



VRF IVX Centrifugal



Ideal solution for city centers

Installed in suspended ceilings, units are invisible from the outside. Perfect for retail units and buildings in areas with restrictive local planning regulations such as listed buildings.

Easy to position

Suspended single-block system: less footprint. Air intake and air outlet can be adjusted to suit the site's needs (same side or at right angle). Available static pressure up to 120 Pa. The air intake and outlet grilles are also interchangeable, increasing your installation options in any part of the building. No need to obtain permits to shut the road for a crane lift.

More comfort

The IVX Centrifugal VRF can provide air-conditioning for up to 6 different zones, all of which can be individually controlled depending on the needs of the occupants. The premium compressor installed on these units provides smart defrosting. This lengthens the heating period and ensures a more comfortable environment.

Silent

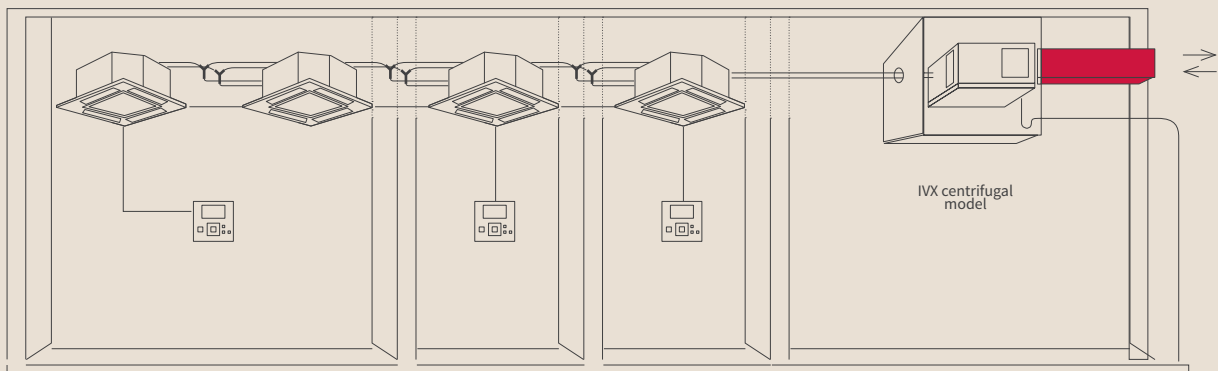
Fans are equipped with a variable frequency driver, which achieves sound levels unmatched on the market.

Compatible with all SYSTEM FREE indoors and controls:

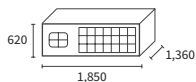
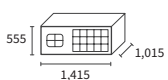
From individual hard wired controls to central controls and communication interfaces for direct integration into a BMS.

Installation

You can opt for 2 branches with up to 4 indoor units or up to 6 indoor units on one single line. Connect up to a maximum of 5 different indoor units for RASC-(4-6)HNPE or 6 indoor units for RASC-(8/10) HNPE. Also compatible with DX KIT.



Outdoor units



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

RASC-8HNPE
RASC-10HNPE

Performance, cooling	Unit	RASC-4HNPE	RASC-5HNPE	RASC-6HNPE	RASC-8HNPE	RASC-10HNPE
Nominal Cooling capacity	kW	10.00	12.50	14.00	20.00	24.00
Rated power input 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 class	-	A				
Working range in Cooling mode	°C	-5°C / +46°C (DB)				

Performance, heating

Nominal Heating capacity	kW	11.20	14.00	15.50	22.40	26.00
Rated power input 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 class	-	A				
Working range in Heating mode	°C	-15°C / +15.5°C (WB)				

Technical features

Airflow (cooling)	m ³ /h	3300	3600		6900	
Available static 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 mode (night mode)	dB(A)	52 (48)		53 (49)	55 (51)	56 (52)
Net weight	kg	192		300	303	
Dimensions (H x L x D)	mm	555 x 1415 x 1015			620 x 1850 x 1360	
Diameter of pipes (Liq / Gas)	inches	3/8 - 5/8			3/8 - 1 1/8	1/2 - 1 1/8
Compressor	-	SCROLL				
Grille dimension (air intake)	-	444 x 642			509 x 925	
Grille dimension (air outlet)	-	288 x 334			337 x 398	
Min. power of indoor unit	Hp	0.8				
Number of connectible units (min - max)	-	1 - 5			1 - 6	

Refrigeration characteristics

Refrigerant	-	R410A				
Initial refrigerant charge	kg	4.1	4.2		5.7	6.2
Max. length / Additional charge	m/g/m	75 / see technical documentation			100 / see technical documentation	
Pre-charged for	m	30				
Max. level difference (outdoor unit above)	m	30 / 20				

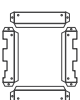
Electrical features

Power supply	-	400V / 3 Ph + N / 50Hz				
Max. current	A	14.1		16.0	24.7	
Recommended fuse size	A	20			32	
Cable width (EN 60 335-1) ⁽¹⁾	mm ²	5 x 4.00			5 x 6.00	
Indoor/outdoor connection (shielded)	mm ²	2 x 0.75				

⁽¹⁾ 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.

* The RASC-4HNPE, follows EcoDesign ErP Lot10. Its seasonal performance follows standard EN14825 (2013). HITACHI Centrifugal units are VRF-certified, so the specified performance applies for units only.

Controls and compatible accessories (see the tab VRF TWIN controls)



Fan duct accessory for optional air outlet position
FD-RASC46
FD-RASC810



Multi kit
See next page

Installation rules

VRF IVX Centrifugal

Quantity of indoor units

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

Permitted connection ratio

External 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

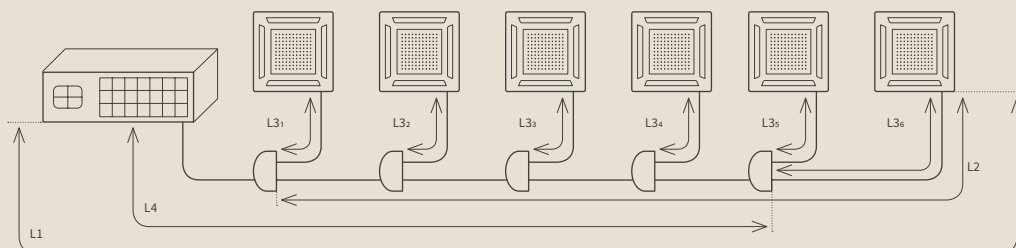
The most powerful unit in the combination	0.80	1.00	1.30	1.50	1.80	2.00	2.30	2.50	3.00	4.00	5.00	6.00
The least powerful unit in the combination	0.80					1.00			1.30	1.50	1.80	2.00

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

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

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



Design rules for refrigeration piping

External 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. level difference from outdoor unit to indoor unit (H) (outdoor unit above/below)		m			30/20		
Max. level difference from indoor unit to indoor unit		m			10		
Max. level difference 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 furthest 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	inches	3/8 - 5/8	3/8* - 1 1/8 1/2 - 1 1/8

**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 multikit - indoor unit	Liq/Gas	inches	1/4 - 1/2	1/4 - 5/8	3/8 - 5/8	3/8 - 3/4	3/8 - 7/8

