



PROJECT VRF R410A FULL DC INVERTER

EFFICIENCY AND EASE OF INSTALLATION



Thanks to its continued commitment to technological research and its long experience in the heating/cooling systems market in Italy and Europe, Hokkaido has introduced the PROJECT VRF R410A line, a product that is a candidate for a leading role in the VRF systems market.

Efficiency, reliability and **applicable flexibility** are the quality solutions that the XRV systems offer for the various applicative requirements of installers, designers and final customers.

PROJECT VRF R410A FULL DC INVERTER



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PROJECT VRF R410A FULL DC INVERTER - LINE UP

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XRV MULTI SYSTEM Outdoor heat pump units - 2 pipes

XRV PREMIUM MODULAR



8-12HP



14-22HP

8HP HCSU 2525 XRV-P	10HP HCSU 2805 XRV-P	12HP HCSU 3355 XRV-P	14HP HCSU 4005 XRV-P
16HP HCSU 4505 XRV-P	18HP HCSU 5005 XRV-P	20HP HCSU 5605 XRV-P	22HP HCSU 6155 XRV-P

COMBINATIONS				
24HP 12 + 12 HCSU 3355 XRV-P HCSU 3355 XRV-P	26HP 10 + 16 HCSU 2805 XRV-P HCSU 4505 XRV-P	28HP 10 + 18 HCSU 2805 XRV-P HCSU 5005 XRV-P	30HP 10 + 20 HCSU 2805 XRV-P HCSU 5605 XRV-P	32HP 10 + 22 HCSU 2805 XRV-P HCSU 6155 XRV-P
34HP 12 + 22 HCSU 3355 XRV-P HCSU 6155 XRV-P	36HP 18 + 18 HCSU 5005 XRV-P HCSU 5005 XRV-P	38HP 16 + 22 HCSU 4505 XRV-P HCSU 6155 XRV-P	40HP 18 + 22 HCSU 5005 XRV-P HCSU 6155 XRV-P	42HP 20 + 22 HCSU 5605 XRV-P HCSU 6155 XRV-P
44HP 22 + 22 HCSU 6155 XRV-P HCSU 6155 XRV-P	46HP 12 + 12 + 22 HCSU 3355 XRV-P HCSU 3355 XRV-P HCSU 6155 XRV-P	48HP 10 + 16 + 22 HCSU 2805 XRV-P HCSU 4505 XRV-P HCSU 6155 XRV-P	50HP 10 + 18 + 22 HCSU 2805 XRV-P HCSU 5005 XRV-P HCSU 6155 XRV-P	52HP 10 + 20 + 22 HCSU 2805 XRV-P HCSU 5605 XRV-P HCSU 6155 XRV-P
54HP 10 + 22 + 22 HCSU 2805 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	56HP 12 + 22 + 22 HCSU 3355 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	58HP 18 + 18 + 22 HCSU 5005 XRV-P HCSU 5005 XRV-P HCSU 6155 XRV-P	60HP 16 + 22 + 22 HCSU 4505 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	62HP 18 + 22 + 22 HCSU 5005 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P
64HP 20 + 22 + 22 HCSU 5605 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	66HP 22 + 22 + 22 HCSU 6155 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	68HP 12 + 12 + 22 + 22 HCSU 3355 XRV-P HCSU 3355 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	70HP 10 + 16 + 22 + 22 HCSU 2805 XRV-P HCSU 4505 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	72HP 10 + 18 + 22 + 22 HCSU 2805 XRV-P HCSU 5005 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P
74HP 10 + 20 + 22 + 22 HCSU 2805 XRV-P HCSU 5605 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	76HP 10 + 22 + 22 + 22 HCSU 2805 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	78HP 12 + 22 + 22 + 22 HCSU 3355 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	80HP 18 + 18 + 22 + 22 HCSU 5005 XRV-P HCSU 5005 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	82HP 16 + 22 + 22 + 22 HCSU 4505 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P
84HP 18 + 22 + 22 + 22 HCSU 5005 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	86HP 20 + 22 + 22 + 22 HCSU 5605 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	88HP 22 + 22 + 22 + 22 HCSU 6155 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P		

PROJECT VRF R410A FULL DC INVERTER - LINE UP

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XRV MULTI SYSTEM

Outdoor heat recovery units - 3 pipes

XRV PLUS HEAT RECOVERY



8-16HP

8HP	10HP	12HP	14HP	16HP
HCSRU 2524 XRV-1 Plus	HCSRU 2804 XRV-1 Plus	HCSRU 3354 XRV-1 Plus	HCSRU 4004 XRV-1 Plus	HCSRU 4504 XRV-1 Plus

COMBINATIONS				
18HP	20HP	22HP	24HP	26HP
8+10:	10+10:	10+12:	10+14:	10+16:
HCSRU 2524 XRV-1 Plus HCSRU 2804 XRV-1 Plus	HCSRU 2804 XRV-1 Plus HCSRU 2804 XRV-1 Plus	HCSRU 2804 XRV-1 Plus HCSRU 3354 XRV-1 Plus	HCSRU 2804 XRV-1 Plus HCSRU 4004 XRV-1 Plus	HCSRU 2804 XRV-1 Plus HCSRU 4504 XRV-1 Plus
28HP	30HP	32HP	34HP	36HP
14+14:	14+16:	16+16:	10+10+14	10+10+16
HCSRU 4004 XRV-1 Plus HCSRU 4004 XRV-1 Plus	HCSRU 4004 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 4504 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 2804 XRV-1 Plus HCSRU 2804 XRV-1 Plus HCSRU 4004 XRV-1 Plus	HCSRU 2804 XRV-1 Plus HCSRU 2804 XRV-1 Plus HCSRU 4504 XRV-1 Plus
38HP	40HP	42HP	44HP	46HP
10+12+16	10+14+16	14+14+14	14+14+16	14+16+16
HCSRU 2804 XRV-1 Plus HCSRU 3354 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 2804 XRV-1 Plus HCSRU 4004 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 4004 XRV-1 Plus HCSRU 4004 XRV-1 Plus HCSRU 4004 XRV-1 Plus	HCSRU 4004 XRV-1 Plus HCSRU 4004 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 4004 XRV-1 Plus HCSRU 4504 XRV-1 Plus HCSRU 4504 XRV-1 Plus
48HP	50HP	52HP	54HP	56HP
16+16+16	8+10+16+16	10+10+16+16	10+12+16+16	10+14+16+16
HCSRU 4504 XRV-1 Plus HCSRU 4504 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 2524 XRV-1 Plus HCSRU 2804 XRV-1 Plus HCSRU 4504 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 2804 XRV-1 Plus HCSRU 2804 XRV-1 Plus HCSRU 4504 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 2804 XRV-1 Plus HCSRU 3354 XRV-1 Plus HCSRU 4504 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 2804 XRV-1 Plus HCSRU 4004 XRV-1 Plus HCSRU 4504 XRV-1 Plus HCSRU 4504 XRV-1 Plus
58HP	60HP	62HP	64HP	
14+14+14+16	14+14+16+16	14+16+16+16	16+16+16+16	
HCSRU 4004 XRV-1 Plus HCSRU 4004 XRV-1 Plus HCSRU 4004 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 4004 XRV-1 Plus HCSRU 4004 XRV-1 Plus HCSRU 4504 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 4004 XRV-1 Plus HCSRU 4504 XRV-1 Plus HCSRU 4504 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 4504 XRV-1 Plus HCSRU 4504 XRV-1 Plus HCSRU 4504 XRV-1 Plus HCSRU 4504 XRV-1 Plus	

PROJECT VRF R410A FULL DC INVERTER - LINE UP

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XRV MULTI SYSTEM Outdoor heat pump units

XRV PLUS MINI



3.75HP

single phase
HCNU 1054 XRV-1 Plus

NEW



5HP

single phase
HCNU 1404 XRV-1 Plus

5HP

three-phase
HCSU 1404 XRV-1 Plus

6HP

three-phase
HCSU 1604 XRV-1 Plus

6.5HP

three-phase
HCSU 1804 XRV-1 Plus



7HP

three-phase
HCYU 2004 XRV-1 Plus

8HP

three-phase
HCYU 2244 XRV-1 Plus

9HP

three-phase
HCYU 2604 XRV-1 Plus



14HP

three-phase
HCYU 4004 XRV-1 Plus

16HP

three-phase
HCYU 4504 XRV-1 Plus

Performance and consumption are based on the following test conditions: Heating O.T. 7° C DB, 6° C WB - I.T. 20° C DB. Cooling: O.T. 35° C DB, 24° C WB - I.T. 27° C DB, 19° C WB (ISO T1).

PROJECT VRF R410A FULL DC INVERTER

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XRV MULTI SYSTEM



XRV PREMIUM
MODULAR



XRV PLUS
HEAT RECOVERY



XRV PLUS MINI

FULL DC INVERTER TECHNOLOGY FOR THE EXTERNAL UNITS OF ALL RANGES

Full DC Inverter technology has always characterised Hokkaido's proposal in the market of VRF systems, in heat pump and in heat recovery. These ranges are all equipped with a DC Inverter compressor and DC Inverter fan motor: outstanding results in terms of energy efficiency, reducing operation costs as well as CO2 emissions.

HERE'S WHAT MAKES THE HOKKAIDO PROPOSAL "FULL"

Energy savings and comfort

Full DC Inverter technology (DC Inverter compressor and DC Inverter fan motor) applied to the XRV system outdoor units ensures high EER and COP values not only at full load, but also at partial load. In this way, energy savings and high comfort are guaranteed in a wide outdoor temperature operation range, which has the following average values: cooling from -5°C to $+43^{\circ}\text{C}$, heating from -20°C to $+24^{\circ}\text{C}$.

HIGH EFFICIENCY DC INVERTER COMPRESSOR

Thanks to the use of DC Inverter compressors which allow for quick and continuous changes of the amount of compressed refrigerant, the XRV system outdoor units are characterised by:

- rapid system start-up
- quick response to changes in cooling or heating demand by users
- reduced on/off cycles

The result is an efficient system that is highly reliable and durable.

DC FAN MOTOR

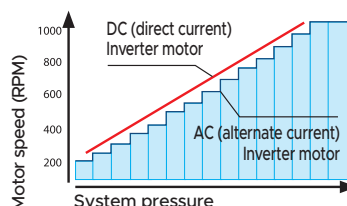
The use of the DC Inverter fan motor ensures energy savings during partial loads, as it adjusts the fan speed and helps make the unit more silent. The fan and outlet grille design guarantees increased air flow, thus creating a low noise level.

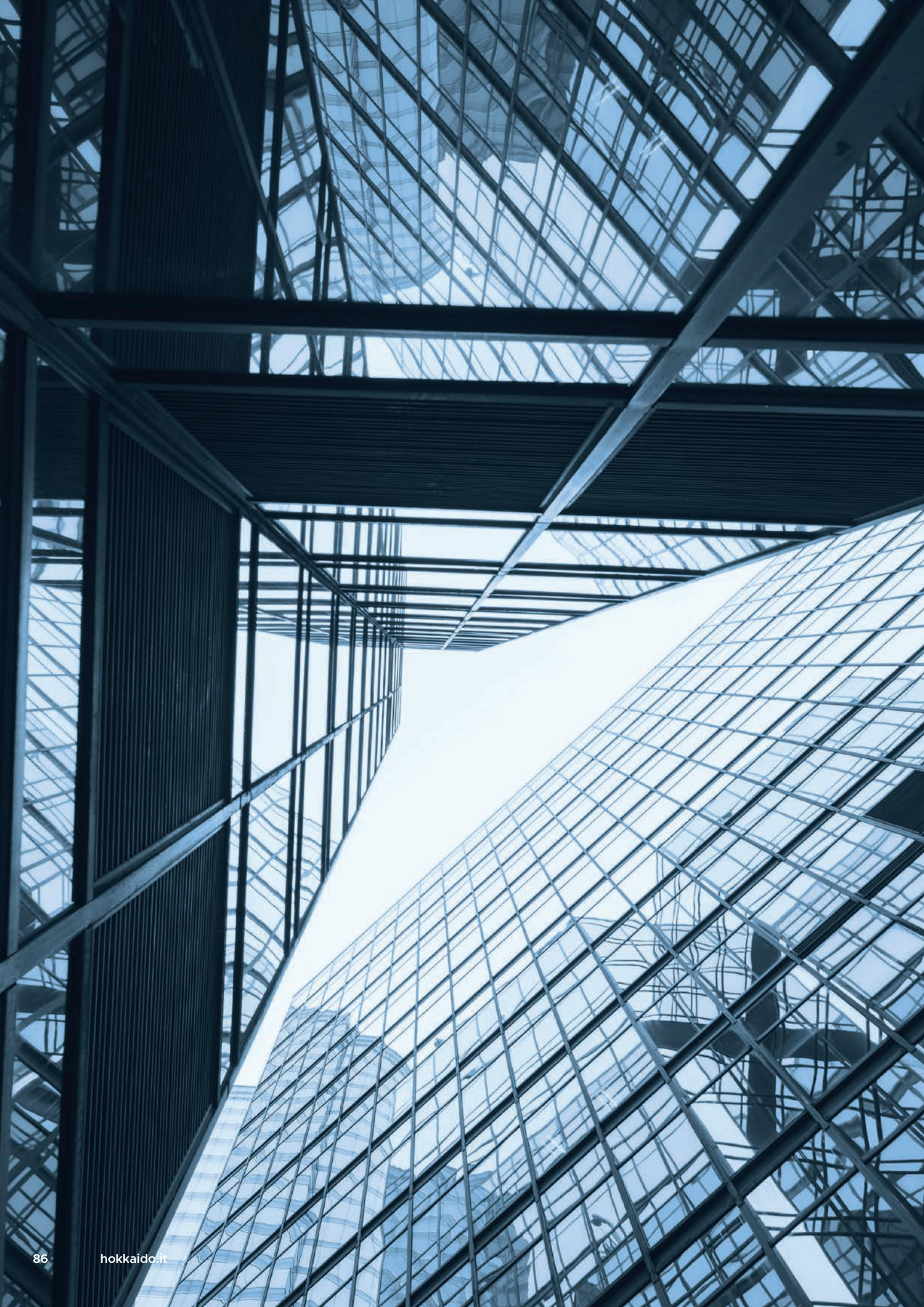


DC Inverter compressor



DC Inverter fan motor





PROJECT VRF R410A FULL DC INVERTER

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XRV PREMIUM MODULAR Heat pump - 2 pipes



FULL DC INVERTER

HCSU 2525 XRV-P
HCSU 2805 XRV-P
HCSU 3355 XRV-P

FULL DC INVERTER

HCSU 4005 XRV-P
HCSU 4505 XRV-P
HCSU 5005 XRV-P
HCSU 5605 XRV-P
HCSU 6155 XRV-P

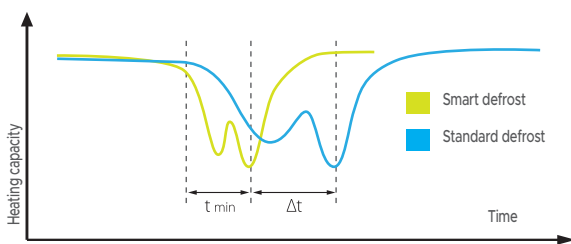
The range is characterised by 8 basic modules: 8, 10, 12, 14, 16, 18, 20 and 22HP. Wide range of available power: from 25.2 to 246.0 kW.

Fan design with the sharp-edged blade reduces airflow resistance. The outdoor units and the exchangers inside them are made with anticorrosive treatments.

- COP values up to 5.09 (mod. 8HP)
- EER values up to 4.03 (mod. 8HP)

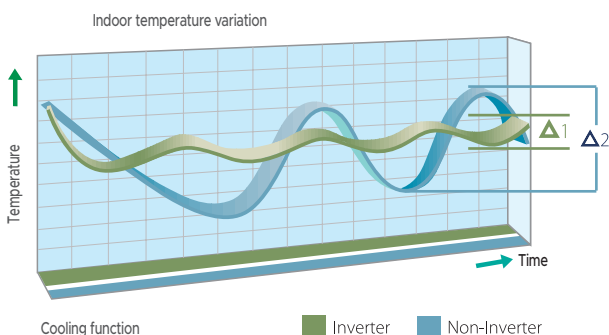
Smart defrost

Smart defrost technology calculates the time required for defrosting based on the current system conditions, eliminating heat losses from unnecessary defrost. A special defrost valve reduces the time required for defrost to a minimum of four minutes.

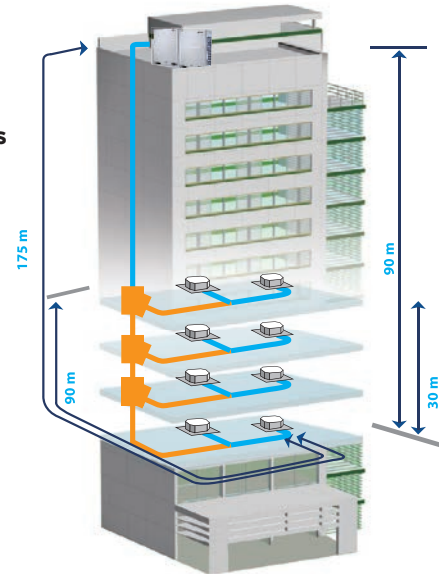


Fast cooling and heating

The DC Inverter compressor quickly reaches full capacity, ensuring faster cooling and heating with lower temperature variation during cooling/heating operations.



Splitting lengths and height differences



The XRV PREMIUM Modular series can connect up to 64 indoor units.

Total length of system piping: 1000 m

Maximum distance between O.U. and the farthest I.U. = 175 m (equivalent 200 m)

Maximum distance from the first branch pipe to the farthest = 90 m

Maximum height difference between O.U. (up high) and I.U. = 90 m

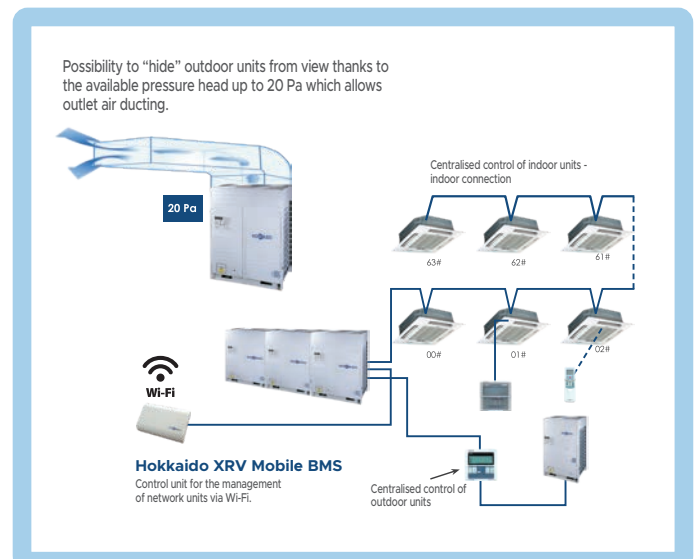
Maximum height difference between O.U. (down low) and I.U. = 110 m

Maximum height difference between I.U. = 30 m

Installation and operation

- Wide range of external operating temperatures: heat. - 20° C / 24° C; cool. - 5° C / 43° C.
- Intelligent operation logic in modular combination with rotation and distribution of operating hours between the O.U.
- Backup function in modular combination.
- Silent operation and self-addressing of the O.U.

Network wiring diagram



PROJECT VRF R410A FULL DC INVERTER

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XRV PREMIUM MODULAR Heat pump - 2 pipes



Model / Combination			HCSU 2525 XRV-P	HCSU 2805 XRV-P	HCSU 3355 XRV-P	HCSU 4005 XRV-P	HCSU 4505 XRV-P	HCSU 5005 XRV-P	HCSU 5605 XRV-P
Power		HP	8	10	12	14	16	18	20
Rated capacity (1)	Cooling	kW	25.20	28.00	33.50	40.00	45.00	50.00	56.00
		kW	6.25	7.49	8.91	11.66	13.64	14.71	16.47
		EER	4.03	3.74	3.76	3.43	3.30	3.40	3.40
Rated capacity (2)	Heating	kW	27.00	31.50	37.50	40.00	45.00	50.00	56.00
		kW	5.30	6.89	8.91	9.83	11.69	12.50	14.00
		COP	5.09	4.57	4.21	4.07	3.85	4.00	4.00
Electrical data									
Power	Ph-V-Hz		3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz
Maximum current	A		20.00	21.00	23.00	27.30	29.90	34.40	41.20
Refrigerant circuit/features									
Refrigerant	type (GWP)		R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)
Quantity refrigerant pre-load (tons of CO2 equivalent)(3)	Kg (t)		9 (18.792)	9 (18.792)	11 (22.968)	13 (27.144)	13 (27.144)	13 (27.144)	16 (33.408)
DC Inverter compressor	no. / type		1/Scroll DC Inverter	1/Scroll DC Inverter	1/Scroll DC Inverter	2/Scroll DC Inverter	2/Scroll DC Inverter	2/Scroll DC Inverter	2/Scroll DC Inverter
Diameter refrigerant pipes(4)	Liquid	Ø mm (inch)	12.7 (1/2")	12.7 (1/2")	12.7 (1/2")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")
	Gas		25.4 (1")	25.4 (1")	25.4 (1")	31.8 (1"1/4)	31.8 (1"1/4)	31.8 (1"1/4)	31.8 (1"1/4)
	Parallel oil		6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")
Max pipe length	m		1000	1000	1000	1000	1000	1000	1000
Max height difference between indoor units	m		30	30	30	30	30	30	30
Max height difference between outdoor and indoor units	O.U. up-down	m	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110
Product specifications									
Dimensions (5)	LxHxD	mm	990x1635x790	990x1635x790	990x1635x790	1340x1635x790	1340x1635x790	1340x1635x790	1340x1635x790
Net weight	Kg		219	219	237	297	297	305	340
Sound pressure level at 1 m	max	dB(A)	59	63	62	66	66	66	66
Sound power level	max	dB(A)	79	83	82	88	88	88	88
Fan air flow	max	m³/h	12000	12000	12000	14000	14000	14000	16000
Operating limit (external temperature)	Cooling	°C / DB	-5 / 43	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C
	Heating	°C / WB	-20 / 24	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C
Max connectable indoor units	no.		13	16	20	23	26	29	33
Capacity of connected indoor unit	%		50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130

Model / Combination			HCSU 6155 XRV-P HCSU 6155 XRV-P	HCSU 3355 XRV-P HCSU 3355 XRV-P HCSU 6155 XRV-P	HCSU 2805 XRV-P HCSU 4505 XRV-P HCSU 6155 XRV-P	HCSU 2805 XRV-P HCSU 5005 XRV-P HCSU 6155 XRV-P	HCSU 2805 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	HCSU 3355 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	
Power		HP	44 (22+22)	46 (12+12+22)	48 (10+16+22)	50 (10+18+22)	52 (10+20+22)	54 (10+22+22)	56 (12+22+22)
Rated capacity (1)	Cooling	kW	123.00	128.50	134.50	139.50	145.50	151.00	156.50
		kW	39.68	37.66	40.97	42.04	43.80	47.17	48.59
		EER	3.10	3.41	3.28	3.32	3.32	3.20	3.22
Rated capacity (2)	Heating	kW	123.00	136.50	138.00	143.00	149.00	154.50	160.50
		kW	32.36	34.00	34.76	35.57	37.07	39.25	41.27
		COP	3.80	4.01	3.97	4.02	4.02	3.94	3.89
Electrical data									
Power	Ph-V-Hz		3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz
Maximum current	A		89.80	90.90	95.80	100.30	107.10	110.80	112.80
Refrigerant circuit/features									
Refrigerant	type (GWP)		R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)
Quantity refrigerant pre-load (tons of CO2 equivalent)(3)	Kg (t)		32 (66.816)	38 (79.344)	38 (79.344)	38 (79.344)	41 (85.608)	41 (85.608)	43 (89.784)
DC Inverter compressor	no. / type		4/Scroll DC Inverter	4/Scroll DC Inverter	5/Scroll DC Inverter	5/Scroll DC Inverter	5/Scroll DC Inverter	5/Scroll DC Inverter	5/Scroll DC Inverter
Diameter refrigerant pipes(4)	Liquid	Ø mm (inch)	19.1 (3/4")	19.1 (3/4")	19.1 (3/4")	19.1 (3/4")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")
	Gas		38.1 (1"1/2")	38.1 (1"1/2")	38.1 (1"1/2")	38.1 (1"1/2")	41.3 (1"5/8")	41.3 (1"5/8")	41.3 (1"5/8")
	Parallel oil		6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")
Max pipe length	m		1000	1000	1000	1000	1000	1000	1000
Max height difference between indoor units	m		30	30	30	30	30	30	30
Max height difference between outdoor and indoor units	O.U. up-down	m	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110
Product specifications									
Dimensions (5)	LxHxD	mm	2780x1635x790	3520x1635x790	3870x1635x790	3870x1635x790	3870x1635x790	3870x1635x790	3870x1635x790
Net weight	Kg		680	814	856	864	899	899	917
Sound pressure level at 1 m	max	dB(A)	69	69	70	70	70	70	70
Sound power level	max	dB(A)	91	90	92	92	92	92	92
Fan air flow	max	m³/h	32000	40000	42000	44000	44000	44000	44000
Operating limit (external temperature)	Cooling	°C / DB	-5 / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C
	Heating	°C / WB	-20 / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C
Max connectable indoor units	no.		64	64	64	64	64	64	64
Capacity of connected indoor unit	%		50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130

(1) Cooling capacity tested in accordance with ISO 5151 Standards; outdoor temperature 35° C DB, 24° C WB and indoor temperature 27° C DB, 19° WB.

(2) Heating capacity tested in accordance with ISO 5151 Standards; outdoor temperature 7° C DB, 6° C WB and indoor temperature 20° C DB, 15° C WB.

(3) Refer to the label inside the unit to calculate the additional refrigerant charge.

(4) When several outdoor units are paired the diameters indicated refer to the section up to the first branch, with a length equivalent or less than 90m.

(5) Space between the paired units = 100 mm.

PROJECT VRF R410A FULL DC INVERTER

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XRV PREMIUM MODULAR Heat pump - 2 pipes



HCSU 6155 XRV-P	HCSU 3355 XRV-P HCSU 3355 XRV-P	HCSU 2805 XRV-P HCSU 4505 XRV-P	HCSU 2805 XRV-P HCSU 5005 XRV-P	HCSU 2805 XRV-P HCSU 5605 XRV-P	HCSU 2805 XRV-P HCSU 6155 XRV-P	HCSU 3355 XRV-P HCSU 6155 XRV-P	HCSU 5005 XRV-P HCSU 5005 XRV-P	HCSU 4505 XRV-P HCSU 6155 XRV-P	HCSU 5005 XRV-P HCSU 6155 XRV-P	HCSU 5605 XRV-P HCSU 6155 XRV-P
22	24 (12+12)	26 (10+16)	28 (10+18)	30 (10+20)	32 (10+22)	34 (12+22)	36 (18+18)	38 (16+22)	40 (18+22)	42 (20+22)
61.50	67.00	73.00	78.00	84.00	89.50	95.00	100.00	106.50	111.50	117.50
19.84	17.82	21.13	22.20	23.96	27.33	28.75	29.42	33.48	34.55	36.31
3.10	3.76	3.45	3.51	3.51	3.27	3.30	3.40	3.18	3.23	3.24
61.50	75.00	76.50	81.50	87.50	93.00	99.00	100.00	106.50	111.50	117.50
16.18	17.82	18.58	19.39	20.89	23.07	25.09	25.00	27.87	28.68	30.18
3.80	4.21	4.12	4.20	4.19	4.03	3.95	4.00	3.82	3.89	3.89
3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz
44.90	46.00	50.90	55.40	62.20	65.90	67.90	68.80	74.80	79.30	86.10
R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)
16 (33.408)	22 (45.936)	22 (45.936)	23 (48.024)	25 (52.200)	25 (52.200)	27 (56.376)	26 (54.288)	29 (60.552)	29 (60.552)	32 (66.816)
2/Scroll DC Inverter	2/Scroll DC Inverter	3/Scroll DC Inverter	3/Scroll DC Inverter	3/Scroll DC Inverter	3/Scroll DC Inverter	3/Scroll DC Inverter	4/Scroll DC Inverter	4/Scroll DC Inverter	4/Scroll DC Inverter	4/Scroll DC Inverter
15.9 (5/8")	15.9 (5/8")	19.1 (3/4")	19.1 (3/4")	19.1 (3/4")	19.1 (3/4")	19.1 (3/4")	19.1 (3/4")	19.1 (3/4")	19.1 (3/4")	19.1 (3/4")
31.8 (1"1/4)	28.6 (1"1/8)	31.8 (1"1/4")	31.8 (1"1/4")	31.8 (1"1/4")	31.8 (1"1/4")	31.8 (1"1/4")	38.1 (1"1/2")	38.1 (1"1/2")	38.1 (1"1/2")	38.1 (1"1/2")
6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")
1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
30	30	30	30	30	30	30	30	30	30	30
90 - 110	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110
1340x1635x790	2080x1635x790	2430x1635x790	2430x1635x790	2430x1635x790	2430x1635x790	2430x1635x790	2780x1635x790	2780x1635x790	2780x1635x790	2780x1635x790
340	474	516	524	559	559	577	610	637	645	680
66	65	68	68	68	68	67	69	69	69	69
88	85	89	89	89	89	89	91	91	91	91
16000	24000	26000	28000	28000	28000	28000	32000	30000	32000	32000
-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C
-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C
36	39	43	46	50	53	56	59	63	64	64
50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130

HCSU 5005 XRV-P HCSU 5005 XRV-P HCSU 6155 XRV-P	HCSU 4505 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	HCSU 5005 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	HCSU 5605 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	HCSU 6155 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	HCSU 3355 XRV-P HCSU 3355 XRV-P HCSU 6155 XRV-P	HCSU 2805 XRV-P HCSU 4505 XRV-P HCSU 6155 XRV-P	HCSU 2805 XRV-P HCSU 5005 XRV-P HCSU 6155 XRV-P	HCSU 2805 XRV-P HCSU 5605 XRV-P HCSU 6155 XRV-P	HCSU 2805 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	HCSU 3355 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P
58 (18+18+22)	60 (16+22+22)	62 (18+22+22)	64 (20+22+22)	66 (22+22+22)	68 (12+12+22+22)	70 (10+16+22+22)	72 (10+18+22+22)	74 (10+20+22+22)	76 (10+22+22+22)	78 (12+22+22+22)
161.50	168.00	173.00	179.00	184.50	190.00	196.00	201.00	207.00	212.50	218.00
49.26	53.32	54.39	56.15	59.52	57.50	60.81	61.88	63.64	67.01	68.43
3.28	3.15	3.18	3.19	3.10	3.30	3.22	3.25	3.25	3.17	3.19
161.50	168.00	173.00	179.00	184.50	198.00	199.50	204.50	210.50	216.50	222.00
41.18	44.05	44.86	46.36	48.54	50.18	50.94	51.75	53.25	55.43	57.45
3.92	3.81	3.86	3.86	3.80	3.95	3.92	3.95	3.95	3.90	3.86
3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz
113.70	119.70	124.20	131.00	134.70	135.80	140.70	145.20	152.00	155.70	157.70
R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)
42 (87.696)	45 (93.960)	45 (93.960)	48 (100.224)	48 (100.224)	54 (112.752)	54 (112.752)	54 (112.752)	57 (119.016)	57 (119.016)	59 (123.192)
6/Scroll DC Inverter	6/Scroll DC Inverter	6/Scroll DC Inverter	6/Scroll DC Inverter	6/Scroll DC Inverter	6/Scroll DC Inverter	7/Scroll DC Inverter	7/Scroll DC Inverter	7/Scroll DC Inverter	7/Scroll DC Inverter	7/Scroll DC Inverter
22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	25.4 (1")	25.4 (1")	25.4 (1")	25.4 (1")	25.4 (1")	25.4 (1")
41.3 (1"5/8")	41.3 (1"5/8")	41.3 (1"5/8")	41.3 (1"5/8")	41.3 (1"5/8")	44.5 (1"3/4")	44.5 (1"3/4")	44.5 (1"3/4")	44.5 (1"3/4")	44.5 (1"3/4")	44.5 (1"3/4")
6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")
1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
30	30	30	30	30	30	30	30	30	30	30
90 - 110	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110
4220x1635x790	4220x1635x790	4220x1635x790	4220x1635x790	4220x1635x790	4960x1635x790	5310x1635x790	5310x1635x790	5310x1635x790	5310x1635x790	5310x1635x790
950	977	985	1020	1020	1154	1196	1204	1239	1239	1257
71	71	71	71	71	70	71	71	71	71	71
93	93	93	93	93	92	93	93	93	93	93
48000	46000	48000	48000	48000	56000	58000	60000	60000	60000	60000
-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C
-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C
64	64	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	50 - 130	50 - 130

(1) Cooling capacity tested in accordance with ISO 5151 Standards; outdoor temperature 35° C DB, 24° C WB and indoor temperature 27° C DB, 19° WB.
 (2) Heating capacity tested in accordance with ISO 5151 Standards; outdoor temperature 7° C DB, 6° C WB and indoor temperature 20° C DB, 15° C WB.
 (3) Refer to the label inside the unit to calculate the additional refrigerant charge.
 (4) When several outdoor units are paired the diameters indicated refer to the section up to the first branch, with a length equivalent or less than 90m.
 (5) Space between the paired units = 100 mm.

PROJECT VRF R410A FULL DC INVERTER

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XRV PREMIUM MODULAR Heat pump - 2 pipes



Model / Combination			HCSU 5005 XRV-P HCSU 5005 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	HCSU 4505 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	HCSU 5005 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	HCSU 5605 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	HCSU 6155 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	
Power			HP	80 (18+18+22+22)	82 (16+22+22+22)	84 (18+22+22+22)	86 (20+22+22+22)	88 (22+22+22+22)
Rated capacity (1)	Cooling	kW	223.00	229.50	234.50	240.50	246.00	
Rated absorbed power		kW	69.10	73.16	74.23	75.99	79.36	
Rated energy efficiency coefficient		EER	3.23	3.14	3.16	3.16	3.10	
Rated capacity (2)	Heating	kW	223.00	229.50	234.50	240.50	246.00	
Rated absorbed power		kW	57.36	60.23	61.04	62.54	64.72	
Rated energy performance coefficient		COP	3.89	3.81	3.84	3.85	3.80	
Electrical data								
Power	Ph-V-Hz		3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	
Maximum current	A		158.60	164.60	169.10	175.90	179.60	
Refrigerant circuit/features								
Refrigerant	type (GWP)		R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	
Quantity refrigerant pre-load (tons of CO2 equivalent)(3)	Kg (t)		58 (121.104)	61 (127.368)	61 (127.368)	64 (133.632)	64 (133.632)	
DC Inverter compressor	no. / type		8/Scroll DC Inverter	8/Scroll DC Inverter	8/Scroll DC Inverter	8/Scroll DC Inverter	8/Scroll DC Inverter	
Diameter refrigerant pipes(4)	Liquid	Ø mm (inch)	25.4 (1")	25.4 (1")	25.4 (1")	25.4 (1")	25.4 (1")	
	Gas	Ø mm (inch)	44.5 (1"3/4")	44.5 (1"3/4")	44.5 (1"3/4")	44.5 (1"3/4")	44.5 (1"3/4")	
	Parallel oil	Ø mm (inch)	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	
Max pipe length	m		1000	1000	1000	1000	1000	
Max height difference between indoor units	m		30	30	30	30	30	
Max height difference between outdoor and indoor units	O.U. up-down	m	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110	
Product specifications								
Dimensions (5)	LxHxD		mm	5660x1635x790	5660x1635x790	5660x1635x790	5660x1635x790	5660x1635x790
Net weight	Kg		1290	1317	1325	1360	1360	
Sound pressure level at 1 m	max	dB(A)	72	72	72	72	72	
Sound power level	max	dB(A)	94	94	94	94	94	
Fan air flow	max	m³/h	64000	62000	64000	64000	64000	
Operating limit (external temperature)	Cooling	°C / DB	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	
	Heating	°C / WB	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	
Max connectable indoor units	no.		64	64	64	64	64	
Capacity of connected indoor unit	%		50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	

(1) Cooling capacity tested in accordance with ISO 5151 Standards; outdoor temperature 35° C DB, 24° C WB and indoor temperature 27° C DB, 19° WB.

(2) Heating capacity tested in accordance with ISO 5151 Standards; outdoor temperature 7° C DB, 6° C WB and indoor temperature 20° C DB, 15° C WB.

(3) Refer to the label inside the unit to calculate the additional refrigerant charge.

(4) When several outdoor units are paired the diameters indicated refer to the section up to the first branch, with a length equivalent or less than 90m.

(5) Space between the paired units = 100 mm.



PROJECT VRF R410A FULL DC INVERTER

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XRV PLUS HEAT RECOVERY

Heat recovery - 3 pipes



FULL DC INVERTER

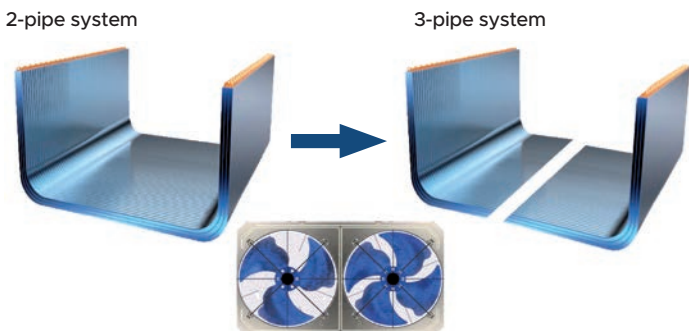
- HCSRU 2524 XRV-1 Plus
- HCSRU 2804 XRV-1 Plus
- HCSRU 3354 XRV-1 Plus
- HCSRU 4004 XRV-1 Plus
- HCSRU 4504 XRV-1 Plus

The range is characterised by 5 basic modules: 8, 10, 12, 14 and 16HP.
 All outdoor unit compressors are Full DC Inverter type for a high level of efficiency.
 Possibility of connecting up to 24 indoor units with only one flow divider.
 The indoor units can operate in different modes even if they are connected to the same flow divider.
 Wide range in operating conditions: from -20°C WB in heating mode up to +43° C DB in cooling mode with no stop.

- Max distance between O.U. and the farthest I.U. = 200 m
- Max distance from the divider to the farthest I.U. = 40 m
- Max distance from the first branch pipe to the farthest I.U. = 90 m
- Max height difference between O.U. (up high) and I.U. = 70 m
- Max height difference between O.U. (down) and the I.U. = 110 m
- Max height difference between I.U. = 30 m
- Maximum length of the pipes = 1000 m

Fan and exchanger

Outdoor unit heat exchangers are divided in two parts, a left and right structure, so that there are two independent circuits in one outdoor unit.
 Each outdoor unit has two fans, which allow control over each heat exchanger structure individually.



Branch pipe kit

Branch pipe downstream of the first indoor unit	
Code	A - Capacity of the connectable indoor units (kW)
DIS-22-1RB	A<16.6
DIS-180-1RB	16.6≤A<33.0
DIS-371-1RB	33.0≤A<66.0
DIS-540-1RH Plus	66.0≤A<92.0
DIS-1344-1RH Plus	92.0≤A<135.0

Branch pipe kit for outdoor connection

Code	Outdoor units
DOS 2-1RH Plus	2 Outdoor unit KITS
DOS 3-1RH Plus	3 Outdoor unit KITS
DOS 4-1RH Plus	4 Outdoor unit KITS
OH-BAL-KT*	T-shaped fitting for oil parallel pipe

* Included in DOS 3-1H Plus & DOS 4-1H Plus KITS.

Heating during defrost

XRV Plus remarkably reduces defrost time thanks to the particular structure of the heat exchanger, therefore with non-stop operation.

PROJECT VRF R410A FULL DC INVERTER

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XRV PLUS HEAT RECOVERY

Heat recovery - 3 pipes

OPERATING MODE

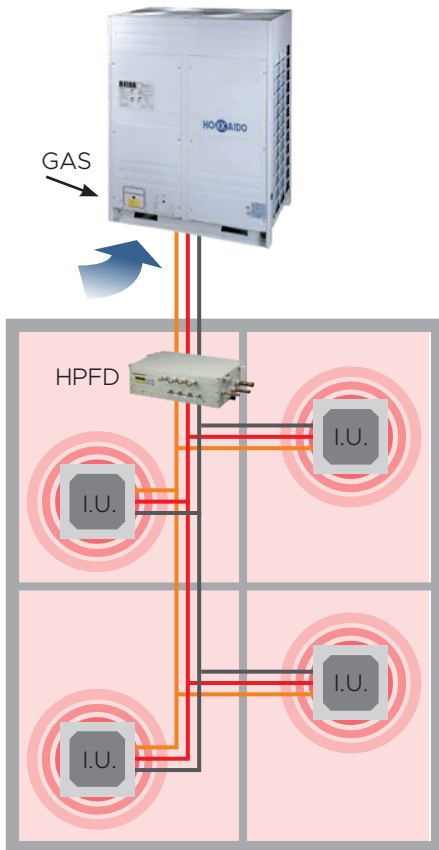
The system allows the rooms to be heated to the desired temperature during the winter season.

The system allows the rooms to be cooled to the desired temperature during the summer season.

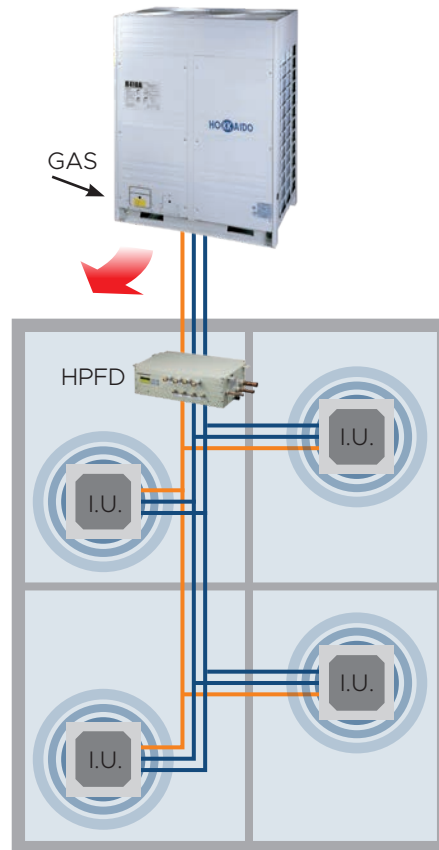
A need to cool and heat simultaneously may arise during mid-seasons or when buildings have different sun exposure.

XRV Plus Heat Recovery system uses its 3 pipes to recover part of the energy to meet these dual needs.

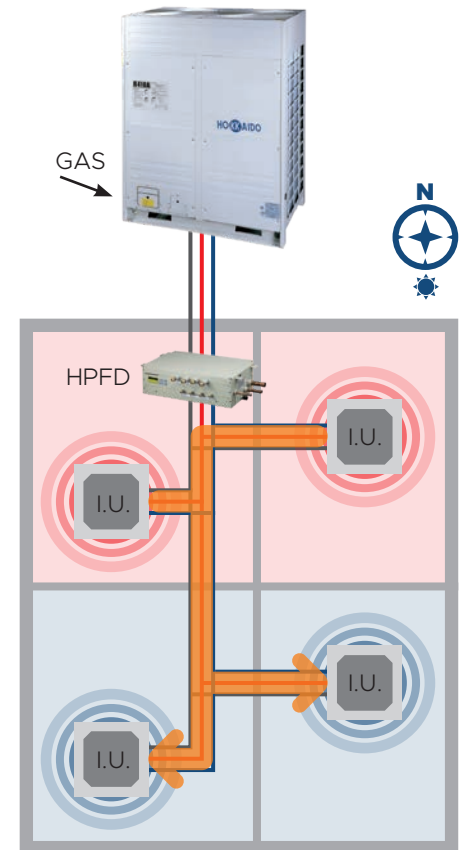
Heating function






Cooling function



ENERGY RECOVERY



FLOW DIVIDER

Divider model Series P	Dimensions (mm) LxHxD series P	Connectable indoor units series P	
		Total Capacity	Number of indoor units
 HPFD 1-8 XRV Plus	630x605x225	≤28 kW	1~8
 HPFD 1-16 XRV Plus	960x605x225	≤45 kW	1~16
 HPFD 1-24 XRV Plus	960x605x225	≤45 kW	1~24

PROJECT VRF R410A FULL DC INVERTER

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XRV PLUS HEAT RECOVERY

Heat recovery - 3 pipes

Model / Combination			HCSRU 2524 XRV-1 Plus	HCSRU 2804 XRV-1 Plus	HCSRU 3354 XRV-1 Plus	HCSRU 4004 XRV-1 Plus	HCSRU 4504 XRV-1 Plus
Power			8	10	12	14	16
Rated capacity (1)	Cooling	kW	25.20	28.00	33.50	40.00	45.00
Rated absorbed power		kW	6.67	7.24	9.28	11.49	14.20
Rated energy efficiency coefficient		EER	3.78	3.87	3.61	3.48	3.17
Rated capacity (2)	Heating	kW	27.00	31.50	37.50	40.00	45.00
Rated absorbed power		kW	5.28	6.54	9.24	9.76	11.90
Rated energy performance coefficient		COP	5.11	4.82	4.06	4.10	3.78
Electrical data							
Power	Ph-V-Hz		3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz
Maximum current	A		20.80	22.10	22.80	31.80	32.80
Refrigerant circuit/features							
Refrigerant	type (GWP)		R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)
Quantity refrigerant pre-load (tons of CO2 equivalent)(3)	Kg (t)		10 (20.880)	10 (20.880)	10 (20.880)	13 (27.144)	13 (27.144)
DC Inverter compressor	no. / type		1 / Scroll DC Inverter HITACHI			2 / Scroll DC Inverter HITACHI	
Diameter refrigerant pipes(4)	Liquid	Ø mm (inch)	9.53 (3/8)	12.7 (1/2)		15.9 (5/8)	
	Low pressure gas	Ø mm (inch)	22.2 (7/8)		25.4 (1)		28.6 (9/8)
	High pressure gas	Ø mm (inch)	19.1 (3/4)		22.2 (7/8)		22.2 (7/8)
	H.p. parallel gas	Ø mm (inch)	19.1 (3/4)		19.1 (3/4)		19.1 (3/4)
	Parallel oil	Ø mm (inch)	6.35 (1/4)		6.35 (1/4)		6.35 (1/4)
Max pipe length	m		1000	1000	1000	1000	1000
Max height difference between indoor units	m		30	30	30	30	30
Max height difference between outdoor and indoor units	O.U. up-down	m	70 - 110	70 - 110	70 - 110	70 - 110	70 - 110
Product specifications							
Dimensions (5)	LxHxD	mm	1250x1615x765			1250x1615x765	
Net weight	Kg		255			303	
Sound pressure level at 1 m	min-max	dB(A)	55/57		56/58	58/60	
Sound power level	max	dB(A)	79	83	84	88	
Fan air flow	min-max	m³/h	10675 / 12000			12875 / 15000	
Operating limit (external temperature)	Cooling	°C / DB	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43
	Heating	°C / WB	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24
Max connectable indoor units	no.		13	16	20	23	26
Capacity of connected indoor unit	%		50 - 130	50 - 130	50 - 130	50 - 130	50 - 130

Model / Combination			HCSRU 2804 XRV-1 Plus HCSRU 2804 XRV-1 Plus HCSRU 4004 XRV-1 Plus	HCSRU 2804 XRV-1 Plus HCSRU 2804 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 2804 XRV-1 Plus HCSRU 3354 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 2804 XRV-1 Plus HCSRU 4004 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 4004 XRV-1 Plus HCSRU 4004 XRV-1 Plus HCSRU 4004 XRV-1 Plus	HCSRU 4004 XRV-1 Plus HCSRU 4004 XRV-1 Plus HCSRU 4504 XRV-1 Plus
Power			34 (10+10+14)	36 (10+10+16)	38 (10+12+16)	40 (10+14+16)	42 (14+14+14)	44 (14+14+16)
Rated capacity (1)	Cooling	kW	96.00	101.00	106.50	113.00	120.00	125.00
Rated absorbed power		kW	25.97	28.68	30.72	32.93	34.47	37.18
Rated energy efficiency coefficient		EER	3.70	3.52	3.47	3.43	3.48	3.36
Rated capacity (2)	Heating	kW	103.00	108.00	114.00	116.50	120.00	125.00
Rated absorbed power		kW	22.84	24.98	27.68	28.2	29.28	31.42
Rated energy performance coefficient		COP	4.51	4.32	4.12	4.13	4.10	3.98
Electrical data								
Power	Ph-V-Hz		3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz
Maximum current	A		76.00	77.00	77.70	86.70	95.40	96.40
Refrigerant circuit/features								
Refrigerant	type (GWP)		R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)
Quantity refrigerant pre-load (tons of CO2 equivalent)(3)	Kg (t)		33 (68.904)	33 (68.904)	33 (68.904)	36 (75.168)	39 (81.432)	39 (81.432)
DC Inverter compressor	no. / type		4 / Scroll DC Inverter HITACHI			5 / Scroll DC Inv. HITACHI	6 / Scroll DC Inverter HITACHI	
Diameter refrigerant pipes(4)	Liquid	Ø mm (inch)	19.1 (3/4)			19.1 (3/4)		
	Low pressure gas	Ø mm (inch)	41.3 (1 5/8)			41.3 (1 5/8)		
	High pressure gas	Ø mm (inch)	34.9 (1 3/8)			34.9 (1 3/8)		
	H.p. parallel gas	Ø mm (inch)	19.1 (3/4)			19.1 (3/4)		
	Parallel oil	Ø mm (inch)	6.35 (1/4)			6.35 (1/4)		
Max pipe length	m		1000	1000	1000	1000	1000	1000
Max height difference between indoor units	m		30	30	30	30	30	30
Max height difference between outdoor and indoor units	O.U. up-down	m	70 - 110	70 - 110	70 - 110	70 - 110	70 - 110	70 - 110
Product specifications								
Dimensions (5)	LxHxD	mm	3950x1615x765			3950x1615x765	3950x1615x765	
Net weight	Kg		813			861	909	
Sound pressure level at 1 m	min-max	dB(A)	55/65			55/66	56/67	
Sound power level	max	dB(A)	90			90	90	
Fan air flow	min-max	m³/h	10675 / 39000			10675 / 40000	10675 / 42000	
Operating limit (external temperature)	Cooling	°C / DB	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43
	Heating	°C / WB	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24
Max connectable indoor units	no.		56	59	63	64	64	64
Capacity of connected indoor unit	%		50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130

(1) Cooling capacity tested in accordance with ISO 5151 Standards; outdoor temperature 35° C DB, 24° C WB and indoor temperature 27° C DB, 19° WB.

(2) Heating capacity tested in accordance with ISO 5151 Standards; outdoor temperature 7° C DB, 6° C WB and indoor temperature 20° C DB, 15° C WB.

(3) Refer to the label inside the unit to calculate the additional refrigerant charge.

(4) When several outdoor units are paired the diameters indicated refer to the section up to the first branch, with a length equivalent or less than 90m.

(5) Space between the paired units = 100 mm.

PROJECT VRF R410A FULL DC INVERTER

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XRV PLUS HEAT RECOVERY

Heat recovery - 3 pipes

HCSRU 2524 XRV-1 Plus HCSRU 2804 XRV-1 Plus	HCSRU 2804 XRV-1 Plus HCSRU 2804 XRV-1 Plus	HCSRU 2804 XRV-1 Plus HCSRU 3354 XRV-1 Plus	HCSRU 2804 XRV-1 Plus HCSRU 4004 XRV-1 Plus	HCSRU 2804 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 4004 XRV-1 Plus HCSRU 4004 XRV-1 Plus	HCSRU 4004 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 4504 XRV-1 Plus HCSRU 4504 XRV-1 Plus
18 (8+10)	20 (10+10)	22 (10+12)	24 (10+14)	26 (10+16)	28 (14+14)	30 (14+16)	32 (16+16)
53.20	56.00	61.50	68.00	73.00	80.00	85.00	90.00
13.91	14.48	16.52	18.73	21.44	22.98	25.69	28.40
3.82	3.87	3.72	3.63	3.40	3.48	3.31	3.17
58.50	63.00	69.00	71.50	76.50	80.00	85.00	90.00
11.82	13.08	15.78	16.30	18.44	19.52	21.66	23.80
4.95	4.82	4.37	4.39	4.15	4.10	3.92	3.78
3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz
42.90	44.20	44.90	53.90	54.90	63.60	64.60	65.60
R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)
20 (41.760)	20 (41.760)	20 (41.760)	23 (48.024)	23 (48.024)	26 (54.288)	26 (54.288)	26 (54.288)
2 / Scroll DC Inverter HITACHI			3 / Scroll DC Inverter HITACHI			4 / Scroll DC Inverter HITACHI	
15.9 (5/8)			15.9 (5/8)			19.1 (3/4)	
31.8 (1 1/4)			34.9 (1 3/8)			34.9 (1 3/8)	
28.6 (9/8)			28.6 (9/8)			28.6 (9/8)	
19.1 (3/4)			19.1 (3/4)			19.1 (3/4)	
6.35 (1/4)			6.35 (1/4)			6.35 (1/4)	
1000	1000	1000	1000	1000	1000	1000	1000
30	30	30	30	30	30	30	30
70 - 110	70 - 110	70 - 110	70 - 110	70 - 110	70 - 110	70 - 110	70 - 110
2600x1615x765			2600x1615x765			2600x1615x765	
510			558			606	
55/61			55/62			56/64	
88			88			89	
10675 / 24000			10675 / 25000			12875 / 30000	
-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43
-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24
29	33	36	39	43	46	50	53
50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130

HCSRU 4004 XRV-1 Plus HCSRU 4504 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 4504 XRV-1 Plus HCSRU 4504 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 2524 XRV-1 Plus HCSRU 2804 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 2804 XRV-1 Plus HCSRU 2804 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 2804 XRV-1 Plus HCSRU 3354 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 2804 XRV-1 Plus HCSRU 4004 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 2804 XRV-1 Plus HCSRU 4004 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 4004 XRV-1 Plus HCSRU 4004 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 4004 XRV-1 Plus HCSRU 4004 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 4004 XRV-1 Plus HCSRU 4504 XRV-1 Plus HCSRU 4504 XRV-1 Plus	HCSRU 4504 XRV-1 Plus HCSRU 4504 XRV-1 Plus HCSRU 4504 XRV-1 Plus
46 (14+16+16)	48 (16+16+16)	50 (8+10+16+16)	52 (10+10+16+16)	54 (10+12+16+16)	56 (10+14+16+16)	58 (14+14+14+16)	60 (14+14+16+16)	62 (14+16+16+16)	64 (16+16+16+16)	
130.00	135.00	143.20	146.00	151.50	158.00	165.00	170.00	175.00	180.00	
39.89	42.60	42.31	42.88	44.92	47.13	48.67	51.38	54.09	56.80	
3.26	3.17	3.38	3.40	3.37	3.35	3.39	3.31	3.24	3.17	
130.00	135.00	148.50	153.00	159.00	161.50	165.00	170.00	175.00	180.00	
33.56	35.70	35.62	36.88	39.58	40.10	41.18	43.32	45.46	47.60	
3.87	3.78	4.17	4.15	4.02	4.03	4.01	3.92	3.85	3.78	
3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	
97.40	98.40	108.50	109.80	110.50	119.50	128.20	129.20	130.20	131.20	
R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	
39 (81.432)	39 (81.432)	46 (96.048)	46 (96.048)	46 (96.048)	49 (102.312)	52 (108.576)	52 (108.576)	52 (108.576)	52 (108.576)	
6 / Scroll DC Inverter HITACHI		6 / Scroll DC Inverter HITACHI			7 / Scroll DC Inverter HITACHI		8 / Scroll DC Inverter HITACHI		8 / Scroll DC Inverter HITACHI	
19.1 (3/4)		22.2 (7/8)			22.2 (7/8)		22.2 (7/8)		22.2 (7/8)	
41.3 (1 5/8)		44.5 (1 3/4)			44.5 (1 3/4)		44.5 (1 3/4)		44.5 (1 3/4)	
34.9 (1 3/8)		38.1 (1 1/2)			38.1 (1 1/2)		38.1 (1 1/2)		38.1 (1 1/2)	
19.1 (3/4)		19.1 (3/4)			19.1 (3/4)		19.1 (3/4)		19.1 (3/4)	
6.35 (1/4)		6.35 (1/4)			6.35 (1/4)		6.35 (1/4)		6.35 (1/4)	
1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
30	30	30	30	30	30	30	30	30	30	
70 - 110	70 - 110	70 - 110	70 - 110	70 - 110	70 - 110	70 - 110	70 - 110	70 - 110	70 - 110	
3950x1615x765		5300x1615x765			5300x1615x765		5300x1615x765		5300x1615x765	
909		1116			1164		1212		1212	
		56/68			56/68		55/69		55/69	
		91			91		91		91	
		10675 / 54000			10675 / 55000		10675 / 57000		12875 / 60000	
-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43	
-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24	
64	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	50 - 130	

(1) Cooling capacity tested in accordance with ISO 5151 Standards; outdoor temperature 35° C DB, 24° C WB and indoor temperature 27° C DB, 19° WB.
 (2) Heating capacity tested in accordance with ISO 5151 Standards; outdoor temperature 7° C DB, 6° C WB and indoor temperature 20° C DB, 15° C WB.
 (3) Refer to the label inside the unit to calculate the additional refrigerant charge.
 (4) When several outdoor units are paired the diameters indicated refer to the section up to the first branch, with a length equivalent or less than 90m.
 (5) Space between the paired units = 100 mm.

PROJECT VRF R410A FULL DC INVERTER

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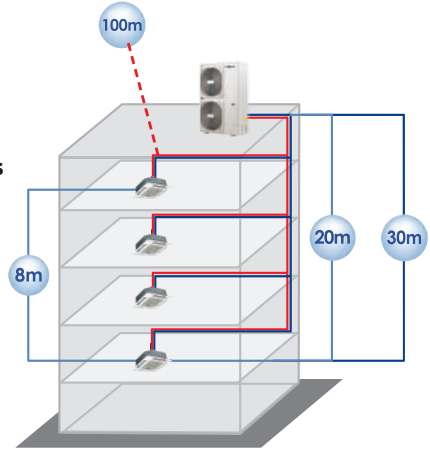
XRV PLUS MINI Heat pump



FULL DC INVERTER HCNU 1054 XRV-1 Plus

FULL DC INVERTER HCNU 1404 XRV-1 Plus HCSU 1404 XRV-1 Plus HCSU 1604 XRV-1 Plus HCSU 1804 XRV-1 Plus

NEW



Splitting lengths and height differences

Maximum length of
the pipes = 100 m

All units are equipped with a high efficiency Full DC Inverter compressor .

Slim, flexible design.

DC Inverter motor fan:

- wider fan speed adjustment range
- reduced noise level

Optimal design of the fan and fan-shaped louvre, that ensure low noise level at high air flow.

Broad operating range

- cooling -15° C ~ +43° C
- heating -15° C ~ +27° C

Auto-addressing of indoor units.

Maximum distance between O.U. and the farthest I.U. = 70 m
(50 m for HCNU 1054 XRV-1 Plus)

Maximum distance from the first branch pipe to the farthest = 20 m

Maximum height difference between O.U. (up high) and I.U. = 30 m

Maximum height difference between O.U. (down low) and I.U. = 20 m

Maximum height difference between I.U. = 8 m

Maximum length of the pipes = 100 m

NEW

Model			HCNU 1054 XRV-1 Plus	HCNU 1404 XRV-1 Plus	HCSU 1404 XRV-1 Plus	HCSU 1604 XRV-1 Plus	HCSU 1804 XRV-1 Plus
Power		HP	3.75	5	5	6	6.5
Rated capacity (1)	Cooling	kW	9.00	14.00	14.00	15.50	17.50
Rated absorbed power		kW	2.30	3.95	3.95	4.52	5.30
Rated energy efficiency coefficient		EER	3.91	3.54	3.54	3.43	3.30
Rated capacity (2)	Heating	kW	9.00	15.40	15.40	17.00	19.00
Rated absorbed power		kW	2.27	4.15	4.15	4.77	5.00
Rated energy performance coefficient		COP	3.97	3.71	3.71	3.56	3.80
Electrical data							
Power		Ph-V-Hz	1-220~240V-50Hz		3-380~415V-50Hz		
Maximum current		A	22.80	29.80	11.00	12.00	12.50
Refrigerant circuit/features							
Refrigerant		type (GWP)	R410A (2088)				
Quantity refrigerant pre-load (tons of CO2 equivalent)		Kg (t)	2.95 (6.160)	3.9 (8.143)	3.9 (8.143)		4.5 (9.396)
DC Inverter compressor		no. / type	Rotary DC Inverter MITSUBISHI				
Diameter refrigerant pipes	Liquid	Ø mm (inch)	9.53 (3/8")		9.53 (3/8")		
	Gas	Ø mm (inch)	15.9 (5/8")		19.1 (3/4")		
Max pipe length		m	100				
Max height difference between indoor units		m	8				
Max height difference between outdoor and indoor units	O.U. up-down	m	30 - 20				
Product specifications							
Dimensions	LxHxD	mm	990(+85)x966x354	900x1327x348	900x1327x348		
Net weight		Kg	75.5	95	95	102	107
Sound pressure level at 1 m	max	dB(A)	54	57	57		59
	max	dB(A)	68	73	73	73	74
Fan air flow	max	m³/h	5500	6000	6000		6800
Operating limit (external temperature)	Cooling	°C / DB	-15 / 43				
	Heating	°C / WB	-15 / 27				
Max connectable indoor units		no.	5	6	6	7	9
Capacity of connected indoor unit		%	45 - 130				

(1) Cooling capacity tested in accordance with ISO 5151 Standards; outdoor temperature 35° C DB, 24° C WB and indoor temperature 27° C DB, 19° C WB.
(2) Heating capacity tested in accordance with ISO 5151 Standards; outdoor temperature 7° C DB, 6° C WB and indoor temperature 20° C DB, 15° C WB.

PROJECT VRF R410A FULL DC INVERTER

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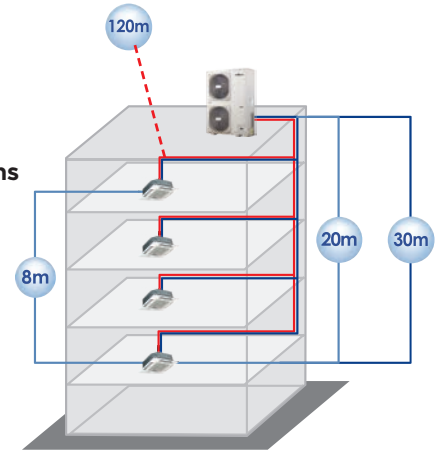
XRV PLUS MINI Heat pump



FULL DC INVERTER
HCYU 2004 XRV-1 Plus
HCYU 2244 XRV-1 Plus
HCYU 2604 XRV-1 Plus

Splitting lengths and height differences

Maximum length of the pipes = 120 m



All units are equipped with a high efficiency Full DC Inverter compressor .

DC Inverter motor fan:

- wider fan speed adjustment range
- reduced noise level

Up to 12 indoor units connected to one compact outdoor unit.

Auto-addressing of indoor units.

Self-diagnosis function for main system problems.

Maximum distance between O.U. and the farthest I.U. = 70 m

Maximum distance from the first branch pipe to the farthest = 20 m

Maximum height difference between O.U. (up high) and I.U. = 30 m

Maximum height difference between O.U. (down low) and I.U. = 20 m

Maximum height difference between I.U. = 8 m

Maximum length of the pipes = 120 m

Model		HCYU 2004 XRV-1 Plus		HCYU 2244 XRV-1 Plus		HCYU 2604 XRV-1 Plus	
Power		HP	7	8	9		
Rated capacity (1)	Cooling	kW	20.00	22.40	26.00		
		kW	6.10	6.80	7.60		
		EER	3.28	3.29	3.42		
Rated capacity (2)	Heating	kW	22.00	24.50	28.50		
		kW	6.10	5.90	6.80		
		COP	3.61	4.15	4.19		
Electrical data							
Power		Ph-V-Hz	3-380~415V-50Hz				
Maximum current		A	14.50	16.20	18.50		
Refrigerant circuit/features							
Refrigerant		type (GWP)	R410A (2088)				
Quantity refrigerant pre-load (tons of CO2 equivalent)		Kg (t)	4.8 (10.022)	6.2 (12.946)			
DC Inverter compressor		no. / type	Rotary DC Inverter MITSUBISHI				
Diameter refrigerant pipes	Liquid	Ø mm (inch)	9.52 (3/8)				
	Gas	Ø mm (inch)	19.1 (3/4)	22.2 (7/8)			
Max pipe length		m	120				
Max height difference between indoor units		m	8				
Max height difference between outdoor and indoor units	O.U. up-down	m	30 - 20				
Product specifications							
Dimensions	LxHxD	mm	1120x1558x400				
Net weight		Kg	137	146.5	147		
Sound pressure level at 1 m	max	dB(A)	55/59		56/60		
Sound power level	max	dB(A)	76		77		
Fan air flow	max	m³/h	10999	10494	10494		
Operating limit (external temperature)	Cooling	°C / DB	-15 / 46				
	Heating	°C / WB	-15 / 24				
Max connectable indoor units		no.	10	11	12		
Capacity of connected indoor unit		%	50 - 130				

(1) Cooling capacity tested in accordance with ISO 5151 Standards; outdoor temperature 35° C DB, 24° C WB and indoor temperature 27° C DB, 19° C WB.
(2) Heating capacity tested in accordance with ISO 5151 Standards; outdoor temperature 7° C DB, 6° C WB and indoor temperature 20° C DB, 15° C WB.

PROJECT VRF R410A FULL DC INVERTER

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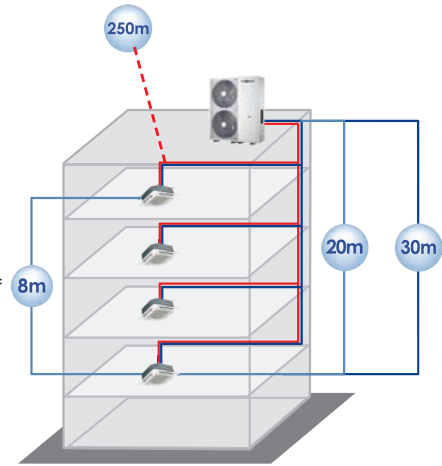
XRV PLUS MINI Heat pump



FULL DC INVERTER
HCYU 4004 XRV-1 Plus
HCYU 4504 XRV-1 Plus

Splitting lengths and height differences

Maximum length of the pipes = 250 m



All units are equipped with a high efficiency Full DC Inverter compressor .

DC Inverter motor fan:

- wider fan speed adjustment range
- reduced noise level

Up to 15 indoor units connected to one compact outdoor unit.

Auto-addressing of indoor units.

Self-diagnosis function for main system problems.

Maximum distance between O.U. and the farthest I.U. = 120 m

Maximum distance from the first branch pipe to the farthest = 40 m

Maximum height difference between O.U. (up high) and I.U. = 30 m

Maximum height difference between O.U. (down low) and I.U. = 20 m

Maximum height difference between I.U. = 8 m

Maximum length of the pipes = 250 m

Model			HCYU 4004 XRV-1 Plus		HCYU 4504 XRV-1 Plus	
Power		HP	14		16	
Rated capacity (1)	Cooling	kW	40.00		45.00	
Rated absorbed power		kW	11.90		13.60	
Rated energy efficiency coefficient		EER	3.35		3.32	
Rated capacity (2)	Heating	kW	45.00		50.00	
Rated absorbed power		kW	11.10		12.70	
Rated energy performance coefficient		COP	4.05		3.93	
Electrical data						
Power		Ph-V-Hz	3-380~415V-50Hz			
Maximum current		A	33.00		44.00	
Refrigerant circuit/features						
Refrigerant		type (GWP)	R410A (2088)			
Quantity refrigerant pre-load (tons of CO2 equivalent)		Kg (t)	9 (18.792)		12 (25.056)	
DC Inverter compressor		no. / type	2/ Rotary DC Inverter MITSUBISHI			
Diameter refrigerant pipes	Liquid	Ø mm (inch)	12.7 (1/2)		12.7 (1/2)	
	Gas	Ø mm (inch)	22.2 (7/8)		25.4 (1)	
Max pipe length		m	250			
Max height difference between indoor units		m	8			
Max height difference between outdoor and indoor units	O.U. up-down	m	30 - 20			
Product specifications						
Dimensions	LxHxD	mm	1360x1650x540		1460x1650x540	
Net weight		Kg	240		275	
Sound pressure level at 1 m	max	dB(A)	55/62		55/62	
Sound power level	max	dB(A)	82		83	
Fan air flow	max	m³/h	16575		16575	
Operating limit (external temperature)	Cooling	°C / DB	-5 / 43			
	Heating	°C / WB	-15 / 24			
Max connectable indoor units		no.	14		15	
Capacity of connected indoor unit		%	50 - 130			

(1) Cooling capacity tested in accordance with ISO 5151 Standards; outdoor temperature 35° C DB, 24° C WB and indoor temperature 27° C DB, 19° C WB.

(2) Heating capacity tested in accordance with ISO 5151 Standards; outdoor temperature 7° C DB, 6° C WB and indoor temperature 20° C DB, 15° C WB.

PROJECT VRF R410A FULL DC INVERTER

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PREMIUM - SERIE P INDOOR UNITS

		kW	2.20	2.80	3.60	4.50	5.60	7.10	9.00	11.20	12.50	14.00	16.00	20.00	28.00
Cassette units	compact 60x60  HTFU XRV-P		•	•	•	•									
	84x84  HTBU XRV-P						•	•	•	•		•			
Ducted	medium pressure head  HUCU XRV-P		•	•	•	•	•	•	•	•		•			
	high pressure head  HVDU XRV-P							•	•	•		•	•	•	•
	all-outside air  HVDU-F XRV-P										•	•			
Floor	wall  HKEU XRV-P		•	•	•	•	•	•	•						
	floor / ceiling  HSFU XRV-P						•	•	•	•		•			
	recessed  HFIU XRV-P		•	•	•	•									
console  HFCU XRV-P			•	•		•									

PROJECT VRF R410A FULL DC INVERTER

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HTFU XRV-P Compact cassette 60x60



The control must be purchased as an accessory



Characteristics

2.20-4.50 kW | 4 power levels

Ultra-compact design.

22 dB(A) (2.20-2.80 kW) | Extremely quiet

360° air diffusion

Condensate drain pump with possibility of raising the discharge up to 500 mm from the lower height

Model		HTFU 225 XRV-P	HTFU 285 XRV-P	HTFU 365 XRV-P	HTFU 455 XRV-P
Control (included)	type	none			
Rated cooling capacity	kW	2.20	2.80	3.60	4.50
Rated heating capacity	kW	2.40	3.20	4.00	5.00
Electrical data					
Power	Ph-V-Hz	1-220~240V-50Hz			
Electrical absorption	W	35	35	40	50
Product specifications					
Air flow (1)	Max~Min	m³/h		604~400	
Sound pressure level at 1.4 m (1)	Max~Min	dB(A)		41~28	
Sound power level (1)	Max~Min	dB(A)		56~43	
External dimensions	LxHxD	mm			
Net weight		Kg		19.2	
Refrigerant connections	Liquid/Gas	Ø mm (inch)		6.35 (1/4") - 12.7 (1/2")	
Condensate drain		Ø mm			
Accessories					
Decorative panel		TFP 155 XRV-P			
Dimensions	LxHxD	mm			
Net weight		Kg			
Remote control		DHIR-5-6-XRV-K-P			
Wired remote control		DHW-5-6-XRV-K-P			
Optional parts					
Centralised control		See on page 123			

(1) Values related to Max and Min speed of 7 levels settable by remote control.

HTBU XRV-P Cassette 84x84



The control must be purchased as an accessory



Characteristics

5.60-14.00 kW | 5 power levels

Low resistance and low noise fan profile

Condensate drain pump with possibility of raising the discharge up to 750 mm from the lower height

Internal electronic control

Pre-set for the connection of a channel for the intake of external air

Model		HTBU 565 XRV-P	HTBU 715 XRV-P	HTBU 905 XRV-P	HTBU 1125 XRV-P	HTBU 1405 XRV-P
Control (included)	type	none				
Rated cooling capacity	kW	5.60	7.10	9.00	11.20	14.00
Rated heating capacity	kW	6.30	8.00	10.00	12.50	16.00
Electrical data						
Power	Ph-V-Hz	1-220~240V-50Hz				
Electrical absorption	W	31	46	75	94	
Product specifications						
Air flow (1)	Max~Min	m³/h		1596~1034		1727~1224
Sound pressure level at 1.4 m (1)	Max~Min	dB(A)		47~36		50~38
Sound power level (1)	Max~Min	dB(A)		61~50		64~52
External dimensions	LxHxD	mm		840x300x840		
Net weight		Kg		28.4		
Refrigerant connections	Liquid/Gas	Ø mm (inch)		9.52 (3/8") - 15.9 (5/8")		
Condensate drain		Ø mm				
Accessories						
Decorative panel		TBP 712 IHXR				
Dimensions	LxHxD	mm				
Net weight		Kg				
Remote control		DHIR-5-6-XRV-K-P				
Wired remote control		DHW-5-6-XRV-K-P				
Optional parts						
Centralised control		See on page 123				

(1) Values related to Max and Min speed of 7 levels settable by remote control.

PROJECT VRF R410A FULL DC INVERTER

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HUCU XRV-P Medium head ducted



The control must be purchased as an accessory



Characteristics

2.20-14.00 kW | 9 power levels

Only 210 mm in height (2.20~7.10 kW) | Ultra-compact design: thanks to its small size it is ideal for use in hotels

Available pressure head: **50 Pa** (2.20~7.10 kW); **100 Pa** (9.00~11.20 kW); **150 Pa** (14.00 kW)

Air intake from bottom or rear

Electrical box inside the unit body

Condensate drain pump with possibility of raising the discharge up to 750 mm from the lower height

Model			HUCU 225 XRV-P	HUCU 285 XRV-P	HUCU 365 XRV-P	HUCU 455 XRV-P
Control (included)	type		none			
Rated cooling capacity	kW		2.20	2.80	3.60	4.50
Rated heating capacity	kW		2.60	3.20	4.00	5.00
Electrical data						
Power	Ph-V-Hz		1-220~240V-50Hz			
Electrical absorption	W		40	40	45	92
Product specifications						
Air flow (1)	Max~Min	m³/h	520~300		580~370	800~400
Fan pressure head	Std/Max	Pa	10/50			
Sound pressure level at 1.4 m (1)	Max~Min	dB(A)	32~23		33~25	36~25
Sound power level (1)	Max~Min	dB(A)	50~41		51~43	54~43
Dimensions	LxHxD	mm	780x210x500			1000x210x500
Net weight		Kg	18			21.5
Refrigerant connections	Liquid/Gas	Ø mm (inch)	6.35 (1/4") - 12.7 (1/2")			
Condensate drain		Ø mm	25			
Accessories						
Remote control			DHIR-5-6-XRV-K-P			
Wired remote control			DHW-5-6-XRV-K-P			
Optional parts						
Centralised control			See on page 123			

(1) Values related to Max and Min speed of 7 levels settable by remote control.

Model			HUCU 565 XRV-P	HUCU 715 XRV-P	HUCU 905 XRV-P	HUCU 1125 XRV-P	HUCU 1405 XRV-P
Control (included)	type		none				
Rated cooling capacity	kW		5.60	7.10	9.00	11.20	14.00
Rated heating capacity	kW		6.30	8.00	10.00	12.50	15.50
Electrical data							
Power	Ph-V-Hz		1-220~240V-50Hz				
Electrical absorption	W		92	98	120	200	250
Product specifications							
Air flow (1)	Max~Min	m³/h	830~560	1000~680	1260~780	1500~1080	1960~1360
Fan pressure head	Std/Max	Pa	10/50		20/100		40/150
Sound pressure level at 1.4 m (1)	Max~Min	dB(A)	36~28	37~28	37~28	39~33	41~33
Sound power level (1)	Max~Min	dB(A)	54~46	55~46	55~46	57~51	59~51
Dimensions	LxHxD	mm	1000x210x500	1220x210x500	1230x270x775		1290x300x865
Net weight		Kg	21.5	27.5	37		46.5
Refrigerant connections	Liquid/Gas	Ø mm (inch)	9.52 (3/8") - 15.9 (5/8")				
Condensate drain		Ø mm	25				
Accessories							
Remote control			DHIR-5-6-XRV-K-P				
Wired remote control			DHW-5-6-XRV-K-P				
Optional parts							
Centralised control			See on page 123				

(1) Values related to Max and Min speed of 7 levels settable by remote control.

PROJECT VRF R410A FULL DC INVERTER

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HVDU XRV-P Ducted with high head



The control must be purchased as an accessory



Characteristics

7.10-28.00 kW | 7 power levels

Available pressure head:

200 Pa (7.10-16.00 kW)

250 Pa (20.00-28.00 kW)

423 mm in height (7.10-16.00 kW) | Compact size

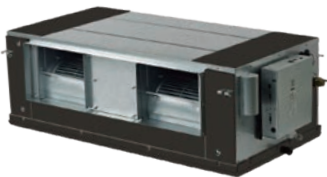
Rear air intake

Ease of maintenance

Model		HVDU 715 XRV-P	HVDU 905 XRV-P	HVDU 1125 XRV-P	HVDU 1405 XRV-P	HVDU 1605 XRV-P	HVDU 2005 XRV-P	HVDU 2805 XRV-P	
Control (included)	type	none							
Rated cooling capacity	kW	7.10	9.00	11.20	14.00	16.00	20.00	28.00	
Rated heating capacity	kW	8.00	10.00	12.50	16.00	17.00	22.50	31.50	
Electrical data									
Power	Ph-V-Hz	1-220~240V-50Hz							
Electrical absorption	W	180	220	380	420	700	990	1200	
Product specifications									
Air flow (1)	Max~Min	m ³ /h	1360~1160	1420~1140	1870~1350	2240~1600	2660~1880	4330~3730	
Fan pressure head	Std/Max	Pa	100/200					170/250	
Sound pressure level at 1.4 m (1)	Max~Min	dB(A)	46~42	50~45	50~45	53~48	54~50	57~50	
Sound power level (1)	Max~Min	dB(A)	64~60	68~63	68~63	71~66	72~68	75~68	
Dimensions	LxHxD	mm	965x423x690			1322x423x691		1454x515x931	
Net weight		Kg	41	51	51	68	68	130	
Refrigerant connections	Liquid/Gas	Ø mm (inch)	9.52 (3/8") - 15.9 (5/8")					12.7 (1/2") - 22.2 (7/8")	
Condensate drain		Ø mm	25					32	
Accessories									
Remote control		DHIR-5-6-XRV-K-P							
Wired remote control		DHW-5-6-XRV-K-P							
Optional parts									
Centralised control		See on page 123							

(1) Values related to Max and Min speed of 7 levels settable by remote control.

HVDU-F XRV-P All-outside air ducted



The control must be purchased as an accessory



Characteristics

These air processing units can be connected together with the indoor units to the same refrigerant system, thus increasing the design flexibility and creating a remarkable reduction in operating costs

12.50-14.00 kW | 2 power levels

423 mm in height | Ultra-compact design

200 Pa | Max pressure head of fans

Automatic function "all-outside air" to save energy when the outdoor temperature drops below the set temperature

Model		HVDU-F 1255 XRV-P	HVDU-F 1405 XRV-P
Control (included)		none	
Rated cooling capacity (1)	kW	12.50	14.00
Rated heating capacity (2)	kW	10.50	12.00
Electrical data			
Power	Ph-V-Hz	1-220~240V-50Hz	
Electrical absorption	W	480	
Product specifications			
Air flow (3)	Max~Min	m ³ /h	2000~1500
Fan pressure head	Std/Max	Pa	180/200
Sound pressure level at 1.4 m (3)	Max~Min	dB(A)	48~42
Sound power level (3)	Max~Min	dB(A)	66~60
Dimensions	LxHxD	mm	1322x423x691
Net weight		Kg	68
Refrigerant connections	Liquid/Gas	Ø mm (inch)	9.52 (3/8") - 15.9 (5/8")
Condensate drain		Ø mm	25
Operating field (100% outdoor air)	Cooling	°C	-5 / 16
	Heating		20 / 43
Accessories			
Remote control		DHIR-5-6-XRV-K-P	
Wired remote control		DHW-5-6-XRV-K-P	
Optional parts			
Centralised control		See on page 123	

(1) Cooling test conditions: 100% outdoor air 33° C DB, 28° C WB. (2) Heating test conditions: 100% outdoor air 0° C DB, -2.9° C WB. (3) Values related to Max and Min speed of 7 levels settable by remote control.

PROJECT VRF R410A FULL DC INVERTER

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HKEU XRV-P Wall



The control must be purchased as an accessory



Characteristics

2.20-9.00 kW | 7 power levels

New design

203 mm deep (2.20 kW) | Very compact design

29 dB(A) (2.20-2.80 kW) | Extremely quiet

Standard washable filter

Model		HKEU 225 XRV-P	HKEU 285 XRV-P	HKEU 365 XRV-P	HKEU 455 XRV-P	HKEU 565 XRV-P	HKEU 715 XRV-P	HKEU 905 XRV-P	
Control (included)	type	none							
Rated cooling capacity	kW	2.20	2.80	3.60	4.50	5.60	7.10	9.00	
Rated heating capacity	kW	2.40	3.20	4.00	5.00	6.30	8.00	10.00	
Electrical data									
Power	Ph-V-Hz	1-220~240V-50Hz							
Electrical absorption	W	28	30	40	45	55	82		
Product specifications									
Air flow (1)	Max~Min	m³/h	422~356	417~316	656~488	594~424	747~547	1195~809	1421~867
Sound pressure level at 1 m (1)	Max~Min	dB(A)	31~29	31~29	33~30	35~31	38~34	44~36	48~38
Sound power level (1)	Max~Min	dB(A)	46~44	46~44	48~45	50~46	53~49	59~51	63~53
Dimensions	LxHxD	mm	835x280x203			990x315x223		1194x343x262	
Net weight		Kg	8.4	9.5	11.4	12.8	17		
Refrigerant connections	Liquid/Gas	Ø mm (inch)	6.35 (1/4") - 12.7 (1/2")			9.52 (3/8") - 15.9 (5/8")			
Condensate drain		Ø mm	16						
Accessories									
Remote control		DHIR-5-6-XRV-K-P							
Wired remote control		DHW-5-6-XRV-K-P							
Optional parts									
Centralised control		See on page 123							

(1) Values related to Max and Min speed of 7 levels settable by remote control.

HSFU XRV-P Floor/ceiling



The control must be purchased as an accessory



Characteristics

5.60-14.00 kW | 5 power levels

Auto Swing function | Optimizes the distribution of air flow in the environment

Built-in electronic expansion valve

Easy installation with unit attached to the wall or ceiling

Model		HSFU 565 XRV-P	HSFU 715 XRV-P	HSFU 905 XRV-P	HSFU 1125 XRV-P	HSFU 1405 XRV-P
Control (included)	type	none				
Rated cooling capacity	kW	5.60	7.10	9.00	11.20	14.00
Rated heating capacity	kW	6.30	8.00	10.00	12.50	15.00
Electrical data						
Power	Ph-V-Hz	1-220~240V-50Hz				
Electrical absorption	W	115	115	130	180	180
Product specifications						
Air flow (1)	Max~Min	m³/h	930~720		1280~1050	1890~1580
Sound pressure level at 1 m (1)	Max~Min	dB(A)	43~38		45~40	47~42
Sound power level (1)	Max~Min	dB(A)	56~51		58~53	60~55
Dimensions	LxHxD	mm	990x660x203		1280x660x203	1670x680x244
Net weight		Kg	28		35	48
Refrigerant connections	Liquid/Gas	Ø mm (inch)	9.52 (3/8") - 15.9 (5/8")			
Condensate drain		Ø mm	16			
Accessories						
Remote control		DHIR-5-6-XRV-K-P				
Wired remote control		DHW-5-6-XRV-K-P				
Optional parts						
Centralised control		See on page 123				

(1) Values related to Max and Min speed of 7 levels settable by remote control.

PROJECT VRF R410A FULL DC INVERTER

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HFIU XRV-P Console



The control must be purchased as an accessory



Characteristics

- 2.20~4.50 kW** | 4 power levels
- 210 mm deep** | Ultra-compact design
- Dual capacity to control air output floor: upper and lower
- 7 fan speeds
- Front and side air intake
- Anti-formaldehyde filter** | To eliminate the harmful effects of the gases released in the environments

Model	HFIU 225 XRV-P		HFIU 285 XRV-P		HFIU 365 XRV-P		HFIU 455 XRV-P	
Control (included)	none							
Rated cooling capacity	kW		2.20		2.80		3.60	
Rated heating capacity	kW		2.60		3.20		4.00	
Electrical data								
Power supply	Ph-V-Hz		1-220~240V-50Hz					
Electrical absorption	W		20		25		25	
Product specifications								
Air flow (1)	Max~Min	m³/h	430~229		510~229		510~229	
Sound pressure level at 1 m (1)	Max~Min	dB(A)	38~26		39~27		39~27	
Sound power level (1)	Max~Min	dB(A)	54~42		55~43		55~43	
Dimensions	LxHxD	mm	700x600x210					
Net weight	Kg		14		15			
Refrigerant connections	Liquid/Gas	Ø mm (inch)	6.35 (1/4") - 12.7 (1/2")					
Condensate drain	Ø mm		16					
Accessories								
Remote control			DHIR-5-6-XRV-K-P					
Wired remote control			DHW-5-6-XRV-K-P					
Optional parts								
Centralised control			See on page 123					

(1) Values related to Max and Min speed of 7 levels settable by remote control.

HFCU XRV-P Flush floor



The control must be purchased as an accessory



Characteristics

- 2.80~5.60 kW** | 3 power levels
- 29 dB(A)** (2.80 kW) | Extremely quiet
- Lower air intake
- Built-in expansion valve and electronic control

Model	HFCU 285 XRV-P		HFCU 365 XRV-P		HFCU 565 XRV-P	
Control (included)	none					
Rated cooling capacity	kW		2.80		3.60	
Rated heating capacity	kW		3.20		4.00	
Electrical data						
Power supply	Ph-V-Hz		1-220~240V-50Hz			
Electrical absorption	W		45		55	
Product specifications						
Air flow (1)	Max~Min	m³/h	569~421		624~375	
Fan pressure head	Std/Max	Pa	10/10		10/10	
Sound pressure level at 1 m (1)	Max~Min	dB(A)	36~29		37~30	
Sound power level (1)	Max~Min	dB(A)	54~47		55~48	
Dimensions	LxHxD	mm	840x545x212		1040x545x212	
Net weight	Kg		21		25.5	
Refrigerant connections	Liquid/Gas	Ø mm (inch)	6.35 (1/4") - 12.7 (1/2")			
Condensate drain	Ø mm		16			
Accessories						
Remote control			DHIR-5-6-XRV-K-P			
Wired remote control			DHW-5-6-XRV-K-P			
Optional parts						
Centralised control			See on page 123			

(1) Values related to Max and Min speed of 7 levels settable by remote control.

PROJECT VRF R410A FULL DC INVERTER

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TOTAL HEAT EXCHANGER

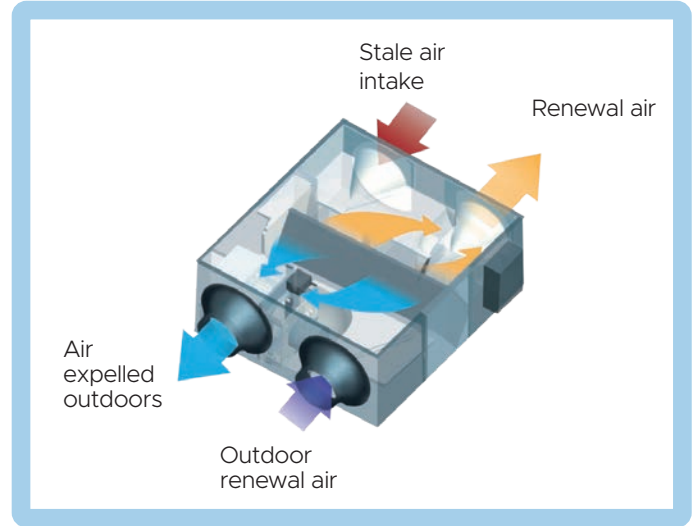


EHIN 203-1003

The control must be purchased as an accessory



EHIN 1503-2003



Enthalpy heat recovery unit. Energy regenerator during heat exchanges in rooms

The ventilation units with heat recovery are suited for use in bars, restaurants, offices, gyms, changing rooms and all rooms where it is necessary to exchange air during hours of operation.

The units consist of two centrifugal fans: one introduces clean air filtered from outside and the other one expels the stale air from the inside. The two air flows go through one blade heat exchanger in which part of the heat is recovered.

Depending on the season, the indoor air heats or cools the outdoor air that is introduced without coming into contact with it.

- 8 power sizes: 200~2000 m³/h.
- DC Inverter fan.

Model			EHIN 203	EHIN 303	EHIN 403	EHIN 503	EHIN 803	EHIN 1003	EHIN 1503	EHIN 2003	
Control (included)		type	None								
Heat exchange efficiency ¹	Enthalpy	%	77.5	72.1	73.5	74.0	72.3	76.0	69.4	74.7	
	Account	%	81.1	75.5	77.7	80.6	78.7	82.8	75.5	77.2	
Electrical data											
Power		Ph-V-Hz	1-220~240-50								
Power absorption		W	70	100	110	150	320	380	680	950	
Rated absorbed current		A	0.64	0.84	0.97	1.2	2.4	2.9	3.8	5.7	
Product specifications											
External dimensions	LxHxD	mm	801x272x1195	914x272x1195	1204x272x1276	1106x390x1311	1286x390x1311	1526x390x1311	1375x615x1740	1575x685x1811	
Net weight		Kg	46.5	56.5	71.5	76	80	90	181.5	208.5	
Sound power level	Hi	dB(A)	45	48	48	50	55	54	69	70	
Treated air		m ³ /h	200	300	400	500	800	1000	1500	2000	
Fan pressure head	Hi	Pa	100	90	100	90	140	160	180	200	
Ducting flange		mm	ø144	ø144	ø198	ø244	ø244	ø244	346x326	346x326	
Condensate drain			Not required						Necessary		
Field of application		°C	-7~43 DB (max RH 80%)								
Degree of protection			IPX2								
Specific energy consumption ²	SEC	kWh/m ² a	-41.50	-	-	-	-	-	-	-	
SEC class ²			A	-	-	-	-	-	-	-	
Accessories											
Mandatory wired remote control			DHW EH								

1. Values related to the high speed of the 3 levels settable by wired remote control.

2. Mandatory data for residential ventilation units (RVU) only.

EU Ecodesign Directive 1253/2014 for non-residential ventilation units (NRVU) and residential ventilation (RVU).

EU Energy Labelling 1254/2014 Residential Ventilation Unit (RVU).

PROJECT VRF R410A FULL DC INVERTER

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EEV KIT

Kit for connecting UTA with direct expansion battery to Hokkaido XRV systems.



HAHU 9-20 XRV-K
HAHU 20-36 XRV-K
HAHU 36-56 XRV-K

EEV-KIT lets you connect direct air handling unit expansion coils to XRV systems.

These kits are composed of an expansion valve and electronic control to manage refrigerant flow toward the AHU: in this way, AHU systems can make use of the advantages linked to XRV technology.

EEV-KIT Application diagrams

Diagram type A: Mixed system indoor unit XRV + AHU

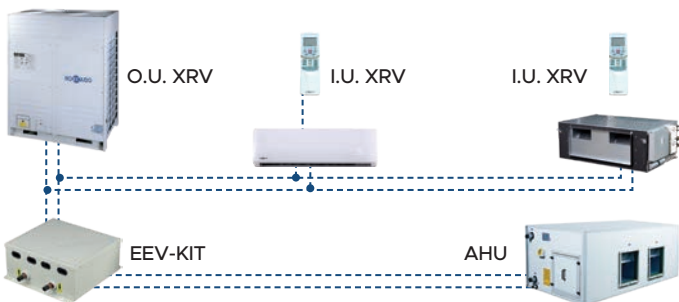
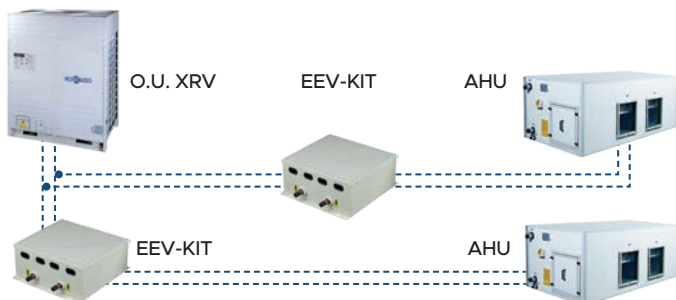
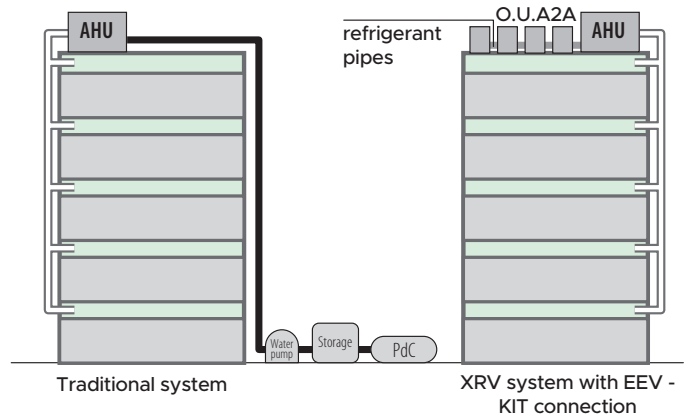


Diagram type B: AHU only



Traditional VS XRV systems with EEV-KIT

Below is a comparison between a traditional connection system and an XRV system with EEV-KIT connection.



EEV-KIT Advantages

High energy efficiency thanks to XRV technology which involves:

- improved indoor temperature control in rooms
- reduced energy consumption linked to Inverter technology
- reduced outdoor unit start&stop cycles
- lower installation and maintenance costs with respect to traditional systems which use an AHU

Installation and operation

Here are a series of instructions regarding EEV-KIT functionality and the correct installation methods.

- Failure feedback function: error codes can be shown on the display when malfunctions occur. It is also possible to verify the set temperature.
- Maximum Number of EEV-Kit that can be connected to an AHU: 4 (maximum reachable capacity 224 kW).
- Maximum distance between EEV Kits and AHU: 8 m. Kit can be connected with XRV systems with R410A refrigerant gas, except for heat recovery systems (XRV 3 pipes).

PROJECT VRF R410A FULL DC INVERTER

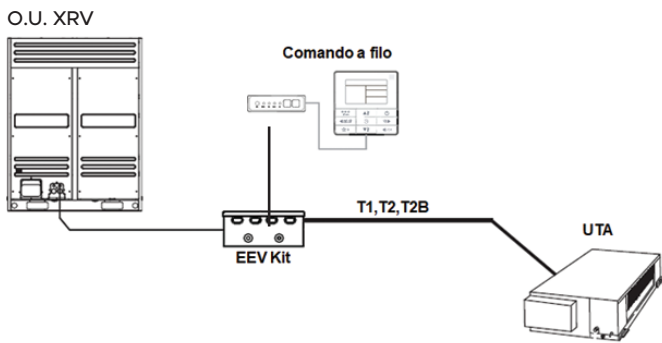
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EEV KIT

Technical data

Model	HAHU 9-20 XRV-K	HAHU 20-36 XRV-K	HAHU 36-56 XRV-K
Rated heating (kW)	9.00~20.00	20.10~36.00	36.10~56.00
Power supply (Ph-V-Hz)	1-220~240V-50Hz		
H x L x D (mm)	375 x 350 x 150		
Net weight (kg)	8.4	8.7	8.9
In/out refrigerant connections [Ø mm (inch)]	7.9 (5/16")	12.7 (1/2")	15.9 (5/8")
Serial control (type)	Wired remote control		
Optional parts			
Third-party control	Siemens POL 638.70		
Centralised control	See compatibility table		

Electrical connections diagram

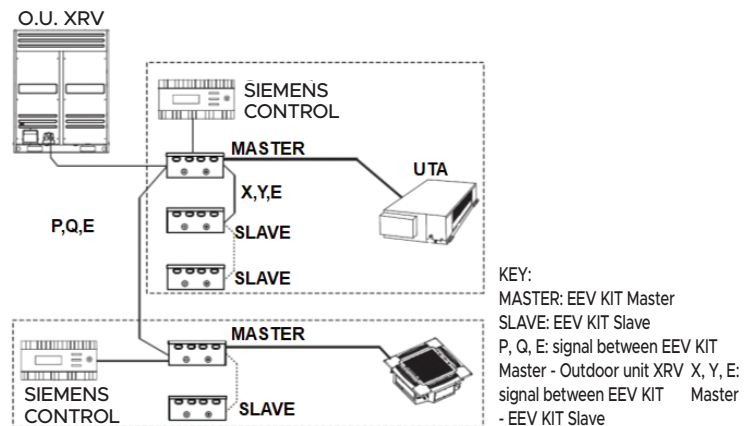


Room temperature control occurs with the same logic as an XRV: comparing the temperature detected by the T1 sensor and the setting temperature Ts, it is possible to start or stop the outdoor unit, calculate the required thermal load and manage the refrigerant flow through the electronic expansion valve.

EEV-KIT type selection

Model	HP	I.U. rated capacity (kW)
HAHU 9-20 XRV-K	3.2	Between 9.00 and 11.20 kW
	4	Between 11.20 and 14.00 kW
	5	Between 14.00 and 18.00 kW
	6	Between 18.00 and 20.00 kW
HAHU 20-36 XRV-K	8	Between 20.00 and 25.00 kW
	10	Between 25.00 and 30.00 kW
	12	Between 30.00 and 36.00 kW
HAHU 36-56 XRV-K	14	Between 36.00 and 40.00 kW
	16	Between 40.00 and 45.00 kW
	18	Between 45.00 and 50.00 kW
	20	Between 50.00 and 56.00 kW

Master-slave connection logic



In the case of parallel connections of more than one EEV-KIT to service a AHU, the connection logic to be followed is that of Master-Slave.

The choice of the quantities and capacity of the EEV KITS to be installed is related to the power of the AHU to which it must be connected.

Example

If the AHU has a capacity of 92 kW, 2 EEV-KITs can be installed:

HAHU 36-56 XRV-K - setting capacity 20HP

HAHU 20-36 XRV-K - setting capacity 12HP