

Hitachi Air Conditioning

Engineered for tomorrow.

SYSTEM
FREE

-20
+15

-5
+43

DC
INVERTER

Set Free
VRF Systems

FSXNH modular 2-pipe or 3-pipe

Set Free VRF 2-pipe heat pump or 3-pipe heat recovery available from a single unit to adapt to customer requirements. Each outdoor unit is lightweight and modular which – combined with long piping runs and improved height difference – means Set Free VRF can meet any design brief.



Features and Benefits

- ☑ Cooling capacities from 14kW to 100kW
- ☑ Heating capacities from 16kW to 112kW
- ☑ Market-leading energy efficiency
- ☑ Low noise – select from 3 settings with up to 8dB noise reduction
- ☑ 2-pipe heat pump or 3-pipe heat recovery (requires CH Box)
- ☑ Connectable to up to 59 system free indoor units (dependant on model)
- ☑ Total maximum pipe run of 1000 metres
- ☑ Japanese Energy Efficiency and Conservation Award 2013 winner.



Awarded Enhanced Capital Allowance (ECA) scheme status

The ECA Scheme is part of the Government's programme of measures to manage climate change which gives businesses tax relief for investing in energy-efficient, accredited products - making it possible to claim a 100% first year capital allowance against the taxable profits in the period of investment (rather than claiming on a reducing balance).

SYSTEM
FREE

Flexibility built in

Hitachi's System Free indoor units can be combined with outdoor units from either our Utopia splits or Set Free VRF ranges for ultimate flexibility.

Changeover Boxes

Hitachi Changeover (CH) Boxes are compatible with the Set Free heat recovery systems and enable a change from 2-pipe heat pump and 3-pipe heat recovery on our FSXN and FSXNH products as customer requirements change. Installations are quick and simple as the strainer is installed at the manufacturing stage and piping connections are reduced from 5 down to 3. The electrical box can be positioned at either side of the CH Box for easier servicing.

CH Boxes		CH-6.0N1	CH-10.0N1
Power supply		230V / 1Ph / 50Hz	230V / 1Ph / 50Hz
Nominal capacity	HP	HP ≤ 6	6 < HP ≤ 10
Maximum number of indoor units	-	7	8
Electricity demand	W	20	20
Dimensions (H x W x D)	mm	191x301x214	191x301x214
Weight	Kg	7	7
Piping diameter - Outdoor Unit to CH Box (High/Low Pressure)	Inch	(1/2 - 5/8) / (5/8 - 3/4)	(5/8 - 3/4) / (3/4 - 7/8)
	mm	(12.7 - 15.88) / (15.88 - 19.05)	(15.88 - 19.05) / (19.05 - 22.2)
Piping diameter - From Indoor Unit	Inch	1/2 - 5/8	3/4 - 7/8
	mm	12.7 - 15.88	19.05 - 22.2
Recommended fuse size	A	5	5

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HITACHI
Inspire the Next



RAS FSXNH

SYSTEM
FREE



Set Free
VRF Systems

Hi Efficiency Modular 2 or 3-Pipe

Outdoor Unit		RAS 5FSXNH	RAS 6FSXNH	RAS 8FSXNH	RAS 10FSXNH	RAS 12FSXNH	RAS 12FSXNH-P	RAS 14FSXNH
Outdoor Combination				-	-	-	6 + 8	6 + 8
Power supply		400V / 3Ph / 50Hz						
Nominal Cooling Capacity	kW	14.0	16.0	22.4	28.0	33.5	33.5	40.0
Nominal Heating Capacity	kW	16.0	18.0	25.0	31.5	37.5	37.5	45.0
UK Cooling Capacity	kW	12.0	13.8	19.3	24.1	28.8	28.8	34.4
Maximum Indoor Units ⁽¹⁾		8	9	13	16	19	19	23
Minimum - Maximum connected capacity		50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%
Nominal Load Efficiency EER / COP ⁽²⁾		4.49 / 4.80	4.56 / 4.58	4.66 / 4.67	4.34 / 4.67	3.93 / 4.11	4.70 / 4.73	4.58 / 4.59
Energy Class (Cool/Heat)		A / A	A / A	A / A	A / A	A / A	A / A	A / A
Dimensions (H / W / D)	mm	1720 / 950 / 765		1720 / 1210 / 765			1720 / 2160 / 765	
Weight	Kg	215	215	260	260	260	215 + 260	215 + 260
Piping diameter (Liquid / Gas x 2)	Inch	3/8 / (5/8 / 1/2)	3/8 / (3/4 / 5/8)		3/8 / (7/8 / 3/4)		1/2 / (1 1/8 / 7/8)	
	mm	9.52 / (15.88 / 12.70)	9.52 / (19.05 / 15.88)		9.53 / (22.20 / 19.05)		12.70 / (28.60 / 22.2)	
Total Piping Length / Height Difference ⁽⁴⁾	m	1000 / 90	1000 / 90	1000 / 90	1000 / 90	1000 / 90	1000 / 50	1000 / 50
Max Piping Length (outdoor to indoor)	m	165	165	165	165	165	165	165
Working Range (cooling / heating)	°C	-5°C~43(db)°C / -20°C~15(wb)°C						

Outdoor Unit		RAS 16FSXNH	RAS 18FSXNH	RAS 20FSXNH	RAS 22FSXNH	RAS 24FSXNH	RAS 24FSXNH-P	
Outdoor Combination		8 + 8	8 + 10	8 + 12	10 + 12	12 + 12	8 + 8 + 10	
Power supply		400V / 3Ph / 50Hz						
Nominal Cooling Capacity	kW	45.0	50.0	56.0	61.5	69.0	69.0	
Nominal Heating Capacity	kW	50.0	56.0	63.0	69.0	77.5	77.5	
UK Cooling Capacity	kW	38.7	43.0	48.2	52.9	59.3	59.3	
Maximum Indoor Units ⁽¹⁾		26	26	33	36	40	40	
Minimum - Maximum connected capacity		50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%	
Nominal Load Efficiency EER / COP ⁽²⁾		4.65 / 4.67	4.48 / 4.68	4.19 / 4.31	4.11 / 4.35	3.91 / 4.09	4.64 / 4.64	
Energy Class (Cool/Heat)		A / A	A / A	A / A	A / A	A / A	A / A	
Dimensions (H / W / D)	mm	1720 / 2420 / 765						
Weight	Kg	260 + 260	260 + 260	260 + 260	260 + 260	260 + 260	260 + 260 + 260	
Piping diameter (Liquid / Gas x 2)	Inch	1/2 / (1 1/8 / 7/8)	5/8 / (1 1/8 / 7/8)			5/8 / (1 1/8 / 1 1/8)	5/8 / (1 1/8 / 1 1/8)	3/4 / (1 1/4 / 1 1/8)
	mm	12.70 / (28.60 / 22.2)	15.88 / (28.60 / 22.2)			15.88 / (28.60 / 28.60)		19.05 / (31.75 / 28.60)
Total Piping Length / Height Difference ⁽⁴⁾	m	1000 / 50	1000 / 50	1000 / 50	1000 / 50	1000 / 50	1000 / 50	
Max Piping Length (outdoor to indoor)	m	165	165	165	165	165	165	
Working Range (cooling / heating)	°C	-5°C~43(db)°C / -20°C~15(wb)°C						

Outdoor Unit		RAS 26FSXNH	RAS 28FSXNH	RAS 30FSXNH	RAS 32FSXNH	RAS 34FSXNH	RAS 36FSXNH
Outdoor Combination		8 + 8 + 10	8 + 8 + 12	8 + 10 + 12	8 + 12 + 12	10 + 12 + 12	12 + 12 + 12
Power supply		400V / 3Ph / 50Hz					
Nominal Cooling Capacity	kW	73.0	80.0	85.0	90.0	95.0	100.0
Nominal Heating Capacity	kW	82.5	90.0	95.0	100.0	106.0	112.0
UK Cooling Capacity	kW	62.8	68.8	73.1	77.4	81.7	86.0
Maximum Indoor Units ⁽¹⁾		43	47	50	53	56	59
Minimum - Maximum connected capacity		50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%
Nominal Load Efficiency EER / COP ⁽²⁾		4.53 / 4.66	4.30 / 4.39	4.24 / 4.42	4.09 / 4.24	4.05 / 4.27	3.93 / 4.11
Energy Class (Cool/Heat)		A / A	A / A	A / A	A / A	A / A	A / A
Dimensions (H / W / D) ⁽⁵⁾	mm	1720 / 3630 / 765					
Weight	Kg	260 + 260 + 260	260 + 260 + 260	260 + 260 + 260	260 + 260 + 260	260 + 260 + 260	260 + 260 + 260
Piping diameter (Liquid / Gas x 2)	Inch	3/4 / (1 1/4 / 1 1/8)	3/4 / (1 1/4 / 1 1/8)	3/4 / (1 1/4 / 1 1/8)	3/4 / (1 1/4 / 1 1/8)	3/4 / (1 1/4 / 1 1/8)	3/4 / (1 1/2 / 1 1/8)
	mm	19.05 / (31.75 / 28.60)					
Total Piping Length / Height Difference ⁽⁴⁾	m	1000 / 50	1000 / 50	1000 / 50	1000 / 50	1000 / 50	1000 / 50
Max Piping Length (outdoor to indoor)	m	165	165	165	165	165	165
Working Range (cooling / heating)	°C	-5°C~43(db)°C / -20°C~15(wb)°C					

⁽¹⁾ Maximum Indoor Units - restrictions apply see Technical Catalogue

⁽²⁾ Nominal load efficiency (Cooling 35°C/27°C, Heating 7°C/20°C) Outdoor input only

⁽³⁾ 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

⁽⁴⁾ Restrictions apply, please consult the Technical Catalogue

⁽⁵⁾ Includes 20mm between each outdoor unit