

PROJECT VRF R410A FULL DC INVERTER, EFFICIENCY AND EASE OF INSTALLATION



Strengthened by its continued commitment to technological research and its long experience in the heating/cooling systems market in Italy and Europe, Hokkaido is proud to announce the **PROJECT VRF R410A** line, a strong candidate for a leading product in the VRF systems market.

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

Line up	48
XRV PLUS MINI	52
Heat pump	
XRV INDIVIDUAL	55
Heat pump	
XRV PLUS HEAT RECOVERY	58
Heat recovery - 3 pipes	
PREMIUM INDOOR UNITS	69
P series	
ENTHALPY HEAT RECOVERY UNIT	76
EEV KIT	78



XRV MULTI SYSTEM

Outdoor heat pump units

XRV PLUS MINI

SINGLE PHASE



2.5HP

single phase
HCNU 806 XRV



3.2HP

single phase
HCNU 1056 XRV

4.5HP

single phase
HCNU 1206 XRV



5HP

single phase
HCNU 1406 XRV

6HP

single phase
HCNU 1606 XRV

THREE-PHASE



7HP

three-phase
HCYU 2006 XRV

8HP

three-phase
HCYU 2246 XRV

9HP

three-phase
HCYU 2606 XRV

10HP

three-phase
HCYU 2806 XRV

12HP

three-phase
HCYU 3356 XRV

Performance and consumption are based on the following test conditions:
Cooling: O.T. 35° C DB, 24° C WB - I.T. 27° C DB, 19° C WB (ISO 5151 Standard).
Heating: O.T. 7° C DB, 6° C WB - I.T. 20° C DB, 15° C WB (ISO 5151 Standard).



XRV MULTI SYSTEM

Individual outdoor heat pump units

XRV INDIVIDUAL



THREE-PHASE



14HP three-phase HCYUM 4006 XRV-I	16HP three-phase HCYUM 4506 XRV-I	18HP three-phase HCYUM 5006 XRV-I
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20HP three-phase HCYUM 5606 XRV-I	22HP three-phase HCYUM 6156 XRV-I
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24HP three-phase HCYUM 6706 XRV-I	26HP three-phase HCYUM 7306 XRV-I	28HP three-phase HCYUM 7856 XRV-I
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30HP three-phase HCYUM 8506 XRV-I	32HP three-phase HCYUM 9006 XRV-I
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Performance and consumption are based on the following test conditions:
 Cooling: O.T. 35° C DB, 24° C WB - I.T. 27° C DB, 19° C WB (ISO 5151 Standard).
 Heating: O.T. 7° C DB, 6° C WB - I.T. 20° C DB, 15° C WB (ISO 5151 Standard).



XRV MULTI SYSTEM

Outdoor heat recovery units - 3 pipes

XRV PLUS HEAT RECOVERY

THREE-PHASE



8-12HP

14-18HP

8HP three-phase HCSRU 2526 XRV-R	10HP three-phase HCSRU 2806 XRV-R	12HP three-phase HCSRU 3356 XRV-R	14HP three-phase HCSRU 4006 XRV-R
16HP three-phase HCSRU 4506 XRV-R	18HP three-phase HCSRU 5006 XRV-R		

COMBINATIONS				
20HP 10+10 HCSRU 2806 XRV-R HCSRU 2806 XRV-R	22HP 10+12 HCSRU 2806 XRV-R HCSRU 3356 XRV-R	24HP 10+14 HCSRU 2806 XRV-R HCSRU 4006 XRV-R	26HP 12+14 HCSRU 3356 XRV-R HCSRU 4006 XRV-R	28HP 12+16 HCSRU 3356 XRV-R HCSRU 4506 XRV-R
30HP 12+18 HCSRU 3356 XRV-R HCSRU 5006 XRV-R	32HP 16+16 HCSRU 4506 XRV-R HCSRU 4506 XRV-R	34HP 16+18 HCSRU 4506 XRV-R HCSRU 5006 XRV-R	36HP 18+18 HCSRU 5006 XRV-R HCSRU 5006 XRV-R	38HP 12+12+14 HCSRU 3356 XRV-R HCSRU 3356 XRV-R HCSRU 4006 XRV-R
40HP 12+12+16 HCSRU 3356 XRV-R HCSRU 3356 XRV-R HCSRU 4506 XRV-R	42HP 12+14+16 HCSRU 3356 XRV-R HCSRU 4006 XRV-R HCSRU 4506 XRV-R	44HP 12+16+16 HCSRU 3356 XRV-R HCSRU 4506 XRV-R HCSRU 4506 XRV-R	46HP 14+16+16 HCSRU 4006 XRV-R HCSRU 4506 XRV-R HCSRU 4506 XRV-R	48HP 16+16+16 HCSRU 4506 XRV-R HCSRU 4506 XRV-R HCSRU 4506 XRV-R
50HP 16+16+18 HCSRU 4506 XRV-R HCSRU 4506 XRV-R HCSRU 5006 XRV-R	52HP 16+18+18 HCSRU 4506 XRV-R HCSRU 5006 XRV-R HCSRU 5006 XRV-R	54HP 18+18+18 HCSRU 5006 XRV-R HCSRU 5006 XRV-R HCSRU 5006 XRV-R		

HYDROMODULE



14 kW
single phase
HHNMS 140 XRV-R

FLOW DIVIDERS

HPFD 1-8 XRV-R	HPFD 4-20 XRV-R	HPFD 6-30 XRV-R
HPFD 8-40 XRV-R	HPFD 10-47 XRV-R	HPFD 12-47 XRV-R



XRV MULTI SYSTEM



XRV PLUS MINI



XRV INDIVIDUAL



XRV PLUS HEAT RECOVERY

FULL DC INVERTER TECHNOLOGY FOR ALL OUTDOOR UNITS RANGE

Full DC Inverter technology has always characterised the Hokkaido product range on 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 and reduced operating costs, as well as CO2 emissions.

HERE'S WHAT MAKES THE HOKKAIDO RANGE "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. This guarantees energy savings and high comfort in a wide outside temperature operating range.

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 start&stop cycles.

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

DC FAN MOTOR

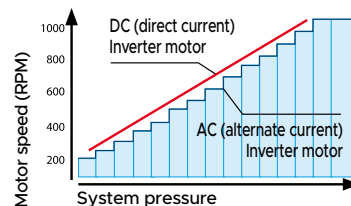
The use of the DC Inverter fan motor ensures energy savings during partial loads, as it adjusts the fan speed and helps make the unit more silent. The fan and outlet grille design guarantees increased air flow, thus resulting in low noise.



DC Inverter compressor



DC Inverter fan motor



XRV PLUS MINI

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Heat pump

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XRV PLUS MINI

Heat pump



HCNU 806 XRV HCNU 1056 XRV
HCNU 1206 XRV HCNU 1406 XRV
HCNU 1606 XRV

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

Slim, flexible design.

Fan with DC Inverter motor:

- broader fan speed modulations;
- less noise.

The efficient fan design and the sunburst grill allow an high airflow rate with low noise.

Splitting and height difference lengths

Model	HCNU 806 XRV	HCNU 1056 XRV	HCNU 1206 XRV	HCNU 1406 XRV	HCNU 1606 XRV
Maximum distance between O.U. and the farthest I.U.	40 m	50 m	50 m	70 m	70 m
Maximum distance from the first branch pipe to the farthest I.U.	20 m	20 m	20 m	20 m	20 m
Maximum height difference between O.U. (up high) and I.U.	10 m	20 m	20 m	30 m	30 m
Maximum height difference between O.U. (down low) and I.U.	10 m	20 m	20 m	20 m	20 m
Maximum height difference between I.U.	8 m	8 m	8 m	8 m	8 m
Maximum distance between I.U. and branch pipe	15 m	15 m	15 m	15 m	15 m
Maximum length of the pipes	50 m	65 m	65 m	100 m	100 m

Broad operating range:

- cooling -5° C ~ +55° C;
- heating -15° C ~ +27° C.

Auto-addressing of indoor units.

Model			HCNU 806 XRV	HCNU 1056 XRV	HCNU 1206 XRV	HCNU 1406 XRV	HCNU 1606 XRV
Power		HP	2.5	3.2	4.5	5	6
Rated capacity ¹	Cooling	kW	7.20	9.00	12.20	14.00	15.50
		kW	2.18	2.64	4.32	4.56	5.35
		EER	3.30	3.41	2.83	3.07	2.90
Rated capacity ²	Heating	kW	7.20	9.00	14.00	16.00	18.00
		kW	1.82	2.12	3.17	4.08	5.71
		COP	3.95	4.29	4.40	3.92	3.20
Electrical data							
Power supply		Ph-V-Hz	1-220~240V-50Hz				
Maximum current		A	21.25	28.80	35.00	40.00	40.00
Refrigerant circuit/features							
Refrigerante (GWP)			R 410A (2088)				
Quantity refrigerant pre-load (tons of CO2 equivalent)		Kg	2.2 (4.594)	2.5 (5.220)	3 (6.264)	3.4 (7.099)	3.8 (7.934)
DC Inverter compressor		no. / type	1/ Rotary DC Inverter				
Diameter refrigerant pipes	Liquid	Ø mm (inch)	9.53 (3/8")	9.53 (3/8")	9.53 (3/8")	9.53 (3/8")	9.53 (3/8")
	Gas	Ø mm (inch)	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	19.1 (3/4")
Product Specifications							
Dimensions	LxHxD	mm	982x712x440	950x840x426		1040x865x523	
Net weight		Kg	55	72.5	84	91.4	95.4
Sound pressure level at 1 m	max	dB(A)	54	54	56	56	56
Sound power level	max	dB(A)	65	68	70	71	71
Fan air flow	max	m ³ /h	3700	5200	5000	5400	5200
Operating limits (outside temperature)	Cooling	°C	-5~55				
	Heating	°C	-15~27				
Max. connectable I.U.		no.	4	6	7	8	9
Capacity of connectable indoor units		%	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130

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

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



XRV PLUS MINI

Heat pump



HCUY 2006 XRV HCUY 2806 XRV
 HCUY 2246 XRV HCUY 3356 XRV
 HCUY 2606 XRV

Splitting and height difference lengths

Model	HCUY 2006 XRV	HCUY 2246 XRV	HCUY 2606 XRV	HCUY 2806 XRV	HCUY 3356 XRV
Maximum distance between O.U. and the farthest I.U.	110 m	110 m	110 m	110 m	110 m
Maximum distance from the first branch pipe to the farthest I.U.	40 m	40 m	40 m	40 m	40 m
Maximum height difference between O.U. (up high) and I.U.	50 m	50 m	50 m	50 m	50 m
Maximum height difference between O.U. (down low) and I.U.	40 m	40 m	40 m	40 m	40 m
Maximum height difference between I.U.	15 m	15 m	15 m	15 m	15 m
Maximum length of the pipes	150 m	150 m	150 m	150 m	150 m

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

DC Inverter motor fan:

- broader fan speed modulations;
- less noise.

Up to 20 indoor units connected to one compact outdoor unit.

Self-diagnosis function for main system problems.

Broad operating range:

- cooling -5° C ~ +48° C;
- heating -20° C ~ +24° C.

Auto-addressing of indoor units.

Model			HCUY 2006 XRV	HCUY 2246 XRV	HCUY 2606 XRV	HCUY 2806 XRV	HCUY 3356 XRV
Power	HP		7	8	9	10	12
Rated capacity ¹	Cooling	kW	20.00	22.40	26.00	28.00	33.50
		kW	5.28	6.77	10.04	12.02	15.30
		EER	3.79	3.31	2.59	2.33	2.19
Rated capacity ²	Heating	kW	20.00	22.40	26.00	28.00	33.50
		kW	4.43	5.42	6.86	7.55	10.15
		COP	4.51	4.13	3.79	3.71	3.30
Electrical data							
Alimentazione elettrica	Ph-V-Hz		3-380~415V50Hz				
Corrente massima	A		19.00	19.00	20.50	21.00	26.40
Refrigerant circuit/features							
Refrigerant (GWP)			R410A (2088)				
Quantity refrigerant pre-load (tons of CO2 equivalent)	Kg		6.5 (13.572)	6.5 (13.572)	6.5 (13.572)	6.5 (13.572)	8 (16.704)
DC Inverter compressor	no. / type		1/ Rotary DC Inverter			1/ Rotary DC Inverter	
Pipe diameter	Liquid	Ø mm (inch)	9.53 (3/8")		9.53 (3/8")		12.7 (1/2")
	Gas	Ø mm (inch)	19.1 (3/4")		22.2 (7/8")		25.4 (1")
Product Specifications							
Dimensions	LxHxD	mm	1120x1558x528				
Net weight		Kg	143		144		157
Sound pressure level at 1 m	max	dB(A)	58		59	60	61
		dB(A)	78		78		81
Fan air flow	max	m ³ /h	9000		10000	11000	11300
Operating limits (outside temperature)	Cooling	°C	-5~48				
	Heating	°C	-20~24				
Max. connectable I.U.	no.		11	13	15	16	20
Capacity of connected indoor units	%		50 - 130				

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

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

XRV INDIVIDUAL

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Heat pump

56





XRV INDIVIDUAL

Heat pump



HCYUM 4006 XRV-I
 HCYUM 4506 XRV-I
 HCYUM 5006 XRV-I

HCYUM 5606 XRV-I
 HCYUM 6156 XRV-I

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

DC Inverter motor fan:

- broader fan speed modulations;
- less noise.

Self-diagnosis function for main system problems.

Individual modules from 40 to 90 kW for simplified installation without the need for modular units.

Elegant, compact design.

Splitting and height difference lengths

Model	HCYUM 4006 XRV-I	HCYUM 4506 XRV-I	HCYUM 5006 XRV-I	HCYUM 5606 XRV-I	HCYUM 6156 XRV-I
Maximum distance between O.U. and the farthest I.U.	200 m	200 m	200 m	200 m	200 m
Maximum distance from the first branch pipe to the farthest I.U.	40 m	40 m	40 m	40 m	40 m
Maximum height difference between O.U. (up high) and I.U.	90 m	90 m	90 m	90 m	90 m
Maximum height difference between O.U. (down low) and I.U.	110 m	110 m	110 m	110 m	110 m
Maximum height difference between I.U.	30 m	30 m	30 m	30 m	30 m
Maximum length of the pipes	1000 m	1000 m	1000 m	1000 m	1000 m

Broad operating range:

- cooling -5° C ~ +48° C;
- heating -25° C ~ +24° C.

Auto-addressing of indoor units.

Maximum number of connectable indoor units is 36.

Model			HCYUM 4006 XRV-I	HCYUM 4506 XRV-I	HCYUM 5006 XRV-I	HCYUM 5606 XRV-I	HCYUM 6156 XRV-I	
Power		HP	14	16	18	20	22	
Rated capacity ¹	Cooling	kW	40.00	45.00	50.00	56.00	61.50	
		Rated absorbed power	kW	11.00	12.90	14.70	16.00	20.20
		Energy efficiency coefficient (rated)	EER	3.65	3.50	3.40	3.50	3.05
Rated capacity ²	Heating	kW	40.00	45.00	50.00	56.00	61.50	
		Rated absorbed power	kW	9.30	10.70	12.20	13.80	17.60
		Energy performance coefficient (rated)	COP	4.30	4.20	4.10	4.05	3.50
Electrical data								
Power supply		Ph-V-Hz	3-380~415V50Hz					
Maximum current		A	33.10	33.10	34.80	45.90	47.90	
Refrigerant circuit / features								
Refrigerant (GWP)			R 410A (2088)					
Quantity refrigerant ³ pre-load (tons of CO2 equivalent)		Kg	11.8 (24.638)	11.8 (24.638)	11.8 (24.638)	11.8 (24.638)	11.8 (24.638)	
DC Inverter compressor		no. / type	1 / Scroll DC Inverter			2 / Scroll DC Inverter		
Pipe diameter	Liquid	Ø mm (inch)	15.9 (5/8")			19.1 (3/4")		
	Gas	Ø mm (inch)	31.8 (1"1/4)					
Product Specifications								
Dimensions	LxHxD	mm	1340x1635x850			1340x1635x825		
Net weight		Kg	277	277	295	344	344	
Sound pressure level at 1 m	max	dB(A)	62	65		66		
	max	dB(A)	85	88		88		
Fan air flow	max	m ³ /h	13000	13000	13000	17000	17000	
Operating limits (outside temperature)	Cooling	°C	-5~48					
	Heating	°C	-25~24					
Max. connectable I.U.		no.	23	26	29	33	36	
Capacity of connectable indoor units		%	50 - 130					

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

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

(3) To calculate the additional refrigerant charge, refer to the labels positioned inside and outside the unit.

PROJECT VRF R410A FULL DC INVERTER

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XRV INDIVIDUAL Heat pump



HCYUM 6706 XRV-I
HCYUM 7306 XRV-I
HCYUM 7856 XRV-I

HCYUM 8506 XRV-I
HCYUM 9006 XRV-I

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

DC Inverter motor fan:

- broader fan speed modulations;
- less noise.

Self-diagnosis function for main system problems.

Individual modules from 40 to 90 kW for simplified installation without the need for modular units.

Elegant, compact design.

Splitting and height difference lengths

Model	HCYUM 6706 XRV-I	HCYUM 7306 XRV-I	HCYUM 7856 XRV-I	HCYUM 8506 XRV-I	HCYUM 9006 XRV-I
Maximum distance between O.U. and the farthest I.U.	200 m	200 m	200 m	200 m	200 m
Maximum distance from the first branch pipe to the farthest I.U.	40 m	40 m	40 m	40 m	40 m
Maximum height difference between O.U. (up high) and I.U.	90 m	90 m	90 m	90 m	90 m
Maximum height difference between O.U. (down low) and I.U.	110 m	110 m	110 m	110 m	110 m
Maximum height difference between I.U.	30 m	30 m	30 m	30 m	30 m
Maximum length of the pipes	1000 m	1000 m	1000 m	1000 m	1000 m

Broad operating range:

- cooling -5° C ~ +48° C;
- heating -25° C ~ +24° C.

Auto-addressing of indoor units.

Maximum number of connectable indoor units is 53.

Model			HCYUM 6706 XRV-I	HCYUM 7306 XRV-I	HCYUM 7856 XRV-I	HCYUM 8506 XRV-I	HCYUM 9006 XRV-I	
Power		HP	24	26	28	30	32	
Rated capacity ¹	Cooling	kW	67.00	73.00	78.50	85.00	90.00	
		Rated absorbed power	kW	21.60	21.60	24.90	28.30	32.10
		Energy efficiency coefficient (rated)	EER	3.10	3.40	3.15	3.00	2.80
Rated capacity ²	Heating	kW	67.00	73.00	78.50	85.00	90.00	
		Rated absorbed power	kW	16.80	18.10	21.80	24.30	26.50
		Energy performance coefficient (rated)	COP	4.00	4.05	3.60	3.50	3.40
Electrical data								
Power supply		Ph-V-Hz	3-380~415V50Hz					
Maximum current		A	54.50	52.90	58.70	64.90	66.90	
Refrigerant circuit / features								
Refrigerant (GWP)			R 410A (2088)					
Quantity refrigerant ³ pre-load (tons of CO2 equivalent)		Kg	11.8 (24.638)	11.8 (24.638)	11.8 (24.638)	11.8 (24.638)	11.8 (24.638)	
DC Inverter compressor		no. / type	2 / Scroll DC Inverter					
Pipe diameter	Liquid	Ø mm (inch)	19.1 (3/4")		22.2 (7/8")		38.1 (1 1/2")	
	Gas	Ø mm (inch)	31.8 (1 1/4")		38.1 (1 1/2")			
Product specifications								
Dimensions	LxHxD	mm	1730x1830x850					
Net weight		Kg	407	429	429	475	475	
Sound pressure level at 1 m	max	dB(A)	67		68			
	max	dB(A)	89		90			
Fan air flow	max	m ³ /h	25000	25000	25000	24000	24000	
Operating limits (outside temperature)	Cooling	°C	-5~48					
	Heating	°C	-25~24					
Max. connectable I.U.		no.	39	43	46	50	53	
Capacity of connectable indoor units		%	50 - 130					

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

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

(3) To calculate the additional refrigerant charge, refer to the labels positioned inside and outside the unit.

XRV PLUS HEAT RECOVERY

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Heat recovery - 3 pipes	59
Combinations	66
Flow dividers	68
Hydromodule	68



PROJECT VRF R410A FULL DC INVERTER

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XRV PLUS HEAT RECOVERY

Heat recovery - 3 pipes



FULL DC INVERTER

HCSRU 2526 XRV-R
HCSRU 2806 XRV-R
HCSRU 3356 XRV-R

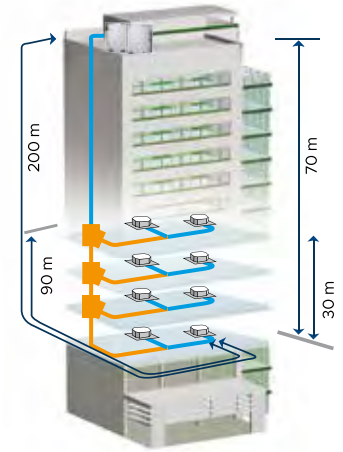


FULL DC INVERTER

HCSRU 4006 XRV-R
HCSRU 4506 XRV-R
HCSRU 5006 XRV-R

Splitting and height difference lengths

- 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



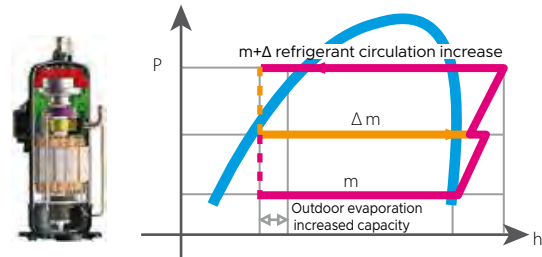
Heating during defrost

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

High performance

Thanks to the steam-injected DC Inverter compressor, HOKKAIDO 3-pipe outdoor units are capable of operating down to -25°C , providing significantly higher heating capacities especially at colder outside temperatures.

The compressor is designed to modulate down to a minimum of 7%, greatly increasing the efficiency of the entire system at partial loads.



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 each heat exchanger structure individually.

2-pipe system



3-pipe system



Branch pipe kit

Set of branches for connecting flow dividers

Code	A - Capacity of connectable indoor units (kW)
DIS-22-1RI	$A < 16.60$
DIS-180-1RI	$16.60 \leq A < 33.00$
DIS-371-2-RI	$33.00 \leq A < 66.00$
DIS-540-1RH Plus	$66.00 \leq A < 92.00$
DIS-1344-1RH Plus	$92.00 \leq A < 135.00$

Branch pipe kit for outdoor unit connection

Code	Outdoor Units
DOS 2A-3-R	2 Outdoor KITS
DOS 3A-3-R	3 Outdoor KITS



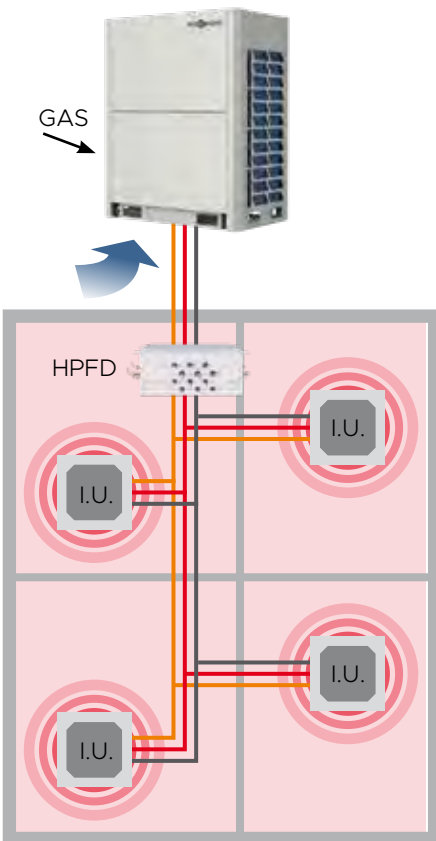
XRV PLUS HEAT RECOVERY

Heat recovery - 3 pipes

OPERATING MODE

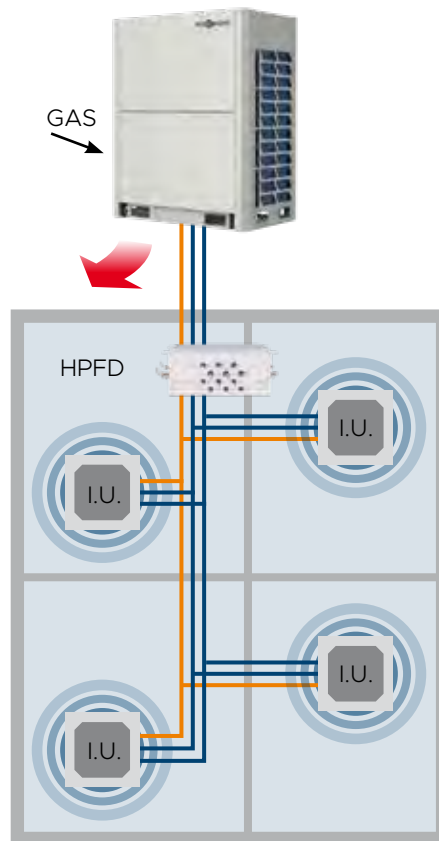
Heating function

The system heats rooms to the desired temperature during the winter.



Cooling function

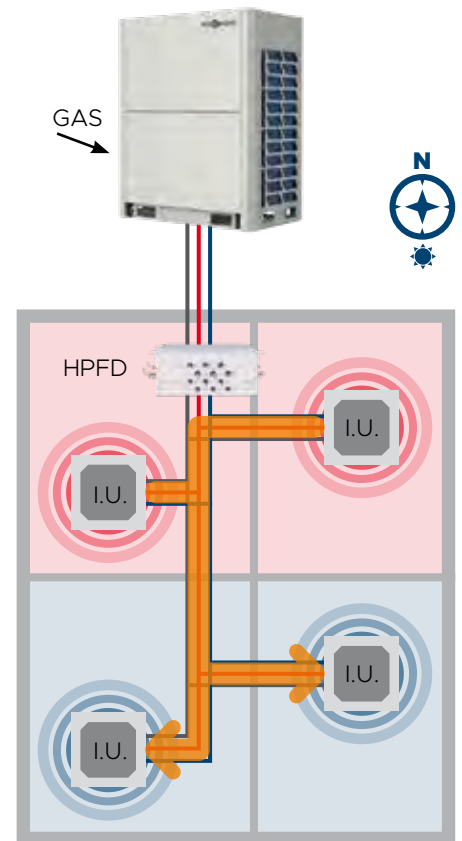
The system cools rooms to the desired temperature during the summer.



Energy recovery

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

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





XRV PLUS HEAT RECOVERY

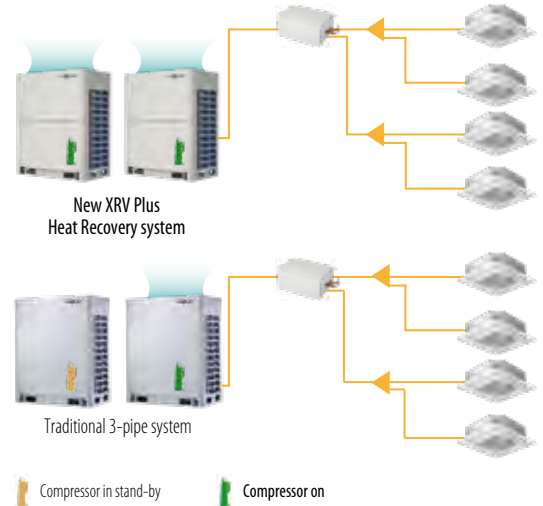
Heat recovery - 3 pipes

HIGH EFFICIENCY

Independent control of exchangers and compressors

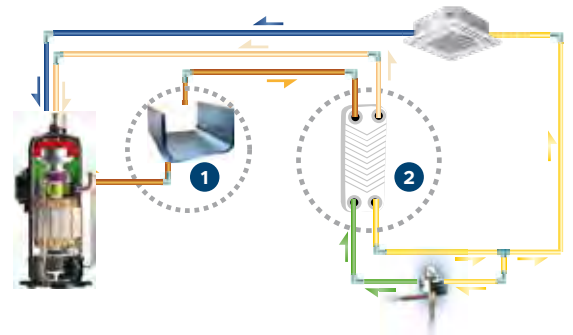
The control of the heat exchangers and compressors is independent, to provide maximum performance in both cooling and heating.

As a result, if the compressor of one unit in a system made up of several modules is not running due to a lower load demand, the respective heat exchanger stays active to maximise the exchange surface and therefore the efficiency of the system.



Additional exchanger for sub-cooling control

The addition of a plate heat exchanger as a secondary intercooler increases refrigerant sub-cooling and improves energy efficiency by 10%.



WIDE RANGE OF APPLICATION

Combinable system

The new HCSRU XRV-R series supplies up to 18HP of capacity in a single unit and up to a maximum of 54HP in a combination of 3 modules, covering all types of applications and building extensions.



8-10-12HP
(single fan)



14-16-18HP
(dual fan)



20-36HP

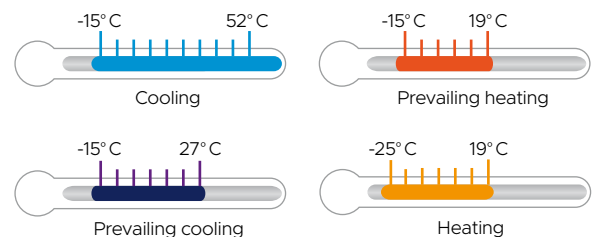


38-54HP

Broad operating range

HCSRU XRV-R offers a wide range of guaranteed operation. It can operate stably at outside temperatures from -15° C to 52° C in cooling mode and from -25° C to 19° C in heating mode.

Simultaneous cooling and heating is guaranteed from -15° C to 27° C in prevailing cooling mode and from -15° C to 19° C in prevailing heating mode.





XRV PLUS HEAT RECOVERY

Heat recovery - 3 pipes

HIGHLY RELIABLE

Outdoor unit rotation cycle

In systems with several outdoor units, the operating logic of the compressors correctly rotates and distributes the operating hours, optimising the use of each component and extending the useful life of the entire system.



cycle 1



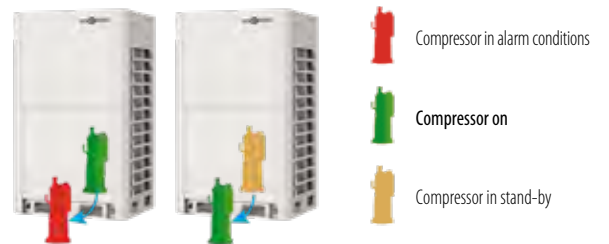
cycle 2



cycle 3

Compressor backup

In multi-module systems, if a single unit is in alarm conditions and fails, it is compensated for by the other units and allows continuity of service until the failed unit is repaired.



Fan static pressure

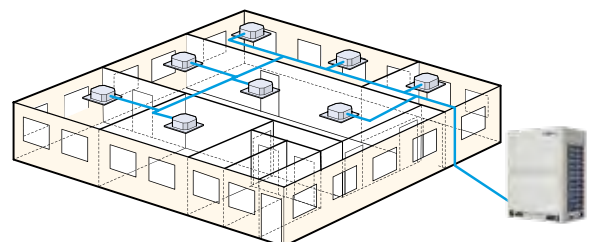
The fan can be set to provide up to 80 Pa of useful static pressure. In this way, the outdoor unit can be installed in technical rooms or in areas where the correct natural flow of air cannot be guaranteed, channelling the expulsion of air from the unit to the outside.



EASY INSTALLATION AND MAINTENANCE

Automatic addressing

The outdoor unit can assign the addresses of the indoor units automatically. The wireless and wired controls can check and change the address of each indoor unit.





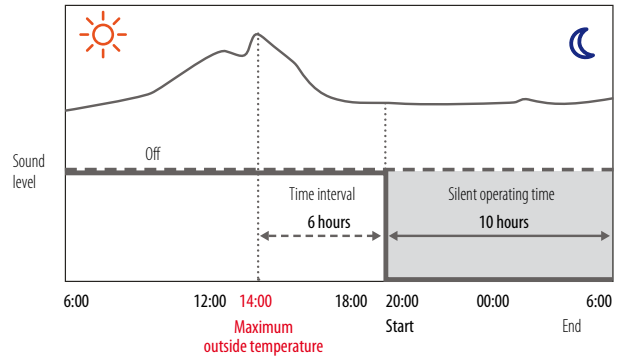
XRV PLUS HEAT RECOVERY

Heat recovery - 3 pipes

UNPARALLELED COMFORT

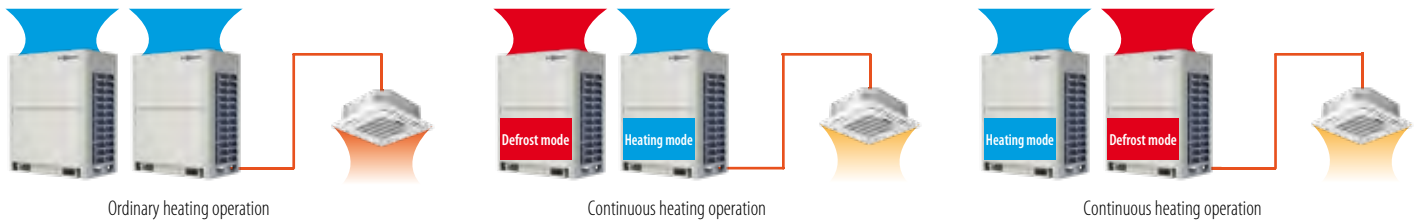
Silent mode

Multiple sound power attenuation modes are available depending on the specific needs, if discrete unit operation is required: night hours only or continuously, and with different degrees of attenuation, limiting only the maximum fan frequency or also the compressor frequency.



Continuous heating

As an alternative to the traditional reverse cycle defrosting technology, it is possible for systems consisting of several HCSRU XRV-R modules to keep the space heating active by defrosting the exchangers of the modules alternately and independently. In this way, heat can be supplied continuously without the system stopping during defrosting.



FLOW DIVIDERS

Single HPDF

- Extended cooling mode operation down to -15° C.
- Management of any third-party leak detectors and isolation of any leakage downstream of the MS box by means of a suitable shut-off valve.
- Possible management of up to 8 indoor units with a total capacity of up to 32 kW (operating in the same mode).
- Compact and lightweight for installation.
- No condensate drain required.
- Extremely precise control via 3200-step electronic valve.
- Silent operation.



Multiple HPDF

- Versions with 4, 6, 8, 10 and 12 connections available.
- Up to 5 indoor units can be connected for each connection (operating in the same mode), for a total of up to 47 indoor units per HPDF box in the 12 connections version.
- Up to 16 kW manageable per connection, or 28 kW by connecting 2 connections.



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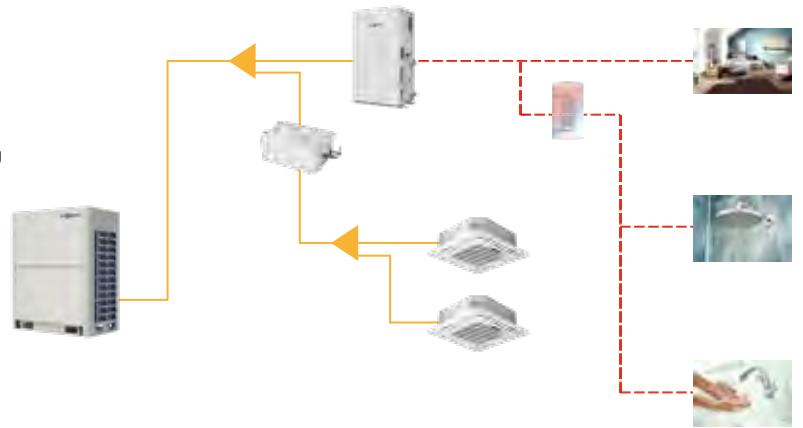
XRV PLUS HEAT RECOVERY

Heat recovery - 3 pipes

HOT WATER AND HEATING

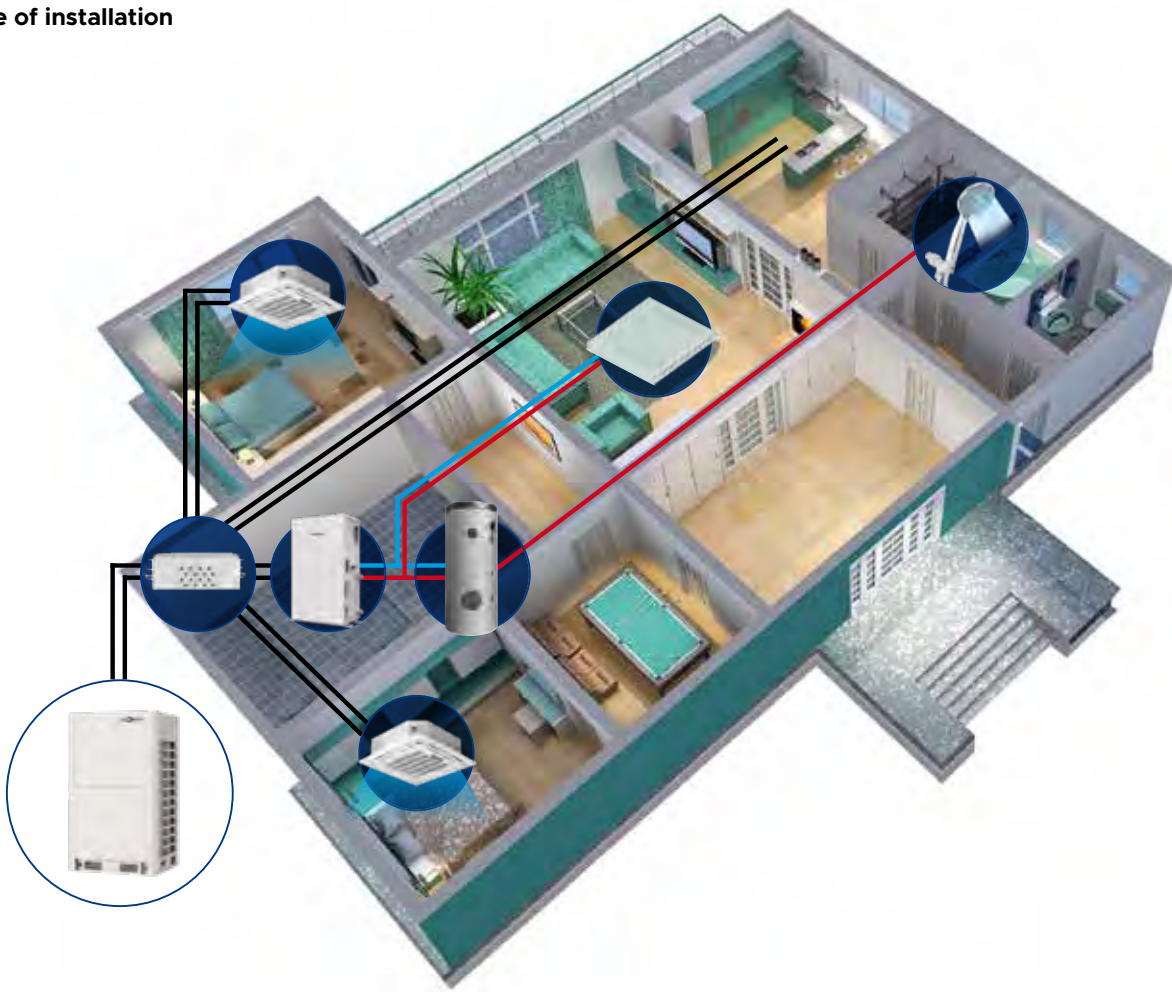
Maximum flexibility of use

In addition to the simultaneous supply of cooling and heating through indoor units belonging to the same system, the HCSRU XRV-R series can manage high-temperature hydronic modules for hot water production up to 80°C and low-temperature heating (radiant floor or high-efficiency radiators).



It is possible to connect up to 3 hydromodules per outdoor unit

Example of installation







XRV PLUS HEAT RECOVERY

Heat recovery - 3 pipes

Model / Combination			HCSRU 2526 XRV-R	HCSRU 2806 XRV-R	HCSRU 3356 XRV-R	HCSRU 4006 XRV-R	HCSRU 4506 XRV-R	HCSRU 5006 XRV-R	
Power			HP	8	10	12	14	16	18
Rated capacity ¹	Cooling	kW	22.40	28.00	33.50	40.00	45.00	50.00	
		Rated absorbed power	kW	5.25	7.18	8.64	9.83	12.00	13.81
		Energy efficiency coefficient (rated)	EER	4.27	3.90	3.88	4.07	3.75	3.62
		Seasonal energy efficiency (η _{s,c})	%	306	299	289	265	264	272
Rated capacity ²	Heating	kW	22.40	28.00	33.50	40.00	45.00	50.00	
		Rated absorbed power	kW	3.96	5.46	6.57	8.26	9.78	11.90
		Energy performance coefficient (rated)	COP	5.66	5.13	5.10	4.84	4.60	4.20
		Seasonal energy efficiency (η _{s,c}) average	%	164	167	181	171	170	165
Electrical data									
Power supply	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	18.00	22.00	24.00	28.00	34.00	36.00		
Refrigerant circuit									
Refrigerant (GWP)		R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)		
Quantity refrigerant pre-load ³	Kg	8	8	8	10	10	10		
Tons of CO2 equivalent	t	16.704	16.704	16.704	20.880	20.880	20.880		
DC Inverter compressor	no. / type	1 / Scroll DC Inverter	1 / Scroll DC Inverter	1 / Scroll DC Inverter	1 / Scroll DC Inverter	1 / Scroll DC Inverter	1 / Scroll DC Inverter		
Pipe diameter ⁴	Liquid	∅ mm (inch)	9.53 (3/8")	9.53 (3/8")	12.7 (1/2")	12.7 (1/2")	12.7 (1/2")	15.9 (5/8")	
	High pressure gas	∅ mm (inch)	19.1 (3/4")	22.2 (7/8")	28.6 (9/8")	28.6 (9/8")	28.6 (9/8")	28.6 (9/8")	
	Low pressure gas	∅ mm (inch)	15.9 (5/8")	19.1 (3/4")	19.1 (3/4")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	
Max piping length ⁵	m	1000	1000	1000	1000	1000	1000		
Max height difference between I.U.	m	30	30	30	30	30	30		
Max height difference between O.U. and the I.U. ⁶	m	110	110	110	110	110	110		
Product Specifications									
Dimensions ⁷	LxHxD	mm	990x1635x790	990x1635x790	990x1635x790	1340x1635x825	1340x1635x825	1340x1635x825	
Net weight	Kg	232	232	232	300	300	300		
Sound pressure level at 1 m	dB(A)	58	58	60	61	64	65		
Sound power level	dB(A)	78	78	81	81	88	88		
Fan air flow	m ³ /h	9000	9500	10000	14000	14900	15800		
Fan static pressure	Std/Max	Pa	0/80	0/80	0/80	0/80	0/80		
Operating limits (outside temperature)	Cooling ⁸	°C (DB)				-15~52			
	Heating	°C (WB)				-25~19			
Max. connectable I.U.	no.	20	25	30	36	40	45		
Capacity of connectable indoor units ⁹	%	50-200	50-200	50-200	50-200	50-200	50-200		

Model / Combination			HCSRU 4506 XRV-R HCSRU 4506 XRV-R	HCSRU 4506 XRV-R HCSRU 5006 XRV-R	HCSRU 5006 XRV-R HCSRU 5006 XRV-R	HCSRU 3356 XRV-R HCSRU 3356 XRV-R HCSRU 4006 XRV-R	HCSRU 3356 XRV-R HCSRU 3356 XRV-R HCSRU 4506 XRV-R	HCSRU 3356 XRV-R HCSRU 4506 XRV-R	
Power			HP	32 (16+16)	34 (16+18)	36 (18+18)	38 (12+12+14)	40 (12+12+16)	42 (12+14+16)
Rated capacity ¹	Cooling	kW	90.00	95.00	100.00	107.00	112.00	118.50	
		Rated absorbed power	kW	24.00	25.81	28.72	27.10	29.27	30.46
		Energy efficiency coefficient (rated)	EER	3.75	3.68	3.48	3.95	3.83	3.89
		Seasonal energy efficiency (η _{s,c})	%	264	268	272	281	280.7	272.7
Rated capacity ²	Heating	kW	90.00	95.00	100.00	107.00	112.00	118.50	
		Rated absorbed power	kW	19.57	21.69	21.83	21.40	22.92	24.62
		Energy performance coefficient (rated)	COP	4.60	4.38	4.58	5.00	4.89	4.81
		Seasonal energy efficiency (η _{s,c}) average	%	170	167.5	165	177.7	177.3	174
Electrical data									
Power supply	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	68.00	70.00	72.00	76.00	82.00	86.00		
Refrigerant circuit									
Refrigerant (GWP)		R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)		
Quantity refrigerant pre-load ³	Kg	20	20	20	26	26	28		
Tons of CO2 equivalent	t	41.760	41.760	41.760	54.288	54.288	58.464		
DC Inverter compressor	no. / type	2 / Scroll DC Inverter	2 / Scroll DC Inverter	2 / Scroll DC Inverter	3 / Scroll DC Inverter	3 / Scroll DC Inverter	3 / Scroll DC Inverter		
Pipe diameter ⁴	Liquid	∅ mm (inch)	19.1 (3/4")	19.1 (3/4")	19.1 (3/4")	19.1 (3/4")	19.1 (3/4")	19.1 (3/4")	
	High pressure gas	∅ mm (inch)	34.9 (1" 3/8")	34.9 (1" 3/8")	41.3 (1" 5/8")	41.3 (1" 5/8")	41.3 (1" 5/8")	41.3 (1" 5/8")	
	Low pressure gas	∅ mm (inch)	28.6 (9/8")	28.6 (9/8")	28.6 (9/8")	34.9 (1" 3/8")	34.9 (1" 3/8")	34.9 (1" 3/8")	
Max piping length ⁵	m	1000	1000	1000	1000	1000	1000		
Max height difference between I.U.	m	30	30	30	30	30	30		
Max height difference between O.U. and the I.U. ⁶	m	110	110	110	110	110	110		
Product Specifications									
Dimensions ⁷	LxHxD	mm	2780x1635x825	2780x1635x825	2780x1635x825	3520x1635x825	3520x1635x825	3870x1635x825	
Net weight	Kg	600	600	600	764	764	832		
Sound pressure level at 1 m	dB(A)	67	68	68	65	67	67		
Sound power level	dB(A)	91	91	91	86	89	89		
Fan air flow	m ³ /h	29800	30700	31600	34000	34900	38900		
Fan static pressure	Std/Max	Pa	0/80	0/80	0/80	0/80	0/80		
Operating limits (outside temperature)	Cooling ⁸	°C (DB)				-15~52			
	Heating	°C (WB)				-25~19			
Max. connectable I.U.	no.	64	64	64	64	64	64		
Capacity of connectable indoor units ⁹	%	50-200	50-200	50-200	50-200	50-200	50-200		

1.Cooling capacity tested in accordance with ISO 5151 Standards; outside temperature 35°C DB, 24°C WB and inside temperature 27°C DB, 19° WB. 2. Heating capacity tested in accordance with ISO 5151 Standards; outside temperature 7°C DB, 6°C WB and inside 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. 6. If there is a hydromodule between the indoor units, the maximum height difference is reduced to 50 m with the outdoor unit above and 40 m with the outdoor unit below. 7. Space between the units in combination = 100 mm. 8. Operation between -15 °C and -5 °C possible only in connection to single HPFDs. 9. The maximum percentage varies according to the type of indoor units connected. For specific information refer to the technical manual.



XRV PLUS HEAT RECOVERY

Heat recovery - 3 pipes

HCSRU 2806 XRV-R HCSRU 2806 XRV-R	HCSRU 2806 XRV-R HCSRU 3356 XRV-R	HCSRU 2806 XRV-R HCSRU 4006 XRV-R	HCSRU 3356 XRV-R HCSRU 4006 XRV-R	HCSRU 3356 XRV-R HCSRU 4506 XRV-R	HCSRU 3356 XRV-R HCSRU 5006 XRV-R
20 (10+10)	22 (10+12)	24 (10+14)	26 (12+14)	28 (12+16)	30 (12+18)
56.00	61.50	68.00	73.50	78.50	83.50
14.36	15.82	17.01	18.46	20.64	22.45
3.90	3.89	4.00	3.98	3.80	3.72
299	294	282	277	276.5	280.5
56.00	61.50	68.00	73.50	78.50	83.50
10.92	12.03	13.72	14.83	16.35	18.47
5.13	5.11	4.96	4.96	4.80	4.52
167	174	169	176	175.5	173
3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz
44.00	46.00	50.00	52.00	58.00	60.00
R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)
16	16	18	18	18	18
33.408	33.408	37.580	37.580	37.580	37.580
2 / Scroll DC Inverter	2 / Scroll DC Inverter	2 / Scroll DC Inverter	2 / Scroll DC Inverter	2 / Scroll DC Inverter	2 / Scroll DC Inverter
15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	19.1 (3/4")	19.1 (3/4")	19.1 (3/4")
28.6 (9/8")	28.6 (9/8")	34.9 (1" 3/8")	34.9 (1" 3/8")	34.9 (1" 3/8")	34.9 (1" 3/8")
28.6 (9/8")	28.6 (9/8")	28.6 (9/8")	28.6 (9/8")	28.6 (9/8")	28.6 (9/8")
1000	1000	1000	1000	1000	1000
30	30	30	30	30	30
110	110	110	110	110	110
2080x1635x790	2080x1635x790	2430x1635x825	2430x1635x825	2430x1635x825	2430x1635x825
464	464	532	532	532	532
61	62	63	64	65	66
81	83	83	84	89	89
19000	19500	23500	24000	24900	25800
0/80	0/80	0/80	0/80	0/80	0/80
-15~52 -25~19					
50	55	61	64	64	64
50-200	50-200	50-200	50-200	50-200	50-200
HCSRU 3356 XRV-R HCSRU 4506 XRV-R HCSRU 4506 XRV-R	HCSRU 4006 XRV-R HCSRU 4506 XRV-R HCSRU 4506 XRV-R	HCSRU 4506 XRV-R HCSRU 4506 XRV-R HCSRU 4506 XRV-R	HCSRU 4506 XRV-R HCSRU 4506 XRV-R HCSRU 5006 XRV-R	HCSRU 4506 XRV-R HCSRU 5006 XRV-R HCSRU 5006 XRV-R	HCSRU 5006 XRV-R HCSRU 5006 XRV-R HCSRU 5006 XRV-R
44 (12+16+16)	46 (14+16+16)	48 (16+16+16)	50 (16+16+18)	52 (16+18+18)	54 (18+18+18)
123.50	130.00	135.00	140.00	145.00	150.00
32.64	33.83	36.00	37.81	39.62	41.44
3.78	3.84	3.75	3.70	3.66	3.62
272.3	264.3	264	266.7	269.3	272
123.50	130.00	135.00	140.00	145.00	150.00
26.13	27.83	29.35	31.47	33.59	35.71
4.73	4.67	4.60	4.45	4.32	4.20
173.7	170.3	170	168.3	166.7	165
3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz	3-380~415V-50Hz
92.00	96.00	102.00	104.00	106.00	108.00
R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)	R410A (2088)
28	30	30	30	30	30
58.464	62.640	62.640	62.640	62.640	62.640
3 / Scroll DC Inverter	3 / Scroll DC Inverter	3 / Scroll DC Inverter	3 / Scroll DC Inverter	3 / Scroll DC Inverter	3 / Scroll DC Inverter
19.1 (3/4")	19.1 (3/4")	19.1 (3/4")	19.1 (3/4")	19.1 (3/4")	19.1 (3/4")
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")	41.3 (1" 5/8")
34.9 (1" 3/8")	34.9 (1" 3/8")	34.9 (1" 3/8")	34.9 (1" 3/8")	34.9 (1" 3/8")	34.9 (1" 3/8")
1000	1000	1000	1000	1000	1000
30	30	30	30	30	30
110	110	110	110	110	110
3870x1635x825	4220x1635x825	4220x1635x825	4220x1635x825	4220x1635x825	4220x1635x825
832	900	900	900	900	900
68	68	69	69	69	70
91	91	93	93	93	93
39800	43800	44700	45600	46500	47400
0/80	0/80	0/80	0/80	0/80	0/80
-15~52 -25~19					
64	64	64	64	64	64
50-200	50-200	50-200	50-200	50-200	50-200

1.Cooling capacity tested in accordance with ISO 5151 Standards; outside temperature 35° C DB, 24° C WB and inside temperature 27° C DB, 19° WB. 2. Heating capacity tested in accordance with ISO 5151 Standards; outside temperature 7° C DB, 6° C WB and inside 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. 6. If there is a hydromodule between the indoor units, the maximum height difference is reduced to 50 m with the outdoor unit above and 40 m with the outdoor unit below. 7. Space between the units in combination = 100 mm. 8. Operation between -15 ° C and -5 ° C possible only in connection to single HPFDs. 9. The maximum percentage varies according to the type of indoor units connected. For specific information refer to the technical manual.



XRV PLUS HEAT RECOVERY

Flow dividers

Simultaneous cooling and heating within the same system is made possible by special flow dividers (HPFD) placed between the outdoor and indoor units which sort the refrigerant in liquid and gaseous phases between the rooms requiring cooling or heating.

Several versions are available, with single or multiple connections.



Model			HPFD 1-8 XRV-R	HPFD 4-20 XRV-R	HPFD 6-30 XRV-R	HPFD 8-40 XRV-R	HPFD 10-47 XRV-R	HPFD 12-47 XRV-R	
Number of connections			1	4	6	8	10	12	
Max. number of indoor units per each connection ¹			8	5	5	5	5	5	
Max. total number of indoor units per divider ¹			8	20	30	40	47	47	
Max. capacity for each connection ²			kW	32.00	16.00	16.00	16.00	16.00	
Max. total capacity of indoor units per divider			kW	32.00	49.00	63.00	85.00	85.00	
Pipe connections	Connection to outdoor unit	Liquid	ø mm	9.53 / 12.7	9.53 / 12.7 / 15.9 / 19.1	9.53 / 12.7 / 15.9 / 19.1	12.7 / 15.9 / 19.1 / 22.2	12.7 / 15.9 / 19.1 / 22.2	12.7 / 15.9 / 19.1 / 22.2
		Gas-High pressure	ø mm	15.9 / 19.1 / 22.2	19.1 / 22.2 / 28.6	19.1 / 22.2 / 28.6	22.2 / 28.6 / 34.9	22.2 / 28.6 / 34.9	22.2 / 28.6 / 34.9
		Gas- Low pressure	ø mm	12.7 / 15.9 / 19.1	15.9 / 19.1 / 22.2 / 28.6	15.9 / 19.1 / 22.2 / 28.6	19.1 / 22.2 / 28.6	19.1 / 22.2 / 28.6	19.1 / 22.2 / 28.6
	Connection to indoor unit	Liquid	ø mm	6.35 / 9.53	6.35 / 9.53	6.35 / 9.53	6.35 / 9.53	6.35 / 9.53	6.35 / 9.53
		Gas	ø mm	12.7 / 15.9	12.7 / 15.9	12.7 / 15.9	12.7 / 15.9	12.7 / 15.9	12.7 / 15.9
			LxHxD	mm	440x195x296	668x250x574	668x250x574	974x250x574	974x250x574
External dimensions									
Net weight			Kg	10.5	33	36	48	51	54
Sound pressure level ³			dB(A)	40	44	45	47	47	47
Sound power level ³			dB(A)	60	63	65	65	65	65
Power supply			Ph-V-Hz	1-220~240V-50Hz					

1. Any indoor units connected to the same connection as the MS box must run in the same mode.

2. For MS boxes with 4 to 12 connections, indoor units with a capacity of 16 kW to 28 kW can be connected to 2 connections through connection kit DIS-HPFD-XRV-R.

3. The sound levels are measured in a semi-anechoic chamber, 1 m below the HPFD during the mode change. Avoid installing the HPFD in environments with low noise requirements.

Hydromodule



HHNMS 140 XRV-R

Model			HHNMS 140 XRV-R
Rated capacity ¹	Heating	kW	14.00
Operating limits (outside temperature)	Heating	°C	-20~30
	Domestic water	°C	-20~43
Delivery water temperature adjustment range		°C	25~80
Electrical data			
Power supply		Ph-V-Hz	1-220~240V-50Hz
Maximum current		A	16.00
Product specifications			
External dimensions	LxHxD	mm	450x795x300
Net weight		Kg	63
Sound pressure level		dB(A)	43
Sound power level		dB(A)	54
Water flow	Std (Min~Max)	m³/h	2,4 (1,2~2,9)
Water pressure	Min~Max	bar	1~3
Connections	Freon Liquid/Gas	ø mm (inch)	9,52 (3/8") / 12,7 (1/2")
	Inlet/outlet water	ø mm (inch)	25,4 (1")
Serial control	type		Wired remote control

1. Heating capacity tested in accordance with ISO 5151 Standards; outside temperature 7°C DB, 6°C WB and inlet/outlet water temperature 40°C DB, 45°C WB.



PREMIUM - P SERIES 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	8-ways compact 60x60  HTFU XRV-P		●	●	●	●									
	8-ways 84x84  HTBU XRV-P						●	●	●	●		●			
Ducted	medium static pressure  HUCU XRV-P		●	●	●	●	●	●	●	●					
	high static pressure  HVDU XRV-P							●	●	●		●	●	●	●
	all-outside air  HVDU-F XRV-P										●	●			
Wall	 HKEU XRV-P		●	●	●	●	●	●	●						
Floor	floor / ceiling  HSFU XRV-P				●	●	●	●	●	●		●			
	recessed  HFCU XRV-P		●	●	●	●	●								

PROJECT VRF R410A FULL DC INVERTER

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HTFU XRV-P

8-ways compact cassette 60x60



The control must be purchased as an accessory



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
Rated capacity	Cooling	kW	2.20	2.80	3.60	4.50
	Heating	kW	2.40	3.20	4.00	5.00
Electrical data						
Power supply		Ph-V-Hz	1-220~240V-50Hz			
Electrical absorption		W	35	35	40	50
Product specifications						
External dimensions		LxHxD	630x260x570			
Net weight		Kg	18		19.2	
Sound pressure level at 1.4 m ¹	Max~Min	dB(A)	35~22		41~28	
	Max~Min	dB(A)	51~38		56~43	
Air flow ¹	Max~Min	m ³ /h	576~405		604~400	
	Refrigerant connections	Liquid/Gas	6.35 (1/4") - 12.7 (1/2")			
	Condensate drain	ø mm	32			
Accessories						
Decorative panel			TFP 155 XRV-P			
Dimensions		LxHxD	647x50x647			
Net weight		Kg	2.5			
Remote control			DHIR-5-6-XRV-K-P			
Wired remote control			DHW-5-6-XRV-P			
Optional parts						
Centralized control			DHC-8-64-XRV-P			

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

HTBU XRV-P

8-ways cassette 84x84



The control must be purchased as an accessory



Optimised fan design to attenuate air resistance and reduce noise level

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

Pre-set for the connection of an outside air intake channel

Model			HTBU 565 XRV-P	HTBU 715 XRV-P	HTBU 905 XRV-P	HTBU 1125 XRV-P	HTBU 1405 XRV-P
Rated capacity	Cooling	kW	5.60	7.10	9.00	11.20	14.00
	Heating	kW	6.30	8.00	10.00	12.50	16.00
Electrical data							
Power supply		Ph-V-Hz	1-220~240V-50Hz				
Electrical absorption		W	31	46	75	94	
Product specifications							
External dimensions		LxHxD	840x230x840		840x300x840		
Net weight		Kg	23.2		28.4	30.7	
Sound pressure level at 1.4 m ¹	Max~Min	dB(A)	43~34		47~36		50~38
	Max~Min	dB(A)	56~47		58~47		64~52
Air flow ¹	Max~Min	m ³ /h	1029~704		1596~1034		1727~1224
	Refrigerant connections	Liquid/Gas	9.52 (3/8") - 15.9 (5/8")				
	Condensate drain	ø mm	32				
Accessories							
Decorative panel			TBP 712 IHXR				
Dimensions		LxHxD	950x70x950				
Net weight		Kg	5.8				
Remote control			DHIR-5-6-XRV-K-P				
Wired remote control			DHW-5-6-XRV-P				
Optional parts							
Centralized control			DHC-8-64-XRV-P				

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

CLEAN AIR UV-KIT

AIR PURIFYING DEVICE FOR DUCTED SYSTEMS

TMS-UV04



AN ALL-IN-ONE SOLUTION FOR ELIMINATING VIRUSES AND BACTERIA

The UV-C air purification device has the ability to modify the DNA or RNA of micro-organisms, preventing them from reproducing and thus being harmful. UV-C light is able to inactivate 99.99% of viruses.

Use in ducted systems is recommended as it does not expose humans to UV-C light and allows disinfection and air purification.

The device technology is able to degrade numerous organic compounds by oxidation.

The filter attracts and retains moisture molecules that are naturally present in the air, capturing fine dust and oxides. This process encourages faster decomposition of substances that are harmful to humans.

This product is therefore capable of:

- effectively eliminating micro-organisms that are harmful to human health, such as moulds and viruses;
- decomposing organic compounds present in the air such as benzene, formaldehyde, ammonia, ether, TVOC and other organic chemical compounds;
- eliminating unpleasant odours.

This device can be connected to ducted indoor units so that they only operate when the air conditioning system is switched on.

TMS-UV04: for models HVDU 1605-2805 XRV-P.

PROJECT VRF R410A FULL DC INVERTER

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HUCU XRV-P

Ducted with medium static pressure



The control must be purchased as an accessory



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

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

Air intake from bottom or rear

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

Compatible with systems AIRZONE

Model			HUCU 225 XRV-P	HUCU 285 XRV-P	HUCU 365 XRV-P	HUCU 455 XRV-P
Rated capacity	Cooling	kW	2.20	2.80	3.60	4.50
	Heating	kW	2.60	3.20	4.00	5.00
Electrical data						
Power supply		Ph-V-Hz	1-220~240V-50Hz			
Electrical absorption		W	40	40	45	92
Product specifications						
Dimensions		LxHxD	780x210x500			1000x210x500
Net weight		Kg	18			21.5
Sound pressure level at 1.4 m ¹	Max~Min	dB(A)	32~23		33~25	
	Max~Min	dB(A)	50~41		51~43	
Air flow ¹	Max~Min	m ³ /h	520~300		580~370	
	Std/Max	Pa	10/50			
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-P			
Optional parts						
Centralized control			DHC-8-64-XRV-P			

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
Rated capacity	Cooling	kW	5.60	7.10	9.00	11.20
	Heating	kW	6.30	8.00	10.00	12.50
Electrical data						
Power supply		Ph-V-Hz	1-220~240V-50Hz			
Electrical absorption		W	92	98	120	200
Product specifications						
Dimensions		LxHxD	1000x210x500	1220x210x500	1230x270x775	
Net weight		Kg	21.5	27.5	37	
Sound pressure level at 1.4 m ¹	Max~Min	dB(A)	36~28		37~28	
	Max~Min	dB(A)	54~46		55~46	
Air flow ¹	Max~Min	m ³ /h	830~560		1000~680	
	Std/Max	Pa	10/50		20/100	
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-P			
Optional parts						
Centralized control			DHC-8-64-XRV-P			

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 static pressure



The control must be purchased as an accessory



Available static pressure:
200 Pa (7.10~16.00 kW)
250 Pa (20.00~28.00 kW)

423 mm high (7.10~16.00 kW) | Compact size

Rear air intake

Ease of maintenance

Compatible with system AIRZONE

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	
Rated capacity	Cooling	kW	7.10	9.00	11.20	14.00	16.00	20.00	28.00	
	Heating	kW	8.00	10.00	12.50	16.00	17.00	22.50	31.50	
Electrical data										
Power supply		Ph-V-Hz	1-220~240V-50Hz							
Electrical absorption		W	180	220	380	420	700	990	1200	
Product specifications										
Dimensions		LxHxD	965x423x690			1322x423x691		1454x515x931		
Net weight		Kg	41	51	51	68	68	130		
Sound pressure level at 1.4 m ¹		Max~Min	46~42	50~45	50~45	53~48	54~50	57~50		
Sound power level ¹		Max~Min	64~60	68~63	68~63	71~66	72~68	75~68		
Air flow ¹		Max~Min	1360~1160	1420~1140	1870~1350	2240~1600	2660~1880	4330~3730		
Fan static pressure		Std/Max	100/200					170/250		
Refrigerant connections		Liquid/Gas	9.52 (3/8") - 15.9 (5/8")					12.7 (1/2") - 22.2 (7/8")		
		Condensate drain	25					32		
Accessories										
Remote control								DHIR-5-6-XRV-K-P		
Wired remote control								DHW-5-6-XRV-P		
Optional parts										
Centralized control								DHC-8-64-XRV-P		

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



These air handling units can be connected together with the indoor units to the same refrigerant system, thus increasing the design flexibility and significantly reducing operating costs

423 mm high | Ultra-compact design

200 Pa | Max static pressure of fans

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

Model			HVDU-F 1255 XRV-P		HVDU-F 1405 XRV-P	
Rated capacity	Cooling ¹	kW	12.50		14.00	
	Heating ²	kW	10.50		12.00	
Electrical data						
Power supply		Ph-V-Hz	1-220~240V-50Hz			
Electrical absorption		W	480			
Product specifications						
Dimensions		LxHxD	1322x423x691			
Net weight		Kg	68			
Sound pressure level at 1.4 m ³		Max~Min	48~42			
Sound power level ³		Max~Min	66~60			
Air flow ³		Max~Min	2000~1500			
Fan static pressure		Std/Max	180/200			
Refrigerant connections		Liquid/Gas	9.52 (3/8") - 15.9 (5/8")			
		Condensate drain	25			
Operating field (100% outdoor air)		Cooling	-5 / 16			
		Heating	20 / 43			
Accessories						
Remote control			DHIR-5-6-XRV-K-P			
Wired remote control			DHW-5-6-XRV-P			
Optional parts						
Centralized control			DHC-8-64-XRV-P			

(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



New design

203 mm deep (2.20-2.80 kW) | Extremely 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	
Rated capacity	Cooling	kW	2.20	2.80	3.60	4.50	5.60	7.10	9.00	
	Heating	kW	2.40	3.20	4.00	5.00	6.30	8.00	10.00	
Electrical data										
Power supply		Ph-V-Hz	1-220~240V-50Hz							
Electrical absorption		W	28	30	40	45	55	82		
Product specifications										
Dimensions		LxHxD	835x280x203			990x315x223		1194x343x262		
Net weight		Kg	8.4	9.5	11.4	12.8		17		
Sound pressure level at 1.4 m ¹	Max~Min	dB(A)	31~29	31~29	33~30	35~31	38~34	44~36	48~38	
	Max~Min	dB(A)	46~44	46~44	48~45	50~46	53~49	59~51	63~53	
Sound power level ¹	Max~Min	dB(A)	46~44	46~44	48~45	50~46	53~49	59~51	63~53	
	Max~Min	m ³ /h	422~356	417~316	656~488	594~424	747~547	1195~809	1421~867	
Refrigerant connections	Liquid/Gas	ø mm (inch)	6.35 (1/4") - 12.7 (1/2")				16		9.52 (3/8") - 15.9 (5/8")	
	Condensate drain	ø mm								
Accessories										
Remote control			DHIR-5-6-XRV-K-P							
Wired remote control			DHW-5-6-XRV-P							
Optional parts										
Centralized control			DHC-8-64-XRV-P							

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



Auto Swing function | Optimises the distribution of air flow in the room

Built-in electronic expansion valve

Easy installation with unit mounted to the floor or to the ceiling

Model			HSFU 365 XRV-P	HSFU 455 XRV-P	HSFU 565 XRV-P	HSFU 715 XRV-P	HSFU 905 XRV-P	HSFU 1125 XRV-P	HSFU 1405 XRV-P	
Rated capacity	Cooling	kW	3.60	4.50	5.60	7.10	9.00	11.20	14.00	
	Heating	kW	4.00	5.00	6.30	8.00	10.00	12.50	15.00	
Electrical data										
Power supply		Ph-V-Hz	1-220~240V-50Hz							
Electrical absorption		W	49	115	130	180	180			
Product specifications										
Dimensions		LxHxD	990x660x203			1280x660x203		1670x680x244		
Net weight		Kg	27	28	35	48				
Sound pressure level at 1.4 m ¹	Max~Min	dB(A)	40~36	43~38	45~40	47~42				
	Max~Min	dB(A)	53~49	56~51	58~53	60~55				
Sound power level ¹	Max~Min	dB(A)	53~49	56~51	58~53	60~55				
	Max~Min	m ³ /h	550~420	930~720	1280~1050	1890~1580				
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	16	16	16	16	16	16	
Accessories										
Remote control			DHIR-5-6-XRV-K-P							
Wired remote control			DHW-5-6-XRV-P							
Optional parts										
Centralized control			DHC-8-64-XRV-P							

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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HFCU XRV-P Recessed floor



The control must be purchased as an accessory



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

Air intake from bottom

200 mm | Maximum compactness for flush-mounted installation

Model			HFCU 226 XRV-P	HFCU 286 XRV-P	HFCU 366 XRV-P	HFCU 456 XRV-P	HFCU 566 XRV-P
Rated capacity	Cooling	kW	2.20	2.80	3.60	4.50	5.60
	Heating	kW	2.40	3.20	4.00	5.00	6.30
Electrical data							
Power supply		Ph-V-Hz	1-220~240V-50Hz				
Electrical absorption		W	18	18	25	41	37
Product specifications							
Dimensions	LxHxD	mm	915x470x200	915x470x200	915x470x200	1133x470x200	1253x566x200
Net weight		Kg	16.5	16.5	17.8	20.9	24.6
Sound pressure level at 1.4 m ¹	Max~Min	dB(A)	36~29	36~29	37~30	37~30	41~31
Sound power level ¹	Max~Min	dB(A)	-	-	-	-	-
Air flow ¹	Max~Min	m ³ /h	509~449	509~449	547~409	623~388	623~388
Fan static pressure	Std/Max	Pa	0/60	0/60	0/60	0/60	0/60
Refrigerant connections	Liquid/Gas	ø mm (inch)	6.35 (1/4") - 12.7 (1/2")				
	Condensate drain	ø mm	18.5	18.5	18.5	18.5	18.5
Accessories							
Remote control			DHIR-5-6-XRV-K-P				
Wired remote control			DHW-5-6-XRV-P				
Optional parts							
Centralized control			DHC-8-64-XRV-P				

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



TOTAL HEAT EXCHANGER

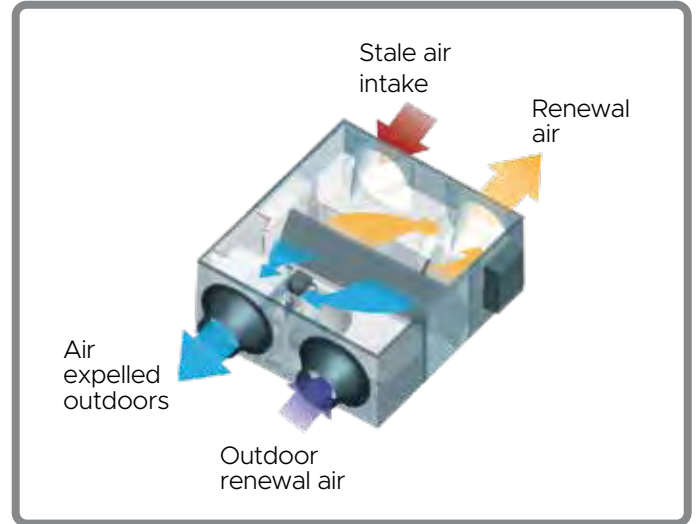


EHIN 304-404



EHIN 504-2004

The control must be purchased as an accessory



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

Ventilation units with heat recovery are suited for use in bars, restaurants, offices, gyms, changing rooms and all rooms where air needs to be exchanged 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, which is introduced without coming into contact with it.

- 7 power sizes: 300~2000 m³/h.
- DC Inverter fan.
- Mandatory wired remote control.

Model			EHIN 304	EHIN 404	EHIN 504	EHIN 804	EHIN 1004	EHIN 1504	EHIN 2004	
Control (included)	type					None				
Exchange efficiency ¹	Enthalpy	%	72.1	73.5	74.0	72.3	76.0	69.4	74.7	
	Thermal	%	75.5	77.7	80.6	78.7	82.8	75.5	77.2	
Electrical data										
Power supply	Ph-V-Hz		1-220~240-50							
Power absorption	W		100	110	150	320	380	680	950	
Rated absorbed current	A		0.84	0.97	1.20	2.40	2.90	3.80	5.70	
Product specifications										
External dimensions	LxHxD	mm	914x272x1195	1204x272x1276	1106x390x1311	1286x390x1311	1526x390x1311	1425x615x1740	1625x685x1811	
Net weight		Kg	56.5	71.5	76	80	90	181.5	208.5	
Sound power level	Hi	dB(A)	48	48	50	55	54	69	70	
Treated air		m ³ /h	300	400	500	800	1000	1500	2000	
Fan static pressure	Hi	Pa	90	100	90	140	160	180	200	
Ducting flange		mm	ø144	ø198	ø244	ø244	ø244	346x326	346x326	
Condensate drain			Not required						Necessary	
Field of application	°C		-7~43 BS (max UR 80%)							
Degree of protection			IPX2							
Specific energy consumption ²	SEC	kWh/m ² a	-	-	-	-	-	-	-	
Classe SEC ²			-	-	-	-	-	-	-	
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).





EEV KIT

Kit for connecting AHU with direct expansion coil to Hokkaido XRV systems.



HAHU 2-9 XRV-R HAHU 20-36 XRV-R
 HAHU 9-20 XRV-R HAHU 36-56 XRV-R

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

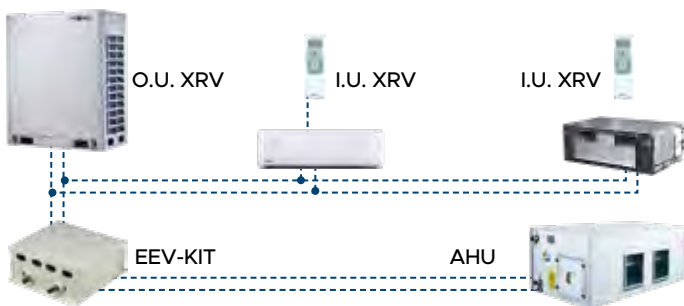
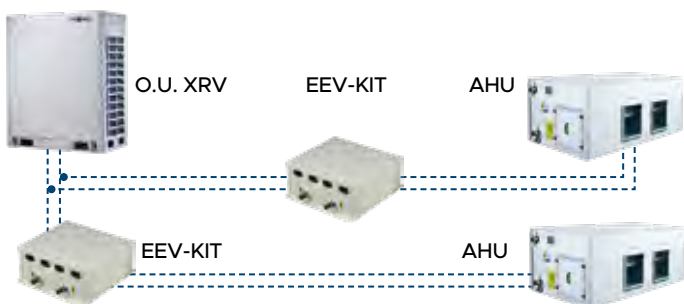
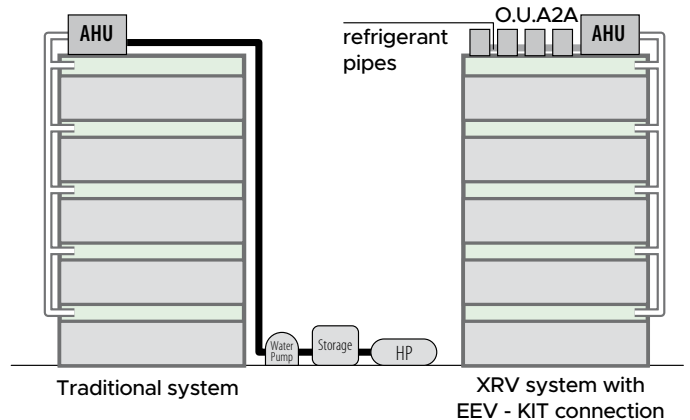


Diagram type B: AHU only



Traditional VS XRV systems with EET-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 inside 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.

PROJECT VRF R410A FULL DC INVERTER

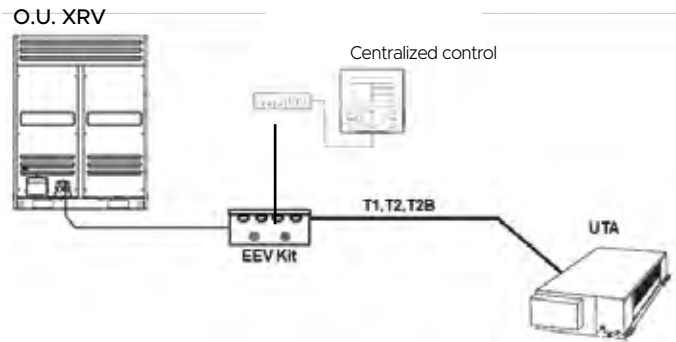
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EEV KIT

Technical data

	Model	HAHU 2-9 XRV-R	HAHU 9-20 XRV-R	HAHU 20-36 XRV-R	HAHU 36-56 XRV-R
Rated capacity	kW	2.20-9.00	9.00-20.00	20.00-36.00	36.00-56.00
Power supply	Ph-V-Hz	1-220-240V-50Hz			
H x L x D	mm	344 x 393 x 125			
Net weight	kg	5.7	5.7	5.8	6
In/out refrigerant connections	Ø mm (inch)	9.53 (3/8")	9.53 (3/8")	12.7 (1/2")	15.9 (5/8")
Serial control	type	Wired remote control			
Optional parts					
Third-party control		Siemens POL 638.70			
Centralized control		DHC-8-64-XRV-P			

Electrical connections diagram

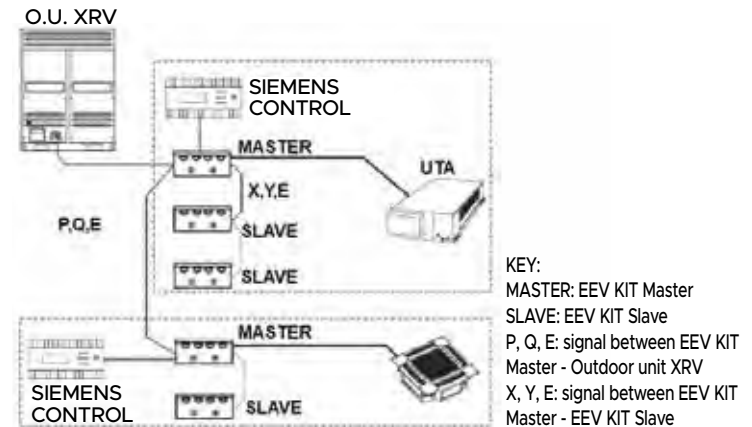


Room temperature control occurs with the same logic as an XRV: comparing the temperature detected by the T1 sensor and the setting temperature T_s , it is possible to start or stop the outdoor unit, calculate the required thermal load and manage the refrigerant flow through the electronic expansion valve.

EEV-KIT type selection

Model	HP	I.U. rated capacity (kW)
HAHU 2-9 XRV-R	0.8	Between 2.20 and 2.80 kW
	1	Between 2.80 and 3.60 kW
	1.2	Between 3.60 and 4.50 kW
	1.7	Between 4.50 and 5.60 kW
	2	Between 5.60 and 7.10 kW
HAHU 9-20 XRV-R	2.5	Between 7.10 and 8.00 kW
	3	Between 8.00 and 9.00 kW
	3.2	Between 9.00 and 11.20 kW
HAHU 20-36 XRV-R	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 36-56 XRV-R	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-R	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 20-36 XRV-R - setting capacity 12HP;
- HAHU 36-56 XRV-R - setting capacity 20HP.