

# PROJECT VRF LINE R410A

■ XRV Multi System



# HOAIDO

Experience makes technology

# XRV MULTI SYSTEM R410A IN HEAT PUMP

## THE ADVANTAGES OF A HOKKAIDO VRF SYSTEM

With Hokkaido VRFs, you can expect superior energy efficiency and a rapid return on investment.

Through the use of inverter compressors, Hokkaido VRF systems are able to achieve high efficiency levels. These systems can be customised to meet any project specifications, making them particularly attractive for large residential buildings, commercial and industrial spaces.

## FULL DC INVERTER TECHNOLOGY FOR ALL OUTDOOR UNITS

Full DC Inverter technology has always characterised the Hokkaido product range on the market of VRF systems, in heat pump. 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.

### XRV PLUS MINI SINGLE PHASE



**3.2HP**

HCNU 1056 XRV

**5HP**

HCNU 1406 XRV

**4.5HP**

HCNU 1206 XRV

**6HP**

HCNU 1606 XRV

### XRV PLUS MINI THREE-PHASE



**7HP**

HCYU 2006 XRV

**8HP**

HCYU 2246 XRV

**9HP**






HCYU 2606 XRV

**10HP**

HCYU 2806 XRV

**12HP**

HCYU 3356 XRV

kW	2.20	2.80	3.60	4.50	5.60	7.10	9.00	11.20	14.00
 HTFU XRV-P	●	●	●	●					
 HTBU XRV-P					●	●	●	●	●
 HUCU XRV-P	●	●	●	●	●	●	●	●	
 HKEU XRV-P	●	●	●	●	●	●			
 HSFU XRV-P			●	●	●	●	●	●	●

### ENTHALPY HEAT RECOVERY UNIT



500	800	1000	1500	2000
●	●	●	●	●

# XRV PLUS MINI

In heat pump



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 1056 XRV	HCNU 1206 XRV	HCNU 1406 XRV	HCNU 1606 XRV
Maximum distance between O.U. and the farthest I.U.	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
Maximum height difference between O.U. (up high) and I.U.	20 m	20 m	30 m	30 m
Maximum height difference between O.U. (down low) and I.U.	20 m	20 m	20 m	20 m
Maximum height difference between I.U.	8 m	8 m	8 m	8 m
Maximum distance between I.U. and branch pipe	15 m	15 m	15 m	15 m
Maximum length of the pipes	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 1056 XRV	HCNU 1206 XRV	HCNU 1406 XRV	HCNU 1606 XRV
Power		HP	3.2	4.5	5	6
Rated capacity <sup>1</sup>	Cooling	kW	9.00	12.20	14.00	15.50
Rated absorbed power		kW	2.64	4.32	4.56	5.35
Energy efficiency coefficient (rated)		EER	3.41	2.83	3.07	2.90
Rated capacity <sup>2</sup>	Heating	kW	9.00	14.00	16.00	18.00
Rated absorbed power		kW	2.12	3.17	4.08	5.71
Energy performance coefficient (rated)		COP	4.29	4.40	3.92	3.20
Electrical data						
Power supply		Ph-V-Hz	1-220~240V-50Hz			
Maximum current		A	28.80	35.00	40.00	40.00
Refrigerant circuit/features						
Refrigerant <sup>3</sup>		Type (GWP)	R410A (2088)			
Quantity refrigerant pre-load (tons of CO2 equivalent)		Kg (t)	2.5 (5.220)	3 (6.264)	3.4 (7.099)	3.8 (7.934)
Compressor		no. / type	1/ Rotary DC Inverter			
Diameter refrigerant pipes	Liquid	mm (inch)	9.53 (3/8")	9.53 (3/8")	9.53 (3/8")	9.53 (3/8")
	Gas	mm (inch)	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	19.1 (3/4")
Product Specifications						
Dimensions	LxHxD	mm	950x840x426		1040x865x523	
Net weight		Kg	72.5	84	91.4	95.4
Sound power level	max	dB(A)	68	70	71	71
Sound pressure level at 1 m	max	dB(A)	54	56	56	56
Treated air volume	max	m³/h	5200	5000	5400	5200
Operating limits (outside temperature)	Cooling	°C	-5~55			
	Heating	°C	-15~27			
Max. connectable I.U. (min - max)		no.	1 - 6	1 - 7	1 - 8	1 - 9
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. Refrigerant leakage contributes to climate change. When released into the atmosphere, refrigerants with a lower global warming potential (GWP) contribute less to global warming than those with a higher GWP. This appliance contains a refrigerant with a GWP of 2088. If 1 kg of this refrigerant fluid were released into the atmosphere, therefore, the impact on global warming would be 2088 times higher than 1 kg of CO2, over a period of 100 years. Under no circumstances should the user try to intervene on the refrigerant circuit or disassemble the product. Always contact qualified personnel if necessary.  
4. For the calculation of the additional refrigerant charge refer to the labels placed inside and outside the unit.

# XRV PLUS MINI

In heat pump



HCU 2006 XRV  
HCU 2246 XRV  
HCU 2606 XRV

HCU 2806 XRV  
HCU 3356 XRV

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.

## Splitting and height difference lengths

Model	HCU 2006 XRV	HCU 2246 XRV	HCU 2606 XRV	HCU 2806 XRV	HCU 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
<b>Maximum length of the pipes</b>	<b>150 m</b>	<b>150 m</b>	<b>150 m</b>	<b>150 m</b>	<b>150 m</b>

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 <sup>1</sup>	Cooling	kW	20.00	22.40	26.00	28.00	33.50
Rated absorbed power		kW	5.28	6.77	10.04	12.02	15.30
Energy efficiency coefficient (rated)		EER	3.79	3.31	2.59	2.33	2.19
Rated capacity <sup>2</sup>	Heating	kW	20.00	22.40	26.00	28.00	33.50
Rated absorbed power		kW	4.43	5.42	6.86	7.55	10.15
Energy performance coefficient (rated)		COP	4.51	4.13	3.79	3.71	3.30
Electrical data							
Power supply		Ph-V-Hz	3-380~415V50Hz				
Maximum current		A	19.00	19.00	20.50	21.00	26.40
Refrigerant circuit/features							
Refrigerant <sup>3</sup>		Type (GWP)	R410A (2088)				
Quantity refrigerant pre-load (tons of CO2 equivalent)		Kg (t)	6.5 (13.572)	6.5 (13.572)	6.5 (13.572)	6.5 (13.572)	8 (16.704)
Compressor		no. / type	1/ Rotary DC Inverter			1/ Rotary DC Inverter	
Diameter refrigerant pipes	Liquid	mm (inch)	9.53 (3/8")			9.53 (3/8")	
	Gas	mm (inch)	19.1 (3/4")			22.2 (7/8")	
Product Specifications							
Dimensions	LxHxD	mm	1120x1558x528				
Net weight		Kg	143			144	157
Sound power level	max	dB(A)	78			78	81
Sound pressure level at 1 m	max	dB(A)	58			59	60
Treated air volume	max	m³/h	9000			10000	11000
Operating limits (outside temperature)	Cooling	°C	-5~48				
	Heating	°C	-20~24				
Max. connectable I.U. (min - max)		no.	1 - 11	1 - 13	1 - 15	1 - 16	1 - 20
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. Refrigerant leakage contributes to climate change. When released into the atmosphere, refrigerants with a lower global warming potential (GWP) contribute less to global warming than those with a higher GWP. This appliance contains a refrigerant with a GWP of 2088. If 1 kg of this refrigerant fluid were released into the atmosphere, therefore, the impact on global warming would be 2088 times higher than 1 kg of CO<sub>2</sub>, over a period of 100 years. Under no circumstances should the user try to intervene on the refrigerant circuit or disassemble the product. Always contact qualified personnel if necessary.

4. For the calculation of the additional refrigerant charge refer to the labels placed inside and outside the unit.

# PREMIUM - INDOOR UNITS

P series

## HKEU XRV-P

Wall

Compact design

Standard washable filter

**203 mm deep** (2.20~2.80 kW) extremely compact

**29 dB(A)** (2.20~2.80 kW) extremely quiet

**The control must be purchased as an accessory**



Model	Rated capacity cooling - heating (kW)	Sound power level <sup>1</sup> (max ~min)	Sound pressure level at 1.4 m <sup>1</sup> (max ~min)	Treated air volume <sup>1</sup> m <sup>3</sup> /h (max ~min)	Dimensions mm (LxHxD) / Net weight (kg)
HKEU 225 XRV-P	2.20 - 2.40	46~44 [dB(A)]	31~29 [dB(A)]	422~356	835x280x203 / 8.4
HKEU 285 XRV-P	2.80 - 3.20	46~44 [dB(A)]	31~29 [dB(A)]	417~316	835x280x203 / 9.5
HKEU 365 XRV-P	3.60 - 4.00	48~45 [dB(A)]	33~30 [dB(A)]	656~488	990x315x223 / 11.4
HKEU 455 XRV-P	4.50 - 5.00	50~46 [dB(A)]	35~31 [dB(A)]	594~424	990x315x223 / 12.8
HKEU 565 XRV-P	5.60 - 6.30	53~49 [dB(A)]	38~34 [dB(A)]	747~547	990x315x223 / 12.8
HKEU 715 XRV-P	7.10 - 8.00	59~51 [dB(A)]	44~36 [dB(A)]	1195~809	1194x343x262 / 17



## HSFU XRV-P

Floor/ceiling

**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

**The control must be purchased as an accessory**



Model	Rated capacity cooling - heating (kW)	Sound power level <sup>1</sup> (max ~min)	Sound pressure level at 1.4 m <sup>1</sup> (max ~min)	Treated air volume <sup>1</sup> m <sup>3</sup> /h (max ~min)	Dimensions mm (LxHxD) / Net weight (kg)
HSFU 365 XRV-P	3.60 - 4.00	53~49 [dB(A)]	40~36 [dB(A)]	550~420	990x660x203 / 27
HSFU 455 XRV-P	4.50 - 5.00	56~51 [dB(A)]	43~38 [dB(A)]	930~720	990x660x203 / 28
HSFU 565 XRV-P	5.60 - 6.30	56~51 [dB(A)]	43~38 [dB(A)]	930~720	990x660x203 / 28
HSFU 715 XRV-P	7.10 - 8.00	56~51 [dB(A)]	43~38 [dB(A)]	930~720	990x660x203 / 28
HSFU 905 XRV-P	9.00 - 10.00	58~53 [dB(A)]	45~40 [dB(A)]	1280~1050	1280x660x203 / 35
HSFU 1125 XRV-P	11.20 - 12.50	60~55 [dB(A)]	47~42 [dB(A)]	1890~1580	1670x680x244 / 48
HSFU 1405 XRV-P	14.00 - 15.00	60~55 [dB(A)]	47~42 [dB(A)]	1890~1580	1670x680x244 / 48

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



# PREMIUM - INDOOR UNITS

## P series

### HTFU XRV-P

#### 8-ways compact cassette 60x60

Ultra-compact design

**22 dB(A)** (2.20~2.80 kW) | Extremely quiet

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

360° air diffusion

**The control must be purchased as an accessory**

Panel  
**TFP 155 XRV-P**



Model	Rated capacity cooling - heating (kW)	Sound power level <sup>1</sup> (max ~min)	Sound pressure level at 1.4 m <sup>1</sup> (max ~min)	Treated air volume <sup>1</sup> m <sup>3</sup> /h (max ~min)	Dimensions mm (LxHxD) / Net weight (kg)	Dimensions Panel mm (LxHxD) / Net weight (kg)
HTFU 225 XRV-P	2.20 - 2.40	51~38 [dB(A)]	35~22 [dB(A)]	576~405	630x260x570 / 18	647x50x647 / 2.5
HTFU 285 XRV-P	2.80 - 3.20	51~38 [dB(A)]	35~22 [dB(A)]	576~405	630x260x570 / 18	647x50x647 / 2.5
HTFU 365 XRV-P	3.60 - 4.00	56~43 [dB(A)]	41~28 [dB(A)]	604~400	630x260x570 / 19.2	647x50x647 / 2.5
HTFU 455 XRV-P	4.50 - 5.00	56~43 [dB(A)]	41~28 [dB(A)]	604~400	630x260x570 / 19.2	647x50x647 / 2.5



### HTBU XRV-P

#### 8-ways cassette 84x84

Optimised fan design to attenuate air resistance and reduce noise level

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

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

**The control must be purchased as an accessory**

Panel  
**TBP 712 IHXR**



Model	Rated capacity cooling - heating (kW)	Sound power level <sup>1</sup> (max ~min)	Sound pressure level at 1.4 m <sup>1</sup> (max ~min)	Treated air volume <sup>1</sup> m <sup>3</sup> /h (max ~min)	Dimensions mm (LxHxD) / Net weight (kg)	Dimensions Panel mm (LxHxD) / Net weight (kg)
HTBU 565 XRV-P	5.60 - 6.30	56~47 [dB(A)]	43~34 [dB(A)]	1029~704	840x230x840 / 23.2	950x70x950 / 5.8
HTBU 715 XRV-P	7.10 - 8.00	58~47 [dB(A)]	45~34 [dB(A)]	1200~748	840x230x840 / 23.2	950x70x950 / 5.8
HTBU 905 XRV-P	9.00 - 10.00	61~50 [dB(A)]	47~36 [dB(A)]	1596~1034	840x300x840 / 28.4	950x70x950 / 5.8
HTBU 1125 XRV-P	11.20 - 12.50	61~50 [dB(A)]	47~36 [dB(A)]	1596~1034	840x300x840 / 28.4	950x70x950 / 5.8
HTBU 1405 XRV-P	14.00 - 16.00	64~52 [dB(A)]	50~38 [dB(A)]	1727~1224	630x260x570 / 30.7	950x70x950 / 5.8

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

# PREMIUM - INDOOR UNITS

P series

## HUCU XRV-P

Ducted with medium static pressure

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**



The control must be purchased as an accessory

Model	Rated capacity cooling - heating (kW)	Sound power level <sup>1</sup> (max ~min)	Sound pressure level at 1.4 m <sup>1</sup> (max ~min)	Treated air volume <sup>1</sup> m <sup>3</sup> /h (max ~min)	Dimensions mm (LxHxD) / Net weight (kg)
HUCU 225 XRV-P	2.20 - 2.60	50~41 [dB(A)]	32~23 [dB(A)]	520~300	780x210x500 / 18
HUCU 285 XRV-P	2.80 - 3.20	50~41 [dB(A)]	32~23 [dB(A)]	520~300	780x210x500 / 18
HUCU 365 XRV-P	3.60 - 4.00	51~43 [dB(A)]	33~25 [dB(A)]	580~370	780x210x500 / 18
HUCU 455 XRV-P	4.50 - 5.00	51~43 [dB(A)]	36~25 [dB(A)]	800~400	1000x210x500 / 21.5
HUCU 565 XRV-P	5.60 - 6.30	54~46 [dB(A)]	36~28 [dB(A)]	830~560	1000x210x500 / 21.5
HUCU 715 XRV-P	7.10 - 8.00	55~46 [dB(A)]	37~28 [dB(A)]	1000~680	1220x210x500 / 27.5
HUCU 905 XRV-P	9.00 - 10.00	55~46 [dB(A)]	37~28 [dB(A)]	1260~780	1230x270x775 / 37
HUCU 1125 XRV-P	11.20 - 12.50	57~51 [dB(A)]	39~33 [dB(A)]	1500~1080	1230x270x775 / 37

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

## TOTAL HEAT EXCHANGER

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.



Mandatory wired remote control

Model	Power supply (Ph-V-Hz)	Sound power level (Hi)	Treated air m <sup>3</sup> /h (Hi)	Fan static pressure Pa (Hi)	Dimensions mm (LxHxD) / Net weight (kg)
EHIN 504	220-240V 1-Phase	50 [dB(A)]	500	90	1106x390x1311 / 76
EHIN 804	220-240V 1-Phase	55 [dB(A)]	800	140	1286x390x1311 / 80
EHIN 1004	220-240V 1-Phase	54 [dB(A)]	1000	160	1526x390x1311 / 90
EHIN 1504	220-240V 1-Phase	69 [dB(A)]	1500	180	1425x615x1740 / 181.5
EHIN 2004	220-240V 1-Phase	70 [dB(A)]	2000	200	1625x685x1811 / 208.5

## CONTROLS

Individual XRV controls



### DHIR-5-6-XRV-K-P

Infrared remote control



### DHW-5-6-XRV-P

Wired controller



### DHC-8-64-XRV-P

Centralized controller  
of up to 64 indoor units



### DHC-48-364-XRV-P

Centralized controller  
of up to 384 indoor units

Centralized XRV controls



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