

Hitachi Air Conditioning

Engineered for tomorrow.

SYSTEM
FREE

-20
+15

-5
+43

DC
INVERTER

Set Free
VRF Systems

FSXN 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 22.4kW to 150kW
- ❏ Heating capacities from 25kW to 165kW
- ❏ 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
- ❏ Cold Draft Prevention.

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.

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.

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



SYSTEM
FREE



Set Free
VRF Systems

Modular 2 or 3-Pipe

Outdoor Unit		RAS 8FSXN	RAS 10FSXN	RAS 12FSXN	RAS 14FSXN	RAS 16FSXN	RAS 18FSXN
Outdoor Combination				-	-	-	-
Power supply		400V / 3Ph / 50Hz					
Nominal Cooling Capacity	kW	22.4	28.0	33.5	40.0	45.0	50.0
Nominal Heating Capacity	kW	25.0	31.5	37.5	45.0	50.0	56.0
UK Cooling Capacity	kW	19.3	24.1	28.8	34.4	38.7	43.0
Maximum Indoor Units ⁽¹⁾		13	16	19	23	26	26
Minimum - Maximum connected capacity		50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%
Nominal Load Efficiency EER / COP ⁽²⁾		3.85 / 4.17	3.79 / 4.11	3.41 / 3.6	3.25 / 3.89	3.23 / 3.9	3.37 / 3.81
Energy Class (Cool/Heat)		A / A	A / A	A / A	A / A	A / A	A / A
Dimensions (H / W / D)	mm	1720 / 950 / 765			1720 / 1210 / 765		
Weight	Kg	210	210	210	295	295	315
Piping diameter (Liquid / Gas x 2)	Inch	3/8 / (3/4/5/8)	3/8 / (7/8/3/4)	1/2 / (1 1/8/7/8)	1/2 / (1 1/8/7/8)	1/2 / (1 1/8/7/8)	5/8 / (1 1/8/7/8)
	mm	9.52 / (19.05/15.88)	9.53 / (22.20/19.05)	12.70 / (28.60/22.2)	12.70 / (28.60/22.2)	12.70 / (28.60/22.2)	15.88 / (28.60/22.2)
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					

	RAS 20FSXN	RAS 22FSXN	RAS 24FSXN	RAS 26FSXN	RAS 28FSXN	RAS 30FSXN	RAS 32FSXN	RAS 34FSXN	RAS 36FSXN
	8 + 12	8 + 14	10 + 14	12 + 14	14 + 14	14 + 16	16 + 16	16 + 18	18 + 18
	400V / 3Ph / 50Hz								
	56.0	61.5	69.0	73.0	80.0	85.0	90.0	95.0	100.0
	63.0	69.0	77.5	82.5	90.0	95.0	100.0	106.0	112.0
	48.2	52.9	59.3	62.8	68.8	73.1	77.4	81.7	86.0
	33	36	40	43	47	50	53	56	59
	50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%
	3.58 / 3.81	3.62 / 4.04	3.37 / 3.89	3.38 / 3.75	3.25 / 3.89	3.24 / 3.90	3.23 / 3.90	3.30 / 3.85	3.37 / 3.81
	A / A	A / A	A / A	A / A	A / A	A / A	A / A	A / A	A / A
	1720 / 1920 / 765	1720 / 218 / 765			1720 / 2440 / 765			1720 / 2440 / 765	
	210 + 210	210 + 295	210 + 295	210 + 295	295 + 295	295 + 295	295 + 295	295 + 315	315 + 315
	5/8 / (1 1/8/7/8)	3/8 / (3/4/5/8)	3/8 / (7/8/3/4)	1/2 / (1 1/8/7/8)	1/2 / (1 1/8/7/8)	1/2 / (1 1/8/7/8)	3/4 / (1 1/4/11/8)	3/4 / (1 1/4/11/8)	3/4 / (1 1/4/11/8)
	15.88 / (28.60/22.2)	15.88 / (28.60/28.60)	15.88 / (28.60/28.60)	19.05 / (31.75/28.60)	19.05 / (31.75/28.60)	19.05 / (31.75/28.60)	19.05 / (31.75/28.60)	19.05 / (31.75/28.60)	19.05 / (31.75/28.60)
	1000 / 50	1000 / 50	1000 / 50	1000 / 50	1000 / 50	1000 / 50	1000 / 50	1000 / 50	1000 / 50
	165	165	165	165	165	165	165	165	165
	-5°C~43(db)°C / -20°C~15(wb)°C								

	RAS 38FSXN	RAS 40FSXN	RAS 42FSXN	RAS 44FSXN	RAS 46FSXN	RAS 48FSXN	RAS 50FSXN	RAS52FSXN	RAS 54FSXN
	12 + 12 + 14	12 + 12 + 16	12 + 12 + 18	12 + 16+ 18	12 + 18+ 18	XX + 18	14 + 18+ 18	16 + 18+ 18	18 + 18+ 18
	400V / 3Ph / 50Hz								
	109.0	112.0	118.0	125.0	132.0	136.0	140.0	145.0	150.0
	118.0	125.0	132.0	140.0	145.0	150.0	155.0	160.0	165.0
	93.7	96.3	101.5	107.5	113.5	117.0	120.4	124.7	129.0
	64	64	64	64	64	64	64	64	64
	50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%
	3.29 / 3.87	3.34 / 3.71	3.32 / 3.65	3.27 / 3.75	3.16 / 3.71	3.24 / 3.74	3.33 / 3.98	3.32 / 3.98	3.37 / 4.01
	A / A	A / A	A / A	A / A	B / A	A / A	A / A	A / A	A / A
	1720 / 3150 / 765			1720 / 3410 / 765			1720 / 3670 / 765		
	210 + 210 + 295	210 + 210 + 295	210 + 210 + 315	210 + 295 + 315	210 + 295 + 315	210 + 315 + 315	295 + 315 + 315	295 + 315 + 315	315 + 315 + 315
	3/4 / (1 1/2/11/4)	3/4 / (1 1/2/11/4)	3/4 / (1 1/2/11/4)	3/4 / (1 1/2/11/4)	3/4 / (1 1/2/11/4)	3/4 / (1 1/2/11/4)	3/4 / (1 1/2/11/4)	3/4 / (1 1/2/11/4)	3/4 / (1 1/2/11/4)
	19.05 / (38.10/31.75)	19.05 / (38.10/31.75)	19.05 / (38.10/31.75)	19.05 / (38.10/31.75)	19.05 / (38.10/31.75)	19.05 / (38.10/31.75)	19.05 / (38.10/31.75)	19.05 / (38.10/31.75)	19.05 / (38.10/31.75)
	1000 / 50	1000 / 50	1000 / 50	1000 / 50	1000 / 50	1000 / 50	1000 / 50	1000 / 50	1000 / 50
	165	165	165	165	165	165	165	165	165
	-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