FS(V)N(Y)3E / FSNM1

SET FREE

COMMERCIAL PREMISES AND OFFICES: UP TO 12 INDOOR UNITS

COP **4.24**

EER **4.12**

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

Functions

- **UP TO 12 INDOOR UNITS**
- **INDEPENDENT CONTROL**
- Indoor units from 0.6 (switched) to **10HP**
- Low sound level: **49 dB** (size 4)
- Drop between indoor units of **15m:** ability to use over 4 levels
- Connection ratio from 50 to **130%**
- **INTELLIGENT DEMAND MANAGEMENT** (Avoids peaks in consumption) and stores the **last 15 events before fault** (quick troubleshooting).

Design

- All of the Hitachi indoor units are compatible.

Category leader

-20% weight

-40% volume

Compared to a conventional model

SYSTEM FREE INDOORS

CASSETTE

FLOOR-MOUNTED

CEILING SUSPENDED

DUCTED

WALL-MOUNTED

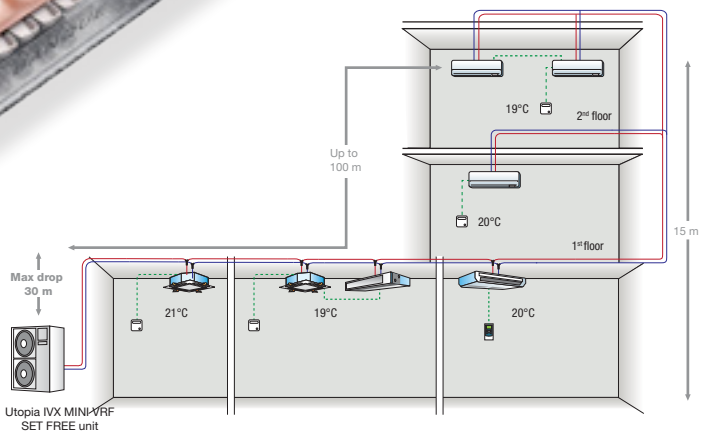
FS(V)N(Y)3E / FSNM1

VRF Mini / Side flow 2-pipe

Set Free VRF Systems

COMPATIBLE WITH SMALL UNITS

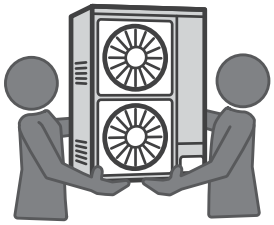
Can connect with new 0.6HP



Installation

The Set Free FS(V)N(Y)3E / FSNM1 includes a distinct characteristic which makes it possible to implement complex networks (VRF type “network architecture”).

Ease of installation



COMPACT AND EFFICIENT

The floor area required for the Set Free FS(V)N(Y)3E /FSNM1 outdoor unit range varies according to the model and is only between 0.35m² and 0.43m². Thin profile (between 37cm and 39cm), its volume is reduced by approximately 40% compared to conventional models. Consequently, the installation only requires a little space:

The performance of SET FREE FS(V)N(Y)3E units is unmatched in m²: up to 65% more power output for the same surface area.

Wide range

HP	4	5	6	8	10	12
SET FREE FS(V)N(Y)3E *(page 176)*	1/3	1/3	1/3			
SET FREE FSNM1 *(page 177)*				3	3	3

1: 1 phase
3: 3 phase

Outdoor Units

SET FREE Mini

Set Free VRF Systems

		RAS-4FSVN3E	RAS-4FSNY3E	RAS-5FSVN3E	RAS-5FSNY3E	RAS-6FSVN3E	RAS-6FSNY3E
Power supply		230V / 1Ph / 50Hz	400V / 3Ph / 50Hz	230V / 1Ph / 50Hz	400V / 3Ph / 50Hz	230V / 1Ph / 50Hz	400V / 3Ph / 50Hz
Nominal Cooling Capacity (min - max)(1)	kW	11.2 (5.6 - 11.2)	11.2 (5.6 - 11.2)	14.0 (7.0 - 14.0)	14.0 (7.0 - 14.0)	15.5 (7.8 - 15.5)	15.5 (7.8 - 15.5)
Nominal Heating Capacity (min - max)(2)	kW	12.5 (6.3 - 12.5)	12.5 (6.3 - 12.5)	16.0 (8.0 - 16.0)	16.0 (8.0 - 16.0)	18.0 (9.0 - 18.0)	18.0 (9.0 - 18.0)
Minimum - Maximum Indoor Units		1 - 8*	1 - 8*	1 - 10*	1 - 10*	1 - 12*	1 - 12*
Minimum - Maximum connected capacity		50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%
Nominal Load Efficiency EER / COP(3)		4.07 / 4.13	4.12 / 4.17	3.61 / 3.81	3.65 / 3.85	3.32 / 3.67	3.35 / 3.71
Energy Class (Cool/Heat)		A / A	A / A	A / A	A / A	A / A	A / A
Noise level cooling (sound pressure) (night mode)(4)	dB(A)	49 (45)	49 (45)	51 (47)	51 (47)	51 (48)	51 (48)
Noise level heating (sound pressure)(4)	dB(A)	51	51	53	53	53	53
Noise level (sound power)(5)	dB(A)	66	66	68	68	68	68
Air flow (Cooling / Heating)	m^3/h	5400	5400	5400	5400	6000	6000
Dimensions (H x W x D)	mm	1380x950x370	1380x950x370	1380x950x370	1380x950x370	1380x950x370	1380x950x370
Weight	kg	100	102	100	102	100	102
Piping diameter (Liquid / Gas)	Inch	3/8 / 5/8	3/8 / 5/8	3/8 / 5/8	3/8 / 5/8	3/8 / 5/8	3/8 / 5/8
	mm	9.53 / 15.88	9.53 / 15.88	9.53 / 15.88	9.53 / 15.88	9.53 / 15.88	9.53 / 15.88
Total Piping Length / Height Difference	m	125 / 30	125 / 30	135 / 30	135 / 30	135 / 30	135 / 30
Max Piping Length (outdoor to indoor)	m	75	75	75	75	75	75
Current Quantity of Refrigerant	kg	3.6	3.6	3.6	3.6	3.6	3.6
Chargeless / Additional Refrigerant Charge	m / g/m	calculate	calculate	calculate	calculate	calculate	calculate
Recommended fuse size	A	32	16	32	16	32	16
Starting current	A	<10	<10	<10	<10	<10	<10
Running current (cooling / heating)	A	12.2 / 13.4	4.1 / 4.6	17.2 / 18.6	5.8 / 6.3	20.7 / 21.7	7.0 / 7.4
Working Range (cooling / heating)	ºC	-5ºC~46(db)ºC / -20ºC~15(wb)ºC					
Refrigerant / GWP		R410a / 1975	R410a / 1975	R410a / 1975	R410a / 1975	R410a / 1975	R410a / 1975
Compressor type		Scroll	Scroll	Scroll	Scroll	Scroll	Scroll

* Restrictions apply, see Technical Catalogue

(1) Nominal Cooling: Internal temperature 27°C db (19°C wb) - Ambient 35°C
(2) Nominal Heating: Internal temperature 20°C - Ambient 7°C db (6°C wb)
(3) Nominal load efficiency (Cooling 35°C/27°C, Heating 7°C/20°C)
(4) Sound pressure level is measured at 1.0m from the unit front surface and 1.5m from floor level (Measured in an anechoic chamber)
(5) Sound power level is the A-weighted sound power level [dB(A)] measured at standard rated conditions for the "cooling" mode operation in accordance to EN12102.

More information on controls and options on pages 257-272