HITACHI

VRF catalog 2022

Cooling & Heating

Welcome to Hitachi Cooling & Heating

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Johnson Controls – Hitachi
heating and air-conditioning solution factories across the world

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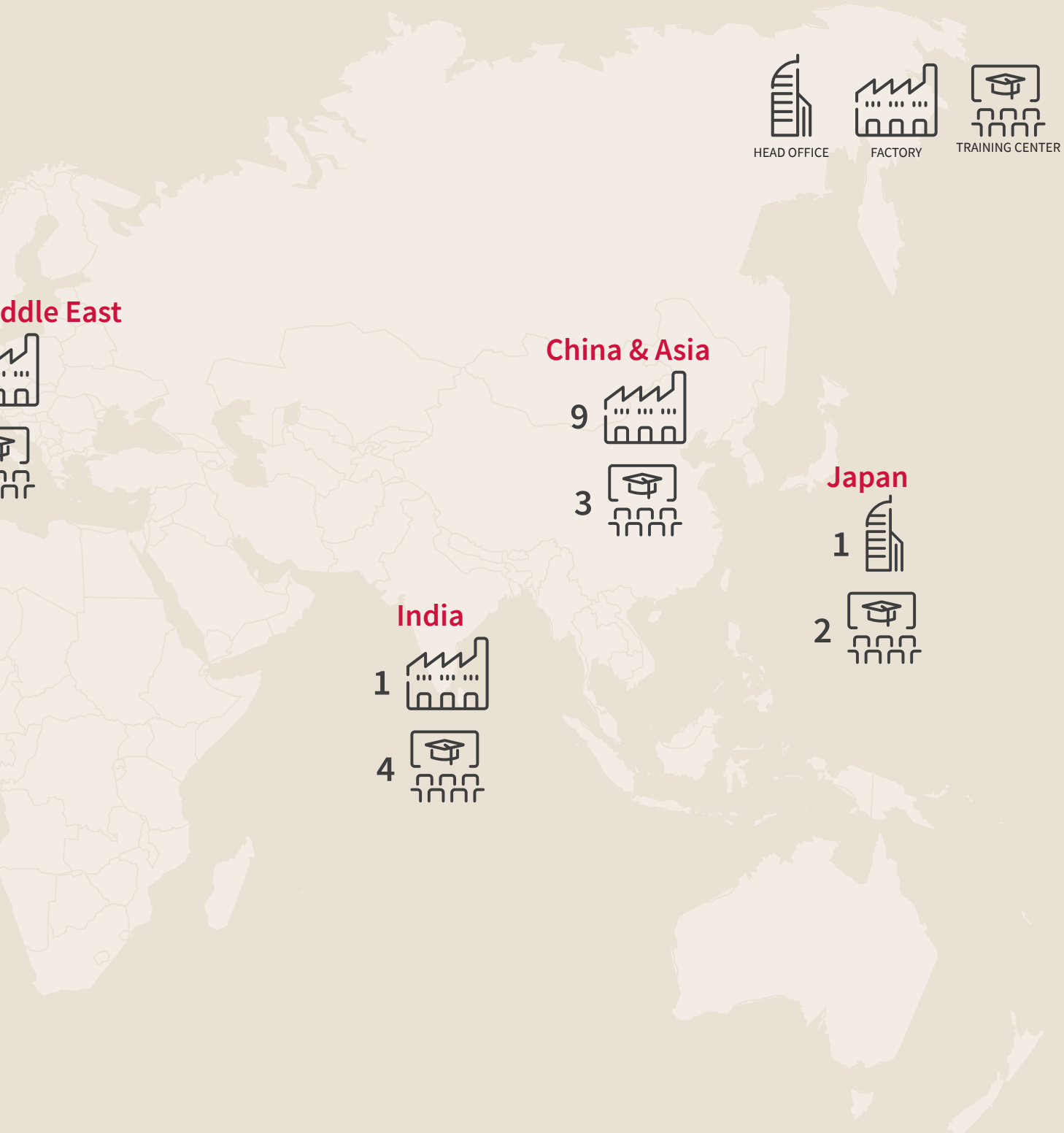
The Johnson Controls-Hitachi European factory has been recycling 100% of its waste since 2017 as part of a continuous commitment to sustainable development. It has received 4 "Zero Waste to Landfill" awards, an environmental excellence certificate and an award for the dedication and commitment of its environmental teams.

CE · JQA Quality System · Eurovent Certified Performance · ISO 14001 · RoHS 2002/95/EC · AENOR Gestión Ambiental UNE-EN ISO 14001 GA-1999/0044 · AENOR Empresa Registrada UNE-EN ISO 9001 ER-0198/1996



Enjoy an exclusive factory tour

The Johnson Controls – Hitachi plant in Barcelona (Spain) is responsible for the design, manufacture, and verification of every appliance we make. It supplies Europe, Africa, parts of South America, and Oceania.

Its location allows us to have products specially suited to the European market. The rigorous design and manufacturing process ensures the highest quality, reliability, and durability for our customers in each piece of equipment they buy. This factory is also our European spare parts center.

It currently produces the following product lines: the commercial range with VRF systems, the Chillers range, and the Yutaki Air/Water heat pump range, representing almost the entire Hitachi equipment series.

More than 130 years of innovation

1883
In 1883, Warren S. Johnson obtained a patent for the first electric ambient thermostat. His invention gave rise to the control sector for buildings and Johnson Controls.

1910
In 1910, Namihei Odaira founded an electrical equipment repair shop at Kuhara Mining in Hitachi (Ibaraki, Japan). The company has been a technological leader ever since.

1936
First fully air-conditioned office building.

1952
First air-conditioning unit in Japan.

1958
First integral centrifugal chiller with water condenser on delivery.

1962
First heat pump in Japan.

1978
First cooler with variable speed drive.

1983
First DC Inverter air-conditioning unit in the world.

1999
First graphical user interface board (GUI) on a cooler.

2005
After acquiring the York® brand, the Group becomes the Number 1 one-stop supplier of Heating Ventilation Air-conditioning & Cooling systems.

2006
- First 6 -output multi-split unit on the market.
- First air/water heat pump.

2008
- First console dedicated to the heating market.
- First IVX on the market.

2010
Johnson's head office receives LEED Platinum certification. This eco-building label, awarded to programs at the cutting edge of energy and environmental design, is a scheme developed by the Green Building Council in the U.S.

2011
- First split thermodynamic tank on the market.
- First 2-tube/3-tube VRF on the market.

2013
First ultra high-temperature heat pump, the NE.

2014
- First dual-service heat pump.
- VRF Eurovent-certified range.

2015
On October 1, the new company Johnson Controls – Hitachi Air Conditioning is launched.

2016
- New Yutaki air/water heat pump range.
- Hi Kumo app for connected heat pumps.

2017
New Hydro-Free solution (hot water production in VRF).

2018
- solution, the first multi-split storage water heater.
- New VRF Sigma range.
- New full range of Samurai ice water units.

2019
- FrostWash's exclusive self-cleaning feature for improved indoor air quality.
- New VRF SET FREE Mini with horizontal fan blower.
- New Yutaki R32 air/water heat pump range.
- New CSNET centralized management solution.
- Hi Kumo PRO, new remote maintenance solution for air/air and air/water heat pumps.

2020
- New Dodai 2 wall unit and Dodai 2 Multi-split units.
- Exclusive Triple C R32 solution.
- Yutampo R32 thermodynamic tank
- New Primairy R32 range dedicated to retail.
- New groups of ice water units, Samurai L Evolution air condensation units.

2021
- New Utopia Prime commercial range, from Single to Quadri (R410A and R32).
- New Micro VRF IVX Prime range (R410A and R32).
Silent-Iconic redesigned panel for cassette 800x800
- New ultra compact ducted range.
- airCloud Home connected solution.

Hitachi supports you in the energy transition

CAP to RE 2020

What is RE 2020?

RE 2020 is the future Environmental Regulations that will apply as of January 1, 2022 to new housing, office and school buildings in place of RT 2012 (launch date may be subject to change according to government announcements).

The construction sector accounts for 44% of energy consumption and 25% of CO_2 emissions.

What are the objectives of RE 2020?

3 main objectives were defined by the Ministry for Ecological Change:

1 Prioritize energy efficiency and energy decarbonization.

2 Reduce the carbon impact of building construction.

3 Keep dwellings cool in high outside temperatures.

RE 2020 IN A NUTSHELL			
The goals aims of RE 2020	Reducing energy consumption and using decarbonized energy.	Decrease in the carbon impact associated with building construction.	Maintain summer comfort.
The requirements and guidelines of RE 2020	- Lower the max. 'Bbio' – the bioclimate requirements – by 30% compared to RT 2012. - Set a max. greenhouse gas emissions threshold of 4 kg CO2 per m^2 per year (initially only for detached homes). - Limit the use of fossil fuels. - Systematize of the use of ENRs, with a maximum threshold of non-renewable primary energy consumption.	- Introduce the Life Cycle Analysis of buildings and their facilities. - Favor thermodynamic systems using low GWP fluids. - Generalize the use of Environmental Product Profiles (EPPs) for new projects to assess the carbon impact of different solutions and to use energy in the most carbon neutral way.	- Introduce a new summer comfort indicator rated in degrees per hour (DH). - Maximum threshold of 1250 DH must not to be exceeded, corresponding to a dwelling staying at 30°C for a period of 25 days and 28°C at night. - Determine a low threshold of 350 DH to promote bioclimatic design efforts (building orientation, climate impact, sun protection).

Hitachi's exclusive solutions to meet RE 2020

PEP Hitachi files available at: **pep-ecopassport.org** or **inies.fr**

RESIDENTIAL

Exclusive to Hitachi

Storage water heater YUTAMPO R32

- Keymark-certified.
- COP up to 3.2.

- The only R32 storage water heater on the market.
- Just 1kg of R32.
- Keymark-certified.
- COP up to 3.2.

Exclusive to Hitachi

Multi-split storage water heater TRIPLE C R32

- Keymark, NF heat pump and Eurovent-certified.
- COP up to 4.20.
- Air-conditioning ready on demand.

- 1 single outdoor unit for heating, hot water, and air-conditioning.
- Works with R32.

- Air-conditioning ready on demand.

Air/water heat pump YUTAKI S and S COMBI R32

- Eurovent-certified.
- COP up to 5.25.

- Works with R32 (models 4 to 8kW).
- Just 1.3kg of R32.

- Reversible

COLLECTIVE HOT WATER

Thermodynamic solution HIDRO S80

- COP up to 3.3.
- Keymark-certified.
- Centralized production.

- Centralized production of hot water and/or thermodynamic heating up to 80°C and -15°C outside without electrical resistance.
- Option of collective pairing of apartment thermal modules (Title V).

The advantages of RE 2020	Reduce energy consumption.	Lower the carbon impact associated with construction.	Maintain summer comfort.

PUBLIC BUILDINGS

Exclusive to Hitachi

Mini bi-ventilation 3-tube VRF FREE MINI SET

- Eurovent-certified.
- COP up to 4.70.

- Less than 4.2kg R410A (with the exception of 10 Cp and 12 Cp models).

- Ad-hoc heating and air-conditioning (3-pipe for 8, 10 and 12 Cp models).

Micro VRF IVX PRIME R32

- Eurovent-certified.
- COP up to 4.5.

- Works with R32.
- Just 3kg of R32 for a 14kW group.

- 2-tubes connection.
- Maintain cooling up to 46°C outside.

VRF SIGMA

- Eurovent-certified.
- COP up to 4.75.

- 10kg less of R410A up to 45kW.

- Ad-hoc heating and air-conditioning (3-pipe).

VRF

VRF

Our wide range of Hitachi VRFs is ideal for small and large public buildings and industrial applications. Connect up to 64 indoor units per unit, all independently controlled.

VRF outdoor units

Capacity range in cooling mode (hp)

	3	4	5	6	8	10	12	14	16	18	20	22	24	>24
Micro VRF (Utopia Prime & IVX Prime) VRF 2 tubes Max number of IU connected: 4 • Refrigerant R32 (4 - 6 hp) • Refrigerant R410A (3 - 12hp)  p. 22	•	•	•	•	•	•	•	-	-	-	-	-	-	-
SET FREE Mini VRF 2 tubes (4 - 12hp) VRF 3 tubes (8– 12hp) Max number of IU connected: 39 • Refrigerant R410A  p. 28	-	•	•	•	•	•	•	-	-	-	-	-	-	-
SET FREE Sigma Standard VRF 2 tubes VRF 3 tubes Max number of IU connected: 64 • Refrigerant R410A (8 - 96 hp)  p. 38	-	-	-	-	•	•	•	•	•	•	•	•	•	•
SET FREE Sigma High Performance VRF 2 tubes VRF 3 tubes Max number of IU connected: 64 • Refrigerant R410A (5 - 72 hp)  p. 46	-	-	•	•	•	•	•	•	•	•	•	•	•	•
Micro VRF IVX Centrifugal VRF 2 tubes Max number of IU connected: 6 • Refrigerant R410A (4 - 10 hp)  p. 58	-	•	•	•	•	•	-	-	-	-	-	-	-	-

* JOHNSON CONTROLS - HITACHI AIR CONDITIONING EUROPE SAS participates in the Eurovent Certification Program for AC/VRF/LCP-HP categories; data from certified models are listed in the Eurovent Annual Report (www.eurovent-certification.com).

Technical features

VRF system

OUTDOOR UNITS		FEATURES			
		Technology	Supply voltage	Connection rate range	Max number of IU connected
Micro VRF (Utopia Prime & IVX Prime) Refrigerant R32 (4 - 6 hp) Refrigerant R410A (3 -12 hp)		VRF 2 tubes (reversible) & Single Split	400V / 3 / 50Hz and 230V / 1 / 50Hz (acc. to model)	90 - 115 % acc. to applications	4
SET FREE Mini Refrigerant R410A (4 - 12 hp)		VRF 2 tubes (reversible) & 3 tubes (energy recovery according to model)	400V/3/50Hz and 230V/1/50Hz (acc. to model)	50 - 130%	39
SET FREE Sigma Standard Refrigerant R410A (8 - 96 hp)		VRF 2 tubes (reversible) & 3 tubes (energy recovery)	400V/3/50Hz	50 - 130%	64
SET FREE Sigma High Performance Refrigerant R410A (5 - 72 hp)		VRF 2 tubes (reversible) & 3 tubes (energy recovery)	400V/3/50Hz	50 - 150 % * acc. to applications	64
Micro VRF IVX Centrifugal Refrigerant R410A (4 - 10 hp)		VRF 2 tubes (reversible) & Single Split	400V/3/50Hz	75 - 120%	6

Micro VRF (IVX Prime and Utopia Prime)

- IVX Prime range 4 to 6 hp to R32 or R410A.
- Utopia Prime R410A: available from 3 hp to 12 hp.
- Option to manage up to 4 indoor units independently.
- Compact and lightweight units.
- Ideal for these applications: residential and small public.
- Available pressure: 30 Pa (IVX Prime).

VRF SET FREE Mini

- 2 tubes/3 tubes solutions (8 to 12 hp).
- Available from 12 to 33 kW.
- Reversible from 4 to 12 hp (SET FREE Mini S and L).
- Available pressure: 30 Pa.
- Exclusive: large selection of compatible indoor units from 0.4 Hp.
- Connect up to 39 indoor units.
- Perfect for small, medium, and large-scale public applications.

Min. power of connected indoor units	Max. pipe length	Max drop between OU - IU (OU above/below)	Max. drop between indoor units	Operating ranges (ext. temp)	IU
0.8 hp (2 kW cooling)	50 to 100 m	30 m/20 m	3 m	Heating mode -20° ~ 18°C WB Cooling mode -5°C ~ 46°C DB (-15°C : option)	1.1 TO 56 KW +100 models
0.4 hp (1.1 kW cooling)	85 to 125 m	50 m/40 m (acc to model)	15 m	Heating mode -20° ~ 15°C WB Cooling mode -5° ~ 48°C DB	
0.4 hp (1.1 kW cooling)	165 m	50 m/40 m	30 m	Heating mode -20° ~ 15°C WB Cooling mode -10° ~ 48°C DB	
0.4 hp (1.1 kW cooling)	165 m	50 m/40 m	30 m	Heating mode -20° ~ 15°C WB Cooling mode -10° ~ 52°C DB	
0.8 hp (2 kW cooling)	75 to 100 m (acc to model)	30 m/20 m	10 m	Heating mode -15° ~ 15°C WB Cooling mode -5° ~ 46°C DB	

Cassettes

Duct

Wall unit

Console

Ceiling unit

Hydraulic module

VRF SET FREE Sigma

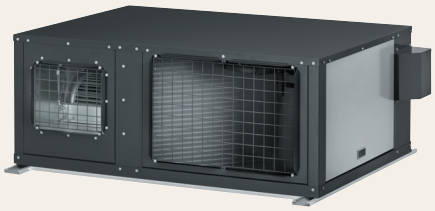
PEP eco PASS PORT® 2 TUBES OR 3 TUBES

2T/3T available on the same unit

- Available from 14 to 268 kW.
- Reversible and heat recovery VRF solution.
- Standard and High efficiency ranges.
- Space and cost savings (single module up to 67 kW).
- Exclusive comfort: "GENTLE COOL" and "smooth drive control" function.
- Available pressure: 80 Pa.
- Perfect for medium and large-scale public applications.

Micro VRF IVX Centrifugal (Single block)

ORIGINAL



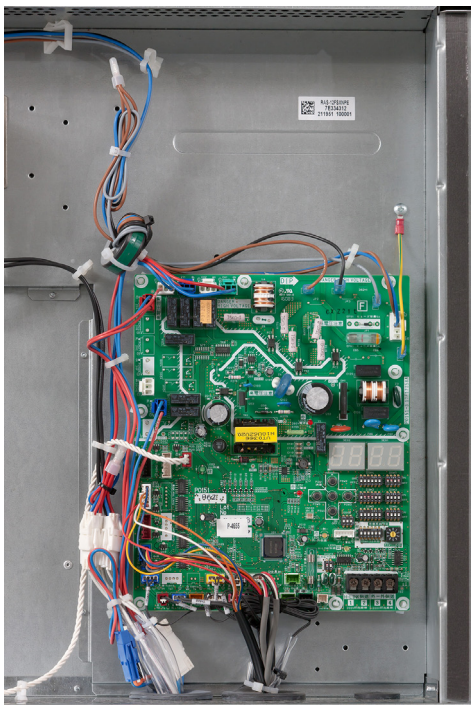
- Available from 10 to 24 kW.
- Ideal downtown solution: outdoor unit invisible because installed in suspended ceiling or service room.
- Option to set the temperature of up to 6 indoor units independently.
- Perfect for small and medium commercial facilities in the defined zones.

* Please refer to the technical documentation for more details on the combinations allowed.

Hitachi add-ons and exclusive features

Easy start up with the 7 segment display

All system operating settings: outdoor unit and all indoor units, can be accessed from the chiller. Readings include pressure, temperature, number of units connected, regulator openings... A very powerful maintenance tool.



Service Access

The access hatch to the electrical box panel simplifies service and maintenance. It offers access to the PCB1 without having to completely open the electrical box.

The following activities can be carried out from the access hatch:

- Check the 7 segment display and alarm screen.
- LED status.
- Set push buttons and DIP switches for function selection.
- Connect the verification device to the TB2 (assignment terminal).

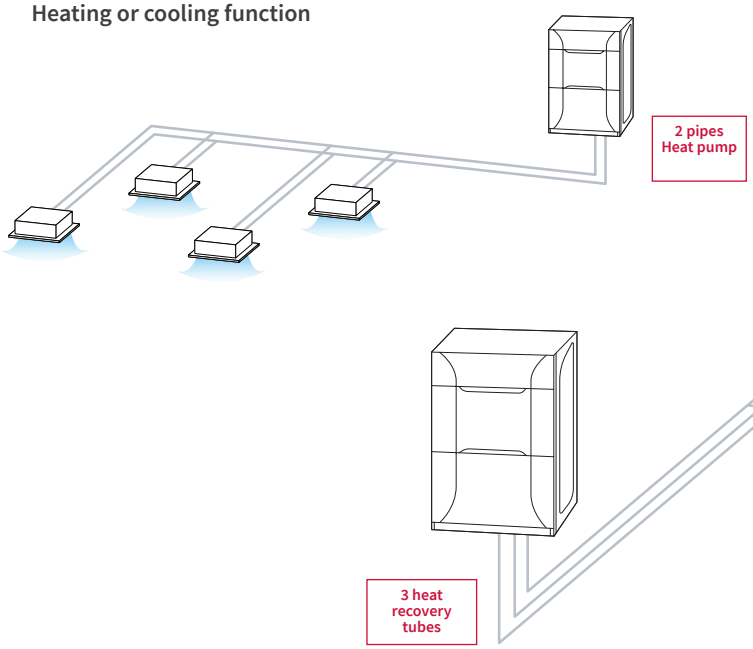
VRF SIGMA 5 to 96 hp

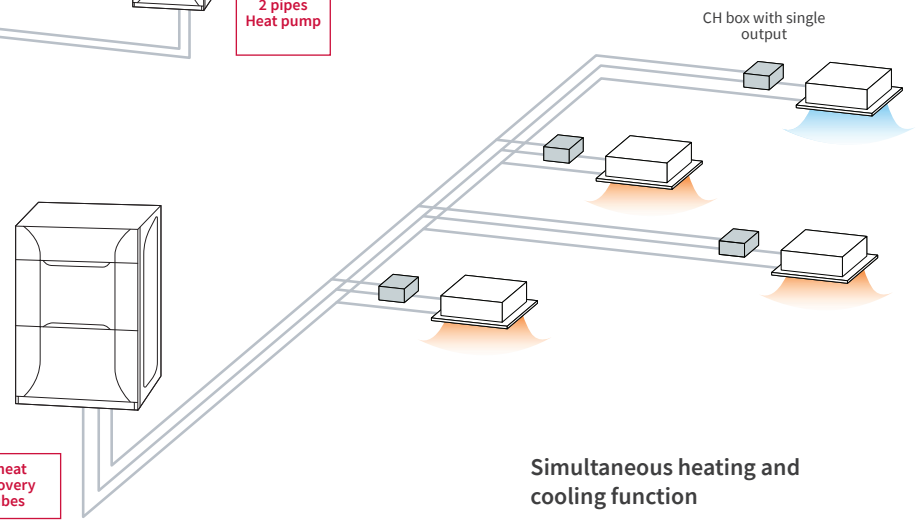
3-In-1 solution: heating, air conditioning and heat recovery

Hitachi + Plus benefits

- 2T/3T application on the same unit.
- Single module Sizes 5, 6 and 24 hp “exclusive”.
- Improved comfort: an IU starts up (min. 1.1kW), the OU starts up.

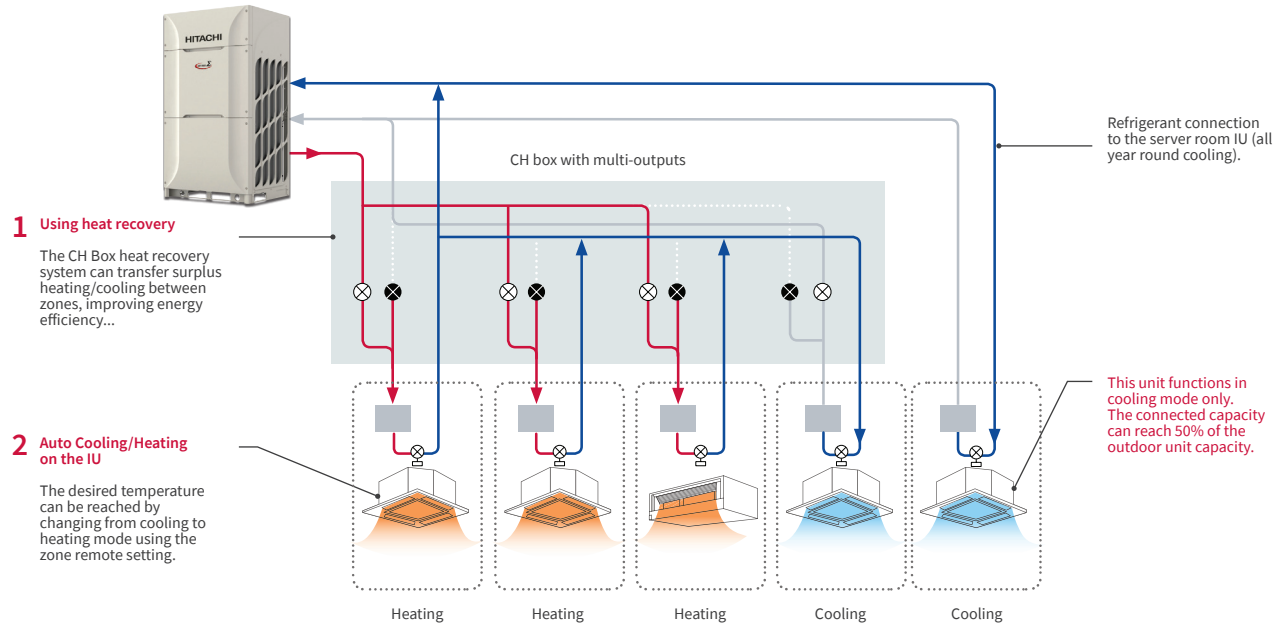
Heating or cooling function





Simultaneous heating and cooling function

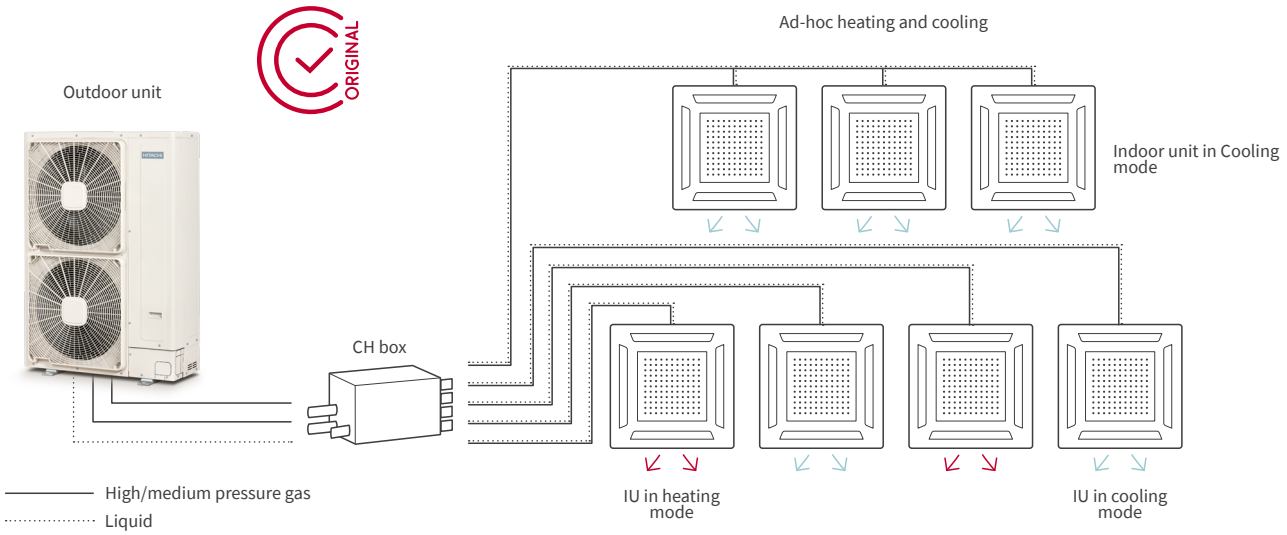
Sigma or Set free mini solution with a single or multi-output box for all indoor units except one connected upstream and operating in cooling mode only which avoids adding a single-split for the service room.
Unique and exclusive solution on the market. Unbeatable in terms of price positioning.



Hitachi add-ons and exclusive features

Mini VRF with energy recovery (8 to 12 hp)

The most compact 3-pipe VRF in the world!



The + points of the Hitachi solution

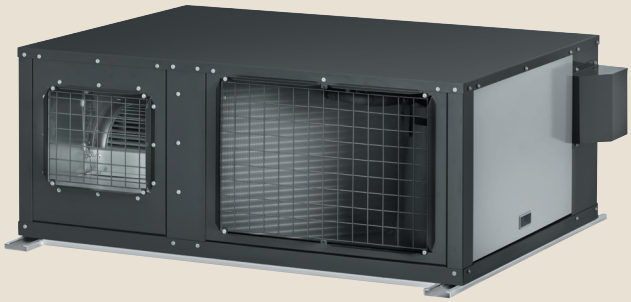
Energy recovery box

- No addressing to do on our CH boxes.
- **Low noise level: up to 31 dB(A) on multi-output and 33 dB(A) on single-output units.**
- The most compact on the market: (Single output H: 191 x L: 301 x P: 214), multi-output box (HxWxD: 260x303x352 mm).
- **Installation** in a **corridor to simplify distribution to the indoor units.**
- CH box positioning create proximity with the units, therefore reducing the network start-up time, tube lengths and total refrigerant volume (hotel project).
- Electronic regulators in the boxes: More progressive opening, to limit the noise level.
- **Optimal operation:** the CH box provides heating and cooling air ad-hoc without the need for a minimum % of unit being in each mode.
- 1 unit can be in cooling mode with the rest in heating. While conventional solutions need 25 or 30% cooling demand to validate simultaneous operation. This detail can connect rooms to cooling only all year round (info room, meeting room, windowless rooms...).
- **No condensate connection!**
- Box outputs provided in a flare connection: ideal for sensitive areas where there is a risk of fire ... can be brazed on site if necessary.

Mini VRF 8 to 12Hp

- Outdoor group with low amount of refrigerant: 8Hp (prefilled with 4.2kg), 10 and 12Hp (prefilled with 5.5kg).
- Meets EN 378 related to the level of refrigerant concentration in the premises.
- Small footprint: up to 37% less compared to a conventional VRF.
- Easy to install: on a chair, big-foot pedestal, support, wall-mounted on the panel.
- Great flexibility: up to 500m length of piping.
- Low noise level.
- Reducing the cost of installation.
- Compatible with Single-output and Multi-output boxes.

Invisible Single bloc VRF (4 to 10Hp)



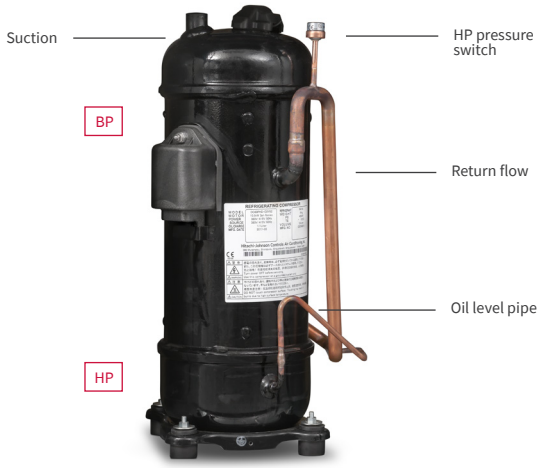
The + points of the Hitachi solution

- No outdoor units visible on the panel of the building.
- Connect up to 6 indoor units.
- **Available pressure of 120Pa on the fan.**
- **Install in a suspended ceiling or technical room.**
- **Height < 600mm.**
- Quieter.
- Ideal for city-center facilities.
- Compatible with all ranges of HITACHI VRF indoor unit and DX KIT.

Intelligent oil management for more reliability

Check compressor oil level without sensors

Oil return is suction -controlled: the oil flows into the bottom of the crankcase and is then drawn up by the pressure differential between the HP and LP to the bearings.

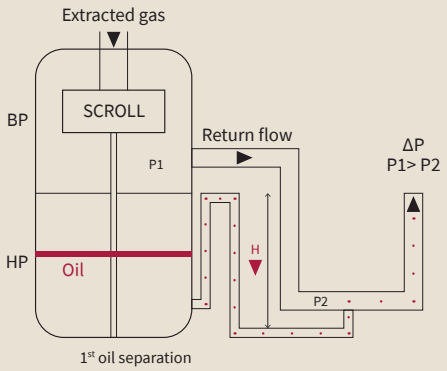


The + points of the Hitachi solution

Optimal lubrication

- Maintain the perfect oil level in the operating compressor, as if at a standstill.
- Ensure sufficient oil level when compressor restarts for greater durability.

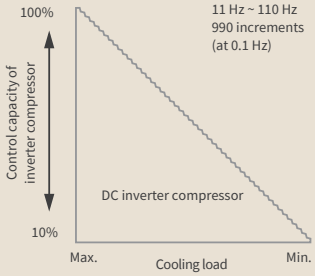
- Maintain the minimum amount in the suction line accumulator, necessary for greasing other compressors.
- Reduced energy costs by removing oil collection cycles in indoor units in forced mode at regular intervals.
- The second oil separation is done in the high-efficiency, centrifugal oil separator.

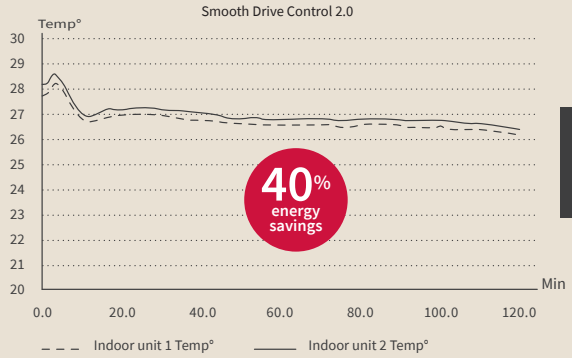


Smooth Drive control 2.0

Inverter frequency change at 0.1 Hz accuracy.

NEW





Performance at 25% partial load

Cooling capacity = 7.88 kW
Power input = 1.13kW
EER = 6.96

The + points of the Hitachi solution

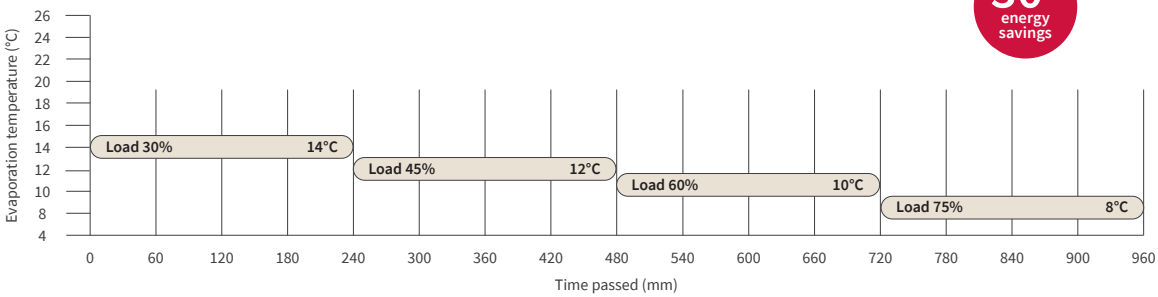
- Ambient temperature monitored in 0.1K increments compared to a 1K increment with Smooth Drive Control 1.0.
- Compressor power modulation up to min. 10%.
- Improved partial-load performance: EER up to 6.96 (25% charge).
- The setpoint temperature is quickly reached and maintained with frequent monitoring, at an accuracy of 0.1Hz.
- **Inverter regulated to the nearest 0.1 Hz,** to meet the heating requirements of all rooms and **provide the exact amount of refrigerant required in each room.**

Variable evaporation temperature

Smart Control manages the evaporation temperature which can be adapted to indoor conditions and actual requirements.

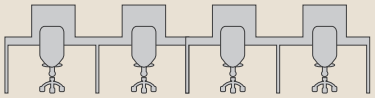
Evaporation temperature by thermal load variation

30% energy savings



The + points of the Hitachi solution

- Increased seasonal energy efficiency.
- High COPs and EERs with partial loads.
- Optimal comfort.



A meeting room in mid-season

High demand in cooling: occupation, computers, sunshine.

The evaporation temperature is decreased.
- Temperature of the fan blower = 8°C.
- Cooling capacity - 100% load, with rated energy consumption.

A separate office

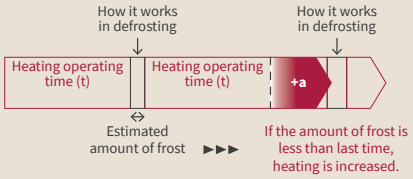
Low demand in cooling: constant occupation.

The evaporation temperature is increased.
- Temperature of the fan blower = 16°C.
- Cooling capacity = 53% load, with 30% energy savings.

Smart defrost for continuous heating
Smart Defrost comfort

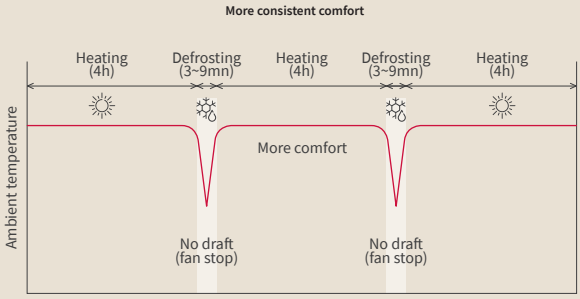
Smart defrost

- Continuous analysis of defrosting cycle durations and the system self-adapts to minimize them between 3 to 9 min max.
- System optimized to detect the amount of frost in the outdoor units. (SIGMA, Set Free mini, Micro VRF, Utopia Prime and IVX Prime).



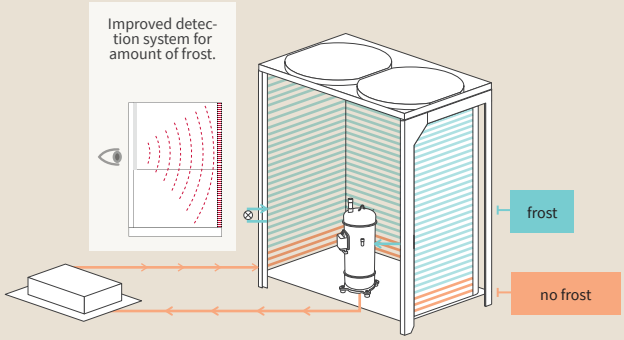
The + points of the Hitachi solution

- Runs for up to 4 hours without defrosting!
- Defrosting time limited to 3 to 9 min to maintain comfort.
- Fan stops during defrosting, then blower when the T°s > 30°C (user comfort maintained).
- **Maintains the lower part of the external exchanger at temperatures between 5°C and 20°C.**

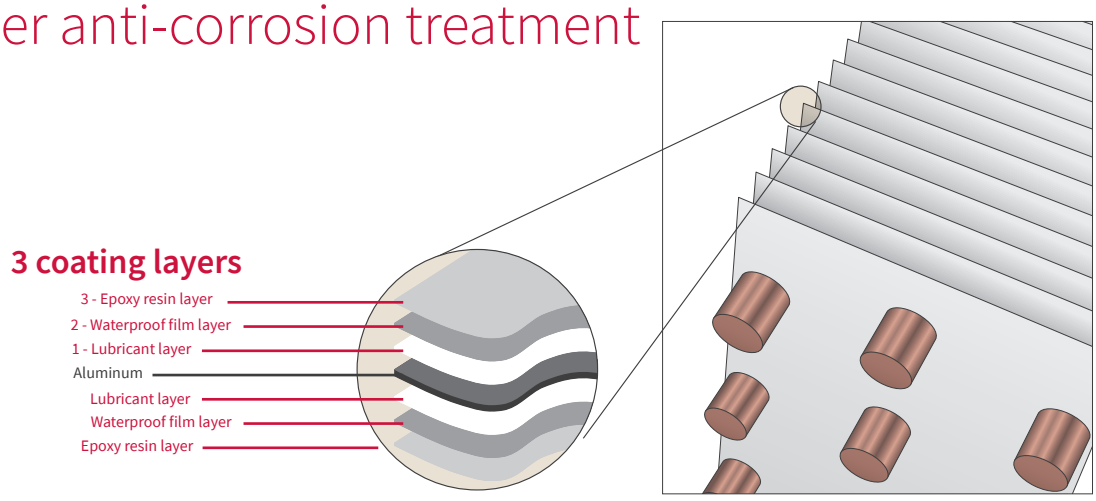


Defrosting optimization

The system controls the level of frost in Heating mode.
The refrigerant returning from the indoor unit defrosts the underside of the outdoor unit exchanger. In Heating mode, the refrigerant returns to the outdoor unit at an average temperature of 5-20°C. This temperature is enough to make a start on defrosting and by radiation it heats the top side of the outside exchanger. Finally, the reducer of the outdoor group extends to complete the cooling cycle.



Three-layer anti-corrosion treatment



- Lubricant coating(1) protecting against rust and limiting the appearance of corrosion.
- Hydrophilic coating (2) that prevents the concentration of water droplets and allows water to flow onto the surface.
- Anti-corrosion coating(3) consisting of a chromium phosphate film or an epoxy resin to protect against corrosion.

The + points of the Hitachi solution

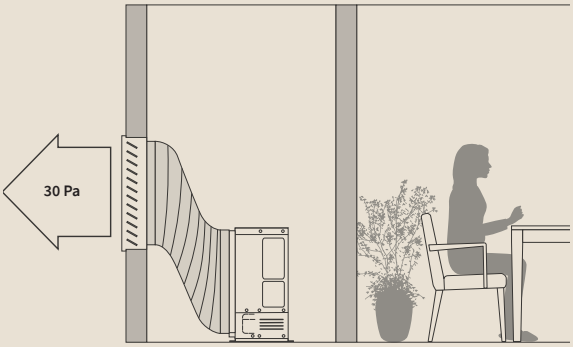
- Extended equipment life.
- Maintained energy performance over time.
- Protection against an aggressive environment: pollution downtown, industrial sites, storage warehouses.
- Installation in a location more than 300 m from the sea, without specific Blygold-type treatment.
- Hitachi outdoor units (UTOPIA, IVX Prime, Set Free Mini and SIGMA) offer the best protection on the market.

Benefits
Micro VRF (Utopia Prime & IVX Prime)

1 The smallest VRF on the market, from the widest range of its class.

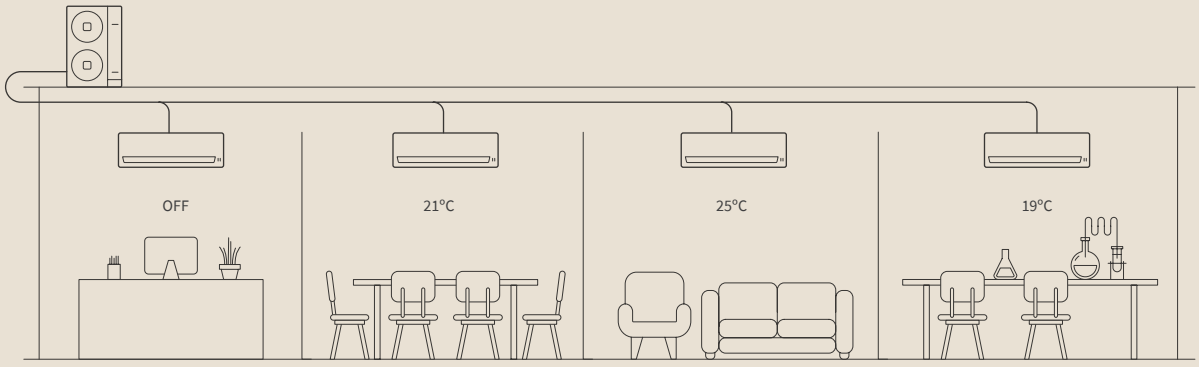
Small businesses and offices also have a variety of air-conditioning requirements and demand the best level of comfort. Available from 5 kW to 30 kW, the Micro VRF range meets the needs of any projects, no matter how much space is available.

2 Pressure available 30 Pa on IVX Prime and flexible installation options



The new 4 to 6 hp single fan range comes with 30 Pa of pressure. A 14 kW (6 hp) unit takes up only 0.35 m² of floor space. No pressure available on the Utopia Prime units (8 to 12 hp).

3 Simultaneous or independently control of indoor units



Depending on the direction they are facing, many buildings may have a different thermal load in each zone. In this case:
- Setting setpoint temperatures individually is useful
- Individual control is an ideal solution for small and medium public applications

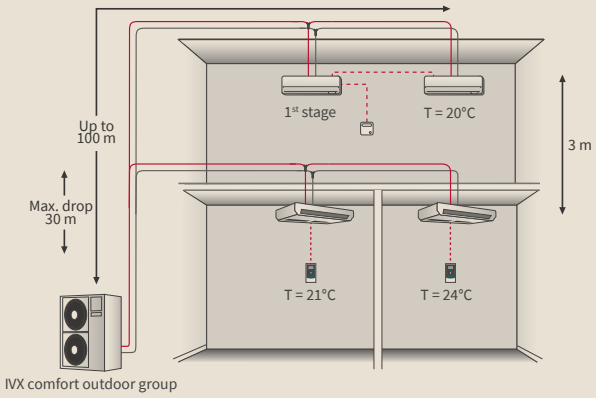
4 A wide choice of indoor units

In the same building, the requirements in terms of aesthetics, space, and temperature are different in each room. So it fits into any space, the Micro VRF range is compatible with all SYSTEM FREE indoor units: Wall, Ducted, Cassette, Console and Ceiling.

5 Less piping, more savings

- An interesting alternative to "multi-splits" type installations,
- Easy installation,
- Unique piping for connecting the outdoor unit to each indoor unit using a multikit,
- Fewer refrigerant connections.

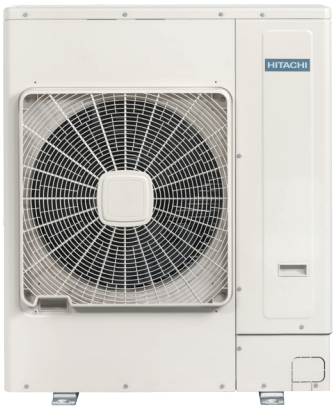
6 Even greater flexibility



- Up to a total of 100 m refrigerant length,
- 30 m drop between IU and OU (OU above), 20 m if the OU below,
- Installation of indoor units on different floors connected to the same refrigerant line.

Utopia Prime

A TWIN to QUAD solution with a choice of R410A or R32 to provide heating solutions and air-conditioning for large spaces.



ORIGINAL

NEW

Twin and VRF shared indoor unit groups

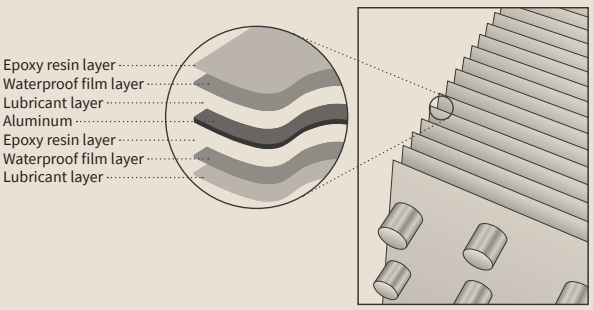
The UTOPIA PRIME range comes with all the advantages of VRF indoor units, so you can make use of a wide range of combinations.
Different types of indoor units can be mixed on the same installation.

Flexible installation

UNIQUE! The new range of 4 to 6Hp can come in TWIN, TRIPLE, or QUAD configurations for R32 and R410A and has a static pressure of 30Pa. This allows the air to be recirculated. Connect up to 4 indoor units in the Set free range (size 0.8Hp Mini compatible; console units not compatible).

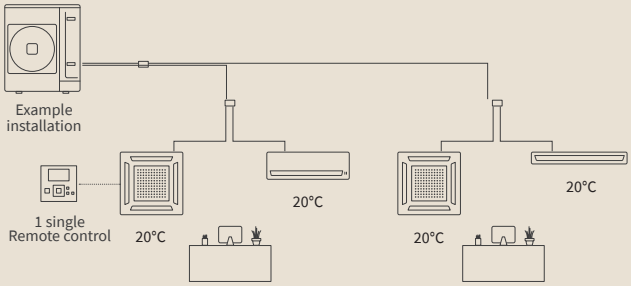
Advanced anti-corrosion treatment

With its triple handling, Utopia Prime offers the best protection on the market for use in tough environments.



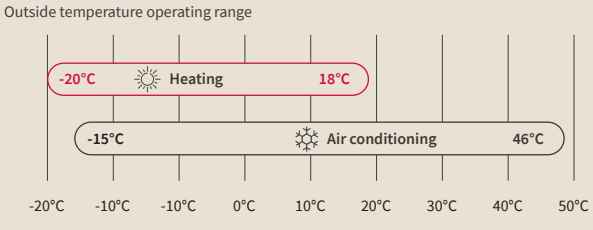
Renewed master-slave control for more energy savings

The outdoor unit will start up only if the 4 indoor units need cooling or heating. The shutdown of the group is triggered as soon as one of the indoor units is no longer requires heat/cooling, which promises real energy savings.

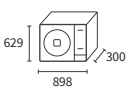


Large operating ranges

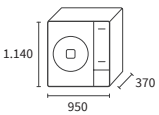
Utopia Prime will keep working in extreme temperatures: up to -20°C for heating and -15°C to 46°C for cooling (-5°C to 46°C at 4 to 6Hp). Features that make this a product for perfect year-round comfort.



Outdoor units



RAS-3HVRC2



RAS-4H(V)RC2E
RAS-5H(V)RC2E
RAS-6H(V)RC2E
RAS-4H(V)NC2E
RAS-5H(V)NC2E
RAS-6H(V)NC2E

Preliminary data

		R32 refrigerant				R410A refrigerant		
		RAS-3HVRC2	RAS-4H(V)RC2E	RAS-5H(V)RC2E	RAS-6H(V)RC2E	RAS-4H(V)NC2E	RAS-5H(V)NC2E	RAS-6H(V)NC2E
Performance, cooling	**Unit**	**3Hp**	**4Hp**	**5Hp**	**6Hp**	**4Hp**	**5Hp**	**6Hp**
Rated power cooling	kW	7.1	10.00	11.90	14.00	10.00	11.90	14.00
Rated power input cooling	kW	2.26	2.70	3.71	4.29	2.70	3.71	4.29
EER (1*)	-	3.14	3.70	3.37	3.26	3.70	3.37	3.26
SEER (average climate)	-	6	6.57(V) - 6.41	6.1(V) - 6.06	5.88(V) - 5.85	6.57(V) - 6.41	6.1(V) - 6.06	5.88(V) - 5.85
Seasonable energy rating (cooling)	-	A	A	-		A	-	
Operating ranges in cooling mode*	-	-15°C / +46°C (DB)				-15°C / +46°C (DB)		
Performance, heating								
Rated power heating	kW	8	11.20	14.00	16.00	11.20	14.00	16.00
Rated power input heating	kW	2.00	2.45	3.60	3.78	2.45	3.60	3.78
COP	-	4.00	4.57	3.89	4.23	4.57	3.89	4.23
SCOP (average climate)	-	4.21	4.47	4	4.05	4.47	4	4.05
Seasonal energy rating (heating)	-	A+		-		A+	-	
Operating ranges heating	-	-20°C / 18°C (WB)				-20°C / 18°C (WB)		
Technical features								
Airflow (cooling)	m³/h	2982	4800	4800	4800	4800	4800	4800
Noise level in cooling mode (night-time pressure)(1)	dB(A)	48 (46)	52 (50)	53 (50)	55 (53)	52 (50)	54 (53)	55 (53)
Sound pressure	dB(A)	66	68	69	71	68	69	71
Net weight	kg	48	84			84		
Dimensions (H x L x D)	mm	629 x 898 x 300	1140 x 950 x 370			1140 x 950 x 370		
Min. power of indoor unit	Hp	0.8	0.8			0.8		
Number of connectible units (min - max)	-	1 - 2	1 - 4			1 - 4		
Capacity ratio (min - max)	%	90% - 100%	90% - 115%			90% - 115%		
Compressor	-	Inverter DC rotary unit				Inverter DC rotary unit		
Cooling properties								
Max. length / Coolant refill	m/g/m	50 / 45	75 / 45			75 / 60		
Initial coolant fill	kg	1.7	3.0			3.2		
Prefilled for	m	20	30			30		
Min. length	m	5	5			5		
Max. level difference (outdoor unit above / below)	m	30 / 20	30 / 20			30 / 20		
Diameter of pipes (Liq / Gas)	mm inches	9.52 (3/8) - 15.88 (5/8)				9.52 (3/8) - 15.88 (5/8)		
Coolant	-	R32				R410A		
Electrical features, outdoor unit								
Power supply	-	1~ 230V 50Hz	1~ 230V 50Hz or 3N~ 400V 50Hz			1~ 230V 50Hz or 3N~ 400V 50Hz		
Max. current	A	15.8	22.5			22.5		
Cable width (EN 60 335-1)*	mm²	3 x 4.00	3 x 6.00 or 5 x 4.00			3 x 6.00 or 5 x 4.00		
Indoor/outdoor connection (protected)*	mm²	2 x 0.75	2 x 0.75			2 x 0.75		

(V) Single-phase version.
* Data shown is for indication purposes only. It is the installer's responsibility to ensure that these cable widths meet the needs of the facility and current standards.
(1) Sound levels (pressure) are measured in an anechoic chamber at 1.50 m below the unit (no ceiling under the unit), with an extraction duct at 1 m and a discharge duct at 2 m.

Controls (see the tab VRF TWIN controls)

Individual controls

PC-ARFP1E (full wired)

PC-ARH1E (simple wired)

PC-AWR (Infrared)

Central controls

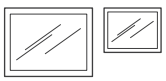
PSC-A32MN (tactile)

PSC-A64GT (touch)

Aircloud Pro

CSNET Lite (web)

CSNET Screenless (web)



CSNET Manager 2T10 (web and touch)
CSNET Manager 2T15 (web and touch)

Communication protocol

MODBUS

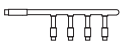
BACNET

KNX

LONWORKS

Compatible accessories

Condensation drainage kit
DDB-26 (models 4 / 5 / 6 Hp)
DDB-12L (model 3 Hp)



Cooling connections
MH-84AN1 accumulator

Remote sensor
THM-R2AE

PCC-1A connectors

SEER 6.79 SCOP 4.77 GENTLE COOL

EUROVENT CERTIFIED PERFORMANCE

Micro VRF (Utopia Prime & IVX Prime)

IVX Prime (R32 or R410A)
4 to 6 Hp

THE FIRST VRF Hitachi to R32 (4~6HP)

Utopia Prime (R410A)
8 to 12 Hp

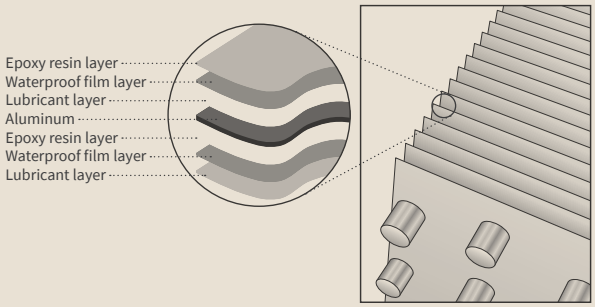
Environmentally friendly “Micro VRF IVX Prime on R32”

- Low PRG: 1/3 of that of R410A. R32 (GWP = 675) vs R410A (GWP = 2088),
- Improved heating capacity: more efficiency with a low load,
- Refrigerant load reduced by 7 to 12% compared to an installation on R410A.
- Environmental impact reduced by 75%,
- Lower equivalent TeqCO2,
- Facilitated recovery and reuse,
- Installation and maintenance very similar to R10A.

Flexible installation

- 30 Pa pressure available on IVX Prime 4 to 6 hp (R32/R410A),
- Up to 4 IU connected (size 0.8 hp Mini compatible).

Advanced anti-corrosion treatment



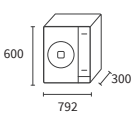
Wide outdoor operation ranges

- Up to -20°C in heating,
- From -15°C to 46°C cooling mode Utopia Prime (8-12 hp),
- From -5°C to 46°C cooling mode IVX Prime (4 a 6 hp).

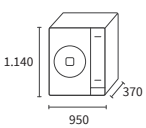
Customizable personal comfort

- Independent temperature setting on each IU depending on requirements,
- The "GENTLE COOL" function can be accessed with the new wired remote controls for individual comfort. In summer, cold air drafts are prevented with an adjustable minimum blowing temperature.

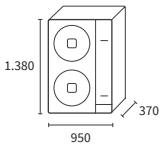
Outdoor units



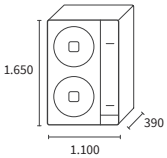
RAS-3HVNC1



RAS-4H(V)NP2E
RAS-5H(V)NP2E
RAS-6H(V)NP2E



RAS-8HNCE
RAS-10HNCE



RAS-12HNC

Micro Utopia Prime

		Version R32 (4 ~ 6Hp)			Version R410A (4 ~ 6Hp)		
Model	**Unit**	**RAS-4H(V)RP2E**	**RAS-5H(V)RP2E**	**RAS-6H(V)RP2E**	**RAS-4H(V)NP2E**	**RAS-5H(V)NP2E**	**RAS-6H(V)NP2E**
Performance, cooling							
Capacity, cooling (min-max)	kW	10.00(4.50- 11.20)	12.50(5.70- 14.00)	14.00(6.00- 16.00)	10.00(4.50- 11.20)	12.50(5.70- 14.00)	14.00(6.00- 16.00)
Absorbed capacity Cooling	kW	2.70	3.71	4.29	2.70	3.71	4.29
EER[1]	-	3.98	3.66	3.24	3.70	3.37	3.26
SEER (single-phase - three-phase)	-	7.31(V) - 6.96	8.35(V) - 8.20	7.35(V) - 7.25	6.57(V) - 6.41	6.1(V) - 6.06	5.88(V) - 5.85
Seasonal energy efficiency cooling ∏s, c	%	-	**331(V) - 325**	**291(V) - 287**	-	**309(V) - 304**	**277.4(V) - 273.8**
Operating ranges Cooling	-	-5°C/46°C (DB)			-5°C/46°C (DB)		
Performance, heating							
Capacity, heating (min-max)	kW	11.20 (5.00 - 14.00)	14.00 (5.00 - 18.00)	16.00 (5.00 - 20.00)	11.20 (5.00 - 14.00)	14.00 (5.00 - 18.00)	16.00 (5.00 - 20.00)
Absorbed capacity heating	kW	2.45	3.60	3.78	2.45	3.60	3.78
COP[1]	-	4.31	4.13	4.40	4.57	3.89	4.23
SCOP (average climate)	-	4.60	4.75	4.73	4.47	4	4.05
Seasonal energy efficiency heating ∏s, h	%	-	**184**	**185**	-	**184**	**185**
Operating ranges heating	-	-20°C/18°C (WB)			-20°C/18°C (WB)		
Technical features							
Airflow (cooling)	m³/h	4,800	4800	4800	4080	4080	4800
Noise level in Cooling mode (night-time pressure)	dB(A)	52 (50)	53 (50)	55 (53)	52 (50)	54 (53)	55 (53)
Sound power	dB(A)	68	69	71	68	69	71
Net weight	kg	86 (84)			86 (84)		
Dimensions (HxWxD)	mm	1140 x 950 x 370			1140 x 950 x 370		
Min. power of indoor unit	Hp	0.8			0.8		
Number of connectible units (min - max)	-	1 - 4			1 - 4		
Available pressure for the fan	Pa	30			30		
Connectible power (min.-max.)	%	90% - 115%			90% - 115%		
Compressor	-	Inverter DC rotary unit			Inverter DC rotary unit		
Cooling properties (PED opposite)		**(Subject to application of the PED, category II)**			**(Not subject to application of the PED)**		
Maximum length/Added refrigerant	m/(g/m)	75/45			75/60		
Initial refrigerant load	kg	3.0			3.2		
Preloaded for	m	20			20		
Minimum length	m	5			5		
Max. drop (OU above/below)	m	30/20			30/20		
Diameter of pipes (Liq/Gas)	mm inches	9.52 (3/8) - 15.88 (5/8)			9.52 (3/8) - 15.88 (5/8)		
Refrigerant	-	R32			R410A		
Electrical features, outdoor unit							
Power supply	-	3N~ 400V 50Hz (1~ 230V 50Hz)			3N~ 400V 50Hz (1~ 230V 50Hz)		
Max. current	A	15.0 (22.5)			15.0 (22.5)		
Cable section (EN 60 335-1)[2]	mm²	5 x 4.00 (3 x 6.00)			5 x 4.00 (3 x 6.00)		
Outdoor indoor connection (protected)	mm²	2 x 0.75[2]			2 x 0.7 [2]		

[1] Performance values are stated for RCI-FSR cassettes in accordance with Eurovent benchmarks.
[2] Data shown is for indication purposes only. It is the installer's responsibility to ensure that these Cable sections meet the needs of the facility and current standards.
(V) Single-phase version.

Compatible controls and accessories

Condensation drainage kit

DBS-26 (IVX Prime and Utopia Prime models 4/5/6/8/10/12 hp)
DBS-12L (comfort models 2/2.5/3 hp)

Refrigerant connection kit

See page 284

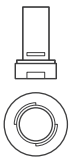
Micro VRF Utopia Prime

Available while stocks last

Model	Unit	RAS-3HVNC1	RAS-8HNCE	RAS-10HNCE	RAS-12HNC
Performance, cooling					
Capacity in Cooling mode (min-max) (1*)	kW	7.10(3.20- 8.00)	20.00(8.00- 22.40)	25.00(10.00- 28.00)	30.00(11.20- 33.50)
Absorbed capacity in Cooling mode (5*)	kW	2.26	5.95	8.28	11.67
EER	-	3.14	3.36	3.02	2.57
SEER (average climate) (5*)	-	6.00	6.79	6.61	5.30
Seasonal energy efficiency cooling Πs, c	%	-	**268.6**	**261.4**	**209**
Operating ranges in cooling mode*	-	(OPT -15°C)-5°C/46°C (DB)			
Performance, heating					
Capacity in Heating mode (min-max) (1*)	kW	8.00(3.50- 10.60)	22.40(6.30- 28.00)	28.00(8.00- 35.00)	33.50(9.00- 37.50)
Absorbed capacity heating	kW	2.00	5.88	7.71	13.04
COP (5*)	-	4	3.81	3.63	2.57
SCOP (average climate) (5*)	-	4.21	4.19	3.79	3.66
Seasonal energy efficiency heating Πs, h	%	-	**164.6**	**148.6**	**143.4**
Operating ranges heating	-	-20°C/18°C (WB)			
Technical features					
Airflow (cooling)	m³/h	2682	7620	8040	9780
Noise level in Cooling mode (night-time pressure)	dB(A)	48 (46)	57 (55)	58 (56)	59 (56)
Sound power	dB(A)	66	76		77
Net weight	kg	44	133	138	168
Dimensions (HxWxD)	mm	600 X 792 X 300	1380 x 950 x 370		1650 x 1100 x 390
Min. power of indoor unit	Hp	0.8	1.8		
Number of connectible units (min - max)	-	1 - 2	1 - 4 (3*)		
Connectible power (min.-max.)	-	90% - 110%	90% - 115%		
Compressor	-	SCROLL Inverter			
Cooling properties (PED opposite)			**(Not subject to application of the PED)**		**(Subject, category II)**
Maximum length/Added refrigerant	m/(g/m)	50/40	100/to be calculated according to technical documentation		
Initial refrigerant load	kg	1.9	5.3	6	6.7
Preloaded for	m	20	30		
Maximum drop (OU above/below)	m	30/20			
Diameter of pipes (Liq/Gas)	inches	3/8 - 5/8	3/8 - 1	1/2 - 1	
Refrigerant	-	R410A			
Electrical features, outdoor unit					
Power supply	-	1 ~ 230V 50Hz	3N ~ 400V 50Hz		3N ~ 400V 50Hz
Maximum current	A	17.8	24		
Cable section (EN 60 335-1) (4*)	mm²	3 x 4.00	5 x 6.00		
Indoor/outdoor connection (protected) (2*)	mm²	2 x 0.75(2*)			

* To ensure cooling mode at -15°C, use the "cooling only" and "master/slave" switch settings.
(1*) If longer than 70 m, halve the diameter of the liquid pipe.
(2*) Shielding must be renewed every 300 m.
(3*) With 100% connection.
(4) Data shown is for indication purposes only. It is the installer's responsibility to ensure that these Cable sections meet the needs of the facility and current standards.
(5*) Performance values are stated for RCI-FSN4 cassettes in accordance with Eurovent benchmarks.
(6*) Only with a connection rate of 50% to 100%; beyond that, max. 1 or 2 units respectively.
(V) Single-phase version.

Compatible controls and accessories



Condensation drainage kit

DBS-26 (Utopia Prime models 4/5/6/8/10/12 hp)
DBS-12L (comfort models 3 hp)

Refrigerant connection kit

Installation rules
Micro VRF
(IVX PRIME & PRIME)

Quantity of indoor units

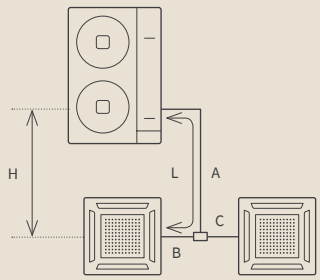
Outdoor unit (Hp)	3	4	5	6	8	10	12
Max. number of indoor units	2	4*				4	
Min. power of indoor unit	0.8					1.8	

Permitted connection rate

Outdoor unit	Hp	3	4	5	6	8	10	12
Max. number of indoor units	1	50~110%	90~115%			90~115%		
	2	2.7 to 3.3 Hp	3.6 to 4.6 Hp	4.5 to 5.75 Hp	5.4 to 6.9 Hp	7.2 to 9.2 Hp	9 to 11.5 Hp	10.8 to 13.8 Hp
		2.7 to 3 Hp						
	3 or 4	-	90~100%					
		-	3.6 to 4 Hp	4.5 to 5 Hp	5.4 to 6 Hp			

3 hp unit:
Permitted installation (1 to 2 indoor units)

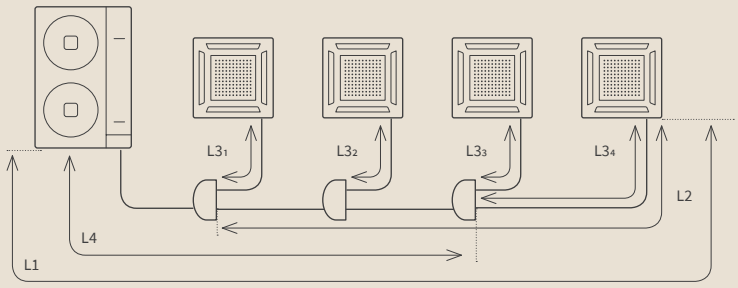
Installation with multikits.



Units of 4 to 12 Hp:
Permitted installation (1 to 4 indoor units)

Installation with multikits. 1 main line. Constant diameter.


Multikit



Installing 3 Hp outdoor units is not permitted

Outdoor unit		Hp	3	4	5	6	8	10	12
Max. length between outdoor unit and the furthest indoor unit	Actual length	m	50	75	75		100		
	Equivalent length	m	70	95	95		125		
Max. drop outdoor unit to indoor unit (H) (outdoor unit above/below)		m	30/20						
Max. drop from indoor unit to indoor unit		m	3						
Max. drop from Multikit to indoor unit/Multikit to Multikit		m	3						
Total length of the pipe		m	60	85 (with 2, 3, or 4 indoor units)	85 (with 2, 3, or 4 indoor units)		100	145	
Max. length of indoor unit to Multikit		m	10				15		
Max. length of first Multikit to indoor unit		m	-	15			25		
Length of main branch A		m	A > B, C	A > B, C, D, E, F, G			-		
Max. imbalance between branches	B-C	m	< 8m	< 10m			-		

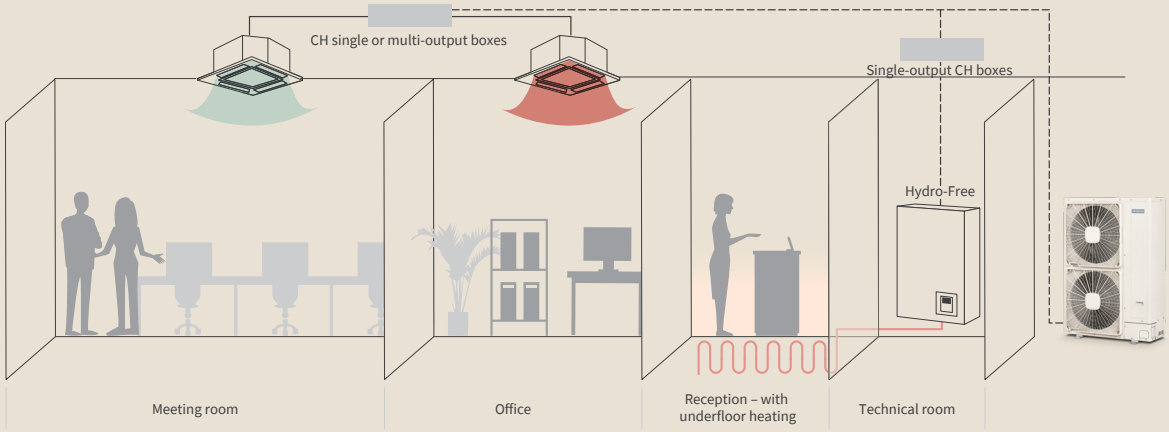
Multikit part numbers		Hp	E-102SN4	E-162SN4	
Diameter of the main line			-	Constant diameter	
Diameter of outdoor unit - first multikit	Liq/Gas	-	3/8 - 5/8	3/8** - 1	1/2 - 1

Power of indoor unit	Hp	< 1.5	1.8 to 2	2.3 to 6
Diameter of the indoor unit multikit	-	1/4 - 1/2	1/4 - 5/8	3/8 - 5/8

* Caution: When connecting RCI cassettes, the max. number is limited to two.
**If tube length exceeds 70m, use a 1/2" instead of 3/8" liquid line.

Benefits
VRF SET FREE Mini

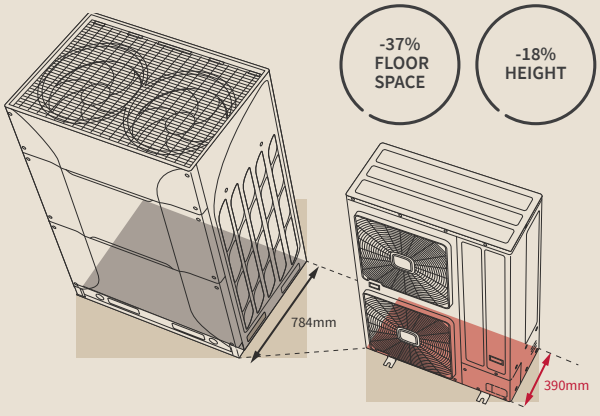
1 Flexibility
2 tubes/3 tubes (8 to 12 hp)



- SET FREE Mini reversible 4 to 12 hp range,
- Compatibility
2 tubes/3 tubes 8 to 12 hp "exclusive"

- Perfect solution offering personalized comfort when outdoor space is limited.

2 The most compact 3-pipe mini VRF in the world



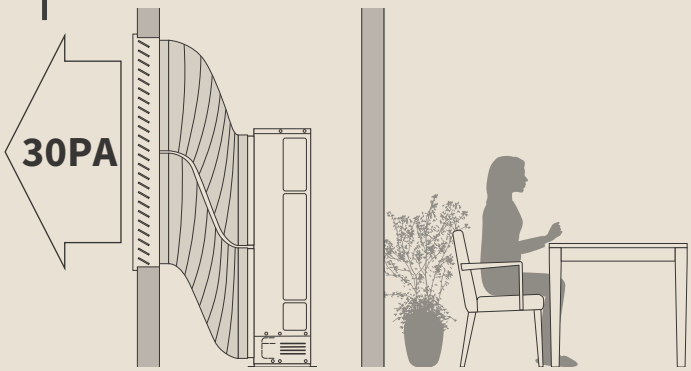
With its low footprint, the SET FREE Mini can be installed discreetly for maximum comfort.

3 High number of indoor units that can be connected

Outdoor unit (hp)	Number of indoor units that can be connected
4	13
5	16
6	18
8	26
10	32
12	39

The new SET FREE Mini can connect up to 39 indoor units!
Exclusive: even more flexibility with a wide choice of units from 0.4Hp.

4 Static pressure available



With 30Pa, the unit can be hidden. This solution recirculates the air to force it through the grid at speed, therefore avoiding recycling.

The OU can be ducted to preserve the appearance of the building.

5 Compatibility with all IU Set free with regulated blowing function for more “Gentle Cool” comfort

GENTLE COOL

The “GENTLE COOL” regulated blowing temperature function accessible via the wired remote PC-ARFG-E enables the following:
- set the minimum blowing temperature for greater comfort.
- In summer, cold air drafts are prevented by programming an adjustable minimum blowing temperature.

VRF SET FREE Mini

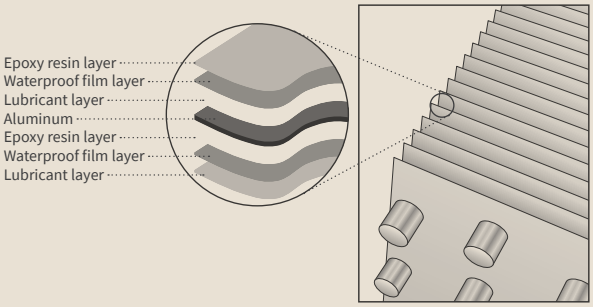
GENTLE COOL · SEER 8.31 · SCOP 4.72 · 2 TUBES OR 3 TUBES

EUROVENT CERTIFIED PERFORMANCE · PEP ecopassport

Advanced anti-corrosion treatment

With its triple handling, the SET FREE MINI offers the best protection on the market for use in tough environments.

3 protection layers



Comfort temperature is maintained with precision (Smooth Drive Control)

High precision compressive frequency control system (0.1Hz) to guarantee optimum performance of the outdoor unit in partial loads and stable ambient temperature. This new feature allows a single 1.1kW (0.4Hp) unit to operate across the entire VRF system.

Smart Defrost for continuous heating

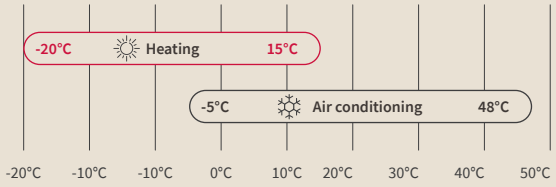
The smart defrost mode ensures a longer heating period without defrosting. This period automatically adapts based on the defrosting times of previous cycles and may last up to 4 hours.

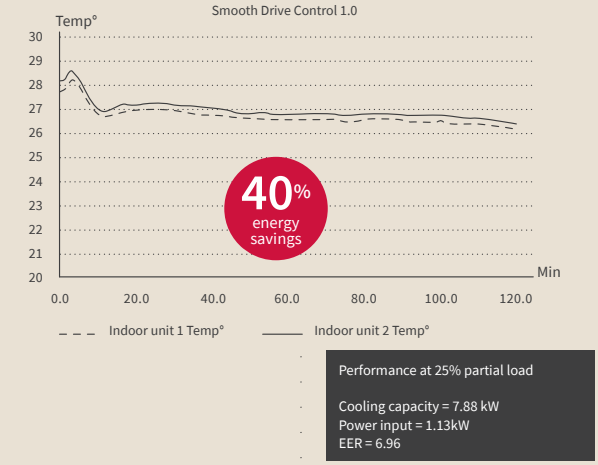
Easy maintenance

Direct access to the 7-pane display to perform tests and diagnostics. Real-time operating settings and installation error codes.

Large operating ranges

Outside temperature operating range

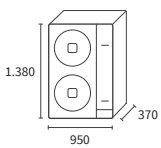




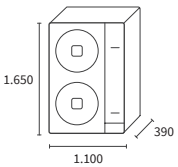
Performance at 25% partial load

Cooling capacity = 7.88 kW
Power input = 1.13kW
EER = 6.96

Outdoor units



SET FREE Mini S
RAS-4FS(V)NME
RAS-5FS(V)NME
RAS-6FS(V)NME



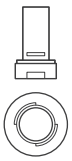
SET FREE Mini L
RAS-8FSXNME
RAS-10FSXNME
RAS-12FSXNME

VRF SET FREE Mini S and L (2P/3P)

Model		Unit	S RAS-4FS(V)NME	S RAS-5FS(V)NME	S RAS-6FS(V)NME	L RAS-8FSXNME	L RAS-10FSXNME	L RAS-12FSXNME
Performance, cooling								
Capacity Cooling		kW	12.10	14.00	15.50	22.40	28.00	33.50
Absorbed capacity Cooling		kW	2.97	3.26	4.35	6.25	7.27	9.36
EER		-	4.07	4.29	3.68	3.60	3.85	3.58
SEER		-	6.67(V) - 6.61	6.64(V) - 6.61	6.40(V) - 6.37	7.59	8.31	8.26
Seasonal energy efficiency cooling Ƞs, c		%	**264(V) - 261**	**262.6(V) - 261**	**253(V) - 251.8**	**300.6**	**329.4**	**327.4**
Operating ranges Cooling		-	-5°C/48°C (DB)					
Performance, heating								
Capacity Heating		kW	12.50	16.00	18.00	25.00	31.50	37.50
Absorbed capacity heating		kW	2.89	3.57	4.30	5.32	6.89	9.15
Capacity at -7°C		kW	8.6	10.8	12.0	18.6	21.5	25.5
Capacity at -15°C		kW	7.3	8.7	10.0	16.2	17.7	21.1
COP		-	4.33	4.48	4.19	4.70	4.57	4.10
SCOP		-	4.15	4.40	4.25	5.62	4.72	4.66
Seasonal energy efficiency heating Ƞs, h		%	**163**	**173**	**167**	**221.8**	**185.8**	**183.4**
Operating ranges heating		-	-20°C/15°C (WB)					
Technical features								
Airflow		m^3/h	8,700			9,900	11,100	
Adjustable static pressure		Pa	30					
Number of fans		-	2					
Sound pressure in Cooling mode		dB(A)	69	72	74	76	77	
Sound pressure in Cooling mode		dB(A)	52		53	55	59	60
Dimensions (HxWxD)		mm	1380 x 950 x 370			1650 x 1100 x 390		
Net weight		kg	114(V) - 115		118(V) - 119	188	194	196
Type of compressor		-	Scroll Inverter					
Compressor number		-	1					
Max. number of connectible units		-	13	16	18	26	32	39
Connection rate		%	50-130					
Cooling properties (PED opposite)			**(Not subject to application of the PED)**			**(Subject to application of the PED, category II)**		
Refrigerant		-	R410A					
Refrigerant load		kg	3.7	4.1	4.1	4.2	5.5	
Dimension of cooler connections	Liquid	mm (inches)	9.52 (3/8)					12.7 (1/2)
	Low pressure gas	mm (inches)	-			15.88 (5/8)	19.05 (3/4)	22.2 (7/8)
	High pressure gas	mm (inches)	15.88 (5/8)			19.05 (3/4)	22.2 (7/8)	25.4 (1)
Electrical features								
Power supply	Three-phase (Single-phase)	-	3N ~400V 50 Hz (1 ~230V 50 Hz)			3N ~400V 50 Hz		
Maximum current	Three-phase (Single-phase)	A	16 (28.5)			18	19	23
Indoor/outdoor connection (protected)		mm	2 x 0.75					

(V) Single-phase version.

Compatible controls and accessories (see tab VRF TWIN controls)



Condensation drainage kit

DBS-26

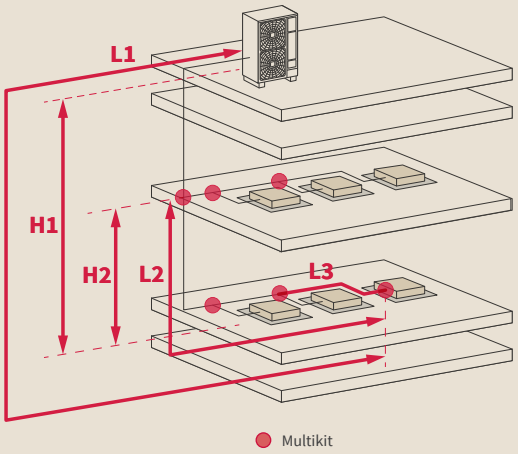
Refrigerant connection kit

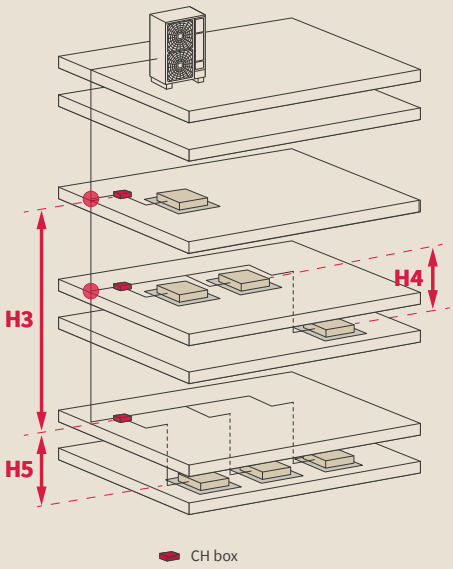
Discover SET FREE Mini

VRF

Cooling connections
VRF SET FREE Mini

Cooling connections





				4 to 6 Hp	8 to 12 Hp	8 to 12 hp (energy recovery)
Max. length of piping	Total		-	180	500	500
	Between outdoor unit and the furthest indoor unit		L1	85	125	125
	Between the first multikit branch and the furthest indoor unit		L2	40	90*	90*
	Between the multikit and the indoor unit		L3	15	40	40
	Between the CH box and the indoor unit		-	-	-	40
Max. drop	Between the outdoor unit and the indoor unit	Outdoor unit above the indoor unit	H1	30	50	50
		Indoor unit above the outdoor unit	-	30	40	40
	Between indoor units		H2	15	15	15
	Between CH boxes		H3	-	-	15
	Between indoor units connected to a CH box (same branch)		H4	-	-	4
	Between the CH box and the indoor unit		H5	-	-	15

(*) 60 m over the recommended number of indoor units.

Part numbers of cooler accessories

Multikit

2P	3P
E-102SN4	E-102XN3
E-162SN4	E-162XN3

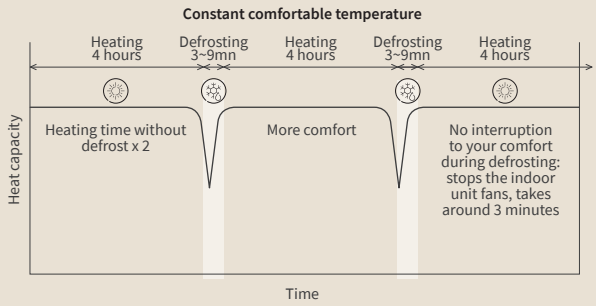
Collector

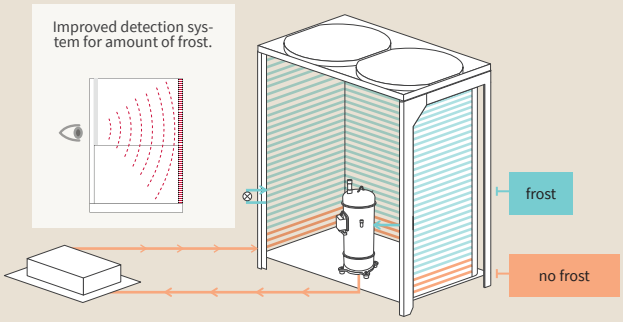
2P	3P
MH-84AN1	MH-108XN
MH-108AN	-

Benefits
VRF SET FREE Sigma

1 Smart Defrost for uninterrupted comfort

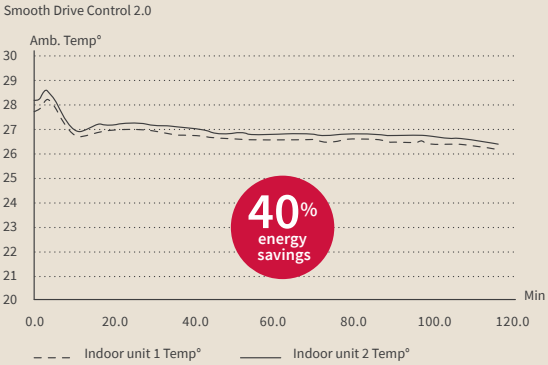
Smart defrosting that optimizes the defrosting cycle and cuts the indoor unit fans during the cycle.





The new SIGMA intelligent defrosting mode ensures the following:
- A heating period without defrosting which is twice as long as with the previous model.
- This period automatically adapts based on the defrosting times of previous cycles and may last up to 4 hours.
- The system also controls the frost level during operation in heating mode.
- Defrosting on the lower part of the outdoor unit exchanger is completed by the refrigerant returning from the IU.
- The refrigerant in heating operation returns to the outdoor unit at an average temperature of 5-20°C, therefore preventing frost formation.

2 Comfort temperature is maintained with precision



Performance at 25% partial charge

Cooling capacity = 7.88 kW
Power input = 1.13kW
EER = 6.96

Ultra-precise compressor management system (0.1Hz) that ensures the best outdoor unit performance under partial loads and a consistent ambient temperature. This new feature can, among other things, individually control a 0.4 Hp (1.1 kW) unit.

3 Variable evaporation temperature

Smart Control automatically varies the evaporation temperature based on actual heating requirements in rooms, including the outdoor temperature for significant energy savings and optimized comfort.

4 Very low noise level

Sound power

86 dB(A)
Standard mode

72 dB(A)
Silence mode Stage 3

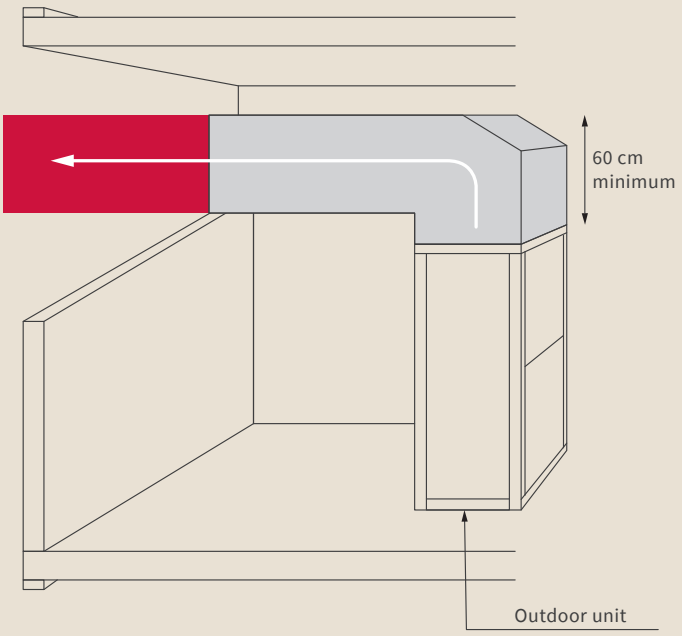
	18 Hp	42 Hp
Silence mode	Sound power	Sound power
Standard	86	90
Stage 1	82.5	86
Stage 2	77.5	81
Stage 3	72.5	76

So it fits perfectly into any type of environment, the SET FREE SIGMA comes with Silence mode as standard. One of the quietest VRF on the market.

* JOHNSON CONTROLS - HITACHI AIR CONDITIONING EUROPE SAS participates in the Eurovent Certification Program for AC/VRF/LCP-HP categories; data from certified models are listed in the Eurovent Annual Report (www.eurovent-certification.com).

5 Flexible installation

80 PA



3 static pressure settings: 30 Pa, 60 Pa, 80 Pa, the SET FREE SIGMA can be installed both inside and outside a technical room to meet the needs of even the most complex setups.

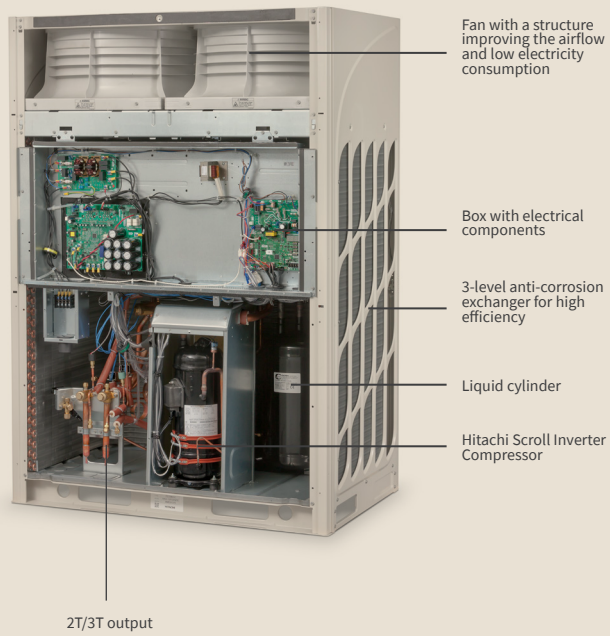
6 Meets RE 2020

RE2020 READY

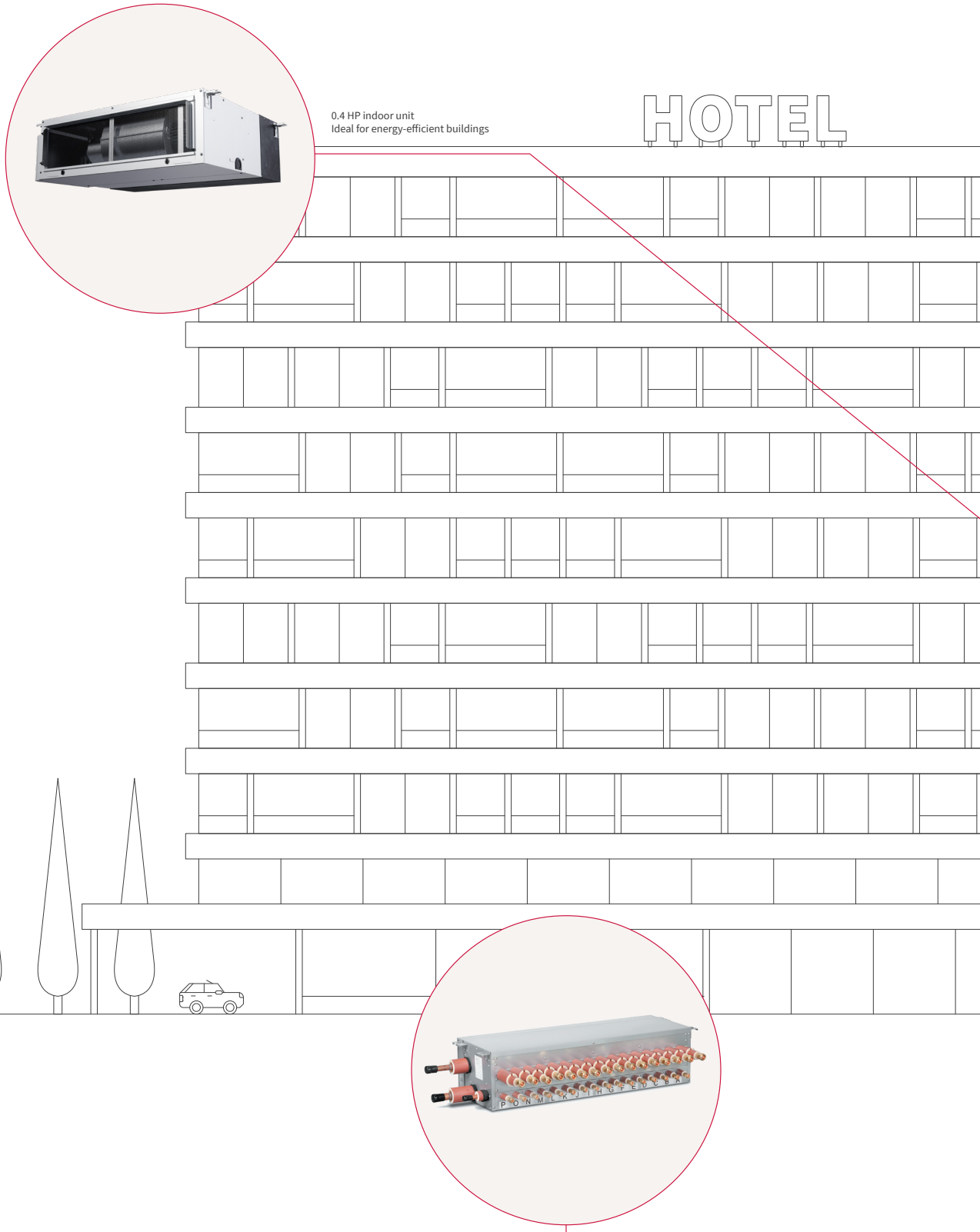
The RE2020 aims to cut energy consumption by 30 % in new buildings compared to that of the RT2012 and to cut carbon emissions by 30% in buildings by 2030.
The SET FREE Sigma was designed with this eco-responsible commitment in mind thanks to its excellent energy performances.

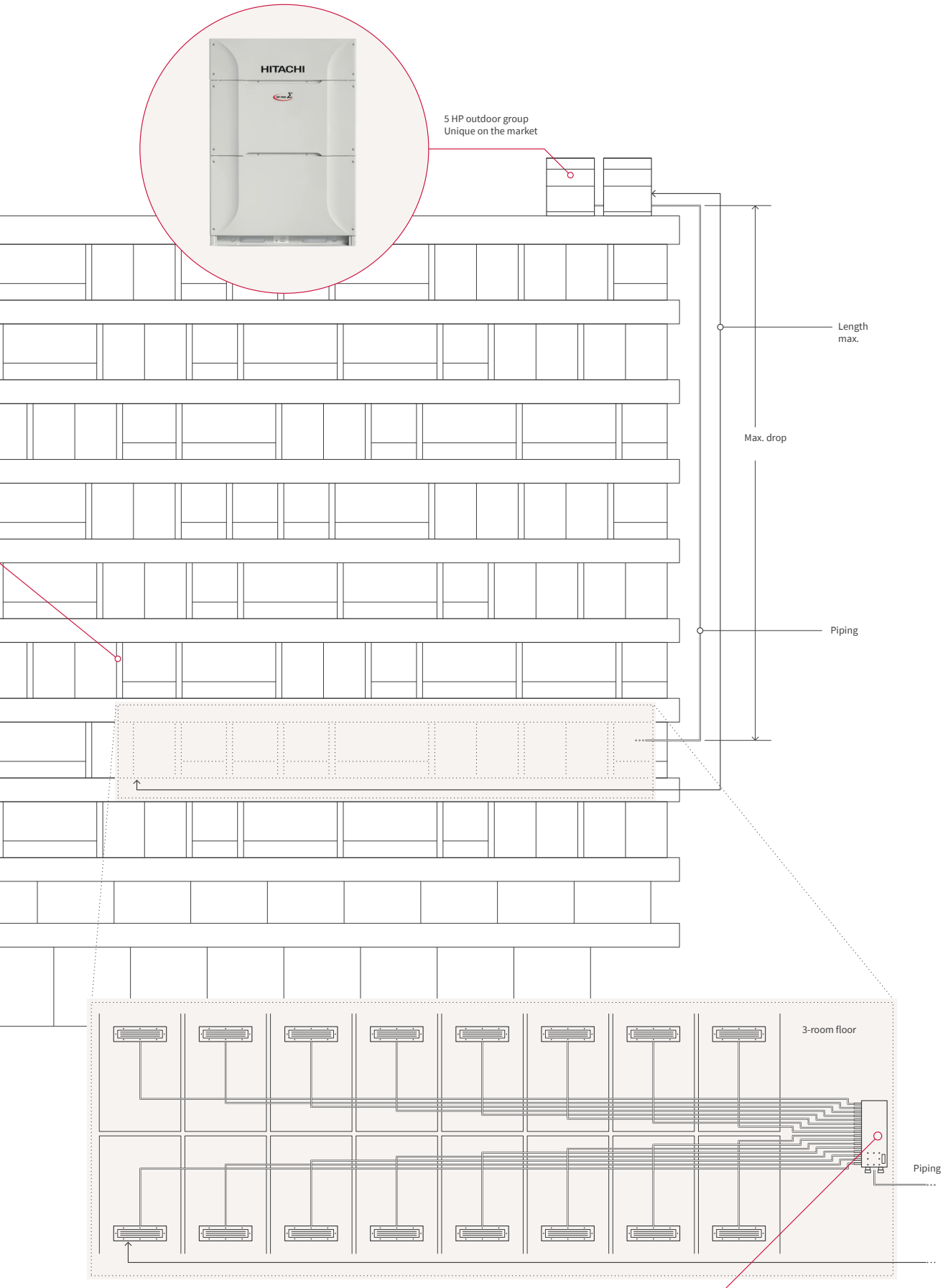
Individual PEP file available on the INIES database:
https://www.base-inies.fr/iniesV4/dist/recherche-fdes/1

7 Excellent durability thanks to robust components



VRF SET FREE SIGMA
with energy recovery




HITACHI
5 HP outdoor group
Unique on the market
Length
max.
Max. drop
Piping
3-room floor
Piping

GENTLE COOL · SEER 7.50 · SCOP 4.48 · 2 TUBES OR 3 TUBES · EUROVENT CERTIFIED PERFORMANCE · PEP ecopassport

VRF SET FREE
Sigma Standard

The widest single-module range on the market

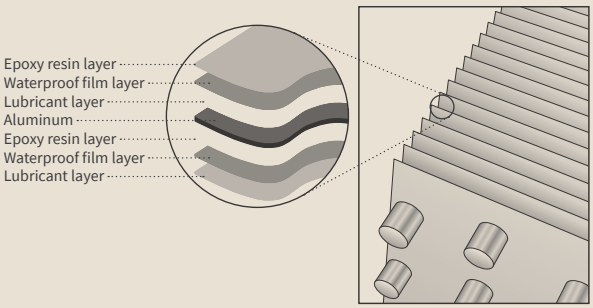
Compact and lightweight the SET FREE SIGMA Standard Hitachi range comes exclusively in 8 Hp to 24 Hp models.

Exclusive solution

3-pipe/2-pipe single unit to meet the needs of both energy recovery applications and reversible heat pump uses.

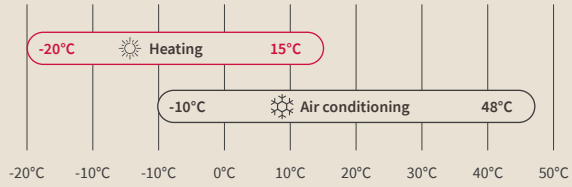
Advanced anti-corrosion treatment

With its triple handling, the SIGMA offers the best protection on the market for use in tough environments.



Large operating ranges

Outside temperature operating range

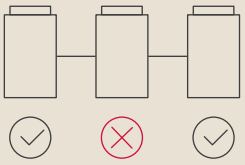


Variable evaporation temperature

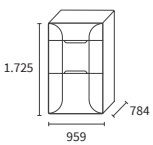
The control logic built into SIGMA units saves more energy and increases user comfort during the summer. Set a high evaporative target temperature to suit the building's heating needs and the SIGMA becomes ever more economical to use. Choose a low target temperature to suit heat requirements and the SIGMA provides comfort even faster in cooling mode.

Backup function

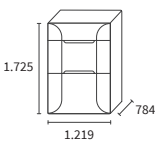
Isolates an outdoor unit for maintenance while other units continue to operate.



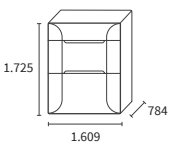
Outdoor units



RAS-8FSXNSE
RAS-10FSXNSE
RAS-12FSXNSE



RAS-14FSXNSE
RAS-16FSXNSE
RAS-18FSXNSE



RAS-20FSXNSE
RAS-22FSXNSE
RAS-24FSXNSE

VRF SET FREE Sigma Standard

Model	Unit	RAS-8FSXNSE	RAS-10FSXNSE	RAS-12FSXNSE	RAS-14FSXNSE	RAS-16FSXNSE	RAS-18FSXNSE	RAS-20FSXNSE	RAS-22FSXNSE	RAS-24FSXNSE
Performance, cooling										
Capacity Cooling	kW	22.4	28	33.5	40	45	50	56	61.5	67
Absorbed capacity Cooling	kW	5.40	7.27	8.89	12.12	13.85	14.9	18.6	20.4	22.4
EER	-	4.15	3.85	3.77	3.30	3.25	3.35	3.01	3.01	2.99
SEER	-	7.50	7.17	6.97	7.47	7.30	6.96	6.29	6.76	6.20
Seasonal energy efficiency cooling ∏s, c	%	**297**	**283.8**	**275.8**	**295.8**	**289**	**275.4**	**248.6***	**267.4**	**245***
Operating ranges Cooling	-	-10°C/48°C DB								
Performance, heating										
Capacity Heating	kW	25	31.5	37.5	45	50	56	63	69	77.5
Absorbed capacity Heating	kW	5.26	6.89	9.15	12.03	15	17	19	22	23
Capacity at -7°C [1]	kW	19.92	25.1	26.46	33.08	35.57	39.73	44.70	48.95	51.7
Capacity at -15°C [1]	kW	15.8	19.8	20.3	25.5	27	30.20	34	37.30	39.5
COP	-	4.75	4.57	4.10	3.74	3.37	3.29	3.35	3.19	3.4
SCOP	-	4.17	4.11	4.29	4.48	4.42	4.18	4.14	4.43	4.43
Seasonal energy efficiency heating ∏s, h	%	**163.8**	**161.4**	**168.6**	**176.2**	**173.8**	**164.2**	**162.6**	**174.2**	**174.2**
Operating ranges heating	-	-20°C/15°C WB								
Technical features										
Airflow	m³/h	9900	10200	11400	14340	15360	15360	19740	19740	20880
Adjustable static pressure	Pa	30/60/80								
Number of fans	-	1				2				
Sound power	dB(A)	80	82	82	85	85	86	86	84	86
Sound pressure [2] (night mode)	dB(A)	58 (53)	60 (55)	59 (54)	63 (58)	63 (58)	65 (60)	65 (60)	64 (59)	66 (61)
Dimensions (HxWxD)	mm	1725 x 959 x 784			1725 x 1219 x 784			1725 x 1609 x 784		
Net weight	kg	210		233	289	332	333	382	396	397
Type of compressor	-	DC Scroll Inverter								
Compressor number	-	1				2				
Max. number of indoor units that can be connected	-	26	32	39	45	52	58	64		
Connection rate [3]	-	50 - 130%								
Cooling properties (PED opposite)		**(Subject to application of the PED, category II)**								
Refrigerant	-	R410A								
Refrigerant load	kg	5		7.20	8.90	9.90	10.70	11.30	11.30	11.6
Dimension of cooler connections – Liquid	inches	3/8		1/2		1/2	5/8			
Dimension of cooler connections – Low pressure gas	inches	3/4	7/8	1		1 - 1/8				
Dimension of cooler connections – High pressure gas	inches	5/8	3/4	7/8					1	
Electrical features										
Power supply	-	3N - 400V 50Hz								
Maximum current	A	15.50	21.50	24	29.50	33	37.50	44.50	45	53
Indoor/outdoor connection (protected) [4]	mm	2 x 0.75								

[1] For an outside temp. of 20°C and a connection rate of 100%. [2] Anechoic chamber readings taken 1.5 m from the front of the appliance.
[3] Depending on the application; refer to the technical documentation. [4] Volume regenerated every 300 m. * Etas values (cooling mode) below 250% are not eligible for CEE.

Compatible controls and accessories (see tab VRF TWIN controls)

Condensation drainage kit

DBS-TP10A

Compatible with
FSXNSE and FSXNPE

Refrigerant connection kit

See page 297

VRF SET FREE Sigma Standard

		RAS-26FSXNSE	RAS-28FSXNSE	RAS-30FSXNSE	RAS-32FSXNSE	RAS-34FSXNSE	RAS-36FSXNSE	RAS-38FSXNSE	RAS-40FSXNSE
Unit 1 name		RAS-12FSXNSE	RAS-12FSXNSE	RAS-12FSXNSE	RAS-14FSXNSE	RAS-16FSXNSE	RAS-18FSXNSE	RAS-14FSXNSE	RAS-18FSXNSE
Unit 2 name		RAS-14FSXNSE	RAS-16FSXNSE	RAS-18FSXNSE	RAS-18FSXNSE	RAS-18FSXNSE	RAS-18FSXNSE	RAS-24FSXNSE	RAS-22FSXNSE
Twin unit connection kit		MC-21AN1							
Performance, cooling	**Unit**								
Capacity Cooling	kW	73	77.5	85	90	95	100	106	112
Absorbed capacity Cooling	kW	23.38	22.44	24.24	29.58	28.77	29.85	36.71	35.52
EER	-	3.12	3.45	3.51	3.04	3.30	3.35	2.89	3.15
SEER	-	7.30	7.10	7.11	7.36	7.18	7.20	6.63	6.93
Seasonal energy efficiency cooling Ƞs, c	%	**289**	**281**	**281**	**291**	**284**	**285**	**262**	**274**
Operating ranges Cooling	-	-10°C/48°C DB							
Performance, heating									
Capacity Heating	kW	82.5	90	95	100	106	112	118	125
Absorbed capacity Heating	kW	21.18	24.67	26.59	28.77	31.86	34.04	33.55	38.65
Capacity at -7°C [1]	kW	59.54	63.70	67.25	72.09	76.41	79.46	81.66	88.68
Capacity at -15°C [1]	kW	45.8	48.65	51.31	55.15	58.46	60.40	62.61	67.50
COP	-	3.90	3.65	3.57	3.48	3.33	3.29	3.52	3.23
SCOP	-	4.39	4.35	4.22	4.30	4.28	4.18	4.45	4.30
Seasonal energy efficiency heating Ƞs, h	%	**172**	**171**	**166**	**169**	**168**	**164**	**175**	**169**
Operating ranges heating	-	-20°C/15°C WB							
Technical features									
Airflow	m³/h	11140 + 14340	11140 + 15360		14340 + 15360	15360 + 15360		14340 + 20280	15360 + 19740
Adjustable static pressure	Pa	30/60/80							
Number of fans	-	3			4				
Sound power	dB(A)	87			89				88
Sound pressure [2] (night mode)	dB(A)	64.50 (59.50)	64.50 (59.50)	66 (61)	67 (62)		68 (63)		67.50 (62.50)
Dimensions (HxWxD)	mm	1725 x 2198 x 784			1725 x 2458 x 784	1725 x 2858 x 784		1725 x 2848 x 784	
Net weight	kg	233 + 289	233 + 332	233 + 333	289 + 333	332 + 333	333 + 333	289 + 397	333 + 396
Type of compressor	-	DC Scroll Inverter							
Compressor number	-	2	3		4				
Max. number of indoor units that can be connected	-	64							
Connection rate [3]	-	50 - 130%							
Cooling properties (PED opposite)		**(Subject to application of the PED, category II)**							
Refrigerant	-	R410A							
Refrigerant load	kg	16.1	17.1	17.9	19.6	20.6	21.4	20.5	22
Dimension of cooler connections – Liquid	inches	3/4							
Dimension of cooler connections – Low pressure gas	inches	1 - 1/4					1 - 1/2		
Dimension of cooler connections – High pressure gas	inches	1	1 - 1/8				1 - 1/4		
Electrical features									
Power supply	-	3N - 400V 50Hz							
Maximum current	A	53	56.5	61	66.5	70.5	75	82.5	82
Indoor/outdoor connection (protected) [4]	mm	2 x 0.75							

[1] For an outside temperature of 20°C and a connection rate of 100%. [2] Anechoic chamber readings taken 1.5 m from the front of the appliance.
[3] Depending on the application; refer to the technical documentation. [4] Volume to regenerate every 300 m.

VRF SET FREE Sigma Standard

		RAS-42FSXNSE	RAS-44FSXNSE	RAS-46FSXNSE	RAS-48FSXNSE	RAS-50FSXNSE	RAS-52FSXNSE	RAS-54FSXNSE
Unit 1 name		**RAS-18FSXNSE**	**RAS-22FSXNSE**	**RAS-22FSXNSE**	**RAS-24FSXNSE**	**RAS-14FSXNSE**	**RAS-16FSXNSE**	**RAS-18FSXNSE**
Unit 2 name		**RAS-24FSXNSE**	**RAS-22FSXNSE**	**RAS-24FSXNSE**	**RAS-24FSXNSE**	**RAS-18FSXNSE**	**RAS-18FSXNSE**	**RAS-18FSXNSE**
Unit 3 name		**-**	**-**	**-**	**-**	**RAS-18FSXNSE**	**RAS-18FSXNSE**	**RAS-18FSXNSE**
Twin unit connection kit		**MC-21AN1**	**MC-21AN1**	**MC-21AN1**	**MC-21AN1**	**MC-30AN1**	**MC-30AN1**	**MC-30AN1**
Performance, cooling	**Unit**							
Capacity Cooling	kW	118	122	128	136	140	145	150
Absorbed capacity Cooling	kW	37.65	40.53	42.67	45.48	44.5	43.7	44.78
EER	-	3.13	3.01	3	2.99	3.15	3.32	3.35
SEER	-	6.57	6.75	6.45	6.19	7.30	7.18	7.20
Seasonal energy efficiency cooling Πs, c	%	**260**	**267**	**255**	**244***	**289**	**284**	**285**
Operating ranges Cooling	-	-10°C/48°C DB						
Performance, heating								
Capacity Heating	kW	132	140	145	150	155	160	165
Absorbed capacity Heating	kW	39.37	43.89	43.97	44.12	45.49	48.28	50.15
Capacity at -7°C [1]	kW	90.38	99.32	99.62	100.06	111.10	113.51	117.06
Capacity at -15°C [1]	kW	68.9	75.58	76.01	76.45	84.81	86.32	88.98
COP	-	3.35	3.19	3.30	3.40	3.41	3.31	3.29
SCOP	-	4.31	4.42	4.43	4.43	4.26	4.25	4.18
Seasonal energy efficiency heating Πs, h	%	**169**	**174**	**174**	**174**	**167**	**167**	**164**
Operating ranges heating	-	-20°C/15°C WB						
Technical features								
Airflow	m³/h	15360 + 20880	19740 + 19740	19740 + 20880	20880 + 20880	14340 + 15360 + 15360		
Adjustable static pressure	Pa	30/60/80						
Number of fans	-	4						
Sound power	dB(A)	89	87	88	89	89	87	88
Sound pressure [2] (night mode)	dB(A)	68.50 (63.50)	67 (62)	68 (63)	69 (64)	68.50 (63.50)	67 (62)	68 (63)
Dimensions (HxWxD)	mm	1725 x 2848 x 784	1725 x 3238 x 784	1725 x 3238 x 784	1725 x 3238 x 784	1725 x 3697 x 784	1725 x 3697 x 784	1725 x 3697 x 784
Net weight	kg	333 + 397	396 + 396	396 + 397	397 + 397	287 + 330 + 330	329 + 330 + 330	330 + 330 + 330
Type of compressor	-	DC Scroll Inverter						
Compressor number	-	4				5	6	
Max. number of indoor units that can be connected	-	64						
Connection rate [3]	-	50 - 130%						
Cooling properties (PED opposite)		**(Subject to application of the PED, category II)**						
Refrigerant	-	R410A						
Refrigerant load	kg	22.30	22.60	22.90	23.20	30.30	31.30	32.10
Dimension of cooler connections – Liquid	inches	3/4						
Dimension of cooler connections – Low pressure gas	inches	1 - 1/2						
Dimension of cooler connections – High pressure gas	inches	1 - 1/4						
Electrical features								
Power supply	-	3N - 400V 50Hz						
Maximum current	A	90.50	89.50	98	106	104	108	112
Indoor/outdoor connection (protected) [4]	mm	2 x 0.75						

[1] For an outside temperature of 20°C and a connection rate of 100%. [2] Anechoic chamber readings taken 1.5 m from the front of the appliance.
[3] Depending on the application; refer to the technical documentation. [4] Volume regenerated every 300 m. * Etas values (cooling mode) below 250% are not eligible for CEE.

VRF SET FREE Sigma Standard

		RAS-56FSXNSE	RAS-58FSXNSE	RAS-60FSXNSE	RAS-62FSXNSE	RAS-64FSXNSE	RAS-66FSXNSE	RAS-68FSXNSE
Unit 1 name		**RAS-14FSXNSE**	**RAS-18FSXNSE**	**RAS-18FSXNSE**	**RAS-14FSXNSE**	**RAS-18FSXNSE**	**RAS-18FSXNSE**	**RAS-22FSXNSE**
Unit 2 name		**RAS-18FSXNSE**	**RAS-18FSXNSE**	**RAS-18FSXNSE**	**RAS-24FSXNSE**	**RAS-22FSXNSE**	**RAS-24FSXNSE**	**RAS-22FSXNSE**
Unit 3 name		**RAS-24FSXNSE**	**RAS-22FSXNSE**	**RAS-24FSXNSE**	**RAS-24FSXNSE**	**RAS-24FSXNSE**	**RAS-24FSXNSE**	**RAS-24FSXNSE**
Twin unit connection kit		**MC-NP31SA**	**MC-NP31SA**	**MC-NP31SA**	**MC-NP31SA**	**MC-NP31SA**	**MC-NP31SA**	**MC-NP31SA**
Performance, cooling	**Unit**							
Capacity Cooling	kW	157	162	167	174	179	184	190
Absorbed capacity Cooling	kW	51.99	50.44	52.26	59.47	57.93	59.74	63.27
EER	-	3.02	3.21	3.20	2.93	3.09	3.08	3.00
SEER (average climate)	-	6.79	7.01	6.75	6.45	6.63	6.43	6.54
Seasonal energy efficiency cooling ∩s, c	%	**268**	**268**	**277**	**255**	**262**	**254**	**258**
Operating ranges Cooling	-	-10°C/48°C DB						
Performance, heating								
Capacity Heating	kW	176.0	181	188	196	202	207	213
Absorbed capacity Heating	kW	51.12	55.67	56.39	56.47	61.29	61.42	65.29
Capacity at -7°C [1]	kW	122.78	128.41	130.12	133.77	140.04	140.43	147.87
Capacity at -15°C [1]	kW	93.88	98	99.11	102.43	106.74	107.14	112.79
COP	-	3.44	3.25	3.33	3.47	3.30	3.37	3.26
SCOP (average climate)	-	4.35	4	4.27	4.44	4.35	4.35	4.43
Seasonal energy efficiency heating ∩s, h	%	**171**	**171**	**167**	**174**	**171**	**171**	**174**
Operating ranges heating	°C	-20°C WB/15°C DB						
Technical features								
Air flow (Cooling)	m³/h	14340 + 15360 + 20880	15360 + 15360 + 19740	15361 + 15360 + 20880	14340 + 20880 + 20880	15360 + 19740 + 20880	15360 + 20880 + 20880	19740 + 19740 + 20880
Adjustable static pressure fan	Pa	30/60/80						
Number of fans	-	6						
Sound power	dB(A)	90	90	91	90	90	91	90
Sound pressure level Cooling (night) [2]	dB(A)	69.5 (62)	69.5 (62)	70.0 (63)	70.0 (63)	70.0 (63)	70.5 (63)	70.0 (63)
Dimensions (HxWxD)	mm	1725 x 4087 x 784			1725 x 4477 x 784			1725 x 4867 x 784
Net weight	kg	287 + 330 + 399	330 + 330 + 398	330 + 330 + 399	287 + 399 + 399	330 + 398 + 399	330 + 398 + 399	398 + 398 + 399
Type of compressor	-	DC Scroll Inverter						
Compressor number	-	5	6		5		6	
Max. number of indoor units that can be connected	-	64						
Connection rate (min-max) [3]	%	50 - 130%						
Cooling properties (PED opposite)		**(Subject to application of the PED, category II)**						
Refrigerant	-	R410A						
Refrigerant load	kg	31.2	32.7	33.0	32.1	33.6	33.9	34.2
Dimension of cooler connections – Liquid	inches	19.05 (3/4)						22.2 (3/4)
Dimension of cooler connections – Low pressure gas	inches	44.45 (1-3/4)						
Dimension of cooler connections – High pressure gas	inches	44.45 (1-3/4)						
Electrical features, outdoor unit								
Power supply	-	3N ~ 400V 50Hz						
Maximum current	A	120	120	128	136	136	144	143
Indoor/outdoor connection (protected) [4]	mm²	2 x 0.75 (2)						

[1] For an outside temperature of 20°C and a connection rate of 100%. [2] Anechoic chamber readings taken 1.5 m from the front of the appliance.
[3] Depending on the application; refer to the technical documentation. [4] Volume regenerated every 300 m. * Etas values (cooling mode) below 250% are not eligible for CEE.

		RAS-70FSXNSE	RAS-72FSXNSE	RAS-74FSXNSE	RAS-76FSXNSE	RAS-78FSXNSE	RAS-80FSXNSE	RAS-82FSXNSE
Unit 1 name		RAS-22FSXNSE	RAS-24FSXNSE	RAS-14FSXNSE	RAS-18FSXNSE	RAS-18FSXNSE	RAS-14FSXNSE	RAS-16FSXNSE
Unit 2 name		RAS-24FSXNSE	RAS-24FSXNSE	RAS-18FSXNSE	RAS-18FSXNSE	RAS-18FSXNSE	RAS-18FSXNSE	RAS-18FSXNSE
Unit 3 name		RAS-24FSXNSE	RAS-24FSXNSE	RAS-18FSXNSE	RAS-18FSXNSE	RAS-18FSXNSE	RAS-24FSXNSE	RAS-24FSXNSE
Unit 4 name				RAS-24FSXNSE	RAS-22FSXNSE	RAS-24FSXNSE	RAS-24FSXNSE	RAS-24FSXNSE
Twin unit connection kit		MC-NP31SA	MC-NP31SA	MC-NP40SA	MC-NP40SA	MC-NP40SA	MC-NP40SA	MC-NP40SA
Performance, cooling	**Unit**							
Capacity Cooling	kW	196	201	207	212	217	224	230
Absorbed capacity Cooling	kW	65.41	67.22	66.91	65.36	67.18	74.39	73.91
EER	-	3.00	2.99	3.09	3.24	3.23	3.01	3.11
SEER (average climate)	-	6.36	6.19	6.89	7.05	6.85	6.60	6.57
Seasonal energy efficiency cooling Πs, c	%	**251**	**244**(*)	**272**	**279**	**271**	**261**	**260**
Operating ranges Cooling	°C	-10°C/48°C DB						
Performance, heating								
Capacity Heating	kW	220	225	232	237	244	254	261
Absorbed capacity Heating	kW	66.02	66.18	68.13	72.69	73.41	74.06	77.45
Capacity at -7°C (1)	kW	149.62	150.10	158.34	168.14	169.89	174.86	178.60
Capacity at -15°C (1)	kW	114.22	114.68	121.24	127.90	129.33	133.68	136.20
COP	-	3.33	3.40	3.41	3.26	3.32	3.32	3.37
SCOP (average climate)	-	4.43	4.43	4.31	4.24	4.24	4.24	4.35
Seasonal energy efficiency heating Πs, h	%	**174**	**174**	**169**	**166**	**166**	**172**	**171**
Operating ranges heating	°C	-20°C WB/15°C DB						
Technical features								
Air flow (Cooling)	m^3/h	19740 + 20880 x 2	20880 x 3	14340 + 15360 x 2 + 20880	15360 x 3 + 19740	15361 x 3 + 20880	14340 + 15360 + 20880 x 2	15360 + 15360 + 20880 x 2
Adjustable static pressure fan	Pa	30/60/80						
Number of fans	-	6		8				
Sound power	dB(A)	90	91	92	92	92	92	92
Sound pressure level Cooling (night) (2)	dB(A)	70 (63.5)	71 (63.5)	71 (63.5)	71 (64)	71.5 (64)	71 (65)	71 (65)
Dimensions (HxWxD)	mm	1725 x 4087 x 784		1725 x 5326 x 784			1725 x 5716 x 784	
Net weight	kg	398 + 399 + 399	399 + 399 + 399	287 + 330 + 330 + 399	330 + 330 + 330 + 398	330 + 330 + 330 + 399	287 + 330 + 399 + 399	329 + 330 + 399 + 399
Type of compressor	-	DC Scroll Inverter						
Compressor number	-	6		7	8		7	8
Max. number of indoor units that can be connected	-	64						
Connection rate (min-max) (3)	%	50 - 130%						
Cooling properties (PED opposite)		**(Subject to application of the PED, category II)**						
Refrigerant	-	R410A						
Refrigerant load	kg	34.5	34.8	41.9	43.4	43.7	42.8	43.8
Dimension of cooler connections – Liquid	inches	22.2 (3/4)						
Dimension of cooler connections – Low pressure gas	inches	44.45 (1-3/4)		50.8 (2)				
Dimension of cooler connections – High pressure gas	inches	44.45 (1-3/4)		50.8 (2)				
Electrical features, outdoor unit								
Power supply	-	3N ~ 400V 50Hz						
Maximum current	A	151	159	158	158	166	173	177
Indoor/outdoor connection (protected) (4)	mm^2	2 x 0.75 (2)						

(1) For an outside temperature of 20°C and a connection rate of 100%. (2) Anechoic chamber readings taken 1.5 m from the front of the appliance.
(3) Depending on the application; refer to the technical documentation. (4) Volume regenerated every 300 m. * Etas values (cooling mode) below 250% are not eligible for CEE.

VRF SET FREE Sigma Standard

		RAS-84FSXNSE	RAS-86FSXNSE	RAS-88FSXNSE	RAS-90FSXNSE	RAS-92FSXNSE	RAS-94FSXNSE	RAS-96FSXNSE
Unit 1 name		RAS-18FSXNSE	RAS-14FSXNSE	RAS-16FSXNSE	RAS-18FSXNSE	RAS-22FSXNSE	RAS-22FSXNSE	RAS-24FSXNSE
Unit 2 name		RAS-18FSXNSE	RAS-24FSXNSE	RAS-24FSXNSE	RAS-24FSXNSE	RAS-22FSXNSE	RAS-24FSXNSE	RAS-24FSXNSE
Unit 3 name		RAS-24FSXNSE	RAS-24FSXNSE	RAS-24FSXNSE	RAS-24FSXNSE	RAS-24FSXNSE	RAS-24FSXNSE	RAS-24FSXNSE
Unit 4 name		RAS-24FSXNSE	RAS-24FSXNSE	RAS-24FSXNSE	RAS-24FSXNSE	RAS-24FSXNSE	RAS-24FSXNSE	RAS-24FSXNSE
Twin unit connection kit		MC-NP40SA	MC-NP40SA	MC-NP40SA	MC-NP40SA	MC-NP40SA	MC-NP40SA	MC-NP40SA
Performance, cooling	**Unit**							
Capacity Cooling	kW	234	241	246	251	258	263	268
Absorbed capacity Cooling	kW	74.67	81.88	81.07	82.15	86.06	87.82	89.63
EER	-	3.13	2.94	3.03	3.06	3.00	2.99	2.99
SEER (average climate)	-	6.58	6.38	6.36	6.37	6.45	6.32	6.20
Seasonal energy efficiency cooling ∏s, c	%	**251**	**252**	**251**	**252**	**255**	**250**	**245**(*)
Operating ranges Cooling	°C	-10°C/48°C DB						
Performance, heating								
Capacity Heating	kW	267	275	282	287	293	299	305
Absorbed capacity Heating	kW	79.63	79.69	83.07	84.96	88.85	89.27	89.71
Capacity at -7°C (1)	kW	182.86	186.49	190.24	193.82	201.30	202.36	155.45
Capacity at -15°C (1)	kW	139.40	142.71	145.24	147.93	153.60	154.51	203.46
COP	-	3.35	3.45	3.39	3.38	3.30	3.35	3.40
SCOP (average climate)	-	4.31	4.44	4.41	4.37	4.43	4.43	4.43
Seasonal energy efficiency heating ∏s, h	%	**174**	**174**	**173**	**172**	**174**	**174**	**174**
Operating ranges heating	°C	-20°C WB/15°C DB						
Technical features								
Air flow (Cooling)	m³/h	15360x2 + 20880 x 2	14340x2 + 20880 x 3	15360 + 20880 x 3	15360 + 20880 x 3	19740 x 2 + 20880 x 2	19740 x 2 + 20880 x 3	20880 x 4
Adjustable static pressure fan	Pa	30/60/80						
Number of fans	-	8						
Sound power	dB(A)	92	92	92	92	92	92	92
Sound pressure level Cooling (night) (2)	dB(A)	71.5 (65)	71.5 (65)	71.5 (65)	72 (65)	72 (65)	71.5 (65)	72 (65)
Dimensions (HxWxD)	mm	1725 x 5716 x 784		1725 x 6106 x 784			1725 x 6496 x 784	
Net weight	kg	330 + 330 + 399 + 399	287 + 399 + 399 + 399	329 + 399 + 399 + 399	330 + 399 + 399 + 399	398 + 398 + 399 + 399	398 + 399 + 399 + 399	399 + 399 + 399 + 399
Type of compressor	-	DC Scroll Inverter						
Compressor number	-	7		8				
Max. number of indoor units that can be connected	-	64						
Connection rate (min-max) (3)	%	50 - 130%						
Cooling properties (PED opposite)		**(Subject to application of the PED, category II)**						
Refrigerant	-	R410A						
Refrigerant load	kg	44.6	43.7	44.7	45.5	45.8	46.1	46.4
Dimension of cooler connections — Liquid	inches	22.2 (3/4)				25.4 (1)		
Dimension of cooler connections — Low pressure gas	inches	50.8 (2)						
Dimension of cooler connections — High pressure gas	inches	50.8 (2)						
Electrical features, outdoor unit								
Power supply	-	3N ~ 400V 50Hz						
Maximum current	A	181	189	192	197	196	204	212
Indoor/outdoor connection (protected) (4)	mm²	2 x 0.75 (2)						

(1) For an outside temperature of 20°C and a connection rate of 100%. (2) Anechoic chamber readings taken 1.5 m from the front of the appliance.
(3) Depending on the application; refer to the technical documentation. (4) Volume regenerated every 300 m. * Etas values (cooling mode) below 250% are not eligible for CEE.

Part numbers of cooler accessories

Multikit

2 pipes	3 pipes
E-102SN4	E-52XN3
E-162SN4	E-102XN3
E-242SN3	E-162XN3
E-302SN3	E-202XN3
MW-NP2682A3	E-242XN3
	E-322XN3

Collector

2 pipes	3 pipes
MH-84AN1	MH-108XN
MH-108AN	

Twin unit connection multi-kit

Outdoor unit	Number of outdoor units	Reversible Multikit Reference	Energy recovery Multikit Reference
RAS-(26-48)FSXNSE	2	MC-21AN1	MC-21XN1
RAS-(50-54)FSXNSE	3	MC-30AN1	MC-30XN1
RAS-(56-72)FSXNSE	3	MC-NP31SA	-
RAS-(74-96)FSXNSE	4	MC-NP40SA	-

Outdoor unit condensate evacuation kit

DBS-TP10A

GENTLE COOL · SEER 8.33 · SCOP 5.06 · 2 TUBES OR 3 TUBES

EUROVENT CERTIFIED PERFORMANCE

VRF SET FREE Sigma High Performance

Highly energy-efficient

Thanks to its seasonal energy efficiency performance (SEER 8.33 and SCOP 5.06), the High-Performance Sigma range exceeds the minimum requirements of ErP 2021.

The biggest range

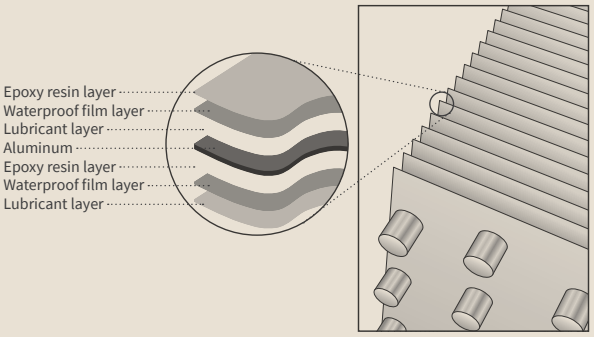
Exclusive to Hitachi with single modules from 5 Hp and a possible combination of up to 54 Hp for 3-pipe and 72 Hp for 2-pipe versions.

Exclusive solution

3T and 2T single unit to meet the needs of both energy recovery applications and reversible heat pump uses.

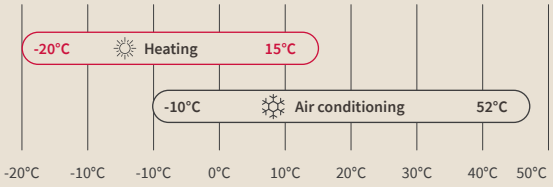
Advanced anti-corrosion treatment

Thanks to its triple treatment, SIGMA offers the best protection on the market for coastal locations.



Large operating ranges

Outside temperature operating range

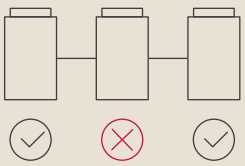


Variable evaporation temperature

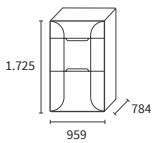
The control logic built into SIGMA units saves more energy and increases user comfort during the summer. Set a high evaporative target temperature to suit the building's heating needs and the SIGMA becomes ever more economical to use. Choose a low target temperature to suit heat requirements and the SIGMA provides comfort even faster in cooling mode.

Backup function

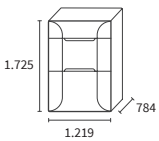
Isolates an outdoor unit for maintenance while other units continue to operate.



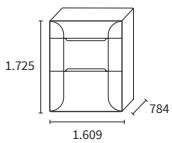
Outdoor units



RAS - 5FSXNPE
RAS - 6FSXNPE



RAS - 8FSXNPE
RAS - 10FSXNPE
RAS - 12FSXNPE
RAS - 14FSXNPE



RAS - 16FSXNPE
RAS - 18FSXNPE

VRF SET FREE Sigma High-Performance

Model	Unit	RAS-5FSXNPE	RAS-6FSXNPE	RAS-8FSXNPE	RAS-10FSXNPE	RAS-12FSXNPE	RAS-14FSXNPE	RAS-16FSXNPE	RAS-18FSXNPE
Performance, cooling									
Capacity Cooling	kW	14	16	22.4	28	33.5	40	45	50
Absorbed capacity Cooling	kW	2.90	3.37	5.05	6.20	8.4	12	12	13
EER	-	4.82	4.75	4.44	4.53	3.97	3.47	3.91	3.91
SEER (average climate)	-	8.33	8.00	7.97	8.06	7.91	7.69	7.76	7.60
Seasonal energy efficiency cooling Ƞs, c	%	**330.2**	**317**	**315.8**	**319.4**	**313.4**	**304.6**	**304.6**	**301**
Operating ranges Cooling	-	-10°C/52°C DB							
Performance, heating									
Capacity Heating	kW	16.00	18.00	25.00	31.50	37.5	45	50	56
Absorbed capacity Heating	kW	2.80	3.52	5.08	6.65	8.01	10.84	12.92	14.97
Capacity at -7°C [1]	kW	13.38	15.04	20.92	25.10	27.78	34.93	40.06	41.46
Capacity at -15°C [1]	kW	10.70	12.10	16.80	19.80	21.40	30.20	31.50	31.90
COP	-	5.72	5.12	4.92	4.74	4.68	4.15	3.87	3.74
SCOP (average climate)	-	5.06	4.58	4.55	4.73	4.81	4.63	4.84	4.81
Seasonal energy efficiency heating Ƞs, h	%	**199.4**	**180.2**	**179.0**	**186.2**	**189.4**	**182.2**	**182.2**	**189.4**
Operating ranges heating	-	-20°C/15°C WB							
Technical features									
Airflow	m^3/h	9000	10200	11100	13140		14580	19560	21720
Adjustable static pressure	Pa	30/60/80							
Number of fans	-	1					2		
Sound power	dB(A)	75	78	77	82	83	85	85	86
Sound pressure [2] (night mode)	dB(A)	54 (49)	56 (51)	55 (50)	59 (54)	60 (55)	62 (57)	65 (60)	65 (60)
Dimensions (HxWxD)	mm	1725 x 959 x 784		1725 x 1219 x 784				1725 x 1609 x 784	
Net weight	kg	210		274	278	282	292	369	384
Type of compressor	-	DC Scroll Inverter							
Compressor number	-	1						2	
Max. number of indoor units that can be connected	-	16	19	26	32	39	45	52	58
Connection rate [3]	-	50 - 150%							
Cooling properties (PED opposite)		**(Subject to application of the PED, category II)**							
Refrigerant	-	R410A							
Refrigerant load	kg	4.7	5	8.5	8.5	9.3	9.3	10	10.6
Dimension of cooler connections – Liquid	inches	3/8				1/2			5/8
Dimension of cooler connections – Low pressure gas	inches	5/8	3/4		7/8	1		1-1/8	
Dimension of cooler connections – High pressure gas	inches	1/2	5/8		3/4	7/8			
Electrical features									
Power supply	-	3N - 400V 50Hz							
Maximum current	A	11.5	12.0	15.0	19.0	23.0	28.0	33.0	34.5
Indoor/outdoor connection (protected) [4]	mm	2 x 0.75							

[1] For an outside temp. of 20°C and a connection rate of 100%. [2] Anechoic chamber readings taken 1.5 m from the front of the appliance.
[3] Depending on the application; refer to the technical documentation. [4] Volume to regenerate every 300 m.

Compatible controls and accessories (see tab VRF TWIN controls p.XX)

Condensation drainage kit

DBS-TP10A

Compatible with
FSXNSE and FSXNPE

Refrigerant connection kit

See page 304

VRF SET FREE Sigma High Performance

		RAS-20FSXNPE	RAS-22FSXNPE	RAS-24FSXNPE	RAS-26FSXNPE	RAS-28FSXNPE	RAS-30FSXNPE	RAS-32FSXNPE	RAS-34FSXNPE	RAS-36FSXNPE
Unit 1 name		RAS-10FSXNPE	RAS-10FSXNPE	RAS-12FSXNPE	RAS-10FSXNPE	RAS-12FSXNPE	RAS-12FSXNPE	RAS-14FSXNPE	RAS-16FSXNPE	RAS-18FSXNPE
Unit 2 name		RAS-10FSXNPE	RAS-12FSXNPE	RAS-12FSXNPE	RAS-16FSXNPE	RAS-16FSXNPE	RAS-18FSXNPE	RAS-18FSXNPE	RAS-18FSXNPE	RAS-18FSXNPE
Twin unit connection kit		MC-20AN1			MC-21AN1					
Performance, cooling	**Unit**									
Capacity Cooling	kW	56	61.5	67	73	77.5	85	90	95	100
Absorbed capacity Cooling	kW	12.36	14.62	16.88	17.69	12.36	14.62	16.88	17.69	19.69
EER	-	4.53	4.21	3.97	4.13	3.94	3.93	3.70	3.91	3.91
SEER (average climate)	-	8.06	7.97	7.91	7.92	7.71	7.49	7.62	7.83	7.60
Seasonal energy efficiency cooling ηs, c	%	**319**	**316**	**313**	**314**	**305**	**294**	**302**	**310**	**301**
Operating ranges Cooling	-	-10°C/52°C DB								
Performance, heating										
Capacity Heating	kW	63	69	77.5	82.5	90	95	100	106	112
Absorbed capacity Heating	kW	13.29	14.66	16.56	19.81	13.29	14.66	16.56	19.81	21.53
Capacity at -7°C [1]	kW	50.2	52.88	57.41	65.96	69.76	70.35	75.64	81.52	82.92
Capacity at -15°C [1]	kW	39.6	41.2	44.23	51.93	54.39	54.16	61.49	63.40	63.80
COP	-	4.74	4.71	4.68	4.17	4.18	4.07	3.91	3.80	3.74
SCOP (average climate)	-	4.76	4.76	4.81	4.78	4.82	4.71	4.63	4.72	4.64
Seasonal energy efficiency heating ηs, h	%	**187**	**187**	**189**	**188**	**190**	**185**	**182**	**186**	**182**
Operating ranges heating	-	-20°C/15°C WB								
Technical features										
Airflow	m^3/h	13140 + 13140			13140 + 19560		13141 + 21720	14580 + 21720	21720 + 21720	
Adjustable static pressure	Pa	30/60/80								
Number of fans	-	4								
Sound power	dB(A)	85	86	86	87		88	89		
Sound pressure [2] (night mode)	dB(A)	62 (57)	62.5 5 (57.5)	63 (58)	66 (61)		66 (61)	67 (62)	68 (63)	
Dimensions (HxWxD)	mm	1725 x 2458 x 784								1725 x 3238 x 784
Net weight	kg	278 + 278	278 + 282	282 + 282	278 + 369	282 + 369	282 + 384	292 + 384	369 + 384	384 + 384
Type of compressor	-	DC Scroll Inverter								
Compressor number	-	2			3	4				
Max. number of indoor units that can be connected	-	64								
Connection rate [3]	-	50 - 150%								
Cooling properties (PED opposite)		**(Subject to application of the PED, category II)**								
Refrigerant	-	R410A								
Refrigerant load	kg	17	17.8	18.6	18.5	19.3	19.9	19.9	20.6	21.2
Dimension of cooler connections – Liquid	inches	5/8			3/4					
Dimension of cooler connections – Low pressure gas	inches	1-1/8			1-1/4					1-1/2
Dimension of cooler connections – High pressure gas	inches	7/8	1		1-1/8					
Electrical features										
Power supply	-	3N - 400V 50Hz								
Maximum current	A	38.0	42.0	46.0	51.5	55.5	57.0	62.0	67.0	68.5
Indoor/outdoor connection (protected) [4]	mm	2 x 0.75								

[1] For an outside temp. of 20°C and a connection rate of 100%. [2] Anechoic chamber readings taken 1.5 m from the front of the appliance.
[3] Depending on the application; refer to the technical documentation. [4] Volume to regenerate every 300 m.

		RAS-38FSXNPE	RAS-40FSXNPE	RAS-42FSXNPE	RAS-44FSXNPE	RAS-46FSXNPE	RAS-48FSXNPE	RAS-50FSXNPE	RAS-52FSXNPE	RAS-54FSXNPE
Unit 1 name		RAS-12FSXNPE	RAS-12FSXNPE	RAS-14FSXNPE	RAS-12FSXNPE	RAS-14FSXNPE	RAS-12FSXNPE	RAS-14FSXNPE	RAS-16FSXNPE	RAS-18FSXNPE
Unit 2 name		RAS-12FSXNPE	RAS-14FSXNPE	RAS-14FSXNPE	RAS-14FSXNPE	RAS-14FSXNPE	RAS-18FSXNPE	RAS-18FSXNPE	RAS-18FSXNPE	RAS-18FSXNPE
Unit 3 name		RAS-14FSXNPE	RAS-14FSXNPE	RAS-14FSXNPE	RAS-18FSXNPE	RAS-18FSXNPE	RAS-18FSXNPE	RAS-18FSXNPE	RAS-18FSXNPE	RAS-18FSXNPE
Twin unit connection kit		MC-30AN1								
Performance, cooling	**Unit**									
Capacity Cooling	kW	106	112	118	122	128	136	140	145	150
Absorbed capacity Cooling	kW	21.61	24.32	24.30	32.36	35.29	34.65	37.10	37.08	38.36
EER	-	3.77	3.60	3.47	3.77	3.63	3.92	3.77	3.91	
SEER (average climate)	-	7.67			7.64		7.61		7.75	7.60
Seasonal energy efficiency cooling ηs, c	%	**304**	**304**	**304**	**302**	**302**	**301**	**301**	**307**	**301**
Operating ranges Cooling	-	-10°C/52°C DB								
Performance, heating										
Capacity Heating	kW	118	125	132	140	145	150	155	160	165
Absorbed capacity Heating	kW	23.35	25.56	27.89	34.2	36.41	38.09	40.27	42.34	44.12
Capacity at -7°C [1]	kW	88.98	95.73	102.47	105.30	110.57	114.09	116.36	121.47	122.17
Capacity at -15°C [1]	kW	71.78	80.19	88.59	84.41	91.67	85.48	92.80	94.12	93.99
COP	-	4.47	4.29	4.15	4.09	3.98	3.94	3.85	3.78	3.74
SCOP (average climate)	-	4.17	4.68	4.63	4.68	4.63	4.68	4.64	4.70	4.64
Seasonal energy efficiency heating ηs, h	%	**186**	**184**	**182**	**184**	**182**	**184**	**182**	**185**	**182**
Operating ranges heating	-	-20°C/15°C WB								
Technical features										
Airflow	m^3/h	13140 + 13140 + 14580	13140 + 14580 + 14580	14580 + 14580 + 14580	13140 + 14580 + 21720	14580 + 14580 + 21720	13140 + 21720 + 21720	14580 + 21720 + 21720	19560 + 21720 + 21720	21720 + 21720 + 21720
Adjustable static pressure	Pa	30/60/80								
Number of fans	-	6								
Sound power	dB(A)	89			90					91
Sound pressure [2] (night mode)	dB(A)	65.5 (60.5)	66 (61)	67 (62)	67.5 (62.5)	68 (63)	68.5 (63.5)	69 (64)	70 (65)	70 (65)
Dimensions (HxWxD)	mm	1725 x 3697 x 784			1725 x 4087 x 784		1725 x 4477 x 784		1725 x 4867 x 784	
Net weight	kg	282 + 282 + 292	282 + 292 + 292	292 + 292 + 292	282 + 292 + 384	292 + 292 + 384	282 + 384 + 384	311 + 311 + 408	350 + 365 + 365	365 + 365 + 365
Type of compressor	-	DC Scroll Inverter								
Compressor number	-	3			4		5		6	
Max. number of indoor units that can be connected	-	64								
Connection rate [3]	-	50 - 150%								
Refrigerant properties (PED opposite)		**(Subject to application of the PED, category II)**								
Refrigerant	-	R410A								
Refrigerant load	kg	27.9			29.2	30.5			31.2	31.8
Dimension of cooler connections – Liquid	inches	3/4								
Dimension of cooler connections – Low pressure gas	inches	1 - 1/2								
Dimension of cooler connections – High pressure gas	inches	1 - 1/4								
Electrical features										
Power supply	-	3N - 400V 50Hz								
Maximum current	A	73.5	78.5	83.0	85.0	89.5	91.0	96.0	101.0	103.0
Indoor/outdoor connection (protected) [4]	mm	2 x 0.75								

[1] For an outside temp. of 20°C and a connection rate of 100%. [2] Anechoic chamber readings taken 1.5 m from the front of the appliance.
[3] Depending on the application; refer to the technical documentation. [4] Volume to regenerate every 300 m.

VRF SET FREE Sigma High Performance

		RAS-56FSXNPE	RAS-58FSXNPE	RAS-60FSXNPE	RAS-62FSXNPE	RAS-64FSXNPE
Unit 1 name		**RAS-12FSXNPE**	**RAS-12FSXNPE**	**RAS-14FSXNPE**	**RAS-14FSXNPE**	**RAS-16FSXNPE**
Unit 2 name		**RAS-12FSXNPE**	**RAS-14FSXNPE**	**RAS-14FSXNPE**	**RAS-16FSXNPE**	**RAS-16FSXNPE**
Unit 3 name		**RAS-14FSXNPE**	**RAS-14FSXNPE**	**RAS-16FSXNPE**	**RAS-16FSXNPE**	**RAS-16FSXNPE**
Unit 4 name		**RAS-18FSXNPE**	**RAS-18FSXNPE**	**RAS-16FSXNPE**	**RAS-16FSXNPE**	**RAS-16FSXNPE**
Twin unit connection kit		**MC-NP40SA**	**MC-NP40SA**	**MC-NP40SA**	**MC-NP40SA**	**MC-NP40SA**
Performance, cooling	**Unit**					
Capacity Cooling	kW	157	162	167	174	179
Absorbed capacity Cooling	kW	41.19	43.87	45.26	45.79	45.78
EER	-	3.81	3.69	3.69	3.80	3.91
SEER (average climate)	-	7.65	7.64	7.91	8.03	8.15
Seasonal energy efficiency cooling ηs, c	%	**303**	**302**	**313**	**318**	**323**
Operating ranges Cooling*	°C	-10°C/52°C DB				
Performance, heating						
Capacity Heating	kW	176	181	188	196	202
Absorbed capacity Heating	kW	41.84	44.06	47.03	49.86	52.20
Capacity at -7°C [1]	kW	131.96	137.22	148.40	155.91	161.84
Capacity at -15°C [1]	kW	104.90	112.15	122.11	125.33	127.26
COP	-	4.21	4.11	4.00	3.93	3.87
SCOP (average climate)	-	4.70	4.67	4.73	4.78	4.83
Seasonal energy efficiency heating ηs, h	%	**185**	**184**	**186**	**188**	**190**
Operating ranges heating	°C	-20°C WB/15°C DB				
Technical features						
Air flow (Cooling)	m³/h	13140 + 14580 + 21720	13140 + 14580x2 + 21721	14580x2 + 19560x2	14580 + 19560x3	19560x4
Adjustable static pressure fan	Pa	30/60/80				
Number of fans	-	8				
Sound power	dB(A)	90	91	91	91	91
Sound pressure level Cooling (night) [2]	dB(A)	68.5 (61)	68.5 (61)	70.0 (63)	70.5 (64)	71.0 (65)
Dimensions (HxWxD)	mm	1725 x 5326 x 784			1725 x 6106 x 784	1725 x 6496 x 784
Net weight	kg	282 + 282 + 297 + 384	282 + 297 + 297 + 384	297 + 297 + 369 + 369	297 + 369 + 369 + 369	369 + 369 + 369 + 369
Type of compressor	-	DC Scroll Inverter				
Compressor number	-	5		6	7	
Max. number of indoor units that can be connected	-	64				
Connection rate (min-max) [3]	%	50 - 150%				
Cooling properties (PED opposite)		**(Subject to application of the PED, category II)**				
Refrigerant	-	R410A				
Refrigerant load	kg	38.5	38.5	38.6	39.3	40.0
Dimension of cooler connections – Liquid	inches	19.05 (3/4)				
Dimension of cooler connections – Low pressure gas	inches	44.45 (1-3/4)				
Dimension of cooler connections – High pressure gas	inches	44.45 (1-3/4)				
Electrical features, outdoor unit						
Power supply	-	3N ~ 400V 50Hz				
Maximum current	A	109	114	122	127	132
Indoor/outdoor connection (protected) [4]	mm²	2 x 0.75 (2)				

[1] For an outside temperature of 20°C and a connection rate of 100%. [2] Anechoic chamber readings taken 1.5 m from the front of the appliance.
[3] Depending on the application; refer to the technical documentation. [4] Volume regenerated every 300 m. * Etas values (cooling mode) below 250% are not eligible for CEE.

		RAS-66FSXNPE	RAS-68FSXNPE	RAS-70FSXNPE	RAS-72FSXNPE
Unit 1 name		**RAS-16FSXNPE**	**RAS-16FSXNPE**	**RAS-16FSXNPE**	**RAS-18FSXNPE**
Unit 2 name		**RAS-16FSXNPE**	**RAS-16FSXNPE**	**RAS-18FSXNPE**	**RAS-18FSXNPE**
Unit 3 name		**RAS-16FSXNPE**	**RAS-18FSXNPE**	**RAS-18FSXNPE**	**RAS-18FSXNPE**
Unit 4 name		**RAS-18FSXNPE**	**RAS-18FSXNPE**	**RAS-18FSXNPE**	**RAS-18FSXNPE**
Twin unit connection kit		**MC-NP40SA**	**MC-NP40SA**	**MC-NP40SA**	**MC-NP40SA**
Performance, cooling	**Unit**				
Capacity Cooling	kW	184.0	190.0	196.0	201.0
Absorbed capacity Cooling	kW	47.06	48.59	50.13	51.41
EER	-	3.91	3.91	3.91	3.91
SEER (average climate)	-	7.98	7.83	7.71	7.60
Seasonal energy efficiency cooling ηs, c	%	**316**	**310**	**305**	**301**
Operating ranges Cooling*	°C	-10°C/52°C DB			
Performance, heating					
Capacity Heating	kW	207	213	220	225
Absorbed capacity Heating	kW	53.99	56.05	58.37	60.16
Capacity at -7°C [1]	kW	162.44	163.83	166.05	166.59
Capacity at -15°C [1]	kW	127.02	127.42	128.46	128.17
COP	-	3.83	3.80	3.77	3.74
SCOP (average climate)	-	4.77	4.72	4.68	4.64
Seasonal energy efficiency heating ηs, h	%	**188**	**186**	**184**	**182**
Operating ranges heating	°C	-20°C WB/15°C DB			
Technical features					
Air flow (Cooling)	m³/h	19569x3 + 21720	19560x2 + 21720x2	19760 + 21720x3	21720x4
Adjustable static pressure fan	Pa	30/60/80			
Number of fans	-	8			
Sound power	dB(A)	91	92	91	92
Sound pressure level Cooling (night) [2]	dB(A)	71 (65)	71 (65)	71 (65)	71 (65)
Dimensions (HxWxD)	mm	1725 x 6496 x 784			1725 x 6496 x 784
Net weight	kg	369 + 369 + 369 + 384	369 + 369 + 384 + 384	369 + 384 + 384 + 384	384 + 384 + 384 + 384
Type of compressor	-	DC Scroll Inverter			
Compressor number	-	8			
Max. number of indoor units that can be connected	-	64			
Connection rate (min-max) [3]	%	50 - 150%			
Cooling properties (PED opposite)		**(Subject to application of the PED, category II)**			
Refrigerant	-	R410A			
Refrigerant load	kg	40.6	41.2	41.8	42.4
Dimension of cooler connections – Liquid	inches	22.20 (7/8)			
Dimension of cooler connections – Low pressure gas	inches	44.45 (1-3/4)			
Dimension of cooler connections – High pressure gas	inches	44.45 (1-3/4)			
Electrical features, outdoor unit					
Power supply	-	3N ~ 400V 50Hz			
Maximum current	A	134	135	137	138
Indoor/outdoor connection (protected) [4]	mm²	2 x 0.75 (2)			

[1] For an outside temperature of 20°C and a connection rate of 100%. [2] Anechoic chamber readings taken 1.5 m from the front of the appliance.
[3] Depending on the application; refer to the technical documentation. [4] Volume regenerated every 300 m. * Etas values (cooling mode) below 250% are not eligible for CEE.

Cooling connections
VRF SET FREE SIGMA High-Performance

Part numbers of cooler accessories

Multikit

2 pipes	3 pipes
E-102SN4	E-52XN3
E-162SN4	E-102XN3
E-242SN3	E-162XN3
E-302SN3	E-202XN3
MW-NP2682A3	E-242XN3
	E-322XN3

Collector

2 pipes	3 pipes
MH-84AN1	MH-108XN
MH-108AN	

Twin unit connection multi-kit

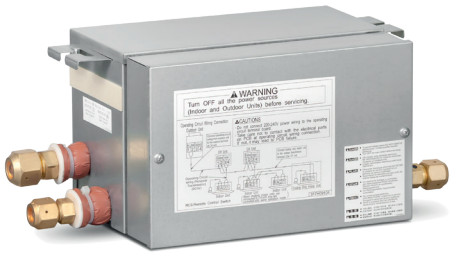
Outdoor unit	Number of outdoor units	Reversible Multikit Reference	Energy recovery Multikit Reference
RAS-(20-24)FSXNPE	2	MC-20AN1	MC-20XN1
RAS-(26-36)FSXNPE	2	MC-21AN1	MC-21XN1
RAS-(38-54)FSXNPE	3	MC-30AN1	MC-30XN1
RAS-(56-72)FSXNPE	4	MC-NP40SA	-

Outdoor unit condensate evacuation kit

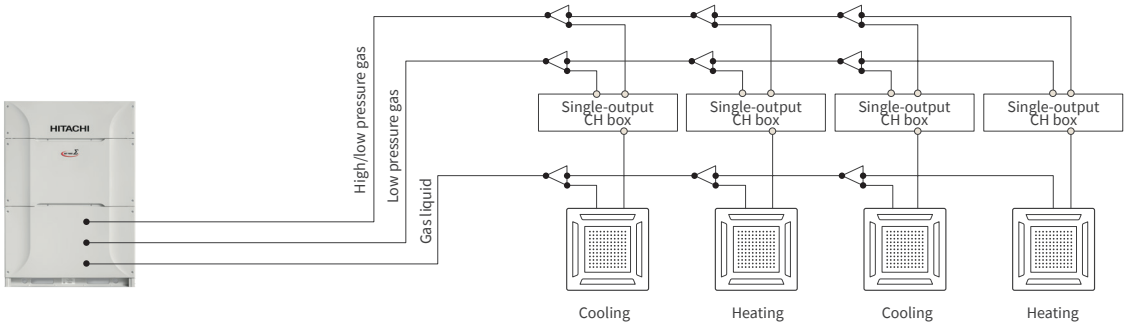
DBS-TP10A

VRF SET FREE Single CH boxes

Compatible with Sigma and SET FREE Mini 3-pipe ranges (8 to 12 Hp)



CH box Single-output: connection in 2 tubes (gas lines only)



Description

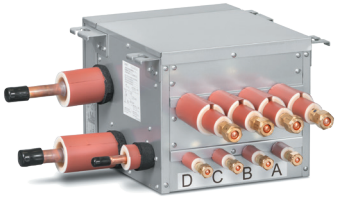
- CH box range with 1 output.
- Up to 8 indoor units per CH box.
- Compactness
- Lightweight.
- Connect 2-pipes only (gas pipes).
- No condensate connection.
- Compatible with extra long pipework.
- Ultra quiet at max. 33 dB(A).
- Flare cooling connections.

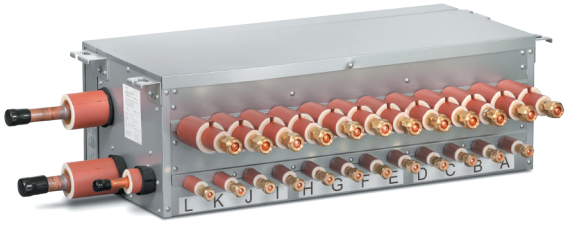
Single CH boxes	Part no.	CH-AP160SSX	CH-AP280SSX
Max. Hp power in cooling mode	Hp (kW)	6 (16.0)	10 (28.0)
Number of indoor units that can be connected*		1 ~ 7	1 ~ 8
Max. lengths after box	m	40	
Difference in height of indoor units connected to the same CH box	m	< 4	
Height difference between each CH box or between a CH box and an indoor unit	m	< 15	
Dimensions (HxWxD)	mm	191 x 301 x 214	
Weight	kg	6	
Diameter of cooling system – outdoor unit	inches	5/8" - 3/4"	
Diameter of cooling system – indoor unit	inches	5/8"	3/4"
Sound pressure level	dBA	33 (46 max**)	

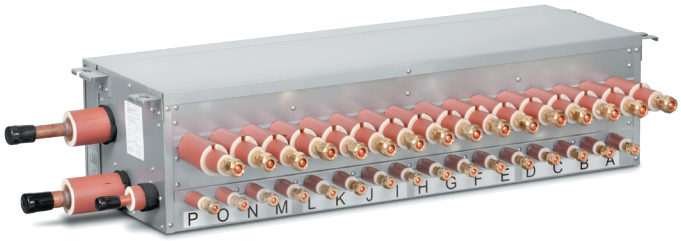
* If connecting multiple indoor units per branch, use the Hitachi cooling fittings referenced P. 54.
** Max. noise means the maximum operating noise level of the CH box emitted when the unit is in simultaneous cooling and heating or in defrost mode.

VRF SET FREE Multi CH boxes

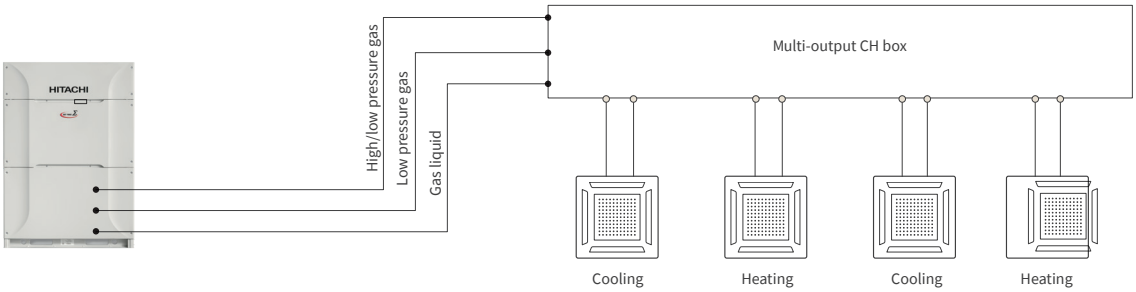
Compatible with Sigma and SET FREE Mini 3-pipe ranges (8 to 12 Hp)







CH box Multi-output: connection in 3 tubes



Description

- Range of multi-output CH boxes.
- Up to 96 indoor units per CH box.
- Low-height.
- Low-volume.
- Lightweight.
- No condensate connection.
- Ultra quiet up to 31 dB(A).
- Cooling connections brazed (outdoor unit) and flare (indoor unit).
- Accessories delivered as standard: reduction and increase to allow a brazed output on the indoor unit side.

Multi CH boxes	Part no.	CH-AP04MSSX	CH-AP08MSSX	CH-AP12MSSX	CH-AP16MSSX
Number of branches		4	8	12	16
Number of units per branch*		1 ~ 6	1 ~ 6	1 ~ 6	1 ~ 6
Total max. power per CH	Hp (kW cooling)	16.00 (max. 44.8 kW)	30.00 (max. 85 kW)	30.00 (max. 85 kW)	30.00 (max. 85 kW)
Total max. power per branch	Hp (kW cooling)	6Hp (16 kW)			
Max. lengths after box	m	40 (30***)			
Difference in height of indoor units connected to the same CH box	m	< 4			
Height difference between each CH box or between a CH box and an indoor unit	m	< 15			
Dimensions (HxWxD)	mm	260 x 303 x 352	260 x 543 x 352	260 x 783 x 352	260 x 1023 x 352
Weight	kg	14	25	36	47
Diameters of cooling system – outdoor unit	inches	7/8" - 1" - 1/2"	7/8" - 1" 1/8 - 1/2"	1" - 1" 1/8 - 5/8"	1" 1/8 - 1" 1/4 - 3/4"
Diameters of cooling system – indoor unit	inches	5/8" - 3/8"			
Sound pressure level	dBA	31 (46 max**)	31 (46 max**)	34 (46 max**)	34 (46 max**)

* If connecting multiple indoor units per branch, use the Hitachi cooling fittings referenced P. 54.
** Max. noise means the maximum operating noise level of the CH box emitted when the unit is in simultaneous cooling and heating or in defrost mode.
***When the recommended number of indoor units is exceeded.

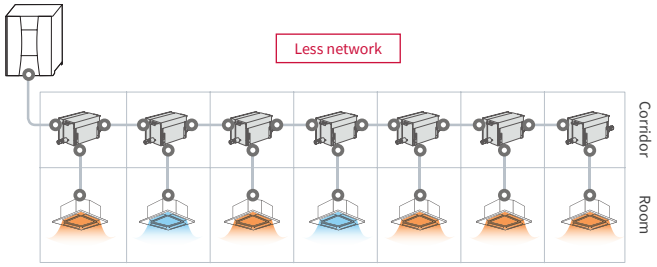
Flexible installation

Single and multi-output boxes may be combined when 5, 9, 13 or 17 outputs are required.

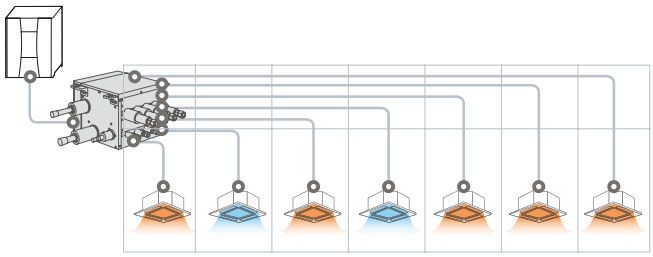
“Long and narrow building” application

Installation in a corridor to simplify distribution to the indoor units.

Single-output



Multi-outputs

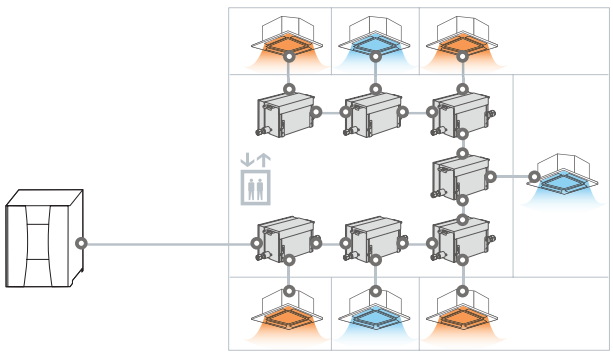


Single-output		Multi-outputs
58 m	Pipe length	136 m
6	Multikit required	0
92 points (Soldering: 57/Flare: 32)	Connection points	34 points (Soldering: 6/Flare: 28)

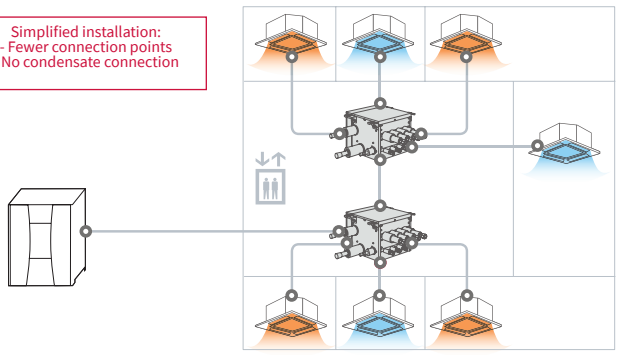
Located in the center of the building

By positioning the boxes in the center of the units (save tubes, less labor and reduced load).

Single-output



Multi-outputs



Single-output		Multi-outputs
60 m	Pipe length	63 m
6	Multikit required	1
92 points (Soldering: 57/Flare: 32)	Connection points	40 points (Soldering: 12/Flare: 28)

More installation flexibility:

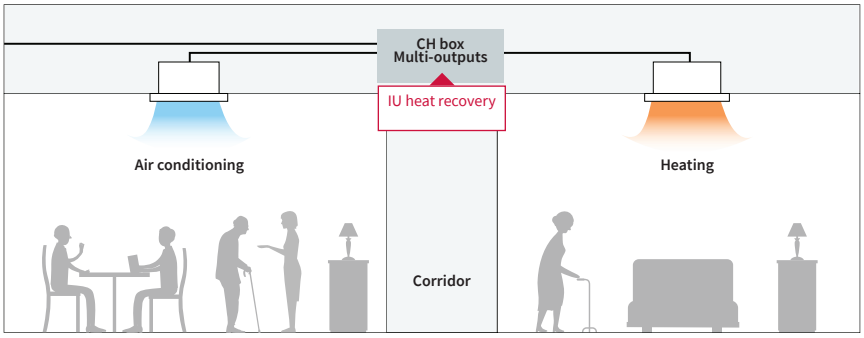
- Very compact
- Lightweight

Simplified installation:

- No condensate connection.

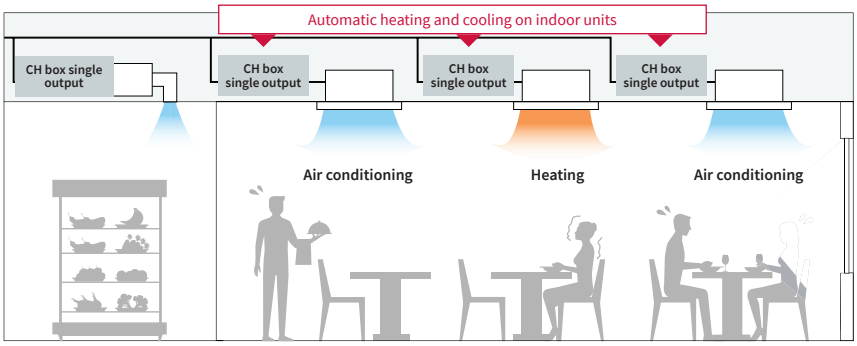
Examples of applications

Retirement homes



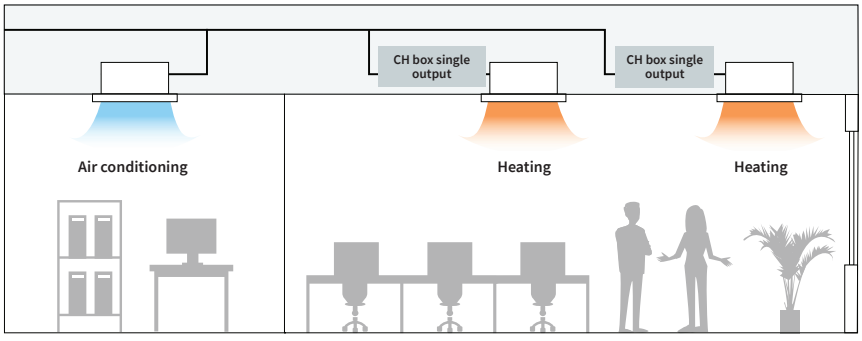
In AUTO mode, thanks to the temperature sensor in the IU air intake or the outdoor temperature sensor of the remote control, the IU checks the difference between the actual temperature and the setpoint to optimize comfort levels and make energy savings.

Restaurant/Hotel



One group for heating, air conditioning and cooling food conservation or server room. The food conservation or server room functions in cooling mode only.
The connected capacity can reach 50% of the outdoor unit capacity.

Offices



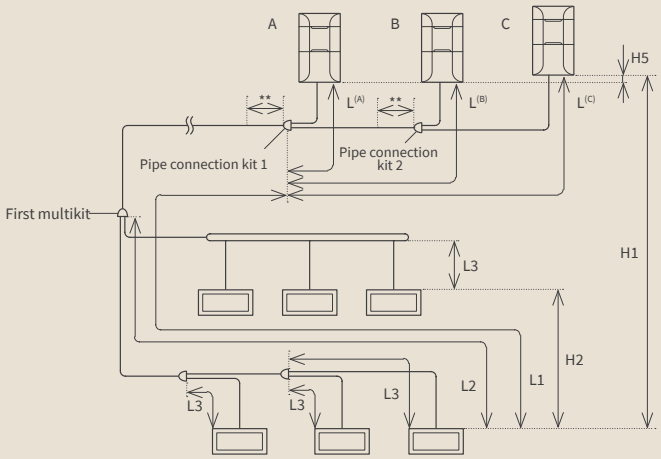
Some IU can be used for cooling only (which is useful for small server rooms) for offices, combined with the heat recovery system for heating and cooling rooms.

2P and 3P cooling circuit design rules

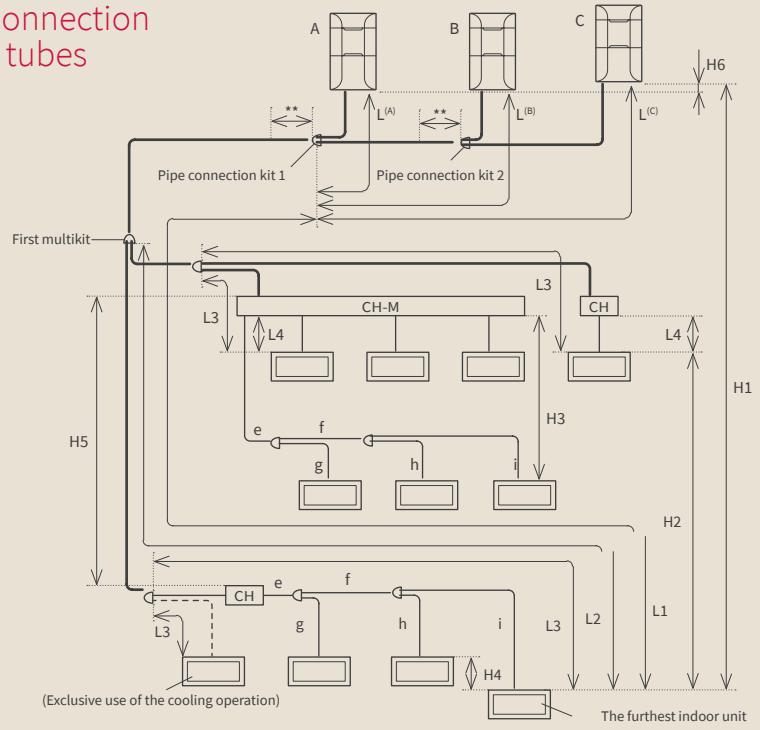
Sizing rules for cooling connections	Max. features of the cooling system	Symbol	Permissible length of pipes ≤ Recommended number of indoor units*	Permissible length of pipes ≥ Recommended number of indoor units*
Total length of piping		Actual total length of liquid piping	≤ 1000m(3)	≤ 300m(3)
Max. pipe length	Actual length	L1	≤ 165m	≤ 165m
	Equivalent length		≤ 190m	≤ 190m
Max. length of piping between the multi-kit of the first branch line and each indoor unit		L2	≤ 90m	≤ 40m
Max. pipe length between multi-kits and indoor units		L3	≤ 40m	≤ 30m
Total pipe length between the CH-Box and each indoor unit		L4 (e + f + g + h + i)	≤ 40m	≤ 30m
Pipe length between the pipe fitting kit 1 and each outdoor unit		La, Lb, Lc	≤ 10m	≤ 10m
Height difference between outdoor units and indoor units	Highest outdoor unit	H1	≤ 50m(1)	≤ 50m(1)
	Lowest outdoor unit		≤ 40m	≤ 40m
Height difference between indoor units		H2	≤ 30m	≤ 30m
Height difference between the CH box and indoor unit		H3	15m(2)	
Difference in height between indoor units connected to the same CH box branch		H4	≤ 4m	≤ 4m
Height difference between CH boxes		H5	≤ 15m	≤ 15m
Difference in height between the outdoor units		H6	≤ 0.1m	≤ 0.1m

(*) See the technical manual for the recommended number of indoor units (TC). (1) Longer piping (up to 110 m) is available for all models. Remember, you must obtain prior approval from Hitachi's Customer Service team if the difference in height is greater than 50 m. Please contact Hitachi's Customer Service department to provide them with the necessary features of the system so that they can carry out a feasibility study. (2) The recommended height difference between the CH box and the indoor unit must be no more than 15 m. If the height difference is greater, it could compromise the operating performance. (3) If following the recommended number of indoor units, the total length of piping must be less than 1,000 m due to the additional refrigerant load limit. If you exceed the recommended number of indoor units, the restrictions for the total length of the pipes apply.

Connection 2 tubes



Connection 3 tubes



High/low pressure gas pipes, low pressure gas pipes, liquid pipe.

Gas pipes, liquid pipe.

Low pressure gas pipes, liquid pipe.

CH CH-Box (1 output).

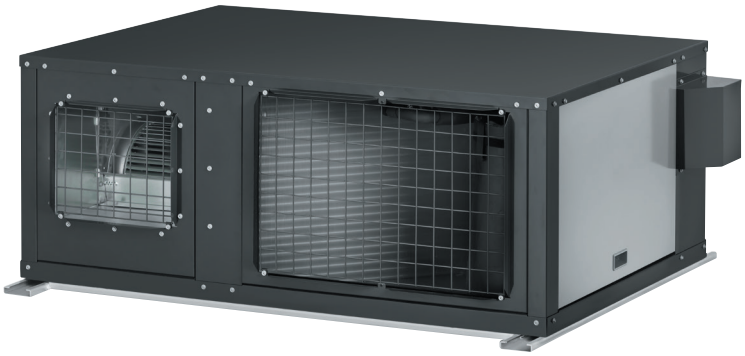
CH-M CH-M (multi-outputs).

* These maximum values may vary depending on the maximum number of indoor units connected. Refer to current technical documentation.
** Keep a straight distance of 500 mm or more downstream of the connection kit.

SEER 5.60 SCOP 3.98

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

Micro VRF IVX Centrifugal



Ideal solution for city centers

Installed in suspended ceilings, units are invisible from the outside.

Easy to implement

Suspended single-block system: less footprint. Intake and fan blower can be adjusted to suit the situation (same side or at right angle). Available pressure up to 120 Pa.
The air intake and output grids are also interchangeable, increasing your installation options in any part of the building.

More comfort, every time

The IVX Centrifugal VRF can provide air-conditioning for up to 6 different zones and offers more comfort as you can independently control each indoor unit.
The premium compressor installed on these units provides smart defrosting. This lengthens the warming period and brings more comfort.

Silence

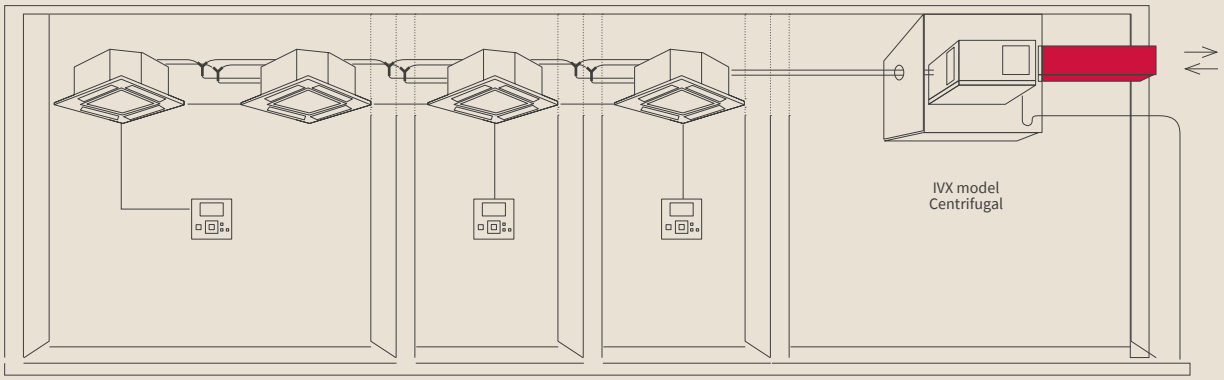
Fans are equipped with a frequency dimmer, which achieves sound levels unmatched on the market.

Compatible with all SYSTEM FREE control systems:

From individual control to central controls and communication gateways for direct integration into a BMS.

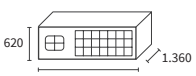
Installation

You can opt for 2 branches with up to 4 indoor units or up to 6 indoor units on one branch. Set up with a maximum of 5 different indoor units for RASC-(4-6)HNPE or 6 indoor units for RASC-(8/10) HNPE. Compatibility with DX KIT (1x1), with the control based on the air intake.



Outdoor units

RASC-4HNPE
RASC-5HNPE
RASC-6HNPE



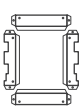
RASC-8HNPE
RASC-10HNPE

Micro VRF IVX Centrifugal

Model	Unit	RASC-4HNPE	RASC-5HNPE	RASC-6HNPE	RASC-8HNPE	RASC-10HNPE
Performance, cooling						
Capacity Cooling	kW	10.00	12.50	14.00	20.00	24.00
Absorbed capacity Cooling	kW	2.99	3.98	5.09	7.41	9.02
EER	-	3.35	3.14	2.75	2.7	2.66
SEER (average climate)	-	5.6	5.43	5.22	5.39	5.48
Seasonal energy efficiency cooling Ƞs, c	%	**221%** (*)	**214%** (*)	**206% (*)**	**212%** (*)	**216%** (*)
Operating ranges in Cooling	°C	-5°C/+46°C (DB)				
Performance, heating						
Capacity heating	kW	11.20	14.00	15.50	22.40	26.00
Absorbed capacity heating	kW	2.95	4.12	5.74	7.00	8.52
COP	-	3.8	3.4	2.7	3.2	3.05
SCOP (average climate)	-	3.98	3.74	3.66	3.51	3.71
Seasonal energy efficiency heating Ƞs, h	%	**156%**	**146%**	**143%** (*)	**137%** (*)	**145%**
Operating ranges in Heating mode	°C	-15°C/+15.5°C (WB)				
Technical features						
Airflow (cooling)	m^3/h	3300	3600		6900	
Available pressure (rated/max.)	Pa	56/90	72/100	100/100	84/120	102/120
Sound power	dB(A)	70	71	72	74	75
Sound pressure in Cooling (night pressure)	dB(A)	52 (48)		53 (49)	55 (51)	56 (52)
Net weight	kg	192			300	303
Dimensions (HxWxD)	mm	555 x 1415 x 1015			620 x 1850 x 1360	
Diameter of pipes (Liq/Gas)	inches	3/8 - 5/8			3/8 - 1	1/2 - 1
Compressor	-	SCROLL				
Grille dimension (fresh air intake)	-	444 x 642			509 x 925	
Grille dimension (expel)	-	288 x 334			337 x 398	
Min. power of indoor unit	Hp	0.8				
Number of connectible units (min - max)	-	1 - 5			1 - 6	
Cooling properties						
Refrigerant	-	R410A				
Initial refrigerant load	kg	4.1	4.2		5.7	6.2
Maximum length/Added refrigerant	m/g/m	75/see technical documentation			100/see technical documentation	
Preloaded for	m	30				
Max. drop (outdoor unit above)	m	30/20				
Electrical properties (PED opposite)		**(Not subject to application of the PED)**				
Power supply	-	400V/3 Ph + N/50Hz				
Maximum current	A	14.1		16.0	24.7	
Cable section (EN 60 335-1) (1)	mm^2	5 x 4.00			5 x 6.00	
Indoor/outdoor connection (protected)	mm^2	2 x 0.75				

(1) The information provided is for information purposes only. It is the installer's responsibility to ensure that these Cable sections meet the needs of the facility and current standards.
(*) Etas values (cooling mode) below 250% are not eligible for CEE. Its seasonal performance follows standard EN14825 (2013). HITACHI Centrifugal units are VRF-certified, so the specified performance applies for units only.

Compatible controls and accessories



Fan blower intake at a right angle

FD-RASC46
FD-RASC810

Refrigerant connection kit

See next page

Cooling connections
Micro VRF IVX Centrifugal

Quantity of indoor units

Outdoor unit	Hp	4	5	6	8	10
Max. number of indoor units			5		6	
Min. power of indoor unit				0.8		

Permitted connection rate

Outdoor unit	Hp	4	5	6	8	10
Max. number of indoor units	1 to 4			75~120%		
		3 to 4.8 Hp	3.8 to 6 Hp	4.5 to 7.2	6 to 9.6 Hp	7.5 to 12 Hp
	5			75~100%		
		3 to 4 Hp	3.8 to 5 Hp	4.5 to 6 Hp	6 to 8 Hp	7.5 to 10 Hp
	6		-		75~100%	
			-		6 to 8 Hp	7.5 to 10 Hp

* If more than 4 indoor units are connected, the power of the indoor units must be balanced out according to the table below.

Authorized combinations of indoor units for all outdoor units

The most powerful unit in the combination	0.80	1.00	1.30	1.50	1.80	2.00	2.30	2.50	3.00	4.00	5.00	6.00
The least powerful unit in the combination	0.80				1.00			1.30		1.50	1.80	2.00

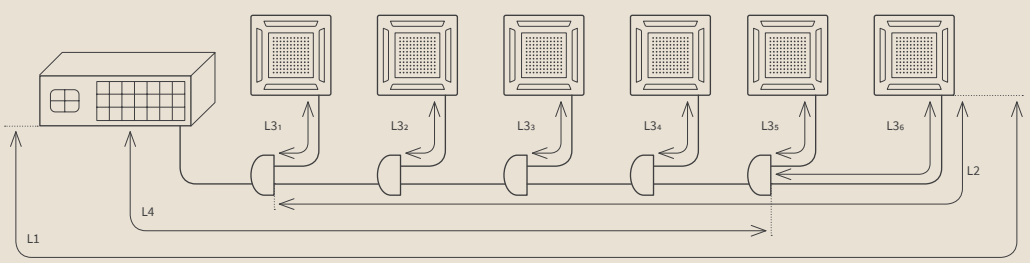
RASC-10HNPE: Special combinations allowed for the outdoor unit

	Power combinations of authorized indoor units (Hp)					
Max. number of indoor units	2	8 + 3	8 + 2	10 + 3	10 + 2	-
	3	8 + 2 + 2	8 + 1.5 + 1.5	8 + 1 + 1	10 + 1.5 + 1.5	10 + 1 + 1

Units of 4 to 10 Hp:
Permitted installation (1 to 6 indoor units)

- Installation with deviations.
- 1 or 2 lines with a constant diameter.
- Installation with more than 4 indoor units: cooler connections with one main permitted line (2 branches not allowed).


Multikit



Permitted connection rate

Outdoor unit		Hp	4	5	6	8	10
Max. length between outdoor unit and the furthest indoor unit	Actual length	m		75		100	
	Equivalent length	m		95		125	
Max. drop from outdoor unit to indoor unit (H) (outdoor unit above/below)		m			30/20		
Max. drop from indoor unit to indoor unit		m			10		
Max. drop from Multikit to indoor unit/Multikit to Multikit		m			3		
Total length of the pipe		m		95		100	145
Max. length of indoor unit to Multikit		m		10		15	
Max. length of first Multikit to indoor unit		m		30		40	

Multikit part numbers		Hp	E-102SN4	E-162SN4	
Diameter of the main line			-	Constant diameter	
Diameter of outdoor unit - first multikit	Liq/Gas	"	3/8 - 5/8	3/8* - 1	1/2 - 1

**If the pipe is longer than 70m, use a 1/2" liquid line instead of 3/8".

Power of indoor unit		Hp	< 1.5	1.8 to 2	2.3 to 6	8	10
Diameter of the indoor unit multikit	Liq/Gas	"	1/4 - 1/2	1/4 - 5/8	3/8 - 5/8	3/8 - 3/4	3/8 - 7/8

Exclusive to Hitachi: all our System Free indoor units are compatible with the outdoor groups Sigma, Set Free Mini, VRF Centrifugal, Utopia Prime, Micro VRF IVX Prime and Utopia Prime, in VRF or Single Split versions. They can be managed with a wide range of remote controls. The option to adjust the power of these indoor units brings a unique flexibility to the market,

VRF & Utopia Prime indoor units

		Capacities Cooling (Hp)																	
		0.4	0.6	0.8	1.0	1.3	1.5	1.8	2.0	2.3	2.5	3.0	4.0	5.0	6.0	8.0	10.0	16.0	20.0
Cassettes p.74 RCIM-FSRE (600x600) • Refrigerant R32 • Refrigerant R410A	 600x600	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	-	-	-	-	-	-	-	-
RCI-FSR (800x800) • Refrigerant R32 • Refrigerant R410A	 800x800	-	-	-	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	-	-	-	-
2-Way cassettes p.82 RCD-FSR • Refrigerant R32 • Refrigerant R410A		-	-	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	-	-	-	-
Ceiling unit p.98 RPC-FSR • Refrigerant R32 • Refrigerant R410A		-	-	-	-	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	-	-	-	-
Ducted p.84 1. RPIL-FSRE (ultra compact: up to 100Pa) • Refrigerant R32 • Refrigerant R410A		• •	• •	• •	• •	• •	• •	-	-	-	-	-	-	-	-	-	-	-	-
2. RPI-FSRE (medium: up to 150Pa) • Refrigerant R32 • Refrigerant R410A		-	-	-	-	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	-	-	-	-
3. RPIH-FSRE (high pressure: up to 200Pa) • Refrigerant R32 • Refrigerant R410A		-	-	-	-	-	-	-	-	-	-	-	• •	• •	• •	-	-	-	-
4. RPI-FSN3E (high capacity: up to 220Pa) • Refrigerant R410A		-	-	-	-	-	-	-	-	-	-	-	-	-	-	•	•	-	-
5. RPI-FSN3PE (high capacity: up to 220Pa) • Refrigerant R410A		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	•	•
Wall unit p.94 RPK-FSR(H)M Remote regulator • Refrigerant R32 • Refrigerant R410A		• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	-	-	-	-	-	-
Console p.96 RPF(I)-FSN2E Enclosed or non-enclosed • Refrigerant R410A		-	-	-	•	•	•	•	•	•	•	-	-	-	-	-	-	-	-

VRF
UTOPIA PRIME indoor units

Technical features

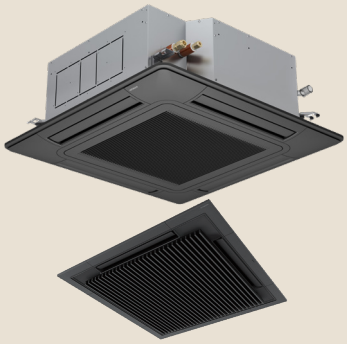
A new range of indoor units compatible with refrigerants R32 or R410A.
FSR range: R410A/R32

All our Set Free indoor units are available in R32 with the exception of consoles RPF/RPFI and > 6hp Ducted units, which will remain compatible with R410A only.

4-way cassette

R32 REFRIGERANT R410A REFRIGERANT GENTLE COOL

600 X 600
RCIM-0.4-2.5FSRE

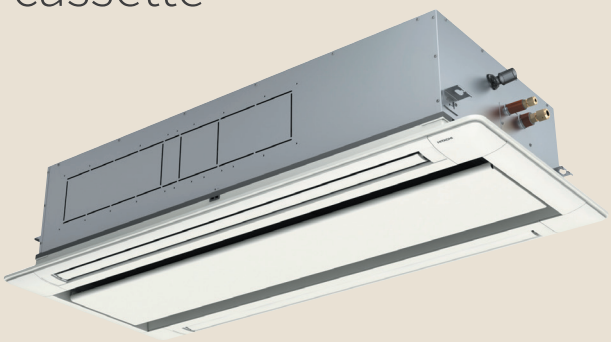


800 X 800
RCI-1.0-6.0FSR

- Available from 1.1 to 16 kW.
- 600 x 600 flush cassette.
- Save energy with the motion sensor (optional).
- Control each fan blade separately.
- Extracts up to 850 mm condensation.

2-way cassette

R32 REFRIGERANT R410A REFRIGERANT GENTLE COOL

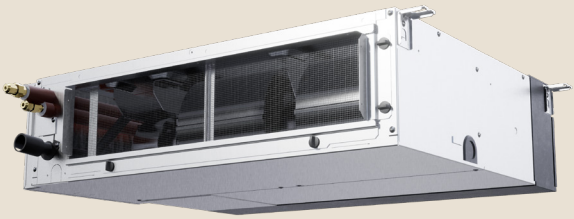


RCD-0.8-6.0 FSR

- Available from 2.2 to 16 kW.
- Save energy with the optional motion sensor.
- Extracts up to 850 mm condensation.
- Control each fan blade separately.

Ducted

R32 REFRIGERANT R410A REFRIGERANT GENTLE COOL
M0 M1 AIR ZONE



RPIL/RPI/RPIH-0.4~6FSRE
RPI-8~20FSN3E

- Available from 1.1 to 56 kW.
- Extracts up to 850 mm condensation.
- Static pressure available up to 220 Pa.
- Available with M1 or M0 insulation (depending on the model).

Wall

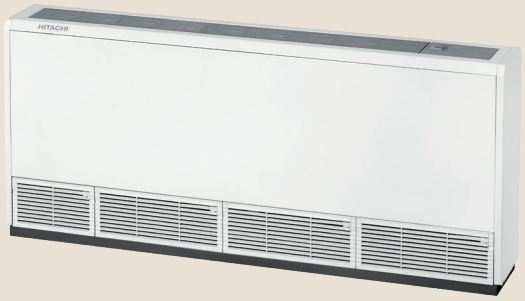
R32 REFRIGERANT R410A REFRIGERANT GENTLE COOL

RPK-0.4-4.0FSRM

– Available from 1.1 to 11.2 kW.
– Optional electronic remote control.
– 4 fan speeds available.
– Integrated infrared receiver.

Console

R410A REFRIGERANT SYSTEM FREE



RPF-1.0-2.5FSN2E

- Available from 2.2 to 7.1 kW.
- Enclosed and non-enclosed version.
- Depth of just 220 mm.
- Integrated remote control (on enclosed model).

Ceiling unit

R32 REFRIGERANT R410A REFRIGERANT GENTLE COOL

RPC-1.5-6.0 FSR

- Available from 3.8 to 16 kW.
- Air range suitable for large rooms.
- 4 fan speeds.
- Connects from 3 directions.

Hydro Free

R410A REFRIGERANT 45°C 80°C

High-temperature
RWHT-5.0VNF1E

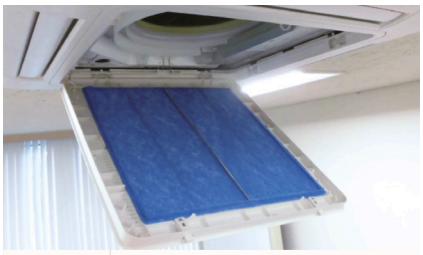
Low-temperature
RWLT-3.0~10VN1E

- Compatible with VRF SIGMA and Set Free Mini
- Perfect for a thermodynamic DHW solution (high-temperature module, 80°C).
- Perfect for a water heating solution in addition to DX comfort (low-temperature module).

Benefits and exclusive features Hitachi indoor units

ZPT antivirus filter

Air in a room may contain pollutants (dust, bacteria, viruses) which, thanks to the ZPT Antivirus Filter, can be trapped and effectively neutralized within our heating and air conditioning systems.



Part number F-160L-ZV

Compatible with all 840 x 840 cassettes

99.7% prevention

The effectiveness of the ZPT filter against certain viruses was confirmed with a prevention level of up to 99.7%. Dust connection levels are higher than with standard filters.

More durable

A regularly maintained and cleaned filter can last for up to 4 years.

Quick antivirus transformation

Once you replace your old filter with a ZPT filter, you can easily adapt your 4-way cassette to the antivirus version. Keep the same fixation!

FrostWash VRF SIGMA 2T compatible only

FrostWash's operating process is carried out in three stages: frosting, defrosting and cleaning the indoor unit exchanger to remove built-up dirt and impurities. This improves air quality and maintains performance over time.

The + points of the Hitachi solution

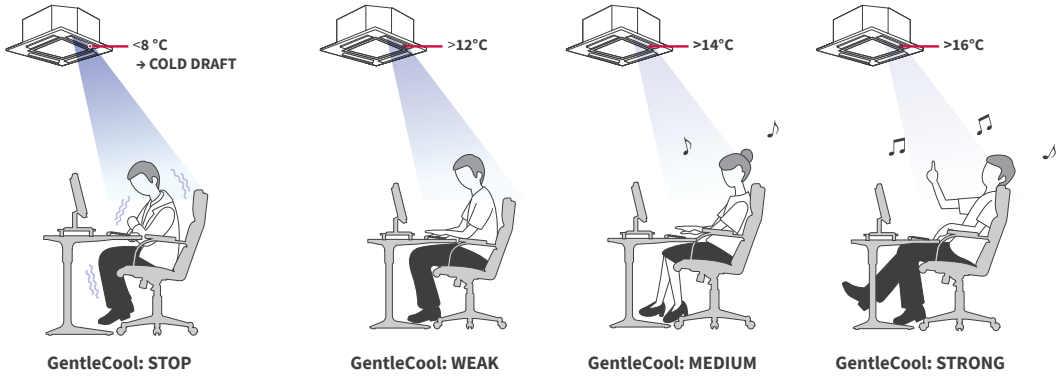
- Maintain the efficiency of the heat exchanger.
- Improve air quality.
- Mode (<40 mn): Manual, Auto, and programmed.
- Outdoor unit compatible with Smooth Drive Control 2.0 (SIGMA 2T).
- Now compatible with remote control with FrostWash function (PC-ARFG-E).

FrostWash compatible units:

- 800 x 800 cassettes: RCI-FSR,
- 600 x 600 cassettes: RCIM-FSRE,
- 2-way cassettes: RCD-FSR,
- Ducted: RPI(L/H)-FSRE,
- Ceiling unit: RPC-FSR.

Fan blower temperature setting “Gentle Cool”.

Potential for discomfort — **GentleCool → No cold drafts**



GentleCool: STOP | **GentleCool: WEAK** | **GentleCool: MEDIUM** | **GentleCool: STRONG**

Min. Temp° control on the fan blower with the wired remote control PC-ARFG-E or the CSNET monitoring system

Solutions on the market:

- Users feel cold.
- Ducted units => Problems with condensation forming (poor quality of air).

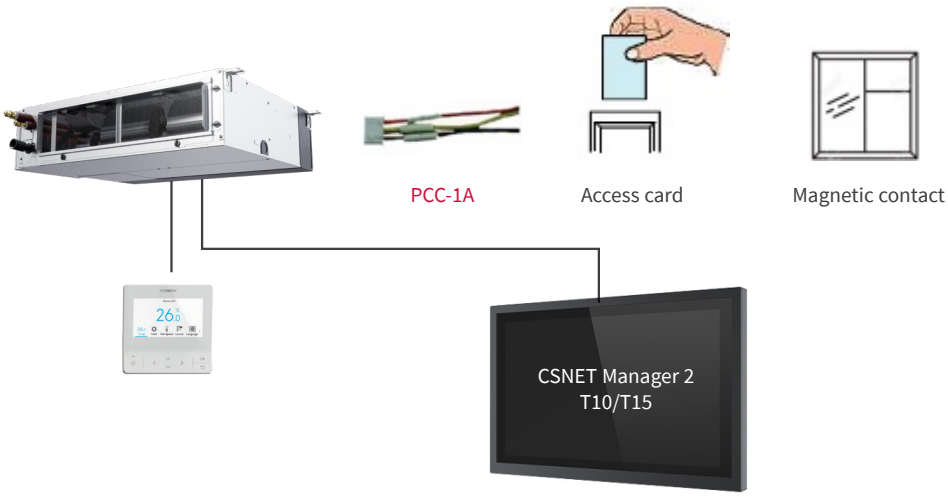
The + points of the Hitachi solution:

- Users do not feel cold
- Clean quality of air => No condensation in the ducts (Ducted units), for improved quality of air inside.
- Available on all Hitachi indoor units.

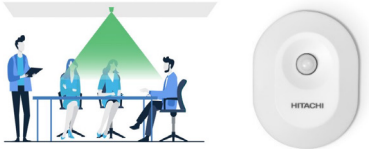
Magnetic contacts as standard on all Hitachi IU for energy savings

Different actions can be programmed via the access card contact or window opening contact using the PC-ARFG-E wired remote or the CSNET command (PCC-1A connector required):

- ON/OFF,
- Temperature Setting (normal or reduced mode),
- More energy savings than CSNET.



- Compatible with motion sensor for energy savings: SOR-MSK

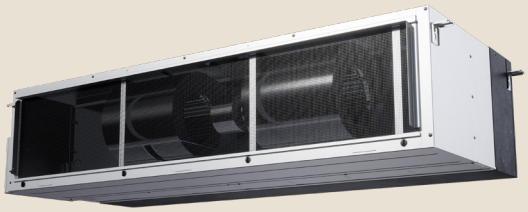


The most extensive ducted range on the market, from 1.1kW to 56 kW.

DUCTED THE MOST COMPACT ON THE MARKET!
197 mm in height

Medium and high-pressure Ducted unit

1.1 to 4kW: up to 100Pa
4 to 18 kW: up to 150Pa
11 to 18 kW: up to 200Pa



ORIGINAL

The + points of the Hitachi solution

- Extended capacity range (1.1 to 18 kW cooling),
- Low-height: 197 mm (RPIL-FSRE: 100Pa),
- 30% more fresh air.
- Cooling connection from the rear (RPIL model).
- “Gentle cool” regulated fan blower setting to stop the air current and improve air quality.
- Easier filter removal (from below or from the side).
- Option to separate the electrical housing (sizes 0.4 to 2Hp).
- Plenum Hitachi available as an option.
- Compatible plenum Airzone for fan blower vent regulation.
- Condensate pumps can be disconnected (RPIL)

Ducted High Pressure 220 Pa

High Capacity 8 to 20Hp
Compatible VRF 8-96Hp

ORIGINAL

The + points of the Hitachi solution

- Most powerful on the market at 56 kW in cooling mode.
- Strongest flow on the market at 9,000 m3/h under 220 Pa.
- 100% redundancy on RPI 16 and 20Hp with connection to two separate and independent units.
- Standard filtering.
- M0 version available on delivery for category 1 to 4 ERP installation.
- 30% more fresh air.
- Temperature control: average between intake sensors and remote sensor.
- Suitable for all applications with large volumes: warehouses, supermarkets, department stores, industrial buildings...

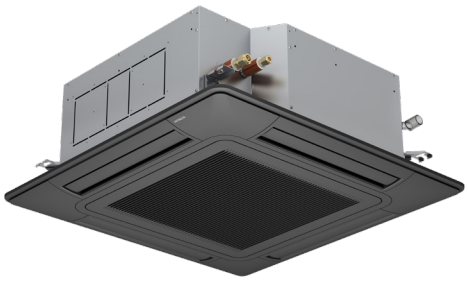
ICONIC Design Panel for 840x840 cassette

NEW ORIGINAL

reddot winner 2021 best of the best

GOOD DESIGN AWARD 2020

DESIGN AWARD 2020



The + points of the Hitachi solution

- Neat design to suit any room.
- Design of the blades and shape of the air outputs improve air distribution through the Coandă effect.
- Gentle Cool fan blower setting for more comfort and energy savings.
- Compatible with R32 and R410A ranges (VRF and Utopia Prime air/air heat pump).
- Standard cassette version (white or black).
- Iconic Design cassette version (white or black, white with elevator).
- Panel with lifting device: level difference can be as high as 4 m.
-Installation in premises with high ceilings.

Size 0.4 Hp (1.1kW)

Available as a Ducted unit

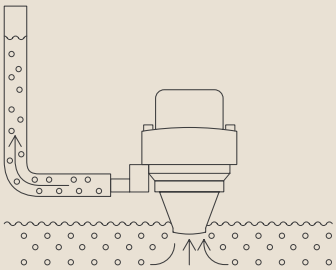
Available as a 600x600 cassette

Available as a wall unit

The + points of the Hitachi solution

- A response to the RE 2020 with better insulated buildings.
- Heating and cooling capacity adapted to the thermal needs of small premises.
- More comfort: no overheating.
- Wall units, cassettes, Ducted units have 4 speed settings.
- More air flow at the same power output as competitive products: higher circulation rate.

Self-powered condensate pump
(indoor units)



The + points of the Hitachi solution

- If the lift pump of one indoor units is faulty, the other units keep running.
- No impact on the facility as a whole.

Hitachi Multikit connection for improved refrigerant distribution

The + points of the Hitachi solution

- The shape of the multikit fitting promotes the flow of refrigerant compared to the widely used T-joint.
- **Energy performance guarantee.**
- Easier to install: the main line can be laid as a straight line.
- More space between the main line and the indoor unit line; makes it easier to use a pipe cutter to cut one of the pipes.

Compatibility of all IU with the new design wired remote control
PC-ARFG-E

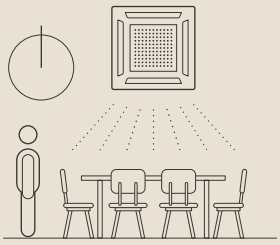
NEW

The + points of the Hitachi solution

- Elegant and modern design in a curved shape.
- Screen with settings in 5 different colors.
- Function settings: Cooling/heating mode, auto mode, dehumidification, ventilation, define the setpoint, weekly programming, show electricity consumption, Eco mode.
- More intuitive interface: easy access to menu functions, settings, FrostWash...
- Description of each function shown on the screen, no need to print out the manual.
- Special features for hotel applications!
- Password-protected Service & Installation menu.

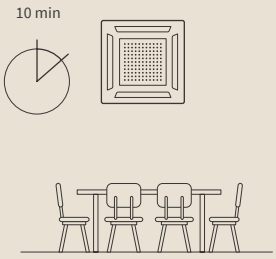
Benefits
VRF TWIN indoor units

1 Save energy with the motion sensor



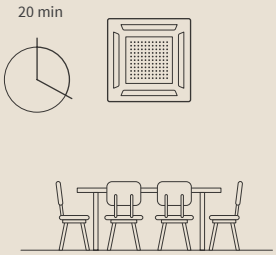
Phase A
Activity

The cassette operates at the setpoint temperature and the chosen fan speed.



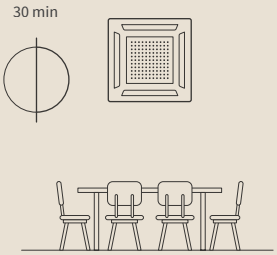
Phase B
10 minutes if empty

- Adjusts the temperature by +/- 1°C depending on the operating mode.
- Sets the fan speed to one setting lower.



Phase C
20 minutes if empty

- Adjusts the temperature by +/- 2°C depending on the operating mode.
- Sets the fan speed to one setting lower.

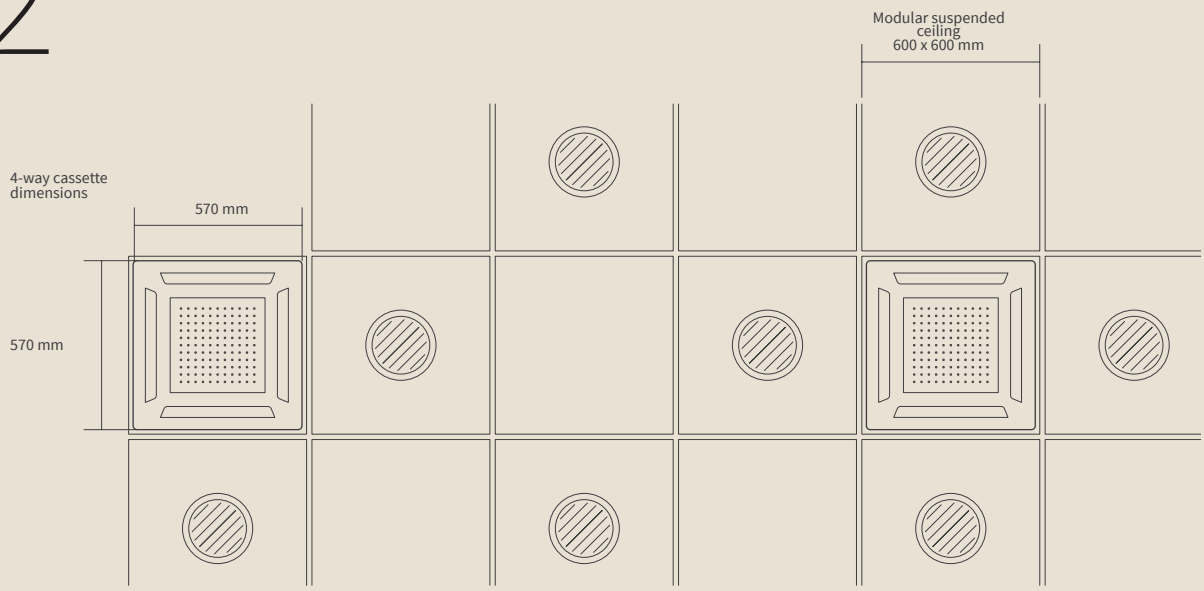


Phase D
30 minutes if empty
3 OPTIONS:

- 1. MODE ON: stays in Phase C mode.
- 2. STAND BY MODE: the indoor unit enters Unit-OFF mode and returns to normal operation when it detects motion.
- 3. Off MODE: the inside unit turns off and turn on again manually.

The motion sensor controls the indoor unit in operation:
- Number of people present in the room
- Up to 14% energy savings,
- Option available for: 600 x 600 cassette, 800 x 800 cassette, ducted, ceiling unit.

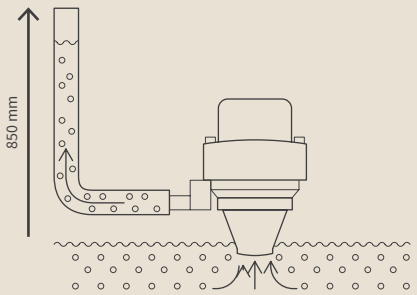
2 Perfect integration



The 4-way cassette 600x600 was designed for:
- perfect integration in suspended ceilings,
- perfect fit into any small space.

3 Condensate extraction up to 850 mm

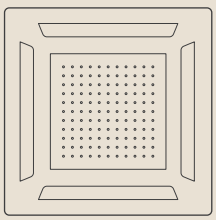
- Standard integration with cassette and ducted type units,
- Optional four ceiling units,
- The pump comes on automatically as soon as Cooling mode is selected,
- Self-powered condensing pump: any fault on a unit's condensing pump will not affect the rest of the system.



4 Low noise level with the remote regulator (wall units 0.4 to 1.5 hp)

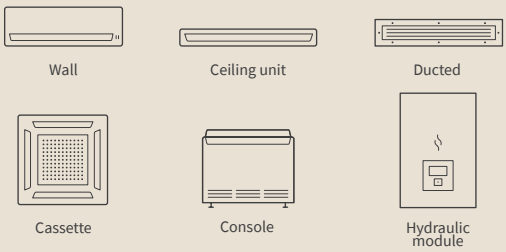
With indoor wall units, you can place the regulator outside of the room, significantly reducing noise levels for the best acoustic comfort.

5 Higher circulation rate



Same power but more flow than competitor cassette, wall, and Ducted units. Our indoor units have 4 fan speeds to adapt the airflow and ensure more comfort in any room.

6 IU compatibility with outdoor units



- Set Free Sigma,
- Set Free Mini,
- Centrifugal,
- Utopia Prime, IVX Prime,
- Utopia Prime,
- Hydrofree compatible with SIGMA and Set Free Mini.

* For more information, please refer to the technical documentation. ** Ceiling-mount optional.

SYSTEM FREE 0,4 CV POWER SWITCH

GENTLE COOL R410A REFRIGERANT R32 REFRIGERANT

600 x 600 4-way cassette

Installation time

The 600 x 600 cassette has a compact design and flush front panel to integrate perfectly into suspended ceilings (570 x 570mm casing).
In addition, it is equipped as standard with a pump to remove condensation up to 850 mm.

Low noise level

With 4 fan speeds, this 600 x 600 cassette is one of the most silent on the market.

Energy savings

The motion sensor (optional) automatically optimizes the level of comfort while limiting the energy consumption.

Unrivaled comfort

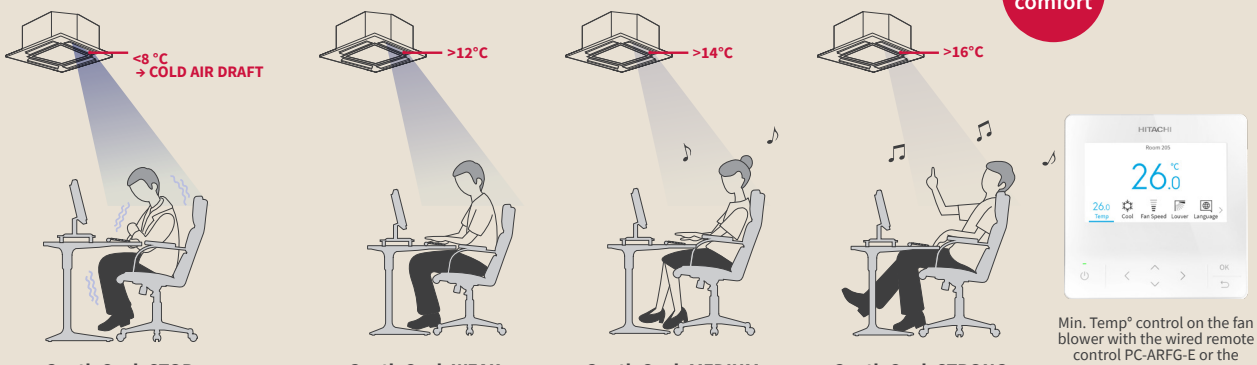
The GENTLE COOL fan temperature setting, accessible on the wired remote control PC-ARF1E, adjusts the fan blower temperature.
In summer, cooling air currents are avoided as you can set the fan blower temperature to the minimum setting.

Flexibility

You can also use the adjustable power settings to respond precisely to each project: 4 settings to choose from, with huge ranges in airflow.

Potential for discomfort — **GentleCool** → **No cold drafts**

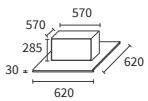
Optimal comfort



GentleCool: STOP | **GentleCool: WEAK** | **GentleCool: MEDIUM** | **GentleCool: STRONG**

Min. Temp° control on the fan blower with the wired remote control PC-ARFG-E or the CSNET monitoring system

Indoor units



RCIM-0.4FSRE
RCIM-0.6FSRE
RCIM-0.8FSRE
RCIM-1.0FSRE
RCIM-1.5FSRE
RCIM-2.0FSRE
RCIM-2.5FSRE

600 x 600 4-way cassette

Indoor units	Unit	RCIM-0.4FSRE	RCIM-0.6FSRE	RCIM-0.8FSRE	RCIM-1.0FSRE	RCIM-1.5FSRE	RCIM-2.0FSRE	RCIM-2.5FSRE
Power (adjustable)	Hp	0.40	0.60	0.80	1	1.30 ← 1.50	1.80 ← 2.00	2.30 ← 2.50(*)
Capacity Cooling UTOPIA Prime & IVX	kW	not available		2.00	2.50	3.60	5.00	5.60
Capacity Heating UTOPIA Prime & IVX	kW	not available		2.20	2.80	4.00	5.60	6.30
Capacity Cooling SET FREE	kW	1.10	1.70	2.20	2.80	3.80 ← 4.00	5.20 ← 5.60	6.70 ← 7.10
Capacity Heating SET FREE	kW	1.25	1.90	2.50	3.20	4.20 ← 4.80	5.60 ← 6.30	7.50 ← 8.50
Noise level in Cooling mode (pressure) (low/medium/high speed1/high speed2)[1][3]	dB(A)	24.5/25/27/29	24.5/28/30/34	24.5/29/33/36	24.5/30/34/38	27.5/33/37/41	31/35/39/45	35/39/43/47
Sound power	dB(A)	43	47	50	51	54	56	60
Airflow in Cooling mode (low/medium/high speed1/high speed2)[4]	m^3/h	360/414/468/510	360/450/510/600	360/480/570/660	360/510/600/720	420/570/660/780	480/600/720/900	600/720/840/960
Condensing pump	-	Yes						
Max. elevation	mm	850						
Diameter of pipes (Liq/Gas)	inches	1/4 - 1/2						3/8 - 5/8
Condensate outlet diameter (ext.)	mm	32						
Box dimensions (H x W x D)	mm	285 x 570 x 570						
Panel dimensions (H x W x D)	mm	30 x 620 x 620						
Weight of the box + front panel	kg	16 + 2.50					17 + 2.50	
Power supply	-	1 ~ 230V 50Hz						
Cable section (EN 60 335-1) [2]	mm^2	3 x 0.75						
Max. current	A	5						
Part number of the front panel	-	P-AP56NAM						

[1] Sound pressure is measured under the following conditions: 1.50 m below the unit.
[2] Data shown is for indication purposes only. It is the installer's responsibility to ensure that these Cable sections meet the needs of the facility and current standards.
[3] Very high-speed access is possible with remote controls PC-ARFP1E and PC-ARH1E.
[4] Very low speed is available in Thermo-off mode.
(*) RCIM-2.5FSRE: capacity 7.10 kW can be set to 6.70kW

Decorative panel

You can have multiple contacts with the connector PCC-1A : progress report, error report, thermostat control, remote "Start/Stop".

Compatible controls and accessories

Simple wired controller
PC-ARH1E

Infrared controller
PC-AWR

Intuitive multifunction cable control
PC-ARFG-E

Remote sensor
THM-R2AE

Infrared receiver
PC-ALHC1 (integrated)/PC-ALHZ1 (external)

Multi-tenant card
PC-AMTB

Motion sensor
SOR-NEC

Connectors
PCC-1A

Fresh air kit
PD-75C

Silent-Iconic panels for cassette 840x840

Silent-Iconic™

4-Way Cassette Design Panel

Design White

Design Black

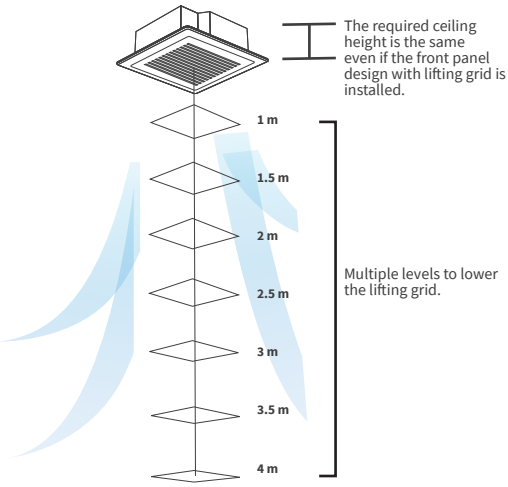
Features

A design that fits perfectly into any space
Designed to harmonize with the room – the shutter-like intake flaps are placed centrally and the fan blades are darkened to complete the discrete look.

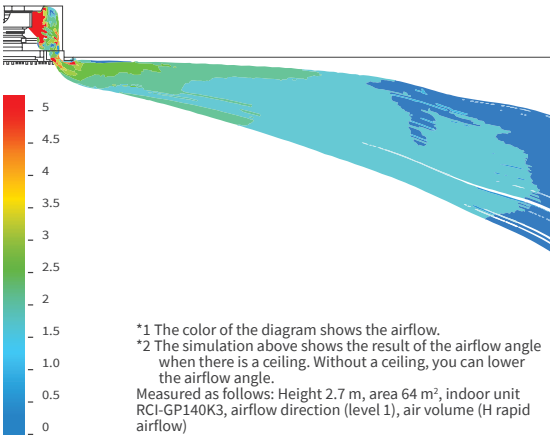
Air intake grid

Concealed fan blades

Easy-clean filter
The “front panel design with lifting grid” makes it easy to clean the filter. The lowering distance can reach 4 m, and the Silent-Iconic front panel can be installed in buildings with a high suspended ceiling heights.

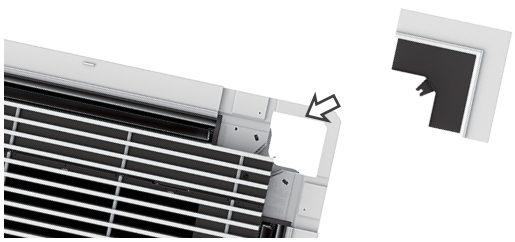


Guaranteed ease-of-use
The all-new front panel flap design and air outflow shape enhance the Coanda effect, which significantly improves user comfort by avoiding the direct impact of cold air circulation.

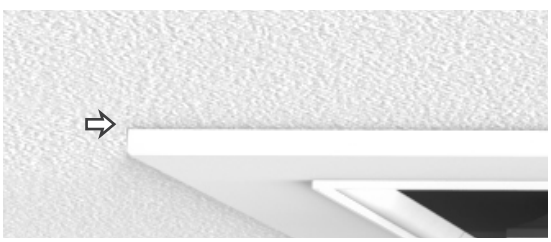


*1 The color of the diagram shows the airflow.
*2 The simulation above shows the result of the airflow angle when there is a ceiling. Without a ceiling, you can lower the airflow angle.
Measured as follows: Height 2.7 m, area 64 m², indoor unit RCI-GP140K3, airflow direction (level 1), air volume (H rapid airflow)

Easy-to-install front panels
Sliding edges make installation easier – just add the screws.



Designed to align with the ceiling surface
The small gap between the front panel and the ceiling gives a visual effect of “lightness” and blends in with the ceiling.



TwinSense White panel for 840x840 cassette

Integrated motion and radiation detector for more comfort and energy savings.

More intelligent with a detector
4 zones and a radiant detector

NEW

Ref.: P-AP160NAE2

Crowd-sense

Detects the change in the number of occupants in a room and anticipates the cooling/heating requirements for a more stable temperature.

Feet-warm/Floorsense cool

Detects the floor temperature and adjusts the airflow and blades to ensure uniform temperature throughout the room.

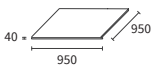
Direct/indirect airflow

The position of occupants in the room is detected and the cassette blows directly or indirectly on the occupants according to the setting.

Compatibility

- Compatible with RCI-FSR cassettes,
- New PC-ARFG-E remote control.

TwinSense panel



P-AP160NAE2

High Performance Antivirus Filter

A new filter to improve the quality of indoor air.

Hitachi has developed a new high-performance antivirus filter which traps and neutralizes different types of particles in ambient air, using Zinc Pyrithione Technology (ZPT).

NEW

Ref.: F-160L-ZV (optional)

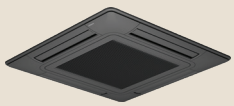
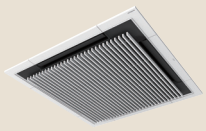
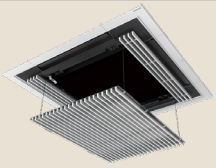
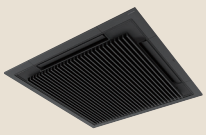
It inhibits 99% of:

- Viruses,
- Bacteria,
- Mold,
- And other pollutants…

75% effective

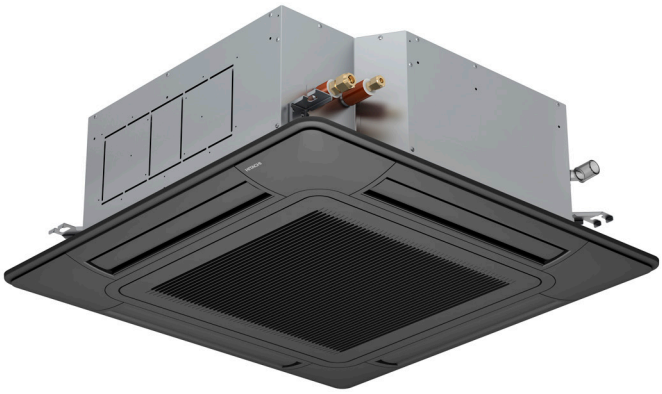
Up to 75% dust collection thanks to finer mesh.

Compatible with all panels on 4-way 800x800 cassettes

TwinSense panel	Standard panel	Silent-Iconic	Silent-Iconic with elevator screen	Silent-Iconic
White	White/Black	White	White	Black
				
P-AP160NAE2	**P-N23NA2/P-AP160KA3-EU**	**P-GP160NAP-EU**	**P-GP160NAPU-EU**	**P-GP160NAPU-EU**

840 x 840 4-way cassette

NEW · SYSTEM FREE · POWER SWITCH · GENTLE COOL · R410A REFRIGERANT · R32 REFRIGERANT



TwinSense panel with integrated motion sensor

NEW

Standard black panel

Available in white (without motion sensor)

Installation time

The 800 x 800 cassette fits perfectly into suspended ceilings thanks to its low recess height (248 mm) as well as in high ceilings with a possible installation of up to 4.20 m, depending on the model. In addition, it is equipped as standard with a pump to remove condensation up to 850 mm.

Unrivaled comfort

The GENTLE COOL fan temperature setting, accessible on the wired remote control PC-ARFG-E, adjusts the min. fan blower temperature.

In summer, cooling air currents are avoided as you can set the fan blower temperature to the minimum setting.

Energy savings

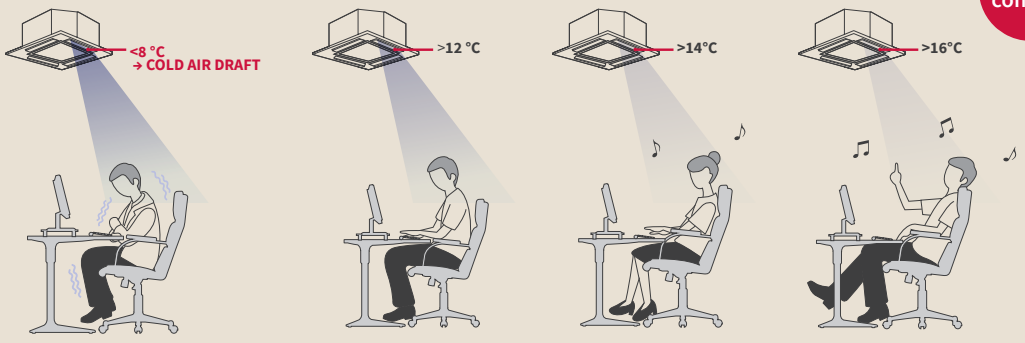
The motion sensor (standard or optional depending on the panel model) automatically optimizes the level of comfort while limiting the energy consumption in rooms only occupied occasionally.

Flexibility

Our 800 x 800 cassettes have an impressive range of 2.8 to 16 kW, offering flexibility like no other on the market.
You can also use the adjustable power settings to respond precisely to each project: 4 settings to choose from, with huge ranges in airflow.

Potential for discomfort — **GentleCool** → **No cold drafts**

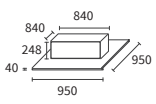
Optimal comfort



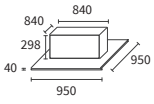
GentleCool: STOP | GentleCool: WEAK | GentleCool: MEDIUM | GentleCool: STRONG

Min. Temp° control on the fan blower with the wired remote control PC-ARFG-E or the CSNET monitoring system

Indoor units



RCI-1.0FSR
RCI-1.5FSR
RCI-2.0FSR
RCI-2.5FSR



RCI-3.0FSR
RCI-4.0FSR
RCI-5.0FSR
RCI-6.0FSR

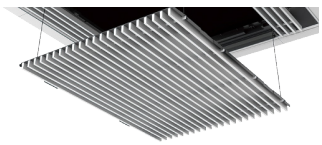
840 x 840 4-way cassette

Indoor units	Unit	RCI-1.0FSR	RCI-1.5FSR	RCI-2.0FSR	RCI-2.5FSR	RCI-3.0FSR	RCI-4.0FSR	RCI-5.0FSR	RCI-6.0FSR
Power (adjustable)	Hp	1.00	1.30 ← 1.50	1.80 ← 2.00	2.30 ← 2.50	3.00	4.00	5.00	6.00
Capacity Cooling UTOPIA Prime & IVX	kW	2.50	3.60	5.00	5.60	7.10	11.20	14.00	16.00
Capacity Heating UTOPIA Prime & IVX	kW	2.80	4.00	5.60	6.30	8.00	12.50	16.00	18.00
Capacity Cooling SET FREE	kW	2.80	3.80 ← 4.00	5.20 ← 5.60	6.70 ← 7.10	8.00	11.2	14	16
Capacity Heating SET FREE	kW	3.20	4.20 ← 4.80	5.60 ← 6.30	7.50 ← 8.50	9.00	12.5	16	18
Noise level in Cooling mode (pressure) (low/ medium/high speed1/high speed2)[1][3]	dB(A)	27/28/30/33	27/30/31/35	27/30/32/37	28/32/36/42		33/39/43/48	35/40/45/48	37/41/46/48
Sound power	dB(A)	52	53	55	56	57	64	64	65
Airflow in Cooling mode (low/medium/high speed1/high speed2) [4]	m^3/h	540/660/780/900	660/840/1020/1260	660/840/1020/1320	840/1080/1380/1620	840/1080/1380/1620	1200/1440/1860/2220	1260/1560/1980/2220	1320/1680/2100/2220
Condensing pump	-	Yes							
Max. elevation	mm	850							
Diameter of pipes (Liq/Gas)	inches	1/4 - 1/2			3/8 - 5/8				
Condensate outlet diameter (ext.)	mm	32							
Box dimensions (H x W x D)	mm	248 x 840 x 840				298 x 840 x 840			
Panel dimensions (H x W x D)	mm	40 x 950 x 950							
Net weight of the box + front panel	kg	20 + 6.50	21 + 6.50		22 + 6.50	26 + 6.50			
Power supply	-	1 ~ 230V 50Hz							
Cable section (EN 60 335-1) [2]	mm^2	3 x 0.75							
Max. current	A	5							
Part number for standard White front panel (Black)	-	P-N23NA2 (P-AP160KA3-EU)							
TwinSense white panel (motion sensor)		P-AP160NAE2							

[1] Sound pressure is measured under the following conditions: 1.50 m below the unit.
[2] Data shown is for indication purposes only. It is the installer's responsibility to ensure that these Cable sections meet the needs of the facility and current standards.
[3] Very high-speed access is possible with remote controls PC-ARFP1E and PC-ARH1E.
[4] Very low speed is available in Thermo-off mode.

Silent-Iconic front panel

	Natural White		Black
Type of front panel	White front panel design	White front panel design blanc equipped with lifting grid	Black front panel design
Part number	P-GP160NAP-EU	P-GP160NAPU-EU	P-GP160KAP-EU
Dimensions (HxWxD)	52 x 950 x 950 mm		



Panel lift	d7	01	02	03	04	05	06	07
Control lowering on wired remote control PC-ARFG-E	Lowers in 7 stages	1.0 m	1.5 m	2.0 m	2.5 m	3.0 m	3.5 m	4.0 m

You can have multiple contacts with the connector PCC-1A : progress report, error report, thermostat control, remote "Start/Stop".

Compatible controls and accessories (see tab VRF TWIN controls p.XX)

Simple wired controller
PC-ARH1E

Infrared controller
PC-AWR

Intuitive multifunction cable control
PC-ARFG-E

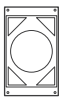
Fresh air kit
PD-75A

Remote sensor
THM-R2AE

Infrared receiver
PC-ALH3 (integrated) PC-ALHZ1 (external)

Multi-tenant card
PC-AMTB

Connectors
PCC-1A



Remote blower connection kit
PDF-71C1/PDF-160C1

Motion sensor (wall)
SOR-MSK

SYSTEM FREE GENTLE COOL POWER SWITCH

R410A REFRIGERANT R32 REFRIGERANT

2-way cassette

Stand-out solution

Our choice of 2-way cassettes, ranging from 2.2 to 16 kW, is the perfect solution for larger rectangular spaces.
You can also use the adjustable power settings to respond precisely to each project.

GENTLE COOL blower temperature setting for ultimate comfort

The GENTLE COOL fan temperature setting, accessible on the wired remote control PC-ARFG-E, adjusts the min. fan blower temperature. In summer, cooling air currents are avoided as you can set the fan blower temperature to the minimum setting.

Installation time

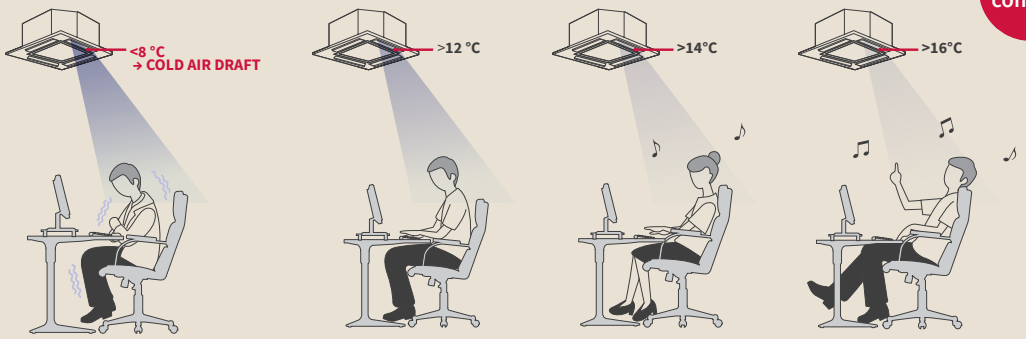
This unit is easy to install thanks to its light weight (23 kg) and the lift pump (850 mm) built-in as standard.

Energy savings

The motion sensor (optional) automatically optimizes the level of comfort while limiting the energy consumption in rooms only occupied occasionally.

Potential for discomfort — **GentleCool** → **No cold drafts**

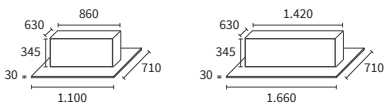
Optimal comfort



GentleCool: STOP | GentleCool: WEAK | GentleCool: MEDIUM | GentleCool: STRONG

Min. Temp° control on the fan blower with the wired remote control PC-ARFG-E or the CSNET monitoring system

Indoor units



RCD-0.8FSR
RCD-1.0FSR
RCD-1.5FSR
RCD-2.0FSR
RCD-2.5FSR
RCD-3.0FSR

RCD-4.0FSR
RCD-5.0FSR
RCD-6.0FSR

2-way cassette

Indoor units	Unit	RCD-0.8FSR	RCD-1.0FSR	RCD-1.5FSR	RCD-2.0FSR	RCD-2.5FSR	RCD-3.0FSR	RCD-4.0FSR	RCD-5.0FSR	RCD-6.0FSR
Power (adjustable)	Hp	0.80	1.00	1.30 ← 1.50	1.80 ← 2.00	2.30 ← 2.50	3.00	4.00	5.00	6.00
Capacity Cooling UTOPIA Prime & IVX	kW	2.00	2.50	3.60	5.00	5.60	7.10	10.00	12.50	14.00
Capacity Heating UTOPIA Prime & IVX	kW	2.20	2.80	4.00	5.60	6.30	8.00	11.20	14.00	16.00
Capacity Cooling SET FREE	kW	2.20	2.80	3.80 ← 4.00	5.20 ← 5.60	6.70 ← 7.10	8.00	11.20	14.00	16.00
Capacity Heating SET FREE	kW	2.50	3.20	4.20 ← 4.80	5.60 ← 6.30	7.50 ← 8.50	9.00	12.50	16.00	18.00
Noise level in Cooling mode (pressure) (low/medium/high speed1/high speed2)[1][3]	dB(A)	27/28/29/30	27/28/29/31	30/31/34/37	30/33/36/39	33/36/39/42	33/38/42/45	34/37/40/43	35/41/44/47	39/42/45/48
Sound power	dB(A)	44	46	49	51	52	55	55	55	59
Airflow in Cooling mode (low/medium/high speed1/high speed2) [4]	m^3/h	390/450/540/600	420/510/570/660	600/690/780/900	630/750/870/990	750/870/990/1110	750/960/1110/1260	1200/1380/1590/1800	1260/1620/1860/2100	1440/1710/1950/2220
Condensing pump	-	yes								
Max. elevation	mm	850								
Diameter of cooling pipes (Liq/Gas)	inches	1/4 - 1/2				3/8 - 5/8				
Condensate outlet diameter (ext.)	mm	32								
Box dimensions (H x W x D)	mm	345 x 860 x 630						345 x 1420 x 630		
Panel dimensions (H x W x D)	mm	30 x 1100 x 710						30 x 1660 x 710		
Weight of the box + front panel	kg	23 + 7.50		25 + 7.50				39 +10.50		
Power supply	-	1~ 230V 50Hz								
Cable section (EN 60 335-1)[2]	mm^2	3 x 0.75								
Max. current	A	5								
Part number of the front panel	-	P-AP90DNA						P-AP160DNA		

(1) Sound levels (pressure) are measured in an anechoic chamber at 1.50 m under the unit.
(2) Data shown is for indication purposes only. It is the installer's responsibility to ensure that these Cable sections meet the needs of the facility.
(3) Very high-speed access is possible with remote controls PC-ARFG-E.
(4) Very low speed is available in Thermo-off mode.

You can have multiple contacts with the connector PCC-1A : progress report, error report, thermostat control, remote "Start/Stop".

Compatible controls and accessories (see tab VRF TWIN Controls p.XX)

Simple wired controller
PC-ARH1E

Infrared controller
PC-AWR

Intuitive multifunction cable control
PC-ARFG-E

Remote sensor
THM-R2AE

Infrared receiver
PC-ALHD1 (integrated)/PC-ALHZ1 (external)

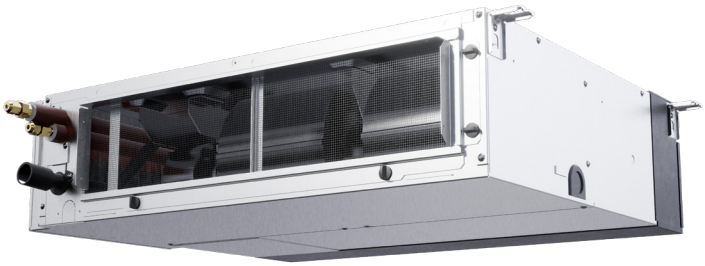
Multi-tenant card
PC-AMTB

Motion sensor
SOR-NED

Connectors
PCC-1A

Fresh air kit
PD-150D

Ducted unit



GENTLE COOL blower temperature setting for ultimate comfort

The GENTLE COOL fan temperature setting, accessible on the wired remote control PC-ARFG-E, adjusts the min. fan blower temperature. There is minimal risk of condensation forming, which improves the air quality. It also stops any summer drafts.

Easy maintenance

Extracts up to 850 mm condensation. Filter is accessible from below or the side (0.4 to 6 hp).

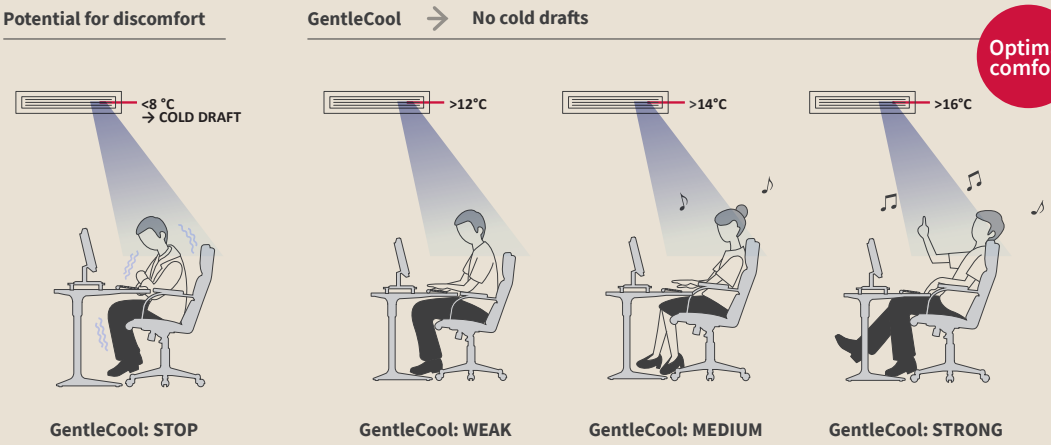
Compatible with Airzone solution

Thanks to its partnership with Airzone, Hitachi is able to offer you precision step-by-step temperature control.

30% fresh air supply

All Hitachi Ducted units can work on 30% fresh air to provide the best quality and cleanest air.

Potential for discomfort → **GentleCool** → **No cold drafts**



GentleCool: STOP | **GentleCool: WEAK** | **GentleCool: MEDIUM** | **GentleCool: STRONG**

Min. Temp° control on the fan blower with the wired remote control PC-ARFG-E or the CSNET monitoring system

Slim Ducted unit 100 Pa – 1.1 to 4 kW

- Integrated and removable condensation extraction pump.
- Filter accessible from below or from the right side.
- Low-height: 197 mm
- Refrigerant connections from the rear.
- Electric box (can be remote),
- Air intake from the rear or below (optional,
- Insulation M1 (M0 available on request).

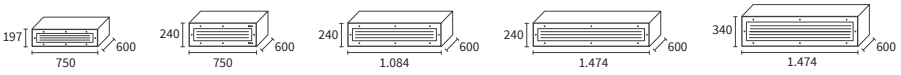
Ducted unit 150 Pa 4 to 16 kW

- Condensate extraction pump included.
- Intake from the rear and below (optional).
- Optional motion sensor.
- Height: 240 mm
- Insulation M1 (M0 available on request),
- Electrics box (can be removed, sizes 1.5 and 2 hp).
- Filter accessible from below or from the left or right side.

Ducted unit 200 Pa 11 to 16 kW

- Condensate extraction pump included.
- Intake from the rear.
- Filter accessible from below or from the left or right side.
- Insulation M1 (M0 available on request).

Indoor units



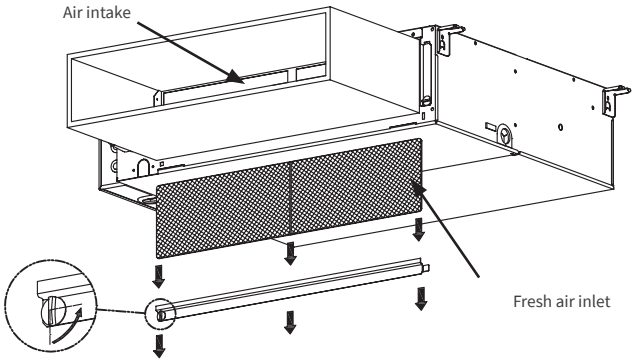
RPIL-0.4FSRE RPIL-0.6FSRE RPIL-0.8FSRE RPIL-1.0FSRE RPIL-1.5FSRE	RPI-1.5FSRE RPI-2.0FSRE	RPI-2.5FSRE RPI-3.0FSRE	RPI-4.0FSRE RPI-5.0FSRE RPI-6.0FSRE	RPIH-4.0FSRE RPIH-5.0FSRE RPIH-6.0FSRE

Features & benefits

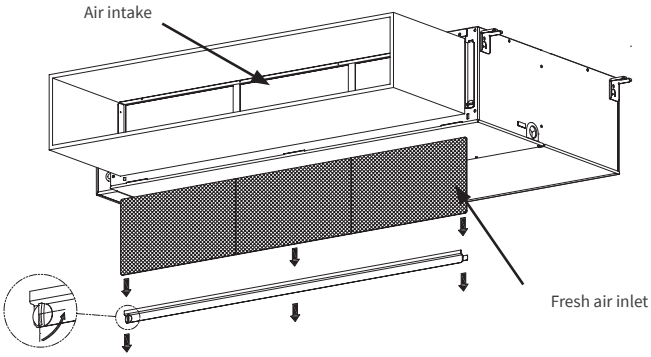
Easy maintenance and cost savings

The air filter system has been improved with a filter holder device for easier installation and maintenance: extraction below or from the side. This enables the air filter to be maintained without removing the air intake plenum.

Filter extraction from below

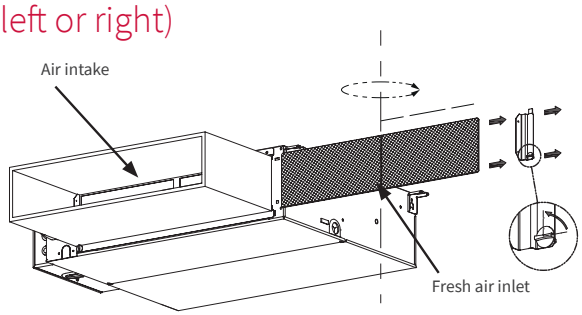


RPIL-FSRE

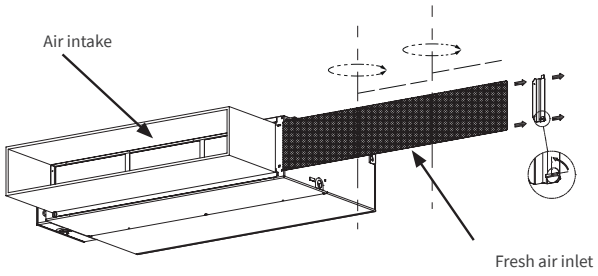


RPI(H)-FSRE

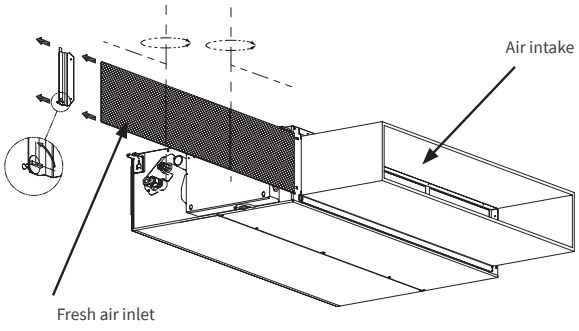
Filter extraction from the side (left or right)



RPIL-FSRE (extraction right side only)



RPI(H)-FSRE right side



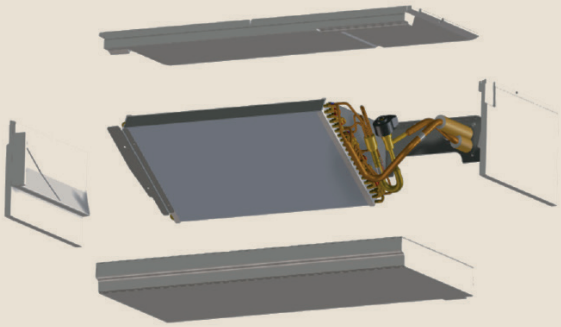
RPI(H)-FSRE left side

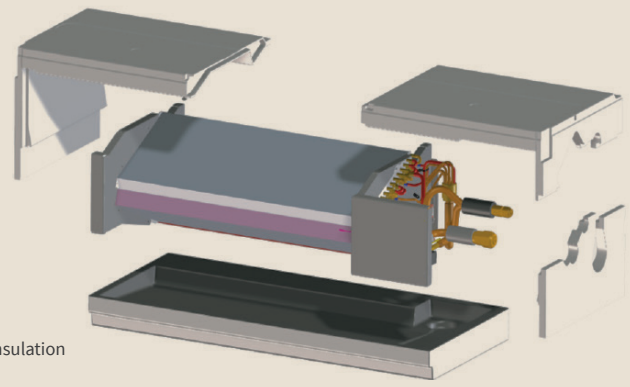
GOOD TO KNOW

Filter access without removing the plenum is only possible with the adapted Hitachi plenum. The rail-mounted filter means standard filter holder screens are not required - still on the same model - and a choice of intake screen is therefore available.

M1 insulators available as standard and ex-factory on all ducted RPI(L/H) - FSRE

Article CH36 imposes the use of category M0 thermal and acoustic insulation materials for the internal insulation of air handling boxes and category M1 for external insulation. An exception to this obligation, internal and external M1 insulation, is only permitted for air handling units in rooms under 300 m².



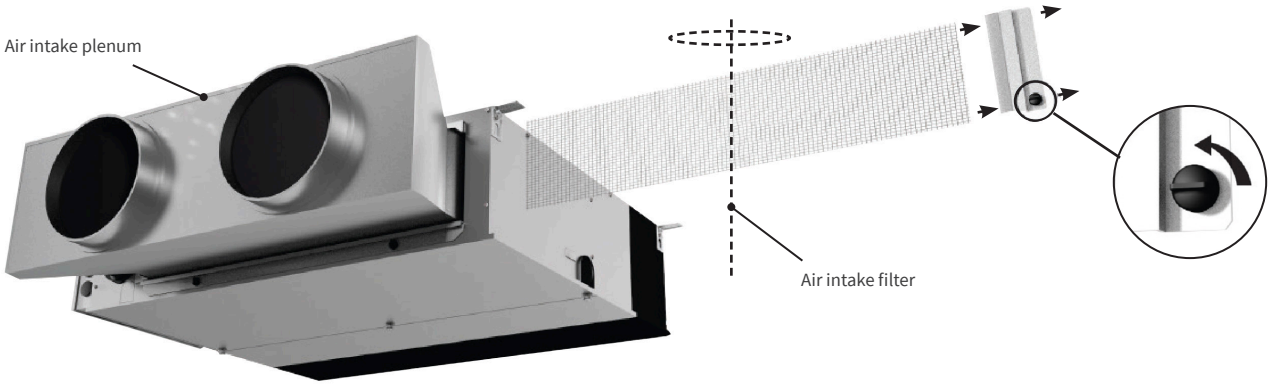


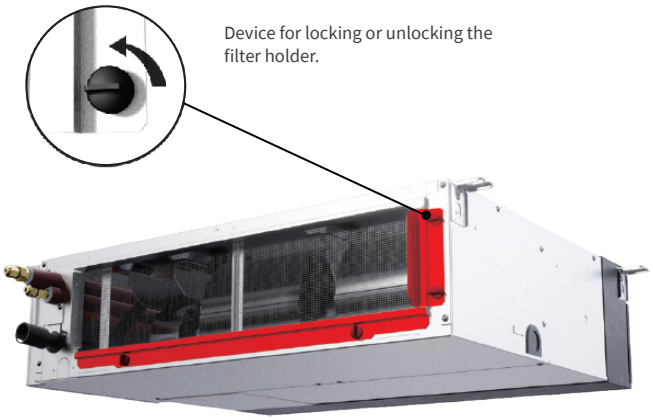
Standard M1 insulation

Hitachi Plenums

The plenums are M1 insulated

Plenum design includes filter holder for removing the filter without dismantling the plenum to facilitate maintenance.





Two versions are available for air intake plenums:

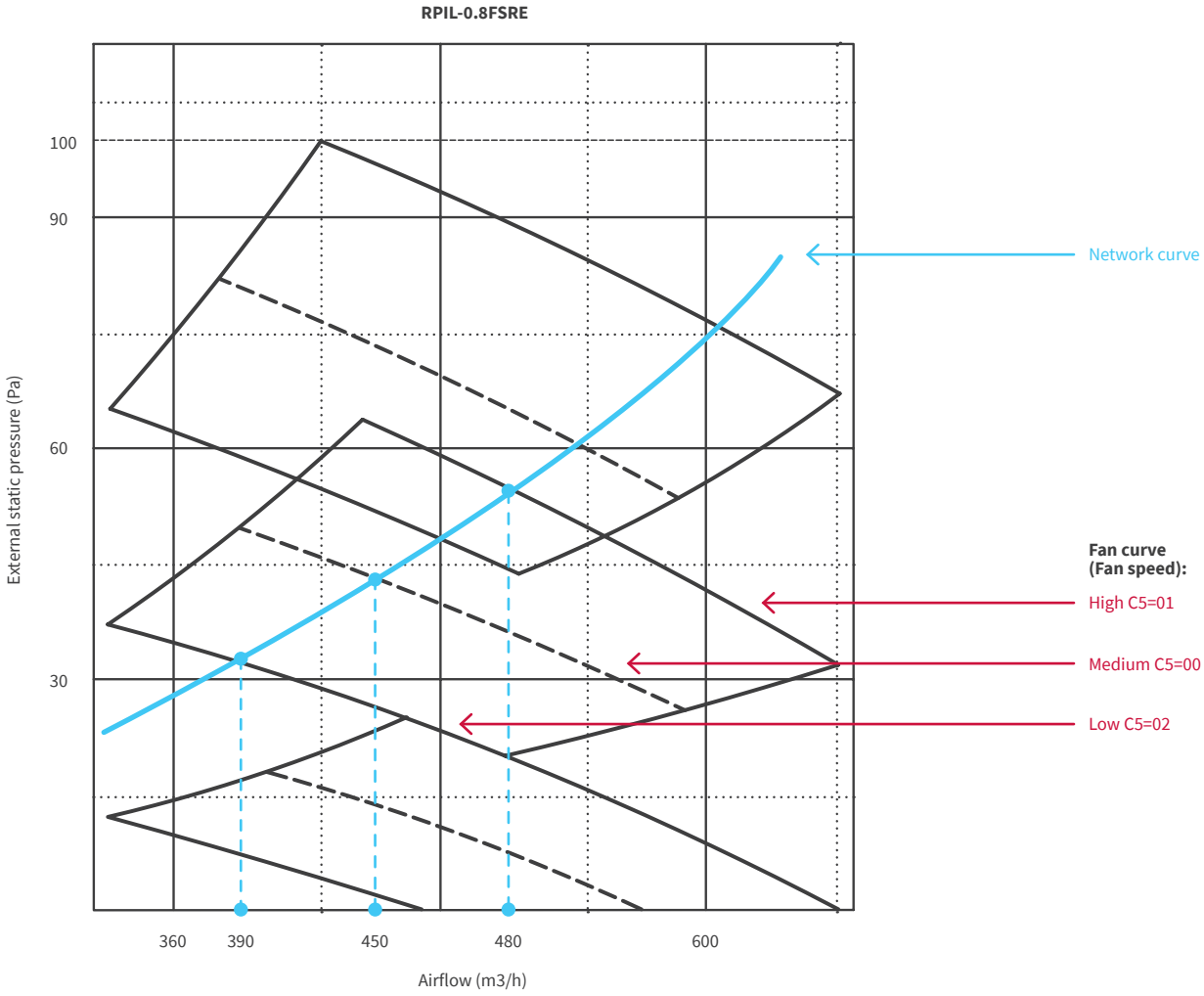
1- Filter access without removing the plenum (filter holder),
2- Version without filter access.

Plenum **with filter holder** for
major reductions in maintenance costs.

Compatibility	Plenum type	Intake diametre number (mm)	Référence	Descriptif
RPIL-0.4~1.5FSRE	Supply	2 x Ø200	PO-750X197	AIR SUPPLY INSULATED PLENUM
	Intake	2 x Ø200	PI-750X197	AIR INTAKE PLENUM INSULATED
	Intake with filter access	2 x Ø200	PIFA-750X197	AIR INTAKE PLENUM INSULATED (Filter acces)
RPI-1.5/2.0FSRE	Supply	3 x Ø200	PO-750X240	AIR SUPPLY INSULATED PLENUM
	Intake	3 x Ø200	PI-750X240	AIR INTAKE PLENUM INSULATED
	Intake with filter access	3 x Ø200	PIFA-750X240	AIR INTAKE PLENUM INSULATED (Filter acces)
RPI-2.5/3.0FSRE	Supply	5 x Ø200	PO-1084X240	AIR SUPPLY INSULATED PLENUM
	Intake	3 x Ø200	PI-1084X240	AIR INTAKE PLENUM INSULATED
	Intake with filter access	3 x Ø200	PIFA-1084X240	AIR INTAKE PLENUM INSULATED (Filter acces)
RPI-4.0-6.0FSRE	Supply	5 x Ø200	PO-1474X240	AIR SUPPLY INSULATED PLENUM
	Intake	4 x Ø200	PI-1474X240	AIR INTAKE PLENUM INSULATED
	Intake with filter access	4 x Ø200	PIFA-1474X240	AIR INTAKE PLENUM INSULATED (Filter acces)

Easy static pressure adjustment
with the PC-ARFG-E wired remote control

3 static pressure levels to meet the different requirements of ducted networks.



Use the optional **C5** function to select the static pressure range:
- C5 = 00 (by default) for standard static pressure,
- C5 = 01 for high static pressure,
- C5 = 02 for low static pressure.

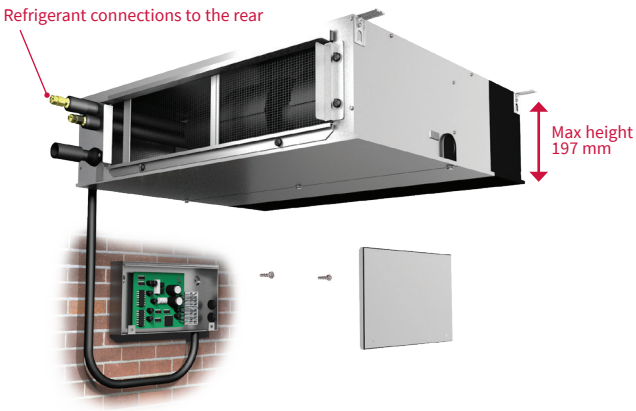
GOOD TO KNOW

All settings from the remote control or CSNET supervision (pressure, auto restart, resume/command control, fan stop at setpoint.

Perfect application for the hotel sector

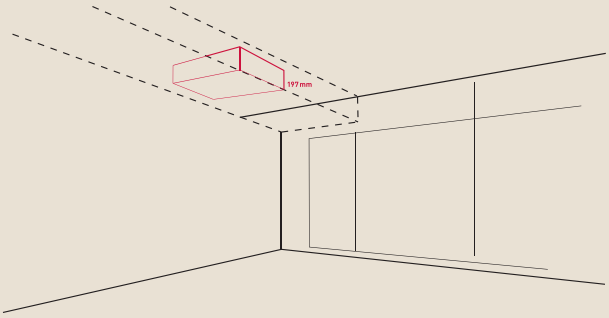
ORIGINAL

Ducted: RPIL-FSRE



Advantages

- Reduced installation times in hotels where the main pipework is in the corridor (no need for pipe bends),
- Easy installation of refrigerant connections with the unit in place,
- Installation possible in a 800 mm wide airlock (filter removal from below in this case),
- Rear condensate connection: fewer connections and less risk of a leak,
- Simplified seal verification,
- Access to the card for simplified maintenance,
- Settings from the remote control (no need to open the ceiling to access the unit card),
- The electric box in the RPIL can the remote, so they can be placed in hotel room air locks while maintaining access to the IU card. 80 cm cable supplied.



Summary

	RPIL-FSRE	RPI-FSRE			RPIH-FSRE
Static pressure	0 - 100 Pa	150 Pa			200 Pa
Power	0.4 - 1.5 hp	1.5/2 hp	2.5/3 hp	4/5/6 Hp	4/5/6 Hp
Height	197 mm	240 mm			340 mm
Width	750 mm	750 mm	1084 mm	1474 mm	1474 mm
Electric box (remote)	• 80 cm cable	•			
Refrigerant connections to the rear	•				
Condensate pump	• (can be disconnected)	•	•	•	•
Rear/below air inlet (option)	•	•	•	•	
Filter access (below/side)	•	•	•	•	•
Magnetic contacts/ Access card	•	•	•	•	•
R32/R410A compatible	•	•	•	•	•

Slim Ducted unit, height 197mm (up to 100Pa available pressure)

Indoor units	Unit	RPIL-0.4FSRE	RPIL-0.6FSRE	RPIL-0.8FSRE	RPIL-1.0FSRE	RPIL-1.5FSRE
Power (adjustable)	Hp	0.40	0.60	0.80	1.00	1.30 ← 1.50
Capacity Cooling UTOPIA Prime & IVX	kW	not available	not available	2.00	2.50	3.60
Capacity Heating UTOPIA Prime & IVX	kW	not available	not available	2.20	2.80	4.00
Capacity Cooling SET FREE	kW	1.10	1.70	2.20	2.80	3.80 ← 4.00
Capacity Heating SET FREE	kW	1.30	1.90	2.50	3.20	4.20 ← 4.80
Absorbed capacity (low speed)	kW	0.02	0.02	0.02	0.03	0.03
Sound pressure in Cooling mode (low/medium/high speed)[1][3]	dB(A)	22/23/24	23/25/27	23/25/28		25/29/30
Noise capacity (high speed)	dB(A)	43	46	47		49
Min. airflow in Cooling mode (low/medium/high speed) (SP02)[4]	m^3/h	300/330/360	330/390/438	342/390/462		390/474/528
Rated static pressure (min-max)	Pa	15 (0~100)		25 (0~100)		
Condensing pump	-	yes (can be removed to use as a gravity-fed unit)				
Max. elevation	mm	850				
Diameter of pipes (Liq/Gas)	inches	1/4 - 1/2				
Condensate pipe diameter (out)	mm	32				
Dimensions (HxWxD)	mm	197 x 750 x 600				
Weight	kg	23				
Power supply	-	1~ 230V 50Hz				
Cable section (EN 60 335-1)[4]	mm^2	3 x 0.75				
Max. current	A	5		5		5

Compact Ducted unit (up to 150Pa available pressure)

Indoor units	Unit	RPI-1.5FSRE	RPI-2.0FSRE	RPI-2.5FSRE	RPI-3.0FSRE	RPI-4.0FSRE	RPI-5.0FSRE	RPI-6.0FSRE
Power (adjustable)	Hp	1.50	2.00	2.50	3.00	4.00	5.00	6.00
Capacity Cooling UTOPIA Prime & IVX	kW	3.60	5.00	5.60	7.10	10.00	12.50	14.00
Capacity Heating UTOPIA Prime & IVX	kW	4.00	5.60	6.30	8.00	11.20	14.00	16.00
Capacity Cooling SET FREE	kW	4.00	5.60	7.10	8.00	11.20	14.00	16.00
Capacity Heating SET FREE	kW	4.80	6.30	8.50	9.00	12.50	16.00	18.00
Sound level in Cooling mode (pressure) (low/medium/high speed)[1][3]	dB(A)	29/31/34*	27/29/29*	28/30/30*	29/31/31*	32/35/37*	33/35/38*	33/36/39*
Sound power	dB(A)	53*	55*	56*	57*	62*	65*	66*
Airflow in Cooling mode (low/medium/high speed)	m^3/h	540/720/900*	660/840/1020*	1020/1200/1380*	1080/1320/1560*	1440/1740/2160*	1860/2130/2400*	1860/2220/2580*
Rated static pressure (min-max)	Pa	25 (0~150)			37 (0~150)		50 (0~150)	
Condensing pump	-	yes						
Max. elevation	mm	850						
Diameter of pipes (Liq/Gas)	inches	1/4 - 5/8		3/8 - 5/8				
Condensate pipe diameter (out)	mm	32						
Dimensions (HxWxD)	mm	240 x 750 x 600		240 x 1084 x 600		240 x 1474 x 600		
Weight	kg	25		30		36		
Power supply	-	1~ 230V 50Hz						
Cable section (EN 60 335-1)[2]	mm^2	3 x 0.75						
Max. current	A	5		5	5	5		5

High-Pressure Ducted unit (up to 200 Pa available pressure)

Indoor units	Unit	RPIH-4.0FSRE	RPIH-5.0FSRE	RPIH-6.0FSRE
Power (adjustable)	Hp	4.00	5.00	6.00
Capacity Cooling UTOPIA Prime & IVX	kW	10.00	12.50	14.00
Capacity Heating UTOPIA Prime & IVX	kW	11.20	14.00	16.00
Capacity Cooling SET FREE	kW	11.20	14.00	16.00
Capacity Heating SET FREE	kW	12.50	16.00	18.00
Sound level in Cooling mode (pressure) (low/medium/high speed)[1][3]	dB(A)	32/35/37*	33/35/38*	33/36/39*
Sound power	dB(A)	62*	65*	66*
Airflow in Cooling mode (low/medium/high speed)	m^3/h	1560/1860/2160*	1800/2100/2400*	1800/2100/2400*
Rated static pressure (min-max)	Pa	50 (0~200)		
Condensing pump	-	yes		
Max. elevation	mm	850		
Diameter of pipes (Liq/Gas)	inches	3/8 - 5/8		
Condensate pipe diameter (out)	mm	32		
Dimensions (HxWxD)	mm	340 x 1474 x 600		
Weight	kg	43		
Power supply	-	1~ 230V 50Hz		
Cable section (EN 60 335-1)[2]	mm^2	3 x 0.75		
Max. current	A	5	5	

[1] Sound levels (pressure) are measured in an anechoic chamber at 1.50 m under the unit (without a ceiling under the unit), with an extraction duct at 1 m and discharge duct at 2 m.
[2] Data shown is for indication purposes only. It is the installer's responsibility to ensure that these Cable sections meet the needs of the facility.
[3] Very high-speed access is possible with remote controls PC-ARFP1E and PC-ARH1E.
[4] SP: external static pressure (defined with the optional function "C5" on the remote control: 00: standard, 01: external static high-pressure, 02: external static low-pressure)
* Provisional data (to be confirmed).

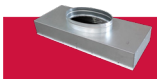
NEW

New Airzone Plenum with ioniser improving the IAQ

Compatible with ducted RPI(L/H)-FSRE

Ionization of the air is an air purification technique which generates large amounts of negative irons. These **negative irons** come into contact with the pollutants, dust, **fine particles in indoor air**, **neutralizing**, polarizing and **negatively charging them**. The **particles** are then attracted to the floor and walls and therefore **removed from the air**.

The Airzone systems can operate without HITACHI remote controls. However, remote controls should be kept on the site: 1 per outdoor unit or per office plateau, or per storey, because the remote control is still required for certain start up or repair operations (setting optional functions although this can be done with a maintenance software).



		Blower plenum	2 air outlets	3 air outlets	4 air outlets	5 air outlets	6 air outlets	Air extraction plenum
RPIL-FSRE	1.0-1.5 (750 x 197 mm)	Slim	-	AZEZ8HITSL08L3	AZEZ8HITSL08L4	AZEZ8HITSL08L5	-	AZCEZHIPR08XS
		Medium	AZEZ8HITBS08XS2	AZEZ8HITBS08XS3	-	-	-	
RPI-FSRE	1.5-2.0 (750 x 240 mm)	Standard	AZEZ8HITST08S2	AZEZ8HITST08S3	AZEZ8HITST08S4	-	-	AZCEZHIPR08S
		Medium	AZEZ8HITBS08S2	AZEZ8HITBS08S3	AZEZ8HITBS08S4	-	-	
	2.5-3.0 (1084 x 240 mm)	Standard	-	AZEZ8HITST08M 3	AZEZ8HITST08M4	AZEZ8HITST08M5	AZEZ8HITST08M6	AZCEZHIPR08M
		Medium	-	AZEZ8HITBS08M 3	AZEZ8HITBS08M4	AZEZ8HITBS08M5	AZEZ8HITBS08M6	
	4.0-5.0-6.0 (1474 x 240 mm)	Standard	-	-	-	AZEZ8HITST08L5	AZEZ8HITST08L6	AZCEZHIPR08L
		Medium	-	-	-	AZEZ8HITBS08L5	AZEZ8HITBS08L6	
RPIH-FSRE	4.0-5.0-6.0 (1474 x 340 mm)	Standard (*510 mm height, registers on two rows)	-	-	-	-	AZEZ8HITST08XL6	AZCEZHIPR08XL
		Medium	-	-	-	-	-	

Connected and intuitive interfaces

Airzone Blueface Zero thermostat

Wired connection/3.5” touchscreen: Configurable as a general thermostat or by zone. Eco-adapt and standby function for tangible energy saving. Control the temperature, mode, and fan speed. Weekly programming.

Airzone Think thermostat

Wired or wireless connection/2.7” screen: Configurable as a general thermostat or by zone. Low-energy device that makes it easy to reduce energy costs. Stylish and intuitive interface. Control the temperature, mode, and fan speed. Access to weather forecasts (with Airzone Cloud webserver login) to anticipate changes in temperature.

Airzone Lite thermostat

Wired or wireless connection: In systems with the Blueface thermostat, this solution is perfect for quick access to essential functions. Its modern and fun interface makes it easier to use, with colors indicating the mode and temperature of the area. Start/Stop function. Control the setting temperature in increments of 1°C with a scope of ±3°C.

Webserver Airzone Cloud

The Airzone Cloud app, compatible on your smartphone, tablet, and PC, offers complete remote control of the installation; anywhere, anytime. You can control multiple servers at once and up to 32 systems on a single webserver. All the features of your thermostats are combined on the cloud:
Control the temperature, weekly programming, weather forecasts, login authorization…

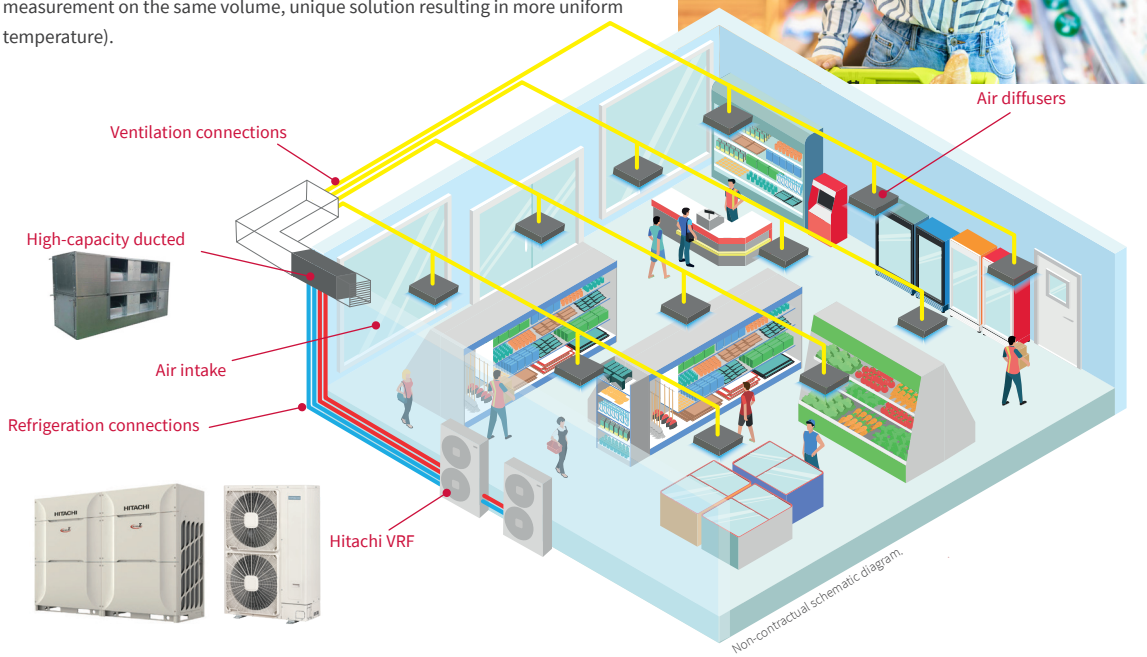
AZCE6BLUEZEROCB	AZCE6THINKCB	AZCE6LITECB	AZX6WSCLOUDDINC
-	AZCE6THINKRB	AZCE6LITERB	AZX6WSCLOUDDINR
AZX6CABLEBUS10	AZX6CABLEBUS10	AZX6CABLEBUS10	AZX6CABLEBUS10

Linked to the Airzone site for plenum selection: https://www.airzonecontrol.com/ff/fr/compatibilities/easyzone-packs/

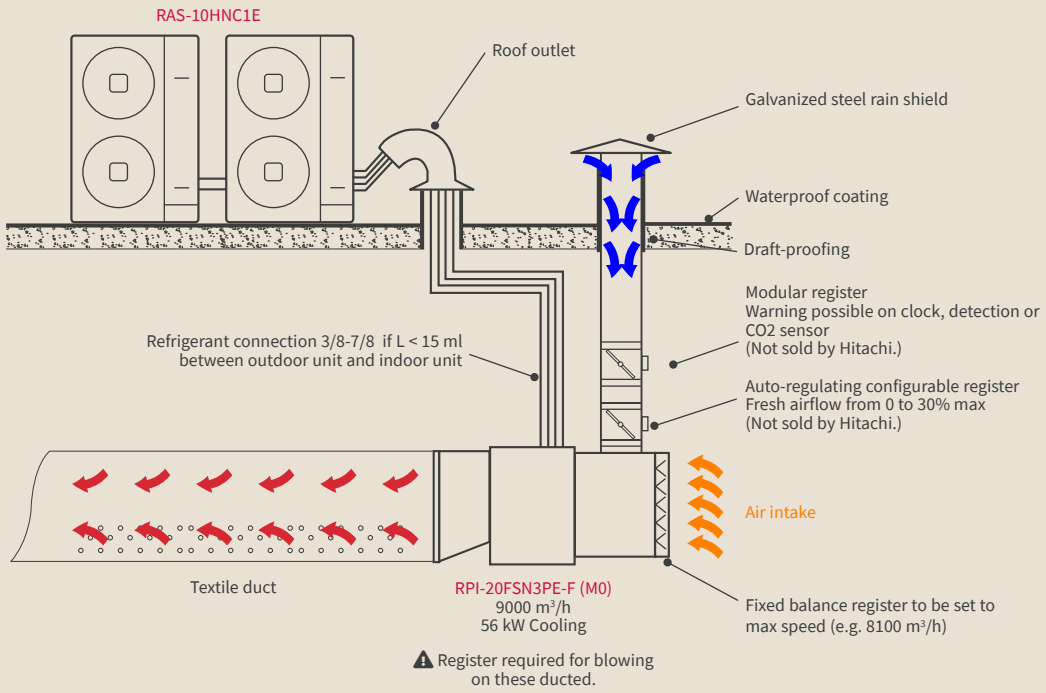
High capacity ducted 8-20hp (220Pa)

Why choose the Hitachi high-capacity ducted solution?

- Ideal solution which meets large capacity application requirements, with large volumes,
- Suitable for all types of ERP buildings: M1 or M0 insulation ex factory,
- Cost-effective solution compared with CHU or Rooftop installation,
- Improved air quality: 30% more fresh air.
- Safety and reliability: redundant installation with two independent groups,
- Suitable for large installations: compatible with twin VRF outdoor units,
- Control on intake, remote control or intake/remote control average,
- Control possible on two remote sensors for sizes 16 and 20hp (two point measurement on the same volume, unique solution resulting in more uniform temperature).



Example of redundant installation (Ducted 16 and 20hp)



Non-contractual schematic diagram.

M0 M1 SYSTEM FREE POWER SWITCH

GENTLE COOL R410A REFRIGERANT R32 REFRIGERANT

Ducted High Pressure

High Capacity 22 to 56 kW (8-20hp)

8-10hp ducted

16-20hp ducted

Perfect solutions for high-volume buildings

- Supermarkets and large retail outlets,
- "Click and collect" stores,
- Warehouses,
- Sports halls,
- Industrial buildings.

Advantages

- Alternative to Rooftop or AHU: Low weight, flexible installation, control, start up, cost savings),
- Ecological: replaces gas, radiant heaters, radiating panels,
- Wide range of capacities and airflow (up to 9000m3/h),
- Fresh air option (up to 30% of total blowing flow).

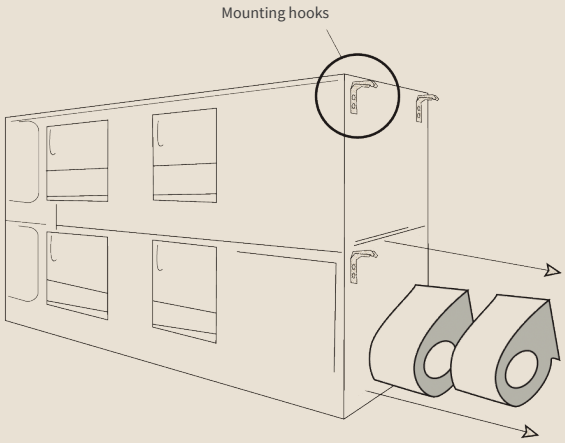
Compatible with the Hitachi VRF Rangers

IVX Monfort, Set free Mini and SIGMA.

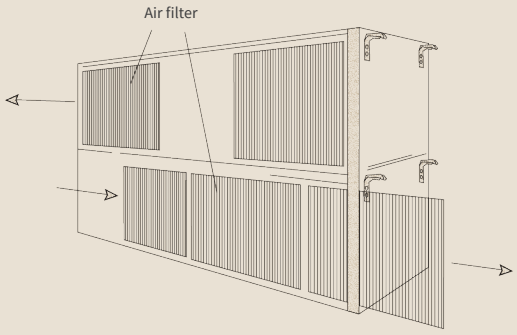
MO/M1 Fire safety compliance

Fire safety regulations now require the use of materials classified as M0/M1 for the indoor/outdoor insulation of Public Buildings (Article CH-32-36).

With our High-Capacity 8 to 20 hp Ducted unit version (-F) solution you can meet Group 1 ERP requirements (Category 1 to 4): premises above 300m² or an area of less than 300m² serving several premises.

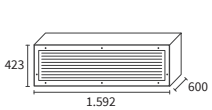


Fan maintenance side access

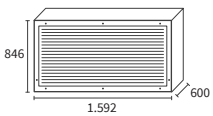


Filter divided into 3 parts (Maintenance access on both sides)

Indoor units



RPI-8.0FSN3E(-f)
RPI-10.0FSN3E(-f)



RPI-16.0FSN3PE(-f)
RPI-20.0FSN3 PE(-f)

High-Capacity Ducted unit (up to 220 Pa available pressure) (sizes 16 and 20 hp: unique on the market)

Indoor units	Unit	High-pressure		High-power	
		RPI-8.0FSN3E(-F)*	RPI-10.0FSN3E(-F)*	RPI-16.0FSN3PE(-F)*	RPI-20.0FSN3PE(-F)*
Power (adjustable)	Hp	8.00	10.00	16.00	20.00
Capacity Cooling Micro VRF Utopia Prime	kW	20.00	25.00	40.00	50.00
Capacity Heating Micro VRF Utopia Prime	kW	22.40	28.00	44.80	56.00
Capacity Cooling SET FREE	kW	22.40	28.00	45.00	56.00
Capacity Heating SET FREE	kW	25.00	31.00	50.00	63.00
Sound level in Cooling mode (pressure) (low/medium/high speed) (1)(3)	dB(A)	51/54/54	52/55/55	53/- / 56	54 / - / 57
Sound power	dB(A)	77	78	79	80
Airflow in Cooling mode (low/medium/high speed)	m^3/h	3570/3960/3960	4056/4500/4500	7200/-/7920	8220/-/9000
Rated static pressure (min-max)	Pa	200 (180 - 220)		180 (220)	
Dehumidification	l/h	7.70	8.80	15.00	17.00
Condensing pump	-	no			
Max. elevation	mm				
Cooling pipe diameter (Liq/Gas)	inches	3/8 - 3/4	3/8 - 7/8	3/8 - 3/4 (requires a E-162SN4)	3/8 - 7/8 (requires a E-242SN3 Normal)
Condensate pipe diameter (out)	mm	32			
Dimensions (HxWxD)	mm	423 x 1592 x 600		846 x 1592 x 600	
Weight	kg	85	87	171	175
Power supply	-	1~ 230V 50Hz			
Cable section (EN 60 335-1)(2)	mm^2	3 x 2.50		2 x (3 x 2.50)	

(1) Sound pressure is measured under the following conditions: at 1.50 m below the unit (no ceiling under the unit), with an extraction duct at 1 m and a discharge duct at 2 m.
(2) Data shown is for indication purposes only. It is the installer's responsibility to ensure that these Cable sections meet the needs of the facility and current standards.
(3) High-speed access is possible with remote controls PC-ARFP1E and PC-ARH1E.
* Version (-F) refers to the M0 fire safety-compliant model.

Wall unit

One of the most extensive ranges on the market: 17 models

With models ranging from 0.4 hp to 4.0 hp, Hitachi offers one of the biggest ranges on the market, with a harmonized design across all models. You can also use the adjustable power settings to respond precisely to each project.

Easy and discreet integration

Our units are so compact and lightweight that you can easily install them discreetly above a doorway.
To help with maintenance work, the turbine on the 2 hp to 4 hp models can be replaced without disassembling the exchanger.

Unrivaled comfort

The GENTLE COOL fan temperature setting, accessible on the wired remote control PC-ARFG-E, adjusts the min. fan blower temperature. In summer, cooling air currents are avoided as you can set the fan blower temperature to the minimum setting.

Silent operation

0.4 to 1.5 hp units can be ordered without a regulator (version H) to keep the regulator apart from the unit (part no. EV-1.5N1 order separately) for even quieter comfort.
As such, our units are ideal for hotel use.

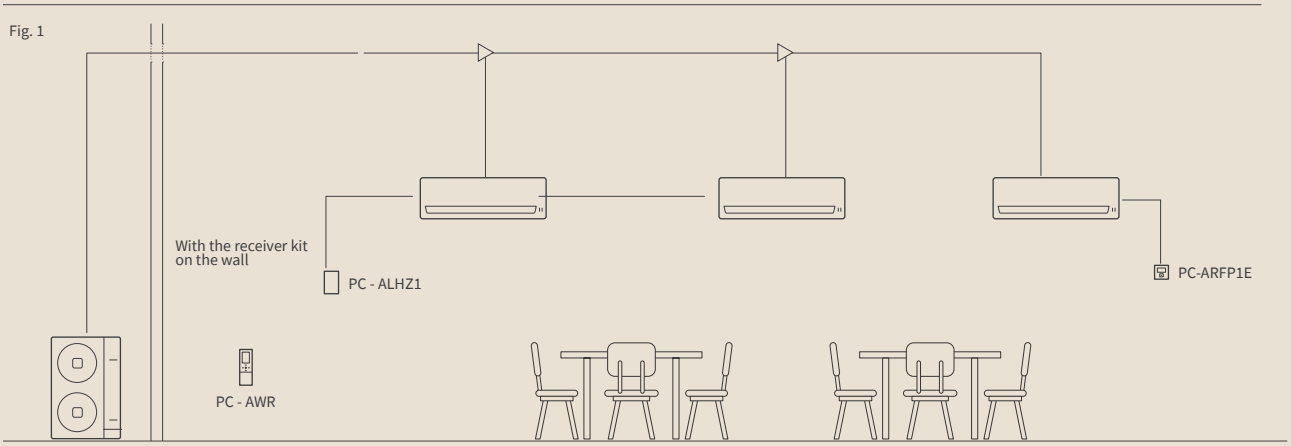
Central control

Our wall units are compatible with all types of remote control and feature an integrated infrared receiver as standard.
Available as an option, with the PC-ALHZ1 infrared receiver you can operate multiple units on the same remote control. (Fig.1)

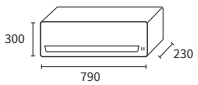
Higher circulation rate

Use the 4 fan speeds to adapt the airflow for comfort in every room.

Fig. 1

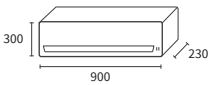


Indoor units

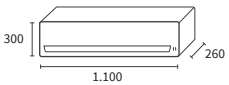


RPK- 0.4FSRM
RPK- 0.6FSRM
RPK- 0.8FSRM
RPK- 1.0FSRM

RPK- 0.4FSRHM
RPK- 0.6FSRHM
RPK- 0.8FSRHM
RPK- 1.0FSRHM



RPK- 1.5FSRM
RPK- 1.5FSRHM



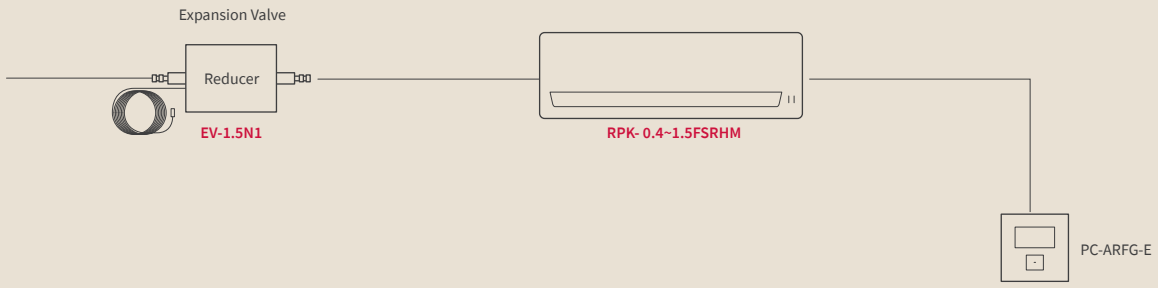
RPK-2.0FSRM
RPK-2.5FSRM
RPK-3.0FSRM
RPK-4.0FSRM

Wall unit

Indoor units	Unit	RPK-0.4FSR(H)M	RPK-0.6FSR(H)M	RPK-0.8FSR(H)M	RPK-1.0FSR(H)M	RPK-1.5FSR(H)M	RPK-2.0FSRM	RPK-2.5FSRM	RPK-3.0FSRM	RPK-4.0FSRM
Power (adjustable)	Hp	0.40	0.60	0.80	1.00 → 1.30	1.50	1.8 ← 2.00	2.30 ← 2.50	3.00	4.00
Capacity Cooling UTOPIA Prime & IVX	kW	not available	not available	2.00	2.50	3.60	5.00	5.60	7.10	10.00
Capacity Heating UTOPIA Prime & IVX	kW	not available	not available	2.20	2.80	4.00	5.60	6.30	8.00	11.20
Capacity Cooling SET FREE	kW	1.10	1.70	2.20	2.80	4.00	5.60	7.10	8.00	11.20
Capacity Heating SET FREE	kW	1.30	1.90	2.50	3.20	4.80	6.30	8.50	9.00	12.50
Noise level in Cooling mode (pressure) (low/medium/high speed1/high speed2) [1][3]	dB(A)	29/30/31/32	29/31/32/35	30/32/35/39		33/36/40/46	31/34/37/40	35/38/42/45	35/40/44/47	39/44/48/51
Sound power	dB(A)	45-46-48-49		45-47-49-53		47-50-54-58	47-50-53-55	51-54-58-60	51-56-60-63	54-60-64-65
Airflow in Cooling mode (low/medium/high speed1/high speed2) [4]	m^3/h	360/402/438/450	360/420/450/480	390/420/480/600		450/540/660/840	570/660/780/870	720/840/990/1110	750/930/1050/1200	870/1050/1200/1380
Condensate pump included	-	No								
Cooling pipe diameter (Liq/Gas)	inches	1/4/1/2						3/8/5/8		
Condensate pipe diameter (out)	mm	20								
Dimensions (HxWxD)	mm	300 x 790 x 230				300 x 900 x 230		300 x 1100 x 260		
Weight	kg	9	10			11	14.5	15		
Power supply	-	230V/1Ph/50Hz								
Cable section (EN 60 335-1) [2]	mm^2	3 x 0.75								
Max. current	A	5								

[1] Sound pressure is measured under the following conditions: 1 m under the unit, 1 m from the pulse air flap.
[2] Data shown is for indication purposes only. It is the installer's responsibility to ensure that these Cable sections meet the needs of the facility and current standards.
[3] Very high-speed access is possible with remote controls PC-ARFP1E and PC-ARH1E.
[4] Very low speed is available in Thermo-off mode.

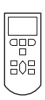
Perfect application for the hotel sector: reduced noise pollution in rooms.



You can have multiple contacts with the connector PCC-1A: progress report, error report, thermostat control, remote "Start/Stop".

Compatible controls and accessories


Simple wired controller
PC-ARH1E


Infrared controller
PC-AWR


Intuitive multifunction cable control
PC-ARFG-E


Connectors
PCC-1A


Remote sensor
THM-R2AE

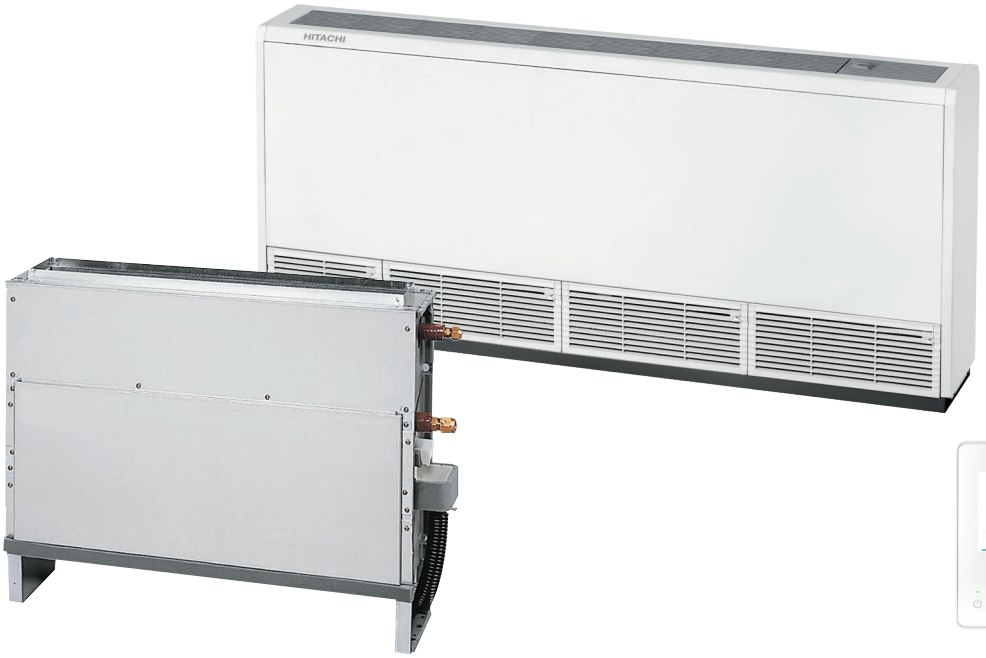

Infrared receiver
PC-ALHZ1 (external)


Multi-tenant card
PC-AMTB


Remote controller
EV-1.5N1

SYSTEM FREE R410A REFRIGERANT POWER SWITCH

Console



Even greater flexibility

To suit any requirement, the console comes in non-enclosed version (horizontal or vertical blowing) as well as enclosed. You can also use the adjustable power settings to respond precisely to each project.

Compact design

Just 220 mm deep, non-enclosed units can be installed anywhere on the wall, taking up very little floor space. The 630 mm height makes it an ideal solution for air-conditioning or heating a room.

Integrated remote control

For easier access, the remote control can be integrated into the console itself (Fig.1)

Adapted air circulation

On Hitachi non-enclosed consoles, you can change the blowing direction to suit any need. (Fig.2)

Fig. 1

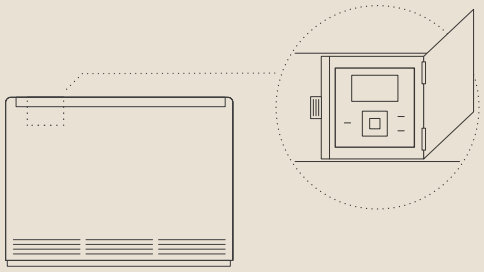
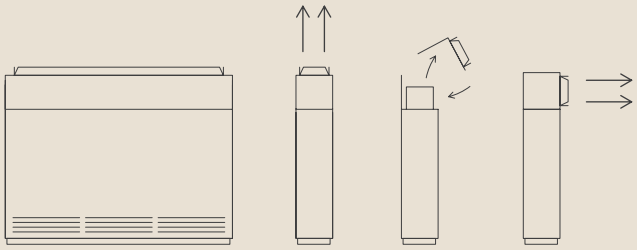
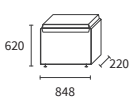


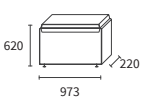
Fig. 2



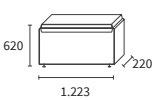
Indoor units



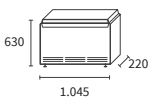
RPFI-1.0FSN2E



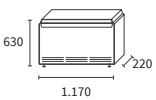
RPFI-1.5FSN2E



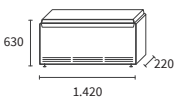
RPFI-2.0FSN2E
RPFI-2.5FSN2E



RPF-1.0FSN2E



RPF-1.5FSN2E



RPF-2.0FSN2E
RPF-2.5FSN2E

Console

Enclosed console	Unit	RPF-1.0FSN2E	RPF-1.5FSN2E	RPF-2.0FSN2E	RPF-2.5FSN2E
Power (adjustable)	Hp	1.00	1.30 ← 1.50	1.80 ← 2.00	2.30 ← 2.50
Capacity Cooling UTOPIA Prime & IVX	kW	2.50	3.60	5.00	5.60
Capacity Heating UTOPIA Prime & IVX	kW	2.80	4.00	5.60	6.30
Capacity Cooling SET FREE	kW	2.20 ← 2.80	3.80 ← 4.00	5.20 ← 5.60	6.70 ← 7.10
Capacity Heating SET FREE	kW	2.50 ← 3.20	4.20 ← 4.80	5.60 ← 6.30	7.50 ← 8.50
Sound level in Cooling mode (pressure) (low/medium/high speed) (1)(3)	dB(A)	29/32/35	31/35/38	32/36/39	34/38/42
Sound power	dB(A)	57	60		
Airflow in Cooling mode (low/medium/high speed)	m^3/h	360/420/510	540/600/720	660/840/960	
Dehumidification	l/h	1.10	1.60	2.30	2.70
Diameter of pipes (Liq/Gas)	inches	1/4 - 1/2		1/4 - 5/8	3/8 - 5/8
Condensate pipe diameter (out)	mm	18.50			
Dimensions (HxWxD)	mm	630 x 1045 x 220	630 x 1170 x 220	630 x 1420 x 220	
Weight	kg	25	28	33	34
Power supply	-	1~ 230V 50Hz			
Maximum current	A	5			
Cable section (EN 60 335-1) (2)	mm^2	3 x 0.75			

Non-enclosed console	Unit	RPFI-1.0FSN2E	RPFI-1.5FSN2E	RPFI-2.0FSN2E	RPFI-2.5FSN2E
Power (adjustable)	Hp	1.00	1.30 ← 1.50	1.80 ← 2.00	2.30 ← 2.50
Capacity Cooling UTOPIA Prime & IVX	kW	2.50	3.60	5.00	5.60
Capacity Heating UTOPIA Prime & IVX	kW	2.80	4.00	5.60	6.30
Capacity Cooling SET FREE	kW	2.20 ← 2.80	3.80 ← 4.00	5.20 ← 5.60	6.70 ← 7.10
Capacity Heating SET FREE	kW	2.50 ← 3.20	4.20 ← 4.80	5.60 ← 6.30	7.50 ← 8.50
Sound pressure in Cooling mode (pressure) (low/medium/high speed) (1)	dB(A)	29/32/35	31/35/38	32/36/39	34/38/42
Sound power	dB(A)	57	60		
Airflow in Cooling mode (low/medium/high speed)	m^3/h	360/420/510	540/600/720	660 x 840 x 960	
Dehumidification	l/h	1.10		2.30	2.70
Diameter of pipes (Liq/Gas)	inches	1/4 - 1/2		1/4 - 5/8	3/8 x 5/8
Condensate pipe diameter (out)	mm	18.50			
Dimensions (HxWxD)	mm	620 x 848 x 220	620 x 973 x 220	620 x 1223 x 220	
Weight	kg	19	23	27	28
Power supply	-	1~ 230V 50Hz			
Maximum current	A	5			
Cable section (EN 60 335-1)(2)	mm^2	3 x 0.75			

(1) Sound levels (pressure) are measured in an anechoic chamber at 1 m in front of the unit and at 1 m from the floor.
(2) Data shown is for indication purposes only. It is the installer's responsibility to ensure that these Cable sections meet the needs of the facility.
(3) High-speed access is possible with remote controls PC-ARFP1E and PC-ARH1E.

You can have multiple contacts with the connector PCC-1A: progress report, error report, thermostat control, remote "Start/Stop".

Compatible controls and accessories

Simple wired controller
PC-ARH1E

Infrared controller
PC-AWR

Intuitive multifunction cable control
PC-ARFG-E

Connectors
PCC-1A

Remote sensor
THM-R2AE

Infrared receiver
PC-ALHZ1 (external)

Multi-tenant card
PC-AMTB

SYSTEM FREE GENTLE COOL POWER SWITCH

R410A REFRIGERANT R32 REFRIGERANT

Ceiling unit

Energy savings

The motion sensor (optional) automatically optimizes the level of comfort while limiting the energy consumption in rooms only occupied occasionally. It continuously analyzes thermal disparities as well as the presence of people in the room, adjusting its setting temperature (+/- 2°C).

Wide operating ranges

4 fan speeds to suit every need, provide comfort, and make savings.

Flexible implementation

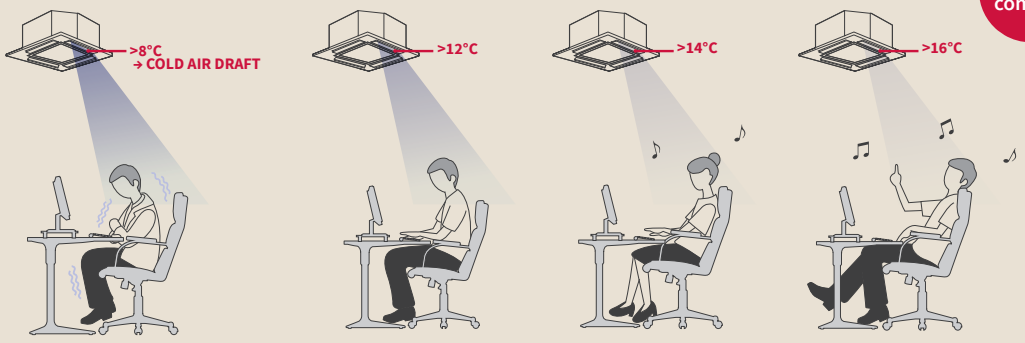
Condensing pumps are offered as an option to provide a high level of installation flexibility.

Unrivaled comfort

The GENTLE COOL fan temperature setting, accessible on the wired remote control PC-ARFG-E, adjusts the min. fan blower temperature. In summer, cooling air currents are avoided as you can set the fan blower temperature to the minimum setting.

Potential for discomfort | **GentleCool** → **No cold drafts**

Optimal comfort



GentleCool: STOP | GentleCool: WEAK | GentleCool: MEDIUM | GentleCool: STRONG

Min. Temp° control on the fan blower with the wired remote control PC-ARFG-E or the CSNET monitoring system

Indoor units

RPC-1.5FSR
RPC-2.0FSR

RPC-2.5FSR
RPC-3.0FSR

RPC-4.0FSR
RPC-5.0FSR
RPC-6.0FSR

Ceiling unit

Indoor units	Unit	RPC-1.5FSR	RPC-2.0FSR	RPC-2.5FSR	RPC-3.0FSR	RPC-4.0FSR	RPC-5.0FSR	RPC-6.0FSR
Power (adjustable)	Hp	1.30 ← 1.50	1.80 ← 2.00	2.30 ← 2.50	3.00	4.00	5.00	6.00
Capacity Cooling UTOPIA Prime & IVX	kW	3.60	5.00	5.60	7.10	10.00	12.50	14.00
Capacity Heating UTOPIA Prime & IVX	kW	4.00	5.60	6.30	8.00	11.20	14.00	16.00
Capacity Cooling SET FREE	kW	3.80 ← 4.00	5.20 ← 5.60	6.70 ← 7.10	8.00	11.20	14.00	16.00
Capacity Heating SET FREE	kW	4.20 ← 4.80	5.60 ← 6.30	7.50 ← 8.50	9.00	12.50	16.00	18.00
Sound level in Cooling mode (pressure) (low/medium/high speed1/high speed2) [1][3]	dB(A)	28/31/35/37	28/31/35/38		29/33/37/40	32/37/42/44	35/41/45/48	36/42/47/49
Sound power	dB(A)	53	54	54	56	60	64	65
Airflow in Cooling mode (low/medium/high speed1/high speed2) [4]	m^3/h	540/660/780/900		690/840/990/1140	750/930/1110/1260	1020/1320/1590/1800	1200/1530/1860/2100	1260/1620/1950/2220
Condensing pump	-	No						
Max. elevation	mm	600						
Diameter of cooling pipes (Liq/Gas)	inches	1/4 - 5/8		3/8 - 5/8				
Condensate pipe diameter (out)	mm	25						
Dimensions (HxWxD)	mm	235 x 960 x 690		235 x 1270 x 690		235 x 1580 x 690		
Weight	kg	26	27	35		41		
Power supply	-	1~ 230V 50Hz						
Maximum current	A	5						
Cable section (EN 60 335-1) [2]	mm^2	3 x 0.75						

[1] Sound levels (pressure) are measured in an anechoic chamber at 1 m under the unit, 1 m from the pulse air flap.
[2] Data shown is for indication purposes only. It is the installer's responsibility to ensure that these Cable sections meet the needs of the facility.
[3] High-speed access is possible with remote controls PC-ARFP1E and PC-ARH1E.
[4] Very low speed is available in Thermo-off mode.

You can have multiple contacts with the connector PCC-1A: progress report, error report, thermostat control, remote "Start/Stop".

Compatible controls and accessories

Simple wired controller

PC-ARH1E

Infrared controller

PC-AWR

Intuitive multifunction cable control

PC-ARFG-E

Remote sensor

THM-R2AE

Infrared receiver

PC-ALHP1 (integrated)/PC-ALHZ1 (external)

Multi-tenant card

PC-AMTB

Motion sensor

SOR-NEP

Connectors

PCC-1A

Condensate drainage pump

DUPC-63K1 (extraction pump RPC-1.5FSR)
DUPC-71K1 (extraction pump RPC-2.0FSR)
DUPC-160K1 (extraction pump RPC-(2.5-6.0)FSR)

SYSTEM FREE R410A REFRIGERANT 45°C

Hydro Free Low Temperature

Heating mode only

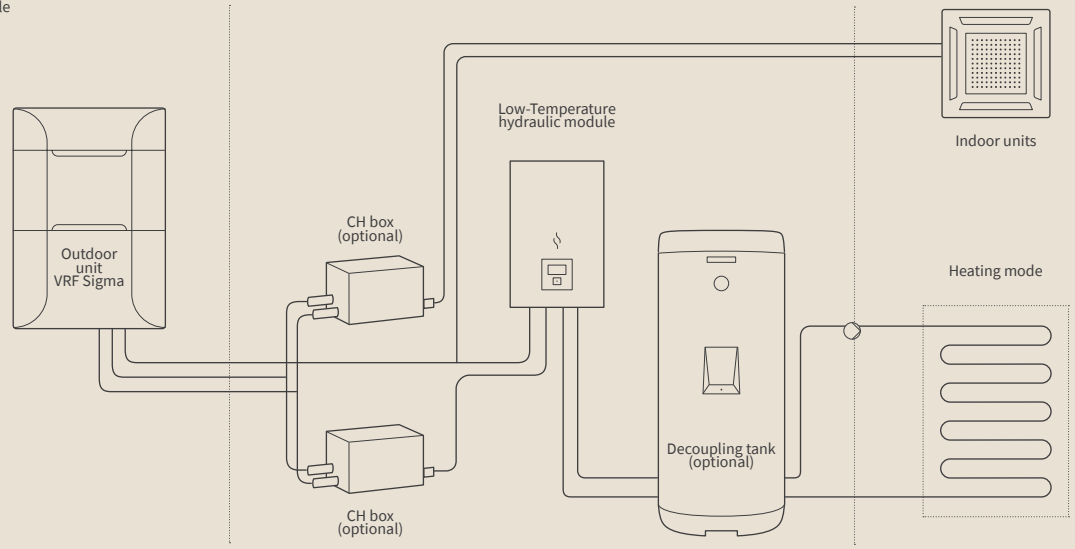
Heat applications

The Hydro Free module (low temperature, 45°C) is compatible with heated flooring or fan convectors.
This solution ensures maximum heating comfort with the DX battery/ hydraulic solution combination.
This compact and ultra-silent module offers the most comfort for renovation projects.

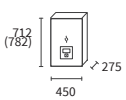
Compactness

A single solution: the VRF. Installation is made even easier with the Plug-Play system. The module has all the necessary equipment as standard: circulator, filter, expansion tank, purges, manometer ...
The cooling network is so flexible it can be integrated it into any type of system. A single generator can meet any heating needs. With renovation projects, this solution offers the option of keeping some of the existing hydraulic system.

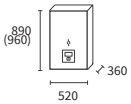
Setup example



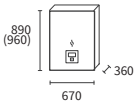
Indoor units



RWLT-3.0VN1E



RWLT-5.0VN1E



RWLT-10.0VN1E

Compatible with outdoor units SET FREE SIGMA: RAS-FSXNSE, RAS-FSXNPE and SET FREE Mini L (8/10/12hp).

Hydro Free Low-Temperature

Indoor units		Unit	RWLT-3.0VN1E	RWLT-5.0VN1E	RWLT-10.0VN1E
Capacity Heating (7°C outside/35°C water)		kW	9	16	27
Heating capacity (-7°C outside/35°C water)		kW	5.5	11.5	17.7
Heating capacity (-7°C outside/45°C water)		kW	5.2	11.1	15.61
Sound power		dB(A)	37	39	47
Net weight		kg	35	50	62
Unit dimensions	Height (with connections)	mm	712 (782)	890 (960)	890 (960)
	Width	mm	450	520	670
	Depth	mm	275	360	360
Water flow	(min. - rated - max.)	m^3/h	1.5	2.7	4.7
Min. system water capacity		L	100	150	180
Power supply		-	1~ 230V 50Hz		
Max. consumption		kW	0.05	0.08	0.14
Type of cooling connection		-	Flare	-	Liq: Flare Gas: Brazed
Diameter of cooling pipes (Liq - Gas)		inches	3/8" - 5/8"	3/8" - 5/8"	3/8" - 7/8"
Hydraulic connections (male/male valves supplied)		inches	1"	1 - 1/4"	1 - 1/4"
Hydrofree connection rate		-	0 ~ 100%		
Min. overall rate of DX* units		-	50%		
General connection rate of Hydrofree + DX units	3-tube VRF*	-	RAS-8~12FSXNME: 50% ~ 200%		
	3-pipe VRF*[2]	-	RAS-FSXNSE: 50% ~ 200%		
		-	RAS-FSXNPE: 50% ~ 200%		
Max. number of indoor units with Hydrofree installed [1]		-	38		
Temperature range of water outlet in heating mode		-	20°C ~ 45°C		

* Important: simultaneous operation can never be higher than 100% in heat pump mode.
Simultaneous operation in the same mode can never exceed 100% for a VRF system in heat recovery mode.
[1] The maximum number of indoor units is the recommended quantity of indoor units for every size of outdoor unit. For more information, please refer to the technical catalog of the outdoor unit.
[2] See Section 9.5.2.2 "Function of DIP switches and dial switches" in the technical catalog for more information on Pin 3 of the DSW8 with a connection rate of > 180%.

You can have multiple contacts with the connector PCC-1A: progress report, error report, thermostat control, remote "Start/Stop".

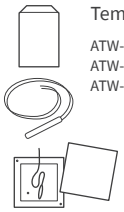
Compatible controls and accessories

ON/OFF wireless thermostat

ATW-RTU-04

Controller enclosure

ATWFCP-01



Temperature sensors

ATW-2OS-02
ATW-ITS-01
ATW-WTS-02Y

R134a REFRIGERANT R410A REFRIGERANT SYSTEM FREE 80°C

Hydro Free High-Temperature

Heating mode only

For a variety of applications

- High-temperature heating: combined with the VRF Sigma or SET FREE Mini with 3 tubes.
- Constant DHW production: combined with the VRF Sigma or 3-pipe SET FREE Mini.
- Timed DHW production: combined with the VRF Sigma or 3-pipe SET FREE Mini.

The Hydro Free high-temperature system is ideal for high-temperature hot water needs in for renovation projects, as heat is recovered via the CH box on indoor units operating in cold mode.

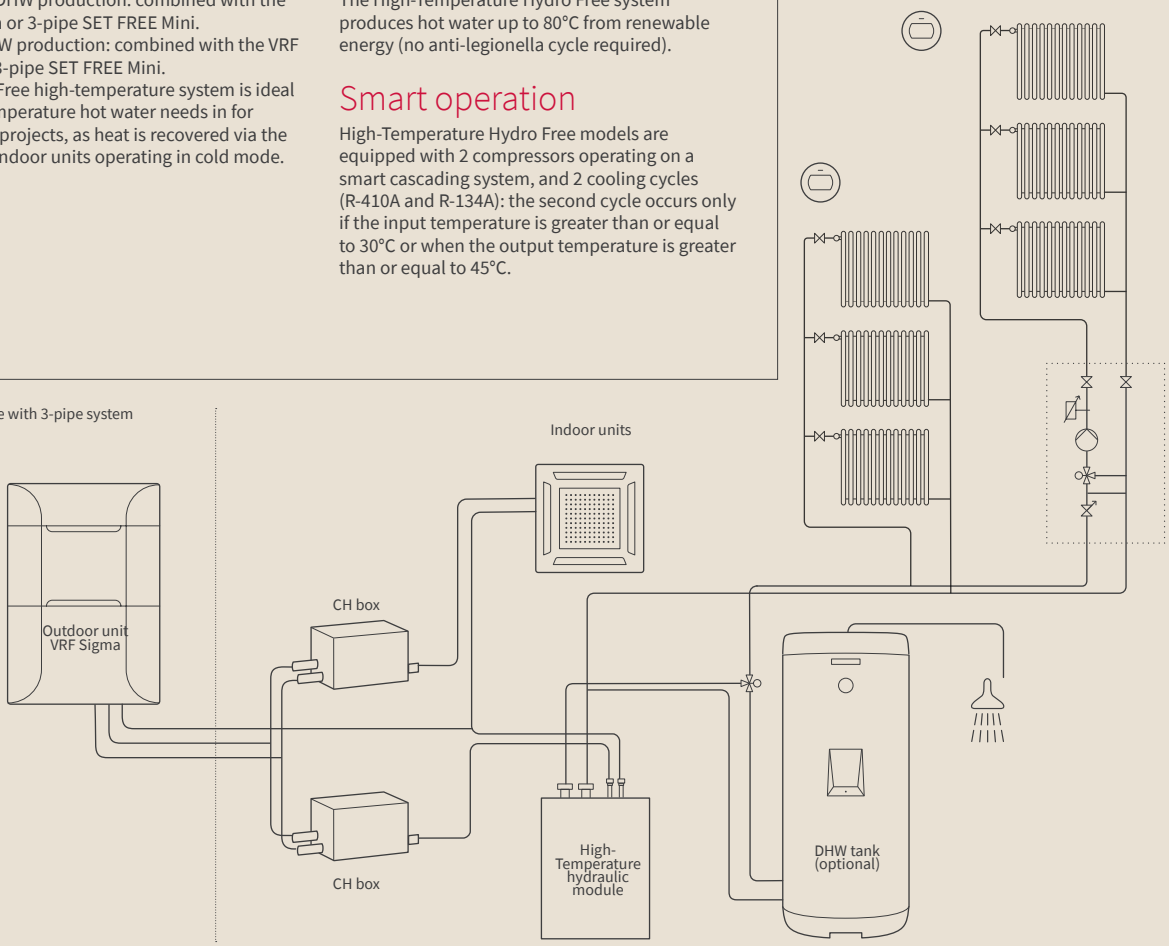
2-in-1 system

A single generator to meet 2 needs: **heating and DHW**.
The High-Temperature Hydro Free system produces hot water up to 80°C from renewable energy (no anti-legionella cycle required).

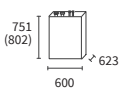
Smart operation

High-Temperature Hydro Free models are equipped with 2 compressors operating on a smart cascading system, and 2 cooling cycles (R-410A and R-134A): the second cycle occurs only if the input temperature is greater than or equal to 30°C or when the output temperature is greater than or equal to 45°C.

Setup example with 3-pipe system



Indoor units



RWHT-5.0VNF1E

Hydro Free High-Temperature

Indoor units		Unit	RWHT-5.0VNF1E
Capacity Heating (7°C outside/35°C water)		kW	16
Heating capacity (-7°C outside/65°C water)		kW	13.9
Heating capacity (-7°C outside/80°C water)		kW	12.4
Sound power		dB(A)	57
Net weight		kg	129
Unit dimensions	Height (with connections)	mm	751(802)
	Width	mm	600
	Depth	mm	623
Water flow	(min. - rated - max.)	m^3/h	2.8
Min. system water capacity		L	80
Power supply		-	1~ 230V 50Hz
Max. consumption		kW	6.23
Type of cooling connection		-	Dudgeon
Diameter of cooling pipes (Liq - Gas)		inches	3/8" - 5/8"
Hydraulic connections (male/male valves supplied)		inches	1-1/4" - 1-1/4"
Refrigerant		-	R134A
Compressor		-	Scroll
General hydraulic module rate		-	0 ~ 100%
IU connection rate when the hydraulic module is installed*		-	50% ~ 130%
Total connection rate of MH + DX units	3-pipe* VRF Sigma – Set Free Mini L	-	RAS-FSXNSE: 50% ~ 200%
		-	RAS-FSXNPE: 50% ~ 200%
Max. number of indoor units with HM installed		-	38
Max. temperature range of water outlet		-	25°C ~ 80°C
Remote control		-	PC-ARFWE (mounted locally)

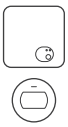
* Important: simultaneous operation can never be higher than 100% in heat pump mode.
Simultaneous operation in the same mode can never exceed 100% for a heat recovery system.
(1 *) The maximum number of indoor units is the recommended quantity of indoor units for every size of outdoor unit. For more information, please refer to the technical catalog of the outdoor unit.
(* 2) See Section "9.5.2.2 Function of DIP switches and dial switches" for more information on Pin 3 of the DSW8 with a connection rate of > 180%.

You can have multiple contacts with the connector PCC-1A : progress report, error report, thermostat control, remote "Start/Stop".

Compatible controls and accessories

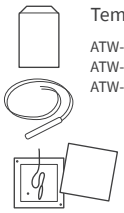
Controller

PC-ARFWE



ON/OFF wireless thermostat

ATW-RTU-04

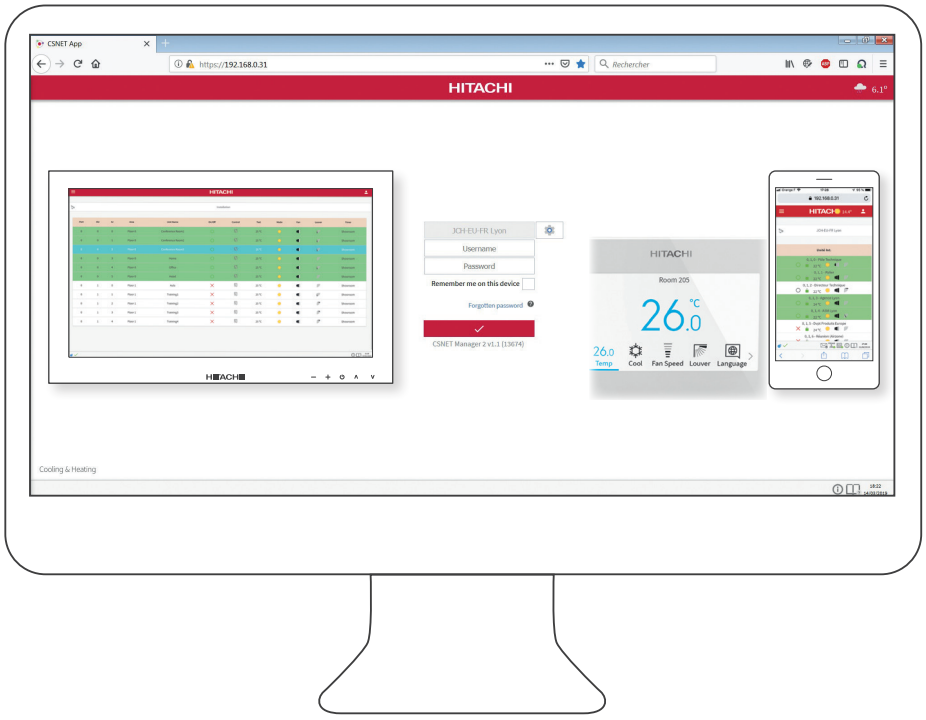


Temperature sensors

ATW-2OS-02
ATW-ITS-01
ATW-WTS-02Y

Hitachi wants to bring more and more comfort to its customers. The user interface is key to that objective. This extensive range of controls is perfect for the needs of anything from small to large public sector projects. It offers the widest range of functions on the market, all integral to the unit without the need for optional add-ons. Installation is quick and easy.

Manage the Utopia Prime, IVX and VRF installations



Control solutions overview

Individual remote controls (Selection guide on p 108)

Fully wired

PC-ARFG-E

NEW

- New harmonious design,
- High quality color screen,
- Intuitive interface in French.
- Manage 1 to 4 indoor units as masters and/or,
- Integrated ambiance sensor,
- Adjust optional settings.

New intuitive interface:
- 1 color for each operating mode,
- Weekly programming displayed on a single page,
- Help with selecting functions (detailed description of the function,
- History of settings,
- Energy consumption graph,
- Hotel mode (quick reset, simple access to settings).

Ideal for maximum flexibility in all public service applications.

Simple wired

PC-ARH1E

- Manage 1 to 16 indoor units as masters and/or slaves,
- Simplified access to essential functions.
- Adjust optional settings,
- For more comfort: setpoint adjustable to +/-0.5°C, non-freeze function.

Ideal for hotels, shops, when simplicity is key.

Infrared

PC-AWR

- Manage 1 to 16 indoor units as masters and/or slaves,
- Simplified access to essential functions,
- Infrared receiver function.

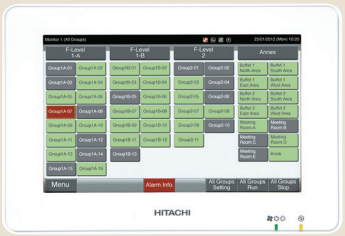
IR receiver	Compatibility with indoor units	
Include with the unit	Wall units	RPK-FSN4M/RPK- FSN4HM
PC-ALHC1 PC-ALH3 PC-ALHD1	4-way 600x600 cassette 4-way 800x800 cassette 2-way cassette	RCIM-FSN4E RCI-FSN4E RCD-FSN3
PC-ALHZF1 (external)	Ducted units Consoles	RPI/RPIM/PPF/RPFI/RCI/ RCIM/RCD/RPK/RPC
PC-ALHP1	Ceiling units	RPC

Ideal for renovations.

Centralized remote controls (Selection guide on p 112)

Touchscreen centralized

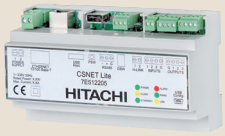
PSC-A32MN
PSC-A64GT



Manage up to 160 indoor units:
- **PSC-A32MN** > up to 32 units of 16 indoor units, max. 160,
- **PSC-A64GT** > up to 64 units of 16 indoor units, max. 160,
- Up to 8 touch commands per H-Link bus.
- 5" (PSC-A32MN) and 8.5" (PSC-A64GT) color,
- Up to 100 programmable alarms,
- Available contacts: start/stop, error report, function report,
- Offload function,
- On the PSC-6RAD, max. 16 units allowed.

Ideal for monitoring small and medium-sized systems.

Centralized commands (Selection guide on p 112)

	CSNET Manager 2		CSNET Lite	airCloud PRO
				
Range	with screen	without screen (web)	web	web
User interface	10” or 15” high-resolution touchscreen CSNET Manager 2T10 or CSNET Manager 2T15	Interface without screen, access data on the PC, tablet or smartphone on all CSNET, 2T10, 2T15 (as well as the screen) and on the 2SL (model without screen)	PC, tablet, smartphone	PC, tablet, smartphone + mobile app/web app
H-Link gateway	HC-A64NET		CSNET Lite	HC-IOTGW
Compatibility	H-Link units: VRF & IVX Prime, - Hydrofree, - YUTAKI 2016, - Utopia Prime. Units with adapters: - RAC indoor units.			Main HLINK units: - VRF/IVx - RAC indoor units (with limitations)
Functions	- Version 2.0 of the CSNET software (managing the Yutaki, server room function, pulse meters on the CSNET Lite, electricity and water metering for third-party systems, etc.) - VRF + air/water heat pump unit control (H-Link systems) - Multi-tenant access with specific rights/privileges for different functions or indoor unit control - Advanced control functions (Comfort, Interlock...) - Multi-tenant installations, flexibility for office applications - Energy metering for VRF units – third-party systems - Use of dry input/output contacts on indoor units or CSNET Lite - Connection to the BMS system (Modbus, BACnet, or KNX)		- Same features as CSNET Manager, applied to small or medium-sized systems - Manage up to 64 indoor units	- Monitor units VRF, IVx, and Utopia (HLINK unit) - Simple unit control with Web or mobile applications - Alarm notifications and alarm log available for remote maintenance - Perfect solution for small public applications and business needing basic control functions
Applications	Medium and large-size systems		Small and medium-size systems	Small and large-size systems

BMS gateways

MODBUS interface

HC-A16MB
HC-A64MB

- Up to 16/64 indoor units per Gateway,
- Optional function management, view outdoor unit settings.

KNX interface

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

- Up to 16/64 indoor units per Gateway,
- Fast integration: KNX-certified.
- Easy maintenance: USB port available, function and communication LEDs.
- KNX gateways compatible with CSNET Manager.

BACNET interface

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

- Up to 16/64 indoor units per Gateway,
- Fast integration: BACnet-certified, direct H-Link communication – BACnet.
- Easy maintenance: USB port available, function and communication LEDs.
- BACNET gateway compatible with CSNET Manager.

LON interface

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

-Up to 32 (version E(B))/64 (version E(A)) indoor units per gateway

Individual remote controls Selection guide

Model		Fully wired PC-ARFG-E	Simple wired system PC-ARH1E	Infrared PC-AWR
				
Selection	Max. number of indoor units per remote control	1 to 16	1 to 16	1 to 16
	Type of master/slave connection	Non-polarized bus	Non-polarized bus	Non-polarized bus
Main functions	Start/Stop	●	●	●
	Function mode selection	●	●	●
	Auto Heating/Cooling mode	● (best used with 3-pipe VRFs)	● (best used with VRF 3 pipes)	● (best used with VRF 3 pipes)
	Dehumidification mode	●	●	●
	Control selection	● (19°C to 30°C in Cooling mode/17°C to 30°C in Heating mode)	● (19°C to 30°C in Cooling mode/17°C to 30°C in Heating mode)	● (19°C to 30°C in Cooling mode/17°C to 30°C in Heating mode)
	Adjust control to +/-0.5°C	●	●	-
	Regulating the fan speed	● (up to 5 according to the indoor unit type)	● (up to 5 according to the indoor unit type)	● (up to 5 according to the indoor unit type)
	Adjust the position of the fan blower blades	●	●	●
	Individually adjust the position of the fan blower blades	●	-	-
	Weekly timer	● (Up to 5 daily programs)	-	-
	Timer	●	-	● (daily)
	Holiday mode	-	-	-
	ECO mode	●	-	-
	Auto-restart after a power outage	●	●	-
	Integrated ambiance sensor	●	●	-
Advanced management features	Lock function mode	●	●	-
	Lock the setpoint temperature ranges	●	●	-
	Lock the remote control buttons with the exception of Start/Stop	●	●	-
	Stop the fan in Thermo OFF Heat mode	●	●	-
	Stop the fan in Thermo OFF Cooling mode	●	●	-
	Select the control sensor	●	●	-
	Reduces at night (outdoor unit at low noise level)	●	-	-
	Set Back (non-freeze): reduces in Heating mode or in Cooling mode	●	●	-
	GENTLE COOL (summer comfort): limits the Temp° of the fan blower in Cooling mode	●	-	-
	Auto Boost: rapid rise in temperature at startup	●	-	-
	Manage the motion sensor	●	-	-
	Adjust the temperature differential in Heating mode	●	●	-
	Show ambient temperature	●	-	-
	Show outside temperature	●	-	-
	View the energy consumption of the outdoor unit	●	-	-
	Offload (auto or by zone)	●	-	-
	Hotel mode	●	-	-
	FloorSense and FeetWarm management (uniform room temperature)	●	-	-
	CrowdSense mode management (room activity analysis)	●	-	-
	Offload (auto or by zone)	●	-	-
Advanced maintenance features	Error code log	● (max. 30)	-	-
	After-sales contact details	●	-	-
	Information: defrost in progress	●	●	-
	Information: filter needs cleaning	●	-	-
	Self-test indoor unit and remote control electronic boards	●	-	-
	Check mode (view system parameters)	●	-	-
	Test Run mode	●	-	-
	Setting optional features	●	●	-

PC-ARFG-E Design Colors Controller

Design

Cooling mode | Dehumidification mode | Heating mode

- 1 color for each mode (heating, cooling, dehumidification, ventilation, auto),
- 3 awards for the design and ease of use:

reddot winner 2021 best of the best

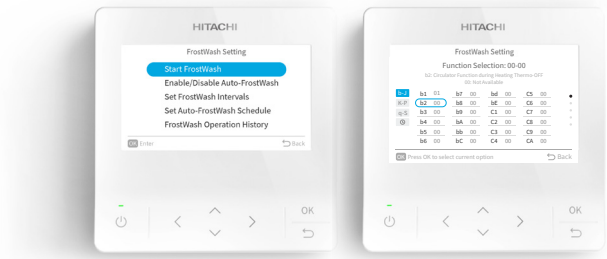
DESIGN AWARD 2020

EUROPEAN PRODUCT DESIGN AWARD

Unrivaled user-friendly controller

For the end customer

- Consumption display,
- Weekly programming,
- Hotel mode (simple access to functions).

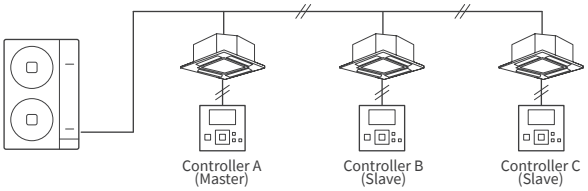


For the installer

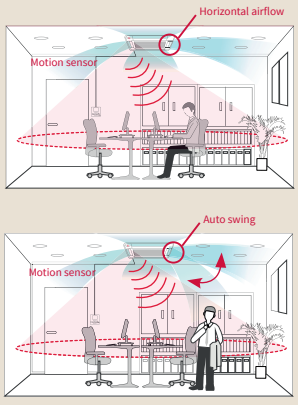
- Simple start-up (test mode),
- Detailed error codes.

Define the master remote control to make the changeover even easier

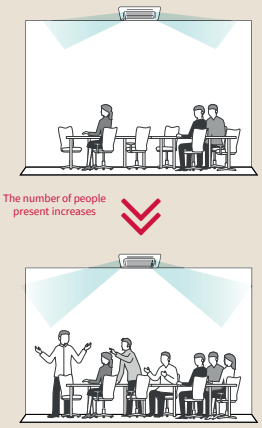
New feature accessible with remote control PC-ARFG-E: change the mode from any 'master' remote control.



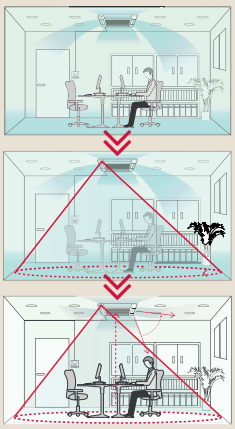
Comfort



AirFlowControl: : enables the user to select direct or indirect blowing on occupants.



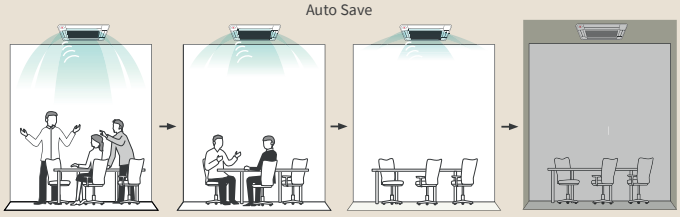
CrowdSense: : combined with the indoor unit motion sensor, detects the number of people present to anticipate capacity requirements to prevent overheating.



FloorSense and FeetWarm: use the indoor unit radiant sensor to analyze and limit stratification. These functions adjust the ventilation blades to ensure uniform temperature throughout the room.

Energy savings

- **ECO mode:** 3 levels of energy savings available, applied permanently or based on a weekly program,
- **Auto-Save :** stops indoor unit operation if the room is unoccupied,
- **Hotel mode:** Control based on occupant presence (key card contact).



Centralized commands

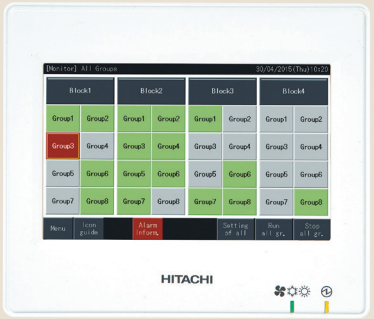
Selection guide

Model		airCloud Pro	PSC-A32MN	PSC-A64GT	CSNET Lite	CSNET Manager 2
Technical data of the gateway or interface	Indoor unit per gateway	64 indoor units	32 remote control units 160 indoor units	64 remote control units 160 indoor units	64 indoor units	64 indoor units
	Outdoor unit per gateway	16	32	64	64	64
	Gateway per H-Link	1	8	8	1	1
	Max. amount of IDU per user interface	Unlimited (with multiple gateways)	160	160	64	1024
	Cloud access	●	-	-	-	-
	Web application	●	-	-	●	●
	Mobile app	●	-	-	-	-
Connectivity	Prime connectivity	Ethernet	-	-	Ethernet	Ethernet
	4G connectivity	-	-	-	-	-
	gateway updated remotely online	●	-	-	●	●
System access	Main access	Cloud	Local	Local	Local	Local
	Local setup access: can be used to control units in a backup solution if access to the server is no longer available	● limited features	●	●	●	●
	Remote access	●	-	-	●	●
	Type pf server	Cloud	-	-	Local web server	Local web server
	Internet connection mandatory	●	-	-	-	-
User and site management	Multi-user management	●	-	-	●	●
	User accounts with limited access to indoor units/ functions	-	-	-	●	●
	Multi-site management	●	-	-	-	-
Basic functions	Basic indoor unit control	●	●	●	●	●
	Installation dashboard	●	-	-	●	●
	Weekly programming	●	-	-	-	-
	Annual programming	-	-	-	●	●
	Reset filter sign	●	●	●	-	-
	Alarm log	●	●	●	●	●
Advanced features	Min./max. setpoint temperature	-	●	-	●	●
	Outdoor unit power selection (manual, contact, or programmable)	-	●	-	●	●
	Cumulative operating time	●	●	●	-	-
	System status (data in progress for outdoor unit and indoor unit)	●	-	-	●	●
	Data archive	-	-	-	●	●
	Order log & direct data	-	-	-	●	●
	Electrical consumption readings for Hitachi indoor unit	● (Estimation without meter)	-	-	via additional meter	via additional meter
	Consumption readings Electrical third-party equipment	-	-	-	via additional meter	via additional meter
	Interlock	-	-	-	●	●
	Comfort features (Gentle Cool, heat draft (winter comfort) SetBack (reduced heating/Cooling mode))	-	-	-	●	●
	Alarm notifications	●	-	-	●	●
	Local server management	-	-	-	●	●
	Access to operation and maintenance settings (OU & IU)	●	-	-	-	-
BMS connection	Input/output switches	-	●	●	●	●
	Tenant billing	-	-	-	●	●
	BMS connection	-	-	-	●	●

Centralized Touchscreen commands
Selection guide

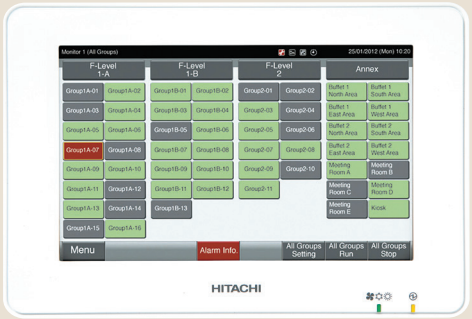
Suitable for different sizes of facilities for faster monitoring, setup, and maintenance.

PSC-A32MN



Manage up to 32 units of 16 indoor units, max. 160.
5” color touchscreen.

PSC-A64GT



Manage up to 64 groups of 16 indoor units, max. 160.
8.5” color touchscreen.

Model		Central, touch PSC-A32MN 	Central, touch PSC-A64GT 
Selection		Manage up to **32 units** of 16 indoor units, max 160	Manage up to **64 units** of 16 indoor units, max 160
		5” color touchscreen	8.5” color touchscreen
		Up to 8 centralized controllers per H-Link bus	Up to 8 centralized controllers per H-Link bus
Main functions	Language	● (French)	
	Access levels	2 (user, professional)	
	Define units (all indoor units connected on the same remote control)	●	
	Define blocks (unit sets)	●	
	Adjust the mode	● per indoor unit/group or block	
	Dehumidification selection	●	
	Control selection	● per indoor unit/group or block	
	Adjust control to +/-0.5°C	-	
	Choosing the fan speed	● per indoor unit/group or block	
	Adjust the position of the fan blower blades	● per indoor unit/group or block	
	Individually adjust the position of the fan blower blades	-	
	Weekly timer	● (Up to 10 daily programs)	
	Timer	-	
	Vacation function (exception to usual programming)	-	
	Filter indication (light on according to timer)	● per indoor unit	
	ECO mode	-	
Advanced management features	Lock remote control apart form the Start/Stop button	● per indoor unit/group or block	
	Limit and lock setting ranges (in Heating mode/in Cooling mode)	● per indoor unit/unit or block – on PSC-A32MN only	
	Reduces at night (outdoor unit at low noise level)	-	
	Non-freeze function	-	
	GENTLE COOL function (summer comfort)	-	
	Adjust the temperature differential in Heating mode	-	
	Auto Heating/Cooling mode	● per indoor unit/group or block	
	View energy consumption	-	
	View operating hours	● per indoor unit/group or block	
	Offload	● (reduce the current peaks of the outdoor group following a weekly schedule or using an external signal (contact on the central controller)	
Advanced maintenance features	Error code log	● (up to 100: show error code, date and time of the failure, unit(s) affected	
	After-sales contact details	●	
	Reset Filter LED	● per indoor unit/group or block	
	Set optional features (installer menu)	●	

airCloud Pro

You're in control

IoT technology

24/7 control in your hands, with the smartphone or web app

Intuitive simplicity

airCloud Pro is designed to make it easier for you. This open-access mobile app makes it easier than ever to manage your air-conditioning systems.

Control from anywhere

Enjoy remote access from your smartphone or PC. airCloud Pro lets you remotely control an unlimited number of systems from a single app, which means you can stay right where you are.

Ideal applications

OFFICE · SCHOOL/ UNIVERSITY · FACTORY/ WAREHOUSE · HOSPITAL · HOTEL · RETAIL · RESTAURANT

IT data of the Gateway CE	HC–IOT GW
Dimensions (W x H x D)	138 x 200 x 41 mm
Net weight	540 g
Connection capacity	16 outdoor units + 64 indoor units
Power supply	230V | 50Hz
Max. power consumption	10W
Communication port	1 H-Link, 1 port RS485
Internet connection	Local Ethernet network
External interface (data storage)	1 micro SD card slot

A simple yet powerful tool

Make your life easier

Central control
Control either the entire VRF system or specific zones all at the touch of a button.

Easy problem-solving
Clear error code log, brief summary of the problem, and filter to be cleaned.

Smartphone alerts
To report any serious malfunction.

Flexible user management
Add unlimited users and customized access restrictions.

1

Save more energy

Energy consumption data
View your electricity consumption in simple graphs to monitor the high-demand units in your system (available in 2021).

Intuitive planning
Plan service visits around your working day and exceptions such as holidays.

Lock control devices separately
Block any inappropriate use by occupants.

2

Create a pleasant climate

Easily adjust the **temperature, fan speed, and operating modes** for complete comfort and an ideal ambient climate throughout the building.

A **built-in weather forecaster** helps you define the conditions most suited to different indoor spaces throughout the year.

3

Plug & play system

The airCloud gateway makes installation much easier.
Just connect to airCloud via the **Ethernet** network and pair your VRF systems by scanning the QR code. The **indoor units are detected automatically** and deliver the best **installation process** by making general site and zone setup quicker than ever.

4

+ data security

- **The highest standards:** Protocol TLS v1.2, HTTPS 2038 encryption
- **Limited number of personal information requested:** You only need your name, email address, and phone number to log in
- **Regularly updated and enhanced with new features,** airCloud Pro ensures you're always up to date.

+

How airCloud Pro works

Compatible with old and new Hitachi variable refrigerant flow systems [1]

Disponible sur App Store

DISPONIBLE SUR Google Play

Go to: aircloudproapp.com

[1]Check the compatibility of your VRF system with your Hitachi Cooling & Heating representative.

airCloud Pro features

		airCloud Pro
gateway features	Indoor unit per gateway	64 indoor units
	Outdoor unit per gateway	16
	gateway per H-Link	1
	Max. amount of indoor units per user interface	Unlimited (with multiple gateways)
	Cloud access	●
	Web application	●
	Mobile app	●
Connectivity	Prime connectivity	Ethernet
	4G connectivity	-
	gateway updated remotely online	●
System access	Main access	Cloud
	Local setup access or emergency access if server access is down	● With limited features
	Remote access	●
	Type pf server	Cloud
	Internet connection mandatory	-
User and site management	Multi-user management	●
	User accounts with limited access to indoor units/functions	-
	Multi-site management	●
Functions	Basic indoor unit control	Start/Stop ●
		Heating/Cooling mode
		Setpoint temp.
		Fan speed
		Remote control lock
		Setup unit remote control
	Zone management	Create unlimited zones
	Installation dashboard	●
	Weekly programming	●
	Reset filter sign	●
	Alarm log	●
	Consumption monitoring (without external energy meter)	●
	Operating settings for IU & OU	●
	Alarm notifications	●
Languages	App languages	English
		French
		German
		Italian
		Portuguese
		Spanish

Centralized CSNet commands
Selection guide

The CSNET range comes in 2 versions: a flexible WEB version and a user-friendly touch screen version. This range is ideal for projects of all sizes from the small to large public jobs. It offers the widest range of functions on the market, all integral to the unit without the need for optional add-ons. Installation is simple and quick.
The intuitive configuration wizard ensures commissioning is a breeze.

For medium and large installations: **with 10" or 12” screen**

Central management interface, Web version

CSNET Manager 2T10/2T15
+ HC-A64NET Gateway

Accessories
Wall support - Ref.: WALL SUPPORT 2
Base - Ref.: STAND SUPPORT

- Manage up to 1,024 indoor units.
- Manage 1 to 64 indoor units on the HC-64NET gateway and up to 16 gateways via CSNET. The HC-A64NET gateway can be replaced with CSNET Lite.
- Comes with a 10” (2T10) or 15” (2T15) screen.
- True maintenance tool: mail notifications, alarm log, data archive.
- Multi-site remote consultation and control tool with the web server function.
- Tool for managing and breaking down energy consumption.
- Interlock option: smart programming of embedded actions.
- Compatible with Fidélio software: perfect for the hospitality industry.
- Interface compatible with smartphones, tablets, PCs connected to the local network or online.

New features:
- Next-generation touchscreen for a more enjoyable user experience.
- New, more intuitive responsive user interface that offers the same features on any screen.
- Wizard function for easier, faster setup.
- Master/slave operation of indoor units: more electrical wiring needed for a more flexible and less expensive installation.

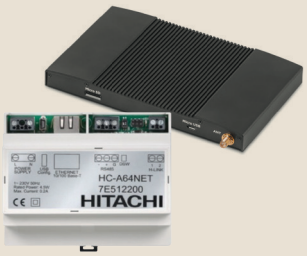
Ideal for managing large installations with maximum comfort for operators and their maintenance teams.

For medium and large installations **(web display or HDMI screen provided by the client)**

Central management interface, Web version

CSNET Manager SL
+ HC-A64NET Gateway

Accessory
DIN Rail support



- Manage up to 1,024 indoor units.
- Manage 1 to 64 indoor units on the HC-64NET gateway and up to 16 gateways via CSNET. The HC-A64NET gateway can be replaced with CSNET Lite.
- With the same features as the CSNET Manager 2T10/2T15, this SL version is a web version.
- System advice and control is done on smartphone, tablet, or PC only, connected to the local network or online.

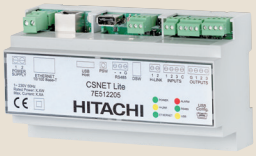
New features:
- More flexible installation: Ethernet port, 2 USB ports, HDMI port.

Ideal for managing large facilities.

For small and medium installations **without screen (web display)**

Central Web Version centralized control interface

CSNET Lite



- Standalone Gateway for managing up to 64 indoor units,
- Has the limited functionality of CSNET Manager 2.
- Compatible with smartphones, tablets, PCs connected to the local network or online.
- For multi-site monitoring, CSNET Lite is compatible with CSNET Manager 2T10/2T15 and SL.

Ideal for managing small and medium-sized facilities.

With this CSNET range, you can manage 1 to 64 indoor units on the interface and up to 1024 indoor units, locally or remotely on the WEB.

CSNET Manager 2 is a management and monitoring interface for Hitachi heating and air-conditioning systems.
It features a new touchscreen technology as well as a responsive display, for an improved user experience.

The CSNET Manager 2 T10/2 T15 range, includes 2 screens, 10" and 15".
The system is managed on two H-Link interfaces of your choice, HC-A64NET or CSNET Lite, capable of managing up to 64 indoor units. CSNET Manager 2 can manage up to 16 H-Link interfaces.

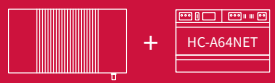
For installation extensions, CSNET Manager 2 is also compatible with the CSNET Web box (limited for certain options).

The 320 GB storage capacity allows you to store the system applications and history almost without limit.

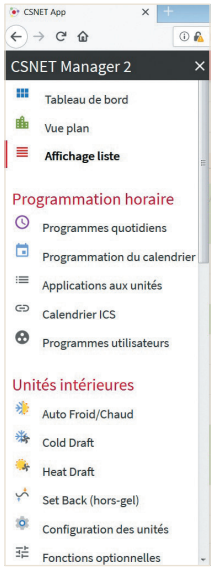
Selection guide to CSET centralized controls

Model		WEB version with touchscreen CSNET Manager 2T10/ 2T15 
Selection	Max. number of indoor units per H-Link gateway	Up to 64
	Max. number of indoor units	Up to 1,024
	Max. number of outdoor units (OG)	64 outdoor units per gateway
	Touchscreen	● 2T10(10")/2T15 (15")
	Web server	●
	Compatible user interfaces	Smartphone Tablet PC equipped with a Web browser
	Compatible BMS	● MODBUS interface included as standard KNX - BACNET via dedicated gateways
Advanced management features	Number of user access levels	Unlimited
	Create monitoring zones (e.g multiples tenants)	●
	Track energy consumption	●
	Breakdown of energy consumption	●
	Offload	●
	Compatible with MICROS FIDELIO	●
	Unlimited annual programming including holidays and vacations	●
	Annual calendar synchronized with Outlook	●
	Set the optional functions of indoor units	● with up-to-date HLINK interfaces (CSNET Lite v2.0 or HC-A64NET v2.0)
	Master/Slave management	●
	MODBUS compatibility included	●
	Interlock function (IFTTT concept)	●
	Hotel applications (window contact & lower settings)	●
Advanced display features	Integrate a site map	● (image format)
	Virtual individual remote control	● (manage, display ambient T)
Advanced comfort features	Set Back (non-freeze): reduces heating or Cooling mode (e.g. 23 hours to 5 hours)	●
	GENTLE COOL (summer comfort)	●
	Heat Draft (winter comfort)	●
	Offload	●
	Reduces noise (of outdoor unit)	●
Maintenance functions	Fault notification by email	●
	Operating log	2Gb
	Error log	6 months
	Emergency stop switch	-
	Error report switch	-
	Check mode (view system parameters)	●
	Cooling diagram showing technical data	●
	Wizard (setup assistant)	●

CSNET Manager 2
Advanced management tool

WEB version CSNET Manager 2 SL 	Standalone WEB version CSNET LITE 
Up to 64	Up to 64
Up to 1,024	Up to 64
64 outdoor units per gateway	64 outdoor units
-	-
●	●
Smartphone Tablet PC equipped with a Web browser	Smartphone Tablet PC equipped with a Web browser
● MODBUS interface included as standard KNX - BACNET via dedicated gateways	● MODBUS interface included as standard KNX - BACNET via dedicated gateways
Unlimited	Unlimited
●	●
●	●
●	●
●	●
●	-
●	●
●	-
● with up-to-date HLINK interfaces (CSNET Lite v2.0 or HC-A64NET v2.0)	●
●	●
●	●
●	● (limited actions)
●	-
● (image format)	-
● (manage, display ambient T)	● (manage, display ambient T)
●	●
●	●
●	●
●	●
●	●
●	●
2Gb	256 Mb
6 months	6 months
-	●
-	●
●	●
●	●
●	●

New user + ergonomic interface

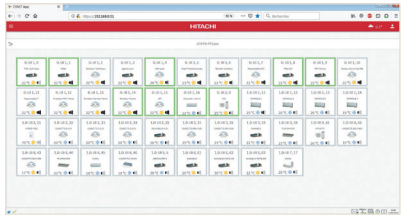


Menu

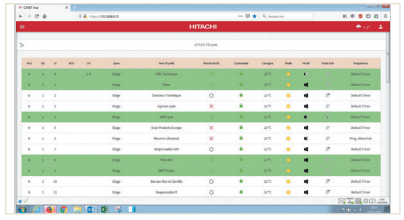
A unique menu zone for more intuitive navigation

An intuitive dashboard:
3 available formats

Dashboard



Icon view



List view

CSNET Manager 2
Advanced management tool

Stand out with quality service

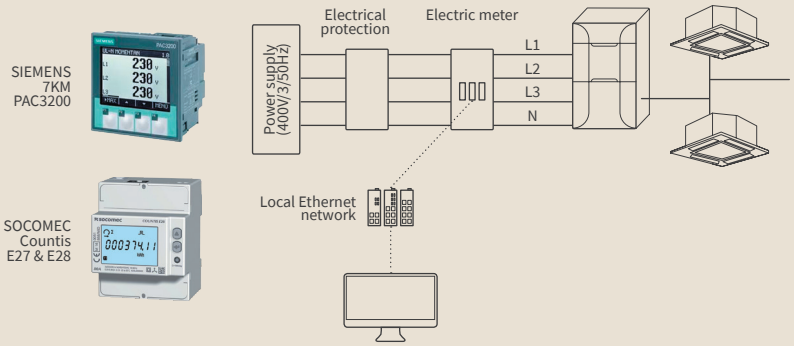
Maintenance is essential because it ensures the sustainability of the installation. Preventing outages, being responsive in the event of a breakdown by reducing response time with remote analysis tools are the key to keeping public sector users happy.

Better control of consumption

To provide a safe solution to its customers, HITACHI has approved a list of VRF-compatible meters, and they are set up in the CSNET at the factory.

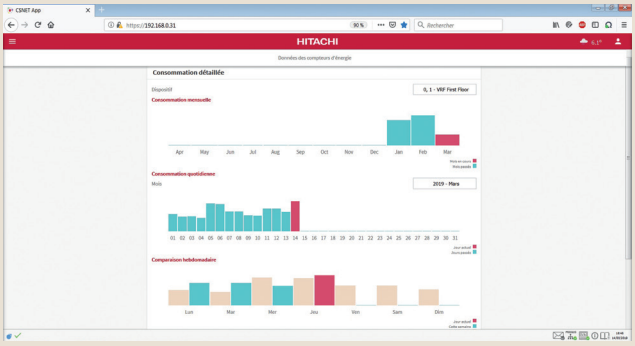
This standard feature allows you to measure, record, and display the energy consumption of all or some of the indoor units and outdoor units managed by CSNET.

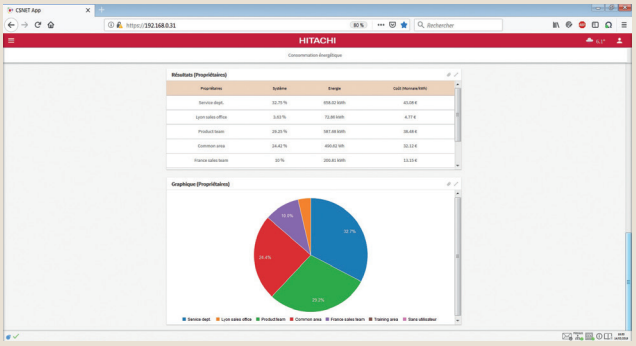
This consumption is shown in kWh or in Euros if the user enters their hourly energy cost.



Monitoring energy consumption means first and foremost access to information. Various interfaces are available in the 2021 version of CSNET, offering different dashboards with different levels of analysis: from general to specific, monthly to daily.

This feature also allows for multiple tenants to distribute energy consumption per user and by use (Heating or Cooling mode).





Embedded safety: Interlock function

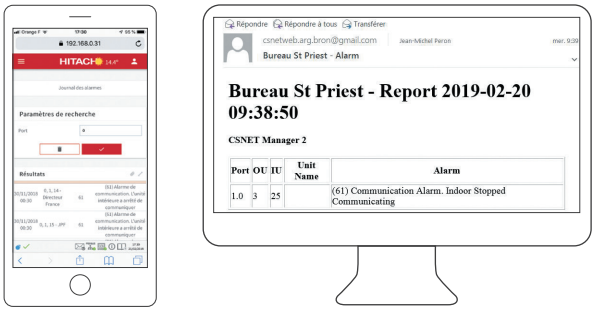
The embedded interlock function, standard in all CSNET interfaces, allows a multitude of interlock scenarios to be easily programmed, providing automated safety in more industrial applications.

A backup air-conditioner in a server room can be started up automatically in the event of a temperature deviation, for example: If the ambient temperature > 20°C start unit 2 at a setting of 18°C.

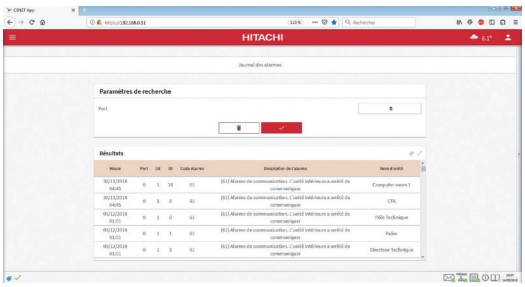
New feature:
Server room management feature in CSNET Manager version 2.0

Be alerted in the event of a failure

An email server can send an email alert if an error code appears on the system.

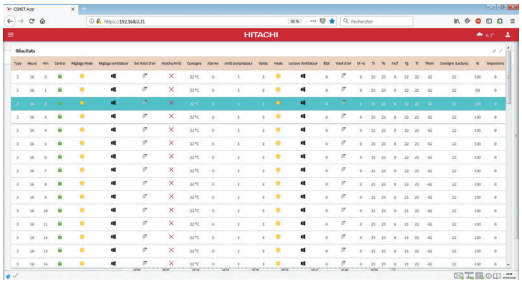


An alarm log is automatically generated by CSNET Manager 2 as soon as the first defect appears. This log can be exported at any time.

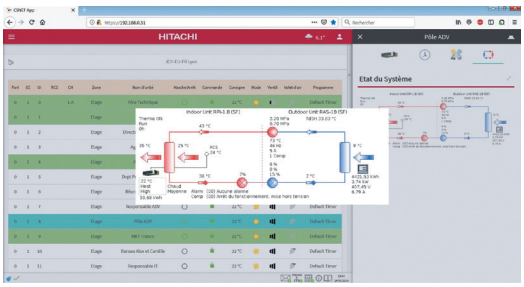


Have remotely accessible analytics tools via the WEB SERVER function for PC, tablet, or smartphone

Access the installation's operating log. These customized reports allow the user to plot graphs showing how selected parameters change and to issue accurate work reports.



Address discomfort issues reported by customers and resolve them remotely by changing operating parameters.



A new Customer Experience with a unique and customizable level of comfort

Blower temperature setting, GENTLE COOL

This feature meets the comfort levels expected by every user in Cooling mode by giving them the option to adjust their fan blower temperature.

- With CSNET, Cooling drafts that can be a source of discomfort in the summer are a thing of the past in offices, as you can select a high temperature setting for the fan blower.
- With CSNET, an occasionally occupied meeting room can be quickly brought up to temperature by using an unlimited year-round calendar synchronized with Outlook.

Hotel function

This intelligent on-board programming function, included as standard in all CSNET interfaces, can combine several input signals triggering actions according to IFTTT logic.

- This feature allows you to customize comfort conditions in rooms over summer and winter. When a guest arrives in the hotel room (key inserted), the setting can be customized.
- When opening the bedroom window, the indoor unit can be stopped or the setting adjusted.

Application for hotel rooms

- The CSNET is also compatible with MICRO FIDELIO software.

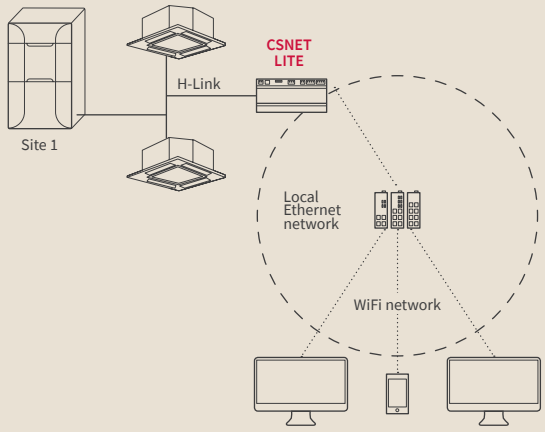
micros FIDELIO

Manage your spare parts with Hi Parts

Log on 24/7.

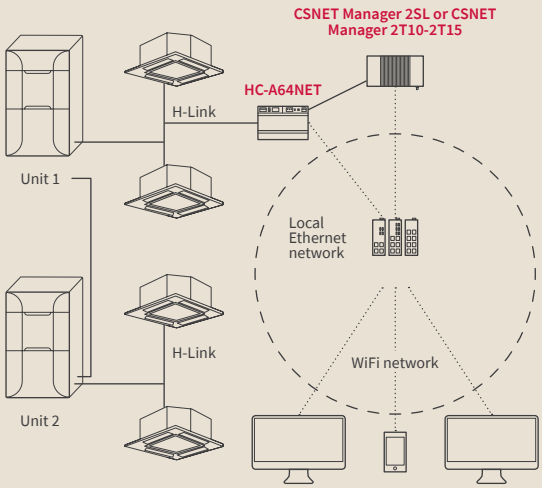
CSNET cabling

Example of the architecture on a small-scale site (< 64 indoor units)



Site 1: Access to the local network with a**screenless interface**.
Access from a PC, smartphone connected to the same local network or from the Internet.

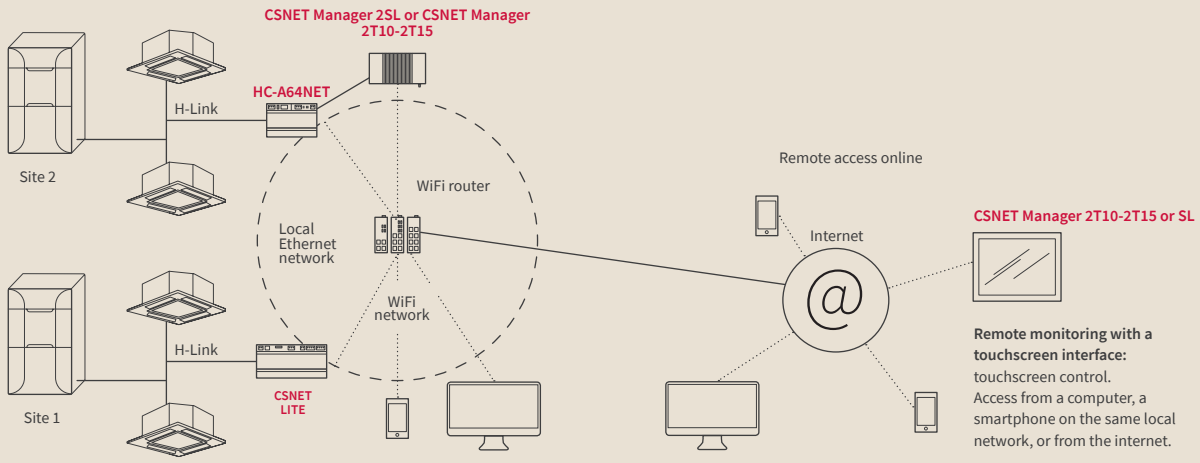
An example of a medium-sized site setup (> 64 indoor units)



HC-A64NET > 64 IU max
Up to (16x64) > 1024 IU managed

Site 2: Access to the local network with a**screenless interface**.
Access from a PC, smartphone connected to the same local network or from the Internet.

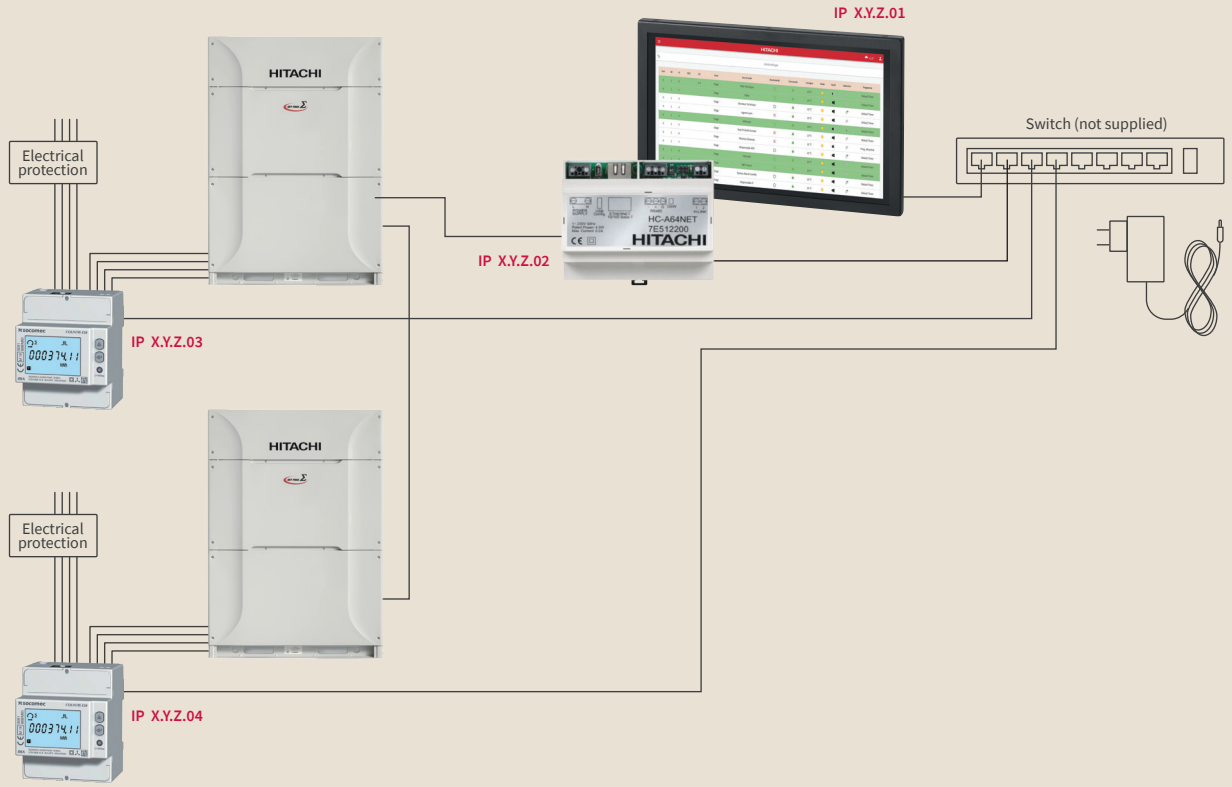
An example of the setup of 2 separate sites equipped with VRF, with centralized CSNET control and monitored remotely



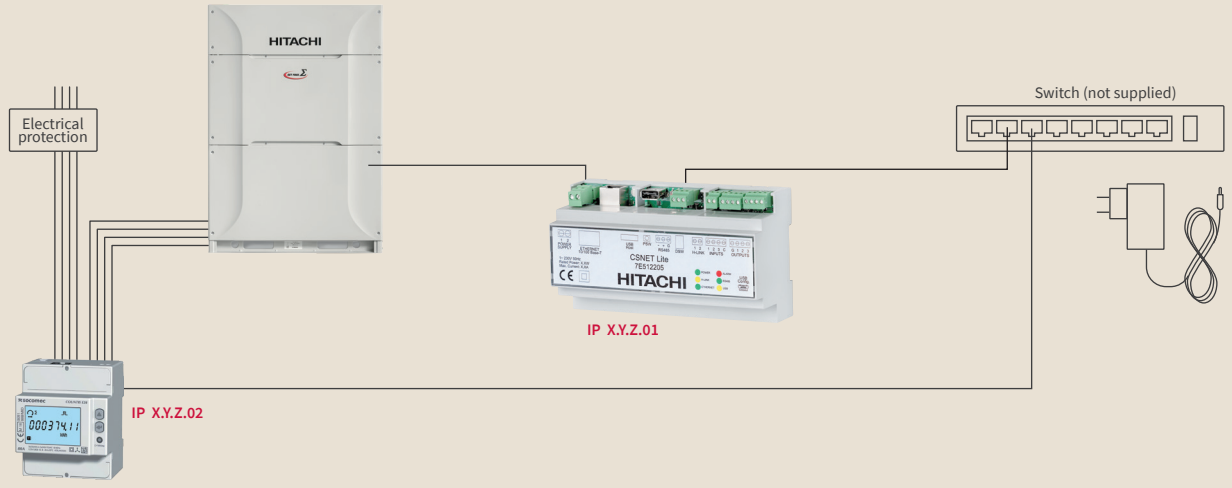
Remote monitoring with a touchscreen interface:
touchscreen control.
Access from a computer, a smartphone on the same local network, or from the internet.

For an installation with two refrigerant circuits and energy meter
Example with a CSNET Manager 2

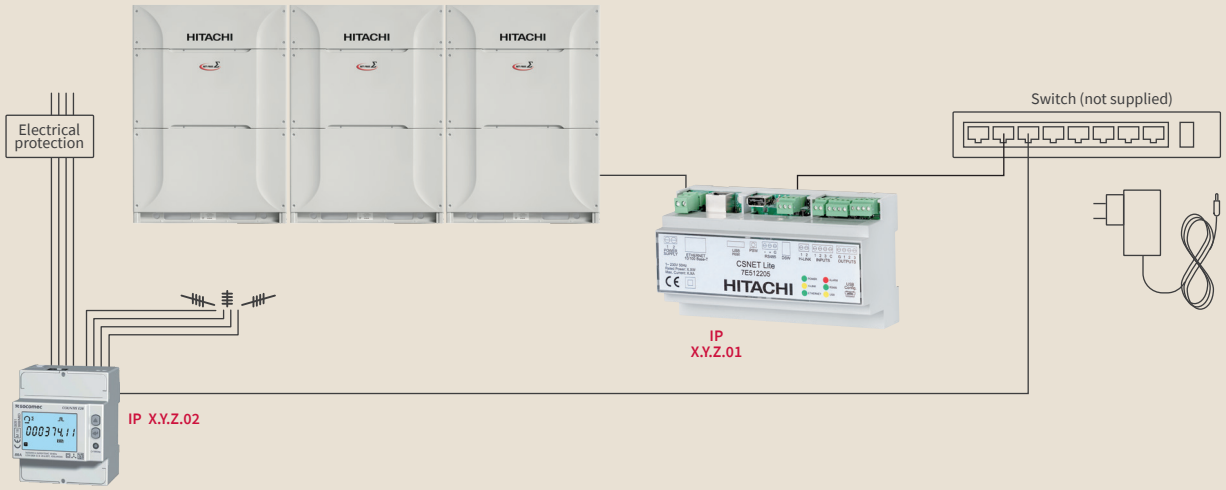
1 energy meter per refrigerant circuit required



For an installation with one refrigerant circuit and energy meter
Example with a CSNET Lite

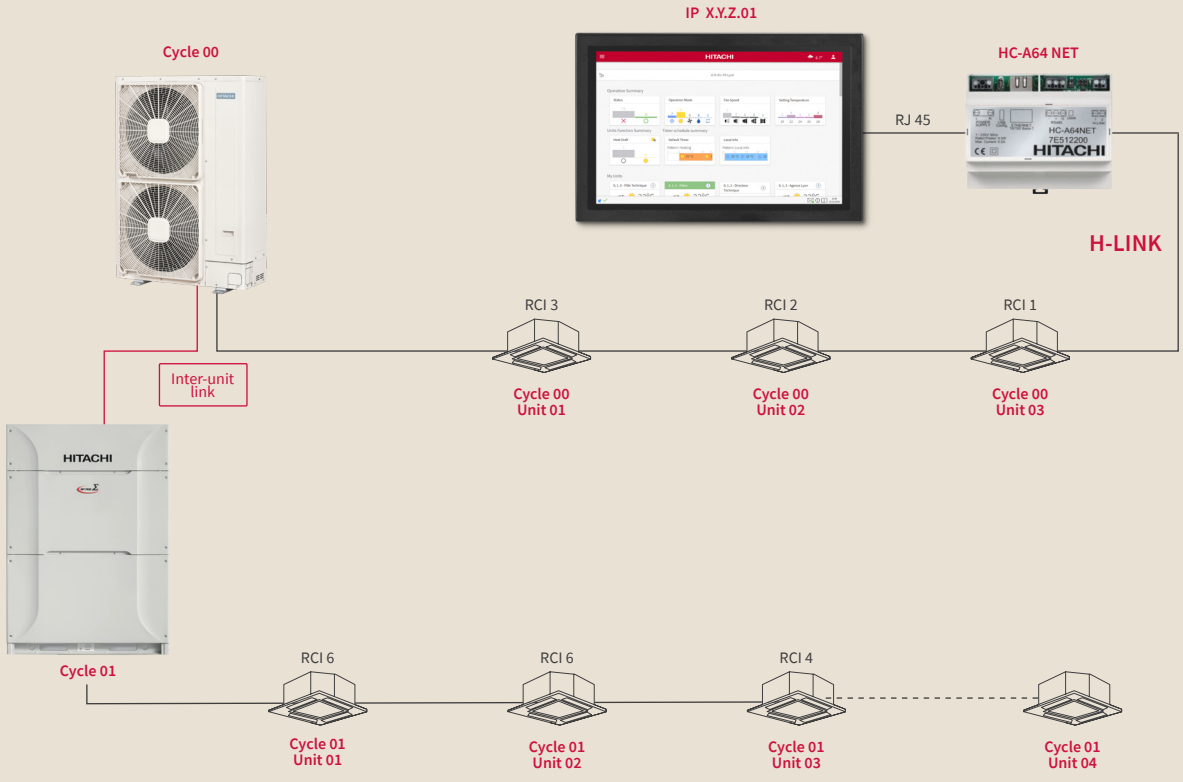


For an installation with one refrigerant circuit and energy meter
Example with a CSNET Lite



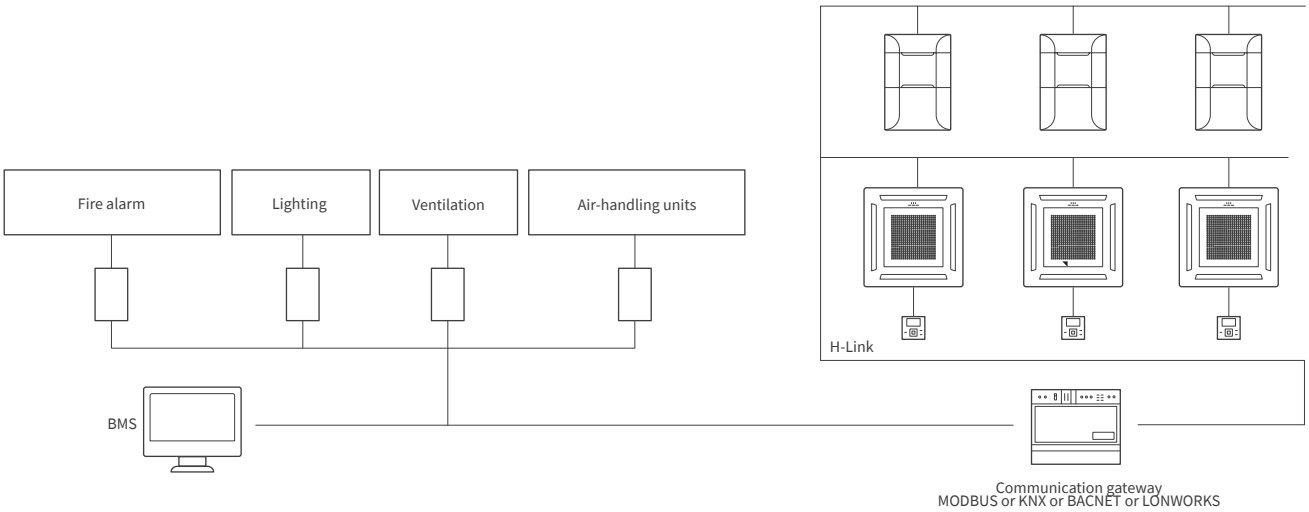
For an installation with two refrigerant circuits and energy meter
Example with a CSNET Manager 2

- 1 energy meter per refrigerant circuit required,
- Connection to one indoor unit is only possible with a two tube installation. For an installation with three tubes, the unit/ CH box connection is required.



Communication gateways

Hitachi offers a full range of communication gateways with most open protocols on the market.



Open protocols

MODBUS® protocol (Modbus® RTU or TCP/IP)

Most centrally managed sites with BMS feature a Modbus® connection.
The Modbus® protocol (trademark registered by Modicon 1979).
HITACHI interfaces manage 16 or 64 units each.
Connect to any point of the H-Link bus.
RTU or IP in self-detection mode.
Economic BMS solution: perfect for medium and small public sector buildings.

gateway references

HC-A16MB (16 indoor units)

HC-A64 MB (64 indoor units)

KNX protocol

KNX® is a dedicated 'building' bus, standardized and independent of manufacturers (lighting, heating, security, energy management, measurements etc.).
New certified interfaces manage 16 or 64 units each.
Based on standard buses, EIB, EHS, Batibus, KNX® guarantees the interoperability of products bearing the KNX® logo. It is an ISO standard.
BMS solution: perfect for medium and large public sector buildings.

HI-AC-KNX-16 (16 indoor units)

HI-AC-KNX-64 (64 indoor units)

BACnet®/IP protocol

The widely used BACnet/IP was designed to allow the protocol to use TCP/IP networks.
New certified interfaces directly manage 16 or 64 units each.
BMS solution: perfect for large public sector buildings.

HI-AC-BAC-16 (16 indoor units)

HI-AC-BAC-64 (64 indoor units)

LONWORKS protocol

Created by ECHELON CORPORATION, Lonworks is a recognized and approved standard in *Building Management (IEA 709.1/2/3)*.
These interfaces manage 32 or 64 units each.
The interoperability of equipment makes it possible to provide facilities with better thought-out services and maintenance.
BMS solution: perfect for medium and large public sector buildings.

HARC-BXE(B) (32 indoor units)

HARC-BXE(A) (64 indoor units)

(end-of-life product, limited stock).

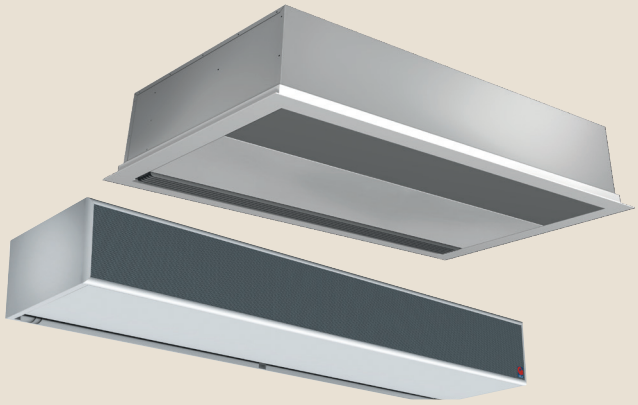
Renewing the indoor air in buildings is essential to create a healthy environment.
Hitachi's air refresh range ensures excellent indoor air quality and saves energy.

air-conditioning and ventilation

SYSTEM FREE

air-conditioning

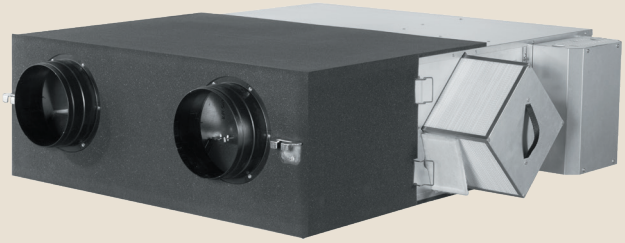
DX air curtains



DX FRICO air curtains.
Thermodynamic heating air curtain for store entrances of any size.

Double-flow ventilation

240 Pa · M1



With energy recovery.
Double-flow ventilation system with energy recovery.
KPI-252~2002E4E/KPI-502~2002E4E

Double-flow ventilation with thermodynamics

13 Kw · 200 Pa · M1

With energy recovery.
Double flow ventilation system with energy recovery and built-in DX battery.
KPI-502~1002X4E

DX kit

11 TO 28 KW

10 TO 25 KW

Control system for DX battery.
Application example: air handling unit.

EXV 4.0 - 10E2

DX air curtains

Hitachi / Frico

- Hitachi and Frico have come together to offer DX air curtains compatible with the Hitachi units in the Micro VRF Utopia Prime range.
- The factory assembly of the reducer, its management interfaces and a lift pump allows for ultra-fast installation.
- Frico's Linea DXH and AZR DXH air curtain ranges combine with a Hitachi split heat pump for 3.5m high installations.

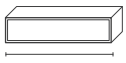
Functions

- The DX air curtain creates a heat barrier all year round and provides comfort in both summer and winter with minimal energy expenditure.
- No need for a filter, with the microperforated intake grid.
- Max. temperature of the fan blower: 35°C.

Advantages

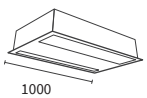
- Quick return on investment.
- Energy efficiency, reduced operating costs.
- Low CO_2 emissions.
- 2 versions available: built-in and wall-mounted models.
- Model available in all RAL colors.
- Reversible range (heating or cooling operation).
- UTOPIA Prime, Utopia Prime also compatible.

Air curtains



1000
1500
2000
2500

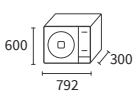
Wall curtain



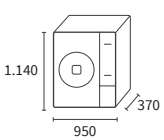
1000
1500
2000
2500

Recessed curtain

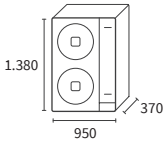
Outdoor units



RAS-3HVNC1



RAS-4H(V)NC2E
RAS-6H(V)NC2E



RAS-8HNCE
RAS-10HNCE

DX air curtains

Wall curtain

Linea M DXH compatible with Hitachi, height of up to 3 m, 230V~

Part number	Power	Air flow rate	Voltage	Weight
	kW	m³/h	(V)	kg
LINEAM1000DXH3	9	1560	230	52
LINEAM1500DXH4	12	2170	230	83
LINEAM2000DXH6	18	3100	230	113
LINEAM2500DXH8	22	4400	230	145

Linea G DXH compatible with Hitachi, height of up to 3.5 m, 230V~

Part number	Power	Air flow rate	Voltage	Weight
	kW	m³/h	(V)	kg
LINEAG1000DXH4	12	2170	230	55
LINEAG1500DXH6	15	3100	230	85
LINEAG2000DXH8	22	4400	230	115
LINEAG2500DXH10	26	5450	230	147

Part number	Height	Length	Depth
LINEA1000DXH	140+260	1000	480
LINEA1500DXH	140+260	1500	480
LINEA2000DXH	140+260	2000	480
LINEA2500DXH	140+260	2500	480

Recessed curtain

AZR M DXH compatible with Hitachi, height of up to 3 m, 230V~

Part number	Power	Air flow rate	Voltage	Weight
	kW	m³/h	(V)	kg
AZRM1000DXH3	9	1560	230	52
AZRM1500DXH4	12	2170	230	83
AZRM2000DXH6	18	3100	230	113
AZRM2500DXH8	22	4400	230	145

AZR M DXH compatible with Hitachi, height of up to 3.5 m, 230V~

Part number	Power	Air flow rate	Voltage	Weight
	kW	m³/h	(V)	kg
AZRG1000DXH4	12	2170	230	55
AZRG1500DXH6	15	3100	230	85
AZRG2000DXH8	22	4400	230	115
AZRG2500DXH10	26	5450	230	147

Part number	Height	Length	Depth
AZR1000DXH	130+260	1000	700
AZR1500DXH	130+260	1500	700
AZR2000DXH	130+260	2000	700
AZR2500DXH	130+260	2500	700

Hitachi-compatible outdoor units

Split installation: Compatible outdoor units (requires one remote control PC-ARFP1E per curtains)

Utopia Prime/Micro VRF IVX
Comfort
RAS-3HVNC1
RAS-4H(V)NC2E
RAS-6H(V)NC2E
RAS-8HNCE
RAS-4H(V)NC2E
RAS-6H(V)NC2E
RAS-8HNCE
RAS-10HNCE

240 Pa M1

Double-flow ventilation

With energy recovery

Authorized in category 5 ERP only

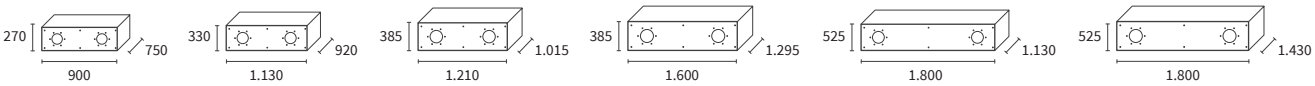
Functions and features

- Suitable for public buildings.
- Option to monitor with a CO_2 sensor (not supplied).
- High-efficiency F7 filtration (optional).

Advantages

- Recover up to 83% energy
- Low-consumption electronic switching motor.
- Sound pressure from 25 dB(A).
- All insulators with these KPIs are M1-certified (NF-P92-501*).
- Up to 240 Pa available pressure.

KPI



KPI-252E4E | KPI-502E4E | KPI-802E4E | KPI-1002E4E | KPI-1502E4E | KPI-2002E4E

KPI

Celluloid exchanger	Unit	KPI-252E4E	KPI-502E4E	KPI-802E4E	KPI-1002E4E	KPI-1502E4E	KPI-2002E4E
Choice of flow	m^3/h	250	500	800	1000	1500	2000
Efficiency (high/medium/low speed)	%	74 / 77 / 79	74 / 77 / 78	75 / 76 / 78	78 / 81 / 83	73 / 76 / 80	76 / 78 / 80
Airflow (high/medium/low speed)	m^3/h	250 / 208 / 180	500 / 420 / 360	800 / 700 / 540	1000 / 800 / 620	1500 / 1250 / 950	2000 / 1560 / 1200
Noise level (pressure) (high/medium/low speed)	dB(A)	28 / 27 / 25	33 / 31 / 30	35 / 34 / 33	37 / 34 / 32	39 / 37 / 35	40 / 39 / 36
Available static pressure (high/medium/low speed) (default setting)	Pa	55 / 35 / 30	80 / 50 / 37	90 / 60 / 40	95 / 65 / 40	100 / 70 / 45	120 / 65 / 40
Max static pressure (nominal airflow)	Pa	240	210	120	190	200	170
Dimensions (HxWxD)	mm	270 x 900 x 750	330 x 1130 x 920	385 x 1210 x 1015	385 x 1600 x 1295	525 x 1800 x 1130	525 x 1800 x 1430
Weight	kg	34	46	51	79	97	106
Power supply	-	1~230V 50Hz					

Compatible controls and accessories (see the tab VRF TWIN Controls p.243)

Wired remote control weekly

PC-ARFG-E

*These units are not suitable for installation ERPs in the first group.

200 Pa | 13 Kw | M1

Double-flow ventilation with thermodynamics

and energy recovery

Authorized in category 5 ERP only

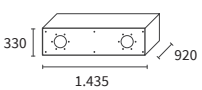
Functions and features

- System dedicated to the handling of fresh air.
- Suitable for public buildings and especially in areas with low outside temperatures.
- Option to monitor with a CO_2 sensor (not supplied).
- High-efficiency F7 filtration (optional).

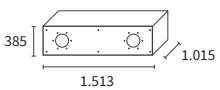
Advantages

- Recover up to 83 % energy.
- Low-consumption electronic switching motor.
- All insulators with these KPIs are M1-certified (NF-P92-501*),
- Compatible with Micro VRF Utopia Prime, Set Free Mini, Centrifugal, or VRF SIGMA.
- Sound pressure from 29 dB(A).
- Up to 200 Pa available static pressure.
- Heating capacity up to 13 kW.

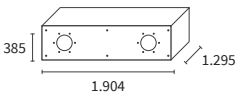
KPI active



KPI-502X4E



KPI-802X4E



KPI-1002X4E

KPI active

Celluloid exchanger + DX battery	Unit	KPI-502X4E	KPI-802X4E	KPI-1002X4E
Rated cooling capacity (recovery)	kW	5,32 (of which is recovered: 1.81)	7,96 (of which is recovered: 2.94)	10,83 (of which is recovered: 3.73)
Rated heating capacity (recovery)	kW	6,92 (of which is recovered: 2.12)	9,79 (of which is recovered: 3.49)	12,93 (of which is recovered: 4.43)
Exchange efficiency (high/medium/low speed)	%	74/77/78	75/76/78	78/81/83
Noise level (pressure) (high/medium/low speed)	dB(A)	32/30/29	34/33/32	36/33/31
Airflow (high/medium/low speed)	m^3/h	500/430/380	800/700/590	1000/820/740
Max static pressure (nominal airflow)	Pa	90/72/58	110/80/57	170/105/80
Static pressure	Pa	200	110	170
Dimensions (H x W x L)	mm	330 x 1435 x 920	385 x 1513 x 1015	385 x 1904 x 1295
Weight	kg	62	69	100
Power supply	-	1~230V 50Hz		
Compatibility OU 1x1	-	-	-	RAS-3HVNC1 (Available while stocks last)
Operating range	-	-5 ~ 46 °C (DB)(1)		
Filter	-	G3 (F7 optional)		

Installation of active KPI with VRF SIGMA, Set free mini, Utopia Prime

- Mixed operation (double flow ventilation active KPI and air/air indoor units),
- The connection rate is: max 30% active KPI and 70% air/air indoor unit.

(1) An electrical resistance and additional THM4 air intake sensor (optional accessory installed before the electrical resistance) must be installed when the temperature drops below -5°C(DB)

Compatible controls and accessories (see the tab VRF TWIN Controls p.243)

Wired remote control weekly

PC-ARFG-E

- These units are not suitable for installation in ERPs of the first group

11 TO 28 KW 10 TO 25 KW

DX kit

Air-conditioning unit.

The kit includes:

- 4 sensors with extenders (THM1: air inlet sensor and THM2: air outlet sensor. THM3 and THM4: sensors at liquid and gas lines).
- 1 electronic reducer box.
- 1 electric box.
- 1 shunt.

Not included:

- Remote control PC-ARFG-E.
- PCC-1A connectors.

Functions and features

- A “reducers/control box” kit that connects a Hitachi unit to a system with a DX battery (AHU, ventilation, air curtain, etc.) and manages it like a Hitachi indoor unit.
- Modular function up to 5 groups (with OU IVX PREMIUM only): the Master group keeps 4 sensors. The Slave groups only keep the gas and liquid sensors (battery tubes),
- Synchronized defrosting between the groups.
- Only the outdoor group RAS-XH(V)NP(1)E is authorized to work with double-flow AHUs with regulation on blowing.

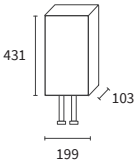
Mandatory accessories to provide on site

- Mandatory differential air pressure switch designed for DX KIT (not provided by Hitachi).
- Antifreeze safety thermostat designed for the DX kit for fresh air provision (not provided by Hitachi).

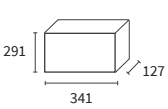
Important

- Do not stop ventilation through the DX battery while defrosting the outdoor units. You can add an electrical element to avoid blowing cooling air (not managed or sold by Hitachi).
- A 12Vcc relay (not sold by Hitachi) to serve the electrical element must be provided.
- A 12 Vcc relay (not sold by Hitachi) to select the heating/cooling mode is required in the event the AHU has inputs to select the heating/cooling mode,
- If the AHU has outputs for managing the mode (heating/heating), these must connect to the inputs (dry contact) of the outdoor unit.

DX kit

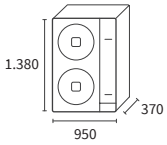


EXV-4.0E2
EXV-5.0E2
EXV-6.0E2



EXV-8.0E2
EXV-10.0E2

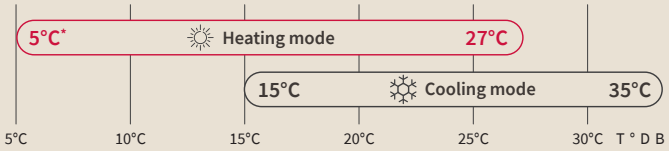
Outdoor units



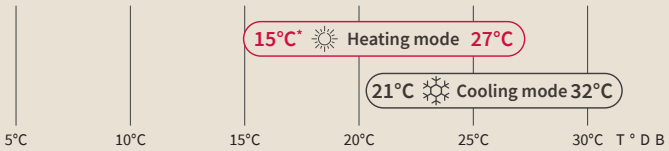
RAS-4XH(V)NP1E
RAS-5XH(V)NP1E
RAS-6XH(V)NP1E
RAS-8XHNPE
RAS-10XHNPE

Extended DX battery operating range

T° of DX battery air inlet
(Installation with unit IVX PREMIUM).
RAS-4~10XH(V)NP1E only.



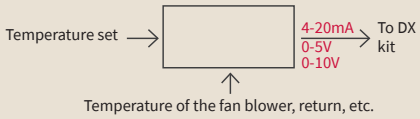
T° of DX battery air inlet
(Installation with IVX Prime, Utopia Prime, SET FREE and SIGMA).



Below these values, provide an electrical element or a heat recovery system upstream of the DX battery.

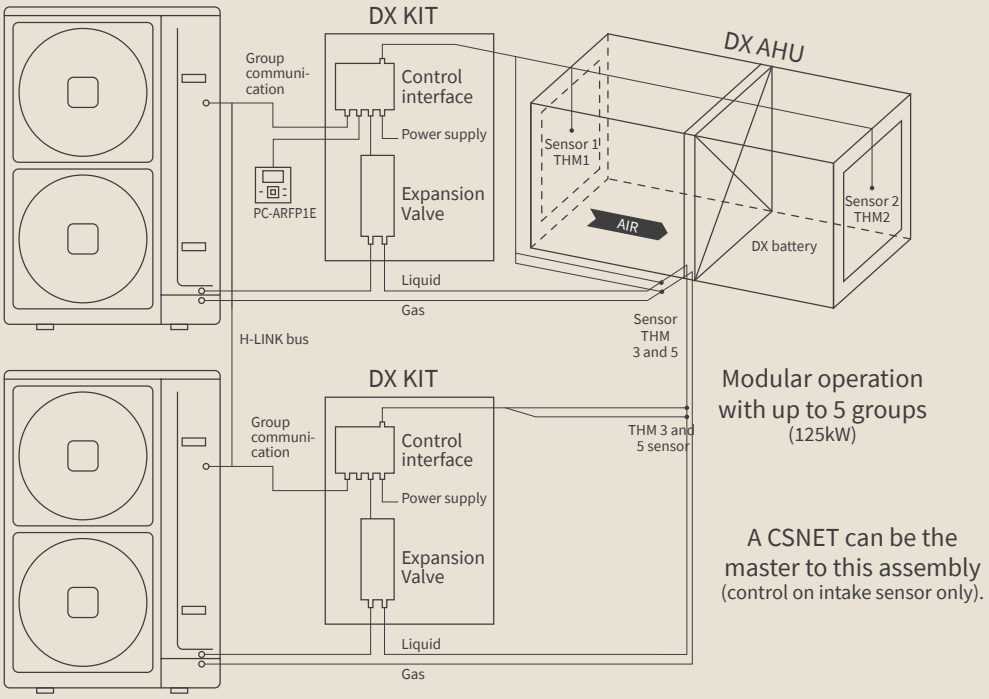
Optimal control based on blowing

Compatible with groups IVX PREMIUM RAS-4~10XH(V)NP1E only.
- Input 0-10V, 0-5V/4-20mA for external control.
- Control possible at the return or at the fan blower.
- Management via an external regulator with a 0-10V signal to precisely control the temperature of the fan blower (not supplied).



Control based on air intake only.

Compatible with groups IVX Prime, Utopia Prime and FREE Mini and SIGMA sets.
- Control based on air intake depending on air intake only.



Modular operation with up to 5 groups
(125kW)

A CSNET can be the master to this assembly
(control on intake sensor only).

Optimal defrosting

- Installation with 2 or 3 units: only one group in defrosting mode.
- Installation with 4 or 5 groups: 2 groups in defrosting mode and 3 units in use.

DX kit

Part number of DX KIT	Unit	EXV-3.0E2	EXV-4.0E2	EXV-5.0E2	EXV-6.0E2	EXV-8.0E2	EXV-10.0E2
Capacity Cooling DX Battery	kW	7.1	10.00	12.50	14.00	20.00	25.00
Capacity Heating DX Battery	kW	8.0	11.20	14.00	16.00	22.40	28.00

Control box	Unit	
Color	-	Natural Gray (Munsell 1.0Y8.5/0.5)
Dimensions (H x W x D)	mm	291 x 327 x 127
Weight	kg	3
Power supply	-	1~230 V 50hz
Max. current at fan outputs	A	3.5

Reducer box	Unit		
Dimensions (H x W x D)	mm	431 x 199 x 103	
Weight	kg	2.7	4.5
Pipe diameter (Liq.)	inches	3.8	
Remote control (not included)	-	PC-ARFP1E	

Outside unit	Cp	3	4.0	5.0	6.0	8.0	10.0
		RAS-3HVNC1 (Available while stocks last)	RAS-4XH(V)NP1E	RAS-5XH(V)NP1E	RAS-6XH(V)NP1E	RAS-8XHNPE	RAS-10XHNPE

COMPATIBILITY TABLE FOR AHU KITS WITH OUTDOOR UNITS

DX kit part no.	Outdoor units	Mode	DX battery power (kW)			DX battery capacity (L)			Airflows (m³/h)	
			Min	Name	Max	Min	Max	Max Outdoor unit X-Premium only	Min	Max
EXV-3.0E2	RAS-3HVNC1 (Available while stocks last)	cooling Heating	5.7 6.4	7.1 8.0	9.0 11.2	1.03	1.57	-	750	1800
EXV-4.0E2	RAS-4XH(V)NP1E	cooling Heating	8 9	10 11.2	11.2 12.5	1.51	2.37	4.56	1200	2160
EXV-5.0E2	RAS-5XH(V)NP1E	cooling Heating	10 11.2	12.5 14	14 16	1.92	2.37	4.56	1380	2490
EXV-6.0E2	RAS-6XH(V)NP1E	cooling Heating	11.2 12.8	14 16	16 18	1.92	2.92	5.11	1500	2550
EXV-8.0E2	RAS-8XHNPE	cooling Heating	16 17.9	20 22.4	22.4 25	2.92	3.89	6.93	3540	4680
EXV-10.0E2	RAS-10XHNPE	cooling Heating	20 22.4	25 28	28 31.5	3.89	4.76	10.73	4080	5340

The capacity of the heat exchanger must match the specified rated capacity of each DX KIT under the following temperature conditions. Failure to comply with the heat exchanger's capacity can result in a system malfunction. Data applies under the following conditions:

Rated conditions	Heating mode	Rated conditions	Cooling mode
T° of DX battery air inlet	20°C(DB)	T° of DX battery air inlet	27°C(DB)/19°C(WB)
T° outside	7°C(DB)/6°C(WB)	T° outside	35°C(DB)
DX battery condensation temperature	40°C ~ 45°C	DX battery evaporation temperature	6°C
DX battery cooling temperature	3°C	DX battery heating temperature	5°C

(DB): dry bulb - (WB): wet bulb

Combination with VRF:
- Control based on air intake only.
- Installing the VRF SIGMA single-split unit + DX KIT is not allowed.
- It is possible to install several DX KITs (DX KIT only) with a SIGMA unit. But the maximum connection rate allowed is 100%.
- With a combined installation of an DX KIT + Air/Air indoor units with a VRF SIGMA, the connection rate is: 30% DX KIT and 70% Air/Air.

Outdoor units specific to DX Kit

Model	Unit	RAS-4XH(V)NP1E	RAS-5XH(V)NP1E	RAS-6XH(V)NP1E	RAS-8XHNPE	RAS-10XHNPE
Performance, cooling						
Capacity, cooling (min-max)	kW	10.0 (4.5-11.2) (4.50 - 11.20)	12.5 (5.7-14.0) (5.70 - 14.00)	14.0 (6.0-16.0) (6.00 - 16.00)	20.0 (8.0-22.4) (8.00 - 22.40)	25.0 (10.0-28.0) (10.00 - 28.00)
Absorbed capacity cooling	kW	1.99	3.11	3.94	5.36	7.88
EER	-	4.68	3.81	3.41	3.56	3.07
Operating ranges Cooling outdoor unit	°C	-5 /+46				
Performance, heating						
Capacity Heating (min-max)	kW	11.2 (5.0-14.0) (5.00 - 14.00)	14.0 (5.0-18.0) (5.00 - 18.00)	16.0 (5.0-20.0) (5.00 - 20.00)	22.4 (6.3-28.0) (6.30 - 28.00)	28.0 (8.0-35.0) (8.00 - 35.00)
Absorbed capacity heating	kW	2.02	2.91	3.61	5.06	7.03
COP	-	5.16	4.55	4.23	4.21	3.84
Operating ranges Heating outdoor group	-	-20 /+15				
Technical features						
Airflow (cooling)	m^3/h	4,800	5,400	6,000	7,620	8,040
Noise level in Cooling mode (night-time pressure)	dB(A)	47 (43)	48 (44)	48 (45)	57 (55)	58 (56)
Noise level in Heating mode	dB(A)	49	50		59	58 (56)
Sound power	dB(A)	63	64	65	76	
Net weight	kg	103			136	138
Dimensions (HxWxD)	mm	1380 x 950 x 370				
Compressor	-	Scroll Inverter				
Cooling features outdoor unit						
Min. pipe length	m	5				
Max. length without additional load	m	30				
Initial refrigerant fill	kg	4.1	4.2	4.2	5.3	6
Additional load	Kg	calculated based on the method indicated in the installation technical documentation(1)				
Max. pipe length (additional refrigerant load required)	m	75			100	
Reducer installation	-	5 m MAX of DX battery				
Max. drop (outdoor unit above/below)	m	30/20				
Refrigerant	-	R410A				
Technical features						
Power supply	-	3N ~ 400V 50Hz (1 ~ 230V 50Hz)			3N ~ 400V 50Hz	
Maximum current	A	14.0 (30.5)		16.0 (30.5)	24	
Cable section (EN 60 335-1)	mm^2	5 x 2.5 (3 x 6.00)			5 x 6.00	

(1) The values of "Additional refrigerant refill needed" are determined on a case by case basis. To find out these values, see the "DX interface refrigerant refill and max. pipe lengths" section listed in the Technical Catalog. An Excel file is available to make this calculation (available from your HITACHI contact).

Compatible controls and accessories (see the tab VRF TWIN Controls p.243)

Wired remote control weekly

PC-ARFG-E

Adjustable input/output contact connections

PCC-1A

Find out the meaning of our icons

The different icons are designed to facilitate your choice through an immediate display of the different technologies applied to each single product.

Heating
Operation in heating mode.

Cooling
Operation in cooling mode.

Domestic Hot Water (DHW)
Operation in mode DHW production.

Renewable energy
Solution that uses renewable energy without direct CO2 emissions.

A +++
The highest classification energy certifiable by Eurovent.

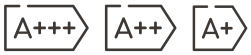
Smart Cascade
Automatically adjusts and fits operation in base to the thermal request.

Small size
Compact and lightweight systems for easy installation.

Silent
Low level of noise.

Energy saving
The back-up resistor does not activates at less than temperatures extreme exteriors.

80ºC
Yutaki S80 generates ACS at a temperature up to 80 ° C.



Energy rating
High performance systems.

Presence sensor
It detects human activity and allows greater energy savings.

Consumption control
Control of consumption in heating and cooling of the last two months.

Automatic filter cleaning
Filter self-cleaning robot integrated into the equipment.

airCloud Home
Compatibility with the airCloud Home APP.

H-LINK

Integrated H-Link
H-Link communication system via centralized control integrated into the system.

H-Link compatibility
Compatible with the system of H-Link communication.

4 way swing
Distributes the air in 4 directions for better comfort.

Programmable
Schedule the operation of the system with weekly logic.

Compatible with Multizone
Compatible indoor unit with Hitachi Multizone outdoor units.

Free cooling
Free cooling with the contribution of external air.

Adaptable static pressure
Head adaptable to use with ducts of different lengths.

CO2 sensor available
Ventilation controlled by CO2 sensor for good air quality.

Hitachi exclusive
Hitachi exclusive solution.

Remote expansion valve
The expansion valve can be remote controlled with respect to the unit, to minimize noise of the refrigerant flow.

Constant air flow
The fan motor fits the pressure to keep a constant flow rate.

Compact
The 4-way cassette integrates in false ceilings with European standard 600x600.

Step01
Compressor speed adjustable in frequency in steps of 0.1 Hz.

Independent control of the fins
Any deflector can be individually controlled.

Adaptable
Allows you to edit easily the air delivery.

Guaranteed comfort
The new deflector guarantees the best comfort.

2-pipe / 3-pipe compatible
Two or three pipe operation in high temperature mode.

Compatible with all indoor units
Complete flexibility connection with Hitachi outdoor units.

Independent control
Each indoor unit can individually regulate its own temperature.

Independent control of the flaps
Allows individual adjustment of the angle of incidence of the deflectors.

HIGH speed H
Extra super high speed for rooms of great height.

Prepared for buildings Passivhouse.

Air barriers
Operation with air barriers.

Energy recovery
It produces hot water without energy expenditure, through heat recovery.

Hitachi news
Identify the new ones products.

Wide range of temperatures of operation
The system keeps its own performance over a wide range outside temperature.

Refrigerants
Product that uses refrigerant R32 or R410A or R513a or R134a

Eurovent certificate
Product present inside of the certification program Eurovent.

Keymark
European brand that certifies compliance of the product to European standards.

HITACHI

.air

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Johnson Controls Hitachi Air Conditioning Europe SAS

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