

PROJECT VRF R410A FULL DC INVERTER



PROJECT VRF R410A FULL DC INVERTER, EFFICIENCY & EASY INSTALLATION

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Strengthened by its constant commitment to technological research and its long experience in the air conditioning market in Italy and Europe, Hokkaido presents the **PROJECT VRF R410A**.

Efficiency, reliability and **application flexibility** are the quality answers that the XRV Systems offer for the different application needs of installers, designers and end customers.

63 Line up

64 **XRV PLUS MINI**

66 **SERIES P INDOOR UNITS**

XRV MULTI SYSTEM DESIGN & SAVINGS

THE ADVANTAGES OF A HOKKAIDO SYSTEM

Hokkaido VRFs offer energy efficiency, their installation guarantees a rapid economic return on investment.

The high efficiency of Hokkaido VRF systems is achieved through the use of Inverter compressors. The systems are customizable to meet the specifications of any project, making them particularly attractive for large areas, commercial and industrial activities.

FULL DC INVERTER TECHNOLOGY FOR OUTDOOR UNITS

Full DC Inverter technology has always characterized the Hokkaido proposal in the VRF heat pump system market. The outdoor units are all equipped with a DC Inverter compressor and a fan with a DC Inverter motor: high results in terms of energy efficiency, reduction of operating costs and reduction of CO2 emissions.

THIS IS WHAT MAKES HOKKAIDO'S PROPOSAL "FULL".

Energy saving & comfort

The Full DC Inverter technology (DC Inverter compressor and DC Inverter motor for the fan/s) applied to the external units of the highlighted XRV systems, ensures high EER and COP values not only at full load, but above all at partial loads, guaranteeing energy savings and high comfort within a wide external temperature range.

HIGH-EFFICIENCY DC INVERTER COMPRESSOR

Thanks to the use of the DC Inverter compressor, which allows the quantity of compressed refrigerant to be varied quickly and continuously, the outdoor units of the XRV systems are characterized by:

- rapid commissioning of the system;
- fast response to changes in the user's cooling or heating demand;
- reduction of on/off cycles.

The result is an efficient system, with high reliability and durability over time.

DC FAN MOTOR

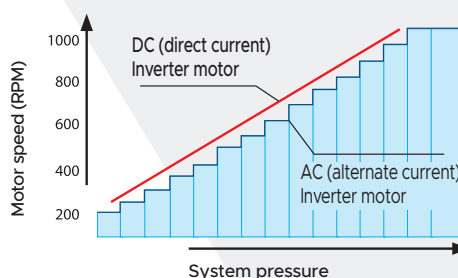
The use of the DC Inverter motor for the fan ensures energy savings during partial loads, as it regulates the fan speed, and contributes to making the unit quieter. The design of the fan and exhaust grille guarantees an increase in air flow resulting in a low noise level.



DC Inverter compressor



DC Inverter fan motor



XRV MULTI SYSTEM

Heat pump outdoor units

1-PHASE XRV PLUS MINI



3.2HP
HCNU 1056 XRV

4.5HP
HCNU 1206 XRV



5HP
HCNU 1406 XRV

6HP
HCNU 1606 XRV

3-PHASE XRV PLUS MINI



7HP
HCYU 2006 XRV

8HP
HCYU 2246 XRV

10HP
HCYU 2806 XRV

9HP
HCYU 2606 XRV

12HP
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 PLUS MINI

Heat pump



HCNU 1056 XRV
HCNU 1206 XRV



HCNU 1406 XRV
HCNU 1606 XRV

All units are equipped with high efficiency Full DC Inverter compressors.

Design sottile e flessibile.

Fan with DC Inverter motor:

- wider fan speed adjustment;
- noise reduction.

Optimal fan design and fan-shaped deflector ensure low noise at high airflow rates.

Splitting and height difference lengths

Model	HCNU 1056 XRV	HCNU 1206 XRV	HCNU 1406 XRV	HCNU 1606 XRV
Max. distance between O.U. and the farthest I.U.	50 m	50 m	70 m	70 m
Max. distance from the first branch pipe to the farthest I.U.	20 m	20 m	20 m	20 m
Max. height difference between upper O.U. and I.U.	20 m	20 m	30 m	30 m
Max. height difference between lower O.U. and I.U.	20 m	20 m	20 m	20 m
Max. height difference between I.U.	8 m	8 m	8 m	8 m
Max. 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

Wide 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 ¹	Cooling	kW	9.00	12.20	14.00	15.50
Rated absorbed power		kW	2.64	4.32	4.56	5.35
Rated energy efficiency coefficient		EER	3.41	2.83	3.07	2.90
Rated capacity ²	Heating	kW	9.00	14.00	16.00	18.00
Rated absorbed power		kW	2.12	3.17	4.08	5.71
Rated energy performance coefficient		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						
Refrigerant ³		Tipo (GWP)	R410A (2088)			
Quantity refrigerant pre-load ⁴ (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 of refrigerant pipings	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 range (outdoor temperature)	Cooling	°C	-5~55			
	Heating	°C	-15~27			
Connectable indoor units (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 Standard. 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 Standard. Outdoor temperature 7°C DB, 6°C WB and indoor temperature 20°C DB, 15° 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

Heat pump



HCYU 2006 XRV HCYU 2806 XRV
HCYU 2246 XRV HCYU 3356 XRV
HCYU 2606 XRV

Splitting and height difference lengths

Modello	HCYU 2006 XRV	HCYU 2246 XRV	HCYU 2606 XRV	HCYU 2806 XRV	HCYU 3356 XRV
Max. distance between O.U. and the farthest I.U.	110 m	110 m	110 m	110 m	110 m
Max. distance from the first branch pipe to the farthest I.U.	40 m	40 m	40 m	40 m	40 m
Max. height difference between upper O.U. and I.U.	50 m	50 m	50 m	50 m	50 m
Max. height difference between lower O.U. and I.U.	40 m	40 m	40 m	40 m	40 m
Max. 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 high efficiency Full DC Inverter compressors.

Fan with DC Inverter motor:

- wider fan speed adjustment;
- noise reduction.

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

Self-diagnosis function for main system problems.

Wide operating range:

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

Auto-addressing of indoor units.

Model			HCYU 2006 XRV	HCYU 2246 XRV	HCYU 2606 XRV	HCYU 2806 XRV	HCYU 3356 XRV
Power		HP	7	8	9	10	12
Rated capacity ¹	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
Rated energy efficient		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
Rated absorbed power		kW	4.43	5.42	6.86	7.55	10.15
Rated energy performance coefficient		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							
Refrigerant ³		Tipo (GWP)	R410A (2088)				
Quantity refrigerant pre-load ⁴ (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 of refrigerant pipings	Liquid	mm (inch)	9.53 (3/8")			12.7 (1/2")	
	Gas	mm (inch)	19.1 (3/4")			25.4 (1")	
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	61
Treated air volume	max	m³/h	9000		10000	11000	11300
Operating range (outdoor temperature)	Cooling	°C	-5~48				
	Heating	°C	-20~24				
Connectable indoor units (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 Standard. 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 Standard. Outdoor temperature 7°C DB, 6°C WB and indoor 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.

SERIES P INDOOR UNITS

		kW	2.20	2.80	3.60	4.50	5.60	7.10	9.00	11.20	12.50	14.00
Cassette	8-way compact 60x60		•	•	•	•						
		HTFU XRV-P										
Ducted	8-way 84x84						•	•	•	•		•
		HTBU XRV-P										
Wall	medium static pressure		•	•	•	•	•	•	•	•		
		HUCU XRV-P										
Floor			•	•	•	•	•	•	•			
		HKEU XRV-P										
Floor	floor/ceiling				•	•	•	•	•	•		•
		HSFU XRV-P										

HTFU XRV-P

8-way compact cassette 60x60



Ultra-compact design

22 dB(A) (2.20~2.80 kW)
high silence

Condensate drainage pump with
the possibility of raising the drain
up to 500 mm from the lower level

360° air diffusion

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

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			
Absorbed power		W	35	35	40	50
Product specifications						
Dimensions	LxHxD	mm	630x260x570			
Net weight		Kg	18		19.2	
Sound power level ¹	Max~Min	dB(A)	51~38		56~43	
Sound pressure level at 1.4 m ¹	Max~Min	dB(A)	35~22		41~28	
Treated air volume ¹	Max~Min	m³/h	576~405		604~400	
Diameter of the connections	Liquid/Gas	mm (inch)	6.35 (1/4") / 12.7 (1/2")			
	Condensate	mm	32			
Accessories						
Decorative panel			TFP 155 XRV-P			
Panel dimensions	LxHxD	mm	647x50x647			
Net weight		Kg	2.5			
Remote control			DHIR-5-6-XRV-K-P			
Wired control			DHW-5-6-XRV-P			
Optional parts						
Centralized control			DHC-8-64-XRV-P			

1. Values relating to the Max and Min speeds of 7 levels that can be set by remote control.

HTBU XRV-P

8-way cassette 84x84



Optimized fan design to
attenuate air resistance and
reduce sound level

**Predisposition for the
connection of a duct
for the introduction of
external air**

Condensate drainage
pump with the possibility of
raising the drain up to 750
mm from the lower level

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

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				
Absorbed power		W	31	46	75	94	
Product specifications							
Dimensions	LxHxD	mm	840x230x840			840x300x840	
Net weight		Kg	23.2			28.4	30.7
Sound power level ¹	Max~Min	dB(A)	56~47	58~47	61~50	64~52	
Sound pressure level at 1.4 m ¹	Max~Min	dB(A)	43~34	45~34	47~36	50~38	
Treated air volume ¹	Max~Min	m ³ /h	1029~704	1200~748	1596~1034	1727~1224	
Diameter of connections	Liquid/Gas	mm (inch)	9.52 (3/8") / 15.9 (5/8")				
	Condensate	mm	32				
Accessories							
Decorative panel			TBP 712 IHXR				
Panel dimensions	LxHxD	mm	950x70x950				
Net weight		Kg	5.8				
Remote control			DHIR-5-6-XRV-K-P				
Wired control			DHW-5-6-XRV-P				
Optional parts							
Centralized control			DHC-8-64-XRV-P				

1. Values relating to the Max and Min speeds of 7 levels that can be set by remote control.

HUCU XRV-P

Ducted medium static pressure



Only 210 mm high

(2.20~7.10 kW) compact design
perfect for use in hotels

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
750 mm from the lower height

Compatible with systems



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

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			
Absorbed power		W	40	40	45	92
Product specifications						
Dimensions	LxHxD	mm	780x210x500			1000x210x500
Net weight		Kg	18			21.5
Sound power level ¹	Max~Min	dB(A)	50~41		51~43	54~43
Sound pressure level at 1.4 m ¹	Max~Min	dB(A)	32~23		33~25	36~25
Traited air volume ¹	Max~Min	m³/h	520~300		580~370	800~400
Fan static pressure	Std/Max	Pa	10/50			
Diameter of connections	Liquid/Gas	mm (inch)	6.35 (1/4") / 12.7 (1/2")			
	Condensate	mm	25			
Accessories						
Remote control			DHIR-5-6-XRV-K-P			
Wired control			DHW-5-6-XRV-P			
Optional parts						
Centralized control			DHC-8-64-XRV-P			

1. Values relating to the Max and Min speeds of 7 levels that can be set 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			
Absorbed power		W	92	98	120	200
Product specifications						
Dimensions	LxHxD	mm	1000x210x500	1220x210x500	1230x270x775	
Net weight		Kg	21.5	27.5	37	
Sound power level ¹	Max~Min	dB(A)	54~46	55~46	55~46	57~51
Sound pressure level at 1.4 m ¹	Max~Min	dB(A)	36~28	37~28	37~28	39~33
Treated air volume ¹	Max~Min	m³/h	830~560	1000~680	1260~780	1500~1080
Fan static pressure	Std/Max	Pa	10/50			20/100
Diameter of connections	Liquid/Gas	mm (inch)	9.52 (3/8") / 15.9 (5/8")			
	Condensate	mm	25			
Accessories						
Remote control			DHIR-5-6-XRV-K-P			
Wired control			DHW-5-6-XRV-P			
Optional parts						
Centralized control			DHC-8-64-XRV-P			

1. Values relating to the Max and Min speeds of 7 levels that can be set by remote control.

PROJECT VRF R410A FULL DC INVERTER

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HKEU XRV-P Wall



Compact design
Washable standard filter

203 mm deep (2.20~2.80 kW)
extremely compact

29 dB(A) (2.20~2.80 kW)
extremely silent

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

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						
Absorbed power		W	28		30	40	45	55	82
Product specifications									
Dimensions	LxHxD	mm	835x280x203			990x315x223		1194x343x262	
Net weight		Kg	8.4	9.5	11.4	12.8		17	
Sound power level ¹	Max~Min	dB(A)	46~44	46~44	48~45	50~46	53~49	59~51	63~53
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
Treated air volume ¹	Max~Min	m ³ /h	422~356	417~316	656~488	594~424	747~547	1195~809	1421~867
Diameter of connections	Liquid/Gas	mm (inch)	6.35 (1/4") / 12.7 (1/2")				9.52 (3/8") / 15.9 (5/8")		
	Condensate	mm	16						
Accessories									
Remote control			DHIR-5-6-XRV-K-P						
Wired control			DHW-5-6-XRV-P						
Optional parts									
Centralized control			DHC-8-64-XRV-P						

1. Values relating to the Max and Min speeds of 7 levels that can be set by remote control.

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			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						
Absorbed power		W	49	115			130	180	180
Product specifications									
Dimensions	LxHxD	mm	990x660x203				1280x660x203	1670x680x244	
Net weight		Kg	27	28			35	48	
Sound power level ¹	Max~Min	dB(A)	53~49	56~51			58~53	60~55	
Sound pressure level at 1.4 m ¹	Max~Min	dB(A)	40~36	43~38			45~40	47~42	
Treated air volume ¹	Max~Min	m ³ /h	550~420	930~720			1280~1050	1890~1580	
Diameter of connections	Liquid/Gas	mm (inch)	6.35 (1/4") / 12.7 (1/2")			9.52 (3/8") / 15.9 (5/8")		9.52 (3/8") / 15.9 (5/8")	
	Condensate	mm	16						
Accessories									
Remote control			DHIR-5-6-XRV-K-P						
Wired control			DHW-5-6-XRV-P						
Optional parts									
Centralized control			DHC-8-64-XRV-P						

1. Values relating to the Max and Min speeds of 7 levels that can be set by remote control.