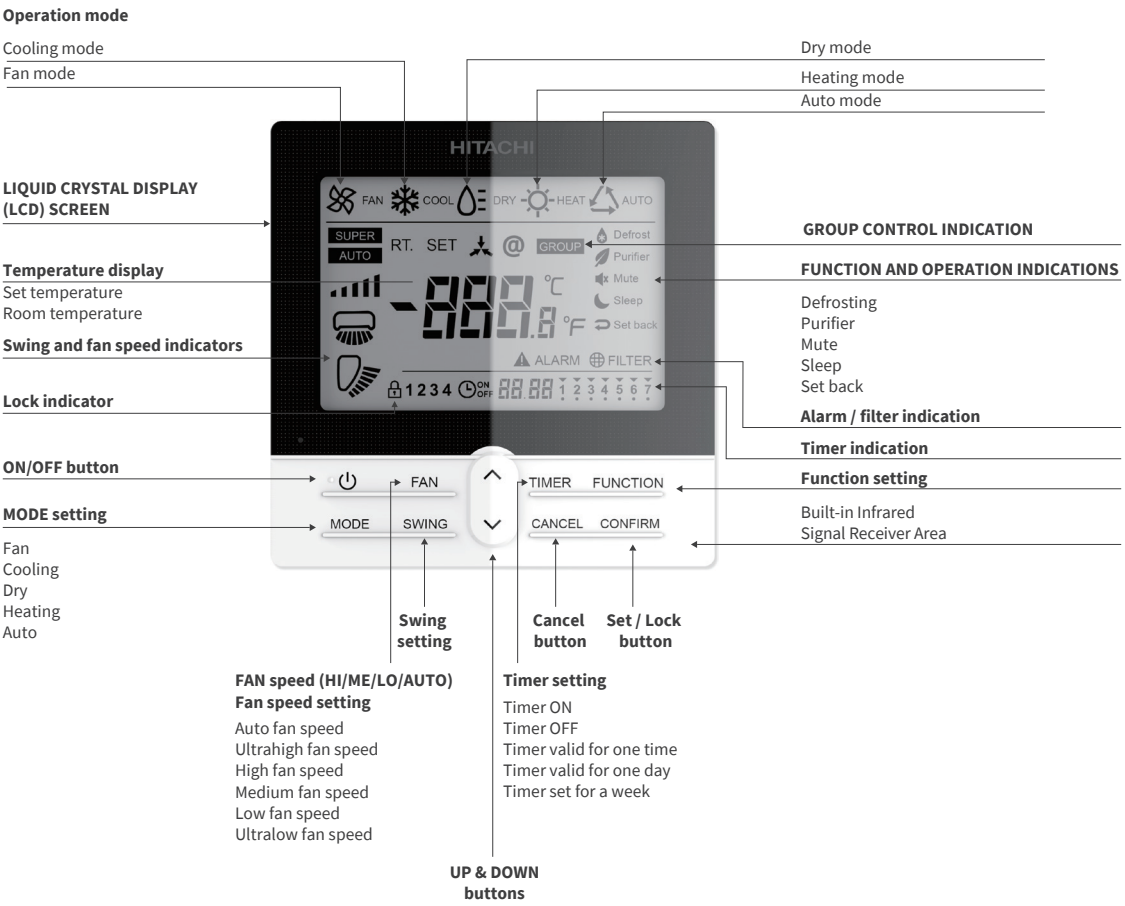
Set temperature

WIRED REMOTE CONTROLLER

The new wired remote controller (HCWA21NEHH) has the same functions as its predecessor but also has some additional features for a better comfort and energy savings. Set back function allows to define when the units will have to resume to thermo-on status, allowing you to choose the savings or comfort level you need for your application.

HCWA21NEHH is also equiped with an infrarred sensor that can receive orders from a Wireless remote. Whenever you might need to use a Wireless remote for ducted, infrarred receiver won't be longer needed.

HCWA21NEHH



NEW GROUP CONTROL FUNCTION WITH HCWA21NEHH

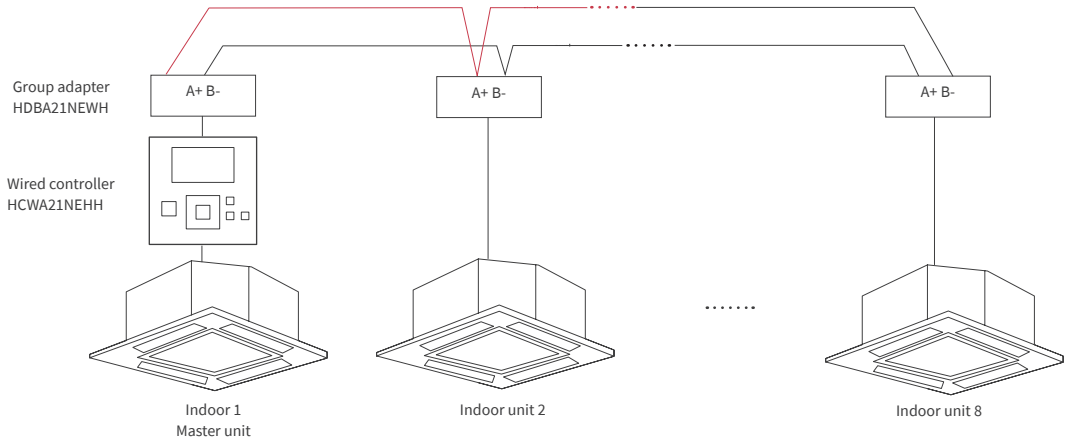
NEW

HCWA21NEHH also allows you to control a group of indoor units from a single remote, facilitating the user interface for those applications where a group of units share the same operation mode and set point.

Up to 8 indoor units can be controlled from a single remote control HCWA21NEHH. One group adapter HDBA21NEWH per indoor unit shall be installed for such combination.

In the combination above, all the units are sharing the same operation parameters. Please refer to the table on the next page for more details about the operation details.

Connection schematic



Specifications	HCWA21NEHH group control
Max. qty of wired controller	1
Maximum quantity of indoor units	8
Quantity of group adapters HDBA21NEWH	1 adapter per unit, mandatory for sub units, optional for main unit
Standard wiring length between wired controller and indoor unit (using the connection cords delivered with the unit)	up to 10 m
Standard wiring length between indoor unit and group adapter (using the connection cord delivered with the unit)	0,5 m
Max. wiring length between indoor unit and group adapter (extending manually the standard connection cord)	40 m
Maximum total wiring length between group adapters	1000 m
Maximum distance between 2 consecutive adapters	300 m
Wiring specification between group adapters (RS485 communication line)	Shielded twisted pairs
	2 x 0,75 mm2
Group adapter communication speed	9600 bps

RAC & HLINK CONTROLLERS

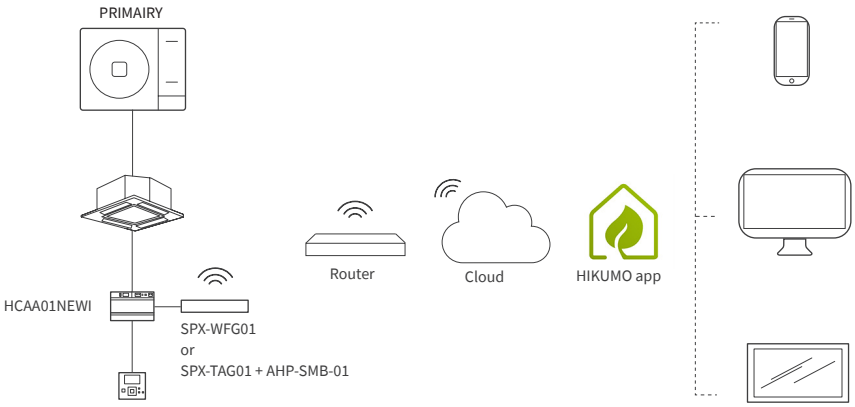
RAC CONTROLLERS

HCAA01NEWI
HLINK adapter

PRIMAIRY units are compatible with HLINK controls used for Hitachi VRF range thanks to the HCAA01NEWI adapter. Some RAC control devices may also be used to manage your PRIMAIRY units thank to the same adapter.

Most frequently used controllers can be found here. For full details of all compatible controls please check the general catalogue.

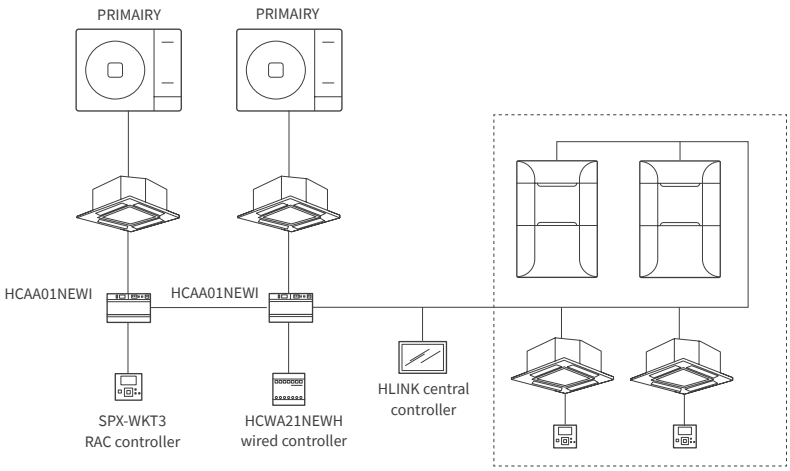
Combination with HIKUMO gateway



PRIMAIRY units are now compatible with Hi-Kumo cloud control. You'll be able to operate from everywhere with same functionality as your individual remote.

HLINK CONTROLLERS

Connection to VRF system



It is possible to combine up to 16 PRIMAIRY systems on the same HLINK line, using one HLINK adapter per PRIMAIRY system.

Each PRIMAIRY system is independent and can be controlled either from the Central controller or from its individual controller, if it is available.

HLINK CONTROLLERS

Selection tips between HCWA21NEHH + Group control and connection to HLINK Controller

The group control function of the wired controller HCWA21NEHH and the HLINK adapter should not be used together. In case there are only PRIMAIRY units, the wired controller HCWA21NEHH + group control feature should be used (the same parameters are applied for all the units).

If one or several PRIMAIRY units are connected to an HLINK system, one HLINK adapter per PRIMAIRY unit should be used and the control of the whole system is done from the HLINK Central controller. In this case, each PRIMAIRY unit is independent and can be run with specific parameters.

Differences between group control and central control	Group control with HCWA21NEHH	HLINK adapter HCAA01NEWI
Control description	• All the units are using the same parameters • All units will adopt all commands received from the wired controller installed at the main unit	• Each PRIMAIRY unit is independent and can be run with specific parameters • From the central controller, you can control one or several units
Use of additional individual controllers (wired / wireless)	• Additional wired controllers cannot be used with the main or the sub units • Wireless controller shall NOT be used to control the main unit or any sub unit • Orders sent to the main unit or to any secondary unit with a wireless controller will be applied only to that unit: group control feature is not compatible with wireless controller • If a new command is applied at main wired controller, the settings will overwrite any commands received by the wireless remote controller	• The wired controller or wireless controller can be used on units, as required by the customer • In case a wired controller is used on the PRIMAIRY units, orders / settings will be synchronized between the central controller and the wired controller of the unit • In case a wireless controller is used on the PRIMAIRY units, orders / settings from the wireless controller will be updated on the central controller. Orders from the central controller are not updated on the wireless controller
Required devices	• 1 x wired controller HCWA21NEHH is mandatory (main unit) • 1 group adapter per indoor unit (mandatory for the secondary units, optional for the main unit)	• One HLINK adapter per indoor unit is mandatory
Wired controller mandatory	• Wired controller HCWA21NEHH is mandatory (main unit) • Wireless controller shall NOT be used when group control function is used	• The wired controller on the PRIMAIRY unit is not mandatory, control of the unit can be done from the central controller only
Typical application	• Large open space with several units that needs to operate in same working condition. To be able to control from a single remote is convenient and more user friendly to end user	• Medium large installation where multiple units are used at different rooms, and there is a need to control/monitor them from a single dashboard + connection to a VRF system and its Central Controller.

CENTRAL CONTROLLERS

INTEGRATION WITH HLINK CONTROLS

Several sets of PRIMAIRY units can be now managed through a central controller, and also together with VRF systems thanks to the HLINK adapter for PRIMAIRY HCAA01NEWI.
Perfect solution for multitenant applications or installation where some PRIMAIRY units are mixed with a VRF installation (e.g. Server room managed with PRIMAIRY in a big office building).

Centralised control systems with touchscreen
CSNET Manager 2T10 / 2T15 + HC-A64NET interface

Mounting accessories for the touchscreen:
Wall-mounted support: WALL SUPPORT 2
Table-top support: STAND SUPPORT

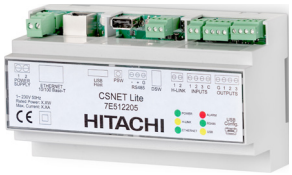
- Up to 1,024 indoor units connectable on 16 separate H-Link buses by means of HC-A64NET accessories (16 x 64)
- 10" capacitive touchscreen (version 2T 10)
- Improved resolution, compact and low weight of just 1.2 kg (version 2T 10)
- Dimensions (h x w x d): 169.4 x 255.2 x 33.3 (version 2T 10)
- 15" capacitive touchscreen (version 2T 15)
- Improved resolution, compact and low weight of just 2.6 kg (version 2T 15)
- Dimensions (h x w x d): 249 x 391 x 37 (version 2T 15)
- Improved access to graphic selection menus
- Web access available via PC, tablet or smartphone
- Check overall depth in accordance with the selection of mounting accessory

Centralised control systems Web version
CSNET Manager 2 SL + HC-A64NET interface

Mounting accessory: DIN rail support

- Up to 1,024 indoor units connectable to 16 separate HLINK buses by means of HC-A64NET accessories (16 x 64)
- Hardware centralised control device, independent and connectable to external display devices
- Graphic features equivalent to CSNET Manager 2 series T 10 and T 15
- Stand-alone operation (without a dedicated computer)
- Flexibility of connection via 2 USB ports, 1 Ethernet port and 1 HDMI socket
- Web access available via PC, tablet or smartphone
- Dimensions (h x w x d): 105.2 x 168.5 x 17.5

Centralised control systems Stand-alone Web version
CSNET Lite

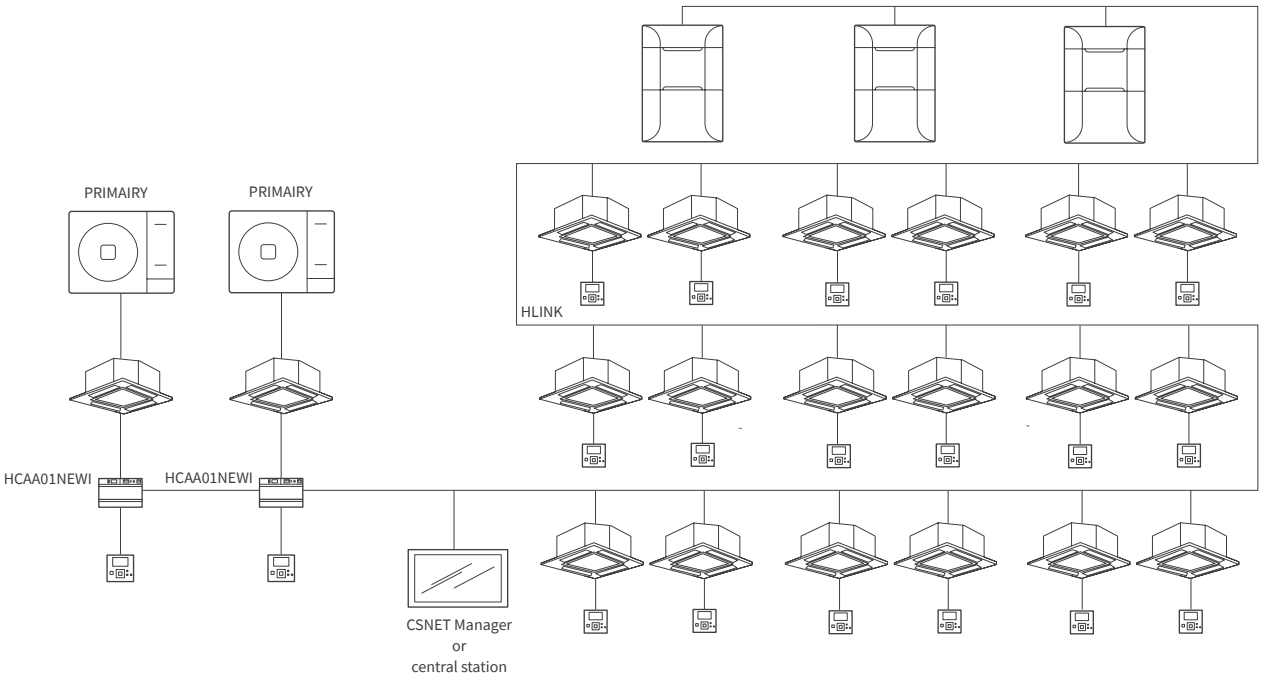


- Up to 64 indoor units connectable on HLINK bus
- Connectible to CSNET Manager touch screens (2T10 / 2T15) or to the SL device
- Optimised solution for small installations
- Simplified installation on DIN rail
- Stand-alone operation (without a dedicated computer)
- Web access available via PC, tablet or smartphone
- Dimensions (h x w x d): 58 x 160 x 90mm

Central Stations
PSC-A32MN & PSC-A64GT

- Up to 32 / 64 indoor units connectable on one HLINK line
- 5'' or 8,5" touch screen
- Individual control or group control of indoor units
- Simple weekly timer
- Indoor unit operation status (run, stop, alarm)
- Input and output dry contacts available to connect the controller to a BMS (alarm status output, emergency stop)

Connection schematic



VRF multiple cycle connections

BMS

PRIMAIRY is compatible with key BMS protocols such as Modbus, KNX, Bacnet and Lonworks for easy integration with other installations at same facilities premises (such as fire alarm, access control, lightning...).

HLINK adapter HCAA01NEWI is necessary to connect PRIMAIRY units to these BMS interfaces (1 HLINK adapter per PRIMAIRY indoor unit, with up to 16 PRIMAIRY systems per HLINK line).

MODBUS Interface

HC-A16MB/ HC-A64MB

- Allows integration of up to 8/16/64 indoor units
- Basic control parameters for indoor units are available:
  - ON/OFF command
  - Operation selection (heat, cool, auto, dry, fan)
  - Temperature setting
  - Fan speed setting (low, med, high, auto)
  - Louver operation (activate auto swing function)
  - Operation status of the unit can be read (on/off, alarm status)
  - Alarm code can be read but may not match the real alarm code of the unit, depending on the BMS device
- Availability of HC-A16MB: now available (since October 2020)

KNX Interface

HI-AC-KNX-16/ HI-AC-KNX-64

- Allows integration of up to 16/64 indoor units
- New functions:
  - Faster integration thanks to KNX certification
  - Easy maintenance: USB port available, operating and communication LEDs
- Basic control parameters for indoor units are available:
  - ON/OFF command
  - Operation selection (heat, cool, auto, dry, fan)
  - Temperature setting
  - Fan speed setting (low, med, high, auto)
  - Louver operation (activate auto swing function)
  - Operation status of the unit can be read (on/off, alarm status)
  - Alarm code can be read but may not match the real alarm code of the unit, depending on the BMS device

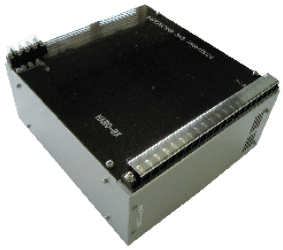
BACNET Interface

HI-AC-BAC-16/ HI-AC-BAC-64

- Allows integration of up to 16/64 indoor units
- New functions:
  - Faster integration: BACnet certification, direct communication HLINK - BACnet
  - Easy maintenance: USB port available, operating and communication LED
- Basic control parameters for indoor units are available:
  - ON/OFF command, operation selection (heat, cool, auto, dry, fan), temperature setting, fan speed setting (low, med, high, auto), louver operation (activate auto swing function) etc.

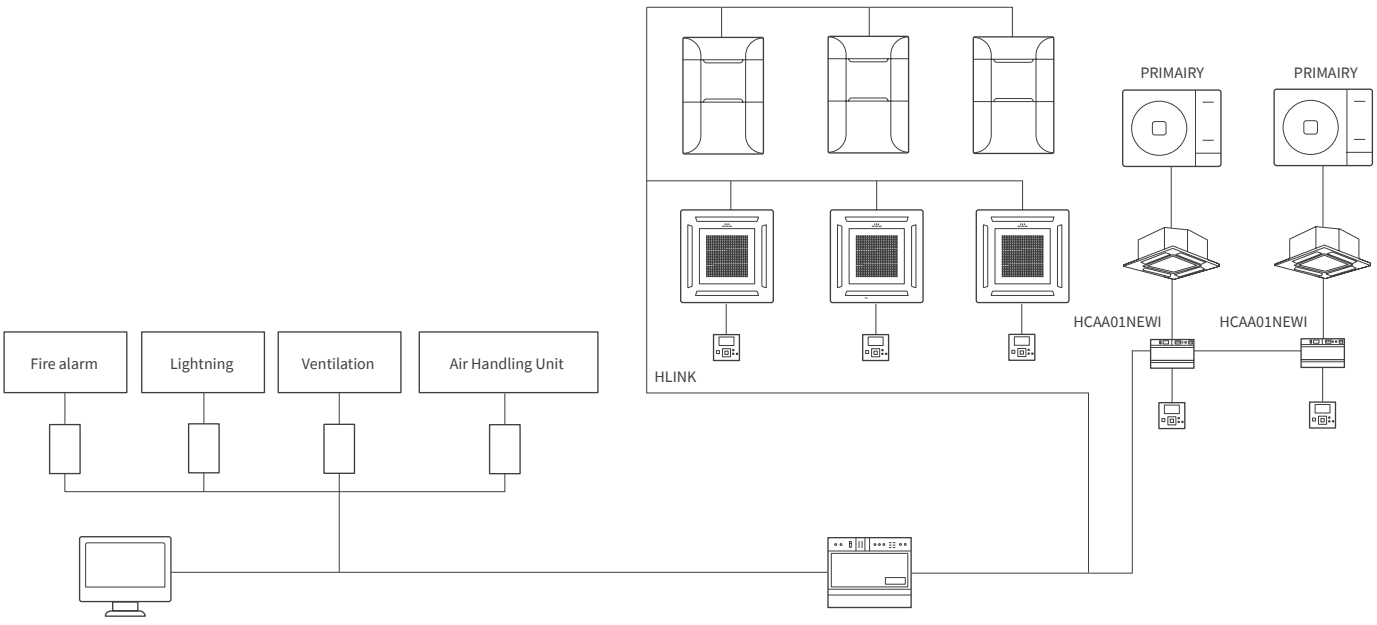
LonWorks Interface

HARC-BX E(A)/ HARC-BX-E(B)



- Allows the integration of up to 32 (version E (B)) / 64 (version E (A)) units per single device
- Basic control parameters for indoor units are available:
  - ON/OFF command
  - Operation selection (heat, cool, auto, dry, fan)
  - Temperature setting
  - Fan speed setting (low, med, high, auto)
  - Louver operation (activate auto swing function)
  - Operation status of the unit can be read (on/off, alarm status)
  - Alarm code can be read but may not match the real alarm code of the unit, depending on the BMS device

Connection schematic



SPECIFICATIONS

CASSETTE

IDU				RCI-4.0UFE1NH	RCI-6.5UFE1NH
ODU				RAS-4.0UFESNH1	RAS-6.5UFESMH1
Power supply (Indoor)			V/Ph/Hz	220~240/1/50	220~240/1/50
Power supply (Outdoor)			V/Ph/Hz	220~240/1/50	380~415/3/50
Max.input consumption			W	5,100	7,800
Max.input current			A	22.5	13.1
Average (Cooling)		Pdesignc	kW	10.10	16.90
		SEER	W/W	6.10	5.60
		ηs,c	100%	-	221%
		Energy Efficiency Class		A++	-
		Annual energy consumption	kWh/a	580	883
Average (Heating)		Pdesignh	kW	8.20	13.50
		SCOP	W/W	3.92	3.87
		ηs,c	100%	-	152%
		Energy Efficiency Class		A	-
		Annual energy consumption	kWh/a	3,018	4,037
Cooling		Capacity (Rated)	kW	10.10	16.90
		Capacity (Range.Min~Max)	kW	3.50~11.00	3.30~18.00
		Input	kW	3.72	6.72
		Current	A	16.8	12.5
		EER	W/W	2.72	2.51
Heating		Capacity (Rated)	kW	11.20	19.49
		Capacity (Range.Min~Max)	kW	3.32~12.00	3.00~21.00
		Input	kW	3.50	6.74
		Current	A	16.00	12.60
		COP	W/W	3.20	2.89
Indoor unit		Dimension (W×H×D)	mm	840×248×840	840×298×840
		Weight (Net/Gross)	kg	27/36	32/41
		Air Volume (Hi/Med/Lo)	m^3/h	1,600/1,300/1,000	2,100/1,700/1,400
		Sound Level (SPL)(Hi/Med/Lo)	dB(A)	50/45/42	52/45/42
		Sound Level (PWL)(Hi)	dB(A)	65	68
		Controller (Type/Model)		Wireless/HCRA31NEWH	Wireless/HCRA31NEWH
		Drain pump		Included	Included
		Air filter		Included	Included
Panel		Dimension (W×H×D)	mm	950×37×950	950×37×950
		Weight (Net/Gross)	kg	6.0/10.0	6.0/10.0
Compressor		Type		ROTARY	ROTARY
Outdoor unit		Dimension (W×H×D)	mm	950×840×340	950×1,386×340
		Weight (Net/Gross)	kg	70/75	109/121
		Air Volume (Hi)	m^3/h	3,800	6,300
		Sound Level (SPL)(Hi)	dB(A)	58	67
		Sound Level (PWL)(Hi)	dB(A)	70	80
		Refrigerant (Type/Amount)	kg	R32/2.00	R32/3.40
Refrigerant piping		Liquid/Gas	mm(inch)	Φ9.52/Φ19.05 (3/8'/3/4')	Φ9.52/Φ19.05 (3/8'/3/4')
		Max.pipe length	m	50	50
		Max.height difference (OD lower)	m	30	30
		Max.height difference (OD higher)	m	30	30
		Add Refrigerant Amount	g/m	28	28
		Pipe Length for Additional Refrigerant	m	5	5
Ambient temperature		Cooling	°C	-15~+48	-15~+48
		Heating	°C	-15~+24	-15~+24

Nominal testing conditions:
Cooling - Indoor (27°C DB / 19°C WB) & Outdoor (35°C DB / 24°C WB)
Heating - Indoor (20°C DB / 15°C WB) & Outdoor (7°C DB / 6°C WB)

SPECIFICATIONS

DUCTED

IDU			RPIH-4.0UFE1NH	RPIH-6.5UFE1NH
ODU			**RAS-4.0UFESNH1**	**RAS-6.5UFESMH1**
Power supply (Indoor)		V/Ph/Hz	220~240/1/50	220~240/1/50
Power supply (Outdoor)		V/Ph/Hz	220~240/1/50	380~415/3/50
Max.input consumption		W	5,100	7,800
Max.input current		A	22.5	13.1
Average (Cooling)	Pdesignc	kW	10.10	17.10
	SEER	W/W	6.10	5.81
	ηs,c	100%	-	229%
	Energy Efficiency Class		A++	-
	Annual energy consumption	kWh/a	577	943
Average (Heating)	Pdesignh	kW	8.20	11.00
	SCOP	W/W	3.92	3.72
	ηs,c	100%	-	146%
	Energy Efficiency Class		A	-
	Annual energy consumption	kWh/a	2,926	4,205
Cooling	Capacity (Rated)	kW	10.10	17.10
	Capacity (Range.Min~Max)	kW	3.50~11.00	3.30~18.50
	Input	kW	3.80	6.60
	Current	A	17.1	12.5
	EER	W/W	2.66	2.59
Heating	Capacity (Rated)	kW	10.50	18.00
	Capacity (Range.Min~Max)	kW	3.32~12.00	3.00~19.50
	Input	kW	3.50	6.10
	Current	A	16.0	11.6
	COP	W/W	3.00	2.95
Indoor unit	Dimension (W×H×D)	mm	1,140×268×720	1,300×350×800
	Weight (Net/Gross)	kg	37.5/44.5	51/60
	Air Volume (Hi/Med/Lo)	m^3/h	1,800/1,600/1,400	2,400/2,200/1,900
	Sound Level (SPL)(Hi/Med/Lo)	dB(A)	42/40/38	48/45/43
	Sound Level (PWL)(Hi)	dB(A)	65	77
	External Static Pressure (Rated)	Pa	37	50
	External Static Pressure (Range)	Pa	0~120	0~120
	Controller (Type/Model)		Wired/HCWA21NEWH	Wired/HCWA21NEWH
	Drain pump		Included	Included
	Air filter		Included	Included
Compressor	Type		ROTARY	ROTARY
Outdoor unit	Dimension (W×H×D)	mm	950×840×340	950×1,386×340
	Weight (Net/Gross)	kg	70/75	109/121
	Air Volume (Hi)	m^3/h	3,800	6,300
	Sound Level (SPL)(Hi)	dB(A)	58	67
	Sound Level (PWL)(Hi)	dB(A)	70	80
	Refrigerant (Type/Amount)	kg	R32/2.00	R32/3.40
Refrigerant piping	Liquid/Gas	mm(inch)	Φ9.52/Φ19.05 (3/8'/3/4')	Φ9.52/Φ19.05 (3/8'/3/4')
	Max.pipe length	m	50	50
	Max.height difference (OD lower)	m	30	30
	Max.height difference (OD higher)	m	30	30
	Add Refrigerant Amount	g/m	28	28
	Pipe Length for Additional Refrigerant	m	5	5
Ambient temperature	Cooling	℃	-15~+48	-15~+48
	Heating	℃	-15~+24	-15~+24

Nominal testing conditions:
Cooling - Indoor (27°C DB / 19°C WB) & Outdoor (35°C DB / 24°C WB)
Heating - Indoor (20°C DB / 15°C WB) & Outdoor (7°C DB / 6°C WB)